

122 + 1 = 123

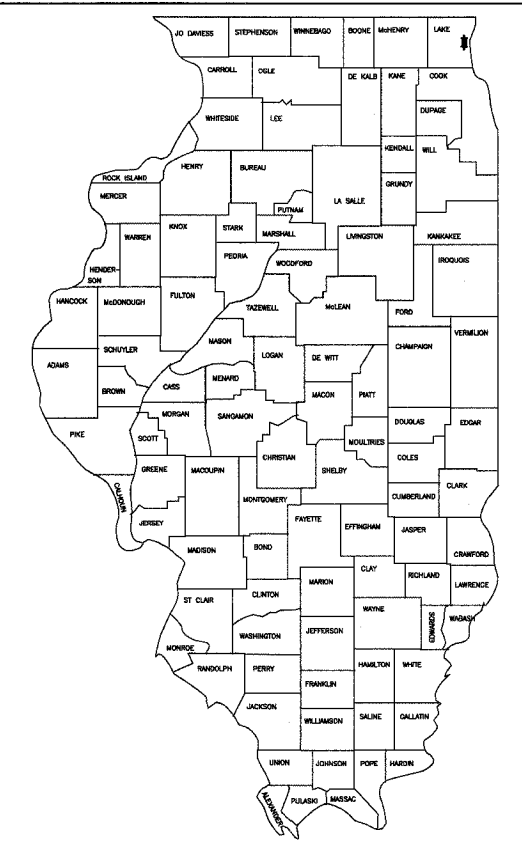
FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	1
F.H.W.A. REG.	ILLINOIS	PROJECT M-8003 (453)	CONTRACT NO. 83829	

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# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED FEDERAL AID URBAN PROJECT

## F.A.U. ROUTE 2736 SHERIDAN ROAD (BELVIDERE ROAD TO GRAND AVENUE) ROADWAY RECONSTRUCTION AND TRAFFIC SIGNALS SECTION No. 03-00227-00-RS PROJECT No. M-8003 (453) CITY OF WAUKEGAN LAKE COUNTY, ILLINOIS C-91-190-04

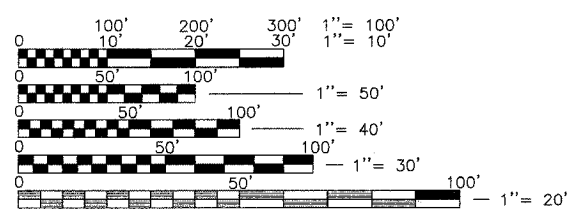


LOCATION OF SECTION INDICATED THUS:

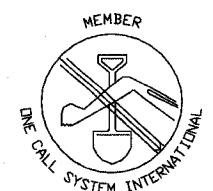
**DESIGN DESIGNATION: URBAN MINOR ARTERIAL**

**SCALES**

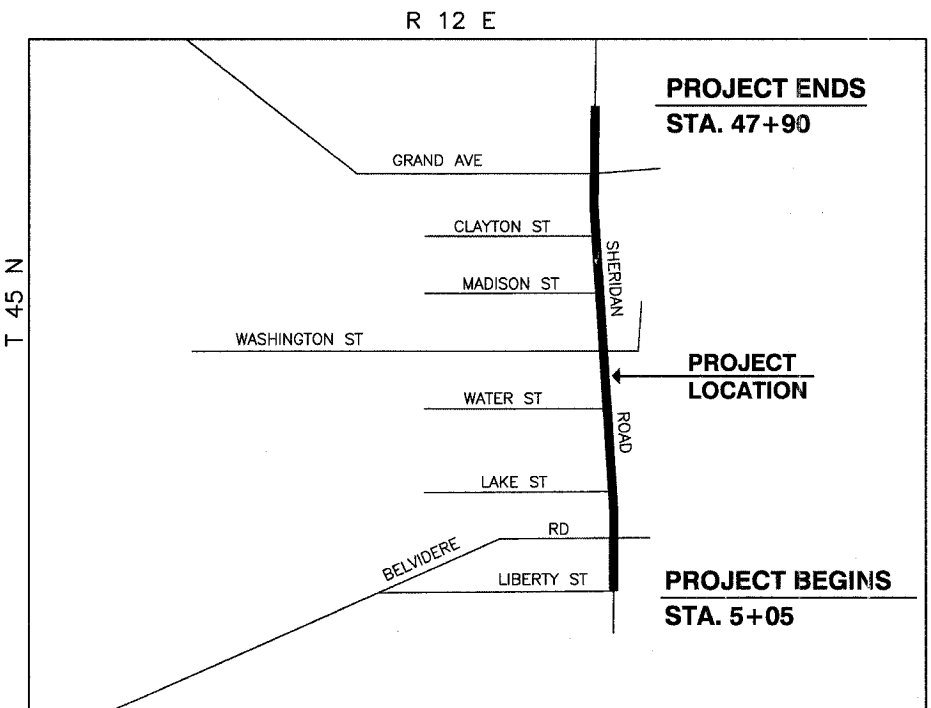
PLAN	1"=20'
PROFILES	1"=20' (HORIZONTAL) 1"=2' (VERTICAL)
CROSS SECTION	1"=5'



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.



CALL J. U. L. I. E. BEFORE YOU DIG  
1-800-892-0123  
TOLL FREE



LOCATION MAP  
N.T.S.

GROSS LENGTH OF PROJECT = 4285 FEET 0.81 MILES  
NET LENGTH OF PROJECT = 4285 FEET 0.81 MILES

**SPEED LIMIT**  
POSTED SPEED: 30 MPH  
DESIGN SPEED: 35 MPH

**TRAFFIC DATA**  
ADT: 7300 (2005)  
11542 (2030)

**CITY OF WAUKEGAN**

APPROVED 07/09/07  
*John H. Moore*  
CITY OF WAUKEGAN, CITY ENGINEER

---

PASSED July-07-07  
*C. Holt* CHRISTOPHER HOLT  
DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

---

RELEASING FOR BID  
BASED ON LIMITED  
REVIEW July 17, 2007  
*Diane O'Keefe/Cul*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

**McCLURE ENGINEERING ASSOCIATES, INC.**  
2728 Grand Avenue  
Waukegan, Illinois 60085  
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Design Firm License: Illinois #184-000816  
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*Daniel B. Drew*  
DANIEL B. DREW  
ILLINOIS LICENSED PROFESSIONAL ENGINEER  
NO. 062-055312  
EXPIRATION DATE 11/30/07

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

ASSOCIATE FIELD ENGINEER - JESSICA FELICIANO (847) 705-4487

CONTRACT NO. 83829

### STANDARD SYMBOLS

⊙ EXISTING MANHOLE	— 8" —	EXISTING SANITARY SEWER (SAN. S.) WITH SIZE SHOWN
⊙ PROPOSED MANHOLE	— 8" SAN —	OR
○ EXISTING CATCH BASIN	— 8" SAN —	EXISTING SANITARY SEWER WITH SIZE AND DIRECTION SHOWN
● PROPOSED CATCH BASIN	— 12" —	PROPOSED SANITARY SEWER
□ EXISTING INLET	— 12" —	EXISTING STORM SEWER (ST. S.) WITH SIZE SHOWN
■ PROPOSED INLET	OR	
□ EXISTING VALVE VAULT	— 12" ST —	EXISTING STORM SEWER WITH SIZE AND DIRECTION SHOWN
⊠ PROPOSED VALVE AND VAULT	— 12" ST —	PROPOSED STORM SEWER
⊕ EXISTING METER PIT	— 8" W —	EXISTING WATER (W) OR GAS (G) MAIN WITH SIZE SHOWN
⊕ PROPOSED METER PIT	— E —	PROPOSED WATER MAIN
⊕ EXISTING VALVE BOX (G - GAS, W - WATER)	— IBT —	EXISTING UNDERGROUND ELECTRICAL CABLE OR CONDUIT
⊕ PROPOSED VALVE & C.I. BOX	— IBT —	EXISTING UNDERGROUND TELEPHONE CABLE OR CONDUIT
⊕ EXISTING CURB STOP BOX	---	EXISTING R.O.W. LINE
⊕ PROPOSED CURB STOP & C.I. BOX	---	PROPOSED R.O.W. LINE
⊕ EXISTING FIRE HYDRANT	---	EXISTING CURB AND GUTTER AND EXIST. C & G TO BE REMOVED
⊕ PROPOSED FIRE HYDRANT WITH AUX. VALVE & C.I. BOX	---	PROPOSED CURB AND GUTTER
⊕ EXISTING STREET OR TRAFFIC SIGN	---	EXISTING CURB AND EXIST. CURB TO BE REMOVED
⊕ EXISTING TRAFFIC SIGNAL	---	PROPOSED CURB
⊕ EXISTING MAIL BOX	---	EXISTING WALK, DRIVE, PAVT. OR TRAVELED WAY
⊕ EXISTING LIGHT POLE	---	EXISTING CONC. WALK, DRIVE OR PAVT. TO BE REMOVED
⊕ EXISTING TRAFFIC SIGNAL CONTROL BOX	---	PROPOSED PAVEMENT REPLACEMENT
⊕ EXISTING HANDHOLE	---	PROPOSED P.C.C. SIDEWALK OR DRIVEWAY
⊕ EXISTING ELECTRIC VAULT	---	DECIDUOUS TREE WITH DIA. SHOWN
⊕ EXISTING POWER POLE WITH GUY	---	EVERGREEN TREE WITH DIA. SHOWN
	---	BUSHES

### GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY ALL LOCAL UTILITY COMPANIES INCLUDING:
  - "JULIE" 800-892-0123
  - COMMONWEALTH EDISON COMPANY 362-1000
  - SBC 623-9961
  - NORTH SHORE GAS COMPANY 336-7400
  - COMCAST CABLE SERVICES 336-7200
  - CITY OF WAUKEGAN PUBLIC WORKS 360-0944
- 72 HOURS PRIOR TO BEGINNING OF ANY CONSTRUCTION, SAID UTILITY COMPANIES WILL ESTABLISH, ON THE GROUND, THE LOCATION OF UNDERGROUND PIPES, MAINS, CONDUITS OR CABLES ADJOINING OR CROSSING PROPOSED CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY THE MUNICIPALITY AND THE ENGINEER A MINIMUM OF 24 HOURS IN ADVANCE OF PERFORMING ANY WORK. RENOTIFICATION SHALL BE REQUIRED IF ANY PHASE OF WORK IS SUSPENDED FOR MORE THAN TWO (2) DAYS.
- UTILITIES SHOWN IN THE PLANS ARE FOR THE CONTRACTOR'S CONVENIENCE AND ARE APPROXIMATE ONLY. THE UTILITIES ARE LOCATED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL TYPES, SIZES AND LOCATIONS OF EXISTING UTILITIES.
 

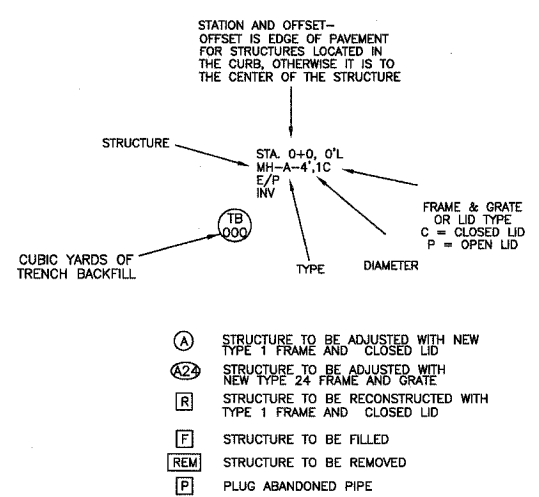
CAUTION: THERE MAY BE OVERHEAD AND BURIED POWER LINES WHICH COULD POSSIBLY INTERFERE OR BE A SAFETY HAZARD WITH EQUIPMENT OPERATIONS.
- ALL CURB AND GUTTER REMOVAL AND REPLACEMENT SHALL BE COMPLETED PRIOR TO PLACING THE PROPOSED PAVEMENT SECTION.
- DURING CURB AND GUTTER REMOVAL AND PAVEMENT REMOVAL OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT A GRAVEL RAMP TO MAINTAIN DRIVEWAY ACCESS. PLACEMENT AND REMOVAL OF THE TEMPORARY RAMPS WILL BE PAID FOR AT THE PER TON CONTRACT UNIT PRICE FOR AGGREGATE SURFACE COURSE, TYPE B, SPECIAL.
- ALL PAVING OF BUTT JOINTS SHALL BE DONE AT THE SAME TIME AS THE ADJOINING STREET AND SHALL BE DONE WITH A HMA PAVING MACHINE.
- THE CONTRACTOR SHALL PLACE WARNING SIGNS 48 HOURS PRIOR TO PLACEMENT OF PRIME COAT AND COMMENCEMENT OF PAVING OPERATIONS.
- THE THICKNESS OF THE HMA COURSES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE ON WHICH THE HMA COURSE IS PLACED.
- WHERE HMA OVERLAYS ARE PLACED ON INTERSECTING STREETS, THE CONTRACTOR SHALL COORDINATE CONSTRUCTION TO ALLOW A HOT JOINT BETWEEN THE TWO SURFACES; OR HE SHALL SAW CUT TO A MINIMUM DEPTH OF 1-1/2" TO PROVIDE A UNIFORM VERTICAL FACE AGAINST WHICH TO BUTT THE SUBSEQUENT SURFACE COURSE.
- WHEN LOOSE MATERIAL IS DEPOSITED IN DITCHES OR GUTTERS, IT SHALL BE REMOVED BEFORE THE END OF EACH WORKING DAY. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE COMBINATION CONCRETE CURB AND GUTTER, TYPE B.6.24

- THE EDGES OF ALL IMPROVED SURFACES WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE SAW CUT PRIOR TO RESTORATION. ANY SAW CUTTING OF PAVEMENT PATCHES, BUTT JOINTS, CONCRETE CURBS, SIDEWALKS, OR ANY OTHER AREAS NECESSARY TO COMPLETE THIS PROJECT WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE ITEM, UNLESS OTHERWISE SPECIFIED.
- MANHOLE, INLET AND CATCH BASIN RIM ELEVATIONS (EDGE OF PAVEMENT) ARE PROVIDED TO ASSIST THE CONTRACTOR IN ORDERING MATERIALS. FINAL ADJUSTMENT OF STRUCTURES TO MEET SITE CONDITIONS WILL BE NECESSARY. NO PAYMENT WILL BE MADE FOR FINAL ADJUSTMENT OF STRUCTURES, AND THE COST THEREOF SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SAID STRUCTURE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL STREETS USED BY THE CONTRACTOR, SUB-CONTRACTORS, AND SUPPLIERS CLEAN AND FREE OF ALL DIRT, MUD, AND OTHER CONSTRUCTION DEBRIS, AND WILL BE REQUIRED TO CLEAN THEM AS IS NECESSARY IN ORDER TO MAINTAIN THEM IN A SAFE, DRIVEABLE CONDITION. THE CONTRACTOR SHALL BE ESPECIALLY RESPONSIVE TO REQUESTS FROM THE ENGINEER, ENGINEER'S REPRESENTATIVE, DIRECTOR OF PUBLIC WORKS, SUPERINTENDENT OF STREETS, POLICE AND FIRE DEPARTMENTS, OR ANY OFFICIAL OF THE OWNER TO PRACTICE GOOD HOUSEKEEPING THROUGHOUT THE DURATION OF THIS PROJECT. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF CONSTRUCTION, UNLESS OTHERWISE SPECIFIED.
- CURB RAMPS ACCESSIBLE TO THE DISABLED AND THE DETECTABLE WARNINGS SHALL BE PROVIDED AT ALL CROSS WALK LOCATIONS IN ACCORDANCE HIGHWAY STANDARD 424001-04.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL MATCH GRADES AND TO BRING ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- THE GRADING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORM WATER. GRADING SHALL BE DONE TO ALLOW POSITIVE DRAINAGE. SILT FILTER FENCE, SHALL BE INSTALLED TO PREVENT EROSION. THE COST OF THIS WORK WILL BE PAID FOR IN ACCORDANCE WITH SECTION 280 OF THE STANDARD SPECIFICATIONS.
- FILTER FABRIC TO BE PLACED IN ALL STORM STRUCTURES LOCATED WITHIN THE LIMITS OF CONSTRUCTION, FOR THE PURPOSES OF SEDIMENTATION CONTROL. FABRIC TO BE CHECKED AFTER EACH RAIN FALL AND ON A WEEKLY BASIS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF INLET AND PIPE PROTECTION.
- ALL POINTS OF VERTICAL INTERSECTION (P.V.I.'S) SHALL BE CONSTRUCTED WITH A VERTICAL CURVE THAT HAS A MINIMUM LENGTH OF 90 (NINETY) FEET.
- CONTRACTOR SHALL DISCONNECT AND PLUG ALL SEWER PIPES TO BE ABANDONED IN PLACE. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF FILLING, OR REMOVING EXISTING STRUCTURES.
- CONTRACTOR SHALL SUBMIT A WRITTEN "SEQUENCE OF CONSTRUCTION" PLAN WITHIN TEN (10) DAYS AFTER THE AWARD OF CONTRACT. THE PLAN SHALL SHOW IN DETAIL HOW THE PROPOSED UNDERGROUND UTILITIES WILL BE CONSTRUCTED TO ENSURE NO DISRUPTION IN STORM, SANITARY, AND WATER SERVICE. CONTRACTOR SHALL PROVIDE BYPASS PUMPING, AND TEMPORARY CONNECTIONS AS NECESSARY. THE WRITTEN "SEQUENCE OF CONSTRUCTION" MUST BE ON FILE WITH THE ENGINEER PRIOR TO CONSTRUCTION. THIS WORK SHALL BE INCLUDED IN THE COST OF THE STORM SEWER REMOVAL, WATER SERVICE INSTALLATION AND SANITARY SERVICE INSTALLATION.

### STATE STANDARDS

Number	Description
000001-04	Standard Symbols, Abbreviations, and Patterns
280001-03	Temporary Erosion Control Systems
424001-04	Curb Ramps for Sidewalks
442201-02	Class C and D Patches
602001	Catch Basin Type A
602011	Catch Basin Type C
602301-01	Inlet Type A
602401-01	Manhole Type A
602601	Precast Reinforced Concrete Flat Slab Top
602701-01	Cast Iron Steps
604001-02	Frame and Lids Type 1
604091-01	Frame and Lids Type 24
606001-03	Concrete Curb Type B and Combination Concrete Curb and Gutter
701606-04	Urban Lane Closure, Multilane, 2W with Mountable Median
701701-04	Urban Lane Closure, Multilane Intersection
701801-03	Lane Closure Multilane 1W or 2W Crosswalk or Sidewalk Closure
702001-06	Traffic Control Devices
720001	Sign Panel Mounting Details
720006	Sign Panel Erection Details
720011	Metal Posts for Signs, Markers & Delineators
729001	Applications of Types A & B Metal Posts (For Signs & Markers)
780001-01	Typical Pavement Markings
805001	Electrical Service Installation Details
814001	Concrete Handholes
814006	Double Handholes
877001-01	Steel Combination Mast Arm Assembly and Pole
880006	Traffic Signal Mounting Details
857001	Standard Phase Designation Diagrams and Phase Sequences
878001	Concrete Foundation Details
880001	Span Wire Mounted Signal and Flashing Beacon Installation
886001	Detector Loop Installations

### STRUCTURE LEGEND



- IT IS THE CONTRACTOR'S RESPONSIBILITY TO RESTORE ALL FEATURES DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL STATE, OR BETTER. ALL RESTORATION WORK REQUIRED BEYOND THE SCOPE OF THE PLANS AND SPECIFICATIONS SHALL BE DONE AT THE CONTRACTOR'S EXPENSE UNLESS WORK WAS DONE AT THE DIRECTION OF THE OWNER OR ENGINEER AND COMPENSATION WAS AGREED UPON PRIOR TO EXECUTION OF WORK.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL NECESSARY PAVEMENT OPENINGS AND CONSTRUCTION DEBRIS LEFT IN THE PUBLIC RIGHT-OF-WAY WITH LIGHTED DEVICES. THE CONTRACTOR SHALL MAINTAIN HIGH VISIBILITY OF ALL TEMPORARY HAZARDS TO PEDESTRIANS AND MOTORISTS. REMOVAL OF ANY SUCH TEMPORARY HAZARDS SHALL BE DONE AS SOON AS POSSIBLE.
- ALL EXISTING DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS THAT WILL BE ADJUSTED OR RECONSTRUCTED, SHALL BE CLEANED TO THE SATISFACTION OF THE ENGINEER. ALL COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE APPLICABLE UNIT PRICES.
- ANY MAIL BOXES THAT INTERFERE WITH CONSTRUCTION SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR, AT HIS EXPENSE, UNLESS OTHERWISE SPECIFIED. MAIL SERVICE SHALL NOT BE DISRUPTED DURING CONSTRUCTION.
- PLACEMENT OF TOP SOIL AND SODDING SHALL BE COMPLETED WITHIN 10-15 DAYS AFTER THE COMPLETION OF CURB AND GUTTER, PAVING AND/OR DRIVEWAY REPLACEMENT OPERATIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- UTILITY SERVICES TO RESIDENT'S OR BUSINESSES WHICH ARE INTERRUPTED BY CONSTRUCTION SHALL BE RESTORED AT THE EXPENSE OF THE CONTRACTOR SO THAT NO SERVICE IS INTERRUPTED FOR MORE THAN FOUR (4) HOURS. IF TEMPORARY SERVICE IS REQUIRED, THE EXPENSE FOR SAME SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

### NORTH SHORE SANITARY DISTRICT

- 24 HOUR NOTICE: THE CONTRACTOR SHALL NOTIFY THE NORTH SHORE SANITARY DISTRICT AT 847-623-6060 A MINIMUM OF 24 HOURS PRIOR TO THE START OF CONSTRUCTION.
- TV NOTE: ALL SANITARY SEWER EXTENSIONS SHALL BE TELEVISED IN THE PRESENCE OF NORTH SHORE SANITARY DISTRICT PERSONNEL AFTER HAVING NOTIFIED THE DISTRICT AT 847-623-6060 A MINIMUM OF 24 HOURS PRIOR TO TELEVISING. A COPY OF THE TAPE IN VHS FORMAT IS TO BE SUBMITTED TO THE DISTRICT FOR APPROVAL. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE SANITARY SEWER INSTALLATION.
- BEDDING NOTE: ALL SANITARY SEWER PIPE WILL BE BEDDED WITH A MINIMUM OF 6" BELOW THE PIPE AND 12" ABOVE THE PIPE IN CA-6 CRUSHED MATERIAL. THIS IS THE ONLY ACCEPTABLE MATERIAL WITHIN THE BOUNDARIES OF THE SANITARY DISTRICT. IF EXTREMELY WET CONDITIONS ARE ENCOUNTERED, ANY ALTERNATE MATERIAL MUST BE APPROVED BY THE DISTRICT.

REVISIONS		
NO.	ITEM	DATE

SCALE: 1" = 1'  
 DRAWN BY: WS  
 CHECKED BY: DBD  
 DATE: 3-3-06

**McCLURE ENGINEERING ASSOCIATES, INC.**  
 2728 Grand Avenue  
 Waukegan, Illinois 60085  
 TEL 847-336-7100 FAX 847-336-7155  
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**STANDARD SYMBOLS & GENERAL NOTES**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sher-CvrNoteDet.dwg 7/6/2007 1:32:26 PM CDT

CODED PAY ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FHWA ROADWAY 1000-2A	NON-PARTICIPATING WATER SANITARY	STREET LIGHTING Y030-1E	TRAFFIC SIGNALS Y031-1F
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	217	217			
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	18	18			
20200100	EARTH EXCAVATION	CU YD	9960	9960			
20700420	POROUS GRANULAR EMBANKMENT, SUBGRADE	CU YD	641	641			
20800150	TRENCH BACKFILL	CU YD	9850	1315	8535		
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	14100	14100			
* 25000210	SEEDING, CLASS 2A	ACRE	1.8	1.8			
* 25000300	SEEDING, CLASS 3	ACRE	0.1	0.1			
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	235	235			
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	235	235			
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	235	235			
* 25100110	MULCH, METHOD 1	TON	3.8	3.8			
* 25200110	SODDING, SALT TOLERANT	SQ YD	4900	4900			
25200200	SUPPLEMENTAL WATERING	UNIT	123	123			
28000400	PERIMETER EROSION BARRIER	FOOT	3600	3600			
28000500	INLET AND PIPE PROTECTION	EACH	81	81			
35101400	AGGREGATE BASE COURSE, TYPE B	TON	3255	3255			
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	8700	8700			
40600300	AGGREGATE (PRIME COAT)	TON	90	90			
40600895	CONSTRUCTING TEST STRIP	EACH	1	1			
40701911	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 11 1/2	SQ YD	29000	29000			
42300720	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH, SPECIAL	SQ YD	1175	1175			
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	37500	37500			
42400800	DETECTABLE WARNINGS	SQ FT	250	250			
44000100	PAVEMENT REMOVAL	SQ YD	36100	36100			
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	2000	2000			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	10935	10935			
44000600	SIDEWALK REMOVAL	SQ FT	75000	75000			
44201794	CLASS D PATCHES, TYPE III, 12 INCH	SQ YD	86	86			
50800105	REINFORCEMENT BARS	POUND	92592	92592			
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	813	813			
50800515	BAR SPLICERS	EACH	104	104			
54003000	CONCRETE BOX CULVERTS	CU YD	399.7	399.7			
55021600	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III 12"	FOOT	2200	2200			
55021700	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III 15"	FOOT	200	200			
55022000	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III 24"	FOOT	725	725			
55022400	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III 36"	FOOT	90	90			
55022500	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III 42"	FOOT	151	151			
55037700	STORM SEWERS TO BE CLEANED 10"	FOOT	110	110			
55037800	STORM SEWERS TO BE CLEANED 12"	FOOT	175	175			

\* INDICATES SPECIALTY ITEM  
 ◇ SEE SPECIAL PROVISION

CODED PAY ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FHWA ROADWAY 1000-2A	NON-PARTICIPATING WATER SANITARY	STREET LIGHTING Y030-1E	TRAFFIC SIGNALS Y031-1F
55038000	STORM SEWERS TO BE CLEANED 18"	FOOT	520	520			
55038100	STORM SEWERS TO BE CLEANED 21"	FOOT	295	295			
55038400	STORM SEWERS TO BE CLEANED 30"	FOOT	745	745			
55038600	STORM SEWERS TO BE CLEANED 36"	FOOT	1450	1450			
55038700	STORM SEWERS TO BE CLEANED 42"	FOOT	875	875			
56103000	DUCTILE IRON WATER MAIN 6"	FOOT	113		113		
56103100	DUCTILE IRON WATER MAIN 8"	FOOT	599		599		
56103300	DUCTILE IRON WATER MAIN 12"	FOOT	4828		4828		
56103400	DUCTILE IRON WATER MAIN 16"	FOOT	127		127		
56105000	WATER VALVES 8"	EACH	10		10		
56105200	WATER VALVES 12"	EACH	20		20		
56105300	WATER VALVES 16"	EACH	2		2		
56400500	FIRE HYDRANTS TO BE REMOVED	EACH	12		12		
56400820	FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX	EACH	19		19		
60109580	PIPE UNDERDRAINS FOR STRUCTURES, 4"	FOOT	38	38			
60109582	PIPE UNDERDRAINS FOR STRUCTURES, 6"	FOOT	278	278			
60206905	CATCH BASINS, TYPE C, TYPE 1 FRAME, OPEN LID	EACH	2	2			
60208240	CATCH BASINS, TYPE C, TYPE 24 FRAME AND GRATE	EACH	14	14			
60214714	RESTRICTED DEPTH CATCH BASINS, 4'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	5	5			
60216614	RESTRICTED DEPTH CATCH BASINS, 5'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	3	3			
60218400	MANHOLES, TYPE A 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1			
60224600	RESTRICTED DEPTH MANHOLES, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	3	3			
60225400	RESTRICTED DEPTH MANHOLES, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2	2			
60225924	RESTRICTED DEPTH MANHOLES, 5'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	20	20			
60226200	RESTRICTED DEPTH MANHOLES, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1			
60228110	MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	12		12		
60228120	MANHOLES, SANITARY, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	8		8		
60228300	DROP SANITARY MANHOLES, WITH TYPE 1 FRAME, CLOSED LID	EACH	1		1		
60234200	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	EACH	1	1			
60237470	INLETS, TYPE A, TYPE 24 FRAME AND GRATE	EACH	49	49			
60248700	VALVE VAULTS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	10		10		
60248900	VALVE VAULTS, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	22		22		
60250500	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 1 FRAME AND CLOSED LID	EACH	2	2			
60251740	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 24 FRAME AND GRATE	EACH	2	2			
60255800	MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	14	14			
60256940	MANHOLES TO BE ADJUSTED WITH NEW TYPE 24 FRAME AND GRATE	EACH	1	1			
60258200	MANHOLES TO BE RECONSTRUCTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	15	15			
60261540	INLETS TO BE ADJUSTED WITH NEW TYPE 24 FRAME AND GRATE	EACH	3	3			
60268500	VALVE VAULTS TO BE REMOVED	EACH	3		3		
60268600	VALVE BOXES TO BE ADJUSTED	EACH	9	9			

\* INDICATES SPECIALTY ITEM  
 ◇ SEE SPECIAL PROVISION

CODED PAY ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FHWA ROADWAY 1000-2A	NON-PARTICIPATING WATER SANITARY	STREET LIGHTING Y030-1E	TRAFFIC SIGNALS Y031-1F
60266910	VALVE BOXES TO BE REMOVED	EACH	2		2		
60500040	REMOVING MANHOLES	EACH	12	8	4		
60500050	REMOVING CATCH BASINS	EACH	5	5			
60500080	REMOVING INLETS	EACH	3	3			
60500105	FILLING MANHOLES	EACH	18	7	11		
60500205	FILLING CATCH BASINS	EACH	37	37			
60500305	FILLING INLETS	EACH	17	17			
60500370	FILLING VALVE BOXES	EACH	11		11		
60500405	FILLING VALVE VAULTS	EACH	17		17		
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	200	200			
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	10750	10750			
66410300	CHAIN LINK FENCE REMOVAL	FOOT	2550	2550			
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	15	15			
67100100	MOBILIZATION	L SUM	1	1			
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1	1			
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1			
70103816	TRAFFIC CONTROL SURVEILLANCE	CAL MO	15	15			
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	1275	1275			
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	50000	50000			
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	7350	7350			
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	900	900			
* 72000100	SIGN PANEL - TYPE 1	SQ FT	125	125			
* 72000200	SIGN PANEL - TYPE 2	SQ FT	19	19			
* 72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	10	10			
* 72400200	REMOVE SIGN PANEL ASSEMBLY - TYPE B	EACH	2	2			
* 72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	92	92			
* 72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	10	10			
* 72400600	RELOCATE SIGN PANEL ASSEMBLY - TYPE B	EACH	1	1			
* 72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	113	113			
* 72900100	METAL POST - TYPE A	FOOT	105	105			
* 72900200	METAL POST - TYPE B	FOOT	380	380			
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	840	840			
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	13100	13100			
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	4950	4950			
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	280	280			
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1100	1100			
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	450	450			
80400100	ELECTRIC SERVICE INSTALLATION	EACH	2		2		
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1		1		
* 81000600	CONDUIT IN TRENCH, 2" DIA, GALVANIZED STEEL	FOOT	3726				3726

\* INDICATES SPECIALTY ITEM  
 ◇ SEE SPECIAL PROVISION

REVISIONS		
NO.	ITEM	DATE

SCALE: 1 = 1  
 DRAWN BY: MS  
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 DATE: 1-16-06

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SUMMARY OF QUANTITIES		
SHERIDAN ROAD IMPROVEMENTS		
CITY OF WAUKEGAN	JOB NUMBER: 02-28-04-164	LAKE COUNTY, ILLINOIS
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CODED PAY ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FHWA ROADWAY 1000-2A	NON-PARTICIPATING WATER SANITARY	STREET LIGHTING Y030-1E	TRAFFIC SIGNALS Y031-1F
* 81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	147				147
* 81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	131				131
* 81000900	CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	27				27
* 81012600	CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	41373			41373	
* 81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	151				151
* 81018800	CONDUIT PUSHED, 3 1/2" DIA., GALVANIZED STEEL	FOOT	169				169
* 81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	383				383
* 81019000	CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL	FOOT	206				206
* 81023300	CONDUIT ENCASED, CONCRETE, 2" DIA., PVC 2 WIDE X 1 HIGH	FOOT	50			50	
* 81023500	CONDUIT ENCASED, CONCRETE, 2" DIA., PVC 2 WIDE X 2 HIGH	FOOT	350			350	
* 81024300	CONDUIT ENCASED, CONCRETE, 4" DIA., PVC 2 WIDE X 2 HIGH	FOOT	865			865	
* 81301370	JUNCTION BOX, STAINLESS STEEL, EMBEDDED IN STRUCTURE, 18" X 12" X 8"	EACH	103			103	
◇ * 81400100	HANDHOLE	EACH	12				12
◇ * 81400115	HANDHOLE TO BE ADJUSTED	EACH	25	21			4
* 81400200	HEAVY-DUTY HANDHOLE	EACH	42			39	3
* 81400300	DOUBLE HANDHOLE	EACH	4				4
* 81700105	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO. 12	FOOT	2395			2395	
* 81700110	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO. 10	FOOT	7152			7152	
* 81700115	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO. 8	FOOT	38274			38274	
* 81700120	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO. 6	FOOT	4554			4554	
* 81700125	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO. 4	FOOT	40512			40512	
* 81900200	TRENCH & BACKFILL FOR ELECTRICAL WORK	FOOT	11821			11000	821
◇ * 82500505	LIGHTING CONTROLLER, SPECIAL	EACH	2			2	
* 83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	240			240	
* 83600300	LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	495			495	
* 84200500	REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	42			42	
* 84200700	LIGHTING FOUNDATION REMOVAL	EACH	23			23	
* 84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	2			2	
* 84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	2			2	
◇ * 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1				1
◇ * 85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	2				2
* 86400100	TRANSCEIVER, FIBER OPTIC	EACH	2				2
◇ * 87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2/C	FOOT	2875				2875
◇ * 87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C	FOOT	4226				4226
◇ * 87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5/C	FOOT	2290				2290
◇ * 87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7/C	FOOT	3854				3854
◇ * 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3532				3532
◇ * 87301615	ELECTRIC CABLE IN CONDUIT, COMMUNICATION, NO. 16, 6 PAIR	FOOT	1594				1594
◇ * 87704070	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 28 FT. (SPECIAL)	EACH	1				1
◇ * 87704080	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 30 FT. (SPECIAL)	EACH	1				1

\* INDICATES SPECIALTY ITEM  
◇ SEE SPECIAL PROVISION

CODED PAY ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FHWA ROADWAY 1000-2A	NON-PARTICIPATING WATER SANITARY	STREET LIGHTING Y030-1E	TRAFFIC SIGNALS Y031-1F
◇ * 87704090	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 32 FT. (SPECIAL)	EACH	2				2
◇ * 87704110	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 36 FT. (SPECIAL)	EACH	1				1
◇ * 87704150	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 44 FT. (SPECIAL)	EACH	2				2
◇ * 87704160	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 46 FT. (SPECIAL)	EACH	1				1
◇ * 87800100	CONCRETE FOUNDATION, TYPE A	FOOT	40				40
◇ * 87800200	CONCRETE FOUNDATION, TYPE D	FOOT	8				8
◇ * 87800400	CONCRETE FOUNDATION, TYPE E, 30" DIA.	FOOT	75				75
◇ * 87800415	CONCRETE FOUNDATION TYPE E 36-INCH DIAMETER	FOOT	45				45
◇ * 87900200	DRILL EXISTING HANDHOLE	EACH	16				16
◇ * 88040080	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED (SPECIAL)	EACH	2				2
◇ * 88040100	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH	6				6
◇ * 88040155	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, SPECIAL	EACH	11				11
◇ * 88040170	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH	9				9
* 88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE BRACKET MOUNTED W/ COUNTDOWN TIMER	EACH	16				16
* 88200110	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	22				22
◇ * 88500100	INDUCTIVE LOOP DETECTOR	EACH	6				6
◇ * 88600100	DETECTOR LOOP, TYPE 1	FOOT	761				761
◇ * 88700200	LIGHT DETECTOR	EACH	4				4
◇ * 88700300	LIGHT DETECTOR AMPLIFIER	EACH	2				2
◇ * 88800100	PEDESTRIAN PUSH-BUTTON	EACH	16				16
◇ * 89000105	TEMPORARY TRAFFIC SIGNAL INSTALLATION, (SPECIAL)	EACH	2				2
* 89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	3				3
* 89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	3				3
* 89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	3				3
* 89502105	REBUILD EXISTING SIGNAL HEAD, LED	EACH	3				3
* 89502200	MODIFY EXISTING CONTROLLER	EACH	2			2	
◇ * 89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2				2
* 89502380	REMOVE EXISTING HANDHOLE	EACH	14				14
* 89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	18				18
* A2000120	TREE, ACER X FREEMANII AUTUMN BLAZE (AUTUMN BLAZE FREEMAN MAPLE), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	71	71			
* A2004824	TREE, GLEDITSIA TRIACANTHOS INERMIS SKYLINE (SKYLINE THORNLESS COMMON HONEY LOCUST), 3" CALIPER, BALLED AND BURLAPPED	EACH	71	71			
* A2007924	TREE, TILIA AMERICANA REDMOND (REDMOND AMERICAN LINDEN), 3" CALIPER, BALLED AND BURLAPPED	EACH	61	61			
* A2018720	TREE, ULMUS CARPINIFOLIA MORTON, (ACCOLADE ELM), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	28	28			
* B2006320	TREE, SYRINGA RETICULATA IVORY SILK (IVORY SILK JAPANESE TREE LILAC), 2-1/2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	19	19			
◇ LR430040	PAVING BRICK SIDEWALK	SQ YD	5625	5625			
◇ X0320870	BRACED EXCAVATION	CU YD	3247	3247			
◇ * X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO 14 1C	FOOT	3450				3450

\* INDICATES SPECIALTY ITEM  
◇ SEE SPECIAL PROVISION

CODED PAY ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FHWA ROADWAY 1000-2A	NON-PARTICIPATING WATER SANITARY	STREET LIGHTING Y030-1E	TRAFFIC SIGNALS Y031-1F
◇ * X0323153	ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1C (GREEN)	FOOT	2501				2501
◇ X0323221	PLUG AND ABANDON EXISTING PIPE	CU YD	8	8			
◇ X0324451	INSTALL WATER SERVICE COMPLETE	EACH	60		60		
◇ * X0325066	2955 LAYER 2 SWITCH	EACH	2				2
◇ * X0539800	TREE GRATES	EACH	25	25			
◇ X0712400	TEMPORARY PAVEMENT	SQ YD	650	650			
◇ X0919000	TEMPORARY PAVEMENT REMOVAL	SQ YD	650	650			
◇ * X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	2				2
◇ * X8730320	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED	FOOT	1412				1412
◇ X0003518	CONNECTIONS TO EXISTING WATER MAINS (NON-PRESSURE) - 8"	EACH	2		2		
◇ X0003517	CONNECTIONS TO EXISTING WATER MAINS (NON-PRESSURE) - 6"	EACH	10		10		
◇ * X8700020	FIBER OPTIC CABLE IN CONDUIT, NO. 62 5/125, MM12F SM12F	FOOT	3450				3450
◇ * X0003661	ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	615				615
◇ X0004815	AGGREGATE SURFACE COURSE TYPE B, SPECIAL	TON	1550	1550			
◇ * X0004980	REOPTIMIZE TRAFFIC SIGNAL SYSTEM	L SUM	1				1
◇ X0005107	CONNECTIONS TO EXISTING WATER MAINS (NON-PRESSURE) - 12"	EACH	3		3		
◇ * X0005937	LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	8				8
◇ * X0005940	REMOTE-CONTROLLED VIDEO SYSTEM	EACH	3				3
◇ X0005526	SANITARY MANHOLE, 8" DIA	EACH	1		1		
* X0005628	TREE, QUERCUS IMBRICARIA, (SHINGLE OAK) 2 1/2" CALIPER, BALLED AND BURLAPPED	EACH	50	50			
◇ * X0005723	VIDEO DETECTION SYSTEM COMPLETE INTERSECTION	EACH	2				2
◇ * X0005932	TRAFFIC SIGNAL POST, 16 FT SPECIAL	EACH	4				4
◇ * X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	2				2
◇ Z0001050	AGGREGATE SUBGRADE, 12"	SQ YD	31900				
◇ Z00057200	SANITARY SEWER 15"	FOOT	1800		1800		
◇ Z00057300	SANITARY SEWER 18"	FOOT	44		44		
◇ Z00057800	SANITARY SEWER 33"	FOOT	1935		1935		
◇ Z00067500	STEEL CASINGS 16"	FOOT	146		146		
◇ Z00067700	STEEL CASINGS 20"	FOOT	661		661		
◇ Z00067900	STEEL CASINGS 24"	FOOT	39		39		
◇ Z0076600	TRAINEES	HOUR	4,000	4,000			
◇ X0007005	CONTROLLED LOW-STRENGTH MATERIALS, SPECIAL	CU YD	710		710		
◇ X0007036	INSTALL SANITARY SERVICE COMPLETE	EACH	40		40		
◇ X0007057	SAFETY FENCE	FOOT	2820	2820			
◇ X0007058	CONNECTIONS TO EXISTING WATER MAINS (NON-PRESSURE) - 16"	EACH	2		2		
◇ * X0007059	STREET LIGHTING ASSEMBLY COMPLETE, TYPE F1	EACH	47				47
◇ * X0007040	STREET LIGHTING ASSEMBLY COMPLETE, TYPE F2	EACH	46				46
◇ * X0007041	STREET LIGHTING ASSEMBLY COMPLETE, TYPE F3	EACH	10				10
◇ * X0007042	STREET LIGHTS, TYPE F4, 400W MH	EACH	8				8

\* INDICATES SPECIALTY ITEM  
◇ SEE SPECIAL PROVISION

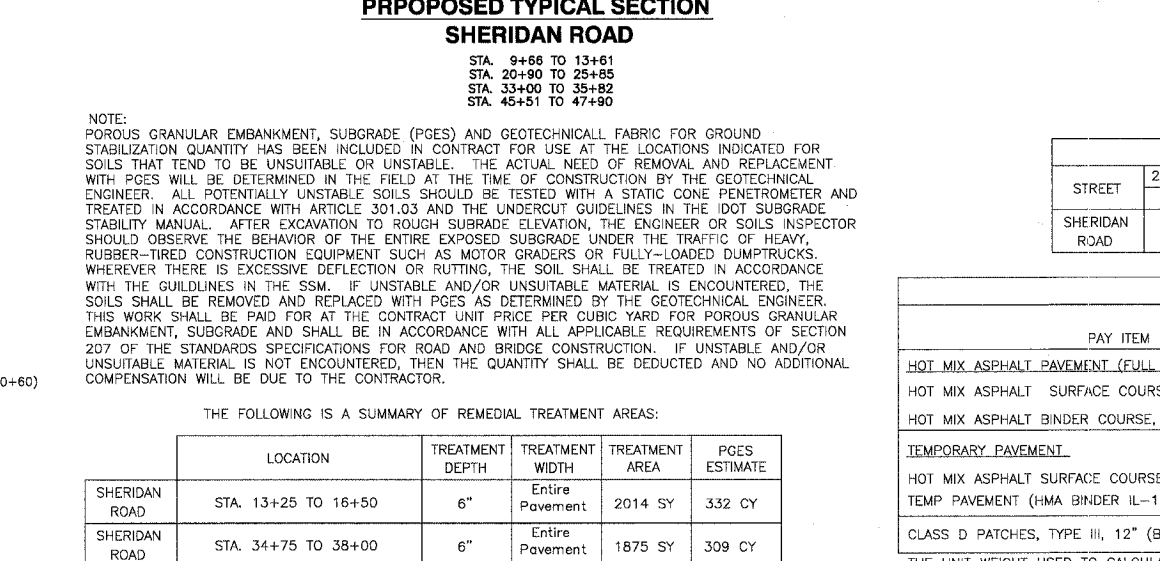
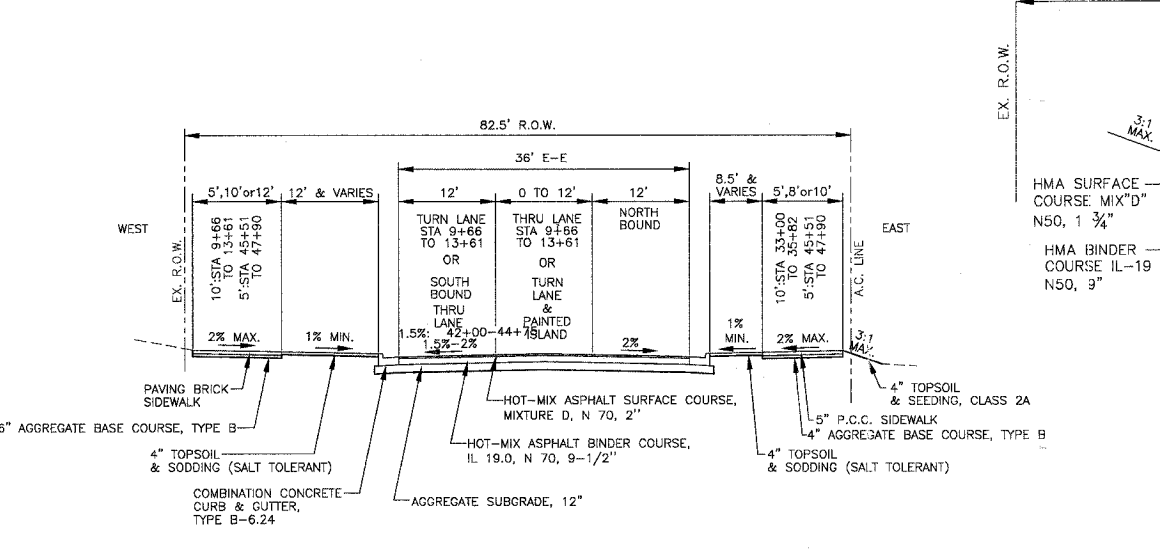
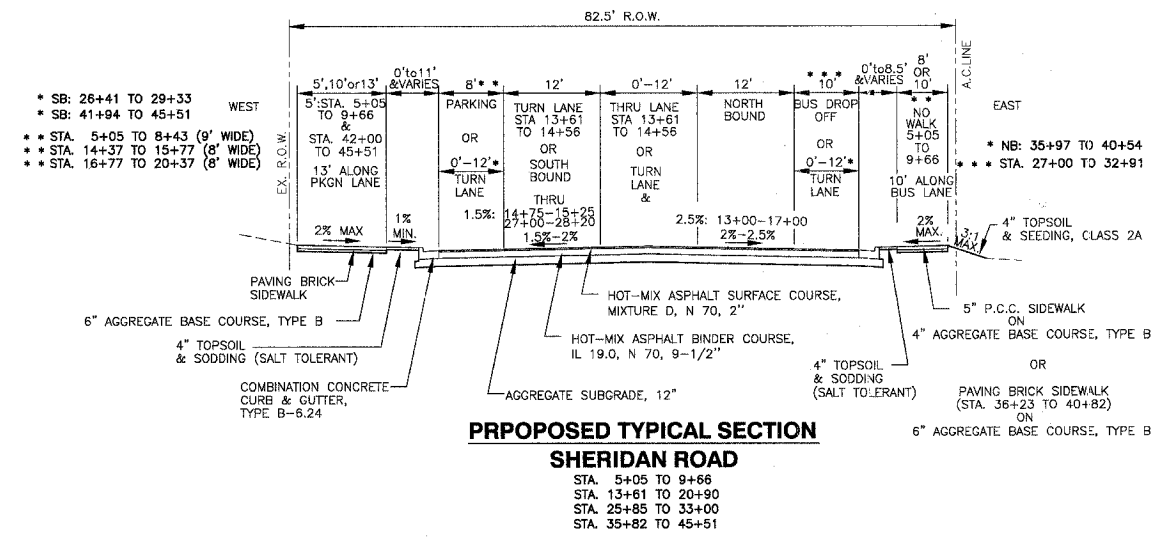
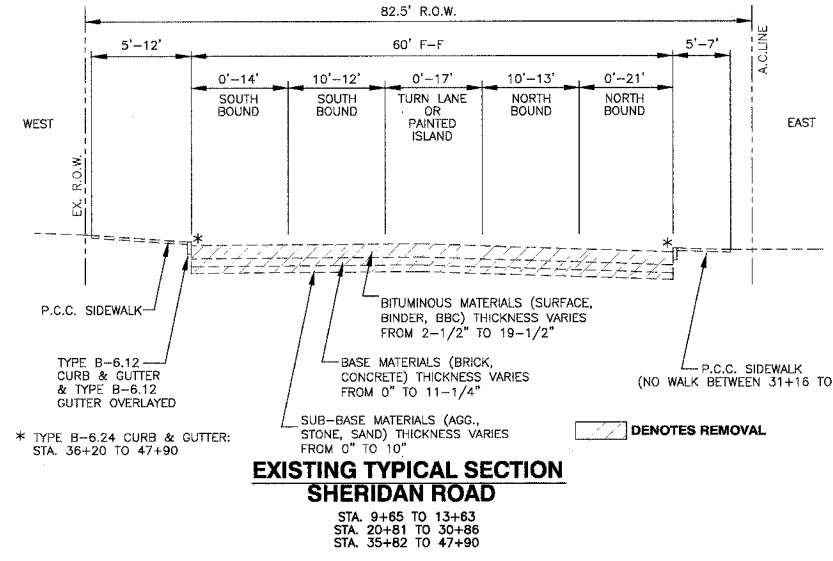
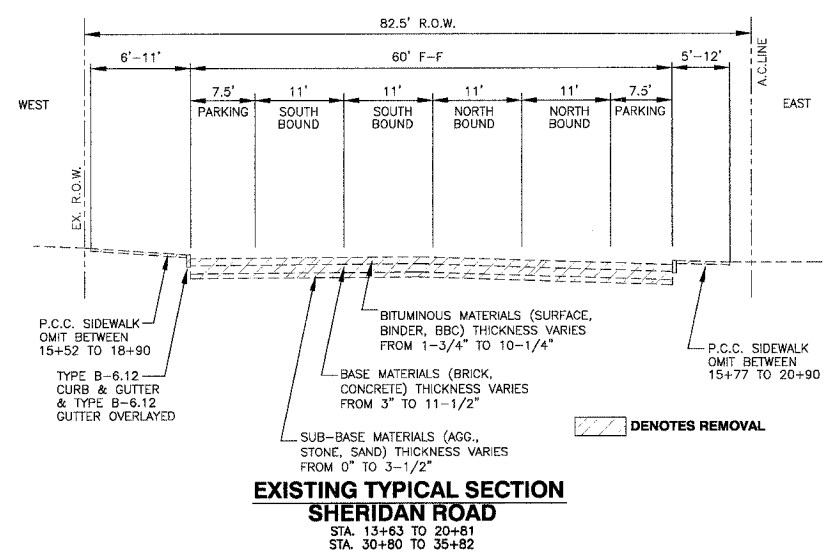
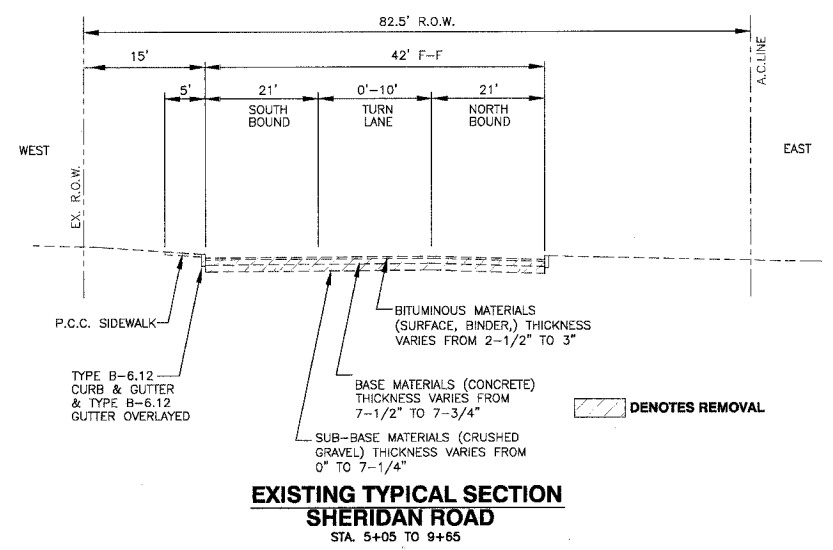
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SUMMARY OF QUANTITIES			
SHERIDAN ROAD IMPROVEMENTS			
CITY OF WAUKEGAN		LAKE COUNTY, ILLINOIS	
JOB NUMBER: 02-26-04-164		LAKE COUNTY, ILLINOIS	
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NOTE:  
 POROUS GRANULAR EMBANKMENT, SUBGRADE (PGES) AND GEOTECHNICAL FABRIC FOR GROUND STABILIZATION QUANTITY HAS BEEN INCLUDED IN CONTRACT FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSUITABLE OR UNSTABLE. THE ACTUAL NEED OF REMOVAL AND REPLACEMENT WITH PGES WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.03 AND THE UNDERCUT GUIDELINES IN THE IDOT SUBGRADE STABILITY MANUAL. AFTER EXCAVATION TO ROUGH SUBGRADE ELEVATION, THE ENGINEER OR SOILS INSPECTOR SHOULD OBSERVE THE BEHAVIOR OF THE ENTIRE EXPOSED SUBGRADE UNDER THE TRAFFIC OF HEAVY, RUBBER-TIRED CONSTRUCTION EQUIPMENT SUCH AS MOTOR GRADERS OR FULLY-LOADED DUMPTRUCKS. WHEREVER THERE IS EXCESSIVE DEFLECTION OR RUTTING, THE SOIL SHALL BE TREATED IN ACCORDANCE WITH THE GUIDELINES IN THE SSM. IF UNSTABLE AND/OR UNSUITABLE MATERIAL IS ENCOUNTERED, THE SOILS SHALL BE REMOVED AND REPLACED WITH PGES AS DETERMINED BY THE GEOTECHNICAL ENGINEER. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT, SUBGRADE AND SHALL BE IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF SECTION 207 OF THE STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. IF UNSTABLE AND/OR UNSUITABLE MATERIAL IS NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.

THE FOLLOWING IS A SUMMARY OF REMEDIAL TREATMENT AREAS:

LOCATION	TREATMENT DEPTH	TREATMENT WIDTH	TREATMENT AREA	PGES ESTIMATE
SHERIDAN ROAD STA. 13+25 TO 16+50	6"	Entire Pavement	2014 SY	332 CY
SHERIDAN ROAD STA. 34+75 TO 38+00	6"	Entire Pavement	1875 SY	309 CY
<b>TOTAL</b>				<b>641 CY</b>

STREET	2018 STRUCTURAL DESIGN DATA			STREET CLASS	TRAFFIC FACTOR	SSR	TEMP	AC	EAC	REQUIRED B.B. THICKNESS
	PV	SJ	MU							
SHERIDAN ROAD	8434	671	479	II	2.11	POOR	76	10	550	11.5"

PAY ITEM	A.C. TYPE	VOIDS	THICKNESS	USAGE
HOT MIX ASPHALT PAVEMENT (FULL DEPTH), 11 1/2"				
HOT MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	PG 64-22	4% @ 70 GYR.	2"	MAINLINE PAVING
HOT MIX ASPHALT BINDER COURSE, IL-19, N70	* PG 64-22	4% @ 70 GYR.	9-1/2"	
<b>TEMPORARY PAVEMENT</b>				
HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5 mm)	PG 64-22	4% @ 50 GYR.	1-3/4"	TEMPORARY PAVING FOR TRAFFIC STAGING
TEMP PAVEMENT (HMA BINDER IL-19 mm)	* PG 64-22	4% @ 50 GYR.	9"	
CLASS D PATCHES, TYPE III, 12" (BINDER IL-19 mm)	* PG 64-22	4% @ 70 GYR.	12"	PAVEMENT PATCHING FOR UTILITY INSTALLATION

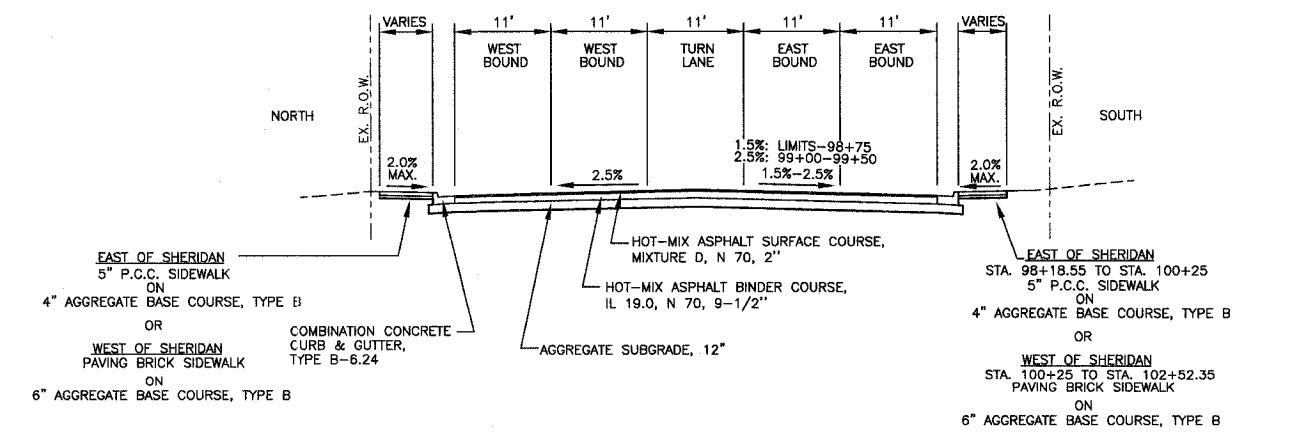
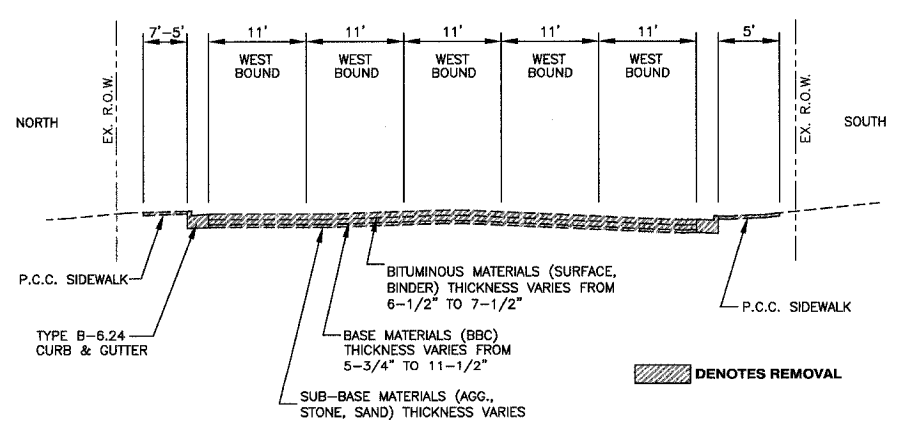
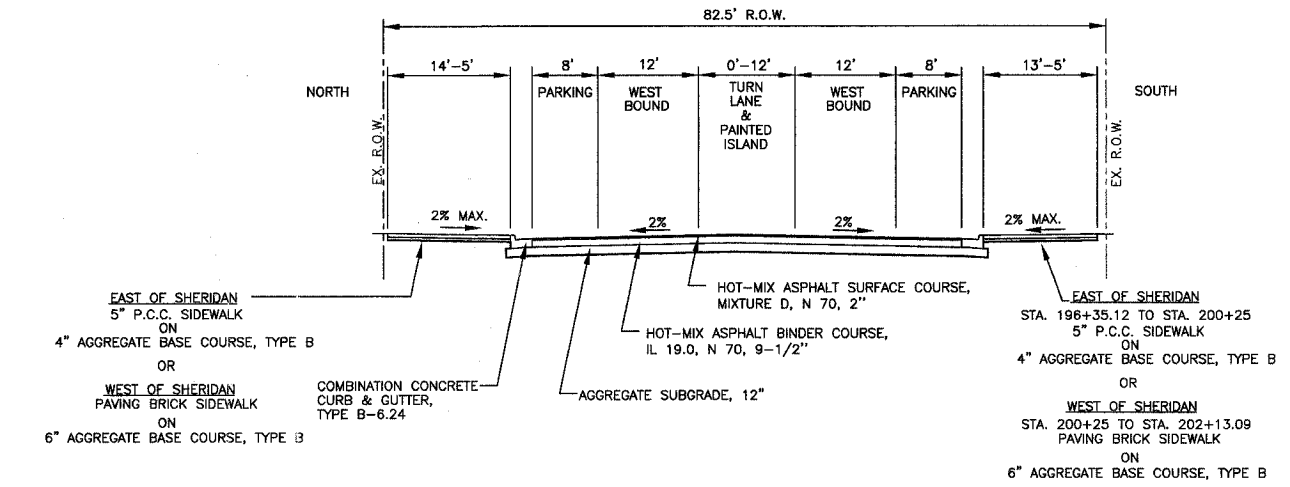
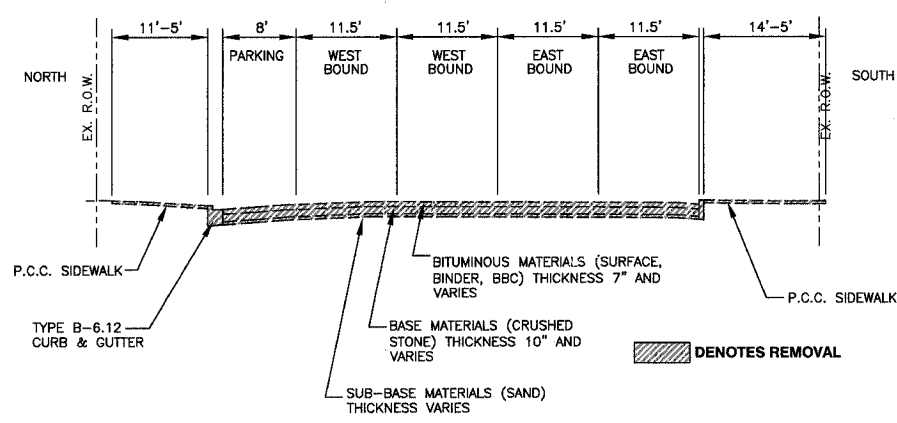
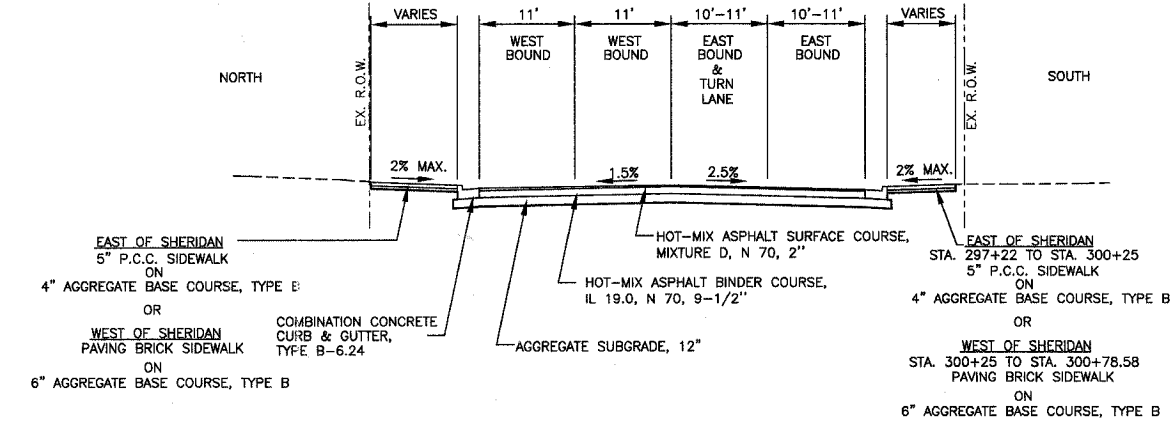
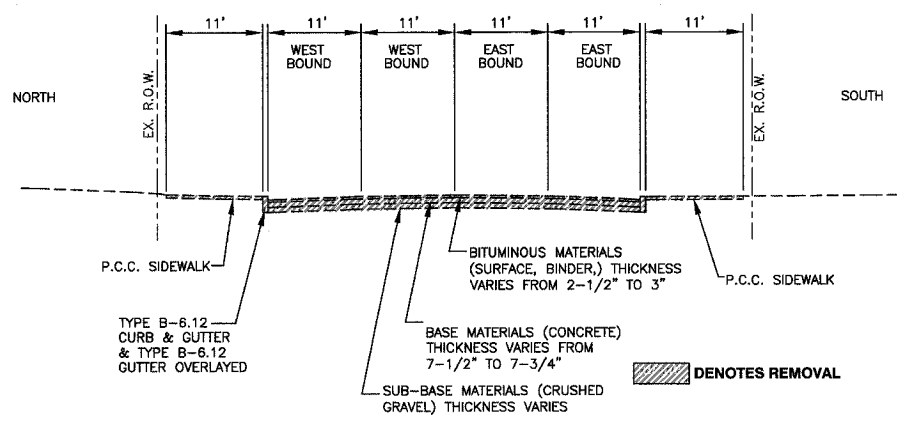
THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 lbs/sq yd-in  
 \* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG-58-22.

REVISIONS		
NO.	ITEM	DATE

SCALE:	NTS
DRAWN BY:	WS
CHECKED BY:	DBD
DATE:	1-16-06

**McCLURE ENGINEERING ASSOCIATES, INC.**  
 2728 Grand Avenue  
 Waukegan, Illinois 60085  
 TEL 847-336-7100 FAX 847-336-7155  
 Design Firm License: Illinois #184-000816  
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**TYPICAL SECTIONS**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-03-231 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sheridan-XSEC.dwg 7/3/2007 10:07:11 AM CDT



REVISIONS		
NO.	ITEM	DATE

SCALE:	NTS
DRAWN BY:	JH
CHECKED BY:	DD
DATE:	1-18-06

**McCLURE ENGINEERING ASSOCIATES, INC.**  
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 Waukegan, Illinois 50085  
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**TYPICAL SECTIONS**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-03-251 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sheridan-XSEC.dwg 7/3/2007 10:07:11 AM CDT

**SHERIDAN ROAD EARTHWORK**

**BELVIDERE ROAD EARTHWORK**

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	7
F.H.W.A. REG.	ILLINOIS	PROJECT M-8003 (453)	CONTRACT NO. 83829	

BEGIN STATION	END STATION	EARTH EXCAVATION (CUT)	EXCAVATION SHRINKAGE ADJUSTMENT (1-0.15)	EMBANKMENT (FILL)	EARTHWORK BALANCE, WASTE(+) OR SHORTAGE (-)
05+00.00	05+50.00	64.44	46.274	3.24	43.0
05+50.00	06+00.00	110.74	94.129	7.78	86.3
06+00.00	06+29.09	67.82	57.647	3.99	53.7
06+29.09	06+50.00	47.59	40.4515	2.52	37.9
06+50.00	07+00.00	117.78	100.113	3.70	96.4
07+00.00	07+50.00	116.67	99.1696	5.65	93.5
07+50.00	07+65.64	33.25	28.2625	2.26	26.0
07+65.64	08+00.00	70.88	60.248	6.11	54.1
08+00.00	08+50.00	92.96	79.016	17.41	61.6
08+50.00	08+60.37	20.34	17.289	2.57	14.7
08+60.37	09+00.00	78.09	66.3765	12.04	54.3
09+00.00	09+50.00	148.43	126.1655	12.87	113.3
09+50.00	09+66.09	74.34	63.189	0.00	63.2
09+66.09	10+00.00	176.46	149.991	2.01	148.0
10+00.00	10+50.00	213.15	161.1775	12.04	169.1
10+50.00	11+00.00	157.69	134.0365	18.70	115.3
11+00.00	11+43.50	136.38	115.923	12.81	103.1
11+43.50	11+50.00	20.72	17.612	1.32	16.3
11+50.00	12+00.00	142.22	120.887	26.11	94.8
12+00.00	12+50.00	124.26	105.621	35.83	69.8
12+50.00	13+00.00	152.04	129.234	28.52	100.7
13+00.00	13+50.00	189.26	160.871	21.94	138.9
13+50.00	13+61.26	46.33	39.3805	3.71	35.7
13+61.26	14+00.00	134.80	114.58	16.79	97.8
14+00.00	14+50.00	150.37	127.8145	29.54	98.3
14+50.00	15+00.00	149.54	127.109	32.50	94.6
15+00.00	15+50.00	146.20	124.27	33.24	91.0
15+50.00	16+00.00	145.46	123.641	34.35	89.3
16+00.00	16+26.39	88.16	74.936	14.95	60.0
16+26.39	16+50.00	67.64	57.494	19.85	37.6
16+50.00	17+00.00	100.56	85.476	48.98	36.5
17+00.00	17+50.00	116.94	99.399	32.41	67.0
17+50.00	18+00.00	120.83	102.7055	28.61	74.1
18+00.00	18+50.00	135.37	115.0645	22.87	92.2
18+50.00	19+00.00	131.67	111.9195	16.85	95.1
19+00.00	19+50.00	95.28	80.988	23.33	57.7
19+50.00	20+00.00	86.78	66.746	54.07	2.7
20+00.00	20+50.00	66.30	56.355	63.06	-6.7
20+50.00	20+89.91	79.67	67.7195	42.28	25.4
20+89.91	21+00.00	25.58	21.743	11.75	10.0
21+00.00	21+50.00	110.46	93.891	55.28	38.6
21+50.00	22+00.00	94.07	79.9595	45.74	34.2
22+00.00	22+50.00	101.02	85.967	37.59	48.3
22+50.00	23+00.00	102.04	86.734	38.98	47.6
23+00.00	23+50.00	100.28	85.238	43.70	41.5
23+50.00	24+00.00	97.78	83.113	48.33	34.6
24+00.00	24+50.00	87.96	74.766	55.00	19.8
24+50.00	25+00.00	80.37	68.3145	63.61	4.7
25+00.00	25+50.00	88.06	74.851	58.89	16.0
25+50.00	25+84.71	75.01	63.7585	39.47	24.3
25+84.71	26+00.00	33.92	28.832	24.89	3.9
26+00.00	26+50.00	76.39	64.9315	81.76	-16.8
26+50.00	27+00.00	52.04	44.234	58.33	-14.1
CONT.					

BEGIN STATION	END STATION	EARTH EXCAVATION (CUT)	EXCAVATION SHRINKAGE ADJUSTMENT (1-0.15)	EMBANKMENT (FILL)	EARTHWORK BALANCE, WASTE(+) OR SHORTAGE (-)
27+00.00	27+43.19	59.99	50.9915	31.75	19.2
27+43.19	27+50.00	11.70	9.945	2.95	7.0
27+50.00	28+00.00	87.41	74.2985	19.54	54.8
28+00.00	28+11.60	19.91	16.9235	4.15	12.8
28+11.60	28+50.00	76.23	64.7955	10.97	53.8
28+50.00	29+00.00	86.85	73.8225	22.96	50.9
29+00.00	29+50.00	67.13	57.0605	36.48	20.6
29+50.00	30+00.00	62.22	52.987	49.35	3.5
30+00.00	30+50.00	52.69	44.7865	71.67	-26.9
30+50.00	30+80.13	36.77	31.2545	47.59	-16.3
30+80.13	31+00.00	27.27	23.1795	37.09	-13.9
31+00.00	31+50.00	66.48	56.508	111.39	-54.9
31+50.00	32+00.00	76.57	65.0845	79.72	-14.6
32+00.00	32+50.00	86.57	73.5845	31.02	42.6
32+50.00	32+61.64	19.46	16.541	3.41	13.1
32+61.64	33+00.00	60.31	51.2635	17.62	33.6
33+00.00	33+50.00	76.11	64.6935	39.54	25.2
33+50.00	34+00.00	83.61	71.0685	45.56	25.5
34+00.00	34+50.00	94.17	80.0445	39.91	40.1
34+50.00	35+00.00	104.07	88.4595	38.43	50.0
35+00.00	35+50.00	119.07	101.2095	30.93	70.3
35+50.00	35+82.01	82.81	70.3885	14.11	56.3
35+82.01	36+00.00	45.24	38.454	11.86	26.6
36+00.00	36+50.00	104.54	88.859	34.54	54.3
36+50.00	37+00.00	93.52	79.492	36.94	42.6
37+00.00	37+50.00	96.30	81.855	61.76	20.1
37+50.00	37+93.92	101.18	86.003	36.60	49.4
37+93.92	38+00.00	14.78	12.563	2.41	10.2
38+00.00	38+35.94	61.83	52.5555	35.67	16.9
38+35.94	38+50.00	18.30	15.555	22.44	-6.9
38+50.00	39+00.00	81.20	69.02	90.83	-21.8
39+00.00	39+45.31	77.11	65.5435	80.97	-15.4
39+45.31	39+50.00	7.04	5.964	8.08	-2.1
39+50.00	40+00.00	85.00	72.25	97.31	-25.1
40+00.00	40+50.00	74.81	63.5885	128.98	-65.4
40+50.00	41+00.00	39.44	33.524	82.22	-48.7
41+00.00	41+24.33	14.10	11.985	6.89	5.1
41+24.33	41+50.00	16.35	13.8975	4.37	9.5
41+50.00	42+00.00	30.09	25.5765	35.00	-9.4
42+00.00	42+45.34	31.40	26.69	79.35	-52.7
42+45.34	42+50.00	3.09	2.6265	10.08	-7.5
42+50.00	43+00.00	53.98	45.883	90.58	-44.7
43+00.00	43+17.87	30.18	25.653	19.62	6.0
43+17.87	43+28.84	21.90	18.615	8.51	10.1
43+28.84	43+50.00	37.62	31.977	25.43	6.5
43+50.00	44+00.00	76.02	64.817	60.28	4.3
44+00.00	44+40.57	71.60	60.86	56.20	4.7
44+40.57	44+50.00	16.67	15.8695	17.08	-1.2
44+50.00	45+00.00	102.59	87.2015	88.61	-1.4
45+00.00	45+50.00	92.31	78.4635	97.13	-18.7
45+50.00	46+00.00	104.91	89.1735	64.44	24.7
46+00.00	46+50.00	111.94	95.749	24.63	70.5
46+50.00	47+00.00	88.43	75.1655	21.30	53.9
47+00.00	47+50.00	80.56	68.476	13.98	64.5
47+50.00	47+61.96	19.40	16.49	2.15	14.3
47+61.96	48+00.00	30.78	26.163	3.45	22.7
TOTAL					
		8706.0	7400.1	3665.9	3734.1

**WASHINGTON STREET EARTHWORK**

BEGIN STATION	END STATION	EARTH EXCAVATION (CUT)	EXCAVATION SHRINKAGE ADJUSTMENT (1-0.15)	EMBANKMENT (FILL)	EARTHWORK BALANCE, WASTE(+) OR SHORTAGE (-)
196+00.00	196+50.00	38.43	32.6855	0.28	32.4
196+50.00	197+00.00	73.33	62.3305	2.31	60.0
197+00.00	197+24.23	23.51	19.9835	3.59	16.0
197+24.23	197+50.00	27.49	23.3895	3.63	19.7
197+50.00	198+00.00	77.31	65.7135	1.67	64.0
198+00.00	198+50.00	72.13	61.3105	1.76	59.6
198+50.00	199+00.00	86.48	73.508	1.39	72.1
199+00.00	199+50.00	117.87	100.1885	6.39	93.8
199+50.00	200+00.00	82.96	70.516	5.93	64.6
(INCLUDED IN SHERIDAN ROAD CALCULATIONS)					
200+50.00	201+00.00	5.46	4.641	92.78	-88.1
201+00.00	201+50.00	2.78	2.363	56.15	-55.8
201+50.00	202+00.00	39.26	33.371	13.70	19.7
202+00.00	202+50.00	36.94	31.399	0.09	31.3
TOTAL					
		684.0	581.4	192.1	389.3

**GRAND AVENUE EARTHWORK**

BEGIN STATION	END STATION	EARTH EXCAVATION (CUT)	EXCAVATION SHRINKAGE ADJUSTMENT (1-0.15)	EMBANKMENT (FILL)	EARTHWORK BALANCE, WASTE(+) OR SHORTAGE (-)
98+00.00	98+50.00	6.48	5.508	5.93	-0.4
98+50.00	98+65.42	4.28	3.638	3.54	0.1
98+65.42	99+00.00	25.49	21.8665	4.74	18.9
99+00.00	99+50.00	83.24	73.754	9.26	44.5
(INCLUDED IN SHERIDAN ROAD CALCULATIONS)					
101+00.00	101+50.00	50.28	42.738	10.65	32.1
101+50.00	102+00.00	51.11	43.4435	5.56	37.9
102+00.00	102+50.00	51.67	43.9195	1.30	42.6
102+50.00	103+00.00	21.30	18.105	0.00	18.1
TOTAL					
		273.9	232.8	41.0	191.8

**EARTHWORK SUMMARY**

LOCATION	EARTH EXCAVATION (CUT)	EXCAVATION SHRINKAGE ADJUSTMENT (1-0.15)	EMBANKMENT (FILL)	EARTHWORK BALANCE, WASTE(+) OR SHORTAGE (-)
SHERIDAN ROAD	8706.0	7400.1	3665.9	3734.1
BELVIDERE ROAD	295.7	251.3	11.2	240.1
WASHINGTON STREET	684.0	581.4	192.1	389.3
GRAND AVENUE	273.9	232.8	41.0	191.8
TOTAL				
	9959.4	8465.5	3910.2	4555.3

EARTH EXCAVATION 9959.4 CY  
WASTE 4555.3 CY

**TREE REMOVAL**

BEGIN STATION	OFFSET DIST.	LT/RT	TREE 6"-15" (UNITS)	TREE +15" (UNITS)
22+44	33.00	L	8	
22+62	44.50	R	8	
23+24	34.00	L	7	
25+04	50.00	R	12	
25+21	47.00	R	14	
28+04	57.00	R	12	
28+99	44.00	R	4	
29+04	46.00	R	6	
29+06	44.00	R	4	
29+14	47.00	R	6	
30+28	46.00	R		
30+26	54.00	R	4	
30+34	53.00	R	6	
30+37	46.50	R	4	
30+41	55.00	R	6	
31+34.5	37.00	L		18
31+42	50.00	R	4	
31+46	42.00	R	4	
31+49	50.50	R	6	
31+55.5	41.50	R	4	
31+56.5	37.00	L	8	
31+61	50.00	R	4	
CONT.				

BEGIN STATION	OFFSET DIST.	LT/RT	TREE 6"-15" (UNITS)	TREE +15" (UNITS)
31+79	37.00	L	10	
32+65	55.00			

**STORM STRUCTURE SCHEDULE**

Station	Offset	Left/Right	Structure Type	Type	Diameter	Frame	Rim	North Invert	South Invert	East Invert	West Invert	Other Invert
5+35.56	19.88'	RT	INLET	A	2'	24	628.48			624.91		
7+10.00	18.00'	RT	CB	C	2'	24	627.61			624.28	624.28	
7+10.00	15.00'	LT	INLET	A	2'	24	627.93			624.43		
7+10.00	27.27'	RT	RDMH	A	5'	1 CL	628.20	620.81	620.81		624.22	
9+22.30	22.69'	LT	INLET	A	2'	24	627.08			623.58		
9+23.00	23.82'	RT	RDMH	A	5'	24	626.97	619.74	619.74		623.35	
10+10.49	31.55'	RT	INLET	A	2'	24	626.80			623.85	623.30	
10+10.84	22.30'	LT	INLET	A	2'	24	627.05			623.55		
10+34.75	23.16'	RT	RDMH	A	5'	24	626.90	619.30	619.30		623.17	
10+34.99	18.00'	LT	INLET	A	2'	24	626.88			623.38		
11+71.00	18.00'	RT	CB	C	2'	24	627.53			623.85	623.85	
11+71.00	18.00'	LT	INLET	A	2'	24	627.53			624.03		
11+71.00	24.86'	RT	RDMH	A	5'	1 CL	627.54	618.77	618.77		623.81	
13+13.34	29.14'	LT	INLET	A	2'	24	628.45	624.95				
13+46.90	27.39'	RT	RDMH	A	5'	1 CL	628.91	618.38	618.38		624.53	
13+92.66	30.54'	LT	INLET	A	2'	24	628.42		624.92			
15+76.69	28.00'	LT	INLET	A	2'	24	626.18	622.68				
16+04.00	18.00'	RT	CB	C	2'	24	626.25			622.32	622.32	
16+04.00	25.45'	LT	RDCB	A	4'	24	626.10		622.55	622.55		
16+47.89	25.58'	LT	INLET	A	2'	24	625.82	622.12				
16+89.09	18.00'	RT	CB	C	2'	24	625.43			621.60	621.60	
16+89.09	26.00'	LT	RDCB	A	4'	24	625.43		621.92	621.93	622.41	
16+89.09	34.45'	LT	RDMH	A	4'	1 CL	625.88	622.45		622.45		
17+16.70	18.00'	RT	CB	C	2'	24	625.57			621.69	621.69	
17+16.70	26.00'	LT	INLET	A	2'	24	625.41			621.91		
19+03.97	26.00'	RT	CB	C	2'	24	626.88			622.90	623.00	
19+03.97	26.00'	LT	INLET	A	2'	24	626.72			623.22		
197+50.00	23.18'	LT	INLET	A	2'	24	641.58		638.08			
197+50.00	25.82'	RT	RDCB	A	5'	24	641.71	637.83				
198+99.72	23.49'	LT	INLET	A	2'	24	638.83		635.53			
198+99.72	25.51'	RT	RDCB	A	5'	24	639.13	635.08				
20+51.66	18.00'	RT	INLET	A	2'	24	627.92	624.42				
20+64.29	12.85'	RT	RDMH	A	6'	1 CL	628.15	614.05	613.85		617.35	624.35
20+70.69	45.96'	LT	INLET	A	2'	24	628.76	625.26				
21+11.20	50.15'	LT	RDMH	A	4'	1 CL	629.29	625.68	625.58			626.32
21+14.71	46.60'	LT	INLET	A	2'	24	629.20					625.70
22+14.94	18.00'	LT	CB	C	2'	24	629.63			626.13	626.13	
22+14.94	18.00'	RT	INLET	A	2'	24	629.63			626.13		
22+15.00	12.16'	RT	RDMH	A	5'	1 CL	629.75	618.64	618.64	626.10	626.98	
24+11.02	18.00'	LT	CB	C	2'	24	632.72			629.22	629.22	
24+11.02	18.00'	RT	INLET	A	2'	24	632.72			629.22		
26+75.00	36.00'	RT	CB	C	2'	1 OL	633.75					630.25
27+05.92	30.00'	LT	INLET	A	2'	24	635.25			631.75		
28+01.04	30.00'	LT	INLET	A	2'	24	634.77			631.27		
28+01.11	28.00'	RT	INLET	A	2'	24	634.81				631.31	
28+01.11	8.00'	RT	RDMH	A	5'	1 CL	635.21	621.22	621.22	631.21	631.08	
28+86.22	22.09'	LT	CB	C	2'	24	634.23			630.73		
28+86.22	28.00'	RT	INLET	A	2'	24	634.12				630.62	
29+71.66	18.00'	LT	INLET	A	2'	24	633.91			630.41		
29+71.66	28.00'	RT	INLET	A	2'	24	633.71				630.21	
29+71.66	7.37'	RT	RDMH	A	5'	1 CL	634.12	621.92	621.92	630.12	630.28	
30+24.20	28.00'	RT	INLET	A	2'	24	633.49					629.99
30+34.66	6.89'	RT	RDMH	A	5'	1 CL	633.87	622.22		629.87	630.53	
30+56.24	26.38'	LT	INLET	A	2'	24	634.23			630.73		
30+85.00	28.00'	RT	INLET	A	2'	24	633.24				629.74	
30+91.46	43.11'	LT	MH	A	5'	1 CL	633.24			625.95	627.41	
32+31.69	18.00'	LT	INLET	A	2'	24	632.83			629.33		
32+31.69	28.00'	RT	INLET	A	2'	24	633.18				629.68	
33+12.00	18.00'	LT	INLET	A	2'	24	632.50			629.00		
33+12.00	18.00'	RT	INLET	A	2'	24	632.50				629.00	
33+12.00	5.23'	RT	RDMH	A	5'	1 CL	632.76	624.15	624.15	628.94	628.88	
33+92.00	18.00'	LT	INLET	A	2'	24	632.17			628.67		
33+92.00	18.00'	RT	INLET	A	2'	24	632.17				628.67	
33+92.00	2.50'	RT	RDMH	A	5'	1 CL	632.48	624.43	624.43	628.60	628.57	
34+73.00	18.00'	LT	INLET	A	2'	24	631.83			628.33		
34+73.00	18.00'	RT	INLET	A	2'	24	631.83				628.33	
34+73.00	0.28'	LT	RDMH	A	5'	1 CL	632.18	624.72	624.72	628.24	628.24	
35+61.78	18.00'	RT	INLET	A	2'	24	631.62				628.12	
35+63.35	3.00'	LT	RDMH	A	5'	1 CL	631.92	624.96	624.96	628.02	626.96	
35+65.40	30.51'	LT	RDCB	A	4'	24	632.17			627.00	627.00	629.99
35+68.59	87.64'	LT	INLET	A	2'	24	633.95	628.13				
35+76.67	86.92'	LT	RDMH	A	5'	1 CL	634.30	628.08	628.08	628.08		
35+81.69	18.00'	RT	INLET	A	2'	24	631.65				628.15	
36+16.85	84.16'	LT	INLET	A	2'	24	633.95		628.18			
37+15.37	3.52'	RT	RDMH	A	5'	1 CL	632.81	626.22	626.22	628.68	628.91	
37+15.44	17.99'	LT	INLET	A	2'	24	632.52			629.02		
37+15.44	28.57'	RT	INLET	A	2'	24	632.31				628.81	
38+26.48	7.04'	RT	RDMH	A	5'	1 CL	633.62	627.11	627.11		628.67	
38+32.27	18.00'	LT	CB	C	2'	24	633.44			628.80		
38+82.00	30.00'	RT	CB	C	2'	24	633.59			630.20	630.10	
38+82.00	18.00'	LT	INLET	A	2'	24	633.83			631.33		
38+82.00	41.40'	RT	INLET	A	2'	1 OL	632.75				629.25	
38+82.00	7.26'	RT	RDMH	A	5'	1 CL	634.05	627.55	627.55	629.08	630.20	
40+20.15	24.81'	LT	CB	C	2'	24	634.75			631.25	632.49	
40+20.23	7.66'	RT	RDMH	A	5'	1 CL	635.10	628.65	628.65		631.09	
40+93.69	5.72'	RT	RDMH	A	5'	1 CL	635.40	629.82	629.80		629.80	
43+30.51	18.00'	RT	CB	C	2'	24	634.25			629.26	629.36	
43+30.51	30.00'	LT	INLET	A	2'	24	634.01			629.60		
43+30.51	28.50'	RT	RDMH	A	4'	1 CL	634.15	626.87			629.22	
44+64.37	18.00'	RT	CB	C	2'	24	633.25			626.24	626.34	
44+64.99	25.85'	LT	INLET	A	2'	24	633.08			626.56	626.66	
44+64.21	28.82'	RT	RDMH	A	5'	1 CL	633.77	626.10	626.19		626.19	
45+37.64	27.17'	RT	RDMH	A	5'	1 CL	633.04	625.30				
45+95.22	16.99'	LT	RDCB	A	4'	24	631.80	628.53			625.99	626.09
45+95.22	16.59'	RT	RDCB	A	4'	24	631.81	628.54		625.72	625.82	
45+95.22	23.34'	RT	RDMH	A	5'	1 CL	631.72	626.45	625.59		625.69	
46+15.00	16.40'	LT	INLET	A	2'	24	632.12			628.62		
46+15.00	16.08'	RT	INLET	A	2'	24	632.13			628.63		
46+31.19	21.32'	RT	CB	C	2'	1 OL	630.33	627.19				
99+25.91	28.68'	RT	RDCB	A	5'	24	636.32			631.13	631.13	
99+59.74	31.56'	LT	INLET	A	2'	24	635.78			632.28		
197+50.00	23.18'	LT	INLET	A	2'	24	641.58		638.08			
197+50.00	25.82'	RT	RDCB	A	5'	24	641.71	637.83		637.83	637.83	
198+99.72	23.49'	LT	INLET	A	2'	24	638.83		635.33			
198+99.72	25.51'	RT	RDCB	A	5'	24	639.13	635.08		635.08	635.08	

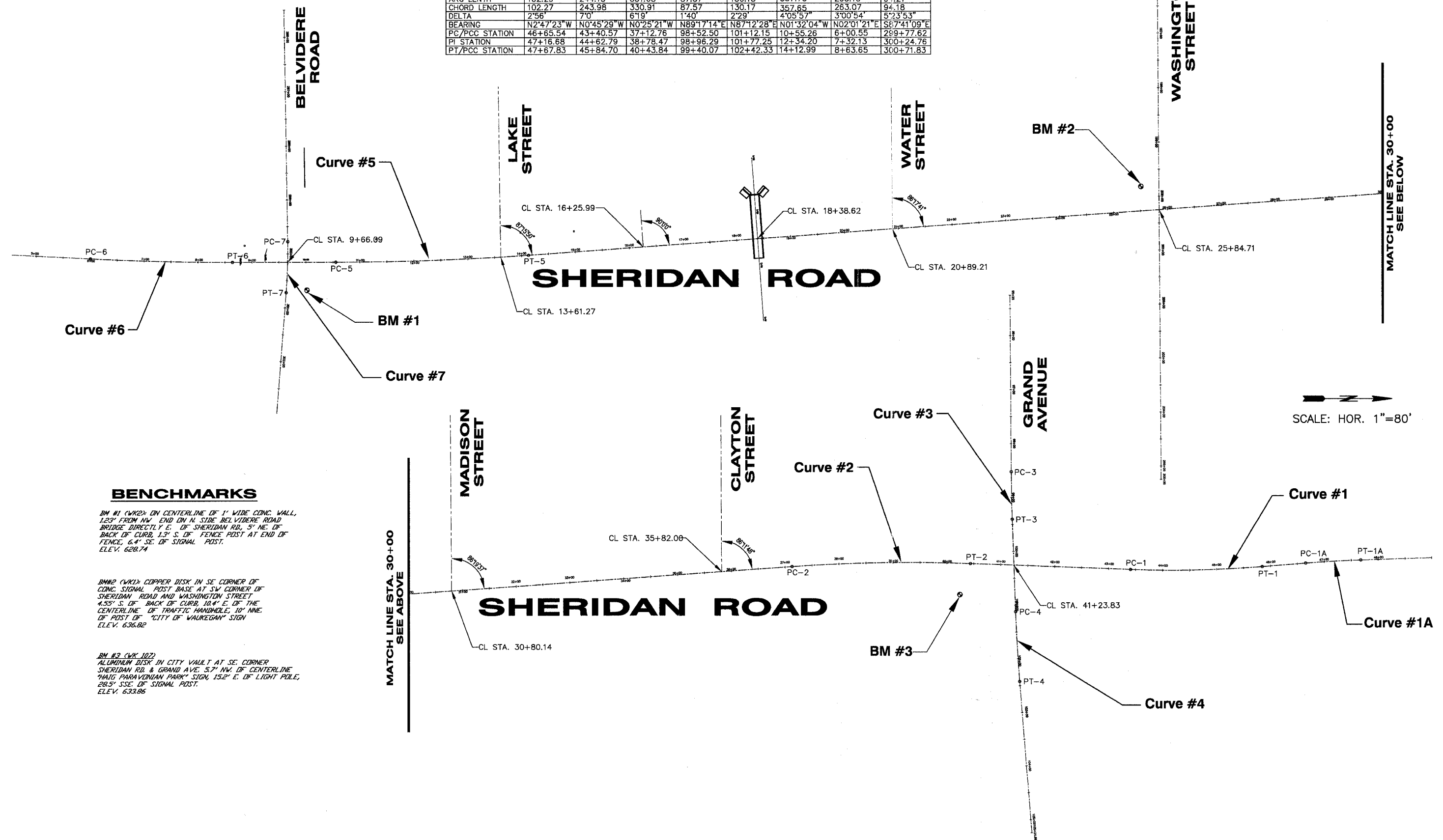
**STORM SEWER SCHEDULE**

Upstream Structure Sta.	Downstream Structure Sta.	Type & Class	Diameter	Length	Pipe Slope	Trench Backfill
5+17.49,20.37R	EX MH	RCCP TYPE 2, CLASS III	12"	14'	0.50	1
7+10.00,15.00L	7+10.00,15.00R	RCCP TYPE 2, CLASS III	12"	34'	0.50	5
7+10.00,15.00R	7+10.00,27.27R	RCCP TYPE 2, CLASS III	12"	9'	0.50	9
9+22.30,22.69L	9+23.00,23.82R	RCCP TYPE 2, CLASS III	12"	47'	0.50	6
10+10.84,22.30L	EX MH	RCCP TYPE 2, CLASS III	12"	47'	0.50	6
10+10.49,31.55R	EX MH	RCCP TYPE 2, CLASS III	12"	9'	0.50	1
10+34.99,18.00L	10+34.75,23.16R	RCCP TYPE 2, CLASS III	12"	43'	0.50	6
11+71.00,18.00L	11+71.00,18.00R	RCCP TYPE 2, CLASS III	12"	37'	0.50	5
11+71.00,18.00R	11+71.00,24.86R	RCCP TYPE 2, CLASS III	12"	7'	0.50	1
13+13.34,29.14L	EX MH	RCCP TYPE 2, CLASS III	12"	13'	0.50	2
13+92.66,30.54L	EX MH	RCCP TYPE 2, CLASS III	12"	45'	0.50	6
EX MH	13+46.90,27.39R	RCCP TYPE 2, CLASS III	12"	57'	0.50	12
15+76.69,28.00L	16+04.00,25.45L	RCCP TYPE 2, CLASS III	12"	27'	0.50	12
16+04.00,25.45L	16+04.00,18.00R	RCCP TYPE 2, CLASS III	12"	45'	0.50	6
16+04.00,18.00R	EX MH	RCCP TYPE 2, CLASS III	12"	22'	0.50	2
16+47.89,25.58L	16+89.09,26.00					

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	8
F.H.W.A. REG.	ILLINOIS	PROJECT M-8003 (453)	CONTRACT NO. 83829	

**CURVE DATA**

CURVE No.	1A	1	2	3	4	5	6	7
RADIUS	2000.00	2000.00	3000.00	3000.00	3000.00	5000.00	5000.00	1000.00
TANGENT LEGNTH	51.15	122.22	165.71	43.79	65.10	178.94	131.58	47.14
ARC LENTH	102.29	244.13	330.08	87.57	130.18	357.73	263.10	94.21
CHORD LENGTH	102.27	243.98	330.91	87.57	130.17	357.65	263.07	94.18
DELTA	2°56'	7°0'	6°19'	1°40'	2°29'	4°05'57"	3°00'54"	5°23'53"
BEARING	N2°47'23"W	N0°45'29"W	N0°25'21"W	N89°17'14"E	N87°12'28"E	N01°32'04"W	N02°01'21"E	S67°41'09"E
PC/PCC STATION	46+65.54	43+40.57	37+12.76	98+52.50	101+12.15	10+55.26	6+00.55	299+77.62
PI STATION	47+16.68	44+62.79	38+78.47	98+96.29	101+77.25	12+34.20	7+32.13	300+24.76
PT/PCC STATION	47+67.83	45+84.70	40+43.84	99+40.07	102+42.33	14+12.99	8+63.65	300+71.83



**BENCHMARKS**

**BM #1 (WK2):** ON CENTERLINE OF 1' WIDE CONC. WALL, 1.23' FROM NW END ON N. SIDE BELVIDERE ROAD, BRIDGE DIRECTLY E. OF SHERIDAN RD., 5' NE. OF BACK OF CURB, 1.3' S. OF FENCE POST AT END OF FENCE, 6.4' SE. OF SIGNAL POST. ELEV. 628.74

**BM #2 (WK1):** COPPER DISK IN SE CORNER OF CONC. SIGNAL POST BASE AT SW CORNER OF SHERIDAN ROAD AND WASHINGTON STREET, 4.53' S. OF BACK OF CURB, 10.4' E. OF THE CENTERLINE OF TRAFFIC HANDHOLE, 10' NINE. OF POST OF "CITY OF WAUKEGAN" SIGN. ELEV. 636.82

**BM #3 (WK 107):** ALUMINUM DISK IN CITY VAULT AT SE CORNER SHERIDAN RD. & GRAND AVE. 5.7' NW. OF CENTERLINE "HAIG PARAVANIAN PARK" SIGN, 15.2' E. OF LIGHT POLE, 28.5' SSE. OF SIGNAL POST. ELEV. 633.86

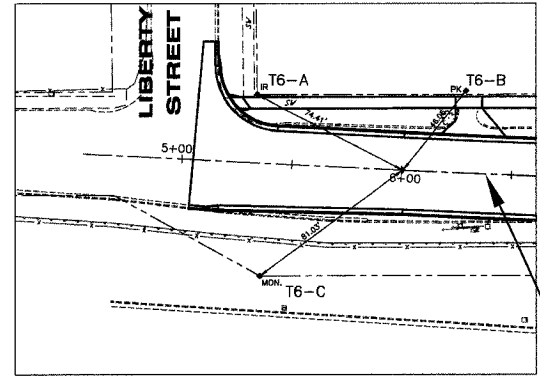
REVISIONS		
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SCALE:	1" = 80'
DRAWN BY:	MRT
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DATE:	1-16-06

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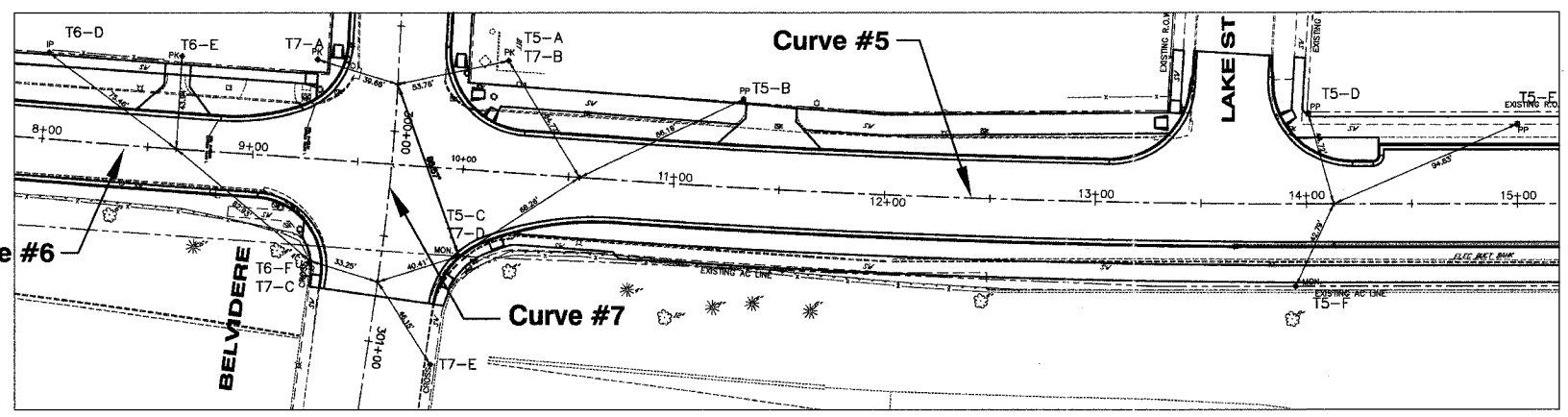
**ALIGNMENT CURVE DATA AND BENCHMARKS**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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**CURVE #6**

	NORTHING	EASTING	DESCRIPTION
PC-6 STA. 6+00.55	2072038.47	1120440.23	P.K. NAIL
T6-A	2071972.72	1120405.38	IRON ROD
T6-B	2072067.61	1120404.57	P.K. NAIL
T6-C	2071972.95	1120487.92	MONUMENT

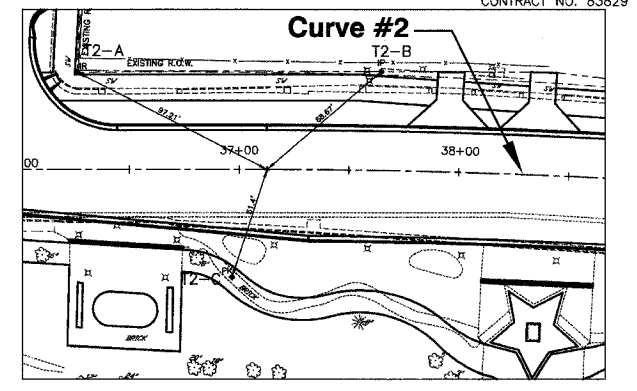


**CURVE #6**

	NORTHING	EASTING	DESCRIPTION
PT-6 STA. 8+63.65	2072301.38	1120449.52	P.K. NAIL
T6-D	2072238.47	1120407.84	IRON PIPE
T6-E	2072301.41	1120405.58	P.K. NAIL
T6-F	2072368.13	1120498.73	CUT CROSS

**CURVE #5**

	NORTHING	EASTING	DESCRIPTION
PC-5 STA. 10+55.26	2072492.98	1120451.24	P.K. NAIL
PT-5 STA. 14+12.99	2072850.50	1120441.67	P.K. NAIL
T5-A	2072456.10	1120398.00	P.K. NAIL
T5-B	2072568.25	1120409.25	POWER POLE
T5-C	2072438.23	1120491.98	MONUMENT
T5-D	2072835.75	1120399.45	POWER POLE
T5-E	2072934.89	1120398.40	POWER POLE
T5-F	2072834.98	1120481.53	MONUMENT

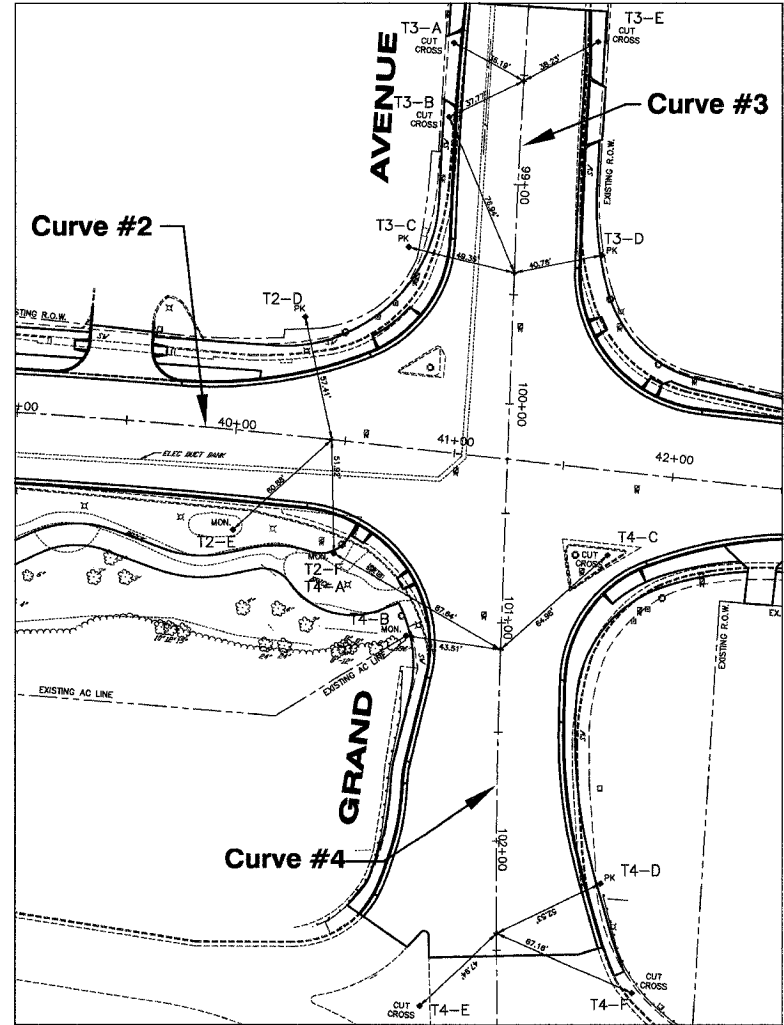


**CURVE #2**

	NORTHING	EASTING	DESCRIPTION
PC-2 STA. 37+12.76	2075145.78	1120297.90	P.K. NAIL
T2-A	2075056.74	1120258.90	IRON ROD
T2-B	2075194.90	1120249.91	IRON PIPE
T2-C	2075132.92	1120347.66	P.K. NAIL

**CURVE #3**

	NORTHING	EASTING	DESCRIPTION
PC-3 STA. 98+52.50	2075553.68	1120126.56	P.K. NAIL
PT-3 STA. 99+40.07	2075554.77	1120214.12	P.K. NAIL
T3-A	2075520.84	1120111.36	CUT CROSS
T3-B	2075520.78	1120145.10	CUT CROSS
T3-C	2075506.17	1120205.51	P.K. NAIL
T3-D	2075594.13	1120203.50	CUT CROSS
T3-E	2075586.41	1120106.80	P.K. NAIL



**CURVE #2**

	NORTHING	EASTING	DESCRIPTION
PT-2 STA. 40+43.84	2075476.68	1120295.46	P.K. NAIL
T2-D	2075461.03	1120240.22	P.K. NAIL
T2-E	2075434.34	1120339.20	MONUMENT
T2-F	2075480.91	1120347.20	MONUMENT

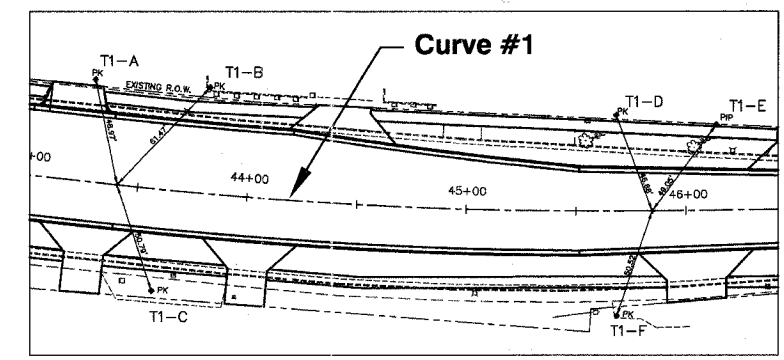
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PC-4 STA. 101+12.15	2075559.42	1120386.13	P.K. NAIL
PT-4 STA. 102+42.33	2075565.77	1120516.15	P.K. NAIL
T4-A	2075480.91	1120347.20	MONUMENT
T4-B	2075516.06	1120382.58	MONUMENT
T4-C	2075605.35	1120340.17	CUT CROSS
T4-D	2075611.67	1120490.62	P.K. NAIL
T4-E	2075532.87	1120551.03	CUT CROSS
T4-F	2075628.94	1120538.96	CUT CROSS

**CURVE #7**

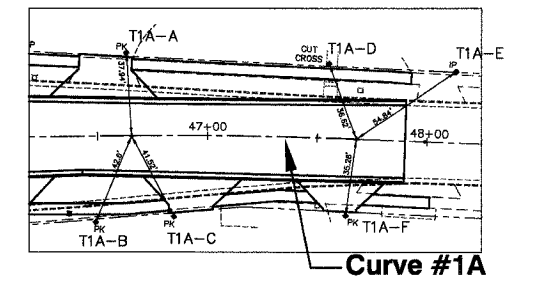
	NORTHING	EASTING	DESCRIPTION
PC-7 STA. 299+77.62	2072404.28	1120412.34	P.K. NAIL
PT-7 STA. 300+71.83	2072400.48	1120506.44	P.K. NAIL
T7-A	2072365.72	1120403.08	P.K. NAIL
T7-B	2072456.10	1120398.00	P.K. NAIL
T7-C	2072368.13	1120498.73	CUT CROSS
T7-D	2072438.23	1120491.98	MONUMENT
T7-E	2072427.80	1120543.64	CUT CROSS

# SHERIDAN ROAD



**CURVE #1**

	NORTHING	EASTING	DESCRIPTION
PC-1 STA. 43+40.57	2075773.07	1120309.64	P.K. NAIL
PT-1 STA. 45+84.70	2076017.03	1120306.41	P.K. NAIL
T1-A	2075760.49	1120262.31	P.K. NAIL
T1-B	2075812.72	1120262.67	P.K. NAIL
T1-C	2075791.63	1120356.92	P.K. NAIL
T1-D	2075997.96	1120263.80	P.K. NAIL
T1-E	2076043.70	1120265.24	IRON PIPE
T1-F	2076003.91	1120355.20	P.K. NAIL



**CURVE #1A**

	NORTHING	EASTING	DESCRIPTION
PC-1A STA. 46+65.54	2076097.65	1120300.41	P.K. NAIL
PT-1A STA. 47+67.83	2076199.80	1120295.43	P.K. NAIL
T1A-A	2076092.88	1120262.78	P.K. NAIL
T1A-B	2076083.84	1120340.71	P.K. NAIL
T1A-C	2076119.17	1120335.92	P.K. NAIL
T1A-D	2076185.25	1120261.83	CUT CROSS
T1A-E	2076243.27	1120262.01	IRON PIPE
T1A-F	2076197.06	1120330.61	P.K. NAIL

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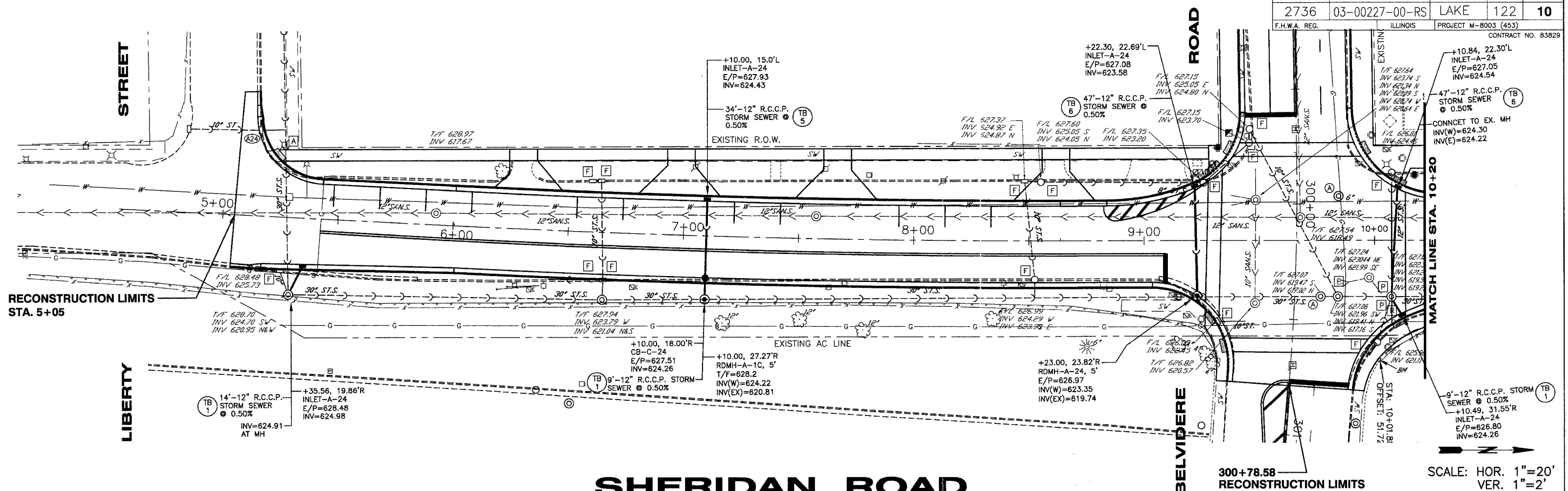
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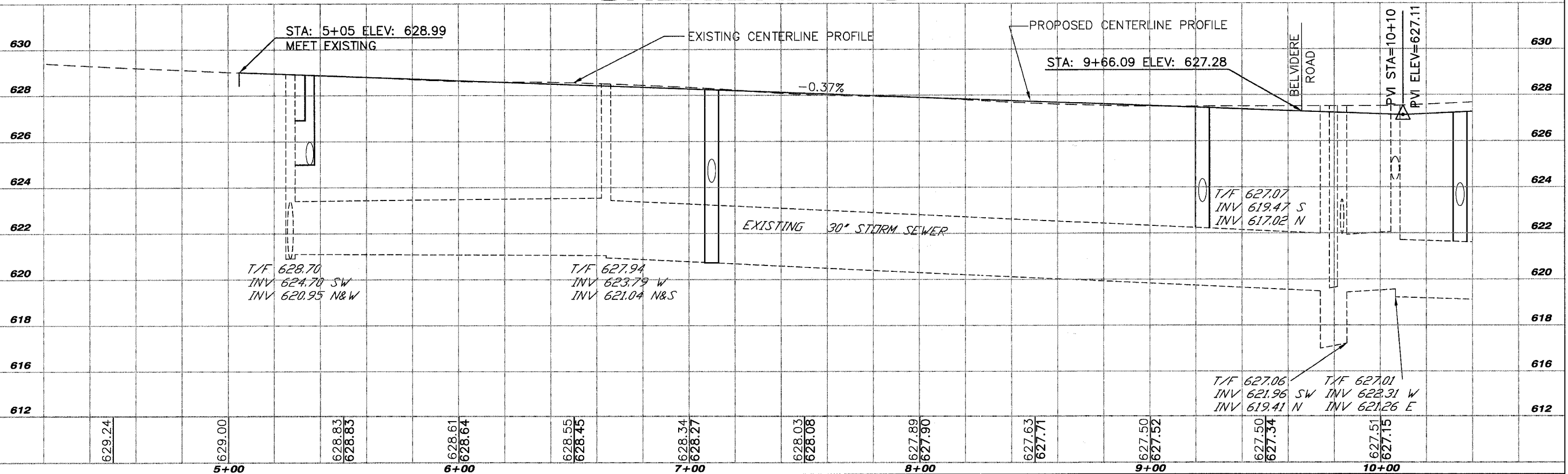
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**TIE POINTS AND CONTROL**  
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# SHERIDAN ROAD



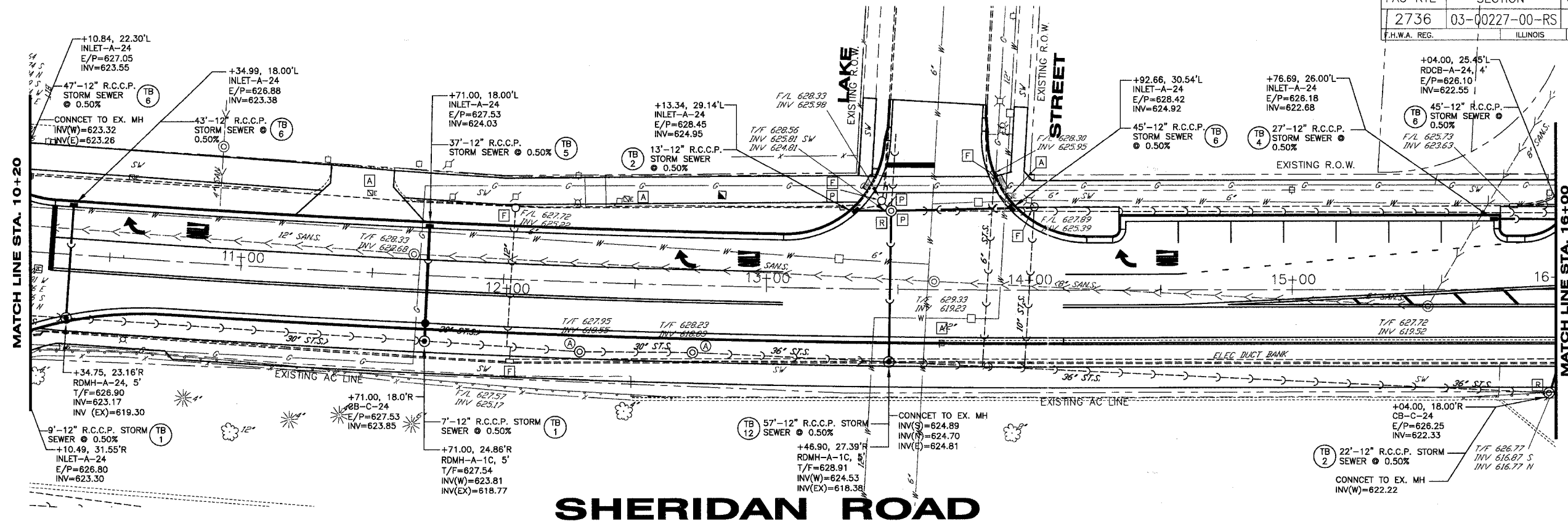
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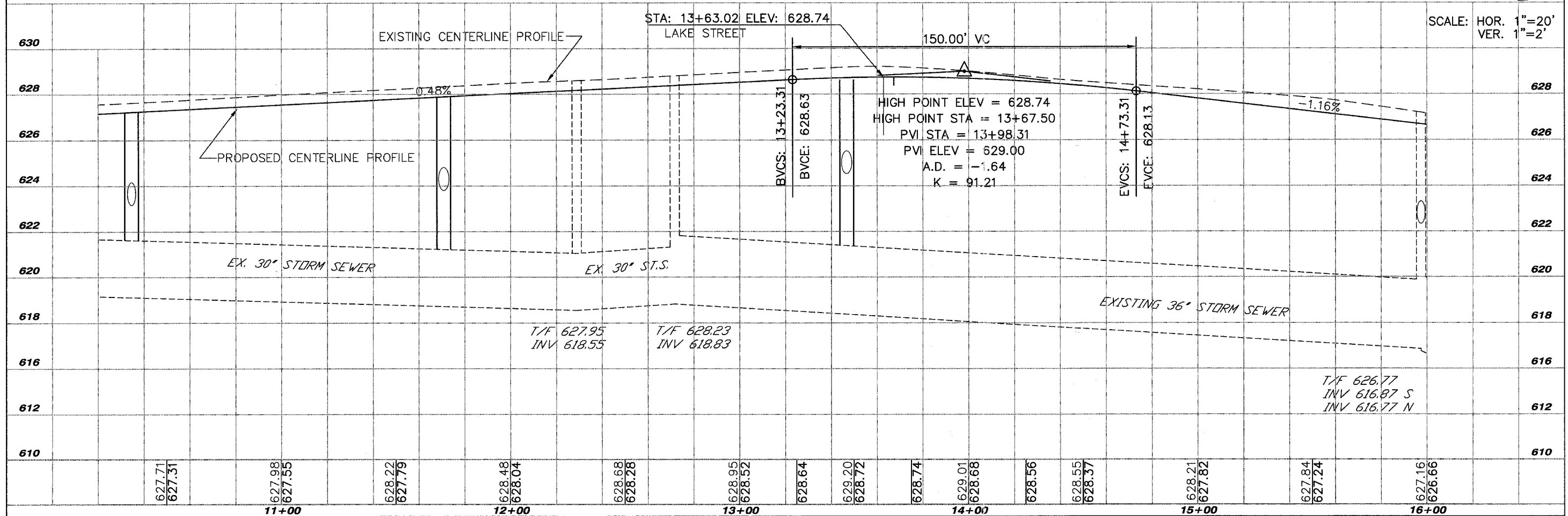
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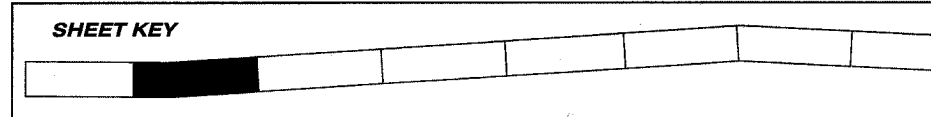
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# SHERIDAN ROAD



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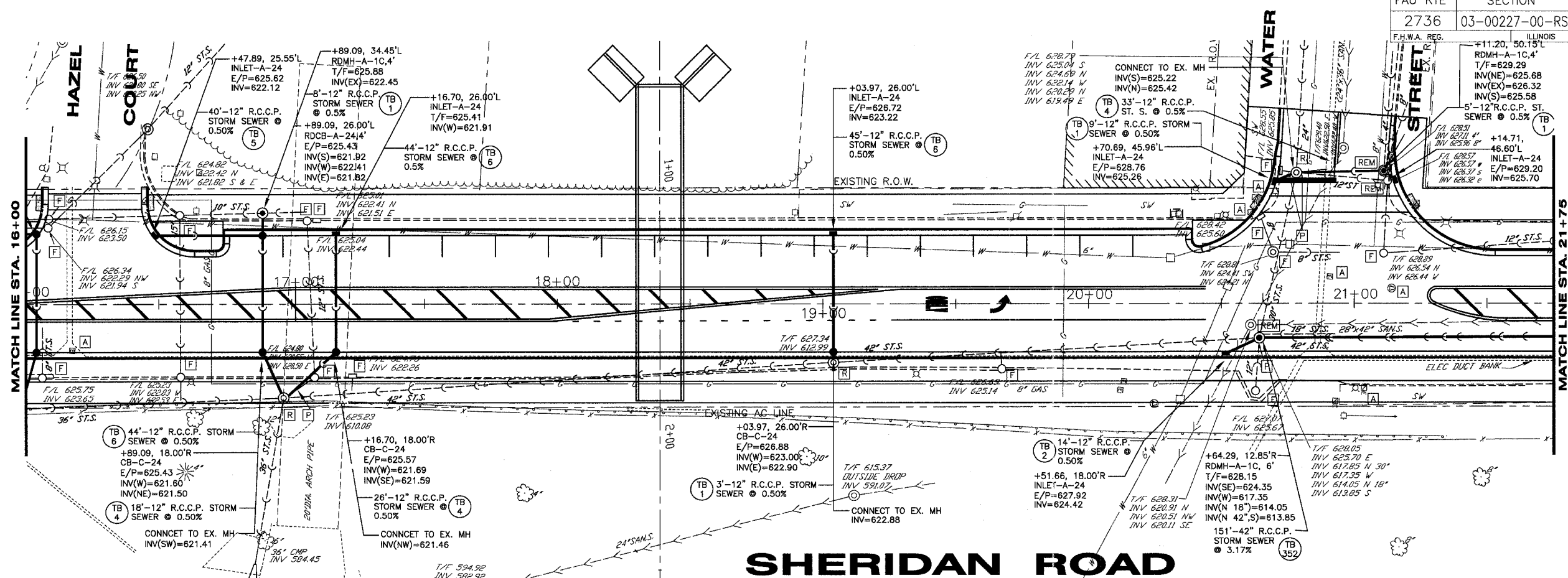


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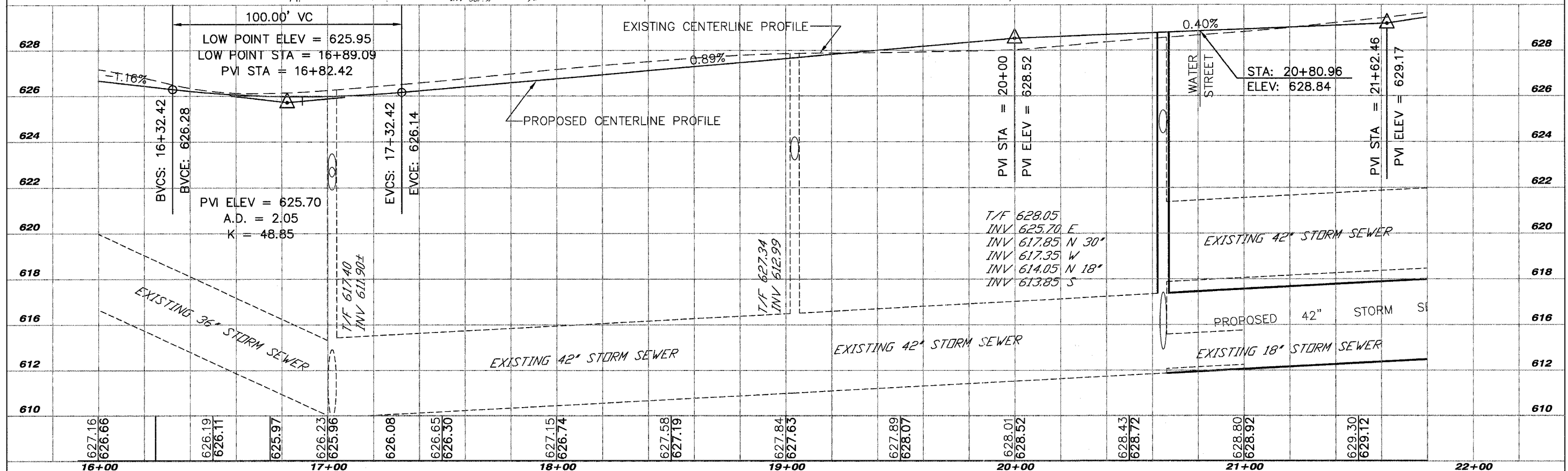
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# SHERIDAN ROAD

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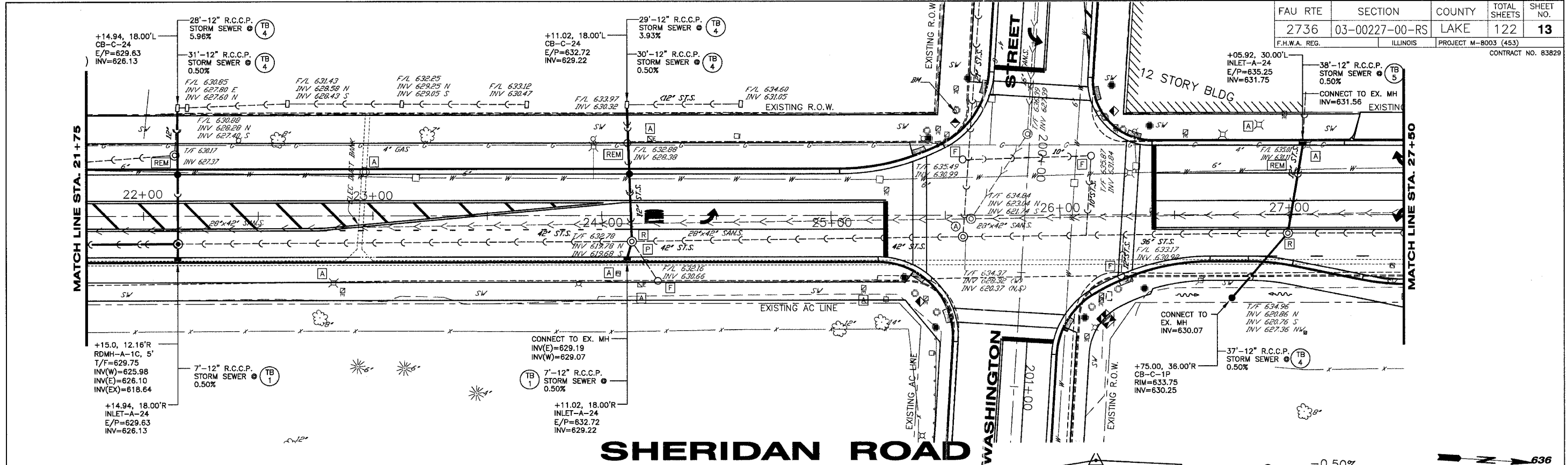
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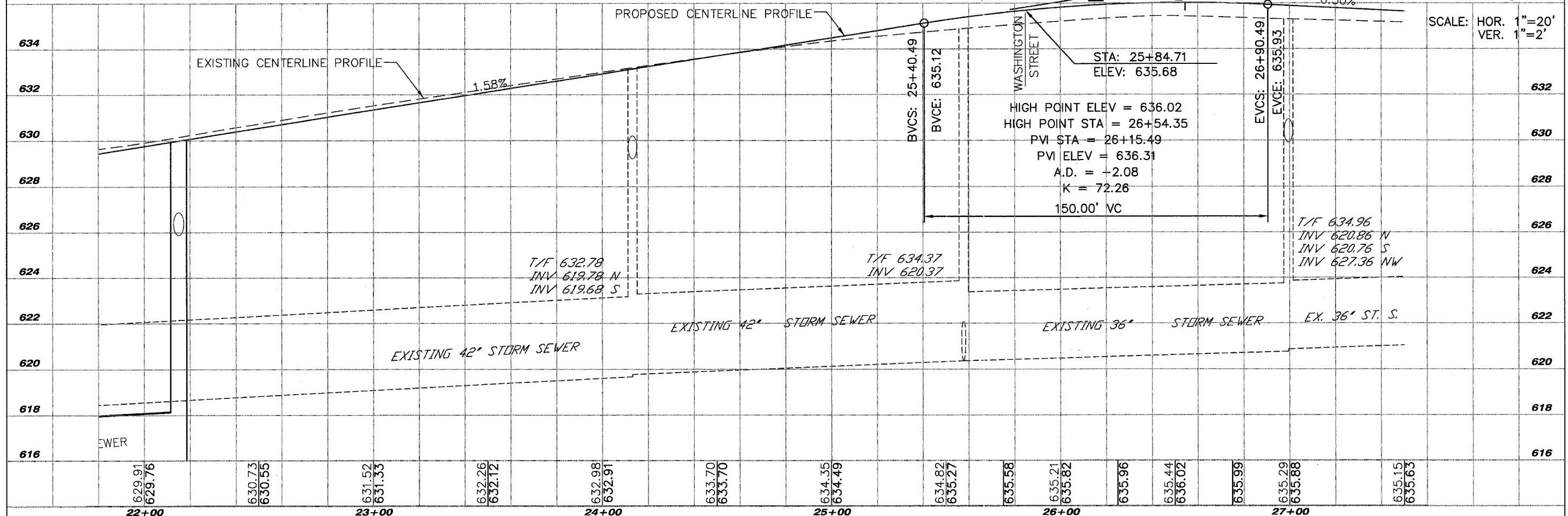
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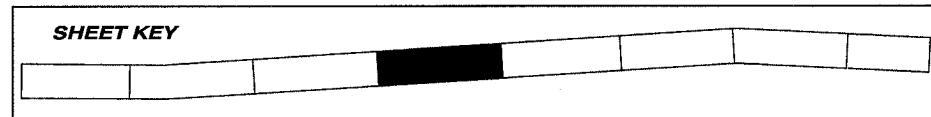
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# SHERIDAN ROAD



SCALE: HOR. 1"=20'  
VER. 1"=2'



REVISIONS		
NO.	ITEM	DATE

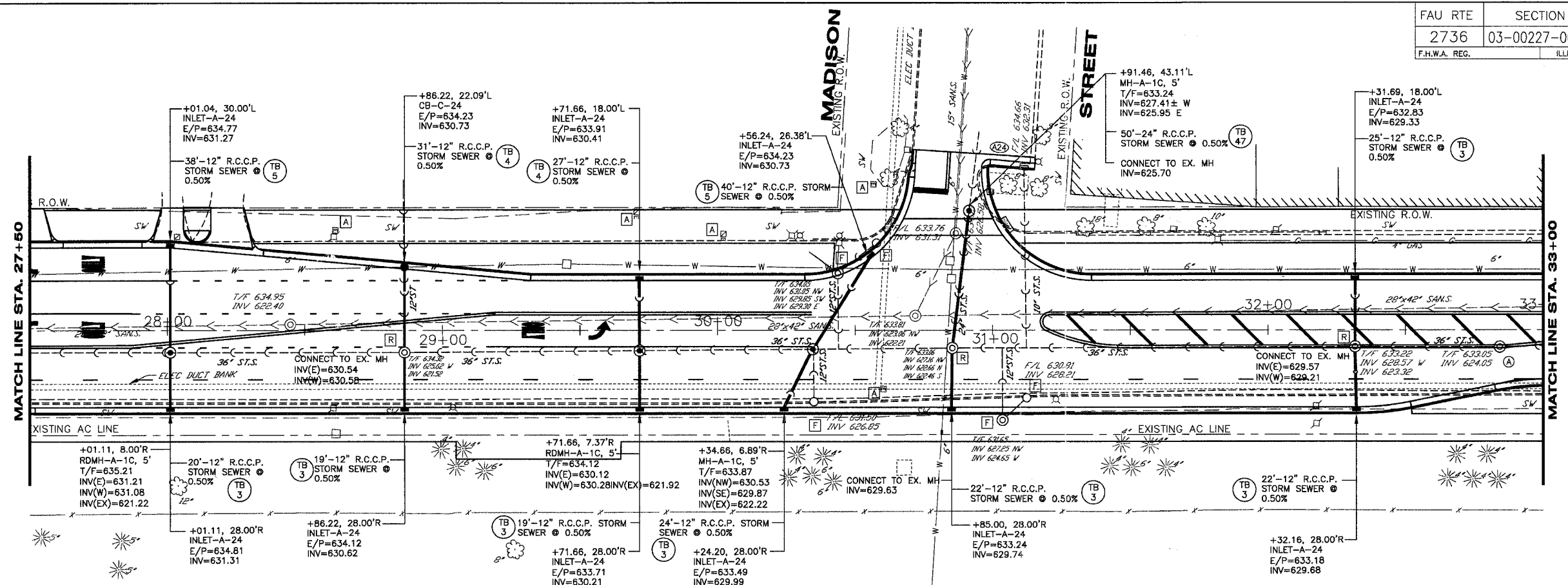
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DATE: 1-16-06

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**ROADWAY & DRAINAGE - PLAN & PROFILE**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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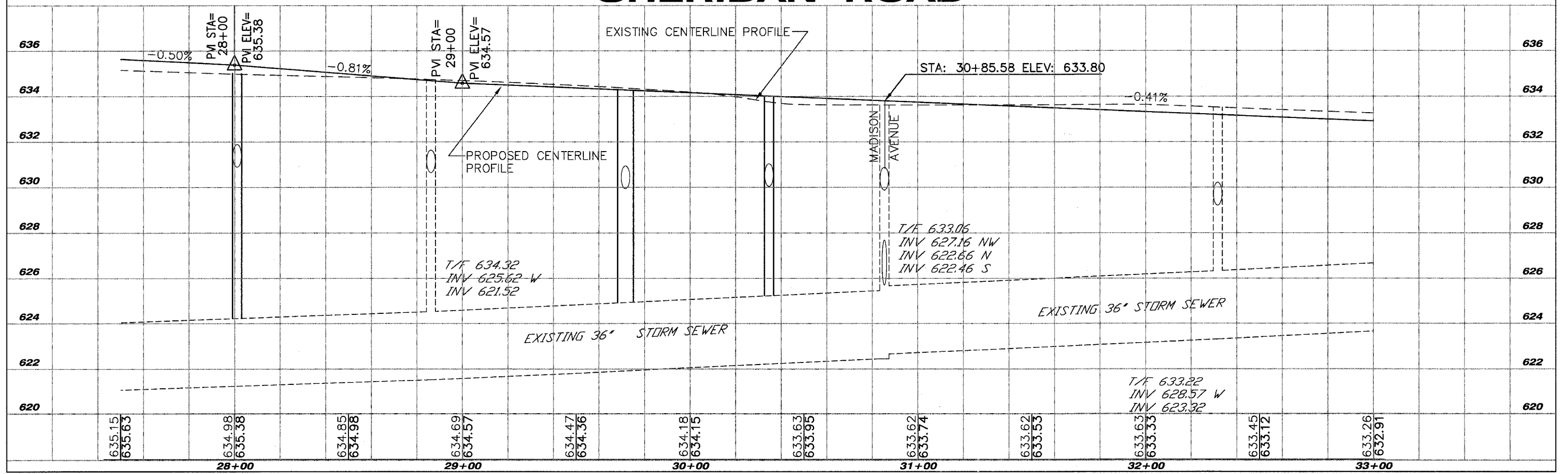
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**13**  
of  
**122**





# SHERIDAN ROAD

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VER. 1"=2'



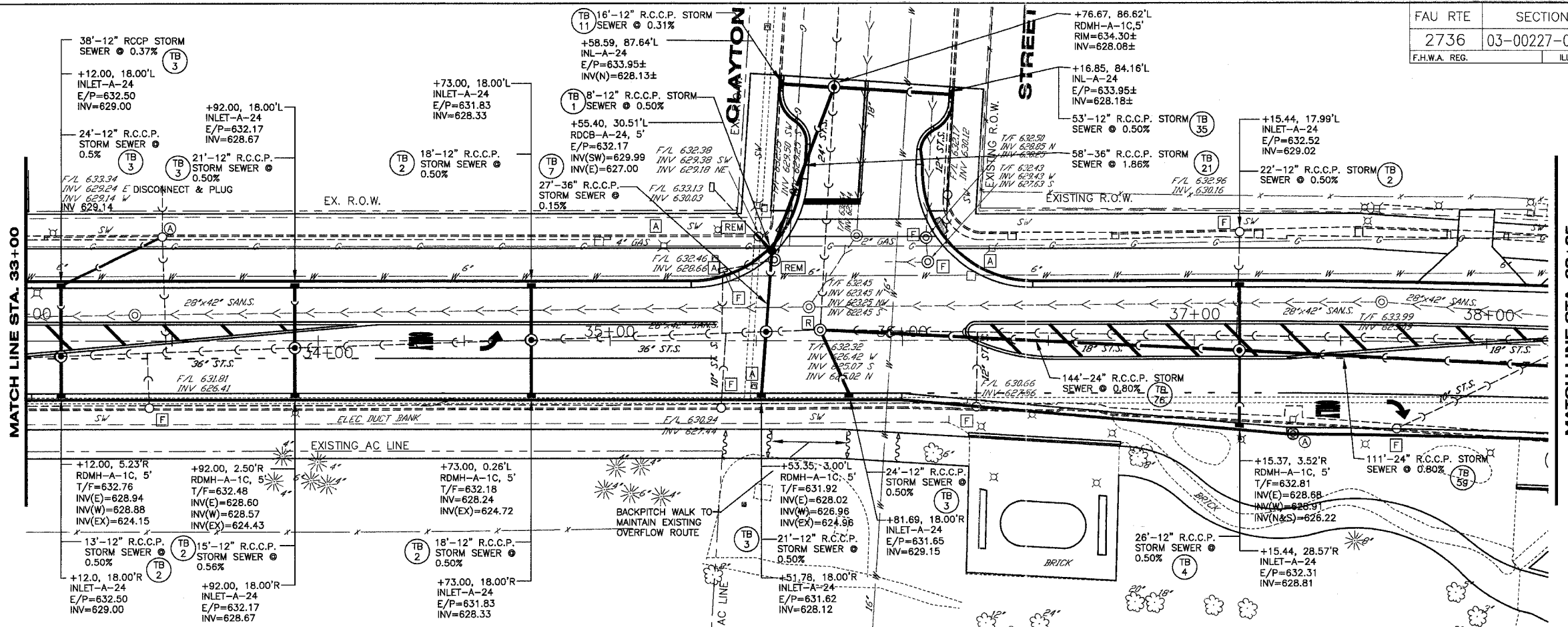
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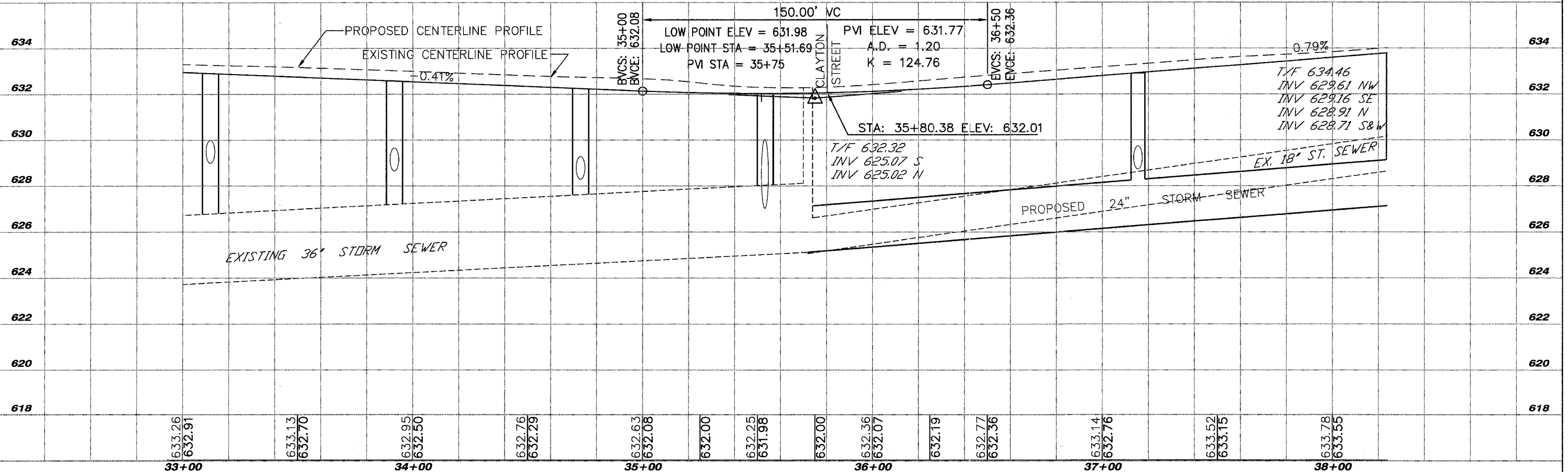
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## SHERIDAN ROAD

SCALE: HOR. 1"=20'  
VER. 1"=2'



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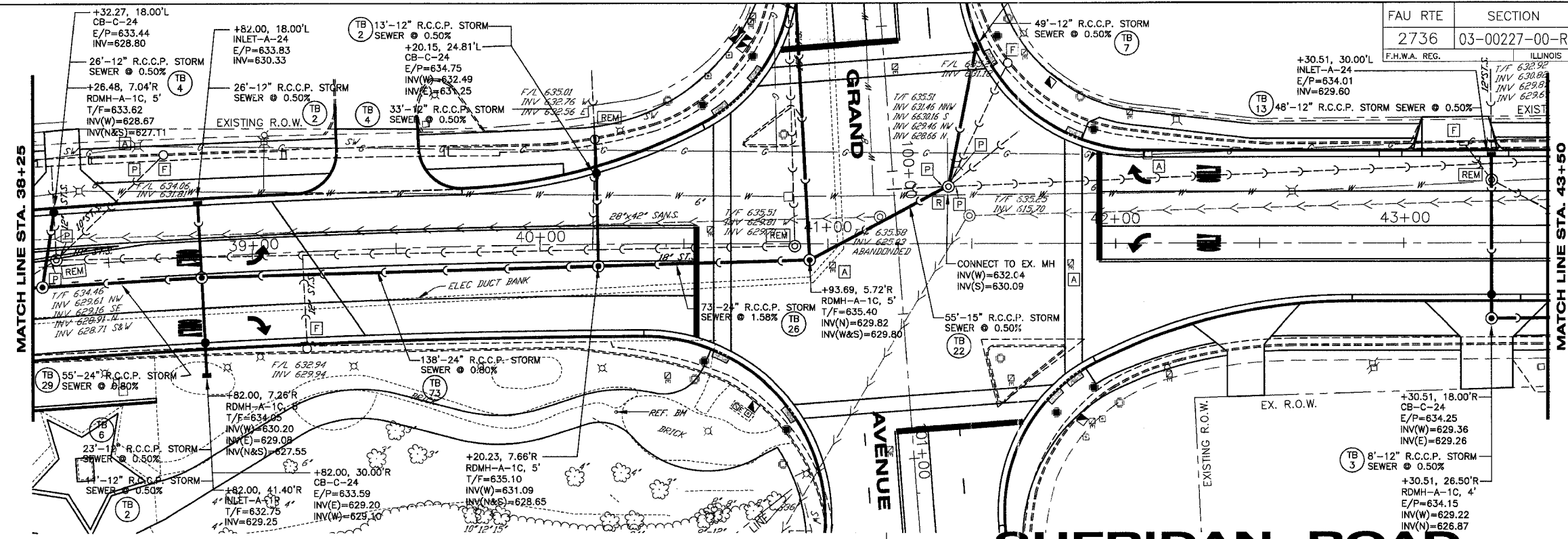
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**ROADWAY & DRAINAGE - PLAN & PROFILE**

**SHERIDAN ROAD IMPROVEMENTS**

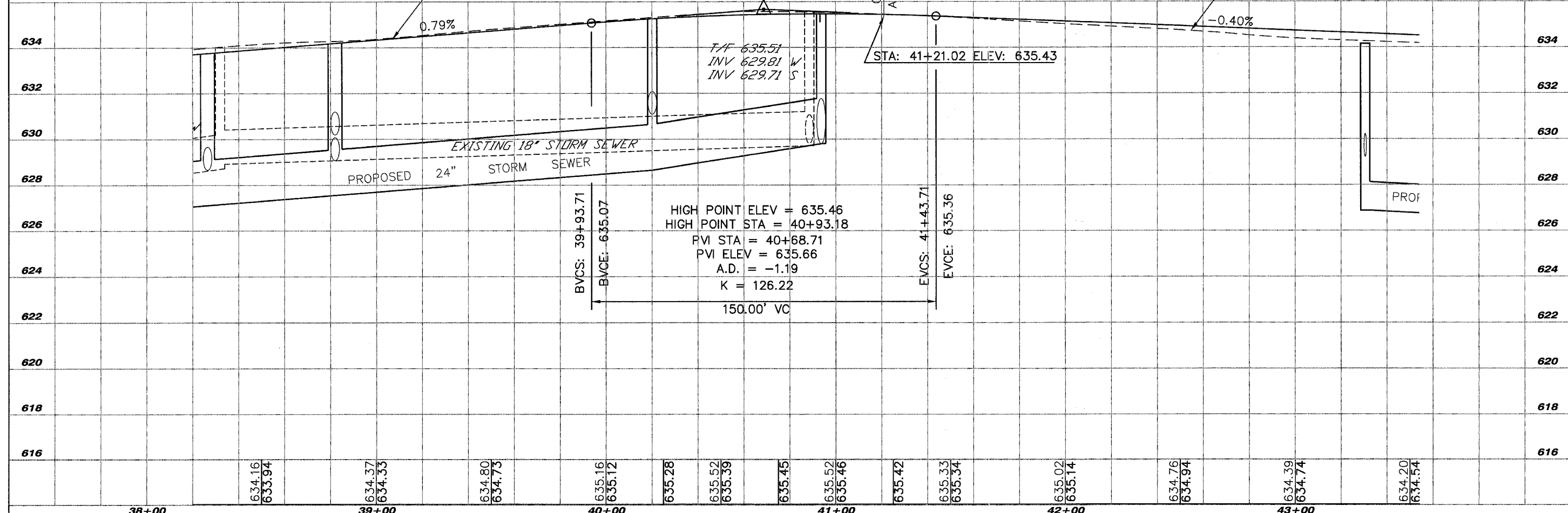
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PROPOSED CENTERLINE PROFILE  
 EXISTING CENTERLINE PROFILE

SCALE: HOR. 1"=20'  
 VER. 1"=2'



SHEET KEY

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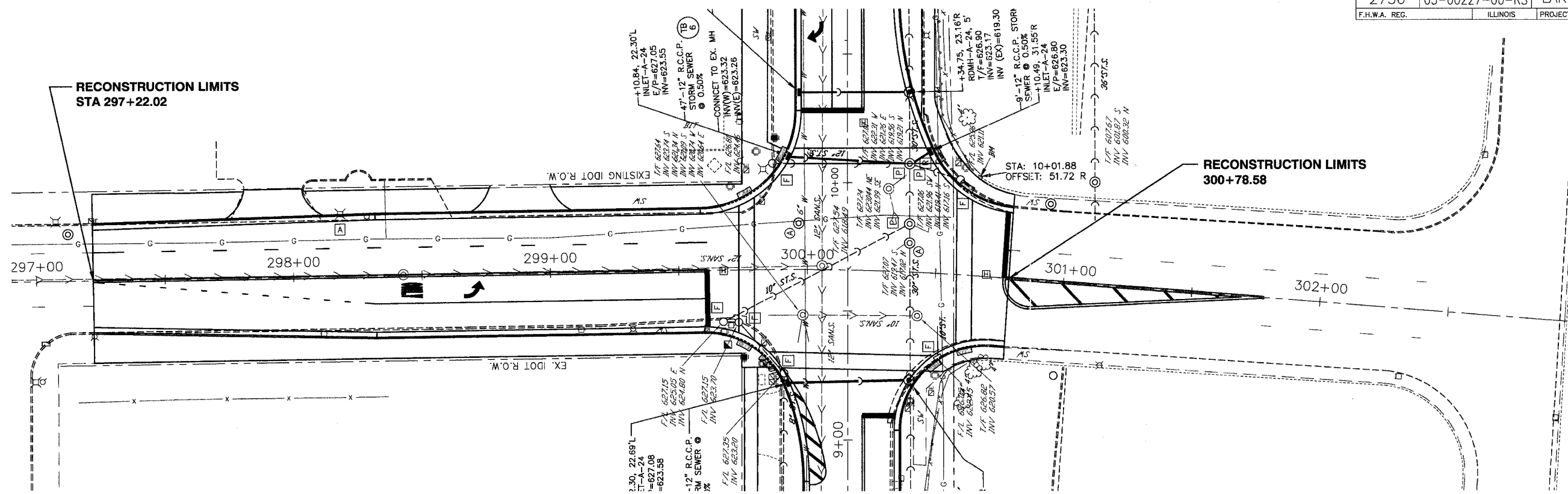
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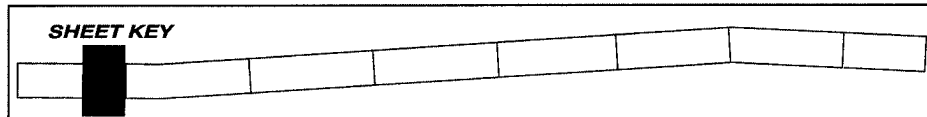
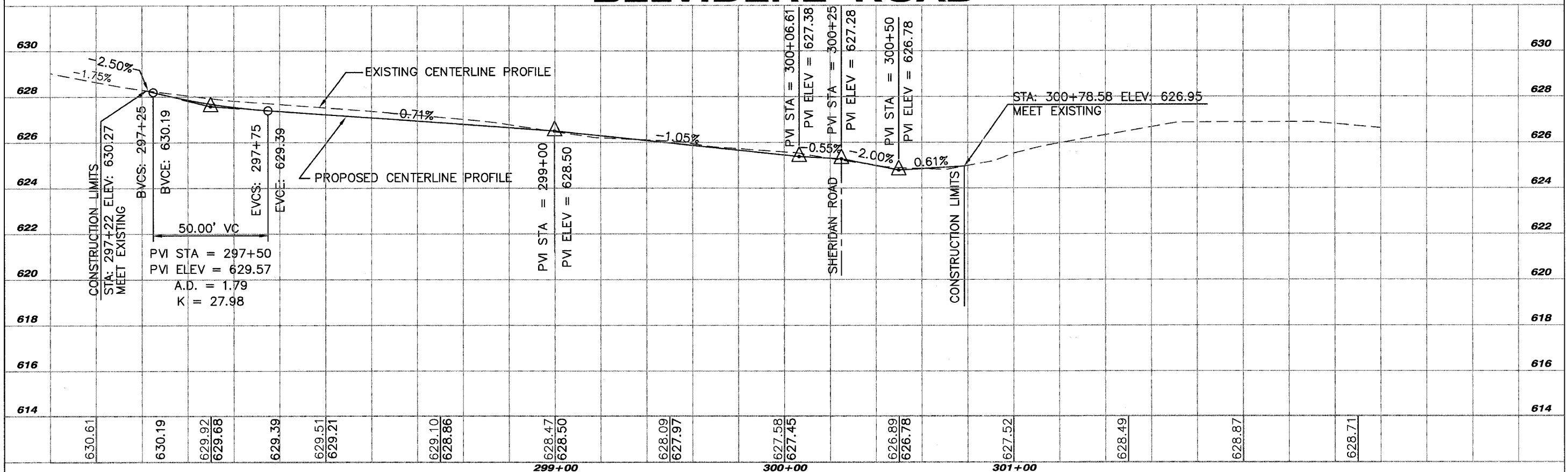
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**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN  
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 LAKE COUNTY, ILLINOIS





# BELVIDERE ROAD

SCALE: HOR. 1"=20'  
VER. 1"=2'



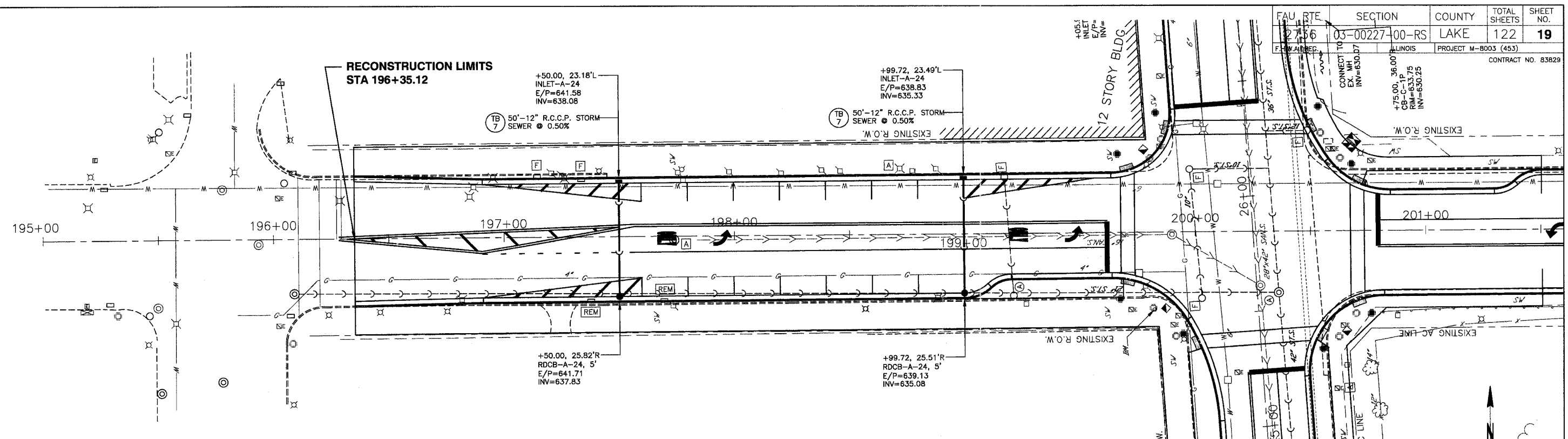
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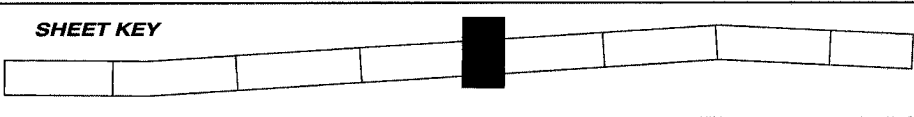
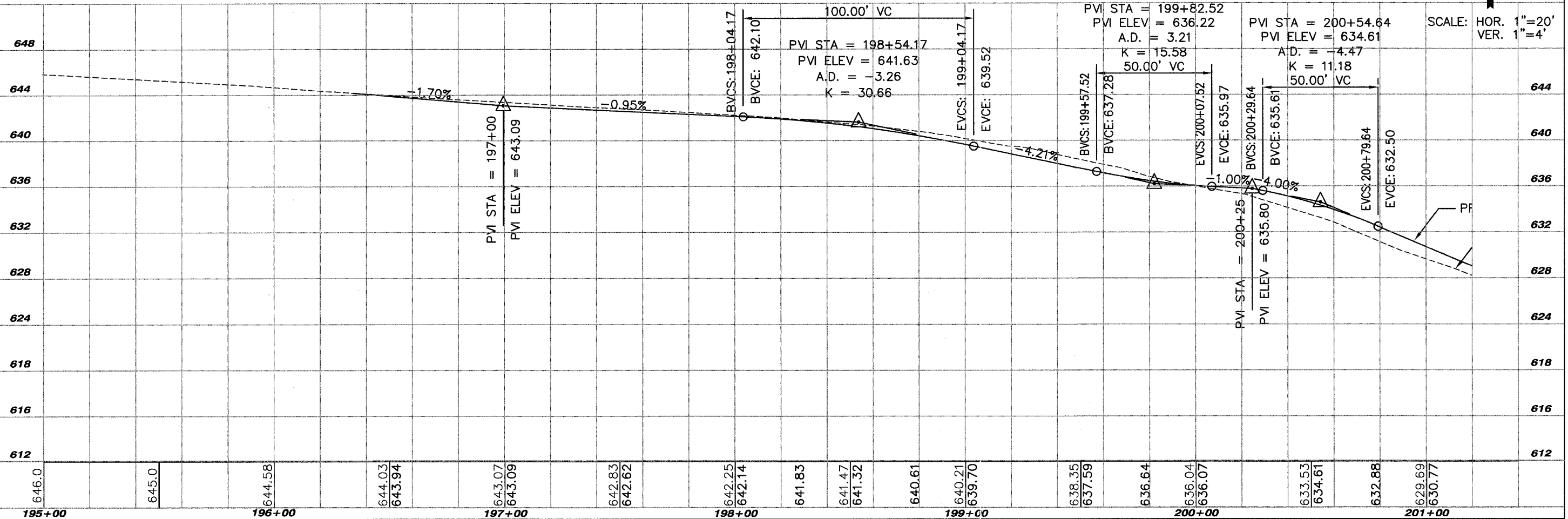
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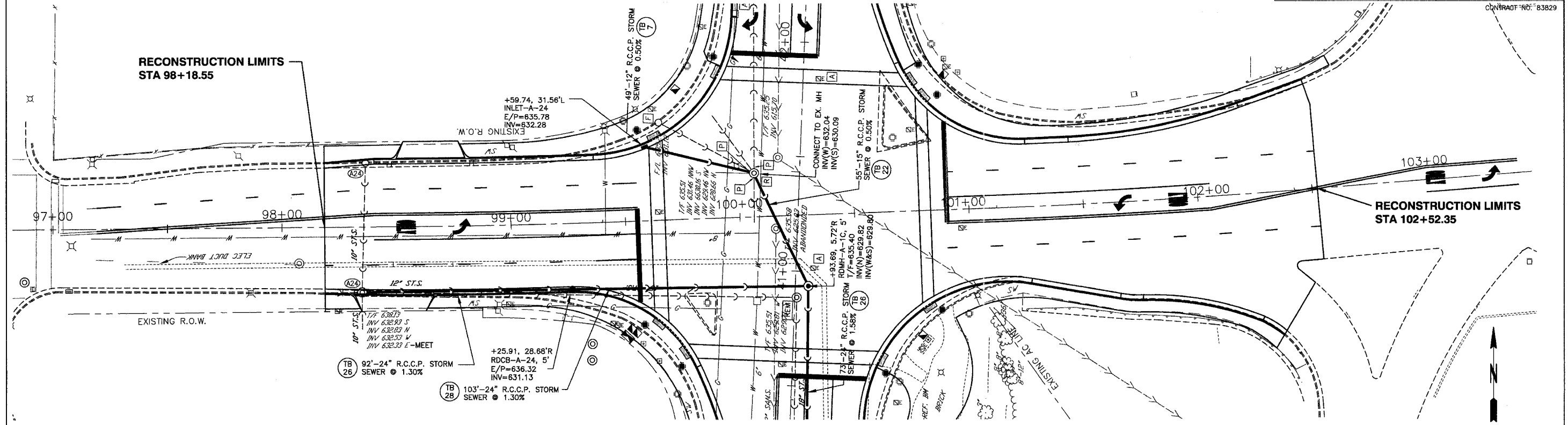


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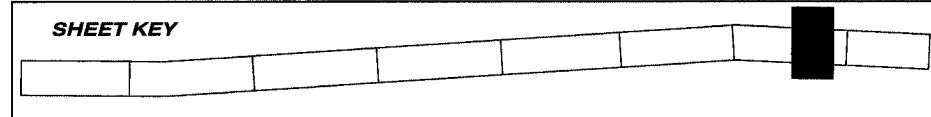
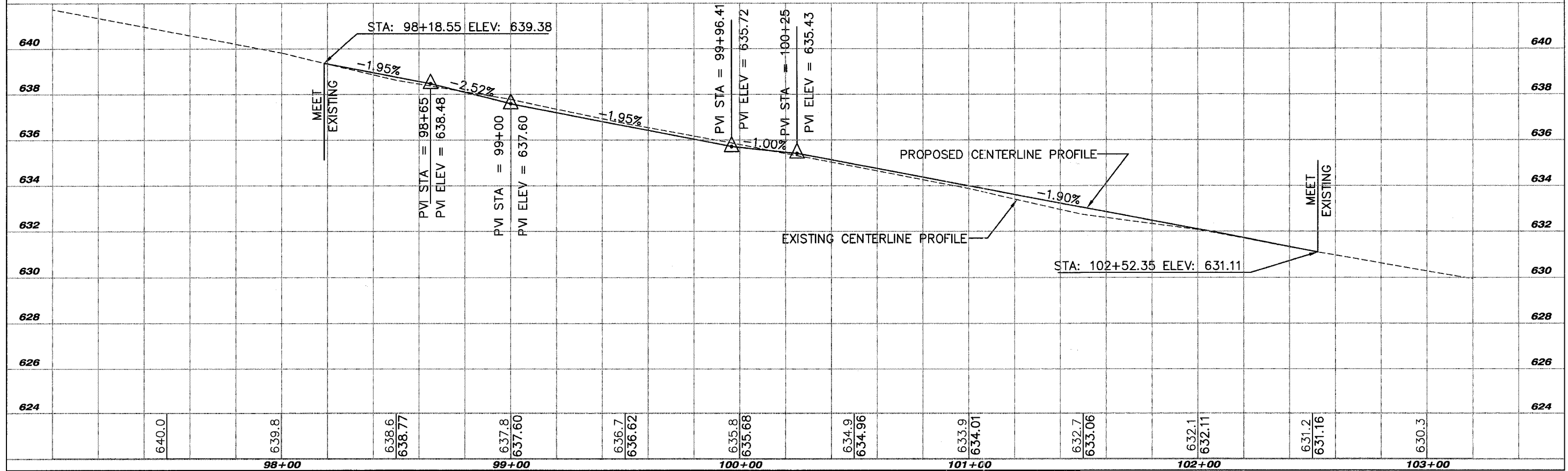
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# GRAND AVENUE



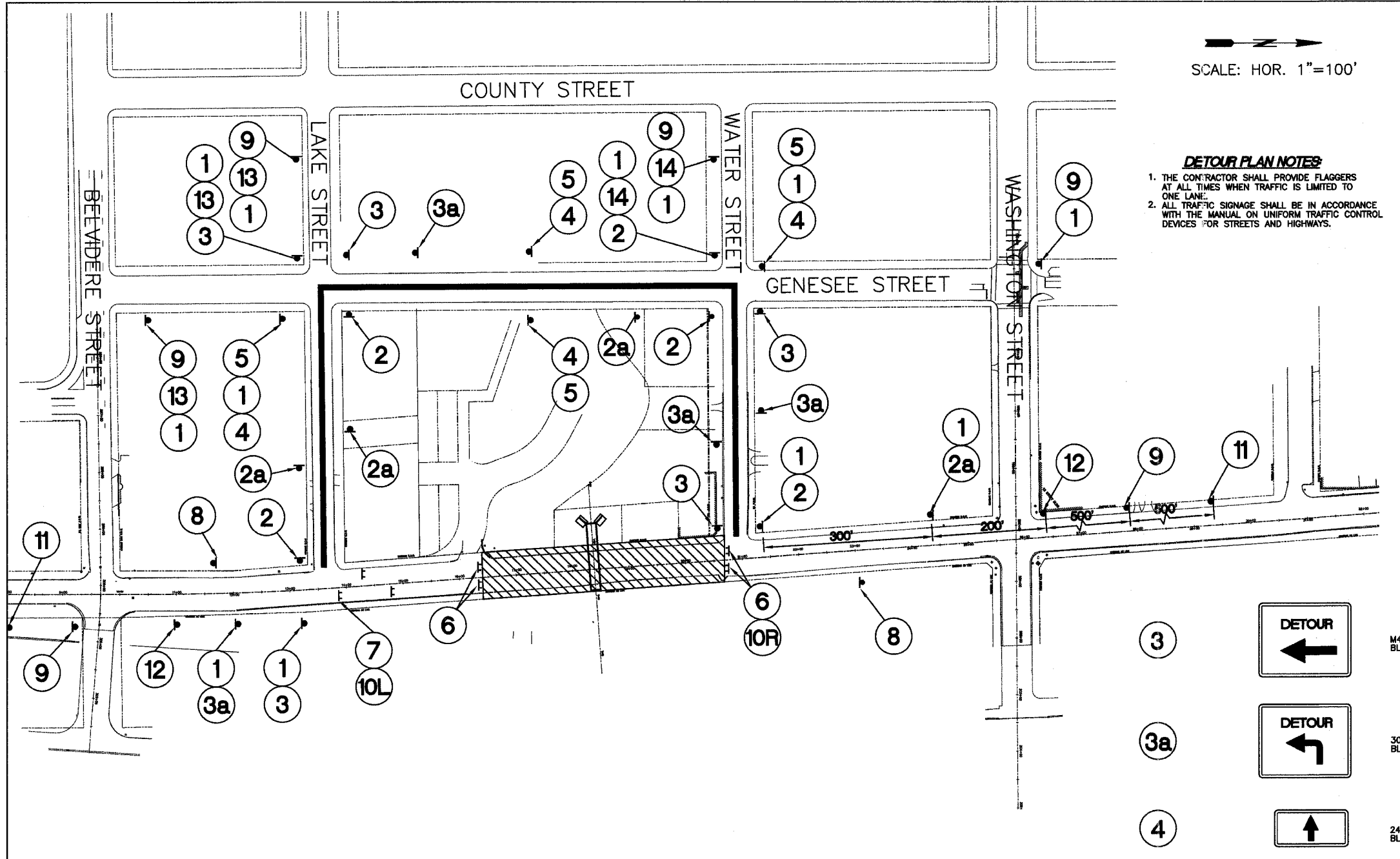
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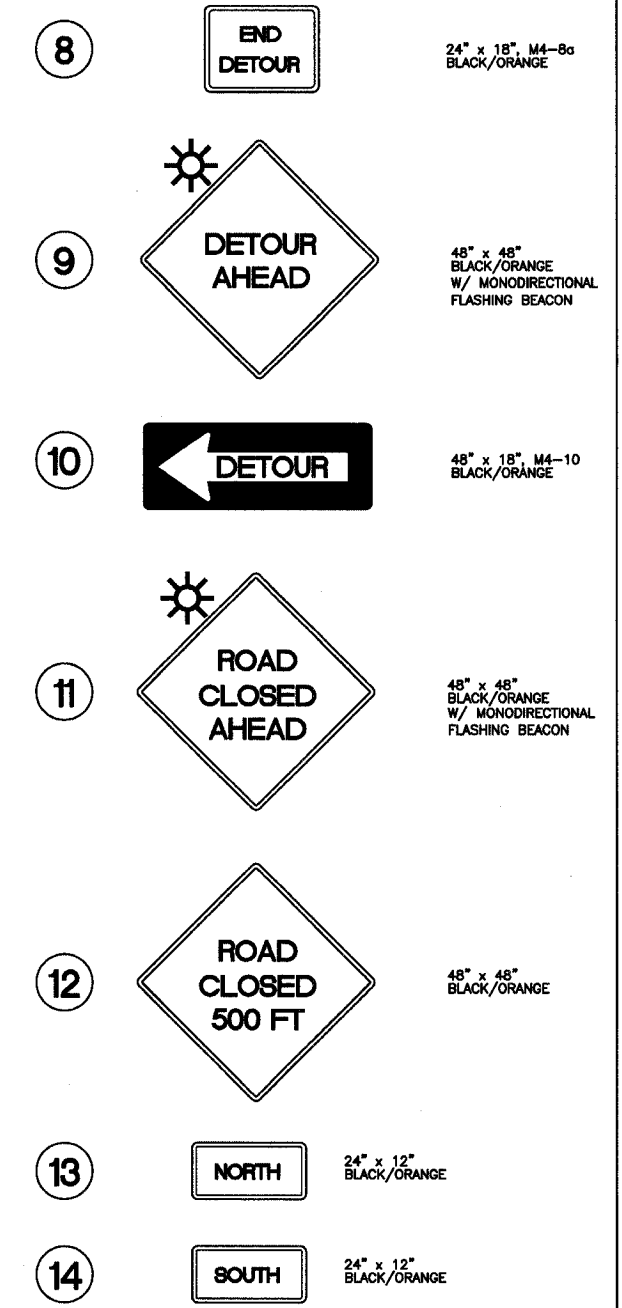
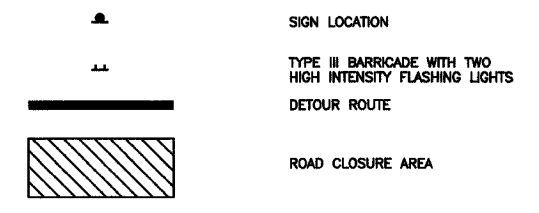
**ROADWAY & DRAINAGE - PLAN & PROFILE**  
**SHERIDAN ROAD IMPROVEMENTS**  
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SCALE: HOR. 1"=100'



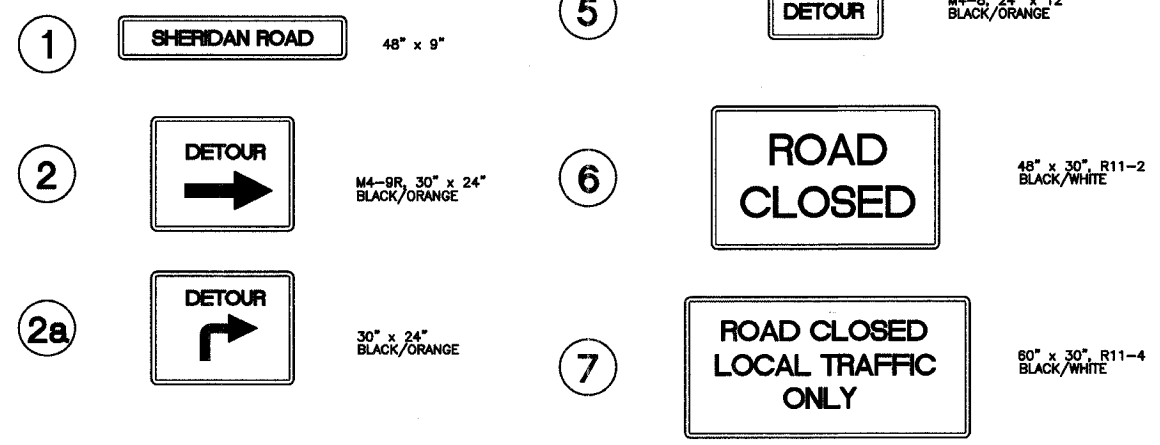
**DETOUR PLAN NOTES:**  
 1. THE CONTRACTOR SHALL PROVIDE FLAGGERS AT ALL TIMES WHEN TRAFFIC IS LIMITED TO ONE LANE.  
 2. ALL TRAFFIC SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.

**LEGEND**



**TRAFFIC CONTROL GENERAL NOTES**

- EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES
- SIGNS ARE TO BE REUSED FOR SUBSEQUENT STAGES WHEN APPLICABLE. FURNISHING, RELOCATION AND REMOVAL NECESSARY BETWEEN STAGES SHALL BE CONSIDERED INCIDENTAL TO THE COST OF TRAFFIC CONTROL AND PROTECTION
- THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 11' CLEAN AND CLEAR ROADWAY. ACCESS TO DRIVEWAYS AND SIDE STREETS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- ADDITIONAL SIGNS, BARRICADES, DELINEATORS, PAVEMENT MARKINGS OR OTHER TRAFFIC CONTROL PROTECTION ITEMS TO BE PLACED PER APPLICABLE STANDARDS AND AS DIRECTED BY THE ENGINEER.
- ALL CONES, DRUMS OR BARRICADES TO HAVE 25' SPACING FOR 250' AROUND CORNERS. AT ALL OTHER LOCATIONS BARRELS SHALL BE PLACED EVERY 50'
- MAINTENANCE OF TRAFFIC AS DENOTED ON THE PLANS IS INTENDED TO BE USED AS A GENERAL GUIDE FOR THE SEQUENCE OF CONSTRUCTION. CHANGES MAY BE PROPOSED BY THE CONTRACTOR AS A PART OF THE WRITTEN "SEQUENCE OF CONSTRUCTION" REQUIRED PRIOR TO THE START OF CONSTRUCTION TO BE APPROVED BY THE ENGINEER. ALL CHANGES TO THE APPROVED SEQUENCE DURING THE COURSE OF CONSTRUCTION SHALL BE REQUESTED IN WRITING BY THE CONTRACTOR AND SHALL BE APPROVED BY THE ENGINEER.
- ANY EXISTING SIGNS THAT DO NOT APPLY TO THE CONSECUTION TRAFFIC PATTERNS SHALL BE REMOVED OR COVERED. ANY EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE STAGING TRAFFIC CONTROL SHALL BE REMOVED.
- TEMPORARY PAVEMENT MARKINGS WHICH FALLS OUTSIDE THE PROPOSED PAVING LIMITS SHALL BE TYPE III PAVEMENT MARKING TAPE.
- ALL TYPE I & II BARRICADES AND DRUMS SHALL BE EQUIPPED WITH MONODIRECTIONAL STEADY-BURN AMBER LIGHTS. THE USE OF FLASHING AMBER LIGHTS WILL NOT BE ALLOWED ON TYPE I & II BARRICADES OR DRUMS. ALL TYPE III BARRICADES SHALL BE EQUIPPED WITH TWO FLASHING AMBER LIGHTS EACH. ALL TYPE I & II BARRICADES SHALL BE WEIGHTED DOWN WITH TWO SANDBAGS EACH. ALL TYPE III BARRICADE SHALL BE WEIGHTED DOWN WITH FOUR SANDBAGS EACH.
- ALL ADVANCED WARNING SIGNS SHALL BE INSTALLED TWO DAYS PRIOR TO THE START OF CONSTRUCTION.
- ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON REFLECTORIZED ORANGE BACKGROUND UNLESS OTHERWISE SPECIFIED. WARNING SIGNS SHALL BE IN LIKE NEW CONDITION. DAMAGED AND/OR DIRTY WARNING SIGNS WILL NOT BE ALLOWED.
- WORK WHICH MAY INTERFERE WITH TRAFFIC FLOW AT INTERSECTIONS SHALL BE PERFORMED BETWEEN 9:00AM AND 3:00PM UNLESS DIRECTED BY THE ENGINEER. FLAGGERS SHALL BE USED FOR ALL SUCH OPERATIONS.
- ALL SAWCUTTING REQUIRED FOR THE STAGES OF CONSTRUCTION SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE VARIOUS REMOVAL ITEMS.
- ALL TEMPORARY BITUMINOUS PAVEMENT SHALL BE REMOVED AND DISPOSED OF OFFSITE IN A LEGAL MANNER PRIOR TO THE START OF THE SUBSEQUENT CONSTRUCTION STAGE.
- THE EXISTING PAVEMENT TO BE UTILIZED FOR ANY PARTICULAR PHASE OF TRAFFIC CONTROL SHALL BE PATCHED AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR CLASS D PATCHING.



**SHEET KEY**

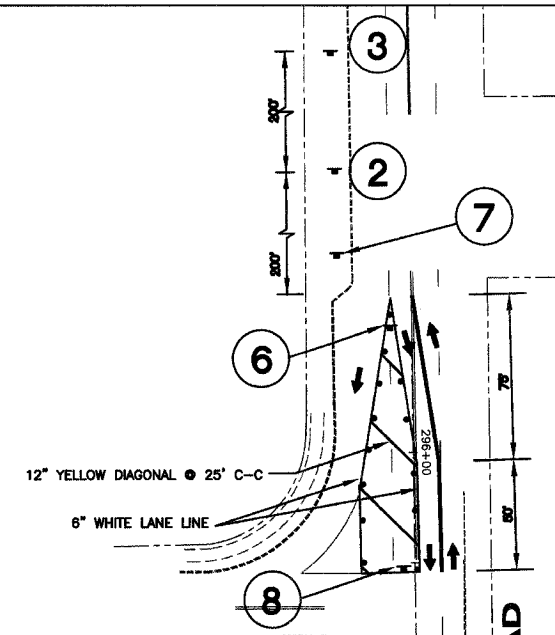
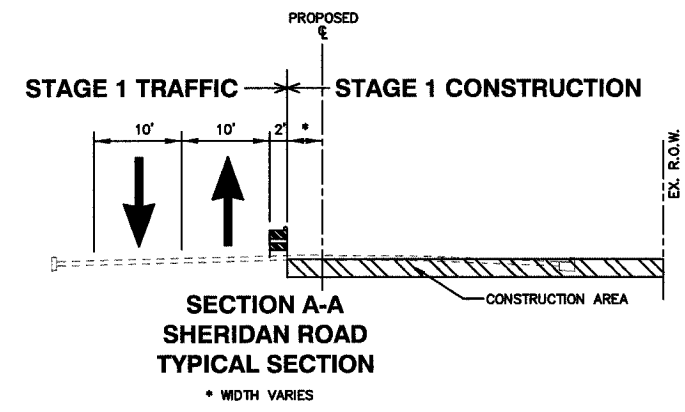
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NO.	ITEM	DATE

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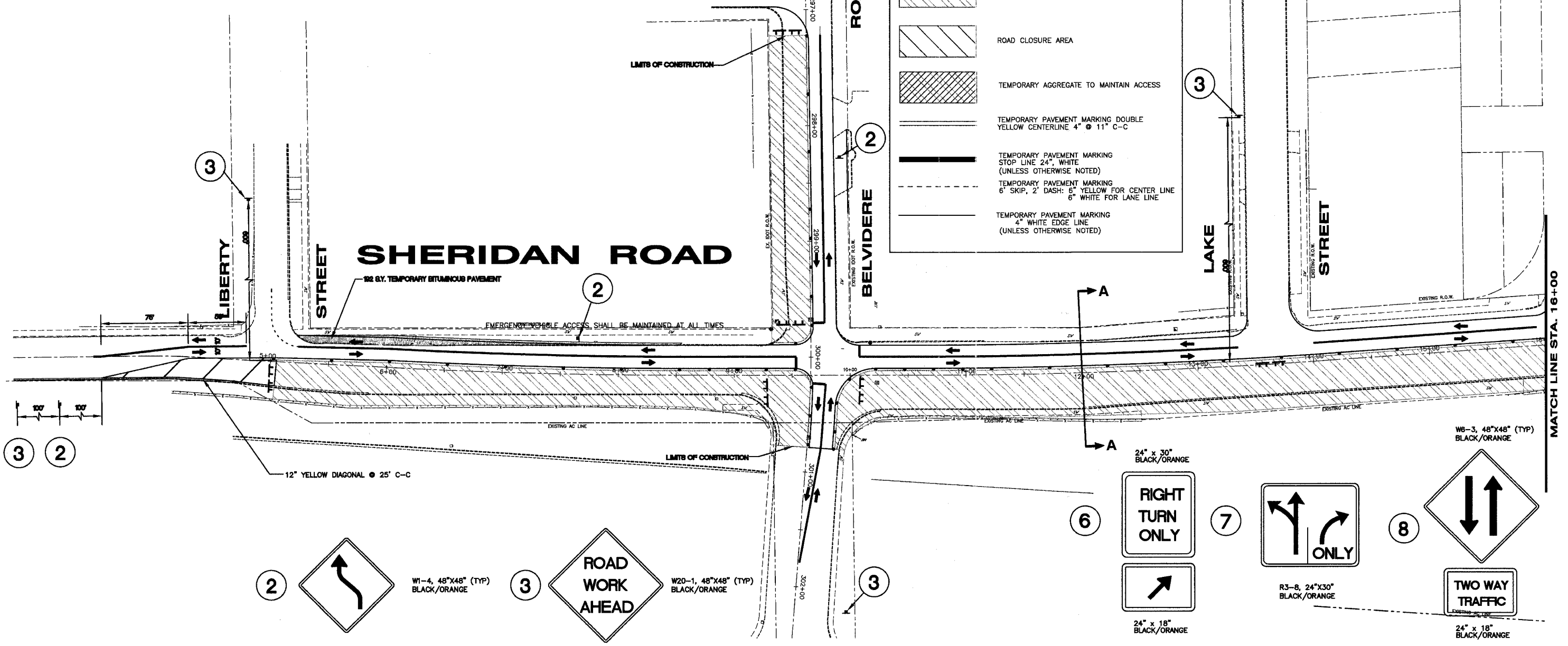
**SHERIDAN ROAD CLOSURE DETOUR PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-184 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sher-TrafficControl.dwg 8/26/2005 1:17:23 PM CDT

SCALE: HOR. 1"=40'



**LEGEND**

- TYPE II BARRICADE WITH STEADY BURN LIGHT  
50' C-C, 25' C-C @ CURVES
- SIGN WITH PERMANENT SUPPORT
- TYPE III BARRICADE WITH TWO HIGH INTENSITY FLASHING LIGHTS
- DIRECTION OF TRAVEL
- CONSTRUCTION AREA
- ROAD CLOSURE AREA
- TEMPORARY AGGREGATE TO MAINTAIN ACCESS
- TEMPORARY PAVEMENT MARKING DOUBLE YELLOW CENTERLINE 4" @ 11" C-C
- TEMPORARY PAVEMENT MARKING STOP LINE 24", WHITE (UNLESS OTHERWISE NOTED)
- TEMPORARY PAVEMENT MARKING 6" SKIP, 2" DASH: 6" YELLOW FOR CENTER LINE 6" WHITE FOR LANE LINE
- TEMPORARY PAVEMENT MARKING 4" WHITE EDGE LINE (UNLESS OTHERWISE NOTED)



**SHEET KEY**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
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NO.	ITEM	DATE

SCALE: 1" = 40'

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DATE: 1-16-06

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**SHERIDAN ROAD STAGE 1 TRAFFIC PLAN**

**SHERIDAN ROAD IMPROVEMENTS**

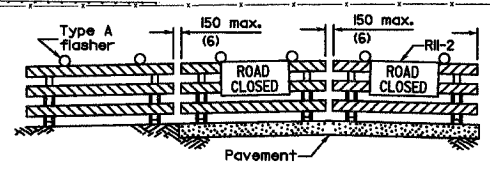
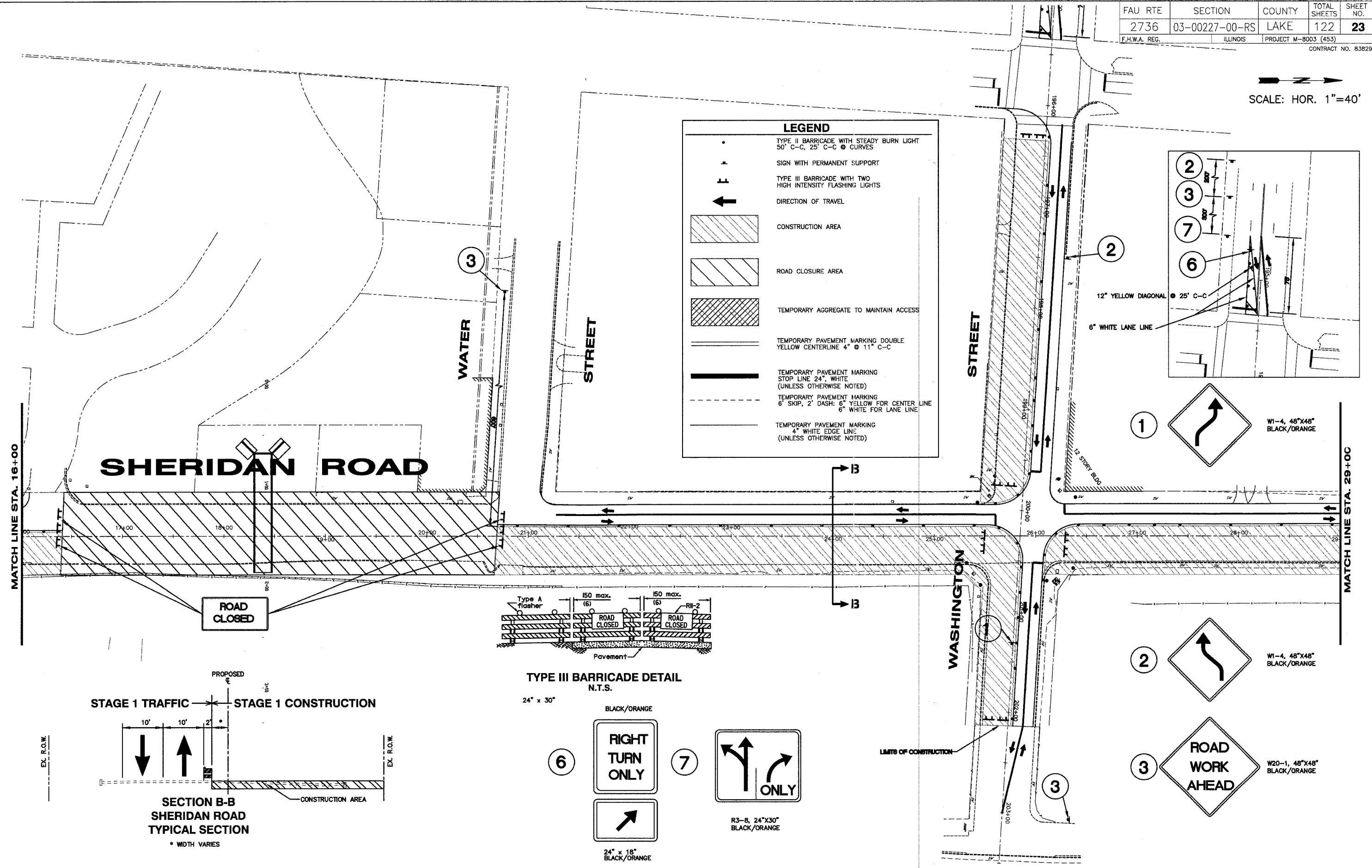
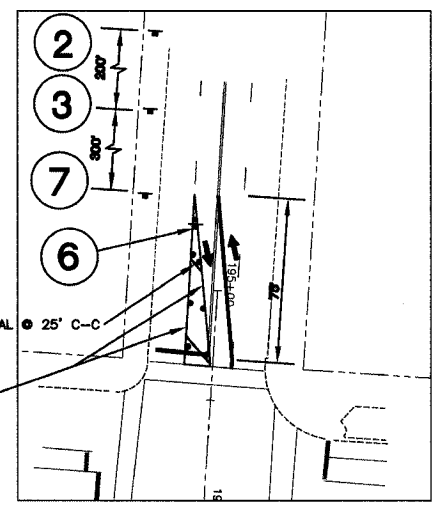
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SCALE: HOR. 1"=40'

**LEGEND**

- TYPE II BARRICADE WITH STEADY BURN LIGHT  
50' C-C, 25' C-C • CURVES
- SIGN WITH PERMANENT SUPPORT
- FF TYPE III BARRICADE WITH TWO HIGH INTENSITY FLASHING LIGHTS
- ← DIRECTION OF TRAVEL
- [Hatched Box] CONSTRUCTION AREA
- [Diagonal Hatched Box] ROAD CLOSURE AREA
- [Cross-hatched Box] TEMPORARY AGGREGATE TO MAINTAIN ACCESS
- [Double Line] TEMPORARY PAVEMENT MARKING DOUBLE YELLOW CENTERLINE 4" @ 11" C-C
- [Solid Line] TEMPORARY PAVEMENT MARKING STOP LINE 24", WHITE (UNLESS OTHERWISE NOTED)
- [Dashed Line] TEMPORARY PAVEMENT MARKING 6" SKIP, 2" DASH: 6" YELLOW FOR CENTER LINE 6" WHITE FOR LANE LINE
- [Dotted Line] TEMPORARY PAVEMENT MARKING 4" WHITE EDGE LINE (UNLESS OTHERWISE NOTED)

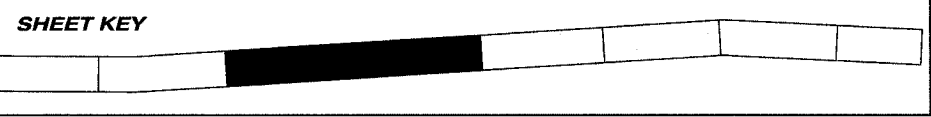
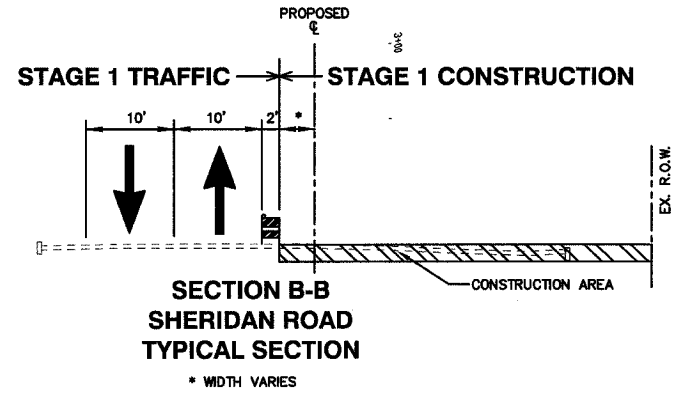


**TYPE III BARRICADE DETAIL**  
N.T.S.  
24" x 30"

BLACK/ORANGE

6 RIGHT TURN ONLY  
24" x 18" BLACK/ORANGE

7 R3-8, 24"x30" BLACK/ORANGE



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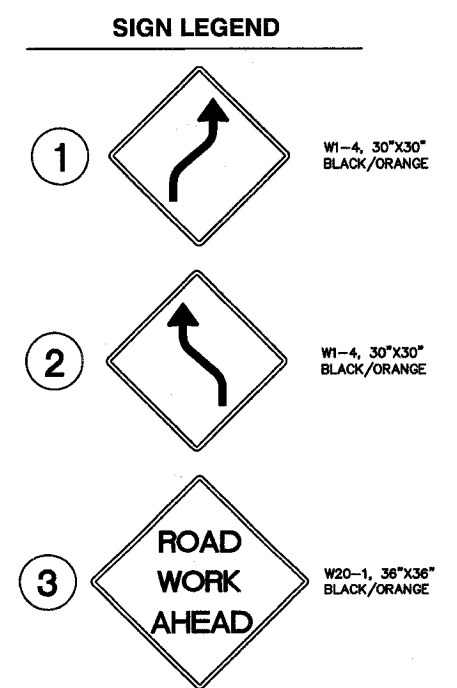
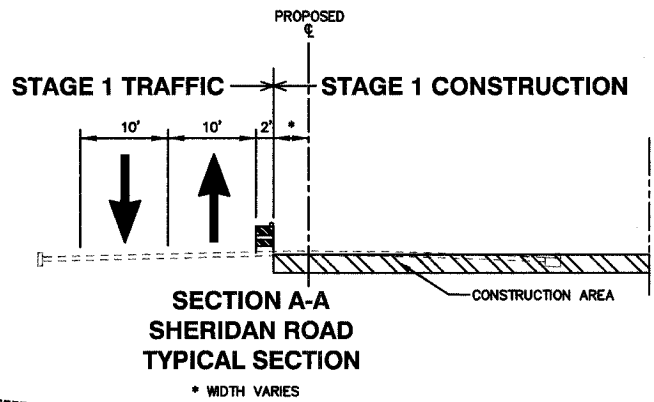
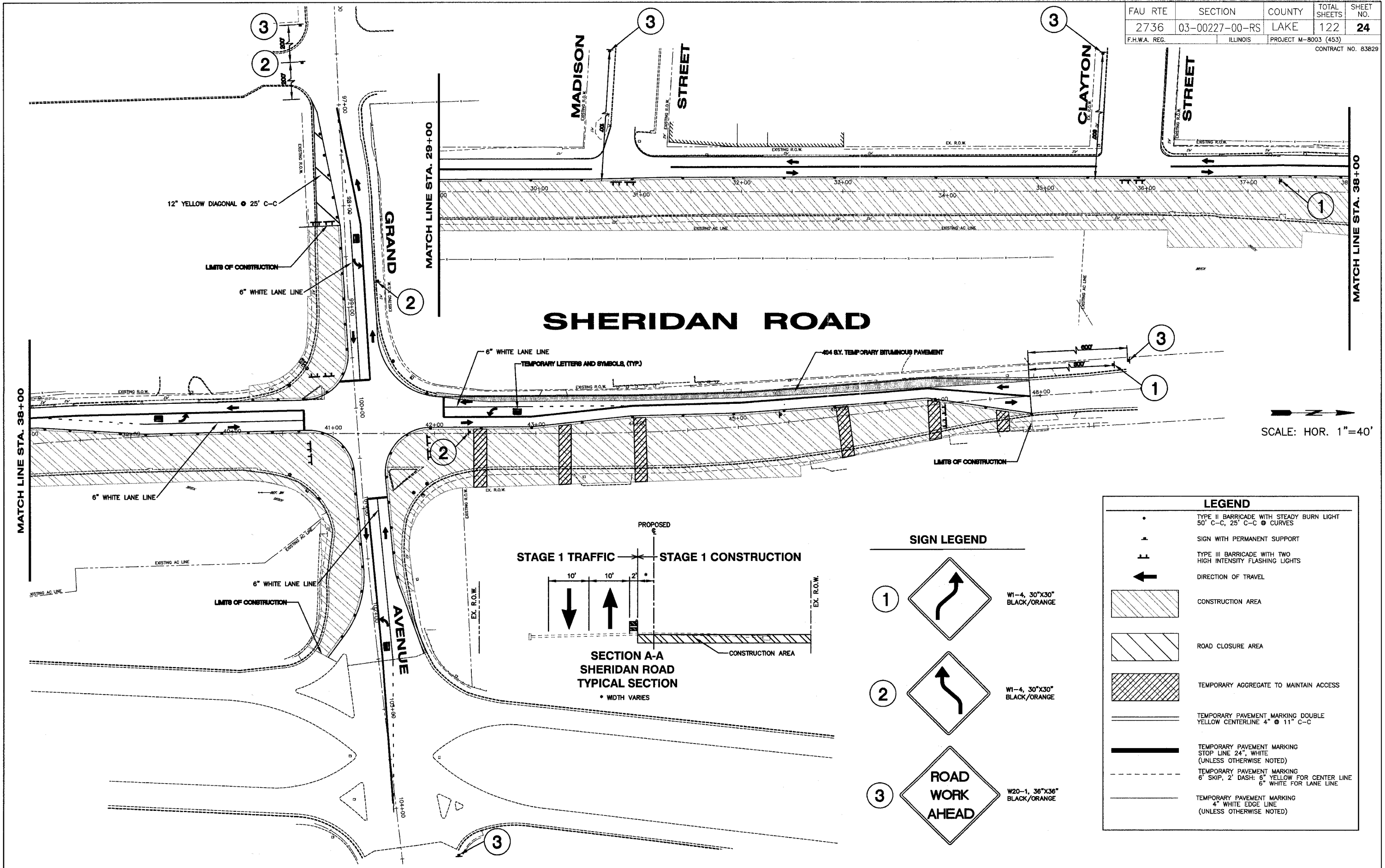
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**SHERIDAN ROAD STAGE 1 TRAFFIC PLAN**  
SHERIDAN ROAD IMPROVEMENTS

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LEGEND	
	TYPE II BARRICADE WITH STEADY BURN LIGHT 50' C-C, 25' C-C @ CURVES
	SIGN WITH PERMANENT SUPPORT
	TYPE III BARRICADE WITH TWO HIGH INTENSITY FLASHING LIGHTS
	DIRECTION OF TRAVEL
	CONSTRUCTION AREA
	ROAD CLOSURE AREA
	TEMPORARY AGGREGATE TO MAINTAIN ACCESS
	TEMPORARY PAVEMENT MARKING YELLOW CENTERLINE 4" @ 11" C-C
	TEMPORARY PAVEMENT MARKING STOP LINE 24", WHITE (UNLESS OTHERWISE NOTED)
	TEMPORARY PAVEMENT MARKING 6" SKIP, 2" DASH: 6" YELLOW FOR CENTER LINE 6" WHITE FOR LANE LINE
	TEMPORARY PAVEMENT MARKING 4" WHITE EDGE LINE (UNLESS OTHERWISE NOTED)

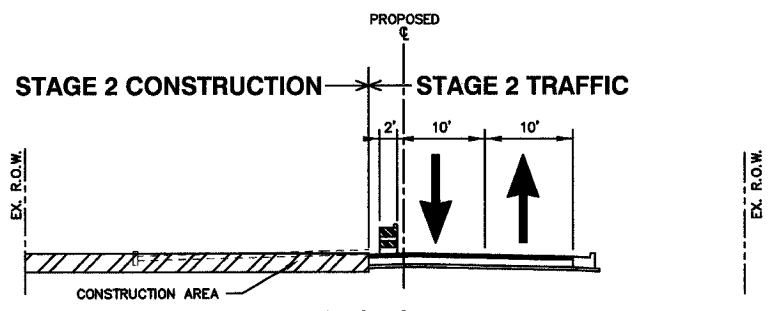
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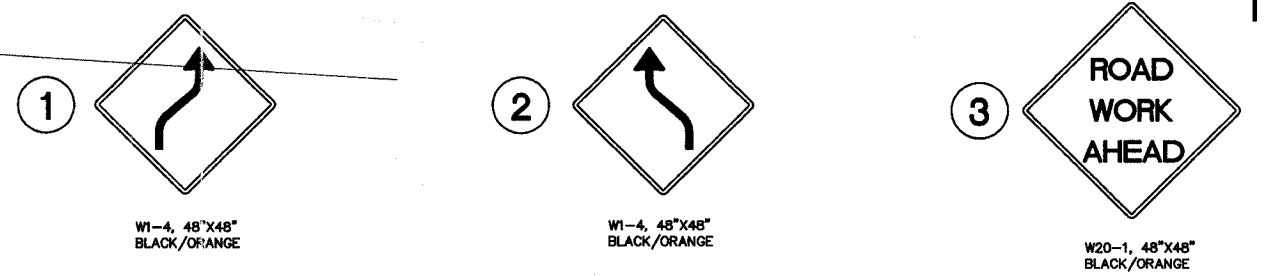
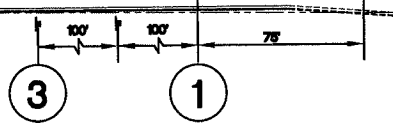
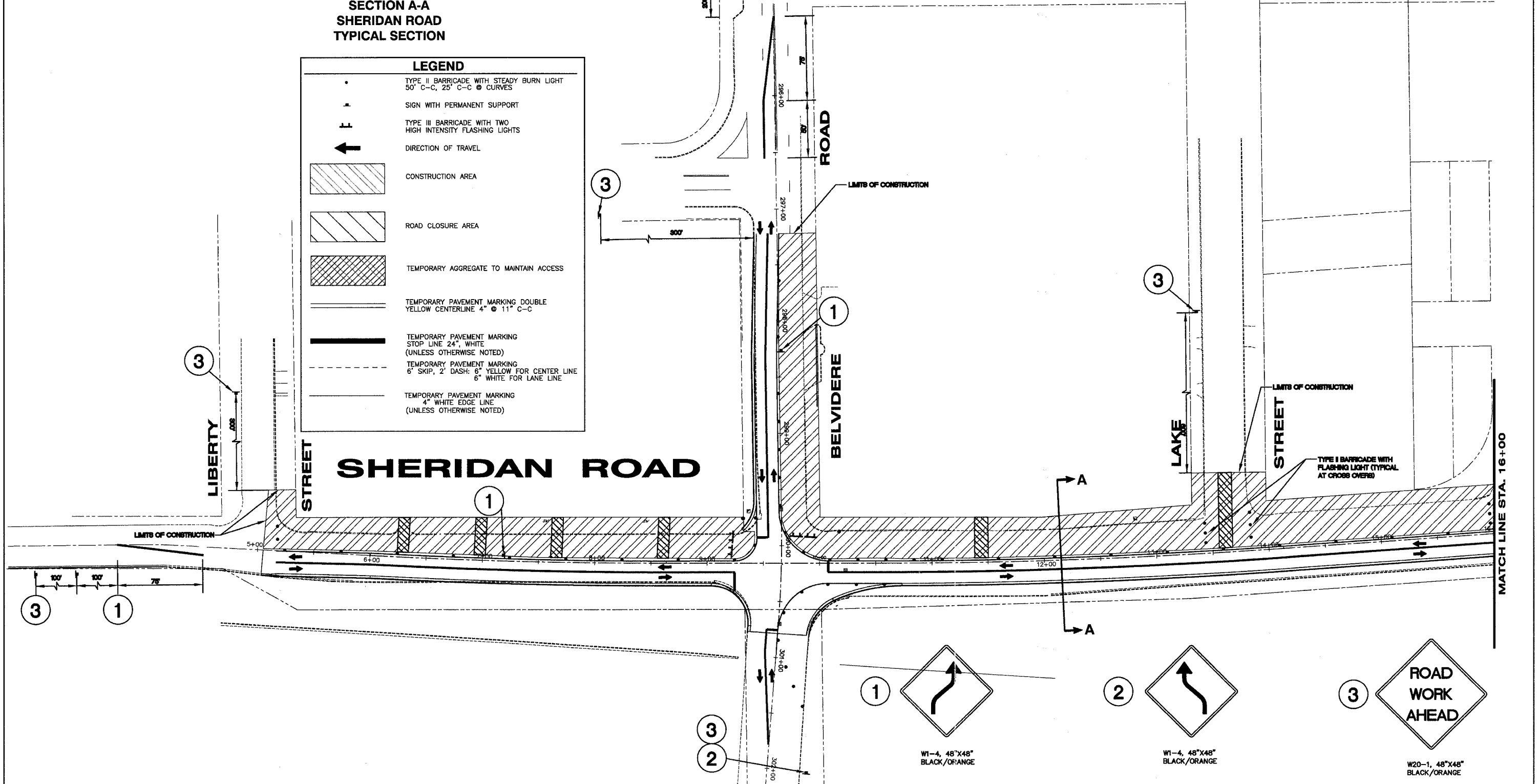
**SHERIDAN ROAD STAGE 1 TRAFFIC PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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SCALE: HOR. 1"=40'

**LEGEND**

- TYPE II BARRICADE WITH STEADY BURN LIGHT  
50' C-C, 25' C-C @ CURVES
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**SHEET KEY**

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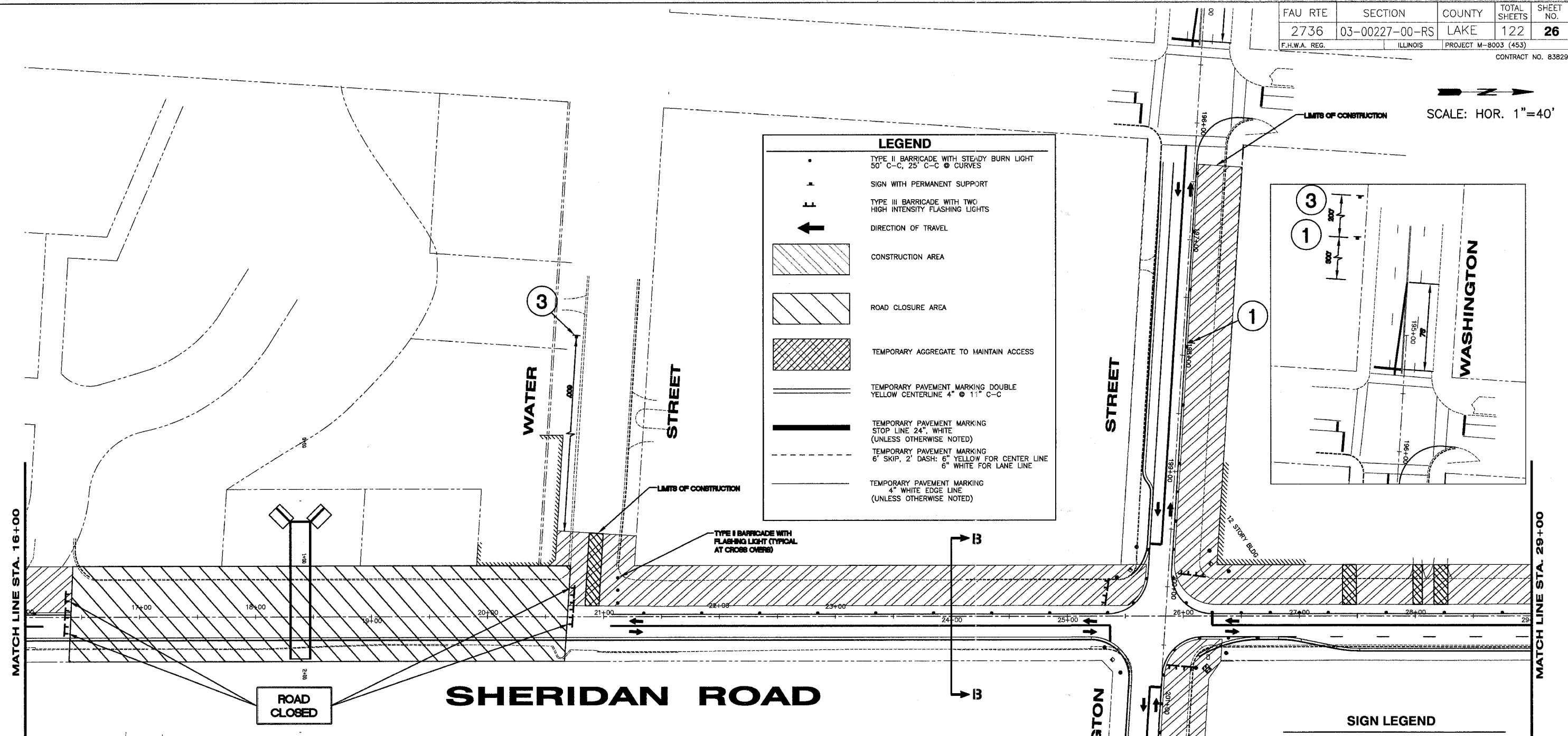
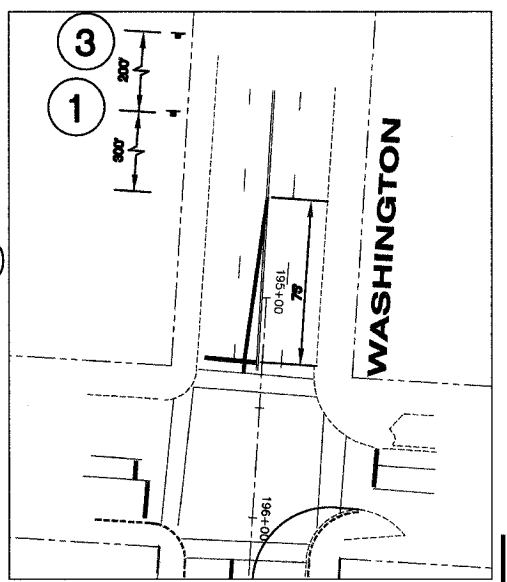
**McCLURE ENGINEERING ASSOCIATES, INC.**  
 2728 Grand Ave. Waukegan, IL 60085  
 TEL 847-336-7100 FAX 847-336-7155  
 EMAIL: wk@mcclure-engineering.com  
 Design Firm License: Illinois #184-000816  
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**SHERIDAN ROAD STAGE 2 TRAFFIC PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sher-TrafficControl.dwg 8/26/2005 1:17:23 PM CDT

SCALE: HOR. 1"=40'

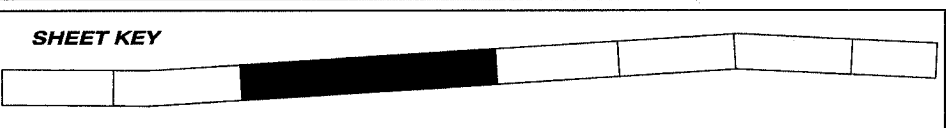
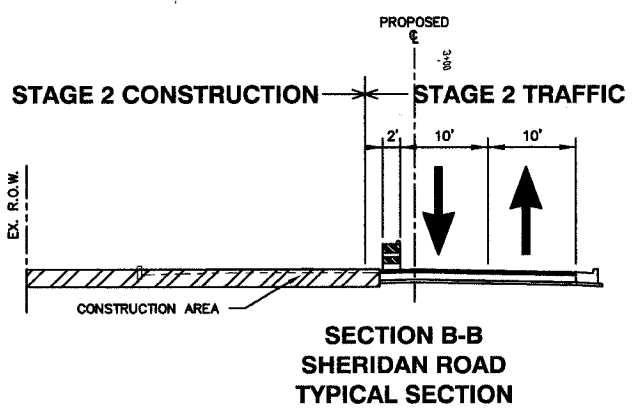
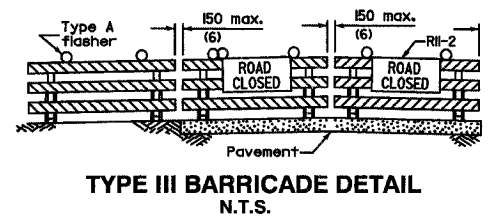
**LEGEND**

- TYPE II BARRICADE WITH STEADY BURN LIGHT  
50' C-C, 25' C-C @ CURVES
- SIGN WITH PERMANENT SUPPORT
- ← TYPE III BARRICADE WITH TWO HIGH INTENSITY FLASHING LIGHTS
- DIRECTION OF TRAVEL
- [Hatched Box] CONSTRUCTION AREA
- [Diagonal Hatched Box] ROAD CLOSURE AREA
- [Cross-hatched Box] TEMPORARY AGGREGATE TO MAINTAIN ACCESS
- TEMPORARY PAVEMENT MARKING  
YELLOW CENTERLINE 4" @ 11" C-C
- TEMPORARY PAVEMENT MARKING  
STOP LINE 24", WHITE (UNLESS OTHERWISE NOTED)
- TEMPORARY PAVEMENT MARKING  
6" SKIP, 2" DASH: 6" YELLOW FOR CENTER LINE  
6" WHITE FOR LANE LINE
- TEMPORARY PAVEMENT MARKING  
4" WHITE EDGE LINE (UNLESS OTHERWISE NOTED)



**SIGN LEGEND**

- ① W1-4, 48"x48" BLACK/ORANGE
- ③ W20-1, 48"x48" BLACK/ORANGE



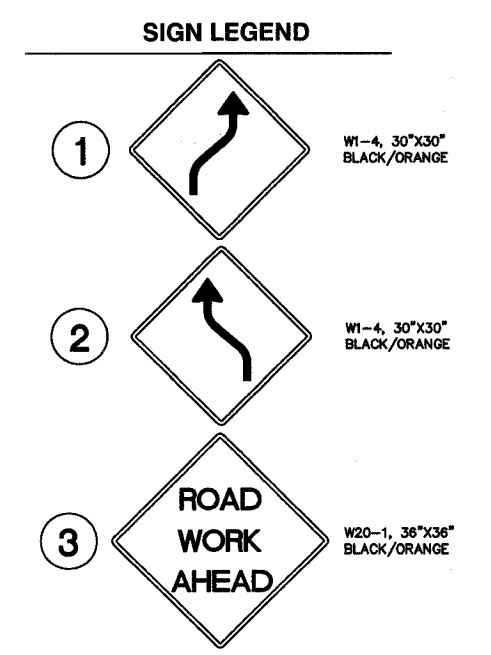
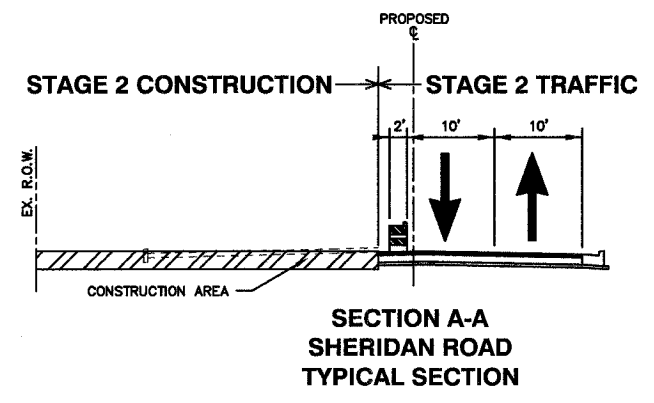
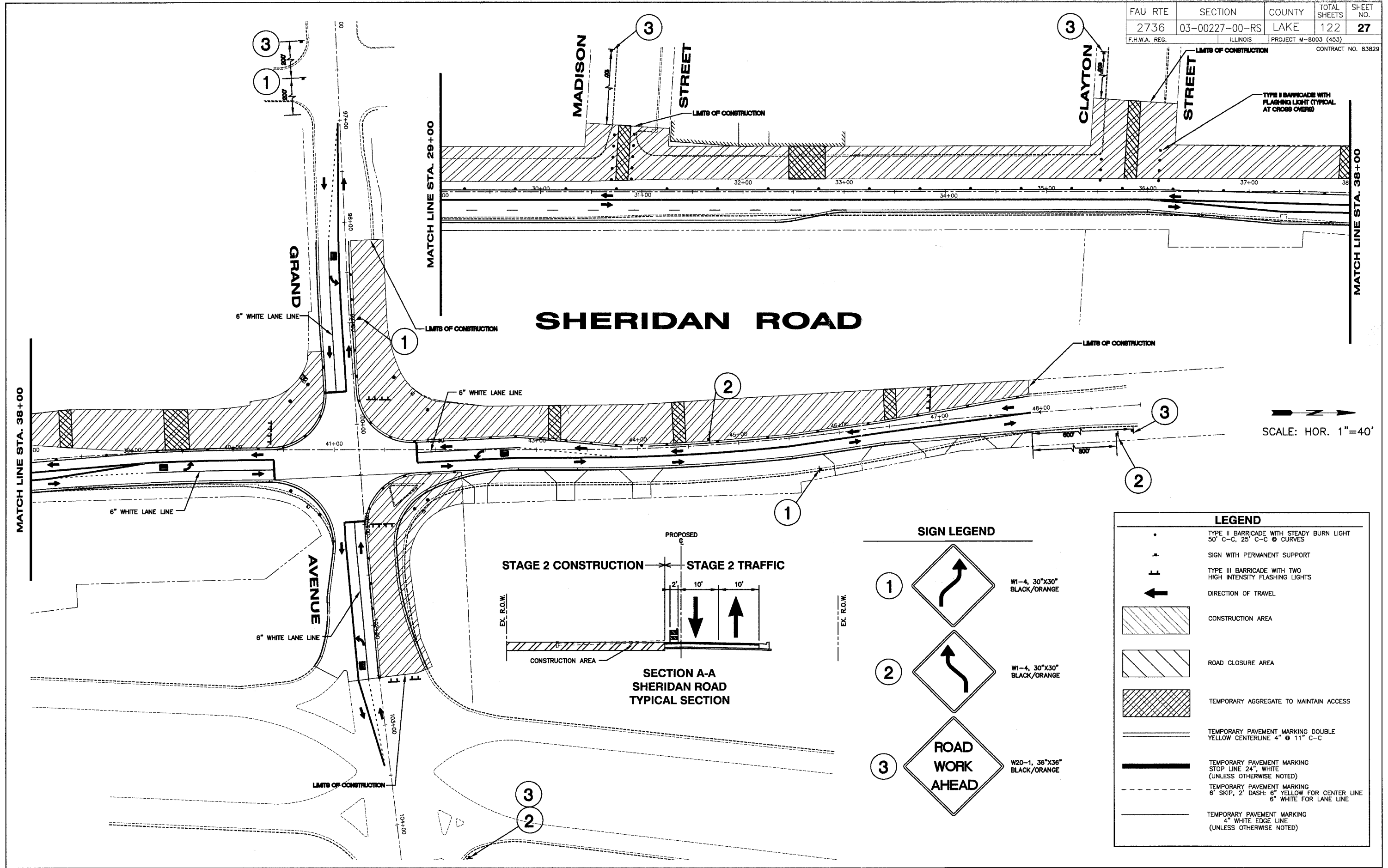
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NO.	ITEM	DATE

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 CHECKED BY: DBD  
 DATE: 1-16-06

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**SHERIDAN ROAD STAGE 2 TRAFFIC PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	27
F.H.W.A. REG.	ILLINOIS	PROJECT M-8003 (453)	CONTRACT NO. 83829	



LEGEND	
	TYPE II BARRICADE WITH STEADY BURN LIGHT 50' C-C, 25' C-C @ CURVES
	SIGN WITH PERMANENT SUPPORT
	TYPE III BARRICADE WITH TWO HIGH INTENSITY FLASHING LIGHTS
	DIRECTION OF TRAVEL
	CONSTRUCTION AREA
	ROAD CLOSURE AREA
	TEMPORARY AGGREGATE TO MAINTAIN ACCESS
	TEMPORARY PAVEMENT MARKING DOUBLE YELLOW CENTERLINE 4" @ 11" C-C
	TEMPORARY PAVEMENT MARKING STOP LINE 24" WHITE (UNLESS OTHERWISE NOTED)
	TEMPORARY PAVEMENT MARKING 6" SKIP, 2" DASH: 6" YELLOW FOR CENTER LINE 6" WHITE FOR LANE LINE
	TEMPORARY PAVEMENT MARKING 4" WHITE EDGE LINE (UNLESS OTHERWISE NOTED)

SHEET KEY	

REVISIONS		
NO.	ITEM	DATE

SCALE: 1" = 40'  
 DRAWN BY: MRT  
 CHECKED BY: DBD  
 DATE: 1-16-06

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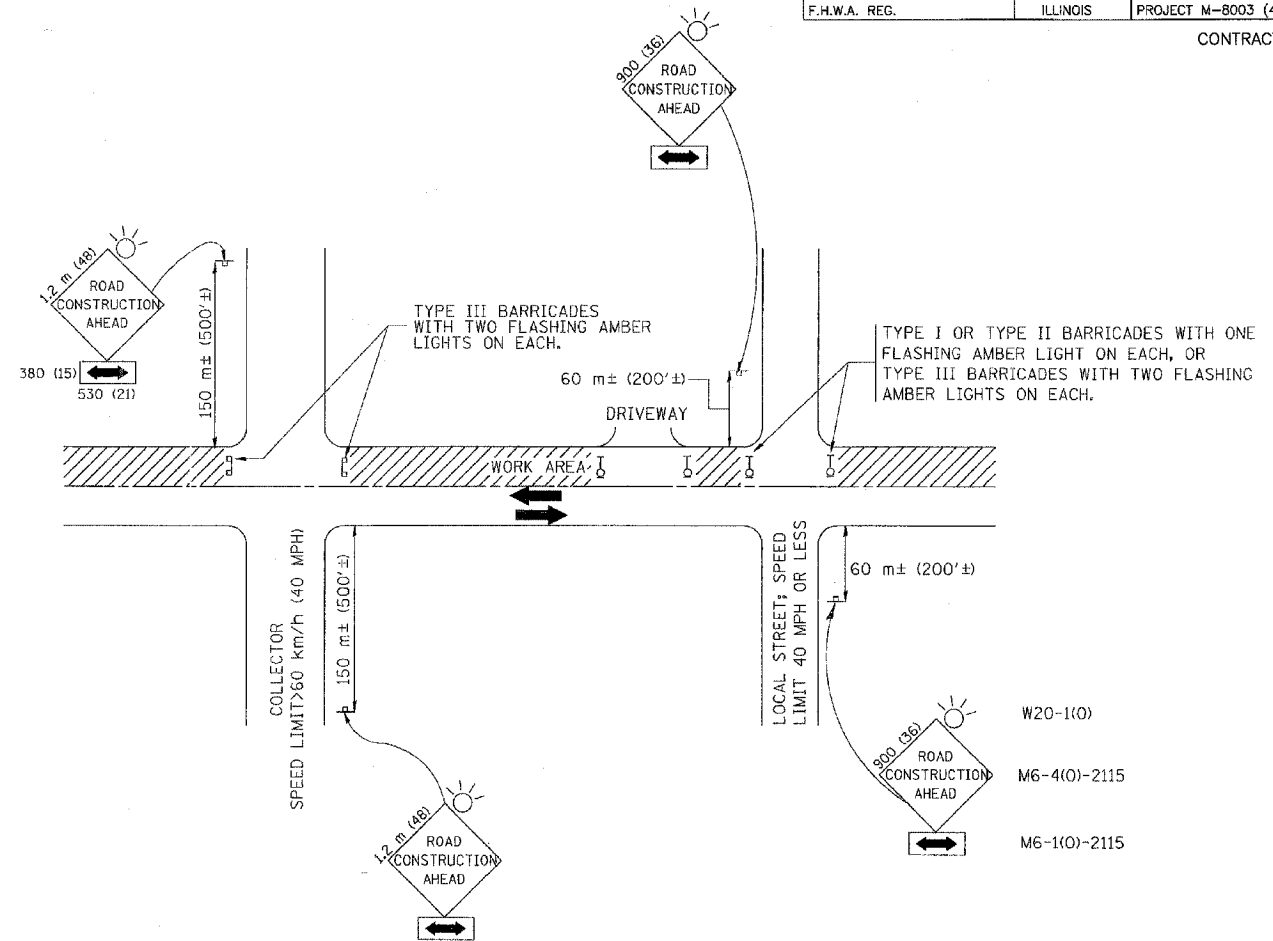
**SHERIDAN ROAD STAGE 2 TRAFFIC PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	29
F.H.W.A. REG.	ILLINOIS	PROJECT M-8003 (453)		

CONTRACT NO. 83829



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS:
- SIDE ROAD WITH A SPEED LIMIT OF 60 km/h (40 MPH) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE **ROAD CONSTRUCTION AHEAD** SIGN 900x900 (36x36) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 60 m (200') IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE **ROAD CONSTRUCTION AHEAD** SIGN 1.2 m x 1.2 m (48x48) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 150 m (500') IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

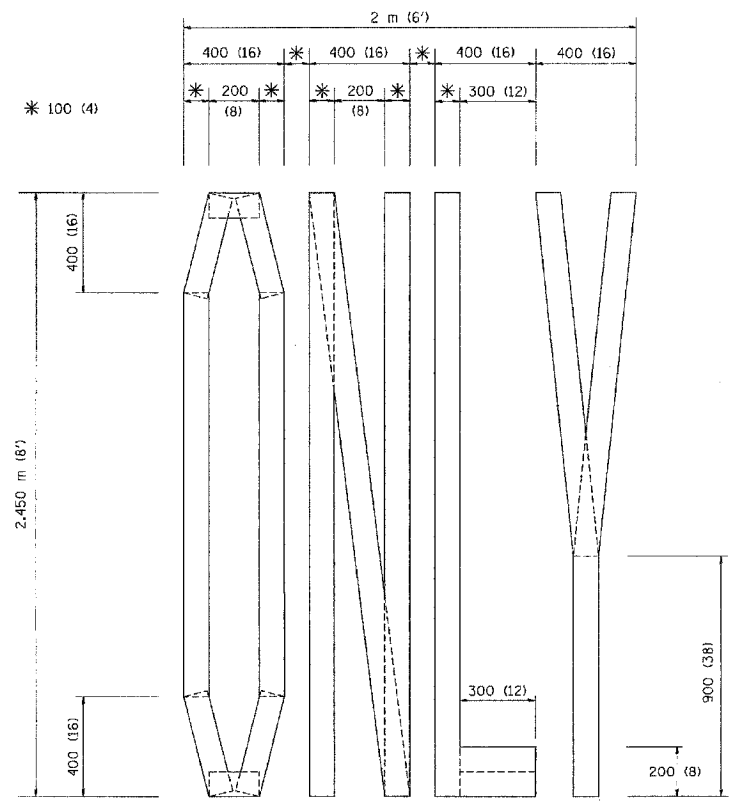
REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC CONTROL AND PROTECTION  
 FOR  
 SIDE ROADS, INTERSECTIONS, AND  
 DRIVEWAYS

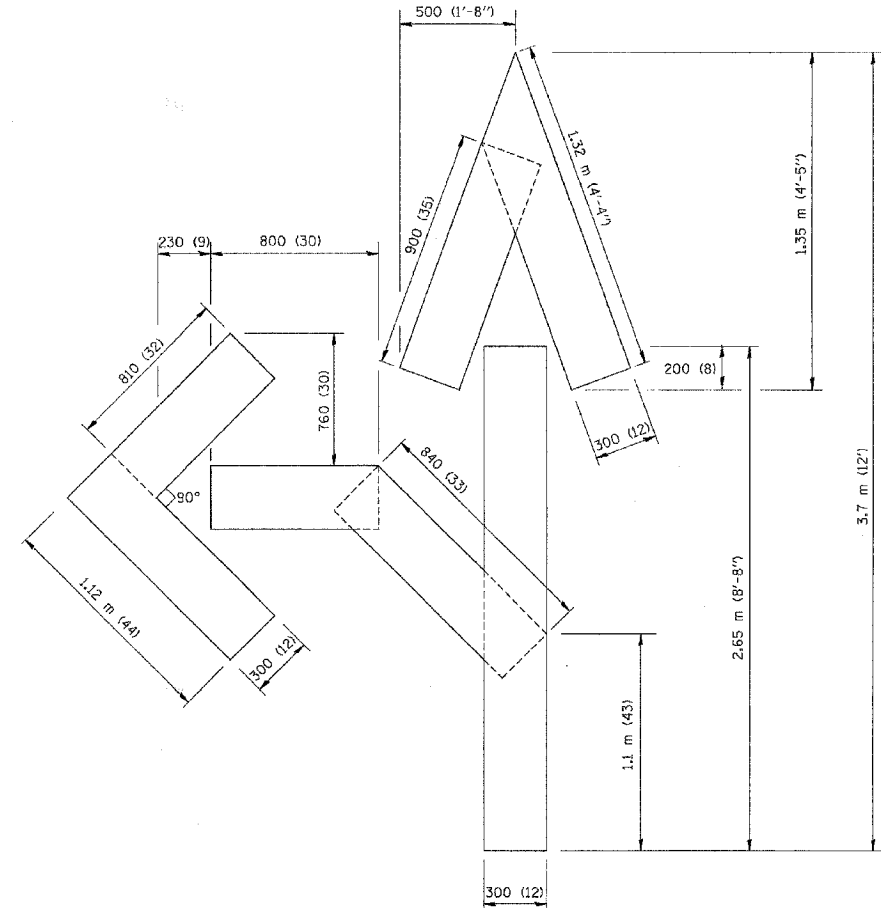
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 DATE 10/18/2002

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 TC-10

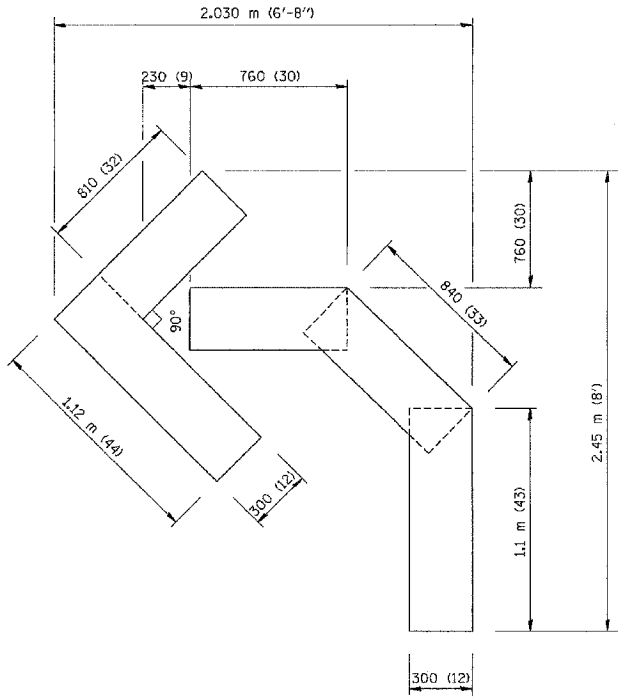
REVISION DATE: 01/05/00



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



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



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

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

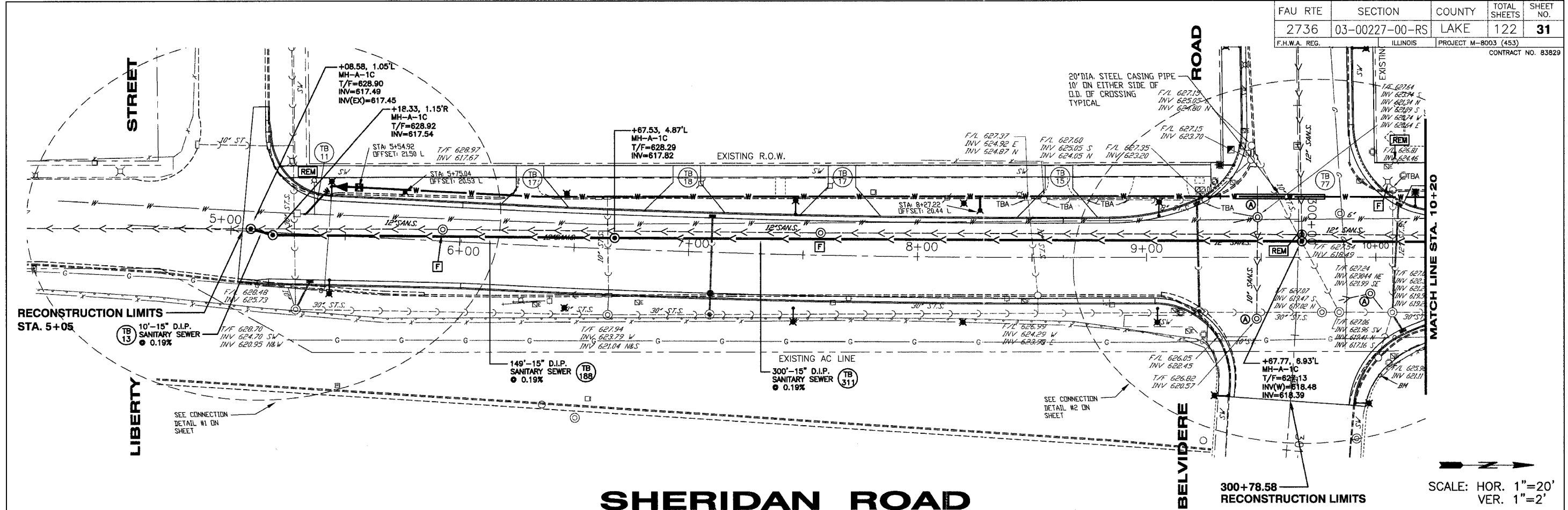
ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING  
 LETTERS AND SYMBOLS  
 FOR TRAFFIC STAGING

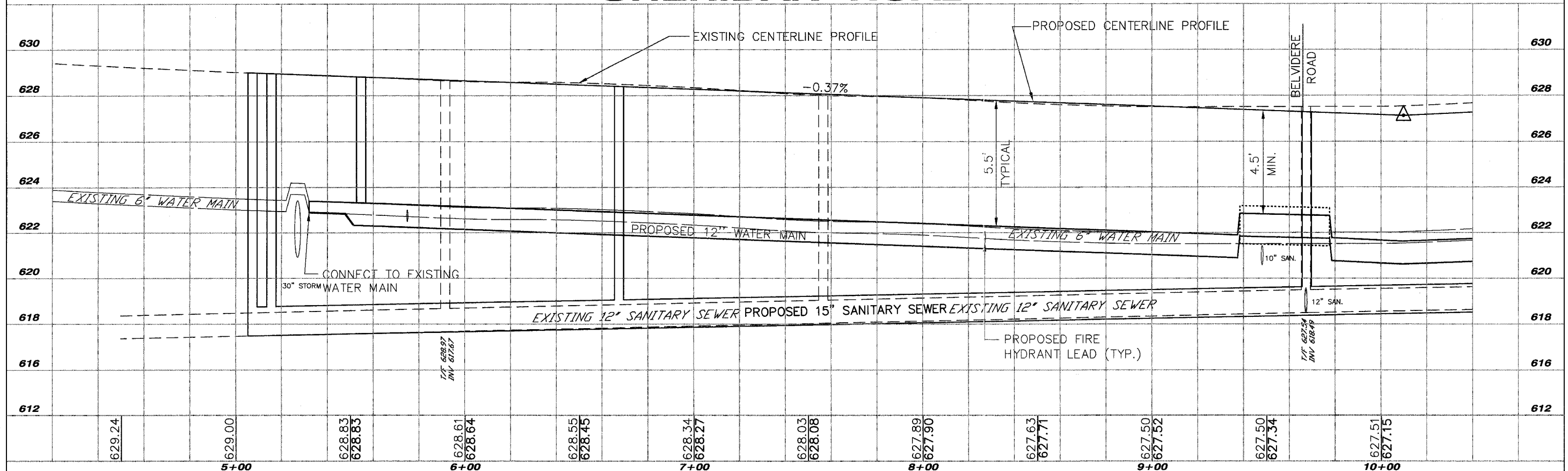
REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	09/28/00

SCALE: NONE  
 DATE 10/18/2002

DRAWN BY CADD  
 CHECKED BY  
 TC-16



# SHERIDAN ROAD



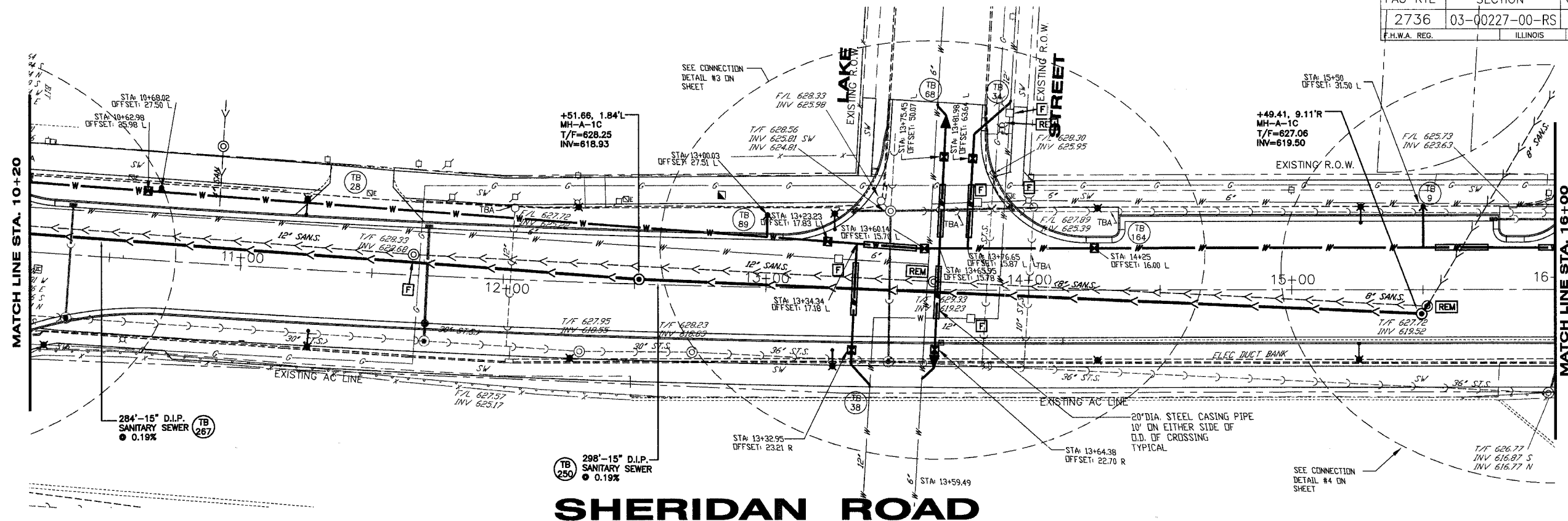
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REVISIONS		
NO.	ITEM	DATE

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 DATE: 1-18-06

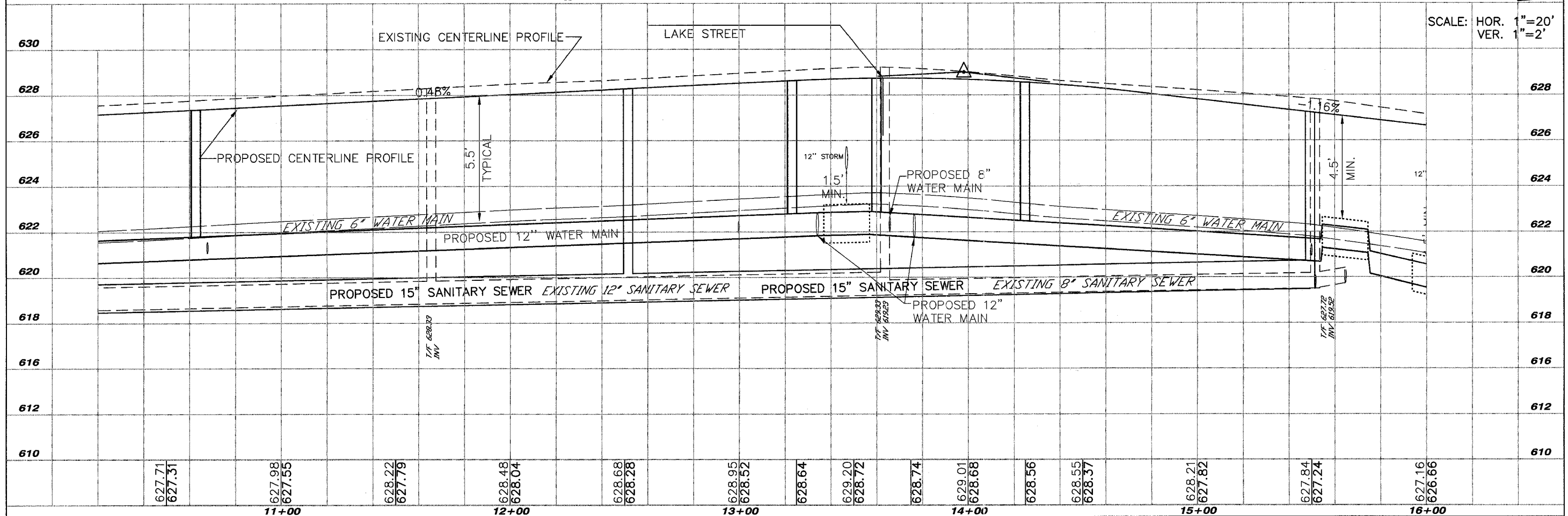
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**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN      JOB NUMBER: 02-28-04-164      LAKE COUNTY, ILLINOIS



# SHERIDAN ROAD

SCALE: HOR. 1"=20'  
VER. 1"=2'



SHEET KEY	
11+00	12+00
13+00	14+00
15+00	16+00

REVISIONS		
NO.	ITEM	DATE

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DATE: 1-18-06

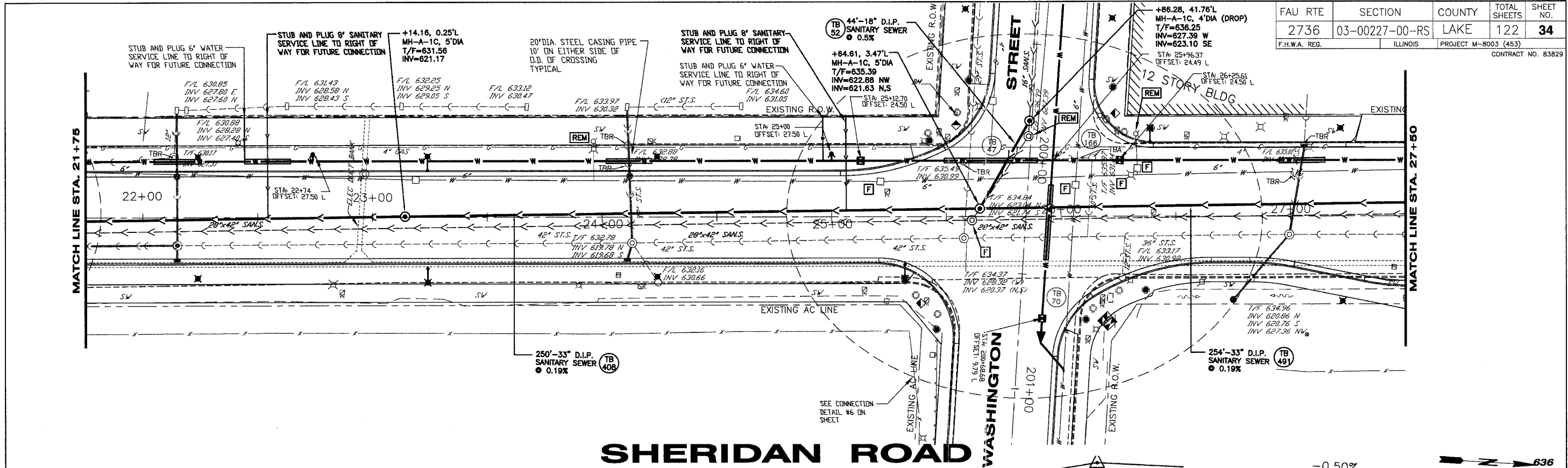
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**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN  
 JOB NUMBER: 02-28-04-184  
 LAKE COUNTY, ILLINOIS

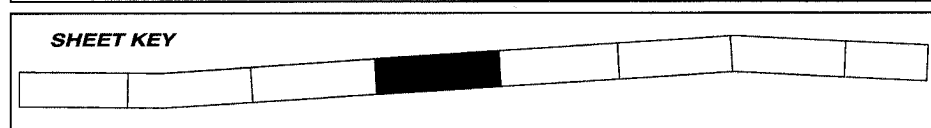
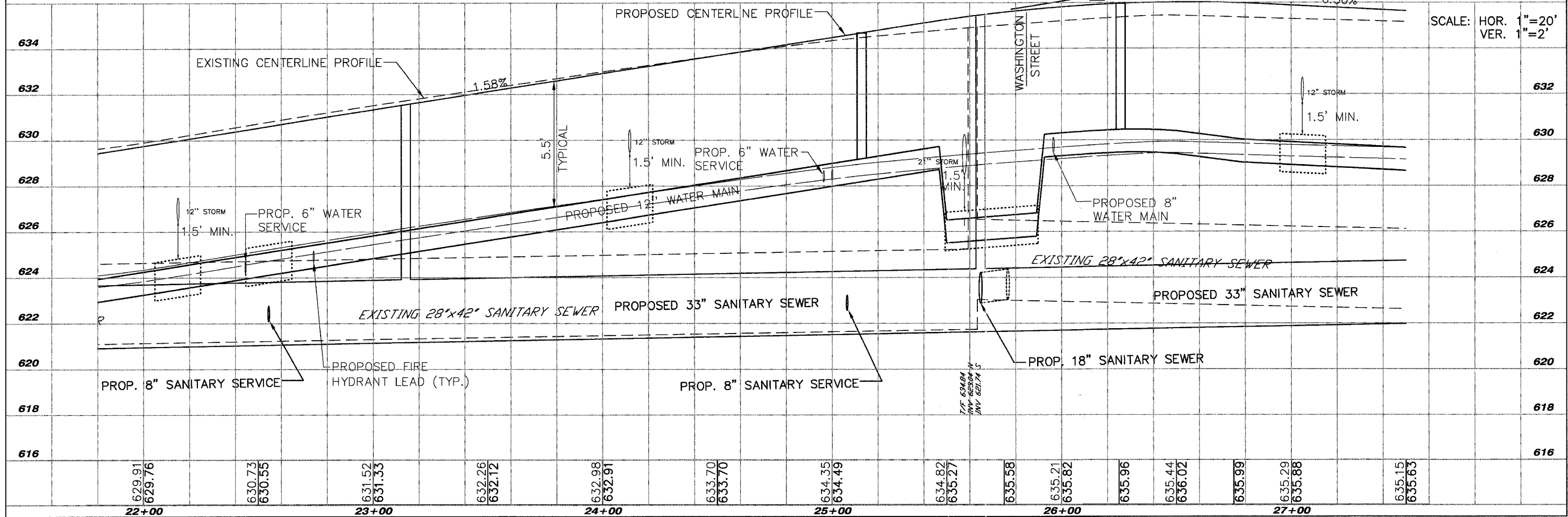




FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	34
F.H.W.A. REG.		ILLINOIS	PROJECT M-8003 (453)	
CONTRACT NO. 83829				



# SHERIDAN ROAD



REVISIONS		
NO.	ITEM	DATE

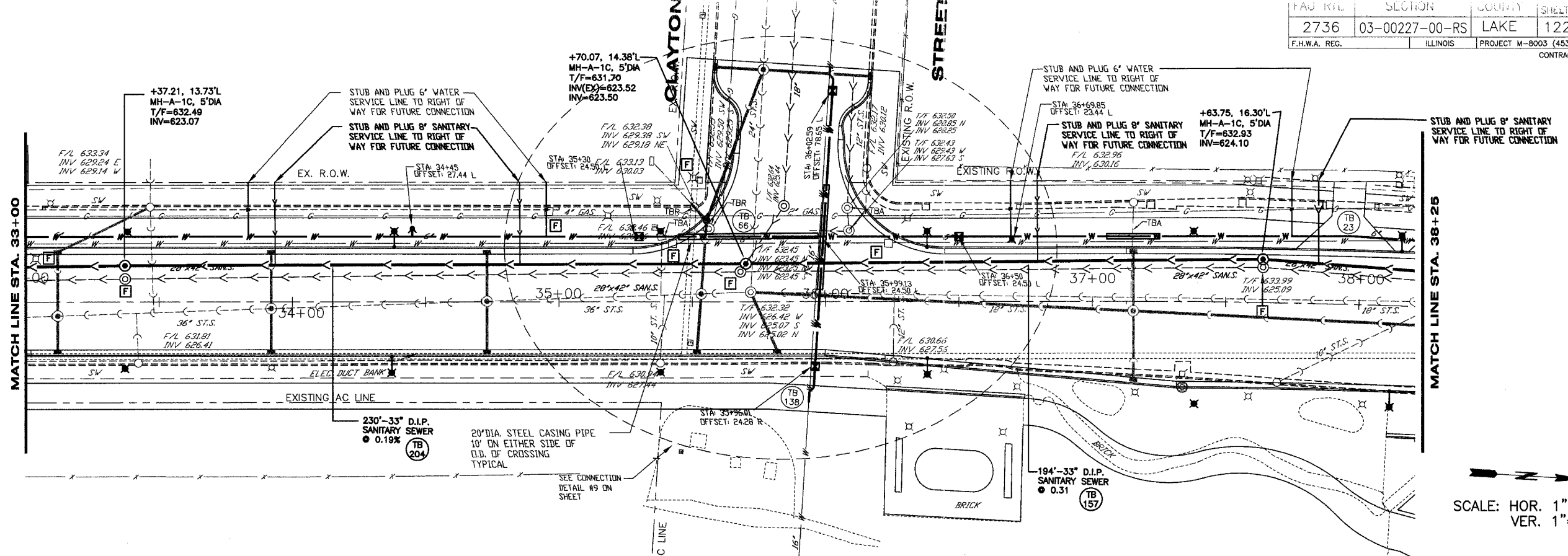
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 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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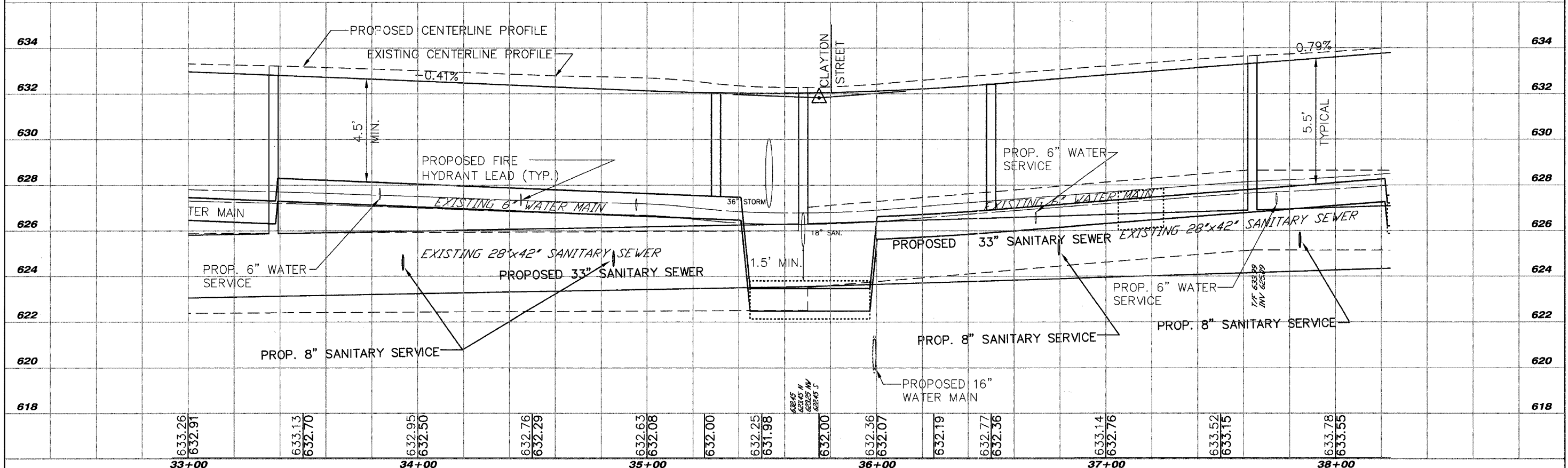
SHEET NO. **34** of **122**





# SHERIDAN ROAD

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VER. 1"=2'



SHEET KEY	

REVISIONS		
NO.	ITEM	DATE

SCALE: 1" = 20'  
DRAWN BY: MS  
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DATE: 1-16-06

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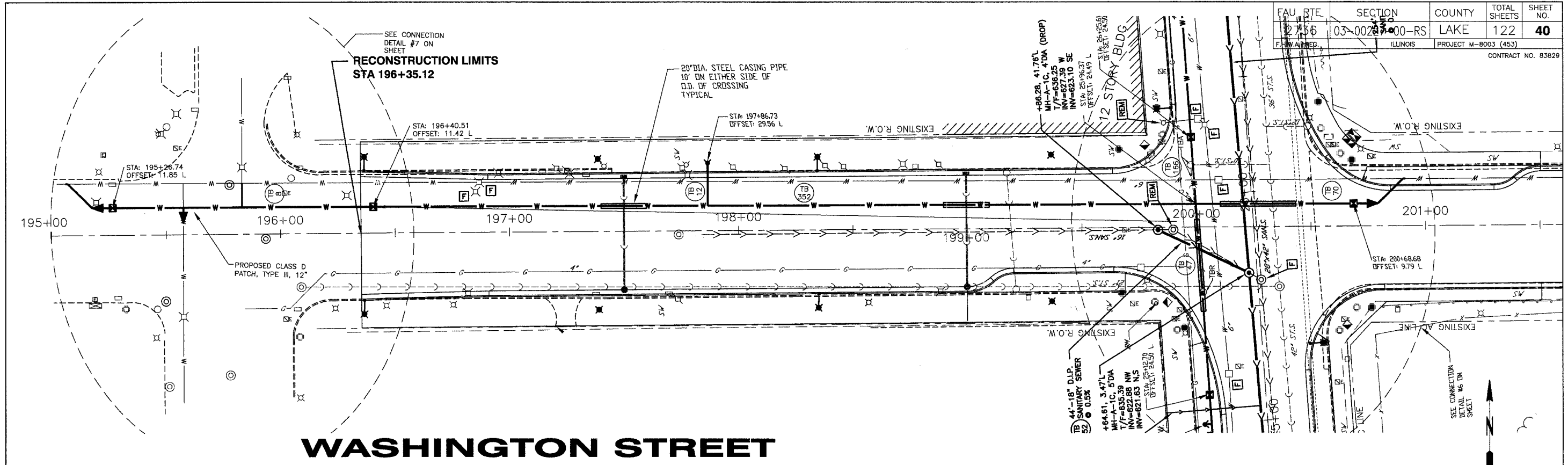
SHEET NO.  
**36**  
of  
**122**



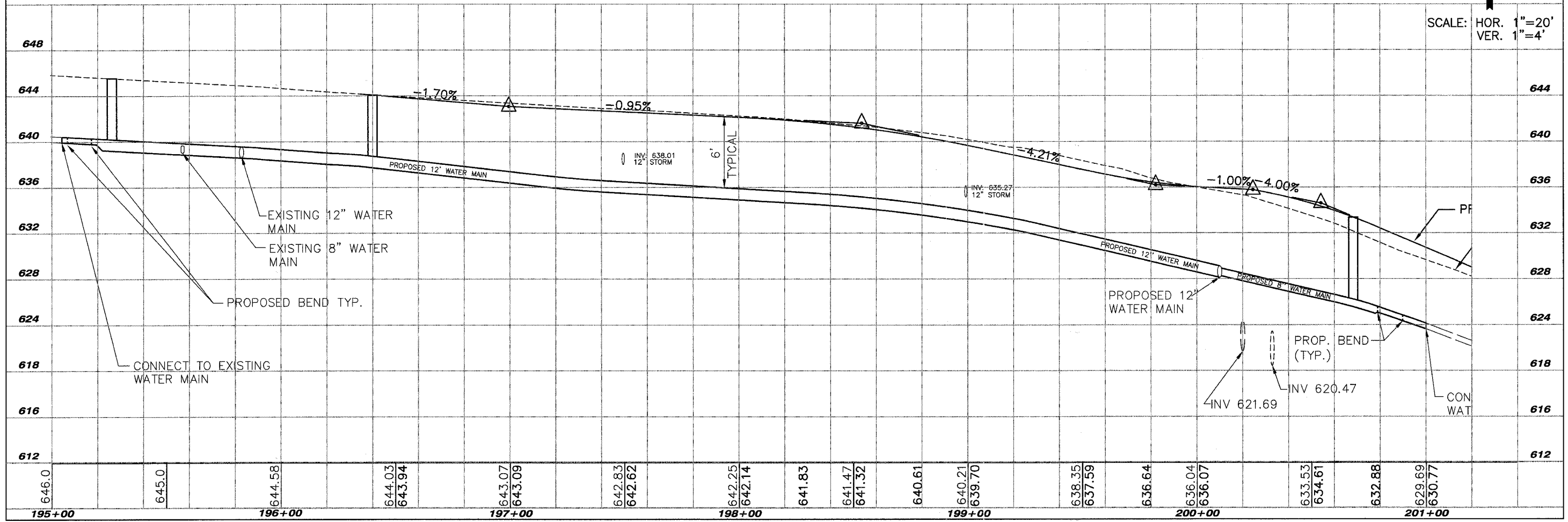




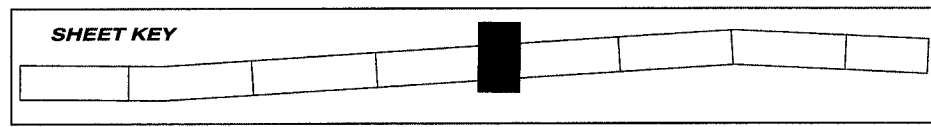




# WASHINGTON STREET



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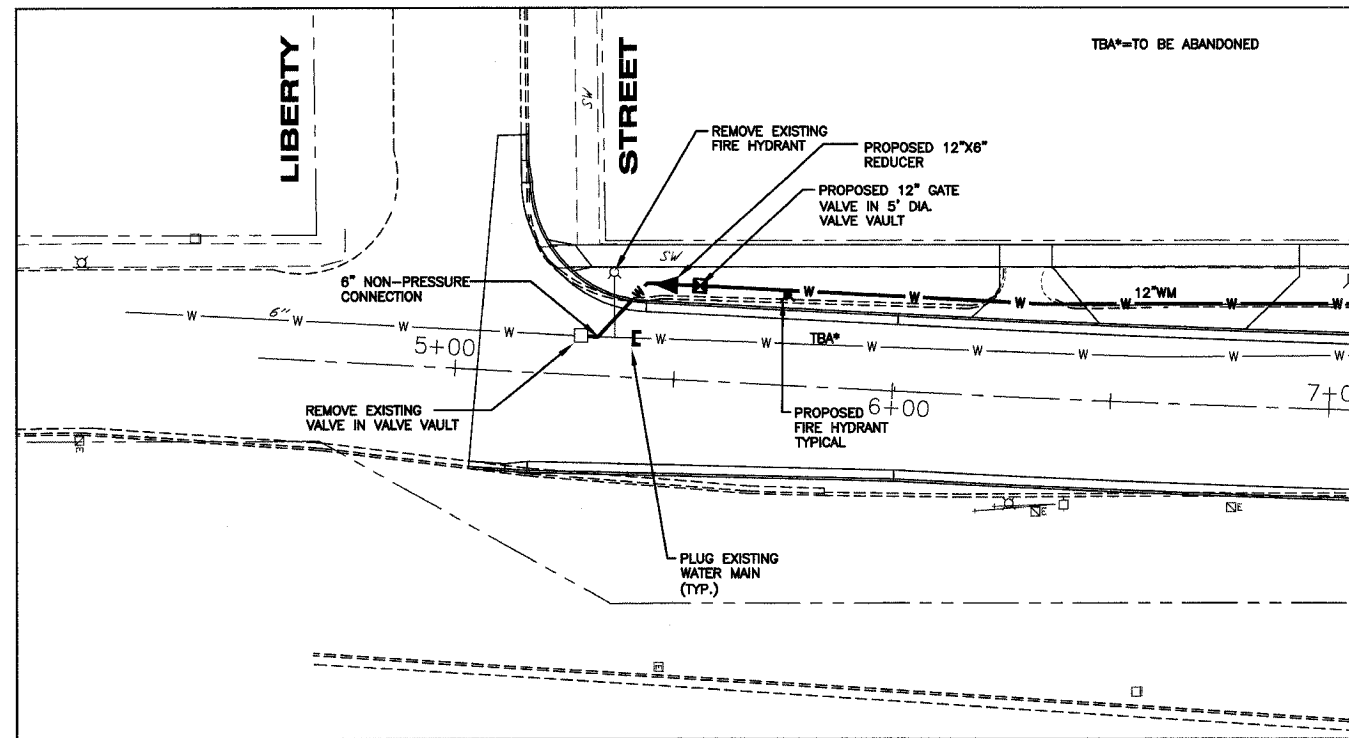
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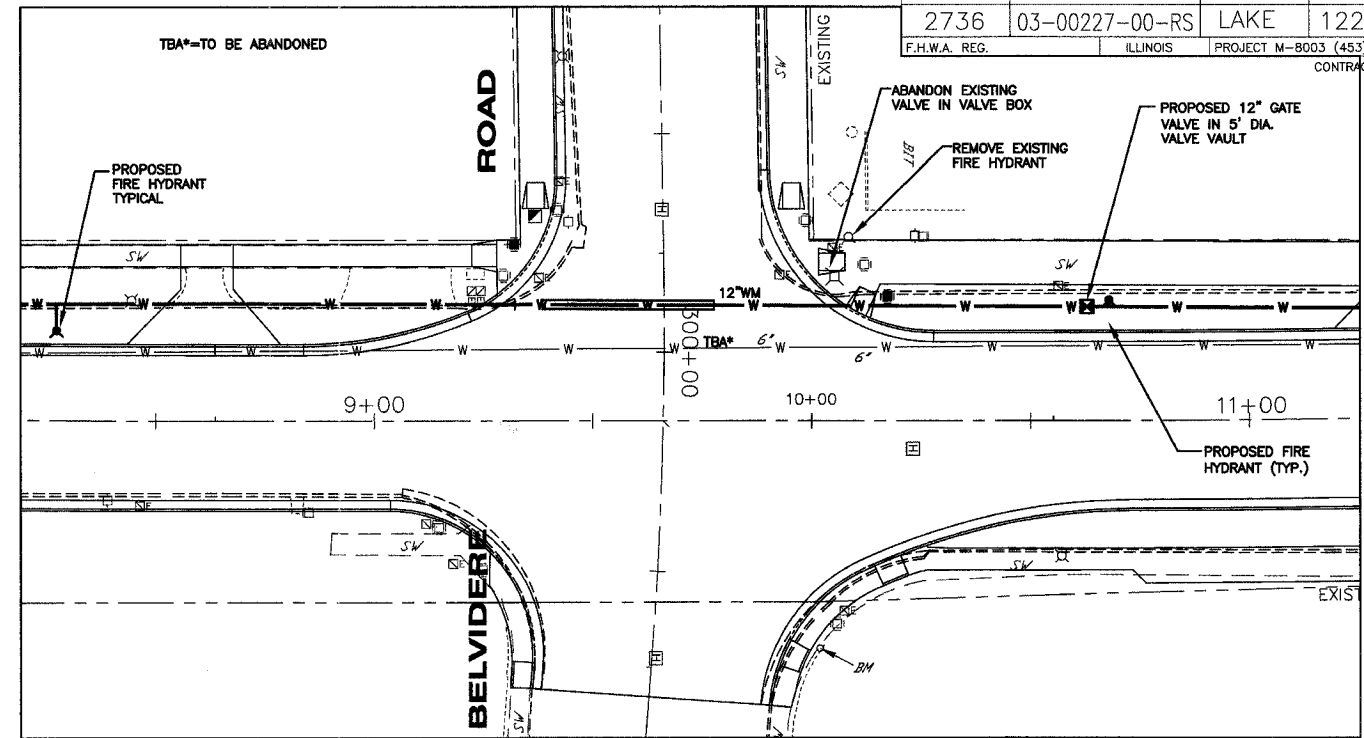
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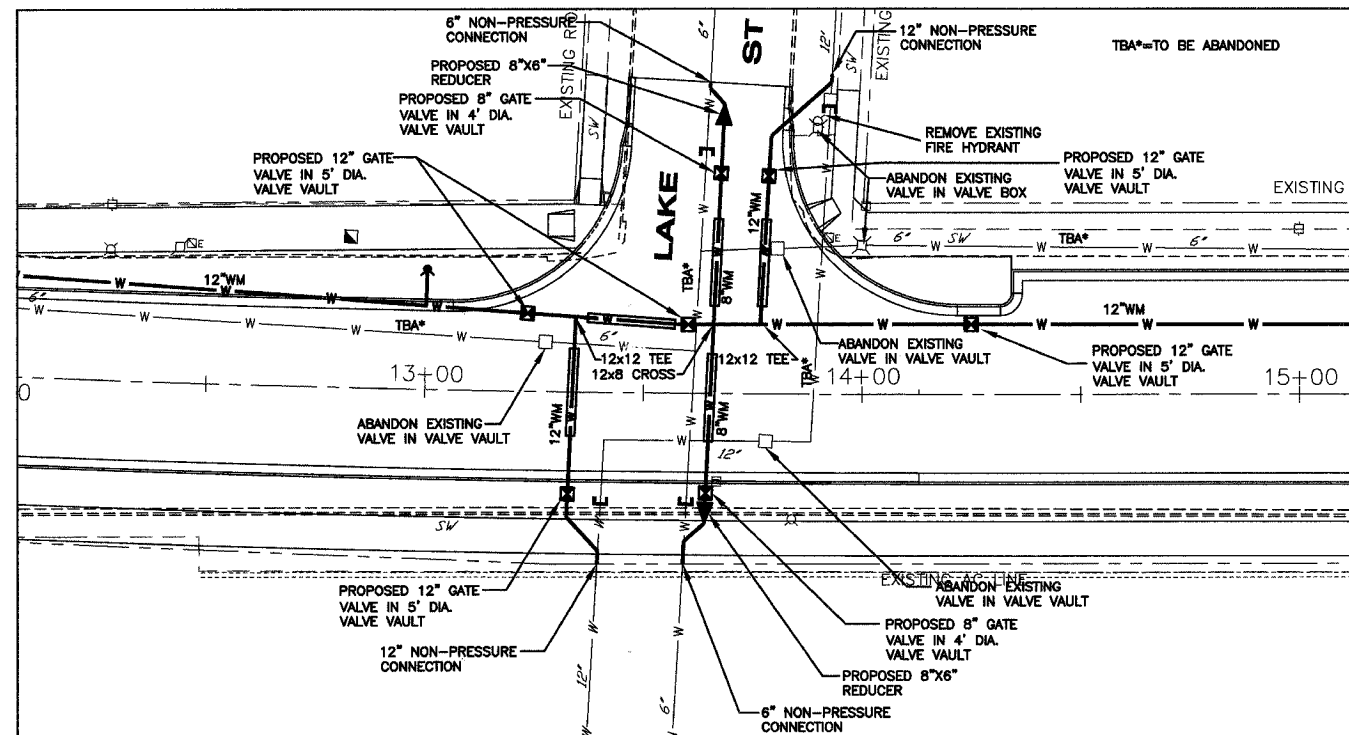




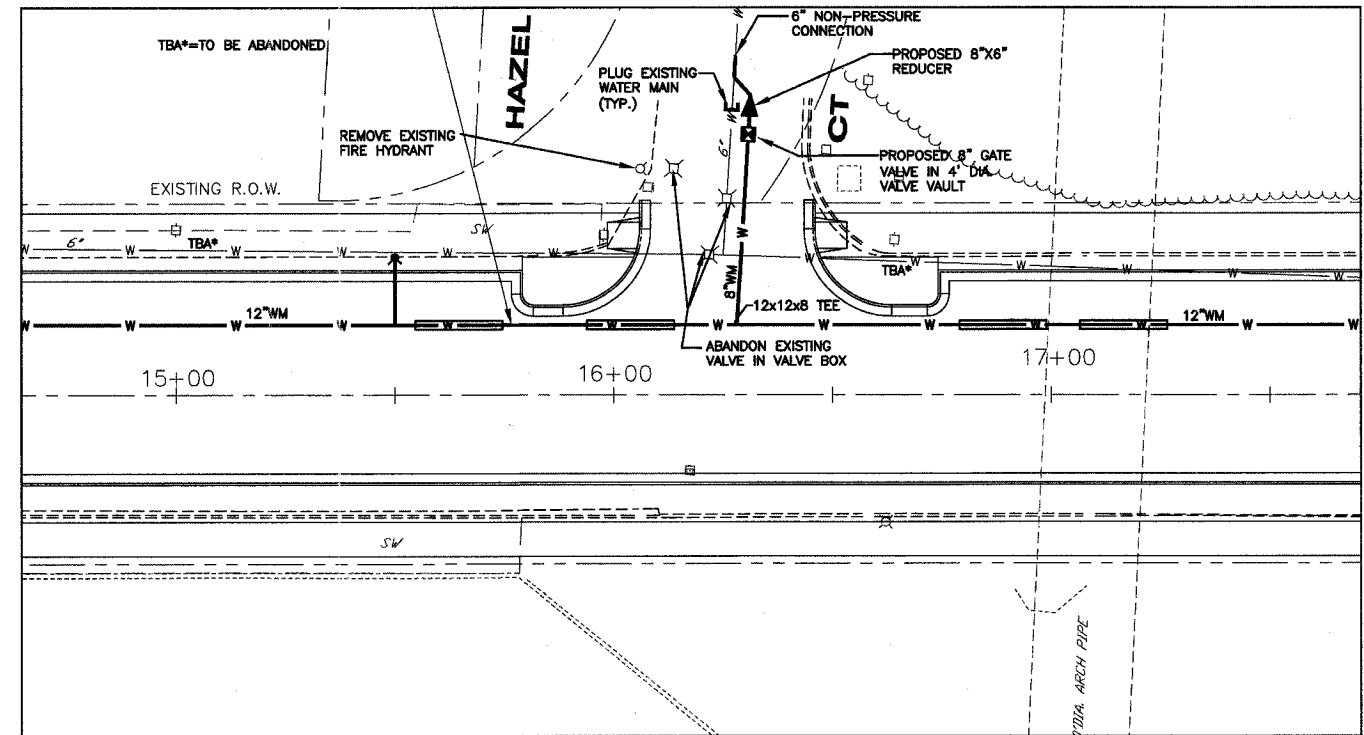
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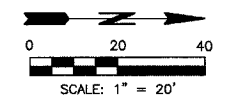
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**CONNECTION DETAIL #3**



**CONNECTION DETAIL #4**



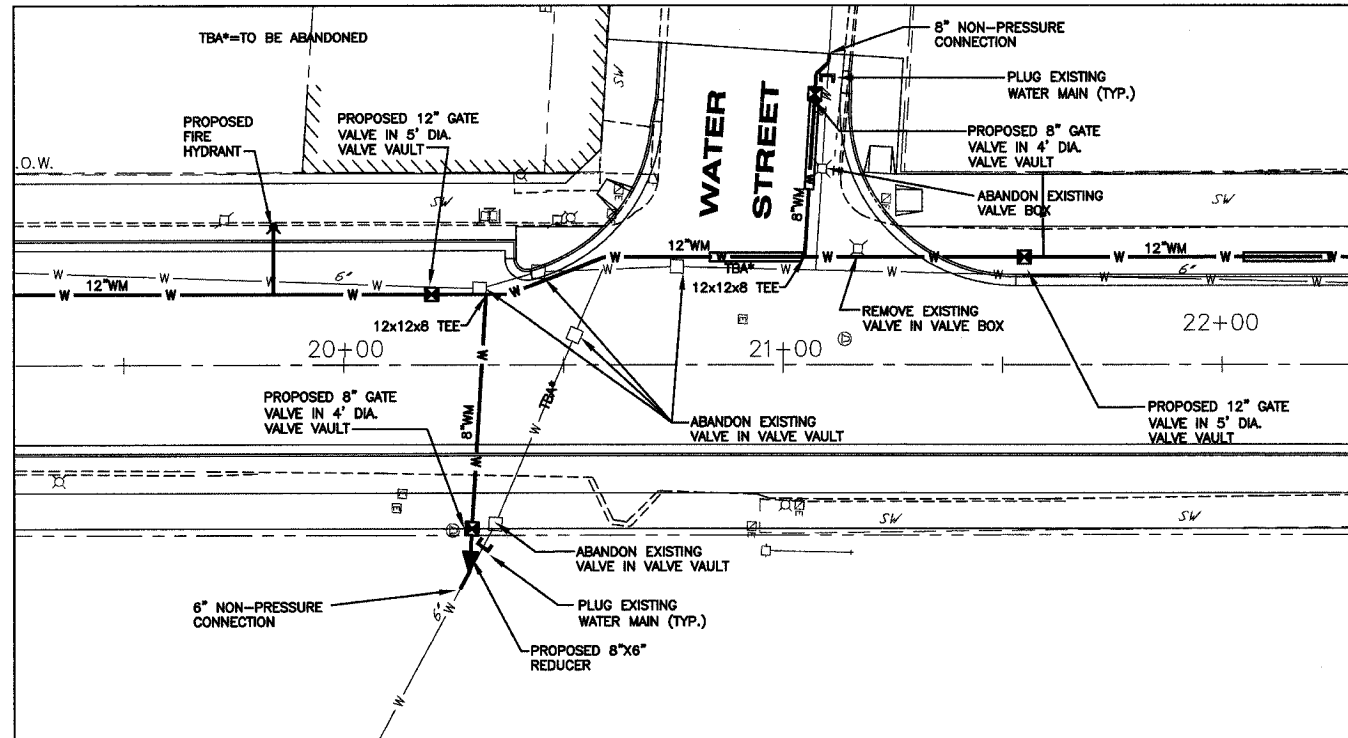
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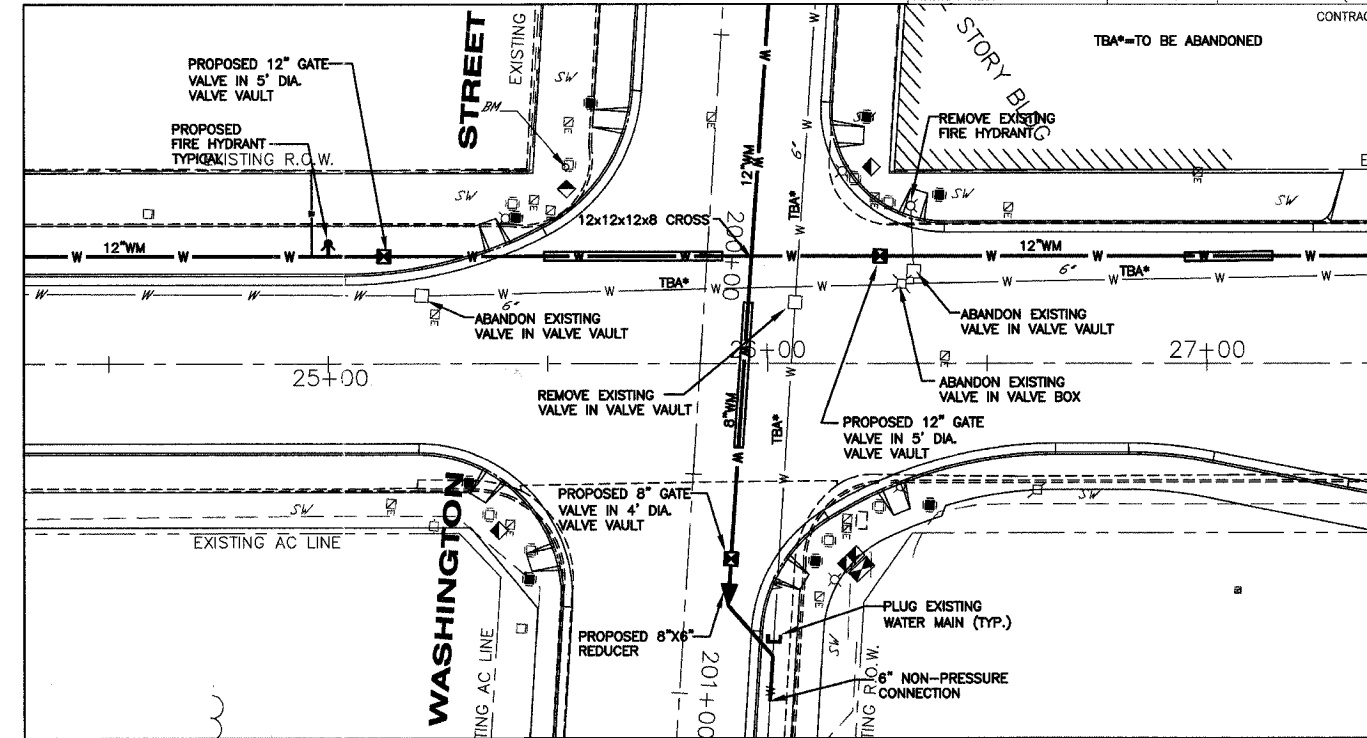
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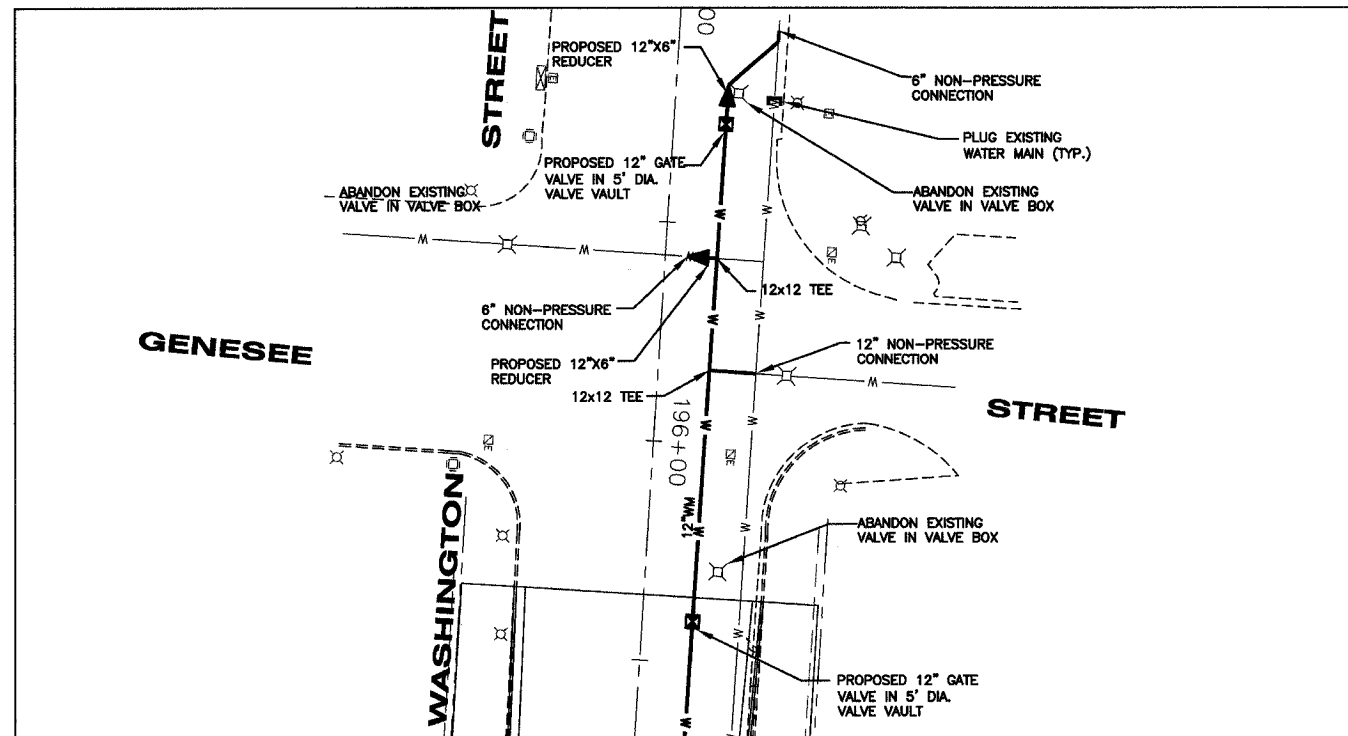
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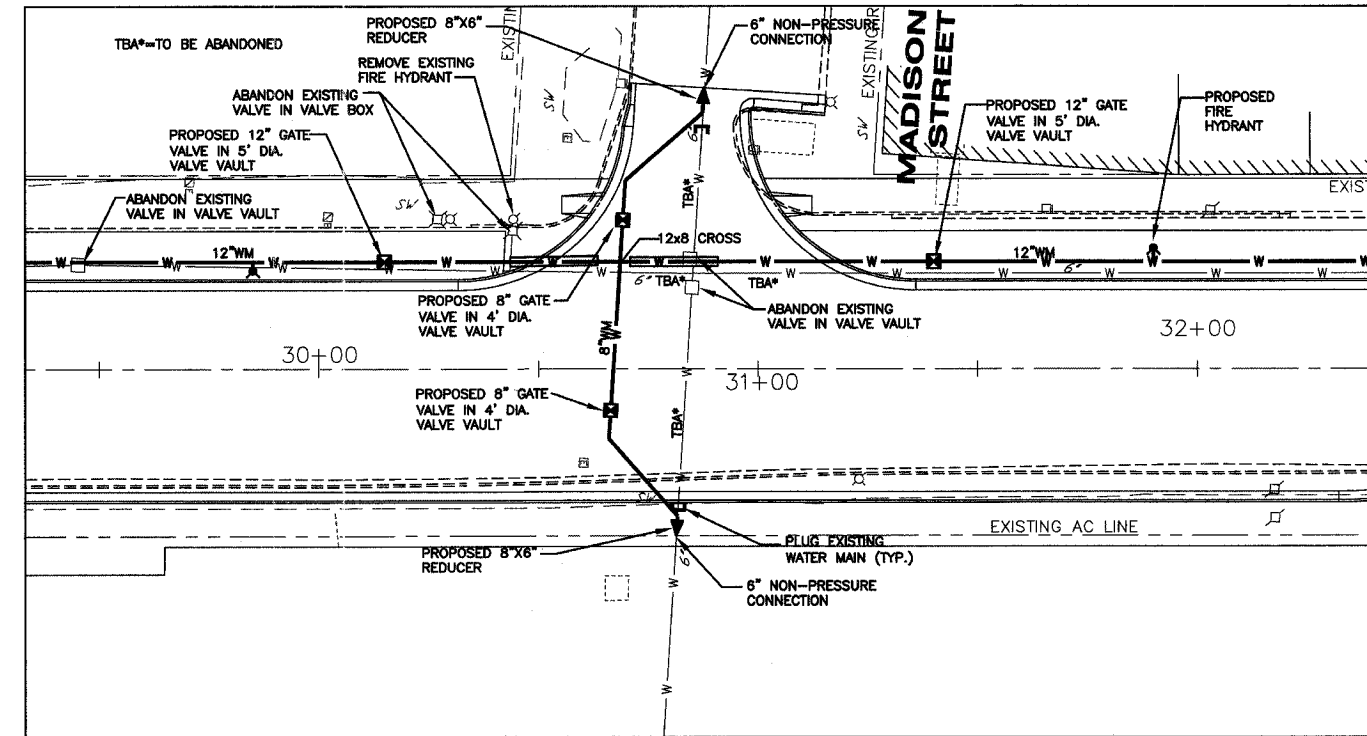
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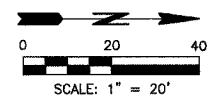
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**CONNECTION DETAIL #7**



**CONNECTION DETAIL #8**



REVISIONS		
NO.	ITEM	DATE

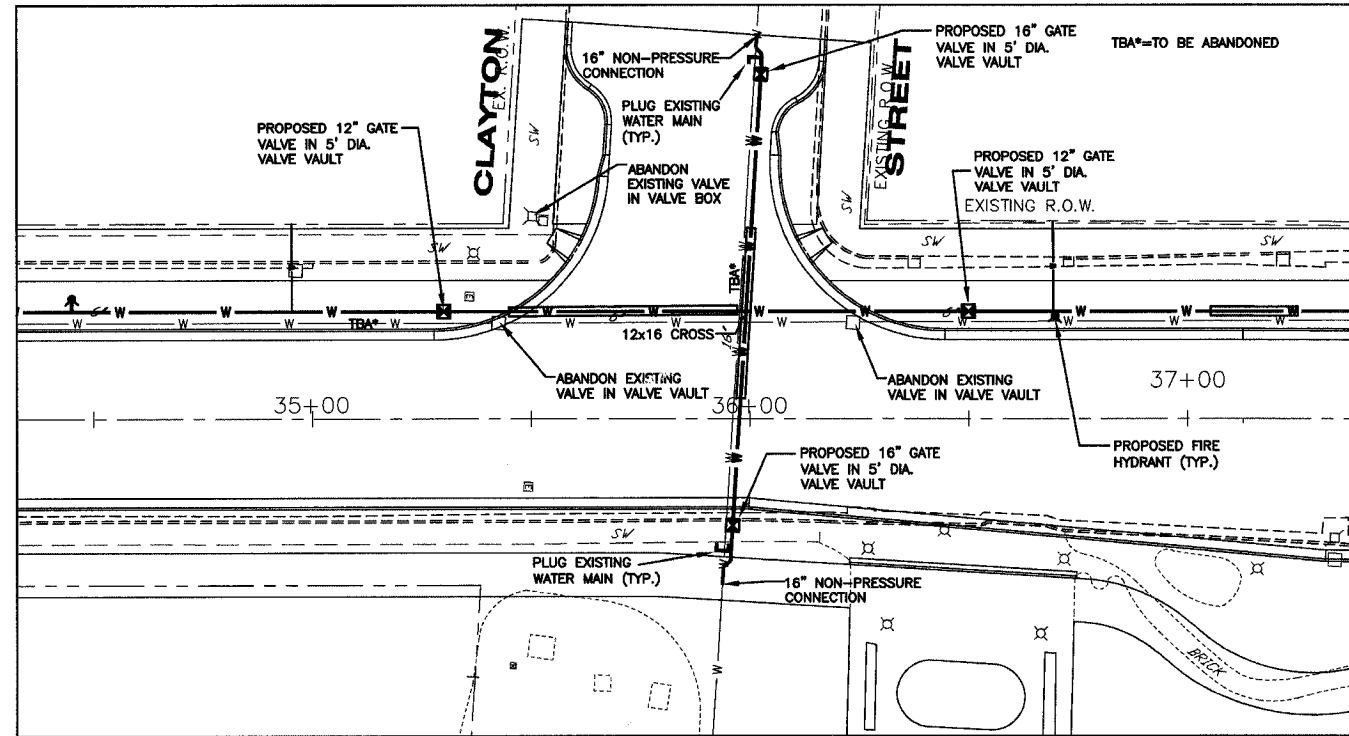
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 DATE: 1-16-06

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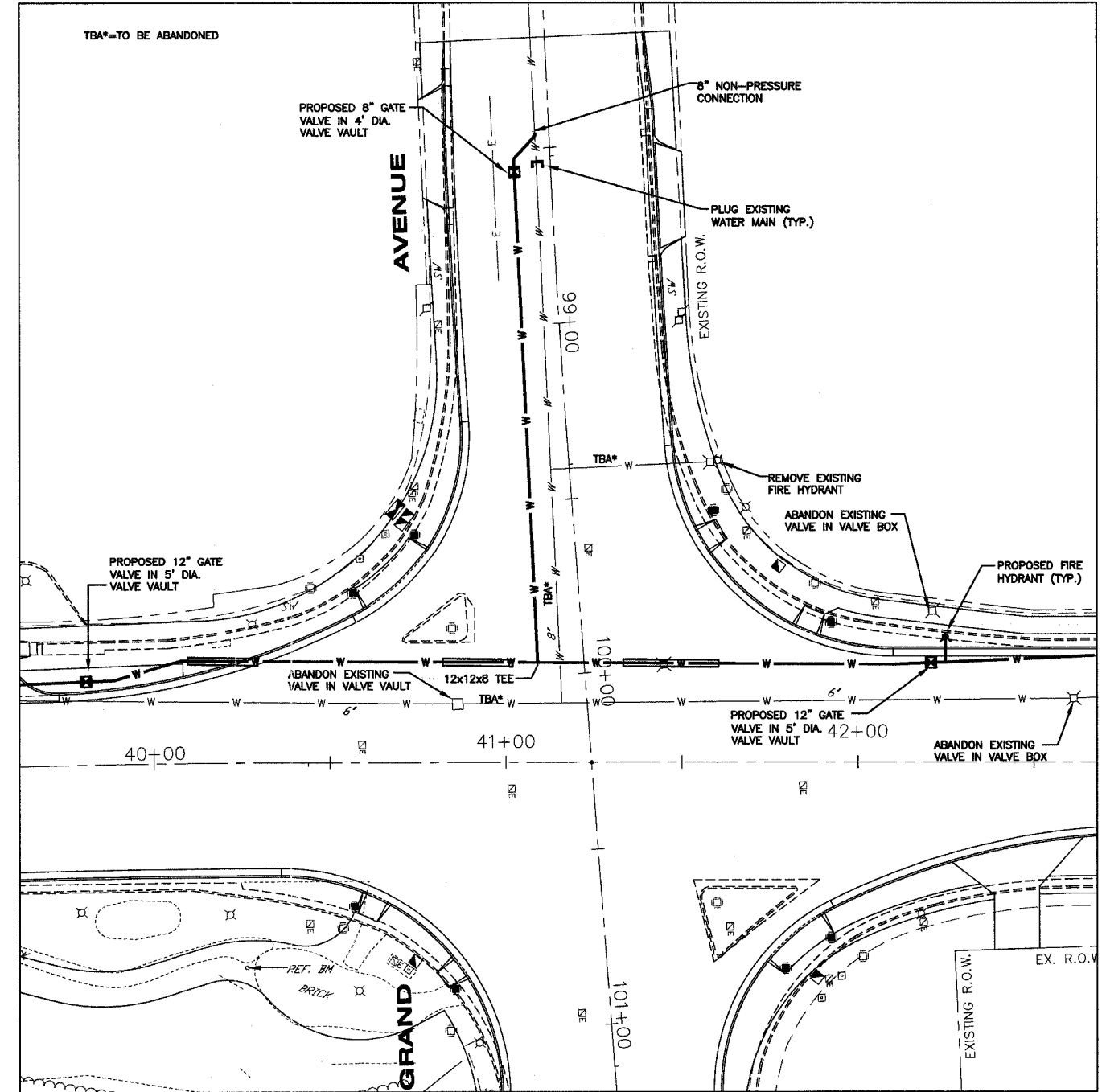
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SHEET NO.  
**43**  
 of  
**122**

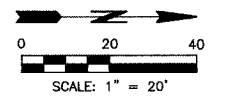




**CONNECTION DETAIL #9**



**CONNECTION DETAIL #10**

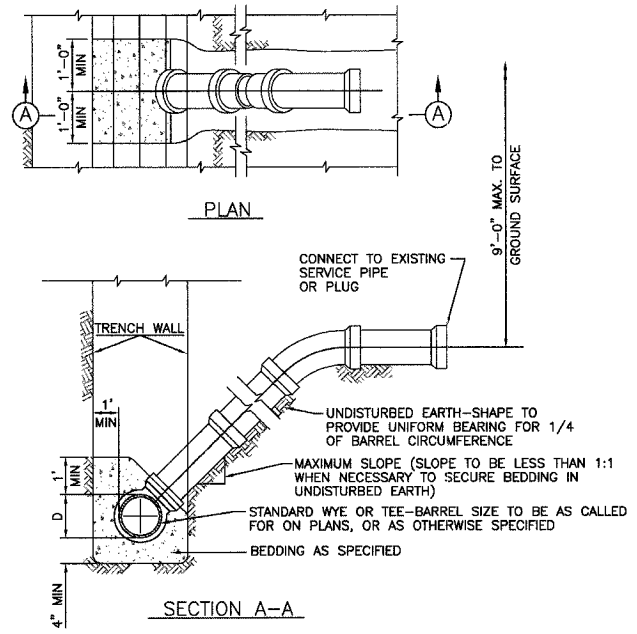


REVISIONS		
NO.	ITEM	DATE

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**McCLURE ENGINEERING ASSOCIATES, INC.**  
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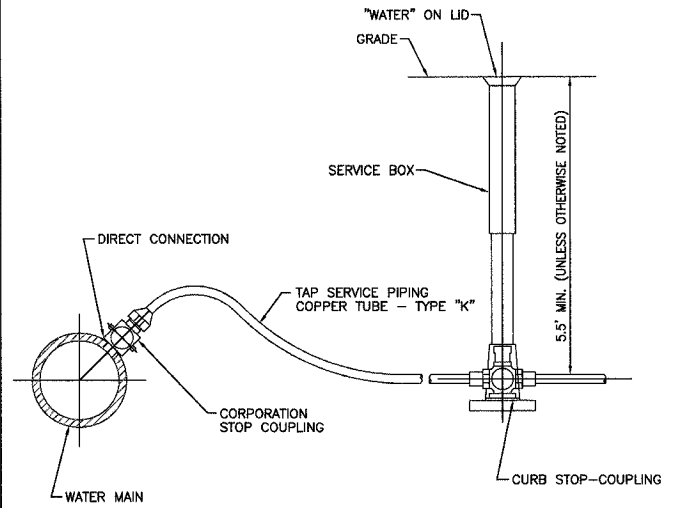
**WATERMAIN CONNECTION DETAILS**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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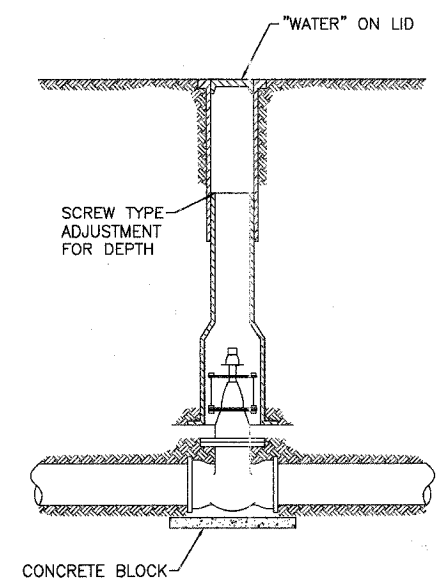
NOTE: WHERE SERVICE LINE IS BELOW FORCE MAIN, CONNECTION IS MADE ABOVE NORMAL FLOW OF MAIN SEWER.

NOTE: RISERS TO BE CONSTRUCTED IN LIEU OF WYES WHERE SEWER DEPTH EXCEEDS 12'-0". FOR PIPE MATERIAL AND CONCRETE SEE SPECIFICATIONS.

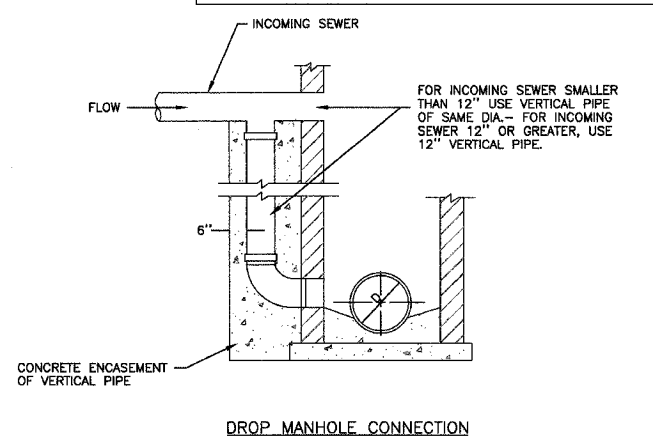
**TYPICAL RISER FOR SERVICE LATERAL**



**TYPICAL TAP SERVICE PIPING (COPPER)**



**TYPICAL VALVE BOX INSTALLATION**

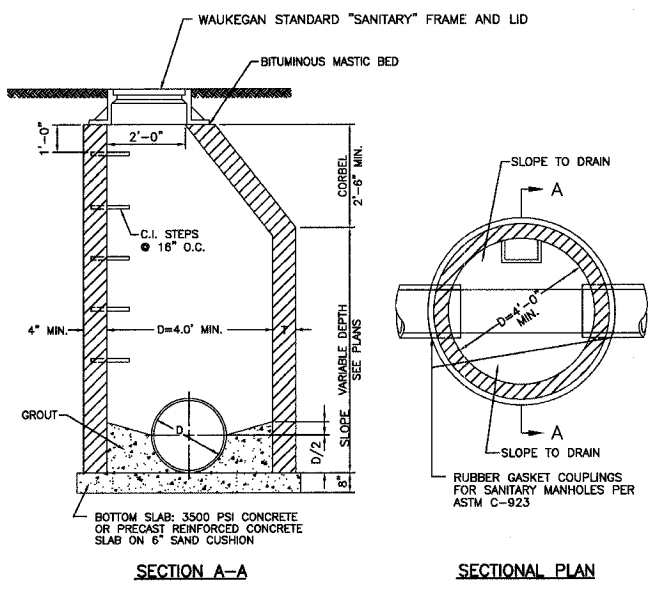


NOTE: PAYMENT FOR DROP MANHOLE CONNECTION TO BE MADE AT CONTRACT UNIT PRICE PER EACH "DROP MANHOLE CONNECTION."

NOTE: TO BE USED IN CONJUNCTION WITH TYPE "A" MANHOLES WHERE SEWER ENTERS 2'-0" OR MORE ABOVE LOWEST INVERT. NOT TO BE USED FOR INLET OR CATCH BASIN CONNECTION.

NOTE: THIS DETAIL APPLIES TO INCOMING SEWERS OF 18" DIAMETER OR LESS.

**DROP MANHOLE CONNECTION DETAIL**

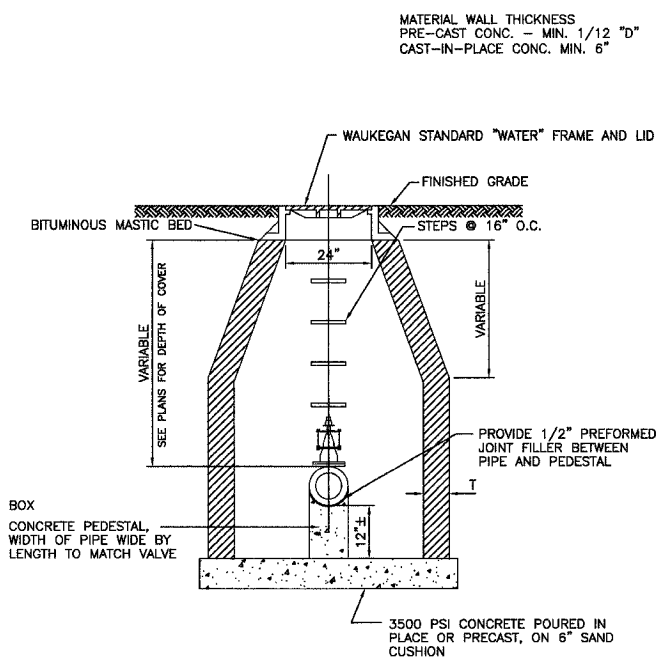


NOTE: STEPS REQUIRED, UNLESS DELETED BY SPECIAL PROVISIONS.

NOTE: SEPARATE SANITARY SEWER MANHOLES SUBJECT TO SATURATED SOIL CONDITIONS OR SURFACE SUBMERGENCE SHALL BE EQUIPPED WITH CHIMNEY SEALS AND WATER TIGHT MANHOLE COVERS.

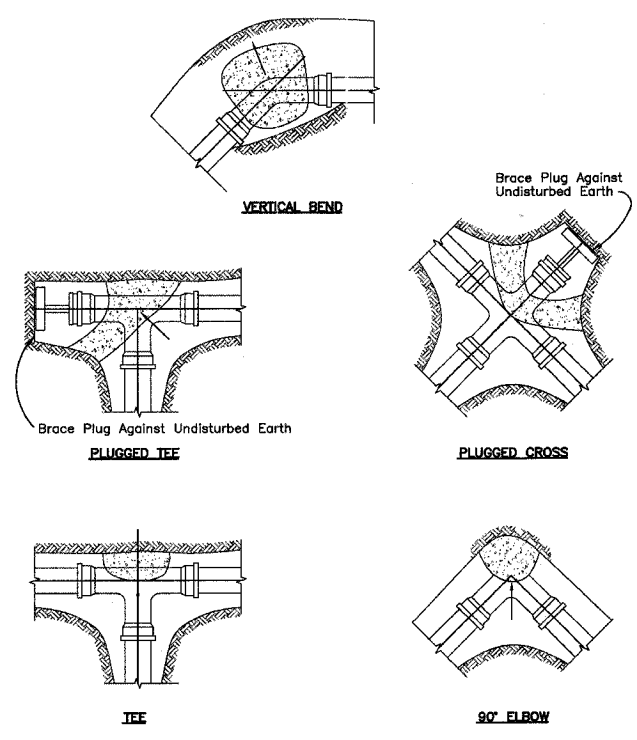
NOTE: 8" MAXIMUM OF ADJUSTING RINGS

**TYPICAL SANITARY MANHOLE TYPE A**



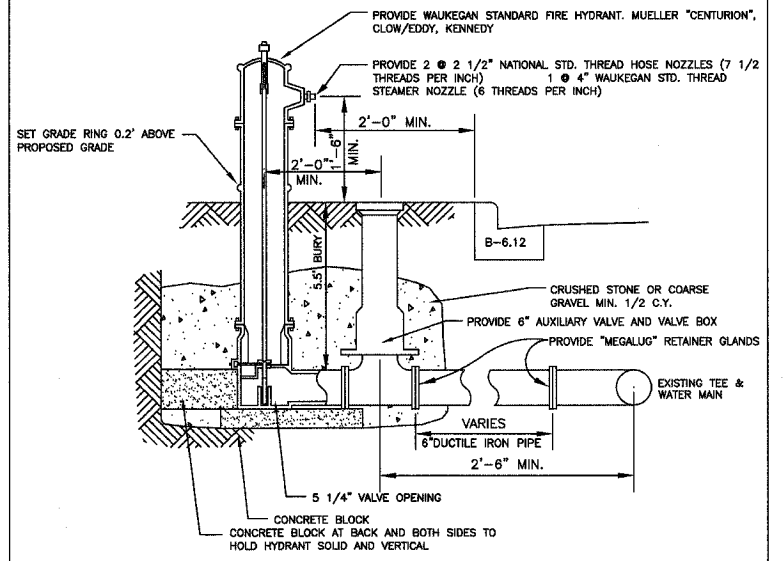
NOTE: VALVE VAULT DIA. SHALL BE 48" FOR 8" AND SMALLER VALVES AND 60" FOR 10" AND LARGER VALVES.

**TYPICAL VALVE VAULT DETAIL**



NOTES:  
 1. ALL BLOCKS BEAR AGAINST UNDISTURBED EARTH.  
 2. ARROWS INDICATE DIRECTION OF THRUST.  
 3. ALL BLOCKS TO BE 3000 P.S.I. CONCRETE.  
 4. ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND.

**TYPICAL THRUST BLOCK INSTALLATIONS**



**FIRE HYDRANT DETAIL**

WKFH.DWG  
 MEA REV CAD DRAWING 12/87

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**WATER & SEWER CONSTRUCTION DETAILS**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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**WATER AND SANITARY MATERIAL SPECIFICATIONS**

WATERMAIN AND FIRE SERVICE:  
 DUCTILE IRON PIPE, CLASS 52, CONFORMING TO ANSI A21.51 WITH RUBBER GASKET PUSH-ON JOINTS CONFORMING TO ANSI A21.11. ALL FITTINGS SHALL CONFORM TO ANSI A21.10/AWWA C110.

WATER SERVICE:  
 TYPE K COPPER OR  
 DUCTILE IRON PIPE, CLASS 52, CONFORMING TO ANSI A21.51 WITH RUBBER GASKET PUSH-ON JOINTS CONFORMING TO ANSI A21.11. ALL FITTINGS SHALL CONFORM TO ANSI A21.10/AWWA C110.

SANITARY SEWER:  
 POLYVINYL CHLORIDE (PVC) SEWER PIPE SHALL CONFORM TO ASTM DESIGNATION D-3034 WITH AN SDR OF 26, WITH ELASTOMERIC GASKET JOINTS CONFORMING TO:  
 ASTM D3212-96a Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals  
 ASTM F477-02e1 Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe

SANITARY SERVICE:  
 WATERMAIN CLASS PIPE: POLYVINYL CHLORIDE (PVC) SDR 21  
 SEWER PIPE SHALL CONFORM TO:  
 D2241-04a Standard Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)  
 D3139-98 Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals

TESTING NOTES:  
 1. MANHOLE LEAKAGE TESTS SHALL BE IN ACCORDANCE WITH ASTM C969-02 Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines  
 OR  
 ASTM C1244-02e1 Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill

2. INFILTRATION, EXFILTRATION, AIR EXFILTRATION AND DEFLECTION TESTING SHALL BE DONE IN ACCORDANCE WITH SECTION 31-1.11 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS

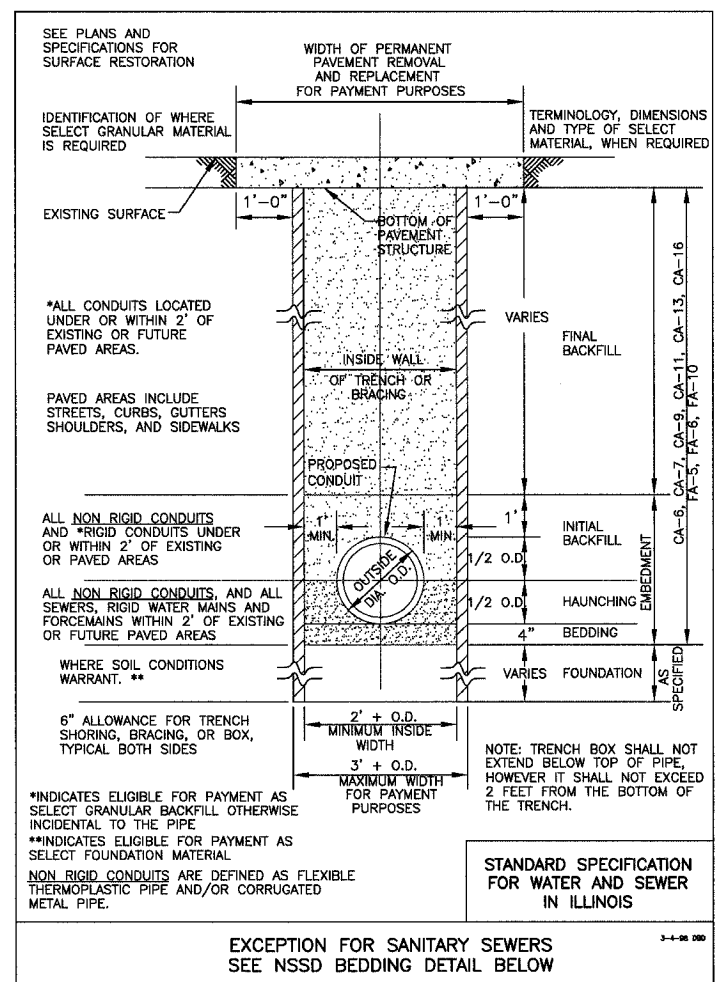
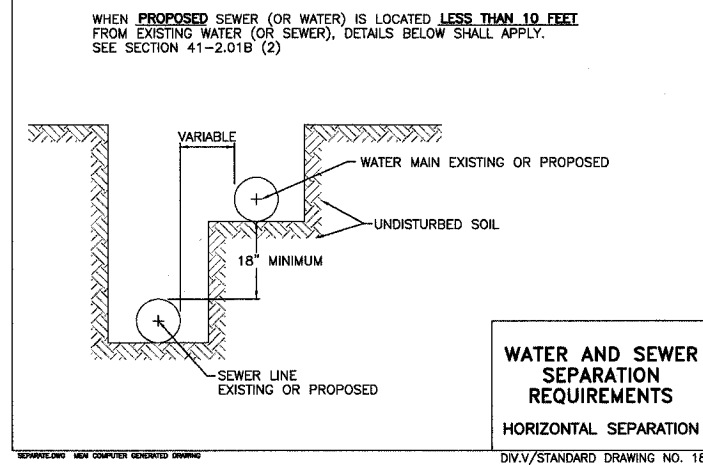
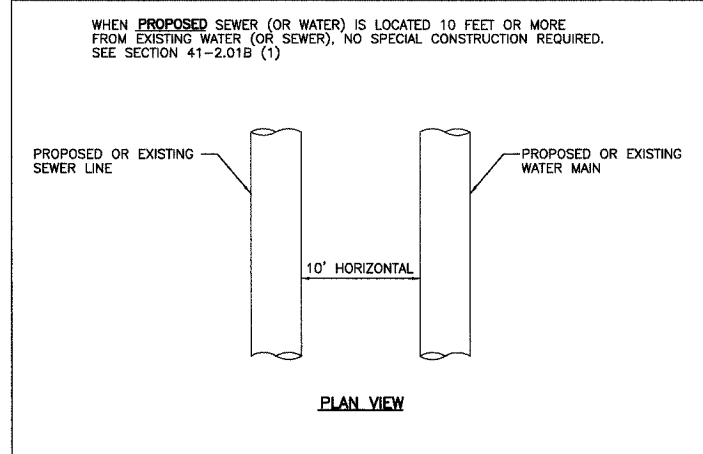


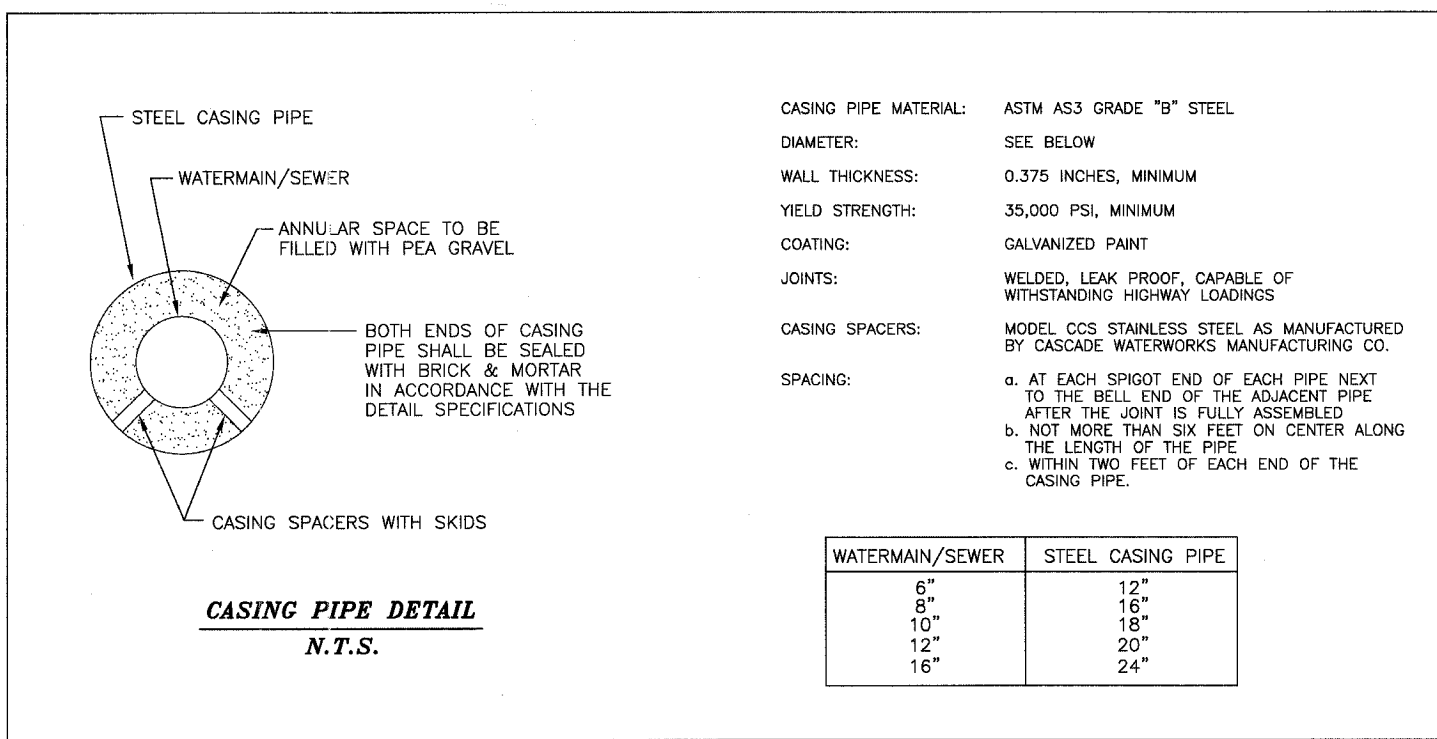
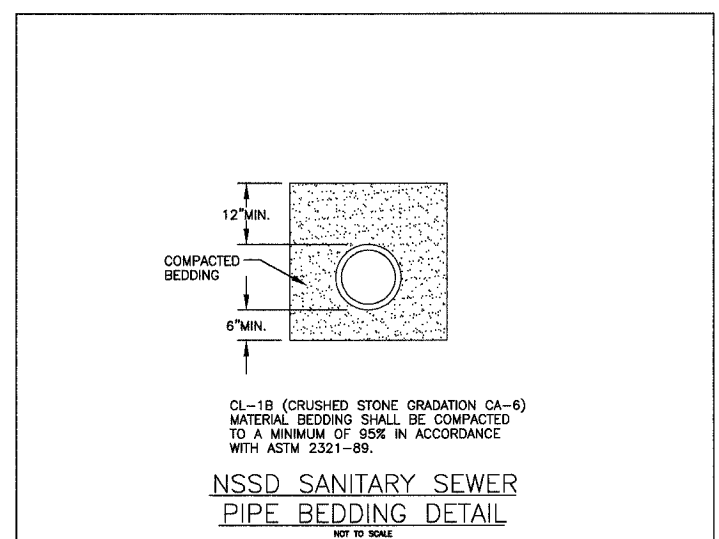
TABLE 1

INSIDE DIAMETER OF CONDUIT IN INCHES	MAXIMUM TRENCH WIDTH IN FEET FOR PAYMENT	BEDDING C.Y./FOOT WHERE ELIGIBLE FOR PAYMENT	HAUNCHING C.Y./FOOT WHERE ELIGIBLE FOR PAYMENT	INITIAL BACKFILL C.Y./FOOT WHERE ELIGIBLE FOR PAYMENT	FINAL BACKFILL C.Y./FOOT WHERE ELIGIBLE FOR PAYMENT	PERMANENT REMOVAL AND REPLACEMENT C.Y./FOOT
6	3.58	0.04	0.03	0.17	0.13	0.62
8	3.78	0.05	0.05	0.19	0.14	0.64
10	3.97	0.05	0.06	0.20	0.15	0.66
12	4.17	0.05	0.07	0.22	0.15	0.69
14	4.36	0.05	0.08	0.24	0.16	0.71
15	4.46	0.06	0.09	0.25	0.17	0.72
16	4.56	0.06	0.10	0.26	0.17	0.73
18	4.75	0.06	0.11	0.29	0.18	0.75
20	4.94	0.06	0.12	0.31	0.18	0.77
21	5.04	0.06	0.13	0.32	0.19	0.78
24	5.33	0.07	0.15	0.35	0.20	0.81
27	5.63	0.07	0.17	0.38	0.21	0.85
28	5.72	0.07	0.18	0.39	0.21	0.86
30	5.92	0.07	0.20	0.41	0.22	0.88
33	6.21	0.08	0.22	0.45	0.23	0.91
36	6.50	0.08	0.24	0.48	0.24	0.94
42	7.08	0.09	0.29	0.56	0.26	1.01
48	7.67	0.09	0.35	0.63	0.28	1.07
54	8.25	0.10	0.40	0.71	0.31	1.14
60	8.83	0.11	0.46	0.79	0.33	1.20
66	9.42	0.12	0.52	0.87	0.35	1.27
72	10.00	0.12	0.58	0.95	0.37	1.33
78	10.58	0.13	0.65	1.04	0.39	1.40
84	11.17	0.14	0.72	1.13	0.41	1.46
90	11.75	0.15	0.79	1.23	0.44	1.53
96	12.33	0.15	0.86	1.32	0.46	1.59
102	12.92	0.16	0.94	1.42	0.48	1.66
108	13.50	0.17	1.02	1.52	0.50	1.72
120	14.67	0.18	1.19	1.73	0.52	1.85



**NORTH SHORE SANITARY DISTRICT NOTES:**

1. THE CONTRACTOR SHALL NOTIFY THE NORTH SHORE SANITARY DISTRICT A MINIMUM OF 24 HOURS PRIOR TO THE START OF CONSTRUCTION EITHER BY PHONE AT 847-623-6060 OR BY EMAIL AT [engmail@northshoresanitary.org](mailto:engmail@northshoresanitary.org).
2. ALL SANITARY SEWER PIPE SHALL BE BEDDED, WITH A MINIMUM OF 6" BELOW THE PIPE AND 12" ABOVE THE PIPE, IN CA-6 CRUSHED MATERIAL. CA-7 MAY BE ALLOWED AT THE DISCRETION OF THE NORTH SHORE SANITARY DISTRICT IF EXTREMELY WET CONDITIONS ARE ENCOUNTERED.
3. THE CONNECTION TO DOWNSTREAM SEWERS SHALL BE PLUGGED WITH A WATER TIGHT CONCRETE PLUG AND MAINTAINED IN PLACE UNTIL CONNECTION IS APPROVED BY THE NORTH SHORE SANITARY DISTRICT.
4. (IF APPLICABLE) ALL SANITARY SEWER EXTENSIONS SHALL BE TELEVISED IN THE PRESENCE OF NORTH SHORE SANITARY DISTRICT PERSONNEL AFTER HAVING NOTIFIED THE DISTRICT A MINIMUM OF 24 HOURS PRIOR TO TELEVISION EITHER BY PHONE AT 847-623-6060 OR BY EMAIL AT [engmail@northshoresanitary.org](mailto:engmail@northshoresanitary.org). A COPY OF THE TELEVISED SEWER EXTENSION, IN VHS OR DVD FORMAT, SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL.



CASING PIPE MATERIAL: ASTM A53 GRADE "B" STEEL  
 DIAMETER: SEE BELOW  
 WALL THICKNESS: 0.375 INCHES, MINIMUM  
 YIELD STRENGTH: 35,000 PSI, MINIMUM  
 COATING: GALVANIZED PAINT  
 JOINTS: WELDED, LEAK PROOF, CAPABLE OF WITHSTANDING HIGHWAY LOADINGS  
 CASING SPACERS: MODEL CCS STAINLESS STEEL AS MANUFACTURED BY CASCADE WATERWORKS MANUFACTURING CO.  
 SPACING:  
 a. AT EACH SPIGOT END OF EACH PIPE NEXT TO THE BELL END OF THE ADJACENT PIPE AFTER THE JOINT IS FULLY ASSEMBLED  
 b. NOT MORE THAN SIX FEET ON CENTER ALONG THE LENGTH OF THE PIPE  
 c. WITHIN TWO FEET OF EACH END OF THE CASING PIPE.

WATERMAIN/SEWER	STEEL CASING PIPE
6"	12"
8"	16"
10"	18"
12"	20"
16"	24"

REVISIONS		
NO.	ITEM	DATE

SCALE: N.T.S.  
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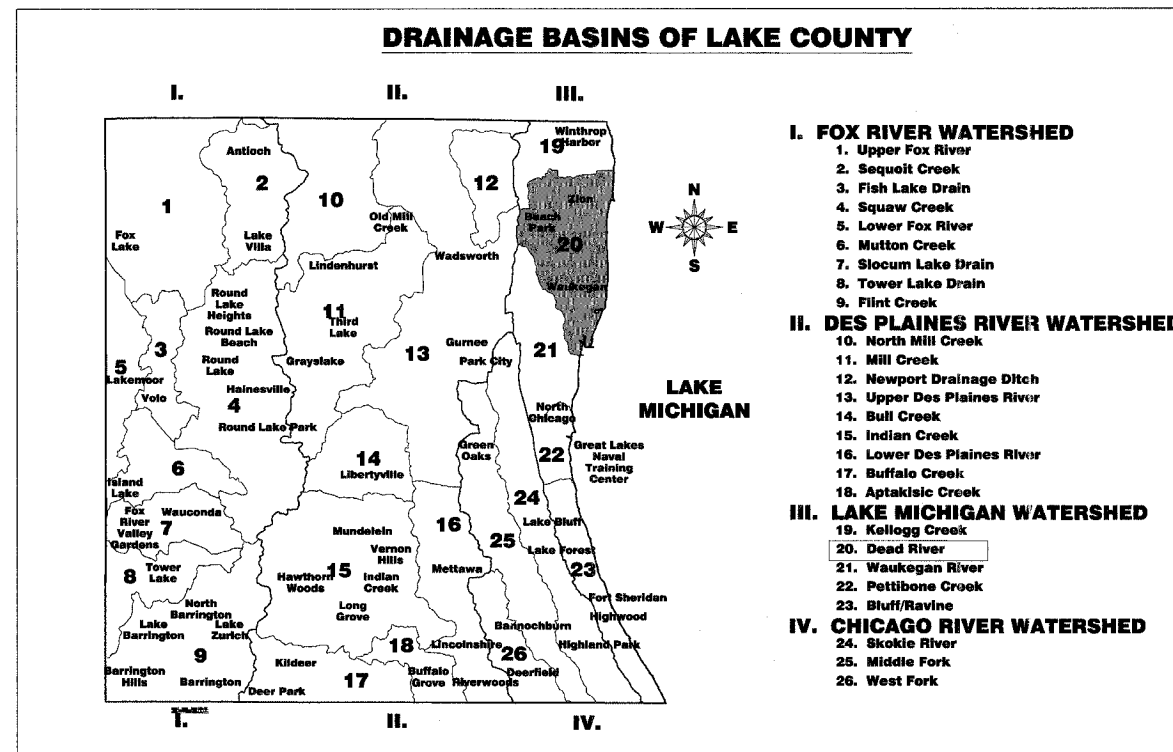
**WATER & SEWER CONSTRUCTION DETAILS**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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# EROSION AND SEDIMENT CONTROL PLAN & STORMWATER POLLUTION PREVENTION PLAN

**THIS PROJECT DISTURBS 11.9 ACRES OF TOTAL LAND AREA. COMPLIANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER PERMIT IS NECESSARY IF A PROJECT DISTURBS 1 OR MORE ACRES OF TOTAL LAND AREA; AN NPDES STORMWATER PERMIT WILL BE REQUIRED FOR THIS PROJECT.**

## SEQUENCE OF EROSION CONTROL OPERATIONS

1. INSTALL PERIMETER EROSION BARRIER LOCATIONS SPECIFIED IN THE PLANS PRIOR TO THE START OF ANY EARTHWORK OR STORM SEWER CONSTRUCTION.
2. BEGIN CONSTRUCTION AND INSTALL INLET PROTECTION AS WORK PROGRESSES.
3. THE INLET PROTECTION AND THE PERIMETER EROSION BARRIER IS TO REMAIN IN PLACE UNTIL THE AREA IS STABILIZED WITH SEEDING OR SODDING.
4. WHEN THE PROJECT HAS BEEN STABILIZED WITH VEGETATION THE PERIMETER EROSION BARRIER SHALL BE REMOVED AND THE AREAS DAMAGED BY THE FENCE INSTALLATION RESTORED.



- I. FOX RIVER WATERSHED**
1. Upper Fox River
  2. Sequoit Creek
  3. Fish Lake Drain
  4. Squaw Creek
  5. Lower Fox River
  6. Mutton Creek
  7. Slocum Lake Drain
  8. Tower Lake Drain
  9. Flint Creek
- II. DES PLAINES RIVER WATERSHED**
10. North Mill Creek
  11. Mill Creek
  12. Newport Drainage Ditch
  13. Upper Des Plaines River
  14. Bull Creek
  15. Indian Creek
  16. Lower Des Plaines River
  17. Buffalo Creek
  18. Aptakasic Creek
- III. LAKE MICHIGAN WATERSHED**
19. Kellogg Creek
  20. Dead River
  21. Waukegan River
  22. Pettibone Creek
  23. Bluff/Ravine
- IV. CHICAGO RIVER WATERSHED**
24. Skokie River
  25. Middle Fork
  26. West Fork

## SUMMARY OF EROSION CONTROL ITEMS

CODED PAY NO.	ITEM	UNIT	QUANTITY
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	14100
25000210	SEEDING, CLASS 2A	ACRE	1.8
25000300	SEEDING, CLASS 3	ACRE	0.1
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	235
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	235
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	235
25100110	MULCH, METHOD 1	TON	3.8
25200110	SODDING, SALT TOLERANT	SQ YD	4900
25200200	SUPPLEMENTAL WATERING	UNIT	123
28000400	PERIMETER EROSION BARRIER	FOOT	3600
28000500	INLET AND PIPE PROTECTION	EACH	81

## GENERAL NOTES FOR EROSION CONTROL

- A. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.**
- B. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.**
- C. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 14 CALENDAR DAYS OF THE END OF ACTIVE HYDROLOGIC DISTURBANCE, OR REDISTURBANCE.**
- D. ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.**
- E. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE EROSION CONTROL ITEM.**
- F. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR THROUGHOUT THE COURSE OF CONSTRUCTION.**
- G. A STABILIZED MAT OF AGGREGATE UNDERLAIN WITH FILTER CLOTH (OR OTHER APPROPRIATE MEASURE) SHALL BE LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA. ANY SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PAVEMENT REMOVAL.**

- H. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (e.g. SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURE. THIS WORK WILL BE CONSIDERED INCLUDED IN THE COST OF INLET OUTLET PROTECTION.**
- I. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.**
- J. PERIMETER EROSION BARRIER SHALL BE INSTALLED AT LOCATIONS SPECIFIED IN THE PLANS AT 1 FOOT OR MORE OUTSIDE THE TOE OF SLOPE OR INSIDE THE RIGHT-OF-WAY WHICHEVER IS CLOSER TO THE CENTERLINE, OR AS DIRECTED BY THE ENGINEER PRIOR TO THE START OF ANY EARTHWORK, CULVERT, OR STORM SEWER CONSTRUCTION.**
- K. THE PERIMETER EROSION BARRIER SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED WITH VEGETATION. AT THIS TIME, THE PERIMETER EROSION BARRIER SHALL BE REMOVED AND THE AREAS DAMAGED BY THE FENCE INSTALLATION RESTORED. THE RESTORATION WORK SHALL BE INCLUDED IN THE COST OF THE PERIMETER EROSION CONTROL BARRIER.**
- L. THE REMOVAL AND THE RESTORATION OF THE AREA DISTURBED BY THE PERIMETER EROSION BARRIER INSTALLATION SHALL BE INCLUDED IN THE COST OF THE PERIMETER EROSION CONTROL BARRIER.**
- M. ANY SOIL, MUD OR DEBRIS WASHED TRACKED OR DEPOSITED ONTO THE STREET SHALL BE REMOVED PRIOR TO THE END OF THE WORK DAY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE EARTH EXCAVATION.**

APPLICABLE IDOT STANDARDS FOR EROSION AND SEDIMENT CONTROL FOR EROSION AND SEDIMENT CONTROL; IDOT HIGHWAY STANDARD 280001-02

REVISIONS		
NO.	ITEM	DATE

SCALE:	NA
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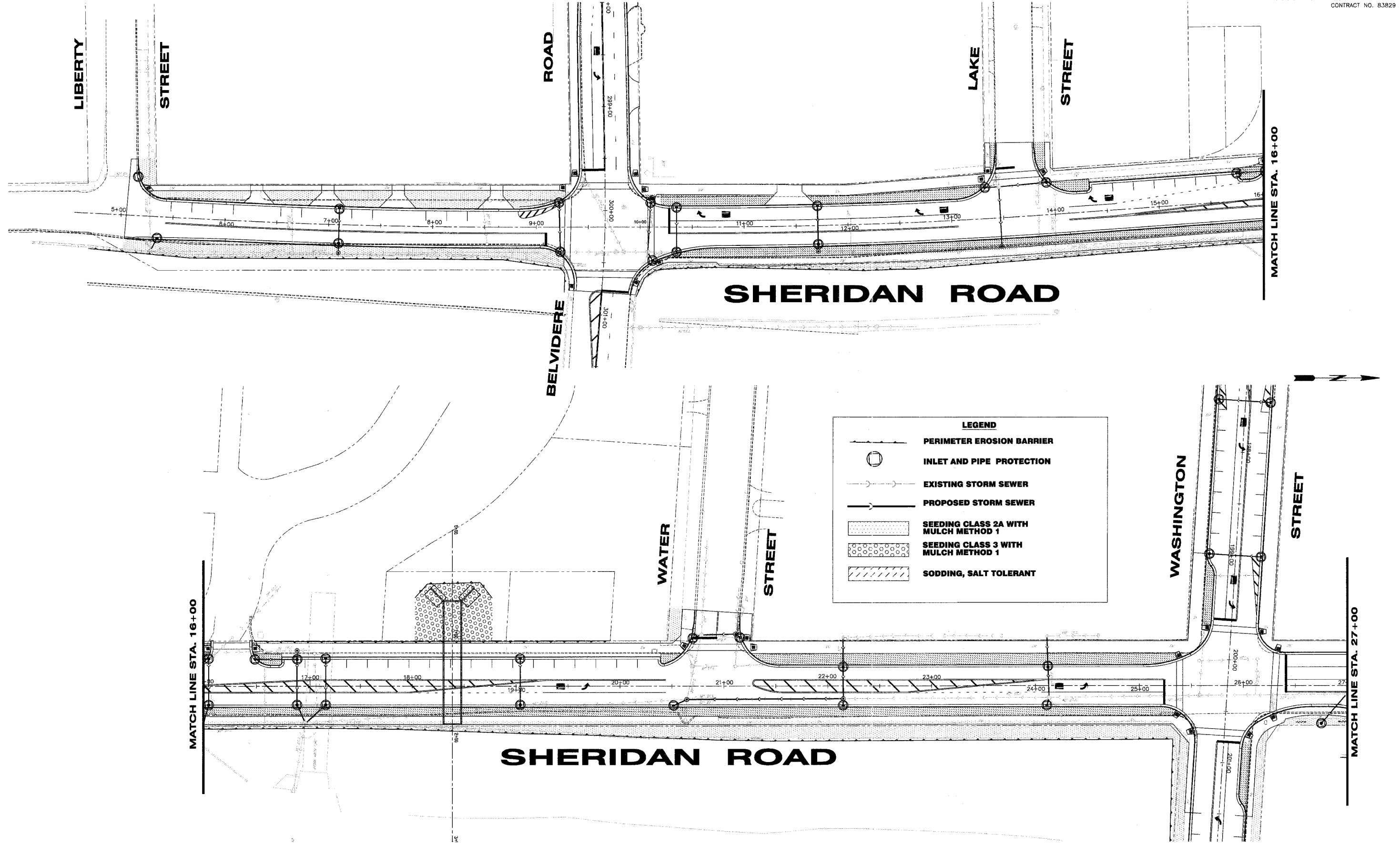
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**EROSION AND SEDIMENT CONTROL PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**

CITY OF WAUKEGAN      JOB NUMBER: 02-28-04-164      LAKE COUNTY, ILLINOIS

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**LEGEND**

- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- SEEDING CLASS 2A WITH MULCH METHOD 1
- SEEDING CLASS 3 WITH MULCH METHOD 1
- SODDING, SALT TOLERANT

**SHEET KEY**

REVISIONS		
NO.	ITEM	DATE

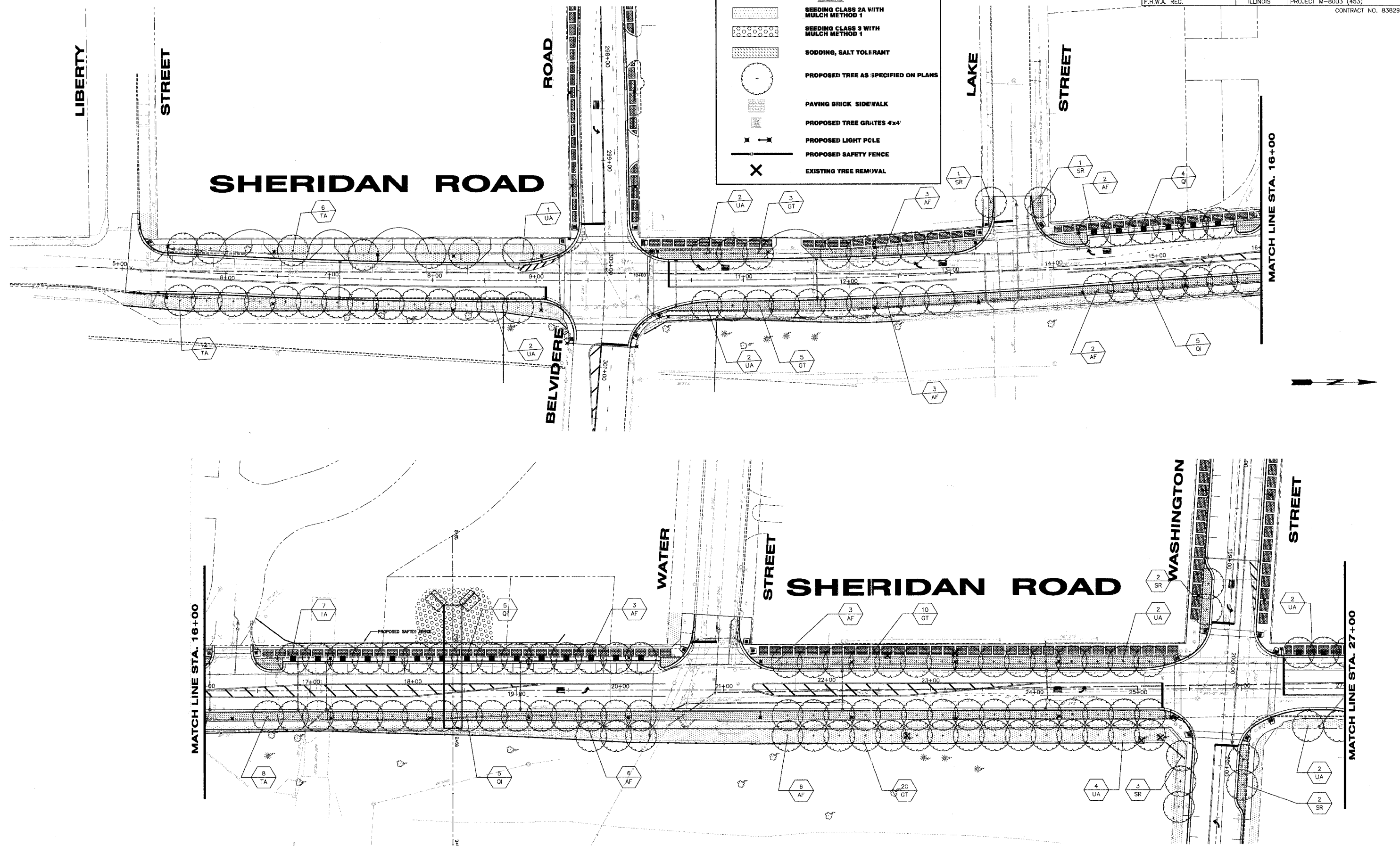
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**EROSION AND SEDIMENT CONTROL PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN  
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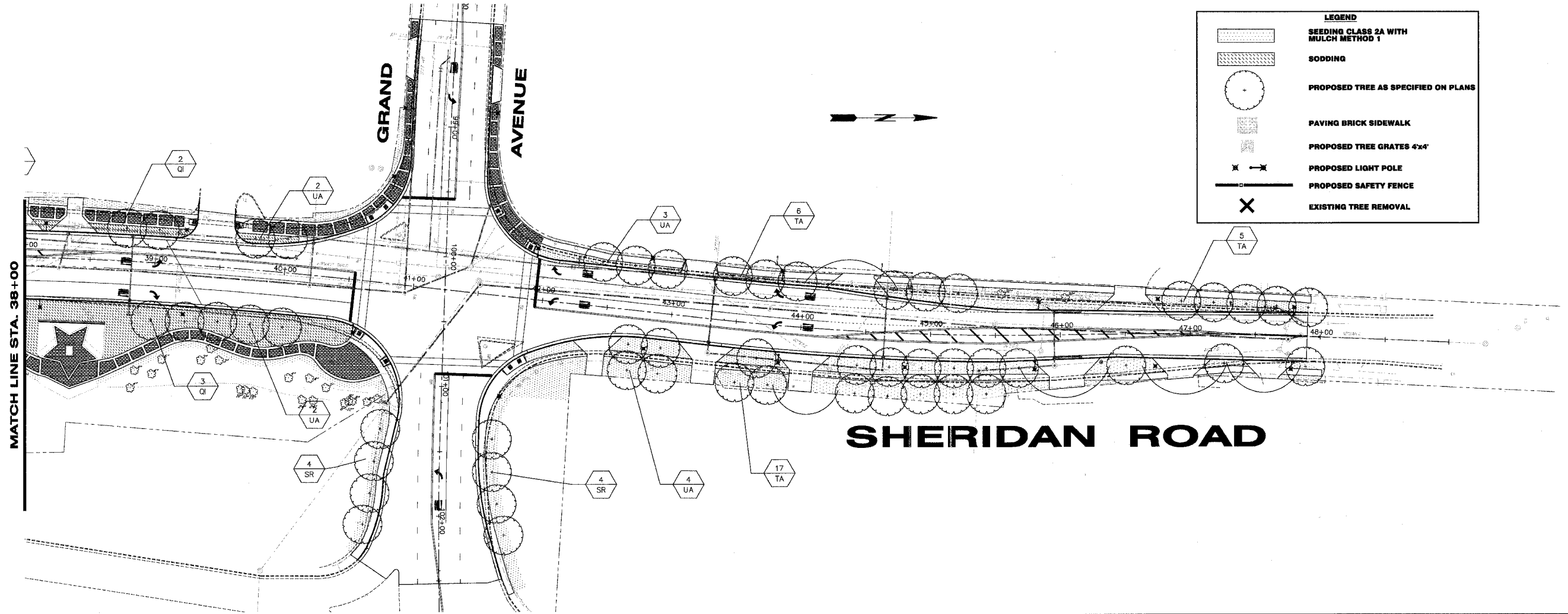
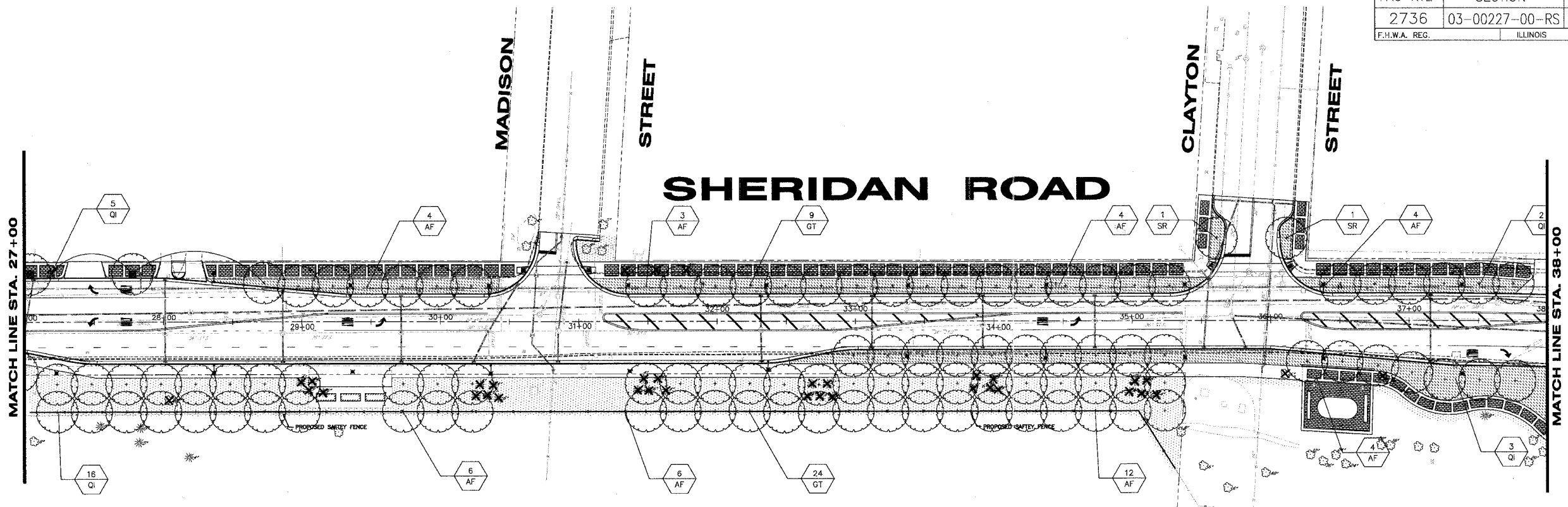
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**STREETSCAPE AND LANDSCAPE PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	51
F.H.W.A. REG.	ILLINOIS	PROJECT M-8003 (453)	CONTRACT NO. 83829	



**LEGEND**

	SEEDING CLASS 2A WITH MULCH METHOD 1
	SODDING
	PROPOSED TREE AS SPECIFIED ON PLANS
	PAVING BRICK SIDEWALK
	PROPOSED TREE GRATES 4'x4'
	PROPOSED LIGHT POLE
	PROPOSED SAFETY FENCE
	EXISTING TREE REMOVAL

**SHEET KEY**

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**REVISIONS**

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**STREETSCAPE AND LANDSCAPE PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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SHEET NO.  
**51**  
 of  
**122**

A 6" wide 5" thick Portland Cement Concrete border shall be constructed to frame the proposed tree grates. This work shall be in accordance with Section 424 of the Standard Specifications of Road and Bridge Construction and shall be paid for at the contract unit price per square foot for PORTLAND CEMENT CONCRETE SIDEWALK.

**GENERAL PLANTING NOTES**

Slope all planting areas away from building at 2% minimum grade.

Finish grade shall be 4" minimum below building finish floor elevation (adjacent to building slabs). All areas shall be received by contractor at +/- 0.1 foot to finish grade.

Finish grade shall be 1" below finish paving surface in lawn areas and 2" in shrub areas.

Plant quantities shown on drawings are for contractor's convenience in estimating only. Contractor is responsible for providing plant materials sufficient to cover areas shown on plans at the spacings indicated.

At least one plant of each species delivered to the site will have an identification tag from the supplying nursery showing common and botanical plant names. All plants shall be protected against heat, sun, wind and frost during transportation to the site and while being held at the site. Do not store plants in total darkness more than one day.

Do not damage plant root ball during transportation or planting.

Contractor shall notify the AOR at the time of delivery of any plant material that is damaged or in poor condition to determine acceptability.

Plant materials shall be inspected by the AOR before planting. Material may be rejected at any time due to condition, form or damage before or after planting.

All rock and debris 1" and larger shall be removed from planting areas and then from the site.

The contractor shall coordinate this work with the other trades and maintain drainage during construction.

Install all plant material in accordance with details. All finish grading and planting operations shall be carried out in accordance with project specifications.

All plant tying material and marking tapes shall be removed at the time of planting.

The planting plans are diagrammatic. Plant materials shall be spotted approximately as shown on the landscape drawing and are to be approved by the AOR before being removed from containers and excavating soil for planting.

All trees shall be single trunk standards unless otherwise noted.

Contractor shall install a min 3" layer of hardwood bark mulch (see specs.) around all trees and in all groundcover / shrub areas. Create a natural spaded edge where planting beds meet turf areas.

Contractor shall protect existing vegetation outside the limits of grading.

Any existing landscape indicated on the approved plans that is damaged or removed during demolition or construction shall be repaired and/or replaced in kind and equivalent size per the approved plans.

Following construction, re-seed all disturbed areas as required.

Provide wire ties and guys of 2-strand, twisted, pliable galvanized iron wire, not lighter than 12 gage with zinc-coated turnbuckles. Provided not less than 1/2" diameter rubber or plastic hose, cut to required lengths and of uniform color, material, and size to protect tree trunks from damage by wires.

Contractor to guy and stake trees, as directed by AOR, immediately after planting. Provide a minimum of two guy wires per tree on the uphill side of trees planted on slopes steeper than 3:1.

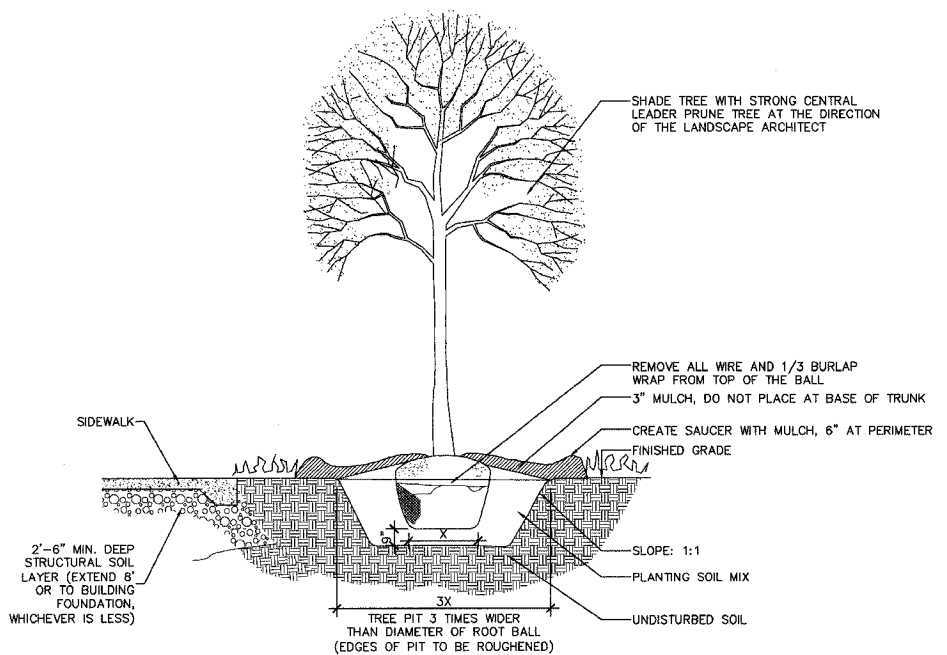
Contractor to warrant all trees and shrubs against death and defects including unsatisfactory growth, except for defects resulting from neglect by owner, abuse or damage by others or unusual phenomenon or incidents which are beyond the contractor's control (see specs.).

Provide new topsoil that is fertile, friable and natural loam surface soil, reasonably free of subsol, clay, clay lumps, brush, weeds, and other litter and free of roots, stumps, stones larger than 2" in any dimension and other extraneous or toxic matter harmful to plant growth. Obtain topsoil from local sources or from areas having similar soil characteristics to that necessary for vigorous growth of specified plantings. Obtain topsoil that occurs in a depth of not less than 4". Do not obtain soil from bogs or marshes.

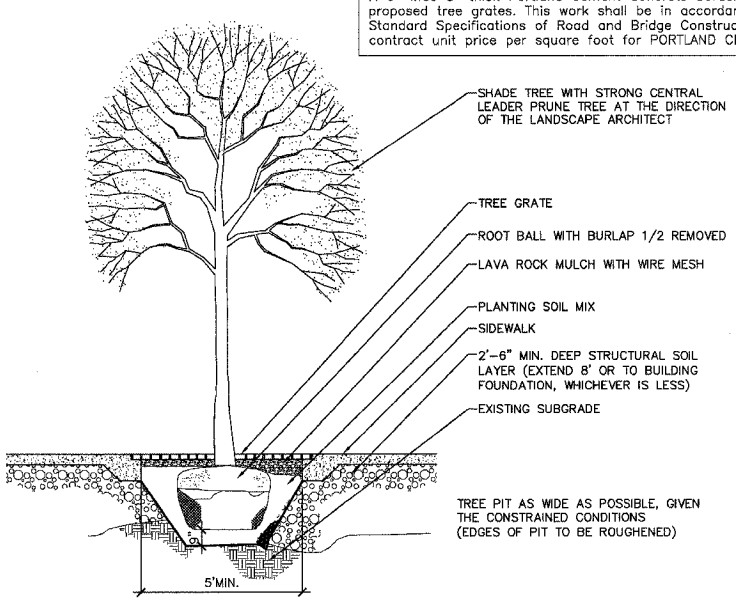
Mix specified soil amendments and fertilizers with topsoil on a site specific basis at rates appropriate for area trees and shrubs.

Protect seeded areas and slopes against erosion and seed loss due to birds and other wildlife by applying short term, biodegradable erosion control blankets, mats, and/or netting after completion of seeding operations. Adhere to manufacturer's specifications for required placement and staking.

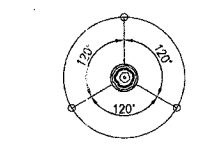
Remove CA-6 to an adequate depth to ensure that no part of the plant material is in contact or affected by the lime in the CA-6 as approved by the AOR.



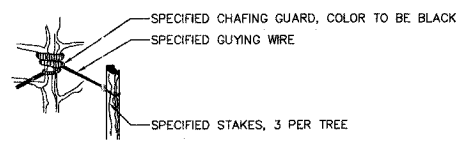
1 TREE IN PARKWAY INSTALLATION  
NOT TO SCALE



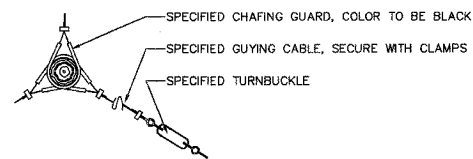
2 TREE IN GRATE INSTALLATION  
NOT TO SCALE



3 STAKING & GUYING PLAN  
NOT TO SCALE

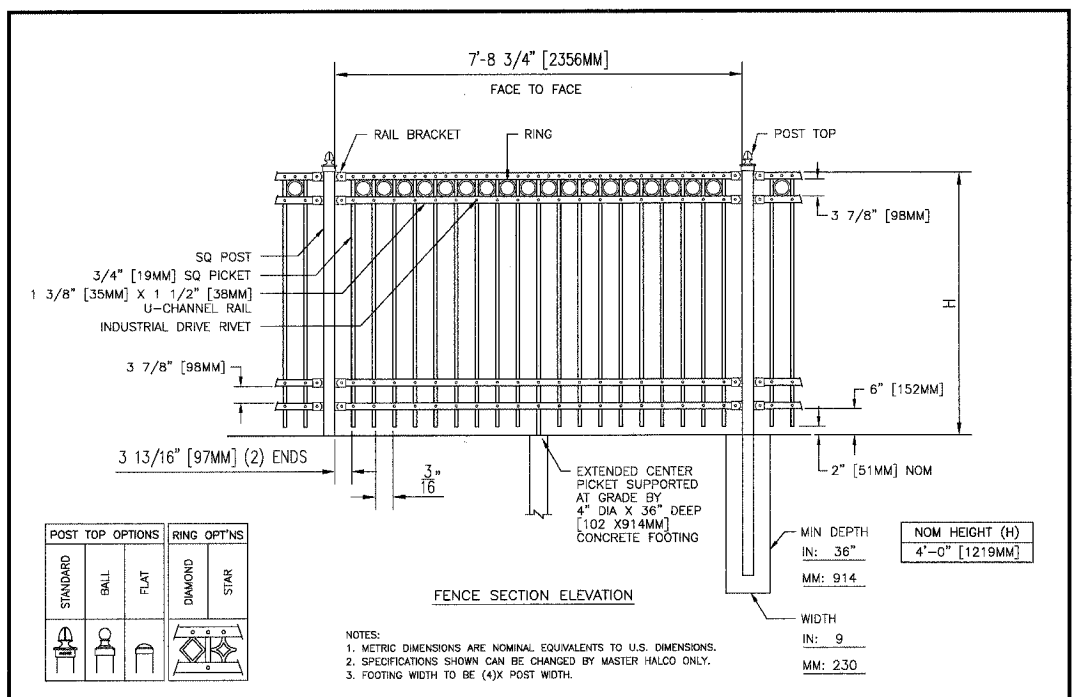


4 STAKING DETAIL  
NOT TO SCALE

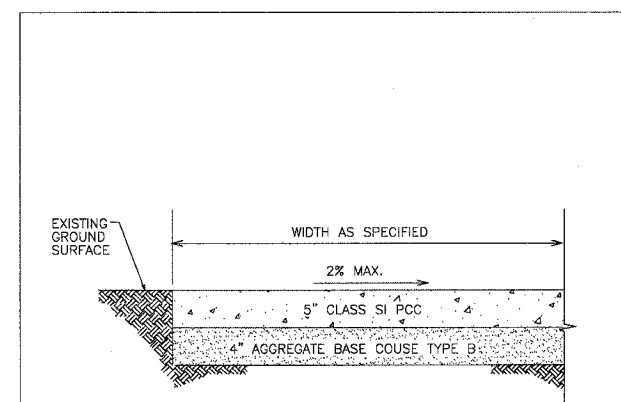


5 GUYING DETAIL  
NOT TO SCALE

STREET TREE PLANT SCHEDULE						
CODE	QJAN	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
AF	71	Acer x Freemanii Sienna Glen	Sienna Glen Red Maple	2.5" cal.	B&B	matching heads
GT	71	Gleditsia triacanthos var. inermis Skyline	Skyline Thornless Honeylocust	3" cal.	B&B	matching heads
QI	50	Quercus imbricaria	Shingle Oak	2.5" cal.	B&B	matching heads
SR	19	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	2.5" cal.	B&B	matching heads
TA	81	Tilia americana 'Redmond'	Redmond American Linden	3" cal.	B&B	matching heads
UA	28	Ulmus Accolade	Accolade Elm	2.5" cal.	B&B	matching heads



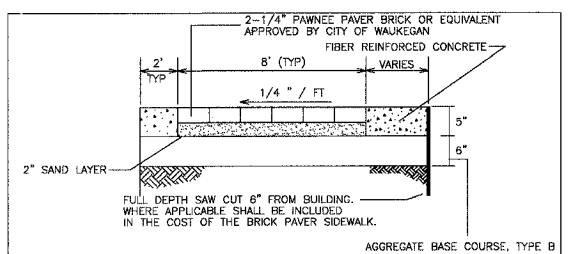
POST TOP OPTIONS STANDARD BALL FLAT DIAMOND STAR		RING OPT'NS 	
NOM 8" SECTION LENGTH TUBULAR STEEL 3/4" PICKETS		BY: JRR DATE: 05-22-95 REV: C REV DATE: 03-14-00	DWG: 6-1140S LAYER: 1 SCALE: 1/2" = 1'-0"



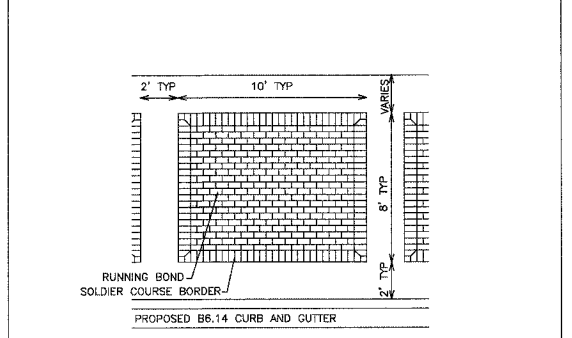
NOTES:

- Placing, finishing and curing of P.C.C. Sidewalk shall conform to Section 424 of Standard Specifications for Road and Bridge Construction.
- If excavation or undercutting of subgrade has been made deeper than necessary, the base shall be brought to proper grade by the addition of well compacted bedding material without any extra compensation due the Contractor.

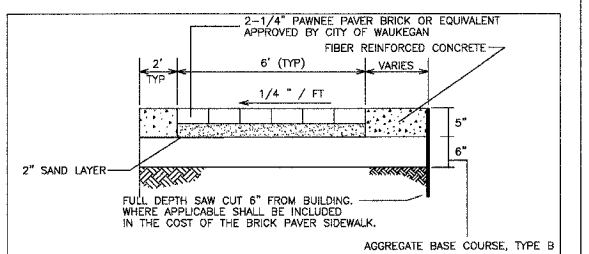
CONCRETE SIDEWALK DETAIL  
N.T.S.



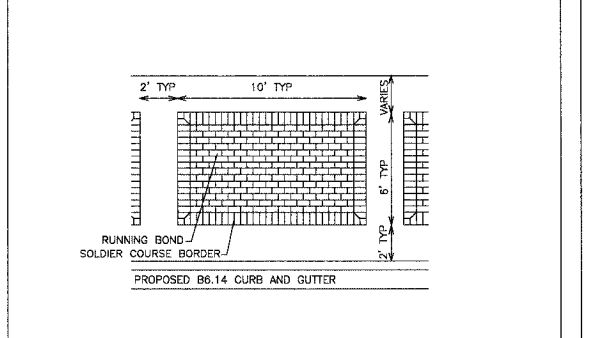
CROSS SECTION  
TYPICAL 12' BRICK PAVER SIDEWALK



PLAN VIEW  
TYPICAL 12' BRICK PAVER SIDEWALK



CROSS SECTION  
TYPICAL 10' BRICK PAVER SIDEWALK



PLAN VIEW  
TYPICAL 10' BRICK PAVER SIDEWALK

REVISIONS		
NO.	ITEM	DATE

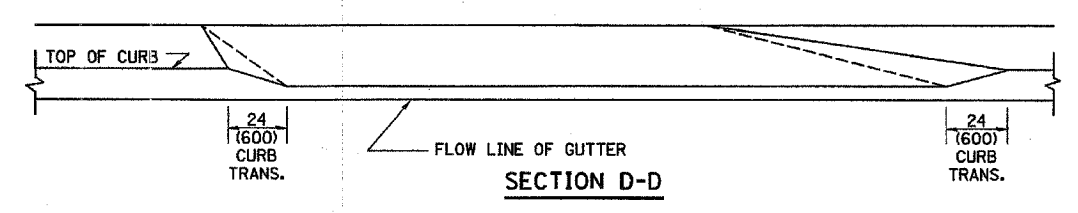
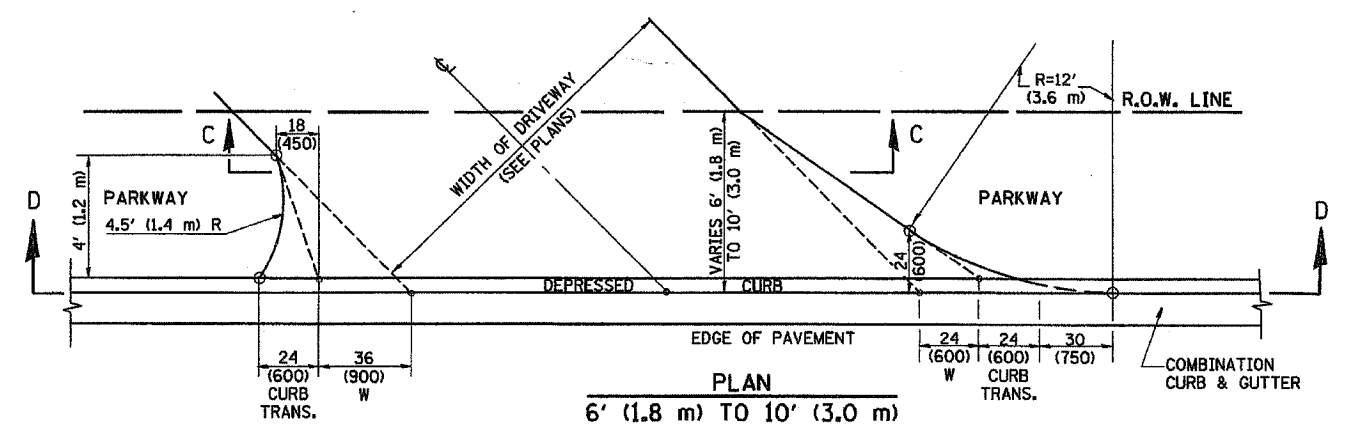
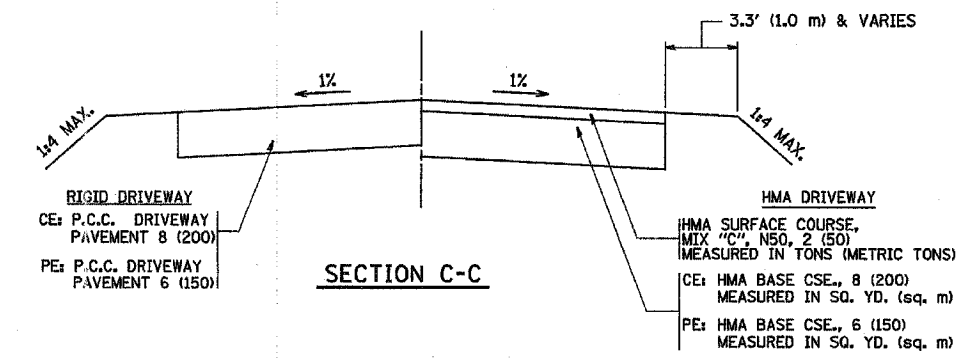
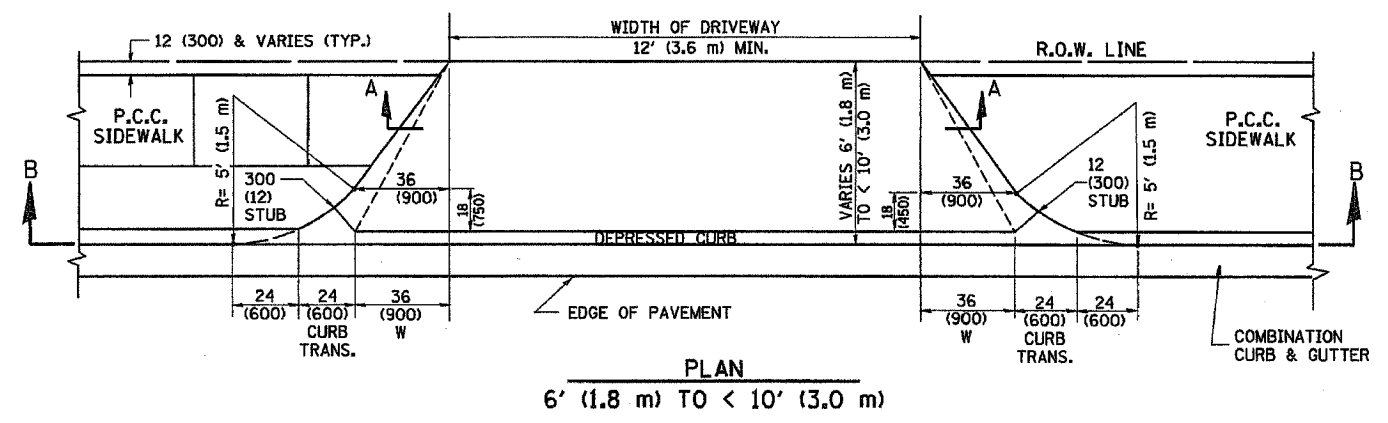
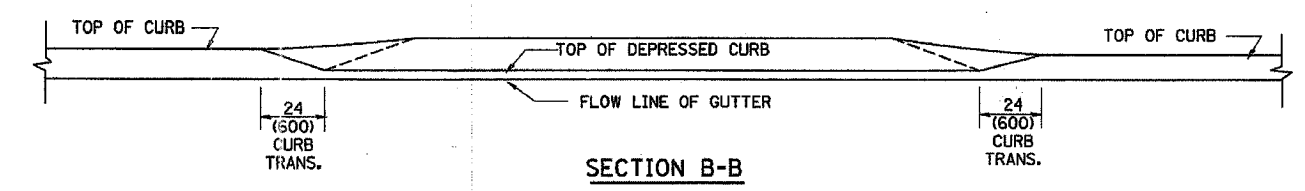
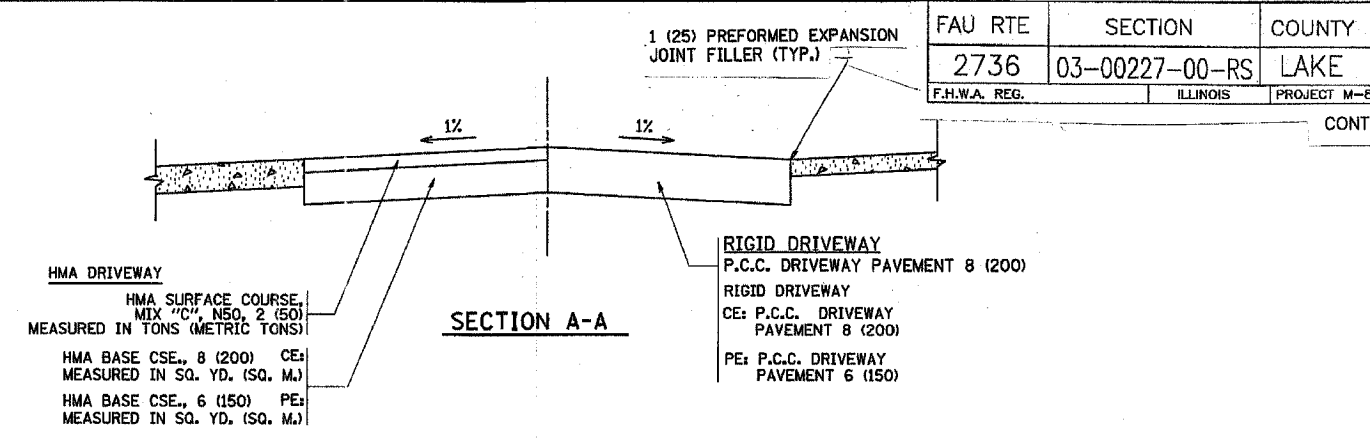
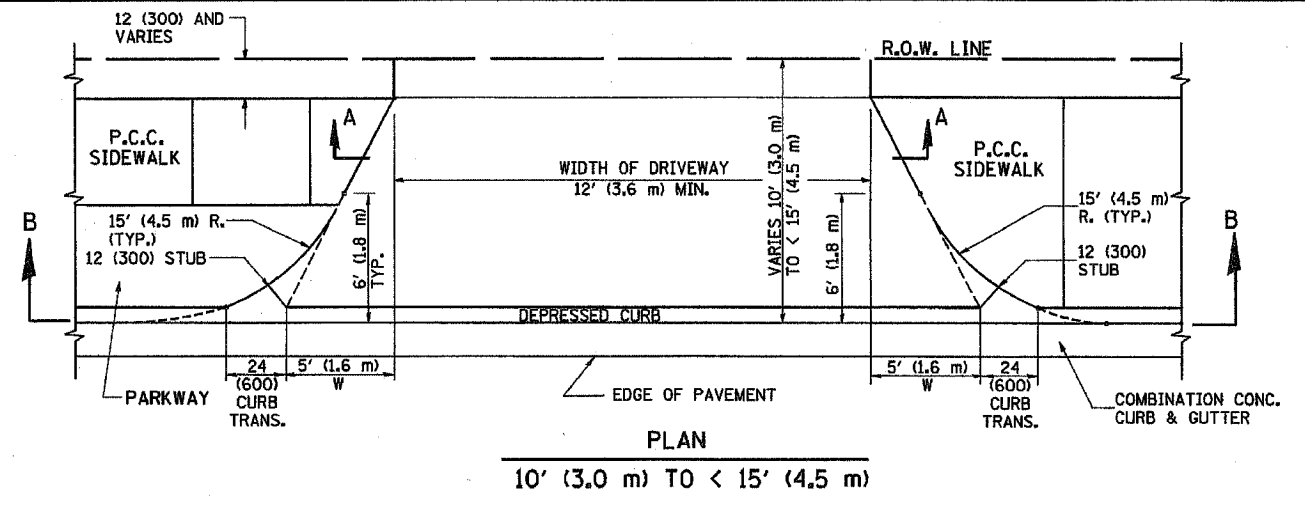
SCALE:	NTS
DRAWN BY:	NJB
CHECKED BY:	DBD
DATE:	1-16-06

**McCLURE ENGINEERING ASSOCIATES, INC.**  
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 Waukegan, Illinois 60085  
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**STREETSCAPE DETAILS AND LANDSCAPE NOTES**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN  
 JOB NUMBER: 02-28-04-164  
 LAKE COUNTY, ILLINOIS  
 W:\d\wg\W\K\SHERIDAN-RD\Sher-LndscpErosion.dwg 8/26/2005 2:22:44 PM CDT



FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	54
F.H.W.A. REG.	ILLINOIS	PROJECT M-8003 (453)	CONTRACT NO. 83829	



**GENERAL NOTES**

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

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

REVISIONS	
NAME	DATE
R. SHAH	11/06/95
J. POLLASTRINI	08/12/96
J. POLLASTRINI	12/14/96
A. ABBAS	03/21/97
L. HOLTZ	04/08/97
M. GOMEZ	04/06/01
P. LOFLEUR	04/15/03
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DRIVEWAY DETAILS**  
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)

SCALE: VERT. NONE  
HORIZ. DRAWN BY  
CHECKED BY

PLT DATE = 3/5/2007  
FILE NAME = K:\sherdan\rd\sher-tiff.dwg  
USER NAME = sherdan

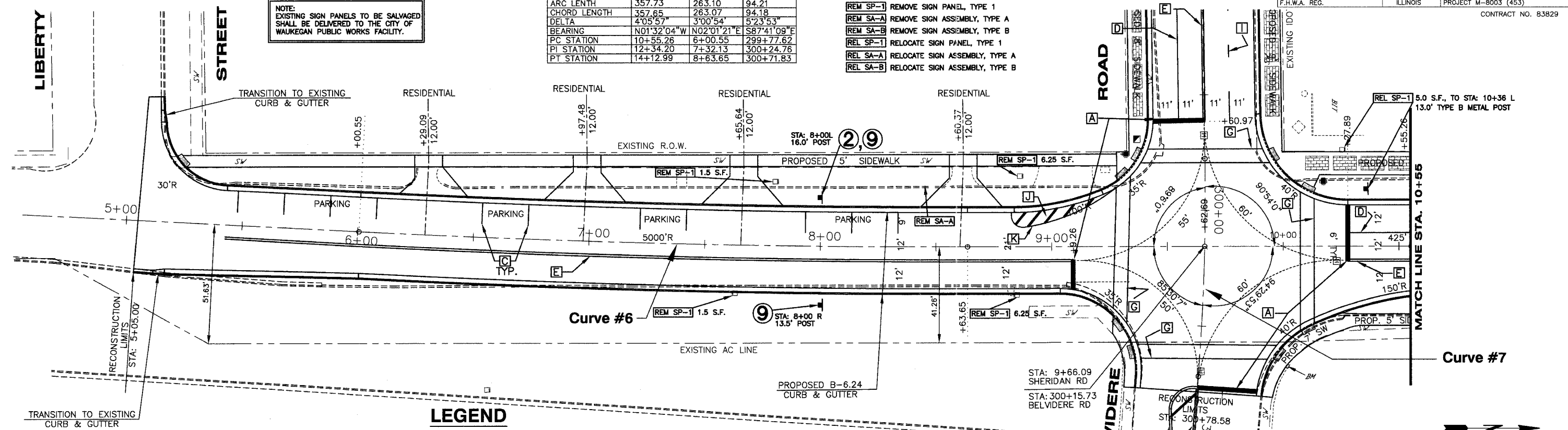


CURVE No.	5	6	7
RADIUS	5000.00	5000.00	1000.00
TANGENT LEGNTH	178.94	131.58	47.14
ARC LENGTH	357.73	263.10	94.21
CHORD LENGTH	357.65	263.07	94.18
DELTA	4°05'57"	3°00'54"	5°23'53"
BEARING	N01°32'04"W	N02°01'21"E	S87°41'09"E
PC STATION	10+55.26	6+00.55	299+77.62
PI STATION	12+34.20	7+32.13	300+24.76
PT STATION	14+12.99	8+63.65	300+71.83

### REMOVAL LEGEND

- REM SP-1 REMOVE SIGN PANEL, TYPE 1
- REM SA-A REMOVE SIGN ASSEMBLY, TYPE A
- REM SA-B REMOVE SIGN ASSEMBLY, TYPE B
- REL SP-1 RELOCATE SIGN PANEL, TYPE 1
- REL SA-A RELOCATE SIGN ASSEMBLY, TYPE A
- REL SA-B RELOCATE SIGN ASSEMBLY, TYPE B

NOTE:  
EXISTING SIGN PANELS TO BE SALVAGED  
SHALL BE DELIVERED TO THE CITY OF  
WAUKEGAN PUBLIC WORKS FACILITY.



### LEGEND

- |                                                                                                                  |                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>A</b> THERMOPLASTIC PAVEMENT MARKING LINE, 24" STOP BAR, WHITE                                                | <b>G</b> THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE, CROSSWALK WIDTH 6' MIN.                                 |
| <b>B</b> THERMOPLASTIC PAVEMENT MARKING LINE, 6" 2' DASH, 6" SKIP, WHITE                                         | <b>H</b> THERMOPLASTIC PAVEMENT MARKING LETTERS & SYMBOLS                                                       |
| <b>C</b> THERMOPLASTIC PAVEMENT MARKING LINE, 4" WHITE                                                           | <b>I</b> THERMOPLASTIC PAVEMENT MARKING LINE, 4" 10' DASH, 30' SKIP, WHITE                                      |
| <b>D</b> THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE                                                           | <b>J</b> THERMOPLASTIC PAVEMENT MARKING LINE, 12" DIAGONAL 45°, 20' C-C OR A MINIMUM OF 5 EQUALLY SPACED, WHITE |
| <b>E</b> THERMOPLASTIC PAVEMENT MARKING LINE, 4" @ 11" C-C, DOUBLE YELLOW                                        | <b>K</b> THERMOPLASTIC PAVEMENT MARKING LINE, 8" WHITE                                                          |
| <b>F</b> THERMOPLASTIC PAVEMENT MARKING LINE, 12" DIAGONAL 45°, 20' C-C OR A MINIMUM OF 5 EQUALLY SPACED, YELLOW | <b>■</b> INDICATES LOCATION OF DETECTABLE WARNING                                                               |

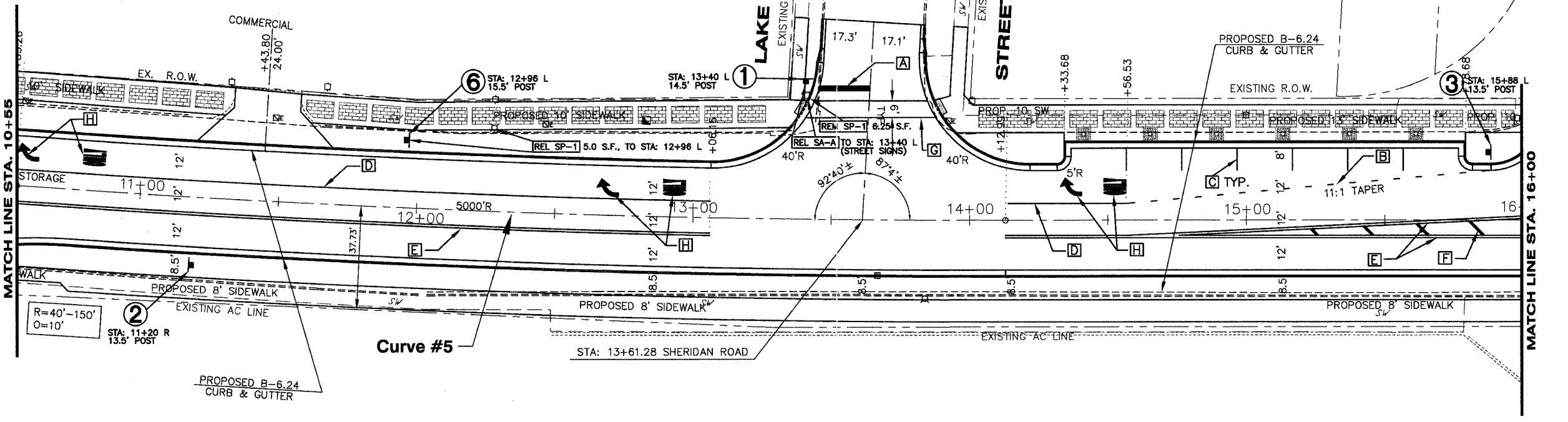
# SHERIDAN ROAD

BENCHMARK (VXK2)  
ON CENTERLINE OF 1" WIDE CONC. WALL, 1.23'  
FROM NW END ON N. SIDE BELVIDERE ROAD BRIDGE  
DIRECTLY E. OF SHERIDAN RD., 5' NE. OF BACK OF CURB,  
1.3' S. OF FENCE POST AT END OF FENCE,  
6.4' SE. OF SIGNAL POST.  
ELEV. 626.74

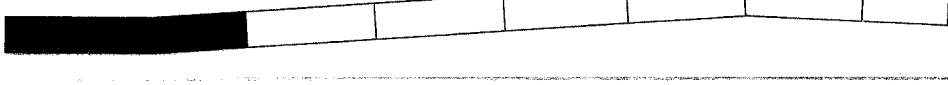
### SIGN LEGEND

- |          |                                                                           |
|----------|---------------------------------------------------------------------------|
| <b>1</b> | SIGN PANEL TYPE 1<br>R1-1 W/ TYPE B METAL POST<br>30"x30"<br>RED/WHITE    |
| <b>2</b> | SIGN PANEL TYPE 1<br>R2-1 W/ TYPE B METAL POST<br>24"x30"<br>WHITE/BLACK  |
| <b>3</b> | SIGN PANEL TYPE 1<br>R3-7 W/ TYPE B METAL POST<br>30"x30"<br>WHITE/BLACK  |
| <b>6</b> | SIGN PANEL TYPE 1<br>R3-8b W/ TYPE B METAL POST<br>30"x30"<br>WHITE/BLACK |
| <b>9</b> | SIGN PANEL TYPE 1<br>W/ TYPE B METAL POST<br>30"x30"<br>YELLOW/BLACK      |

NOTE:  
LOCATIONS OF SIGNS, NEW AND RELOCATED,  
ARE APPROXIMATE. THE CONTRACTOR  
SHALL DETERMINE THE BEST LOCATION IN  
THE FIELD WITH REGARD TO UTILITIES,  
VISIBILITY, AND OTHER FACTORS.



### SHEET KEY



REVISIONS		
NO.	ITEM	DATE

SCALE:	1" = 20'
DRAWN BY:	WS
CHECKED BY:	DBD
DATE:	1-16-06

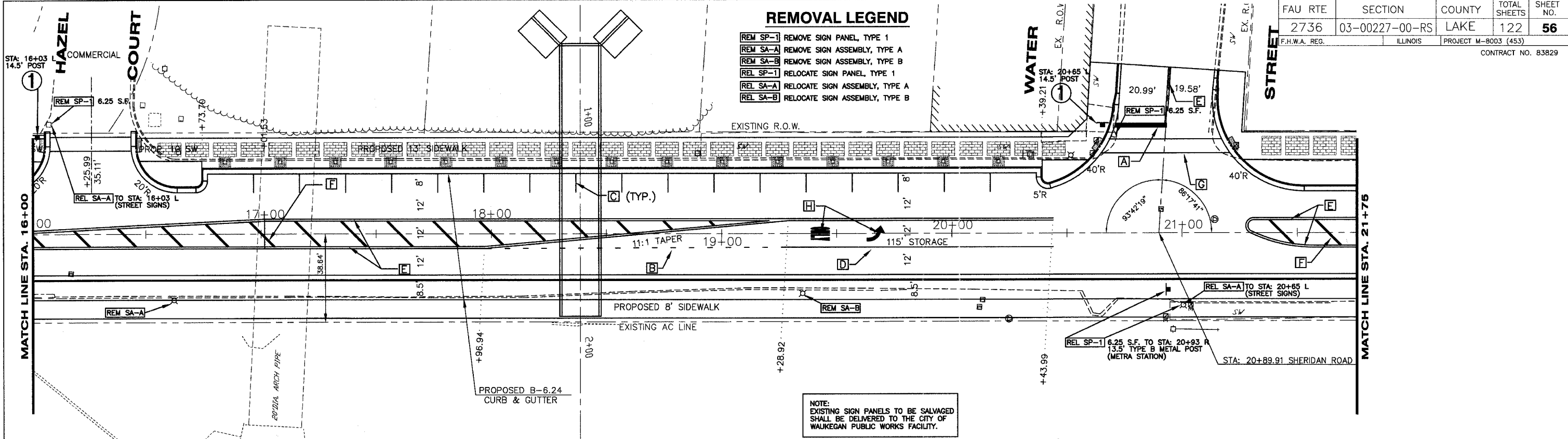
**McCLURE ENGINEERING ASSOCIATES, INC.**  
 2726 Grand Avenue  
 Waukegan, Illinois 60085  
 TEL 847-336-7100 FAX 847-336-7155  
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 McClure Engineering Associates, Inc.

**GEOMETRIC, STRIPING AND SIGNAGE PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sher-Striping.dwg 7/18/2006 9:49:01 AM CST



### REMOVAL LEGEND

- REM SP-1 REMOVE SIGN PANEL, TYPE 1
- REM SA-A REMOVE SIGN ASSEMBLY, TYPE A
- REM SA-B REMOVE SIGN ASSEMBLY, TYPE B
- REL SP-1 RELOCATE SIGN PANEL, TYPE 1
- REL SA-A RELOCATE SIGN ASSEMBLY, TYPE A
- REL SA-B RELOCATE SIGN ASSEMBLY, TYPE B



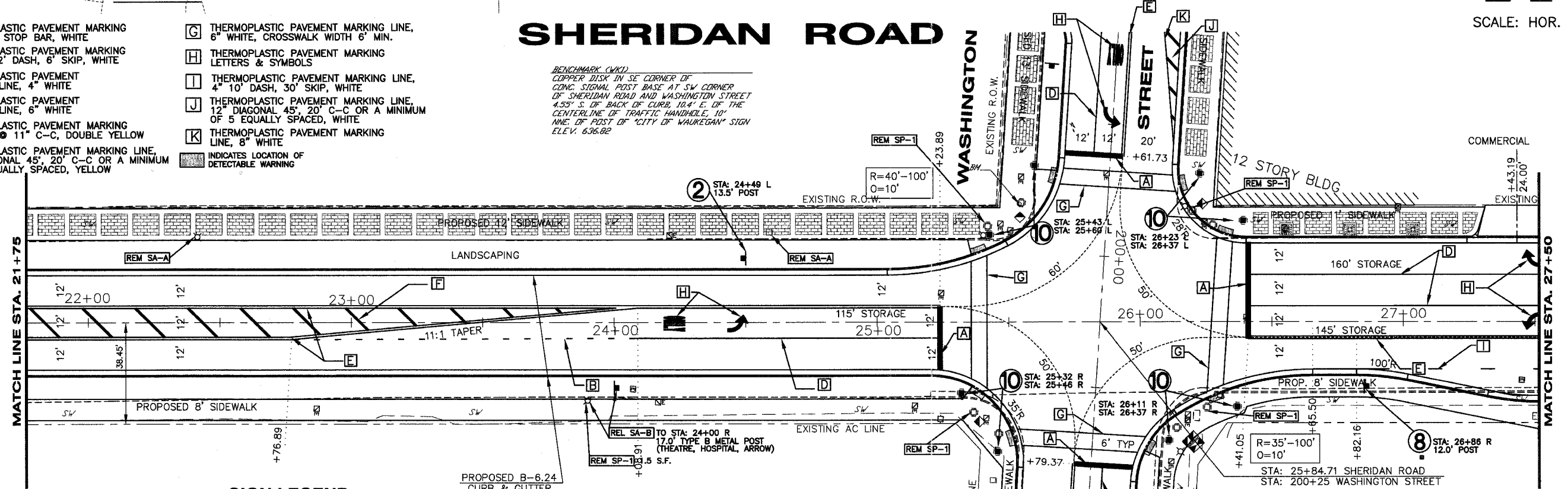
### LEGEND

- |                                                                                                                  |                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>A</b> THERMOPLASTIC PAVEMENT MARKING LINE, 24" STOP BAR, WHITE                                                | <b>G</b> THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE, CROSSWALK WIDTH 6' MIN.                                 |
| <b>B</b> THERMOPLASTIC PAVEMENT MARKING LINE, 6" 2' DASH, 6' SKIP, WHITE                                         | <b>H</b> THERMOPLASTIC PAVEMENT MARKING LETTERS & SYMBOLS                                                       |
| <b>C</b> THERMOPLASTIC PAVEMENT MARKING LINE, 4" WHITE                                                           | <b>I</b> THERMOPLASTIC PAVEMENT MARKING LINE, 4" 10' DASH, 30' SKIP, WHITE                                      |
| <b>D</b> THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE                                                           | <b>J</b> THERMOPLASTIC PAVEMENT MARKING LINE, 12" DIAGONAL 45°, 20' C-C OR A MINIMUM OF 5 EQUALLY SPACED, WHITE |
| <b>E</b> THERMOPLASTIC PAVEMENT MARKING LINE, 4" 11" C-C, DOUBLE YELLOW                                          | <b>K</b> THERMOPLASTIC PAVEMENT MARKING LINE, 8" WHITE                                                          |
| <b>F</b> THERMOPLASTIC PAVEMENT MARKING LINE, 12" DIAGONAL 45°, 20' C-C OR A MINIMUM OF 5 EQUALLY SPACED, YELLOW | INDICATES LOCATION OF DETECTABLE WARNING                                                                        |

# SHERIDAN ROAD

BENCHMARK (MVD)  
 COPPER DISK IN SE CORNER OF  
 CONC. SIGNAL POST BASE AT SW CORNER  
 OF SHERIDAN ROAD AND WASHINGTON STREET  
 4.53' S. OF BACK OF CURB, 10.4' E. OF THE  
 CENTERLINE OF TRAFFIC HANDHOLE, 10'  
 NNE. OF POST OF 'CITY OF WAUKEGAN' SIGN  
 ELEV. 636.82

SCALE: HOR. 1"=20'



### SIGN LEGEND

- |                                                                        |                                                                          |                                                                          |                                                                                |
|------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>1</b> SIGN PANEL TYPE 1 R1-1 W/ TYPE B METAL POST 30"x30" RED/WHITE | <b>2</b> SIGN PANEL TYPE 1 R2-1 W/ TYPE B METAL POST 24"x30" WHITE/BLACK | <b>8</b> SIGN PANEL TYPE 1 R7-107 W/ TYPE A METAL POST 12"x18" WHITE/RED | <b>10</b> SIGN PANEL TYPE 1 R10-4, ATTACH TO TRAFFIC SIGNAL 9"x12" WHITE/BLACK |
|------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------|

NOTE: LOCATIONS OF SIGNS, NEW AND RELOCATED, ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE BEST LOCATION IN THE FIELD WITH REGARD TO UTILITIES, VISIBILITY, AND OTHER FACTORS.

SHEET KEY	

REVISIONS		
NO.	ITEM	DATE

SCALE: 1" = 20'
DRAWN BY: MS
CHECKED BY: DBD
DATE: 1-16-08

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 Waukegan, Illinois 60085  
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**GEOMETRIC, STRIPING AND SIGNAGE PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sher-Striping.dwg 7/18/2006 9:49:01 AM CST



SCALE: HOR. 1"=20'

NOTE:  
EXISTING SIGN PANELS TO BE SALVAGED  
SHALL BE DELIVERED TO THE CITY OF  
WAUKEGAN PUBLIC WORKS FACILITY.

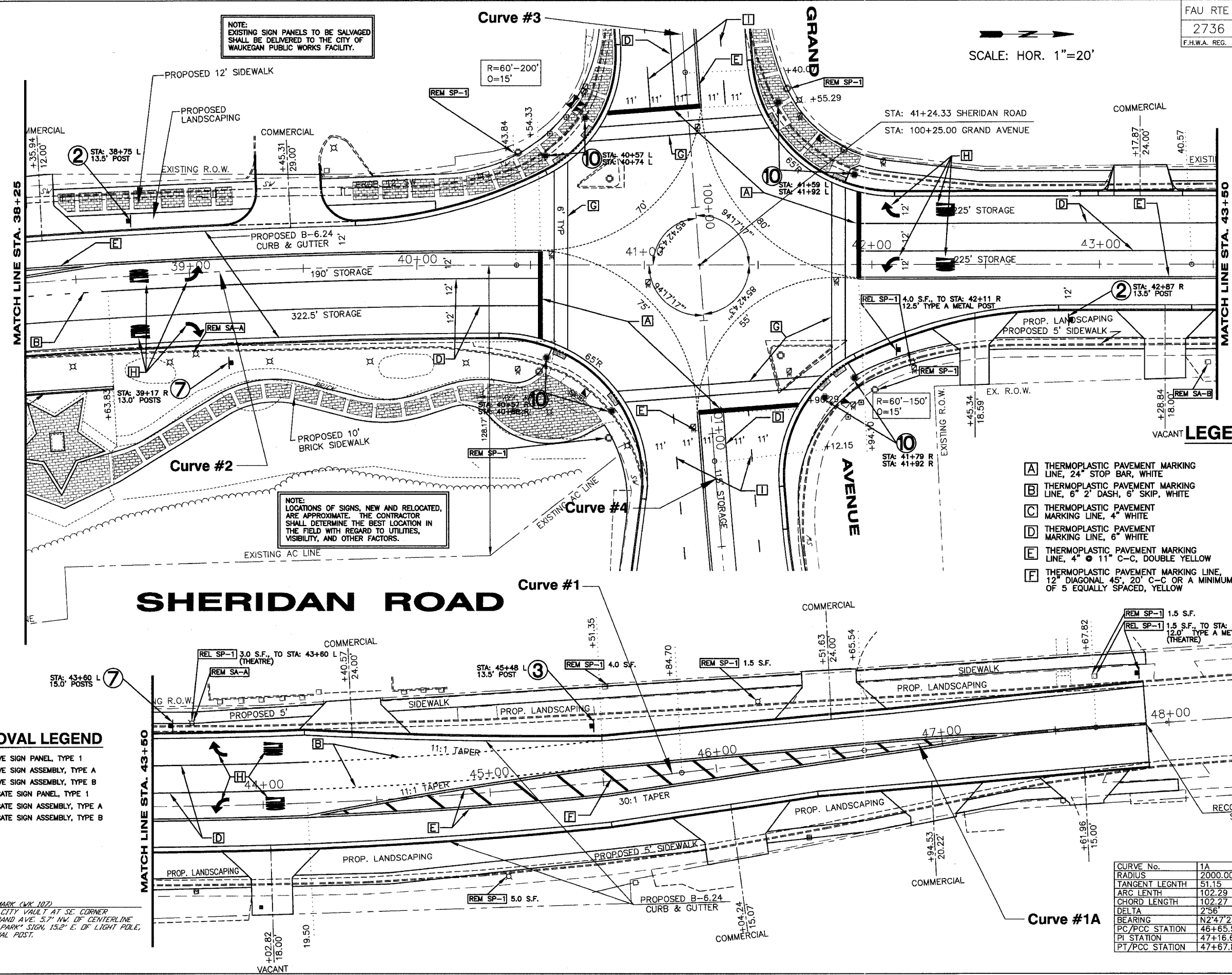
**SIGN LEGEND**

- ② SIGN PANEL TYPE 1  
R2-1 W/ TYPE B  
METAL POST  
24"x30"  
WHITE/BLACK
- ③ SIGN PANEL TYPE 1  
R3-5(R) W/ TYPE B  
METAL POST  
30"x36"  
WHITE/BLACK
- ⑦ SIGN PANEL TYPE 2  
R3-8b W/ TYPE 2A  
METAL POST  
45"x30"  
WHITE/BLACK
- ⑩ SIGN PANEL TYPE 1  
R10-4, ATTACH TO  
TRAFFIC SIGNAL  
9"x12"  
WHITE/BLACK

**LEGEND**

- A THERMOPLASTIC PAVEMENT MARKING LINE, 24" STOP BAR, WHITE
- B THERMOPLASTIC PAVEMENT MARKING LINE, 6" 2" DASH, 6" SKIP, WHITE
- C THERMOPLASTIC PAVEMENT MARKING LINE, 4" WHITE
- D THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE
- E THERMOPLASTIC PAVEMENT MARKING LINE, 4" @ 11" C-C, DOUBLE YELLOW
- F THERMOPLASTIC PAVEMENT MARKING LINE, 12" DIAGONAL 45°, 20" C-C OR A MINIMUM OF 5 EQUALLY SPACED, YELLOW
- G THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE, CROSSWALK WIDTH 6" MIN.
- H THERMOPLASTIC PAVEMENT MARKING LETTERS & SYMBOLS
- I THERMOPLASTIC PAVEMENT MARKING LINE, 4" 10" DASH, 30" SKIP, WHITE
- J THERMOPLASTIC PAVEMENT MARKING LINE, 12" DIAGONAL 45°, 20" C-C OR A MINIMUM OF 5 EQUALLY SPACED, WHITE
- K THERMOPLASTIC PAVEMENT MARKING LINE, 8" WHITE
- INDICATES LOCATION OF DETECTABLE WARNING

NOTE:  
LOCATIONS OF SIGNS, NEW AND RELOCATED,  
ARE APPROXIMATE. THE CONTRACTOR  
SHALL DETERMINE THE BEST LOCATION IN  
THE FIELD WITH REGARD TO UTILITIES,  
VISIBILITY, AND OTHER FACTORS.



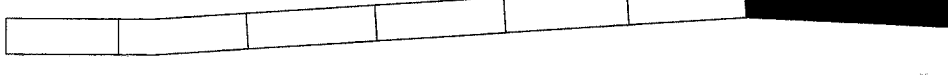
**REMOVAL LEGEND**

- REM SP-1 REMOVE SIGN PANEL, TYPE 1
- REM SA-A REMOVE SIGN ASSEMBLY, TYPE A
- REM SA-B REMOVE SIGN ASSEMBLY, TYPE B
- REL SP-1 RELOCATE SIGN PANEL, TYPE 1
- REL SA-A RELOCATE SIGN ASSEMBLY, TYPE A
- REL SA-B RELOCATE SIGN ASSEMBLY, TYPE B

REFERENCE BENCHMARK (WV 107)  
ALUMINUM DISK IN CITY VAULT AT SE CORNER  
SHERIDAN RD. & GRAND AVE. 5.7' NW OF CENTERLINE  
"HAIG PARAVONIAN PARK" SIGN, 15.2' E. OF LIGHT POLE,  
26.5' SSE OF SIGNAL POST,  
ELEV. 633.96

CURVE No.	1A	1	2	3	4
RADIUS	2000.00	2000.00	3000.00	3000.00	3000.00
TANGENT LENGTH	51.15	122.22	165.71	43.79	65.10
ARC LENGTH	102.29	244.13	331.08	87.57	130.18
CHORD LENGTH	102.27	243.98	330.91	87.57	130.17
DELTA	2°56'	7°0'	6°19'	1°40'	2°29'
BEARING	N2°47'23"W	N0°45'29"W	N0°25'21"W	N89°17'14"E	N87°12'28"E
PC/PCC STATION	46+65.54	43+40.57	37.12.76	98+52.50	101+12.15
PI STATION	47+16.68	44+62.79	38+78.47	98+96.29	101+77.25
PT/PCC STATION	47+67.83	45+84.70	40+43.84	99+40.07	102+42.33

**SHEET KEY**



REVISIONS		
NO.	ITEM	DATE

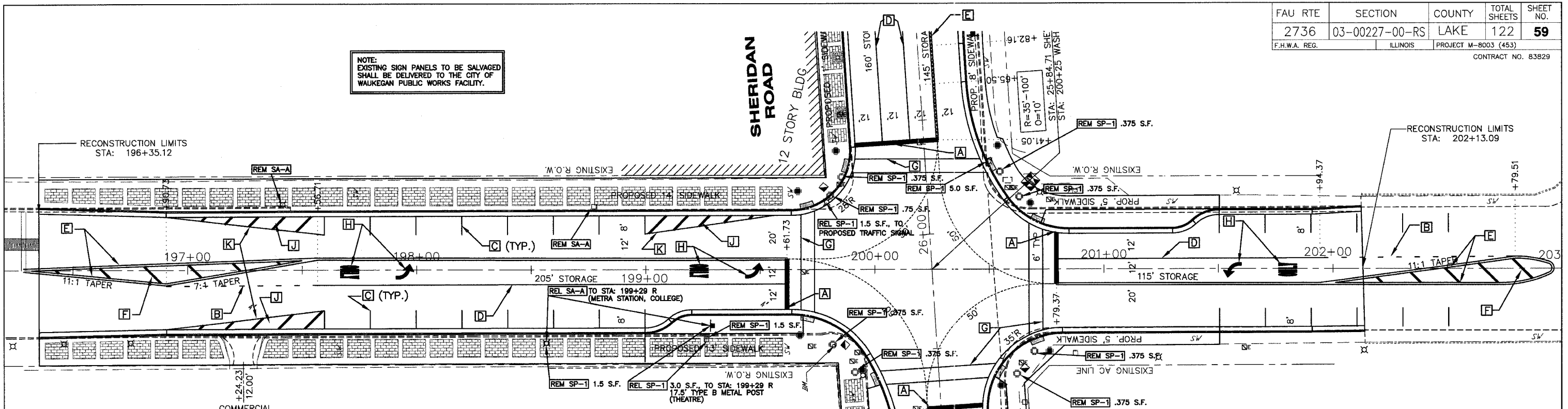
SCALE: 1" = 20'  
DRAWN BY: WS  
CHECKED BY: DBD  
DATE: 1-16-06

**McCLURE ENGINEERING ASSOCIATES, INC.**  
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Waukegan, Illinois 60085  
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**GEOMETRIC, STRIPING AND SIGNAGE PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
W:\dwg\WK\SHERIDAN-RD\_Sher-Striping.dwg 7/18/2006 9:49:01 AM CST

SHEET NO.  
**58**  
of  
**122**

NOTE:  
EXISTING SIGN PANELS TO BE SALVAGED  
SHALL BE DELIVERED TO THE CITY OF  
WAUKEGAN PUBLIC WORKS FACILITY.



# WASHINGTON STREET

## LEGEND

- A** THERMOPLASTIC PAVEMENT MARKING LINE, 24" STOP BAR, WHITE
- B** THERMOPLASTIC PAVEMENT MARKING LINE, 6" 2" DASH, 6" SKIP, WHITE
- C** THERMOPLASTIC PAVEMENT MARKING LINE, 4" WHITE
- D** THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE
- E** THERMOPLASTIC PAVEMENT MARKING LINE, 4" @ 11" C-C, DOUBLE YELLOW
- F** THERMOPLASTIC PAVEMENT MARKING LINE, 12" DIAGONAL 45°, 20" C-C OR A MINIMUM OF 5 EQUALLY SPACED, YELLOW
- G** THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE, CROSSWALK WIDTH 6' MIN.
- H** THERMOPLASTIC PAVEMENT MARKING LETTERS & SYMBOLS
- I** THERMOPLASTIC PAVEMENT MARKING LINE, 4" 10" DASH, 30" SKIP, WHITE
- J** THERMOPLASTIC PAVEMENT MARKING LINE, 12" DIAGONAL 45°, 20" C-C OR A MINIMUM OF 5 EQUALLY SPACED, WHITE
- K** THERMOPLASTIC PAVEMENT MARKING LINE, 8" WHITE
- INDICATES LOCATION OF DETECTABLE WARNING**

CURVE No.	7
RADIUS	1000.00
TANGENT LENGTH	47.14
ARC LENGTH	94.21
CHORD LENGTH	94.18
DELTA	5°23'53"
BEARING	S87°41'09"E
PC STATION	299+77.62
PI STATION	300+24.76
PT STATION	300+71.83

## REMOVAL LEGEND

- REM SP-1** REMOVE SIGN PANEL, TYPE 1
- REM SA-A** REMOVE SIGN ASSEMBLY, TYPE A
- REM SA-B** REMOVE SIGN ASSEMBLY, TYPE B
- REL SP-1** RELOCATE SIGN PANEL, TYPE 1
- REL SA-A** RELOCATE SIGN ASSEMBLY, TYPE A
- REL SA-B** RELOCATE SIGN ASSEMBLY, TYPE B

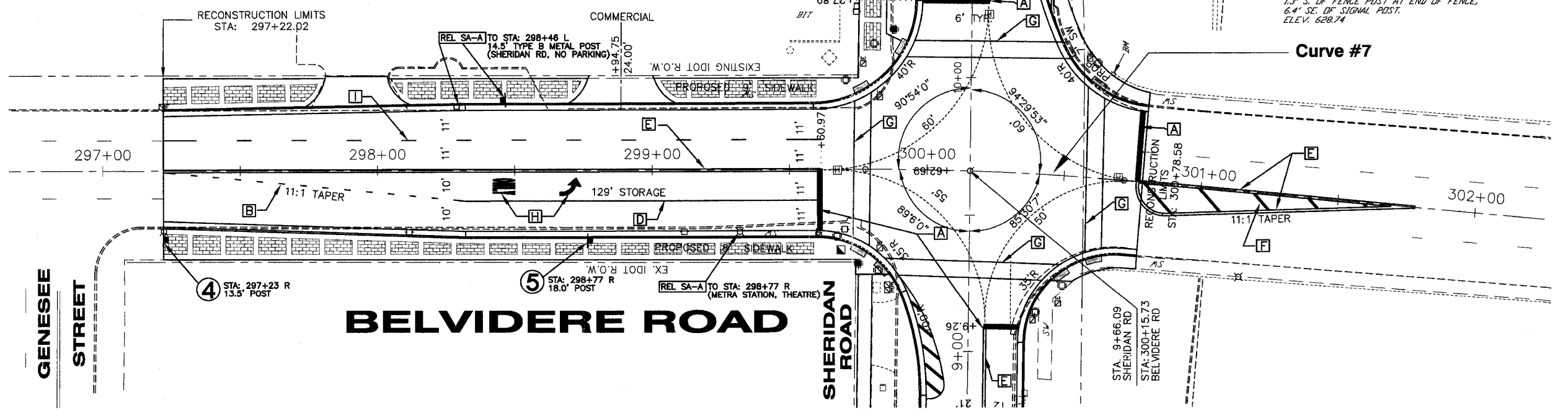
SCALE: HOR. 1"=20'

BENCHMARK (WKP2)  
ON CENTERLINE OF 1' WIDE CONC. WALL, 1.25'  
FROM NW END ON N. SIDE BELVIDERE ROAD BRIDGE  
DIRECTLY E. OF SHERIDAN RD, 5' NE. OF BACK OF CURB,  
1.5' S. OF FENCE POST AT END OF FENCE,  
6.4' SE. OF SIGNAL POST.  
ELEV. 628.74

## SIGN LEGEND

- 4** SIGN PANEL TYPE 1 R3-7 W/ TYPE B METAL POST 30"x30" WHITE/BLACK
- 5** SIGN PANEL TYPE 1 R3-8b W/ TYPE B METAL POST 30"x30" WHITE/BLACK

NOTE:  
LOCATIONS OF SIGNS, NEW AND RELOCATED,  
ARE APPROXIMATE. THE CONTRACTOR  
SHALL DETERMINE THE BEST LOCATION IN  
THE FIELD WITH REGARD TO UTILITIES,  
VISIBILITY, AND OTHER FACTORS.



## SHEET KEY



REVISIONS		
NO.	ITEM	DATE

SCALE: 1" = 20'  
DRAWN BY: WS  
CHECKED BY: DBD  
DATE: 1-16-06

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**GEOMETRIC, STRIPING AND SIGNAGE PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
W:\dwg\WK\SHERIDAN-RD\_Sher-Striping.dwg 7/18/2006 9:49:01 AM CST



### LEGEND

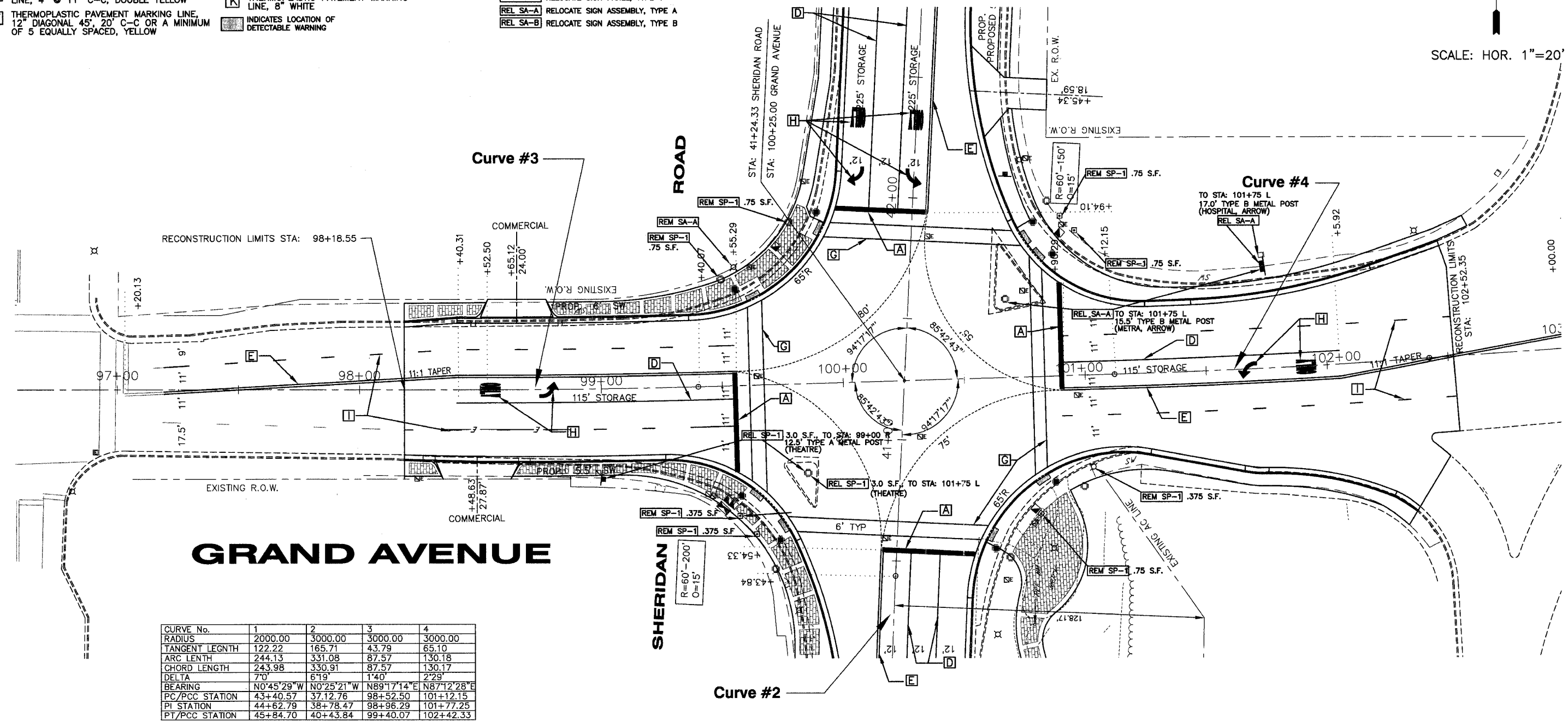
- |                                                                                                                  |                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>A</b> THERMOPLASTIC PAVEMENT MARKING LINE, 24" STOP BAR, WHITE                                                | <b>G</b> THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE, CROSSWALK WIDTH 6" MIN.                                 |
| <b>B</b> THERMOPLASTIC PAVEMENT MARKING LINE, 6" 2' DASH, 6' SKIP, WHITE                                         | <b>H</b> THERMOPLASTIC PAVEMENT MARKING LETTERS & SYMBOLS                                                       |
| <b>C</b> THERMOPLASTIC PAVEMENT MARKING LINE, 4" WHITE                                                           | <b>I</b> THERMOPLASTIC PAVEMENT MARKING LINE, 4" 10" DASH, 30' SKIP, WHITE                                      |
| <b>D</b> THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE                                                           | <b>J</b> THERMOPLASTIC PAVEMENT MARKING LINE, 12" DIAGONAL 45°, 20' C-C OR A MINIMUM OF 5 EQUALLY SPACED, WHITE |
| <b>E</b> THERMOPLASTIC PAVEMENT MARKING LINE, 4" @ 11" C-C, DOUBLE YELLOW                                        | <b>K</b> THERMOPLASTIC PAVEMENT MARKING LINE, 8" WHITE                                                          |
| <b>F</b> THERMOPLASTIC PAVEMENT MARKING LINE, 12" DIAGONAL 45°, 20' C-C OR A MINIMUM OF 5 EQUALLY SPACED, YELLOW | <b>INDICATES LOCATION OF DETECTABLE WARNING</b>                                                                 |

### REMOVAL LEGEND

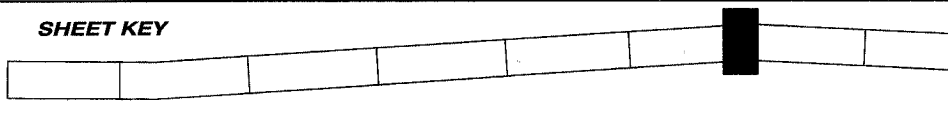
- |                                                |
|------------------------------------------------|
| <b>REM SP-1</b> REMOVE SIGN PANEL, TYPE 1      |
| <b>REM SA-A</b> REMOVE SIGN ASSEMBLY, TYPE A   |
| <b>REM SA-B</b> REMOVE SIGN ASSEMBLY, TYPE B   |
| <b>REL SP-1</b> RELOCATE SIGN PANEL, TYPE 1    |
| <b>REL SA-A</b> RELOCATE SIGN ASSEMBLY, TYPE A |
| <b>REL SA-B</b> RELOCATE SIGN ASSEMBLY, TYPE B |

NOTE:  
EXISTING SIGN PANELS TO BE SALVAGED SHALL BE DELIVERED TO THE CITY OF WAUKEGAN PUBLIC WORKS FACILITY.

SCALE: HOR. 1"=20'



CURVE No.	1	2	3	4
RADIUS	2000.00	3000.00	3000.00	3000.00
TANGENT LEGNTH	122.22	165.71	43.79	65.10
ARC LENTH	244.13	331.08	87.57	130.18
CHORD LENGTH	243.98	330.91	87.57	130.17
DELTA	7°0'	6°19'	1°40'	2°29'
BEARING	N0°45'29"W	N0°25'21"W	N89°17'14"E	N87°12'28"E
PC/PCC STATION	43+40.57	37.12.76	98+52.50	101+12.15
PI STATION	44+62.79	38+78.47	98+96.29	101+77.25
PT/PCC STATION	45+84.70	40+43.84	99+40.07	102+42.33

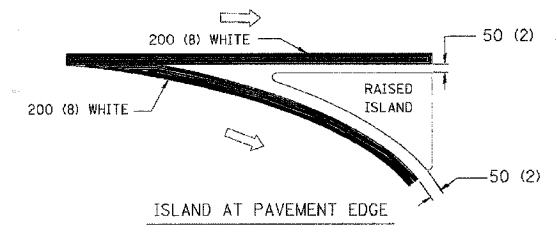
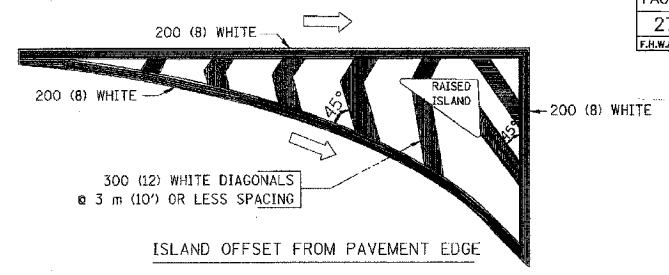
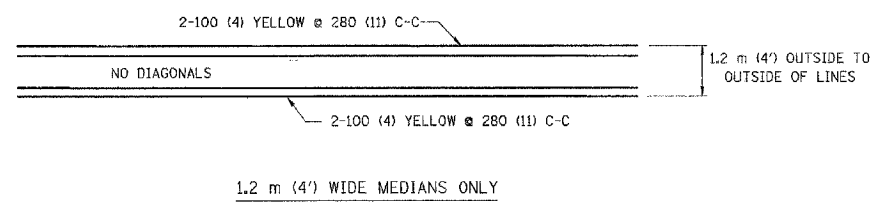
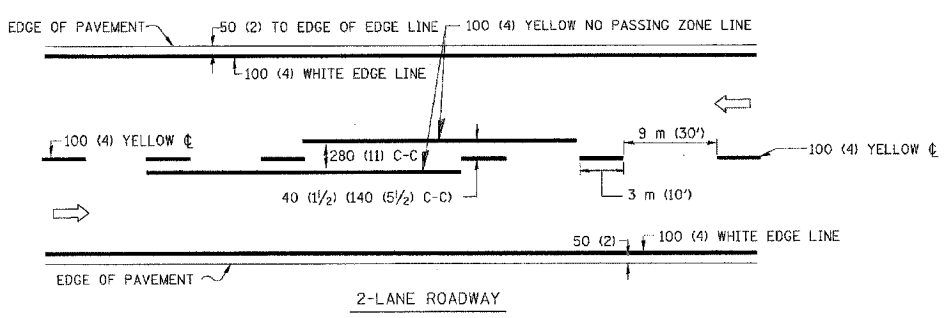


REVISIONS		
NO.	ITEM	DATE

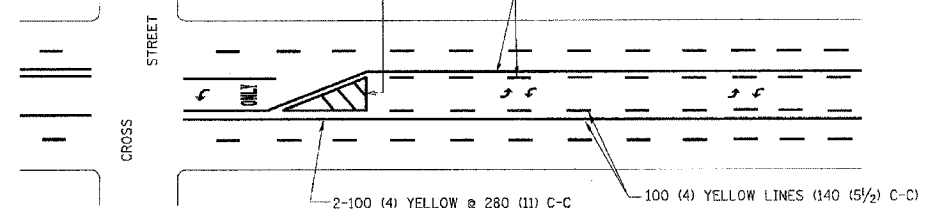
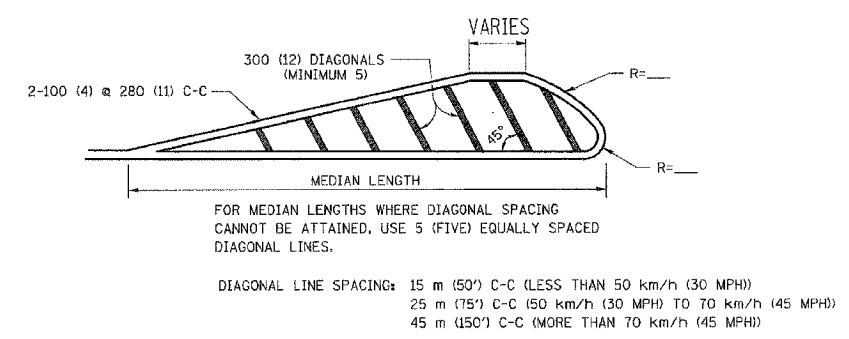
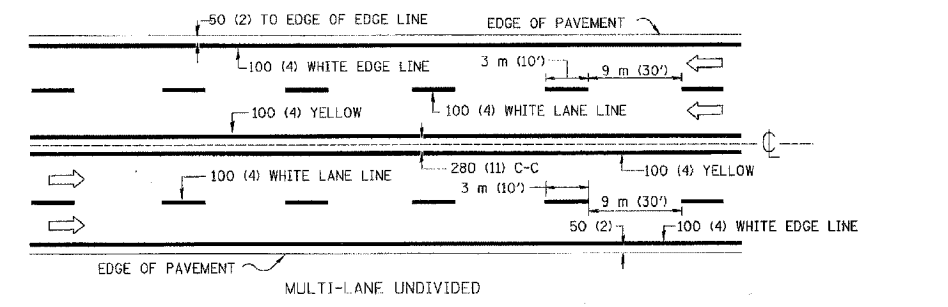
SCALE: 1" = 20'  
DRAWN BY: MS  
CHECKED BY: DBD  
DATE: 1-16-06

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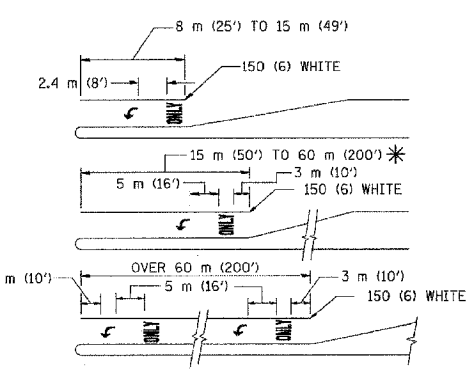
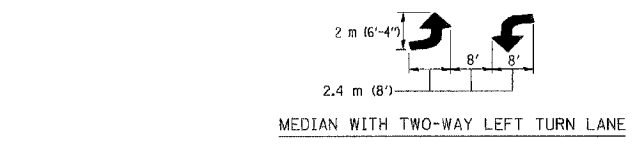
**GEOMETRIC, STRIPING AND SIGNAGE PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sher-Striping.dwg 7/18/2006 9:49:01 AM CST



TYPICAL ISLAND MARKING



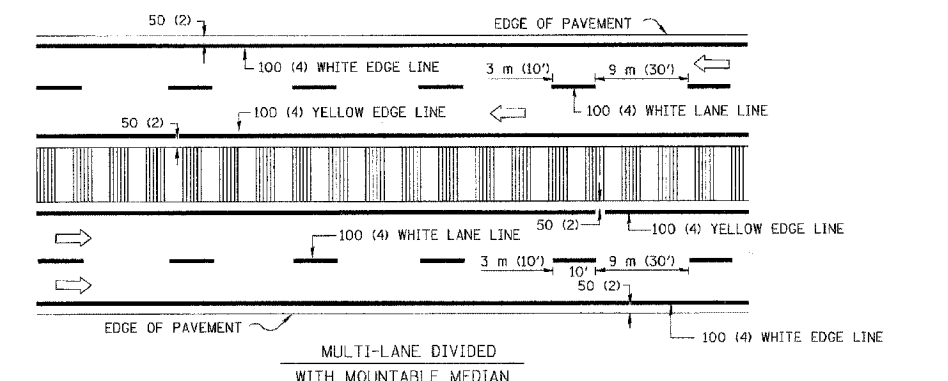
TYPICAL PAINTED MEDIAN MARKING



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

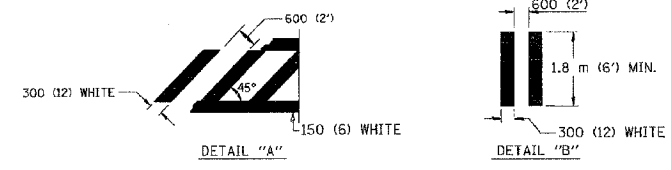
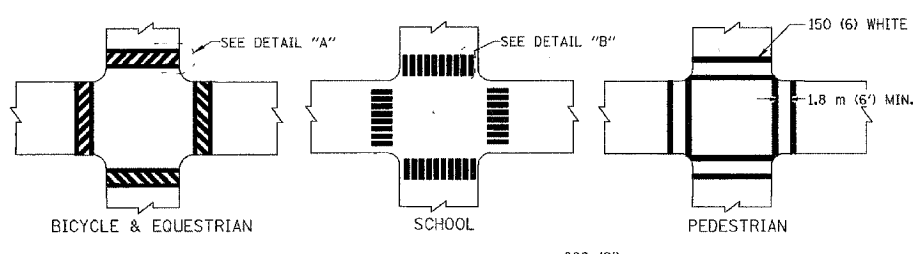
\* TURN LANES IN EXCESS OF 120 m (400') IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL TURN LANE MARKING



NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

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

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
TYPICAL PAVEMENT MARKINGS

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

SCALE: NONE  
DATE 10/18/2002

DRAWN BY CADD  
CHECKED BY

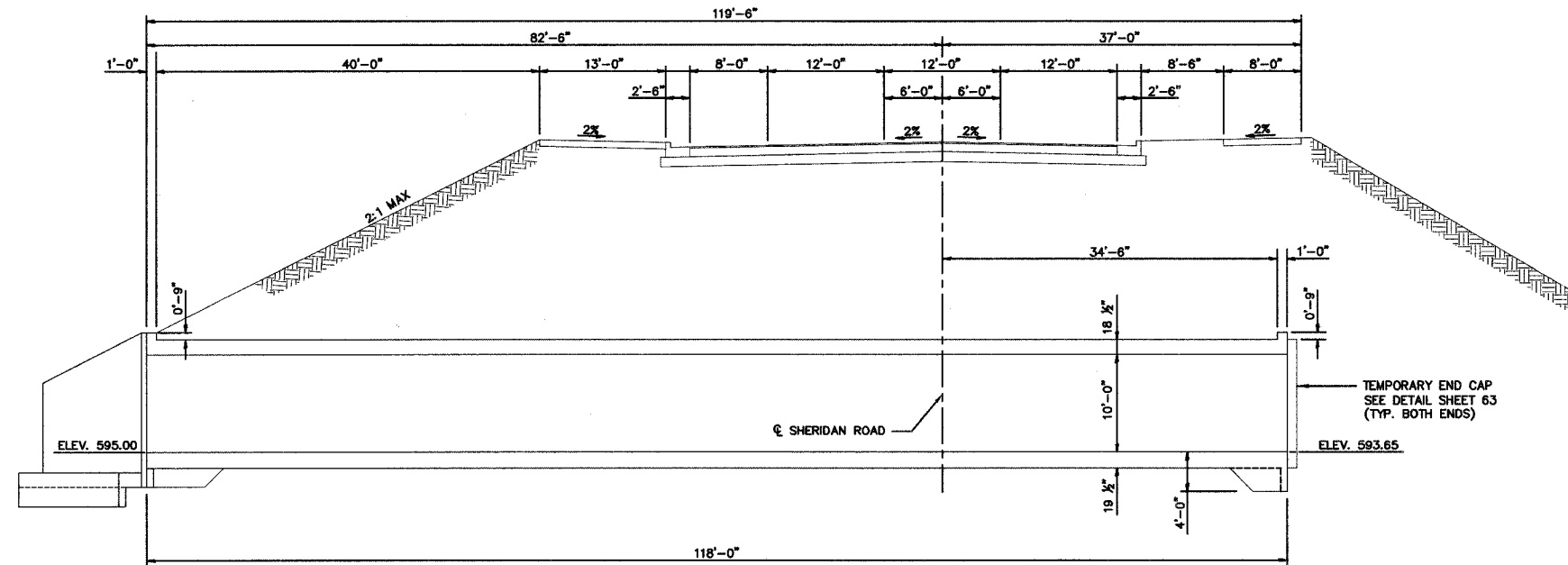
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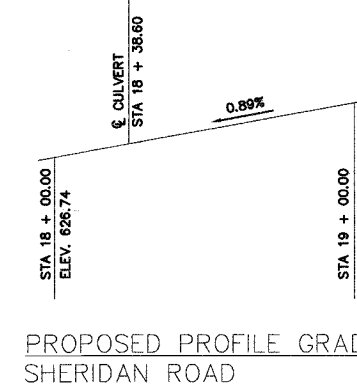
BENCHMARK (WK1): COPPER DISK IN S.E. CORNER OF CONC. SIGNAL POST BASE AT S.W. CORNER OF SHERIDAN ROAD AND WASHINGTON STREET 4.55' S. OF BACK OF CURB, 10.4' E. OF THE CENTERLINE OF TRAFFIC HANDHOLE, 10' N.N.E. OF POST OF "CITY OF WAUKEGAN" SIGN. ELEV. 636.82

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	62
F.H.W.A. REG.		ILLINOIS	PROJECT M-8003 (453)	
CONTRACT NO. 83829				

EXISTING STRUCTURE  
NONE



ELEVATION



PROPOSED PROFILE GRADE  
SHERIDAN ROAD

HIGHWAY CLASSIFICATION

SHERIDAN ROAD  
ADT: 7300 (2005)  
FUNCTIONAL CLASS: MINOR ARTERIAL  
DESIGN SPEED: 35 MPH  
POSTED SPEED: 30 MPH

DESIGN SPECIFICATIONS

2002 AASHTO STANDARD SPECIFICATIONS

DESIGN STRESSES

F'C = 3500 PSI  
FY = 60,000 PSI (REINFORCEMENT)

SEISMIC DATA

SEISMIC PERFORMANCE CATEGORY (SPC) = A  
BEDROCK ACCELERATION COEFFICIENT (A) = 0.039  
SITE COEFFICIENT (S) = 1

LOADING HS20-44

GENERAL NOTES

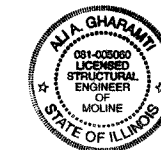
- 1.) DRAWINGS SHALL NOT BE SCALED
- 2.) ALL CONSTRUCTION JOINTS SHALL BE BONDED.
- 3.) ALL EXPOSED EDGES SHALL HAVE A 3/4" X 45° CHAMFER, EXCEPT AS SHOWN OTHERWISE.
- 4.) ALL BACKFILL AND EMBANKMENT SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- 5.) PRIOR TO PLACING FOOTING CONCRETE FOR WINGWALLS THE SUB-GRADE SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER TO ENSURE THAT THE 2500 LBS/SQ-FT REQUIRED BEARING CAPACITY IS ACHIEVED. CONCRETE BOTTOM SLAB AND FOOTINGS SHALL NOT BE PLACED UNTIL THE SUBGRADE SOIL PREPARATION HAS BEEN INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
- 6.) PRECAST CONCRETE CULVERT SECTIONS OR PRECAST BRIDGE SECTIONS SUCH AS HY-SPAN MAY BE USED IN LIEU OF CAST-IN-PLACE WITH APPROVAL OF THE ENGINEER. DESIGN CALCULATIONS SIGNED AND SEALED BY AN ILLINOIS REGISTERED STRUCTURAL ENGINEER SHALL BE PROVIDED WITH PROPOSED PRECAST ALTERNATIVE.

INDEX OF SHEETS

- 62 GENERAL PLAN
- 63 BOX CULVERT DETAILS
- 64 BAR SPLICER ASSEMBLY DETAILS
- 65 BRACED EXCAVATION
- 66 BORING LOGS

TOTAL BILL OF MATERIAL

	UNIT	TOTAL
CONCRETE BOX CULVERTS	CU.YD.	399.7
REINFORCEMENT BARS	POUND	92,592
REINFORCEMENT BARS, EPOXY COATED	POUND	813
PIPE UNDERDRAINS FOR STRUCTURES, (4")	LIN. FT.	38
PIPE UNDERDRAINS FOR STRUCTURES, (6")	LIN. FT.	278
BAR SPLICERS	EACH	104
BRACED EXCAVATION	CU.YD.	3,247



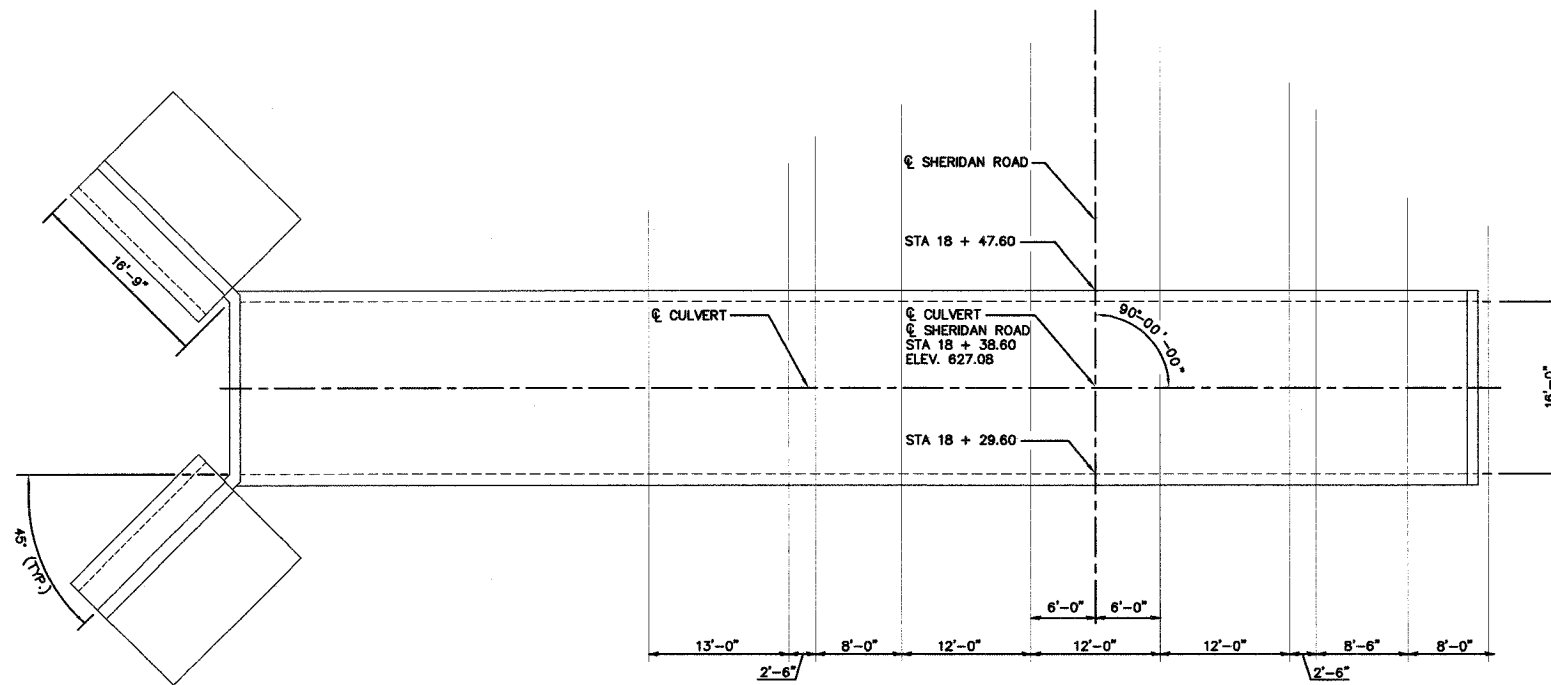
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Structural Engineer under the laws of the State of Illinois.

*Ali A. Gharami* 7/2/07  
Ali A. Gharami, P.E., S.E.

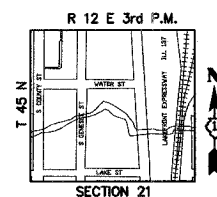
Structural Engineer's License No. 081-005060

My license renewal date is November 30, 2008

Pages or sheets covered by this seal: 62-66



PLAN



LOCATION SKETCH

SHEET KEY

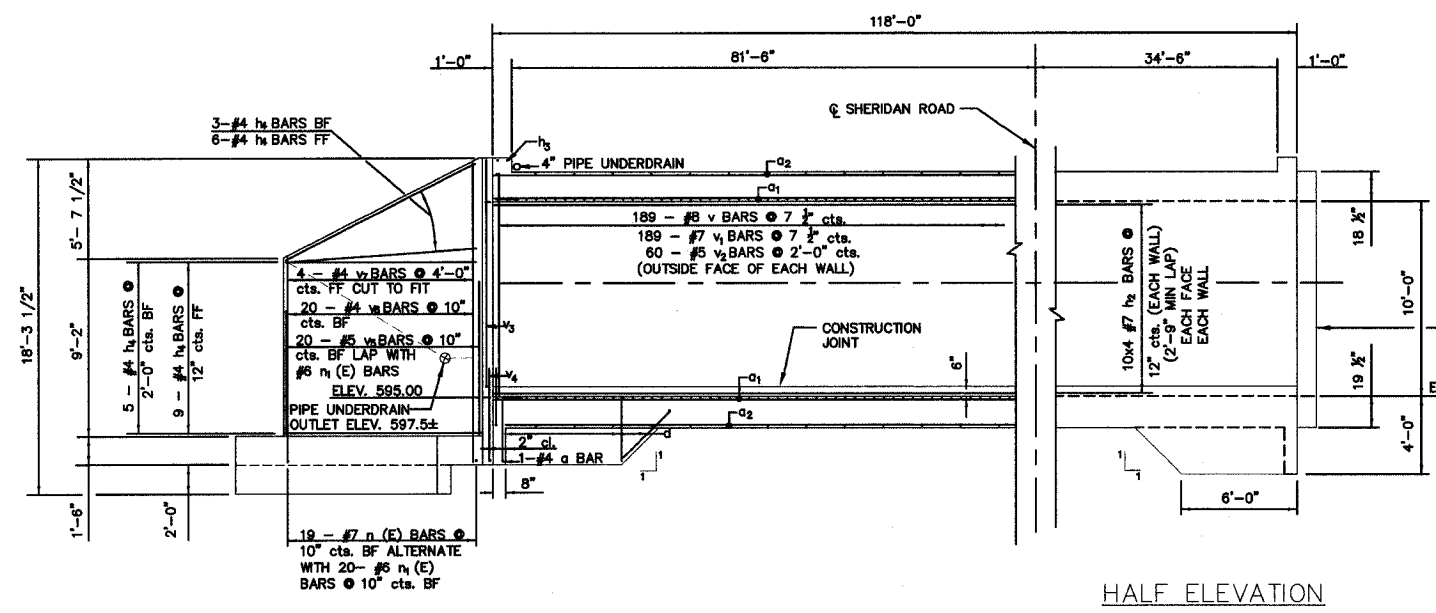
REVISIONS		
NO.	ITEM	DATE

SCALE:	NTS
DRAWN BY:	CJP
CHECKED BY:	JIT
DATE:	1-16-06

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Waukegan, Illinois 80385  
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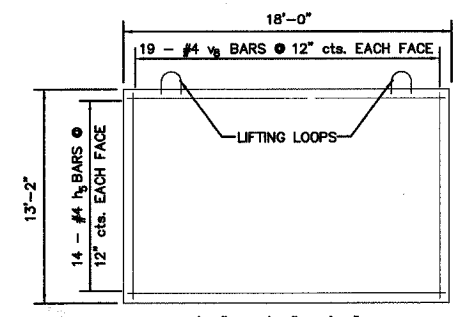
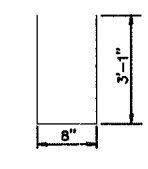
**GENERAL PLAN**  
**SHERIDAN ROAD IMPROVEMENTS**  
CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS

SHEET NO.  
**62**  
of  
**122**

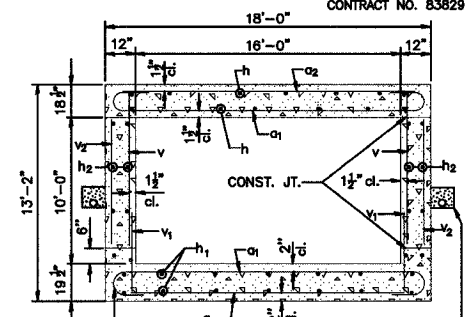


HALF LONG SECTION

HALF ELEVATION



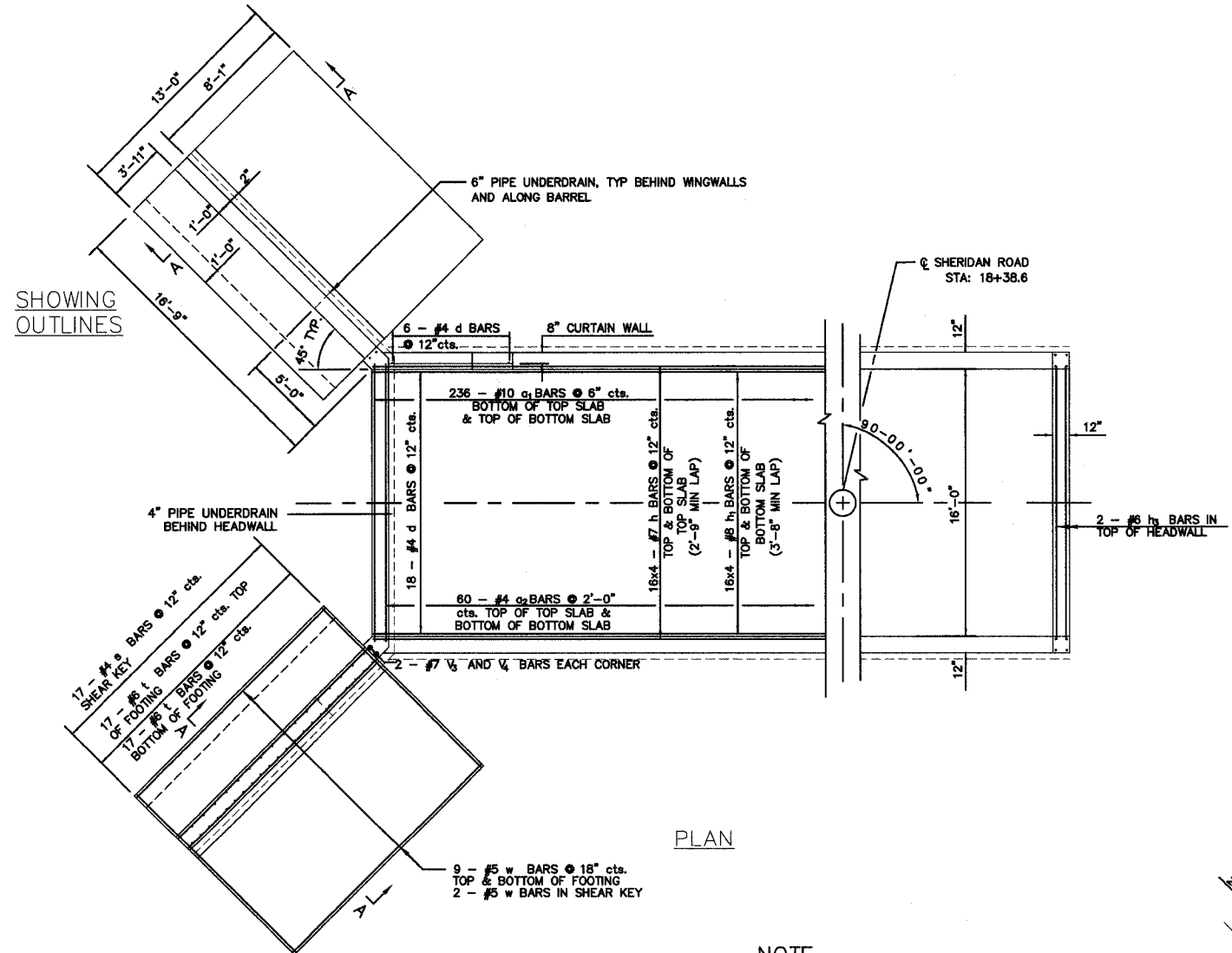
TEMPORARY END CAP DETAIL



SECTION THRU BARREL

BILL OF MATERIAL

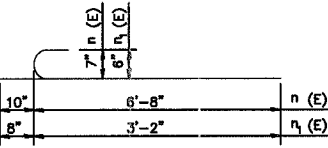
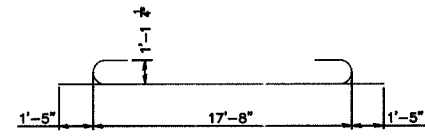
BAR NO.	SIZE	LENGTH	SHAPE
a	2	#4	17'-8"
a <sub>1</sub>	472	#10	20'-6"
a <sub>2</sub>	120	#4	16'-3"
d	60	#4	5'-6"
h	128	#7	31'-6"
h <sub>1</sub>	128	#8	32'-2"
h <sub>2</sub>	160	#7	31'-6"
h <sub>3</sub>	4	#6	16'-11"
h <sub>4</sub>	46	#4	15'-8"
h <sub>5</sub>	56	#4	17'-8"
n (E)	38	#7	7'-6"
n <sub>1</sub> (E)	40	#6	3'-10"
s	34	#4	6'-10"
t	68	#6	12'-9"
v	378	#8	10'-10"
v <sub>1</sub>	378	#7	3'-8"
v <sub>2</sub>	120	#5	9'-4"
v <sub>3</sub>	8	#7	12'-1"
v <sub>4</sub>	8	#7	6'-9"
v <sub>5</sub>	40	#5	7'-6"
v <sub>6</sub>	40	#4	8'-9"
v <sub>7</sub>	8	#4	14'-7"
v <sub>8</sub>	76	#4	12'-10"
W	40	#5	15'-8"
CONCRETE BOX CULVERTS		CU. YD.	399.7
REINFORCEMENT BARS, EPOXY COATED		POUND	813
REINFORCEMENT BARS		POUND	92,592
PIPE UNDERDRAINS FOR STRUCTURES (4")		LIN. FT.	38
PIPE UNDERDRAINS FOR STRUCTURES (6")		LIN. FT.	278



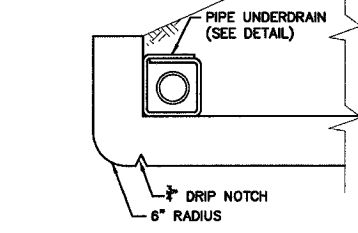
PLAN

SHOWING REINFORCEMENT

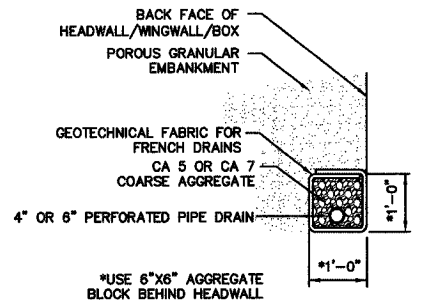
SHOWING OUTLINES



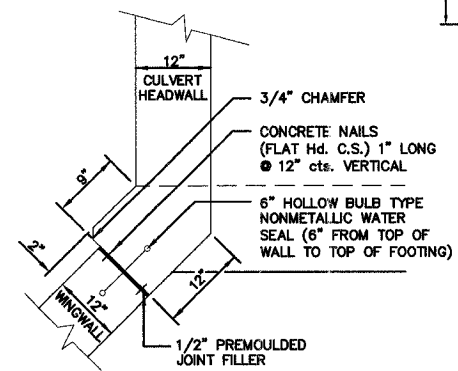
BAR n (E) & m<sub>1</sub> (E)



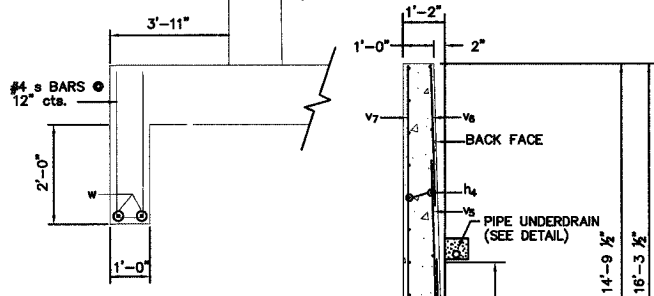
SECTION THRU WEST HEADWALL



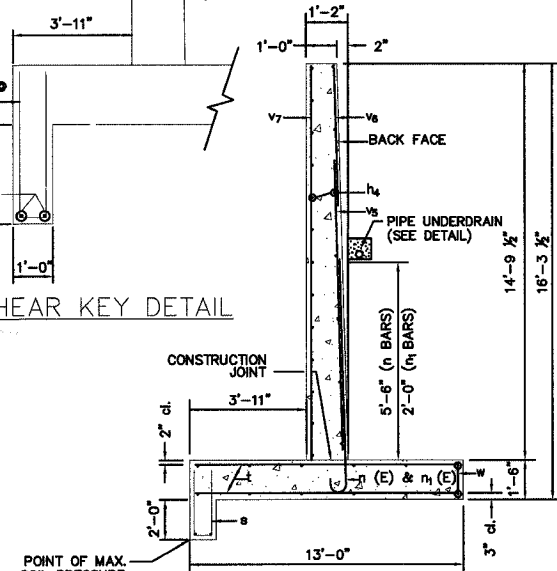
PIPE UNDERDRAIN DETAIL



CORNER DETAIL



SHEAR KEY DETAIL



SECTION A-A

**NOTE**  
TO FACILITATE FUTURE LENGTHENING, PROVIDE BAR SPLICERS FOR ALL LONGITUDINAL BARS AT EAST END OF BARREL. (104 REQ'D) SEE SHEET 3 FOR DETAILS

**SHEET KEY**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----

**REVISIONS**

NO.	ITEM	DATE

**SCALE: NTS**

DRAWN BY: CJP

CHECKED BY: JTT

DATE: 1-16-06

**McCLURE ENGINEERING ASSOCIATES, INC.**

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Waukegan, Illinois 60085  
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**BOX CULVERT DETAILS**

**SHERIDAN ROAD IMPROVEMENTS**

CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS

W:\dwg\VK\SHERIDAN-RD\Underpass\N1-13-06\PEDESTRIAN UNDERPASS E5.dwg 1/16/2006 9:3904 AM CST

**NOTES**

BAR SPLICER ASSEMBLIES SHALL BE OF AN APPROVED TYPE AND SHALL DEVELOP IN TENSION AT LEAST 125 PERCENT OF THE YIELD STRENGTH OF THE LAPPED REINFORCEMENT BARS.

SPLICER RODS SHALL BE OF MINIMUM 60 ksi YIELD STRENGTH, THREADED OR COILED FULL LENGTH.

ALL REINFORCEMENT BARS SHALL BE LAPPED AND TIED TO THE SPLICER RODS OR DOWEL BARS.

BAR SPLICER ASSEMBLIES SHALL BE EPOXY COATED ACCORDING TO THE REQUIREMENTS FOR REINFORCEMENT BARS.

OTHER SYSTEMS OF SIMILAR DESIGN MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL. APPROVAL SHALL BE BASED ON CERTIFIED TEST RESULTS FROM AN APPROVED TESTING LABORATORY THAT THE PROPOSED BAR SPLICER ASSEMBLY SATISFIES THE FOLLOWING REQUIREMENTS:

MINIMUM CAPACITY  
(TENSION IN KIPS) =  $1.25 \times f_y \times A_t$

MINIMUM \*PULL-OUT STRENGTH  
(TENSION IN KIPS) =  $1.25 \times f_{s_{allow}} \times A_t$

WHERE  $f_y$  = YIELD STRENGTH OF LAPPED REINFORCEMENT BARS IN ksi.  
 $f_{s_{allow}}$  = ALLOWABLE TENSILE STRESS IN LAPPED REINFORCEMENT BARS IN ksi (SERVICE LOAD)  
 $A_t$  = TENSILE STRESS AREA OF LAPPED REINFORCEMENT BARS.  
 \* = 28 DAY CONCRETE

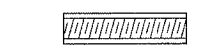
BAR SIZE TO BE SPLICED	SPLICER ROD OR DOWEL BAR LENGTH	STRENGTH REQUIREMENTS	
		MIN. CAPACITY KIPS - TENSION	MIN. PULL-OUT STRENGTH KIPS - TENSION
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

- BAR SPLICER ASSEMBLIES SHALL BE ACCORDING TO SECTION 508 OF THE STANDARD SPECIFICATIONS, EXCEPT AS NOTED.
- THE FURNISHING AND INSTALLATION OF BAR SPLICER ASSEMBLIES WILL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "BAR SPLICERS."

THE DIAMETER OF THIS PART IS THE SAME AS THE DIAMETER OF THE BAR SPLICED.

THE DIAMETER OF THIS PART IS EQUAL OR LARGER THAN THE DIAMETER OF BAR SPLICED.

**ROLLED THREAD DOWEL BAR**



\*\* ONE PIECE

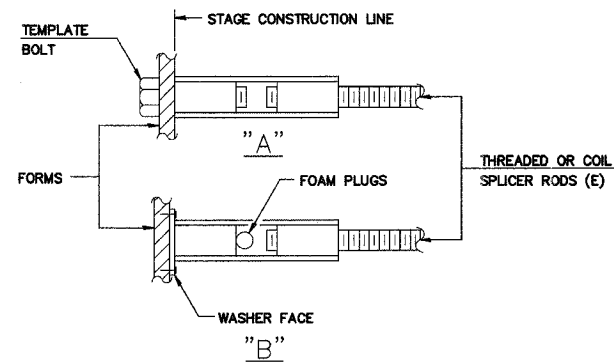


WIRE CONNECTOR

**WELDED SECTIONS**

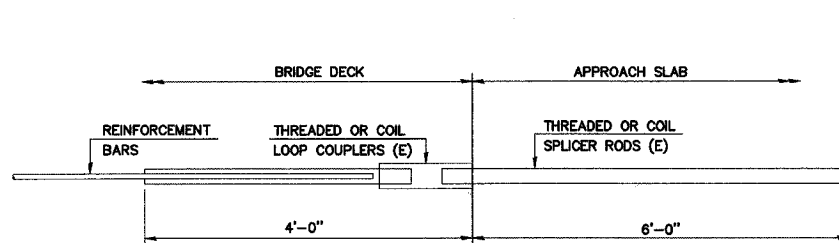
**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\* HEAVY HEX NUTS CONFORMING TO ASTM A 563, GRADE C, D OR DH MAY BE USED.



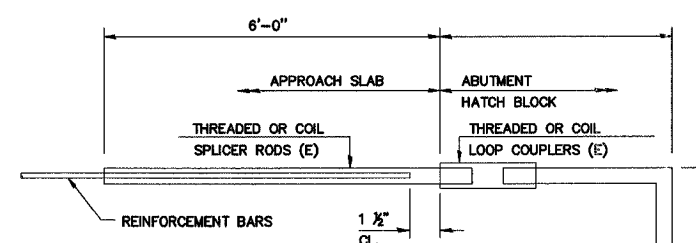
**INSTALLATION AND SETTING METHODS**

"A" : SET BAR SPLICER ASSEMBLY BY MEANS OF A TEMPLATE BOLT.  
 "B" : SET BAR SPLICER ASSEMBLY BY NAILING TO WOOD FORMS OR CEMENTING TO STEEL FORMS.  
 (E) : INDICATES EPOXY COATING.



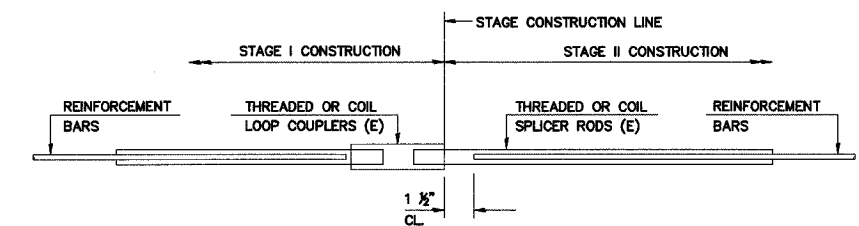
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

BAR SPLICER FOR #5 BAR	
MIN. CAPACITY =	23.0 KIPS - TENSION
MIN. PULL-OUT STRENGTH =	9.2 KIPS - TENSION
NO. REQUIRED =	



FOR PILE BENT ABUTMENTS

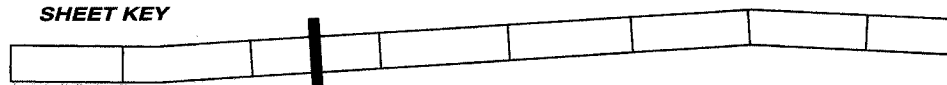
BAR SPLICER FOR #5 BAR	
MIN. CAPACITY =	23.0 KIPS - TENSION
MIN. PULL-OUT STRENGTH =	9.2 KIPS - TENSION
NO. REQUIRED =	



STANDARD

BAR SIZE	NO. ASSEMBLIES REQUIRED	LOCATION
#7	72	E. END OF BARREL
#8	32	E. END OF BARREL

**SHEET KEY**



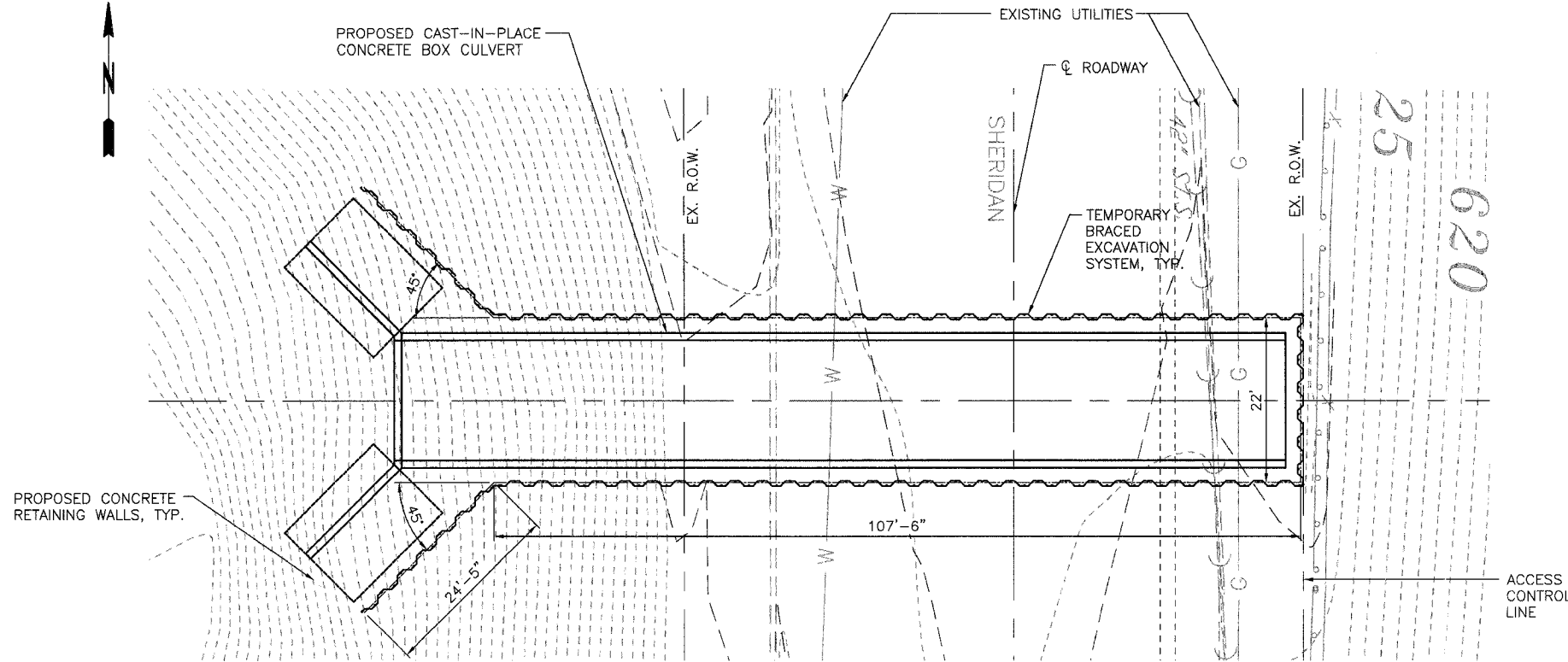
REVISIONS		
NO.	ITEM	DATE

SCALE:	NTS
DRAWN BY:	CJP
CHECKED BY:	JTT
DATE:	1-16-06

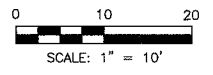
**McCLURE ENGINEERING ASSOCIATES, INC.**  
 2728 Grand Avenue  
 Waukegan, Illinois 60085  
 TEL. 847-336-7100 FAX 847-336-7155  
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**BAR SPLICER ASSEMBLY DETAILS**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
 V:\dwg\WKS\SHERIDAN-RD\Underpass\1-13-06\PEDESTRIAN UNDERPASS ES.dwg 1/16/2006 9:39:04 AM CST

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	65
F.H.W.A. REG.		ILLINOIS	PROJECT M-8003 (453)	
CONTRACT NO. 83829				



**PLAN**



**NOTES:**

THE CONTRACTOR SHALL SUBMIT A BRACED EXCAVATION DESIGN INCLUDING PLAN DETAILS AND CALCULATIONS FOR REVIEW AND ACCEPTANCE BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING OR REROUTING ALL UTILITIES WITHIN THE BRACED EXCAVATION.

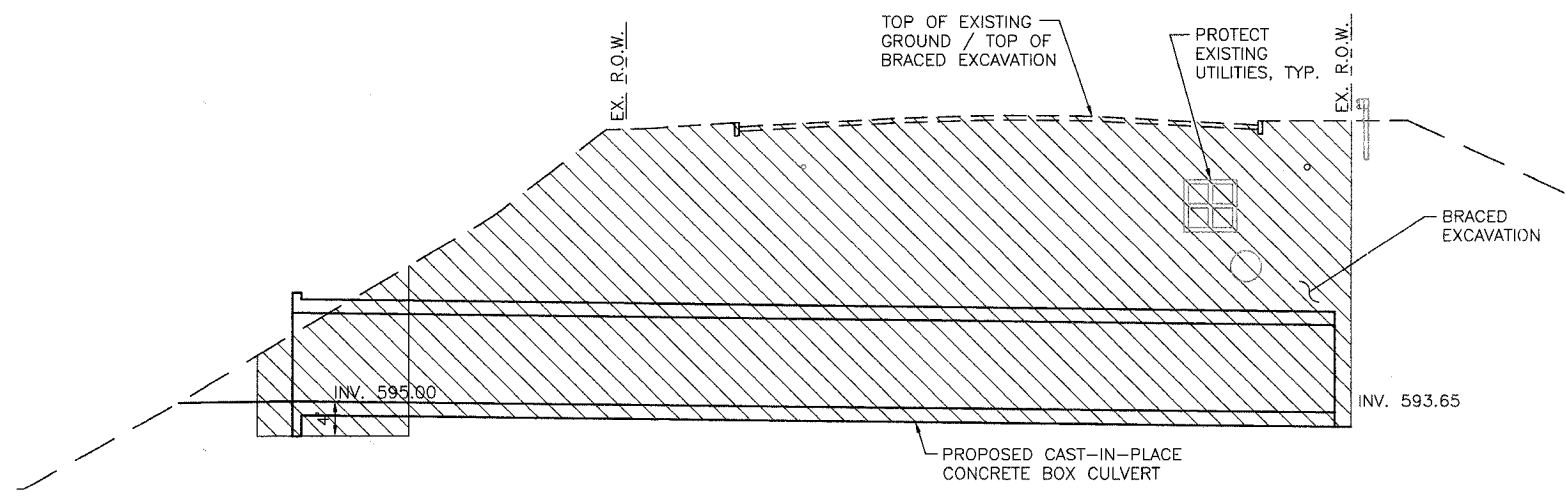
THE EAST END OF THE BRACED EXCAVATION SYSTEM SHALL REMAIN IN PLACE UP TO ONE FOOT BELOW GRADE UNTIL REMAINING PORTION OF CULVERT IS CONSTRUCTED. THE CONTRACTOR SHALL REMOVE REMAINING BRACED EXCAVATION SYSTEM OR CUT IT OFF A MINIMUM OF ONE FOOT BELOW GRADE AS SPECIFIED BY THE ENGINEER.

ALL BACKFILL IN BRACED EXCAVATION TRENCH SHALL BE POROUS GRANULAR MATERIAL.

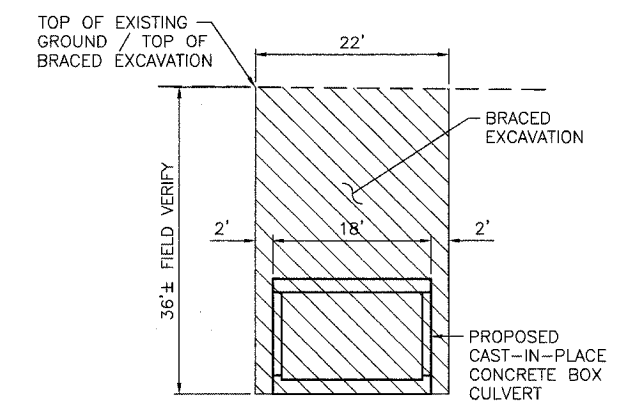
SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

**BILL OF MATERIAL**

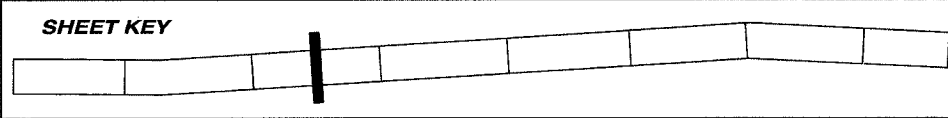
ITEM	UNIT	QUANTITY
BRACED EXCAVATION	CU. YD.	3247



**SIDE ELEVATION**



**END ELEVATION**



REVISIONS		
NO.	ITEM	DATE

SCALE: 1" = 10'  
 DRAWN BY: DAF  
 CHECKED BY: AAG  
 DATE: 1-16-06

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**BRACED EXCAVATION**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN  
 JOB NUMBER: 02-28-04-164  
 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Underpass\1-13-06\Braced Excavation.dwg 1/16/2006 9:34:53 AM CST

### UNDERPASS BORING LOG S-1 STA. 18+38.62, 25' LT

SOIL BORING LOG S-1		SOIL BORING LOG S-1	
SOIL AND MATERIAL CONSULTANTS, INC. Arlington Heights, Illinois (847) 870-0544 Client: McClure Engineering Associates, Inc. File No. 17364 Date Drilled: 12/22/05		SOIL AND MATERIAL CONSULTANTS, INC. Arlington Heights, Illinois (847) 870-0544 Client: McClure Engineering Associates, Inc. File No. 17364 Date Drilled: 12/22/05	
Reference: Sheridan Road Underpass Waukegan, IL			
Comments: Equipment: <input checked="" type="checkbox"/> CME 45B <input type="checkbox"/> CME 55 <input type="checkbox"/> Hand Auger <input type="checkbox"/> Other			
Classification: CLASSIFICATION			
Elevation 99.2' Existing Surface (a & b) see page 2 of 2			
13	14.2		
Brown fine-medium sand, trace silt, coarse sand & gravel, frozen-damp, medium dense - Fill			
5	14.9		
Brown fine-medium sand, trace silt, coarse sand & gravel, frozen-damp, very loose - Fill			
2	8.7		
Brown fine sand, damp, very loose - Fill			
4	6.2		
Brown fine sand, some silt, damp, very loose - Fill			
3	16.1		
Brown fine sand, damp, very loose - Fill			
2	6.9		
Brown-dark brown fine sand, trace medium-coarse sand, gravel & brick, damp, very loose - Fill			
3	11.0		
Brown sand & brick, some clay, silt & gravel, damp-very damp, loose - Fill			
5	16.6		
Brown clay, some silt, trace sand & gravel, damp, very loose			
5	18.4		
Gray clay, some silt, trace sand & gravel, damp, hard to very hard			
23	17.8	114.6	6.7
End of Boring			
25	12.4	124.4	8.4
(a) Bituminous concrete - 3.0"			
(b) Concrete - 7.5"			
25	12.8	124.8	6.9
Gray clay, some silt, trace sand & gravel, damp, hard			
Water encountered at 47.0 feet during drilling operations (W.D.) Water recorded at 53.0 feet on completion of drilling operations (A.D.) Water recorded at _____ feet _____ hours after completion of drilling operations (A.D.)			

SOIL BORING LOG S-1		SOIL BORING LOG S-1	
SOIL AND MATERIAL CONSULTANTS, INC. Arlington Heights, Illinois (847) 870-0544 Client: McClure Engineering Associates, Inc. File No. 17364 Date Drilled: 12/22/05		SOIL AND MATERIAL CONSULTANTS, INC. Arlington Heights, Illinois (847) 870-0544 Client: McClure Engineering Associates, Inc. File No. 17364 Date Drilled: 12/22/05	
Reference: Sheridan Road Underpass Waukegan, IL			
Comments: Equipment: <input checked="" type="checkbox"/> CME 45B <input type="checkbox"/> CME 55 <input type="checkbox"/> Hand Auger <input type="checkbox"/> Other			
Classification: CLASSIFICATION			
Elevation 99.2' Existing Surface (a & b) see page 2 of 2			
45		26	13.8
Gray clay, some silt, trace sand & gravel, damp, hard			
50		76	11.0
Gray fine-medium sand, some coarse sand & gravel, very damp-saturated, very dense			
55		30	14.4
Gray clay, some silt, trace sand & gravel, damp, hard			
55		30	14.4
Brown-gray silt, some clay, trace sand & gravel, damp, loose - Fill			
24	16.4	117.7	7.7
Brown clay, some silt, trace sand & gravel, damp, hard			
33	15.7	119.1	7.0
Brown silt, trace fine sand & clay, damp, dense (a) see page 2 of 2			
48	14.7		
Brown silt, some fine sand, damp, very dense			
67	13.9		
Gray silt, some clay, trace fine sand, damp, medium dense			
26	13.5		
Gray clay, some silt, trace sand & gravel, damp, very hard			
24	17.1	114.7	8.3
End of Boring			
15	13.8	122.2	3.1
Gray clay, some silt, trace sand & gravel, damp, very tough to hard			
21	13.0	123.9	6.0
Water encountered at 47.0 feet during drilling operations (W.D.) Water recorded at 53.0 feet on completion of drilling operations (A.D.) Water recorded at _____ feet _____ hours after completion of drilling operations (A.D.)			

### UNDERPASS BORING LOG S-2 STA. 18+38.62, 30' RT

SOIL BORING LOG S-2		SOIL BORING LOG S-2	
SOIL AND MATERIAL CONSULTANTS, INC. Arlington Heights, Illinois (847) 870-0544 Client: McClure Engineering Associates, Inc. File No. 17364 Date Drilled: 12/23/05		SOIL AND MATERIAL CONSULTANTS, INC. Arlington Heights, Illinois (847) 870-0544 Client: McClure Engineering Associates, Inc. File No. 17364 Date Drilled: 12/23/05	
Reference: Sheridan Road Underpass Waukegan, IL			
Comments: Equipment: <input checked="" type="checkbox"/> CME 45B <input type="checkbox"/> CME 55 <input type="checkbox"/> Hand Auger <input type="checkbox"/> Other			
Classification: CLASSIFICATION			
Elevation 99.2' Existing Surface (a & b) see page 2 of 2			
6	15.6		
Brown-dark brown silt, some sand, trace clay & gravel, damp, loose - Fill			
7	15.0		
Brown-dark brown silt, some sand, trace clay & gravel, damp, very loose - Fill			
4	20.3		
Brown-dark brown silt, some sand, trace clay & gravel, damp, very loose - Fill			
4	17.2		
Brown-gray silt, some clay, trace sand & gravel, damp, loose - Fill			
5	19.8		
Brown clay, some silt, trace sand & gravel, damp, hard			
24	16.4	117.7	7.7
Brown silt, trace fine sand & clay, damp, dense (b) see page 2 of 2			
48	14.7		
Brown silt, some fine sand, damp, very dense			
67	13.9		
Gray silt, some clay, trace fine sand, damp, medium dense			
26	13.5		
Gray clay, some silt, trace sand & gravel, damp, very hard			
24	17.1	114.7	8.3
End of Boring			
15	13.8	122.2	3.1
Gray clay, some silt, trace sand & gravel, damp, very tough to hard			
21	13.0	123.9	6.0
Water encountered at _____ feet during drilling operations (W.D.) Water recorded at _____ feet on completion of drilling operations (A.D.) Water recorded at _____ feet _____ hours after completion of drilling operations (A.D.)			

SOIL BORING LOG S-2		SOIL BORING LOG S-2	
SOIL AND MATERIAL CONSULTANTS, INC. Arlington Heights, Illinois (847) 870-0544 Client: McClure Engineering Associates, Inc. File No. 17364 Date Drilled: 12/23/05		SOIL AND MATERIAL CONSULTANTS, INC. Arlington Heights, Illinois (847) 870-0544 Client: McClure Engineering Associates, Inc. File No. 17364 Date Drilled: 12/23/05	
Reference: Sheridan Road Underpass Waukegan, IL			
Comments: Equipment: <input checked="" type="checkbox"/> CME 45B <input type="checkbox"/> CME 55 <input type="checkbox"/> Hand Auger <input type="checkbox"/> Other			
Classification: CLASSIFICATION			
Elevation 99.2' Existing Surface (a & b) see page 2 of 2			
22	12.9	125.8	6.8
Gray clay, some silt, trace sand & gravel, damp, hard			
45			
Gray silt, some fine sand, damp, very dense			
71	14.3		
Gray clay, some silt, trace sand & gravel, damp, very hard			
37	15.7	118.0	8.0
Brown clay, some silt, trace sand & gravel, damp, hard			
51	15.7	123.7	9.0
Gray silt, some clay, trace fine sand & gravel, damp, very dense			
70+	19.3		
Gray silt, some clay, trace fine sand & gravel, damp, dense			
34	10.1		
End of Boring			
(a) Dark brown silt, some clay, trace sand, gravel & roots, damp (topsoil) - Fill 10.0"			
(b) Brown clay, some silt, trace sand & gravel, damp, hard			
Water encountered at _____ feet during drilling operations (W.D.) Water recorded at _____ feet on completion of drilling operations (A.D.) Water recorded at _____ feet _____ hours after completion of drilling operations (A.D.)			

REVISIONS		
NO.	ITEM	DATE

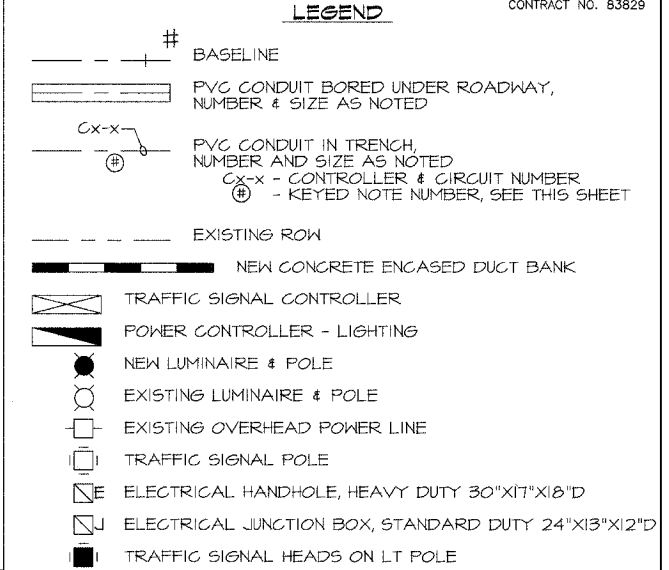
SCALE:	NTS
DRAWN BY:	MS
CHECKED BY:	DD
DATE:	7-16-06

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**UNDERPASS BORING LOGS**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-03-237 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sher-Boring.dwg 1/13/2006 3:03:20 PM CST

**KEYED NOTES @ REFER TO PLAN SHEETS E4 THROUGH E8**

1. NEW F3 POLE, LUMINAIRE WITH TRAFFIC SIGNAL HEAD - SEE TRAFFIC SIGNAL PLANS FOR ADDITIONAL INFORMATION.
2. 3 - 2" PVC (1 LIGHTS; 1 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GROUND (C1-2 or C1-1)  
RECEP - 2 #8THWN/1#12 GND (C1-7 or C1-5)  
SPARE - EMPTY
3. 4 - 2" PVC (1 LIGHTS; 2 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GROUND (C1-1 or C1-2)  
RECEP - 3 #8THWN/1#12 GND - EA OF 2 CIRCUITS (C1-7/8 or C1-5/6)  
SPARE - EMPTY
4. 4 WAY CONCRETE ENCASED DUCT WITH 4 - 4" PVC CONDUITS. EXTEND 12" MINIMUM BEYOND BACK OF CURB.
5. 3 - 2" PVC (1 LIGHTS; 1 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GROUND C2-1 or C2-2/C2-4  
RECEP - 2 #6THWN/1#8 GND (C2-9 or C2-12)/(C2-17)  
SPARE - EMPTY
6. 4 - 2" PVC (1 LIGHTS; 2 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GROUND (C2-1 or C2-2)  
RECEP - 2 #6THWN/1#8 GND - EA OF 2 CIRCUITS (C2-8/9 or C2-11/12)  
SPARE - EMPTY
7. 3 - 2" PVC (1 LIGHTS; 1 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GROUND (C1-1 or C1-2)  
RECEP - 3 #8THWN/1#12 GND (C1-6 or C1-8)  
SPARE - EMPTY
8. 5 - 2" PVC (1 LIGHTS; 3 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GROUND (C2-1 or C2-2)  
RECEP - 2 #8THWN/1#10 GND - EA OF 3 CIRCUITS (C2-7/8/9 or C2-10/11/12)  
SPARE - EMPTY
9. 5 - 2" PVC (1 LIGHTS; 3 RECP; 1 SPARE) - CONCRETE ENCASED  
LIGHTS - 2 #4THWN/1#8 GROUND  
RECEP - 2 #8THWN/1#10 GND - EACH OF 3 CIRCUITS  
SPARE - EMPTY
10. 8 - 2" PVC, CONCRETE ENCASED - TWO 4 WAY BANKS
11. 5 - 2" PVC (1 LIGHTS; 3 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GROUND (C2-3)  
RECEP - 2 #6THWN/1#10 GND (C2 - 13)  
RECEP - 2 #4THWN/1#8 GND (C2-14/C2-15)  
SPARE - EMPTY
12. 5 - 2" PVC (2 LIGHTS; 2 RECP; 1 SPARE)  
LIGHTS - 2 #4 THWN/1 #8 GROUND (C2-3/C2-4)  
RECEP - 2 #4THWN/1#8 GND (C2-14/C2-15)  
SPARE - EMPTY
13. 3 - 2" PVC (1 LIGHTS; 1 RECP; 1 SPARE)  
LIGHTS - 2 #4 THWN/1 #8 GND (C3-1 or C3-2)/(C4-1 or C4-2)  
RECEP - 2 #4THWN/1#8 GND (C3-7 or C3-10)/(C4-11 or C4-10 or C4-6)  
SPARE - EMPTY
14. 4 - 2" PVC (1 LIGHTS; 2 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C2-4)  
RECEP - 2 #8 THWN/1 #10 GND (C2-16)  
RECEP - 2 #6 THWN/1 #8 GND (C2-17)  
SPARE - EMPTY
15. 4 - 2" PVC (1 LIGHTS; 2 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND  
RECEP - 2 #4 THWN/1 #10 GND (C2-14/C2-15)  
SPARE - EMPTY
16. 10 - 2" PVC (2 LIGHTS; 6 RECP; 2 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C3-1/C3-2)  
RECEPS - 2 #6 THWN/1 #10 GND (C3-5/C3-8)  
RECEPS - 2 #4 THWN/1 #8 GND (C3-6,7,9,10)  
SPARE - 2 - EMPTY
17. 5 - 2" PVC (1 LIGHTS; 3 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C3-1)  
RECEPS - 2 #6 THWN/1#10 GND (C3-5)  
RECEPS - 2 #4 THWN/1#8 GND (C3-6/C3-7)  
SPARE - EMPTY
18. 5 - 2" PVC (1 LIGHTS; 3 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C3-2)  
RECEPS - 2 #6 THWN/1#10 GND (C3-8)  
RECEPS - 2 #4 THWN/1#8 GND (C3-9/C3-10)  
SPARE - EMPTY
19. 4 - 2" PVC (1 LIGHTS; 2 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C3-1)  
RECEPS - 2 #4 THWN/1 #8 GND (C3-6/C3-7)  
SPARE - EMPTY
20. 4 - 2" PVC (1 LIGHTS; 2 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C3-2)  
RECEPS - 2 #4 THWN/1 #8 GND (C3-9/C3-10)  
SPARE - EMPTY
21. 11 - 2" PVC (2 LIGHTS; 7 RECP; 2 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C4-1/C4-2)  
RECEPS - 2 #6 THWN/1#10 GND (C4-5/C4-8)  
RECEPS - 2 #4THWN/1#8 GND (C4-6,7,9,10,11)  
SPARE - EMPTY
22. 5 - 2" PVC (1 LIGHTS; 3 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C4-4)  
RECEPS - 2 #6 THWN/1#10 GND (C4-8)  
RECEPS - 2 #4 THWN/1#8 GND (C4-9/C4-10)  
SPARE - EMPTY
23. 6 - 2" PVC (2 LIGHTS; 4 RECP; 1 SPARE)  
LIGHTS - 2 #4 THWN/1 #8 GROUND (C4-1)  
RECEP - 2 #6THWN/1#10 GND (C4-5)  
RECEP - 2 #4THWN/1#8 GND (C4-6,7,11)  
SPARE - EMPTY
24. 4 - 2" PVC (1 LIGHTS; 2 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C4-2)  
RECEPS - 2 #4 THWN/1 #8 GND (C4-9/C4-10)  
SPARE - EMPTY
25. 5 - 2" PVC (2 LIGHTS; 2 RECP; 1 SPARE)  
LIGHTS - 2 #4 THWN/1 #8 GROUND (C4-1)  
RECEP - 2 #4THWN/1#8 GND (C4-6,7,11)  
SPARE - EMPTY
26. 4 - 2" PVC (1 LIGHTS; 2 RECP; 1 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C4-1)  
RECEPS - 2 #4 THWN/1 #8 GND (C4-7/11)  
SPARE - EMPTY
27. 6 - 2" PVC (2 LIGHTS; 2 RECP; 2 SPARE)  
LIGHTS - 2 #4THWN/1#8 GND (C1-1/C1-2)  
RECEPS - 3#8 THWN/1 #12 GND (C1-6/C1-8)  
SPARE - EMPTY



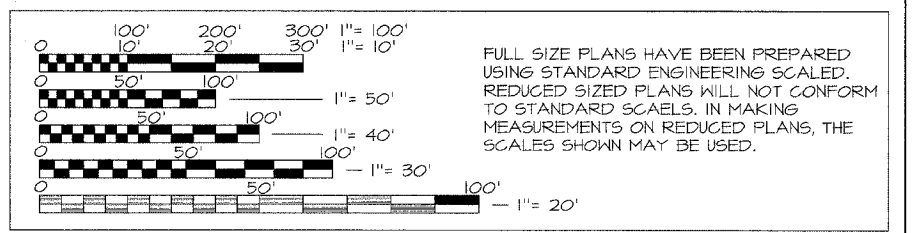
LIGHT FIXTURE SCHEDULE (LUMINAIRE DESCRIPTIONS)				
TYPE	MANUFACTURER	EQUIPMENT	ALTERNATE MANFR	ALTERNATE EQUIPMENT
F1	HOLOPHANE POLE - NORTH YORKSHIRE SERIES	CAST IRON BASE/ STEEL POST/ BLACK 30'-0" TALL/ 24" CLAMHELL BASE - WITH RECEPTACLE @ 8'-0" MTG, WEATHERPROOF CAT #FGIUS-SBKX-QTY 1 PER POLE - WITH BANNER ARMS-ONE SET AT 10'-0" AND ONE SET AT 13'-0" MTG. HT. CAT #4)BBA18A/1B0-CA/BK - WITH POST TOP FITTING - BOSTON HARBOUR STYLE CAT #BHLF/200/5CA/BK - WITH 15' ARMS @ 15'-0" MTG HT CAT #AMB-CA/BK-MOD, QTY 2 PER POLE - WITH 6'-0" ARM CAT #BHC2/1-CA/BK, QTY 1 PER POLE	HADCO POLE - APPROVED EQUAL	CAST IRON BASE/ STEEL POST/ BLACK 30'-0" TALL/ 24" CLAMHELL BASE - WITH RECEPTACLE @ 12'-0" MTG, WEATHERPROOF CAT #M0006A - WITH BANNER ARMS-ONE SET AT 10'-0" AND ONE SET AT 13'-0" MTG. HT. CAT #BA**2A18BA - WITH POST TOP FITTING CAT # APPROVED EQUAL - WITH CROSSARMS CAT # PTH2520**A, QTY 2 PER POLE - WITH 6'-0" ARM CAT # APPROVED EQUAL, QTY 1 PER POLE
	HOLOPHANE POLE TOP LUMINAIRE - MEMPHIS, TEARDROP	CAST ALUMINUM/ TEARDROP STYLE/ 250W MH CAT #MFU250MHMB4-IES TYPE IV QTY. 1 PER POLE	HADCO POLE TOP LUMINAIRE - TRADITIONAL TEARDROP	CAST ALUMINUM/ TEARDROP STYLE/ 250W MH CAT #TF41NAGL3NG250H*/TFHAM2A TYPE III QTY. 1 PER POLE
	HOLOPHANE POLE TOP LUMINAIRE - WASHINGTON POST LITE W/ ACRYLIC LENS	CAST ALUMINUM/ ACORN STYLE WITH FINIAL, BAND AND MEDALLIONS/100W MH CAT #AEIODMHMB3MSB - IES TYPE III QTY. 2 PER POLE	HADCO POLE TOP LUMINAIRE - REFRACTIVE GLOBE W/ ACRYLIC LENS	CAST ALUMINUM/ ACORN STYLE WITH FINIAL, BAND AND MEDALLIONS/100W MH CAT #R34BABA1ANNIDIOOH* - IES TYPE III QTY. 2 PER POLE
F2	HOLOPHANE POLE - NORTH YORKSHIRE SERIES	CAST ALUMINUM/BLACK/14'-5" TALL/20" BASE CAT #NY14C/20-CA/BK - WITH RECEPTACLE @ 8'-0" MTG HT, WEATHERPROOF CAT #FGIUS-SBKX-QTY 1 PER POLE - WITH BANNER ARMS-ONE SET AT 10'-0" AND ONE SET AT 13'-0" MTG. HT. CAT #4)BBA18A/1B0-CA/BK	HADCO POLE - APPROVED EQUAL	CAST ALUMINUM/BLACK/14'-5" TALL/20" BASE CAT # APPROVED EQUAL - WITH RECEPTACLE @ 12'-0" MTG HT, WEATHERPROOF CAT #M0006A, 1 PER POLE - WITH BANNER ARMS-ONE SET AT 10'-0" AND ONE SET AT 13'-0" MTG. HT. CAT #BA**2A18BA
	HOLOPHANE POLE TOP LUMINAIRE - WASHINGTON POST LITE W/ ACRYLIC LENS	CAST ALUMINUM/ ACORN STYLE WITH FINIAL, BAND AND MEDALLIONS/100W MH CAT #AEIODMHMB3MSB - IES TYPE III QTY. 1 PER POLE	HADCO POLE TOP LUMINAIRE - REFRACTIVE GLOBE W/ ACRYLIC LENS	CAST ALUMINUM/ ACORN STYLE WITH FINIAL, BAND AND MEDALLIONS/100W MH CAT #R34BABA1ANNIDIOOH* - IES TYPE III QTY. 1 PER POLE
F3	HOLOPHANE POLE - NORTH YORKSHIRE SERIES	CAST IRON BASE/ STEEL POST/ BLACK 30'-0" TALL/ 24" CLAMHELL BASE - WITH RECEPTACLE @ 8'-0" MTG, WEATHERPROOF CAT #FGIUS-SBKX-QTY 1 PER POLE - WITH BANNER ARMS-ONE SET AT 10'-0" AND ONE SET AT 13'-0" MTG. HT. CAT #4)BBA18A/1B0-CA/BK - WITH POST TOP FITTING - BOSTON HARBOUR STYLE CAT #BHLF/200/5CA/BK - WITH 6'-0" ARM CAT #BHC2/1-CA/BK, QTY 1 PER POLE	HADCO POLE - APPROVED EQUAL	CAST IRON BASE/ STEEL POST/ BLACK 30'-0" TALL/ 24" CLAMHELL BASE - WITH RECEPTACLE @ 12'-0" MTG, WEATHERPROOF CAT #M0006A - WITH BANNER ARMS-ONE SET AT 10'-0" AND ONE SET AT 13'-0" MTG. HT. CAT #BA**2A18BA - WITH POST TOP FITTING CAT # APPROVED EQUAL - WITH 6'-0" ARM CAT # APPROVED EQUAL, QTY 1 PER POLE
	HOLOPHANE POLE TOP LUMINAIRE - MEMPHIS, TEARDROP	CAST ALUMINUM/ TEARDROP STYLE/ 250W MH CAT #MFU250MHMB4-IES TYPE IV QTY. 1 PER POLE	HADCO POLE TOP LUMINAIRE - TRADITIONAL TEARDROP	CAST ALUMINUM/ TEARDROP STYLE/ 250W MH CAT #TF41NAGL3NG250H*/TFHAM2A TYPE III QTY. 1 PER POLE
F4	LITHONIA LIGHTING - COBRA HEAD	400W MH/FLAT GLASS LENS/IES TYPE III CAT #HMLRFL3400MT	COOPER LIGHTING - LUMARK COBRA HEAD	400W MH/FLAT GLASS LENS/IES TYPE III CAT #HMLRFL3400MT

\* - ALL HADCO BALLASTS TO BE MULTI-TAP, OR CONTROLLERS C1, C2, C4 - 240V AND C3 - 208V.  
\*\* - SIZE TO MATCH TAPER OF POLE.

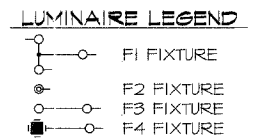
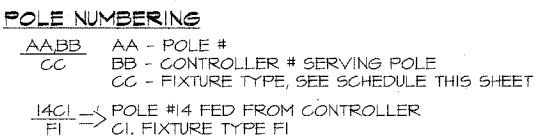
SUMMARY OF QUANTITIES			
CODED PAY ITEM	ITEM	UNIT	QUANTITY
	BASE BID		
	STREET LIGHTING ASSEMBLY COMPLETE, TYPE F1	ea	47
	STREET LIGHTING ASSEMBLY COMPLETE, TYPE F2	ea	46
	STREET LIGHTING ASSEMBLY COMPLETE, TYPE F3	ea	10
	STREET LIGHTS, TYPE F4, 400W MH	ea	8
	ELEC. UTILITY SERVICE CONNECT (COMED)	sum	1
82500505	LIGHT CONTROLLER SPL (LIGHTING CONTROLLERS C1&C2)	ea	2
81012600	CONDUIT, IN TRENCH, 2" DIA., PVC	lf	41373
81023500	CON ENC C 2 PVC 2X2	lf	350
81023300	CON ENC C 2 PVC 2X1	lf	50
81024300	CON ENC C 4 PVC 2X2	lf	865
81100125	EC C EPR RHW IC 4	lf	40512
81100120	EC C EPR RHW IC 6	lf	4554
81100115	EC C EPR RHW IC 8	lf	38274
81100110	EC C EPR RHW IC 10	lf	7152
81100105	EC C EPR RHW IC 12	lf	2345
81500200	TR & BKFIL F ELEC WK	lf	11000
81301370	JUNCTION BOX, STAINLESS STEEL, EMBEDDED IN STRUCTURE, 18"x12"x8"	ea	103
81400200	HD HANDHOLE	ea	34
80400100	ELECT SERV INSTALL	ea	2
84502200	MOD EX CONTR (CONTROLLER-C3&C4)	ea	2
83600200	LIGHT POLE FDN, 24D	lf	230
83600300	LIGHT POLE FDN 30D	lf	510
84200500	REM EX LT UNIT SALV	ea	43
84200700	LIGHTING FDN REM	ea	23
84500110	REMOVE LIGHTING CONTR	ea	2
84500130	REMOVE LTS CONTR FDN (CONTROLLER C1)	ea	2

- DEMOLITION KEYED NOTES @ SEE SHEETS E2 AND E3**
1. CONCRETE POLE, BASE MOUNTED
  2. CONCRETE POLE, BUTT MOUNTED
  3. WOOD POLE
  4. POLE & LUMINAIRE TO REMAIN
  5. REMOVE CONCRETE BASE TO 12" BELOW FINISHED GRADE.
  6. REMOVE OVERHEAD CONDUCTOR.
  7. REMOVE SIGNAGE AND TURN OVER TO CITY WORKS DEPARTMENT.
  8. METAL BASE MOUNTED POLE
  9. METAL BUTT MOUNTED POLE
  10. REMOVE LUMINAIRE, MAST ARM AND LIGHTING WIRING. LEAVE ELECTRIC POLE.
  11. REMOVE MAST ARM AND COBRA HEAD.

- ELECTRICAL NOTES**
1. IT SHALL BE NECESSARY TO UPGRADE OR REPLACE FOUR EXISTING LIGHTING CONTROLLERS. CONTRACTOR TO COORDINATE WORK WITH CECCO.
  2. CONNECT NEW LIGHTS TO NEW POLE LIGHTING CIRCUIT. FUSE LIGHTS SEPARATE FROM RECEPS. SEE POLE WIRING DETAIL. USE IN-LINE WEATHERPROOF FUSE HOLDERS WITH FUSES SIZED AS NOTED. ALL CONNECTIONS AND SPLICES SHALL BE MADE IN POLES, NOT IN PULL BOXES.
  3. CONNECT RECEPTACLES TO NEW RECEPTACLE CIRCUIT. ALL RECEPTACLES TO BE GFCI-TYPE (POLES AND CONTROLLERS). OUTDOOR AND POLE MOUNTED RECEPTACLES TO COMPLY WITH NEC PARAGRAPHS 406.8(B)(1) AND 406.8(B)(2)(a) AND BE UL LISTED.
  4. RECEPTACLE AND LIGHTING CIRCUITS TO BE IN SEPARATE 2" SCH 80 PVC CONDUITS.
  5. LIGHT POLE FOUNDATIONS TO BE REINFORCED. REINFORCING TO COMPLY WITH IDOT STANDARDS.
  6. ALL JUNCTION BOXES USED ON THIS PROJECT SHALL BE STAINLESS STEEL, SIZE 18"x12"x8"D. OPEN BOTTOM, WITH LID LABELED "STREET LIGHTING". THEY SHALL COMPLY WITH IDOT STANDARDS FOR STAINLESS STEEL JUNCTION BOXES EMBEDDED IN STRUCTURE. HEAVY-DUTY JUNCTION BOXES SHALL BE SIZE 30"x17"x18"D. SEE CODED PAY ITEMS 81400100 AND 81400200.



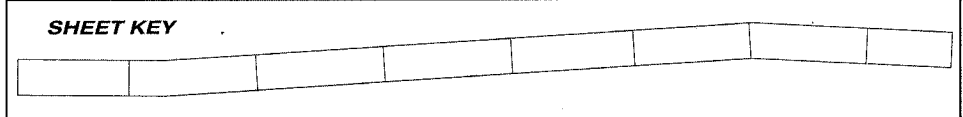
- GENERAL NOTES**
1. ELECTRICAL WORK SHALL COMPLY WITH THE NEC, 2005
  2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST IDOT STANDARDS.
  3. SEE "SUMMARY OF QUANTITIES" THIS SHEET.



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EXPIRATION DATE: 11/30/07



REVISIONS		
NO.	ITEM	DATE

SCALE:	NTS
DRAWN BY:	KEH
CHECKED BY:	AMH
DATE:	3-3-06

**McCLURE ENGINEERING ASSOCIATES, INC.**

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TEL 847-336-7100 FAX 847-336-7155  
EMAIL: wk@mcclureengineering.com

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**NOTES & LEGENDS**

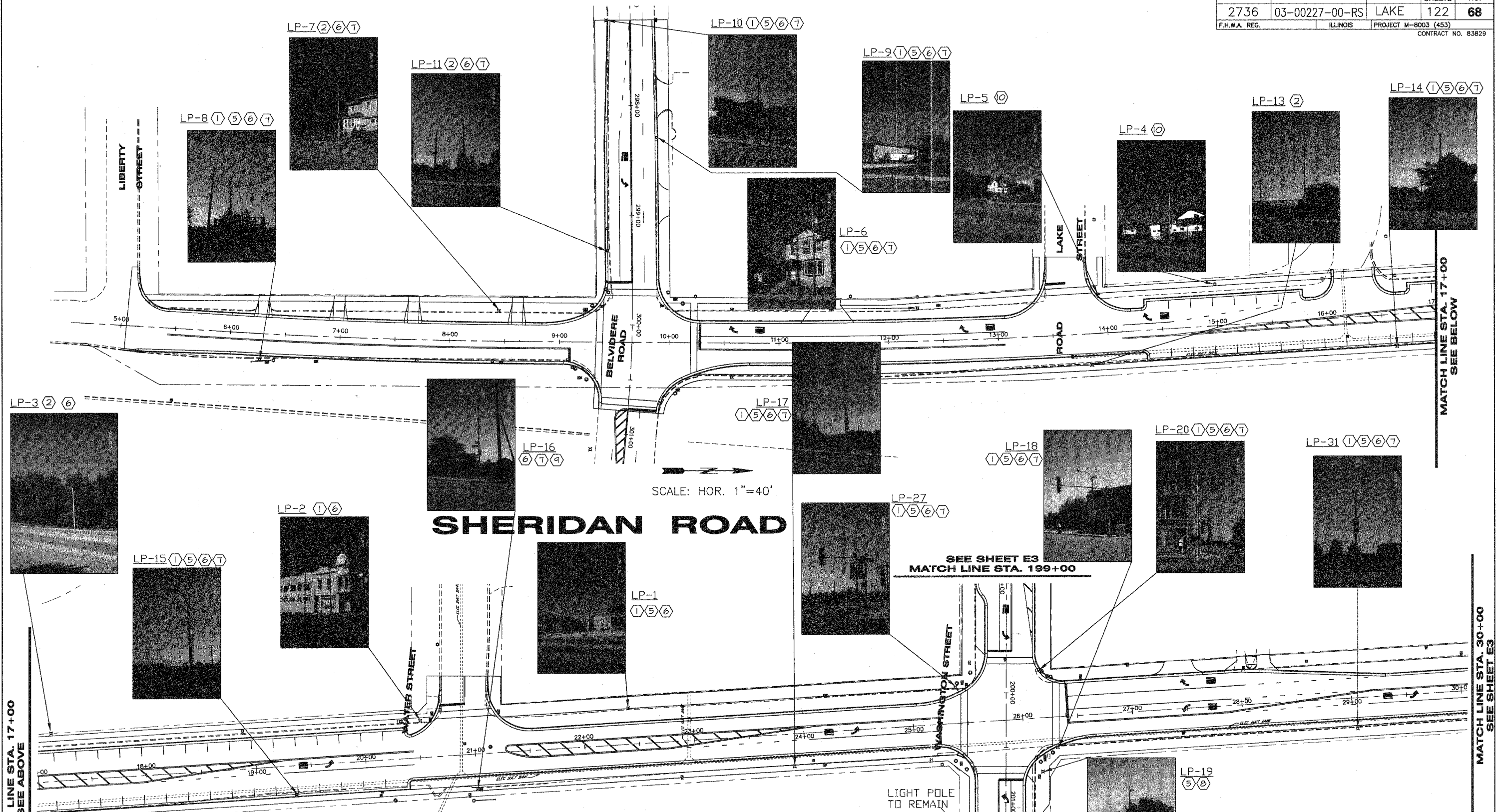
**SHERIDAN ROAD IMPROVEMENTS**

CITY OF WAUKEGAN JOB NUMBER: 02-28-03-251 LAKE COUNTY, ILLINOIS

W:\dwg\WK\SHERIDAN-RD\Lighting\LightingFinal\LegendNotes.dwg 3/9/2006 8:04:14 PM CST

SHEET NO. **67** of **122**





MATCH LINE STA. 17+00  
SEE ABOVE

MATCH LINE STA. 17+00  
SEE BELOW

MATCH LINE STA. 30+00  
SEE SHEET E3

# SHERIDAN ROAD

SCALE: HOR. 1"=40'

SEE SHEET E3  
MATCH LINE STA. 199+00

- NOTES**
- LP-# REFERS TO EXISTING POLES WITH EXISTING LIGHTS. TRAFFIC SIGNAL POLES AND ELECTRIC/TELEPHONE POLES ARE NOT PART OF THE LIGHT POLE DEMOLITION WORK. SEE TRAFFIC SIGNAL PLANS FOR DEMOLITION WORK RELATED TO THAT ELEMENT OF THE PROJECT.
  - ALL POLES, LUMINAIRES, MAST ARMS, AND HARDWARE ARE TO REMAIN THE PROPERTY OF THE CITY. THESE ITEMS ARE TO BE LOADED, AND TRANSPORTED BY THE CONTRACTOR TO A STORAGE SITE DESIGNATED BY THE CITY. THE CONTRACTOR SHALL ALSO UNLOAD AND STACK THE MATERIALS AS DIRECTED BY THE CITY, AT THE DESIGNATED STORAGE SITE.
  - SEE SHEET E1 FOR DEMOLITION KEYED NOTES.



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 Design Firm License No.: 164-001225

**SHEET KEY**

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REVISIONS		
NO.	ITEM	DATE

SCALE: 1" = 40'  
 DRAWN BY: AH  
 CHECKED BY: DBD  
 DATE: 3-3-06

**McCLURE ENGINEERING ASSOCIATES, INC.**  
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 Design Firm License: Illinois #184-000816  
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**LIGHTING DEMOLITION - I**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN  
 JOB NUMBER: 02-28-03-231  
 LAKE COUNTY, ILLINOIS

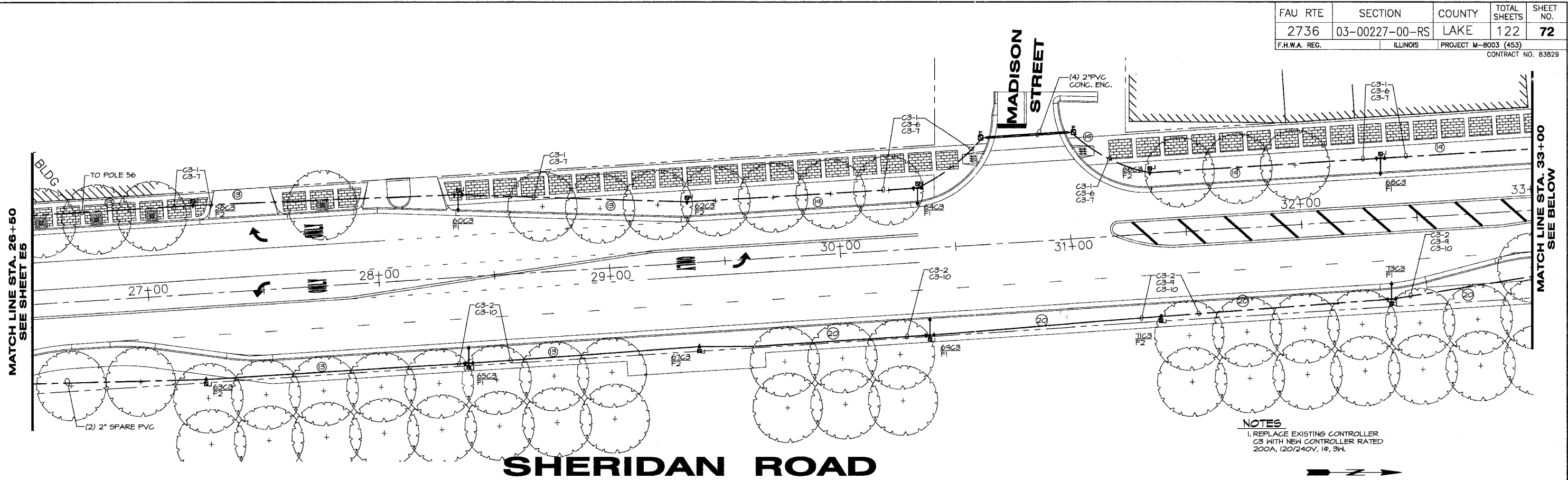
SHEET NO.  
**68**  
 of  
**122**





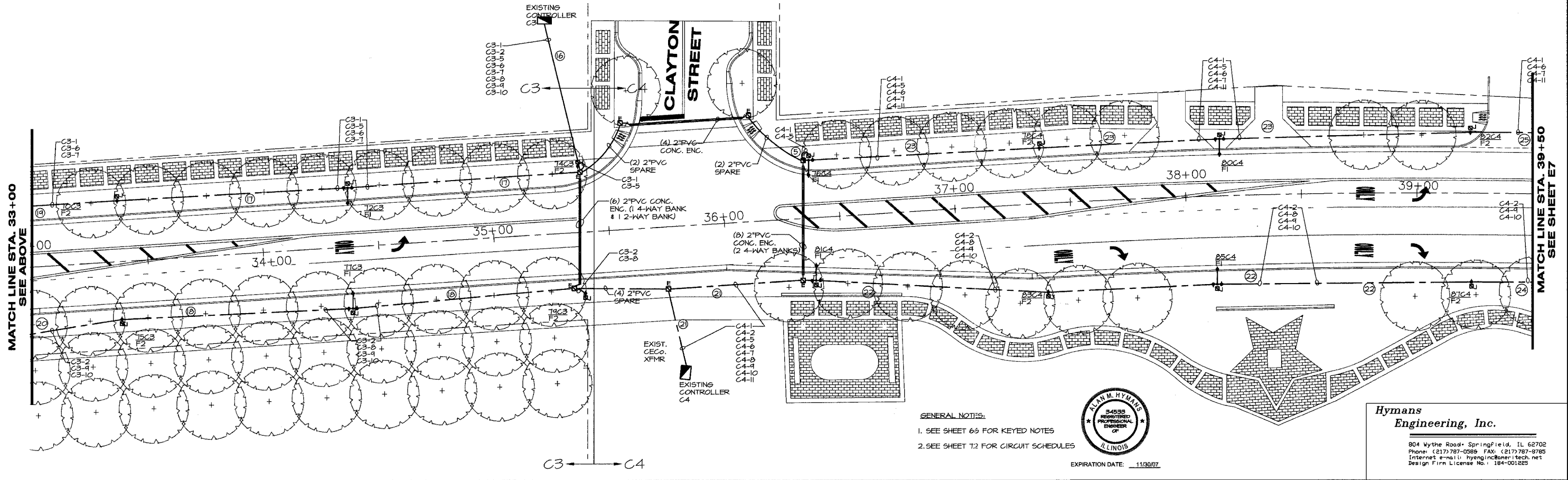






**NOTES**  
 1. REPLACE EXISTING CONTROLLER C3 WITH NEW CONTROLLER RATED 200A, 120/240V, 1Ø, 3W.

SCALE: HOR. 1"=20'



**GENERAL NOTES:**  
 1. SEE SHEET 65 FOR KEYED NOTES  
 2. SEE SHEET 72 FOR CIRCUIT SCHEDULES



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 Design Firm License No.: 184-001225

**SHEET KEY**

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**REVISIONS**

NO.	ITEM	DATE

SCALE: 1" = 20'  
 DRAWN BY: KEH/DEH  
 CHECKED BY: AMH  
 DATE: 3-3-06

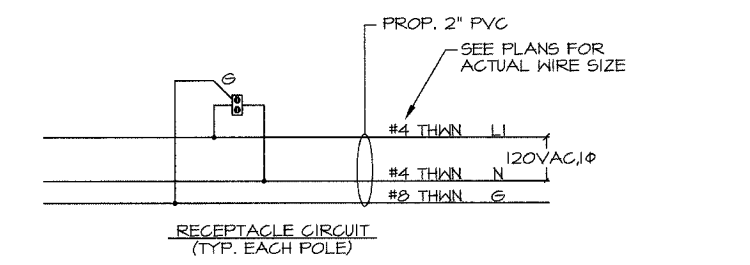
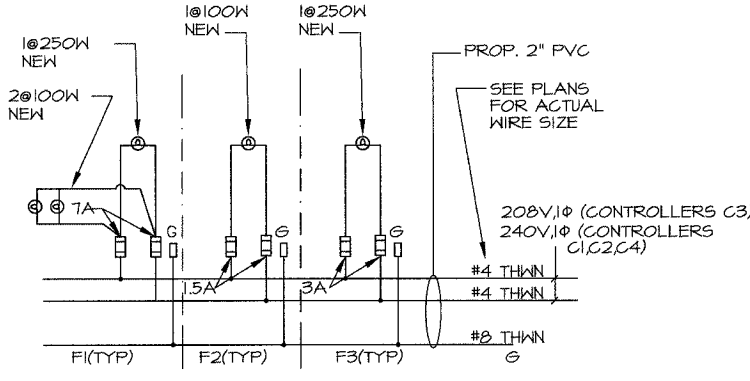
**McCLURE ENGINEERING ASSOCIATES, INC.**  
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 EMAIL wk@mcclureengineering.com McClure Engineering Associates, Inc.

**LIGHTING PLAN-STA 26+50 TO 39+50**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-03-237 LAKE COUNTY, ILLINOIS  
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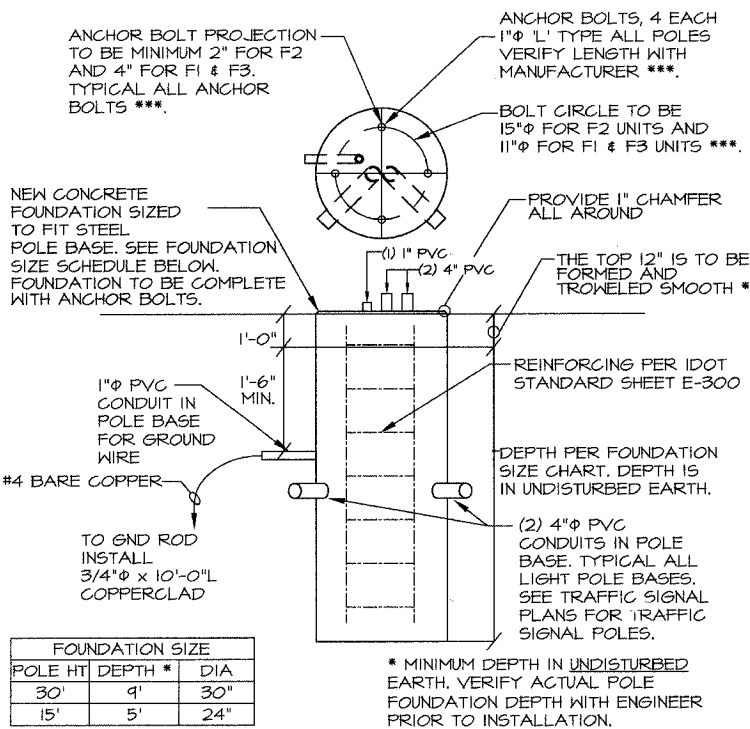
SHEET NO. **72** of **122**







**WIRING DIAGRAM**  
NO SCALE

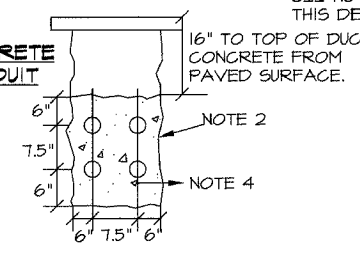


**POLE FOUNDATION DETAIL**  
NO SCALE

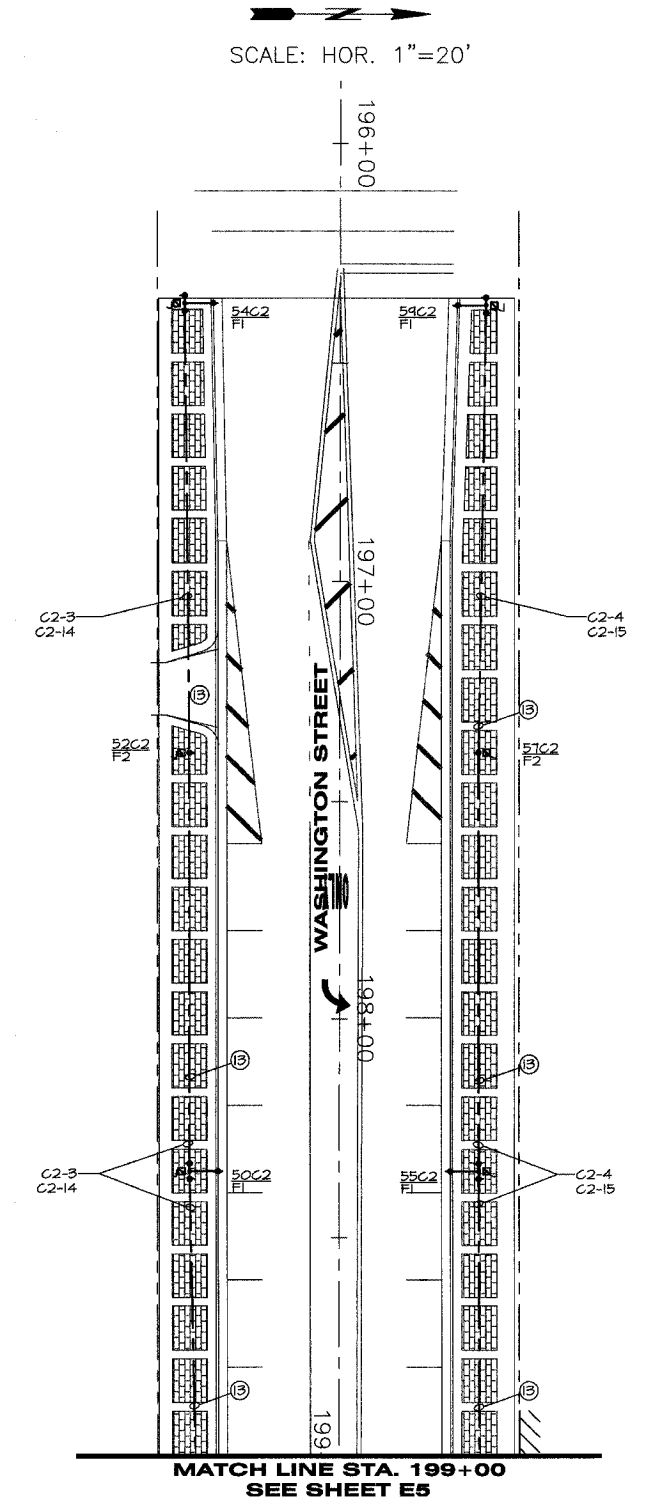
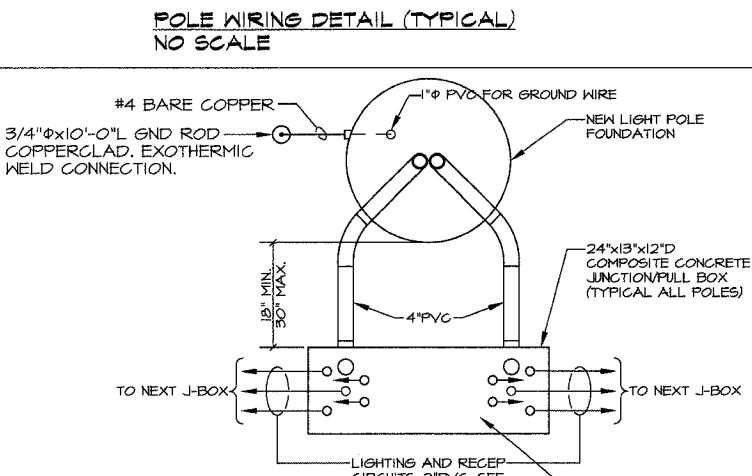
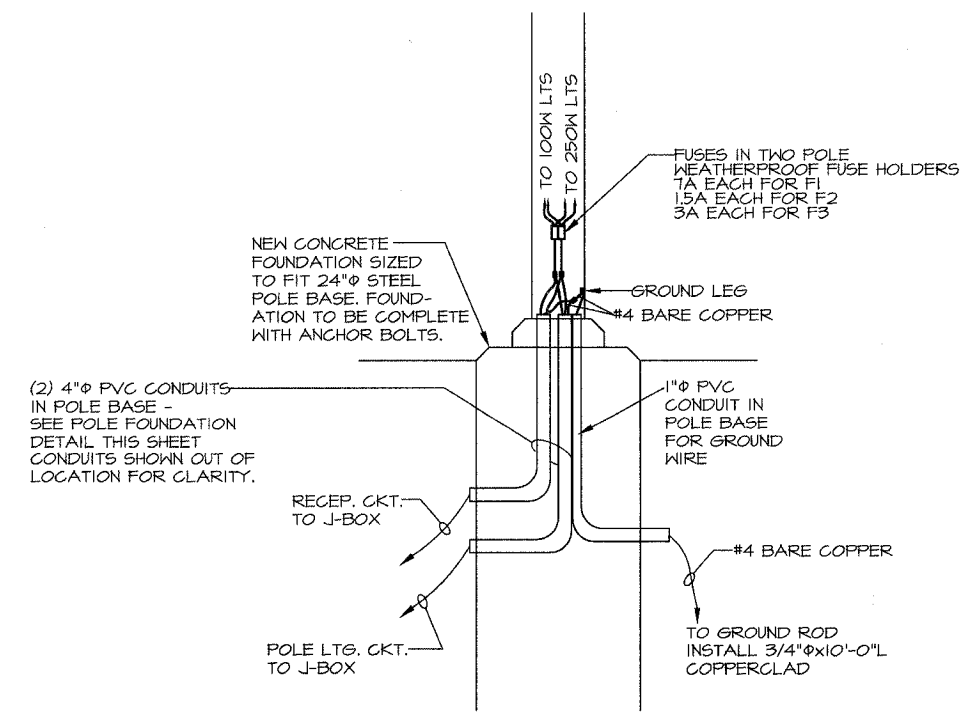
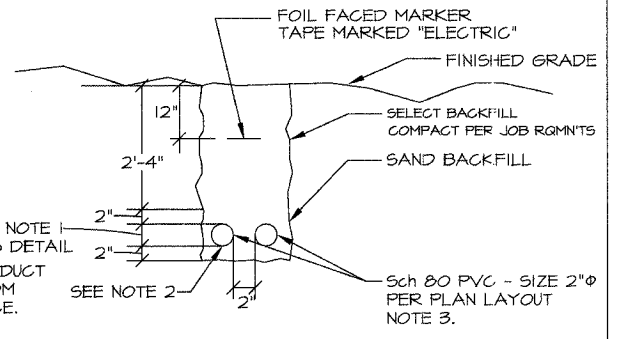
**NOTES**

1. OUTSIDE DIAMETER, CONDUIT.
2. NUMBER OF CONDUITS IN TRENCH MAY VARY FROM THAT SHOWN. CONTRACTOR SHALL ARRANGE CONDUITS AS DETAILED IN NEC SECTION 310 and ANNEX B-310
3. MINIMUM BURIAL DEPTH TO TOP OF TOP CONDUIT TO BE 30", AS DETAILED.
4. PROVIDE A MINIMUM OF 18" BETWEEN ADJACENT DUCT BANKS

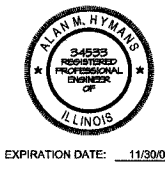
**TYPICAL CONCRETE ENCASED CONDUIT INSTALLATION**  
NO SCALE



**TYPICAL CONDUIT INSTALLATION IN TRENCH**  
NO SCALE



- GENERAL NOTES:**
1. SEE SHEET 66 FOR KEYED NOTES
  2. SEE SHEET 72 FOR CIRCUIT SCHEDULES



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EXPIRATION DATE: 11/30/07

**SHEET KEY**

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**REVISIONS**

NO.	ITEM	DATE

SCALE: AS NOTED

DRAWN BY: KEH/DEH

CHECKED BY: AMH

DATE: 3-3-06

**McCLURE ENGINEERING ASSOCIATES, INC.**

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EMAIL: wk@mcclureengineering.com McClure Engineering Associates, Inc.

**LIGHTING PLAN-STA 199+00 - 196+00 & DETAILS**

**SHERIDAN ROAD IMPROVEMENTS**

CITY OF WAUKEGAN JOB NUMBER: 02-28-03-237 LAKE COUNTY, ILLINOIS

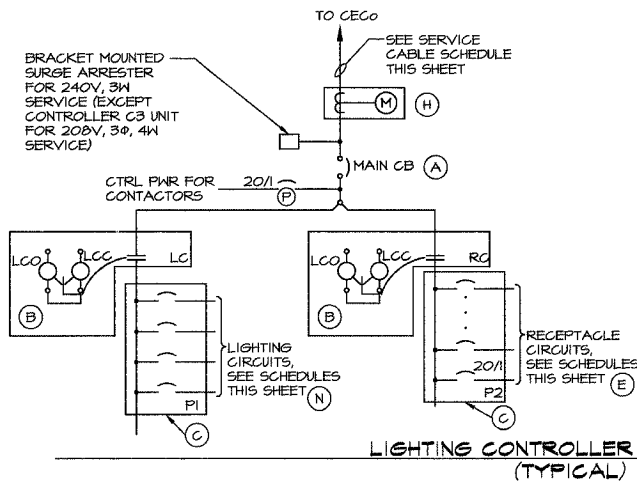
W:\dug\WK\SHERIDAN-RED\Lighting\LightingFinalE4-E5\_SheridanRD-Light-010706.dwg 3/5/2006 11:28:48 AM CST

CONTROLLER - C1 - 120/240V, 1Ø, 3W - 150A/2P MAIN CB				
CIRCUIT #	POLE #	USAGE	CKT.BKR	LOAD, W
C1-1	1,3,5,7,9 11,13,15,17 19,21	LIGHTS	70A-2	5500
C1-2	2,4,6,8,10,12 14,16,18	LIGHTS	70A-2	3560
C1-5	1,3,5,7,9,11,13	RECEP	20A-1	1920
C1-6	15,17,19,21	RECEP	20A-1	1920
C1-7	2,4,6,8,10	RECEP	20A-1	1920
C1-8	14,16,18,12	RECEP	20A-1	1920
C1-9		CONTROL	20A-1	---

CONTROLLER - C2 - 12/240V, 1Ø, 3W - 200A/2P MAIN CB				
CIRCUIT #	POLE #	USAGE	CKT.BKR	LOAD, W
C2-1	22,24,26 28,30,32 34,36,38 40	LIGHTS	70A-2	4760
C2-2	23,25,27,29,31 33,35,37,39 41,43	LIGHTS	70A-2	4760
C2-3	42,44,46 48,50,52,54	LIGHTS	70A-2	3400
C2-4	45,47,49,51 53,55,57,59	LIGHTS	70A-2	3640
C2-7	34,36,38,40	RECEP'S	20A-1	1920
C2-8	28,30,32	RECEP'S	20A-1	1920
C2-9	22,24,26	RECEP'S	20A-1	1920
C2-10	37,39,41,43	RECEP'S	20A-1	1920
C2-11	29,31,33,35	RECEP'S	20A-1	1920
C2-12	23,25,27	RECEP'S	20A-1	1920
C2-13	42,44,46	RECEP'S	20A-1	1920
C2-14	48,50,52,54	RECEP'S	20A-1	1920
C2-15	51,53,55,57	RECEP'S	20A-1	1920
C2-16	48,47	RECEP'S	20A-1	1920
C2-17	49,59	RECEP'S	20A-1	1920
C2-18		CONTROL	20A-1	---

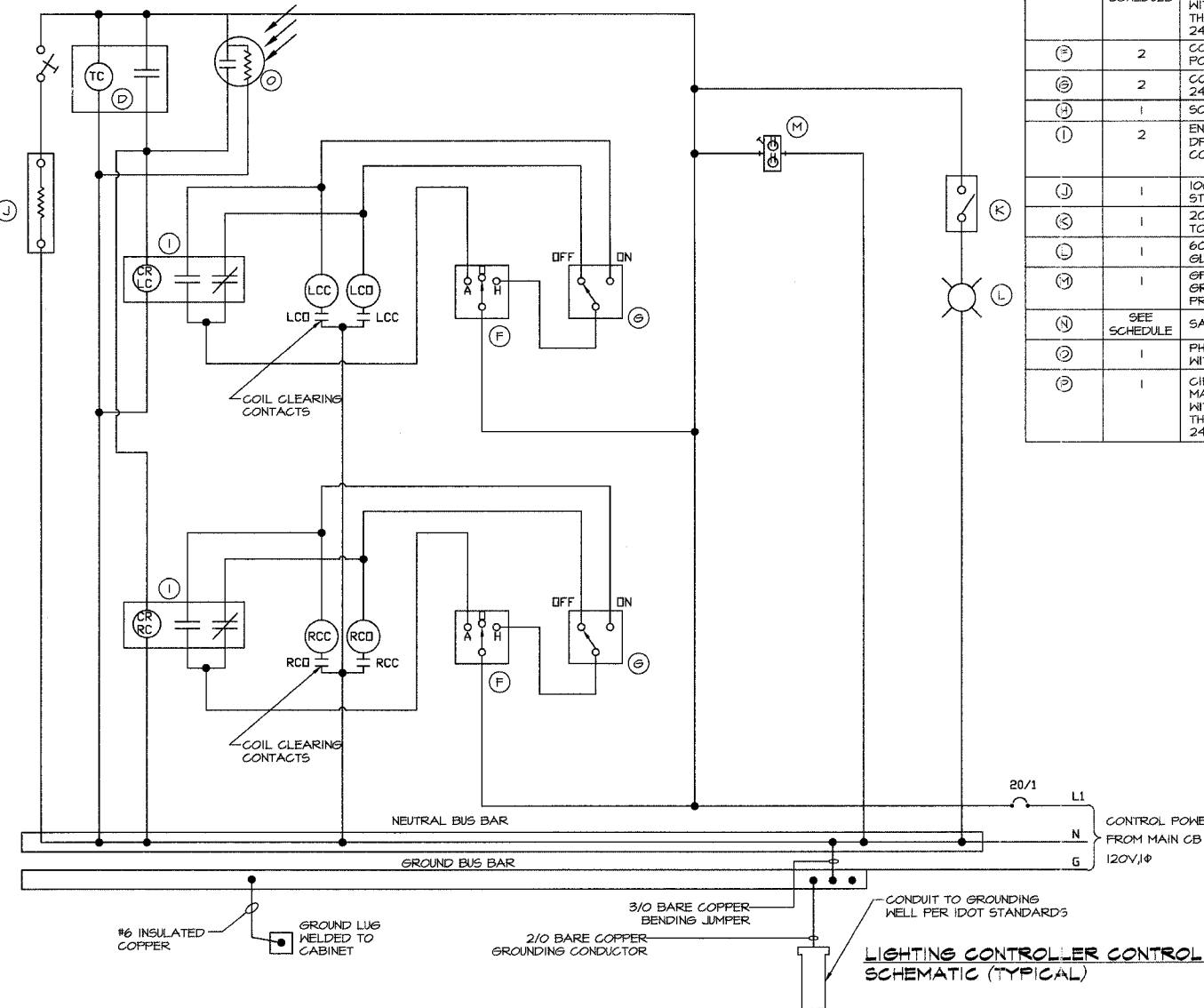
CONTROLLER - C3 - 120/208V, 3Ø, 4W - 200A/3P MAIN CB				
CIRCUIT #	POLE #	USAGE	CKT.BKR	LOAD, W
C3-1	56,58,60,62 64,66,68,70 72,74	LIGHTS	70A-2	3820
C3-2	61,63,65 67,69,71 73,75,77	LIGHTS	70A-2	3660
C3-5	70,72,74	RECEP	20A-1	1920
C3-6	62,64,66,68	RECEP	20A-1	1920
C3-7	56,58,60	RECEP	15A-1	1440
C3-8	73,75,77	RECEP	20A-1	1920
C3-9	67,69,71	RECEP	20A-1	1920
C3-10	61,63,65	RECEP	15A-1	1440
C3-11		CONTROL	20A-1	---

CONTROLLER - C4 - 120/240V, 1Ø, 3W - 200A/2P MAIN CB				
CIRCUIT #	POLE #	USAGE	CKT.BKR	LOAD, W
C4-1	76,78,80,82 84,86,88,90 92,94,96,98 100,102	LIGHTS	70A-2	6120
C4-2	79,81,83 85,87,89,91,93 95,97,99,101	LIGHTS	70A-2	4500
C4-5	78,80,82	RECEP	20A-1	1920
C4-6	84,86,88	RECEP	20A-1	1920
C4-7	88,92,94,96	RECEP	15A-1	1440
C4-8	79,81,83,85	RECEP	20A-1	1920
C4-9	89,90,91,93	RECEP	20A-1	1920
C4-10	95,97,99,101	RECEP	15A-1	1440
C4-11	98,100,102	RECEP	15A-1	1440
C4-12		CONTROL	20A-1	---



EQUIPMENT		
(A)	MAIN CB	SEE SCHEDULE
(C)	P1	LIGHTING PANELBOARD, INTERIOR ONLY, 20 CKT, 200A BUS, 240V, 1Ø. EXCEPT C3 IS TO USE 3Ø PANEL.
(C)	P2	PANELBOARD, INTERIOR ONLY, 20 CKT, 200A BUS, 240V, 1Ø. EXCEPT C3 IS TO USE 3Ø PANEL.
(B)	LC/RC	200A, 2P ELECTRICALLY OPERATED, MECHANICALLY HELD CONTACTOR - 1 LG AND 1 RECEPT'S EXCEPT C3 IS TO USE 3Ø CONTACTOR.

DEVICE SCHEDULE		
(A)	1	CIRCUIT BREAKER, MOLDED CASE, THERMAL, 2-POLE, 600 VOLT, A.C. 225A, FRAME 175A, NON INTERCHANGEABLE TRIP, BOLT-ON TYPE, INTERRUPTING CAPACITY OF NOT LESS THAN 22,000 RMS SYMMETRICAL AMPERES AT 480V. SEE SCHEDULES THIS SHEET FOR BREAKER RATING.
(B)	2	LIGHTING CONTACTOR (REMOTE CONTROL SWITCH) MECHANICALLY HELD, ASCO 920, MOUNTED ON SUB PANEL 200A, 2P, 600V, WITH 120V COIL.
(C)	2	PANEL BOARD (INTERIOR ONLY) 480/240V SINGLE PHASE WITH 200A, COPPER MAINS AND EIGHT 1P-10A BOLT-ON BRANCH BREAKERS EACH RATED 2TTV, WITH INTERRUPTING CAPACITY OF NOT LESS THAN 14,000 RMS SYMMETRICAL AMPERES AT 2TTV.
(D)	1	TIME CLOCK, 120V, 60HZ, MICROPROCESSOR BASED 2-CHANNEL CONTROLLER WITH ASTRONOMIC FUNCTIONS. RATED FOR -30°C TO +70°C
(E)	SEE SCHEDULE	CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 1-POLE, 240V, BOLT-ON TYPE, 15/20A WITH AN INTERRUPTING RATING OF NOT LESS THAN 10,000 RMS SYMMETRICAL AMPERES AT 240V.
(F)	2	CONTROL SWITCH, MAINTAINED CONTACT, THREE POSITION, H-O-A, 20A, 240V.
(G)	2	CONTROL SWITCH, TOGGLE TYPE, SPDT, 20A 240V, PREMIUM SPEC. GRADE.
(H)	1	SOCKET FOR ELECTRICAL COMPANY UTILITY METER
(I)	2	ENCLOSED ICE CUBE STYLE CONTROL RELAY, DPDT, PLUG-IN, OCTAL SOCKET, 120VAC, 10A CONTACTS, LED "ON" LIGHT
(J)	1	100W, 120V, CABINET STRIP HEATER STANDOFF MOUNT
(K)	1	20A, SPST, MICRO SWITCH (MOUNT WITH ACTUATOR TO SWITCH WHEN DOOR OPENED)
(L)	1	60 WATT LIGHT FIXTURE, VAPOR TIGHT, WITH GLOBE AND GUARD AND MOUNTING BOX
(M)	1	6PI RECEPTACLE, 120V, PREMIUM SPEC. GRADE, NEMA REFERENCE 5-15R IN WEATHER-PROOF BOX WITH FLAP-TYPE COVER.
(N)	SEE SCHEDULE	SAME AS (E) EXCEPT 2 POLE
(O)	1	PHOTOCELL CONTROL, THISTLOCK STYLE, COMPLETE WITH RECEPTACLE, SPST, 120VAC, FACE TO SOUTH
(P)	1	CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 1-POLE, 240V, FNL HTD TYPE, 20A WITH AN INTERRUPTING RATING OF NOT LESS THAN 10,000 RMS SYMMETRICAL AMPERES AT 240V.



FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	75
F.H.W.A. REG.		ILLINOIS	PROJECT M-8003 (453)	
CONTRACT NO. 83829				

- CONTROLLER NOTES**
- ALL CONTROL CABINET ITEMS SHALL HAVE SUITABLE IDENTIFICATION. OPEN CIRCUIT BREAKER, CONTACTORS AND OTHER OPEN DEVICES SHALL HAVE PERMANENT SELF STICKING TAGS. DEVICES IN ENCLOSURES SHALL HAVE ENGRAVED 2-COLOR LAMINATED PLASTIC NAMEPLATES ATTACHED TO ENCLOSURES WITH SCREWS. NAMEPLATES SHALL BE ENGRAVED TO CORRESPOND TO DESIGNATIONS ON THE DRAWINGS. INTERNAL CABINET WIRING SHALL BE IDENTIFIED AS INDICATED OR AS DIRECTED BY THE ENGINEER BY MEANS OF SELF-STICKING TAGS APPLIED AT EACH CONNECTED END. IDENTIFICATION SHALL BE MADE BY THE CABINET MANUFACTURER.
  - ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.  
R = RED BL = BLUE W = WHITE  
B = BLACK Y = YELLOW G = GREEN
  - PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET
  - ALL 120 VOLT SYSTEMS AND ALL CONTROL WIRING SHALL BE #12AWG STRANDED UNLESS OTHERWISE INDICATED.
  - ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
  - THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL. "ENCLOSED INDUSTRIAL CONTROL PANEL".
  - SEE CABINET AND FOUNDATION DETAIL SHEET FOR SCHEMATIC DIAGRAM AND DEVICE LAYOUT.
  - CONTROL RELAYS CAN BE ELIMINATED IF THE CONTROL TIME CLOCK OUTPUT CONTACTS ARE RATED FOR CONTACTOR IN-RUSH CURRENT.
  - LIGHTING CONTROLLER CABINET TO BE FURNISHED AND INSTALLED IN ACCORDANCE WITH IDOT STANDARD E200, SHEETS 3 & 4.

SERVICE CABLE SCHEDULE	
CONTROLLER	CONDUCTOR/CONDUIT
C1	(2) 2/0 XHHW (1) #1 GND IN (1) 2" C
C2,C4	(2) 4/0 XHHW (1) #1 GND IN (1) 2" C
C3	(3) 4/0 XHHW (1) #1 GND IN (1) 2" C

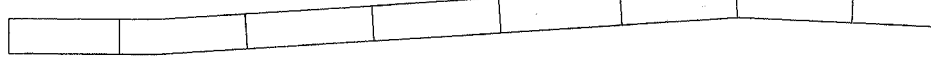


**Hymans Engineering, Inc.**

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Design Firm License No.: 184-001285

EXPIRATION DATE: 11/30/07

**SHEET KEY**



REVISIONS		
NO.	ITEM	DATE

SCALE:	AS NOTED
DRAWN BY:	KEH/DEH
CHECKED BY:	AMH
DATE:	3-3-06

**McCLURE ENGINEERING ASSOCIATES, INC.**

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**LIGHTING DETAILS**

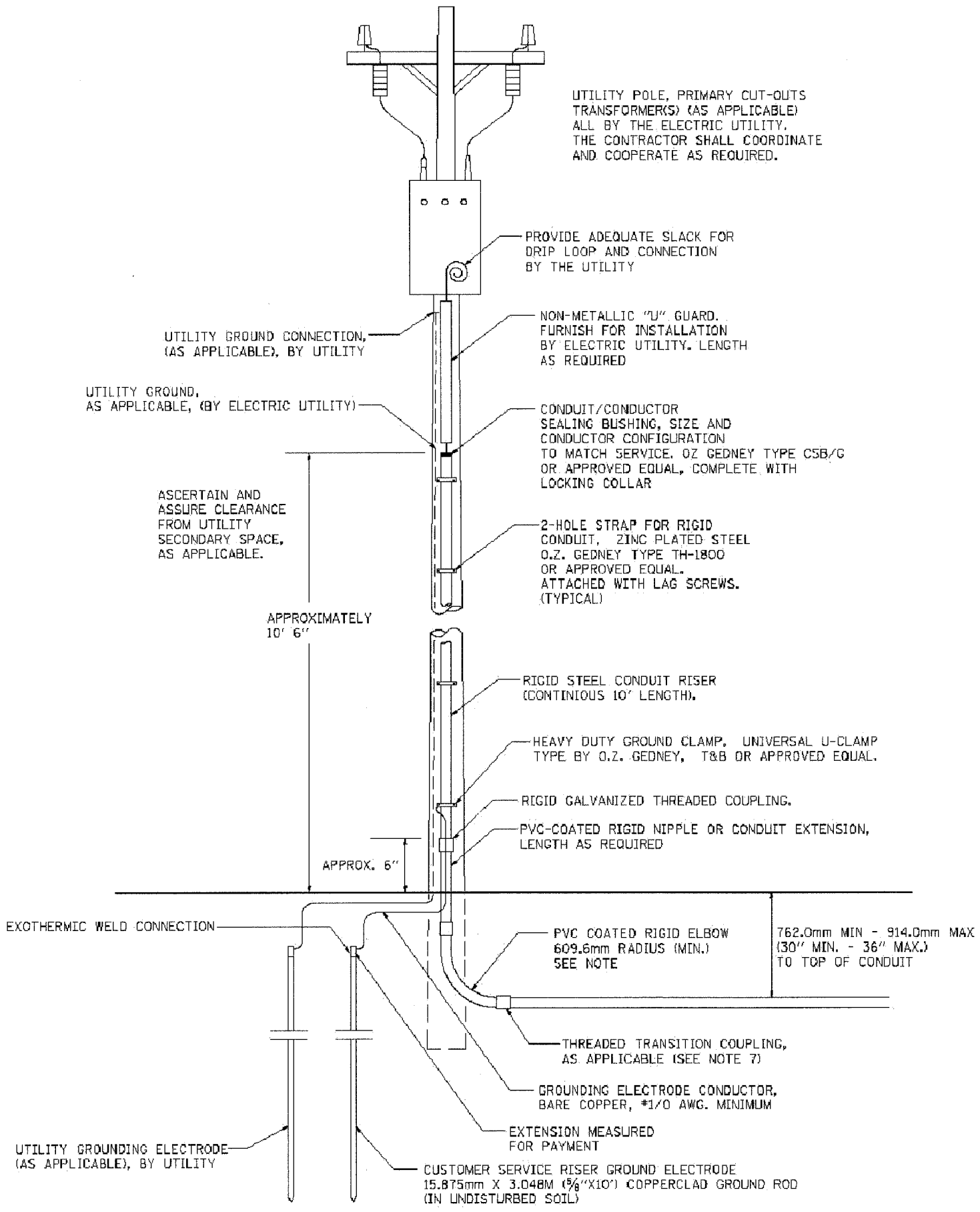
**SHERIDAN ROAD IMPROVEMENTS**

CITY OF WAUKEGAN JOB NUMBER: 02-28-03-231 LAKE COUNTY, ILLINOIS

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SHEET NO. **75** of **122**





**NOTES**

- SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
- UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF ELECTRIC UTILITY SERVICE INSTALLATION.
- CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED.
- PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
- THE SERVICE METER SOCKET, AS APPLICABLE, MOUNTED ELSEWHERE AS INDICATED SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRICAL UTILITY SERVICE INSTALLATION PAY ITEM.
- THE SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALIC TO NON METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
- PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ELECTRIC SERVICE INSTALLATION ABOVE GROUND

BE - 220

SCALE: VERT. DATE 4/25/2005

DRAWN BY CHECKED BY

PLOT SCALE = 30.0000 X 1.00

4/25/2005  
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V:\E\220

**TRAFFIC SIGNAL LEGEND**

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	78
F.H.W.A. REG.		ILLINOIS	PROJECT M-8003 (453)	
CONTRACT NO. 83829				

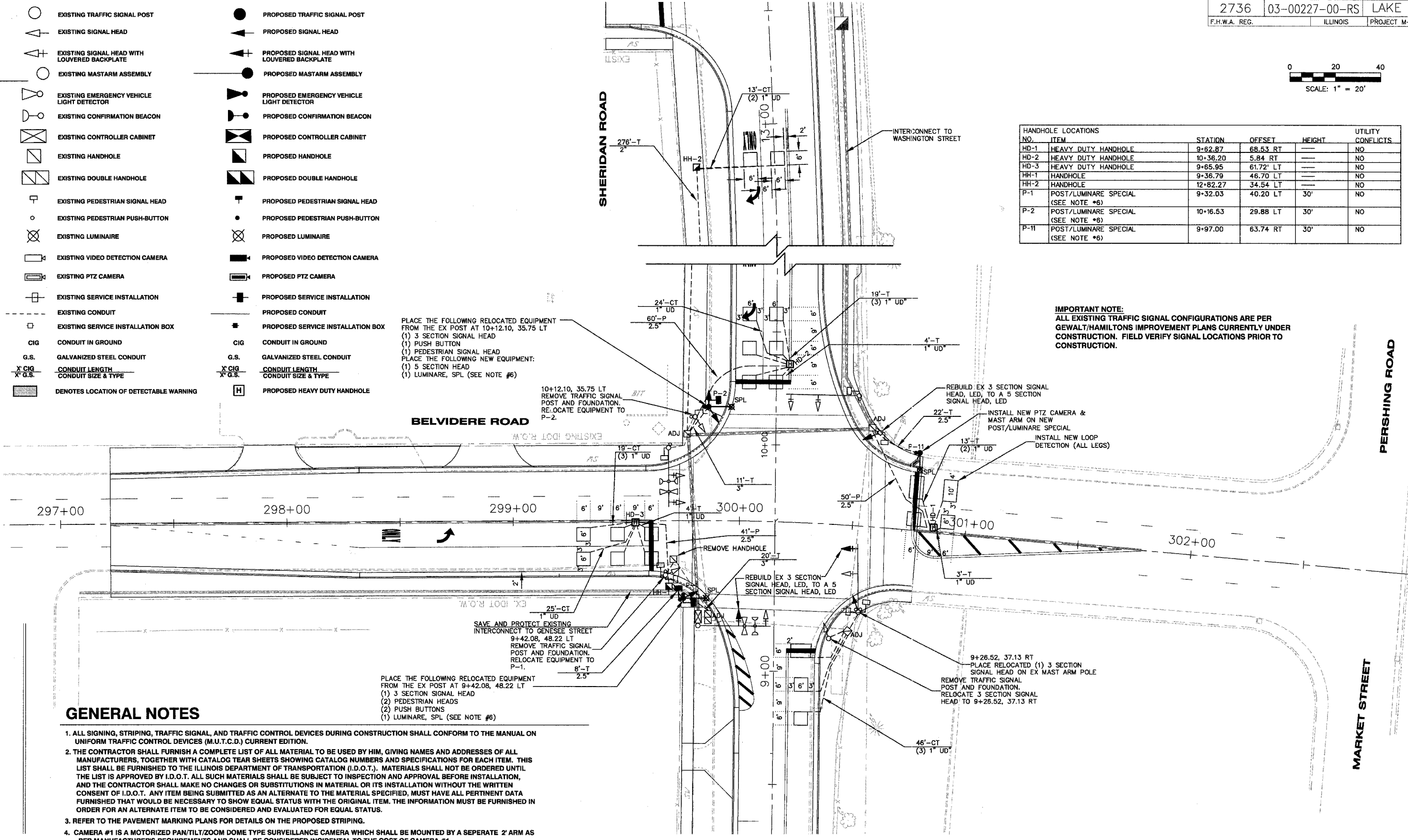
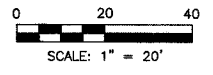
	EXISTING TRAFFIC SIGNAL POST		PROPOSED TRAFFIC SIGNAL POST
	EXISTING SIGNAL HEAD		PROPOSED SIGNAL HEAD
	EXISTING SIGNAL HEAD WITH LOUVERED BACKPLATE		PROPOSED SIGNAL HEAD WITH LOUVERED BACKPLATE
	EXISTING MASTARM ASSEMBLY		PROPOSED MASTARM ASSEMBLY
	EXISTING EMERGENCY VEHICLE LIGHT DETECTOR		PROPOSED EMERGENCY VEHICLE LIGHT DETECTOR
	EXISTING CONFIRMATION BEACON		PROPOSED CONFIRMATION BEACON
	EXISTING CONTROLLER CABINET		PROPOSED CONTROLLER CABINET
	EXISTING HANDHOLE		PROPOSED HANDHOLE
	EXISTING DOUBLE HANDHOLE		PROPOSED DOUBLE HANDHOLE
	EXISTING PEDESTRIAN SIGNAL HEAD		PROPOSED PEDESTRIAN SIGNAL HEAD
	EXISTING PEDESTRIAN PUSH-BUTTON		PROPOSED PEDESTRIAN PUSH-BUTTON
	EXISTING LUMINAIRE		PROPOSED LUMINAIRE
	EXISTING VIDEO DETECTION CAMERA		PROPOSED VIDEO DETECTION CAMERA
	EXISTING PTZ CAMERA		PROPOSED PTZ CAMERA
	EXISTING SERVICE INSTALLATION		PROPOSED SERVICE INSTALLATION
	EXISTING CONDUIT		PROPOSED CONDUIT
	EXISTING SERVICE INSTALLATION BOX		PROPOSED SERVICE INSTALLATION BOX
<b>CIG</b>	CONDUIT IN GROUND	<b>CIG</b>	CONDUIT IN GROUND
<b>G.S.</b>	GALVANIZED STEEL CONDUIT	<b>G.S.</b>	GALVANIZED STEEL CONDUIT
<b>X CIG</b>	CONDUIT LENGTH	<b>X CIG</b>	CONDUIT LENGTH
<b>X G.S.</b>	CONDUIT SIZE & TYPE	<b>X G.S.</b>	CONDUIT SIZE & TYPE
	DENOTES LOCATION OF DETECTABLE WARNING		PROPOSED HEAVY DUTY HANDHOLE

PLACE THE FOLLOWING RELOCATED EQUIPMENT FROM THE EX POST AT 10+12.10, 35.75 LT  
 (1) 3 SECTION SIGNAL HEAD  
 (1) PUSH BUTTON  
 (1) PEDESTRIAN SIGNAL HEAD  
 PLACE THE FOLLOWING NEW EQUIPMENT:  
 (1) 5 SECTION HEAD  
 (1) LUMINAIRE, SPL (SEE NOTE #6)

PLACE THE FOLLOWING RELOCATED EQUIPMENT FROM THE EX POST AT 9+42.08, 48.22 LT  
 (1) 3 SECTION SIGNAL HEAD  
 (2) PEDESTRIAN HEADS  
 (2) PUSH BUTTONS  
 (1) LUMINAIRE, SPL (SEE NOTE #6)

NO.	ITEM	STATION	OFFSET	HEIGHT	UTILITY CONFLICTS
HD-1	HEAVY DUTY HANDHOLE	9+82.87	68.53 RT	---	NO
HD-2	HEAVY DUTY HANDHOLE	10+36.20	5.84 RT	---	NO
HD-3	HEAVY DUTY HANDHOLE	9+65.95	61.72' LT	---	NO
HH-1	HANDHOLE	9+36.79	46.70 LT	---	NO
HH-2	HANDHOLE	12+82.27	34.54 LT	---	NO
P-1	POST/LUMINAIRE SPECIAL (SEE NOTE #6)	9+32.03	40.20 LT	30'	NO
P-2	POST/LUMINAIRE SPECIAL (SEE NOTE #6)	10+16.53	29.88 LT	30'	NO
P-11	POST/LUMINAIRE SPECIAL (SEE NOTE #6)	9+97.00	63.74 RT	30'	NO

**IMPORTANT NOTE:**  
 ALL EXISTING TRAFFIC SIGNAL CONFIGURATIONS ARE PER GEWALT/HAMILTONS IMPROVEMENT PLANS CURRENTLY UNDER CONSTRUCTION. FIELD VERIFY SIGNAL LOCATIONS PRIOR TO CONSTRUCTION.



**GENERAL NOTES**

1. ALL SIGNING, STRIPING, TRAFFIC SIGNAL, AND TRAFFIC CONTROL DEVICES DURING CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) CURRENT EDITION.
2. THE CONTRACTOR SHALL FURNISH A COMPLETE LIST OF ALL MATERIAL TO BE USED BY HIM, GIVING NAMES AND ADDRESSES OF ALL MANUFACTURERS, TOGETHER WITH CATALOG TEAR SHEETS SHOWING CATALOG NUMBERS AND SPECIFICATIONS FOR EACH ITEM. THIS LIST SHALL BE FURNISHED TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION (I.D.O.T.). MATERIALS SHALL NOT BE ORDERED UNTIL THE LIST IS APPROVED BY I.D.O.T. ALL SUCH MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BEFORE INSTALLATION, AND THE CONTRACTOR SHALL MAKE NO CHANGES OR SUBSTITUTIONS IN MATERIAL OR ITS INSTALLATION WITHOUT THE WRITTEN CONSENT OF I.D.O.T. ANY ITEM BEING SUBMITTED AS AN ALTERNATE TO THE MATERIAL SPECIFIED, MUST HAVE ALL PERTINENT DATA FURNISHED THAT WOULD BE NECESSARY TO SHOW EQUAL STATUS WITH THE ORIGINAL ITEM. THE INFORMATION MUST BE FURNISHED IN ORDER FOR AN ALTERNATE ITEM TO BE CONSIDERED AND EVALUATED FOR EQUAL STATUS.
3. REFER TO THE PAVEMENT MARKING PLANS FOR DETAILS ON THE PROPOSED STRIPING.
4. CAMERA #1 IS A MOTORIZED PAN/TILT/ZOOM DOME TYPE SURVEILLANCE CAMERA WHICH SHALL BE MOUNTED BY A SEPERATE 2' ARM AS PER MANUFACTURER'S REQUIREMENTS AND SHALL BE CONSIDERED INCIDENTAL TO THE COST OF CAMERA #1.
5. LOCATION OF EMERGENCY VEHICLE PREEMPTION LIGHT DETECTORS SHALL BE FIELD VERIFIED IN REGARDS TO EXISTING TREES, LANDSCAPING, POLES, ETC., TO ENSURE VISIBILITY AND ACTIVATION BY EMERGENCY VEHICLES.
6. DETAILS AND QUANTITIES FOR POST/LUMINAIRES SPECIAL AND COBRA LUMINAIRES ON COMBINATION MAST ARMS, REFER TO LIGHTING PLANS.
7. DRILL EXISTING HANDHOLES AS NEEDED FOR NEW LOOP DETECTION AND NEW POLE PLACEMENT.
8. ALL ABOVE GROUND EXISTING TRAFFIC CONTROL EQUIPMENT SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CITY OF WAUKEGAN. ALL EQUIPMENT SHALL BE SALVAGED AND DELIVERED TO 1700 N McAREE ROAD UNLESS OTHERWISE DIRECTED BY THE CITY OF WAUKEGAN AT THE TIME OF REMOVAL.

NOTE:  
 THE TRAFFIC SIGNAL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

REVISIONS		
NO.	ITEM	DATE

SCALE:	1" = 20'
DRAWN BY:	NAB
CHECKED BY:	CRF
DATE:	3-3-06

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**TRAFFIC SIGNAL REMOVAL AND PLAN MODIFICATION**  
**SHERIDAN ROAD AT BELVIDERE ROAD**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS

SHEET NO.  
**78**  
 of  
**122**

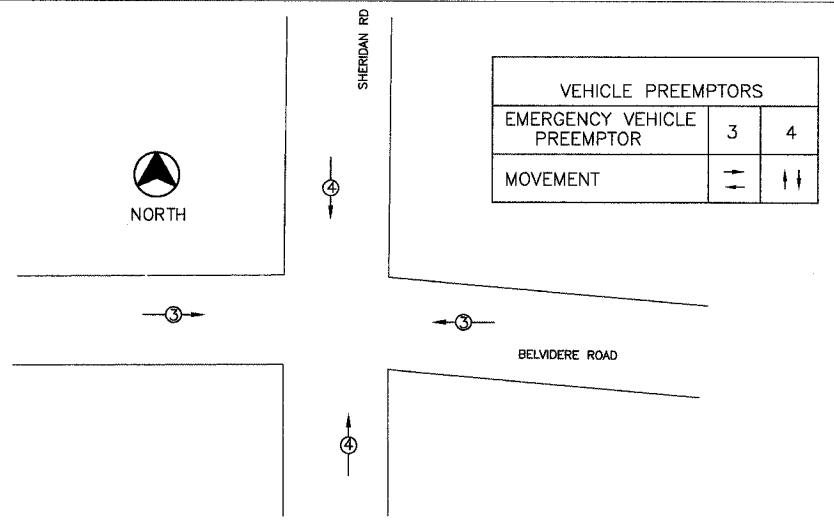


### CABLE PLAN LEGEND

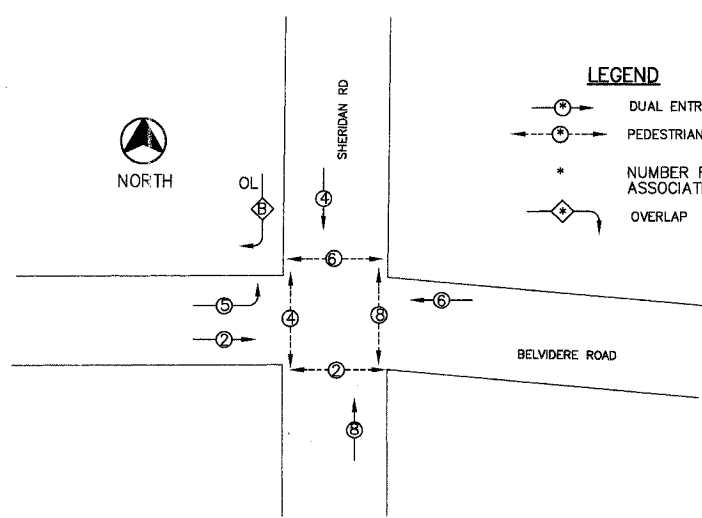
EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	8" (200MM) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300MM) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300MM) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" (300MM) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol]	MAGNETIC DETECTOR
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. *P INDICATES PROGRAMMED HEAD.
[Symbol]	[Symbol]	SIGNAL FACE WITHOUT BACKPLATE. *P INDICATES PROGRAMMED HEAD.

S	[Symbol]	GROUND ROD @ SERVICE INSTALLATION
C	[Symbol]	GROUND ROD AT CONTROLLER (C), POST (P), OR MAST ARM (MA)
[Symbol]	[Symbol]	PROPOSED LUMINAIRE
[Symbol]	[Symbol]	VIDEO IMAGE CABLE, BELDEN 8281 COAXIAL CABLE

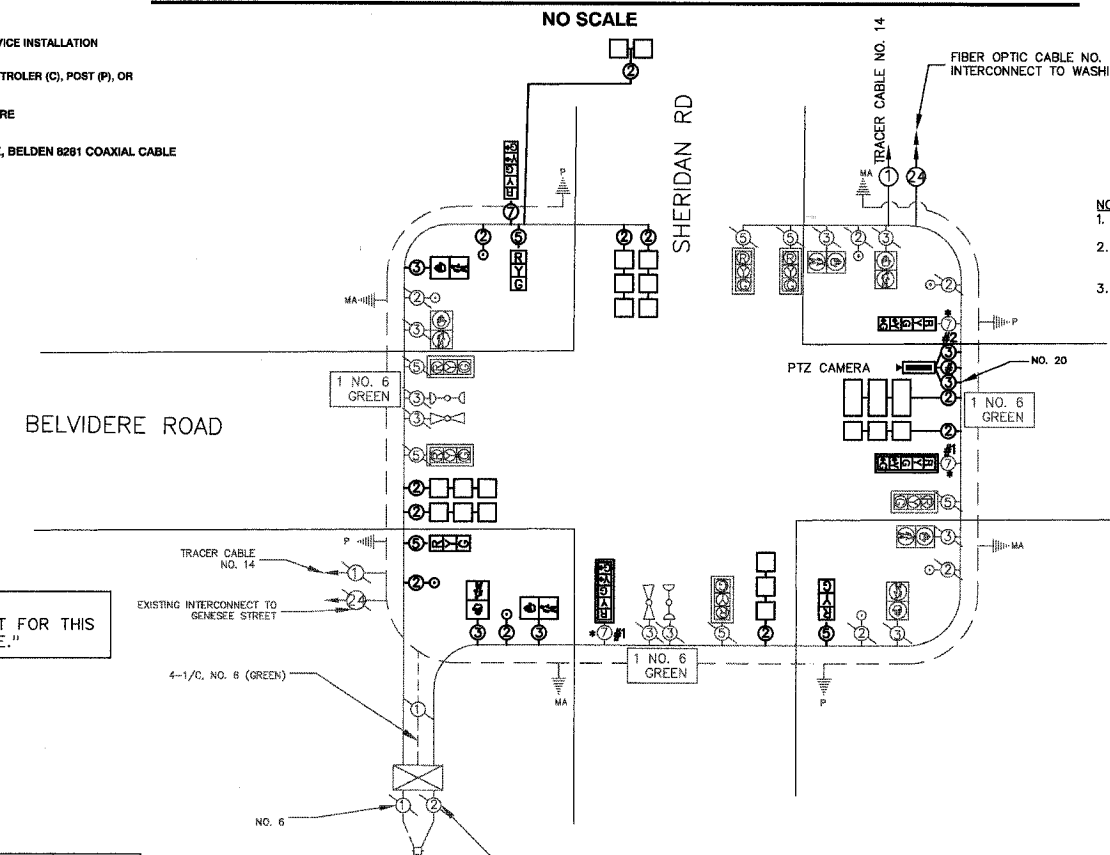
VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑



### EMERGENCY VEHICLE PREEMPTION SEQUENCE



### PHASE DESIGNATION DIAGRAM



### CABLE PLAN

- NOTES:
- ALL LOOP CABLES SHALL BE NO. 14, TWISTED, SHIELDED.
  - DETAILS AND QUANTITIES FOR POST/LUMINAIRE SPECIAL AND COBRA LUMINAIRE ON COMBINATION MAST ARMS, REFER TO LIGHTING PLANS.
  - SEE LIGHTING PLANS FOR LUMINAIRE WIRING AND ELECTRIC FEED.

- \* IN ANTICIPATION OF THESE UPCOMING IMPROVEMENTS THE CORRECT WIRING HAS ALREADY BEEN INSTALLED TO THE FLAGGED LOCATIONS, PER GEWALT/HAMILTONS IMPROVEMENT PLANS CURRENTLY UNDER CONSTRUCTION.
- #1 REBUILD EXISTING SIGNAL HEAD FROM A 1-FACE, 3 SECTION WITH 12" LENSES MAST ARM MOUNTED TO SIGNAL HEAD, 1-FACE, 5 SECTION WITH 12" LENSES MAST ARM MOUNTED WITH BACKPLATE.
- #2 REBUILD EXISTING SIGNAL HEAD FROM A 1-FACE, 3 SECTION WITH 12" LENSES BRACKET MOUNTED TO SIGNAL, 1-FACE, 5 SECTION WITH 12" LENSES BRACKET MOUNTED.

NOTE: THE TRAFFIC SIGNAL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

TRAFFIC SIGNAL - SCHEDULE OF QUANTITIES			
CODED PAY ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	276
81000700	CONDUIT IN TRENCH, 1 1/2" DIA., GALVANIZED STEEL	FOOT	30
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	23
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	151
81400100	HANDHOLE	EACH	2
81400115	HANDHOLE TO BE ADJUSTED	EACH	4
81400200	HEAVY-DUTY HANDHOLE	EACH	3
81500200	TRENCH & BACKFILL FOR ELECTRICAL WORK	FOOT	569
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2/C	FOOT	249
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C	FOOT	517
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7/C	FOOT	205
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3357
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	8
87900200	DRILL EXISTING HANDHOLE	EACH	11
88040080	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED (SPECIAL)	EACH	1
88040155	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, SPECIAL	EACH	1
88200110	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	2
88500100	INDUCTIVE LOOP DETECTOR	EACH	6
88600100	DETECTOR LOOP, TYPE 1	FOOT	761
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	3
89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	3
89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	3
89502105	REBUILD EXISTING SIGNAL HEAD, LED	EACH	3
89502380	REMOVE EXISTING HANDHOLE	EACH	1
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
X0323153	ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1/C (GREEN)	FOOT	171
X8730320	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED	FOOT	241
XX003661	ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	241
XX005940	REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL					
RED	13	135	10	0.50	110.5
YELLOW	13	135	19	0.25	81.25
GREEN	13	135	11	0.25	48.75
ARROW	8	135	9	0.10	9.6
PED SIGNAL	8	90	9	1.00	200
CONTROLLER	1	100	100	1.00	100
STREET LIGHTS	1	84		0.50	42
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1008					TOTAL = 592.1
ENERGY SUPPLY CONTACT: TERRY BLECK PHONE: (847) 816-5239 COMPANY: COM. ED.					

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
TYPE D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-L-2-
TYPE E - MAST ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13
24"	10	CONTROLLER CABINET	1	PED. PUSHBUTTON	4
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6
				MAST ARM, LUMINAIRE/CAMERA	40
				MAST ARM, PTZ CAMERA	38.5
				POST LUMINAIRE	30

REVISIONS		
NO.	ITEM	DATE

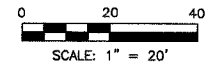
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CHECKED BY:	ORF
DATE:	3-3-06

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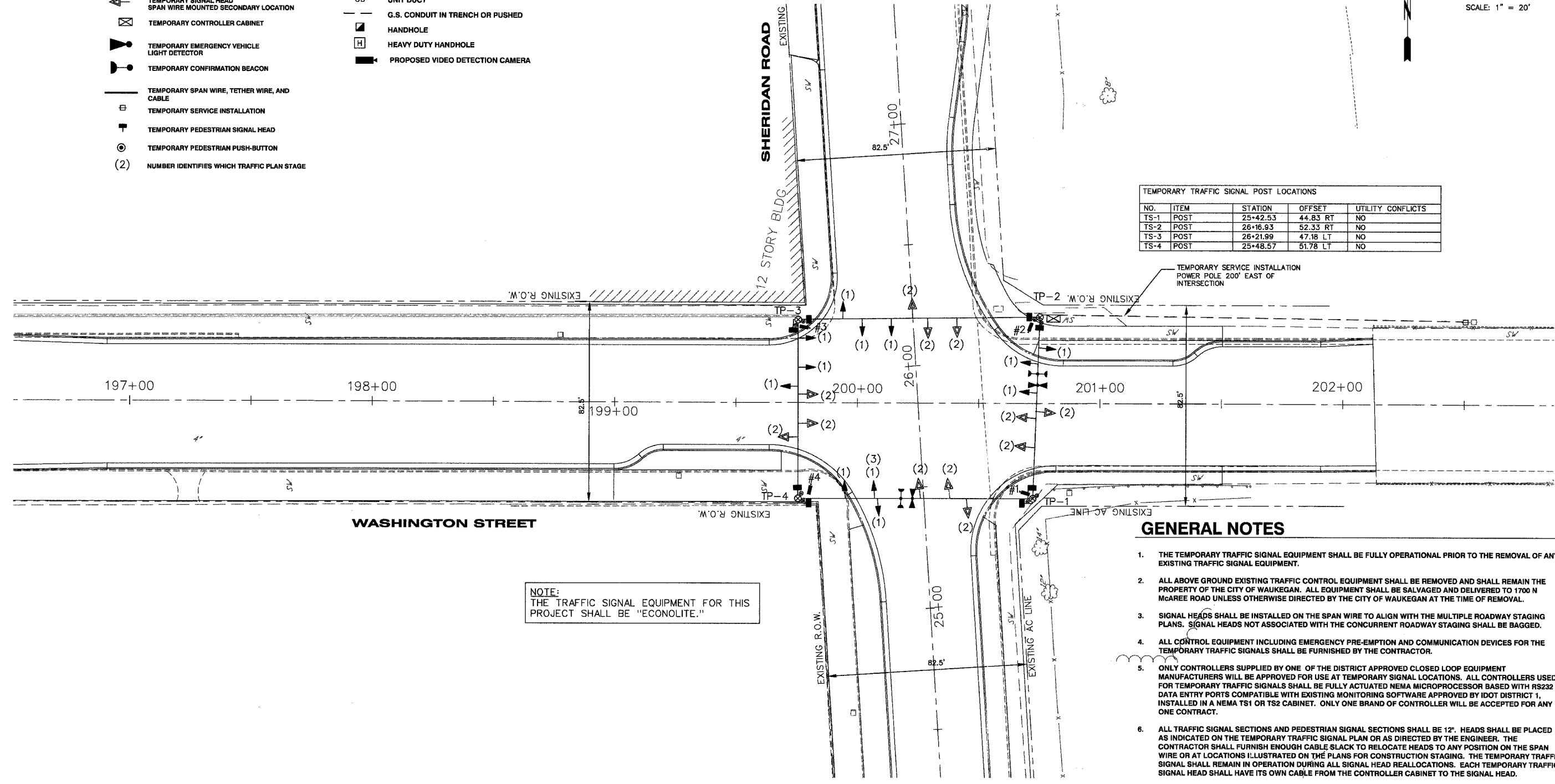
**CABLE PLAN/PHASE DIAGRAM MODIFICATION SHERIDAN ROAD AT BELVIDERE ROAD**  
 SHERIDAN ROAD IMPROVEMENTS  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sher-TrafficSignals.dwg 8/26/2005 3:07:04 PM CDT

**TEMPORARY TRAFFIC SIGNAL LEGEND**

- |     |                                                                      |    |                                  |
|-----|----------------------------------------------------------------------|----|----------------------------------|
| ⊗   | TEMPORARY TRAFFIC SIGNAL POST                                        | □  | VEHICLE DETECTOR, INDUCTION LOOP |
| ←   | TEMPORARY TRAFFIC SIGNAL HEAD<br>SPAN WIRE MOUNTED ORIGINAL LOCATION | CT | COMMON TRENCH                    |
| ↖   | TEMPORARY SIGNAL HEAD<br>SPAN WIRE MOUNTED SECONDARY LOCATION        | UD | UNIT DUCT                        |
| ⊠   | TEMPORARY CONTROLLER CABINET                                         | —  | G.S. CONDUIT IN TRENCH OR PUSHED |
| ⚡   | TEMPORARY EMERGENCY VEHICLE<br>LIGHT DETECTOR                        | ■  | HANDHOLE                         |
| ⚡   | TEMPORARY CONFIRMATION BEACON                                        | H  | HEAVY DUTY HANDHOLE              |
| —   | TEMPORARY SPAN WIRE, TETHER WIRE, AND<br>CABLE                       | ■  | PROPOSED VIDEO DETECTION CAMERA  |
| ⊞   | TEMPORARY SERVICE INSTALLATION                                       |    |                                  |
| ⊞   | TEMPORARY PEDESTRIAN SIGNAL HEAD                                     |    |                                  |
| ⊞   | TEMPORARY PEDESTRIAN PUSH-BUTTON                                     |    |                                  |
| (2) | NUMBER IDENTIFIES WHICH TRAFFIC PLAN STAGE                           |    |                                  |



NO.	ITEM	STATION	OFFSET	UTILITY CONFLICTS
TS-1	POST	25+42.53	44.83 RT	NO
TS-2	POST	26+16.93	52.33 RT	NO
TS-3	POST	26+21.99	47.18 LT	NO
TS-4	POST	25+48.57	51.78 LT	NO



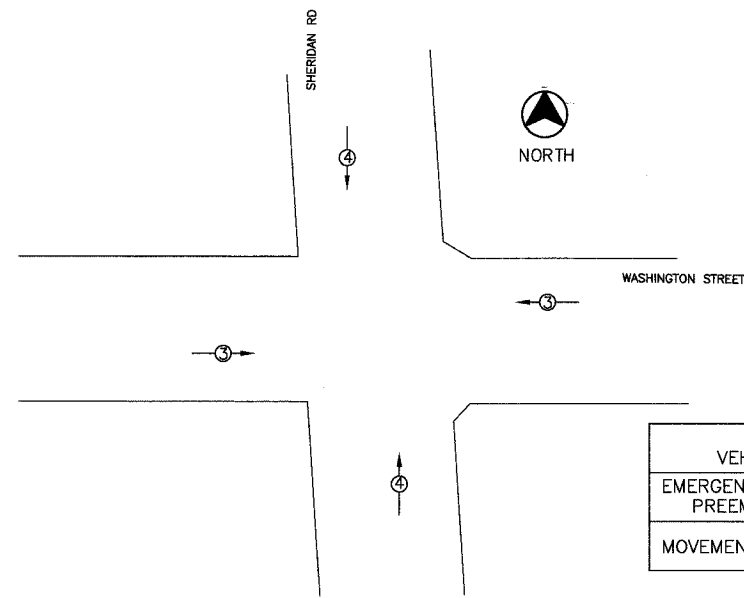
**GENERAL NOTES**

1. THE TEMPORARY TRAFFIC SIGNAL EQUIPMENT SHALL BE FULLY OPERATIONAL PRIOR TO THE REMOVAL OF ANY EXISTING TRAFFIC SIGNAL EQUIPMENT.
2. ALL ABOVE GROUND EXISTING TRAFFIC CONTROL EQUIPMENT SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CITY OF WAUKEGAN. ALL EQUIPMENT SHALL BE SALVAGED AND DELIVERED TO 1700 N McAREE ROAD UNLESS OTHERWISE DIRECTED BY THE CITY OF WAUKEGAN AT THE TIME OF REMOVAL.
3. SIGNAL HEADS SHALL BE INSTALLED ON THE SPAN WIRE TO ALIGN WITH THE MULTIPLE ROADWAY STAGING PLANS. SIGNAL HEADS NOT ASSOCIATED WITH THE CONCURRENT ROADWAY STAGING SHALL BE BAGGED.
4. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNALS SHALL BE FURNISHED BY THE CONTRACTOR.
5. 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 TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
6. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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 REALLOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
7. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
8. ANY TEMPORARY SIGNAL WITHIN ANY EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
9. 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 TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

NOTE:  
THE TRAFFIC SIGNAL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

### TEMPORARY CABLE PLAN LEGEND

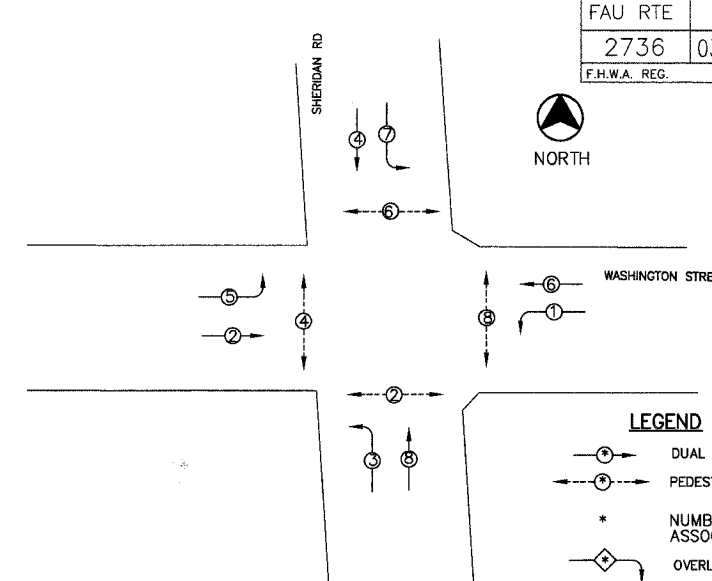
- R 12" (300MM) TRAFFIC SIGNAL SECTION
- P 12" (300MM) PEDESTRIAN SIGNAL HEAD
- C TEMPORARY CONTROLLER CABINET
- SERVICE INSTALLATION
- MAGNETIC DETECTOR
- ▶ EMERGENCY VEHICLE LIGHT DETECTOR
- ◀ CONFIRMATION BEACON
- PUSHBUTTON DETECTOR
- ② DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- R SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
- PROPOSED VIDEO DETECTION CAMERA



### EMERGENCY VEHICLE PREEMPTION SEQUENCE

NO SCALE

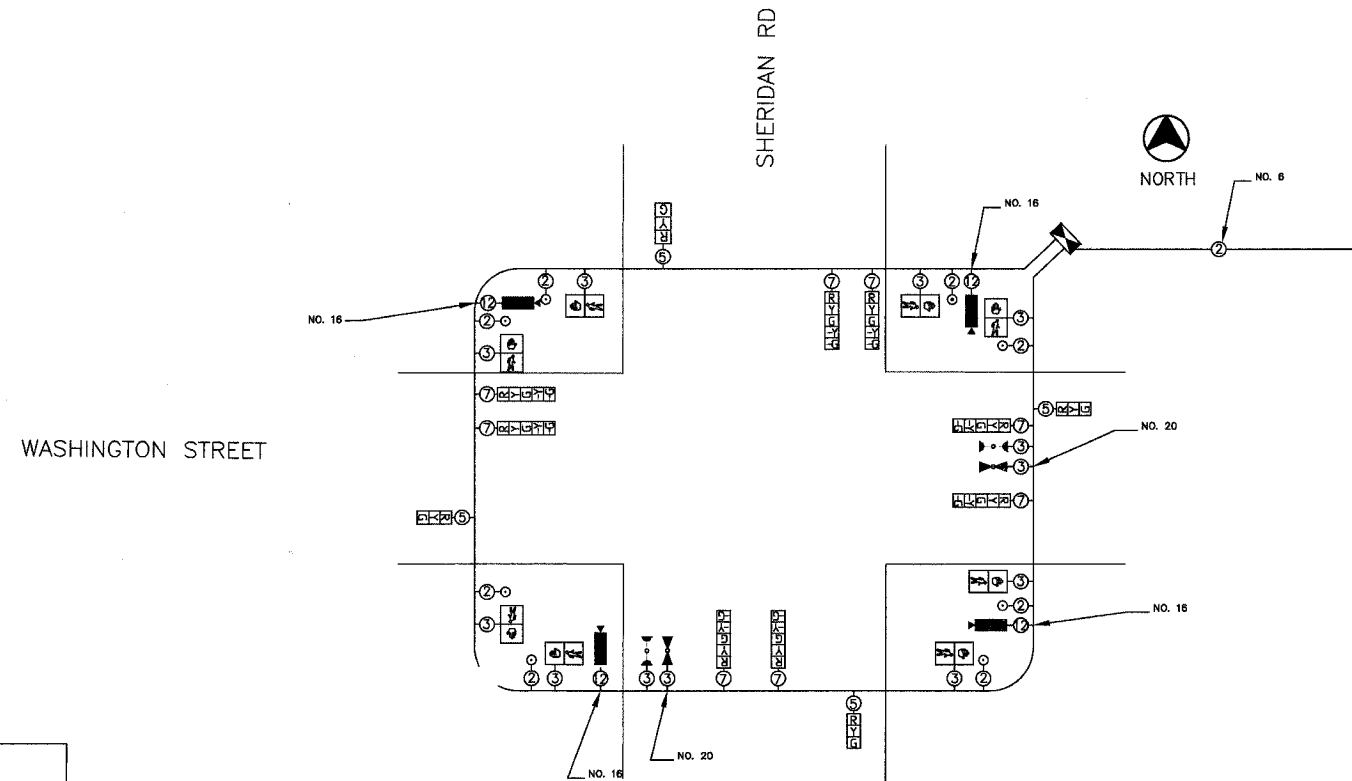
VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑



### TEMPORARY PHASE DESIGNATION DIAGRAM

NO SCALE

- #### LEGEND
- ① DUAL ENTRY PHASE
  - ② PEDESTRIAN PHASE
  - \* NUMBER REFERS TO ASSOCIATED PHASE
  - ◇ OVERLAP



### TEMPORARY CABLE PLAN

STAGES 1 & 2  
NO SCALE

NOTE:  
THE TRAFFIC SIGNAL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL					
RED	12	135	10	0.50	810
YELLOW	12	135	19	0.25	405
GREEN	12	135	11	0.25	405
ARROW	24	135	9	0.10	324
PED SIGNAL	8	90	9	1.00	720
CONTROLLER	1	100	100	1.00	100
LUMINAIRE	0	84		0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT, SCHWANBERG, ILLINOIS 60196-0088					2764
ENERGY SUPPLY CONTACT: TERRY BLECK, PHONE: (847) 816-5239, COMPANY: COM. ED.					

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)	
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5	
TYPE D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-L-2-	
TYPE E - MAST ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13	
	24"	10	CONTROLLER CABINET	1	PED. PUSHBUTTON	4
	30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
	36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
			GROUND CABLE	1	POST MOUNTED	6
					MAST ARM, LUMINAIRE/CAMERA	40
					MAST ARM, PTZ CAMERA	38.5
					POST LUMINAIRE	30

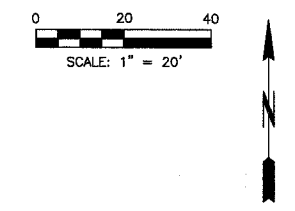
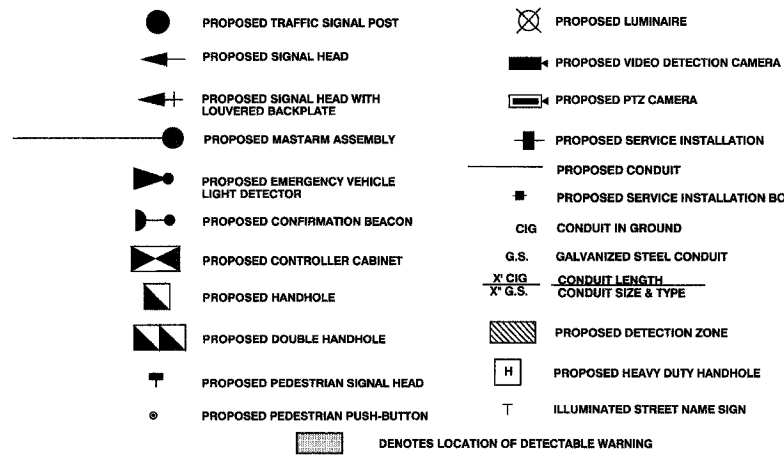
REVISIONS		
NO.	ITEM	DATE

SCALE:	1" = 20'
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CHECKED BY:	CRF
DATE:	3-3-06

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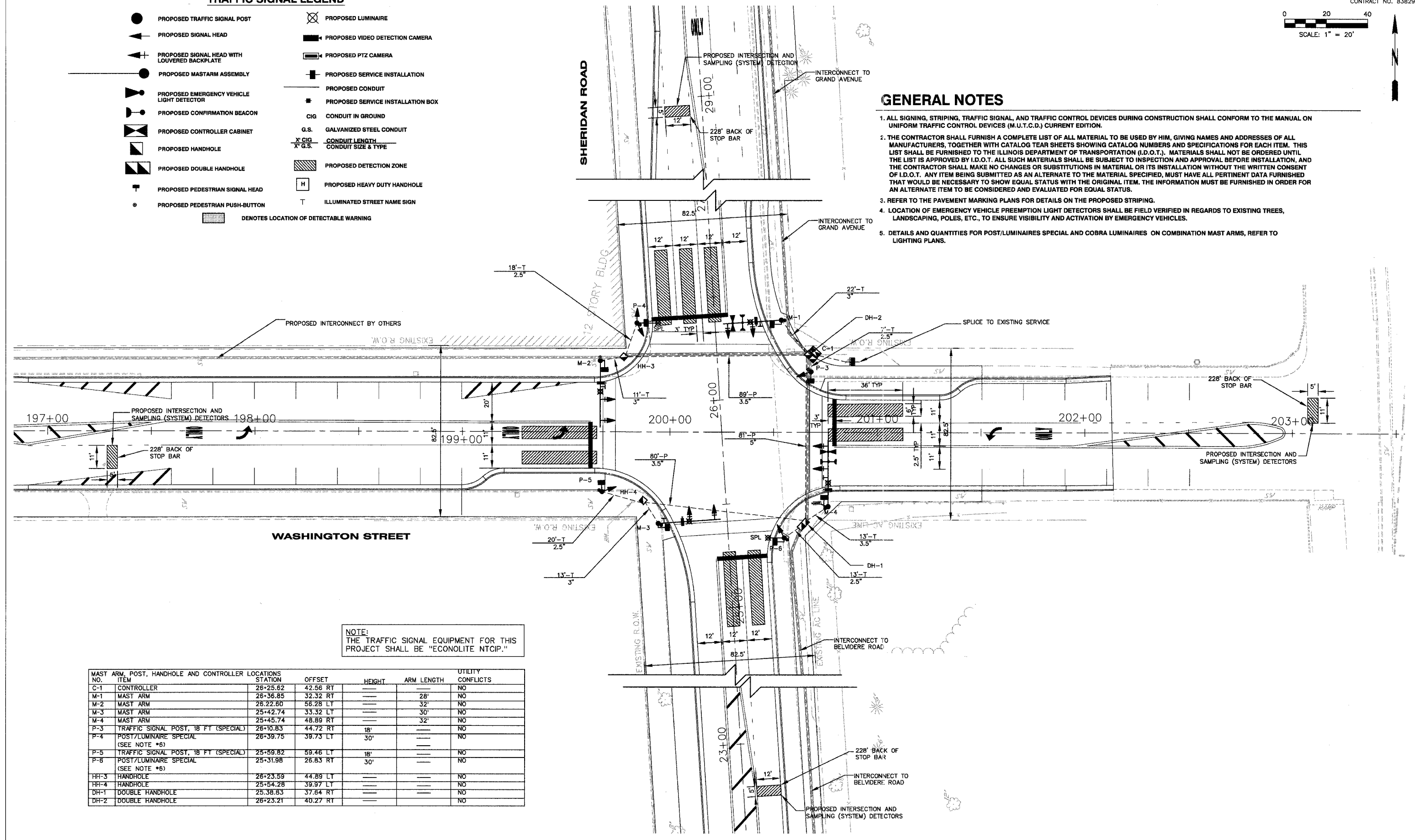
**TEMPORARY CABLE PLAN/PHASE DIAGRAM SHERIDAN ROAD AT WASHINGTON STREET**  
 SHERIDAN ROAD IMPROVEMENTS  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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### TRAFFIC SIGNAL LEGEND



### GENERAL NOTES

- ALL SIGNING, STRIPING, TRAFFIC SIGNAL, AND TRAFFIC CONTROL DEVICES DURING CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) CURRENT EDITION.
- THE CONTRACTOR SHALL FURNISH A COMPLETE LIST OF ALL MATERIAL TO BE USED BY HIM, GIVING NAMES AND ADDRESSES OF ALL MANUFACTURERS, TOGETHER WITH CATALOG TEAR SHEETS SHOWING CATALOG NUMBERS AND SPECIFICATIONS FOR EACH ITEM. THIS LIST SHALL BE FURNISHED TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION (I.D.O.T.). MATERIALS SHALL NOT BE ORDERED UNTIL THE LIST IS APPROVED BY I.D.O.T. ALL SUCH MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BEFORE INSTALLATION, AND THE CONTRACTOR SHALL MAKE NO CHANGES OR SUBSTITUTIONS IN MATERIAL OR ITS INSTALLATION WITHOUT THE WRITTEN CONSENT OF I.D.O.T. ANY ITEM BEING SUBMITTED AS AN ALTERNATE TO THE MATERIAL SPECIFIED, MUST HAVE ALL PERTINENT DATA FURNISHED THAT WOULD BE NECESSARY TO SHOW EQUAL STATUS WITH THE ORIGINAL ITEM. THE INFORMATION MUST BE FURNISHED IN ORDER FOR AN ALTERNATE ITEM TO BE CONSIDERED AND EVALUATED FOR EQUAL STATUS.
- REFER TO THE PAVEMENT MARKING PLANS FOR DETAILS ON THE PROPOSED STRIPING.
- LOCATION OF EMERGENCY VEHICLE PREEMPTION LIGHT DETECTORS SHALL BE FIELD VERIFIED IN REGARDS TO EXISTING TREES, LANDSCAPING, POLES, ETC., TO ENSURE VISIBILITY AND ACTIVATION BY EMERGENCY VEHICLES.
- DETAILS AND QUANTITIES FOR POST/LUMINAIRE SPECIAL AND COBRA LUMINAIRE SPECIAL ON COMBINATION MAST ARMS, REFER TO LIGHTING PLANS.



NOTE:  
THE TRAFFIC SIGNAL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE NTCIP."

MAST ARM, POST, HANDHOLE AND CONTROLLER NO.	ITEM	LOCATIONS STATION	OFFSET	HEIGHT	ARM LENGTH	UTILITY CONFLICTS
C-1	CONTROLLER	26+25.62	42.56 RT			NO
M-1	MAST ARM	26+36.85	32.32 RT		28'	NO
M-2	MAST ARM	26+22.60	56.28 LT		32'	NO
M-3	MAST ARM	25+42.74	33.32 LT		30'	NO
M-4	MAST ARM	25+45.74	48.89 RT		32'	NO
P-3	TRAFFIC SIGNAL POST, 18 FT (SPECIAL)	26+10.83	44.72 RT	18'		NO
P-4	POST/LUMINAIRE SPECIAL (SEE NOTE *6)	26+39.75	39.73 LT	30'		NO
P-5	TRAFFIC SIGNAL POST, 18 FT (SPECIAL)	25+59.82	59.46 LT	18'		NO
P-6	POST/LUMINAIRE SPECIAL (SEE NOTE *6)	25+31.98	26.83 RT	30'		NO
HH-3	HANDHOLE	26+23.59	44.89 LT			NO
HH-4	HANDHOLE	25+54.28	39.97 LT			NO
DH-1	DOUBLE HANDHOLE	25.38.83	37.64 RT			NO
DH-2	DOUBLE HANDHOLE	26+23.21	40.27 RT			NO

REVISIONS		
NO.	ITEM	DATE

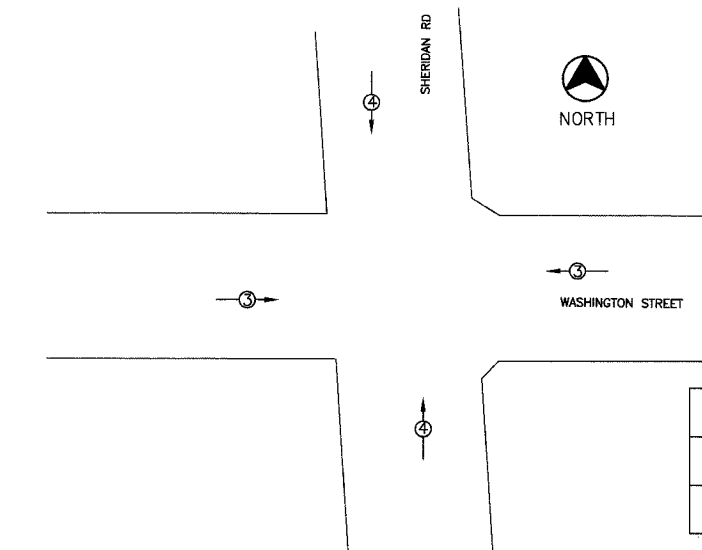
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**TRAFFIC SIGNAL PLAN**  
**SHERIDAN ROAD AT WASHINGTON STREET**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS

### CABLE PLAN LEGEND

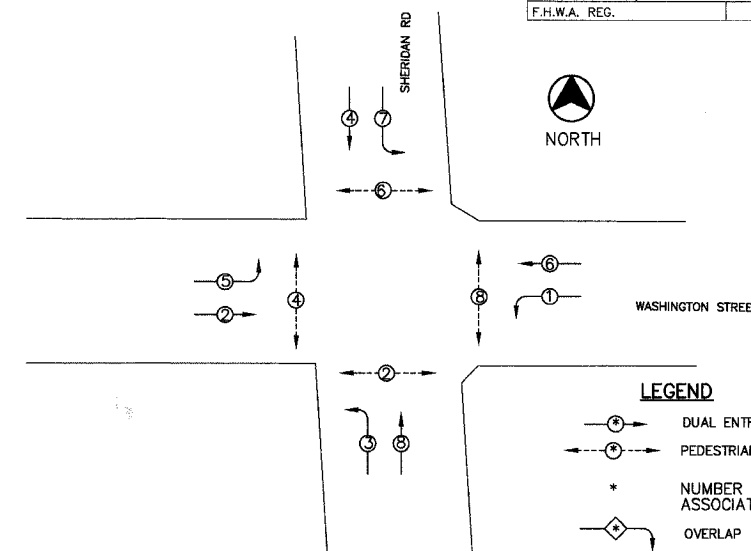
- 12" (300MM) TRAFFIC SIGNAL SECTION
- 12" (300MM) PEDESTRIAN SIGNAL HEAD
- CONTROLLER CABINET
- SERVICE INSTALLATION
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PUSHBUTTON DETECTOR
- DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
- SIGNAL FACE WITHOUT BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
- VIDEO DETECTION CAMERA
- PROPOSED PTZ CAMERA
- GROUND ROD @ SERVICE INSTALLATION
- GROUND ROD AT CONTROLLER (C), POST (P), OR MAST ARM (MA)
- PROPOSED LUMINAIRE
- VIDEO IMAGE CABLE, BELDEN 8281 COAXIAL CABLE
- UNINTERRUPTIBLE POWER SUPPLY



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

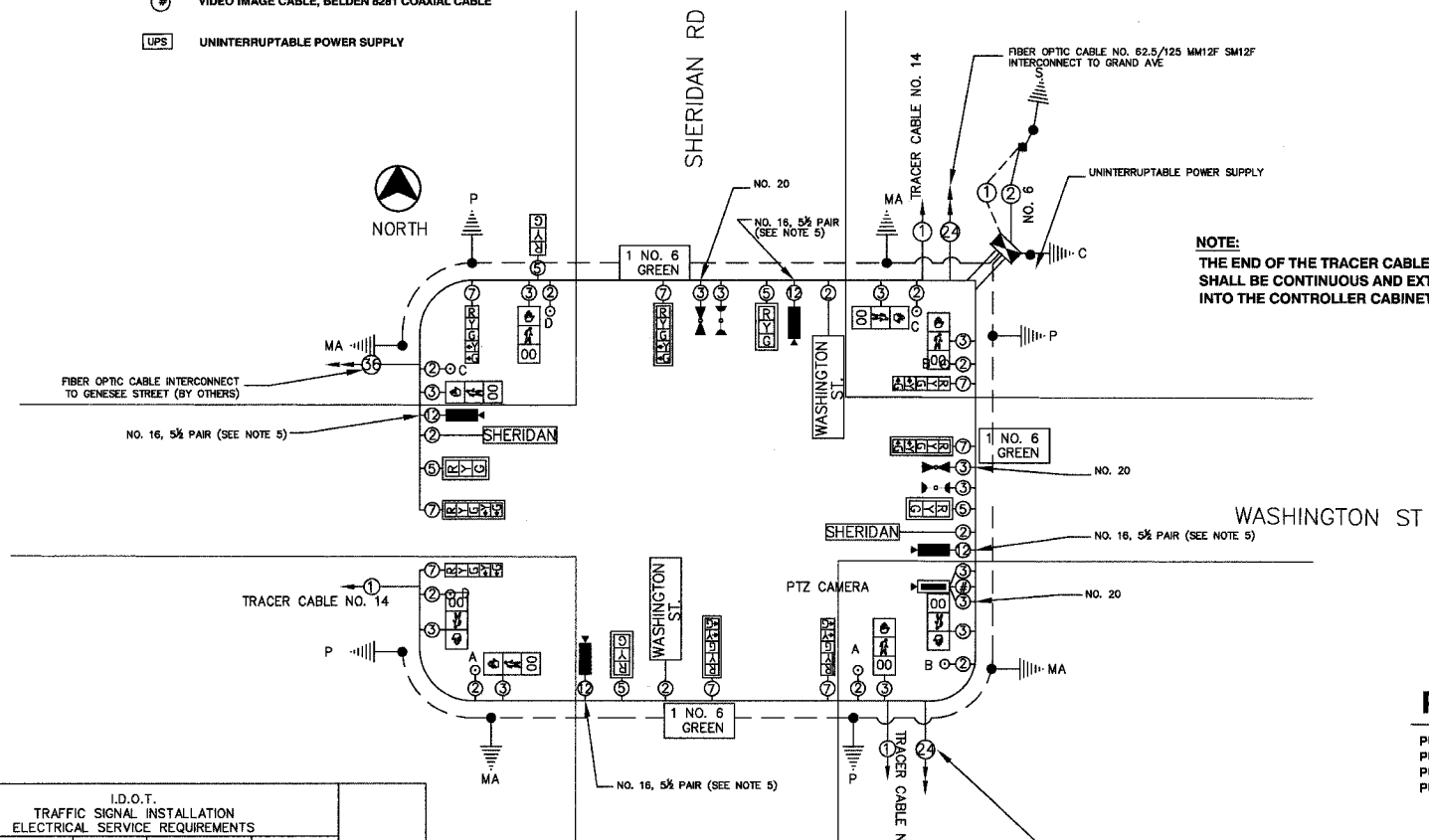
### EMERGENCY VEHICLE PREEMPTION SEQUENCE

NO SCALE



### PHASE DESIGNATION DIAGRAM

NO SCALE



### CABLE PLAN

NO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND.	LED % OPERATION	TOTAL WATTAGE	
SIGNAL					
RED	14	135	10	0.50	119
YELLOW	14	135	19	0.25	87.5
GREEN	14	135	11	0.25	52.5
ARROW	16	135	9	0.10	19.2
PED SIGNAL	8	90	9	1.00	200
CONTROLLER	1	100	100	1.00	100
STREET LIGHTS	6	84		0.50	252
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER STREET SCHAMBERG, ILLINOIS 60196-0306				TOTAL	814.1
ENERGY SUPPLY CONTACT: TERRY BLECK PHONE: (847) 816-5239 COMPANY: COM. ED.					

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
TYPE D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-L-2-
TYPE E - MAST ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13
		24"	10	CONTROLLER CABINET	4
		30"	15	FIBER OPTIC	13.5
		36"	15	ELECTRIC SERVICE	13.5
				POST MOUNTED	6
				MAST ARM, LUMINAIRE/CAMERA	40
				MAST ARM, PTZ CAMERA	38.5
				POST LUMINAIRE	30

#### NOTES:

- DETAILS AND QUANTITIES FOR POST/LUMINAIRE SPECIAL AND COBRA LUMINAIRE ON COMBINATION MAST ARMS, REFER TO LIGHTING PLANS.
- SEE LIGHTING PLANS FOR LUMINAIRE WIRING AND ELECTRIC FEED.
- THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET
- CONTROLLER SHALL MEET NEMA TS-2 STANDARDS AND THE CABINET SHALL BE NEMA TS-2 TYPE 1 CABINET
- NO. 16, 5/8" PAIR TO BE PAID FOR AS ELECTRICAL CABLE IN CONDUIT, COMMUNICATION, NO. 16, 6 PAIR

#### NOTE:

THE TRAFFIC SIGNAL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE NTCIP."

### PUSH BUTTON NOTES

- PUSH BUTTONS "A" SHALL PLACE A CALL IN PHASE 2 ONLY
- PUSH BUTTONS "B" SHALL PLACE A CALL IN PHASE 8 ONLY
- PUSH BUTTONS "C" SHALL PLACE A CALL IN PHASE 6 ONLY
- PUSH BUTTONS "D" SHALL PLACE A CALL IN PHASE 4 ONLY

### THE POSTED SPEED LIMIT ON:

WASHINGTON STREET IS 25 MPH  
SHERIDAN ROAD IS 30 MPH

### TRAFFIC SIGNAL - SCHEDULE OF QUANTITIES

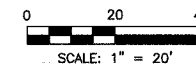
CODED PAY ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	58
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	46
81000900	CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	13
81018800	CONDUIT PUSHED, 3 1/2" DIA., GALVANIZED STEEL	FOOT	169
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	164
81019000	CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL	FOOT	81
81400100	HANDHOLE	EACH	2
81400300	DOUBLE HANDHOLE	EACH	2
81500200	TRENCH & BACKFILL FOR ELECTRICAL WORK	FOOT	117
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
86400100	TRANSMITTER, FIBER OPTIC	EACH	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2/C	FOOT	1077
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C	FOOT	1537
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5/C	FOOT	1036.5
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7/C	FOOT	1260
87301615	ELECTRIC CABLE IN CONDUIT, COMMUNICATION, NO. 16, 6 PAIR	FOOT	714
87704070	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 28 FT. (SPECIAL)	EACH	1
87704080	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 30 FT. (SPECIAL)	EACH	1
87704090	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 32 FT. (SPECIAL)	EACH	2
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	4
87800400	CONCRETE FOUNDATION, TYPE E, 30" DIA.	FOOT	60
88040080	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED (SPECIAL)	EACH	1
88040100	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH	4
88040155	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, SPECIAL	EACH	4
88040170	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH	3
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
88200110	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	8
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
88800100	PEDESTRIAN PUSH-BUTTON	EACH	8
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
89502380	REMOVE EXISTING HANDHOLE	EACH	5
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
X0323153	ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1C (GREEN)	FOOT	1015
X0325060	2955 LAYER 2 SWITCH	EACH	1
X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
X8730320	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED	FOOT	418
XX003661	ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	165
XX005428	INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
XX005723	VIDEO DETECTION SYSTEM COMPLETE INTERSECTION	EACH	1
XX005932	TRAFFIC SIGNAL POST, 18 FT SPECIAL	EACH	2
XX005940	REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1
XX006661	UNINTERRUPTIBLE POWER SUPPLY	EACH	1

REVISIONS		
NO.	ITEM	DATE

SCALE:	1" = 20'
DRAWN BY:	NMB
CHECKED BY:	CRF
DATE:	3-3-06

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**CABLE PLAN/PHASE DIAGRAM**  
**SHERIDAN ROAD AT WASHINGTON STREET**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS

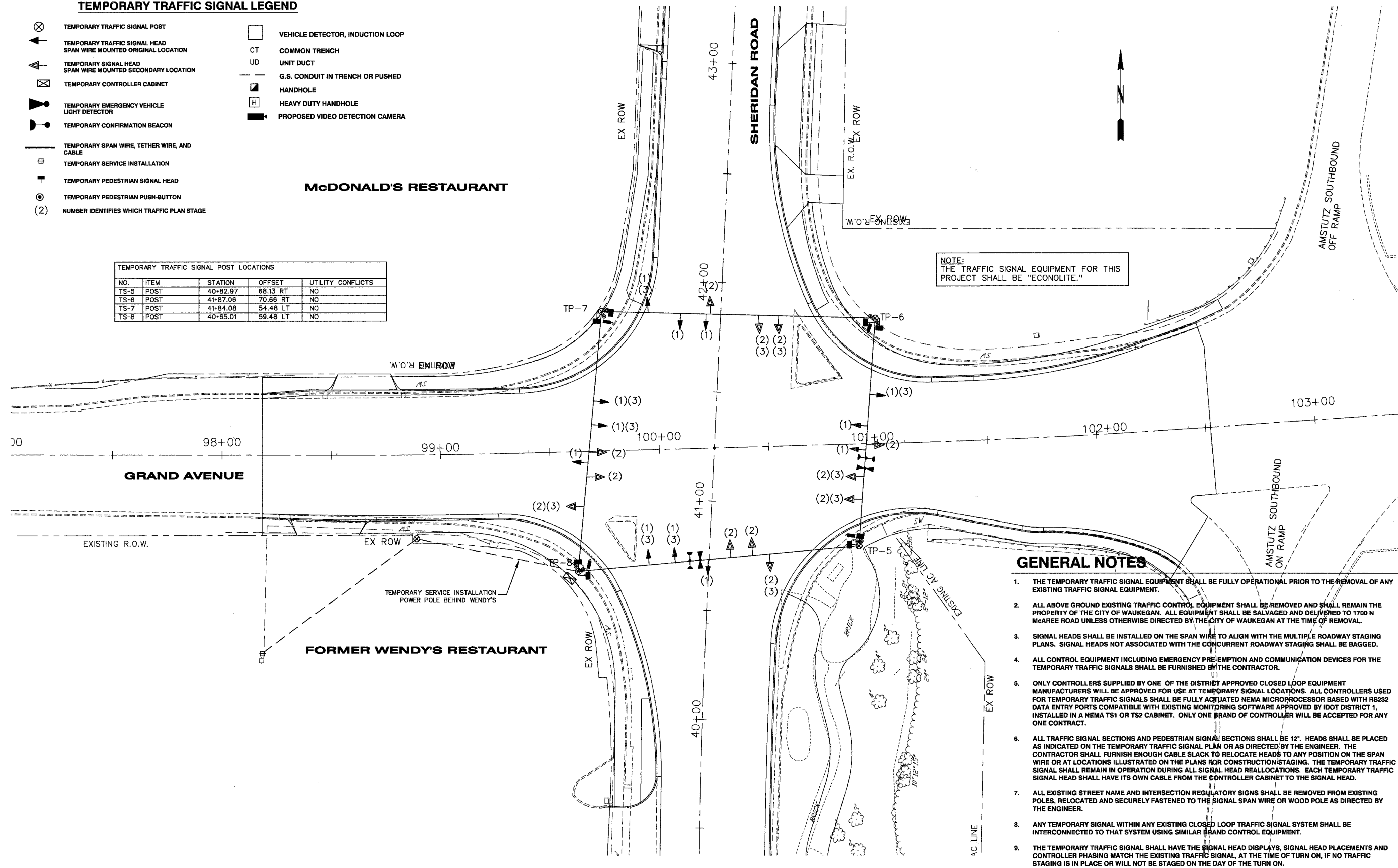


**TEMPORARY TRAFFIC SIGNAL LEGEND**

- |     |                                                                      |    |                                  |
|-----|----------------------------------------------------------------------|----|----------------------------------|
|     | TEMPORARY TRAFFIC SIGNAL POST                                        |    | VEHICLE DETECTOR, INDUCTION LOOP |
|     | TEMPORARY TRAFFIC SIGNAL HEAD<br>SPAN WIRE MOUNTED ORIGINAL LOCATION | CT | COMMON TRENCH                    |
|     | TEMPORARY SIGNAL HEAD<br>SPAN WIRE MOUNTED SECONDARY LOCATION        | UD | UNIT DUCT                        |
|     | TEMPORARY CONTROLLER CABINET                                         |    | G.S. CONDUIT IN TRENCH OR PUSHED |
|     | TEMPORARY EMERGENCY VEHICLE<br>LIGHT DETECTOR                        |    | HANDHOLE                         |
|     | TEMPORARY CONFIRMATION BEACON                                        |    | HEAVY DUTY HANDHOLE              |
|     | TEMPORARY SPAN WIRE, TETHER WIRE, AND<br>CABLE                       |    | PROPOSED VIDEO DETECTION CAMERA  |
|     | TEMPORARY SERVICE INSTALLATION                                       |    |                                  |
|     | TEMPORARY PEDESTRIAN SIGNAL HEAD                                     |    |                                  |
|     | TEMPORARY PEDESTRIAN PUSH-BUTTON                                     |    |                                  |
| (2) | NUMBER IDENTIFIES WHICH TRAFFIC PLAN STAGE                           |    |                                  |

**McDONALD'S RESTAURANT**

NO.	ITEM	STATION	OFFSET	UTILITY CONFLICTS
TS-5	POST	40+82.97	68.13 RT	NO
TS-6	POST	41+87.06	70.66 RT	NO
TS-7	POST	41+84.08	54.48 LT	NO
TS-8	POST	40+65.01	59.48 LT	NO



NOTE:  
THE TRAFFIC SIGNAL EQUIPMENT FOR THIS  
PROJECT SHALL BE "ECONOLITE."

**GENERAL NOTES**

1. THE TEMPORARY TRAFFIC SIGNAL EQUIPMENT SHALL BE FULLY OPERATIONAL PRIOR TO THE REMOVAL OF ANY EXISTING TRAFFIC SIGNAL EQUIPMENT.
2. ALL ABOVE GROUND EXISTING TRAFFIC CONTROL EQUIPMENT SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CITY OF WAUKEGAN. ALL EQUIPMENT SHALL BE SALVAGED AND DELIVERED TO 1700 N McAREE ROAD UNLESS OTHERWISE DIRECTED BY THE CITY OF WAUKEGAN AT THE TIME OF REMOVAL.
3. SIGNAL HEADS SHALL BE INSTALLED ON THE SPAN WIRE TO ALIGN WITH THE MULTIPLE ROADWAY STAGING PLANS. SIGNAL HEADS NOT ASSOCIATED WITH THE CONCURRENT ROADWAY STAGING SHALL BE BAGGED.
4. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNALS SHALL BE FURNISHED BY THE CONTRACTOR.
5. 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 TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
6. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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 REALLOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
7. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
8. ANY TEMPORARY SIGNAL WITHIN ANY EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
9. 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 TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

NO.	ITEM	DATE

SCALE: 1" = 20'  
 DRAWN BY: NAB  
 CHECKED BY: CRF  
 DATE: 3-3-06

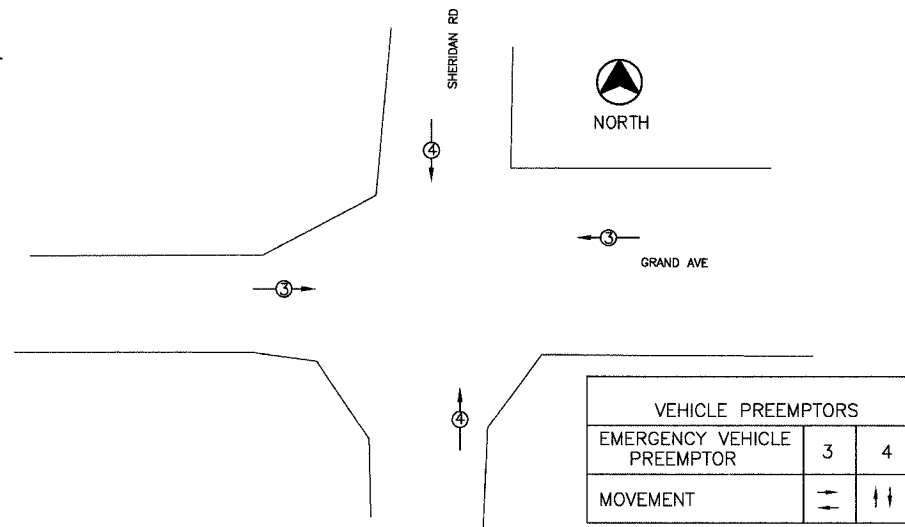
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**TEMPORARY TRAFFIC SIGNAL PLAN**  
**SHERIDAN ROAD AT GRAND AVENUE**  
 SHERIDAN ROAD IMPROVEMENTS  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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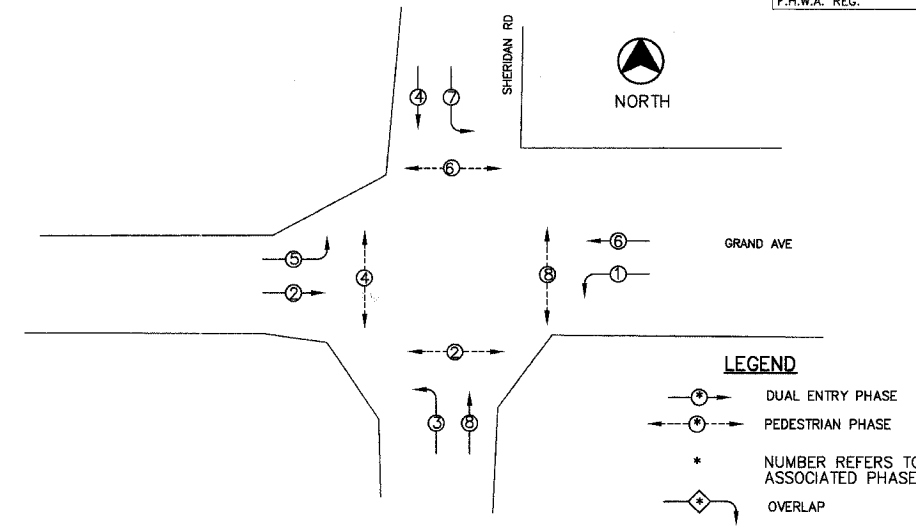
**TEMPORARY CABLE PLAN LEGEND**

- 12" (300MM) TRAFFIC SIGNAL SECTION
- 12" (300MM) PEDESTRIAN SIGNAL HEAD
- TEMPORARY CONTROLLER CABINET
- SERVICE INSTALLATION
- MAGNETIC DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PUSHBUTTON DETECTOR
- DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
- PROPOSED VIDEO DETECTION CAMERA



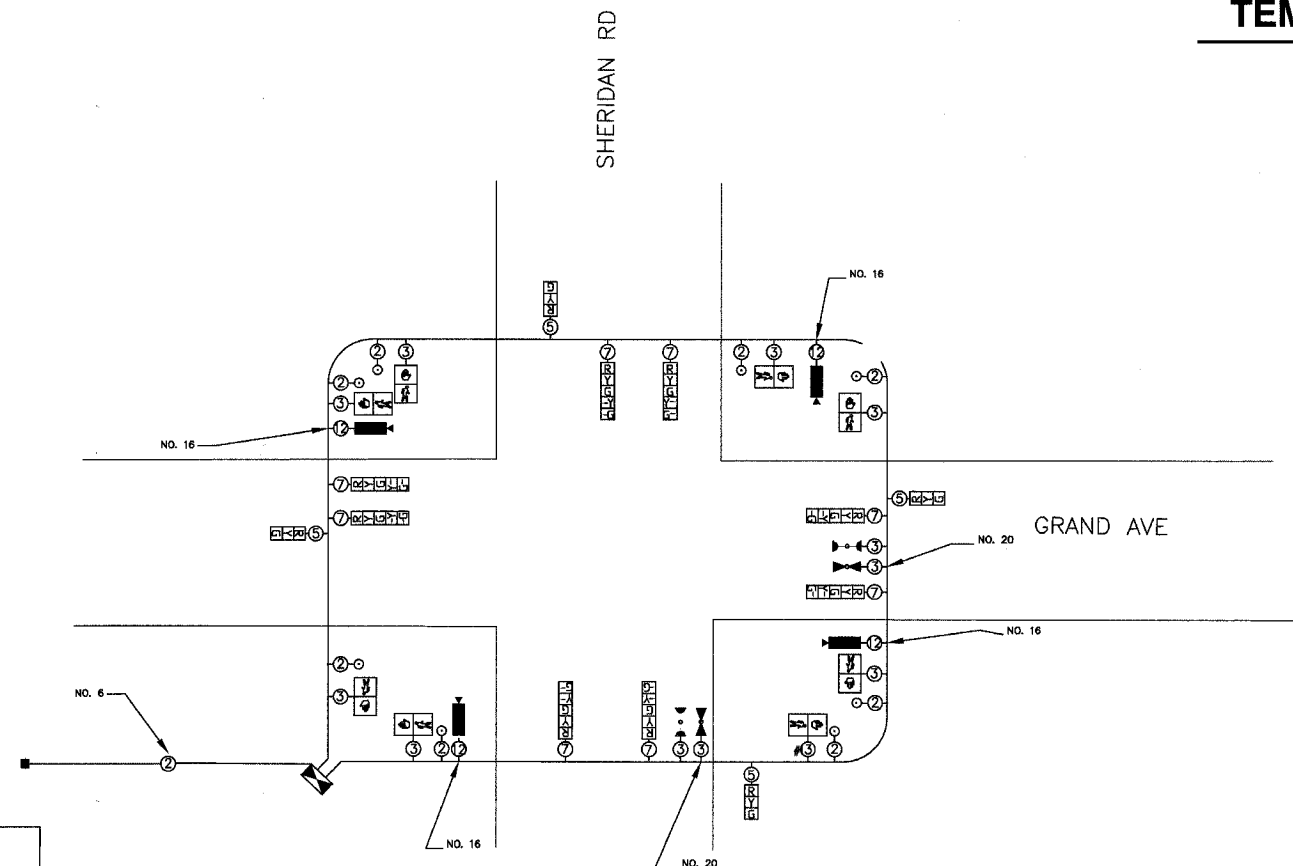
**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

NO SCALE



**TEMPORARY PHASE DESIGNATION DIAGRAM**

NO SCALE



**TEMPORARY CABLE PLAN**

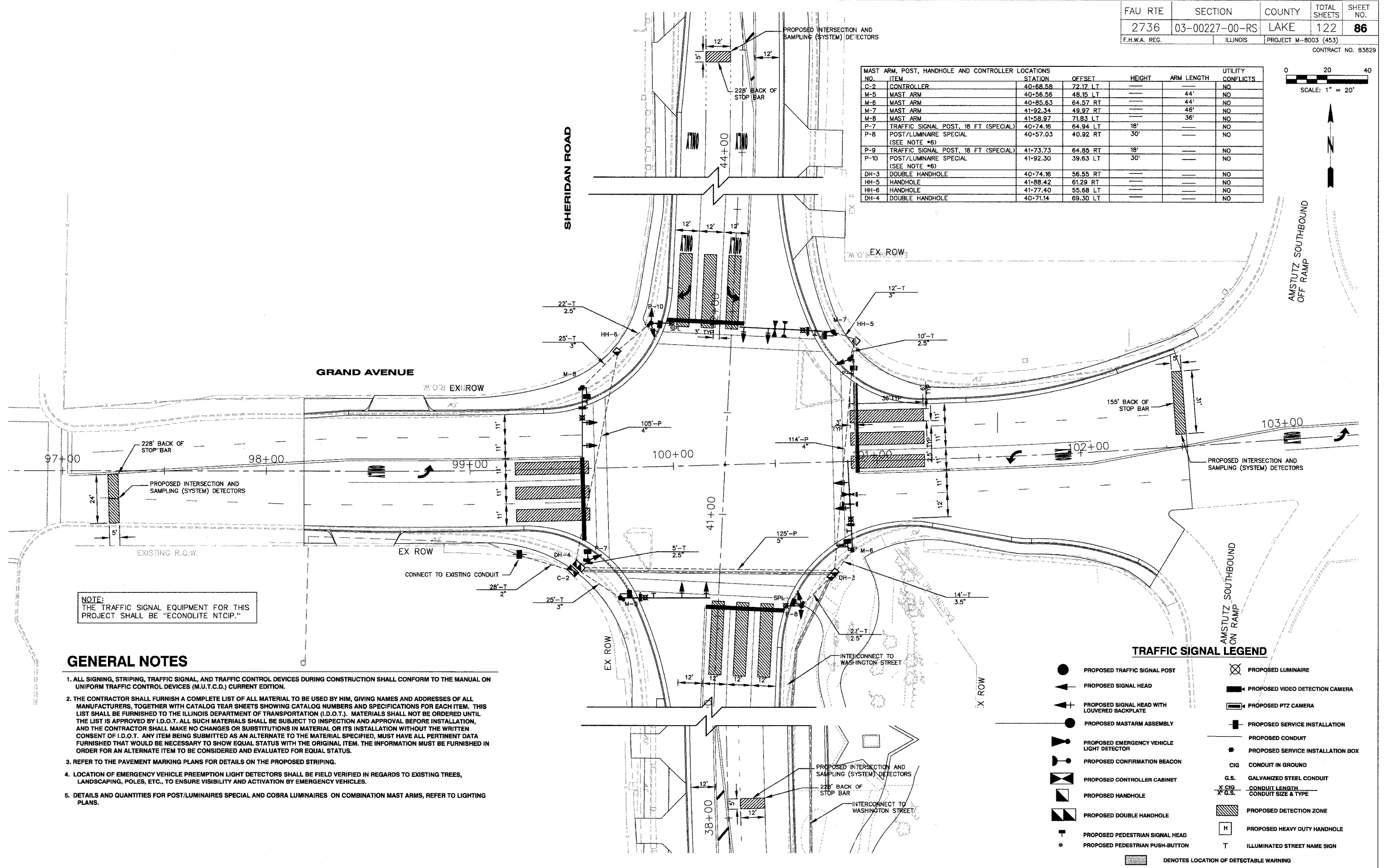
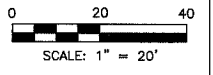
STAGES 1, 2, & 3  
NO SCALE

NOTE:  
THE TRAFFIC SIGNAL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL					
RED	12	135	10	0.50	810
YELLOW	12	135	19	0.25	405
GREEN	12	135	11	0.25	405
ARROW	24	135	9	0.10	324
PED SIGNAL	8	90	9	1.00	720
CONTROLLER	1	100	100	1.00	100
LUMINAIRE	0	84		0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 301 WEST CENTER COURT SPRINGFIELD, ILLINOIS 62768-0086					TOTAL - 2764
ENERGY SUPPLY CONTACT: TERRY BLECK PHONE: (847) 816-5239 COMPANY: COM. ED.					

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
TYPE D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-L-2-
TYPE E - MAST ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13
		24" CONTROLLER CABINET	1	PED. PUSHBUTTON	4
		30" FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		36" ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6
				MAST ARM, LUMINAIRE/CAMERA	40
				MAST ARM, PTZ CAMERA	38.5
				POST LUMINAIRE	30

NO.	ITEM	STATION	OFFSET	HEIGHT	ARM LENGTH	UTILITY CONFLICTS
C-2	CONTROLLER	40+68.58	72.17 LT			NO
M-5	MAST ARM	40+56.56	48.15 LT		44'	NO
M-6	MAST ARM	40+85.63	64.57 RT		44'	NO
M-7	MAST ARM	41+92.34	49.97 RT		46'	NO
M-8	MAST ARM	41+58.97	71.83 LT		36'	NO
P-7	TRAFFIC SIGNAL POST, 18 FT (SPECIAL)	40+74.16	64.94 LT	18'		NO
P-8	POST/LUMINAIRE SPECIAL (SEE NOTE #6)	40+57.03	40.92 RT	30'		NO
P-9	TRAFFIC SIGNAL POST, 18 FT (SPECIAL)	41+73.73	64.85 RT	18'		NO
P-10	POST/LUMINAIRE SPECIAL (SEE NOTE #6)	41+92.30	39.63 LT	30'		NO
DH-3	DOUBLE HANDHOLE	40+74.16	56.55 RT			NO
HH-5	HANDHOLE	41+88.42	61.29 RT			NO
HH-6	HANDHOLE	41+77.40	55.68 LT			NO
DH-4	DOUBLE HANDHOLE	40+71.14	69.30 LT			NO



NOTE:  
THE TRAFFIC SIGNAL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE NTCIP."

**GENERAL NOTES**

1. ALL SIGNING, STRIPING, TRAFFIC SIGNAL, AND TRAFFIC CONTROL DEVICES DURING CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) CURRENT EDITION.
2. THE CONTRACTOR SHALL FURNISH A COMPLETE LIST OF ALL MATERIAL TO BE USED BY HIM, GIVING NAMES AND ADDRESSES OF ALL MANUFACTURERS, TOGETHER WITH CATALOG TEAR SHEETS SHOWING CATALOG NUMBERS AND SPECIFICATIONS FOR EACH ITEM. THIS LIST SHALL BE FURNISHED TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION (I.D.O.T.). MATERIALS SHALL NOT BE ORDERED UNTIL THE LIST IS APPROVED BY I.D.O.T. ALL SUCH MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BEFORE INSTALLATION, AND THE CONTRACTOR SHALL MAKE NO CHANGES OR SUBSTITUTIONS IN MATERIAL OR ITS INSTALLATION WITHOUT THE WRITTEN CONSENT OF I.D.O.T. ANY ITEM BEING SUBMITTED AS AN ALTERNATE TO THE MATERIAL SPECIFIED, MUST HAVE ALL PERTINENT DATA FURNISHED THAT WOULD BE NECESSARY TO SHOW EQUAL STATUS WITH THE ORIGINAL ITEM. THE INFORMATION MUST BE FURNISHED IN ORDER FOR AN ALTERNATE ITEM TO BE CONSIDERED AND EVALUATED FOR EQUAL STATUS.
3. REFER TO THE PAVEMENT MARKING PLANS FOR DETAILS ON THE PROPOSED STRIPING.
4. LOCATION OF EMERGENCY VEHICLE PREEMPTION LIGHT DETECTORS SHALL BE FIELD VERIFIED IN REGARDS TO EXISTING TREES, LANDSCAPING, POLES, ETC., TO ENSURE VISIBILITY AND ACTIVATION BY EMERGENCY VEHICLES.
5. DETAILS AND QUANTITIES FOR POST/LUMINAIRES SPECIAL AND COBRA LUMINAIRES ON COMBINATION MAST ARMS, REFER TO LIGHTING PLANS.

**TRAFFIC SIGNAL LEGEND**

- PROPOSED TRAFFIC SIGNAL POST
  - ▲ PROPOSED SIGNAL HEAD
  - ▲ PROPOSED SIGNAL HEAD WITH LOUVERED BACKPLATE
  - PROPOSED MASTARM ASSEMBLY
  - ▼ PROPOSED EMERGENCY VEHICLE LIGHT DETECTOR
  - PROPOSED CONFIRMATION BEACON
  - PROPOSED CONTROLLER CABINET
  - PROPOSED HANDHOLE
  - PROPOSED DOUBLE HANDHOLE
  - ⊕ PROPOSED PEDESTRIAN SIGNAL HEAD
  - PROPOSED PEDESTRIAN PUSH-BUTTON
  - ⊗ PROPOSED LUMINAIRE
  - PROPOSED VIDEO DETECTION CAMERA
  - PROPOSED PTZ CAMERA
  - PROPOSED SERVICE INSTALLATION
  - PROPOSED SERVICE INSTALLATION BOX
  - CIG CONDUIT IN GROUND
  - G.S. GALVANIZED STEEL CONDUIT
  - X CIG CONDUIT LENGTH
  - X G.S. CONDUIT SIZE & TYPE
  - PROPOSED DETECTION ZONE
  - H PROPOSED HEAVY DUTY HANDHOLE
  - T ILLUMINATED STREET NAME SIGN
- DENOTES LOCATION OF DETECTABLE WARNING

REVISIONS		
NO.	ITEM	DATE

SCALE: 1" = 20'  
 DRAWN BY: NMB  
 CHECKED BY: CRF  
 DATE: 3-3-06

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 TEL: 847-336-7100 FAX: 847-336-7155  
 E-MAIL: wk@mcclureengineering.com

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**TRAFFIC SIGNAL PLAN**  
**SHERIDAN ROAD AT GRAND AVENUE**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-184 LAKE COUNTY, ILLINOIS  
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### CABLE PLAN LEGEND

- 12" (300MM) TRAFFIC SIGNAL SECTION
- PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN
- CONTROLLER CABINET
- SERVICE INSTALLATION
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PUSHBUTTON DETECTOR
- DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
- SIGNAL FACE WITHOUT BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
- VIDEO DETECTION CAMERA
- PROPOSED PTZ CAMERA
- GROUND ROD @ SERVICE INSTALLATION
- GROUND ROD AT CONTROLLER (C), POST (P), OR MAST ARM (MA)
- PROPOSED LUMINAIRE
- VIDEO IMAGE CABLE, BELDEN 8281 COAXIAL CABLE

## EMERGENCY VEHICLE PREEMPTION SEQUENCE

NO SCALE

PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	→

OVERLAP B = PHASE 4 + PHASE 5

- ### LEGEND
- DUAL ENTRY PHASE
  - PEDESTRIAN PHASE
  - NUMBER REFERS TO ASSOCIATED PHASE
  - OVERLAP

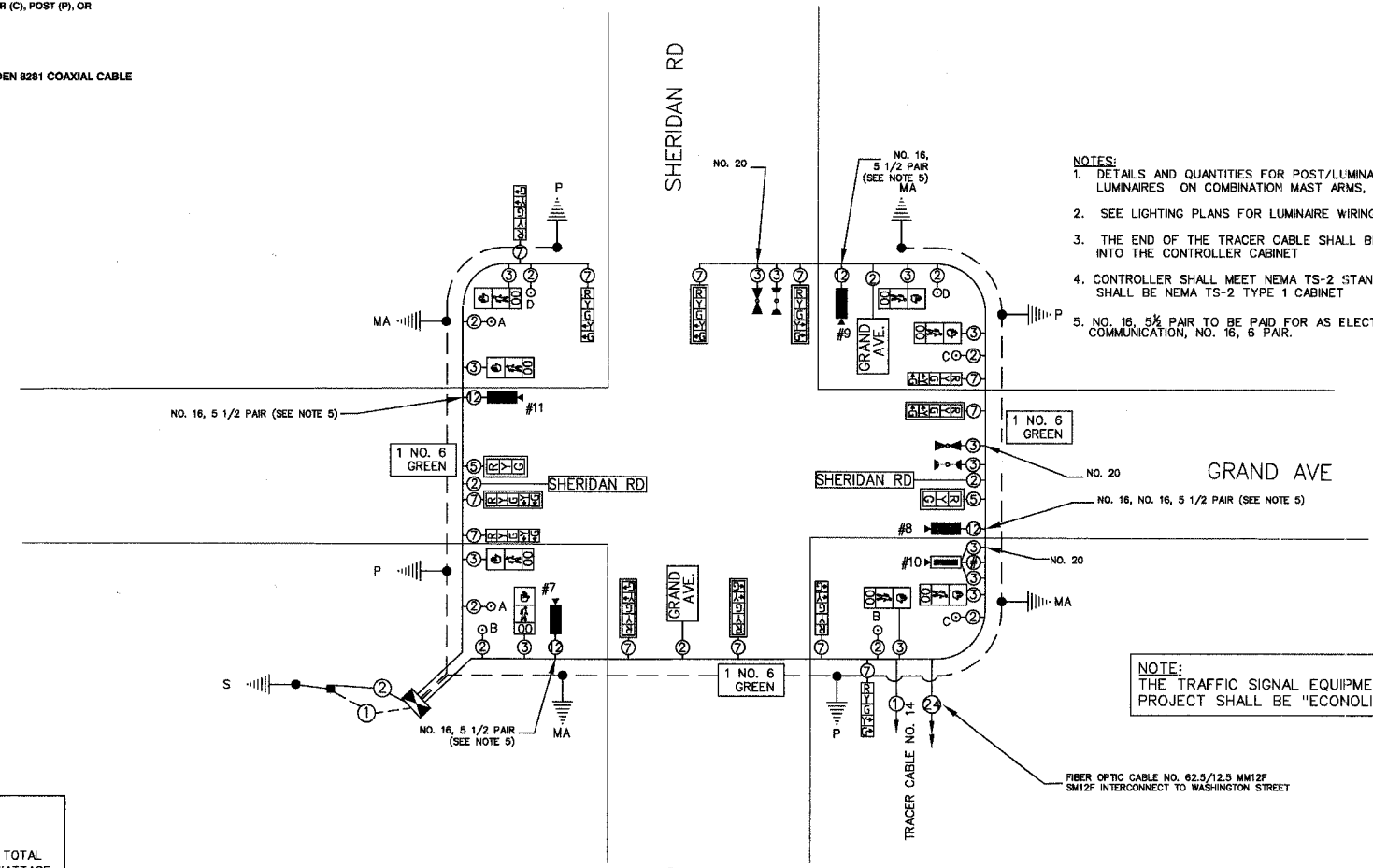
OVERLAP D = PHASE 8 + PHASE 9

## PHASE DESIGNATION DIAGRAM

NO SCALE

- NOTES:**
1. DETAILS AND QUANTITIES FOR POST/LUMINAIRE SPECIAL AND COBRA LUMINAIRE ON COMBINATION MAST ARMS, REFER TO LIGHTING PLANS.
  2. SEE LIGHTING PLANS FOR LUMINAIRE WIRING AND ELECTRIC FEED.
  3. THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.
  4. CONTROLLER SHALL MEET NEMA TS-2 STANDARDS AND THE CABINET SHALL BE NEMA TS-2 TYPE 1 CABINET.
  5. NO. 16, 5 1/2 PAIR TO BE PAID FOR AS ELECTRICAL CABLE IN CONDUIT, COMMUNICATION, NO. 16, 6 PAIR.

**NOTE:** THE TRAFFIC SIGNAL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE NTCIP."



## CABLE PLAN

NO SCALE

TRAFFIC SIGNAL - SCHEDULE OF QUANTITIES			
CODED PAY ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	59
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	62
81000900	CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	14
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	219
81019000	CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL	FOOT	125
81400100	HANDHOLE	EACH	3
81400300	DOUBLE HANDHOLE	EACH	2
81500200	TRENCH & BACKFILL FOR ELECTRICAL WORK	FOOT	135
83700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
86400100	TRANSMITTER, FIBER OPTIC	EACH	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2/C	FOOT	1549
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C	FOOT	2172
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5/C	FOOT	1253
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7/C	FOOT	2389
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	175
87301615	ELECTRIC CABLE IN CONDUIT, COMMUNICATION, NO. 16, 6 PAIR	FOOT	880
87704110	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 36 FT. (SPECIAL)	EACH	1
87704150	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 44 FT. (SPECIAL)	EACH	2
87704160	STEEL COMBINATION MAST ARM ASSEMBLY & POLE 46 FT. (SPECIAL)	EACH	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	4
87800400	CONCRETE FOUNDATION, TYPE E, 30" DIA.	FOOT	15
87800415	CONCRETE FOUNDATION, TYPE E, 36" DIA.	FOOT	45
88040100	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH	2
88040155	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, SPECIAL	EACH	6
88040170	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH	6
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
88200110	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	12
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
88800100	PEDESTRIAN PUSH-BUTTON	EACH	8
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
89502380	REMOVE EXISTING HANDHOLE	EACH	8
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
X0323153	ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1C (GREEN)	FOOT	1315
X0325060	2955 LAYER 2 SWITCH	EACH	1
X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
X8730320	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED	FOOT	753
88040100	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH	2
88040155	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, SPECIAL	EACH	6
88040170	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH	6
XX003661	ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	209
XX005428	INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
XX005723	VIDEO DETECTION SYSTEM COMPLETE INTERSECTION	EACH	1
XX005932	TRAFFIC SIGNAL POST, 18 FT SPECIAL	EACH	2
XX005940	REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1
XX006661	UNINTERRUPTIBLE POWER SUPPLY	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND.	LED % OPERATION	TOTAL WATTAGE	
SIGNAL					
RED	18	135	10	0.50	15.3
YELLOW	18	135	19	0.25	112.5
GREEN	18	135	11	0.25	67.5
ARROW	22	135	9	0.10	26.4
PED SIGNAL	8	90	9	1.00	200
CONTROLLER	1	100	100	1.00	100
STREET LIGHTS	6	84		0.50	252
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHWABERG, ILLINOIS 60196-0945				TOTAL	911.4
ENERGY SUPPLY CONTACT: TERRY BLECK PHONE: (847) 816-5239 COMPANY: COM. ED.					

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)	
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5	
TYPE D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20" L-2-	
TYPE E - MAST ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13	
	24"	10	CONTROLLER CABINET	1	PED. PUSHBUTTON	4
	30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
	36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
			GROUND CABLE	1	POST MOUNTED	6
					MAST ARM, LUMINAIRE/CAMERA	40
					MAST ARM, PTZ CAMERA	38.5
					POST LUMINAIRE	30

### THE POSTED SPEED LIMIT ON:

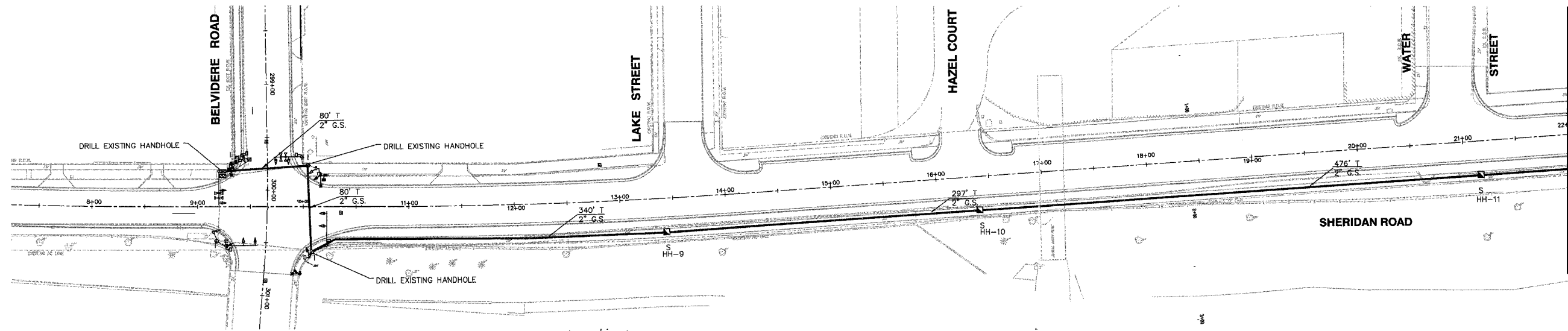
GRAND AVENUE IS 25 MPH  
SHERIDAN ROAD IS 30 MPH

REVISIONS		
NO.	ITEM	DATE

SCALE:	1" = 20'
DRAWN BY:	NLB
CHECKED BY:	CRF
DATE:	3-3-06

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**CABLE PLAN/PHASE DIAGRAM**  
**SHERIDAN ROAD AT GRAND AVENUE**  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
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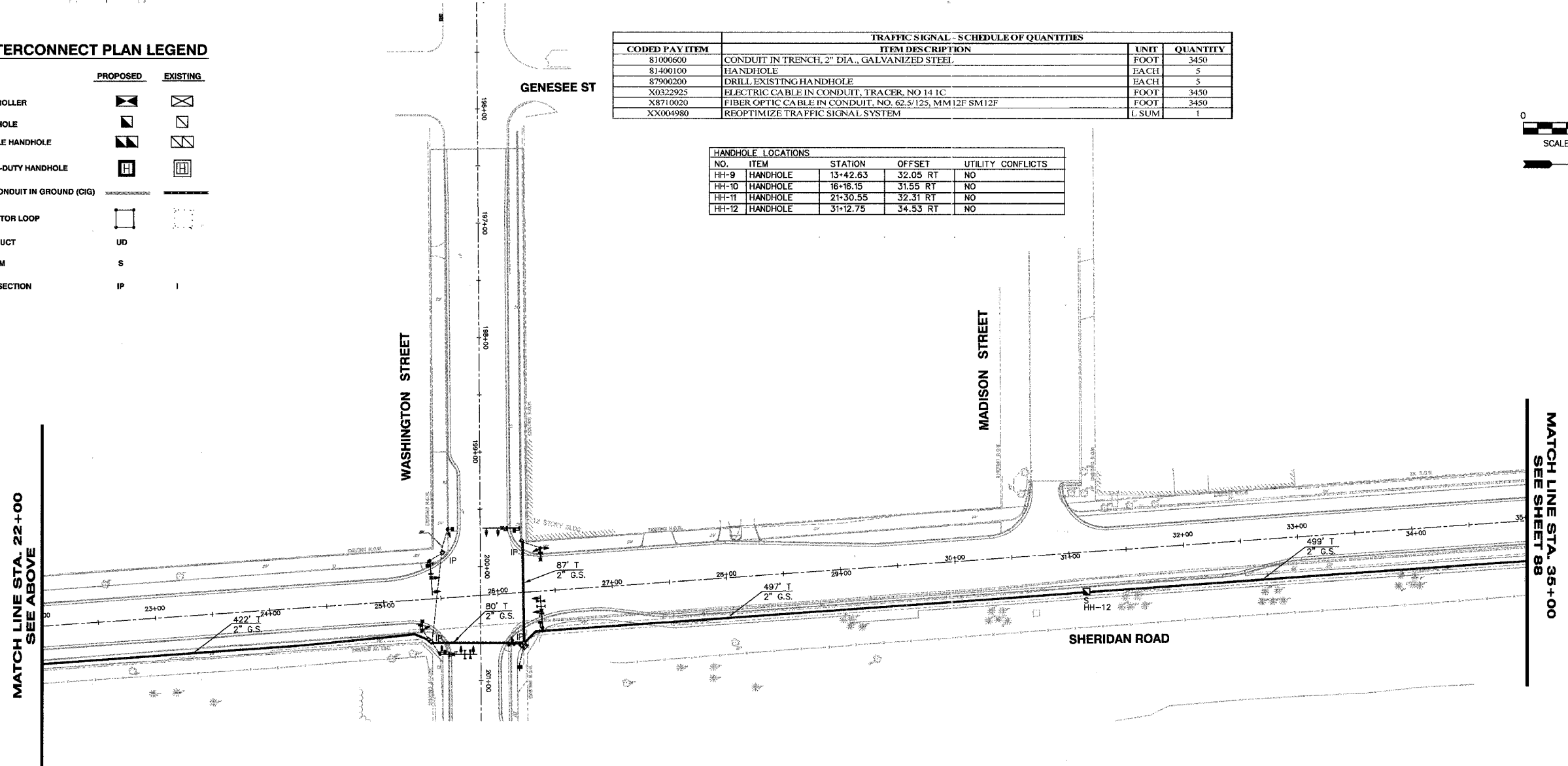
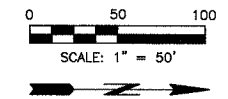


**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN GROUND (CIG)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	

TRAFFIC SIGNAL - SCHEDULE OF QUANTITIES			
CODED PAY ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	3450
81400100	HANDHOLE	EACH	5
87900200	DRILL EXISTING HANDHOLE	EACH	5
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO 14 1C	FOOT	3450
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	3450
XX004980	REOPTIMIZE TRAFFIC SIGNAL SYSTEM	L SUM	1

HANDHOLE LOCATIONS				
NO.	ITEM	STATION	OFFSET	UTILITY CONFLICTS
HH-9	HANDHOLE	13+42.63	32.05 RT	NO
HH-10	HANDHOLE	16+16.15	31.55 RT	NO
HH-11	HANDHOLE	21+30.55	32.31 RT	NO
HH-12	HANDHOLE	31+12.75	34.53 RT	NO

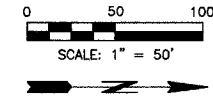
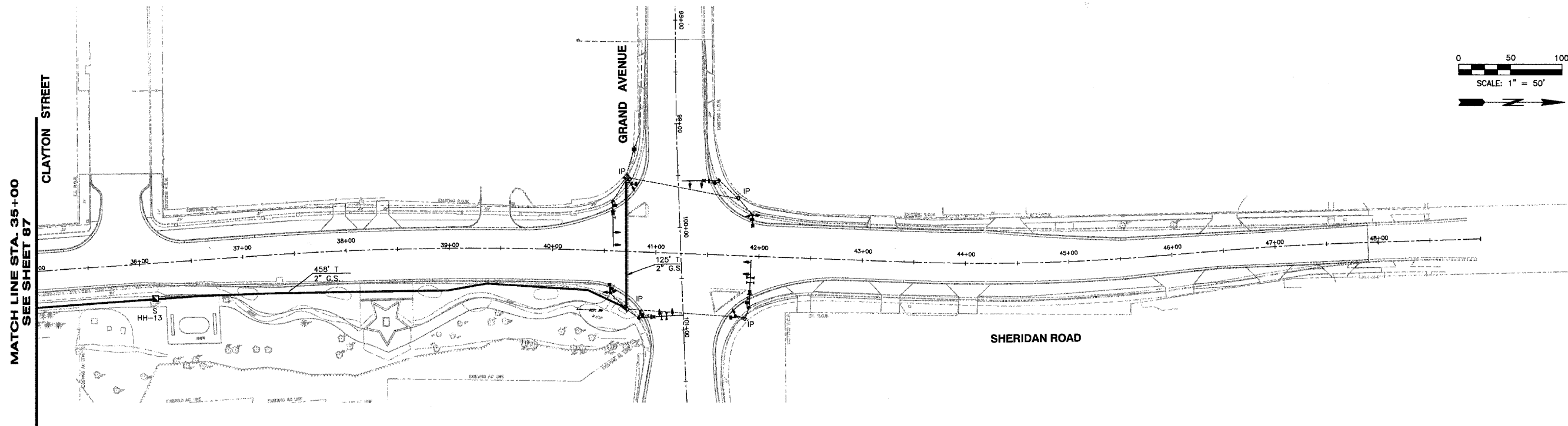


REVISIONS		
NO.	ITEM	DATE

SCALE:	1" = 50'
DRAWN BY:	NMB
CHECKED BY:	CRF
DATE:	3-3-06

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**INTERCONNECT PLAN FROM BELVIDERE ROAD TO STA 35+00 SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS  
 W:\dwg\WK\SHERIDAN-RD\Sher-TrafficSignals.dwg 8/26/2005 3:07:04 PM CDT



MATCH LINE STA. 35+00  
SEE SHEET 87

HANDHOLE LOCATIONS			
NO.	ITEM	STATION	OFFSET
HH-13	HANDHOLE	36+12.75	34.44 RT
			UTILITY CONFLICTS
			NO

**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLD		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN GROUND (CIG)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I

REVISIONS		
NO.	ITEM	DATE

SCALE: 1" = 50'  
 DRAWN BY: NMB  
 CHECKED BY: CRF  
 DATE: 3-3-06

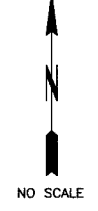
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**INTERCONNECT PLAN**  
**FROM STA 35+00 TO GRAND AVENUE**  
**SHERIDAN ROAD IMPROVEMENTS**

CITY OF WAUKEGAN      JOB NUMBER: 02-28-04-164      LAKE COUNTY, ILLINOIS

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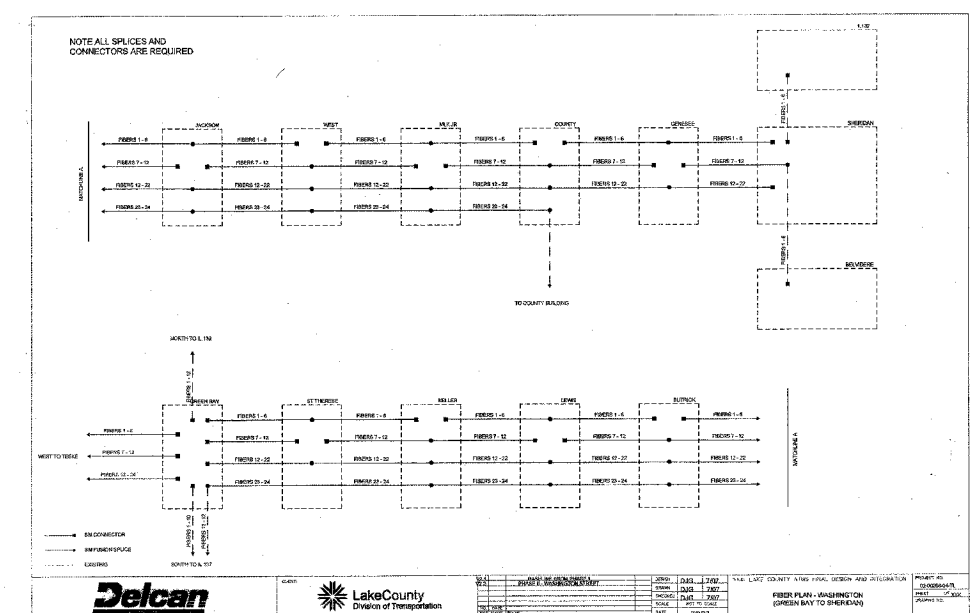
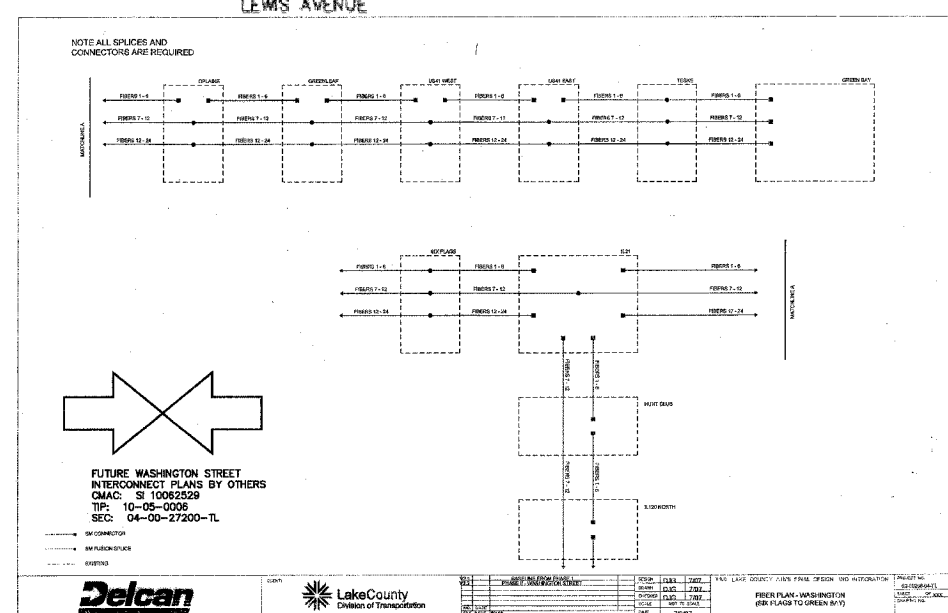
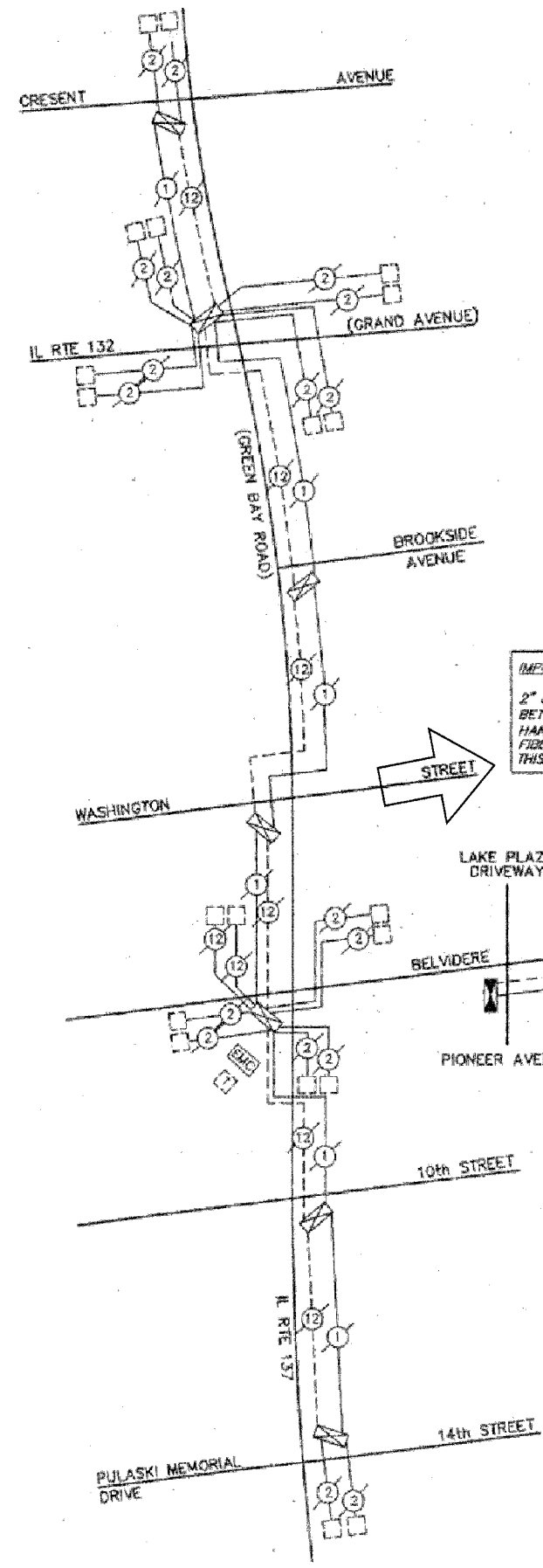




**INTERCONNECT SCHEMATIC LEGEND**

EXISTING INTERSECTION CONTROLLER		PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS	
PROPOSED INTERSECTION CONTROLLER		EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	
EXISTING MASTER CONTROLLER		PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	
PROPOSED MASTER CONTROLLER		EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	
MASTER MASTER CONTROLLER		PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	
EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS		EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	
PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	
EXISTING INTERSECTION LOOP DETECTORS		EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	
PROPOSED SAMPLING (SYSTEM) DETECTORS		PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	
EXISTING SAMPLING (SYSTEM) DETECTORS		EXISTING ELECTRIC CABLE, 1/C (AS SPECIFIED)	
PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS		PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)	
EXISTING SAMPLING (SYSTEM) DETECTORS		EXISTING TELEPHONE CONNECTION	
PROPOSED SAMPLING (SYSTEM) DETECTORS		PROPOSED TELEPHONE CONNECTION	

**IMPORTANT NOTE:**  
 2" DIAMETER GALVANIZED STEEL CONDUIT WILL BE INSTALLED BETWEEN LAKE PLAZA DRIVEWAY/PIONEER STREET TO THE HANDHOLE FOR IL RTE 131(GREEN BAY RD) AT STA 198+80. FIBER OPTIC AND TRACER CABLE WILL NOT BE INSTALLED AT THIS TIME.



REVISIONS		
NO.	ITEM	DATE

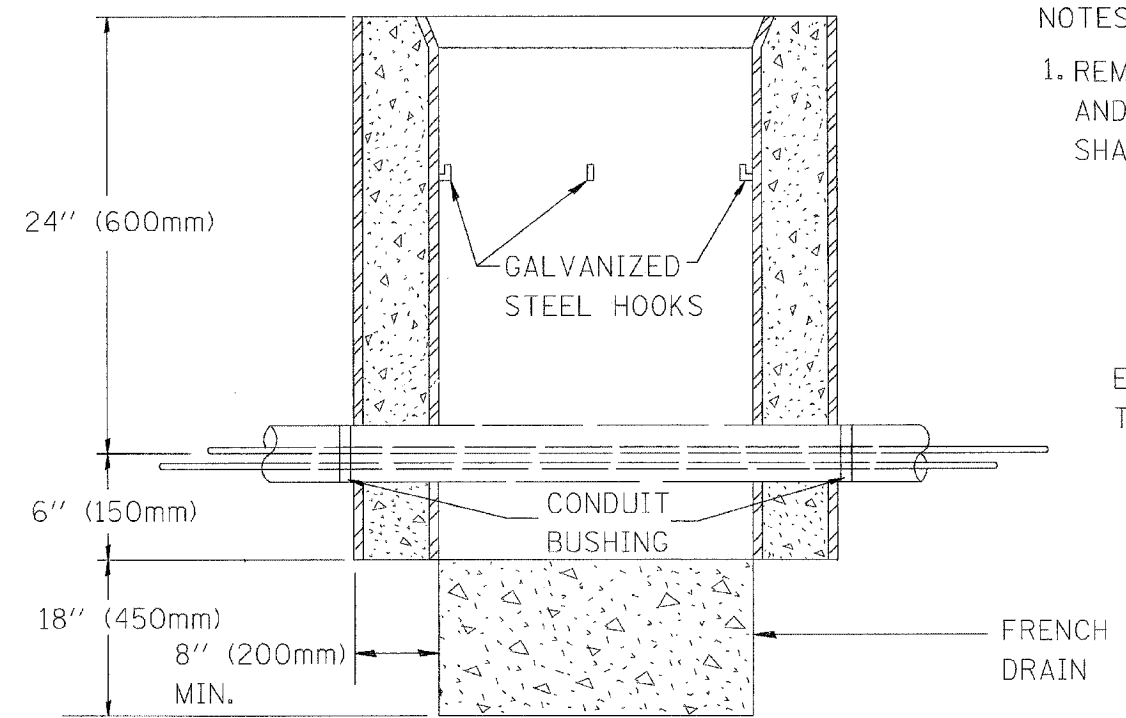
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DRAWN BY:	NAB
CHECKED BY:	CRF
DATE:	3-3-06

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**INTERCONNECT SCHEMATIC SHERIDAN ROAD (BELVIDERE ROAD TO GRAND AVENUE)**  
 SHERIDAN ROAD IMPROVEMENTS  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS

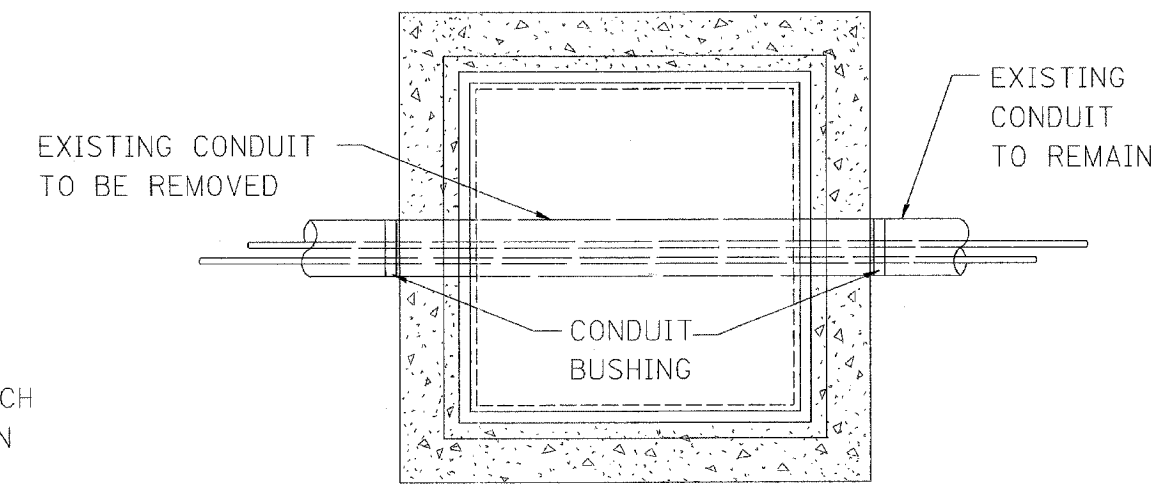
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ELEVATION

NOTES:

1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.



PLAN

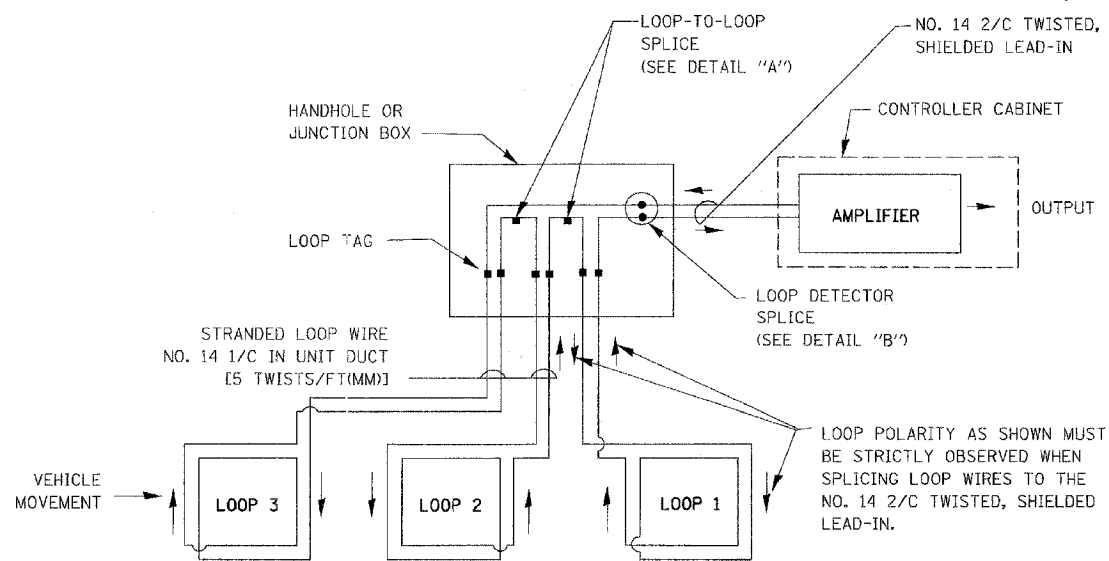
DETAIL  
HANDHOLE TO INTERCEPT EXISTING CONDUIT

\*DATE-TIME\*  
\*DGN-SPEC\*  
VI-TS03

REVISION DATE:

### LOOP DETECTOR NOTES

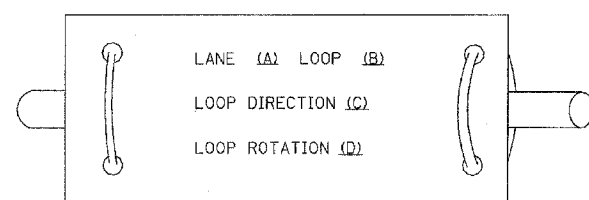
- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.



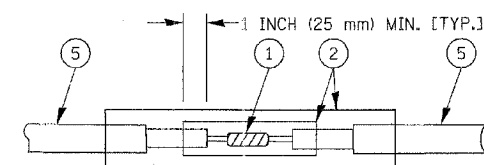
DETECTOR LOOP WIRING SCHEMATIC

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

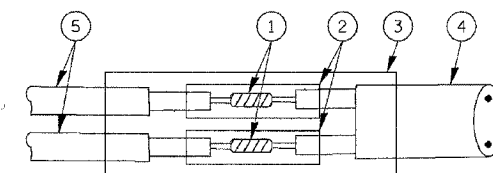
LOOP LEAD-IN CABLE TAG



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



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

#### LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS	
NAME	DATE
CADD	5/30/00
ADD NOTE NO. 8	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL**  
**DESIGN DETAILS**

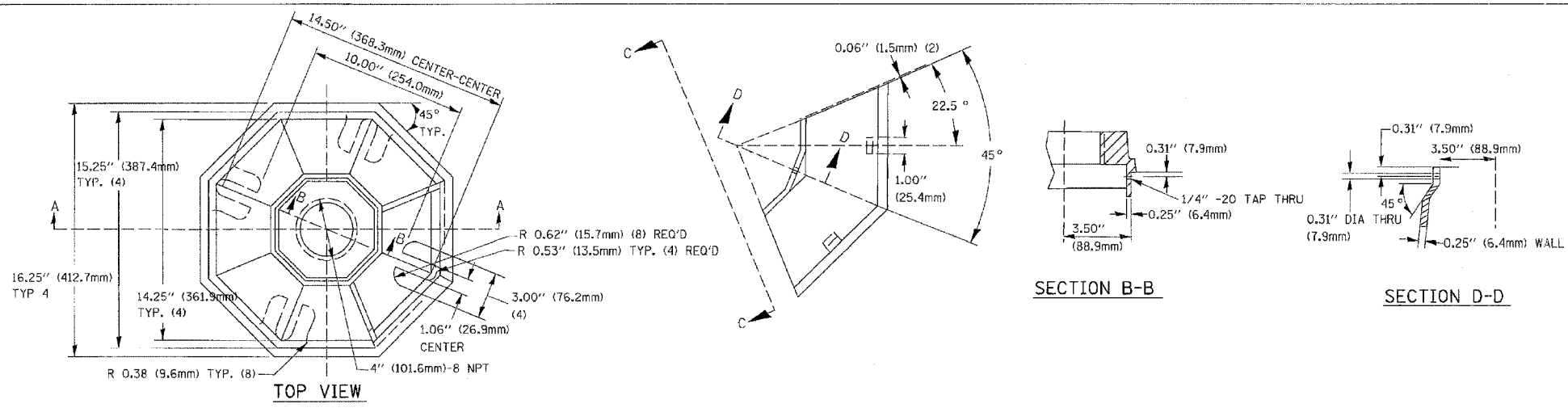
SCALE: VERT. NONE  
 HORIZ. NONE  
 DATE 10/18/2002

DRAWN BY: RWP  
 DESIGNED BY: DAD  
 CHECKED BY: DAZ  
 SHEET 1 OF 4



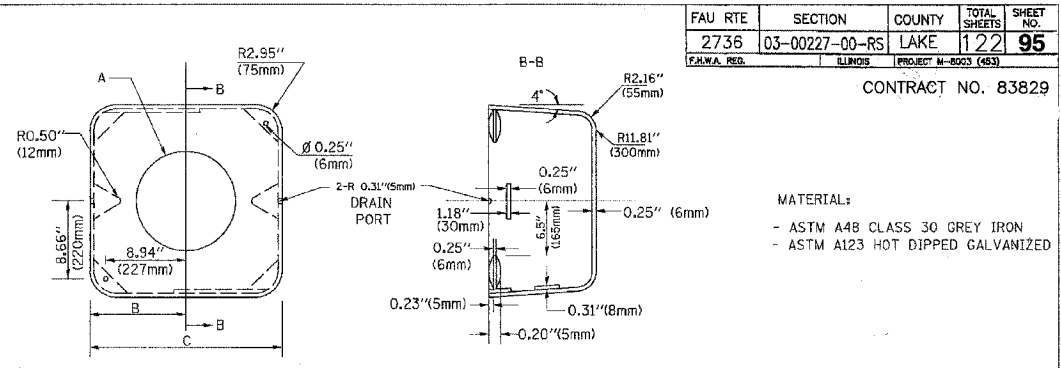






SECTION B-B

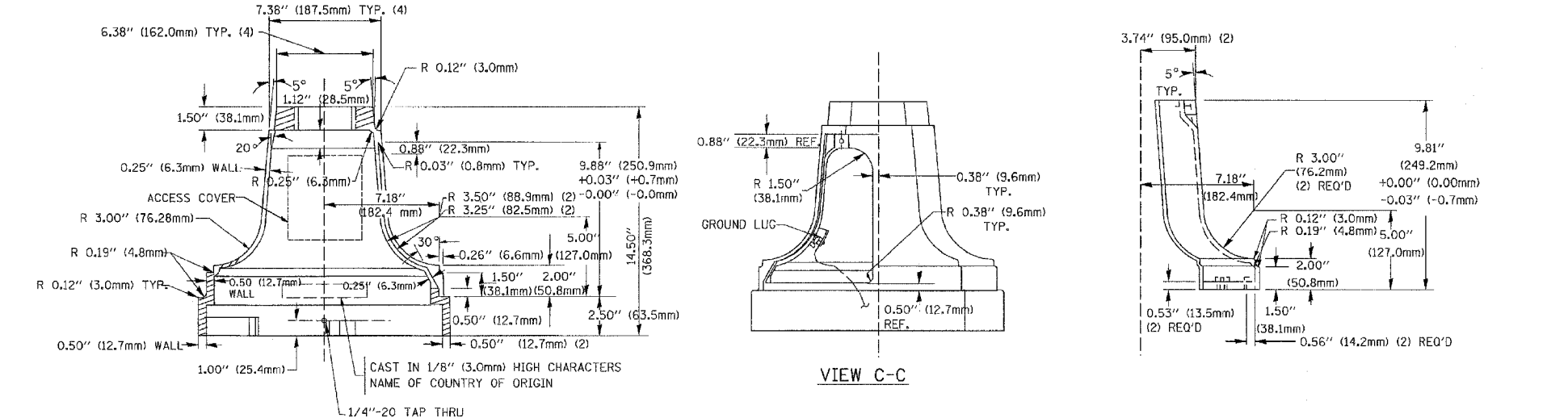
SECTION D-D



TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125 (257mm)	9.5 (241mm)	19 (483mm)	12 (300mm)	24kg
II	Ø 11.125 (283mm)	10.75 (273mm)	21.5 (546mm)	12 (300mm)	26kg

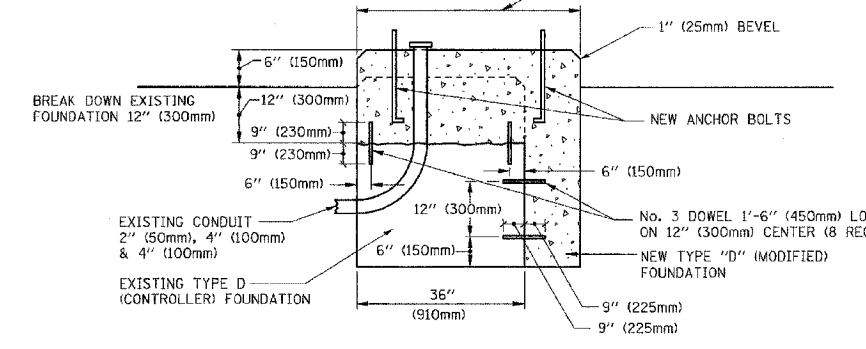
SHROUD DETAIL

MATERIAL:  
 - ASTM A48 CLASS 30 GREY IRON  
 - ASTM A123 HOT DIPPED GALVANIZED



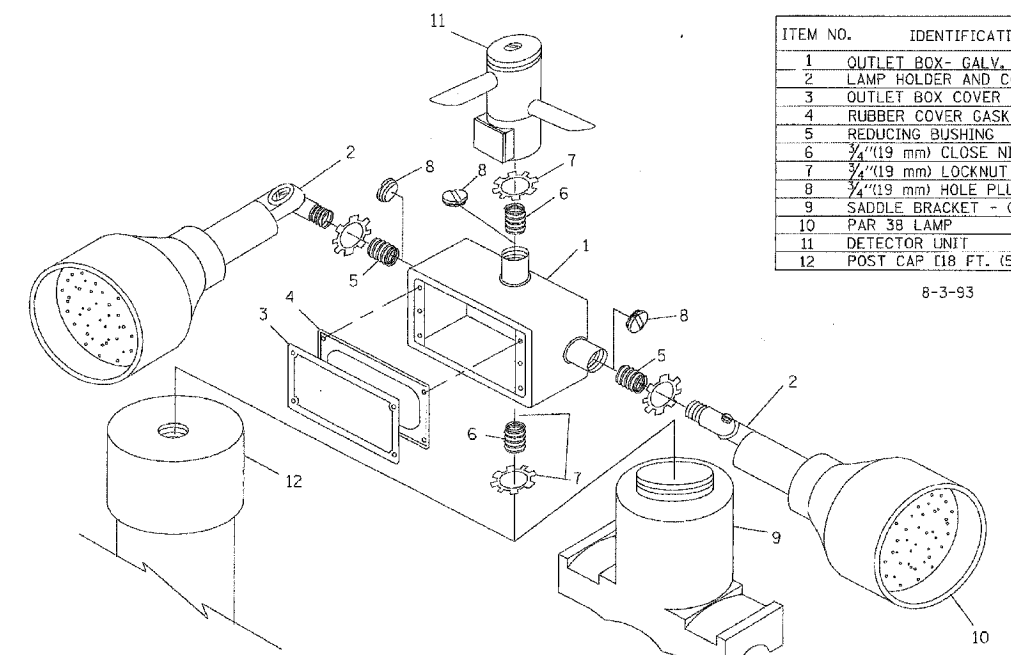
TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

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



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)



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

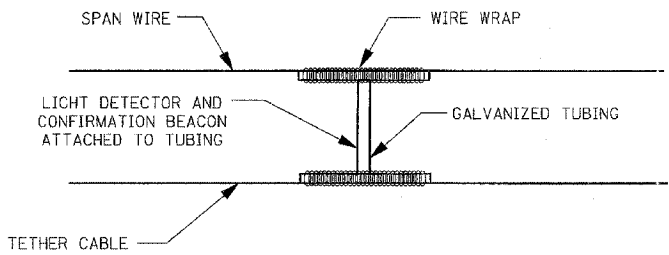
8-3-93

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
 ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
 ITEM #9- 'BAND-IT' SADDLE BRACKET OR EQUIVALENT
- 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.

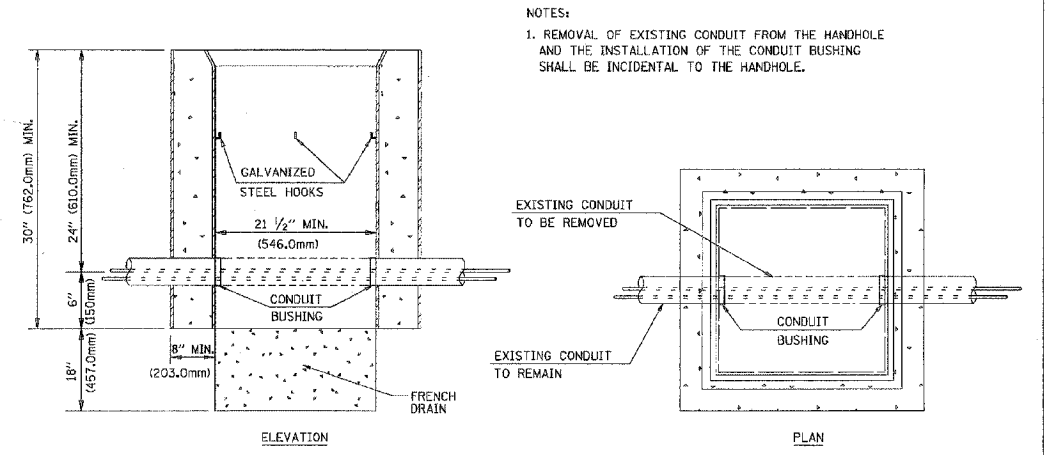
POST CAP MOUNT  
 MAST ARM MOUNT  
 EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

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LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS

(NOT TO SCALE)



NOTES:  
 1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.

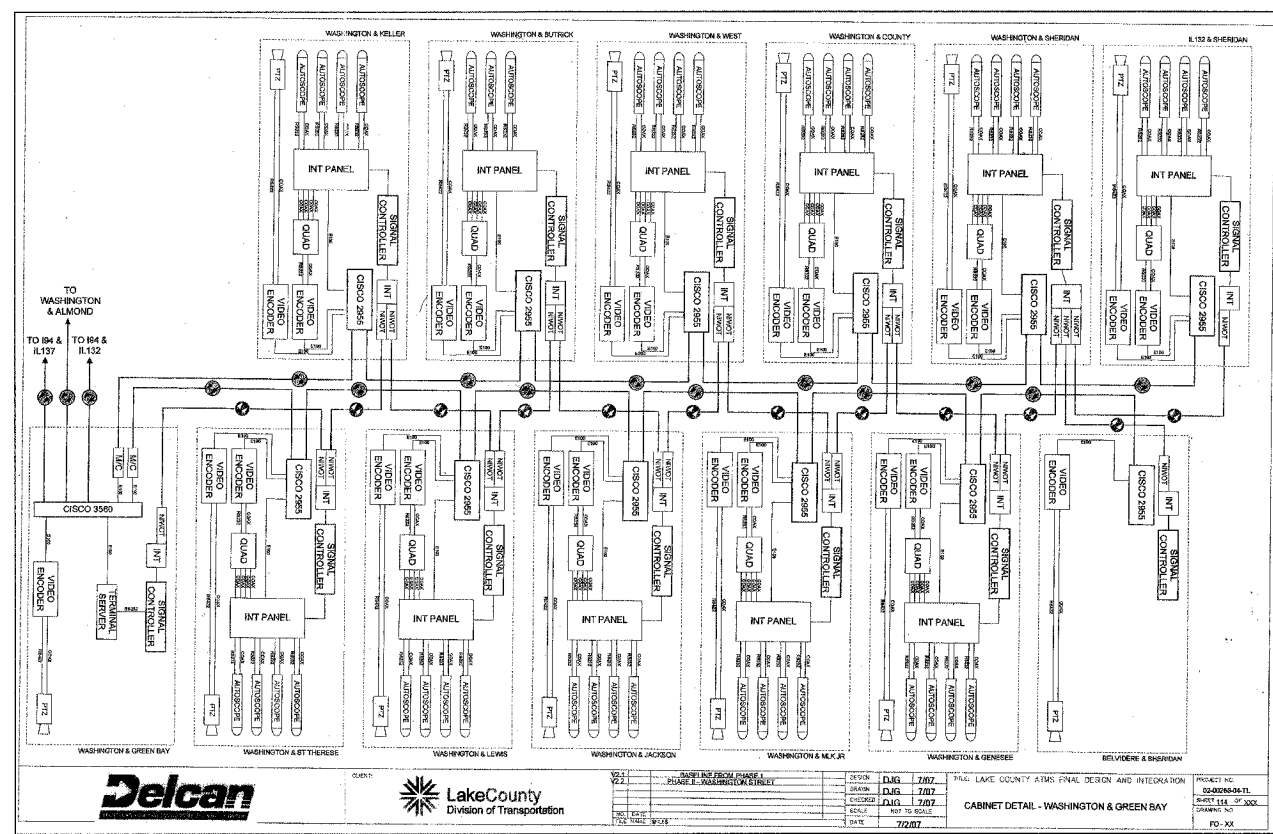
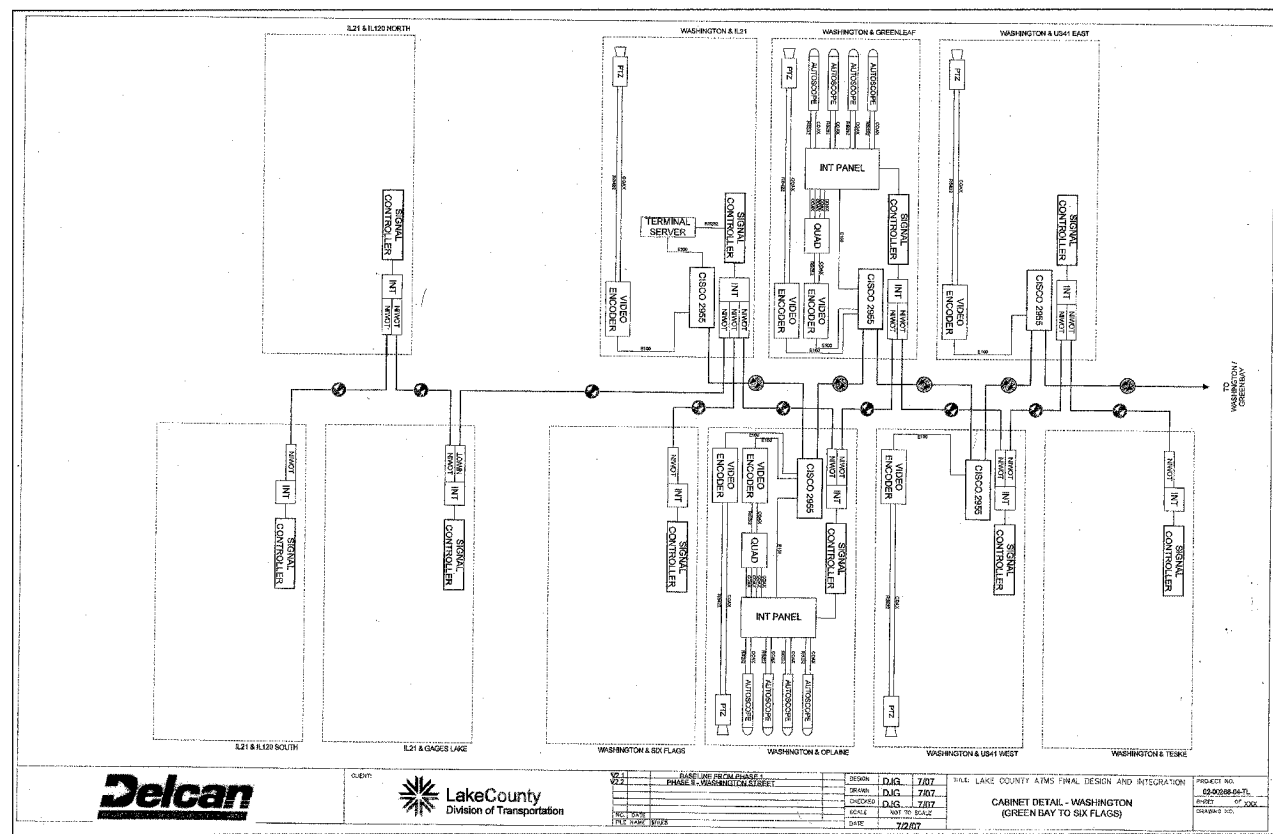
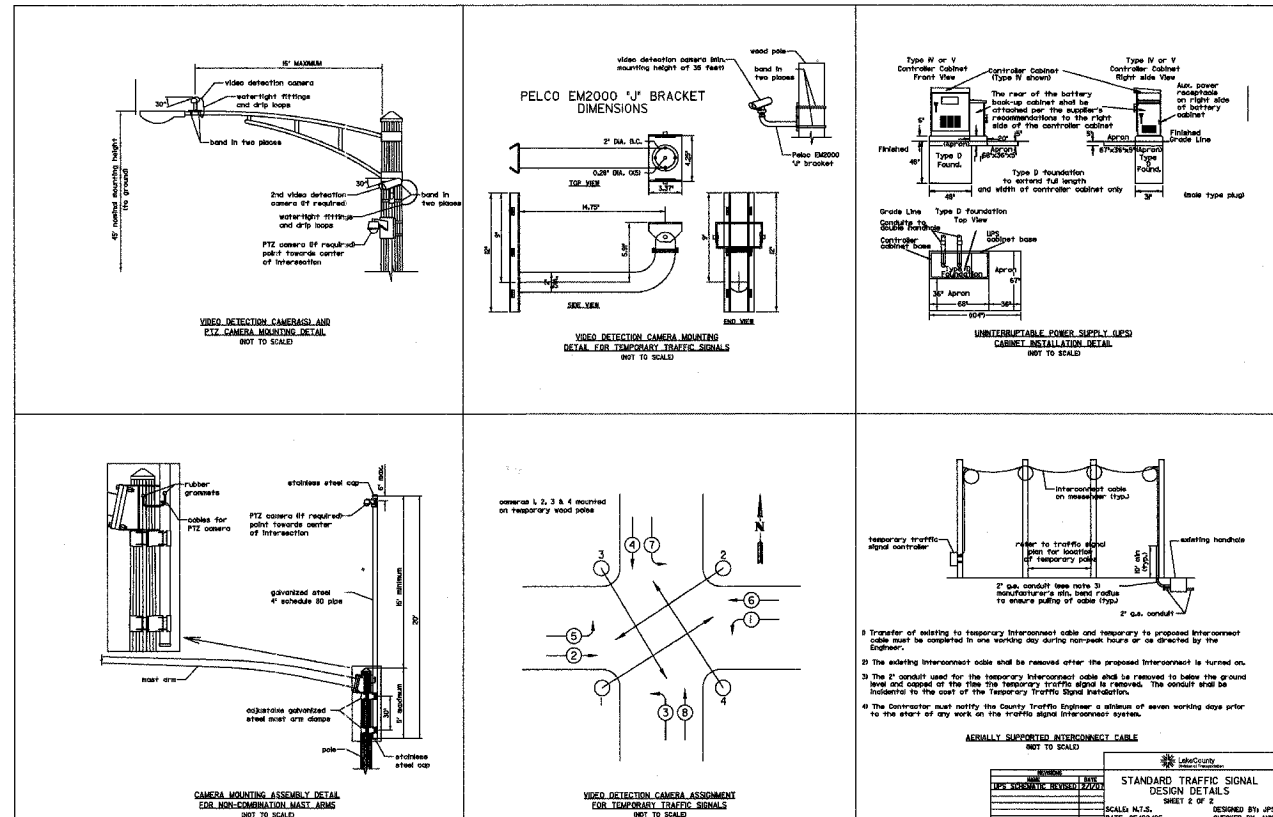
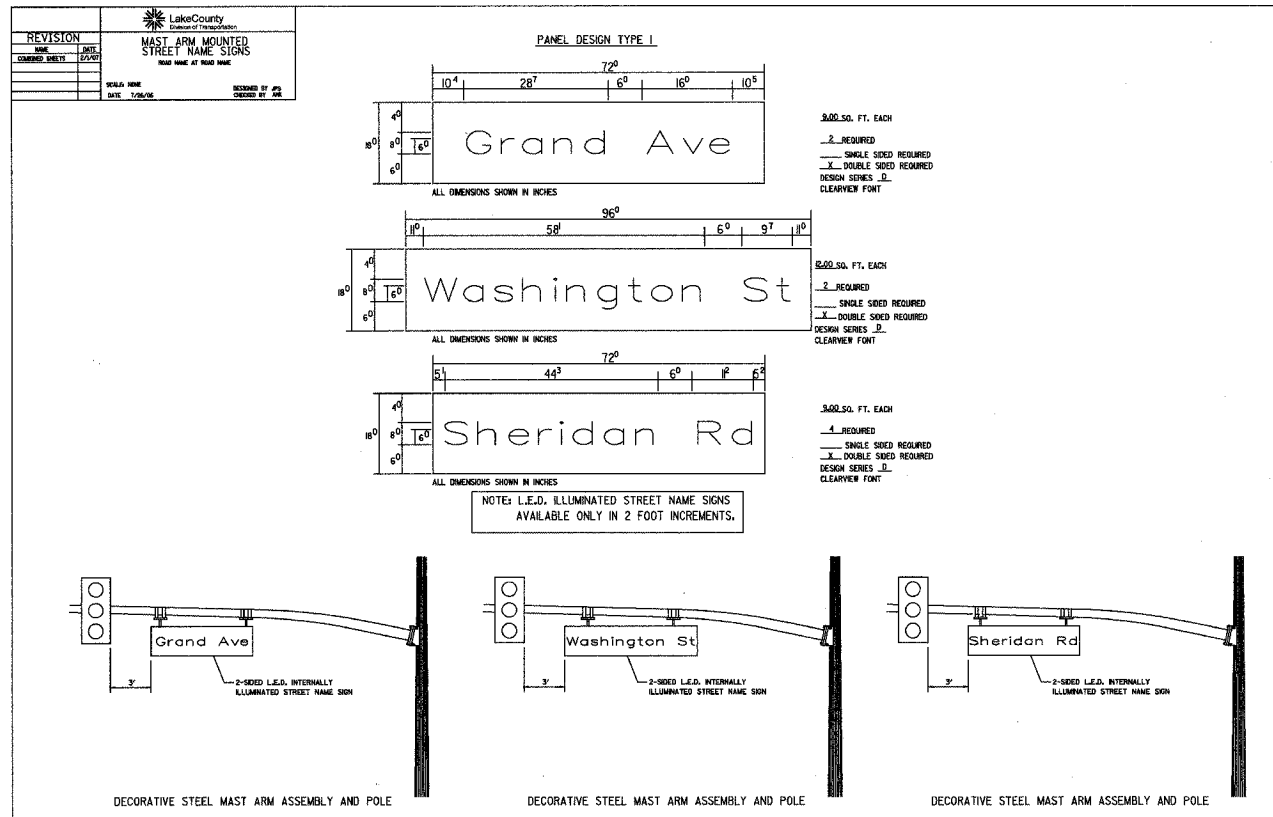
DETAIL  
 HANDHOLE TO INTERCEPT EXISTING CONDUIT  
 N.T.S.

REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	5/30/00
BUREAU OF TRAFFIC	3/15/01
BUREAU OF TRAFFIC	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DISTRICT 1  
 STANDARD TRAFFIC SIGNAL  
 DESIGN DETAILS

SCALE: VERT. NONE  
 HORIZ. NONE  
 DATE 10/18/2002

DRAWN BY: RWP  
 DESIGNED BY: DAD  
 CHECKED BY: DAZ  
 SHEET 4 OF 4



**REVISIONS**

NO.	ITEM	DATE

SCALE: NA  
 DRAWN BY: N.J.B.  
 CHECKED BY: CRF  
 DATE: 3-3-06

**McCLURE ENGINEERING ASSOCIATES, INC.**

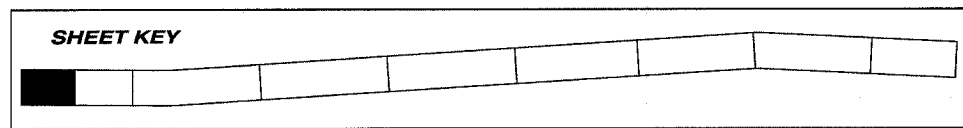
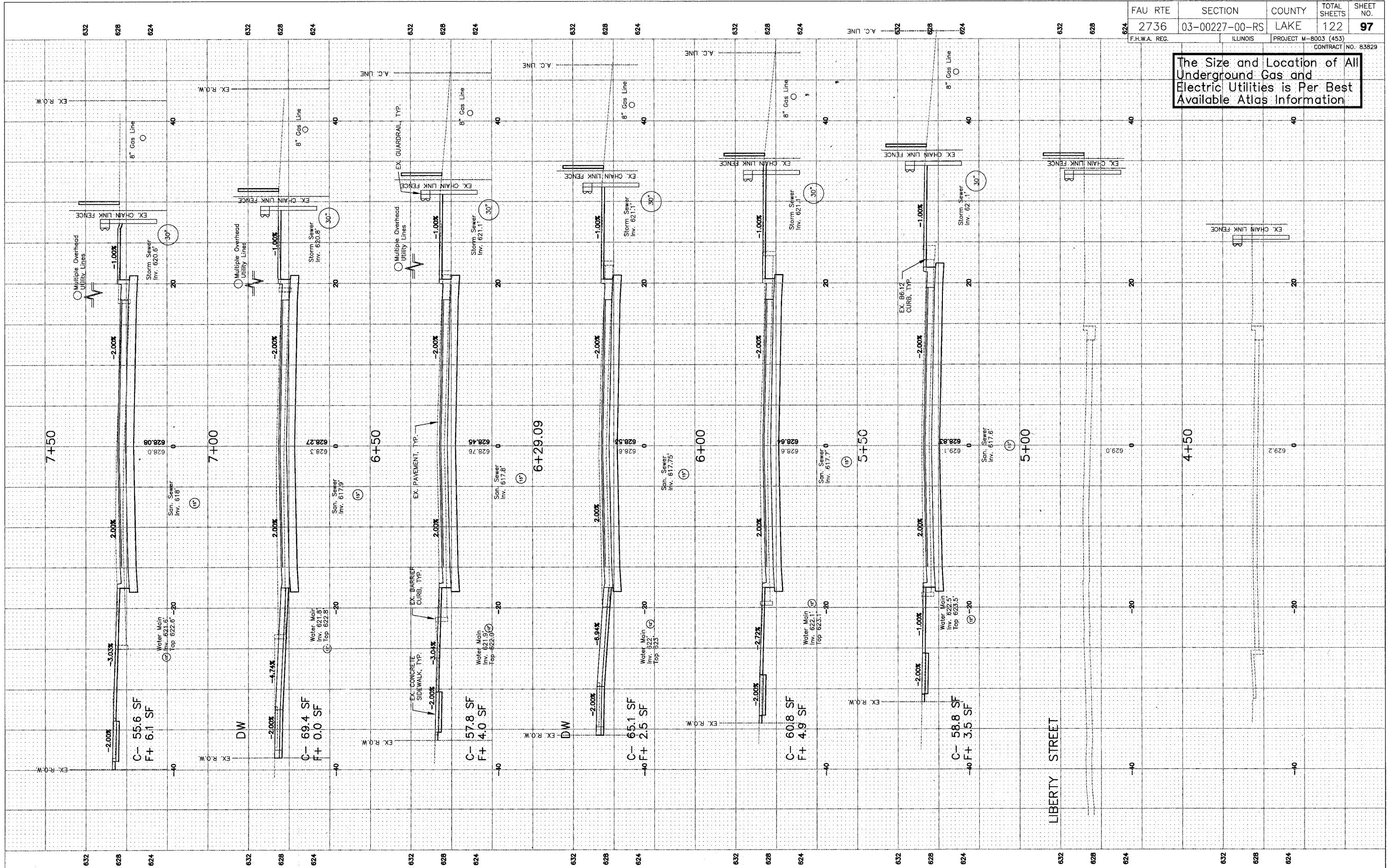
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**TRAFFIC SIGNAL DETAILS**  
**SHERIDAN ROAD AT GRAND AVENUE**  
**SHERIDAN ROAD IMPROVEMENTS**

CITY OF WAUKEGAN JOB NUMBER: 02-28-04-164 LAKE COUNTY, ILLINOIS

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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



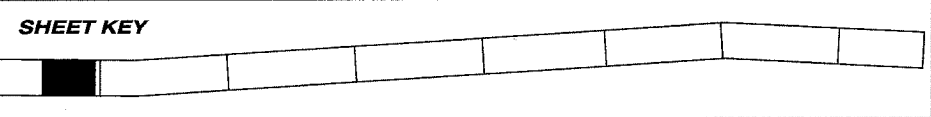
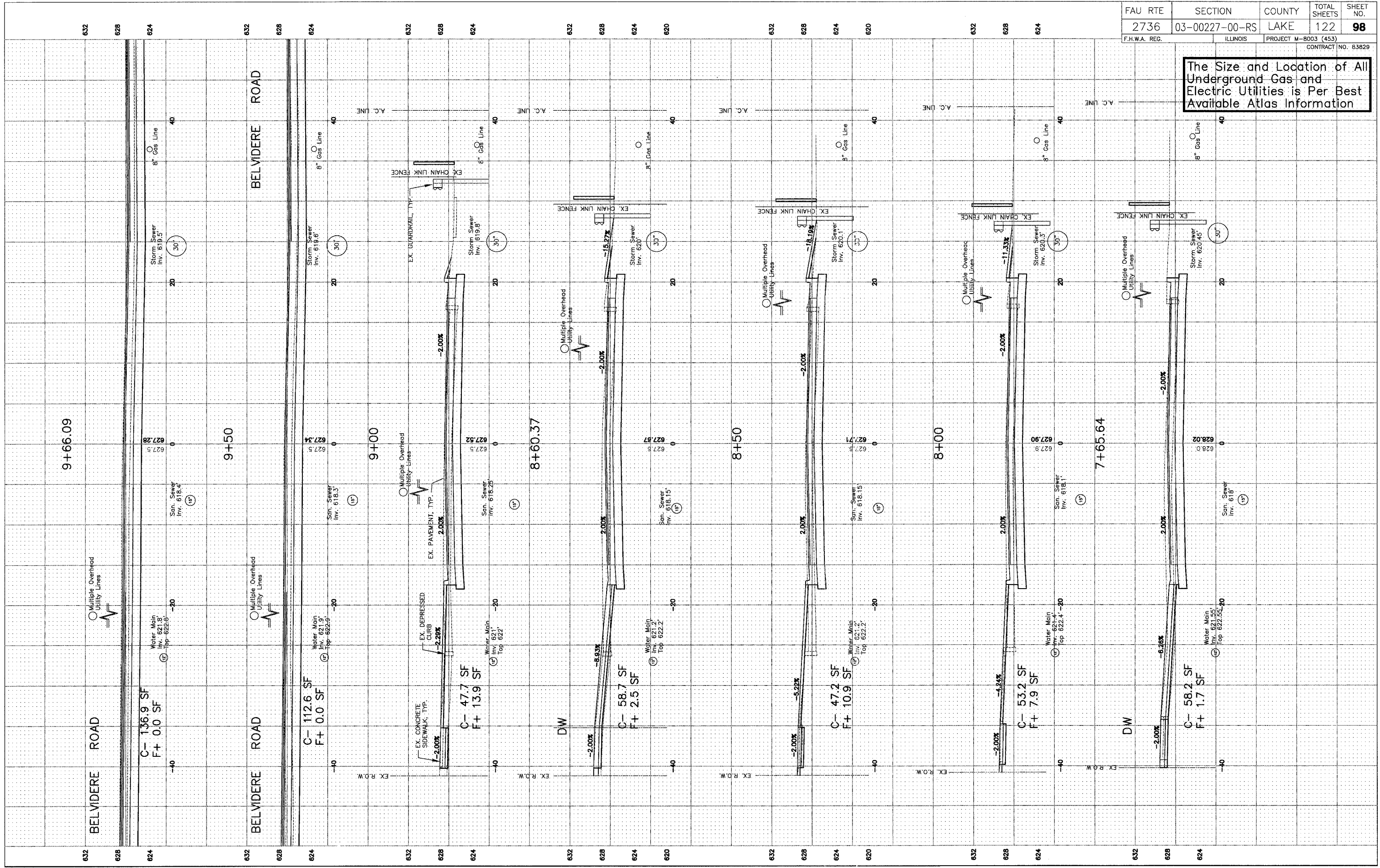
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NO.	ITEM	DATE

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CHECKED BY:	DD
DATE:	7-3-07

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**CROSS SECTIONS**  
 STA. 4+50 TO 7+50  
**SHERIDAN ROAD IMPROVEMENTS**  
 CITY OF WAUKEGAN JOB NUMBER: 02-28-03-231 LAKE COUNTY, ILLINOIS  
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



REVISIONS		
NO.	ITEM	DATE

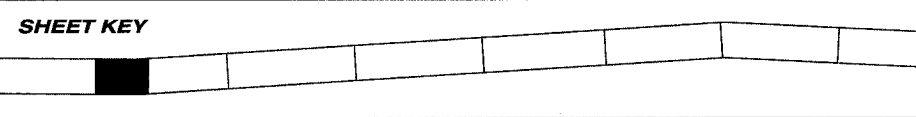
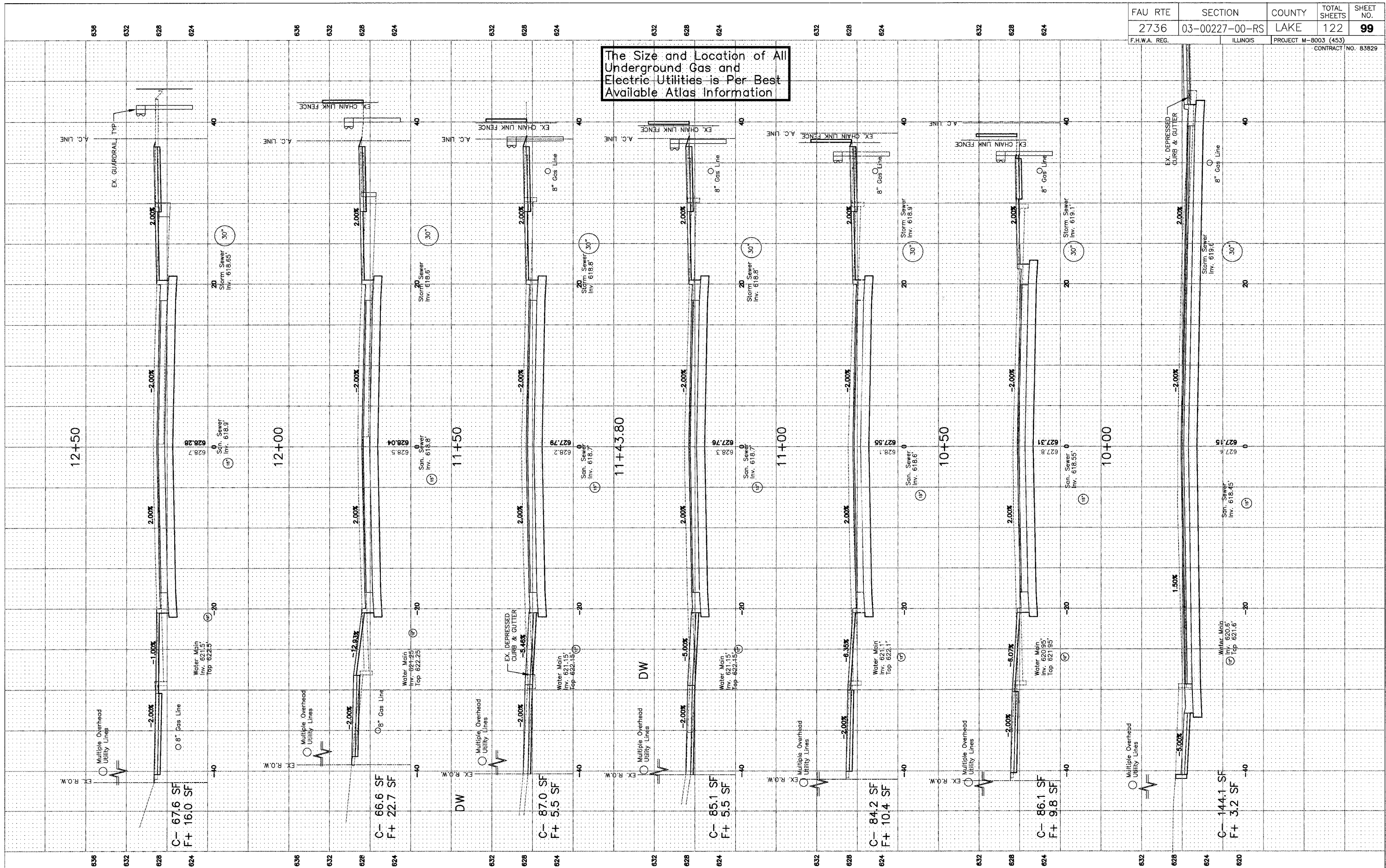
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**CROSS SECTIONS**  
 STA. 7+65.64 TO 9+66.09  
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 CITY OF WAUKEGAN JOB NUMBER: 02-26-03-231 LAKE COUNTY, ILLINOIS  
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



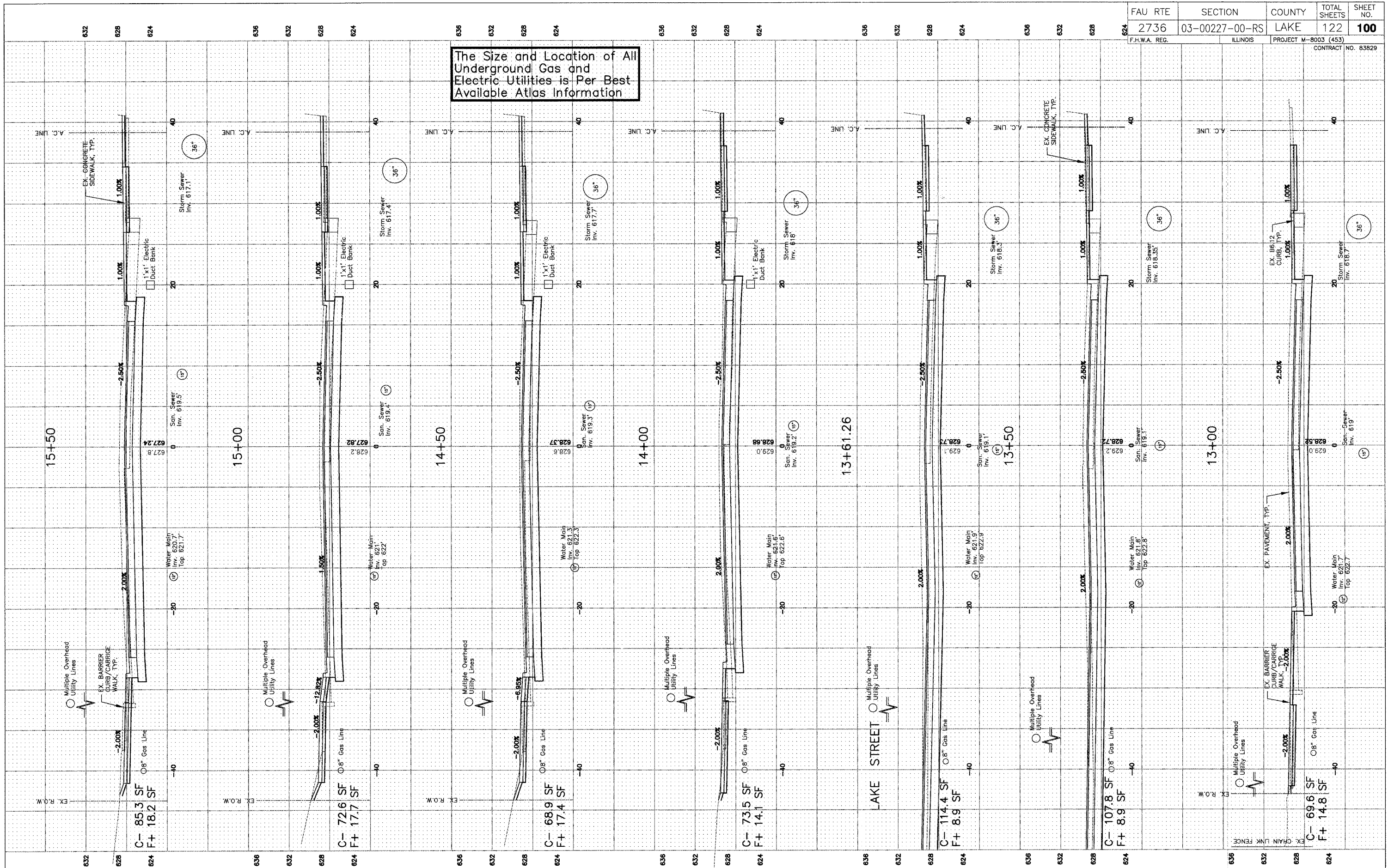
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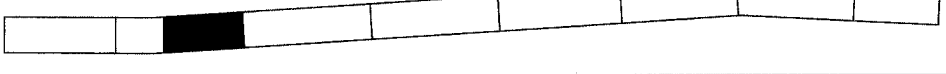
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**CROSS SECTIONS STA. 10+00 TO 12+50**  
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



**SHEET KEY**



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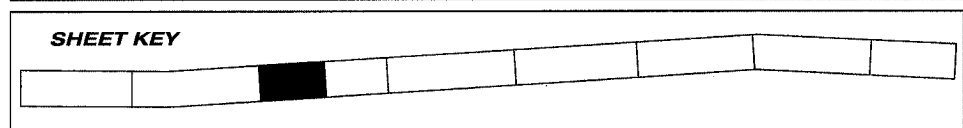
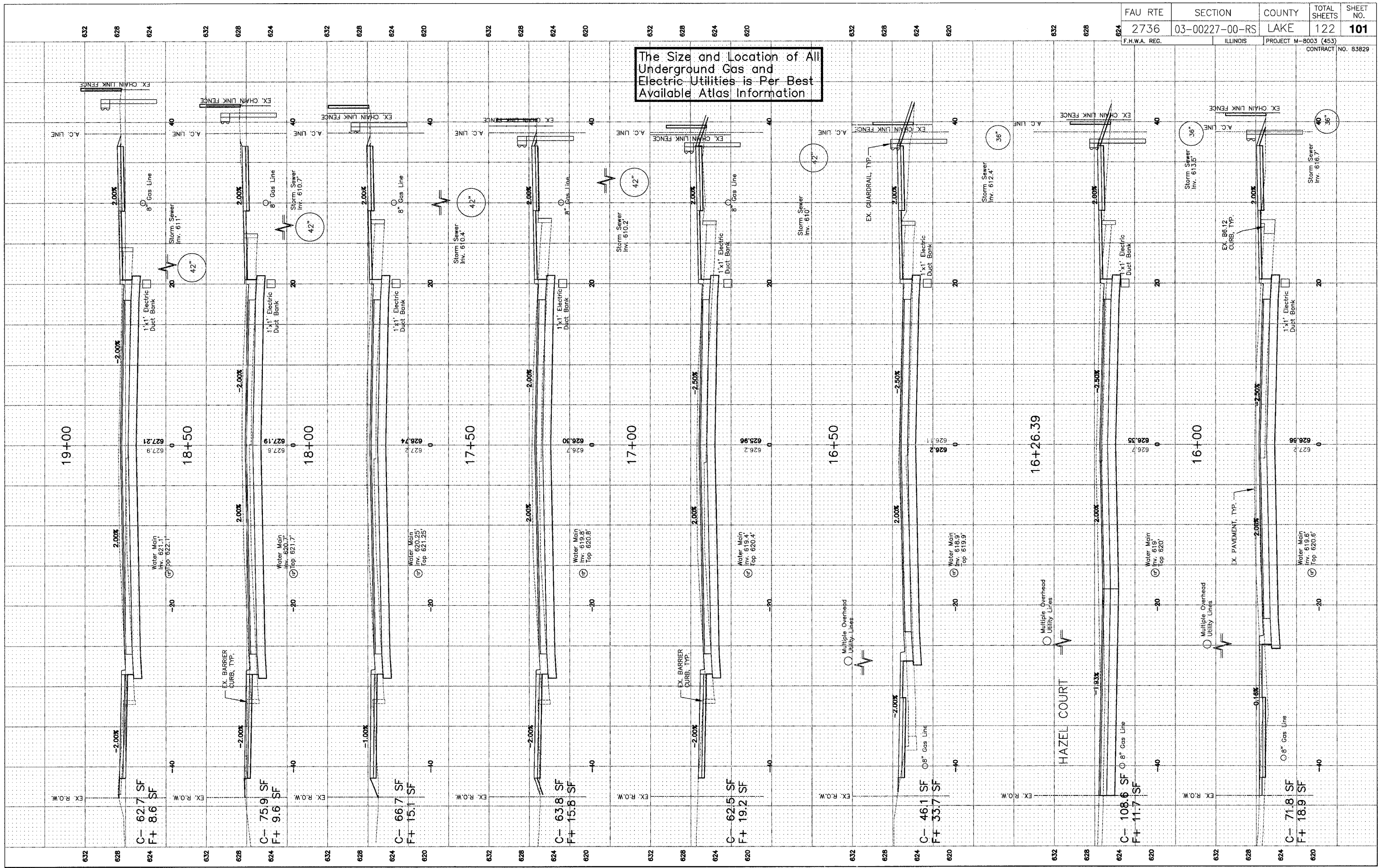
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**CROSS SECTIONS**  
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



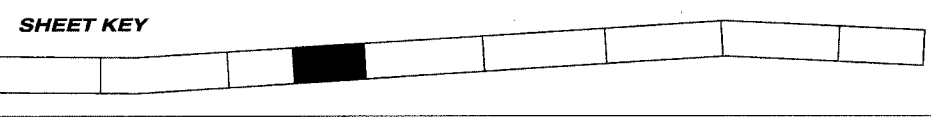
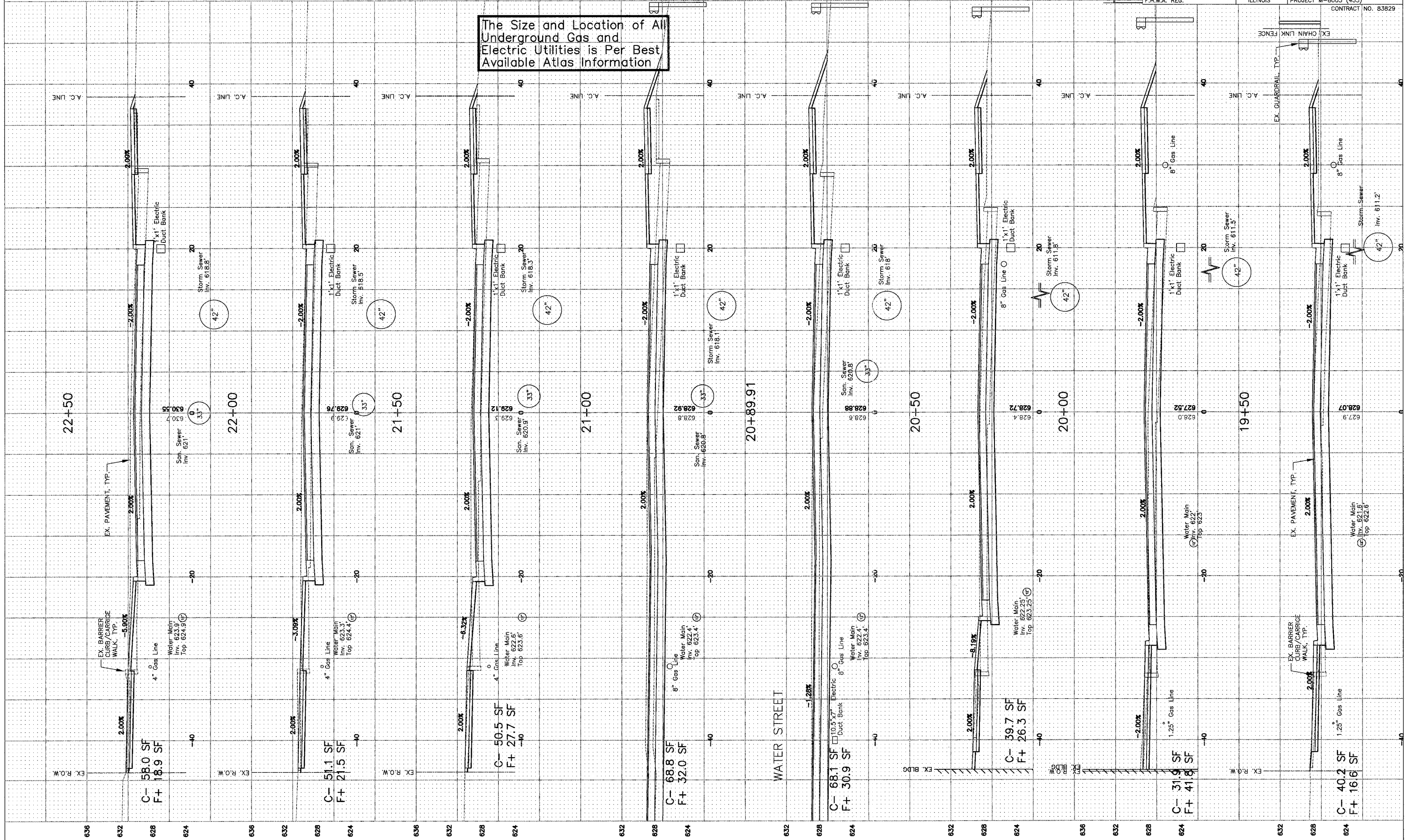
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**CROSS SECTIONS**  
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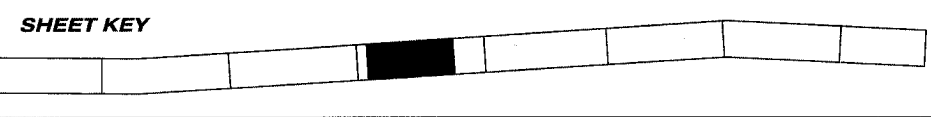
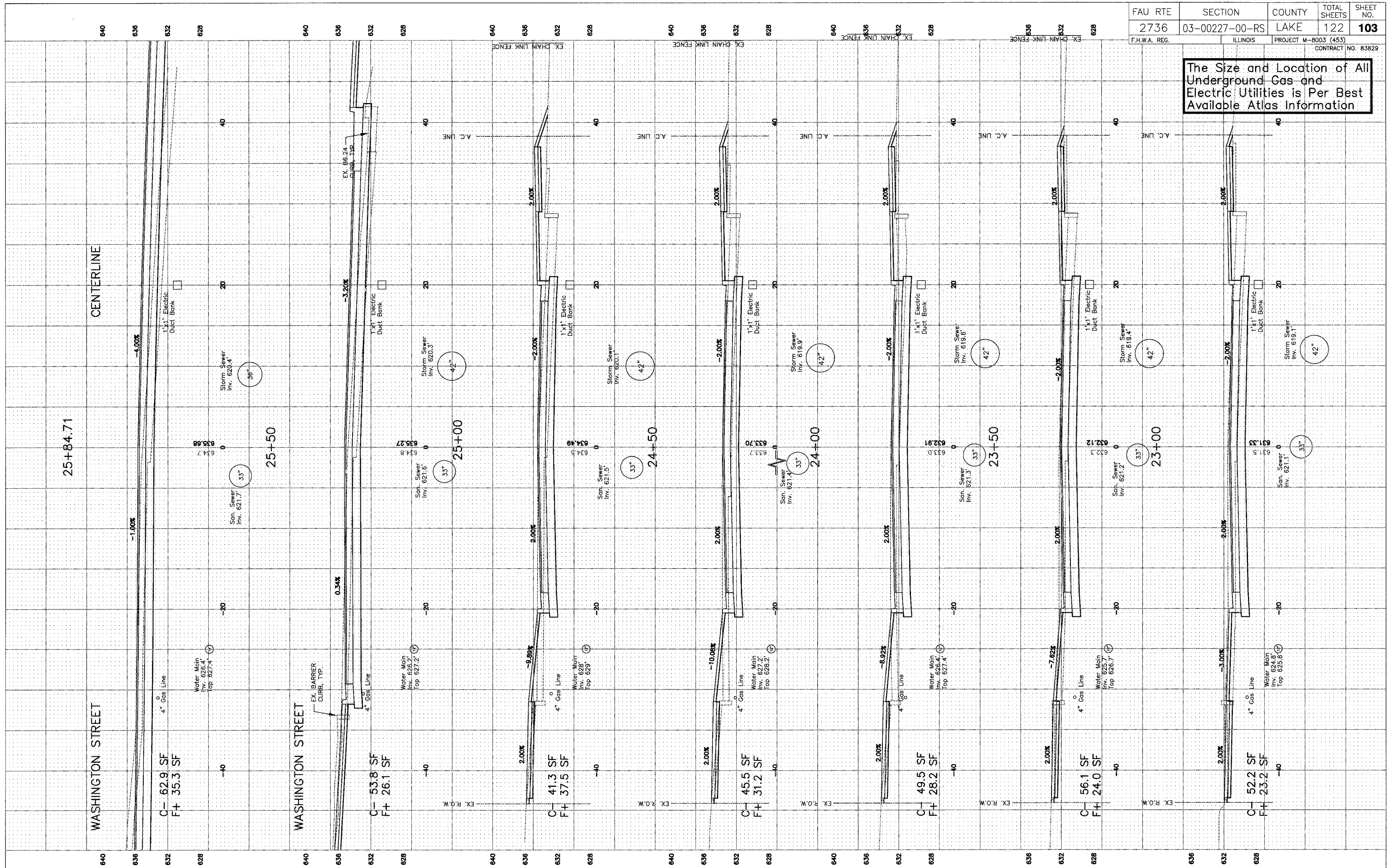
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**CROSS SECTIONS**  
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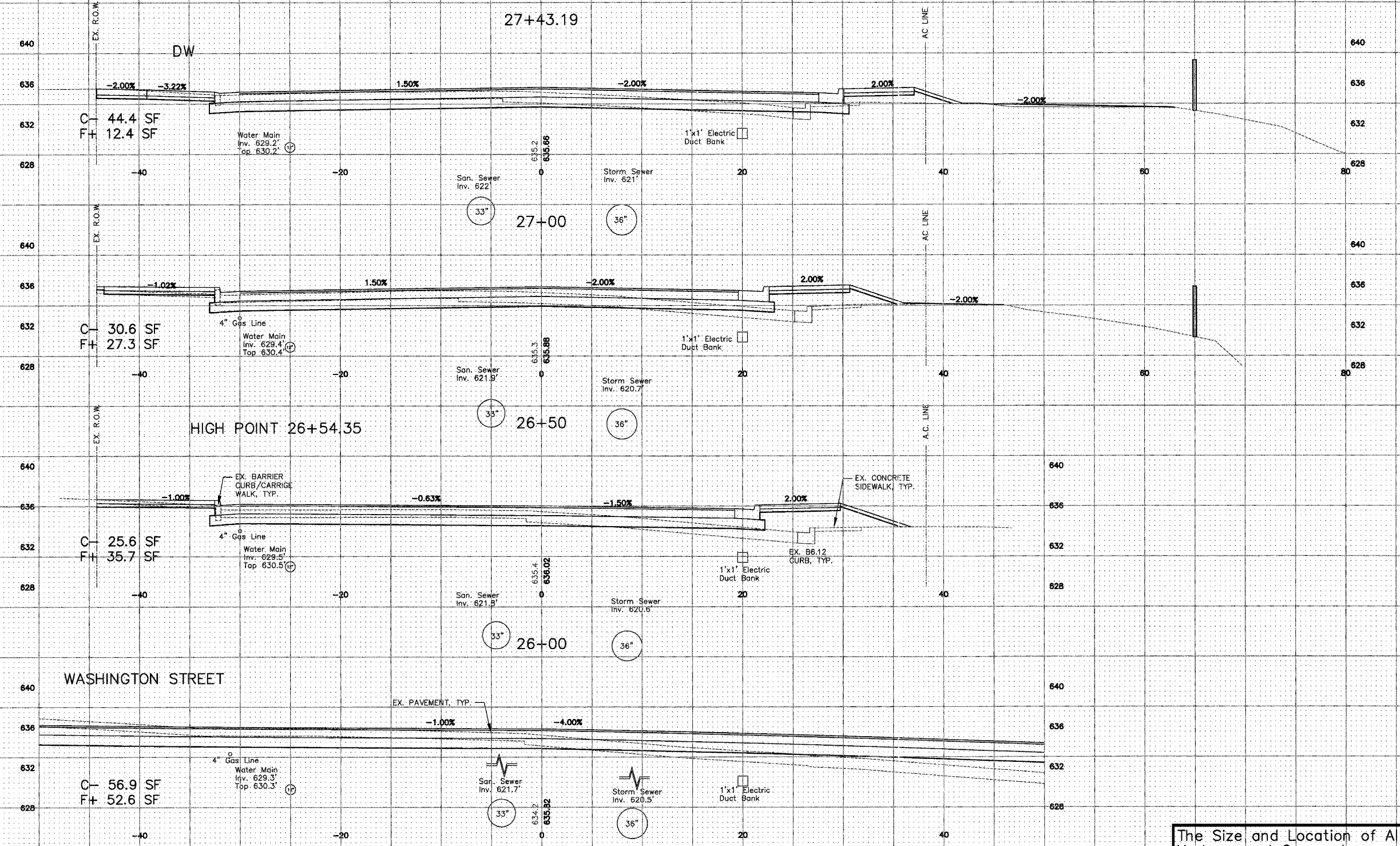
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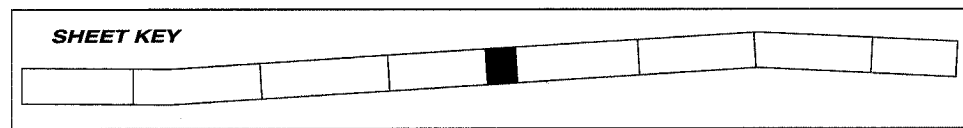
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**CROSS SECTIONS**  
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



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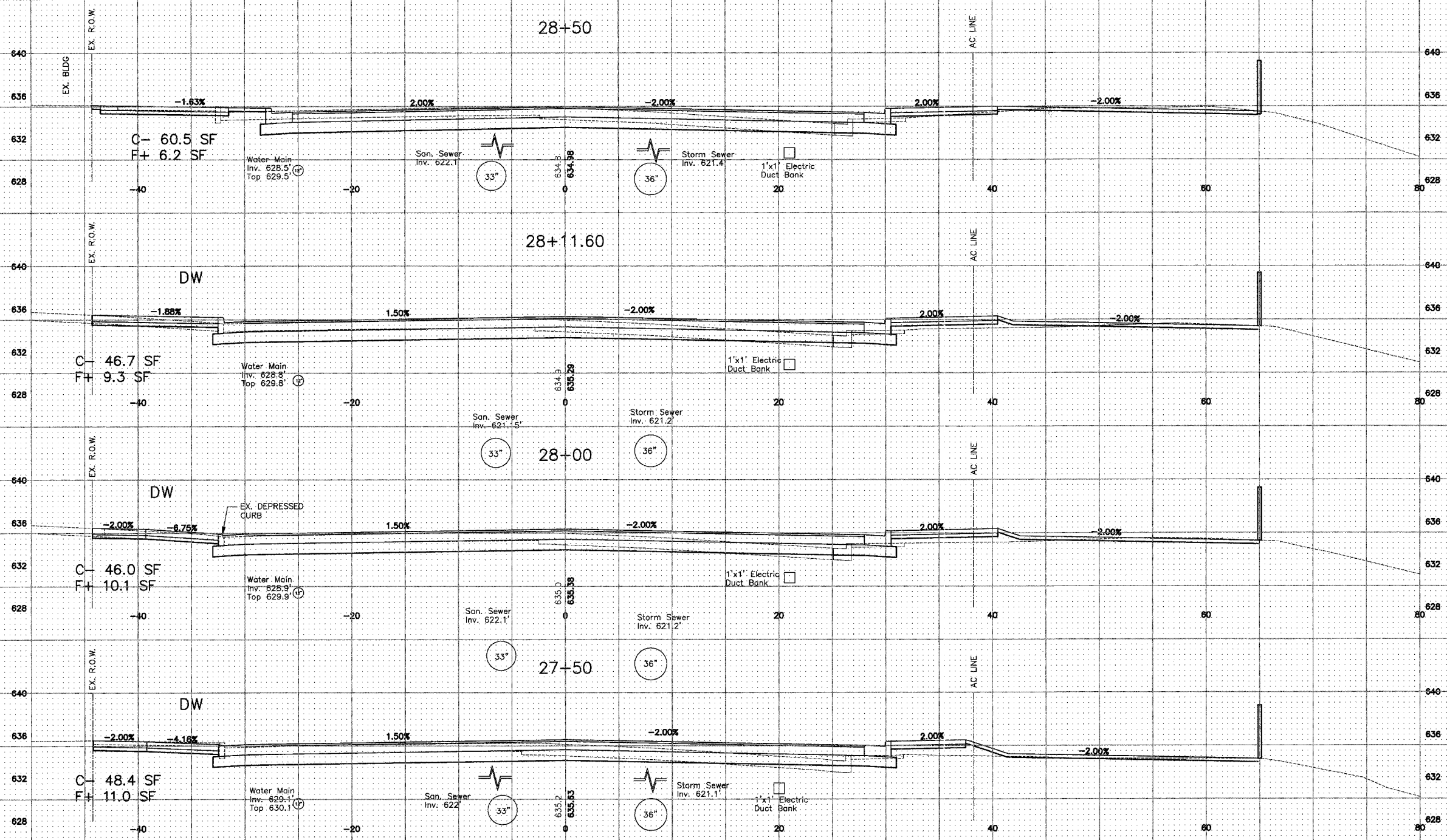
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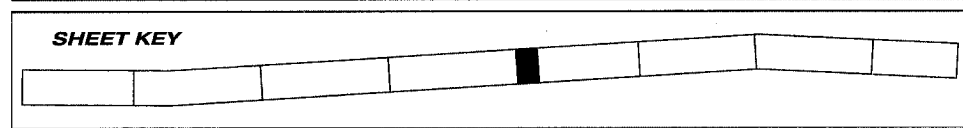
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



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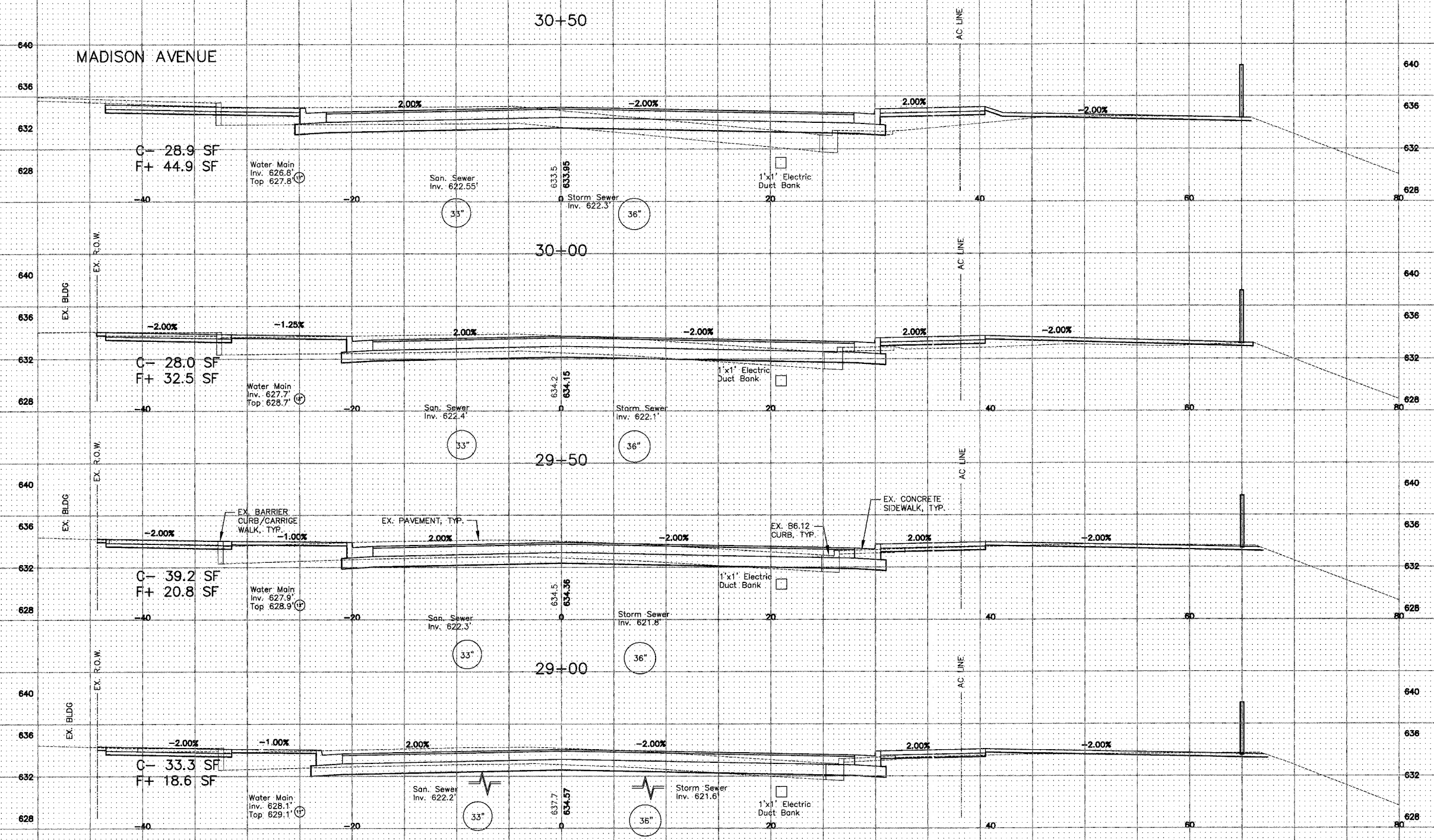
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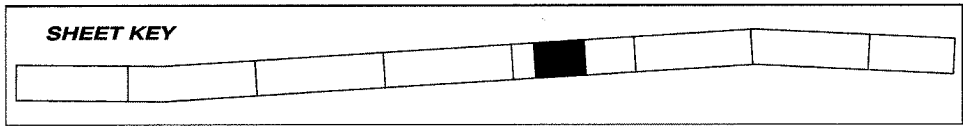
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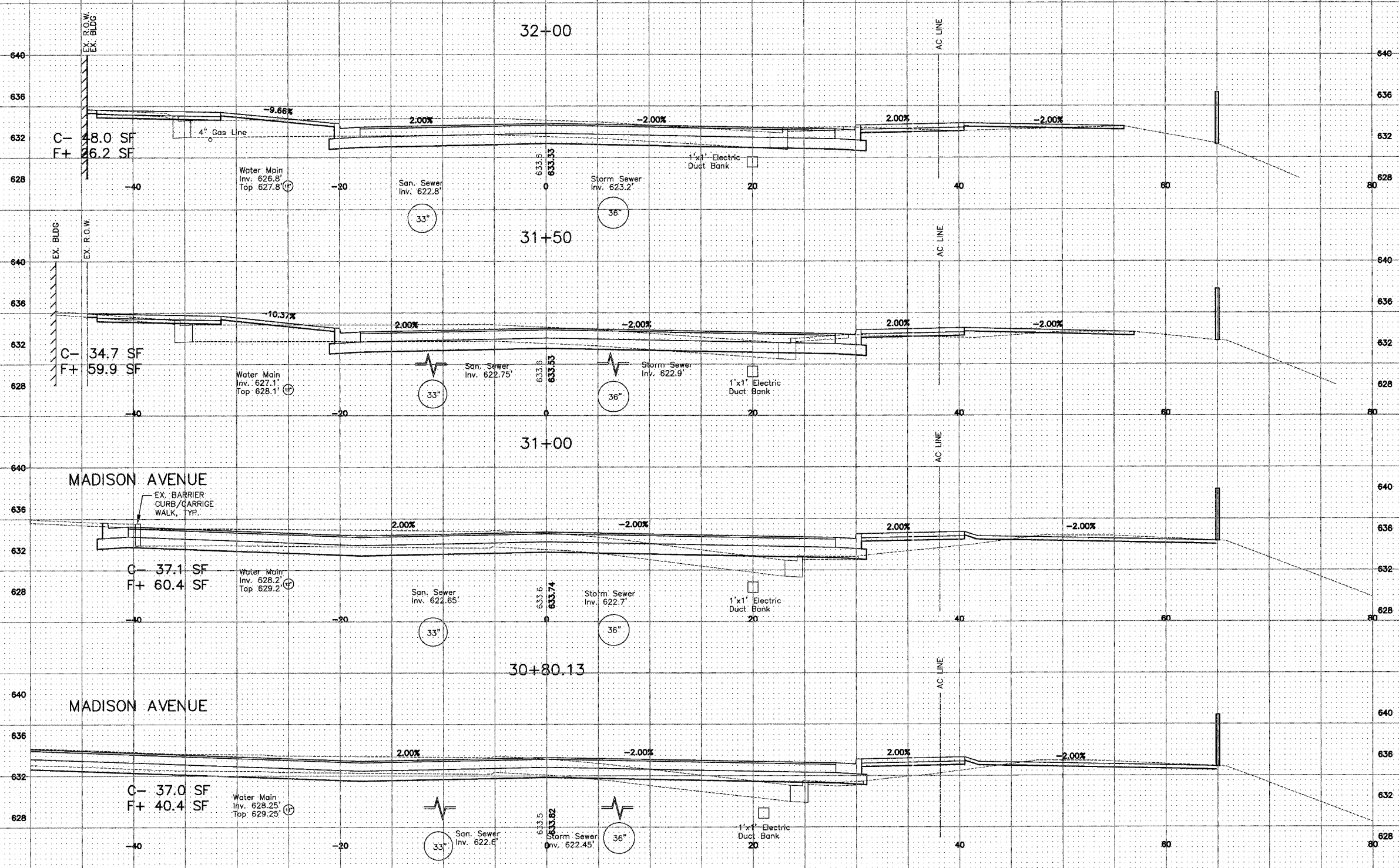
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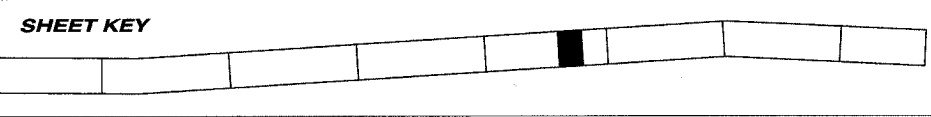
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**CROSS SECTIONS**  
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



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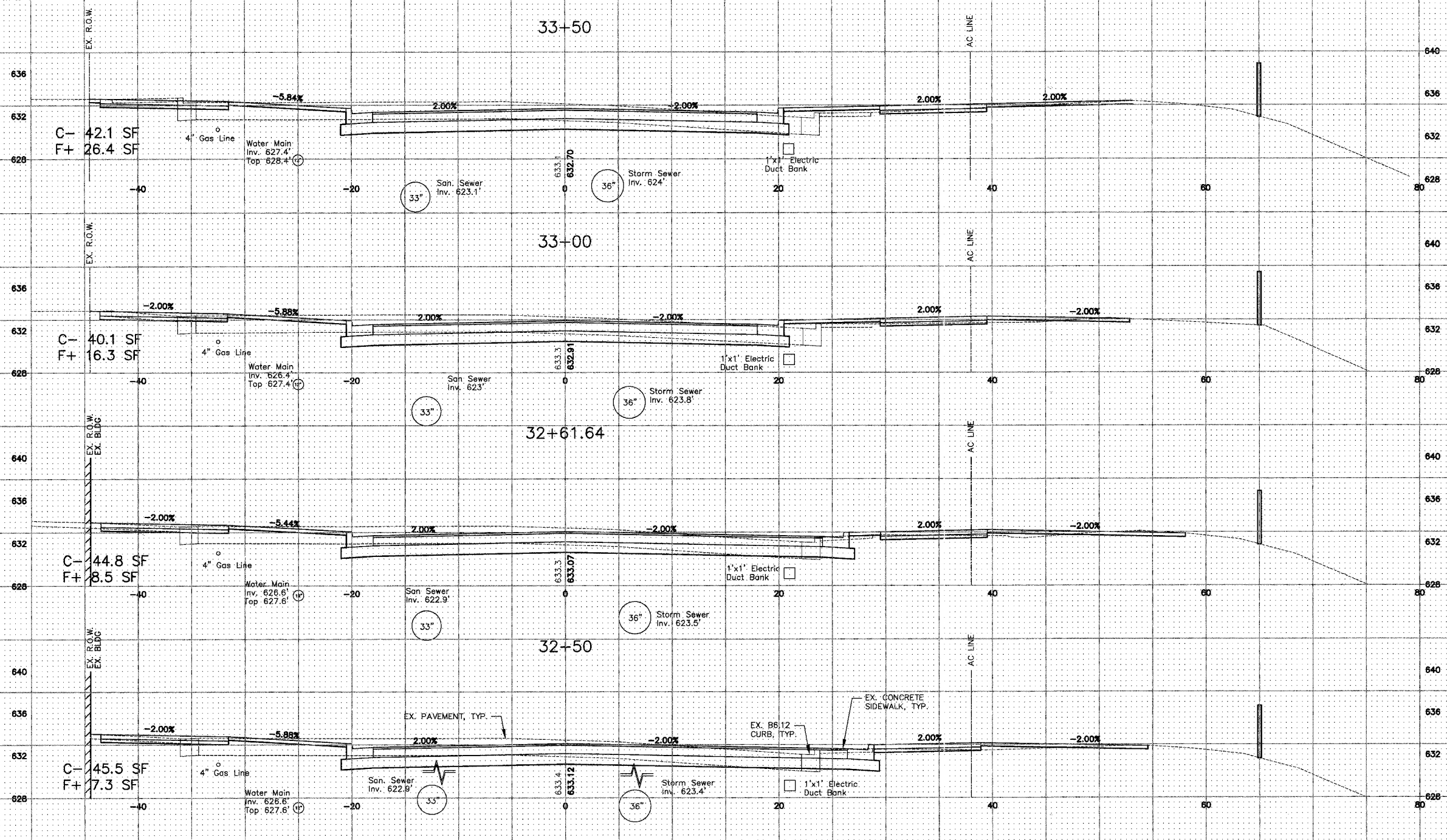
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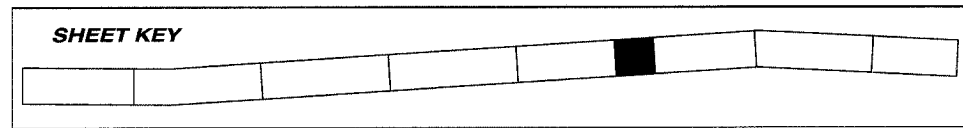
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



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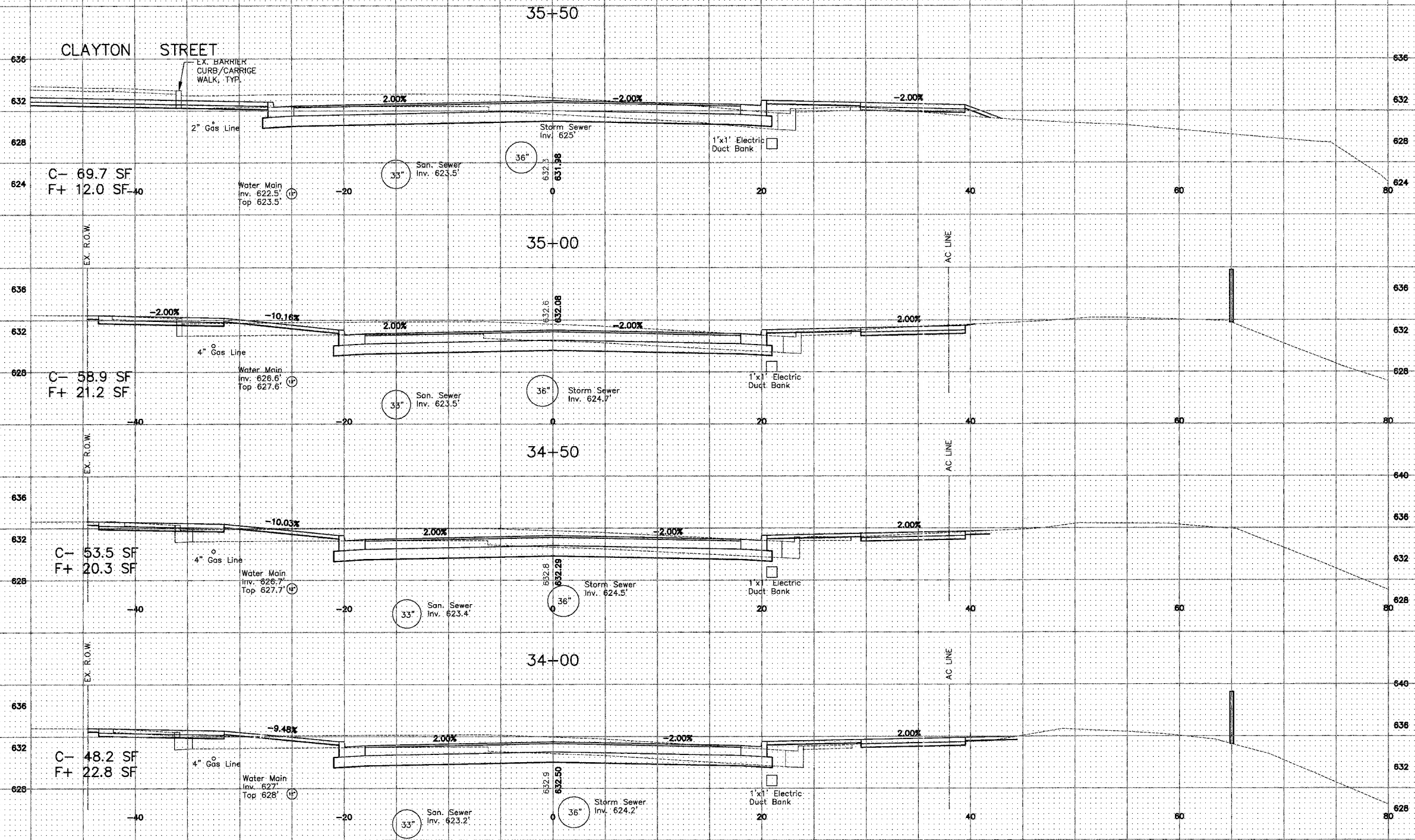
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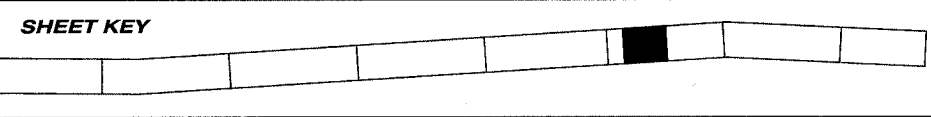
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



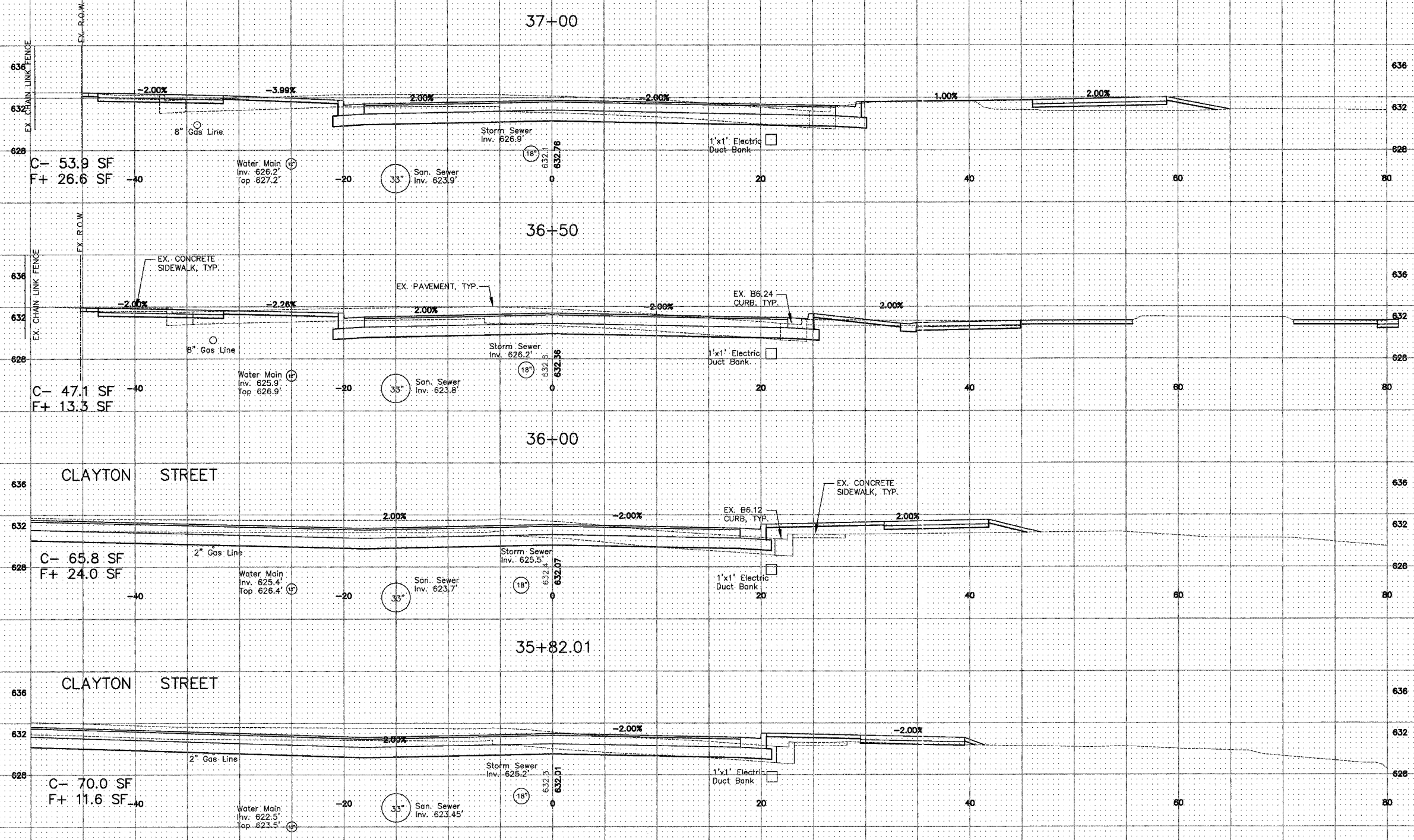
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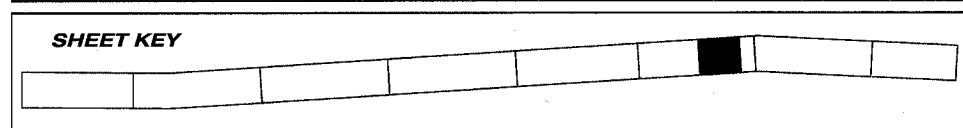
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**CROSS SECTIONS**  
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information

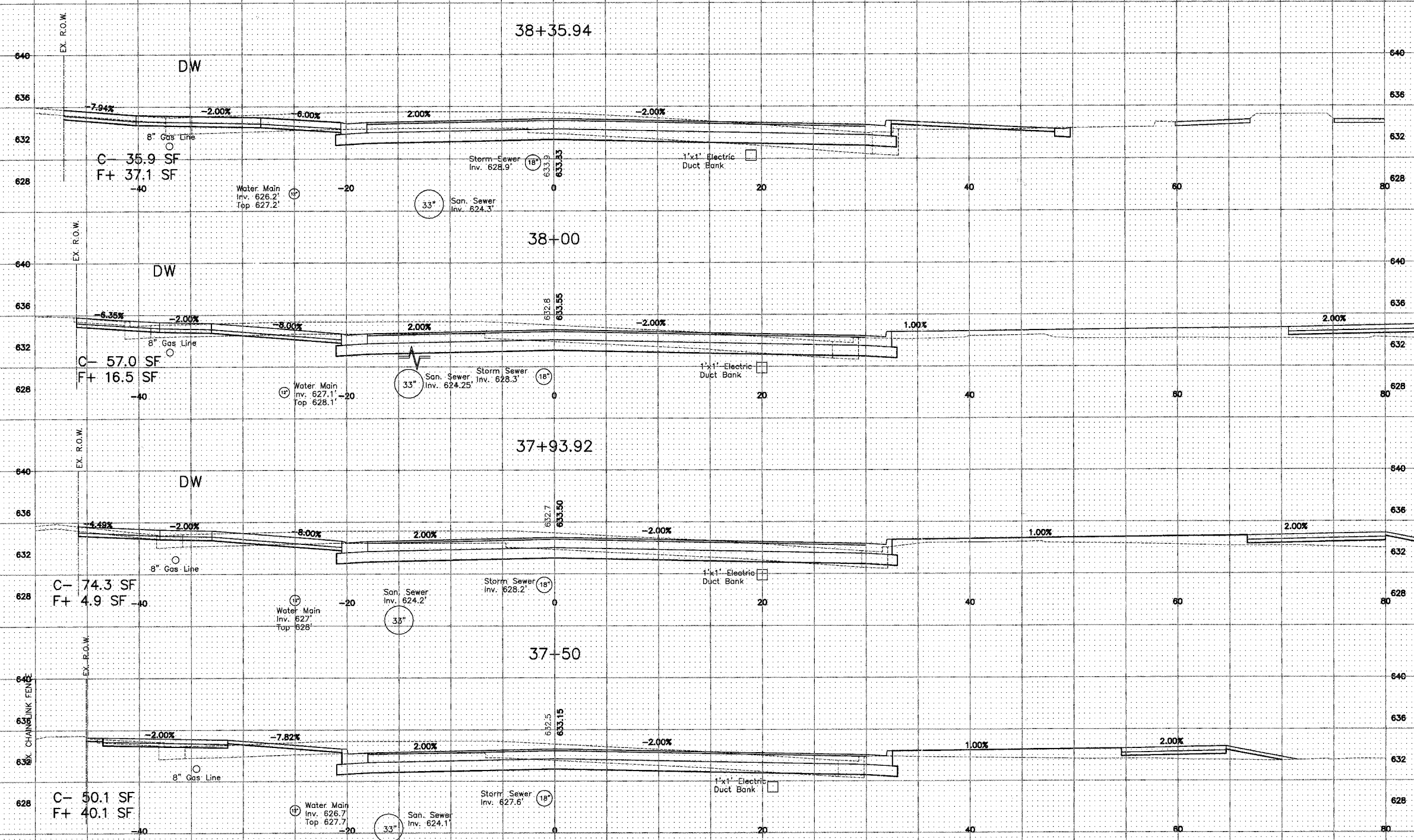


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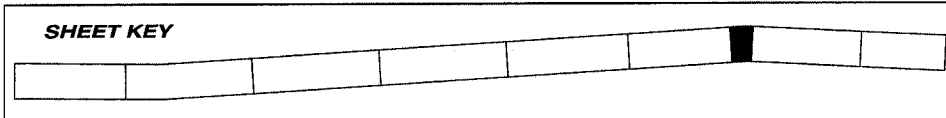
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**CROSS SECTIONS**  
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information

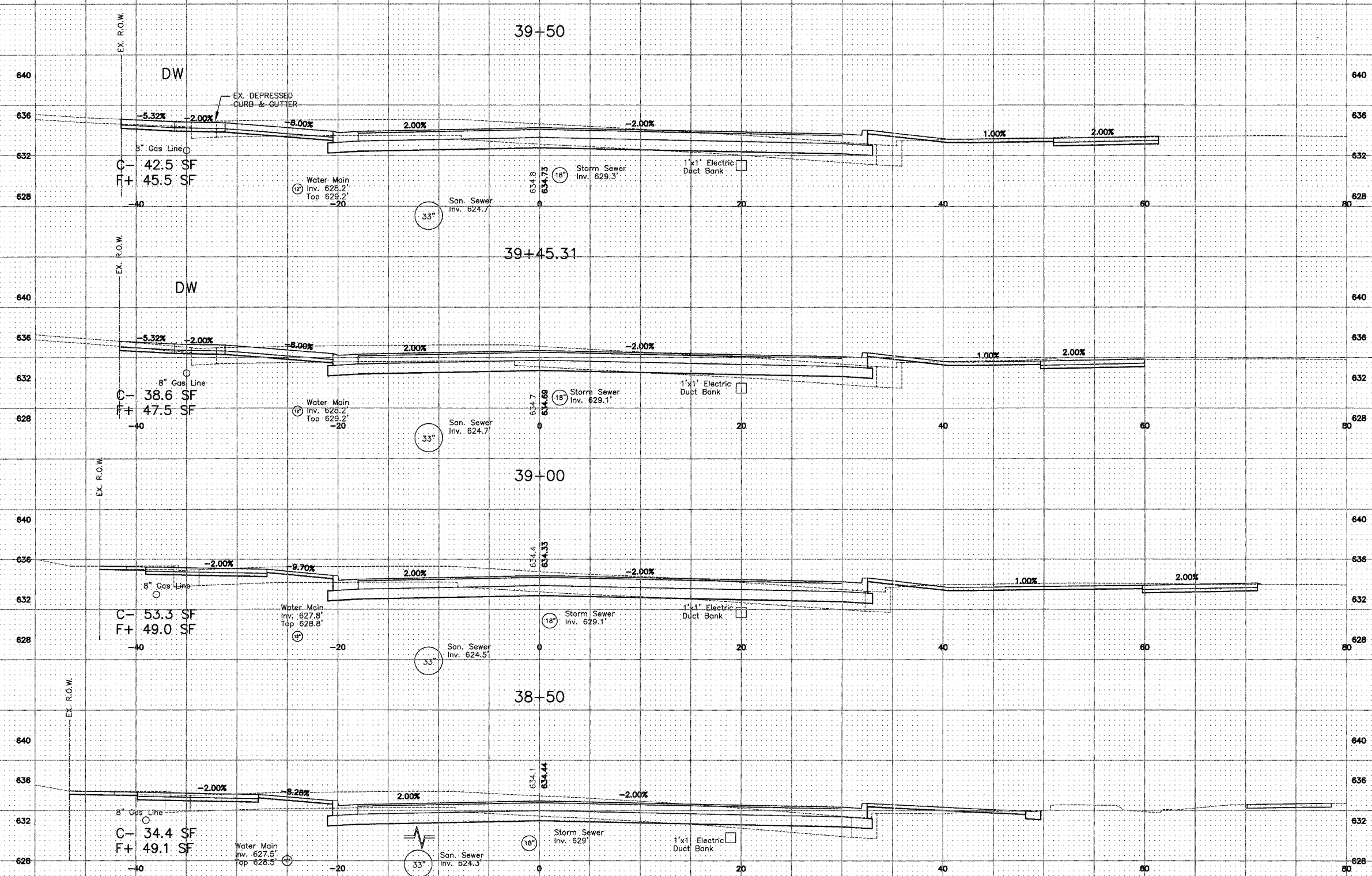


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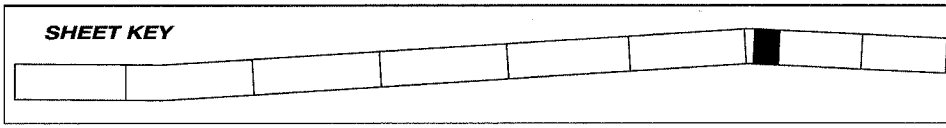
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**CROSS SECTIONS**  
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



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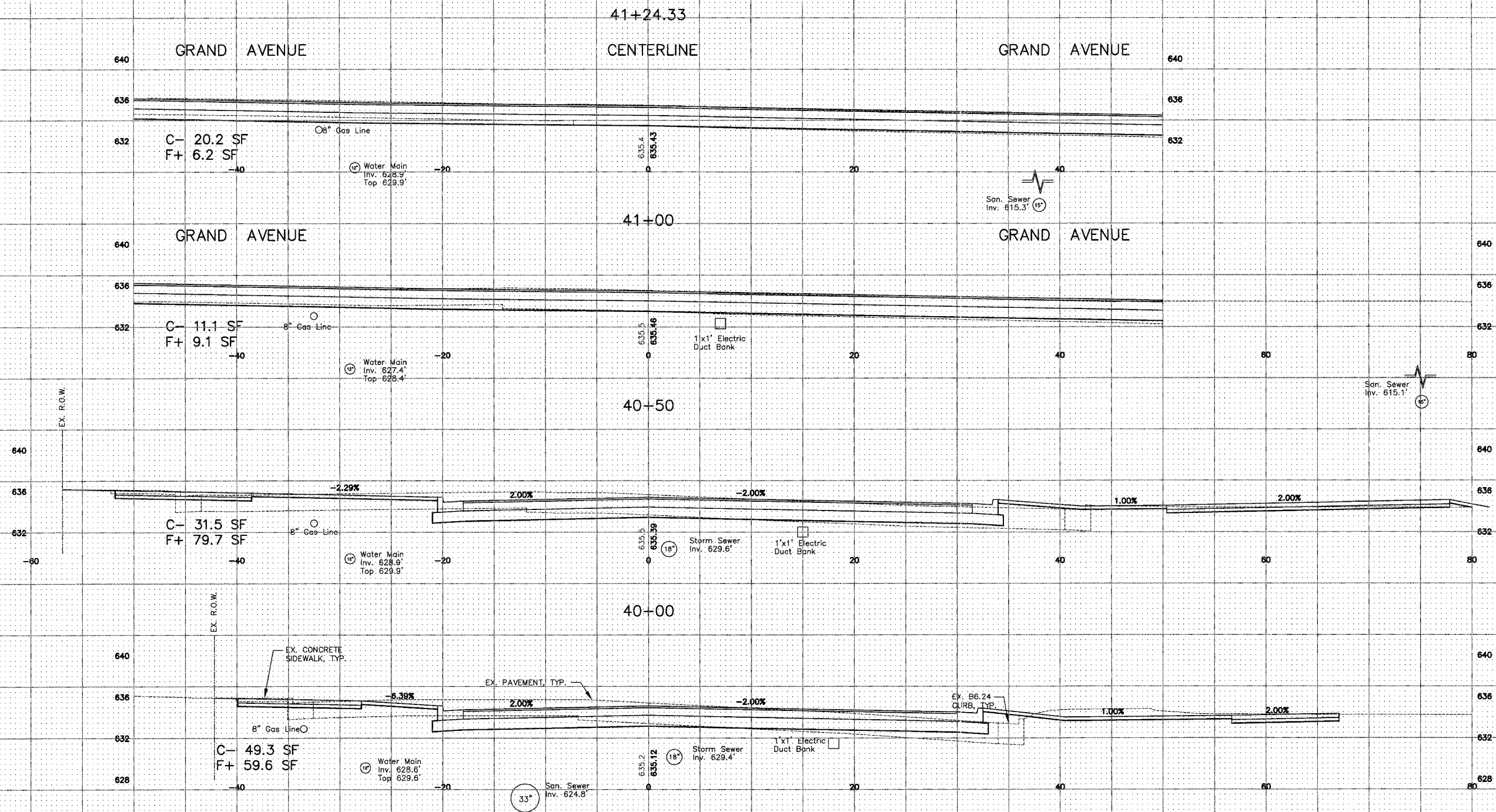
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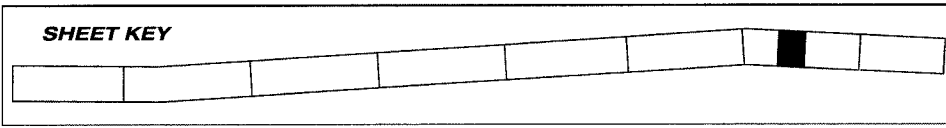
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FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	03-00227-00-RS	LAKE	122	113
F.H.W.A. REG.	ILLINOIS	PROJECT M-8003 (453)	CONTRACT NO. 83829	



The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



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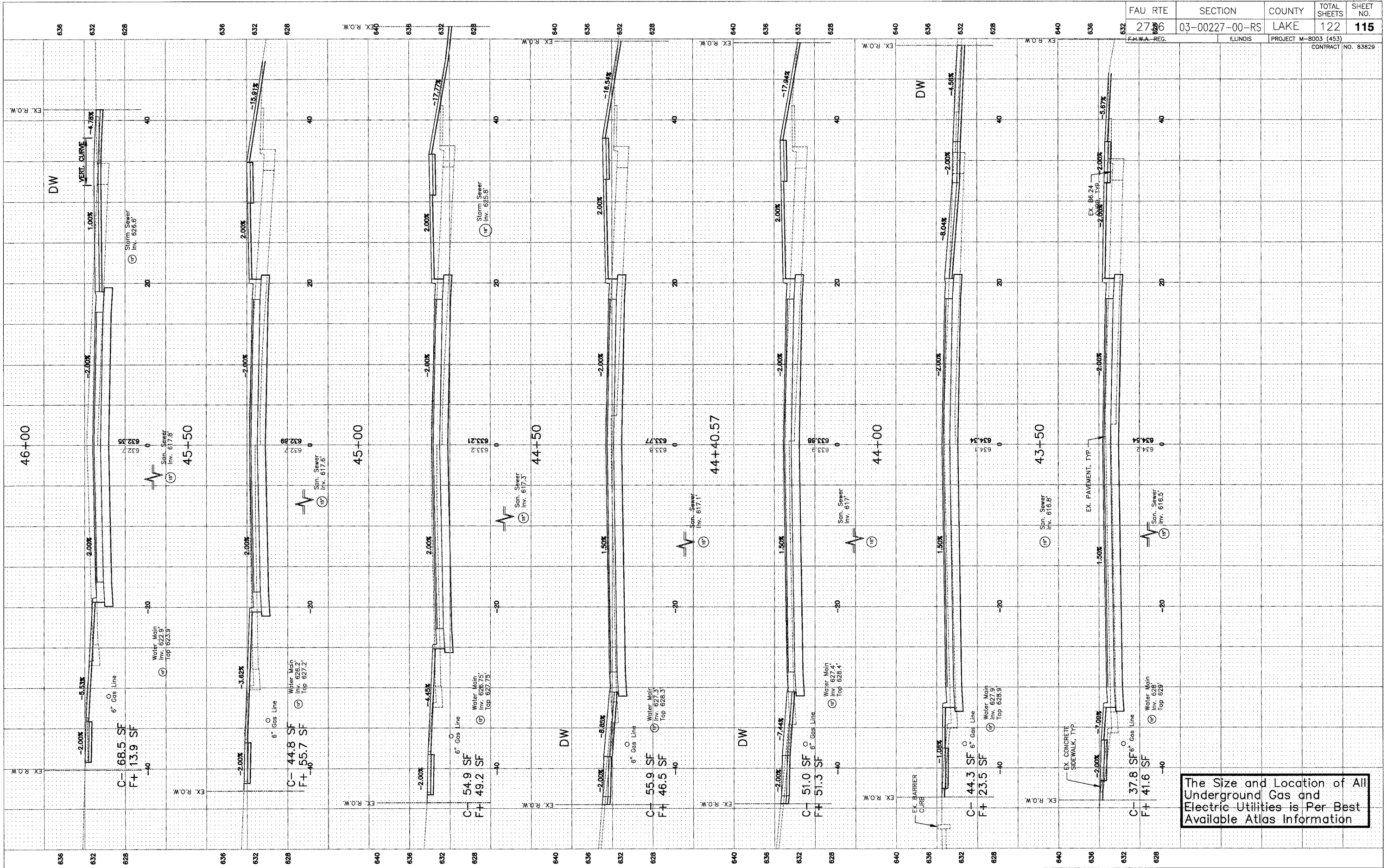
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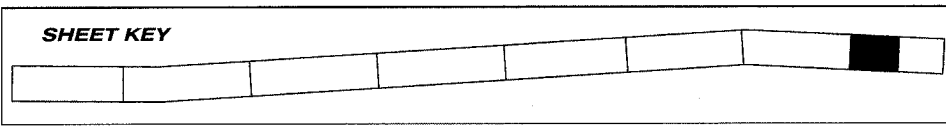
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SHEET NO.  
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of  
**122**





The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



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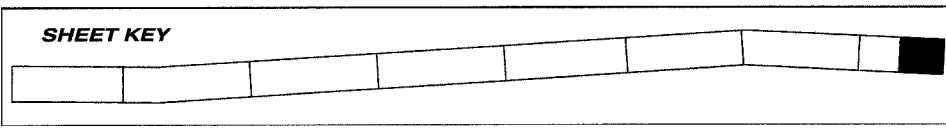
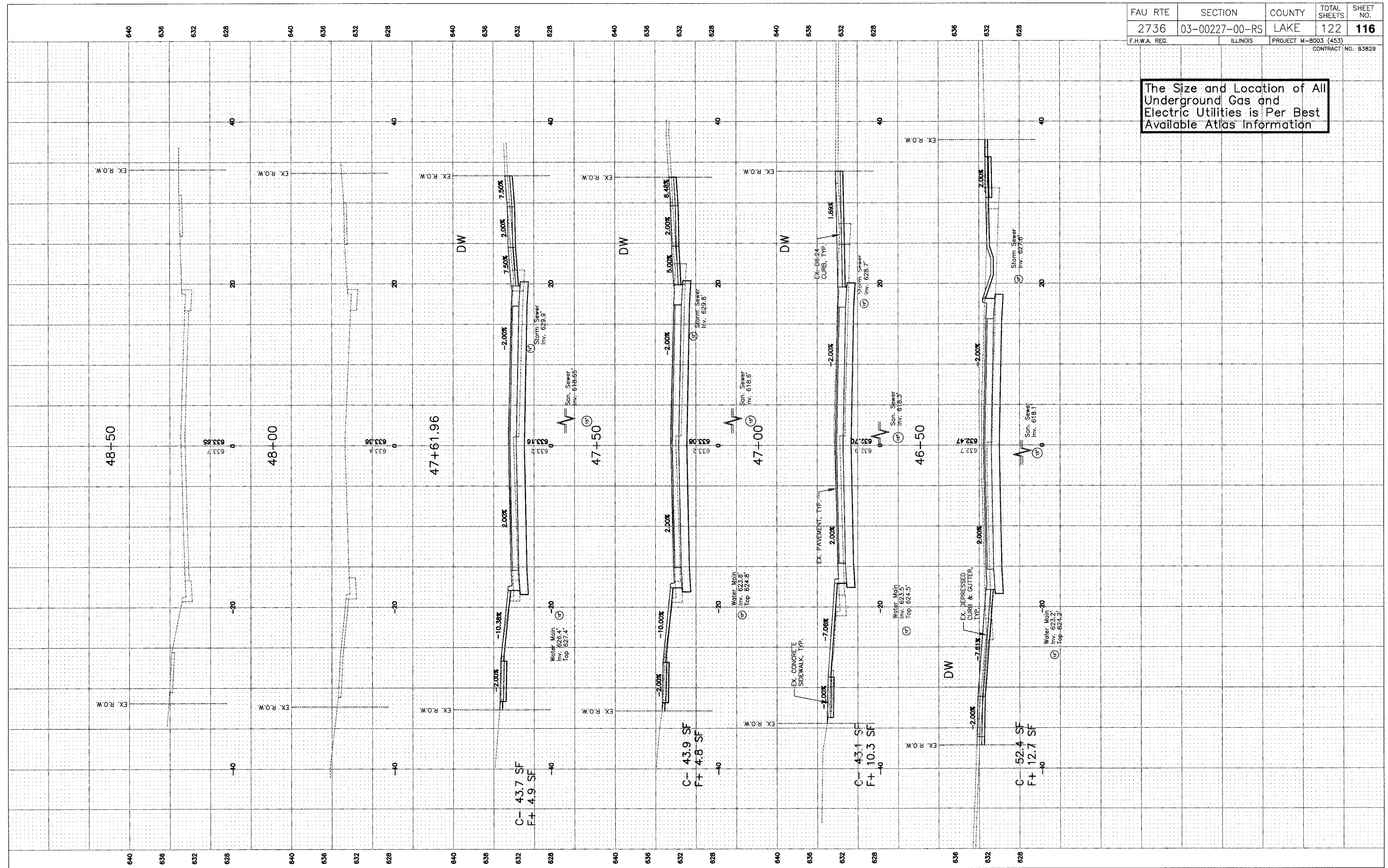
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**CROSS SECTIONS**  
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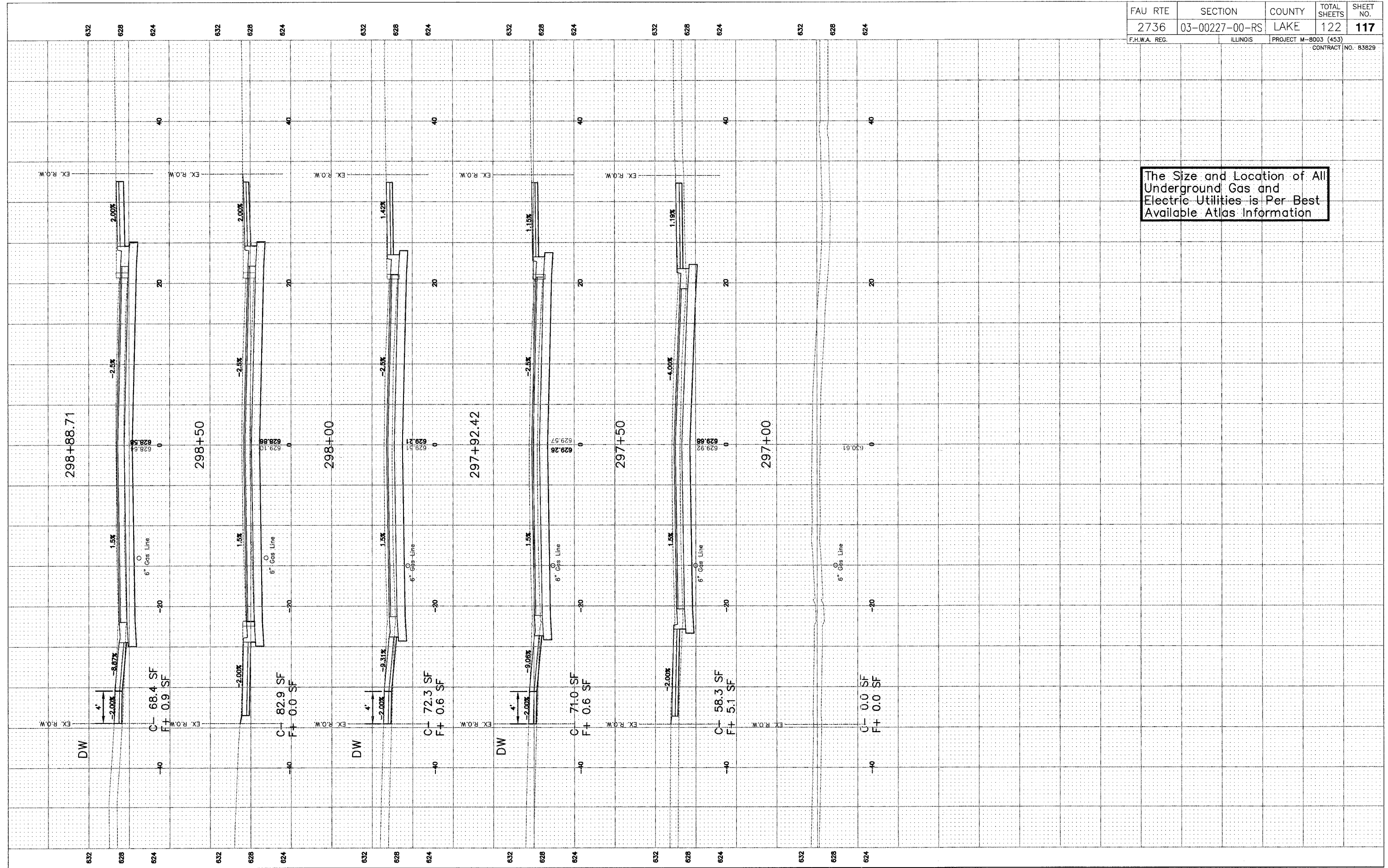
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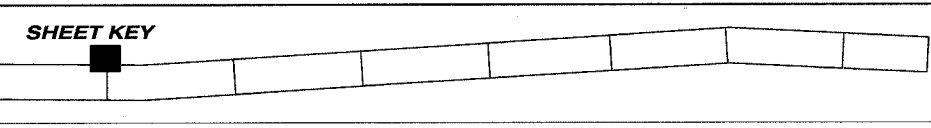
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**CROSS SECTIONS**  
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information

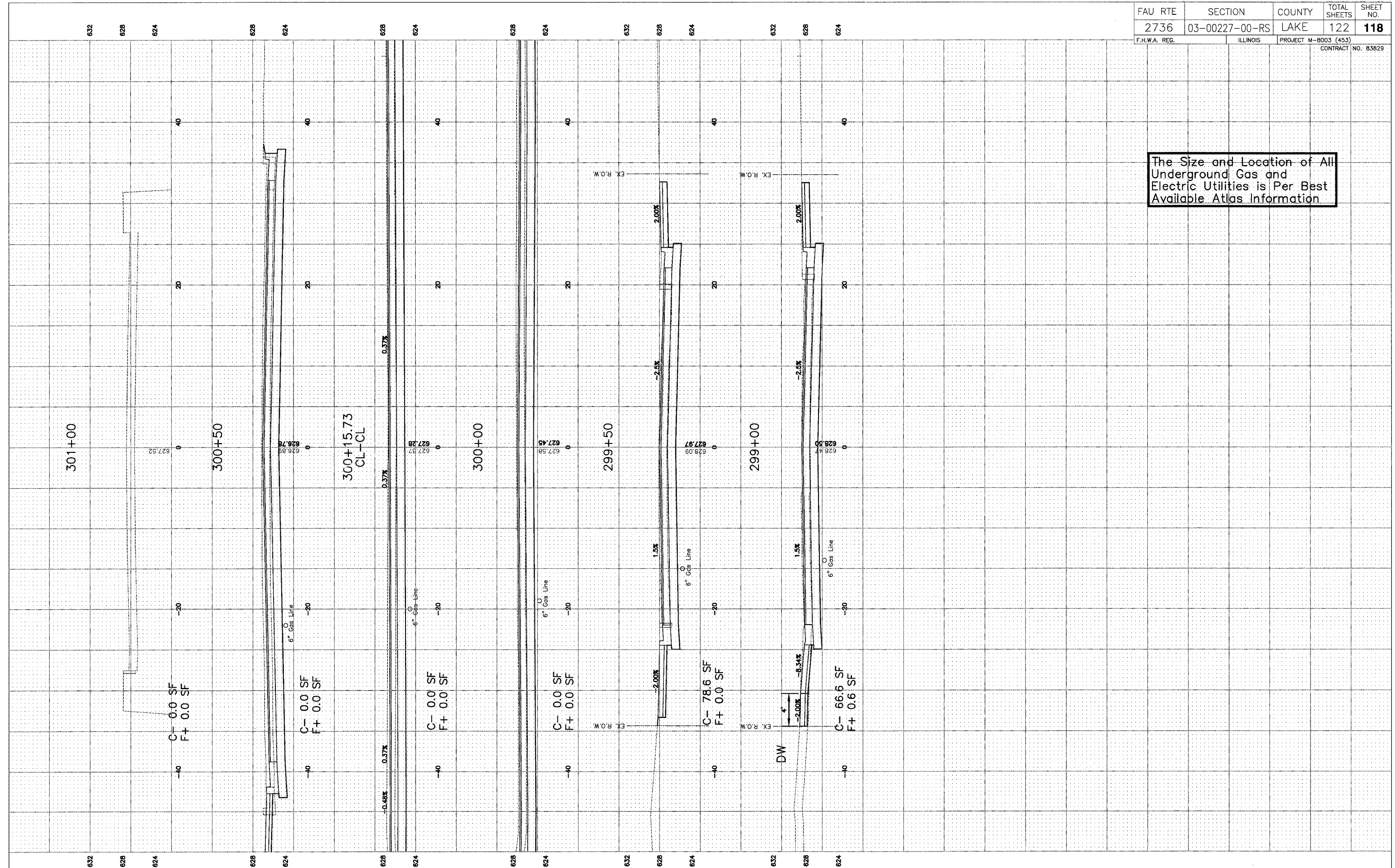


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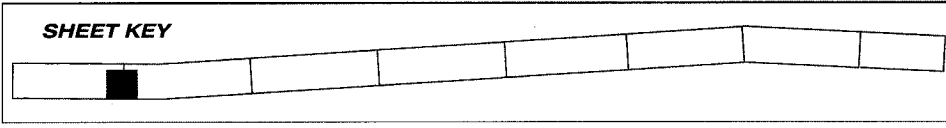
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



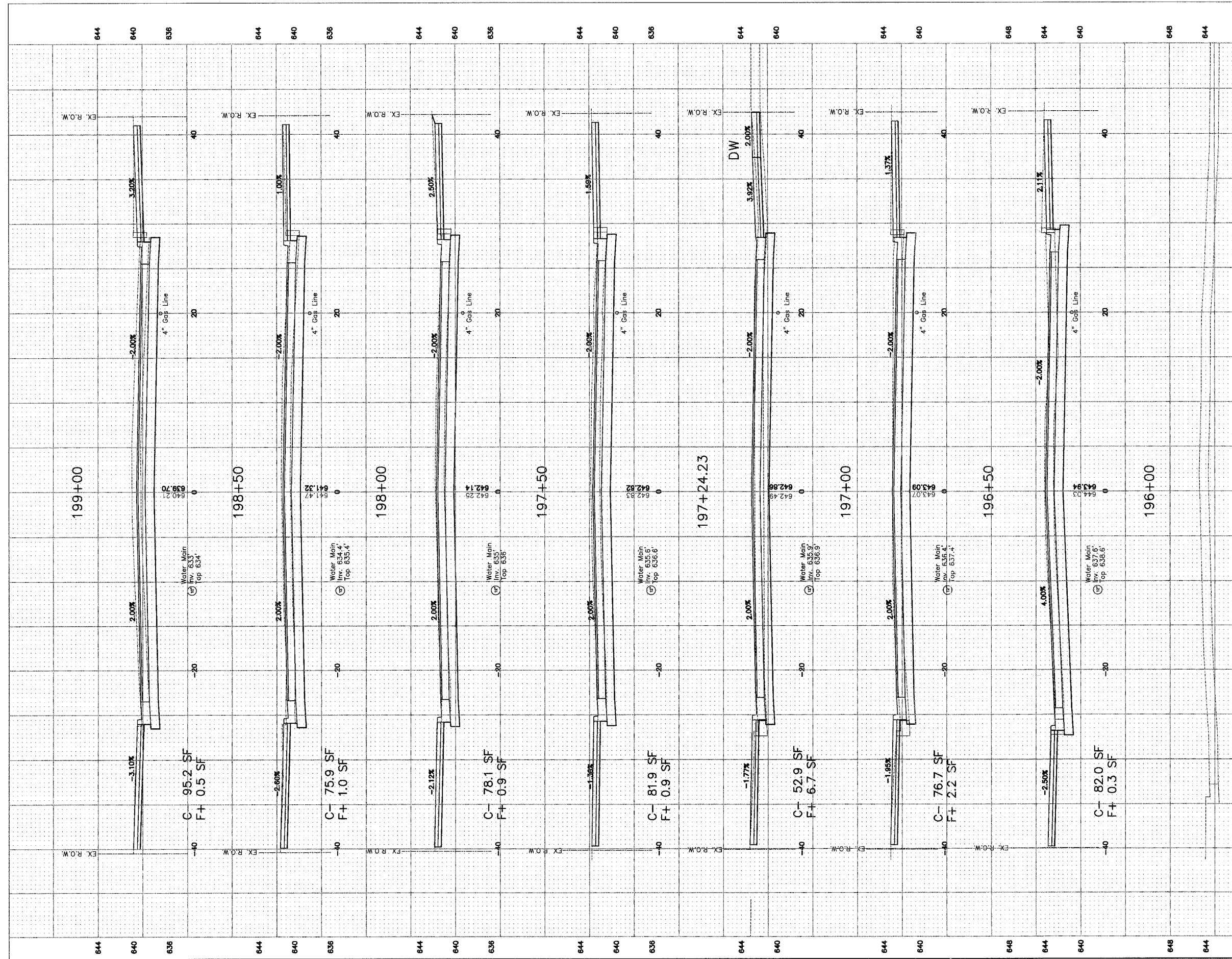
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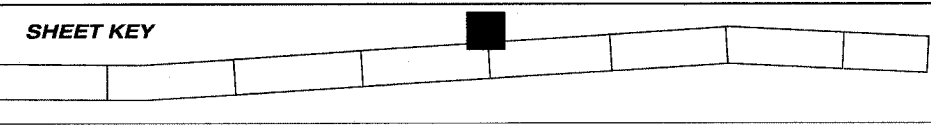
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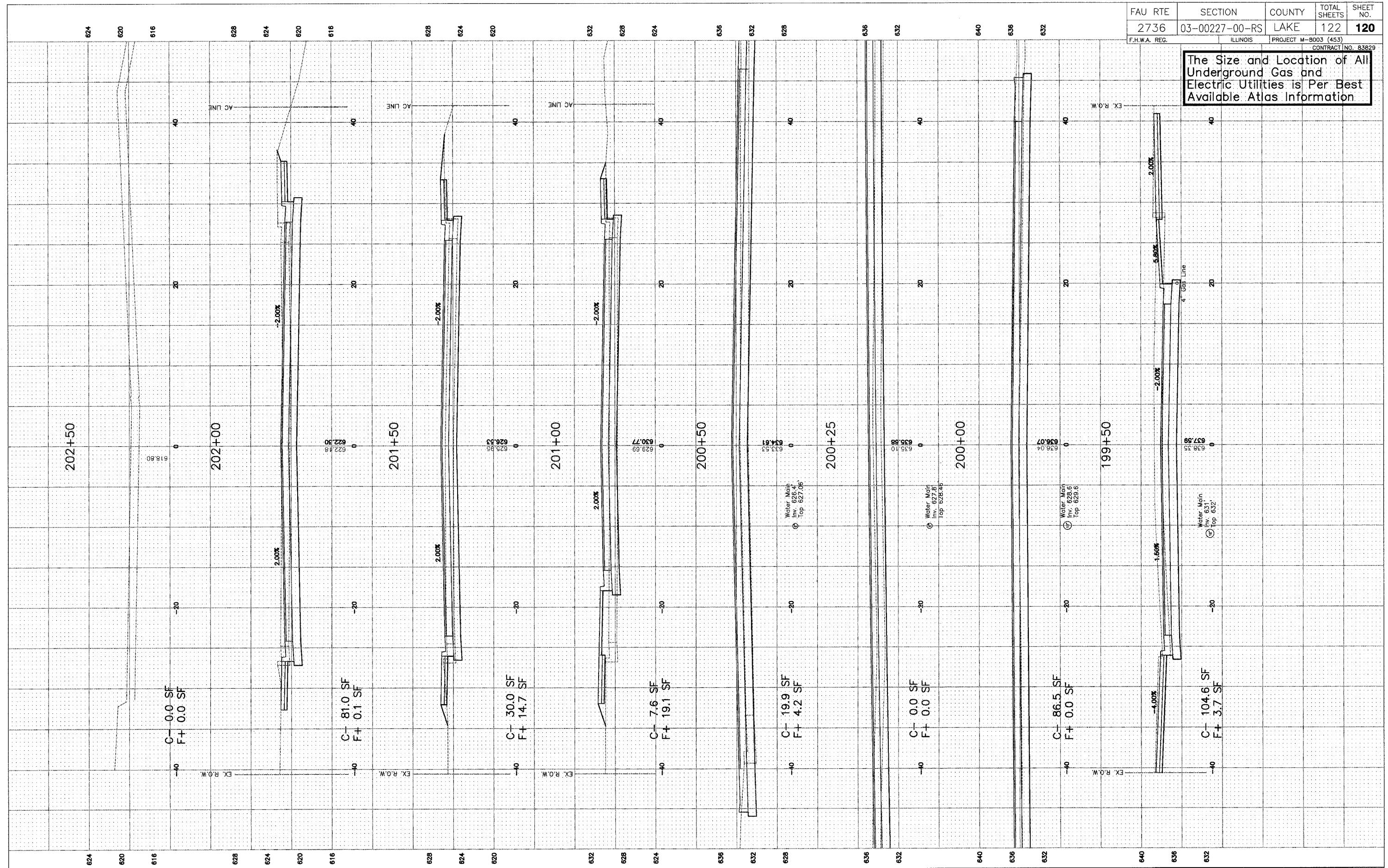
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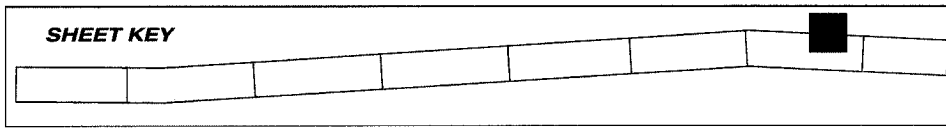
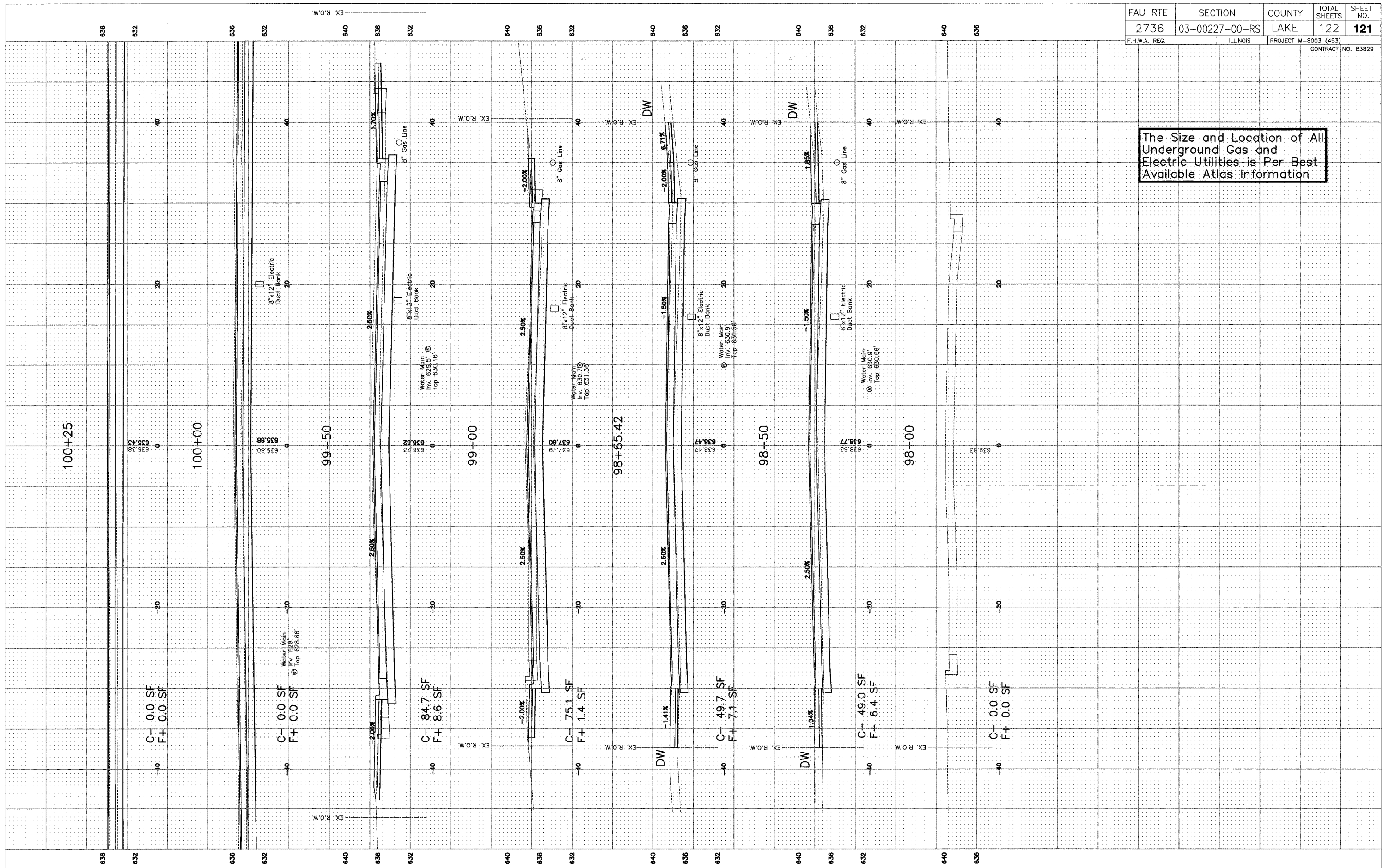
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The Size and Location of All Underground Gas and Electric Utilities is Per Best Available Atlas Information



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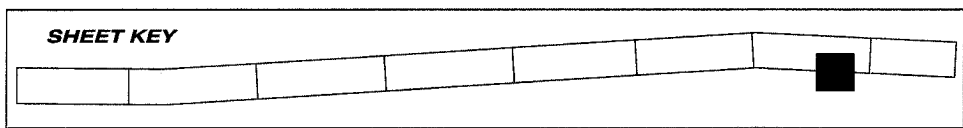
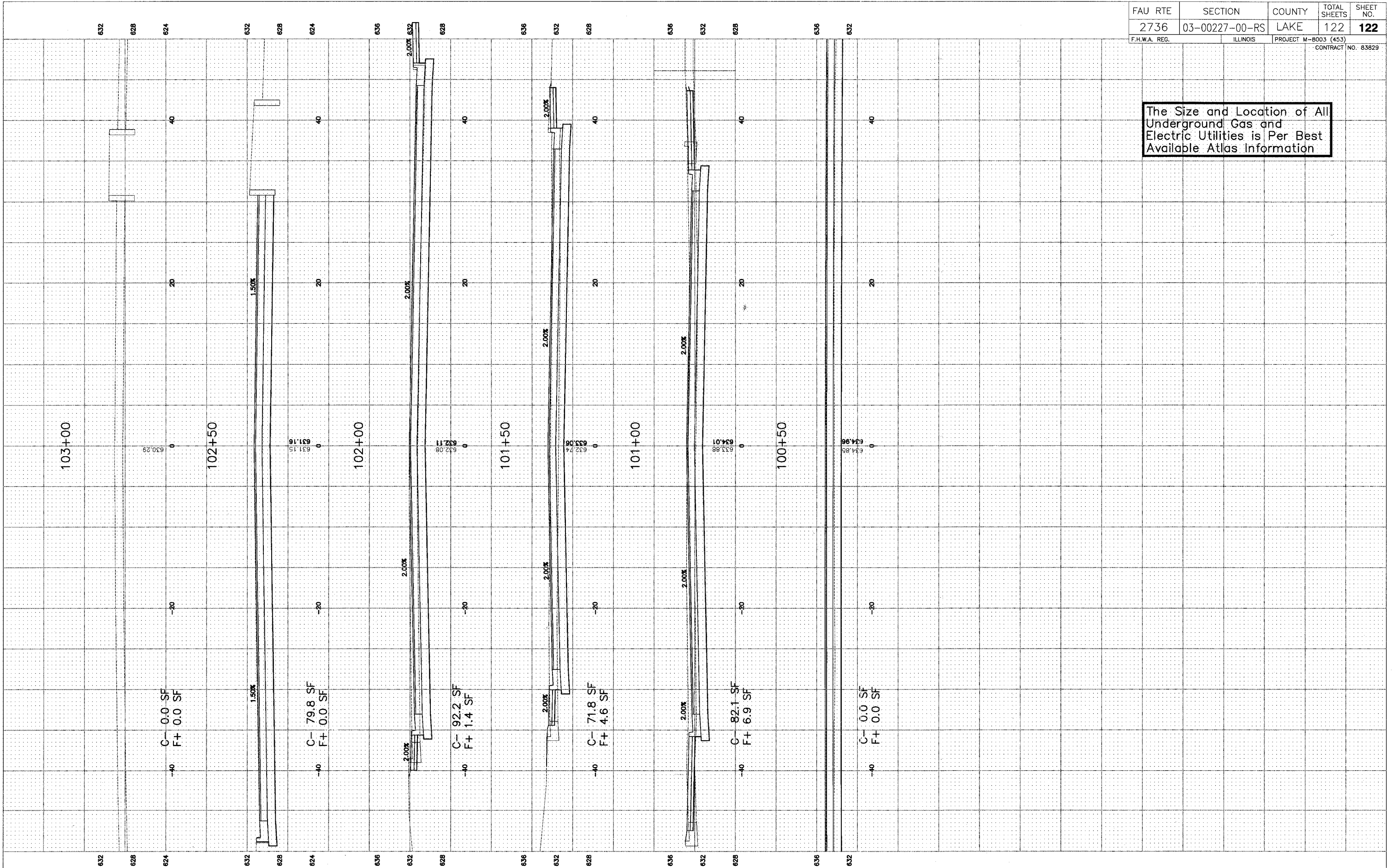
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