INDEX OF SHEETS

ROADWAY IMPROVEMENT PLANS FOR:

156th STREET EXTENSION

FROM S. RAVINIA AVENUE
TO U.S. ROUTE 45 (LAGRANGE ROAD)

VILLAGE OF ORLAND PARK
COOK COUNTY, ILLINOIS

PLANS PREPARED FOR:

VILLAGE OF ORLAND PARK
14700 S. RAVINIA AVENUE
ORLAND PARK, IL 60462

HRGreen

323 ALANA DRIVE | NEW LENOX, ILLINOIS 60451
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ILLINOIS PROFESSIONAL DESIGN FIRM #184-001322

ENGINEER:
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(815) 462-9324
CONTACT:
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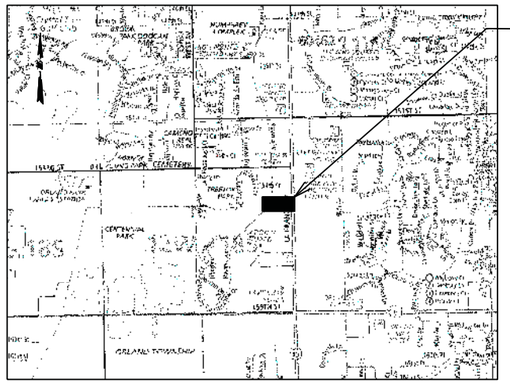
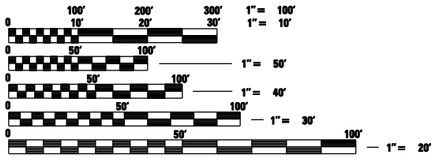
CONTACT:
MILAN DOBROSAVLJEVIC , P.L.S.

LOCATION MAP
NOT TO SCALE



NET LENGTH OF IMPROVEMENT = 2855.26 FT.
GROSS LENGTH OF IMPROVEMENT = 2855.26 FT.
TOWNSHIP = ORLAND TOWNSHIP; T30N, R12E



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

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

FOR BIDDING

PROFESSIONAL ENGINEER'S SIGN & SEAL

T. SCOTT CREECH, P.E.
EXPIRES: 11-30-13

T. SCOTT CREECH
062-047669
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
SEAL

VILLAGE OF ORLAND PARK

COVER SHEET

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			RCB		2/3/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		NONE	
4.			CHK BY:	INT:	VERT SCALE:	1
5.			TSC		-	

COMPANY NAME: $(COMPANY_NAME)
PROJECT CONTACT: $(PROJECT_CONTACT)
CLIENT: $(CLIENT)
2/3/2013 1:51:59 PM
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SPECIFICATIONS & GENERAL NOTES

THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PREPARED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS AND ADOPTED BY SAID DEPARTMENT ON JANUARY 1, 2012 THE "STANDARDAND SPECIFICATION FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" (LATEST REVISION), "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" (LATEST REVISION), AND THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS (LATEST REVISIONS), SHALL GOVERN CONSTRUCTION OF THIS PROJECT.

IN ADDITION THE FOLLOWING SPECIAL PROVISIONS SUPPLEMENT THE SAID SPECIFICATIONS, AND IN CASE OF CONFLICT WITH ANY PART OR PARTS OF SAID SPECIFICATIONS, THESE SPECIAL PROVISIONS SHALL TAKE PRECEDENCE AND SHALL GOVERN.

1. 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 IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS INCLUDING MUNICIPAL PERMITS.

3. CONSTRUCTION OBSERVATION. ALL IMPROVEMENTS SHALL BE SUBJECT TO INSPECTION BY A DULY AUTHORIZED AND QUALIFIED VILLAGE/IDOT INSPECTOR BOTH DURING THE COURSE OF CONSTRUCTION AND AFTER CONSTRUCTION IS COMPLETE. THE CONTRACTOR SHALL PROVIDE FOR REASONABLE TESTS AND PROOF OF QUALITY OF MATERIALS AS REQUESTED BY THE INSPECTOR. INSPECTOR SHALL HAVE FORTY-EIGHT (48) HOURS NOTICE PRIOR TO CONSTRUCTION.

   A. TO VISIT THE CONSTRUCTION SITE IN ORDER TO BETTER CARRY OUT THE DUTIES AND RESPONSIBILITIES ASSIGNED BY THE CITY AND UNDERTAKEN BY THE INSPECTOR;

   B. THE INSPECTOR SHALL NOT, DURING SUCH VISITS OR AS A RESULT OF SUCH OBSERVATIONS OF THE CONTRACTOR'S WORK IN PROGRESS, SUPERVISE, DIRECT, NOR SHALL THE INSPECTOR HAVE THE AUTHORITY OVER THE RESPONSIBILITY FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR, FOR SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL TO THE WORK OF THE CONTRACTOR, OR FOR ANY FAILURE OF THE CONTRACTOR TO COMPLY WITH LAWS, RULES, REGULATIONS, ORDINANCES, CODES OR ORDERS APPLICABLE TO THE CONTRACTOR FURNISHING AND PERFORMING HIS WORK. ACCORDINGLY, THE INSPECTOR CAN NEITHER GUARANTEE THE PERFORMANCE OF THE CONSTRUCTION CONTRACTS BY THE CONTRACTOR NOR ASSUME RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO FURNISH AND PERFORM HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

4. CONTRACTOR SHALL PROVIDE INSURANCE COVERAGE AS PER ARTICLE 107.23 OF THE STANDARD SPECIFICATIONS. THE "DEPARTMENT" SHALL BE TAKEN TO MEAN SEC GROUP, INC. THE POLICY OF INSURANCE SHALL INCLUDE SEC GROUP, INC., THE VILLAGE OF ORLAND PARK, IT'S AGENTS, AND THE VILLAGE'S ENGINEERS AS AN ADDITIONAL INSURED OR PROVIDE SEPARATE COVERAGE WITH AN OWNER'S PROTECTIVE POLICY, AS PER THE AMOUNTS STATED IN THE STANDARD SPECIFICATIONS. NO WORK SHALL BEGIN UNTIL THE CERTIFICATE OF INSURANCE IS ON FILE WITH THE ENGINEER. ALL COSTS FOR INSURANCE SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

5. RUBBISH REMOVAL. CONTRACTOR SHALL MAKE SITE INSPECTION PRIOR TO BIDDING AND SHALL INCLUDE IN PROPOSAL REMOVAL OF STUMPS, BRUSH, BRANCHES, ETC. ALL MATERIAL SHALL BE DISPOSED OF OFF-SITE AT THE CONTRACTOR'S EXPENSE.

6. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE VILLAGE AND VILLAGE'S ENGINEERS AND THEIR AGENTS AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING ATTORNEY'S FEES ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THE CONTRACTOR'S WORK. IN ANY AND ALL CLAIMS AGAINST THE VILLAGE OR ITS EMPLOYEES, BY ANY EMPLOYEE OF THE CONTRACTOR, OR ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THE CONTRACTOR, OR ANYONE FOR WHOSE ACTS THE CONTRACTOR MAY BE LIABLE, THE INDEMNIFICATION OBLIGATION SHALL NOT BE LIMITED IN ANY WAY BY ANY LIMITATION ON THE AMOUNT OF DAMAGES, COMPENSATION OR BENEFITS PAYABLE BY OR FOR THE CONTRACTOR UNDER WORKMEN'S COMPENSATION ACTS, DISABILITY BENEFIT ACTS OR OTHER EMPLOYEE BENEFIT ACTS.

7. NO CONSTRUCTION PLANS SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED "FOR CONSTRUCTION." PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE LINE AND GRADE STAKES AGAINST THE CONSTRUCTION PLANS. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT THE SAME TO THE ENGINEER BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTIONS, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION RISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.

8. THE CONTRACTOR SHALL PURCHASE AND MAINTAIN COMPREHENSIVE GENERAL LIABILITY AND OTHER INSURANCE SET FORTH BELOW WHICH WILL PROVIDE PROTECTION FROM CLAIMS WHICH MAY ARISE OUT OF OR RESULT FROM THE PERFORMANCE OF WORK BY ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THE CONTRACTOR, OR BY ANYONE FOR WHOSE ACTS THE CONTRACTOR MAY BE LIABLE.

   1. WORKMEN'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE IN THE AMOUNT OF $500,000 FOR EACH ACCIDENT, $500,000 POLICY LIMIT, $500,000 FOR EACH EMPLOYEE AND WAIVER OF SUBROGATION IN FAVOR OF THE VILLAGE OF ORLAND PARK.

   2. COMPREHENSIVE GENERAL LIABILITY INSURANCE (OCCURENCE BASIS) INCLUDING COVERAGE IN THE AMOUNT OF $1,000,000 PER OCCURENCE, $1,000,000 PER PERSONAL AND ADVERTISING INJURY, $2,000,000 GENERAL AGGREGATE LIMIT AND $2,000,000 PRODUCTS/COMPLETED OPERATIONS AGGREGATE AND WAIVER OF SUBROGATION IN FAVOR OF THE VILLAGE OF ORLAND PARK

   3. COMPREHENSIVE AUTOMOBILE LIABILITY INSURANCE COVERING THE AMOUNT OF $1,000,000 - COMBINED SINGLE LIMIT FOR ALL AUTOMOBILES,TRUCKS, TRAILERS AND ANY OTHER MOTORIZED EQUIPMENT OWNED OR LEASED BY THE CONTRACTOR.

   4. EXCESS LIABILITY (UMBRELLA-FOLLOW FORM POLICY) COVERAGE IN THE AMOUNT OF $2,000,000 EACH OCCURENCE AND $2,000,000 AGGREGATE. EXCESS MUST COVER GENERAL LIABILITY, AUTOMOTIVE LIABILITY AND WORKERS COMPENSATION

9. INSURANCE. PRIOR TO STARTING WORK, THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL FILE WITH THE VILLAGE FINANCE DEPARTMENT A CERTIFICATE OF INSURANCE FOR COMPREHENSIVE GENERAL LIABILITY INSURANCE IN THE AMOUNT OF $500,000 PER ACCIDENT FOR PROPERTY DAMAGE AND $1,000,000 PER PERSON AND $3,000,000 AGGREGATE FOR BODILY INJURY, SICKNESS, DISEASE OR DEATH AS PROTECTION FOR ANY AND ALL CLAIMS BY ANYONE, INCLUDING THE CONTRACTOR'S OR EMPLOYEE'S WHICH MAY ARISE OUT OF OR RESULT FROM DEVELOPER'S WORK OR BY ANYONE FOR WHOSE ACTS THE DEVELOPER MAY BE LIABLE. THE INSURANCE POLICY SHOULD NAME THE VILLAGE OF ORLAND PARK, THEIR ENGINEER, THEIR OFFICERS, EMPLOYEES, AGENTS, SEC GROUP, INC. AS ADDITIONAL INSURED. THIS CERTIFICATE SHALL STATE THAT THE COVERAGE WILL NOT BE TERMINATED OR REDUCED WITHOUT 30 DAYS ADVANCE WRITTEN NOTICE TO THE VILLAGE OF ORLAND PARK.

10. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS STATED IN THE IDOT HIGHWAY PERMIT.

11. ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST HIGHWAY STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

12. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS.

13. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND REMOVE ALL SIGNS, BARRICADES, FLAGGERS, PAVEMENT STRIPING AND OTHER TRAFFIC CONTROL DEVICES AS MAY BE NECESSARY FOR THE PURPOSE OF REGULATING, WARNING OR GUIDING TRAFFIC. PROPER PLACEMENT AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE IN ACCORDANCE WITH THE APPLICABLE PARTS OF SECTION 701 OF THE STANDARD SPECIFICATIONS, THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND THE HIGHWAY STANDARDS.

14. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL ABUTTING PROPERTIES, EXCEPT FOR PERIODS OF SHORT DURATION AS APPROVED OF BY THE ENGINEER. ANY ACCESS CLOSURES SHALL ONLY TAKE PLACE BETWEEN THE HOURS OF 9:00 A.M. AND 3:00 P.M.

15. ALL CONSTRUCTION PERSONNEL WILL BE REQUIRED TO WEAR A FLUORESCENT ORANGE VEST AT ALL TIMES WHILE WITHIN OR ADJACENT TO IDOT ROW.

    THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP OF PAVED SURFACES DAILY WITHIN IDOT ROW CAUSED BY THE CONTRACTOR.

    ALL UNBALLASTED TYPE I AND TYPE II BARRICADES SHALL HAVE TWO SANDBAGS ON THE BOTTOM RAIL.

16. TREE REMOVAL - UTILITY RELOCATION. TREE REMOVAL MAY BE NECESSARY PRIOR TO UTILITY COMPANIES BEING ABLE TO RELOCATE THEIR FACILITIES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR SHOULD COORDINATE ANY CONTRACT TREE REMOVAL ACTIVITIES WITH THE UTILITY COMPANIES TO ELIMINATE COMPLETE AND POTENTIAL DELAYS CAUSED BY UTILITY TREE REMOVAL ACTIVITIES OR INCOMPLETE UTILITY RELOCATIONS.

17. WINTER SHUTDOWN RESTRICTIONS ON COLD MILLLED PROJECTS.
    PRIOR TO WINTER SHUTDOWN THE FOLLOWING STEPS SHALL BE TAKEN.

    ALL COLD MILLED SURFACES SHALL BE OVERLAID.

    ALL LANES SHALL BE REOPENED TO TRAFFIC.

    MANHOLES, WHERE APPLICABLE, SHALL BE ADJUSTED TO THE ELEVATION OF THE BINDER COURSE/LEVELING BINDER TO EASE IN PLOWING SNOW, AND RE-ADJUSTED TO FINISH GRADE IN THE SPRING. THE INITIAL MANHOLE ADJUSTMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE AND ANY READJUSTMENT, AS DIRECTED BY THE ENGINEER, WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

    TEMPORARY OR PERMANENT MARKING SHALL BE PLACED AS APPLICABLE.

18. AGGREGATE FOR DRIVEWAY PLACEMENT. THE MATERIAL USED FOR CONSTRUCTION OF PERMANENT AGGREGATE DRIVEWAYS SHALL BE GRAVEL OR CRUSHED STONE, AS DIRECTED BY THE ENGINEER, TO REPLACE IN KIND THE EXISTING AGGREGATE DRIVEWAYS.

    NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR THIS REQUIREMENT BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF THE CONTRACT FOR THE AGGREGATE AS SPECIFIED ON THE PLANS.

19. BITUMINOUS PAVING SURFACE COURSE CONTINUOUS. CONTINUOUS PAVING OPERATIONS ON THE MAIN ROADWAY SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTIONS OF THE BITUMINOUS SURFACE. NO INTERRUPTIONS FOR SIDE ROADS, ENTRANCES, TURN LANES, ETC., WILL BE ALLOWED.

20. ORDERING LENGTH CONFIRMATION - DRAINAGE ITEMS. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LENGTH OF THE BOX/PIPE CULVERTS, STORM SEWER AND/OR PIPE DRAINS REQUIRED PRIOR TO ORDERING THESE ITEMS.

21. ANY FIELD TILE INTERCEPTED AND WATERWAYS DISTURBED DURING CONSTRUCTION WILL BE REPLACED OR REPAIRED. ALL EXISTING ENTRANCES WILL BE REPLACED AT THEIR PRESENT LOCATIONS UNLESS OTHERWISE NOTED IN THESE CONSTRUCTION DOCUMENTS.

22. TYPE 1 FRAME AND CLOSED LID SHALL BE EAST JORDAN IRON WORKS 1050Z1 FRAME AND 1020A COVER PER VILLAGE STANDARD.

23. EAST JORDAN IRON WORKS DETECTABLE WARNING PLATES, CASTING #7005 (BLACK ASPHALT DIPPED), SHALL BE USED AT CURB RAMPS FOR SIDEWALKS.

24. T11 FRAME AND GRATE SHALL BE EAST JORDAN IRON WORKS 7000 FRAME WITH TYPE P4 BACK PER VILLAGE OF ORLAND PARK.

25. TIE-BARS FOR COMBINATION CONCRETE CURB AND GUTTER INTO EXISTING PAVEMENT SHALL BE INCLUDED IN THE UNIT PRICE OF COMBINATION CONCRETE CURB AND GUTTER. NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR.

26. TIE-BARS FOR PCC PAVEMENT, 10", SHALL BE INCLUDED IN THE UNIT PRICE OF PCC PAVEMENT, 10". NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR.

27. <u>WATER MAIN</u>
    ALL WATER MAIN MATERIALS SHALL COMPLY WITH VILLAGE OF ORLAND PARK LAND DEVELOPMENT CODE SECTION 6-410.

28. SB RT AND NB LT TURN LANES OF U.S. ROUTE 45 AND WEST LEG OF 156TH STREET SHALL REMAIN CLOSED UNTIL PERMANENT TRAFFIC SUGNAL IS TURNED ON PER IDOT DISTRICT 1 TRAFFIC SIGNAL SPECIFICATIONS.

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Illinois Professional Design Firm
184-001322
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STATE STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-06	TEMPORARY EROSION CONTROL SYSTEM
420001-07	PAVEMENT JOINTS
420101-04	24 FT JOINTED PCC PAVEMENT
424001-06	CURB RAMPS FOR SIDEWALKS
602601-02	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
604036-02	GRATE, TYPE 8
604051-03	FRAME AND GRATE, TYPE 11
604091-02	FRAME AND GRATE, TYPE 24
606301-04	PCC ISLANDS AND MEDIANS
701006-03	OFF-ROAD OPRATIONS, 2L, 2W, 4.5 M (15') TO PAVEMENT EDGE, FOR SPEEDS > OR = 45 MPH
701011-02	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY, FOR SPEEDS > OR = 45 MPH
701101-02	OFF-ROAD OPERATIONS, MULTILANE, LESS THAN 4.5 M (15') AWAY, FOR SPEEDS > OR = 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-04	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701601-07	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-02	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
780001-03	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001-01	TRAFFIC SIGNAL GROUNDING & BONDING
880001-01	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS

VILLAGE OF ORLAND PARK STANDARDS

STORM MANHOLE
CATCH BASIN TYPE A
CATCH BASIN TYPE C
INLET TYPE A
STORM SEWER FRAME & COVER
CATCH BASIN - TYPE A STEP DETAIL
TRENCH SECTION (STORM SEWER)
SIDEWALK DETAIL
B-6.12 CURB & GUTTER
TYPICAL RESIDENTIAL STREET LIGHT
RESIDENTIAL STREET LIGHT CONNECTION
CONCRETE THRUST BLOCK DETAILS
VALVE VAULT FRAME & COVER
VALVE VAULT
FES DETAIL
HYDRANT INSTALLATION
TRENCH SECTION (WATERMAIN)
VEGETATIVE SILT BASIN

VILLAGE OF ORLAND PARK

GENERAL NOTES & STATE STANDARDS

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			SVJ		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		NONE	
4.			CHK BY:	INT:	VERT SCALE:	2
5.			TSC		-	

ITEM NO.	PAY ITEMS	UNIT	TOTAL
1	TREE REMOVAL, ACRES	ACRE	0.87
2	EARTH EXCAVATION	CU YD	14,683
3	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	5,932
4	FURNISHED EXCAVATION	CU YD	5,105
5	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	1,610
6	TRENCH BACKFILL	CU YD	342
7	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	5,140
8	TOPSOIL EXCAVATION AND PLACEMENT	SQ YD	6,656
9	SEEDING, CLASS 2A	ACRE	1.08
10	SEEDING, CLASS 4B	ACRE	0.12
11	NITROGEN FERTILIZER NUTRIENT	POUND	109
12	PHOSPHORUS FERTILIZER NUTRIENT	POUND	109
13	POTASSIUM FERTILIZER NUTRIENT	POUND	109
14	SODDING, SALT TOLERANT	ACRE	0.19
15	PERIMETER EROSION BARRIER	FOOT	2,398
16	INLET AND PIPE PROTECTION	EACH	14
17	AGGREGATE BASE COURSE, TYPE B	TON	3,739
18	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	162
19	BITUMINOUS MATERIALS (PRIME COAT) MC-30	GALLON	2,698
20	HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50	TON	2,116
21	HOT-MIX ASPHALT SURFACE COURSE, MIX 'D', N50	TON	605
22	PORTLAND CEMENT CONCRETE PAVEMENT, 10" (JOINTED)	SQ YD	1,017
23	PORTLAND CEMENT CONCRETE SIDEWALK, 5"	SQ FT	6,705
24	DETECTABLE WARNINGS	SQ FT	84
25	COMBINATION CURB AND GUTTER REMOVAL	FOOT	833
26	SIDEWALK REMOVAL	SQ FT	218
27	MEDIAN REMOVAL	SQ FT	6,515
28	CLASS D PATCHES, TYPE IV, 5 INCH	SQ YD	80
29	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	2
30	GRATING FOR CONCRETE FLARED END SECTION, 18"	EACH	2
31	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	276
32	STORM SEWERS, CLASS A, TYPE 1 15"	FOOT	253
33	STORM SEWERS, CLASS A, TYPE 1 18"	FOOT	508
34	STORM SEWER REMOVAL, 12"	FOOT	30
35	DUCTILE IRON WATERMAIN, 6"	FOOT	50
36	DUCTILE IRON WATERMAIN, 8"	FOOT	1,204
37	DUCTILE IRON WATERMAIN, 12"	FOOT	189
38	FIRE HYDRANTS TO BE RELOCATED	EACH	1
39	FIRE HYDRANTS WITH AUXILIARY VALVE AND VALVE BOX	EACH	5
40	CATCH BASINS, TYPE A, 4' DIAMETER, WITH SPECIAL FRAME AND GRATE	EACH	4
41	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	7
42	INLETS, TYPE A, TYPE 8 GRATE	EACH	1
43	INLETS, TYPE A, TYPE 24 FRAME AND GRATE	EACH	2
44	INLETS, TYPE A, WITH SPECIAL FRAME AND GRATE	EACH	4
45	VALVE VAULTS, TYPE A, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	5
46	MANHOLES TO BE ADJUSTED	EACH	2
47	INLETS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	1
48	REMOVING INLETS	EACH	1
49	CONCRETE CURB	FOOT	20
50	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	781
51	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SPECIAL)	FOOT	2,254
52	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	553
53	CONCRETE MEDIAN SURFACE, 4"	SQ FT	1,654
54	P.C.C. RAMPED MEDIAN TERMINAL	EACH	1
55	CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED	FOOT	91
56	TRAFFIC CONTROL AND PROTECTION	L SUM	1
57	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	328
58	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3,500
59	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	980
60	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	806
61	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	246
62	RAISED REFLECTIVE PAVEMENT MARKER	EACH	64
63	PAVEMENT MARKING REMOVAL	SQ FT	565
64	LIGHT POLE, ALUMINUM, 30 FT, MH, 8 FT DAVIT ARM	EACH	3
65	GATE VALVES, 8"	EACH	2
66	GATE VALVES, 6"	EACH	1
67	GATE VALVES, 12"	EACH	2
68	ELECTRIC CABLE IN CONDUIT - COMPLETE	L SUM	1
69	CCDD/LUST MATERIALS ANALYSIS, MANAGEMENT, & COMPLIANCE	L SUM	1
70	CCDD MATERIALS MANAGEMENT ALLOWANCE	L SUM	1
71	CONSTRUCTION LAYOUT	L SUM	1

ITEM NO.	PAY ITEMS	UNIT	TOTAL	156TH STREET	INTERCONNECT
72	SIGN PANEL - TYPE 1	SQ FT	44	44	
73	SIGN PANEL - TYPE 2	SQ FT	14	14	
74	SERVICE INSTALLATION • GROUND MOUNTED	EACH	1	1	
75	UNDERGROUND CONDUIT, GALVANIZED STEEL, 1 1/2" DIA.	FOOT	920	920	
76	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	36	36	
77	HANDHOLE	EACH	2	2	
78	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3	1	2
79	TRANSCEIVER - FIBER OPTIC	EACH	1		1
80	SPAN WIRE	FOOT	534	534	
81	TETHER WIRE	FOOT	534	534	
82	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	261	261	
83	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 2C	FOOT	804	804	
84	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 3C	FOOT	1496	1496	
85	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 5C	FOOT	271	271	
86	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 7C	FOOT	2506	2506	
87	ELECTRIC CABLE AERIAL SUSPENDED, COMMUNICATION, NO. 16 6 PAIR	FOOT	812	812	
88	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	32	32	
89	DRILL EXISTING HANDHOLE	EACH	2	2	
90	LIGHT DETECTOR	EACH	4	4	
91	LIGHT DETECTOR AMPLIFIER	EACH	1	1	
92	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2	2	
93	PEDESTRIAN PUSH-BUTTON	EACH	2	2	
94	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1	
95	REMOVE EXISTING CONCRETE FOUNDATION	EACH	1	1	
96	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1	1	
97	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1	1	
98	ELECTRIC CABLE AERIAL SUSPENDED NO. 20 3/C, TWISTED, SHIELDED	FOOT	692	692	
99	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, SPAN WIRE MOUNTED	EACH	4	4	
100	SIGNAL HEAD, LED, 1-FACE 5-SECTION, SPAN WIRE MOUNTED	EACH	12	12	
101	VIDEO DETECTION SYSTEM	EACH	1	1	
102	TEMPORARY TRAFFIC SIGNAL, WOOD POLE	EACH	4	4	
103	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1	1	
104	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1	

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VILLAGE OF ORLAND PARK

SUMMARY OF QUANTITIES

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			RCB		2/3/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		NONE	
4.			CHK BY:	INT:	VERT SCALE:	3
5.			TSC		-	

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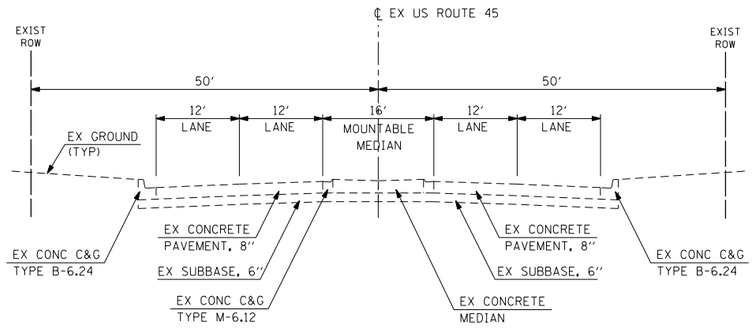
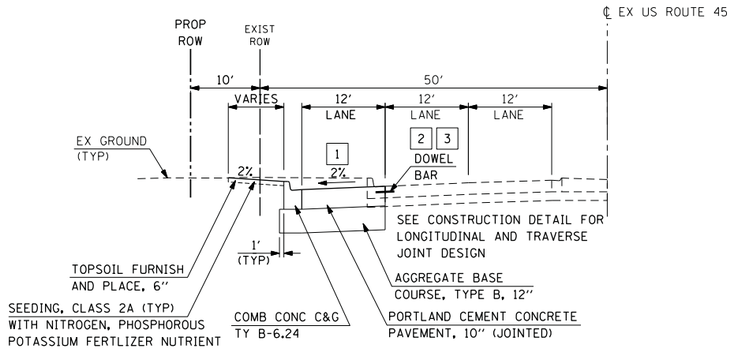
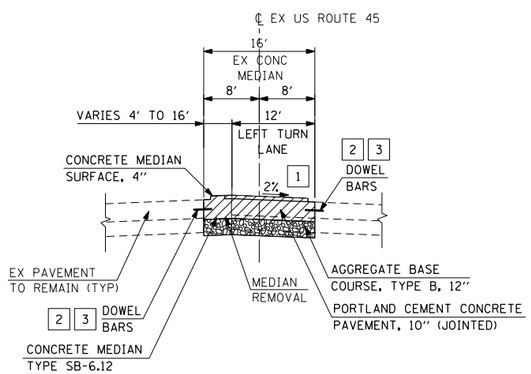


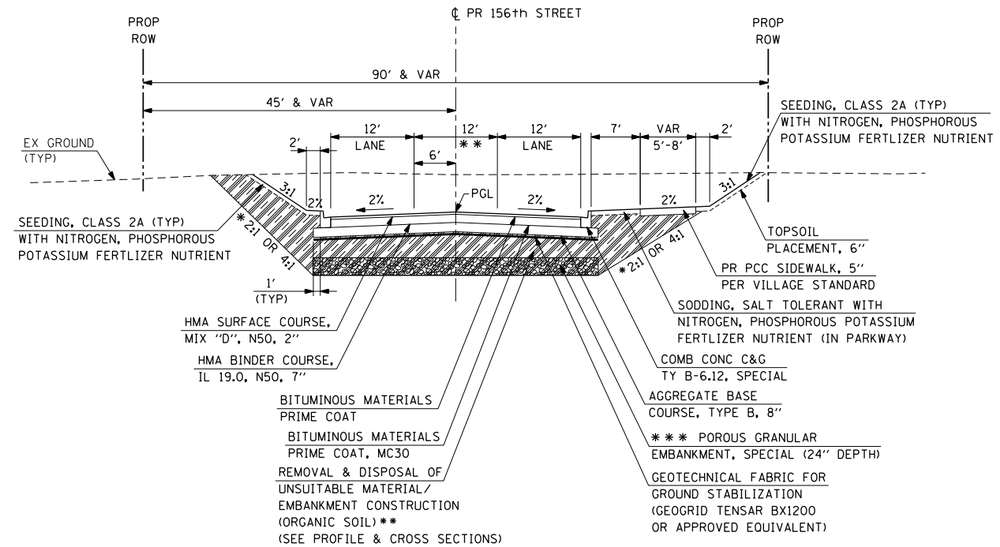
EXISTING US RTE 45 TYPICAL SECTION
(LAGRANGE ROAD)



PROPOSED US RTE 45 TYPICAL SECTION
AT SINGLE RIGHT TURN LANE
(LAGRANGE ROAD)



PROPOSED US RTE 45 TYPICAL MEDIAN
SECTION AT LEFT TURN LANE
(LAGRANGE ROAD)



PROPOSED 156th STREET TYPICAL SECTION

* STA 292+50.00 TO STA 293+90.00 = 2:1 (HARD ORGANIC CLAY)
STA 293+90.00 TO STA 297+30.00 = 4:1 (SOFT SILTY CLAY)
** ORGANIC SOILS SHALL BE UTILIZED FOR TOPSOIL PLACEMENT 6" WITH REMAINDER DISPOSED OF PER STANDARD SPECIFICATIONS.
*** STA 292+50.00 TO STA 297+30.00

HOT-MIX ASPHALT REQUIREMENTS		
MIXTURE TYPE	AC TYPE	AIR VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	PG 64-22	4% @ 70 Gyr.
HOT-MIX ASPHALT BASE COURSE HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	PG 64-22 / 58-22 •	4% @ 70 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN
• WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

NOTES

1. MATCH EXISTING CROSS SLOPE IN WIDENING AREAS.
2. ALL DOWEL BARS AND TIE BARS SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED).
3. ALL DOWEL BARS AND TIE BARS SHALL BE INSTALLLED IN ACCORDANCE WITH THE STD. SPEC. ART. 420.05 AND STD. DETAIL 420001.

VILLAGE OF ORLAND PARK

TYPICAL SECTIONS

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			SVJ		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		1" = 10'	
4.			CHK BY:	INT:	VERT SCALE:	4
5.			TSC		-	

COMPANY NAME: #(COMPANY NAME)
PROJECT CONTACT: #(PROJECT_CONTACT)
CLIENT: #(CLIENT)
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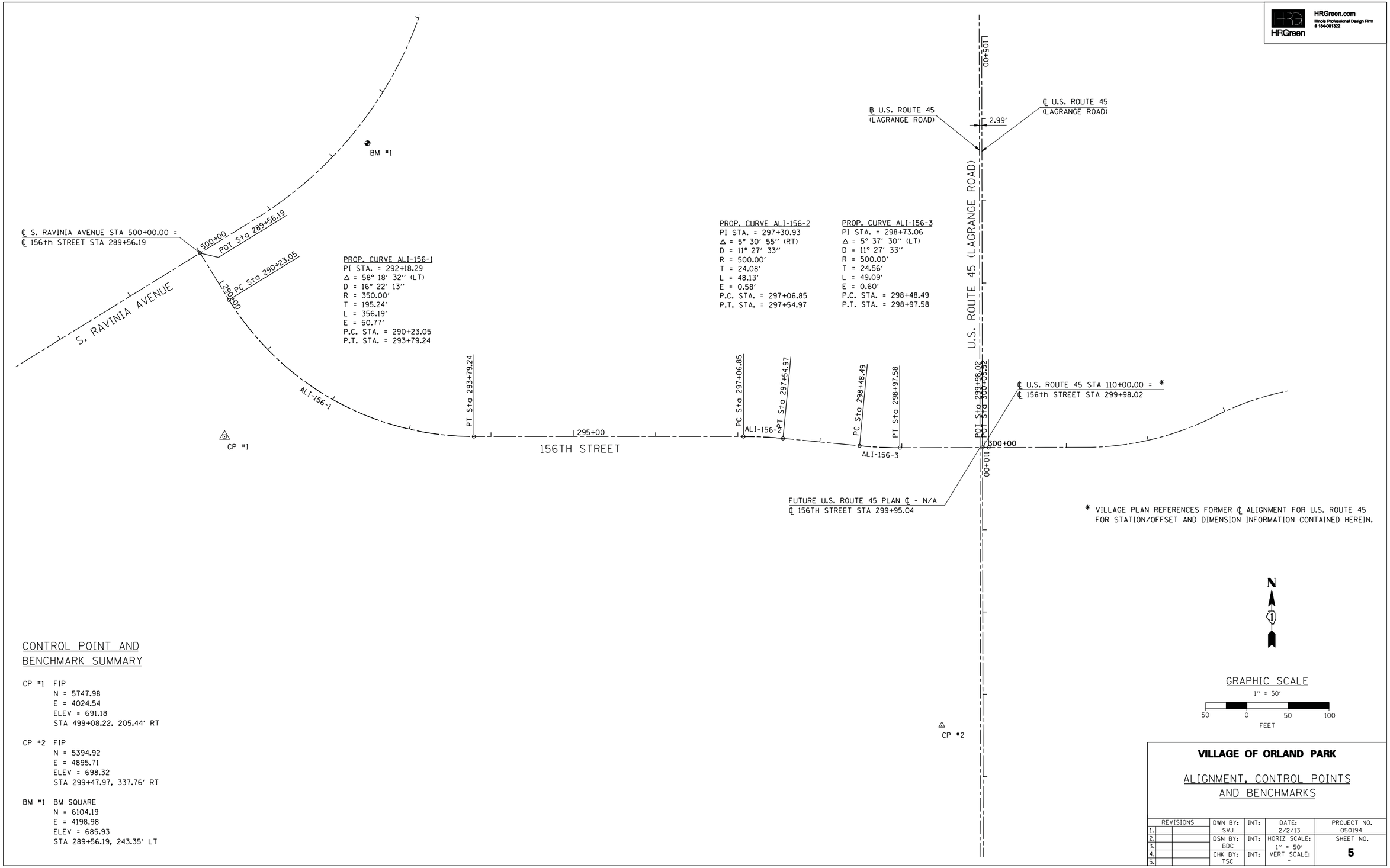

* VILLAGE PLAN REFERENCES FORMER ℄ ALIGNMENT FOR U.S. ROUTE 45 FOR STATION/OFFSET AND DIMENSION INFORMATION CONTAINED HEREIN.

CONTROL POINT AND BENCHMARK SUMMARY

CP #1 FIP
N = 5747.98
E = 4024.54
ELEV = 691.18
STA 499+08.22, 205.44' RT

CP #2 FIP
N = 5394.92
E = 4895.71
ELEV = 698.32
STA 299+47.97, 337.76' RT

BM #1 BM SQUARE
N = 6104.19
E = 4198.98
ELEV = 685.93
STA 289+56.19, 243.35' LT

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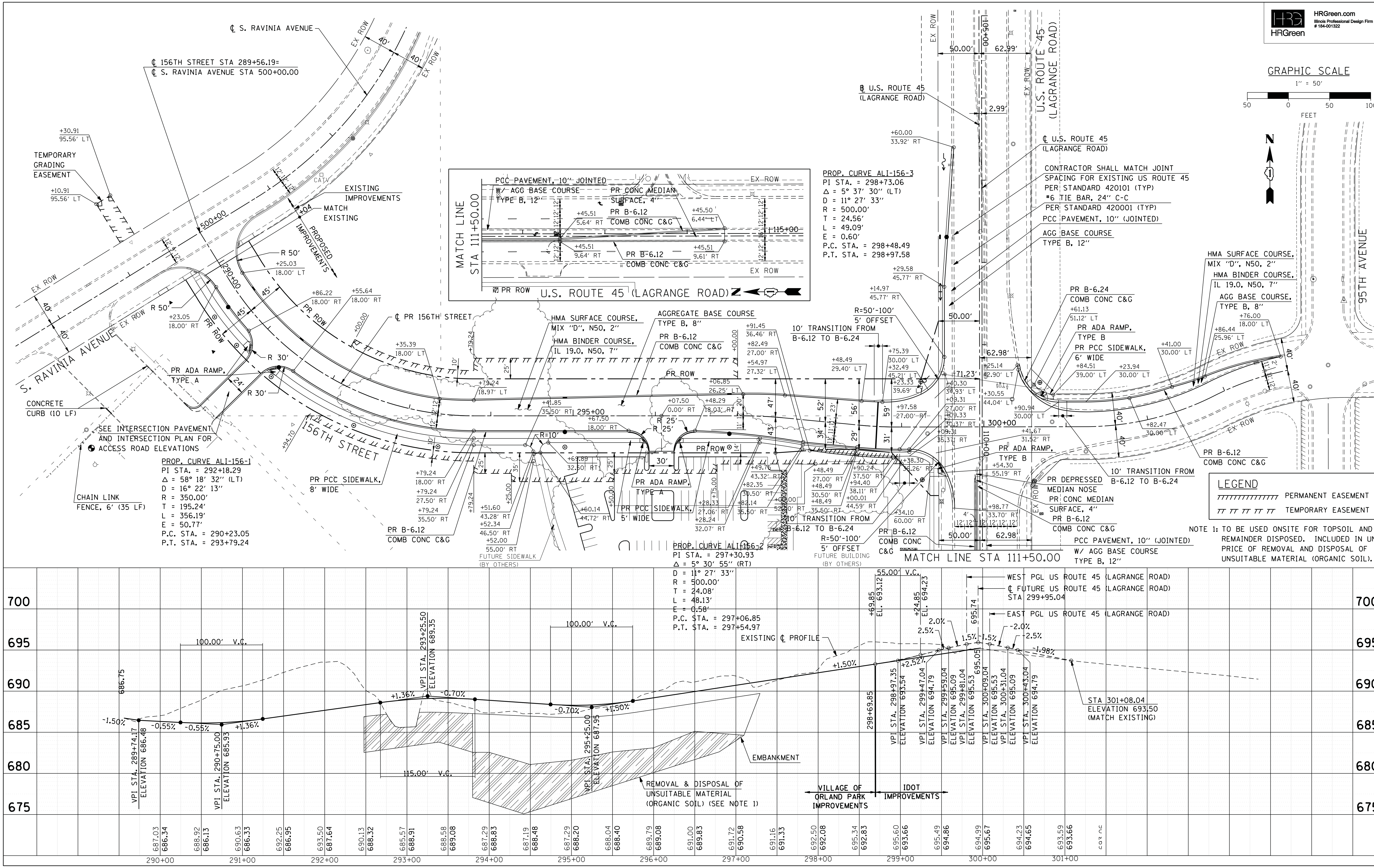
VILLAGE OF ORLAND PARK

ALIGNMENT, CONTROL POINTS AND BENCHMARKS

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			SVJ		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		1" = 50'	
4.			CHK BY:	INT:	VERT SCALE:	5
5.			TSC		-	



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GRAPHIC SCALE
1" = 50'
50 0 50 100
FEET
℄ S. RAVINIA AVENUE
℄ 156TH STREET STA 289+56.19=
℄ S. RAVINIA AVENUE STA 500+00.00
TEMPORARY GRADING EASEMENT
EXISTING IMPROVEMENTS
MATCH EXISTING
PROPOSED IMPROVEMENTS
S. RAVINIA AVENUE
156TH STREET
℄ PR 156TH STREET
PR ADA RAMP, TYPE A
CONCRETE CURB (10 LF)
SEE INTERSECTION PAVEMENT AND INTERSECTION PLAN FOR ACCESS ROAD ELEVATIONS
CHAIN LINK FENCE, 6' (35 LF)
PROP. CURVE ALI-156-1
PI STA. = 292+18.29
Δ = 58° 18' 32" (LT)
D = 16° 22' 13"
R = 350.00'
T = 195.24'
L = 356.19'
E = 50.77'
P.C. STA. = 290+23.05
P.T. STA. = 293+79.24
PR PCC SIDEWALK, 8' WIDE
PR B-6.12 COMB CONC C&G
FUTURE SIDEWALK (BY OTHERS)
MATCH LINE STA 111+50.00
PCC PAVEMENT, 10" JOINTED W/ AGG BASE COURSE TYPE B, 12"
PR CONC MEDIAN SURFACE, 4"
PR B-6.12 COMB CONC C&G
U.S. ROUTE 45 (LAGRANGE ROAD)
HMA SURFACE COURSE, MIX "D", N50, 2"
HMA BINDER COURSE, IL 19.0, N50, 7"
AGGREGATE BASE COURSE TYPE B, 8"
PR ADA RAMP, TYPE A
PR PCC SIDEWALK, 5' WIDE
PROP. CURVE ALI-156-2
PI STA. = 297+30.93
Δ = 5° 30' 55" (RT)
D = 11° 27' 33"
R = 500.00'
T = 24.08'
L = 48.13'
E = 0.58'
P.C. STA. = 297+06.85
P.T. STA. = 297+54.97
FUTURE BUILDING (BY OTHERS)
PROP. CURVE ALI-156-3
PI STA. = 298+73.06
Δ = 5° 37' 30" (LT)
D = 11° 27' 33"
R = 500.00'
T = 24.56'
L = 49.09'
E = 0.60'
P.C. STA. = 298+48.49
P.T. STA. = 298+97.58
℄ U.S. ROUTE 45 (LAGRANGE ROAD)
U.S. ROUTE 45 (LAGRANGE ROAD)
CONTRACTOR SHALL MATCH JOINT SPACING FOR EXISTING US ROUTE 45 PER STANDARD 420101 (TYP)
#6 TIE BAR, 24" C-C PER STANDARD 420001 (TYP)
PCC PAVEMENT, 10" (JOINTED)
AGG BASE COURSE TYPE B, 12"
10' TRANSITION FROM B-6.12 TO B-6.24
R=50'-100' 5' OFFSET
PR B-6.24 COMB CONC C&G
PR ADA RAMP, TYPE B
PR PCC SIDEWALK, 6' WIDE
95TH AVENUE
HMA SURFACE COURSE, MIX "D", N50, 2"
HMA BINDER COURSE, IL 19.0, N50, 7"
AGG BASE COURSE, TYPE B, 8"
PR B-6.12 COMB CONC C&G
PR DEPRESSED MEDIAN NOSE
PR CONC MEDIAN SURFACE, 4"
PR B-6.12 COMB CONC C&G
PCC PAVEMENT, 10" (JOINTED) W/ AGG BASE COURSE TYPE B, 12"
MATCH LINE STA 111+50.00
LEGEND
PERMANENT EASEMENT
TEMPORARY EASEMENT
NOTE 1: TO BE USED ONSITE FOR TOPSOIL AND REMAINDER DISPOSED. INCLUDED IN UNIT PRICE OF REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL (ORGANIC SOIL).
WEST PGL US ROUTE 45 (LAGRANGE ROAD)
℄ FUTURE US ROUTE 45 (LAGRANGE ROAD) STA 299+95.04
EAST PGL US ROUTE 45 (LAGRANGE ROAD)
EXISTING ℄ PROFILE
100.00' V.C.
115.00' V.C.
55.00' V.C.
VPI STA. 289+74.17 ELEVATION 686.48
VPI STA. 290+75.00 ELEVATION 685.93
VPI STA. 293+25.50 ELEVATION 689.35
VPI STA. 295+25.00 ELEVATION 687.95
STA 301+08.04 ELEVATION 693.50 (MATCH EXISTING)
EMBANKMENT
REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL (ORGANIC SOIL) (SEE NOTE 1)
VILLAGE OF ORLAND PARK IMPROVEMENTS
IDOT IMPROVEMENTS
700
695
690
685
680
675
290+00
291+00
292+00
293+00
294+00
295+00
296+00
297+00
298+00
299+00
300+00
301+00

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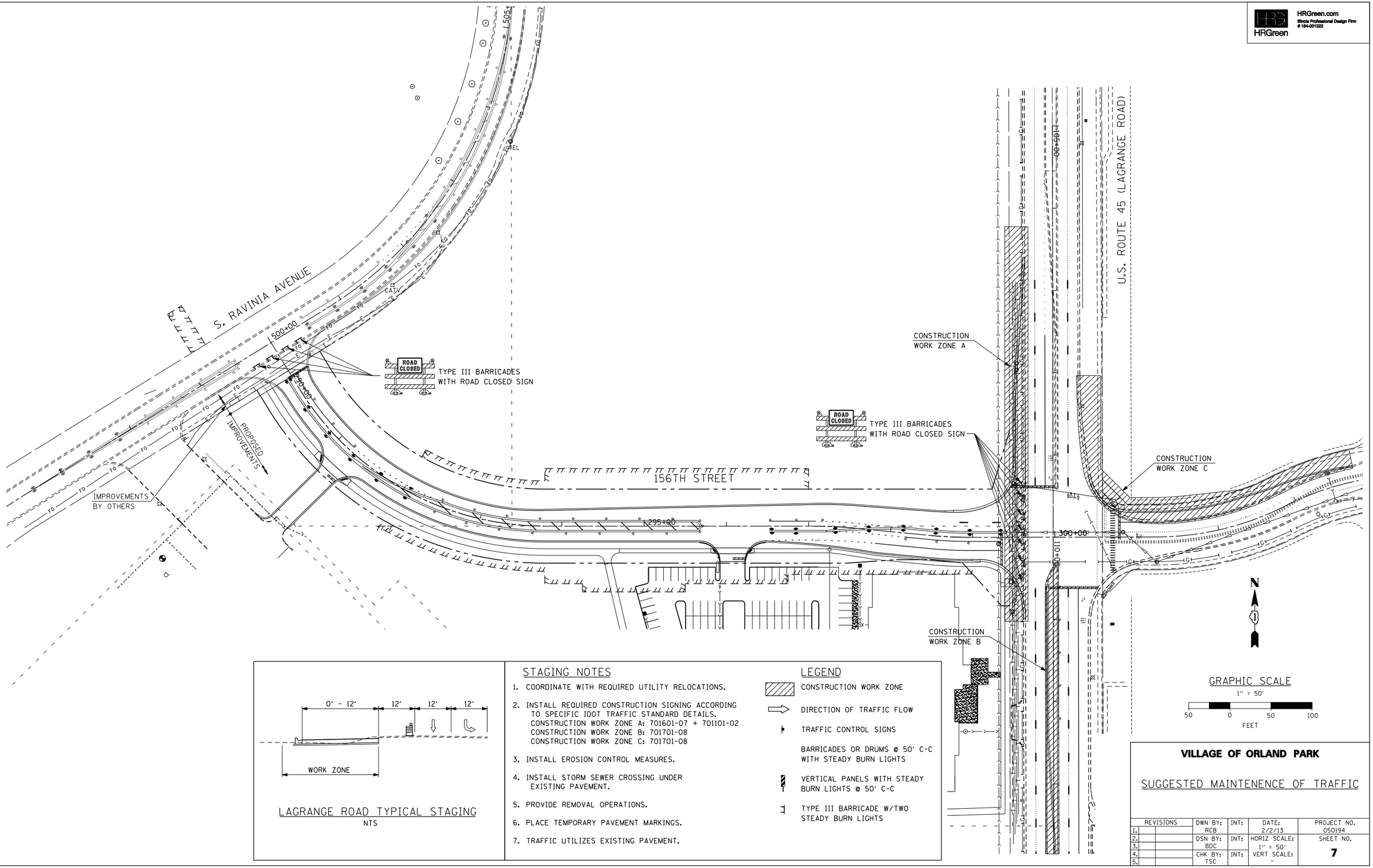

GRAPHIC SCALE
1" = 50'
50 0 50 100
FEET

LAGRANGE ROAD TYPICAL STAGING
NTS

STAGING NOTES

1. COORDINATE WITH REQUIRED UTILITY RELOCATIONS.
2. INSTALL REQUIRED CONSTRUCTION SIGNING ACCORDING TO SPECIFIC IDOT TRAFFIC STANDARD DETAILS.
   CONSTRUCTION WORK ZONE A: 701601-07 + 701101-02
   CONSTRUCTION WORK ZONE B: 701701-08
   CONSTRUCTION WORK ZONE C: 701701-08
3. INSTALL EROSION CONTROL MEASURES.
4. INSTALL STORM SEWER CROSSING UNDER EXISTING PAVEMENT.
5. PROVIDE REMOVAL OPERATIONS.
6. PLACE TEMPORARY PAVEMENT MARKINGS.
7. TRAFFIC UTILIZES EXISTING PAVEMENT.

LEGEND

- CONSTRUCTION WORK ZONE
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC CONTROL SIGNS
- BARRICADES OR DRUMS @ 50' C-C WITH STEADY BURN LIGHTS
- VERTICAL PANELS WITH STEADY BURN LIGHTS @ 50' C-C
- TYPE III BARRICADE W/TWO STEADY BURN LIGHTS

VILLAGE OF ORLAND PARK

SUGGESTED MAINTENENCE OF TRAFFIC

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			RCB		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		1" = 50'	
4.			CHK BY:	INT:	VERT SCALE:	7
5.			TSC		-	

COMPANY NAME: $COMPANY NAME)
PROJECT CONTACT: $PROJECT.CONTACT)
CLIENT: $CLIENT)
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GRAPHIC SCALE
1" = 50'
50 0 50 100
FEET

℄ S. RAVINIA AVENUE
℄ DITCH
EXISTING IMPROVEMENTS
MATCH EXISTING
PROPOSED IMPROVEMENTS
500+00
290+00
SEEDING CLASS 4B (EMERGENT WETLAND) SEE DETAIL (SHEET 30)
℄ PR 156TH STREET
156TH STREET
295+00
EX PROPERTY LINE
℄ U.S. ROUTE 45 (LAGRANGE ROAD)
U.S. ROUTE 45 (LAGRANGE ROAD)
PROPOSED 12" WATER MAIN (BY OTHERS)
FIRE HYDRANT W/ AUXILIARY VALVE (RELOCATED) STA 302+81.00, 31' LT BURY ELEV=691.90
300+00
95TH AVENUE
PROPOSED 12" WATER MAIN (BY OTHERS)

LEGEND
- INLET
- CATCH BASIN
- MANHOLE
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED WATER MAIN

NOTE:
ALL WATER MAIN MATERIALS SHALL COMPLY WITH VILLAGE OF ORLAND PARK LAND DEVELOPMENT CODE SECTION 6-410.

EXISTING ℄ PROFILE
PROPOSED ℄ PROFILE

	290+00	291+00	292+00	293+00	294+00	295+00	296+00	297+00	298+00	299+00	300+00	301+00
EXISTING	687.03	688.92	690.63	692.25	693.50	690.13	685.57	688.58	687.29	687.19	687.29	688.04
PROPOSED	686.34	686.13	686.33	686.95	687.64	688.32	688.91	689.08	688.83	688.48	688.20	688.40
EXISTING	689.79	691.00	691.72	691.16	692.50	695.34	695.60	695.49	694.99	694.23	693.59	
PROPOSED	689.08	689.83	690.58	691.33	692.08	692.83	693.66	694.86	695.67	694.65	693.66	

STORM SEWER TAGS

101 — 20 LIN FT SS CL A 1 18" @ 0.26%

102 — PRC FES, 18" WITH GRATE
STA = 499+24.91, 55.2' RT
INV = 682.77

103 — PRC FES, 18" WITH GRATE
STA = 290+78.13, 65.3' RT
INV = 682.98

104 — 27 LIN FT SS CL A 1 18" @ 0.30%

105 — MH TA 4' DIA T1F CL
STA = 290+89.13, 41.0' RT
RIM = 690.00
INV = 683.24 (SE)
INV = 683.11 (NW)
INV = 683.06 (SW)

106 — 44 LIN FT SS CL A 1 18" @ 0.30%

107 — MH TA 4' DIA T1F CL
STA = 290+50.00, 40.0 RT
RIM = 688.00
INV = 683.29 (NW)
INV = 683.29 (NE)
INV = 683.24 (SE)

108 — 18 LIN FT SS CL A 1 12" @ 0.30%

109 — CB TA 4' DIA SPECIAL F&G
STA 290+50.00, 19.5' RT
RIM = 685.75
INV = 683.39 (NE)
INV = 683.34 (SW)

110 — 39 LIN FT SS CL A 1 12" @ 0.30%

111 — INLET TA SPECIAL F&G
STA = 290+50.00, 19.5' LT
RIM = 685.75
INV = 683.51 (SW)

112 — 58 LIN FT SS CL A 1 12" @ 0.30%

116 — 54 LIN FT SS CL A 1 18" @ 0.30%

117 — MH TA 4' DIA T1F CL
STA = 291+40.00, 40.0' RT
RIM = 692.50
INV = 683.41 (NE)
INV = 683.41 (SE)
INV = 683.40 (NW)

118 — 13 LIN FT SS CL A 1 12" @ 0.30%

119 — CB TA 4' DIA SPECIAL F&G
STA = 291+40.00, 25.0' RT
RIM = 686.43
INV = 683.47 (NE)
INV = 683.46 (SW)

120 — 43 LIN FT SS CL A 1 12" @ 0.30%

121 — INLET TA SPECIAL F&G
STA = 291+40.00, 19.5' LT
RIM = 686.43
INV = 683.59 (SW)

122 — 112 LIN FT SS CL A 1 18" @ 0.30%

123 — MH TA 4' DIA T1F CL
STA = 292+45.00, 40.0' RT
RIM = 687.0
INV = 683.76 (E)
INV = 683.75 (W)

124 — 101 LIN FT SS CL A 1 18" @ 0.30%

125 — MH TA 4' DIA T1F CL
STA = 293+40.00, 40.0' RT
RIM = 688.0
INV = 684.07 (E)
INV = 684.06 (W)

126 — 150 LIN FT SS CL A 1 18" @ 0.30%

127 — MH TA 4' DIA T1F CL
STA = 294+90.00, 38.0' RT
RIM = 689.00
INV = 684.53 (E)
INV = 684.53 (N)
INV = 684.52 (W)

128 — 16 LIN FT SS CL A 1 15" @ 0.30%

129 — CB TA 4' DIA. SPECIAL F&G
STA = 294+90.00, 19.5' RT
RIM = 687.75
INV = 684.59 (N)
INV = 684.58 (S)

130 — 42 LIN FT SS CL A 1 15" @ 0.30%

131 — INLET TA SPECIAL F&G
STA = 294+90.00, 22.9' LT
RIM = 687.75
INV = 684.71 (S)

132 — 195 LIN FT SS CL A 1 15" @ 0.30%

133 — MH TA 4' DIA T1F CL
STA = 296+90.00, 38.0' RT
RIM = 692.50
INV = 685.13 (N)
INV = 685.12 (W)

134 — 14 LIN FT SS CL A 1 12" @ 0.30%

135 — CB TA 4' DIA SPECIAL F&G
STA = 296+90.00, 21.8' RT
RIM = 690.00
INV = 685.18 (N)
INV = 685.17 (S)

136 — 49 LIN FT SS CL A 1 12" @ 0.30%

137 — INLET TA SPECIAL F&G
STA 296+90.00, 21.8' LT
RIM = 690.00
INV = 685.31 (S)

300 — INLET TA T24 F&G
STA 299+45.00, 45.7' RT
RIM = 693.90
INV = 690.66 (NE)

301 — 30 LF SS CL A 1 12" @ 0.50%

302 — EX INLET TA W/ NEW T1F CL
STA 299+62.28, 20.0' RT
RIM = 694.49
INV = 690.50 (SW)
INV = 690.49 (E)

303 — INLET TA T24 F&G
STA 107+69.00, 42.9' RT
RIM = 691.93
INV = 688.13 (E)
INV = 688.18 (W)

304 — 7 LF SS CL A 1 12" @ 0.50%

305 — EX INLET TA W/ NEW T1F CL
STA 107+69.12, 35.7' RT
RIM = 692.03
INV = 688.09 (W)
INV = 688.08 (E)

306 — INLET TA T8 GRATE
STA 107+69.12, 47' RT
INV = 688.20 (E)

307 — 5 LF SS CL A 1 12" @ 0.5%

WATER TAGS

100A — 30 LF DUCTILE IRON WATER MAIN, 12"

100 — 12" VALVE AND 4' VALVE VAULT
STA = 299+42, 89' LT
RIM = 693.89

101 — 98 LF DUCTILE IRON WATER MAIN, 12"

102 — 12" VALVE AND 4' VALVE VAULT
STA = 299+40, 60' RT
RIM = 694.69

102A — 20 LF DUCTILE IRON WATER MAIN, 12"

103 — 41 LF DUCTILE IRON WATER MAIN, 12"

104 — 12 X 12 X 8 TEE

105 — 5 LF DUCTILE IRON WATER MAIN, 8"

106 — 8" VALVE AND 4' VAULT
STA =299+36, 16' RT
RIM = 693.78

107 — 170 LF DUCTILE IRON WATER MAIN, 8"

108 — 8 X 8 X 6 TEE

109 — 9 LF DUCTILE IRON WATER MAIN, 6"

110 — FIRE HYDRANT AND AUXILLARY VALVE
STA 297+67.98, 37.3' RT
BURY ELEV = 691.65

111 — 4 LF DUCTILE IRON WATER MAIN, 8"

112 — 45° ELBOW

113 — 37 LF DUCTILE IRON WATER MAIN, 8"

114 — 8 X 8 X 6 TEE

115 — 9 LF DUCTILE IRON WATER MAIN, 6"

116 — 45° ELBOW

117 — 32 LF DUCTILE IRON WATER MAIN, 6"

118 — 6" VALVE AND 4' VALVE VAULT
STA = 297+27.34, 44.6' RT
RIM = 692.85

119 — 56 LF DUCTILE IRON WATER MAIN, 8"

120 — 45° ELBOW

121 — 153 LF DUCTILE IRON WATER MAIN, 8"

122 — 8 X 8 X 6 SWIVEL TEE

123 — FIRE HYDRANT AND AUXILLARY VALVE
STA 299+42.00, 80' LT
BURY ELEV = 693.90

124 — FIRE HYDRANT AND AUXILLARY VALVE
STA 295+40.00, 30' LT
BURY ELEV = 688.30

125 — 254 LF DUCTILE IRON WATER MAIN, 8"

126 — 8 X 8 X 6 SWIVEL TEE

127 — 12 X 12 X 6 SWIVEL TEE

128 — FIRE HYDRANT AND AUXILLARY VALVE
STA 292+70.00, 24.5' LT
BURY ELEV = 689.90

129 — 143 LF DUCTILE IRON WATER MAIN, 8"

130 — 90° ELBOW

131 — 115 LF DUCTILE IRON WATER MAIN, 8"

132 — 8 X 8 X 6 SWIVEL TEE

133 — (LEFT BLANK INTENTIONALLY)

134 — FIRE HYDRANT AND AUXILLARY VALVE
STA 291+10.00, 25.0' LT
BURY ELEV = 687.72

135 — (LEFT BLANK INTENTIONALLY)

136 — 90° ELBOW

137 — 79 LF DUCTILE IRON WATER MAIN, 8"

138 — 90° ELBOW

139 — 125 LF DUCTILE IRON WATER MAIN, 8"

140 — 45° ELBOW

141 — 40 LF DUCTILE IRON WATER MAIN, 8"

142 — 45° ELBOW

143 — 13 LF DUCTILE IRON WATER MAIN, 8"

144 — 90° ELBOW

145 — 5 LF DUCTILE IRON WATER MAIN, 8"

146 — 8" VALVE AND 4' VAULT
STA = 497+53, 152' RT
RIM = 689.25

147 — 5 LF DUCTILE IRON WATER MAIN, 8"

148 — REPLACE 90° ELBOW W/
10" TEE AND 8" REDUCER

149 — EXISTING WATER MAIN, 10"

CROSSING TAGS

C1 — STORM SEWER B.O.P. = 682.61
WATER MAIN T.O.P. = 681.11
CLEARANCE = 1.50'
ACTION = DIP WATER MAIN UNDER STORM SEWER

C2 — STORM SEWER B.O.P. = 683.32
WATER MAIN T.O.P. = 681.82
CLEARANCE = 1.50'
ACTION = DIP WATER MAIN UNDER STORM SEWER

C3 — STORM SEWER B.O.P. = 682.59
FIBER OPTIC BOTTOM OF DUCT = 682.00 (ASSUME 4' TO TOP OF DUCT) - FIELD VERIFY
CLEARANCE = .59'

C4 — GAS B.O.P. = 692.0 (ASSUMED 30" TO T.O.P.)
STORM SEWER T.O.P. = 691.71
CLEARANCE = 0.29'

C5 — TELECOM B.O.P. = 692.0 (ASSUMED 36" TO T.O.P.) - FIELD VERIFY
STORM SEWER T.O.P. = 691.50
CLEARANCE = 0.0'
ACTION = LOWER TELECOM

C6 — GAS B.O.P. = 689.00 (ASSUMED 30" TO T.O.P.) - FIELD VERIFY
STORM SEWER T.O.P. = 689.30
CLEARANCE = N/A
ACTION = LOWER GAS MAIN

C7 — TELECOM B.O.P. = 688.50 (ASSUMED 36" TO T.O.P.) - FIELD VERIFY
STORM SEWER T.O.P. = 689.36
CLEARANCE = 0.0'
ACTION = LOWER TELECOM

NOTES:

1. ALL WATER MAIN MATERIALS SHALL COMPLY WITH VILLAGE OF ORLAND PARK LAND DEVELOPMENT CODE SECTION 6-410.

2. ORDERING LENGTH CONFIRMATION - DRAINAGE ITEMS. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LENGTH OF THE BOX/PIPE CULVERTS, STORM SEWER AND/OR PIPE DRAINS REQUIRED PRIOR TO ORDERING THESE ITEMS.

3. ANY FIELD TILE INTERCEPTED AND WATERWAYS DISTURBED DURING CONSTRUCTION WILL BE REPLACED OR REPAIRED. ALL EXISTING ENTRANCES WILL BE REPLACED AT THEIR PRESENT LOCATIONS UNLESS OTHERWISE NOTED IN THESE CONSTRUCTION DOCUMENTS.

4. TYPE 1 FRAME AND CLOSED LID SHALL BE EAST JORDAN IRON WORKS 1050Z1 FRAME AND 1020A COVER PER VILLAGE STANDARD.

5. EAST JORDAN IRON WORKS DETECTABLE WARNING PLATES SHALL BE USED AT SIDEWALK CROSSINGS.

6. SPECIAL FRAME AND GRATE SHALL BE EAST JORDAN IRON WORKS 7000 FRAME WITH TYPE P4 BACK PER VILLAGE OF ORLAND PARK.

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VILLAGE OF ORLAND PARK
STORM SEWER
WATER, AND CROSSING TAGS

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			RCB		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		NONE	
4.			CHK BY:	INT:	VERT SCALE:	9
5.			TSC		-	

COMPANY NAME: #(COMPANY NAME)
PROJECT CONTACT: #(PROJECT_CONTACT)
CLIENT: #(CLIENT)
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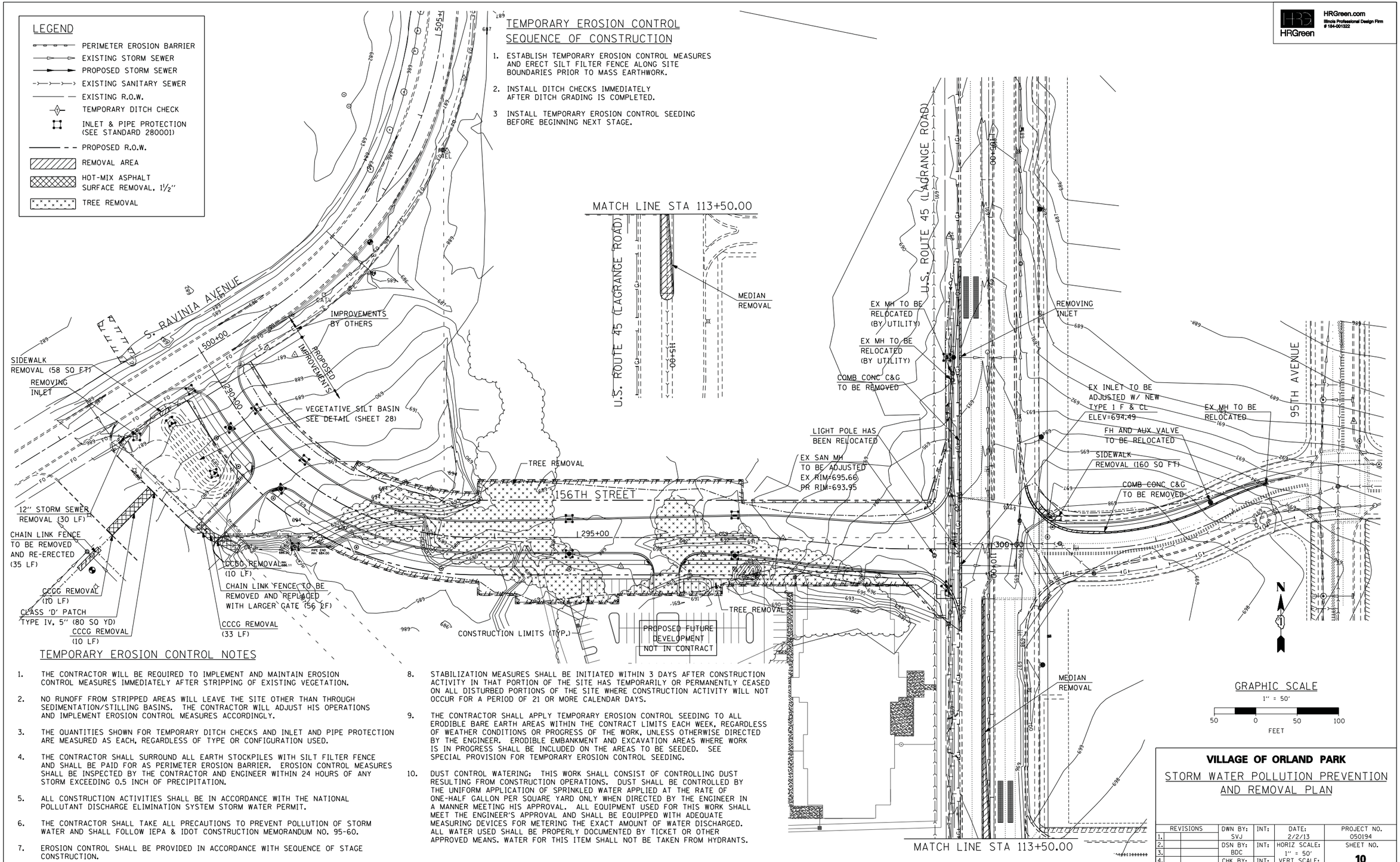
LEGEND

- PERIMETER EROSION BARRIER
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING R.O.W.
- TEMPORARY DITCH CHECK
- INLET & PIPE PROTECTION (SEE STANDARD 280001)
- PROPOSED R.O.W.
- REMOVAL AREA
- HOT-MIX ASPHALT SURFACE REMOVAL, 1½"
- TREE REMOVAL

TEMPORARY EROSION CONTROL SEQUENCE OF CONSTRUCTION

1. ESTABLISH TEMPORARY EROSION CONTROL MEASURES AND ERECT SILT FILTER FENCE ALONG SITE BOUNDARIES PRIOR TO MASS EARTHWORK.
2. INSTALL DITCH CHECKS IMMEDIATELY AFTER DITCH GRADING IS COMPLETED.
3 INSTALL TEMPORARY EROSION CONTROL SEEDING BEFORE BEGINNING NEXT STAGE.



GRAPHIC SCALE

1" = 50'

50 0 50 100

FEET

TEMPORARY EROSION CONTROL NOTES

1. THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES IMMEDIATELY AFTER STRIPPING OF EXISTING VEGETATION.
2. NO RUNOFF FROM STRIPPED AREAS WILL LEAVE THE SITE OTHER THAN THROUGH SEDIMENTATION/STILLING BASINS. THE CONTRACTOR WILL ADJUST HIS OPERATIONS AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.
3. THE QUANTITIES SHOWN FOR TEMPORARY DITCH CHECKS AND INLET AND PIPE PROTECTION ARE MEASURED AS EACH, REGARDLESS OF TYPE OR CONFIGURATION USED.
4. THE CONTRACTOR SHALL SURROUND ALL EARTH STOCKPILES WITH SILT FILTER FENCE AND SHALL BE PAID FOR AS PERIMETER EROSION BARRIER. EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AND ENGINEER WITHIN 24 HOURS OF ANY STORM EXCEEDING 0.5 INCH OF PRECIPITATION.
5. ALL CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM STORM WATER PERMIT.
6. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT POLLUTION OF STORM WATER AND SHALL FOLLOW IEPA & IDOT CONSTRUCTION MEMORANDUM NO. 95-60.
7. EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH SEQUENCE OF STAGE CONSTRUCTION.
8. STABILIZATION MEASURES SHALL BE INITIATED WITHIN 3 DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED ON ALL DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR A PERIOD OF 21 OR MORE CALENDAR DAYS.
9. THE CONTRACTOR SHALL APPLY TEMPORARY EROSION CONTROL SEEDING TO ALL ERODIBLE BARE EARTH AREAS WITHIN THE CONTRACT LIMITS EACH WEEK, REGARDLESS OF WEATHER CONDITIONS OR PROGRESS OF THE WORK, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ERODIBLE EMBANKMENT AND EXCAVATION AREAS WHERE WORK IS IN PROGRESS SHALL BE INCLUDED ON THE AREAS TO BE SEEDED. SEE SPECIAL PROVISION FOR TEMPORARY EROSION CONTROL SEEDING.
10. DUST CONTROL WATERING: THIS WORK SHALL CONSIST OF CONTROLLING DUST RESULTING FROM CONSTRUCTION OPERATIONS. DUST SHALL BE CONTROLLED BY THE UNIFORM APPLICATION OF SPRINKLED WATER APPLIED AT THE RATE OF ONE-HALF GALLON PER SQUARE YARD ONLY WHEN DIRECTED BY THE ENGINEER IN A MANNER MEETING HIS APPROVAL. ALL EQUIPMENT USED FOR THIS WORK SHALL MEET THE ENGINEER'S APPROVAL AND SHALL BE EQUIPPED WITH ADEQUATE MEASURING DEVICES FOR METERING THE EXACT AMOUNT OF WATER DISCHARGED. ALL WATER USED SHALL BE PROPERLY DOCUMENTED BY TICKET OR OTHER APPROVED MEANS. WATER FOR THIS ITEM SHALL NOT BE TAKEN FROM HYDRANTS.

VILLAGE OF ORLAND PARK

STORM WATER POLLUTION PREVENTION AND REMOVAL PLAN

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			SVJ		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		1" = 50'	
4.			CHK BY:	INT:	VERT SCALE:	10
5.			TSC		-	

COMPANY NAME: #(COMPANY NAME)
PROJECT CONTACT: #(PROJECT_CONTACT)
CLIENT: #(CLIENT)
2/2/2013 7:27:47 AM
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106+29.58
33.91' RT
EL=690.68
(MATCH
EXISTING)

106+29.58
0.00' RT
EL=691.36

107

U.S. ROUTE 45 (LAGRANGE ROAD)

MATCH LINE STA 107+50.00

MATCH LINE STA 107+50.00

108

U.S. ROUTE 45 (LAGRANGE ROAD)

108+29.58
45.77' RT
EL=693.00

109+14.97
45.77' RT
EL=693.39

109+21.73
46.23' RT
EL=693.44

109+31.44
48.55' RT
EL=693.52

109+14.97
33.78' RT
EL=693.78

109+21.73
33.78' RT
EL=693.85

109+14.97
0.00' RT
EL=694.17

109+40.49
52.77' RT
EL=693.60

109+48.52
58.69' RT
EL=693.73 (H.P.)

109+60.31
0.00' LT
EL=694.64

109+67.93
0.00' RT
EL=694.74

109+69.54
0.00' RT
EL=694.76

109+25.14
42.90' LT
EL=695.13

109+38.12
46.31' LT
EL=695.37 (H.P.)

109+30.55
44.04' LT
EL=695.17

300+55.07
45.16' LT
EL=694.67

300+71.47
33.95' LT
EL=693.97

300+48.86
52.98' LT
EL=695.01

300+90.94
30.00' LT
EL=693.25

300+62.70
38.73' LT
EL=694.32

300+35.41
0.00' RT
EL=694.76

300+81.00
31.00' LT
EL=693.62

300+94.69
0.00' RT
EL=693.85

300+29.84
0.00' RT
EL=694.81

301+57.40
30.00' LT
EL=692.60

301+79.27
30.00' LT
EL=692.38

301+90.21
30.00' LT
EL=692.27

301+35.52
30.00' LT
EL=692.82

301+23.94
30.00' LT
EL=692.93

301+46.46
30.00' LT
EL=692.71

301+68.33
30.00' LT
EL=692.49

301+01.15
30.00' LT
EL=692.16

301+23.94
0.00' LT
EL=693.53

302+12.08
30.00' LT
EL=691.98

302+21.80
30.00' LT
EL=691.87

302+32.65
30.00' LT
EL=691.76

302+43.47
29.78' LT
EL=691.66

302+54.26
28.82' LT
EL=691.57

302+65.01
27.87' LT
EL=691.48

302+75.74
26.91' LT
EL=691.39

302+86.44
25.96' LT
EL=391.31

302+91.31
25.53' LT
EL=691.27

303+00.66
24.70' LT
EL=691.18

303+10.03
23.87' LT
EL=691.08

303+19.43
23.03' LT
EL=690.99

303+28.85
22.19' LT
EL=690.91

303+38.29
21.35' LT
EL=690.83

303+47.76
20.51' LT
EL=690.76

303+47.76
0.00' RT
EL=691.16

303+76.00
18.00' LT
(MATCH
EXISTING)

302+86.44
0.00' LT
EL=691.77

302+12.08
0.00' LT
EL=692.58

R=50'-100'
5' OFFSET

299+23.33
39.69' LT
EL=693.41

299+15.99
36.62' LT
EL=693.25

156TH STREET

R 470'

298+59.12
29.64' LT
EL=692.37

298+75.39
30.00' LT
EL=692.61

298+86.02
30.39' LT
EL=692.77

298+48.49
29.40' LT
EL=692.21

298+69.75
29.87' LT
EL=692.53

298+96.61
31.57' LT
EL=692.93

299+06.45
33.61' LT
EL=693.09

299+31.92
44.78' LT
EL=693.51

298+75.39
0.00' LT
EL=693.21

299+09.31
0.00' LT
EL=693.72

299+23.33
0.00' LT
EL=693.93

298+48.49
0.00' LT
EL=692.80

298+57.98
27.00' RT
EL=692.40

298+86.44
27.00' RT
EL=692.82

299+19.24
28.00' RT
EL=693.36

298+97.58
27.00' RT
EL=692.99

R 527'

298+48.49
27.00' RT
EL=692.26

298+67.47
27.00' RT
EL=692.54

298+76.96
27.00' RT
EL=692.68

299+09.31
27.00' RT
EL=693.18

299+45.18
42.18' RT
EL=693.32

299+51.38
49.98' RT
EL=693.10

R=50'-100'
5' OFFSET

110+73.93
36.84' RT
EL=694.56

110+83.73
34.84' RT
EL=694.74

110+98.77
33.70' RT
EL=695.02
(MATCH
EXISTING)

299+54.30
0.00' RT
EL=694.39

299+98.02
0.00' RT
EL=695.05

299+28.78
30.95' RT
EL=693.55

299+37.54
35.73' RT
EL=693.73

298+52.25
0.00' RT
EL=694.36

110+55.19
43.71' RT
EL=694.19

110+64.39
39.81' RT
EL=694.37

110+27.00
0.00' LT
EL=695.09

110+57.53
6.56' RT
EL=695.48

110+58.22
7.67' RT
EL=695.44

110+62.48
8.83' RT
EL=695.39

110+66.80
9.71' RT
EL=695.33

110+93.67
33.83' RT
EL=694.93

110+98.77
9.69' RT
EL=695.44

110+98.77
5.70' RT
EL=695.92

110+58.52
5.71' RT
EL=695.46

110+55.19
0.00' RT
EL=695.35

110+60.50
0.00' RT
EL=695.41

110+62.66
5.71' RT
EL=695.49

110+66.79
5.71' RT
EL=695.55

110+98.77
0.00' RT
EL=695.68

298

299

300+00

301

302

303

110+00

111

R 320'

R 322'

R 388'

N

GRAPHIC SCALE
1" = 20'
20 0 20 40
FEET

VILLAGE OF ORLAND PARK

INTERSECTION PAVEMENT ELEVATION PLAN

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			RCB		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		1" = 20'	11
4.			CHK BY:	INT:	VERT SCALE:	
5.			TSC		-	

COMPANY NAME: $COMPANY_NAME$
PROJECT CONTACT: $PROJECT_CONTACT$
CLIENT: $CLIENT$
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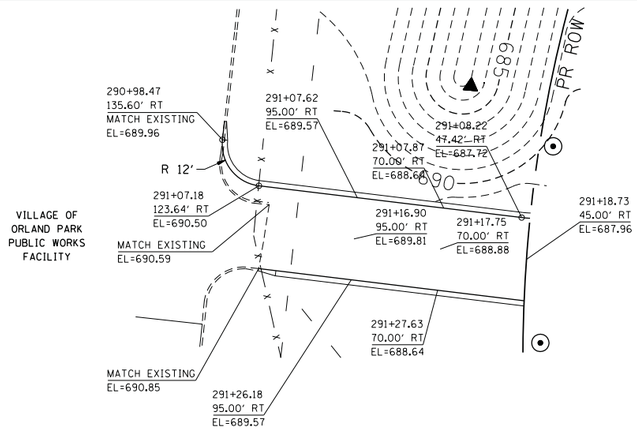


PUBLIC WORKS ACCESS DETAIL

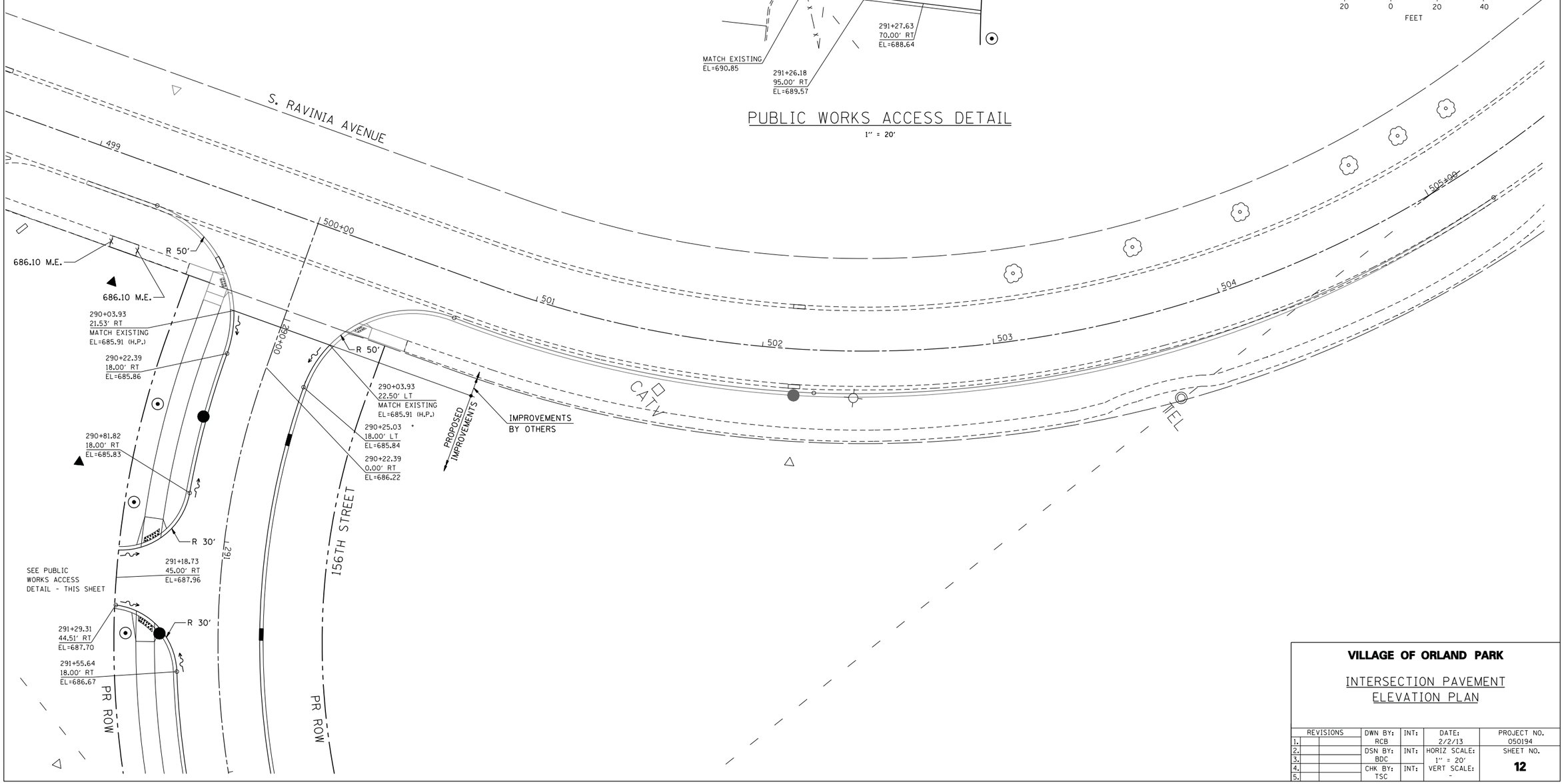
1" = 20'

GRAPHIC SCALE

1" = 20'

20 0 20 40

FEET



VILLAGE OF ORLAND PARK

INTERSECTION PAVEMENT
ELEVATION PLAN

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			RCB		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		1" = 20'	12
4.			CHK BY:	INT:	VERT SCALE:	
5.			TSC		-	

COMPANY NAME: #(COMPANY NAME)
PROJECT CONTACT: #(PROJECT_CONTACT)
CLIENT: #(CLIENT)
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SYMBOL

- ONE-WAY CRYSTAL MARKER (W/O), 40' C-C
- ONE-WAY AMBER MARKER, 40' C-C
- TWO-WAY AMBER MARKER, 40' C-C

SEE TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS

S. RAVINIA AVENUE

STOP
R1-1
30" X 30"

500+00

IMPROVEMENTS BY OTHERS

PROPOSED IMPROVEMENTS

STA 290+03.93
22.50' LT

24" SOLID WHITE LINE THERMOPLASTIC

6" SOLID WHITE LINE THERMOPLASTIC

STA 290+03.93
6.00' RT

STA 291+18.93
6.00' LT

STA 291+18.93
6.00' RT

6" WHITE DOTTED
2' DASH, 6' SKIP

2-4" SOLID YELLOW LINES
@ 11" CENTER TO CENTER,
THERMOPLASTIC

STA 291+00.73
26.49' RT

STA 291+06.55
26.49' RT

6" SOLID WHITE LINE
THERMOPLASTIC

24" SOLID WHITE LINE
THERMOPLASTIC

STA 291+36.72
26.49' RT

STA 291+30.90
36.50' RT

STOP
R1-1
30" X 30"

12" SOLID YELLOW DIAGONALS
@ 20' CENTER TO CENTER, THERMOPLASTIC
2-4" SOLID YELLOW LINES
@ 11" CENTER TO CENTER, THERMOPLASTIC

STA 292+50.93
6.00' RT

STA 292+50.93
6.00' LT

2-4" SOLID YELLOW LINES
@ 11" CENTER TO CENTER,
THERMOPLASTIC

4" SOLID WHITE LINE
@ 2" OFF THE EDGE OF PAVEMENT
THERMOPLASTIC

156TH STREET

STA 295+62.44
6.00' LT

295+00

STA 295+62.46
6.00' RT

STA 295+86.29
26.50' RT

STA 295+90.63
36.50' RT

6" SOLID WHITE LINE
THERMOPLASTIC

24" SOLID WHITE LINE
THERMOPLASTIC

STA 296+24.39
33.50' RT

STA 296+28.75
26.50' RT

2-4" SOLID YELLOW LINES
@ 11" CENTER TO CENTER,
THERMOPLASTIC

6" SOLID WHITE LINE
THERMOPLASTIC

STA 296+52.45
6.00' LT

STA 296+52.46
6.00' RT

STA 296+47.48
18.00' RT

STA 297+20.28
6.00' RT

6" WHITE DOTTED
2' DASH, 6' SKIP

STA 297+62.49
16.00' RT

STOP
R1-1
30" X 30"

12" SOLID WHITE LINE
THERMOPLASTIC (PER DETAIL B, DISTRICT
1 TYPICAL PAVEMENT MARKING SHEET)

STA 110+60.51
5.75' RT

2-4" SOLID YELLOW LINES
@ 11" CENTER TO CENTER,
THERMOPLASTIC

STA 297+20.28
6.00' LT

STA 298+19.28
6.00' LT

STA 298+19.28
5.00' RT

STA 298+83.80
18.00' LT

STA 299+34.28
6.00' RT

STA 299+34.28
33.68' RT

STA 299+47.33
44.52' RT

STA 110+50.51
46.29' RT

4" WHITE
10' DASH / 30' SKIP
THERMOPLASTIC

STA 108+29.58
33.77' RT

6" SOLID WHITE LINE
THERMOPLASTIC

STA 109+39.57
33.77' RT

24" SOLID WHITE LINE
THERMOPLASTIC

STA 109+39.58
52.24' RT

STA 299+34.28
6.00' RT

STA 298+83.80
18.00' LT

STA 299+34.28
18.00' LT

STA 299+34.28
6.00' RT

STA 299+34.28
18.00' RT

105+00

U.S. ROUTE 45 (LAGRANGE ROAD)

110+00

300+00

STA 110+60.50
6.25' RT

24" SOLID WHITE LINE
THERMOPLASTIC

6" SOLID WHITE LINE
THERMOPLASTIC

STA 112+45.50
6.33' RT

STA 114+45.50
6.44' RT

4" WHITE
10' DASH / 30' SKIP
THERMOPLASTIC

95TH AVENUE

STA 300+67.51
35.83' LT

STA 300+73.51
33.14' LT

STA 300+77.52
31.83' LT

24" SOLID WHITE LINE
THERMOPLASTIC

STA 302+12.08
18.00' LT

STA 303+47.76
18.00' LT

STA 300+77.51
18.00' LT

6" WHITE DOTTED
2' DASH, 6' SKIP

6" SOLID WHITE LINE
THERMOPLASTIC

12" SOLID WHITE LINE
THERMOPLASTIC (PER DETAIL B, DISTRICT
1 TYPICAL PAVEMENT MARKING SHEET)

STA 300+73.51
40.15' RT

STA 300+67.51
44.48' RT

STA 110+50.48
62.93' RT

N

GRAPHIC SCALE
1" = 50'
50 0 50 100
FEET

VILLAGE OF ORLAND PARK

PAVEMENT MARKING PLAN

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			SVJ		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		1" = 50'	
4.			CHK BY:	INT:	VERT SCALE:	13
5.			TSC		1" = 5'	

COMPANY NAME: #(COMPANY NAME)
PROJECT CONTACT: #(PROJECT CONTACT)
CLIENT: #(CLIENT)
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PR HANDHOLE, 1 EA.
STA 290+10, 25' RT

S. RAVINIA AVENUE

500+00

290+00

PR LIGHT POLE
2' FROM BOC TO FACE OF POLE
PHILIPS WL66 EVOLAIRE LED
(POLE PER VILLAGE SPEC.)

290+25.07
23.23' LT

1.5" UNIT DUCT TRENCHED
WITH 3-#8 AND 1-#8 GND

10"X14" ABOVE GRADE
SECONDARY PEDESTAL
("AP1-10x14S-CK")

293+10.96
23.23' LT

PR LIGHT POLE
2' FROM BOC TO FACE OF POLE
PHILIPS WL66 EVOLAIRE LED
(POLE PER VILLAGE SPEC.)

156th STREET

297+38.12
32.17' LT

PR LIGHT POLE
2' FROM BOC TO FACE OF POLE
PHILIPS WL66 EVOLAIRE LED
(POLE PER VILLAGE SPEC.)

295+00

1.5" UNIT DUCT TRENCHED
WITH 3-#8 AND 1-#8 GND

EXISTING AIR STATION, FED FROM RP>7
CIRCUIT #7 AND #9 240v SINGLE PHASE 4
WIRE, 3-#8 AND 1-#10 GND (CONTRACTOR
TO INCREASE EXISTING CIRCUIT BREAKERS
TO 30A

1½" CONDUIT IN TRENCH
(EMPTY), 920 LF

PR HANDHOLE, 1 EA.
STA 299+05, 40' RT

U.S. ROUTE 45 (96th AVENUE)

105+00

300+00

110+00

95th AVENUE

AIR STATION
L1
L2
N
GND

PEDESTAL

TO LIGHT POLES FOR FUTURE USE
IF FESTOON OUTLETS ARE REQUIRED

NOTE:

ALL ELECTRIC CABLE CONNECTIONS AND SECONDARY PEDESTAL CONSTRUCTION FOR THE PROPOSED LIGHTING CIRCUIT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "ELECTRIC CABLE IN CONDUIT - COMPLETE".

N

GRAPHIC SCALE
1" = 50'
50 0 50 100
FEET

VILLAGE OF ORLAND PARK

LIGHTING PLAN

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			SVJ		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		1" = 50'	
4.			CHK BY:	INT:	VERT SCALE:	14
5.			TSC		1" = 5'	

COMPANY NAME: #(COMPANY NAME)
PROJECT CONTACT: #(PROJECT.CONTACT)
CLIENT: #(CLIENT)
2/2/2013 7:28:20 AM
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LOOP DETECTOR NOTES

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

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

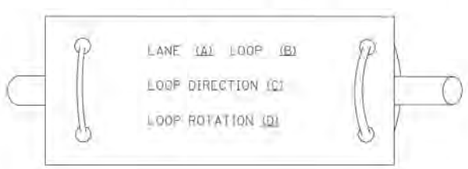
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

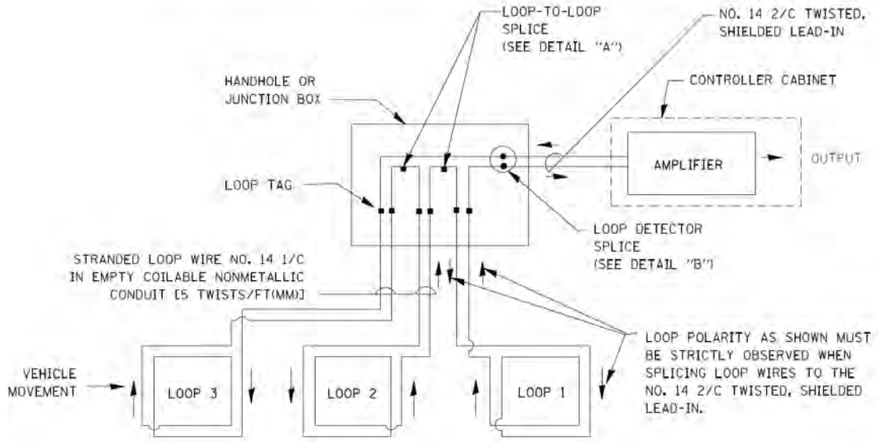


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

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

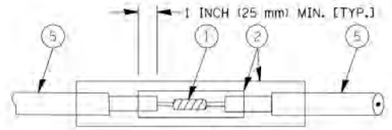
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

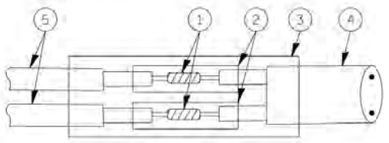


DETECTOR LOOP WIRING SCHEMATIC

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

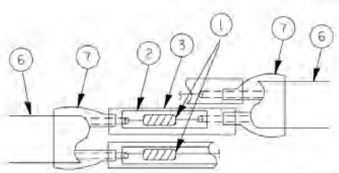


DETAIL "A"
LOOP-TO-LOOP SPLICE



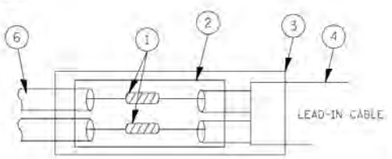
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

COMPANY NAME: HR GREEN
PROJECT CONTACT: T. SCOTT CREECH
CLIENT: VILLAGE OF ORLAND PARK
12/7/2012 2:08:47 PM
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CHECKED - DAD
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REVISED -
REVISED -
REVISED -
REVISED -

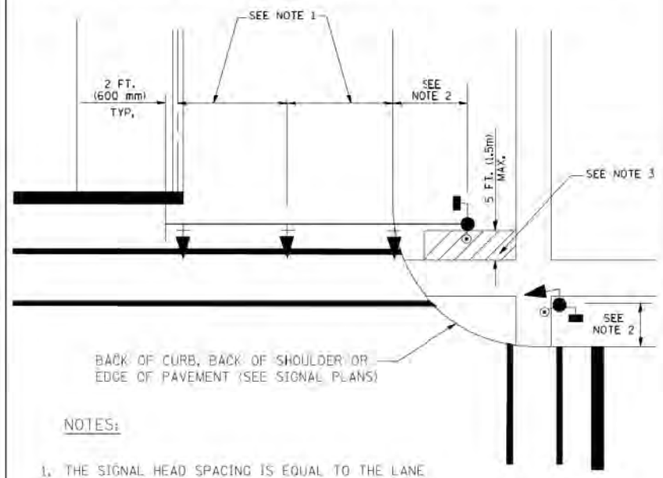
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS
SCALE: NONE | SHEET NO. 1 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			43	15
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

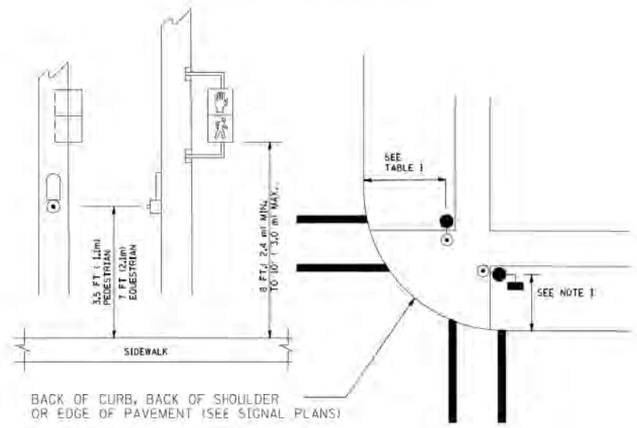
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



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."

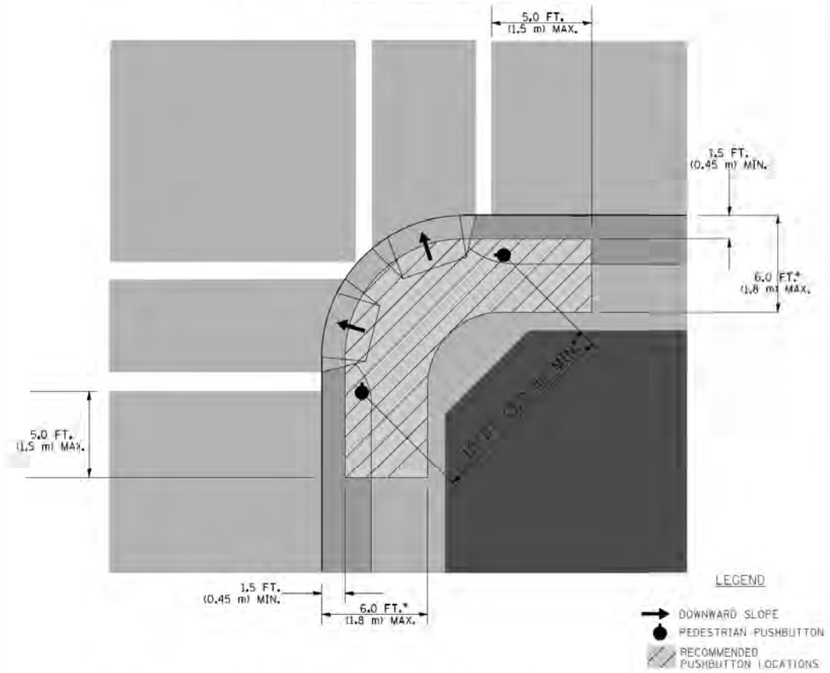
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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



* 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.

COMPANY NAME: HR GREEN
PROJECT CONTACT: T. SCOTT CREECH
CLIENT: VILLAGE OF ORLAND PARK
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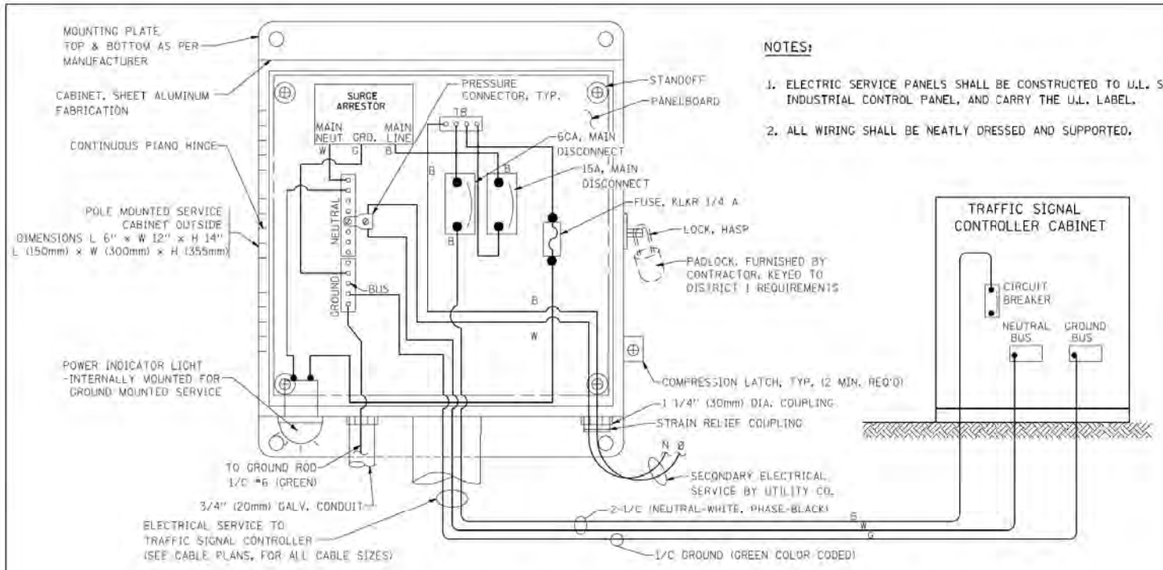
DATE - 10-28-09
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 2 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			43	16
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



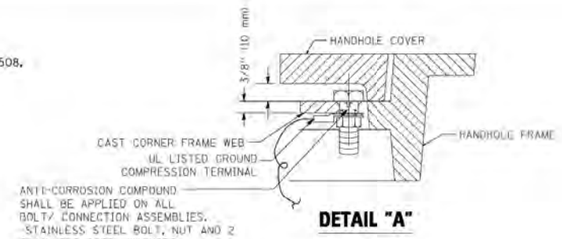
NOTES:

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.

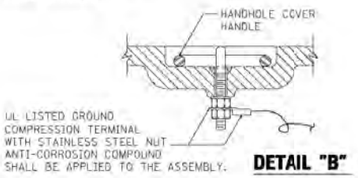
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)



DETAIL "A"

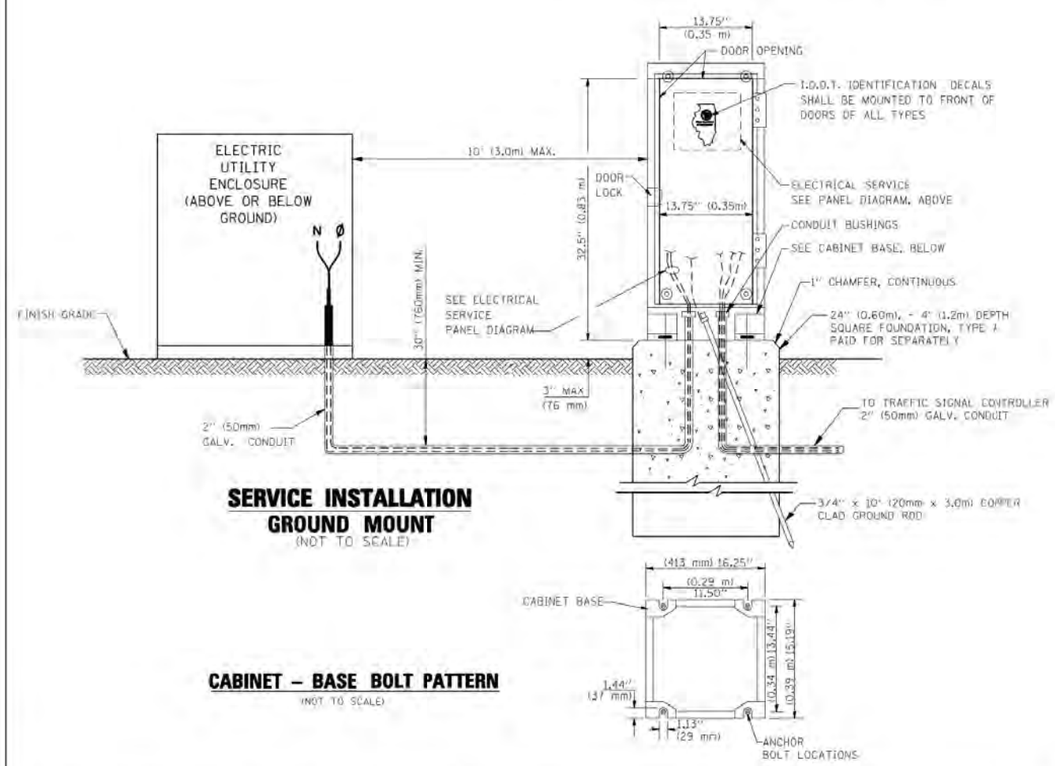


DETAIL "B"

NOTES:

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, FOLE 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 FRANE.

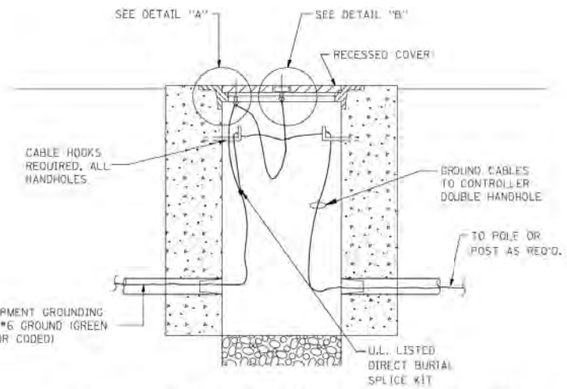


SERVICE INSTALLATION GROUND MOUNT

(NOT TO SCALE)

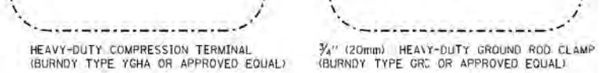
CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



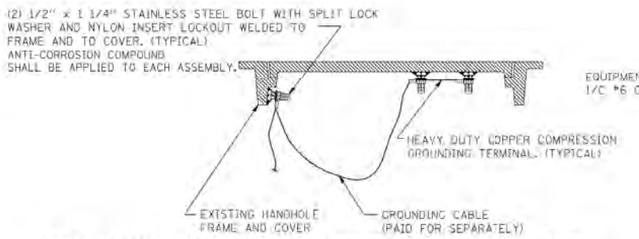
HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



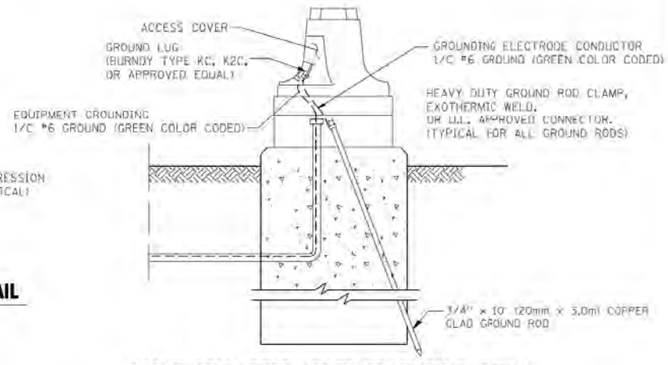
NOTES:

- 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.



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

COMPANY NAME: HR GREEN
PROJECT CONTACT: T. SCOTT CREECH
CLIENT: VILLAGE OF ORLAND PARK
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	PLOT DATE = 11/4/2009	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 3 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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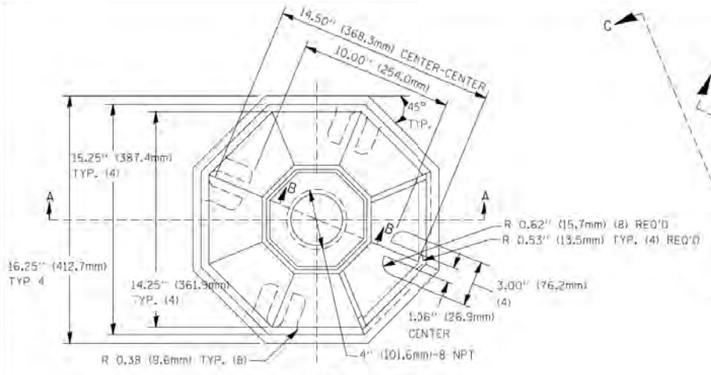
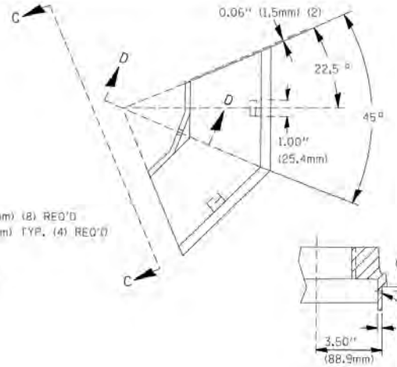
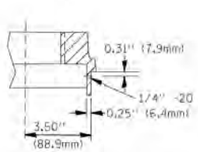
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

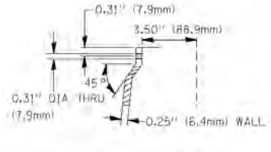


TOP VIEW

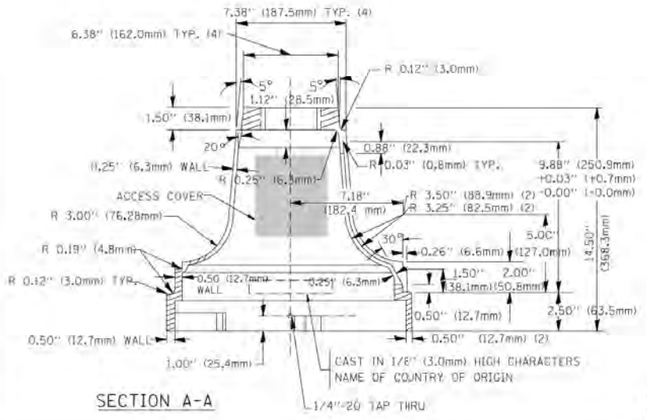




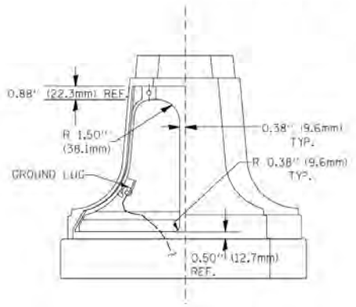
SECTION B-B



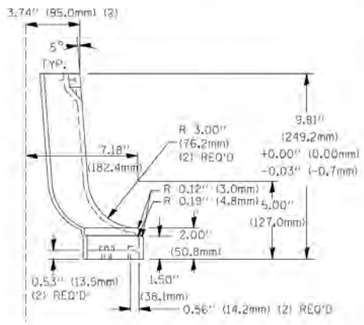
SECTION D-D



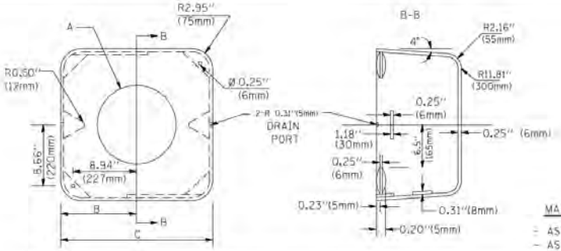
SECTION A-A



VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



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

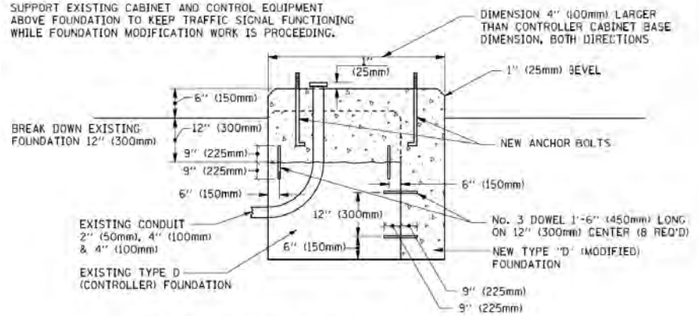
A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57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

SHROUD

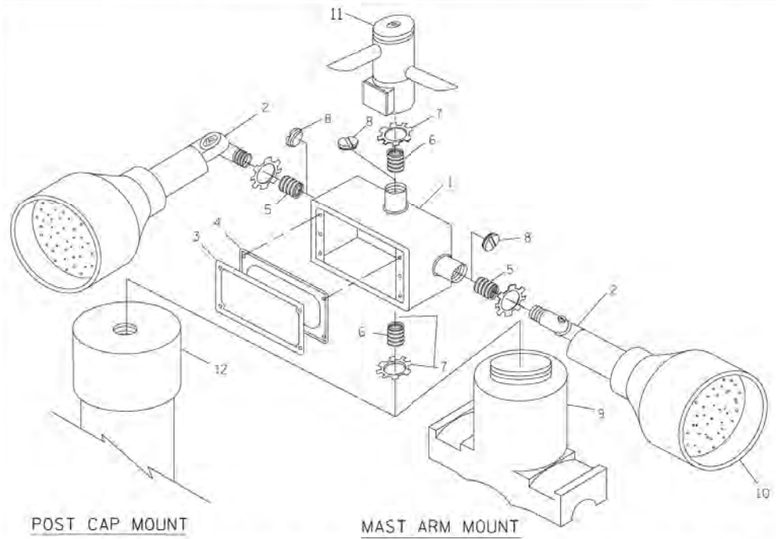
NOTES:

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

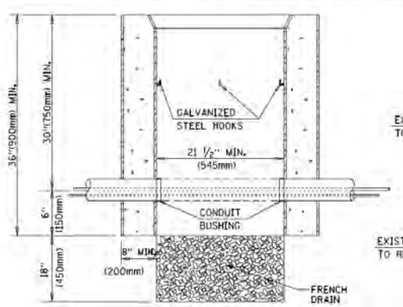
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

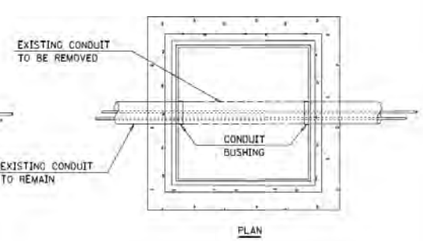
ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/8"(19 mm) CLOSE NIPPLE
7	3/8"(19 mm) LOCKNUT
8	3/8"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT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

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-G-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.



ELEVATION



PLAN

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 INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

COMPANY NAME: HR GREEN
PROJECT CONTACT: T.SCOTT CREECH
CLIENT: VILLAGE OF ORLAND PARK
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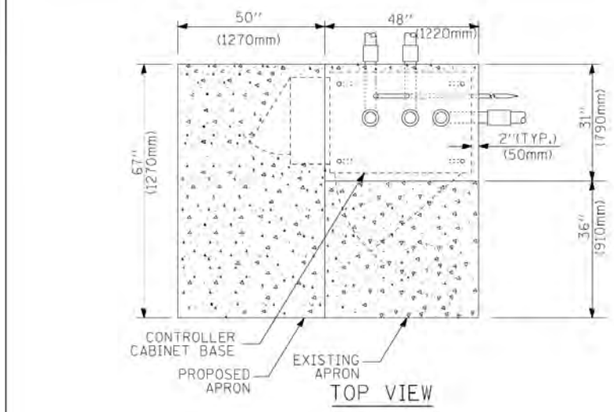
	PLOT DATE = 11/4/2009	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

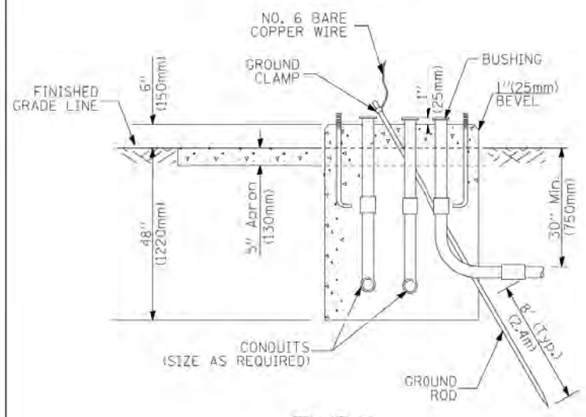
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 4 OF 6 SHEETS | STA. | TO STA.

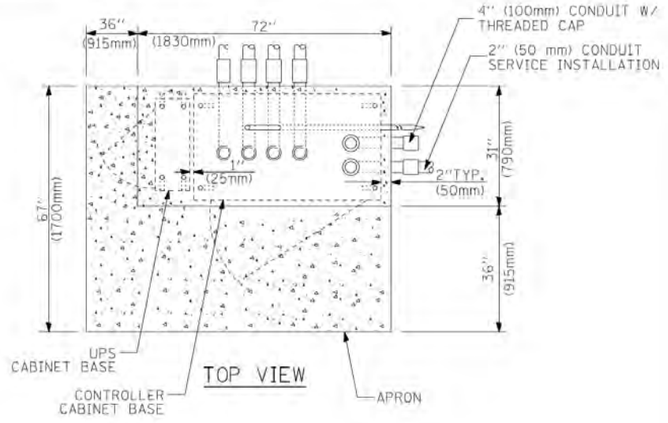
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			43	18
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



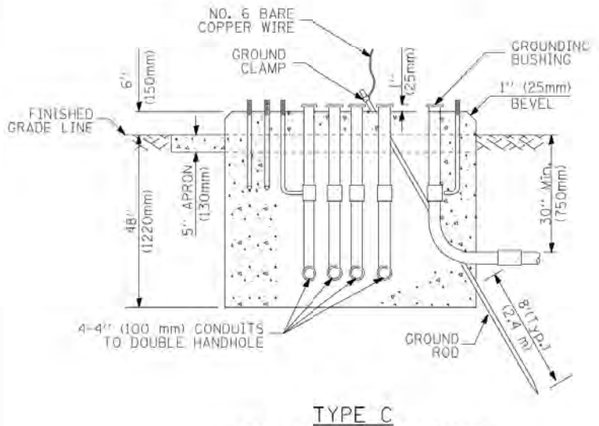
TOP VIEW



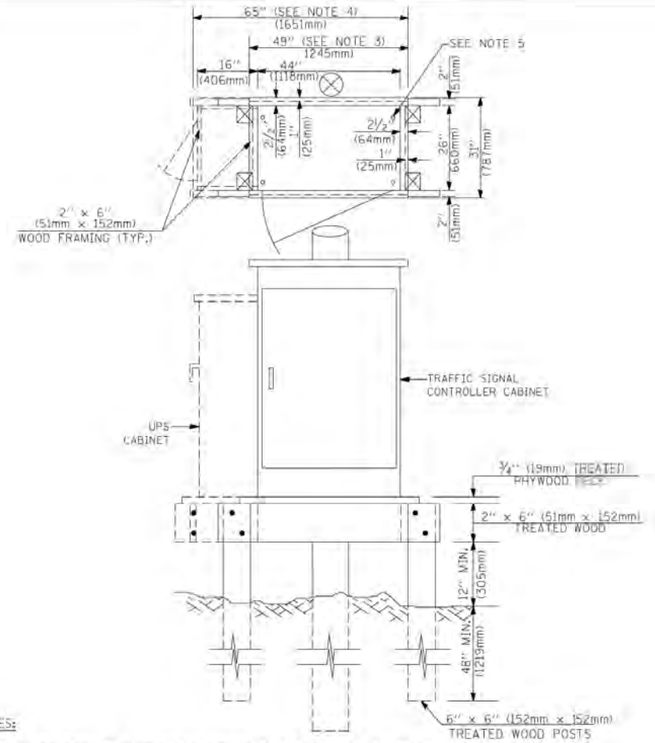
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TOP VIEW



TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



NOTES:

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

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

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

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Q_u) ≥ 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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 5 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			43	19
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

COMPANY NAME: HR GREEN
PROJECT CONTACT: T. SCOTT CREECH
CLIENT: VILLAGE OF ORLAND PARK
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TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		RR	RR
COMMUNICATIONS CABINET	R CC	ECC	CC
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTIBLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R F	F	F
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G Y G G	R Y G Y G
SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD		R Y G Y G G "P"	R Y G Y G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C O	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		1	1
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	G
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RMF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		P	
EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PP	
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

COMPANY NAME: HR GREEN
PROJECT CONTACT: T.SCOTT CREECH
CLIENT: VILLAGE OF ORLAND PARK
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	PLOT DATE = 11/4/2009	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			43	20
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

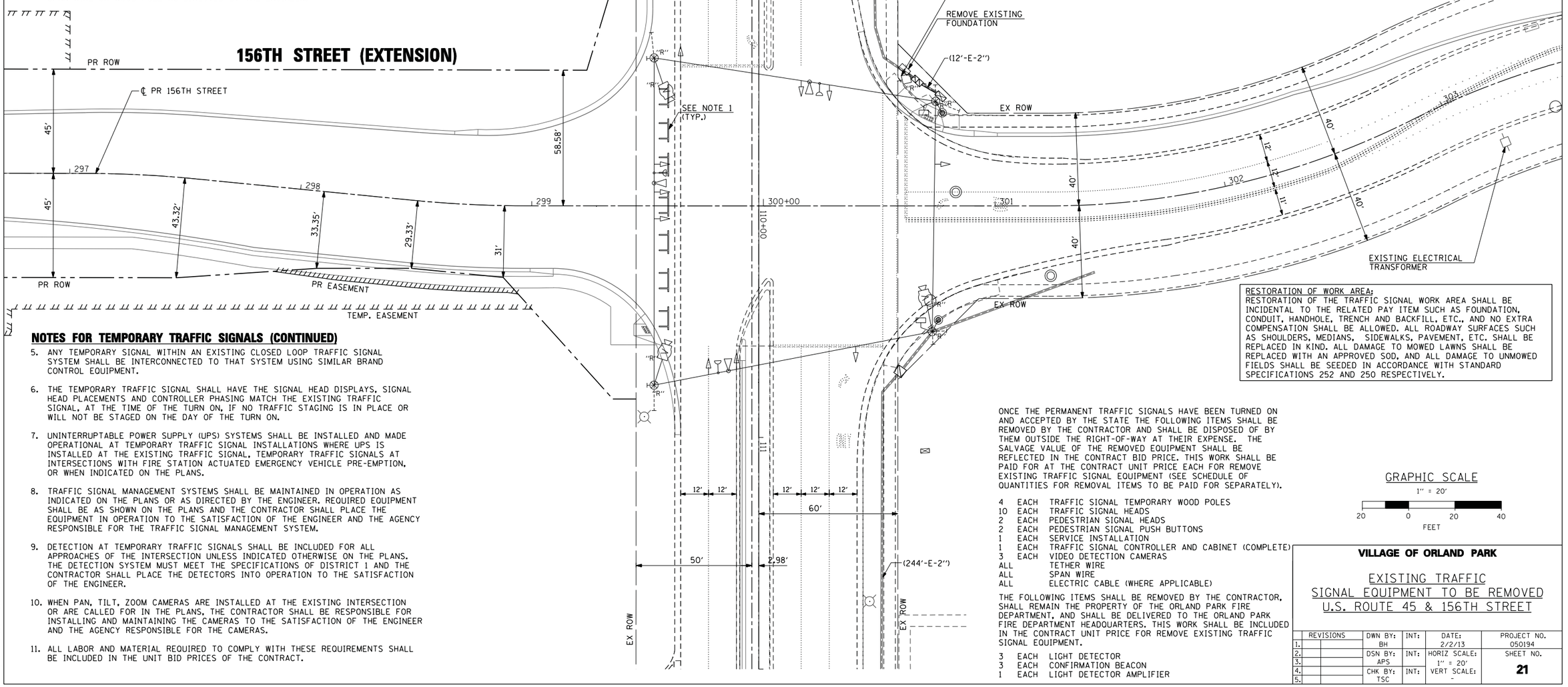
NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.



NOTES FOR TEMPORARY TRAFFIC SIGNALS (CONTINUED)

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

7. UNINTERRUPTABLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.

8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.

9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.

10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

11. ALL LABOR AND MATERIAL REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.

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THE EXISTING CONDUITS AND VEHICLE DETECTORS (WHERE APPLICABLE) SHALL BE ABANDONED.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTES:
1. THE EASTBOUND RIGHT-TURN LANE AND WEST LEG OF 156TH STREET SHALL REMAIN CLOSED TO TRAFFIC UNTIL THE PERMANENT TRAFFIC SIGNALS HAVE BEEN TURNED ON AND ACCEPTED BY THE STATE.

2. THE EXISTING INTERCONNECT TO 153RD STREET AND 158TH PLACE SHALL BE MAINTAINED WHILE THE TEMPORARY TRAFFIC SIGNALS ARE IN OPERATION. THE EXISTING AERIAL FIBER OPTIC CABLE SPANNING THE EAST LEG OF 156TH STREET SHALL BE TRANSFERRED TO THE NEW TEMPORARY WOOD POLES. ALL LABOR AND EQUIPMENT REQUIRED TO MAINTAIN THE EXISTING INTERCONNECT SHALL BE INCLUDED IN THE COST OF THE MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION.

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RESTORATION OF WORK AREA:
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

ONCE THE PERMANENT TRAFFIC SIGNALS HAVE BEEN TURNED ON AND ACCEPTED BY THE STATE THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPARATELY).

4	EACH	TRAFFIC SIGNAL TEMPORARY WOOD POLES
10	EACH	TRAFFIC SIGNAL HEADS
2	EACH	PEDESTRIAN SIGNAL HEADS
2	EACH	PEDESTRIAN SIGNAL PUSH BUTTONS
1	EACH	SERVICE INSTALLATION
1	EACH	TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
3	EACH	VIDEO DETECTION CAMERAS
ALL		TETHER WIRE
ALL		SPAN WIRE
ALL		ELECTRIC CABLE (WHERE APPLICABLE)

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE ORLAND PARK FIRE DEPARTMENT, AND SHALL BE DELIVERED TO THE ORLAND PARK FIRE DEPARTMENT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

3	EACH	LIGHT DETECTOR
3	EACH	CONFIRMATION BEACON
1	EACH	LIGHT DETECTOR AMPLIFIER

GRAPHIC SCALE
1" = 20'
20 0 20 40
FEET

VILLAGE OF ORLAND PARK

EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED
U.S. ROUTE 45 & 156TH STREET

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			BH		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			APS		1" = 20'	
4.			CHK BY:	INT:	VERT SCALE:	21
5.			TSC		-	

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NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

NOTES FOR TEMPORARY TRAFFIC SIGNALS (CONTINUED)

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

7. UNINTERRUPTABLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.

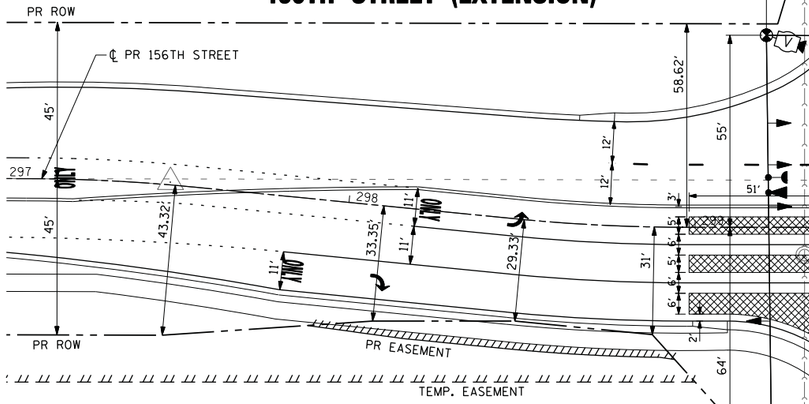
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.

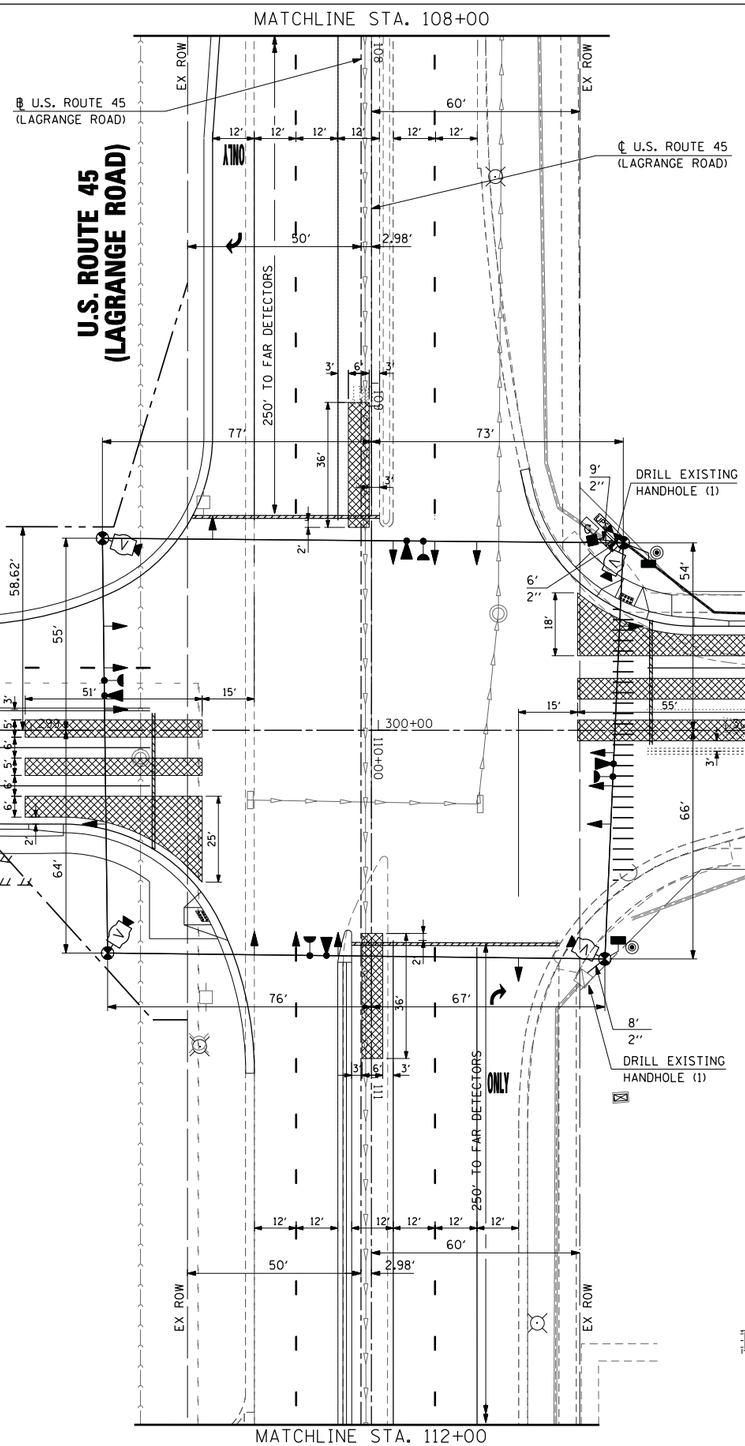
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.

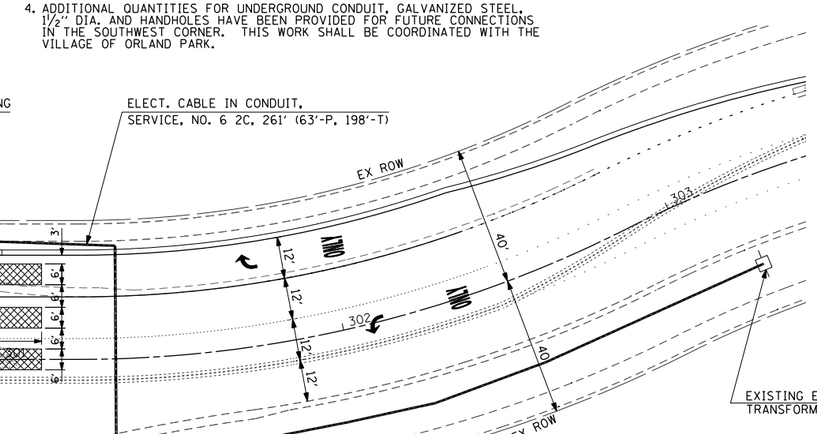
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

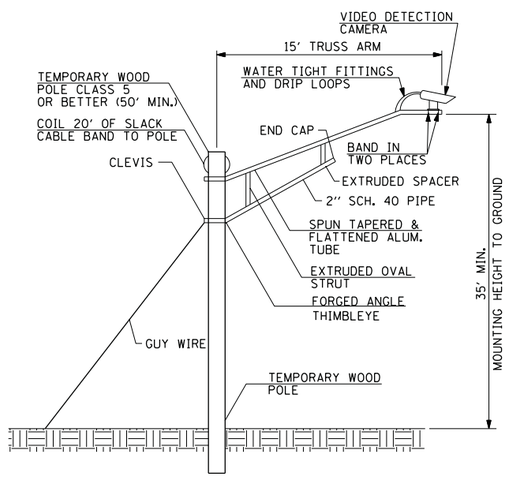
11. ALL LABOR AND MATERIAL REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.

156TH STREET (EXTENSION)









TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL

RESTORATION OF WORK AREA:
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTES:
1. THE WEST LEG OF 156TH STREET SHALL REMAIN CLOSED TO TRAFFIC UNTIL THE PERMANENT TRAFFIC SIGNALS HAVE BEEN TURNED ON AND ACCEPTED BY THE STATE.

2. THE EXISTING TRAFFIC SIGNAL INTERCONNECT ALONG U.S. ROUTE 45 SHALL BE MAINTAINED THROUGHOUT THE OPERATION OF THE TEMPORARY AND PERMANENT TRAFFIC SIGNALS (SEE INTERCONNECT SCHEMATIC).

3. THE EXISTING FIBER OPTIC AND TRACER CABLES TO 153RD STREET SHALL BE REUSED FOR THE PERMANENT INTERCONNECT. IF NECESSARY, THE SLACK FROM THE EXISTING HANDHOLES SHALL BE USED. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST FOR MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION.

4. ADDITIONAL QUANTITIES FOR UNDERGROUND CONDUIT, GALVANIZED STEEL, 1½" DIA. AND HANDHOLES HAVE BEEN PROVIDED FOR FUTURE CONNECTIONS IN THE SOUTHWEST CORNER. THIS WORK SHALL BE COORDINATED WITH THE VILLAGE OF ORLAND PARK.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE VILLAGE OF ORLAND PARK.

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GRAPHIC SCALE
1" = 20'
20 0 20 40
FEET

VILLAGE OF ORLAND PARK
TRAFFIC SIGNAL
INSTALLATION PLAN
U.S. ROUTE 45 & 156TH STREET
(SHEET 1 OF 2)

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			BH		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
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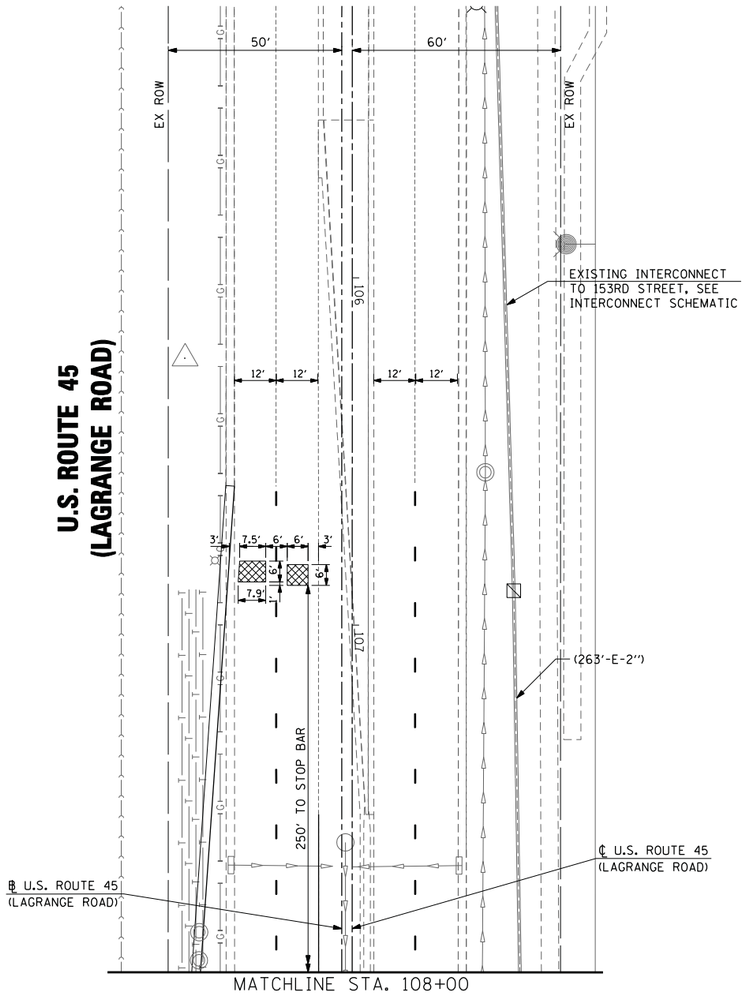

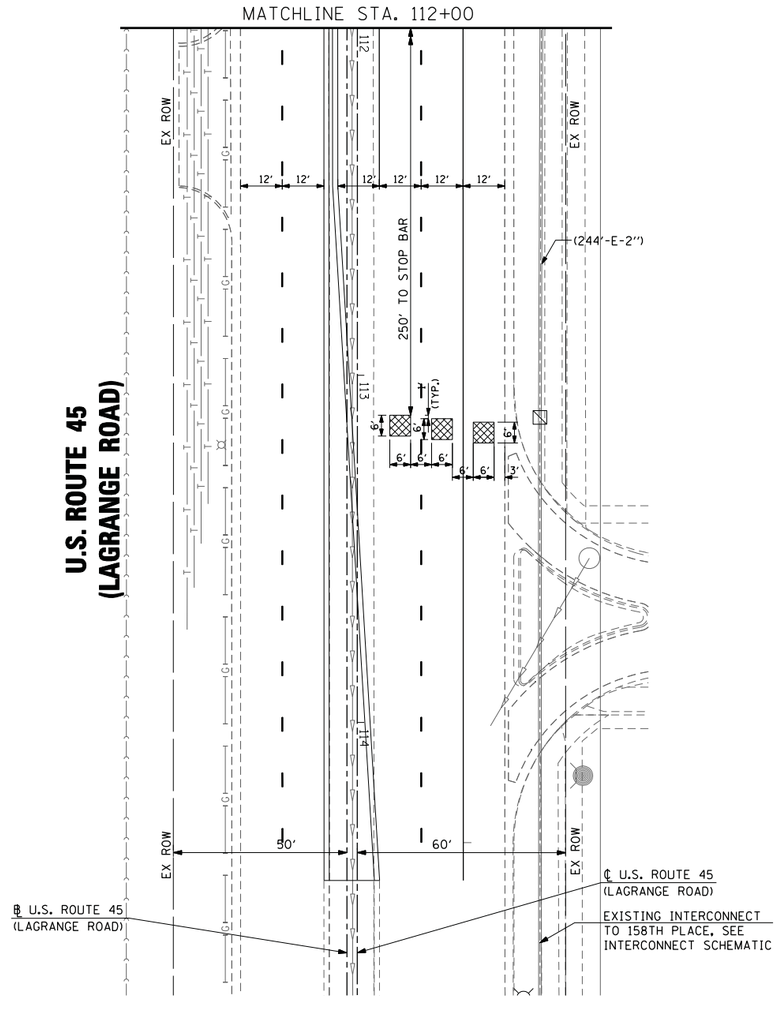

RESTORATION OF WORK AREA:
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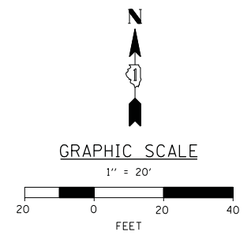

VILLAGE OF ORLAND PARK

TRAFFIC SIGNAL
INSTALLATION PLAN
U.S. ROUTE 45 & 156TH STREET
(SHEET 2 OF 2)

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			BH		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
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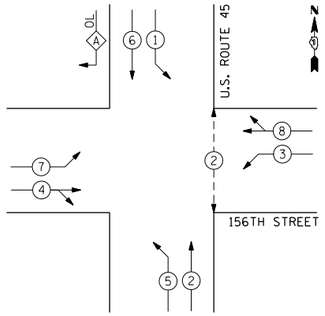
CONTROLLER SEQUENCE



* THE SIGNAL HEAD SHALL BE DISABLED WITH A BAG PLACED OVER IT UNTIL CONSTRUCTION IS COMPLETE. THIS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.

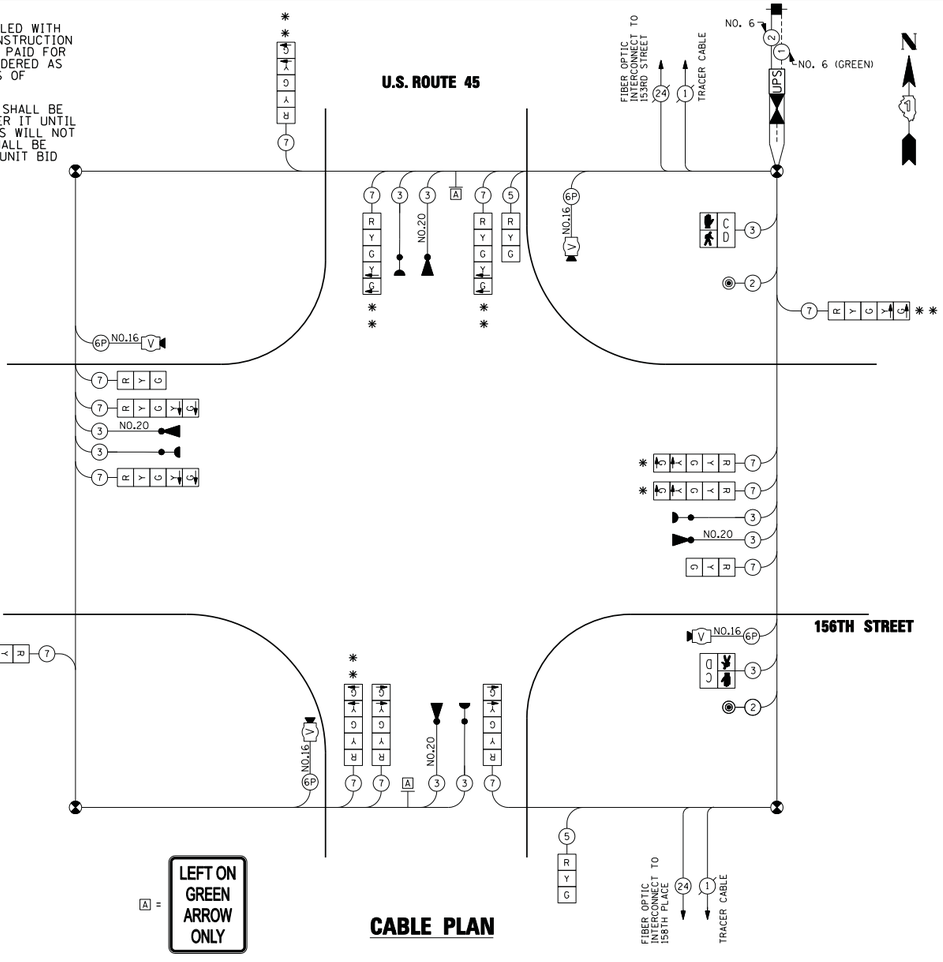
** THE SIGNAL HEAD'S TURN ARROWS SHALL BE DISABLED WITH A BAG PLACED OVER IT UNTIL CONSTRUCTION IS COMPLETE. THIS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.

OVERLAP PHASE		PERMISSIVE PHASE		PROTECTED PHASE
A	=	6	+	7

PHASE DESIGNATION DIAGRAM

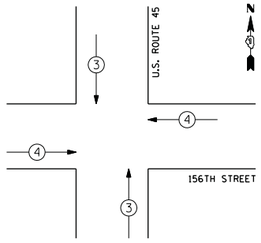
CONTROLLER SEQUENCE LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL — OVERLAP
- * — NUMBER REFERRING TO ASSOCIATED PHASE
- PEDESTRIAN PHASE



A = LEFT ON GREEN ARROW ONLY

CABLE PLAN



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↓↑	←

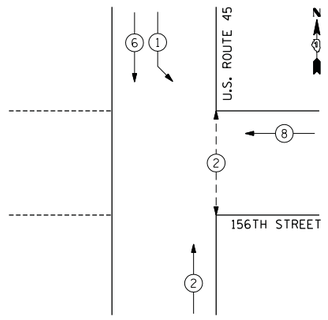
EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	28		12	0.10	33.6
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
				TOTAL =	529.6

ENERGY COSTS TO: VILLAGE OF ORLAND PARK
14700 S. RAVINIA AVENUE
ORLAND PARK, IL 60462

ENERGY SUPPLY CONTACT: KATHRYN SURGUE
PHONE: 1 (708) 235-2337
COMPANY: COMMONWEALTH EDISON

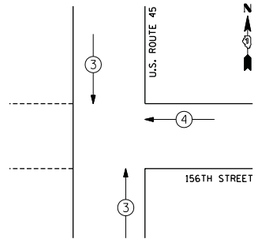
CONTROLLER SEQUENCE



CONTROLLER SEQUENCE LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL — OVERLAP
- * — NUMBER REFERRING TO ASSOCIATED PHASE
- PEDESTRIAN PHASE

DURING CONSTRUCTION PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTORS		
PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↓↑	←

DURING CONSTRUCTION EMERGENCY VEHICLE PREEMPTION SEQUENCE

SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	44
SIGN PANEL - TYPE 2	SQ FT	13.5
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 1 1/2" DIA.	FOOT	920
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	36
HANDHOLE	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3
SPAN WIRE	FOOT	534
TETHER WIRE	FOOT	534
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	261
ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 2C	FOOT	804
ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 3C	FOOT	1496
ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 5C	FOOT	271
ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 7C	FOOT	2506
ELECTRIC CABLE AERIAL SUSPENDED, COMMUNICATION, NO. 16 6 PAIR	FOOT	812
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	32
DRILL EXISTING HANDHOLE	EACH	2
LIGHT DETECTOR	EACH	4
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
ELECTRIC CABLE AERIAL SUSPENDED NO. 20 3/C, TWISTED, SHIELDED	FOOT	692
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, SPAN WIRE MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE 5-SECTION, SPAN WIRE MOUNTED	EACH	12
VIDEO DETECTION SYSTEM	EACH	1
TEMPORARY TRAFFIC SIGNAL, WOOD POLE	EACH	4
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE VILLAGE OF ORLAND PARK.

VILLAGE OF ORLAND PARK

CABLE PLAN AND PHASE DESIGNATION DIAGRAM
U.S. ROUTE 45 & 156TH STREET

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			BH		2/3/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			APS		NONE	
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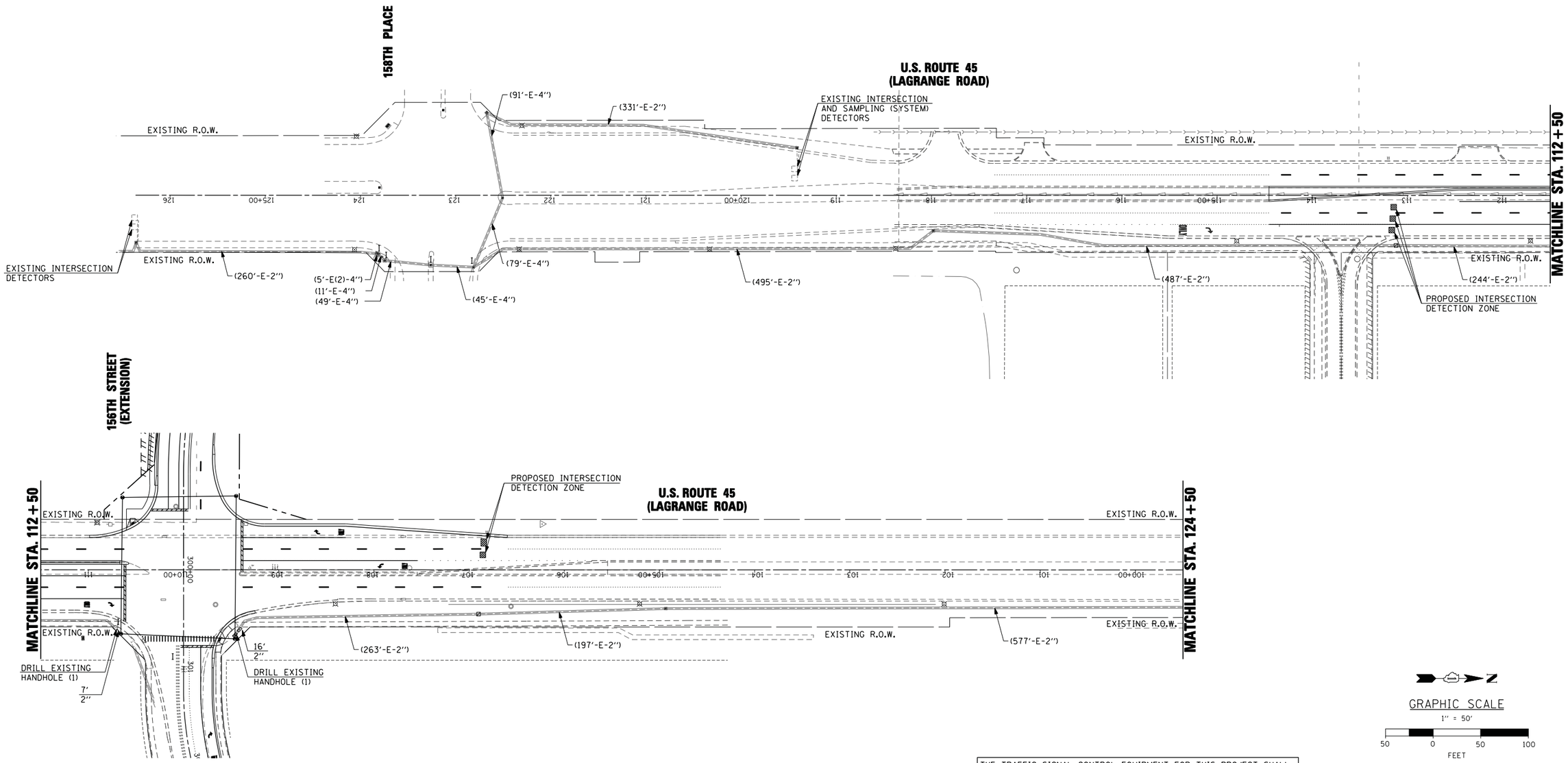

NOTES:
1. THE EXISTING TRAFFIC SIGNAL INTERCONNECT ALONG U.S. ROUTE 45 SHALL BE MAINTAINED THROUGHOUT THE OPERATION OF THE TEMPORARY AND PERMANENT TRAFFIC SIGNALS (SEE INTERCONNECT SCHEMATIC).

2. THE EXISTING INTERCONNECT TO 153RD STREET AND 158TH PLACE SHALL BE MAINTAINED WHILE THE TEMPORARY TRAFFIC SIGNALS ARE IN OPERATION. THE EXISTING AERIAL FIBER OPTIC CABLE SPANNING THE EAST LEG OF 156TH STREET SHALL BE TRANSFERRED TO THE NEW TEMPORARY WOOD POLES. IF NECESSARY, THE SLACK FROM THE EXISTING HANDHOLES SHALL BE USED. ALL LABOR AND EQUIPMENT REQUIRED TO MAINTAIN THE EXISTING INTERCONNECT SHALL BE INCLUDED IN THE COST OF THE MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

GRAPHIC SCALE
1" = 50'
50 0 50 100
FEET

VILLAGE OF ORLAND PARK

TRAFFIC SIGNAL INTERCONNECT PLAN
U.S. ROUTE 45 & 156TH STREET
(SHEET 1 OF 2)

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			BH		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			APS		1" = 50'	
4.			CHK BY:	INT:	VERT SCALE:	25
5.			TSC		-	

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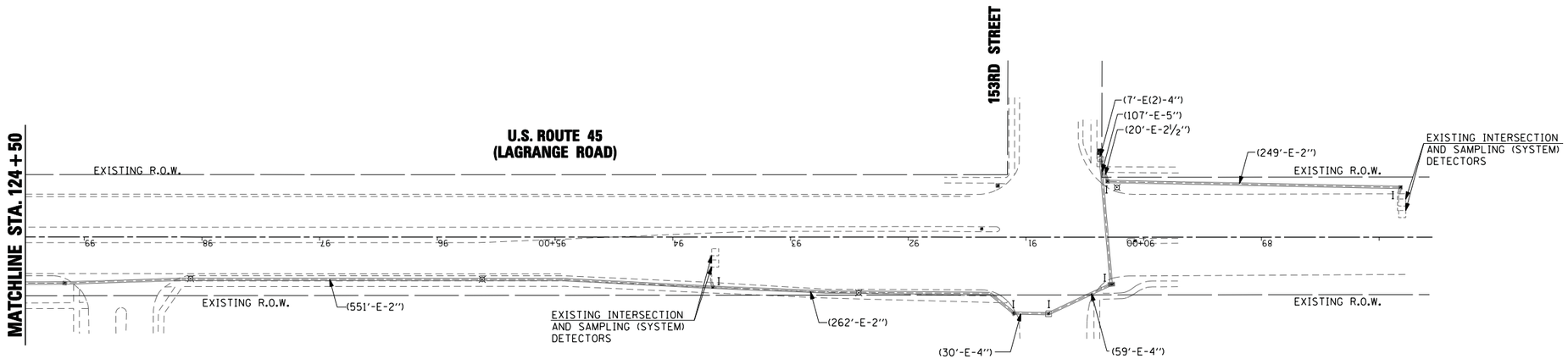

GRAPHIC SCALE
1" = 50'
50 0 50 100
FEET

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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VILLAGE OF ORLAND PARK

TRAFFIC SIGNAL INTERCONNECT PLAN U.S. ROUTE 45 & 156TH STREET (SHEET 2 OF 2)

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			BH		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			APS		1" = 50'	
4.			CHK BY:	INT:	VERT SCALE:	26
5.			TSC		-	

COMPANY NAME: #(COMPANY NAME)
PROJECT CONTACT: #(PROJECT CONTACT)
CLIENT: #(CLIENT)
2/2/2013 7:29:16 AM
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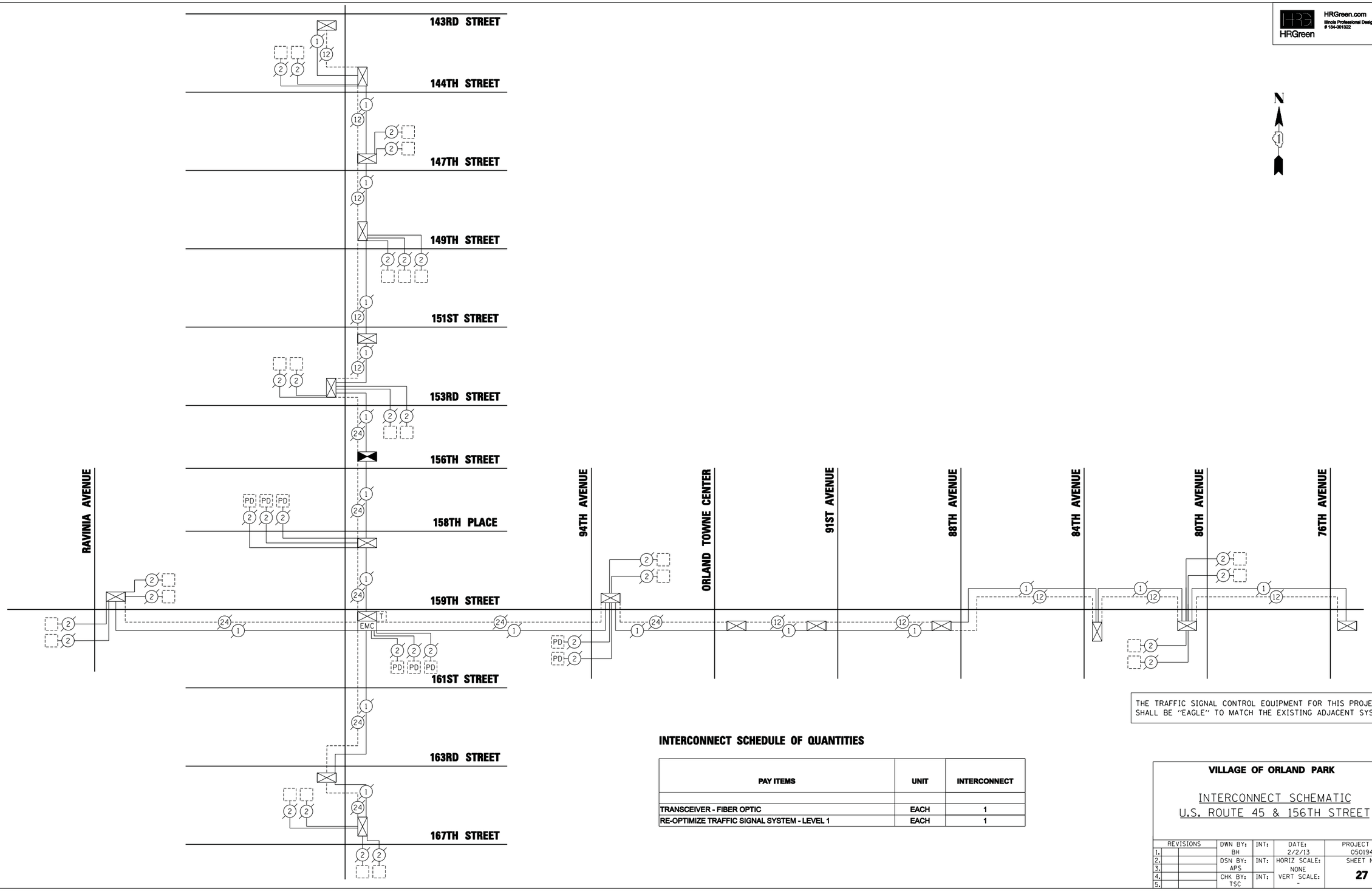

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184-001322
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N

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

INTERCONNECT SCHEDULE OF QUANTITIES

PAY ITEMS	UNIT	INTERCONNECT
TRANSCEIVER - FIBER OPTIC	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL 1	EACH	1

VILLAGE OF ORLAND PARK

INTERCONNECT SCHEMATIC
U.S. ROUTE 45 & 156TH STREET

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			BH		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			APS		NONE	
4.			CHK BY:	INT:	VERT SCALE:	27
5.			TSC		-	

COMPANY NAME: $(COMPANY NAME)
PROJECT CONTACT: $(PROJECT_CONTACT)
CLIENT: $(CLIENT)
2/2/2013 12:19:17 AM
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Illinois Professional Design Firm
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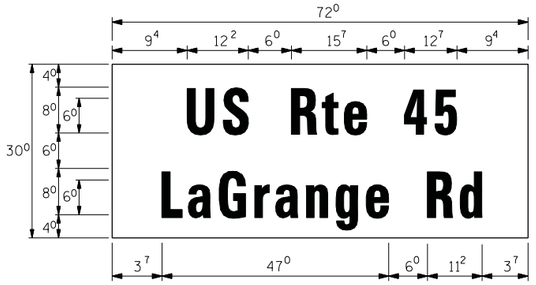
EXAMPLE, 2 ③ DENOTES 3/8"

PANEL SIGN DESIGN TYPE 2



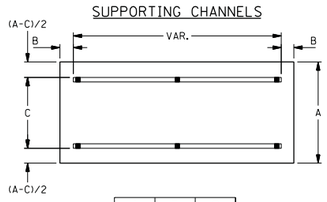
MA-1

15.0 Sq. Ft each

2 Required

Design Series D

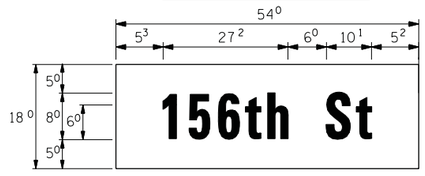
SUPPORTING CHANNELS



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

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM shall be used. See Note #5

PANEL SIGN DESIGN TYPE 1



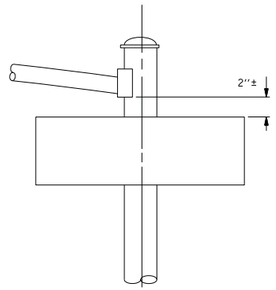
MA-2

6.75 Sq. Ft each

2 Required

Design Series D

NOTE:
THE STREET NAME SIGNS SHALL BE MOUNTED TO THE SPAN WIRE AND TETHER WIRE AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE SIGN PANEL.



SINGLE ARM

GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 2374 THROUGH 2377, AS APPLICABLE, PLUS A 2'-6" BY 6'-0" SIGN PANEL MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0"
4. ALL BORDERS SHALL BE ¾" WIDE AND CORNER RADIUS SHALL BE 2¼".
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

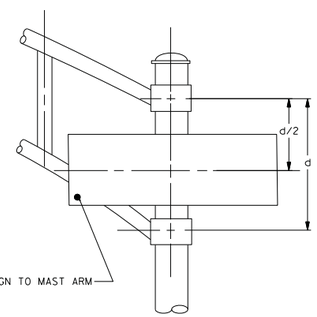
LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

- A.K.T. CORPORATION, SCHAUMBURG, IL.
- AMERICAN FABRICATION CO., CHICAGO HEIGHTS, IL.
- TUCKER COMPANY, INC., WAUWATOSA, WI.
- WESTERN TRAFFIC CONTROL, INC., CICERO, IL.

PARTS LISTING:

SIGN CHANNEL	PART 3HPN053 (MED. CHANNEL)
SIGN SCREWS	¼" X 14 X 1" H.W.H. #3 SELF TAPPING WITH NEOPREAM WASHER
BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

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



DUAL ARM

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
a d h g i j l m n q u	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
b f k o p s	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND LETTER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

6 Inch Upper Case Letters / 8 Inch Upper Case Letters / 6 Inch Lower Case Letters

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	6 INCH UPPER CASE LETTERS SERIES D	8 INCH UPPER CASE LETTERS SERIES C	8 INCH UPPER CASE LETTERS SERIES D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	6 INCH LOWER CASE LETTERS SERIES D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER

NUMBER	6 INCH SERIES C	6 INCH SERIES D	8 INCH SERIES C	8 INCH SERIES D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

VILLAGE OF ORLAND PARK

MAST ARM MOUNTED STREET NAME SIGNS

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			BH		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			APS		NONE	
4.			CHK BY:	INT:	VERT SCALE:	28
5.			TSC		-	

COMPANY NAME: #(COMPANY NAME)
PROJECT CONTACT: #(PROJECT.CONTACT)
CLIENT: #(CLIENT)
2/2/2013 7:29:19 AM
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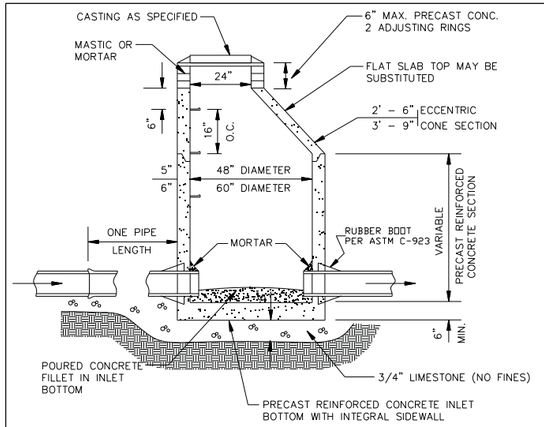
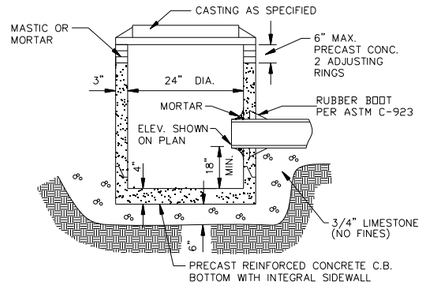


NOTES:

1.) ALT. MANHOLE BOTTOM PRECAST REINF. CONC. BASE

2.) PROVIDE CA-6 AGGREGATE BACKFILL AROUND MANHOLE TO SUBGRAGE ELEV. IN PAVED AREAS

STORM MANHOLE		
STORMMH.DWG	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
		REVISED:
Engineering Department		DRAWING NO. STS-01

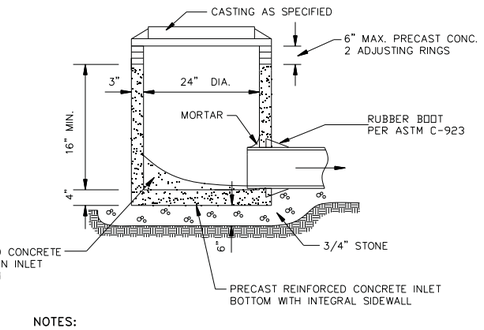


NOTES:

1.) ALT. C.B. BOTTOM = PRECAST REINFORCED CONC. BASE

2.) PROVIDE CA-6 AGGREGATE BACKFILL AROUND C.B. TO SUBGRAGE ELEV. IN PAVED AREAS

CATCHBASIN TYPE C		
CBASIN_C.DWG	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
		REVISED:
Engineering Department		DRAWING NO. STS-04

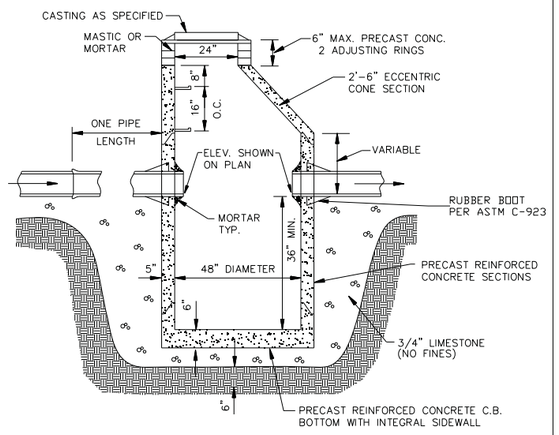


NOTES:

1.) ALT. INLET BOTTOM = PRECAST REINFORCED CONC. BASE

2.) PROVIDE CA-6 AGGREGATE BACKFILL AROUND INLET TO SUBGRAGE ELEV. IN PAVED AREAS

INLET TYPE A		
INLET_A.DWG	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
		REVISED:
Engineering Department		DRAWING NO. STS-05

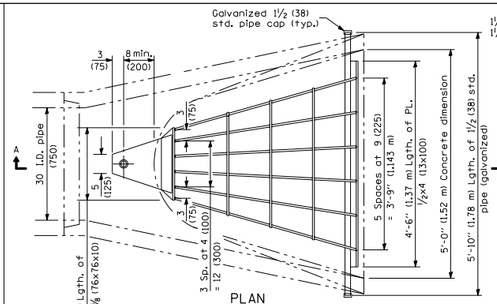


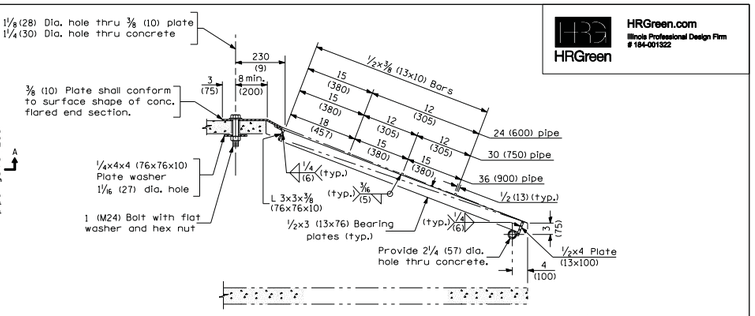
NOTES:

1.) ALT. C.B. BOTTOM = PRECAST REINF. CONC. BASE

2.) PROVIDE CA-6 AGGREGATE BACKFILL AROUND C.B. TO SUBGRADE ELEV. IN PAVED AREAS

CATCHBASIN TYPE A		
CBASIN_A.DWG	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
		REVISED:
Engineering Department		DRAWING NO. STS-02





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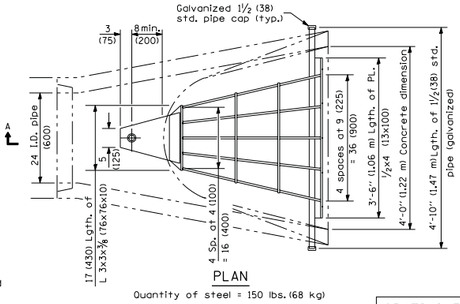
GENERAL NOTES

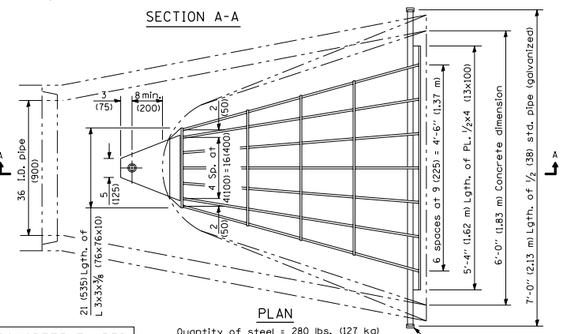
Grating details shown are intended for use with particular sizes of precast reinforced concrete flared end sections as shown on standards 542301 and 542306.

Approximate quantity of steel shown includes total quantity of grating, bolts, nuts, washers and steel pipe.

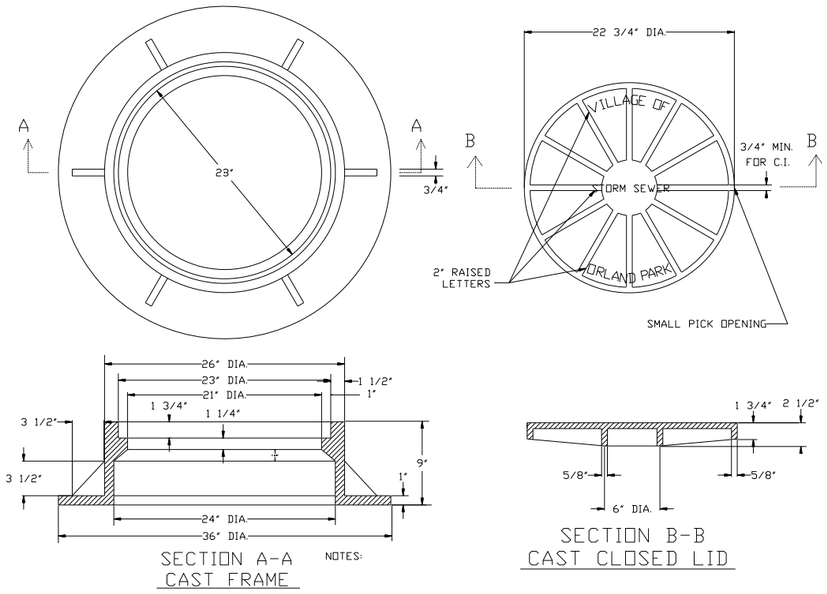
Holes in the precast concrete flared end sections shall be cored to the diameters noted. If cone-out on the other end of the hole occurs, the hole shall be filled with grout to correct the diameter of the hole.



GRATING FOR CONCRETE FLARED END SECTION (FOR 24" (600 mm) THRU 54" (1350 mm) PIPE)

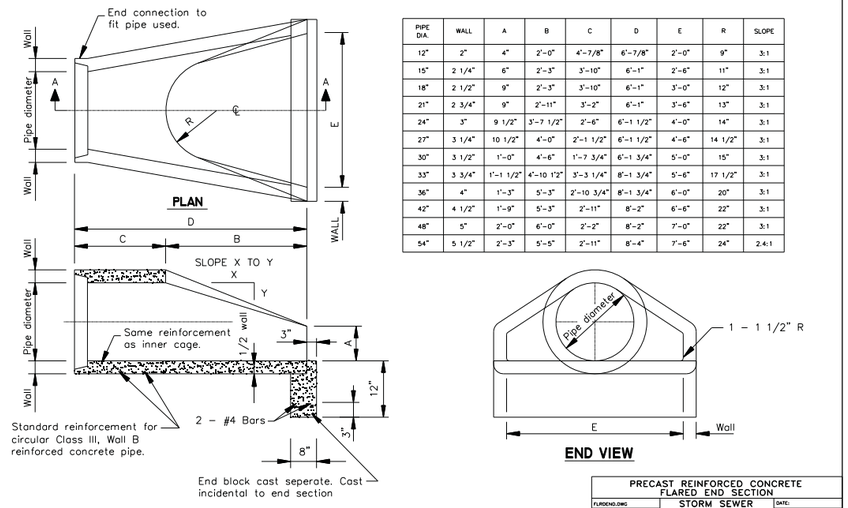


All dimensions are in inches (millimeters) unless otherwise shown.



1. DUCTILE IRON CASTINGS SHALL BE GRADE 60-40-18 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
2. ALL LIDS AND COVERS SHALL BE MACHINED.
3. THE MANHOLE COVERS SHALL HAVE RAISED LETTERS AS SHOWN.
4. ALTERNATIVE TO DUCTILE IRON LID, GRAY IRON LID MAY BE USED.
5. MINIMUM WEIGHTS FOR CASTINGS AS SHOWN.
6. CASTINGS SHALL BE EAST JORDAN IRON WORKS 1050Z1 FRAME AND 1020A COVER.

STORM SEWER FRAME & COVER		
FRAMECO.DWG	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
		REVISED:
Engineering Department		DRAWING NO. STS-14



PIPE DIA.	WALL	A	B	C	D	E	R	SLOPE
12"	2"	4"	2'-0"	4'-7/8"	6'-7/8"	2'-0"	9"	3:1
15"	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	3:1
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	3:1
21"	2 3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	13"	3:1
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	14"	3:1
27"	3 1/4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	4'-6"	14 1/2"	3:1
30"	3 1/2"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	15"	3:1
33"	3 3/4"	1'-1 1/2"	4'-10 1/2"	3'-3 1/4"	8'-1 3/4"	5'-6"	17 1/2"	3:1
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	20"	3:1
42"	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	22"	3:1
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	22"	3:1
54"	5 1/2"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	24"	2.4:1

NOTES

PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF A.A.S.H.O. M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.

PRECAST CONCRETE FLARED END SECTION FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION.

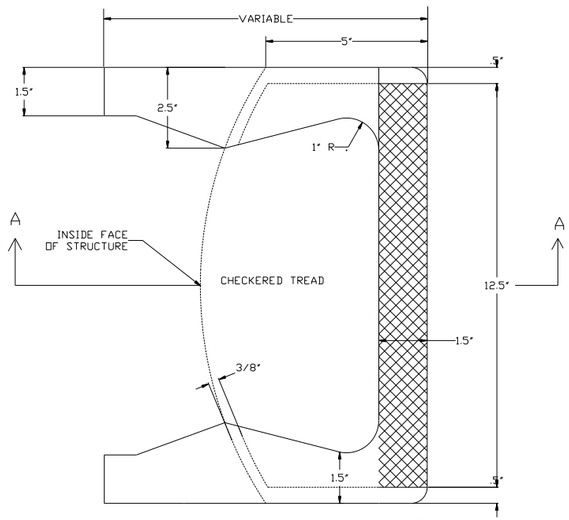
FLARED END SECTIONS 15 INCHES OR GREATER WILL REQUIRE GRATES.

PRECAST REINFORCED CONCRETE FLARED END SECTION		
FLRDECND.DWG	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
		REVISED:
Engineering Department		DRAWING NO. STS-08

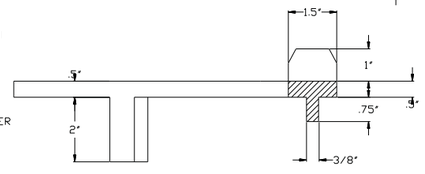
VILLAGE OF ORLAND PARK

CONSTRUCTION DETAILS

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			SVJ		2/2/13	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		NONE	
4.			CHK BY:	INT:	VERT SCALE:	29
5.			TSC		-	



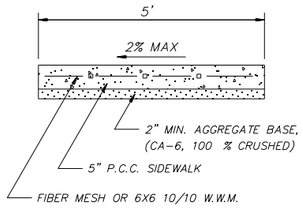
NOTES:
1. STEPS SHALL BE EMBEDDED INTO THE WALL A MINIMUM OF 3 INCHES. STEPS SHALL NOT BE EXTENDED ON THE OUTSIDE.
2. CAST IRON STEPS SHALL BE GRAY IRON CONFORMING TO THE REQUIREMENTS OF ARTICLE 710.7 OF THE STANDARD SPECS.
3. STEEL REINFORCED PLASTIC. MANHOLE STEPS SHALL BE MADE WITH AN APPROVED PLASTIC SUCH AS COPOLYMER POLYPROPYLENE MEETING WITH THE REQUIREMENTS OF ASTM DESIGNATION 2146 TYPE II GRADE 49108, RE-INFORCED WITH A DEFORMED 3/8 INCH DIAMETER REIN-FORCING BAR WHICH CONFORMS TO THE REQUIREMENTS OF ASTM DESIGNATION A-615 GRADE 60.



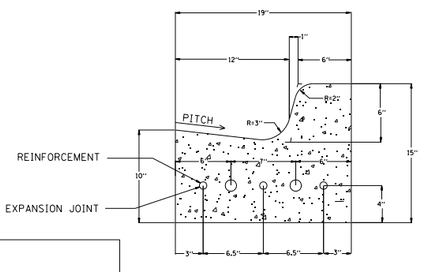
SECTION A-A
CAST IRON STEPS

CATCH BASIN-TYPE A STEP DETAIL		
STEPDETA.DWG	STORM SEWER	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
Engineering Department		REVISED:
		DRAWING NO. STS-03

SIDEWALK SECTION

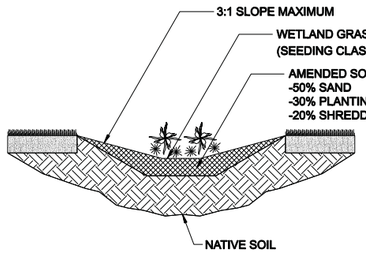


TYPICAL ALL EXTERIOR CONCRETE:
- CLASS SI CONCRETE
- 4000# CONCRETE
- CONTROL JOINTS CUT @ 5' O.C.

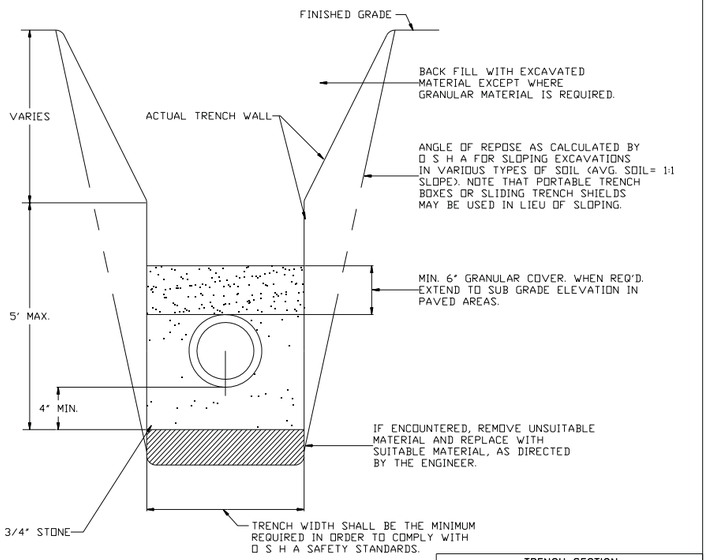


NOTES:
1. REINFORCEMENT: PROVIDE NO. 5 STEEL BARS, 10' LONG, CENTERED OVER ALL TRENCH CROSSINGS.
2. EXPANSION JOINT: PLACE AT ENDS OF ALL RADII AND AT 60' MAX. INTERVALS IN STRAIGHT CURB & GUTTER. PROVIDE NO. 6 X 18" LG. SMOOTH STEEL DOWEL BARS W/1" DIA. GREASE CAP THRU EXPANSION JOINTS (3/4 " THICK BIT. FILLER MATERIAL).
3. CONTRACTION JOINT: PROVIDE 2" DEEP CONTRACTION JOINTS AT 20' INTERVALS.

B - 6.12 CURB AND GUTTER		
B-612.DWG	STREET & PAVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
Engineering Department		REVISED:
		DRAWING NO. STR-04

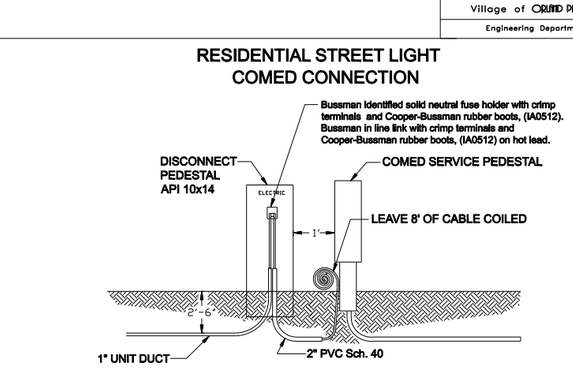


VEGETATED SILT BASIN

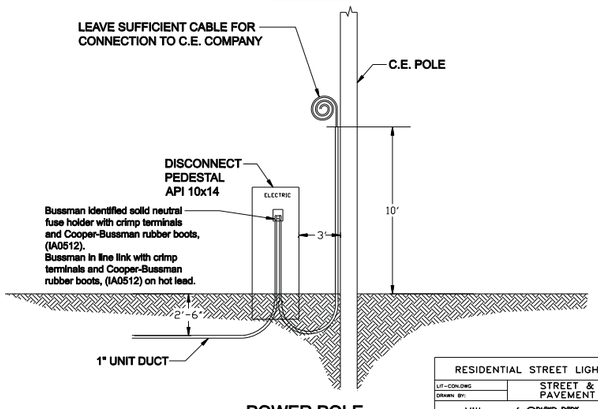


TRENCH SECTION (STORM SEWER)		
STORMTRE.DWG	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
Engineering Department		REVISED:
		DRAWING NO. STS-11

RESIDENTIAL STREET LIGHT COMED CONNECTION



PEDESTAL



POWER POLE

RESIDENTIAL STREET LIGHT CONNECTION		
LT-CON.DWG	STREET & PAVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
Engineering Department		REVISED:
		DRAWING NO. STR-07

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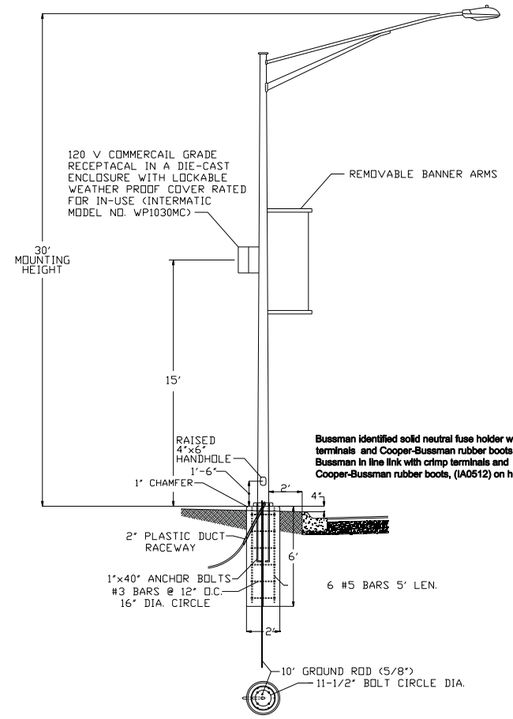
Illinois Professional Design Firm
184-001322

RESIDENTIAL STREET LIGHT
HAPCO SERIES 31 PLAIN BASE (Single Arm) POLES
TRUSS-STYLE CLAMP ON ARMS



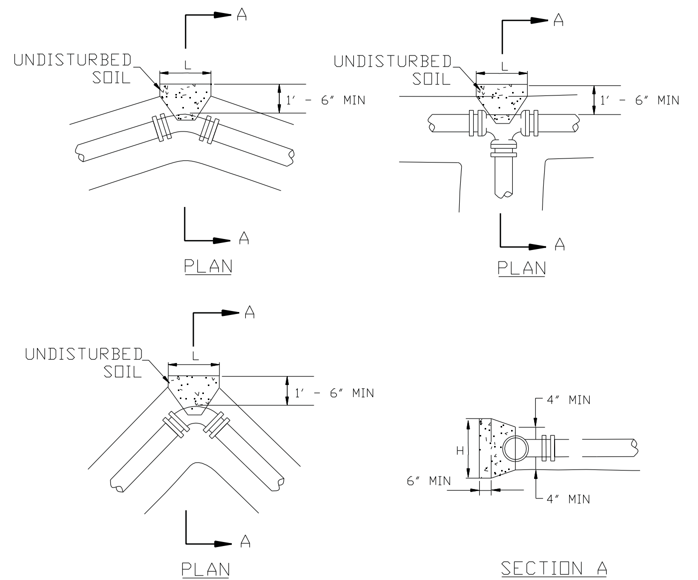
WATTAGE	VOLTAGE	MOUNTING HEIGHT	LOCATION	ARM LENGTH	PHILIPS	LUMINAIRE LENS TYPE
250 W.	240 V.	30'	Major Intersections w/County & State Roads.	12'	WL66 EVOLAIRE (WL66HTINR)	CLEAR ACRYLIC SEALED TO IP67 RATING
150 W.	240 V.	30'	All Intersections within Subdivisions. Mid-Block. Curvlinear Streets Cul-de-sacs.	12' 8' 12' 12'		

TYPICAL RESIDENTIAL STREET LIGHT		
LITESTND.DWG	STREET & PAVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
Engineering Department		REVISED:
		DRAWING NO. STR-06

VILLAGE OF ORLAND PARK

CONSTRUCTION DETAILS

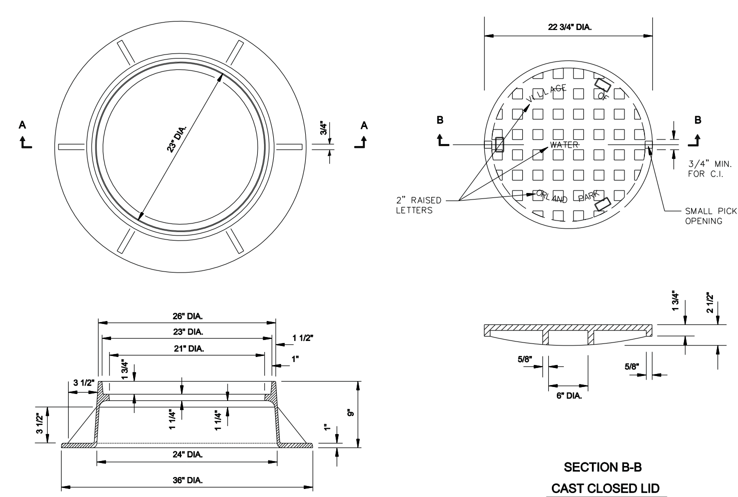
REVISIONS		DWN BY:	INT:	DATE:	PROJECT NO.
1.		SVJ		2/2/13	050194
2.		DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.		BDC		NONE	
4.		CHK BY:	INT:	VERT SCALE:	30
5.		TSC		-	



CONCRETE THRUST BLOCK DIMENSIONS										
PIPE SIZE	11-15° BEND		22-30° BEND		45°-BEND		90°-BEND		TEE & PLUG	
DIAMETER	H	L	H	L	H	L	H	L	H	L
≤ 8"	1'-6"	1'-6"	2'-0"	2'-6"	2'-6"	3'-0"	3'-6"	4'-0"	3'-0"	3'-6"
≤ 12"	1'-6"	2'-0"	2'-3"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	3'-6"	4'-0"
≤ 16"	2'-0"	2'-0"	2'-6"	3'-0"	4'-0"	4'-6"	5'-0"	6'-0"	4'-6"	5'-6"

1. ALL BLOCKING SHALL BE CONSTRUCTED WITH POURED CL. X CONCRETE AGAINST UNDISTURBED VERTICAL EARTH FACE WITH A MINIMUM WIDTH OF 12 INCHES.
2. THRUST BLOCKS TO BE USED AT ALL BENDS 11 1/4 DEGREES OR GREATER.
3. MECHANICAL JOINT RETAINER GLANDS MAY BE USED AS AN ALTERNATIVE TO CONCRETE THRUST BLOCK INSTALLATION WHEN APPROVED BY THE VILLAGE ENGINEER.
4. TEST PRESSURE 150 PSI.

CONCRETE THRUST BLOCK DETAILS
TB2.DWG | DRAWN BY: | WATER MAIN IMPROVEMENT | DATE: | REVISED: | REVISED: | REVISED:
Village of ORLAND PARK
Engineering Department | DRAWING NO. WM-10

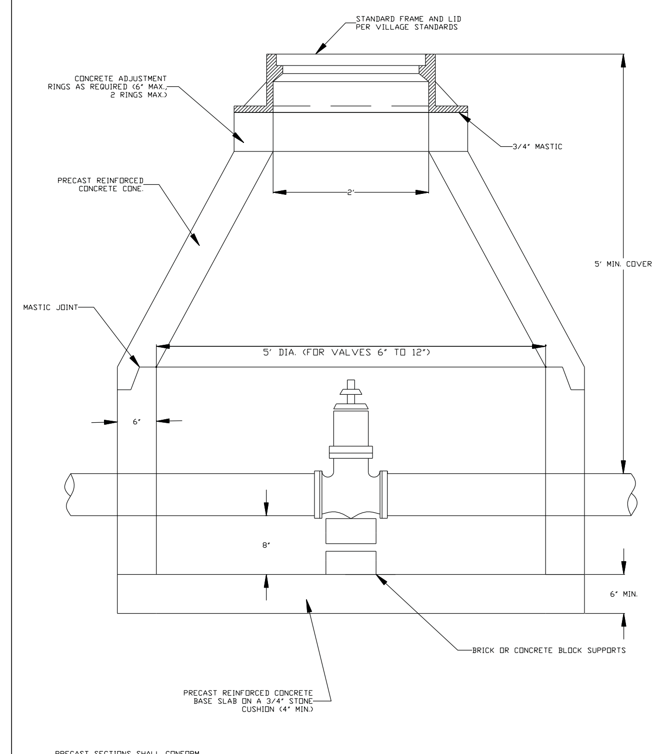


SECTION A-A
CAST FRAME
WT. = 330 LBS.

SECTION B-B
CAST CLOSED LID

1. DUCTILE IRON CASTINGS SHALL BE GRADE 60-40-18 & SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
2. ALL LIDS AND COVERS SHALL BE MACHINED
3. THE MANHOLE COVERS SHALL HAVE RAISED LETTERS AS SHOWN.
4. ALTERNATIVE TO DUCTILE IRON LID, GRAY IRON LID MAY BE USED
5. MINIMUM WEIGHTS FOR CASTINGS AS SHOWN
6. CASTINGS SHALL BE EAST JORDAN IRON WORKS 1050Z1 FRAME & 1020A COVER.

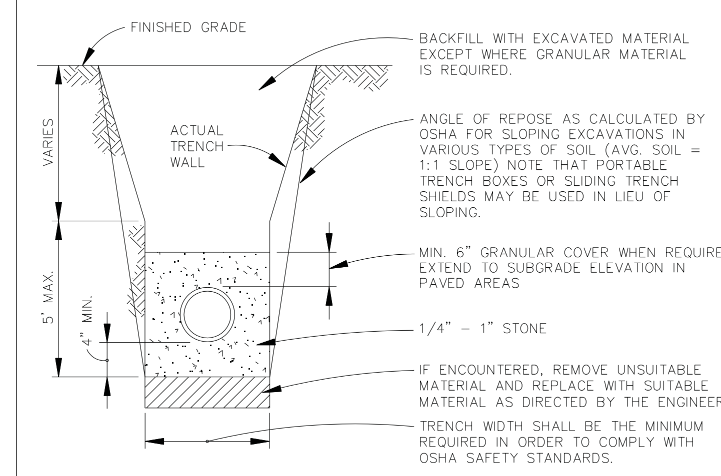
VALVE VAULT FRAME & COVER
VALVFRM.DWG | DRAWN BY: | WATER MAIN IMPROVEMENT | DATE: | REVISED: | REVISED: | REVISED:
Village of ORLAND PARK
Engineering Department | DRAWING NO. WM-03



PRECAST SECTIONS SHALL CONFORM WITH ASTM C478

VALVE VAULT
VALVEVAU.DWG | DRAWN BY: | WATER MAIN IMPROVEMENT | DATE: | REVISED: 2/24/05 | REVISED: | REVISED:
Village of ORLAND PARK
Engineering Department | DRAWING NO. WM-01

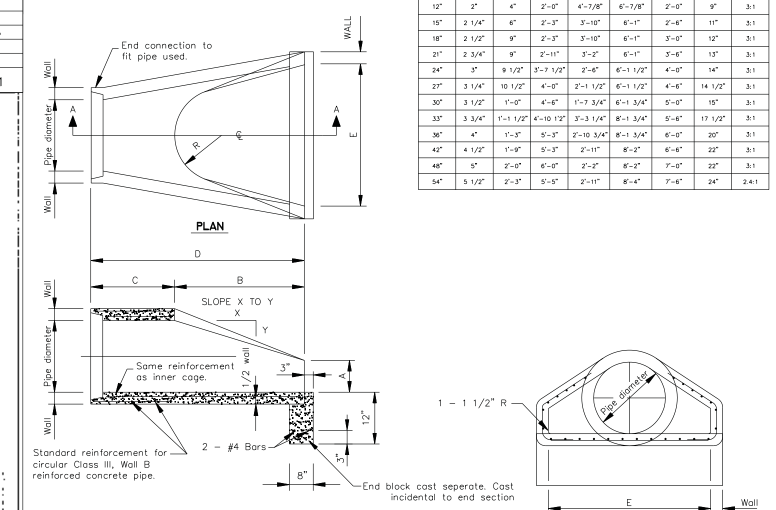
HRGreen
HRGreen.com
Illinois Professional Design Firm # 184-001322



DIP AND PVC WHEN USED AS WATER MAIN SHALL NOT REQUIRE GRANULAR BEDDING OR COVER. PROVIDE UNIFORM AND CONTINUOUS SUPPORT OF PIPE BARREL BETWEEN BELL HOLES

TRENCH SECTION (WATER MAIN)
WATTRENCH.DWG | DRAWN BY: | WATER MAIN IMPROVEMENT | DATE: | REVISED: | REVISED: | REVISED:
Village of ORLAND PARK
Engineering Department | DRAWING NO. WM-11

PIPE DIA.	WALL	A	B	C	D	E	R	SLOPE
12"	2"	4"	2'-0"	4'-7/8"	6'-7/8"	2'-0"	9"	3:1
15"	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	3:1
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	3:1
21"	2 3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	13"	3:1
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	14"	3:1
27"	3 1/4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	4'-6"	14 1/2"	3:1
30"	3 1/2"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	15"	3:1
33"	3 3/4"	1'-1 1/2"	4'-10 1'2"	3'-3 1/4"	8'-1 3/4"	5'-6"	17 1/2"	3:1
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	20"	3:1
42"	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	22"	3:1
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	22"	3:1
54"	5 1/2"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	24"	2.4:1



LONGITUDINAL SECTION

END VIEW

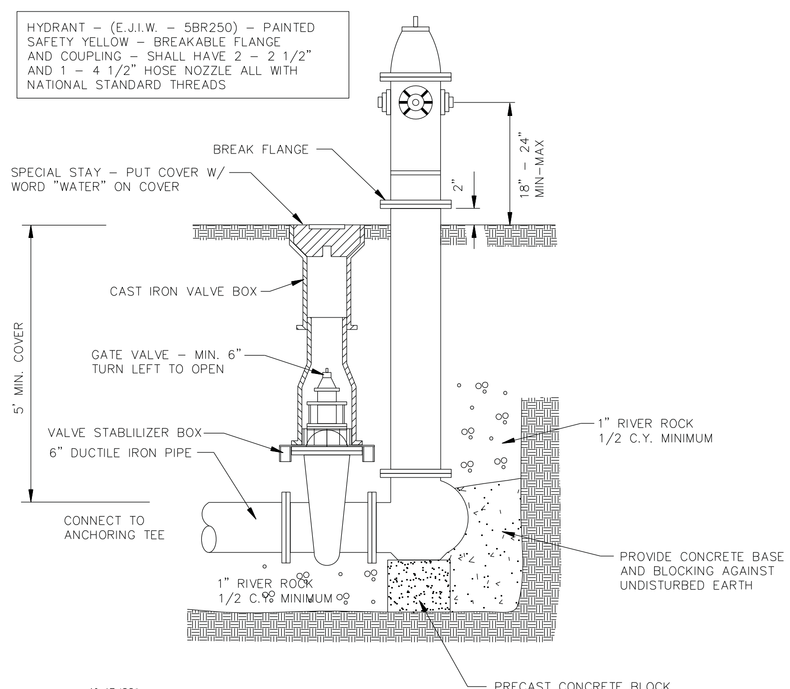
NOTES

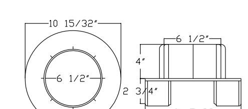
PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF A.A.S.H.O. M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.

PRECAST CONCRETE FLARED END SECTION FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION.

FLARED END SECTIONS 15 INCHES OR GREATER WILL REQUIRE GRATES.

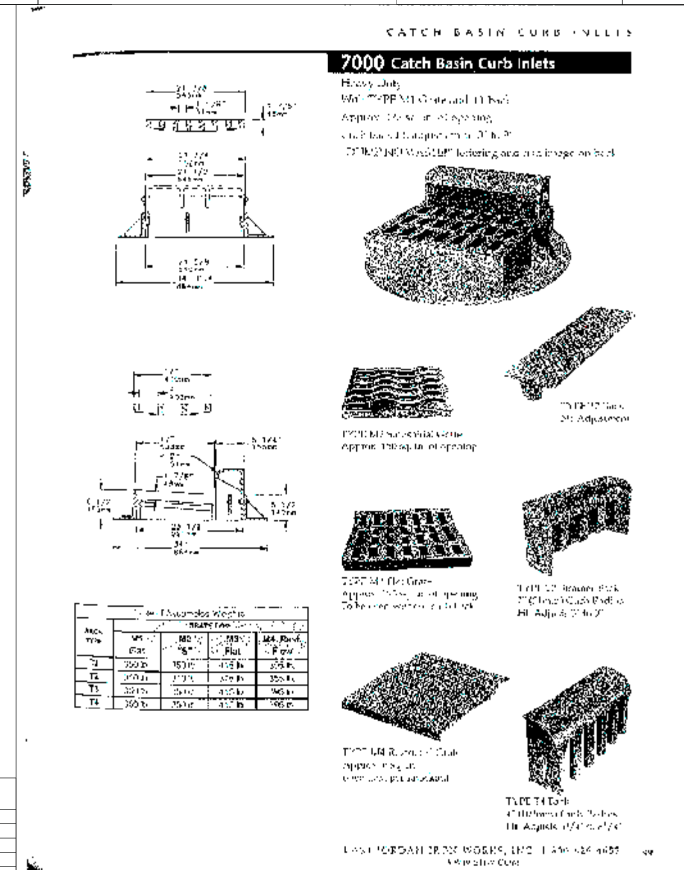
PRECAST REINFORCED CONCRETE FLARED END SECTION
FLRDEND.DWG | DRAWN BY: | STORM SEWER IMPROVEMENT | DATE: | REVISED: | REVISED: | REVISED:
Village of ORLAND PARK
Engineering Department | DRAWING NO. STS-08





VALVE STABILIZER DETAIL

HYDRANT INSTALLATION
HYDRANT.DWG | DRAWN BY: | WATER MAIN IMPROVEMENT | DATE: | REVISED: | REVISED: | REVISED:
Village of ORLAND PARK
Engineering Department | DRAWING NO. WM-06



VILLAGE OF ORLAND PARK

CONSTRUCTION DETAILS

REVISIONS	DWN BY: SVJ	INT:	DATE: 2/2/13	PROJECT NO. 050194
1.				
2.	DSN BY: BDC	INT:	HORIZ SCALE: NONE	SHEET NO. 31
3.				
4.	CHK BY: TSC	INT:	VERT SCALE: -	
5.				

COMPANY NAME: $(COMPANY_NAME)
PROJECT CONTACT: $(PROJECT_CONTACT)
CLIENT: $(CLIENT)
2/2/2013 7:29:55 AM
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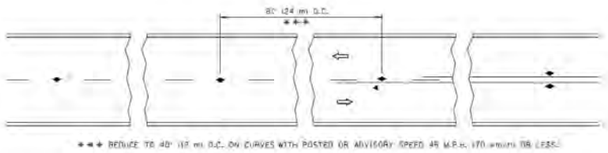
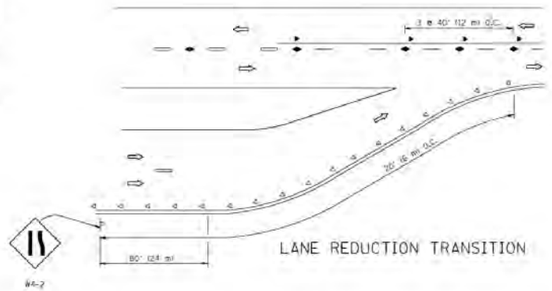
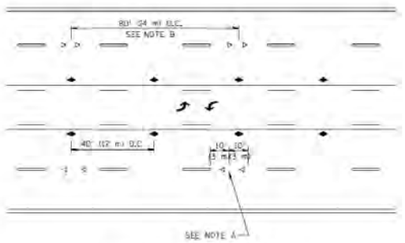
Illinois Professional Design Firm
184-001322
HRGreen



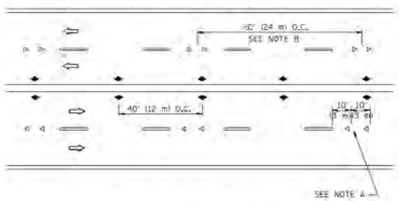
TWO-LANE/TWO-WAY



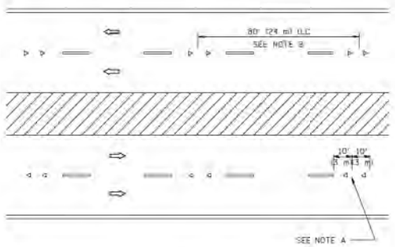
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

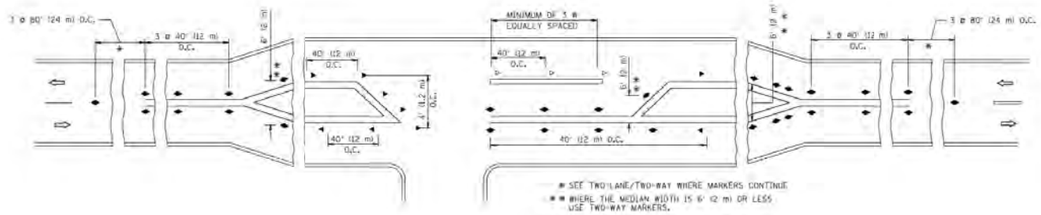
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

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

FILE NAME =	USER NAME =	DESIGNED = -	REVISED - T. RAMMACHER 09-19-94
	DRAWN = -		REVISED - T. RAMMACHER 05-12-99
	PLOT SCALE =	CHECKED = -	REVISED - T. RAMMACHER 01-06-00
	PLOT DATE = 3/2/2001	DATE = -	REVISED - C. WIENS 09-09-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

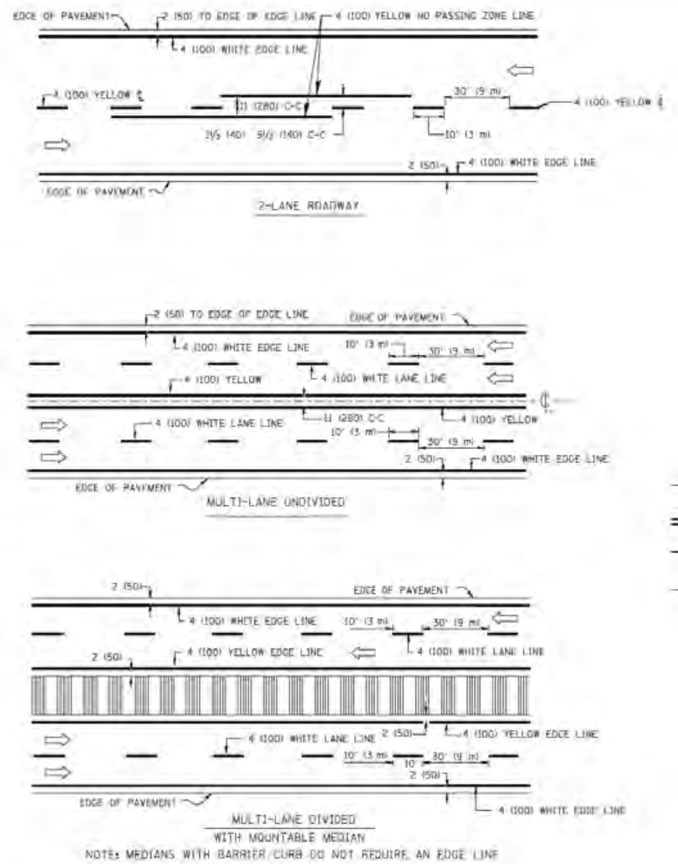
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-11	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

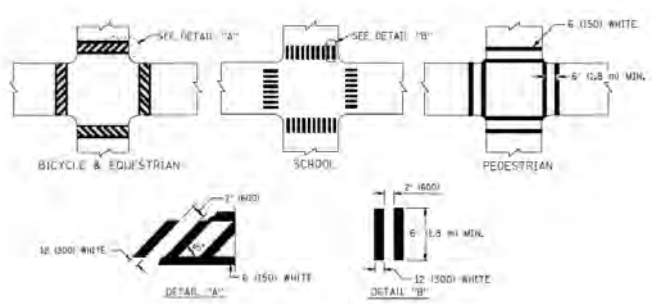
VILLAGE OF ORLAND PARK

CONSTRUCTION DETAILS

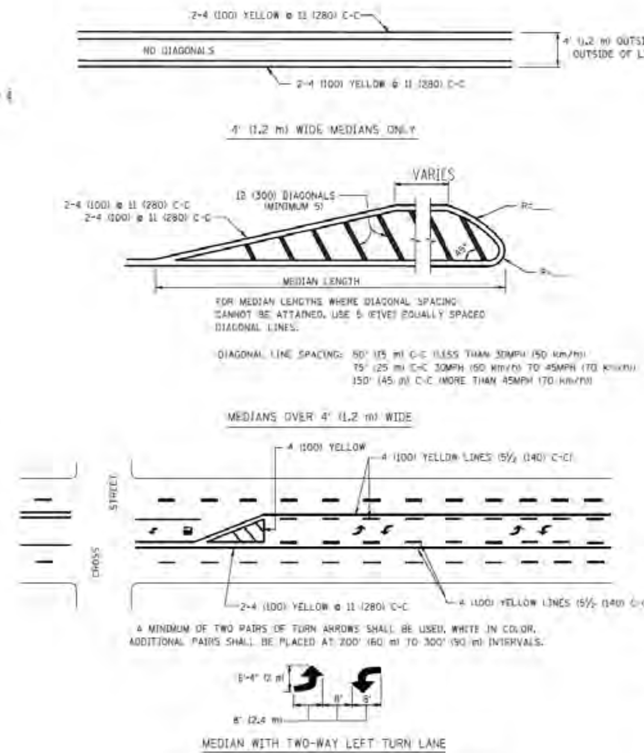
REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			SVJ		12/6/12	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		NONE	
4.			CHK BY:	INT:	VERT SCALE:	32
5.			TSC		-	



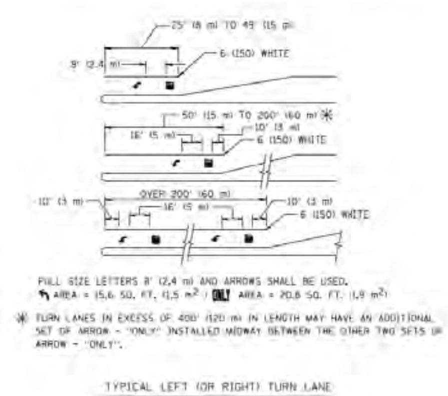
TYPICAL LANE AND EDGE LINE MARKING



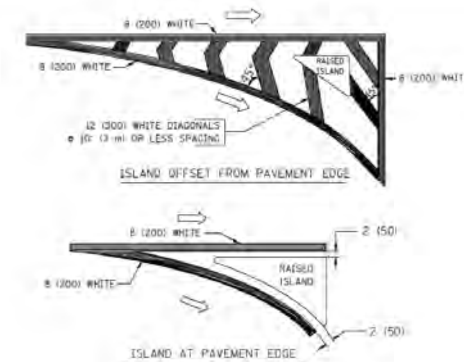
TYPICAL CROSSWALK MARKING



TYPICAL PAINTED MEDIAN MARKING



TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 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	5½ (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 MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 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; 5½ (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 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 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	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))

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.

FILE NAME	USER NAME	DESIGNED - EVERS	REVISED - T. HAMMACHER 10-27-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE TYPICAL PAVEMENT MARKINGS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE	DRAWN -	REVISED - C. JUCIUS 09-09-03			TC-13	CONTRACT NO.		
	PLOT DATE	CHECKED -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.				
		DATE - 03-19-90	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

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VILLAGE OF ORLAND PARK

CONSTRUCTION DETAILS

REVISIONS	DWN BY:	INT:	DATE:	PROJECT NO.
1.	SVJ		12/6/12	050194
2.	DSN BY: BDC	INT:	HORIZ SCALE: NONE	SHEET NO.
3.				33
4.	CHK BY: TSC	INT:	VERT SCALE: -	
5.				

COMPANY NAME: HR GREEN
PROJECT CONTACT: T.SCOTT CREECH
CLIENT: VILLAGE OF ORLAND PARK
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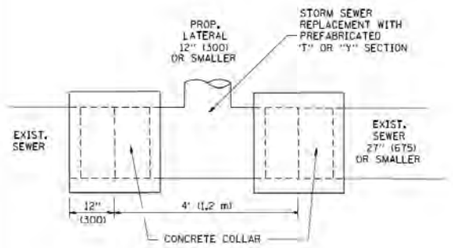
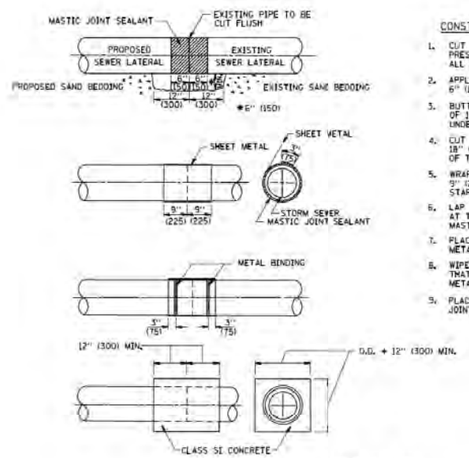


DETAIL "A"

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

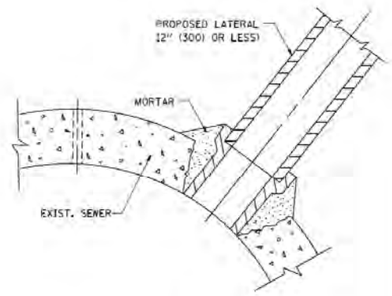


DETAIL "B"

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 (0.0418)] 18" (450) WIDE BY THE OUTSIDE CIRCUMFERANCE 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 OOZES 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

I. 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 PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

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

FILE NAME =	USER NAME =	DESIGNED - M. DE YONG	REVISED - M. DE YONG 05-08-92	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. SHAH 09-09-94							
	PLOT SCALE =	CHECKED -	REVISED - R. SHAH 10-25-94				BD500-01 (BD-7)	CONTRACT NO.		
	PLOT DATE = 1/4/2000	DATE - 07-25-96	REVISED - R. SHAH 06-12-96		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

COMPANY NAME: HR GREEN
PROJECT CONTACT: T. SCOTT CREECH
CLIENT: VILLAGE OF ORLAND PARK
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VILLAGE OF ORLAND PARK

CONSTRUCTION DETAILS

REVISIONS			DWN BY:	INT:	DATE:	PROJECT NO.
1.			SVJ		12/6/12	050194
2.			DSN BY:	INT:	HORIZ SCALE:	SHEET NO.
3.			BDC		NONE	
4.			CHK BY:	INT:	VERT SCALE:	34
5.			TSC		-	

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PROJECT CONTACT: $(PROJECT_CONTACT)
CLIENT: $(CLIENT)
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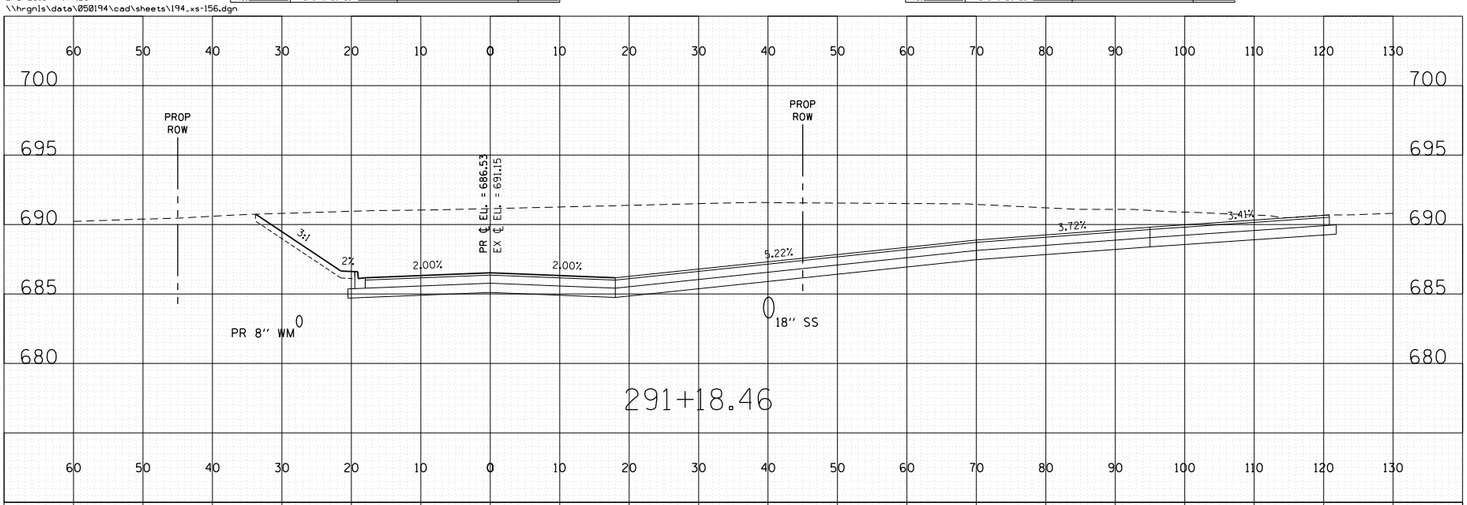

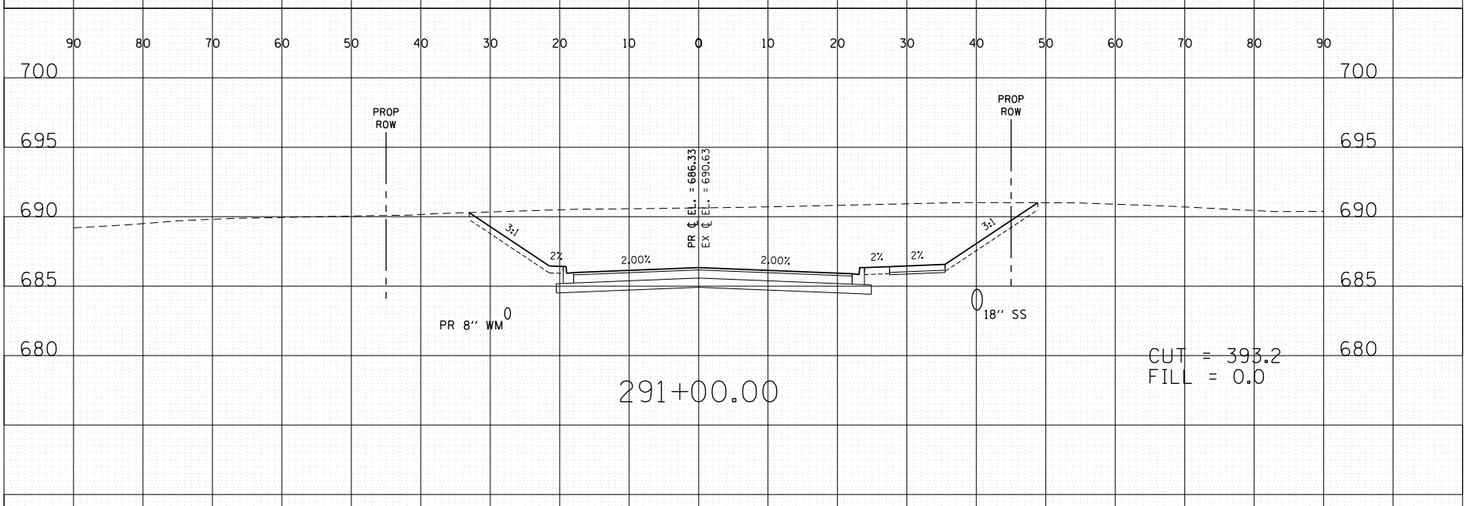

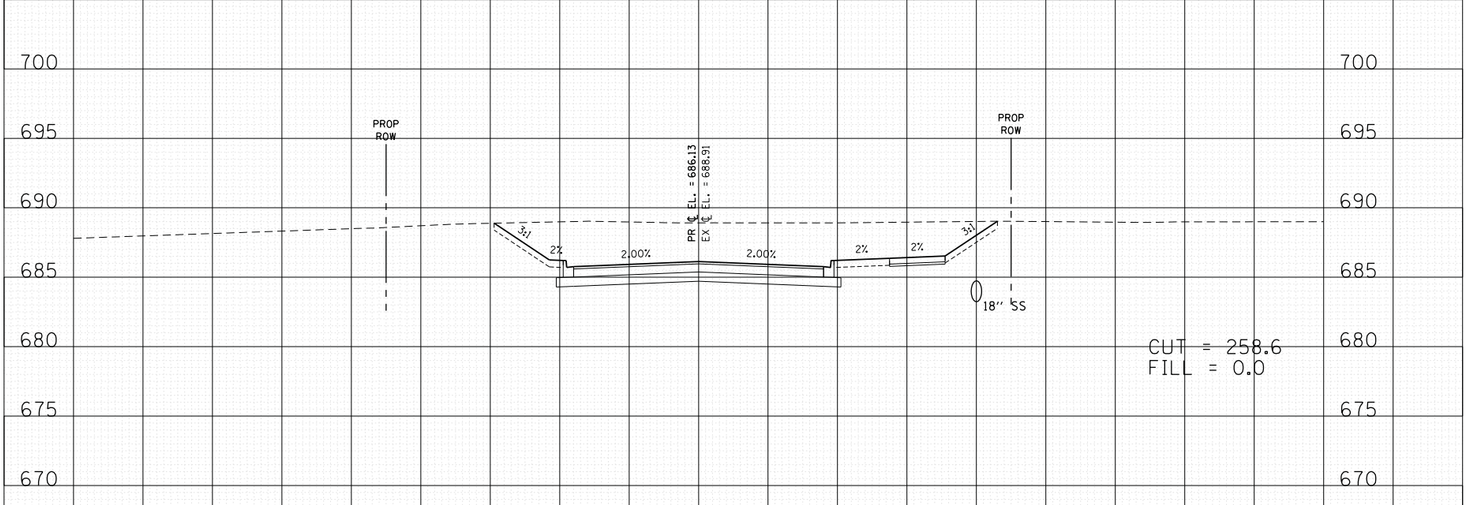

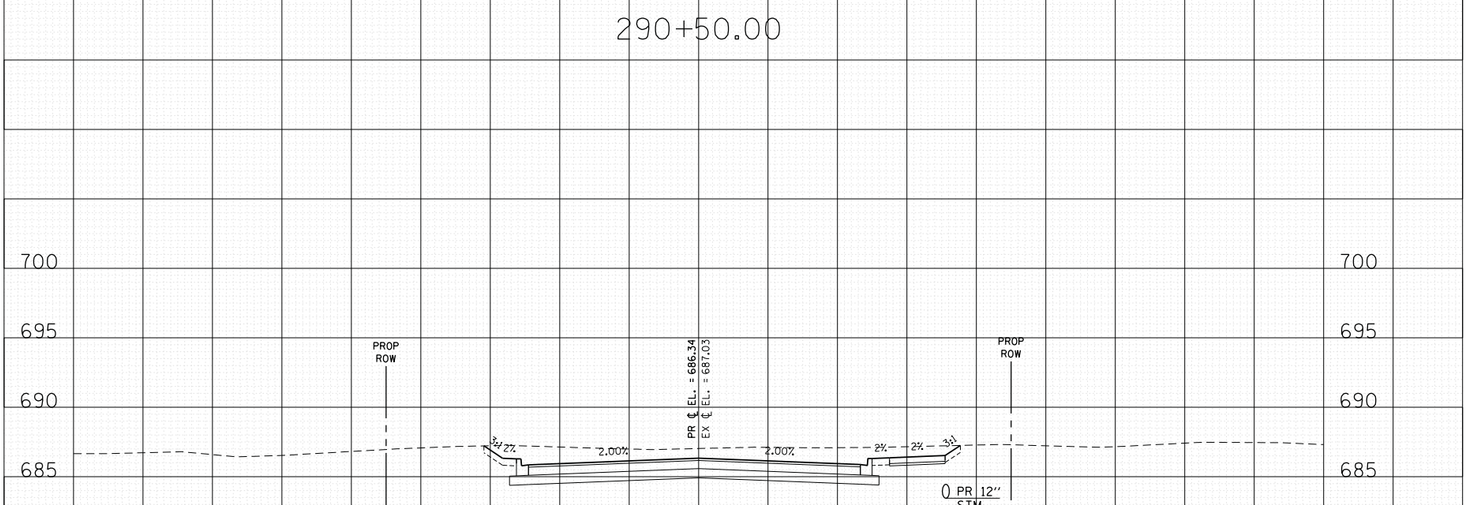

156TH STREET

CONTRACT NO.	
F.A. RTE.	
SECTION	
COUNTY	
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SHEET NO.	35
STA.	
TO STA.	
ILLINOIS FED. AID PROJECT	
FED. ROAD DIST. NO.	

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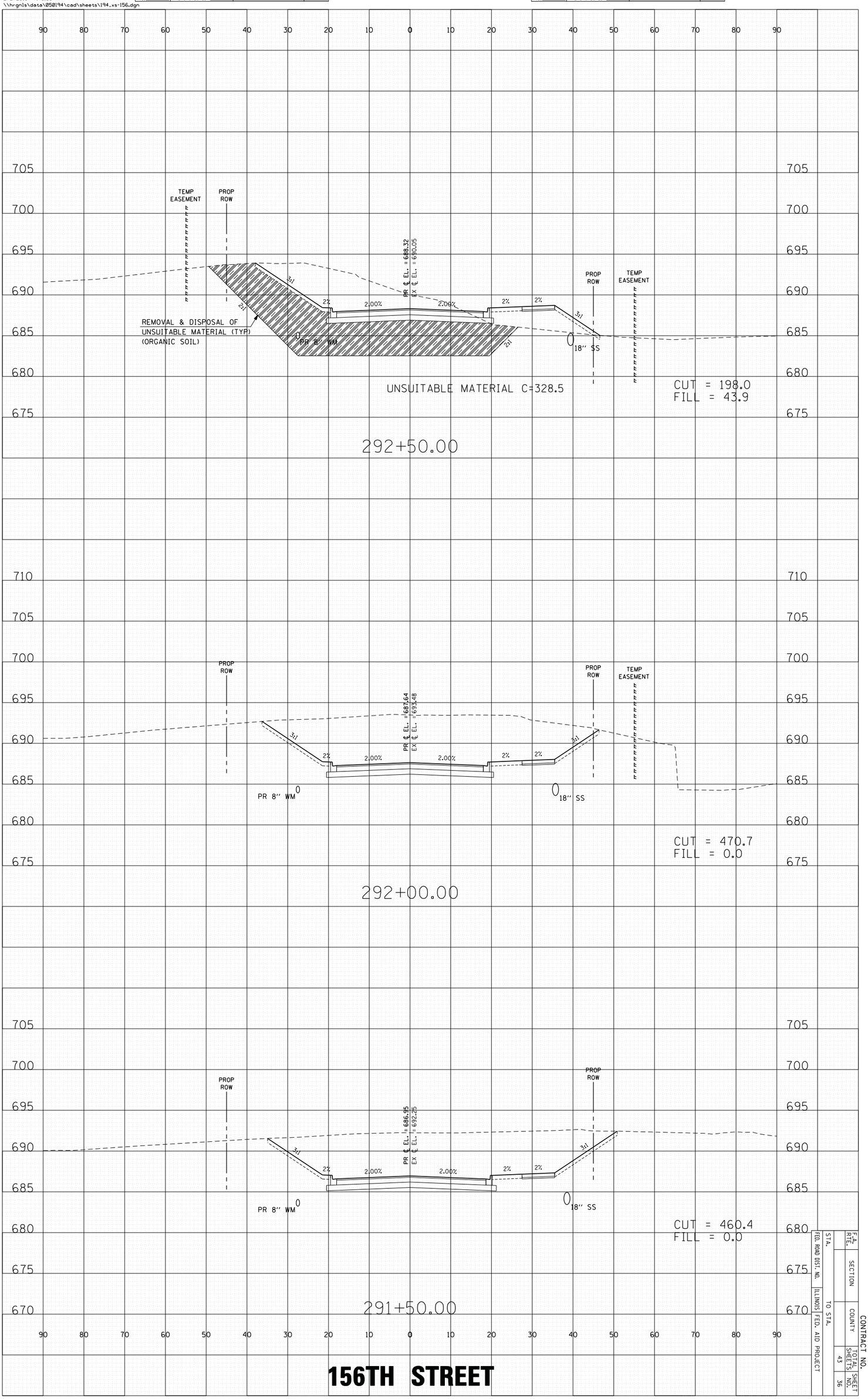

156TH STREET

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.

STA. TO STA.
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

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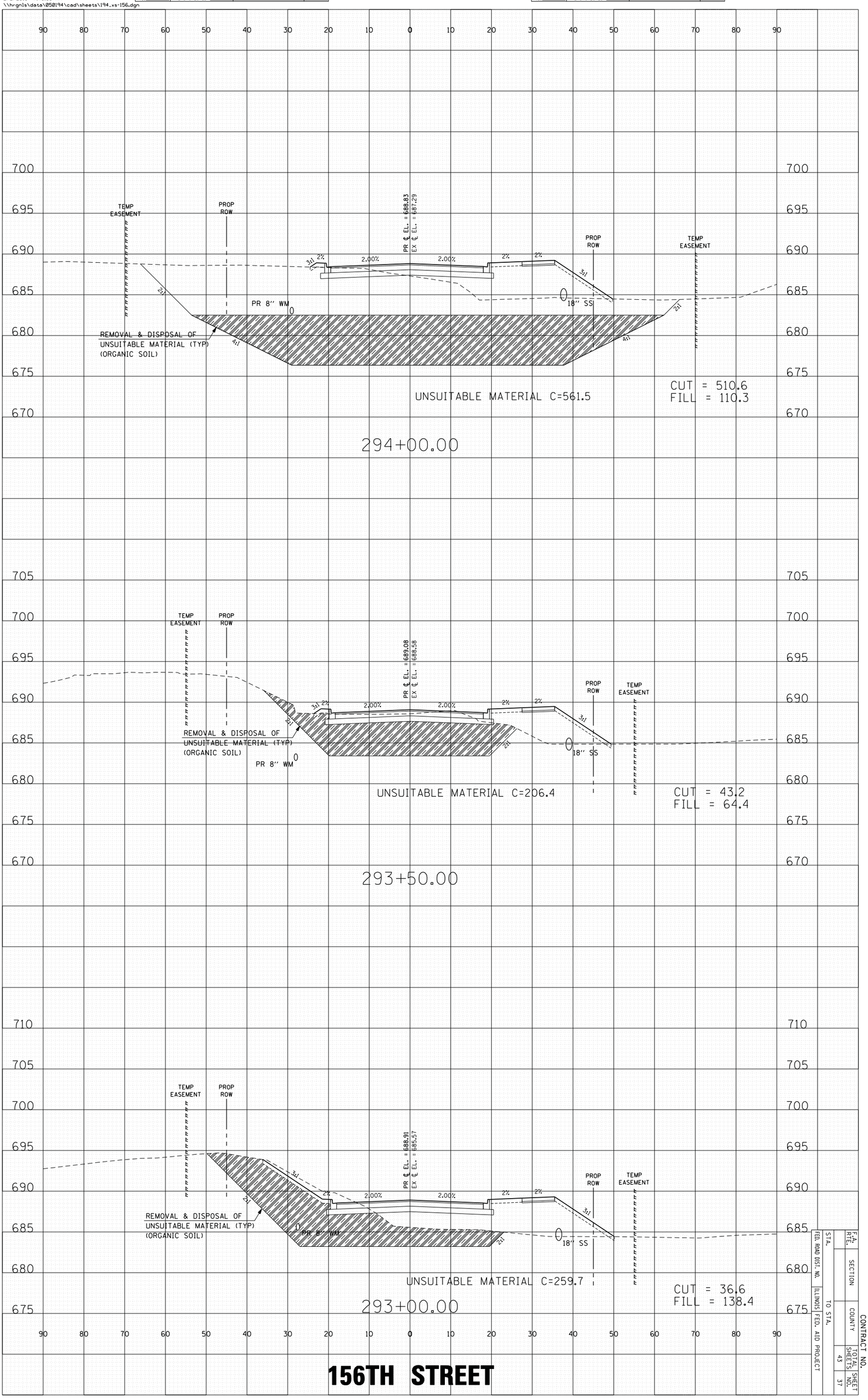

156TH STREET

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			43	37

CONTRACT NO.

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

STA. TO STA.

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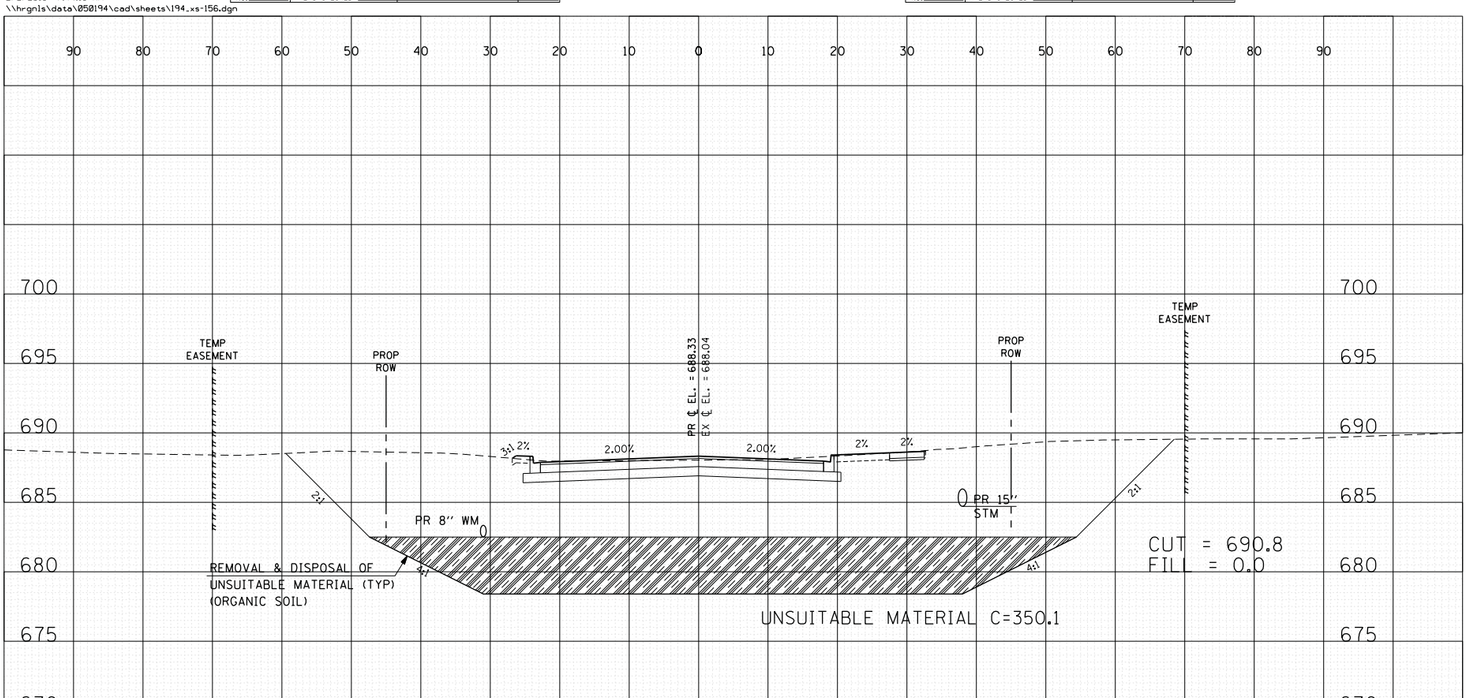

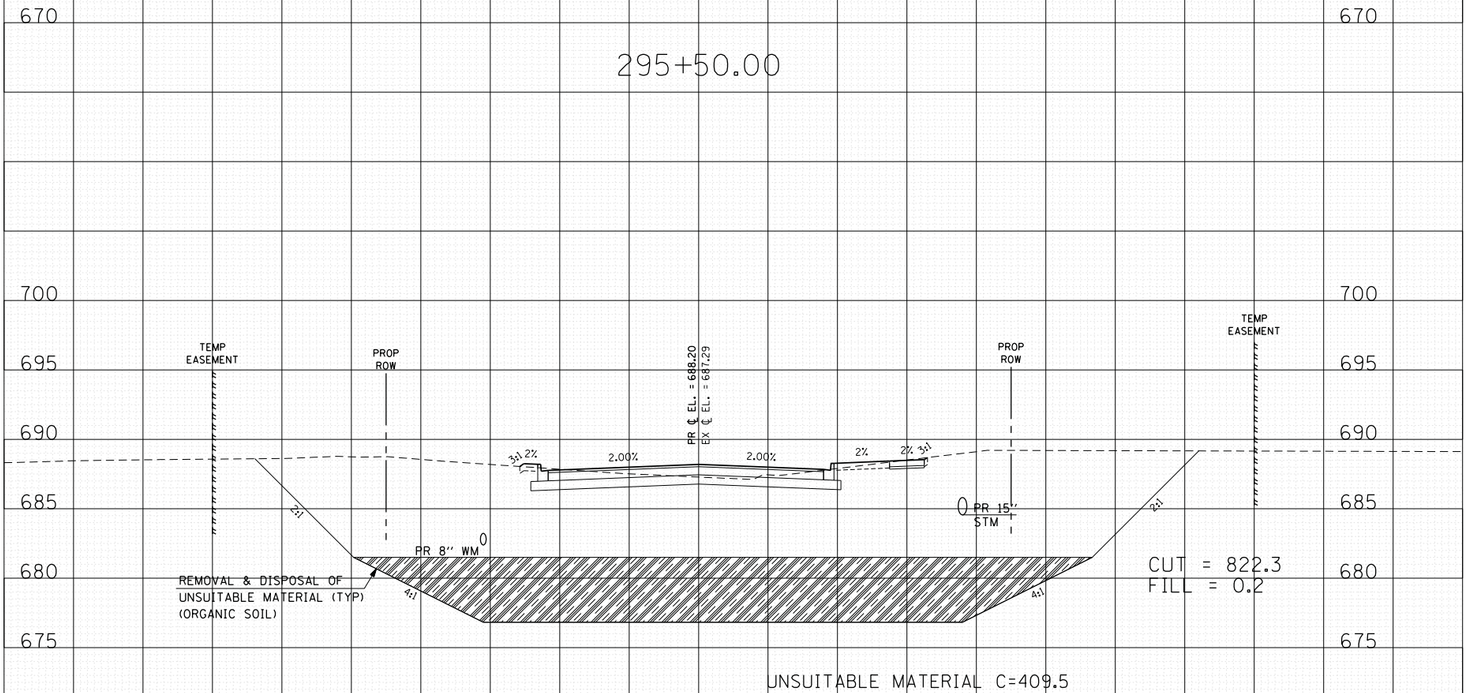

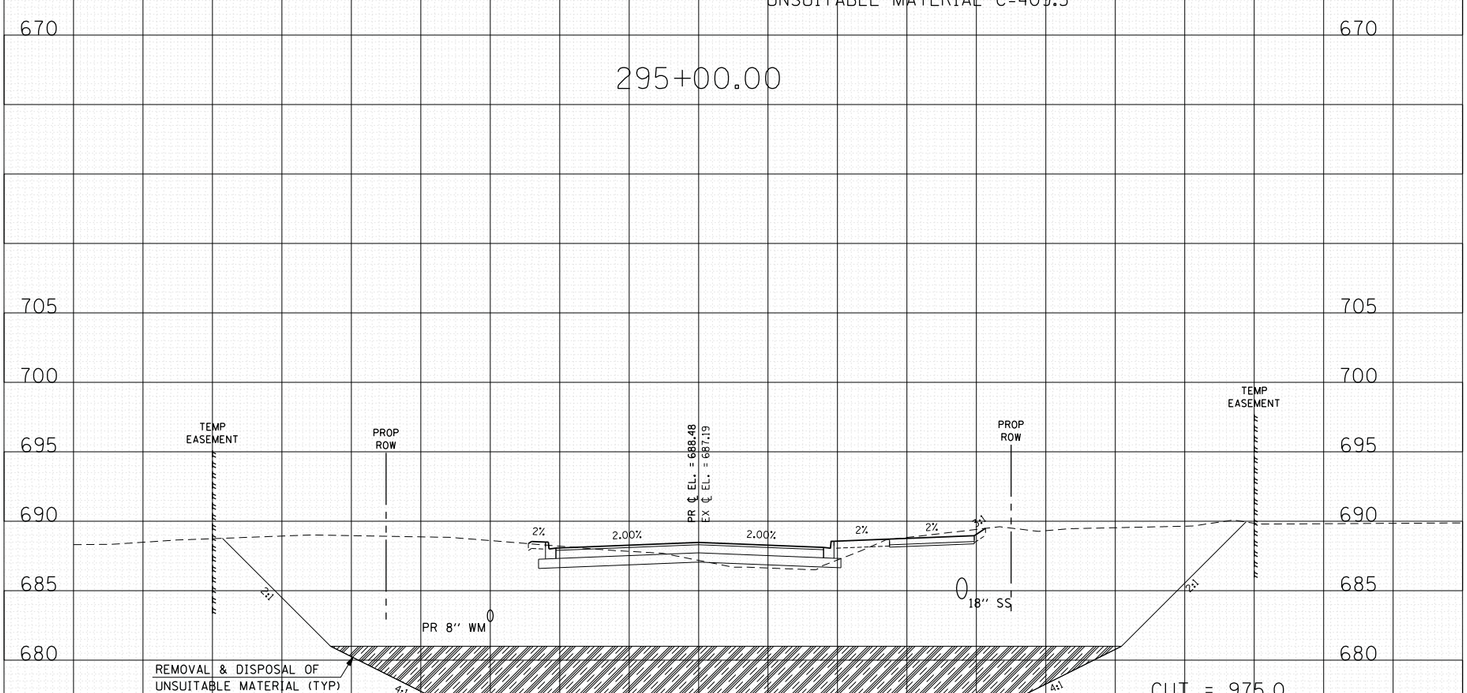

156TH STREET

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			43	38

CONTRACT NO.

STA. TO STA.
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

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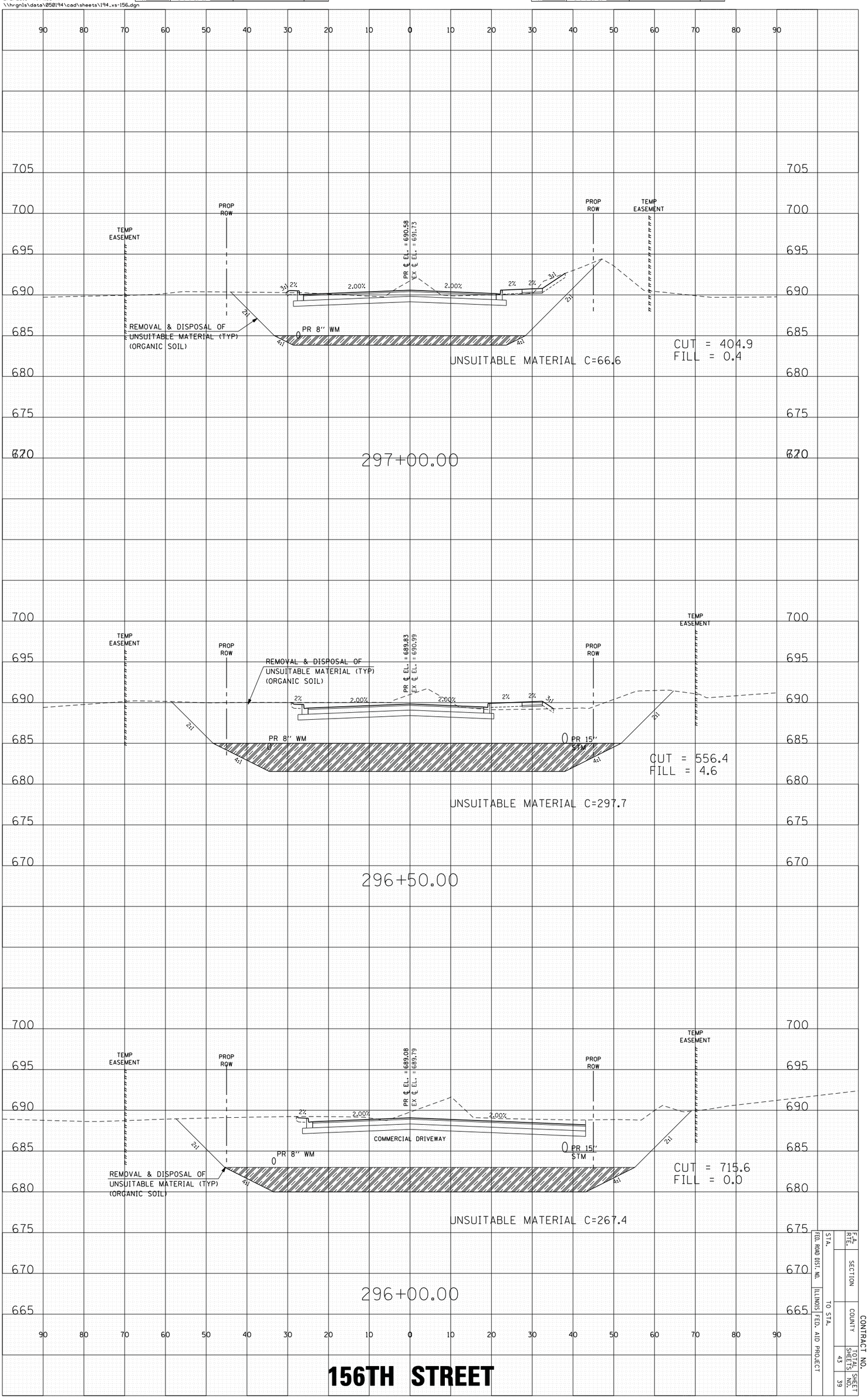

156TH STREET

F.A. RTE.	SECTION		
FED. ROAD DIST. NO.	COUNTY	TOTAL SHEETS	SHEET NO.
ILLINOIS FED. AID PROJECT		43	39

STA. TO STA.

CONTRACT NO.

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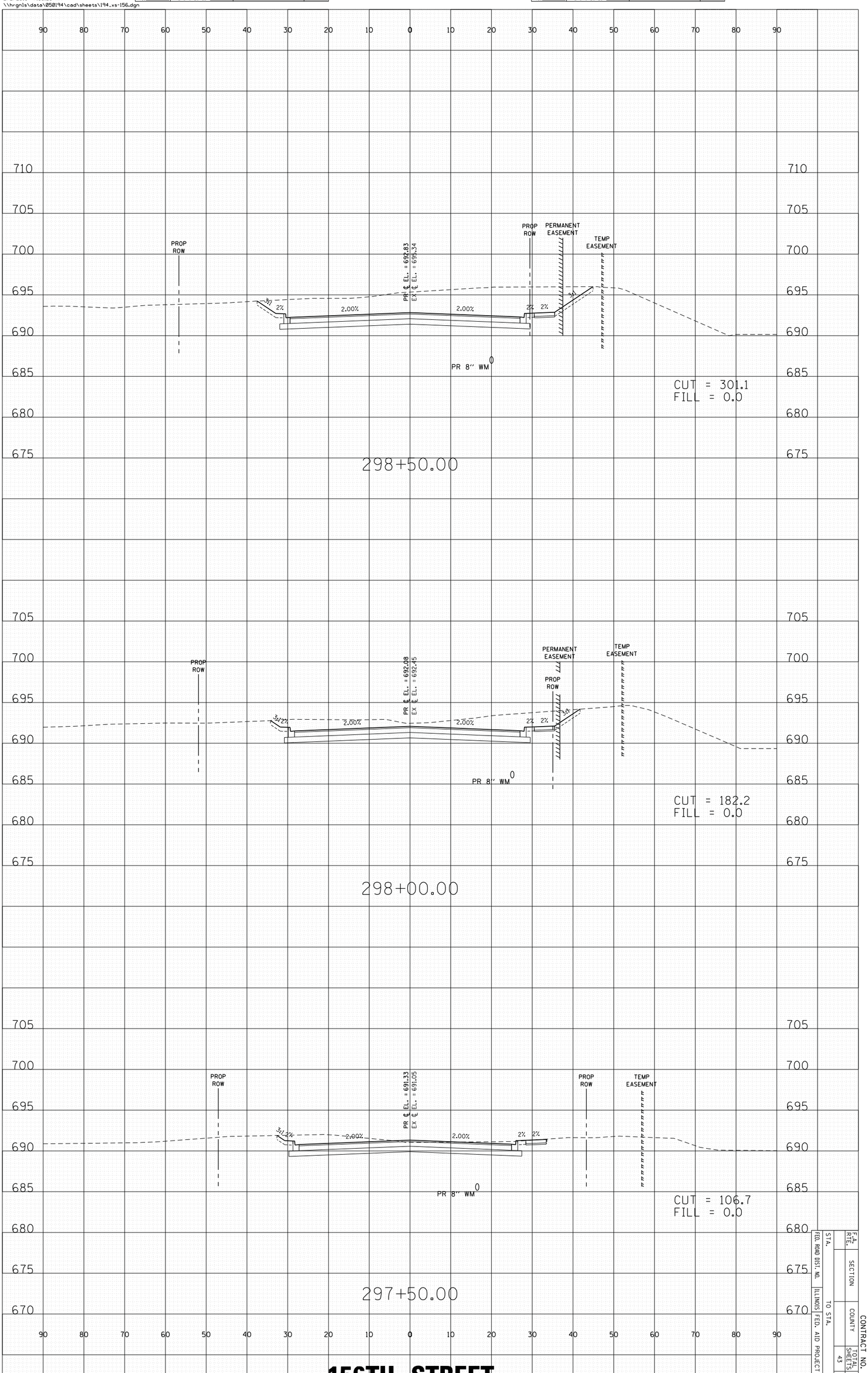

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CONTRACT NO.

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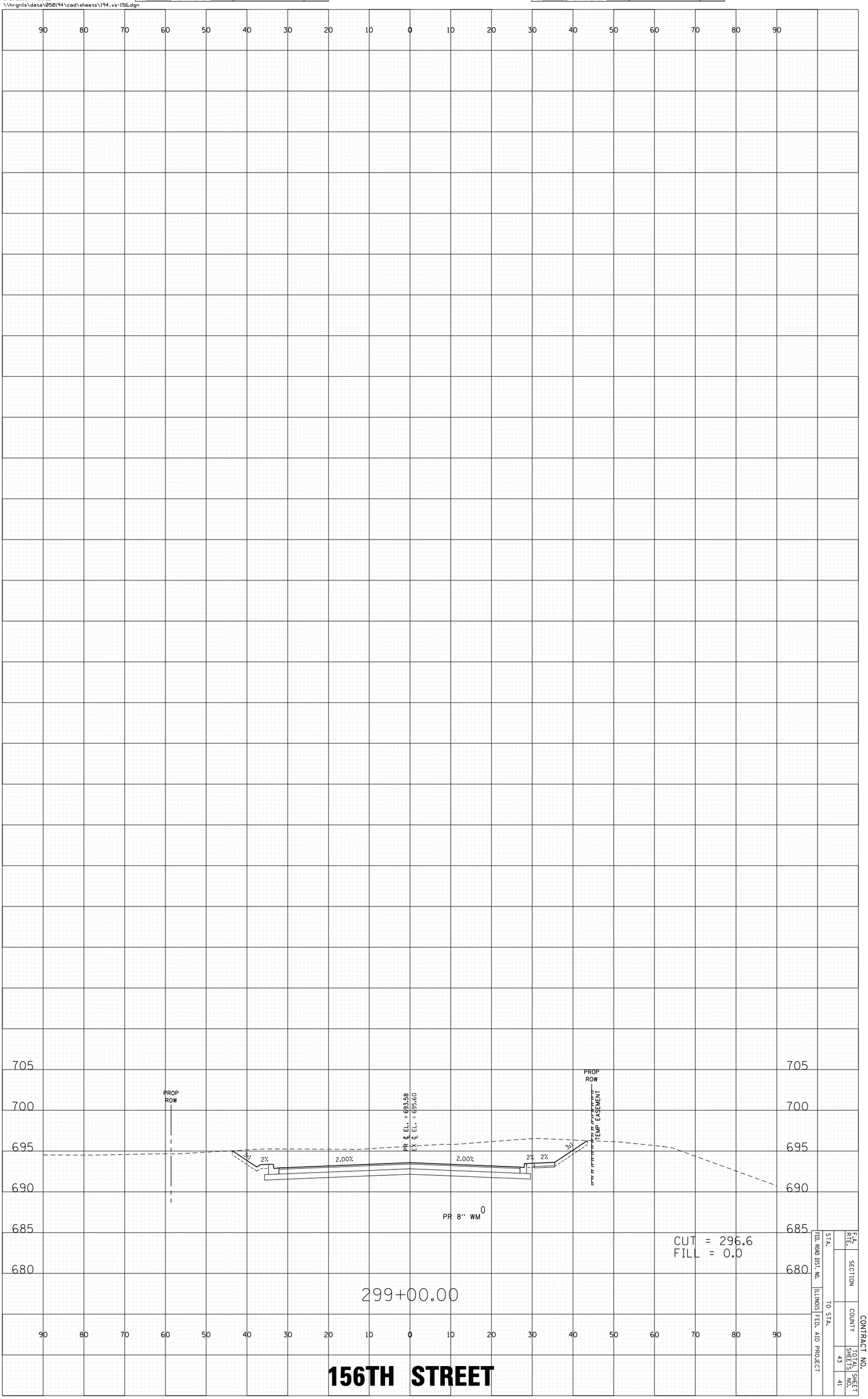

CONTRACT NO.

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

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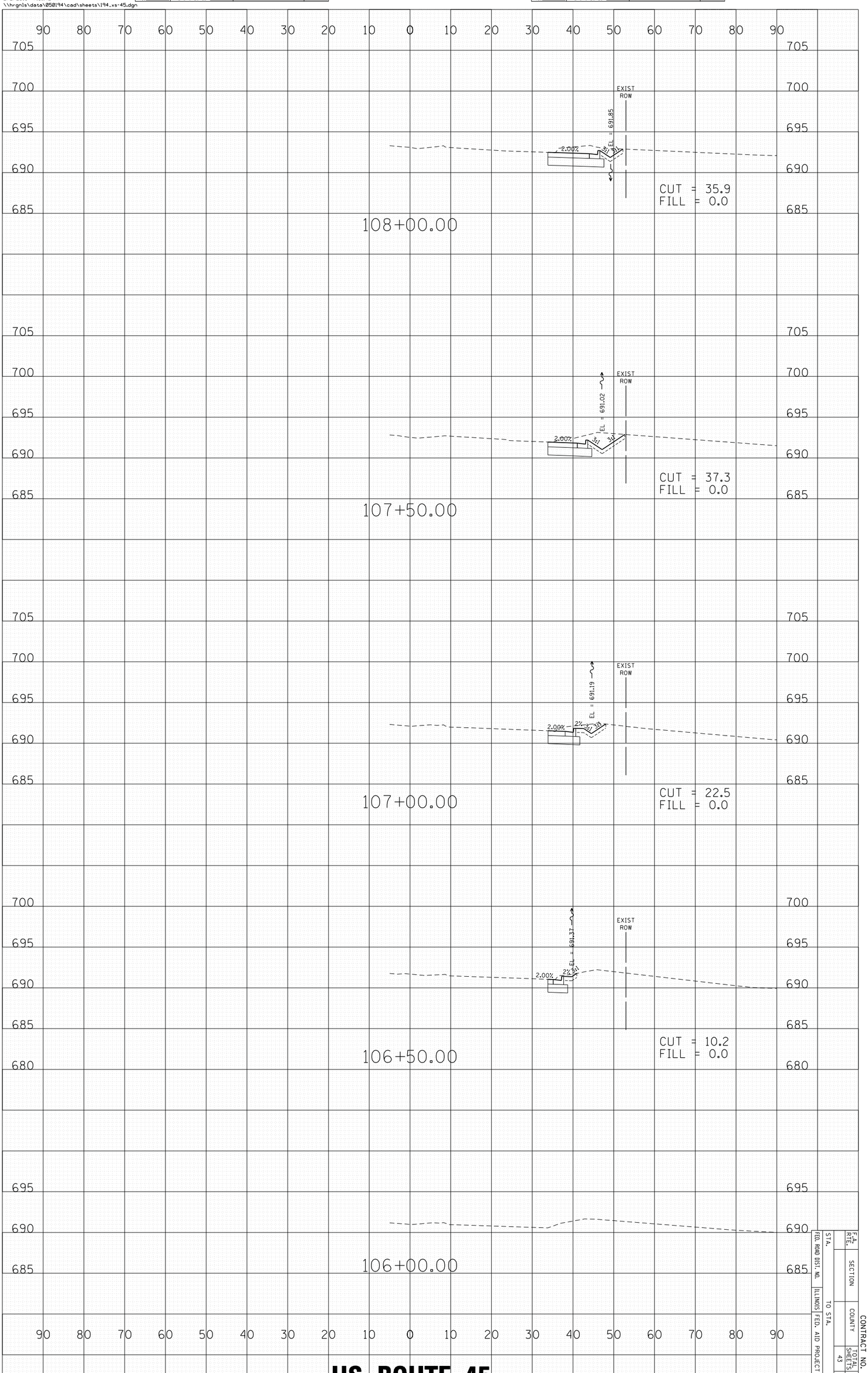

F.A. RTE.		CONTRACT NO.
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FED. ROAD DIST. NO.	STA. TO STA.	

US ROUTE 45

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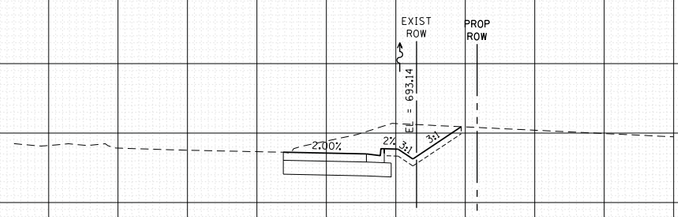
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

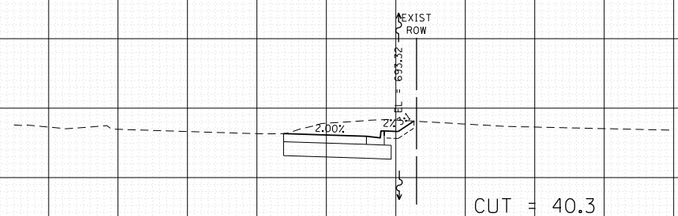
90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

710
705
700
695
690
685
680
675



CUT = 61.0
FILL = 0.0

109+00.00



CUT = 40.3
FILL = 0.0

108+50.00

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

US ROUTE 45

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			43	43

CONTRACT NO.

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

STA. TO STA.