

PRECONSTRUCTION INCIDENTALS

PROJECT SPECIFICATIONS/REQUIREMENTS:

ALL WORK REQUIRED TO COMPLETE THIS IMPROVEMENT SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS/REQUIREMENTS OF THE CITY OF CANTON AND THE 2016 EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, EXCEPT AS HEREIN AMENDED. IN THE CASE OF A CONFLICT BETWEEN THE CITY OF CANTON AND THE OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS/REQUIREMENTS, THE CITY OF CANTON REQUIREMENTS WILL TAKE PRECEDENCE, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

THE CONTRACTOR SHALL COMPLY WITH THE CITY OF CANTON SUPPLEMENTAL SPECIFICATION 01-00 PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS.

ADMINISTRATIVE REQUIREMENTS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY COMPLYING WITH ALL THE ADMINISTRATIVE DUTIES HEREIN CONTAINED.

THE CONTRACTOR SHALL DESIGNATE TO THE CITY AN EMPLOYEE RESPONSIBLE FOR CORRESPONDENCE, NOTIFICATIONS, AND SUBMITTALS PERTINENT TO THE PROJECT.

PRECONSTRUCTION MEETING:

A PRECONSTRUCTION MEETING WITH THE CONTRACTOR, REPRESENTATIVES OF ALL UTILITY COMPANIES, THE CITY OF CANTON ENGINEERING DEPARTMENT AND THE CITY OF CANTON WATER DEPARTMENT IS REQUIRED FOR THIS PROJECT PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

THE CITY ENGINEER WILL CONTACT THE CONTRACTOR TO ARRANGE A MEETING DATE. THE CITY ENGINEER WILL CONTACT THE ABOVE AGENCIES TO CONFIRM THE MEETING DATE.

PROJECT SAFETY:

THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT THE PROJECT SITE AT ALL TIMES. THE CONTRACTOR SHALL PROPERLY SUPPORT AND/OR MAINTAIN ALL EXCAVATIONS PER APPLICABLE SAFETY REQUIREMENTS AND COMPLY WITH ALL O.S.H.A. REGULATIONS. ADEQUATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE/AREA. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL. PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE OF DEBRIS (MUD, STONE, ETC.) AT ALL TIMES. THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING AND CONSTRUCTION ACTIVITY. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

UNDERGROUND UTILITIES:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED BY FIELD OBSERVATIONS, FROM EXISTING RECORDS, AND/OR FROM THE OWNERS OF THE RESPECTIVE UTILITIES. THE INFORMATION AS SHOWN IS BELIEVED TO BE CORRECT; HOWEVER, THE COMPLETENESS AND ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL THE VARIOUS UTILITY COMPANIES (PUBLIC AND PRIVATE) TO VERIFY THE EXISTENCE, LIMITS AND/OR LOCATION OF ANY UTILITIES WHICH MAY BE ALONG THE ROUTE OR WITHIN THE VICINITY OF THIS IMPROVEMENT.

PROJECT COMPLETION:

THE WORK EMBRACED IN THIS CONTRACT SHALL BE SUBSTANTIALLY COMPLETE 120 CALENDAR DAYS AFTER THE NOTICE PROCEED.

WEATHER DAYS MAY BE APPLIED TO THE END OF THE 120 DAY COMPLETION DATE.

(F) UTILITY NOTIFICATION:

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING OPERATIONS ON THIS PROJECT, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER, THE REGISTERED UTILITY PROTECTION AGENCY/SERVICE, AND THE OWNERS OF ANY OTHER UTILITIES (PUBLIC AND/OR PRIVATE) THAT MAY HAVE UTILITY LINES OR FACILITIES WITHIN THE VICINITY OF THIS PROJECT BUT WHO ARE NOT MEMBERS OF THE REGISTERED UTILITY PROTECTION SERVICE. THE OWNERS OF ANY UNDERGROUND UTILITY FACILITY SHALL, WITHIN 48 HOURS AFTER NOTICE IS RECEIVED, EXCLUDING SATURDAYS, SUNDAYS AND OTHER LEGAL HOLIDAYS; STAKE, MARK OR OTHERWISE DESIGNATE THE EXISTENCE AND/OR LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING AND/OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO WORKING DAYS AHEAD OF THE PLANNED CONSTRUCTION.

OHIO UTILITIES PROTECTION SERVICE: 1-800-362-2764 (CONTACT NON-MEMBERS DIRECTLY).

THE PRIMARY UTILITIES WITHIN THE CITY OF CANTON AREA:

NATURAL GAS DIST./TRANS.
DOMINION EAST OHIO GAS
320 SPRINGSIDE DR.
AKRON, OHIO 44333
330-664-2781
ATTN: BILL SNYDER
RELOCATION@DOM.COM
EMERGENCY NO.
1-800-521-4400

COMMUNICATIONS CABLE
CHARTER (FKA TIME WARNER)
5520 WHIPPLE AVE N.W.
NORTH CANTON, OHIO 44720
330-633-9203
ext. 216-555-4261
ATTN: MIKE MEYER
216-618-2528(CELL)

SANITARY AND STORM SEWER
CITY ENGINEER'S OFFICE
2436-30TH ST. N.E.
CANTON, OHIO 44705
330-489-3381
ATTN: DAN MOEGLIN

TRAFFIC INTERCONNECT
CITY ENGINEER'S OFFICE
2436-30TH ST. N.E.
CANTON, OHIO 44705
330-489-3381
ATTN: NICK LOUKAS

THE CITY ENGINEER'S OFFICE IS TO BE CONTACTED DIRECTLY FOR SANITARY AND STORM SEWER AND TRAFFIC INTERCONNECT FACILITIES LOCATION: 330-489-3381.
[UTILITY CONTACTS LAST UPDATED 1/11/2018]

CONTINGENCY QUANTITIES:

WHEN SPECIFIED ON PLANS OR SPECIFICATIONS, CONTINGENCY QUANTITIES ARE TO BE PERFORMED ONLY UNDER DIRECTION OF THE CITY ENGINEER. THE DEVELOPER/CONTRACTOR SHALL NOT ORDER ANY CONTINGENCY MATERIAL OR PERFORM ANY WORK UNTIL DIRECTED BY THE ENGINEER. THE ACTUAL WORK LOCATION AND QUANTITIES FOR SUCH ITEMS SHALL BE DOCUMENTED BY THE DEVELOPER/CONTRACTOR AND THE ENGINEER.

TELEPHONE
AT&T
50 WEST BOWERY STREET
AKRON, OHIO 44308
ATTN: RICH WILSON
330-384-2245
CINDY ZUCHEGNO
330-384-3561
EMERGENCY NO. - 24 HRS
1-800-572-4545 OPTION#4

ELECTRIC
AMERICAN ELECTRIC POWER
301 CLEVELAND AVE. S.W.
P.O. BOX 24400
CANTON, OHIO 44701-4400
330-438-7739
ATTN: JINA DUPLAIN
330-933-6099 (CELL)
EMERGENCY No.
1-800-672-2017

WATER
WATER DEPARTMENT
2664 HARRISBURG RD. N.E.
CANTON, OHIO 44708
330-489-3310
ATTN: BRENT BURRIER OR
LEWI MILLER

CONSTRUCTION INCIDENTALS

PLAN DISCREPANCIES:

ANY DISCREPANCIES FROM THE PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER SO THAT THE APPROPRIATE ADJUSTMENTS IN ALIGNMENT AND/OR GRADE MAY BE MADE PRIOR TO THE START OF CONSTRUCTION OR THE CONTINUATION OF THE ABOVE..

FAILURE BY THE CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION AS INDICATED WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHANGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.

VERIFICATION OF UNDERGROUND UTILITIES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. THIS MAY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS OR AT UNIFORM SLOPES/GRADES/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTN CHAMBERS, ETC.)

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT, THE CONTRACTOR SHALL UNCOVER AND DETERMINE THE ELEVATION, SIZE, SLOPE/GRADE AND MATERIAL OF EXISTING UNDERGROUND UTILITIES/CONDUITS ALONG THE ROUTE OF CONSTRUCTION, AS SHOWN ON DRAWINGS OR MARKED AT THE TIME OF CONSTRUCTION BY THE UTILITY OWNER.

PROTECTION OF UTILITIES:

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT AND SUPPORT EXISTING UTILITIES ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS APPROVED BY THE OWNERS OF THE UTILITY AND THE CITY ENGINEER..

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY COORDINATE THEIR WORK WITH ALL UTILITY COMPANIES. ANY POTENTIAL DELAYS WILL NOT BE THE RESPONSIBILITY OF THE CITY.

THE CONTRACTOR SHOULD EXPECT AT A MINIMUM ONE SANITARY SEWER LATERAL, ONE ROOF DRAIN, ONE WATER SERVICE, AND ONE GAS SERVICE FOR EACH LOT. ANY OF THE ABOVE UTILITIES DAMAGED DUE TO THE CONTRACTOR'S WORK SHALL BE RESTORED TO THE UTILITY OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL ADEQUATELY SUPPORT, SHORE UP, OR OTHERWISE PROTECT UNDERGROUND UTILITIES WHENEVER EXPOSED IN THE TRENCH. SUPPORTS SHALL BE EXTENDED A MINIMUM OF 12 INCHES INTO UNDISTURBED EARTH EACH SIDE OF TRENCH. CONTRACTOR SHALL BAND OR TIE UTILITY TO BRIDGING FOR ITS FULL LENGTH. WHERE BRIDGING CANNOT BE SUPPORTED BY A FIRM FOUNDATION, CONTRACTOR SHALL PROVIDE VERTICAL SUPPORT, INCLUDING ANY LATERAL BRACING NECESSARY TO PROVIDE FIRM SUPPORT.

ABOVE GROUND (AERIAL) UTILITIES, INCLUDING, BUT NOT LIMITED TO, POWER, TELEPHONE AND CABLE TELEVISION, ETC., SHALL REMAIN IN SERVICE AT ALL TIMES. ANY ANTICIPATED DISRUPTION OF SERVICE SHALL BE WITH THE FULL KNOWLEDGE OF THE UTILITY COMPANY AND REQUIRES ADVANCE NOTICE TO AFFECTED USERS. REMOVAL OF GUY WIRES AND HOLDING OF POLES SHALL BE COMPLETED AS REQUIRED TO COMPLETE THE WORK, SHALL BE AS AGREED UPON BY THE UTILITY COMPANY AND CONTRACTOR, AND SHALL BE AT THE EXPENSE OF CONTRACTOR.

MAINTENANCE OF UTILITY SERVICES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN UTILITY SERVICES AT ALL TIMES.

WATER SERVICE MAY BE INTERRUPTED FOR LIMITED PERIODS (4 HOURS MAXIMUM). NO SHUT DOWN SHALL OCCUR WITHOUT WRITTEN PERMISSION OF THE CITY OF CANTON WATER DEPARTMENT. PROPERTY OWNERS AFFECTED BY APPROVED INTERRUPTED SERVICE SHALL BE NOTIFIED 48 HOURS IN ADVANCE BY THE CONTRACTOR.

STORM SEWER AND SANITARY SEWER SERVICES SHALL BE MAINTAINED WITHOUT INTERRUPTION, UNLESS APPROVED BY THE CITY ENGINEER.

IN THE EVENT THAT CONSTRUCTION DISRUPTS THE FLOW OF A SANITARY SEWER, THE CONTRACTOR SHALL IMMEDIATELY RECTIFY THE DISRUPTED SEWER BY EITHER TEMPORARILY FLUMING WITH MATERIALS ACCEPTABLE TO THE ENGINEER OR BYPASSING WITH PUMPS. COST OF MAINTAINING AND REPAIR OF SANITARY SEWERS DISTURBED BY CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE.

CONSTRUCTION NOISE:

CONSTRUCTION NOISE ASSOCIATED WITH ANY IMPROVEMENT PROJECT, SHALL BE LIMITED TO LEVELS COMMENSURABLE WITH ADJOINING LAND AND THEIR ASSOCIATED USAGE AS DETERMINED BY THE CITY ENGINEER. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICE SHALL NOT BE OPERATED BETWEEN THE HOURS OF 7:00 P.M. AND 7:00 A.M., UNLESS AUTHORIZED BY THE CITY ENGINEER.

CLEANUP AND DISPOSAL:

DURING WORK, KEEP ROADS CLEAN AND WORK AREAS IN AN ORDERLY CONDITION. AT THE END OF THE PROJECT, ALL STREETS AND ROADWAYS EFFECTED BY THIS PROJECT SHALL BE SWEEP.

ALL WASTE MATERIAL GENERATED BY THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE OFFSITE AT NO COST TO THE CITY.

TESTING OF UTILITIES:

ALL NEWLY CONSTRUCTED WATERLINES AND SANITARY SEWERS (INCLUDING LATERALS) MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH APPLICABLE STANDARDS (AWWA, ETC.), PER THE OHIO ENVIRONMENTAL PROTECTION AGENCY AND PER THE REQUIREMENTS OF THE CITY OF CANTON CITY AND WATER ENGINEERING DEPARTMENT.

PRESERVATION OF EXISTING STRUCTURES:

THE CONTRACTOR SHALL PERFORM WORK SO AS TO NOT DISTURB, DAMAGE OR DESTROY ANY MAILBOX, PAPER BOX, TELEPHONE OR POWER POLES, SIGNS, FENCES, RETAINING WALLS, LANDSCAPING ITEMS, ETC. ANY ITEM DAMAGED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

CONSTRUCTION LAYOUT:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT UTILIZING PERTINENT PLAN DATA. THE CITY ENGINEER WILL NOT BE RESPONSIBLE FOR STAKING HORIZONTAL OR VERTICAL CONTROL. CONSTRUCTION LAYOUT SHALL BE IN ACCORDANCE WITH ODOT 623 CONSTRUCTION LAYOUT STAKES.

AT THE CITY ENGINEER'S REQUEST THE CONTRACTOR SHALL MAKE AVAILABLE ALL SURVEY FIELD NOTES FOR REVIEW.

EXISTING MONUMENTATION:

THE CONTRACTOR SHALL PRESERVE ALL CORNERSTONES, IRON PINS, CONCRETE MONUMENTS AND/OR ANY TYPE OF LAND MONUMENT. (HE SHALL HAVE ALL MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED.) THE CONTRACTOR SHALL REPLACE/RESET ANY DISTURBED OR DAMAGED MONUMENTS AND SHALL FURNISH A CERTIFICATION BY A REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED.

INSPECTION:

ALL WORK REQUIRED FOR THIS IMPROVEMENT SHALL BE SUBJECT TO INSPECTION BY THE CITY OF CANTON OR THEIR DESIGNATED REPRESENTATIVE. THE CONTRACTOR SHALL GIVE A 48 HOUR NOTICE BEFORE STARTING ANY WORK ON THIS PROJECT AND SHALL KEEP THE CITY INFORMED OF HIS/HER CONSTRUCTION SCHEDULE. NO WORK SHALL BE PERFORMED UNLESS AN AUTHORIZED INSPECTOR IS PRESENT.

DATE: 9/12/17		DRAWN BY: N/L		REVISIONS	DATE	BY
		APPROVED BY:				
H. SCALE: N/A		FIELD BOOK:				
V. SCALE: N/A		FILE NAME: 091185 Gen Notes 1				
SHEET 2 OF 9		OFFICE OF THE CITY ENGINEER CANTON, OHIO DANIEL J. MOEGLIN, P.E., CITY ENGINEER 2436 30th STREET N.E. 44705 (330)489-3381				

GENERAL NOTES
SIGNAL SYST. COMM. UPGRADES

EARTHWORK / SITE WORK

EASEMENTS AND RIGHT-OF WAY:

THE CONTRACTOR SHALL STAY WITHIN THE PROPERTIES, EASEMENTS, AND/OR RIGHT-OF-WAY PROVIDED AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED ON PRIVATE PROPERTY. DISTURBANCE OF EXISTING FEATURES AND/OR IMPROVEMENTS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND AS APPROVED BY THE CITY ENGINEER/PROPERTY OWNER.

SUITABILITY OF SITE:

THE CITY OF CANTON WILL NOT BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE PROJECT SITE. THE CONTRACTOR MUST APPRAISE THEMSELVES OF ANY EXISTING SITE CONDITIONS WHICH MAY AFFECT THEIR BID OR THE PERFORMANCE OF THE REQUIRED WORK. THE CONTRACTOR SHALL PERFORM ANY INVESTIGATIONS AND/OR TESTING NECESSARY TO ADEQUATELY DETERMINE/ESTIMATE TO THEIR SATISFACTION OF ALL SITE CONDITIONS WHICH COULD AFFECT THE PERFORMANCE OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE BUT NOT BE LIMITED TO UNSUITABLE AND/OR UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, ETC.

REMOVAL/REPLACEMENT OF UNSUITABLE MATERIAL:

THE CONTRACTOR SHALL UNDERCUT AND REPLACE UNSUITABLE MATERIAL ENCOUNTERED DURING INSTALLATION OF THE PROPOSED UTILITIES AND ROADWAY IN ACCORDANCE WITH O.D.O.T. ITEM NO. 603 AND 203, OR AS FURTHER DESCRIBED HEREIN.

IF PLANS ALLOW FOR A CONTINGENCY ITEM FOR SUCH REMOVAL/REPLACEMENT, THE CITY WILL DOCUMENT THE LOCATION OF AREAS OF SUCH REMOVAL/REPLACEMENT FOR FINAL QUANTITY TABULATION.

RESTORATION OF DISTURBED AREAS:

EXISTING DRIVES, BERMS, LAWNS, PAVEMENTS, CURBS, SIDEWALKS, SIGNS, MAILBOXES OR OTHER APPURTENANCES DISTURBED DURING CONSTRUCTION BUT NOT SPECIFICALLY DESIGNATED FOR REMOVAL/REPLACEMENT SHALL BE RESTORED TO A CONDITION EQUAL TO THAT WHICH EXISTED PRIOR TO CONSTRUCTION AND TO THE COMPLETE SATISFACTION OF THE CITY ENGINEER. RESTORATION OF EXISTING ROADWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY, TOWNSHIP, COUNTY, AND/OR OTHER AGENCIES HAVING AUTHORITY. COST FOR THE RESTORATION OF THESE ITEMS WILL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR. NO PUBLIC ROADWAY SHALL BE DISTURBED WITHOUT PRIOR WRITTEN APPROVAL FROM THE GOVERNING AGENCY AND ACQUISITION OF NECESSARY PERMITS.

TRAFFIC

ITEM 633 – CONTROLLER ITEM, MISC.: CENTRAL SYSTEM LICENSE UPGRADE:

THIS ITEM SHALL CONSIST OF AN UPGRADE FOR THE NUMBER OF DEVICES LICENSED ON THE CITY'S EXISTING MAXVIEW CENTRAL SIGNAL SYSTEM. THIS ITEM SHALL ADD AN ADDITIONAL 100 DEVICES TO THE EXISTING LICENSE.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 633 – CONTROLLER ITEM, MISC.: CENTRAL SYSTEM LICENSE UPGRADE **LUMP SUM**

ITEM 633 – CONTROLLER ITEM, MISC.: UPGRADE OF EXISTING CONTROLLER COMMUNICATIONS, (BY TYPE):

THIS ITEM SHALL INCLUDE INSTALLATION OF AN ETHERNET TRANSCEIVER AND ANY ADDITIONAL DEVICES NECESSARY TO UPGRADE THE EXISTING CITY CONTROLLERS FROM ANALOG TO ETHERNET COMMUNICATIONS IN ORDER FOR THE CONTROLLERS TO COMMUNICATE WITH THE CITY'S EXISTING MAXVIEW CENTRAL SIGNAL SYSTEM. THE EXISTING CONTROLLERS COMMUNICATE THROUGH COPPER INTERCONNECT CABLE OR RADIO COMMUNICATIONS.

EACH INTERSECTION IS GROUPED INTO ONE OF THE FOLLOWING THREE TYPES:

- TYPE A – NEMA TS2-2 CABINET WITH ECONOLITE ASC 3 OR COBALT CONTROLLER
- TYPE B – NEMA TS2-2 CABINET WITH ECONOLITE ASC 2S-2100 CONTROLLER
- TYPE C – 170 CABINET WITH ASC 2-2000RM RACK MOUNT CONTROLLER

PAYMENT FOR ITEM 633 – CONTROLLER ITEM, MISC.: UPGRADE OF EXISTING CONTROLLER COMMUNICATIONS, (BY TYPE) SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH CONTROLLER UPGRADED IN PLACE AND FULLY OPERATIONAL AS DIRECTED BY THE ENGINEER. ALL MATERIALS AND WORK REQUIRED TO COMPLETE THIS ITEM, INCLUDING ATTACHMENT BRACKETS, SHALL BE INCLUDED IN THE UNIT COST.

ETHERNET TRANSCEIVER:

THE ETHERNET TRANSCEIVER SHALL BE AN INDUSTRY HARDENED, FULLY MANAGED ETHERNET SWITCH PROVIDING BOTH COPPER PORTS AND DUAL GIGABIT FIBER OPTICAL ETHERNET (1000BASE-T) PORTS USING INDUSTRY STANDARD SC FIBER OPTIC CONNECTORS AND 6 FAST ETHERNET (10/100BASE TX) RJ45 COPPER PORTS. THE TRANSCEIVER SHALL OPERATE ON 120 VAC, 10 WATTS AND SHALL MEET AND/OR EXCEED NEMA TS2 ENVIRONMENTAL REQUIREMENTS.

COPPER – TRANSCEIVER SHALL INTERFACE TO COPPER INTERCONNECT CABLE WITH UP TO 60Mbps OF SYMMETRICAL ETHERNET OVER COPPER.

FIBER OPTIC – TRANSCEIVER SHALL INTERFACE TO SINGLE-MODE (8/125) FIBER OPTIC CABLE WITH AN OPTICAL WAVELENGTH OF 1310NM USING LC UPC CONNECTORS. IT SHALL BE CAPABLE OF OPERATING OVER A DISTANCE OF AT LEAST 10KM WITH AN OPTICAL POWER BUDGET OF 17DB. THE TRANSCEIVER SHALL BE CAPABLE OF OPERATING IN A FAULT TOLERANT FIBER OPTIC LOOP

TRANSCEIVER SHALL BE FULLY COMPLIANT WITH IEEE 802.3, 802.3U, AND 802.3Z. THE TRANSCEIVER SHALL PROVIDE FULL-DUPLEX OPERATION AND FLOW CONTROL.

TRANSCEIVER SHALL HAVE A SIMPLE INTUITIVE USED INTERFACE FOR CONFIGURATION AND MONITORING VIA STANDARD HTML GRAPHICAL WEB BROWSER, INCLUDING DETAILED ON-LINE HELP. EVENT LOGGING AND RECORDING SHALL BE INCLUDED. ALL SIGNIFICANT EVENTS SHALL BE STORED IN A NON-VOLATILE SYSTEM LOG.

TRANSCEIVER SHALL CONNECT TO ALL ETHERNET DEVICES IN THE CONTROLLER CABINET INCLUDING THE CONTROLLER, VIDEO DETECTION, MMU, COMMUNICATIONS INTERFACE PANEL AND VIDEO SERVERS, AND ANY OTHER ETHERNET DEVICES USING PROPERLY RATED CAT5E CABLES RJ45 CONNECTORS.

PAYMENT FOR ETHERNET TRANSCEIVERS SHALL BE INCLUDED IN THE UNIT COST FOR ITEM 633 – CONTROLLER ITEM, MISC.: UPGRADE OF EXISTING CONTROLLER COMMUNICATIONS, (BY TYPE).

FIBER OPTIC CABLE

REMOVAL OF EXISTING COPPER INTERCONNECT CABLE SHALL BE INCIDENTAL TO THE COST OF THE NEW FIBER OPTIC CABLE.

ALL NECESSARY HARDWARE AND APPURTENANCES NECESSARY FOR ATTACHING AERIAL FIBER OPTIC CABLE SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC CABLE.

EACH FIBER OPTIC CABLE TRUNK RUN ASSUMES A CONTINUOUS PULL WITH NO SPLICES.

A FIBER SPLICE CHART WILL BE PROVIDED BY THE CITY PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL CUT NO MORE FIBERS THAN NECESSARY AT INTERSECTIONS. CONTRACTOR MAY CUT ALL 12 FIBERS IN THE TUBE USED FOR TRAFFIC SIGNAL COMMUNICATIONS. SIX (6) FIBERS WILL BE USED FOR COMMUNICATIONS AND SPLICED TO DROP CABLE, AND THE REMAINING 6 SPARE FIBERS SHALL BE SPLICED BACK TOGETHER. CARE SHALL BE TAKEN TO NOT CUT THE OTHER 3, 12-FIBER TUBES IN THE CABLE.

FIBER TERMINATION PANELS

THIS PROJECT REQUIRES TWO SIZES/TYPES OF FIBER TERMINATION PANELS.

SIGNAL CABINETS – 12 FIBER TERMINATION PANELS SHALL BE USED IN THE CONTROLLER CABINETS.

BUILDINGS – 48 FIBER, RACK MOUNT TERMINATION PANELS SHALL BE USED IN BUILDINGS AND PLACED IN EXISTING RACKS.

LC UPC SOC CONNECTORS SHALL BE USED.

FIBER OPTIC EQUIPMENT

THE FOLLOWING ITEMS SHALL BE PROVIDED TO THE CITY. THE INTENT IS TO PROVIDE CITY PERSONNEL WITH EQUIPMENT NECESSARY TO MAINTAIN THE FIBER OPTIC CABLE INSTALLED WITH THIS PROJECT. THE EQUIPMENT SHALL BE DELIVERED TO THE CITY OF CANTON TRAFFIC SIGNAL AND LIGHTING DIVISION.

- 804 – FIBER OPTIC FUSION SPLICER 1 EACH
- 804 – FIBER OPTIC OPTICAL TIME DOMAIN REFLECTOMETER 1 EACH
- 804 – FIBER OPTIC CLEAVER 1 EACH
- 804 – FIBER OPTIC POWER METER 1 EACH
- 804 – FIBER OPTIC VISUAL FAULT LOCATOR 1 EACH

POST CONSTRUCTION INCIDENTALS

RELEASE OF RETAINER/BONDS:

PRIOR TO THE RELEASE OF RETAINER/CONSTRUCTION BOND BY THE CITY OF CANTON, THE CONTRACTOR SHALL HAVE COMPLETED THE ENGINEER'S PROJECT PUNCHLIST AND SUBMIT. FINAL WAIVER OF LIEN, IN ACCORDANCE WITH CITY SS 01-00.

MAINTAINING TRAFFIC:

THE CONTRACTOR SHALL MAINTAIN TRAFFIC ADJACENT TO AND THROUGH THE PROJECT AS DESCRIBED BELOW AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF CONSTRUCTION AND MATERIALS SPECIFICATIONS ITEM 614 MAINTAINING TRAFFIC. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL SIGNS, FLAGS, FLAGMEN, WATCHMEN, BARRICADES, SIGN SUPPORTS, CONES, BARRELS, AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISIONS OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.

ITEM 614 – LAW ENFORCEMENT OFFICER WITH PARTOL CAR:

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC AS DIRECTED BY THE ENGINEER FOR THE FOLLOWING TASKS:

1. FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

LAW ENFORCEMENT OFFICERS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICAL PARTOL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH:

CITY OF CANTON POLICE DEPARTMENT
221 THIRD STREET S.W.
CANTON, OHIO 44702
330-489-3111

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

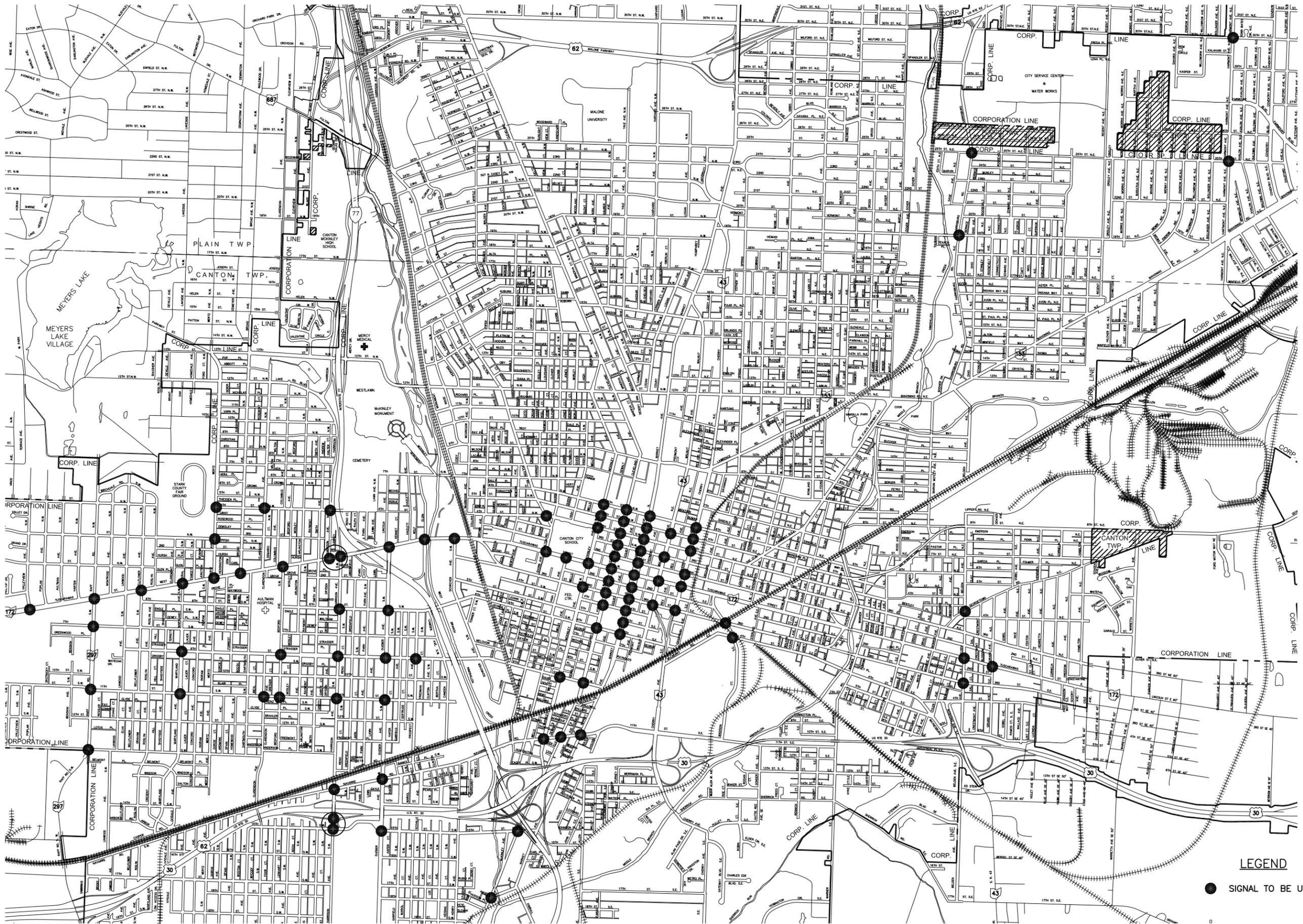
ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR 40 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO AT HIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

DATE: 4/9/18		DRAWN BY: N/L		REVISIONS		OFFICE OF THE CITY ENGINEER CANTON, OHIO	
H. SCALE: N/A		APPROVED BY:		DESCRIPTION		GENERAL NOTES	
V. SCALE: N/A		FIELD BOOK:		V. NAME: 0P1185 Gen Notes 2		SIGNAL SYST. COMM. UPGRADES	
SHEET 3 OF 9		FILE NAME: 0P1185 Gen Notes 2		DATE		BY	

DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th STREET N.E. 44705 (330)489-3381



LEGEND

● SIGNAL TO BE UPGRADED

OFFICE OF THE CITY ENGINEER
 CANTON, OHIO
 DANIEL J. MOEGLIN, P.E., CITY ENGINEER
 2436 30th STREET N.E. 44705 (330)489-3391

SIGNAL SCHEMATIC
SIGNAL SYST. COMM. UPGRADES

DATE:	REVISIONS	DESCRIPTION	DATE	BY
12/7/17				
DRAWN BY: N/L				
APPROVED BY:				
FIELD BOOK:				
FILE NAME: 0P1185 SIGNAL SCHEMATIC				
H. SCALE: 1"=1000'				
V. SCALE: N/A				
SHEET 5 OF 9				

INTERSECTION	TYPE A	TYPE B	TYPE C	100% CITY
TUSCARAWAS ST. W. & SCHROYER AVE.		1		
TUSCARAWAS ST. W. & ELGIN AVE.		1		
TUSCARAWAS ST. W. & DUEBER AVE.		1		
TUSCARAWAS ST. W. & HARRISON AVE.		1		
TUSCARAWAS ST. W. & BEDFORD AVE.			1	
TUSCARAWAS ST. W. & BROAD AVE.			1	
TUSCARAWAS ST. W. & WERTZ AVE.			1	
TUSCARAWAS ST. W. & MARYLAND AVE.			1	
TUSCARAWAS ST. W. & BELLFLOWER AVE.			1	
TUSCARAWAS ST. W. & RAFF RD.			1	
TUSCARAWAS ST. W. & VALLEYVIEW AVE.		1		
7TH ST. & RAFF RD. SW			1	
11TH ST. & RAFF RD. SW			1	
13TH ST. & RAFF RD. SW			1	
3RD ST. & WERTZ AVE NW			1	X
4TH ST. & WERTZ AVE. NW			1	X
4TH ST. & CLARENDON AVE. NW			1	
4TH ST. & HARRISON AVE. NW		1		
6TH ST. & DUEBER AVE. SW			1	
6TH ST. & HARRISON AVE. SW			1	
9TH ST. & PROSPECT AVE. SW			1	
9TH ST. & DUEBER AVE. SW			1	
9TH ST. & HARRISON AVE. SW			1	
9TH ST. & BEDFORD AVE. SW		1		
9TH ST. & MARYLAND AVE. SW			1	
11TH ST. & DUEBER AVE. SW			1	
11TH ST. & HARRISON AVE. SW			1	
11TH ST. & BEDFORD AVE. SW			1	
11TH ST. & CLARENDON AVE. SW			1	
11TH ST. & MARYLAND AVE. SW			1	
TUSCARAWAS ST. E. & BELDEN AVE.		1		
TUSCARAWAS ST. E. & GIRARD AVE.		1		
BELDEN AVE. & GEORGETOWN RD. NE		1		
BELDEN AVE. & 3RD ST. SE		1		
3RD ST. & CHERRY AVE. SE		1		
TUSCARAWAS ST. E. & CHERRY AVE.	1			
2ND ST. & CHERRY AVE. NE		1		
4TH ST. & CHERRY AVE. NE		1		
5TH ST. & CHERRY AVE. NE		1		
6TH ST. & CHERRY AVE. NE		1		
5TH ST. & WALNUT AVE. NE		1		
3RD ST. & WALNUT AVE. NE		1		
TUSCARAWAS ST. E. & WALNUT AVE.		1		
3RD ST. & WALNUT AVE. SE		1		
3RD ST. & MADISON CT. SE	1			
4TH ST. & MADISON CT. SE	1			
TOTALS	3	20	23	

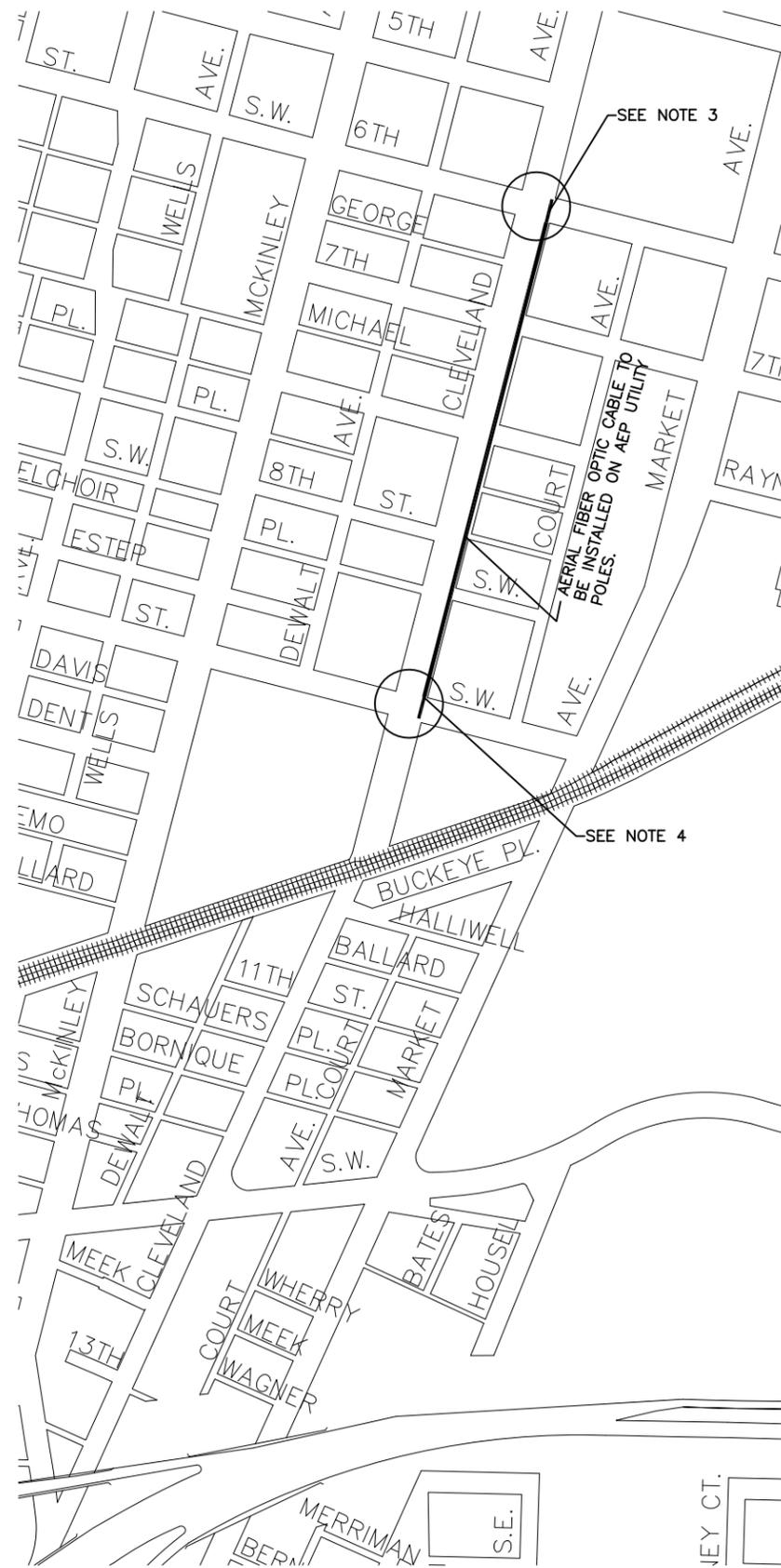
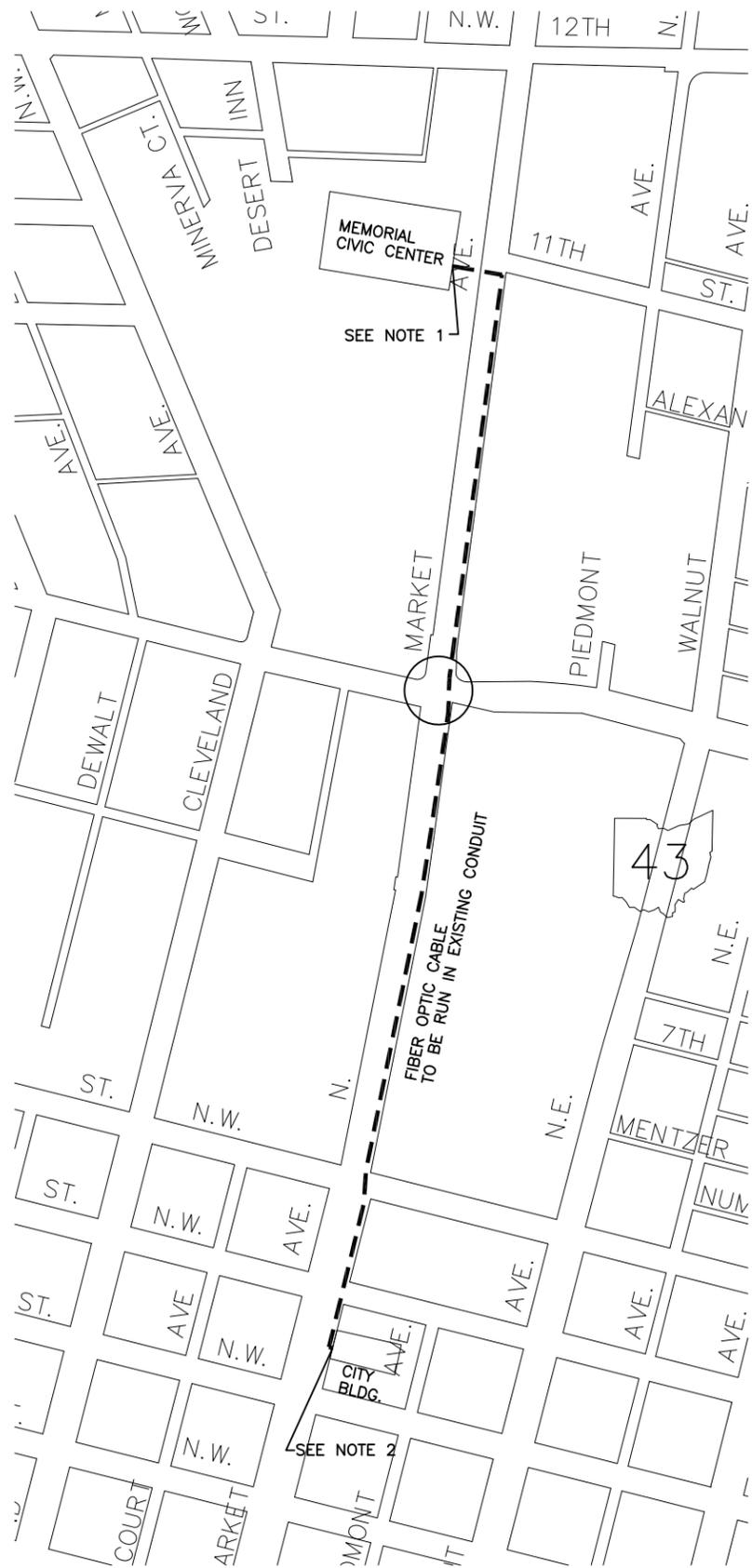
INTERSECTION	TYPE A	TYPE B	TYPE C	100% CITY
6TH ST. & CLEVELAND AVE. SW		1		
4TH ST. & CLEVELAND AVE. SW		1		
3RD ST. & CLEVELAND AVE. SW		1		
2ND ST. & CLEVELAND AVE. SW		1		
TUSCARAWAS ST. W & CLEVELAND AVE.		1		
2ND ST. & CLEVELAND AVE. NW		1		
3RD ST. & CLEVELAND AVE. NW		1		
4TH ST. & CLEVELAND AVE. NW		1		
5TH ST. & CLEVELAND AVE. NW		1		
6TH ST. & CLEVELAND AVE. NW		1		
6TH ST. & MCKINLEY AVE. NW		1		
5TH ST. & MCKINLEY AVE. NW		1		
4TH ST. & MCKINLEY AVE. NW		1		
TUSCARAWAS ST. W & MCKINLEY AVE.		1		
3RD ST. & MCKINLEY AVE. SW		1		
TUSCARAWAS ST. W & HIGH AVE.		1		
TUSCARAWAS ST. W & FULTON RD.		1		
4TH ST. & FULTON RD. NW		1		
6TH ST. & MARKET AVE. S		1		
5TH ST. & MARKET AVE. S		1		
4TH ST. & MARKET AVE. S		1		
3RD ST. & MARKET AVE. S		1		
2ND ST. & MARKET AVE. S		1		
TUSCARAWAS ST. & MARKET AVE.		1		
2ND ST. & MARKET AVE. N		1		
3RD ST. & MARKET AVE. N		1		
4TH ST. & MARKET AVE. N		1		
5TH ST. & MARKET AVE. N		1		
6TH ST. & MARKET AVE. N		1		
NAVARRE RD. & HARRISON AVE. SW	1			
NAVARRE RD. & DUEBER AVE. SW	1			
NAVARRE RD. & MCKINLEY AVE. SW	1			
NAVARRE RD. & CLEVELAND AVE. SW	1			
NAVARRE RD. & MARKET AVE. S	1			
9TH ST. & CLEVELAND AVE. SW	1			
9TH ST. & MCKINLEY AVE. SW	1			
15TH ST./HARRISON AVE./US 30 SW	1			
15TH ST. & DUEBER AVE. SW	1			X
15TH ST. & CLEVELAND AVE. SW	1			
MARKET AVE. & CLEVELAND AVE. S	1			
19TH ST. & HARRISBURG AVE. NE		1		
25TH ST. & HARRISBURG AVE. NE		1		
25TH ST. & HARMONT AVE. NE		1		
30TH ST. & HARMONT AVE. NE		1		
TOTALS	11	33	0	
GRAND TOTALS CARRIED TO GEN. SUM.	14	53	23	

DATE: 1/7/18	DRAWN BY: N/L	REVISIONS	BY
H. SCALE: 1" = 1000'	APPROVED BY:	DESCRIPTION	DATE
V. SCALE: N/A	FIELD BOOK:		
SHEET 6 OF 9	FILE NAME: GP1185 SIGNAL SUB-SUM		

SIGNAL LIST AND SUBSUMMARY

SIGNAL SYST. COMM. UPGRADES

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th STREET N.E. 44705 (330)488-3381

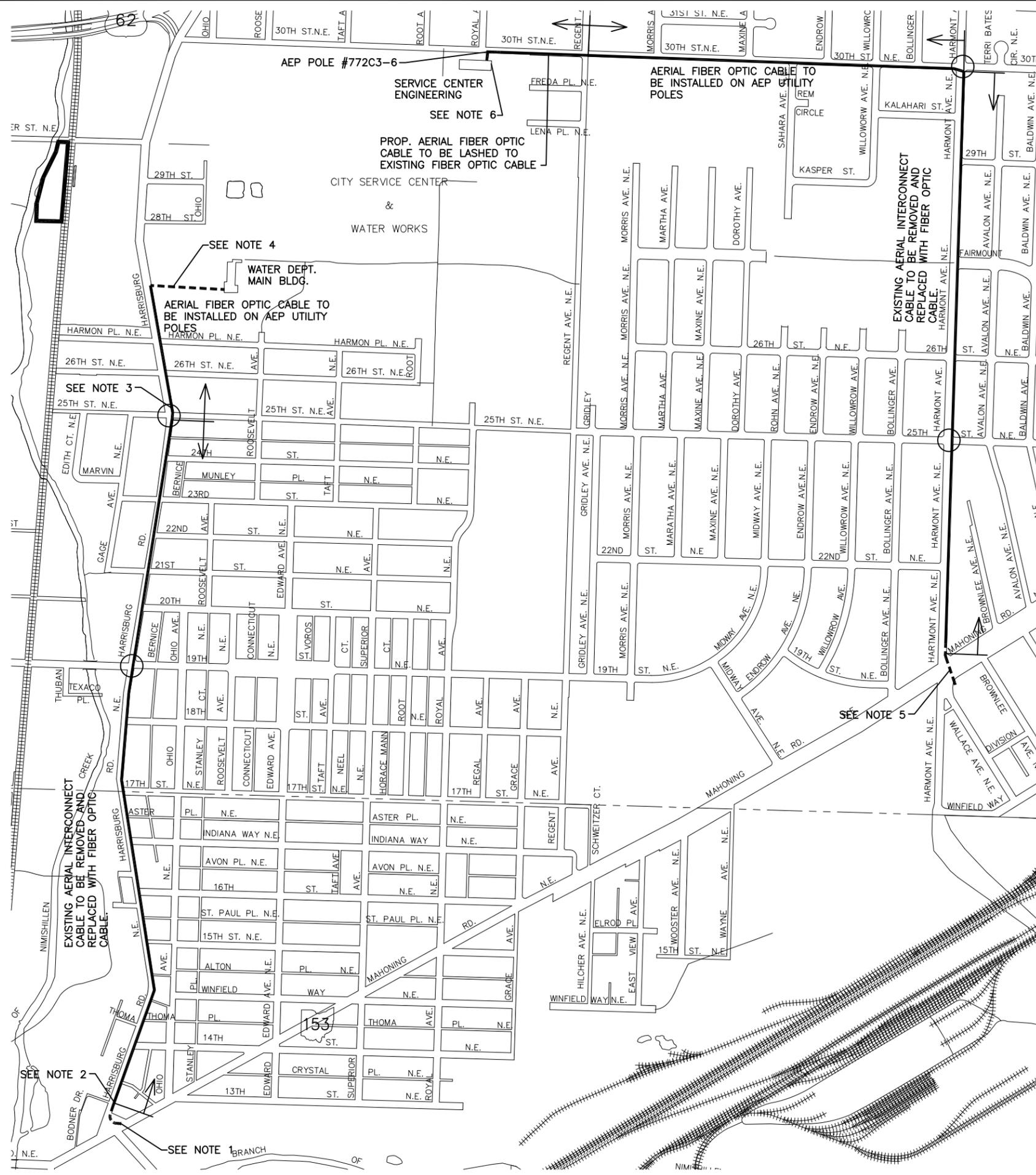


- NOTES:
1. FIBER OPTIC CABLE TO BE TERMINATED IN EXISTING FACILITIES WITHIN THE MEMORIAL CIVIC CENTER
 2. FIBER OPTIC CABLE TO BE TERMINATED IN EXISTING FACILITIES WITHIN THE CITY BUILDING LOCATED AT 420 MARKET AVE. N.
 3. FIBER OPTIC CABLE TO BE RUN FROM EX. SIGNAL POLE ON N.E. CORNER TO AEP UTILITY POLE #795D4-294.
 4. FIBER OPTIC CABLE TO BE RUN FROM AEP UTILITY POLE #795D4-302 TO EX. SIGNAL POLE ON N.E. CORNER. A WEATHERHEAD SHALL BE INSTALL ON THE EX. SIGNAL POLE. CABLE SHALL BE RUN IN EXISTING SIGNAL CONDUITS TO S.E. CORNER.

LEGEND

- PROPOSED AERIAL FIBER OPTIC CABLE
- - - PROPOSED UNDERGROUND FIBER OPTIC CABLE
- SIGNAL TO BE INTERCONNECTED VIA FIBER

	804	804	804	804	804	804	804	804	804	804
	FIBER OPTIC CABLE, 48 FIBER	FAN-OUT KIT, 12 FIBER	DROP CABLE, 12 FIBER	FIBER OPTIC PATCH CORD, 1 FIBER	FUSION SPLICE	SLACK INSTALLATION	SPLICE ENCLOSURE	FIBER TERMINATION PANEL, 12 FIBER	FIBER TERMINATION PANEL, 48 FIBER	FIBER OPTIC CONNECTOR
	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
MARKET AVE.	2680					4				
9TH ST. & MARKET AVE.		1	1	6	18		1	1		12
CIVIC CENTER									1	48
CITY BUILDING									1	48
CLEVELAND AVE.	1280					4				
6TH ST. & CLEVELAND AVE.		1	1	6	18		1	1		12
9TH ST. & CLEVELAND AVE.		1	1	6	18		1	1		12
TOTALS CARRIED TO GEN. SUM.	3960	3	3	18	54	8	3	3	2	132



- NOTES:
1. SPLICE TO EXISTING FIBER OPTIC CABLE ON MAHONING RD. AS DIRECTED BY THE ENGINEER.
 2. FIBER OPTIC CABLE TO BE RUN DOWN RISER ON AEP UTILITY POLE #79661C121 AND APPROXIMATELY 160' IN EXISTING UNDERGROUND CONDUIT TO PULL BOX ON MAHONING RD.
 3. EXISTING INTERCONNECT CABLE RUN (TO BE REPLACED WITH FIBER OPTIC CABLE) ENDS AT SIGNAL POLE ON S.E. CORNER OF 25TH ST. & HARRISBURG RD. THE PROPOSED FIBER OPTIC CABLE RUN TO THE NORTH SHALL BEGIN AT THAT SIGNAL POLE AND CONTINUE NORTH ON AEP UTILITY POLES BEGINNING WITH AEP POLE #772C2-31.
 4. 3" RISER TO BE INSTALLED ON AEP UTILITY POLE #772C2-148 AND TIED INTO EXISTING SWEEP. FIBER OPTIC CABLE TO BE RUN FROM POLE TO CITY WATER DEPARTMENT BUILDING LOCATED AT 2664 HARRISBURG RD. NE. IN EXISTING CONDUIT. FIBER OPTIC CABLE TO BE TERMINATED IN EXISTING FACILITIES WITHIN THE CITY WATER DEPARTMENT BUILDING.
 5. FIBER OPTIC CABLE SHALL BE RUN BETWEEN PULLBOX ON THE S.E. CORNER OF HARMONT AVE. AND MAHONING RD. AND AEP UTILITY POLE #773B1-299 VIA EXISTING UNDERGROUND CONDUIT. FIBERS SHALL BE SPLICED TO EXISTING FIBER OPTIC CABLE AS DIRECTED BY THE ENGINEER. FIBER OPTIC CABLE SHALL BE RUN AERIAL TO THE NORTH VIA EXISTING RISER ON THE UTILITY POLE.
 6. FIBER OPTIC CABLE TO BE TERMINATED IN EXISTING FACILITIES WITHIN THE CITY SERVICE CENTER BUILDING LOCATED AT 2436 30TH ST. NE.

LEGEND

- PROPOSED AERIAL FIBER OPTIC CABLE
- - - PROPOSED UNDERGROUND FIBER OPTIC CABLE
- SIGNAL TO BE INTERCONNECTED VIA FIBER

	804	804	804	804	804	804	804	804	804	804
FIBER OPTIC CABLE, 48 FIBER	FT									
FAN-OUT KIT, 12 FIBER	EACH									
DROP CABLE, 12 FIBER	EACH									
FIBER OPTIC PATCH CORD, 1 FIBER	EACH									
FUSION SPLICE	EACH									
SLACK INSTALLATION	EACH									
SPLICE ENCLOSURE	EACH									
FIBER TERMINATION PANEL, 12 FIBER	EACH									
FIBER TERMINATION PANEL, 48 FIBER	EACH									
FIBER OPTIC CONNECTOR	EACH									
HARRISBURG RD. (SOUTH)	6690									
MAHONING RD. & HARRISBURG RD.					24					
19TH ST. & HARRISBURG RD.		1	1	6	18		1	1		12
25TH ST. & HARRISBURG RD.		1	1	6	18		1	1		12
WATER DEPT. BUILDING									2	96
HARMONT AVE.	4400						2			
30TH ST.	3480						2			
MAHONING RD. & HARMONT AVE.					24					
25TH ST. & HARMONT AVE.		1	1	6	18		1	1		12
30TH ST. & HARMONT AVE.		1	1	6	18		1	1		12
SERVICE CENTER/ENGINEERING									1	48
TOTALS CARRIED TO GEN. SUM.	14570	4	4	24	120	8	4	4	3	192

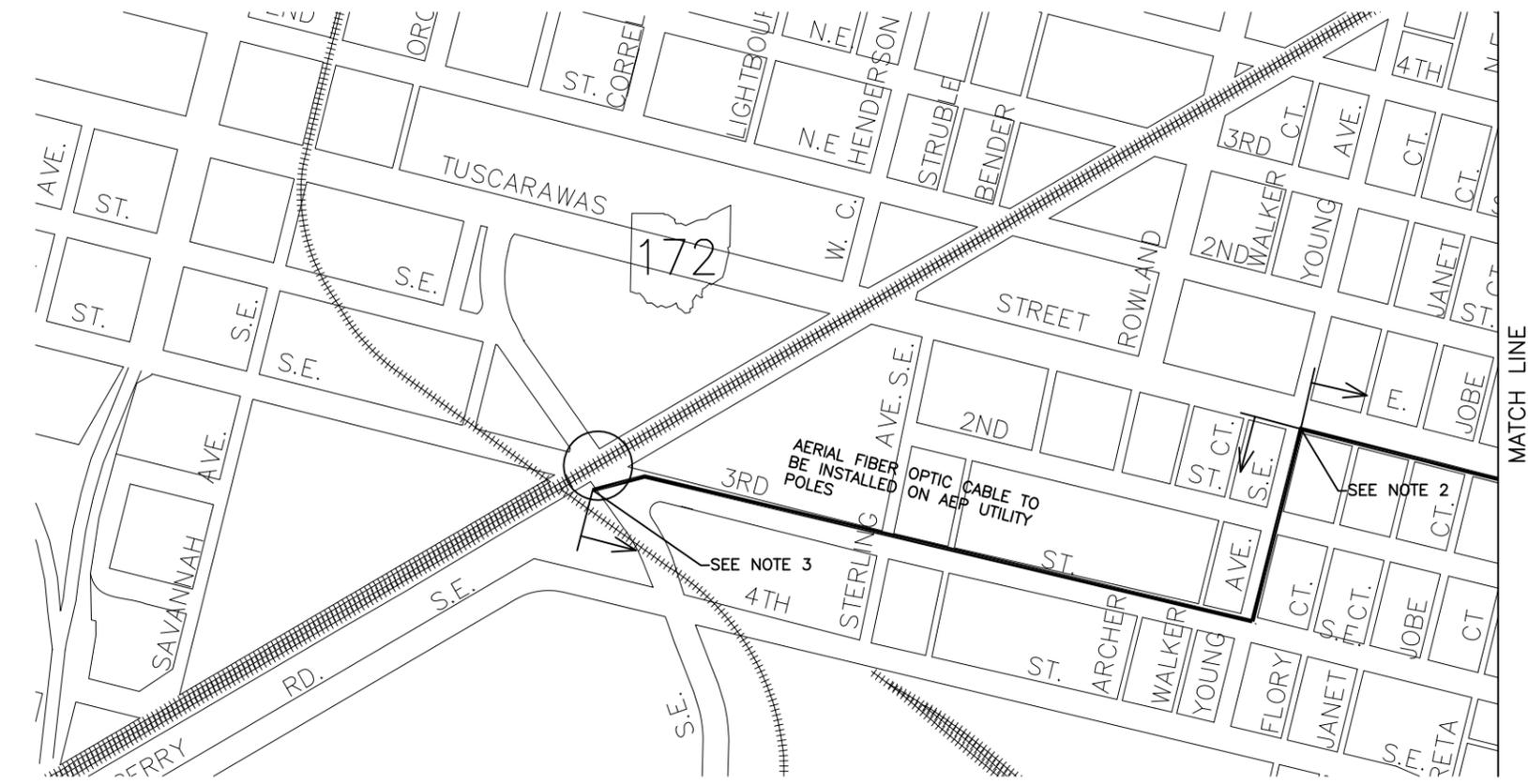
**OFFICE OF THE CITY ENGINEER
CANTON, OHIO**

**INTERCONNECT SCHEMATIC
SIGNAL SYST. COMM. UPGRADES**

DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th STREET N.E. 44705 (330)488-3381

DATE:	REVISIONS	DESCRIPTION	DATE	BY
1/10/18				
H. SCALE: N/A				
V. SCALE: N/A				
SHEET 8 OF 9				

DRAWN BY: NUL
APPROVED BY:
FIELD BOOK:
FILE NAME: 0P1185 INTER. SCHEM. 2



- NOTES:
1. FIBER OPTIC CABLE TO BE RUN TO EXISTING SIGNAL POLE ON SW CORNER OF BELDEN AVE.
 2. AERIAL FIBER OPTIC CABLE TO BE RUN FROM EXISTING SIGNAL POLE ON SE CORNER AT YOUNG AVE. TO AEP UTILITY POLES ON YOUNG AVE.
 3. AERIAL FIBER OPTIC CABLE TO BE RUN FROM AEP UTILITY POLE ON NORTH SIDE OF 3RD ST. TO SIGNAL POLE ON SOUTH SIDE.

LEGEND

- PROPOSED AERIAL FIBER OPTIC CABLE
- - - PROPOSED UNDERGROUND FIBER OPTIC CABLE
- SIGNAL TO BE INTERCONNECTED VIA FIBER

	804	804	804	804	804	804	804	804	804	804
	FIBER OPTIC CABLE, 48 FIBER	FAN-OUT KIT, 12 FIBER	DROP CABLE, 12 FIBER	FIBER OPTIC PATCH CORD, 1 FIBER	FUSION SPLICE	SLACK INSTALLATION	SPLICE ENCLOSURE	FIBER TERMINATION PANEL, 12 FIBER	FIBER TERMINATION PANEL, 48 FIBER	FIBER OPTIC CONNECTOR
	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
3RD ST. SE	1700					3				
3RD ST. & MADISON CT.		1	1	6	18		1	1		12
YOUNG AVE.	500					2				
TUSCARAWAS ST. E.	3700					5				
BELDEN AVE. & TUSCARAWAS ST.		1	1	6	18		1	1		12
TOTALS CARRIED TO GEN. SUM.	5900	2	2	12	36	10	2	2	0	24