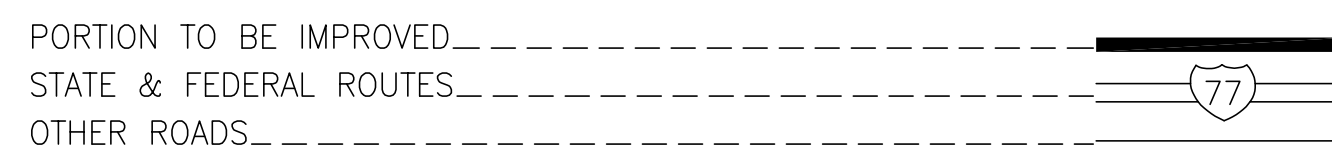


LOCATION MAP
NOT TO SCALE



DESIGN DESIGNATION

CURRENT ADT (2009)	10411 VPD
DESIGN YEAR ADT (2024)	12703 VPD
DESIGN HOURLY VOLUME	828 VPH
DIRECTIONAL DISTRIBUTION, D	52%/48% (WB/EB)
TRUCKS (24 HOUR B&C)	2%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL

DESIGN EXCEPTIONS

NONE

DESIGN FEATURE

PAVEMENT CROSS SLOPE

APPROVAL DATE

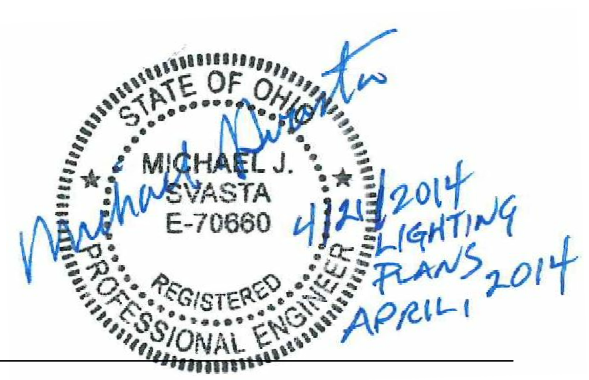
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SHEET NUMBERS

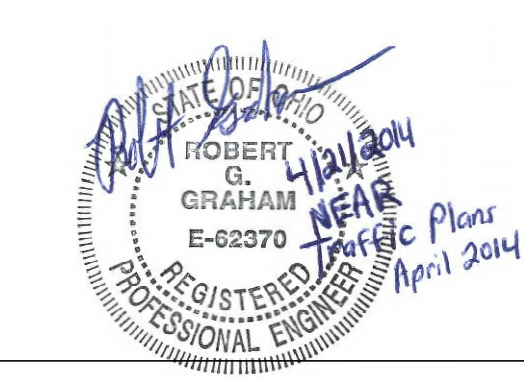
4 THRU 8



GENE E. ARTERS, P.E.
SHEETS 1 THRU 82



MICHAEL J. SVASTA, P.E.
SHEETS 97 THRU 108



ROBERT G. GRAHAM, P.E.
SHEETS 83 THRU 96

STATE OF OHIO
CITY OF CANTON

STA-0153-01.70
MAHONING ROAD NE
ROADWAY IMPROVEMENTS
G.P. 1103

APRIL, 2014

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PROJECT DESCRIPTION

THE PROJECT WORK INVOLVES THE IMPROVEMENT OF APPROXIMATELY 0.67 MILES OF MAHONING ROAD NE, S.R. 153 BETWEEN THE GRACE AVENUE NE AND HARMONT AVENUE NE INTERSECTIONS. THE IMPROVEMENTS INCLUDE NEW STORM SEWERS, CURBS, SIDEWALKS, PLANTERS, SIGNAGE, AND STREET LIGHTING.

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION AND THE CITY OF CANTON, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL, SHALL GOVERN THIS IMPROVEMENT.

APPROVALS

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

CITY OF CANTON

APPROVED: *Daniel J. Moeglin*
DANIEL J. MOEGLIN, P.E., S.I.
CANTON CITY ENGINEER

DATE: 4/21/14

FEDERAL PROJECT NO.

PID NO. 90361

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

MAHONING ROAD NE
STA-0153-01.70

STANDARD CONSTRUCTION DRAWINGS

OHIO DEPARTMENT OF TRANSPORTATION										CITY OF CANTON				ODOT SUPPLEMENTAL SPECIFICATIONS			
BP-2.1	7/19/2013	DM-1.1	1/18/2013	MH-1.1	1/18/2013	RM-1.1	1/18/2013	TC-83.20	4/20/2012	NO. 1	3/2012	NO. 28	7/23/2012	NO. 45	2/2012	800	7/19/2013
BP-2.2	7/18/2013	DM-1.4	1/18/2013	MH-1.2	1/18/2013	RM-2.1	7/19/2013	TC-85.10	10/16/2009	NO. 4	3/2012	NO. 29	3/2012				
BP-2.5	7/19/2013	DM-4.3	1/18/2013									NO. 30	3/2012	NO. 61	4/2012	832	5/5/2009
BP-3.1	4/20/2012	DM-4.4	7/20/2012					TC-21.20	1/18/2013	NO. 10	12/2011	NO. 33	6/29/2012	NO. 62	4/2012		
BP-4.1	7/19/2013			MT-95.60	7/20/2012	TC-22.20	1/18/2013			NO. 12	12/2011	NO. 34	7/20/2012	NO. 63	3/2014		
BP-5.1	7/19/2013	HL-20.11	1/19/2007	MT-95.61	7/20/2012	TC-41.20	1/19/2001							NO. 64	4/2012		
BP-7.1	10/15/2010	HL-30.11	1/18/2013	MT-97.12	7/20/2012	TC-42.10	1/19/2007			NO. 19	6/10/2013	NO. 40	2/2012	NO. 65	3/2014		
		HL-30.21	10/21/2011	MT-101.60	7/20/2012	TC-42.20	1/21/2011			NO. 21	11/2011	NO. 41	2/2012				
CB-1.1	1/18/2013	HL-30.22	1/18/2013	MT-105.10	7/20/2012	TC-52.10	1/18/2013			NO. 23	3/2012	NO. 42	2/2012				
CB-2.1	1/18/2013	HL-50.11	1/19/2007	MT-110.10	7/20/2012	TC-52.20	1/18/2013			NO. 24	7/24/2012	NO. 43	2/2012				
CB-2.3	1/18/2013					TC-71.10	10/19/2012					NO. 47	2/2012				
		LA-1.2	1/16/2009			TC-81.21	1/18/2013			NO. 27	3/2012	NO. 44	2/2012				

ODOT REFERENCE NUMBERS

MAHONING ROAD:	A831102839
SUPERIOR AVENUE:	A831102847
WINFIELD WAY:	A831102851
ROYAL AVENUE:	A831102855
15TH STREET:	A831102859
GRACE AVENUE:	A831102864
16TH STREET:	A831102868

Ohio Utilities Protection Service



CT Consultants
engineers | architects | planners
2725 Abington Court, Suite 200, Fairlawn, Ohio 44333
330.375.0800 www.ctconsultants.com

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA
SWPPP REVIEW COMMENTS	9/3/14	GEA
STM SWR REVISIONS	10/1/14	GEA

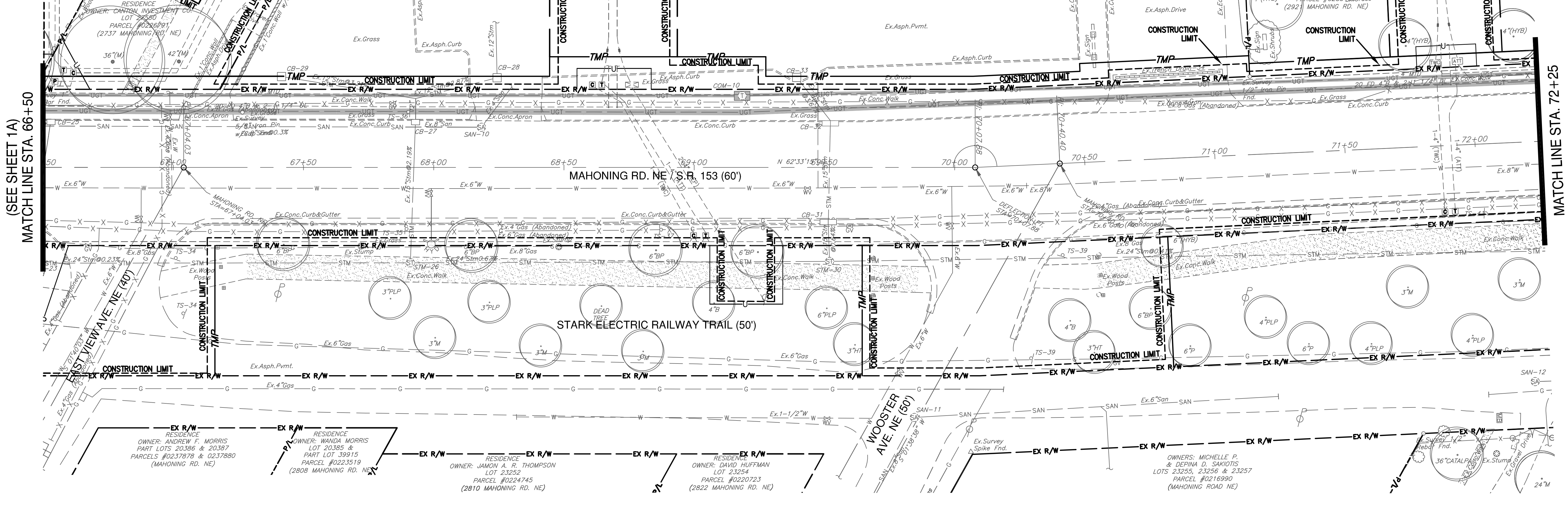
1
108

OWNER: STARK COUNTY COMMUNITY ACTION
 LOTS 27551 THRU 27553 & PART O.L. 576
 PARCEL #0243271, 0246321 & 0285477

OWNER: STARK COUNTY DISTRICT LIBRARY
 PART O.L. 576
 PARCEL #0285433
 MAHONING RD. NE

(SEE SHEET 1A)
 MATCH LINE STA. 66+50

MATCH LINE STA. 72+25



OWNER: ANDREW F. MORRIS
 PART LOTS 20386 & 20387
 PARCELS #0237878 & 0237880
 (MAHONING RD. NE)

OWNER: WANDA MORRIS
 LOT 20385 &
 PART LOT 39915
 PARCEL #0223519
 (2808 MAHONING RD. NE)

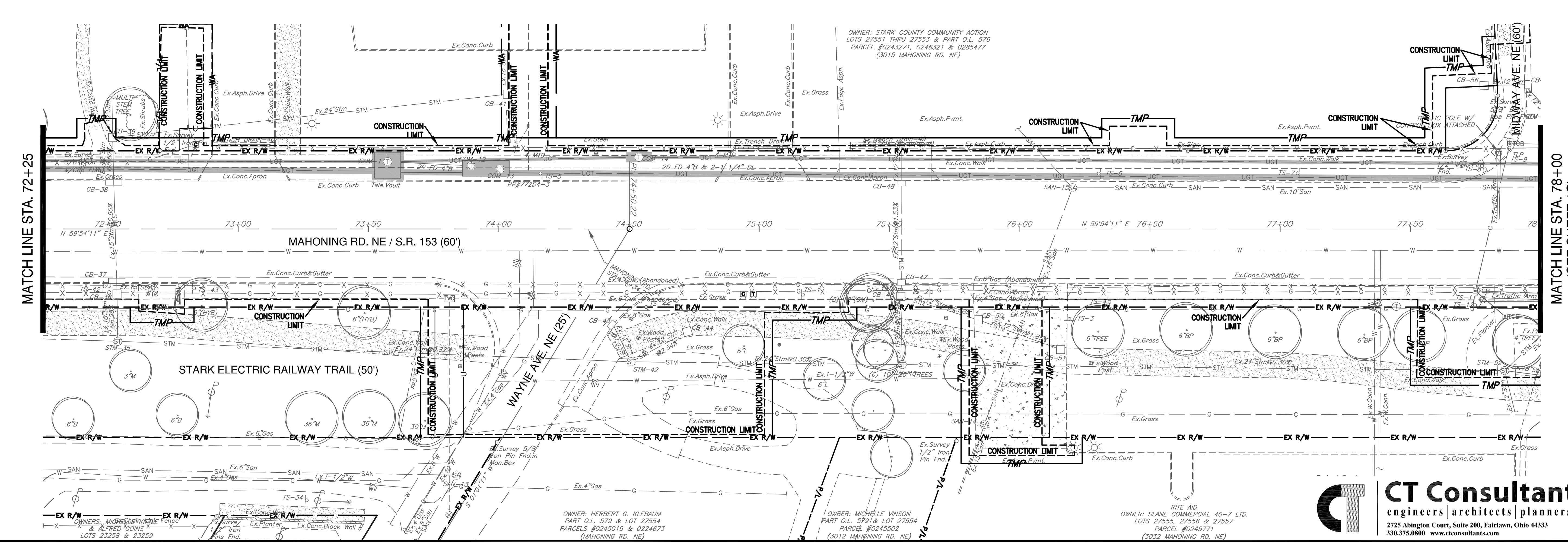
OWNER: JAMON A. R. THOMPSON
 LOT 23252
 PARCEL #0224745
 (2810 MAHONING RD. NE)

OWNER: DAVID HUFFMAN
 LOT 23254
 PARCEL #0220723
 (2822 MAHONING RD. NE)

OWNERS: MICHELLE P. & DEPIA D. SAKIOTIS
 LOTS 23255, 23256 & 23257
 PARCEL #0218990
 (MAHONING ROAD NE)

MATCH LINE STA. 72+25

MATCH LINE STA. 78+00
 (SEE SHEET 1C)

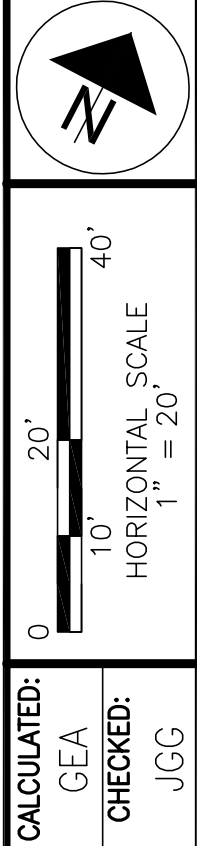


OWNER: STARK COUNTY COMMUNITY ACTION
 LOTS 27551 THRU 27553 & PART O.L. 576
 PARCEL #0243271, 0246321 & 0285477
 (3015 MAHONING RD. NE)

OWNER: HERBERT G. KLEBAUM
 PART O.L. 579 & LOT 27554
 PARCELS #0245019 & 0224673
 (MAHONING RD. NE)

OWNER: MICHELLE VINSON
 PART O.L. 579 & LOT 27554
 PARCEL #0245502
 (3012 MAHONING RD. NE)

RITE AID
 OWNER: SLANE COMMERCIAL 40-7 LTD.
 LOTS 27555, 27556 & 27557
 PARCEL #0245771
 (3032 MAHONING RD. NE)



EXISTING CONDITIONS
 STA. 66+50 TO STA. 78+00

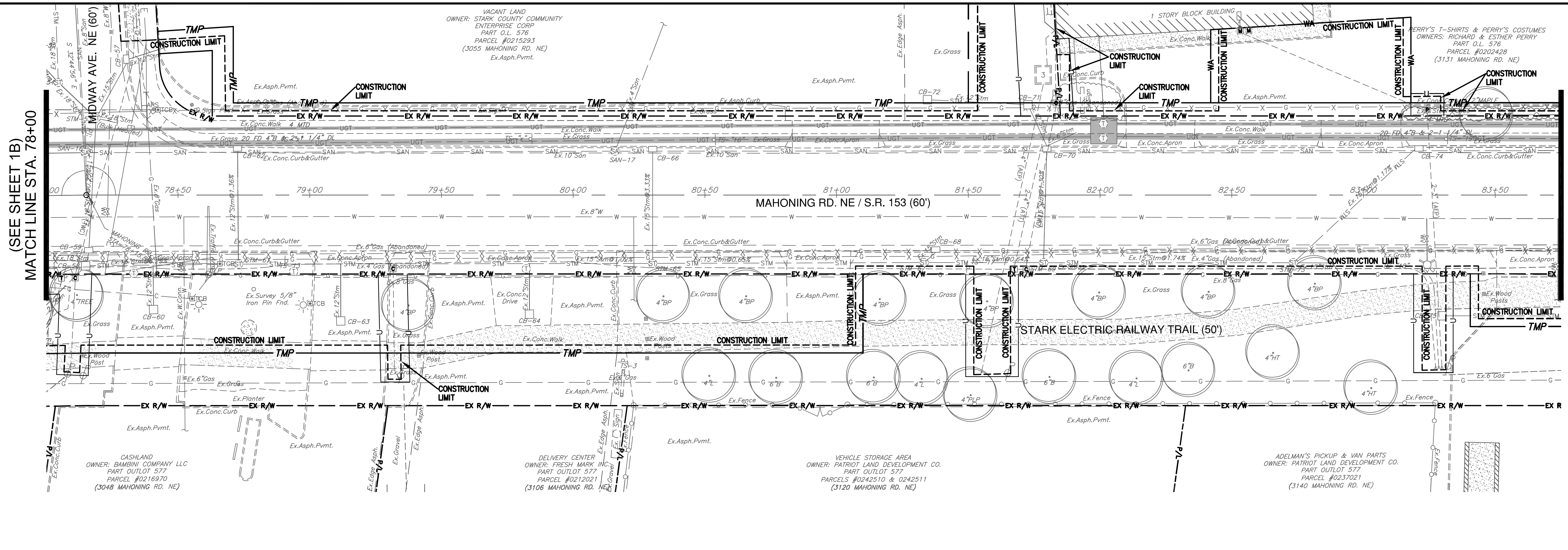
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
 STA-0153-01.70

1B
 108

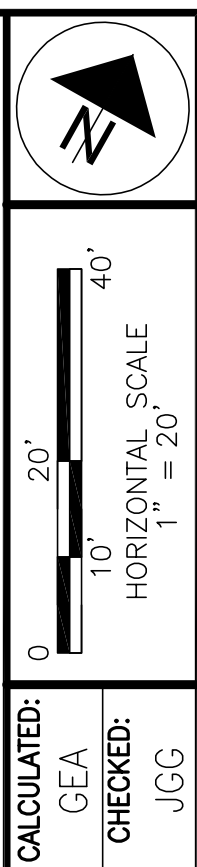
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 engineers | architects | planners
 2725 Abington Court, Suite 200, Fairlawn, Ohio 44333
 330.375.0800 www.ctconsultants.com

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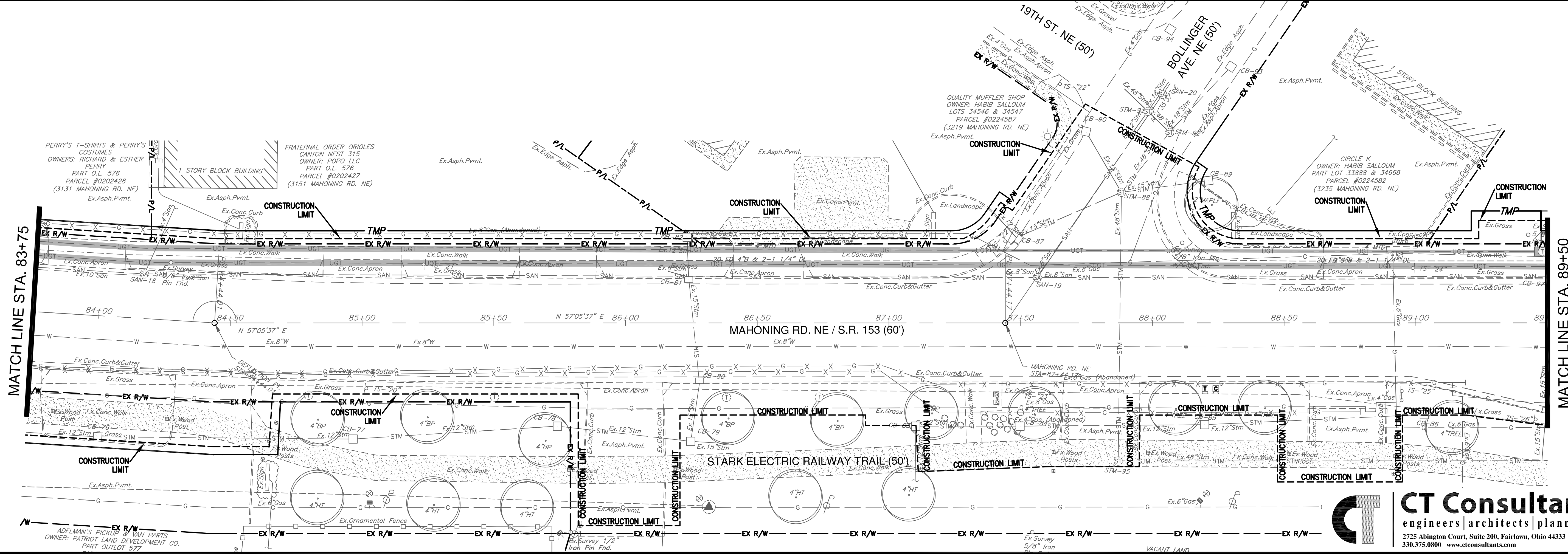


(SEE SHEET 1B)
MATCH LINE STA. 78+00

MATCH LINE STA. 83+75



EXISTING CONDITIONS
STA. 78+00 TO STA. 89+50



MATCH LINE STA. 83+75

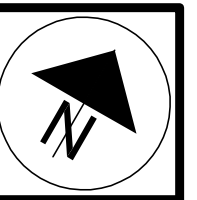
MATCH LINE STA. 89+50
(SEE SHEET 1D)

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

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REVISIONS TO THIS SHEET INCLUDED:
 HATCHING DESIGNATING
 DIFFERENCE BETWEEN DRIVE
 APRONS AND SIDEWALK.



0 40' 80'
 20'
 HORIZONTAL SCALE
 1" = 40'

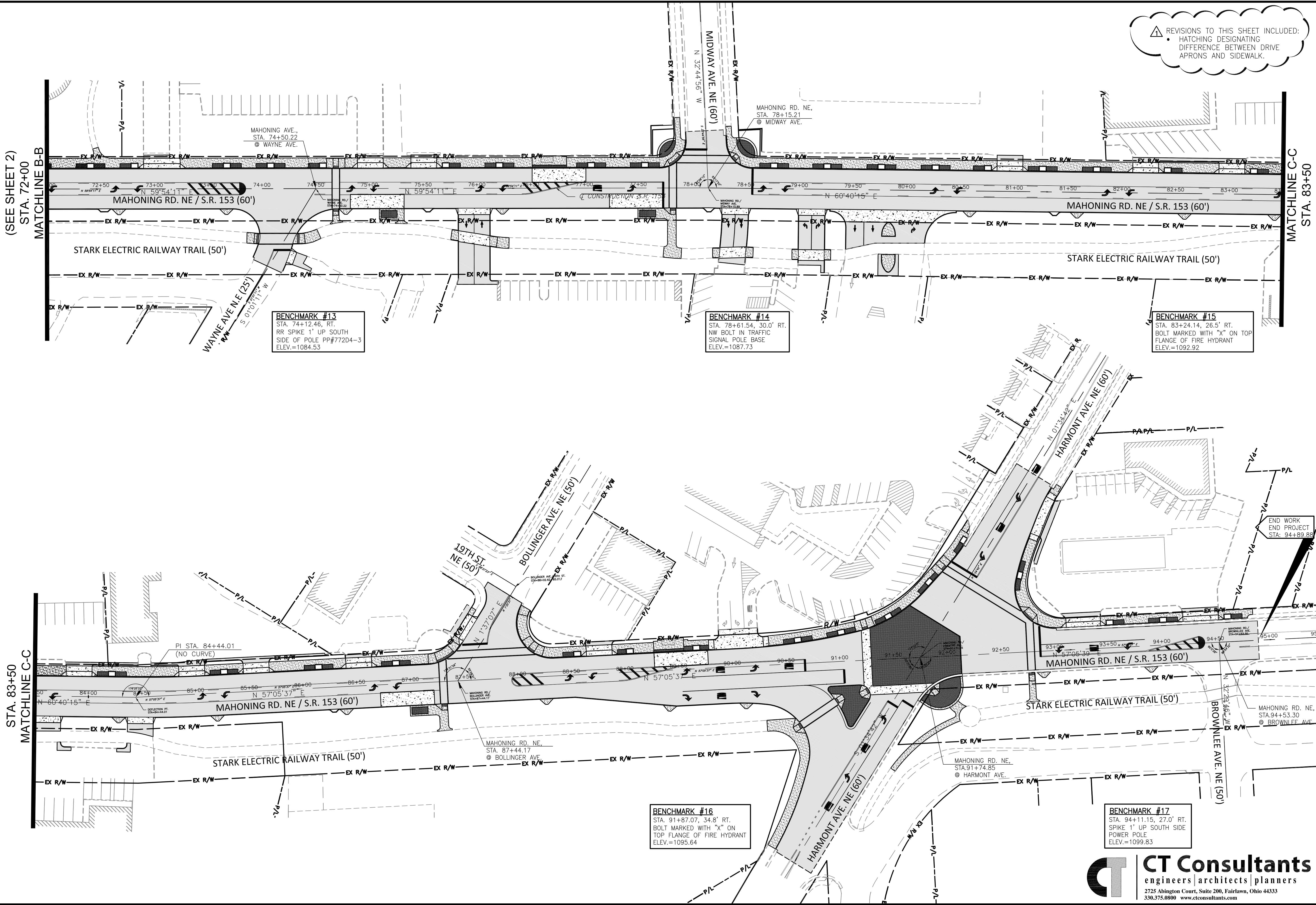
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 CHECKED: JGC

SCHEMATIC PLAN
 STA. 55+09 TO STA. 94+90

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
APPENDIX NO. 1	5/7/14	GEA

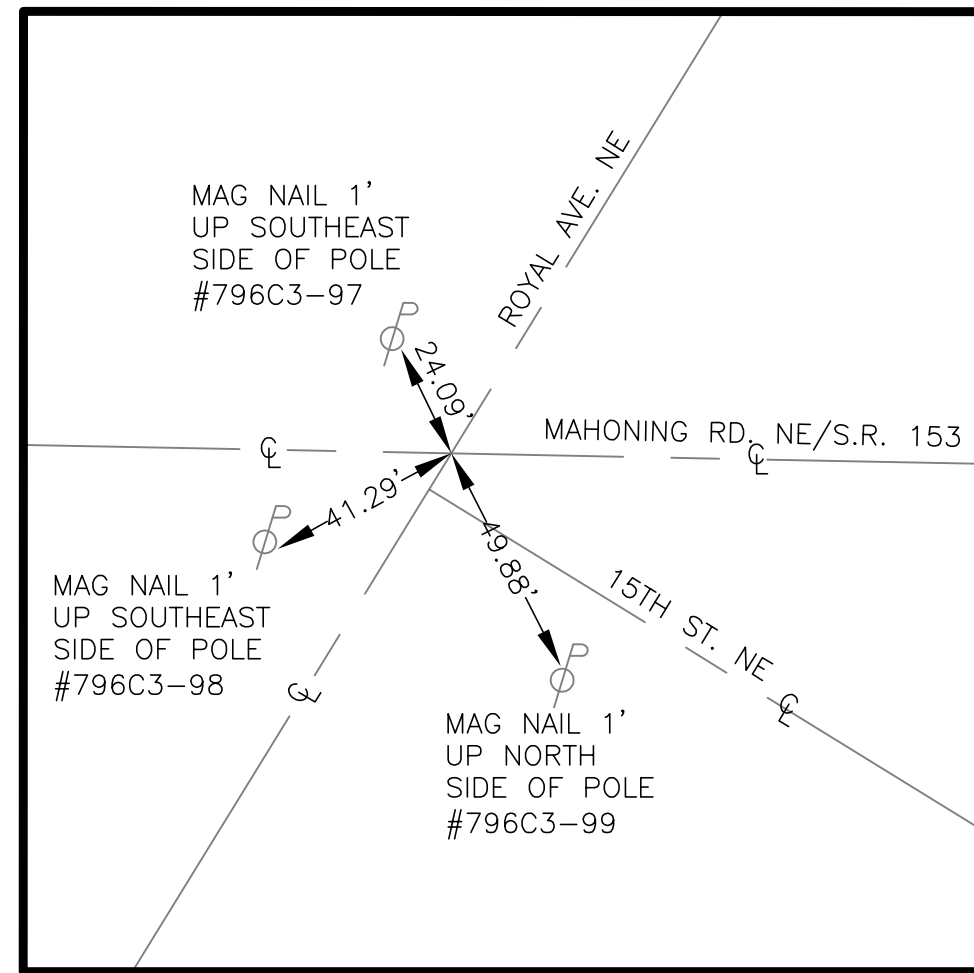
MAHONING ROAD NE
 STA-0153-01.70

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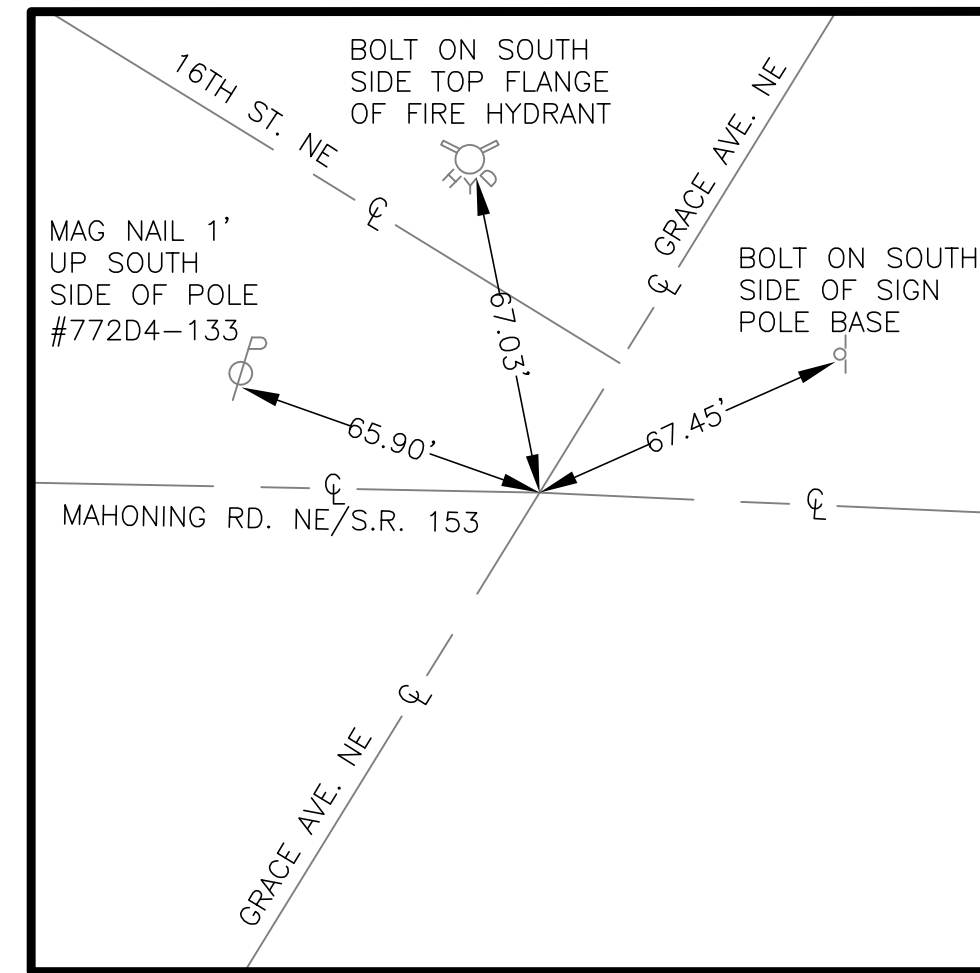


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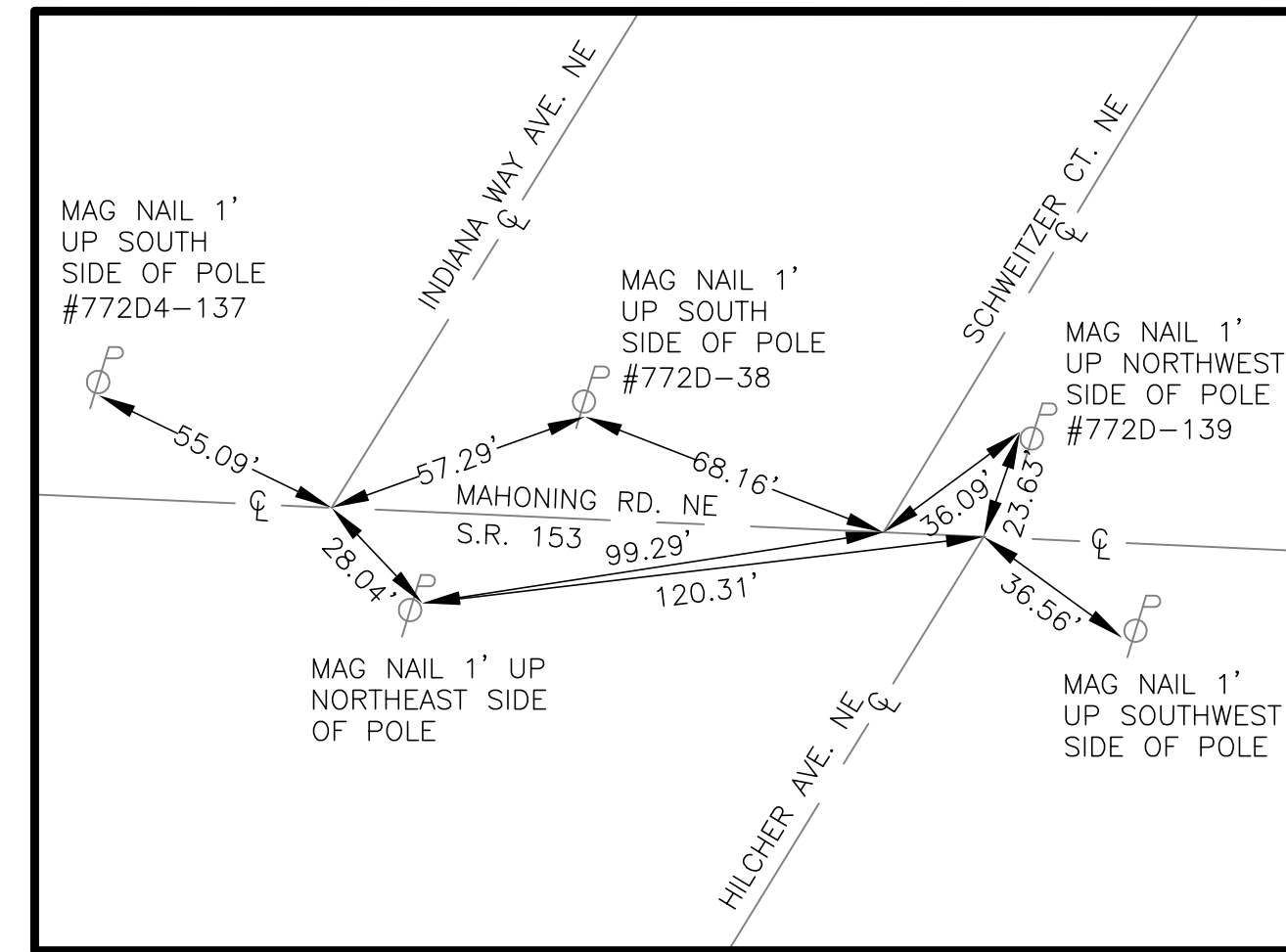
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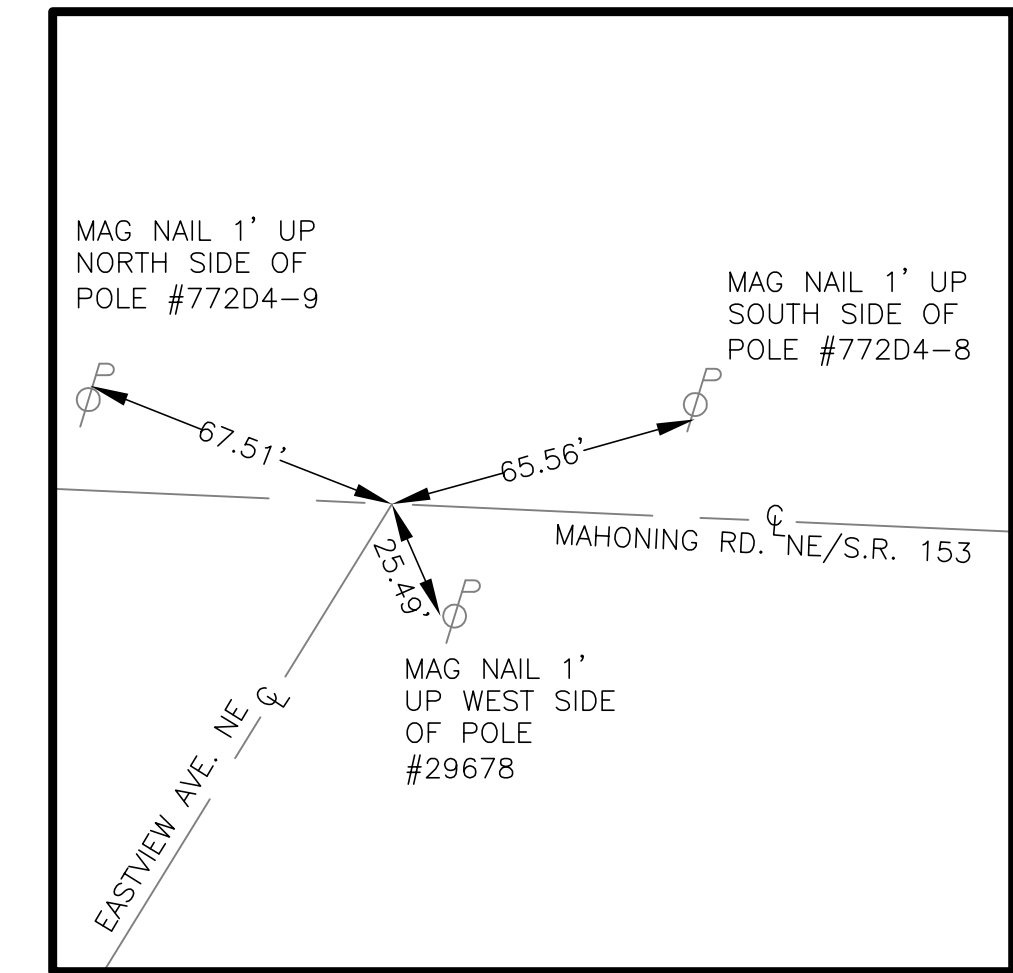
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STA.50+63.19



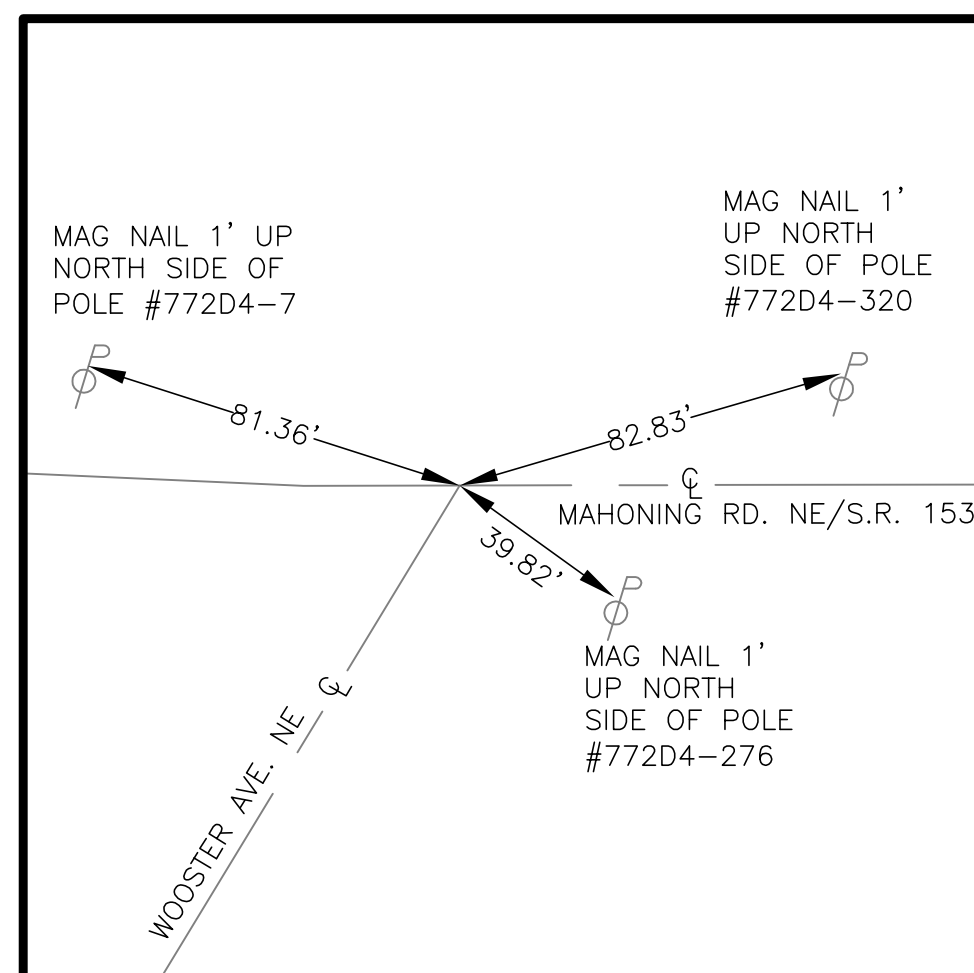
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STA.57+01.83



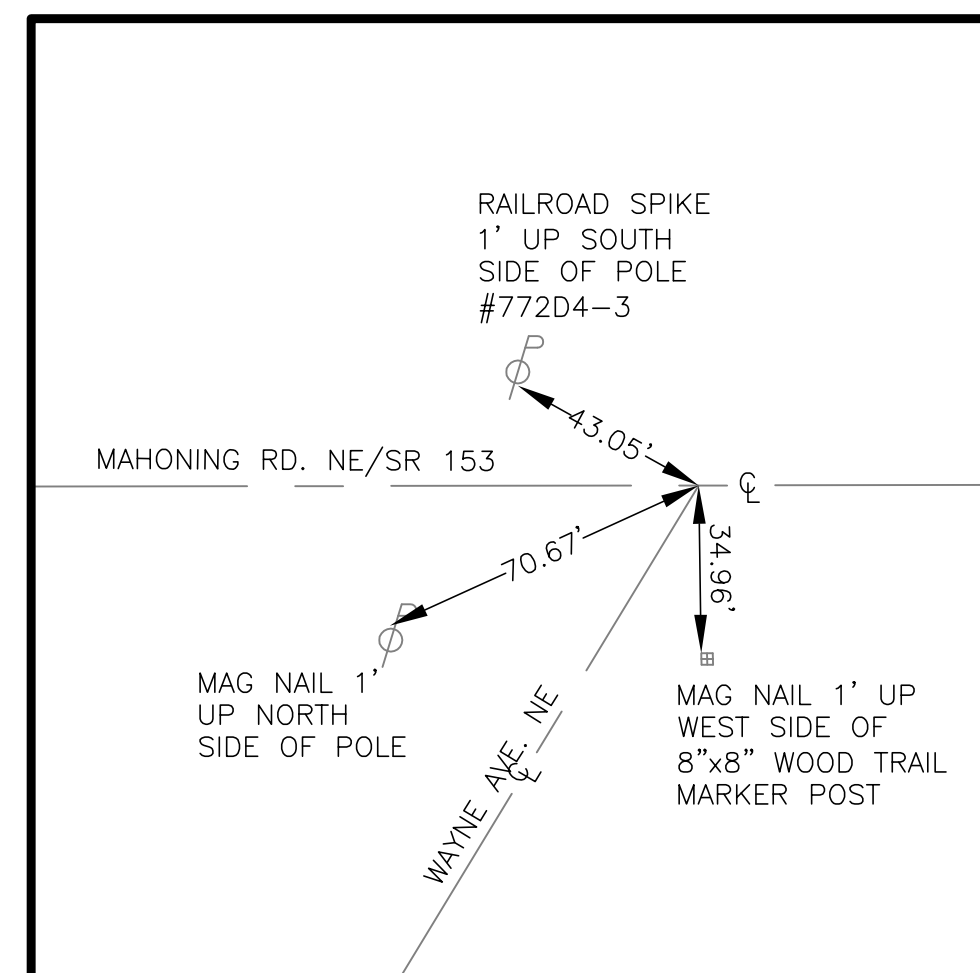
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STA.61+48.35 AND STA.62+87.28



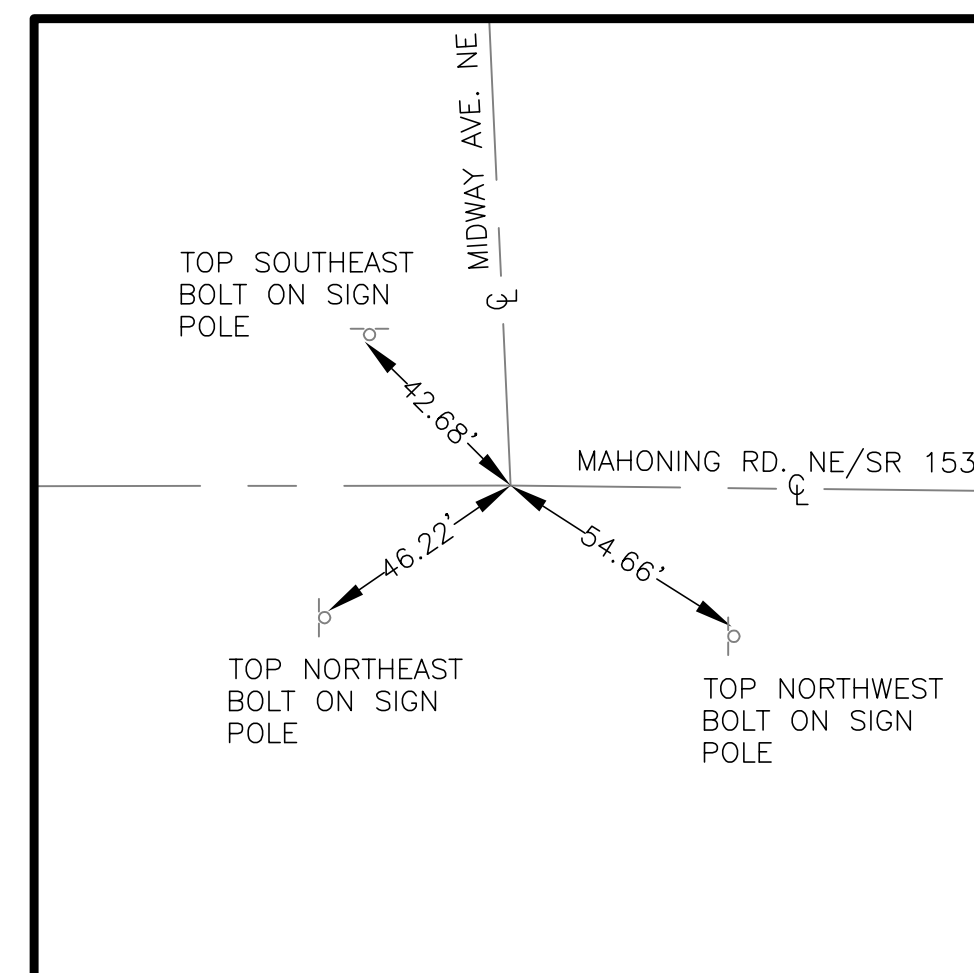
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STA.67+04.03



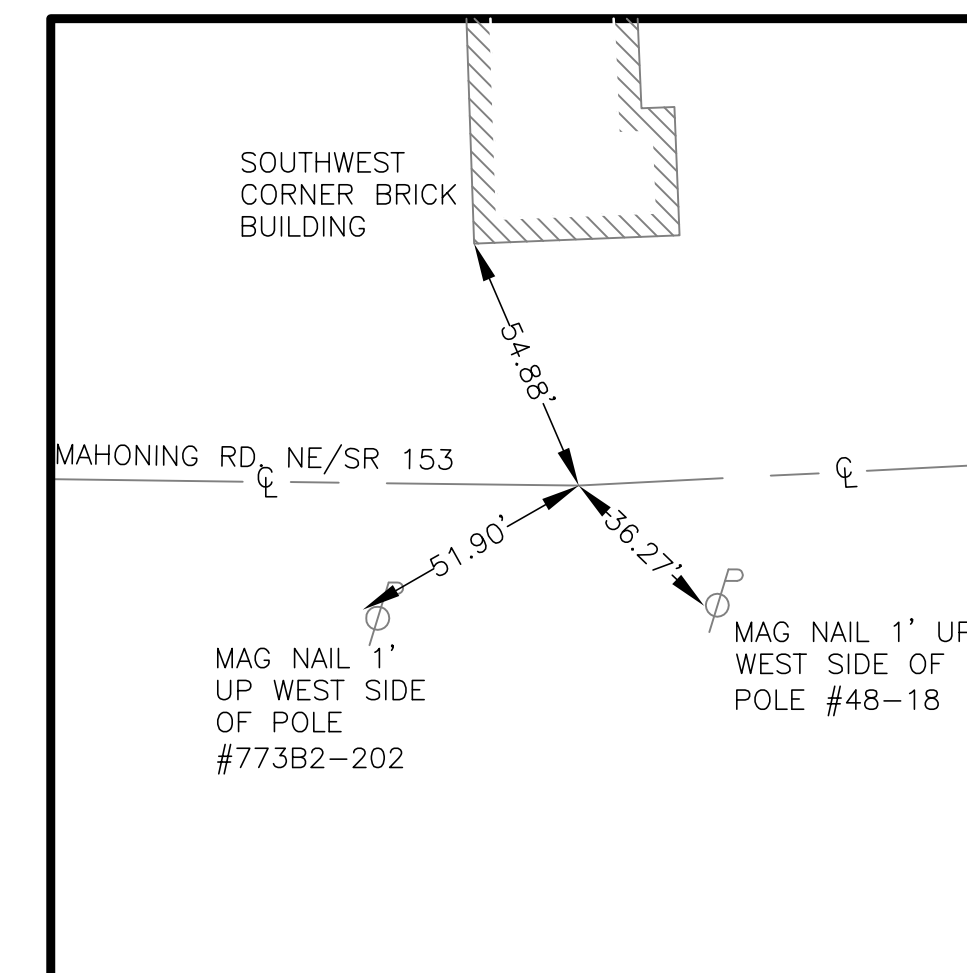
MAHONING RD. NE / S.R. 153
STA.70+40.40



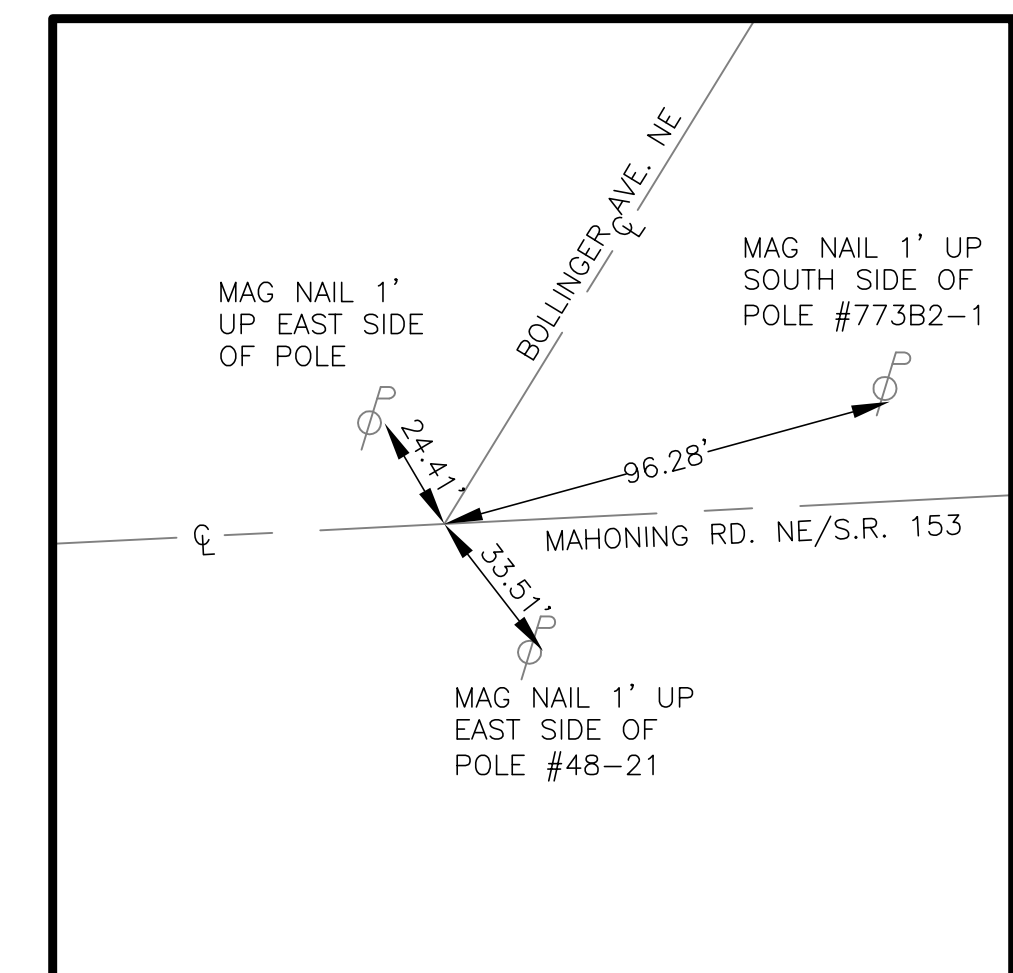
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STA.74+50.22



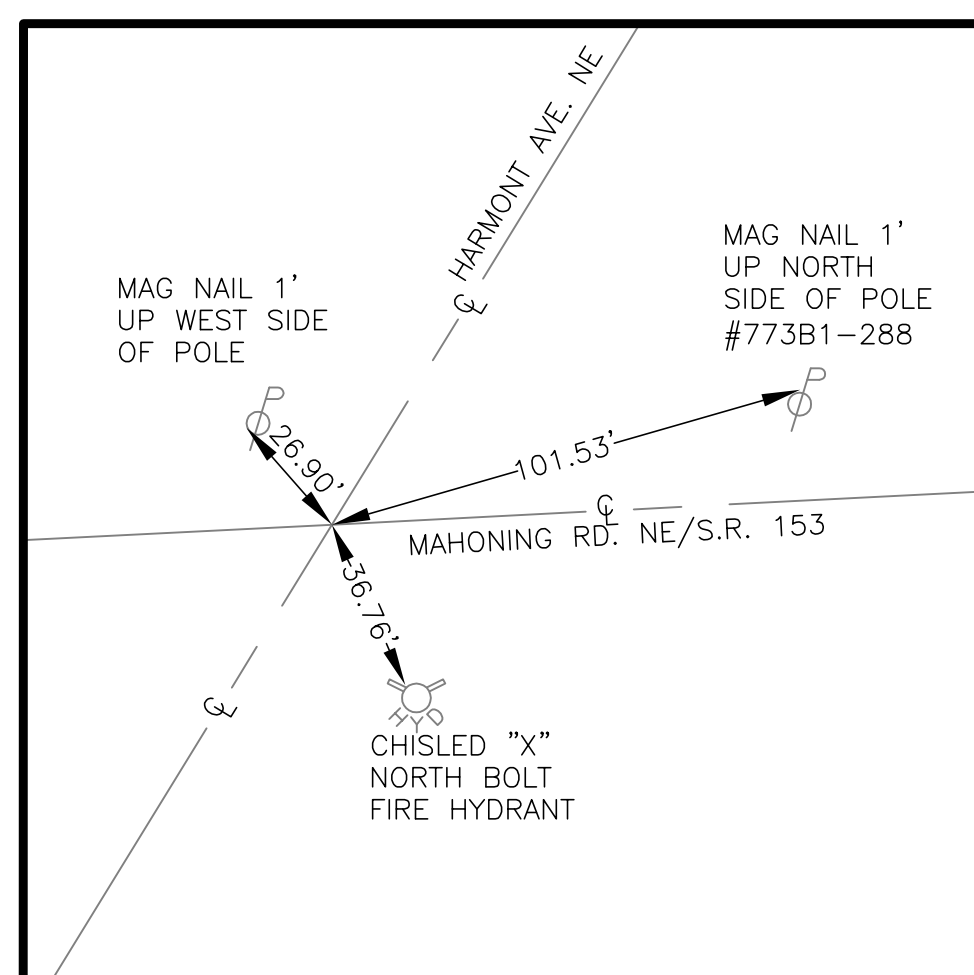
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STA.78+15.21



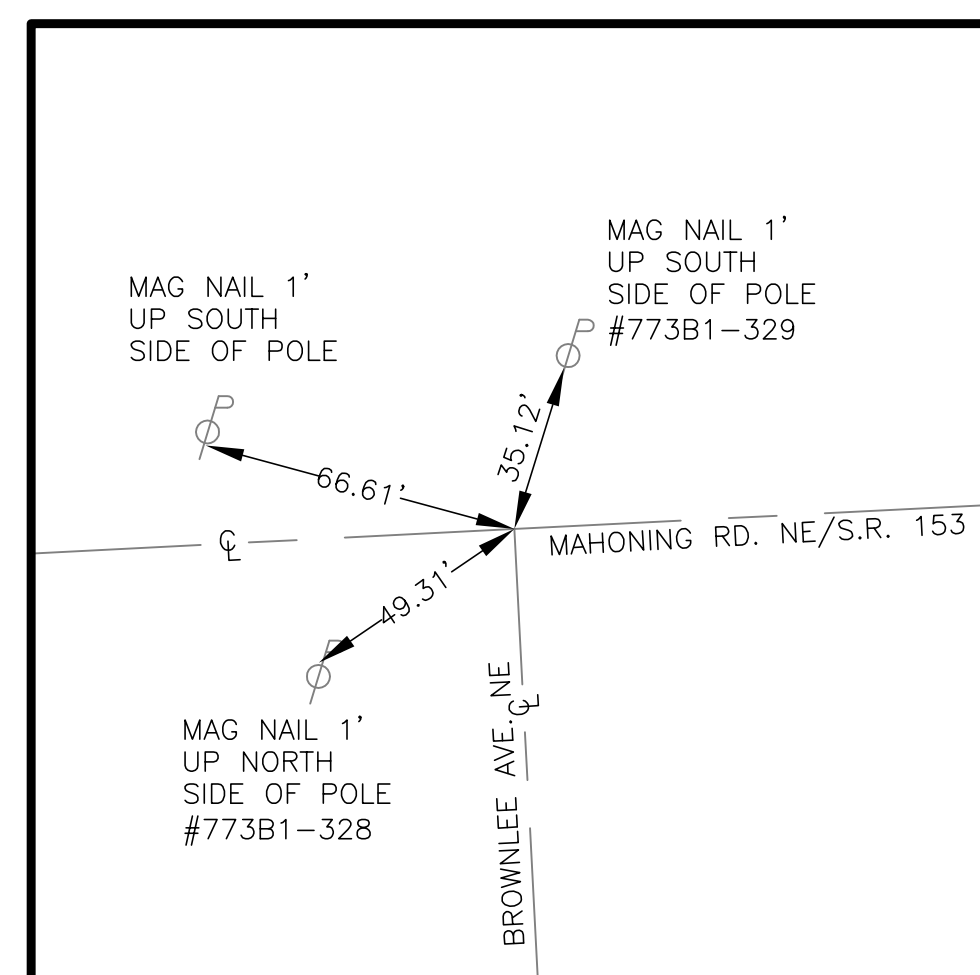
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STA.84+44.01



MAHONING RD. NE / S.R. 153
STA.87+44.17

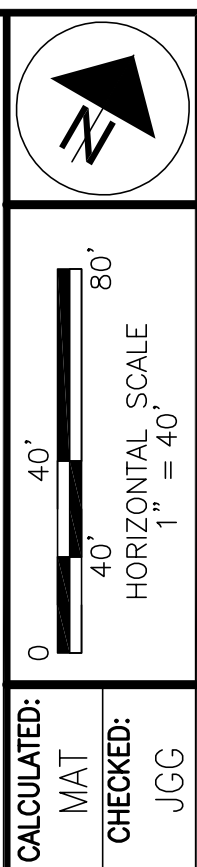


MAHONING RD. NE / S.R. 153
STA.91+74.85



MAHONING RD. NE / S.R. 153
STA.94+53.30

PROPOSED ALIGNMENT DATA															
PI STATION	NORTHING	EASTING	Δ	Dc	R	L	T	CH	E	PC STATION	NORTHING	EASTING	PT STATION	NORTHING	EASTING
MAHONING RD. NE S.R. 153															
57+01.83	419,937.70	2,289,798.14													
70+40.40	420,555.98	2,290,985.33													
78+15.21	420,944.52	2,291,655.68													
84+44.01	421,252.52	2,292,203.88													
91+74.85	421,649.56	2,292,817.46													
94+53.30	421,800.84	2,293,051.24													



REFERENCE TIES
STA. 55+09 TO STA. 94+90

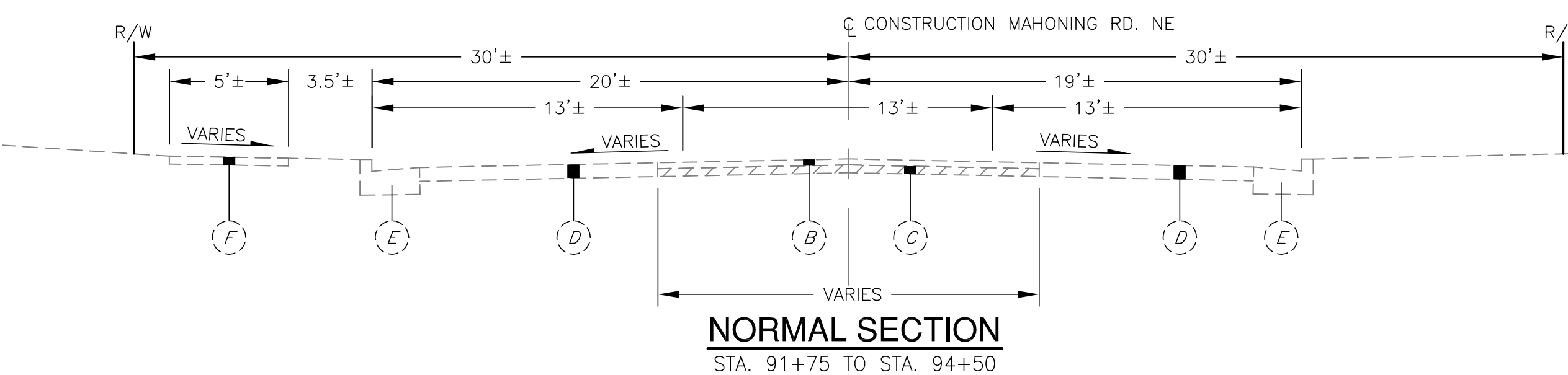
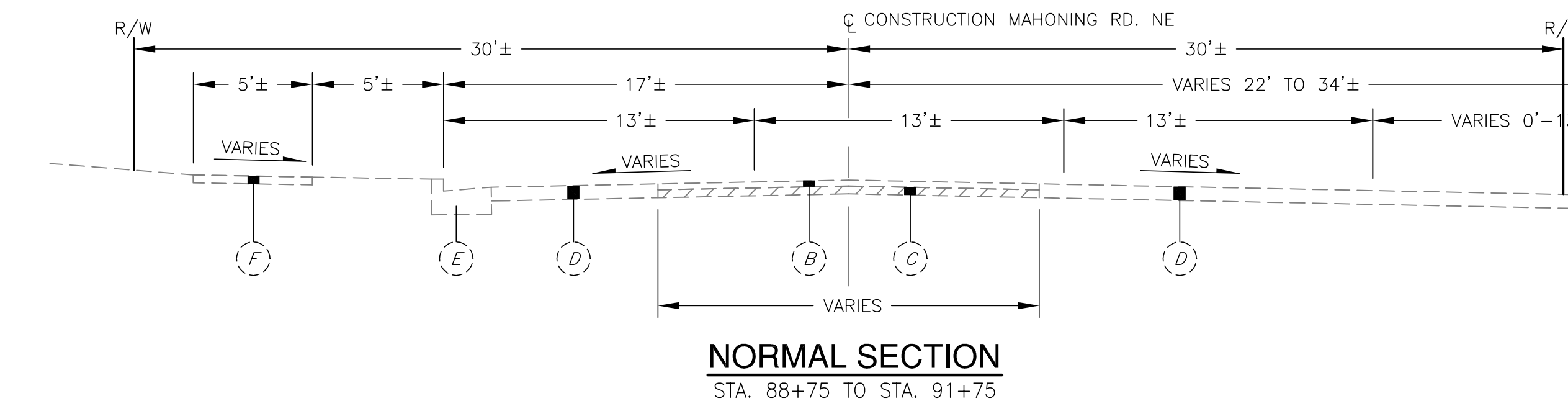
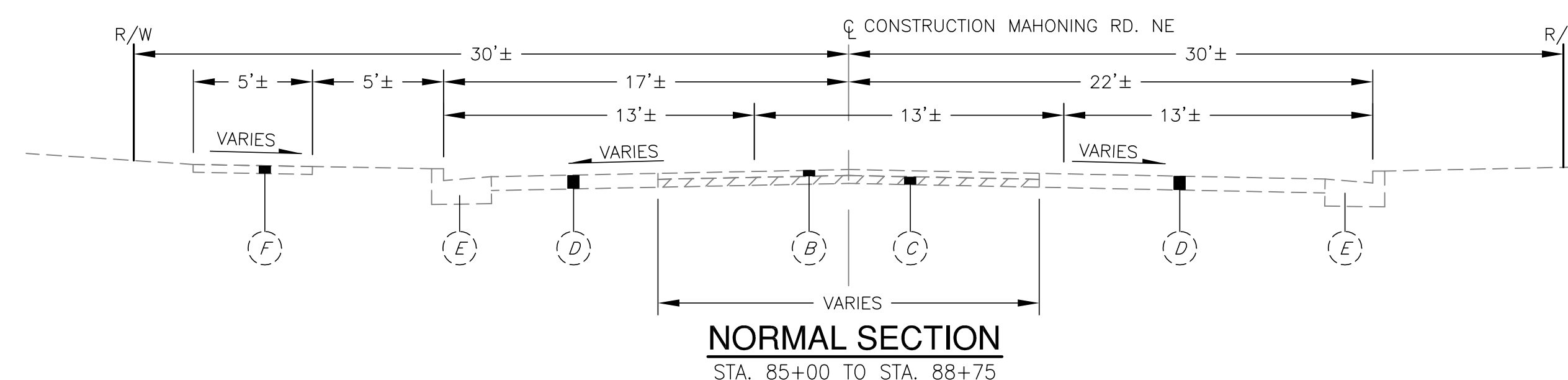
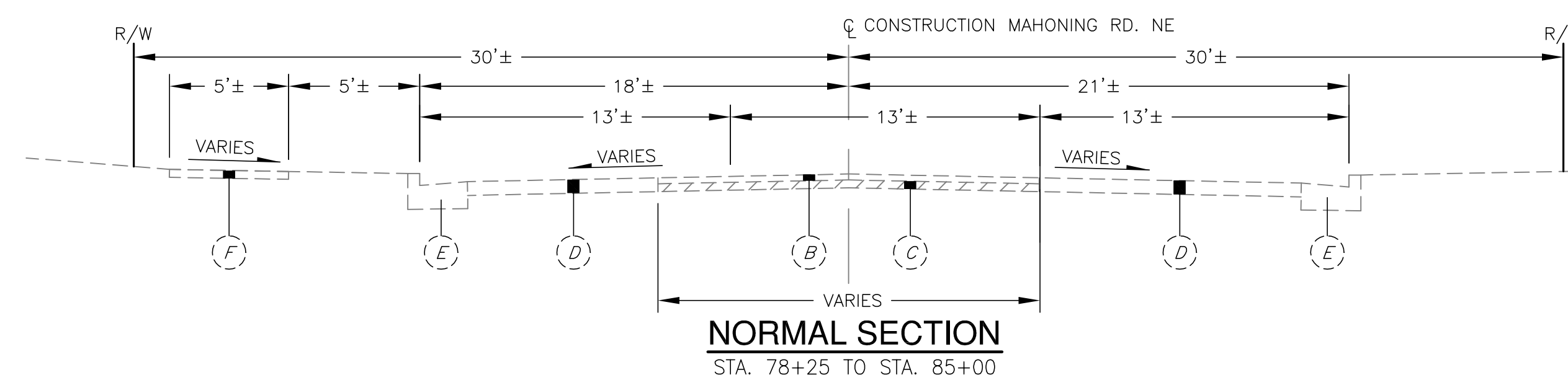
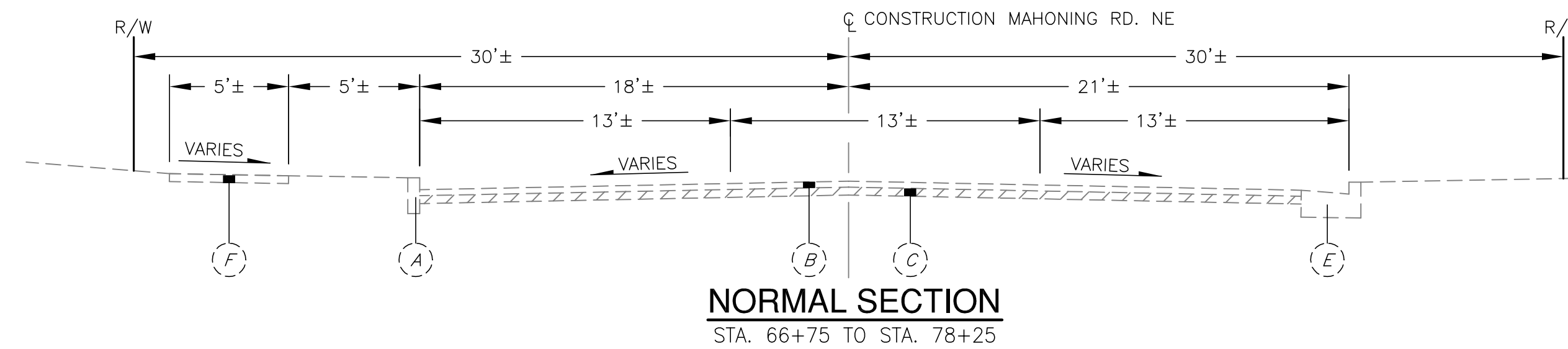
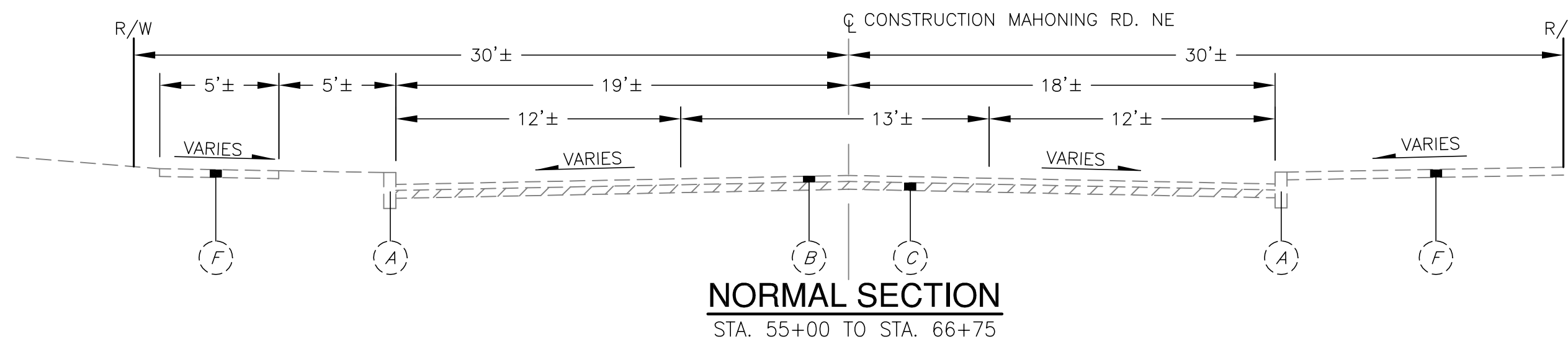
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

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EXISTING LEGEND

- (A) EXISTING CURB
- (B) EXISTING 1.5" TO 7.5" ASPHALT
- (C) EXISTING 4" BRICK BASE (W/RANDOM AREAS OF 5" CONCRETE)
- (D) EXISTING 8" TO 13" ASPHALT
- (E) EXISTING CONCRETE CURB AND GUTTER
- (F) EXISTING CONCRETE SIDEWALK



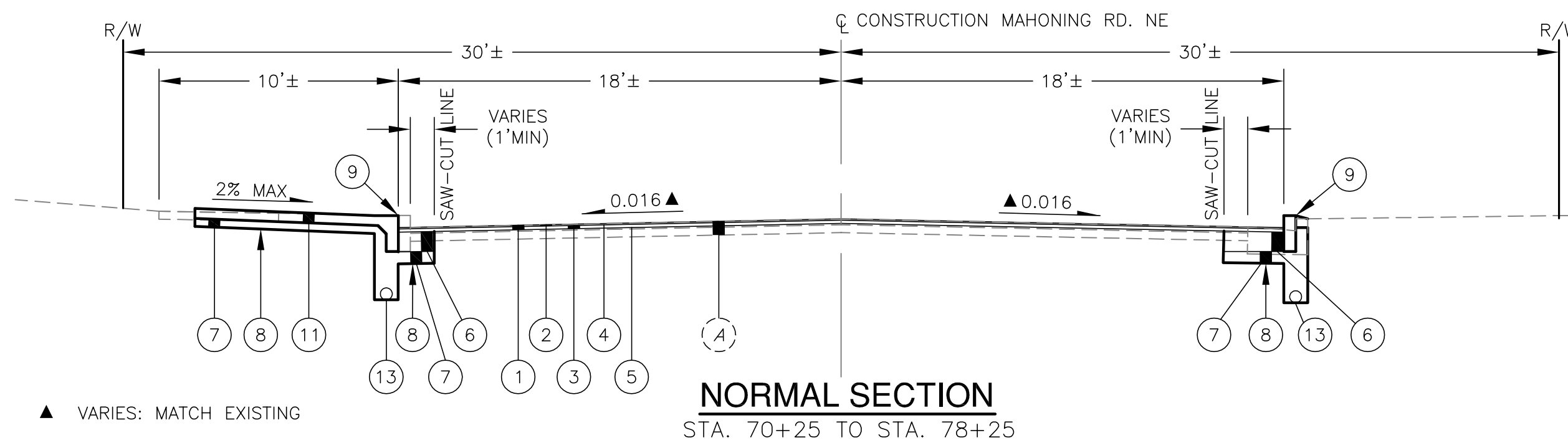
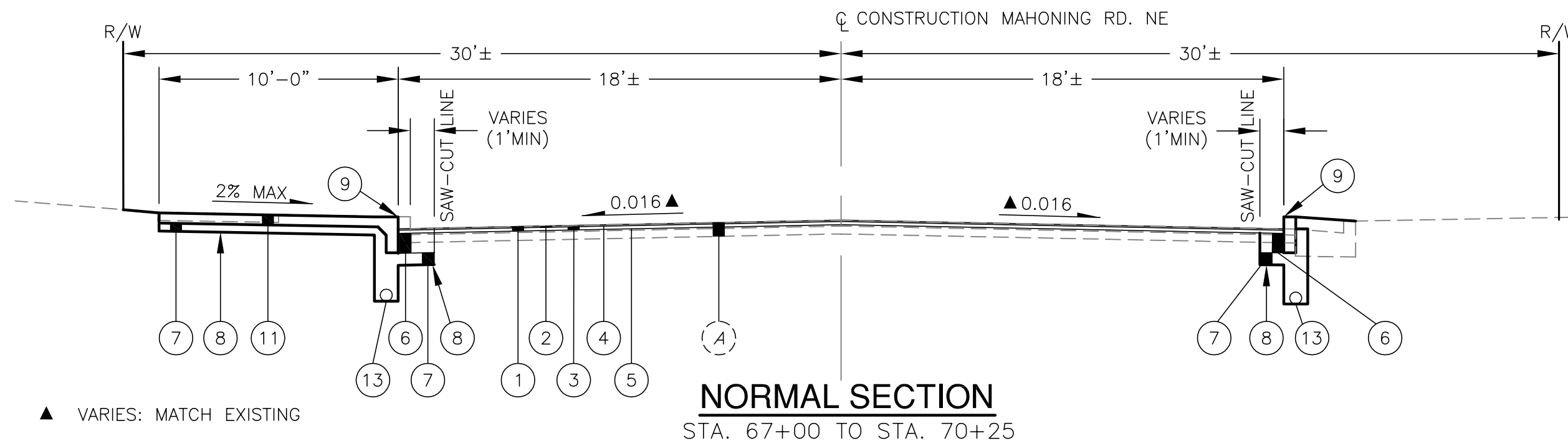
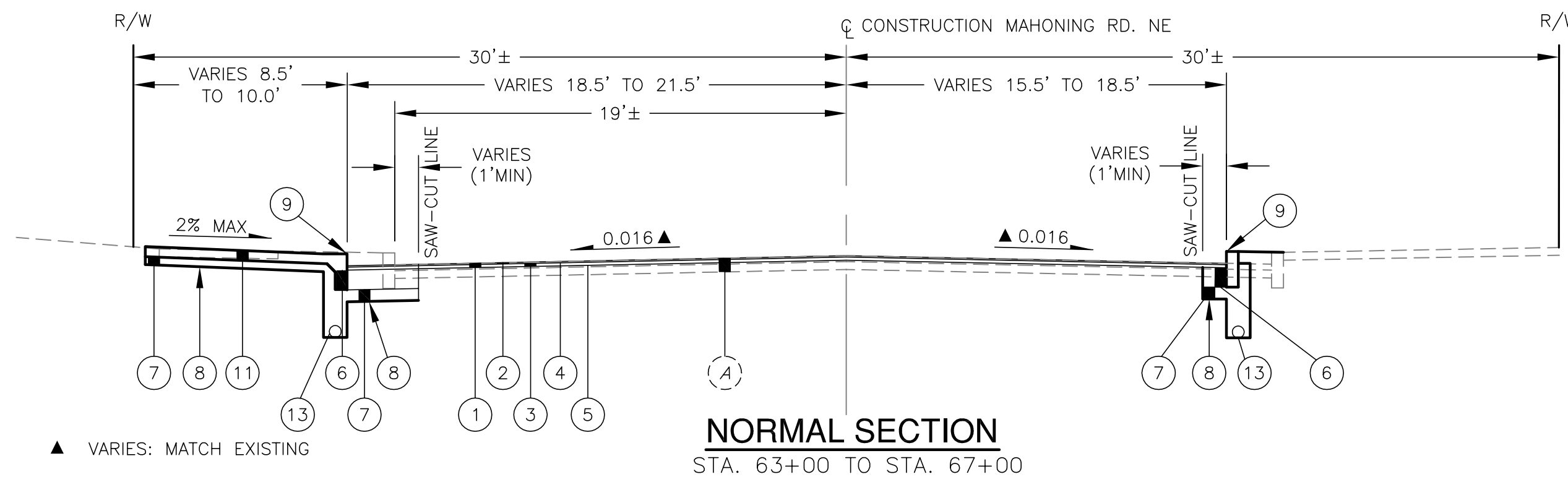
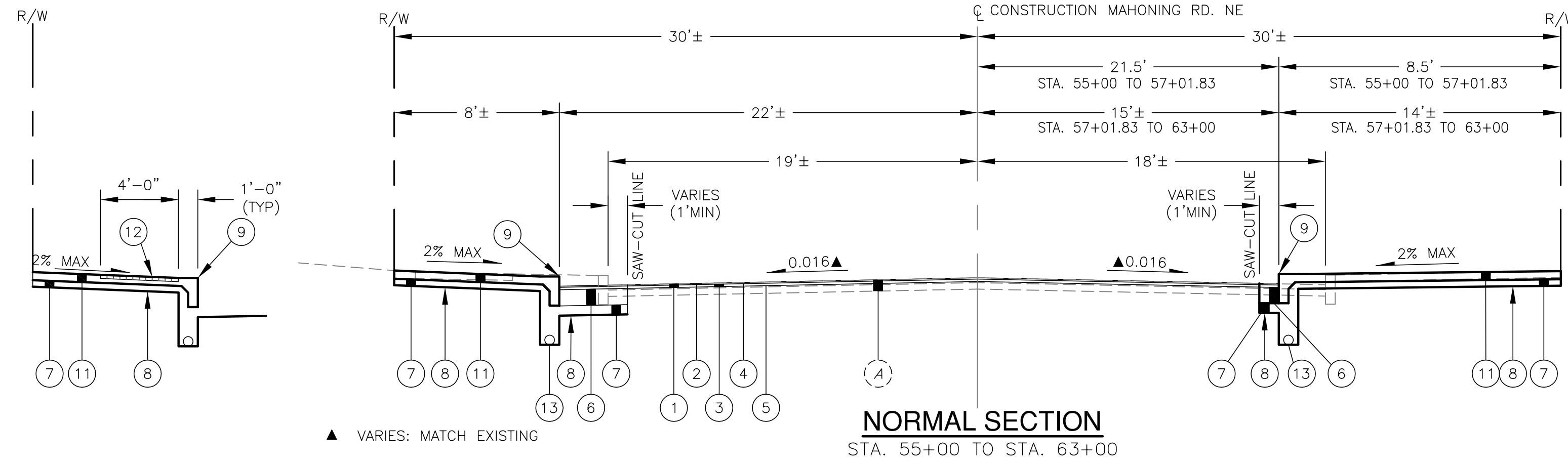
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JGG

TYPICAL SECTIONS
STA. 55+09 TO STA. 94+90

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

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PROPOSED LEGEND

- ① ITEM 254 - PAVEMENT PLANING, AS PER PLAN
- ② ITEM 424 - 3/4" FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A
- ③ ITEM 448 - 1 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22
- ④ ITEM 407 - TACK COAT, 702.13
- ⑤ ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
- ⑥ ITEM 305 - 10" CONCRETE BASE
- ⑦ ITEM 304 - AGGREGATE BASE, AS PER PLAN
- ⑧ ITEM 204 - SUBGRADE COMPACTION
- ⑨ ITEM SPECIAL - CANTON TYPE 1 STANDARD CONCRETE CURB
- ⑩ ITEM SPECIAL - CANTON TYPE 2 STANDARD CONCRETE CURB AND GUTTER
- ⑪ ITEM 608 - 5" CONCRETE WALK, AS PER PLAN (DEPTH VARIES AT BRICK PANELS)
- ⑫ ITEM SPECIAL - BRICK WALKWAY PANELS
- ⑬ ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS, 707.31, WITH FABRIC WRAP, AS PER PLAN
- ⑭ ITEM 659 - SEEDING AND MULCHING, CLASS 1
- ⑮ ITEM 659 - 6" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- ④ EXISTING COMPOSITE PAVEMENT (BRICK OR CONCRETE UNDER ASPHALT)

SEE STREETScape PLANS FOR BRICK LOCATIONS, DIMENSIONS AND SPECIFICATIONS SEE CANTON CITY STANDARD DRAWING, TYPICAL STREETScape CORRIDOR, BRICK WALKWAY PAVERS

CALCULATED:
MAT
CHECKED: JCG

TYPICAL SECTIONS
STA. 55+09 TO STA. 78+25

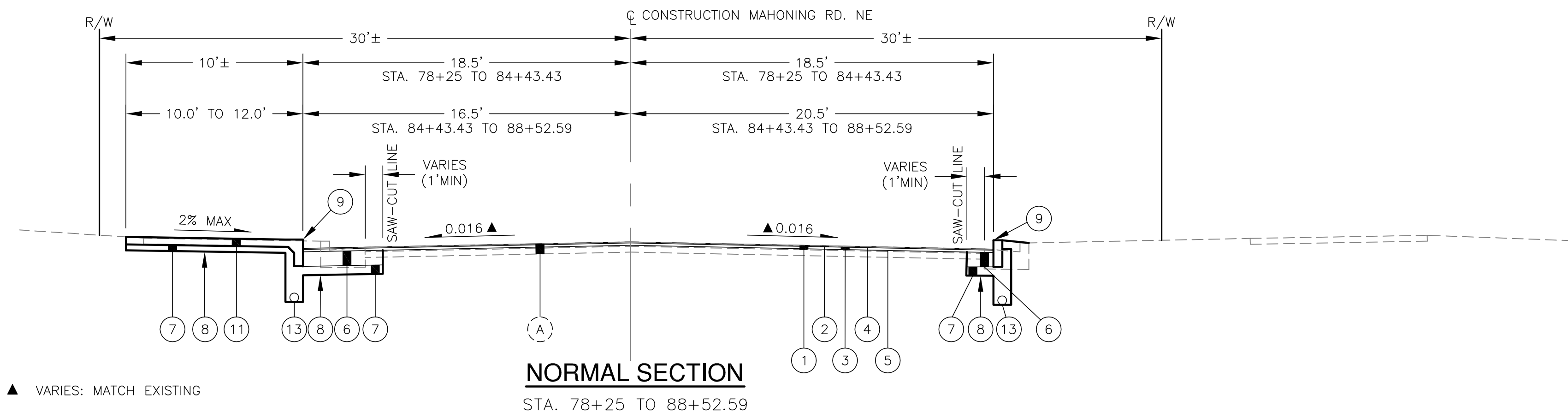
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

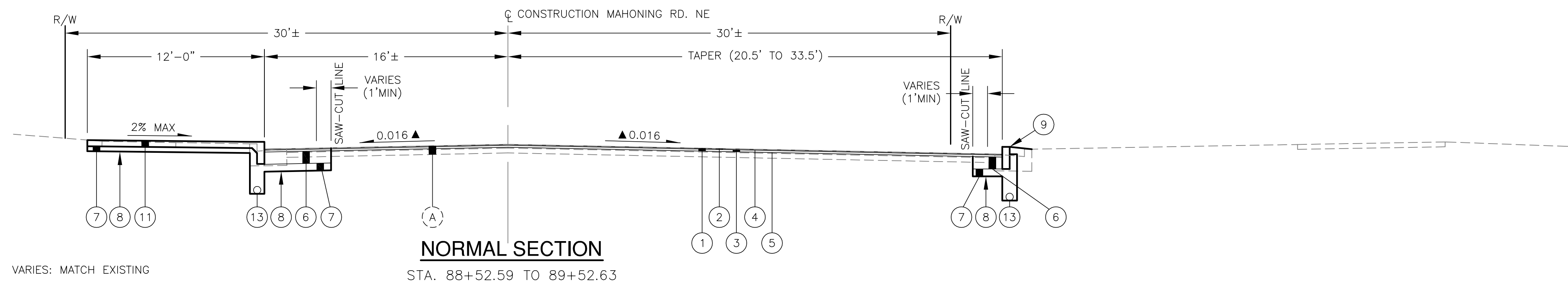
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- ⑭ ITEM 659 - SEEDING AND MULCHING, CLASS 1
- ⑮ ITEM 659 - 6" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- ⑰ EXISTING COMPOSITE PAVEMENT (BRICK OR CONCRETE UNDER ASPHALT)

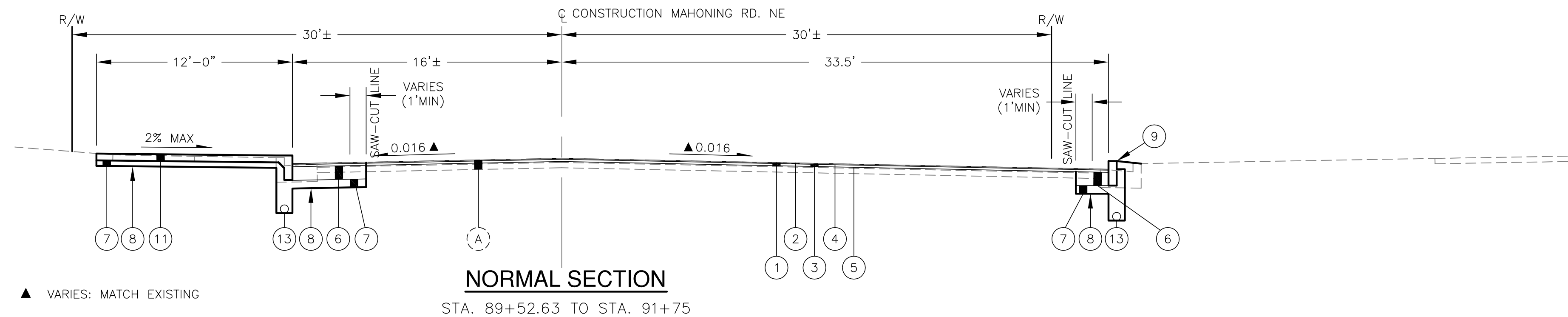
SEE STREETScape PLANS FOR BRICK LOCATIONS, DIMENSIONS AND SPECIFICATIONS SEE CANTON CITY STANDARD DRAWING, TYPICAL STREETScape CORRIDOR, BRICK WALKWAY PAVERS



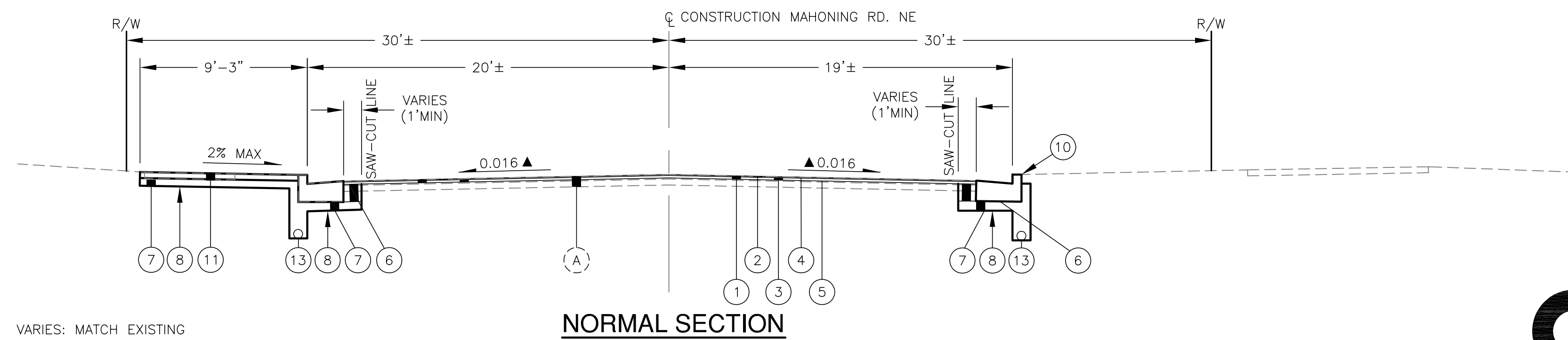
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▲ VARIES: MATCH EXISTING



▲ VARIES: MATCH EXISTING

CALCULATED:
MAT
CHECKED: JCG

TYPICAL SECTIONS
STA. 78+25 TO STA. 94+90

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

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- (I) ITEM SPECIAL -- MISC.: TYPICAL MAJOR BRT STOP WITH BUS SHELTER
ITEM SPECIAL -- MISC.: TYPICAL MINOR BRT STOP WITHOUT BUS SHELTER

EACH MAJOR BRT BUS STOP SHALL INCLUDE A BUS SHELTER, BENCH, TRASH RECEPTABLE, BIKE RACK, STATION ID SIGN, AND HANGER BRACKET. THE COST FOR ALL CONCRETE PAVEMENT, CURBS, SIDEWALKS, BRICKS AND LIGHTING SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEMS IN THE ROADWAY PLANS. PAYMENT FOR THE MAJOR BRT STOP ITEMS SHALL BE INCLUDED WITH ITEM SPECIAL -- MISC.: TYPICAL MAJOR BRT STOP WITH SHELTER.

EACH MINOR BRT BUS STOP SHALL INCLUDE A STREET POLE WITH FINIAL AND DECORATIVE BASE, CURVED BENCH, TRASH RECEPTABLE, STATION ID SIGN AND HANGER BRACKET. THE COST FOR ALL CONCRETE PAVEMENT, CURBS, SIDEWALKS, BRICKS AND LIGHTING SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEMS IN THE ROADWAY PLANS. PAYMENT FOR THE MINOR BRT STOP ITEMS SHALL BE INCLUDED WITH ITEM SPECIAL -- MISC.: TYPICAL MINOR BRT STOP WITHOUT BUS SHELTER.
- (J) ITEM SPECIAL -- MISC.: BRICK BOX FORM

BRICK BOX FORMS SHALL BE CONSTRUCTED TO FACILITATE CONSTRUCTION OF THE BRICK WALKWAY PAVERS. PAYMENT FOR ITEM SPECIAL -- MISC.: BRICK BOX FORMS SHALL BE MADE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT OF BRICK WALKWAY PAVEMENT INDICATED ON THE PLANS.
- (K) CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING:

WHERE NEW CONCRETE IS PLACED ADJACENT TO AND TIED TO EXISTING CONCRETE, THE CONTRACTION JOINT SPACING REQUIRED IN STANDARD CONSTRUCTION DRAWING BP-2.2 WILL BE WAIVED. CONSTRUCT CONTRACTION JOINTS IN THE NEW CONCRETE PAVEMENT TO FORM A CONTINUOUS LINE WITH ALL CONTRACTION JOINTS IN THE EXISTING CONCRETE PAVEMENT. INSTALL EXPANSION JOINTS IN THE NEW CONCRETE PAVEMENT TO FORM A CONTINUOUS LINE WITH ALL EXPANSION JOINTS IN THE EXISTING CONCRETE PAVEMENT.
- (L) PART WIDTH CONSTRUCTION:

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.
- (M) ITEM 251 -- PARTIAL DEPTH PAVEMENT REPAIR:

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE CITY OF CANTON. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 448 -- ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG84-28. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE CITY OF CANTON SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE CITY OF CANTON, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR.
- (N) ITEM 252 -- FULL DEPTH PAVEMENT SAWING

THE CONTRACTOR SHALL FULL DEPTH SAW CUT EXISTING BRICK PAVEMENT ENCOUNTERED ALONG PROPOSED FULL DEPTH PAVEMENT REPLACEMENT AREAS AT LOCATIONS SHOWN ON THE TYPICAL SECTIONS AND ROADWAY PLAN SHEETS. FULL DEPTH SAW CUTS SHALL INCLUDE ALL EXISTING LAYERS FROM ASPHALT SURFACE TO BOTTOM OF BRICK OR CONCRETE PAVEMENT.
- (O) ITEM 304 -- AGGREGATE BASE

GRANULATED SLAG SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL STILL BE APPLICABLE.

V SANITARY SEWERS / STORM SEWERS

- (A) STANDARDS:

ALL SANITARY/STORM SEWER CONDUITS AND APPURTENANCES SHALL BE CONSTRUCTED PER CITY OF CANTON STANDARD DRAWINGS AND SPECIFICATIONS AND ODOT SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE.
- (B) SANITARY

SANITARY GRAVITY MAIN SEWERS AND SERVICE CONNECTIONS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 IN ACCORDANCE WITH ASTM D-3034 WITH GASKET MATERIAL CONFORMING TO ASTM F-477 AND JOINTS TO ASTM D-3212.

SANITARY LATERAL CONNECTIONS:

 - (1) ALL CONNECTIONS TO NEW OR EXISTING MAIN SEWER SHALL BE INSTALLED WITH A MANUFACTURED WYE, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
 - (2) THE MINIMUM SLOPE SHALL BE 1/8" PER FT. (1%) AND THE MAXIMUM SHALL BE 1/4" PER FT. (2%) UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- (C) MAINTAIN SEWAGE SERVICE:

MAINTAIN SANITARY SERVICE AT ALL TIMES DURING CONSTRUCTION, UNLESS APPROVED BY THE CITY ENGINEER. WHEN RECONNECTING LATERAL SERVICES, THE CONTRACTOR SHALL, IN ADVANCE OF INTERRUPTING SERVICE, NOTIFY THE CITY INSPECTOR, HOMEOWNER AND THE CITY ENGINEER. PATCH PIPE, AS NEEDED FOR INSTALLATION OF THE NEW SANITARY SEWER WHERE IT CROSSES UNDERNEATH EXISTING LATERALS, SHALL BE INSTALLED IN A MANNER TO LIMIT THE TIME OF INTERRUPTION.
- (D) DOWNSPOUT OUTLET AND GROUNDWATER DRAIN LINES:

CONTINGENCY QUANTITIES FOR EITHER TWO (2) DOWNSPOUT OUTLETS OR ONE (1) DOWNSPOUT OUTLET AND ONE (1) GROUNDWATER DRAIN LINE SHALL BE PROVIDED FOR EACH LOT AS DIRECTED BY THE CITY ENGINEER. LOCATIONS OF PROPOSED DOWNSPOUT OUTLETS AND GROUNDWATER DRAIN LINE CONNECTIONS SHALL BE AS DIRECTED BY THE CITY ENGINEER.

ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
- (E) ITEM SPECIAL -- MISCELLANEOUS METAL:

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE CITY OF CANTON. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 604 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE CITY OF CANTON.

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE CITY OF CANTON, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

- (F) ITEM SPECIAL -- FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE CITY ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED.

(G) ITEM 611 -- (BY SIZE) CONDUIT, TYPE B, AS PER PLAN CONDUIT UNDER THIS PAY ITEM SHALL BE CONCRETE AS PER CMS 706 OR HDPE AS PER CMS 707.33.

VI LANDSCAPING:

- (A) INSTALLATION

ALL PLANT MATERIAL SHALL BE INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES AND MEET CURRENT AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.

THE CONTRACTOR SHALL MAINTAIN ALL PLANTING INCLUDING, BUT NOT LIMITED TO, WATERING, SPRAYING, MULCHING AND FERTILIZING UNTIL THE WORK IS ACCEPTED BY THE CITY.

SIZES SPECIFIED ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE INSTALLED. ANY PLANT SUBSTITUTION MUST BE APPROVED BY THE CITY.

ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE CITY BEFORE, DURING AND AFTER INSTALLATION. THE CITY RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL, FOR ANY REASON BEFORE OR AFTER IT IS INSTALLED. THE CONTRACTOR SHALL PROTECT ALL TREES, SHRUBS AND LANDSCAPING DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR REMOVAL. ANY TREE OR SHRUB (INCLUDING ROOTS) DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED BY THE CONTRACTOR WITH LIKE SPECIES AND SIZE WITH NO ADDITIONAL COMPENSATION.

AFTER THE TREE GRATES HAVE BEEN INSTALLED AT THE LOCATIONS INDICATED IN THE CONSTRUCTION PLANS, THE CONTRACTOR SHALL CONTACT AND MEET WITH THE CITY OF CANTON TO FINALIZE LOCATIONS FOR SPECIFIC TREE TYPES.

FINELY SHREDDED HARDWOOD BARK MULCH, NATURAL COLOR (NON-COLORED), IS REQUIRED FOR ALL PLANTINGS.

ALL DISTURBED AREAS SHALL RECEIVE SEED OR SOD (SEE PLANS FOR LOCATIONS). DO NOT INSTALL SEED OR SOD UNTIL ACCEPTANCE OF FINISH GRADE AND/OR THE IRRIGATION SYSTEM IS OPERATING PROPERLY. LAWN AREAS SHALL BE RESEEDDED OR NEW SOD INSTALLED IF SATISFACTORY ESTABLISHMENT OF LAWN DOES NOT OCCUR.
- (B) WARRANTY

THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING ON THE DATE OF ACCEPTANCE BY THE CITY ENGINEER. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN OR DEFOLIATES PRIOR TO ACCEPTANCE SHALL BE REMOVED AND REPLACED WITH THE SAME SPECIES, QUANTITY AND SIZE AND MEET ALL PLANT LIST SPECIFICATIONS BEFORE OR AT THE END OF THE GUARANTEE PERIOD AT NO ADDITIONAL COST.
- (A) WATER MAINS/SERVICES: ALL WATER MAINS, SERVICES AND APPURTENANCES SHALL BE DESIGNED AND CONSTRUCTED ACCORDING TO THE CITY OF CANTON WATER DEPARTMENT REQUIREMENTS AND SPECIFICATIONS IN EFFECT AT THE TIME OF CONSTRUCTION.
- (B) ALL WATER MAIN PIPE MATERIALS, FITTINGS, BENDS, VALVES, VALVE BOXES, MEGALUGS, GASKETS AND HYDRANTS WILL BE SUPPLIED BY THE CITY OF CANTON. THE CONTRACTOR WILL BE RESPONSIBLE FOR TRANSPORTING MATERIALS TO THE PROJECT SITE. BACKFILL, BEDDING, THRUST BLOCKING, ETC. AND ASSOCIATED LABOR IS THE RESPONSIBILITY OF THE CONTRACTOR.
- (C) WATER MAINS SHALL BE CLASS 53 (12-INCH AND UNDER) OR CLASS 54 (OVER 12-INCH) DUCTILE IRON, MEETING AWWA C151 WITH PUSH JOINTS. THE MINIMUM COVER OVER WATER MAINS SHALL BE 4 FEET-6 INCH FROM GROUND SURFACE TO THE BARREL OF THE PIPE. THE OUTSIDE SURFACE OF ALL DUCTILE IRON PIPE, FITTINGS AND APPURTENANCES SHALL BE SHOP COATED WITH EITHER A COAL TAR OR ASPHALT BASE BITUMINOUS MATERIAL. IF THE COATING MATERIAL IS FOUND TO BE DAMAGED PRIOR TO THE PIPE TRENCH BEING BACKFILLED, THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL APPROVED MATERIAL AS REQUIRED TO REPAIR THE DAMAGES. THE CONTRACTOR SHALL HAVE SUFFICIENT COATING MATERIALS AVAILABLE AT THE JOB SITE PRIOR TO LAYING THE PIPE. THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE LINED WITH DOUBLE CEMENT MORTAR AND SEAL COATED IN COMPLETE CONFORMANCE WITH AWWA C104, OR THE LATEST REVISION. FITTINGS SHALL BE RATED FOR 250 PSI WORKING PRESSURE IN ACCORDANCE WITH AWWA C110. PIPE LENGTHS MAY BE DEFLECTED AT THE JOINT IF REQUIRED, AT ONE-HALF THE DEGREE RECOMMENDED BY THE MANUFACTURER.
- (D) VALVES SHALL MEET THE APPLICABLE AWWA C905 STANDARDS AND THE FOLLOWING: ALL VALVES SHALL BE NON-RISING STEM, IRON BODY, RESILIENT WEDGE DISC. THE DESIGN OF THE THRUST COLLAR SHALL BE SUCH THAT THE THRUST COLLAR IS SEALED FROM LINE PRESSURE BY MEANS OF AN "O" RING SEAL. ALL VALVES SHALL BE FURNISHED WITH A TWO (2) INCH SQUARE OPENING NUT, OPEN RIGHT. ALL VALVES SHALL BE FURNISHED WITH MECHANICAL JOINT END CONNECTIONS. THE STEM SHALL BE PROTECTED FROM EXTERNAL GRIT BY A WEATHER SHIELD AND AN UPPER "O" RING. STEM

VIII WATER MAIN / SERVICES:

- (L) THE FIRE HYDRANT SETTING SHALL INCLUDE THE HYDRANT, ANCHOR TEE, VALVE, VALVE BOX, 6-INCH PIPING AND ALL FITTINGS NEEDED FOR PROPER INSTALLATION TO FINAL GRADE. FIRE HYDRANTS SHALL BE MUELLER A423 MEETING THE CITY OF CANTON WATER DEPARTMENT STANDARDS AND REQUIREMENTS. ALL COSTS FOR THE 6-INCH PIPING ASSOCIATED WITH THE INSTALLATION OF FIRE HYDRANTS SHALL BE INCLUDED WITH THE FIRE HYDRANT PAY ITEM. ALL HYDRANTS SHALL BE INSTALLED WITH THE PUMPER NOZZLE FACING THE STREET. ALL FIRE HYDRANT THREADS SHALL BE LUBRICATED WITH A FOOD GRADE LUBRICANT AND OPERATED UPON INSTALLATION.
- (M) ALL DUCTILE IRON PIPE, FITTINGS AND APPURTENANCES BURIED UNDERGROUND SHALL BE ENCASED WITH 8 MIL. POLYETHYLENE FILM CONFORMING TO AWWA C105.
- (N) THE CONTRACTOR SHALL TAKE ANY AND ALL NECESSARY PRECAUTIONS TO PROTECT AND MAINTAIN IN SERVICE, ANY EXISTING WATER MAINS EXPOSED DURING CONSTRUCTION.
- (O) ANY WATER SERVICE LINE THAT IS BROKEN, CUT OR OTHERWISE DAMAGED, SHALL BE REPLACED FROM THE CORPORATION STOP TO THE CURB STOP WITH A SINGLE PIECE OF PLASTIC LINE (DRISCOPLX). NO SPLICING OF THE SERVICE LINE WILL BE PERMITTED.
- (P) SERVICE BRANCHES SHALL BE INSTALLED PER ODOT ITEM 638.16 WITH THE FOLLOWING EXCEPTION: WHEN A SERVICE BRANCH IS DISTURBED FOR LOWERING, RAISING, EXTENDING OR SHORTENING ON THE PROPERTY SIDE OF THE SERVICE STOP, IT SHALL BE REPLACED WITH NEW MATERIALS FROM THE CORPORATION STOP TO THE SERVICE STOP.
- (Q) IN A STREET IMPROVEMENT, NO EXISTING WATER CURB BOX WILL BE LEFT IN THE PAVEMENT, CURB AND GUTTER OR SIDEWALK. THE CURB BOX SHALL BE MOVED TO A SUITABLE LOCATION DETERMINED BY THE CANTON WATER DEPARTMENT. WHEN THE CURB BOX IS MOVED, ALL NEW MATERIAL SHALL BE USED FROM THE CORPORATION STOP TO THE CURB STOP WHICH IS A SINGLE PIECE OF PLASTIC SERVICE LINE (DRISCOPLX). NO SPLICING OF THE SERVICE LINE IS PERMITTED. A NEW TAP (CORPORATION STOP) AND CURB STOP AND BOX MAY ALSO BE REQUIRED AS DETERMINED BY THE CANTON WATER DEPARTMENT.
- (R) WHEN AN EXISTING WATER MAIN MUST BE SHUT DOWN TO PERFORM WORK, THE PROPERTIES TO BE EFFECTED SHALL BE GIVEN A MINIMUM 24 HOUR NOTICE OF SAID SHUT DOWN. THE WORK WILL BE SCHEDULED AND COORDINATED TO MINIMIZE THE TIME THE MAIN IS OUT OF SERVICE.

- (S) THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS IN ADVANCE OF ANY SHUT DOWN OF AN EXISTING MAIN. THE CONTRACTOR MAY NOT OPERATE ANY VALVES; VALVES MAY ONLY BE OPERATED BY CANTON WATER DEPARTMENT PERSONNEL. VALVES DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- (T) ALL VALVE BOXES WILL BE ADJUSTED TO FINAL GRADE OF SURROUNDING PAVEMENT OR FINISHED SURFACE TREATMENTS WHEN THE PROJECT IS COMPLETED.
- (U) PER CITY ORDINANCE "105.03 U.S. STEEL USAGE REQUIRED; EXCEPTIONS", ALL STEEL NECESSARY IN THE CONSTRUCTION OF ANY WORK SHALL BE STEEL THAT IS PRODUCED IN THE UNITED STATES UNLESS A SPECIFIC PRODUCT WHICH IS REQUIRED IS NOT PRODUCED BY MANUFACTURERS IN THE UNITED STATES IN WHICH EVENT THIS PROHIBITION DOES NOT APPLY.

- (I) ALL BENDS, FITTINGS, TEES, VALVES, DEAD ENDS, ETC. SHALL BE SECURED EQUAL. POURED-IN-PLACE CONCRETE THRUST BLOCKS SHALL ALSO BE PROVIDED AT/FOR EACH BENDS, FITTING, TEE, DEAD END, ETC. THIS BLOCKING SHALL BE CAREFULLY PLACED TO ENSURE IT IS POSITIONED PROPERLY TO WITHSTAND THE RESULTANT FORCES AT EACH BEND, FITTING, ETC. AND SHALL BEAR ON STABLE UNDISTURBED GROUND CAPABLE OF WITHSTANDING THE POTENTIAL LOADING. TIE RODS ARE TO BE 3/4 INCH DIAMETER. TWO TIE RODS ARE REQUIRED FOR AN 8 INCH PIPE, AND FOUR TIE RODS ARE REQUIRED FOR 12 INCH PIPE.
- (J) IN ADDITION TO THE RESTRAINT OF ALL BENDS, FITTINGS, TEES, VALVES, DEAD ENDS, ETC., THE CONTRACTOR SHALL ALSO SECURE/RESTRAIN ALL JOINTS FOR AT LEAST THREE (3) PIPE JOINTS (50 FEET MIN.) BEYOND EACH DEAD END, BEND, FITTING, VALVE, TEE, ETC. UTILIZING MEGALUGS, FIELD LOK GASKETS OR APPROVED EQUALS.
- (K) THE CONTRACTOR SHALL PROVIDE 18-INCH VERTICAL CLEARANCE BETWEEN PROPOSED WATERLINES AND ANY SANITARY SEWERS. WHEN 18-INCH CLEARANCE BETWEEN A WATERLINE AND A SANITARY SEWER CANNOT BE OBTAINED, THE CONTRACTOR SHALL PROVIDE CONCRETE ENCASUREMENT AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE 12-INCH MINIMUM CLEARANCE BETWEEN WATERLINES AND STORM SEWERS; TEN (10) FOOT HORIZONTAL CLEARANCE BETWEEN WATERLINES/SERVICES AND SANITARY SEWERS; AND FOUR (4) FOOT HORIZONTAL CLEARANCE BETWEEN WATERLINES/SERVICES AND STORM SEWERS.

- (S) THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS IN ADVANCE OF ANY SHUT DOWN OF AN EXISTING MAIN. THE CONTRACTOR MAY NOT OPERATE ANY VALVES; VALVES MAY ONLY BE OPERATED BY CANTON WATER DEPARTMENT PERSONNEL. VALVES DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- (T) ALL VALVE BOXES WILL BE ADJUSTED TO FINAL GRADE OF SURROUNDING PAVEMENT OR FINISHED SURFACE TREATMENTS WHEN THE PROJECT IS COMPLETED.
- (U) PER CITY ORDINANCE "105.03 U.S. STEEL USAGE REQUIRED; EXCEPTIONS", ALL STEEL NECESSARY IN THE CONSTRUCTION OF ANY WORK SHALL BE STEEL THAT IS PRODUCED IN THE UNITED STATES UNLESS A SPECIFIC PRODUCT WHICH IS REQUIRED IS NOT PRODUCED BY MANUFACTURERS IN THE UNITED STATES IN WHICH EVENT THIS PROHIBITION DOES NOT APPLY.

IX POST CONSTRUCTION INCIDENTALS

- (A) AS-BUILT DRAWINGS AND NOTES:

AS-BUILT REPRODUCIBLE MYLARS SHALL BE PROVIDED TO THE CITY OF CANTON BY THE DESIGN ENGINEER AT THE COMPLETION OF THE PROJECT. AS-BUILT INFORMATION CONSISTS OF POST-CONSTRUCTION FIELD SURVEY DATA OF THE LOCATION, FLOW LINE ELEVATIONS, AND TOP-OF-GRATE/RIM ELEVATIONS FOR ALL STORM AND SANITARY STRUCTURES CONSTRUCTED AND/OR IMPACTED BY THE PROJECT.

THE CONTRACTOR SHALL DOCUMENT IN WRITING ANY AND ALL INFORMATION PERTAINING TO ANY CONSTRUCTION THAT DEVIATES FROM THESE PLANS AND SHALL MAKE SUCH DOCUMENTATION AVAILABLE TO THE CITY ENGINEER.
- (B) PROPOSED MONUMENTATION:

THE CONTRACTOR'S SURVEYOR SHALL NOTIFY THE CITY ENGINEER IN WRITING UPON THE COMPLETION OF MONUMENTS BEING SET AS PER PLAN OR RECORD PLAT.
- (C) RELEASE OF RETAINER/BONDS:

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

UNDERGROUND CONDUIT ACRONYMS

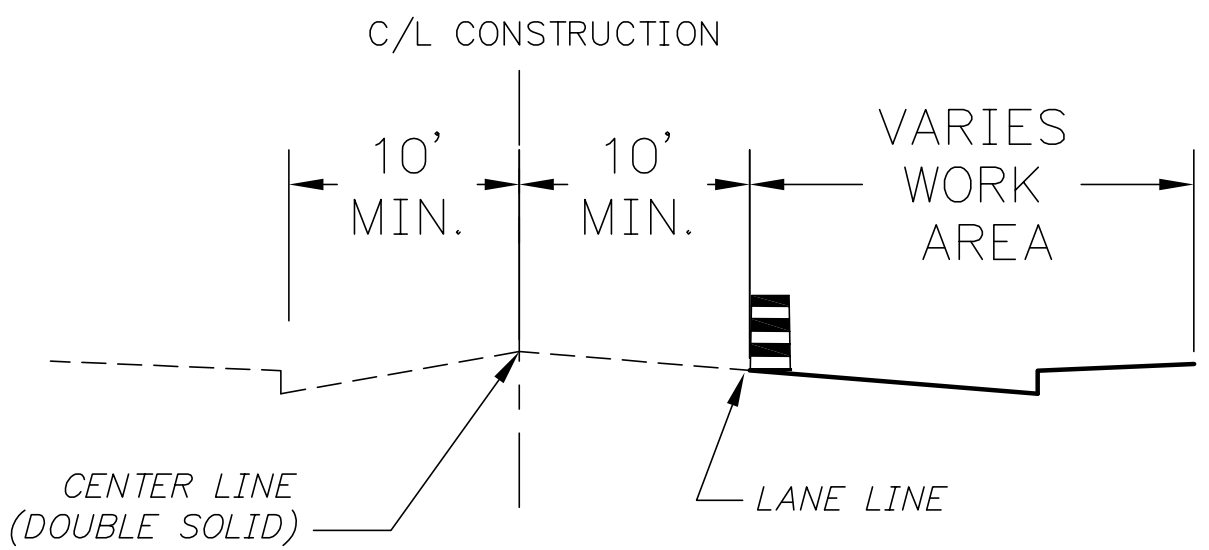
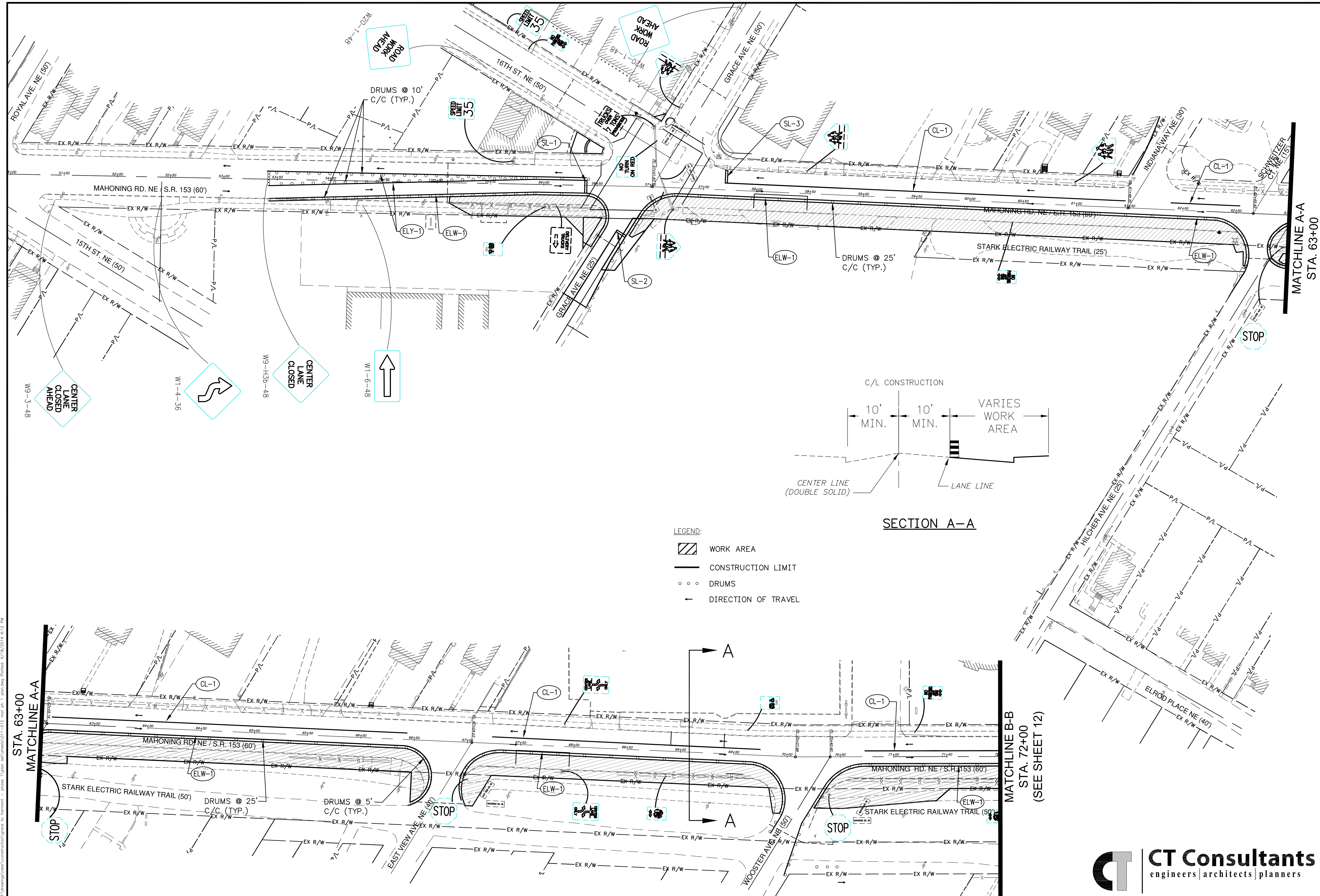
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VCP	=	VITRIFIED CLAY PIPE
RCP	=	REINFORCED CONCRETE PIPE
HDPE	=	HIGH-DENSITY POLYETHYLENE
CMP	=	CORRUGATED METAL PIPE
D.I.	=	DUCTILE IRON
C.I.	=	CAST IRON
RIM	=	RIM ELEVATION
INV	=	INVERT ELEVATION

CALCULATED:	GEA	CGC
CHECKED:	JGC	

GENERAL NOTES

REVISES	CONSTRUCTION BIDDING SET ADDENDUM NO. 1	DATE	BY
		4/21/14	GEA
		5/7/14	GEA

**MAHONING ROAD NE
STA-0153-01.70**



- LEGEND:
- WORK AREA
 - CONSTRUCTION LIMIT
 - DRUMS
 - DIRECTION OF TRAVEL

CALCULATED: SSA
 CHECKED: JGC

0 40' 80'
 HORIZONTAL SCALE
 1" = 40'

MAINTENANCE OF TRAFFIC
 PHASE 1

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

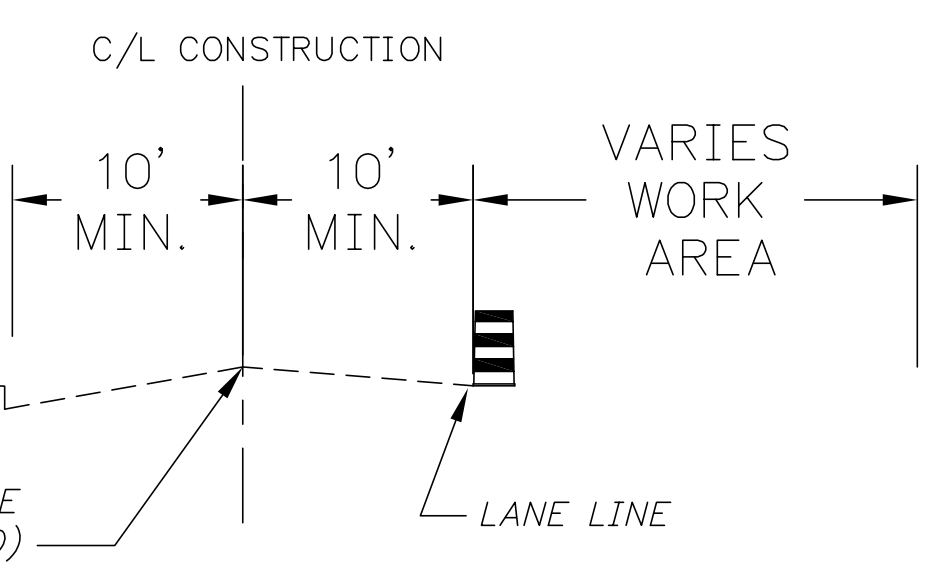
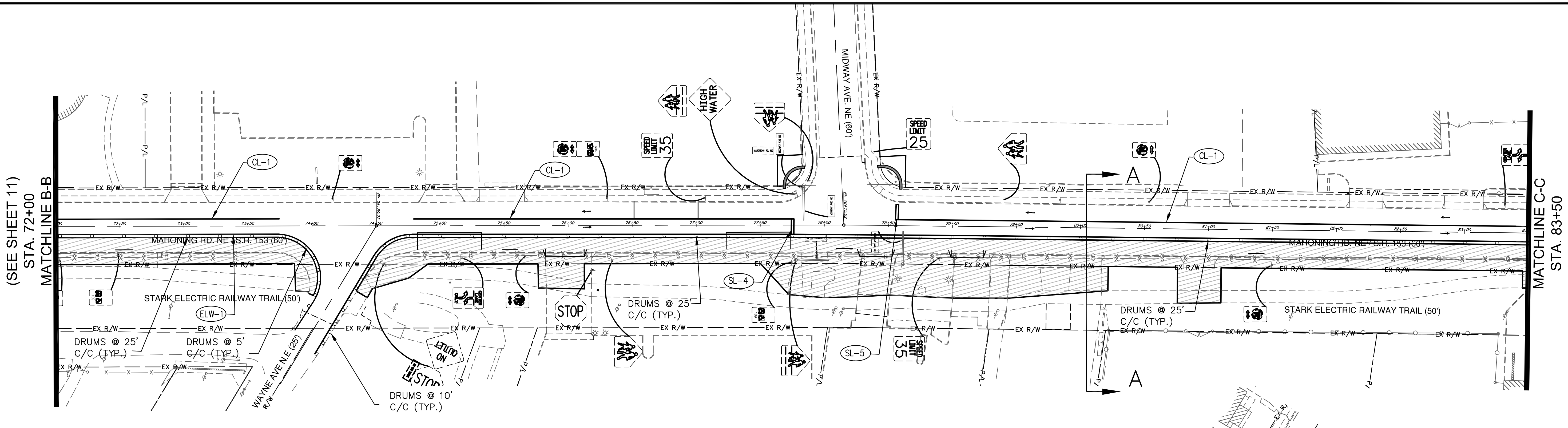
MAHONING ROAD NE
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(SEE SHEET 11)
STA. 72+00

MATCHLINE B-B

MATCHLINE C-C
STA. 83+50

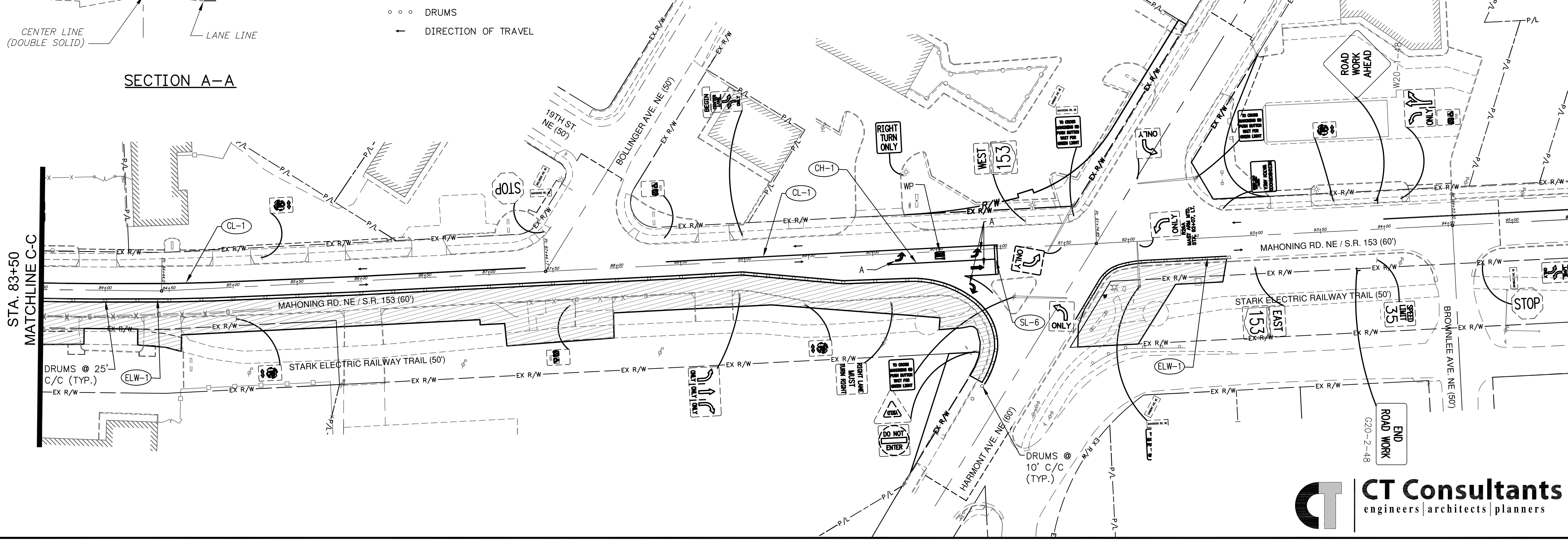


- LEGEND:**
- WORK AREA
 - CONSTRUCTION LIMIT
 - DRUMS
 - DIRECTION OF TRAVEL

SECTION A-A

STA. 83+50

MATCHLINE C-C



CALCULATED: SSA
CHECKED: JGC

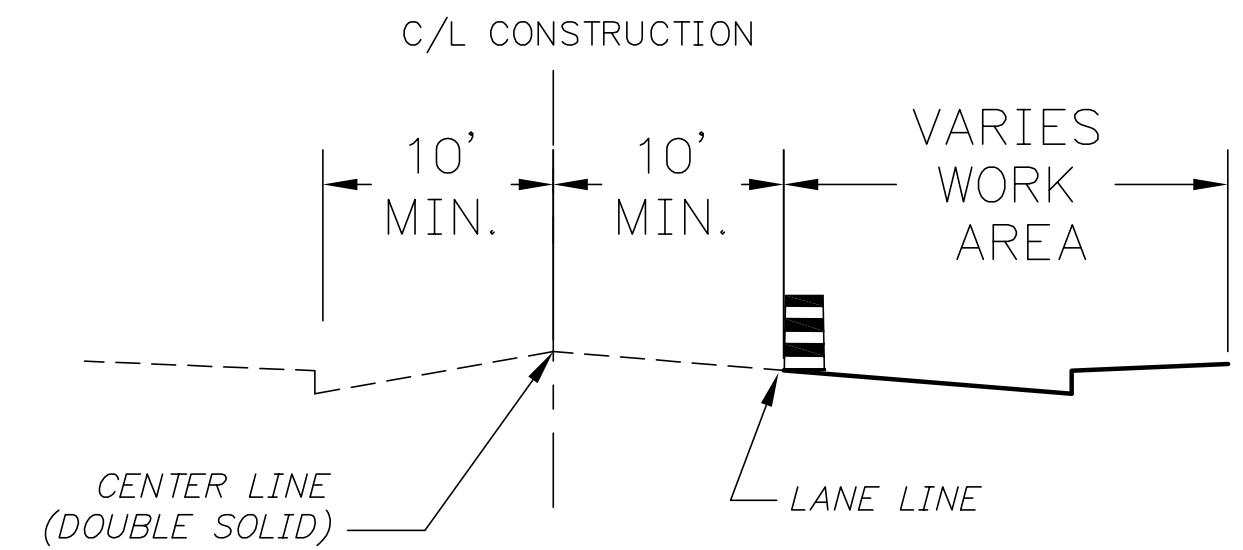
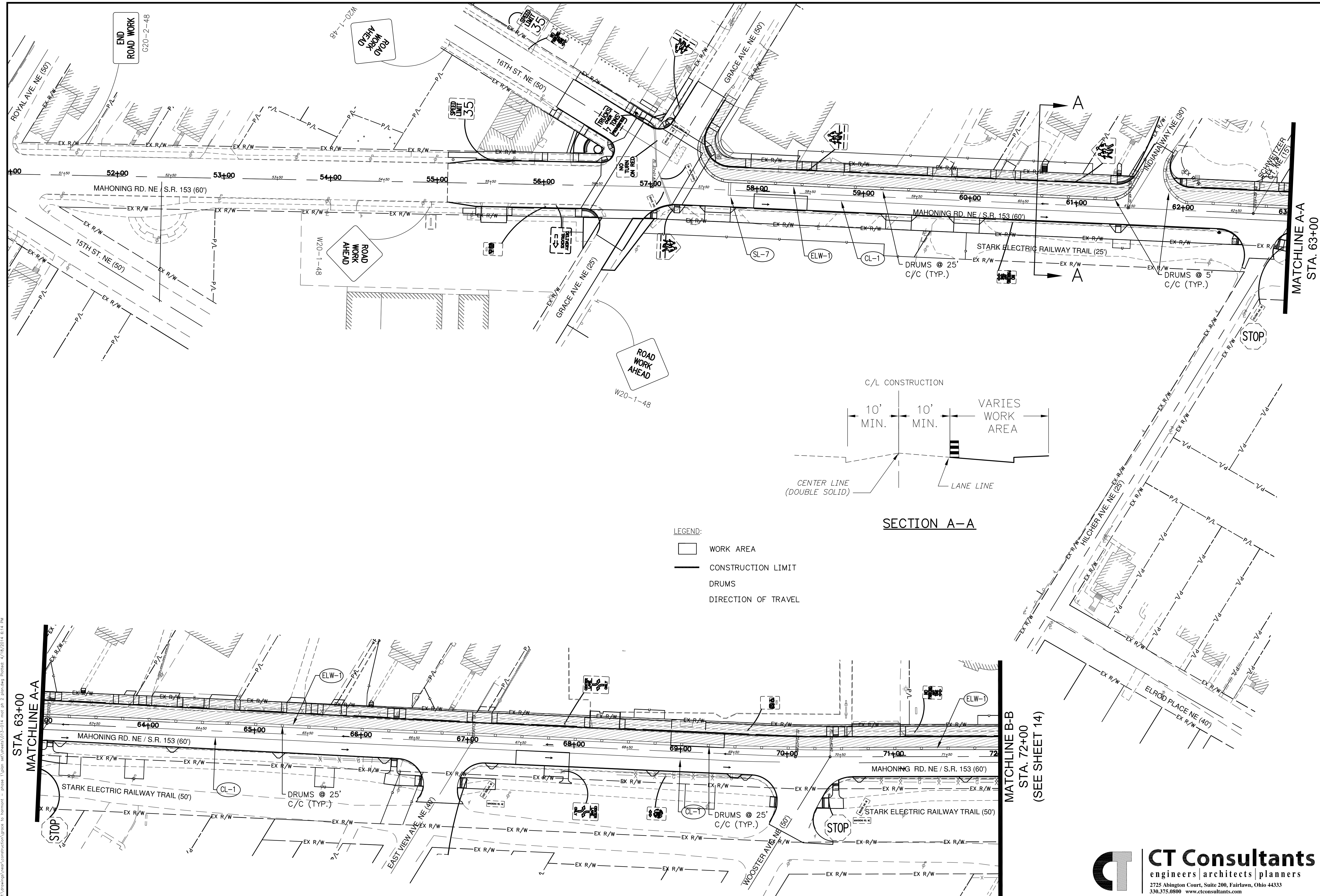
0 40' 80'
HORIZONTAL SCALE
1" = 40'

**MAINTENANCE OF TRAFFIC
PHASE 1**

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GGA

**MAHONING ROAD NE
STA-0153-01.70**

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- LEGEND:
- WORK AREA
 - CONSTRUCTION LIMIT
 - DRUMS
 - DIRECTION OF TRAVEL

STA. 63+00
MATCHLINE A-A

MATCHLINE B-B
STA. 72+00
(SEE SHEET 14)

CALCULATED: SSA
CHECKED: JCC

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20'
HORIZONTAL SCALE
1" = 40'

MAINTENANCE OF TRAFFIC
PHASE 2

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

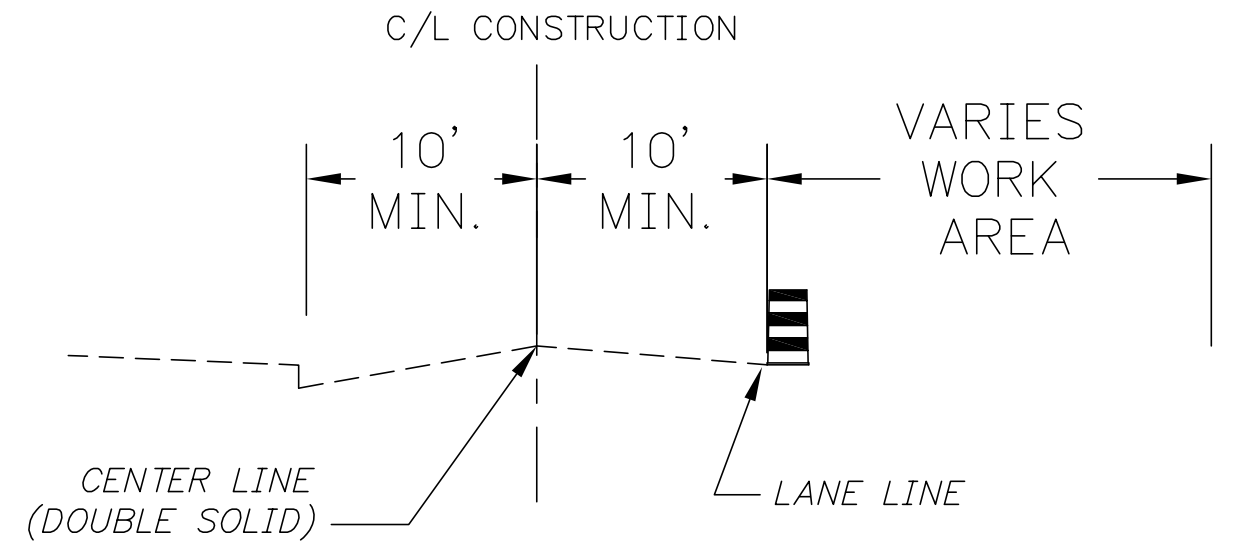
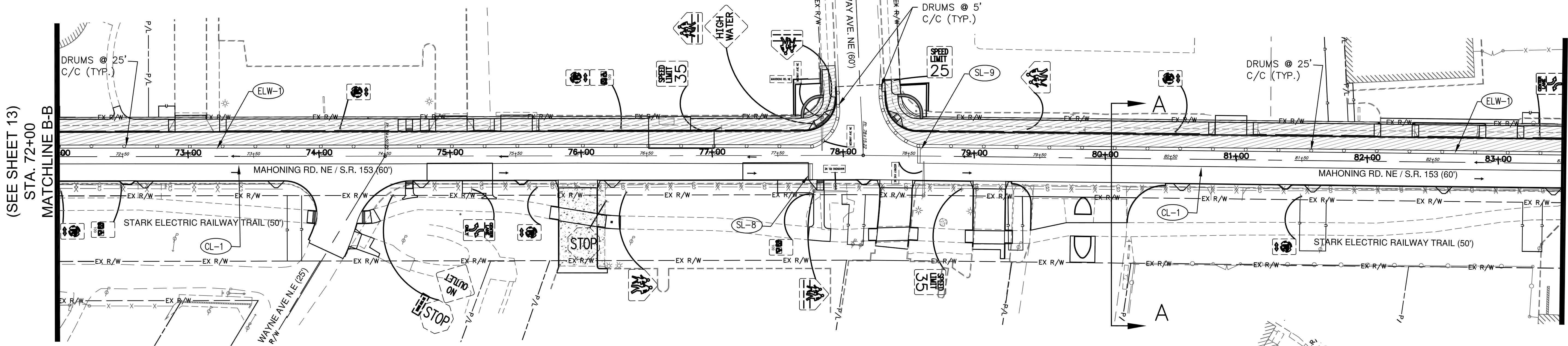
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2725 Abington Court, Suite 200, Fairlawn, Ohio 44333
330.375.0800 www.ctconsultants.com

I:\projects\new\construction\phase 2\phase 2\sheet\0153-01.70.dwg Plot Date: 4/18/2014 6:14 PM

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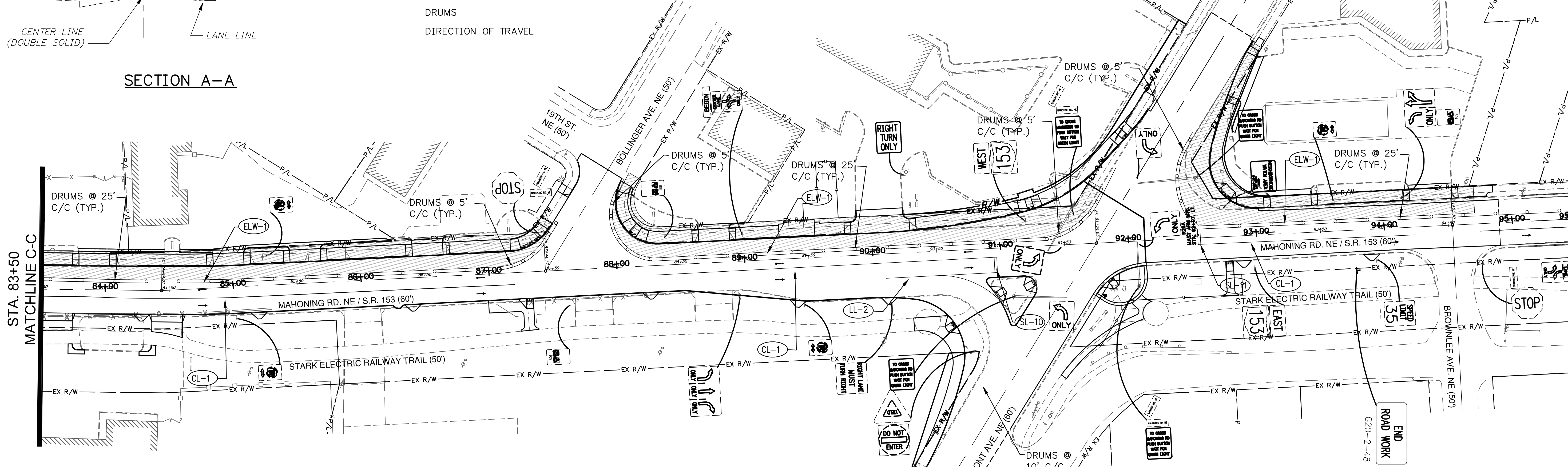
(SEE SHEET 13)
STA. 72+00
MATCHLINE B-B

MATCHLINE C-C
STA. 83+50



- LEGEND:
- WORK AREA
 - CONSTRUCTION LIMIT
 - DRUMS
 - DIRECTION OF TRAVEL

SECTION A-A



0 40' 80'
HORIZONTAL SCALE
1" = 40'

CALCULATED: SSA
CHECKED: JGC

MAINTENANCE OF TRAFFIC
PHASE 2

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

CT Consultants
engineers | architects | planners
2725 Abington Court, Suite 200, Fairlawn, Ohio 44333
330.375.0800 www.ctconsultants.com

(U) MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION

BEFORE ANY WORK IS STARTED REPRESENTATIVES OF THE CITY OF CANTON AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE SIGNAL INSTALLATIONS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF THE EXISTING SIGNAL SHALL BE MADE BY THE CITY. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL ITEMS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE CITY AND THE CONTRACTOR.

AFTER THE REPORT HAS BEEN SIGNED BY ALL PARTIES, THE SIGNAL INSTALLATION SHALL BE TURNED OVER TO THE CONTRACTOR, WHO SHALL THEN BE REQUIRED TO MAINTAIN THE TRAFFIC SIGNAL INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITION: EXISTING SIGNAL INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS INCLUDING DAMAGE DUE TO UTILITY RELOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION AT AN INTERSECTION FROM THE TIME THE INSTALLATION IS FIRST DISTURBED, WHETHER FROM UTILITY WORK OR FROM THE CONTRACTOR.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL PROVIDE THE CITY AND THE PROJECT ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. THE CONTRACTOR SHALL HAVE THE MALFUNCTION CORRECTED AND/OR REPAIRED TO THE SATISFACTION OF THE ENGINEER WITHIN EIGHT HOURS OF THE NOTIFICATION OR LIQUIDATED DAMAGES OF \$500 PER HOUR SHALL BE ASSESSED TO THE CONTRACTOR.

ALL LAMP OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE PROJECT ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN EIGHT HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGES.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE PROJECT ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN EIGHT HOURS AFTER THE CONTRACTOR IS NOTIFIED OF THE OUTAGE.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED EIGHT-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION, THEN THE ALLOTTED TIME LIMIT SHALL BE FORE THE WORST SINGLE OUTAGE.

WHERE THE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY DAMAGES FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGES AS PER 107.15.

WHERE THE CONTRACTOR HAS FAILED TO OR CANNOT RESPOND TO AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE PROJECT ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE CITY OF CANTON FOR POLICE SERVICES AND MAINTENANCE SERVICES BY THE CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15. IN ADDITION TO THESE BILLINGS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES OF \$500/HOUR FOR EACH HOUR BEYOND THE ALLOWED EIGHT HOUR PERIOD THAT THE SIGNAL IS INOPERATIVE.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICES ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A MUTUALLY ACCEPTABLE AGREEMENT WITH THE CITY OF CANTON TO PROVIDE THE MAINTENANCE.

THE CONTRACTOR SHALL INFORM THE PROJECT ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DUE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION, SHALL BE COVERED AS DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

- TIME OF NOTIFICATION OF MALFUNCTION.
- TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION.
- ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED.
- A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE.
- TIME OF COMPLETION OF REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED FOUR HOURS AND SHALL NOT INCLUDE THE HOURS OF 6:00 AM TO 8:00 AM AND 4:00 PM TO 6:00 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY OFF DUTY POLICE HIRED BY THE CONTRACTOR:

- MAHONING ROAD NE AT GRACE AVENUE NE
- MAHONING ROAD NE AT HARMONT AVENUE NE

(V) NIGHT WORK

THE CONTRACTOR'S NEED TO WORK BETWEEN SUNSET TO SUNRISE SHALL HAVE PRIOR APPROVAL FROM THE CITY. THE WRITTEN REQUEST SHOULD HAVE A 5 DAY ADVANCE NOTICE. THE REQUEST TO WORK BETWEEN THESE HOURS SHALL INCLUDE THE TYPE OF WORK TO BE DONE, EQUIPMENT TO BE USED, THE DURATION AND THE LOCATION. A TEMPORARY LIGHTING PLAN MAY BE REQUIRED (SEE THE "FLOODLIGHTING" NOTE SHEET 13).

(W) TRAFFIC LIMITATIONS

THE TRAFFIC LIMITATION DATES FOR THE YEAR OF CONSTRUCTION WILL BE FURNISHED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

(X) CONSTRUCTION SEQUENCE - GENERAL

THE CONTRACTOR SHALL DIVIDE THE ENTIRE PROJECT LENGTH INTO CONVENIENT CONSTRUCTION SECTIONS.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN A GIVEN CONSTRUCTION SECTION BEFORE BEGINNING ANY WORK IN A SUBSEQUENT SECTION, UNLESS OTHERWISE APPROVED BY THE ENGINEER. NORMAL VEHICULAR TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BEYOND THE WORK LIMITS OF THE SECTION CURRENTLY UNDER CONSTRUCTION.

NO CHANGE IN TRAFFIC PATTERN SHALL TAKE PLACE DURING PEAK HOURS, 6:00 AM TO 9:00 AM AND 3:00 PM TO 6:00 PM, MONDAY THROUGH FRIDAY.

LOCATION OF ADVANCE WARNING SIGNS SHALL BE ADJUSTED TO PROVIDE FOR ADEQUATE SIGHT DISTANCE.

DRUMS SHALL BE PLACED 25' C/C APART ON THE MAIN LINE AND 10' C/C APART ON TAPER LENGTHS, AND 5' C/C AT RADII UNLESS OTHERWISE SPECIFIED. WHEN THE USE OF DRUMS IN LIEU OF TEMPORARY PAVEMENT MARKINGS IS APPROVED BY THE DIVISION OF TRAFFIC ENGINEERING, DRUMS SHALL BE PLACED 10' C/C APART IN ALL LOCATIONS EXCLUDING RADII.

(Y) PHASE SEQUENCE:

PHASE I:
CONSTRUCTION AREA: SOUTH SIDE OF MAHONING ROAD BETWEEN GRACE AVENUE AND HARMONT AVENUE (STA 56+00 TO 95+00)

WORK DESCRIPTION: CONSTRUCTION OF NEW SIDEWALK, DRIVEWAYS, PEDESTRIAN RAMPS, LIGHT POLES, AND MISCELLANEOUS UTILITIES RELOCATION.

MAINTENANCE OF TRAFFIC: TWO WAY TRAFFIC TO MAINTAINED AT ALL TIMES AS SHOWN ON PHASE ONE PLAN. MIN. 10' LANE TO BE USED IN EACH DIRECTION.

PHASE II:
CONSTRUCTION AREA: NORTH SIDE OF MAHONING ROAD BETWEEN GRACE AVENUE AND HARMONT AVENUE (STA 56+00 TO 95+00)

WORK DESCRIPTION: CONSTRUCTION OF NEW SIDEWALK, DRIVEWAYS, PEDESTRIAN RAMPS, LIGHT POLES, AND MISCELLANEOUS UTILITIES RELOCATION.

MAINTENANCE OF TRAFFIC: TWO WAY TRAFFIC TO MAINTAINED AT ALL TIMES AS SHOWN ON PHASE ONE PLAN. MIN. 10' LANE TO BE USED IN EACH DIRECTION.

STORM WORK AND CROSSWALKS:

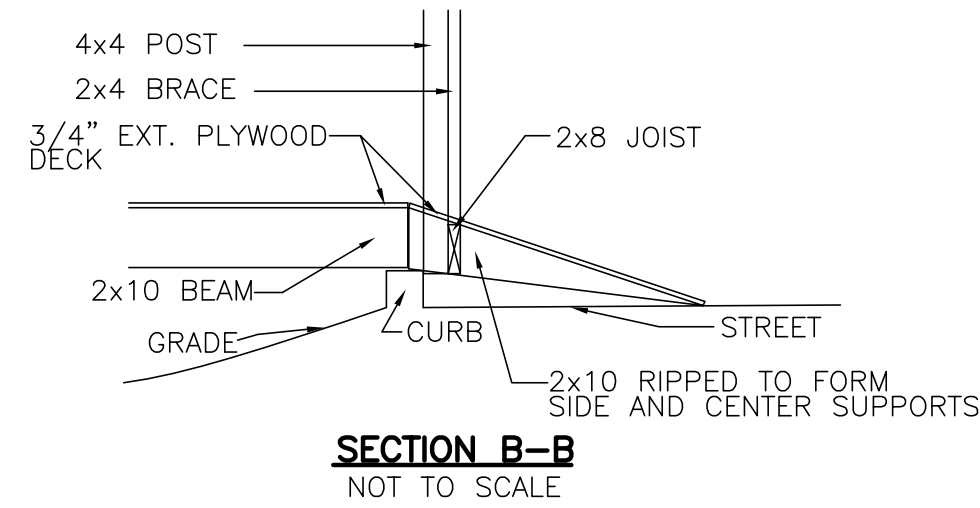
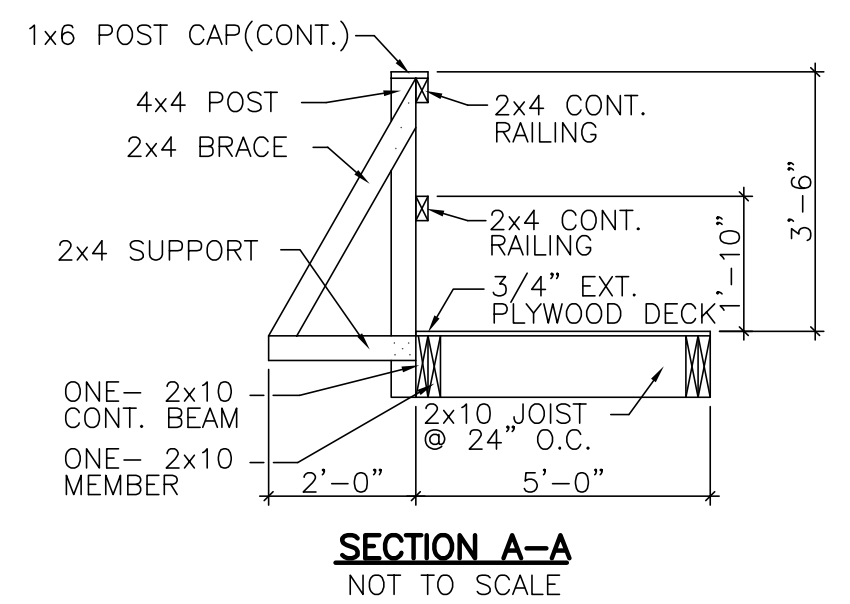
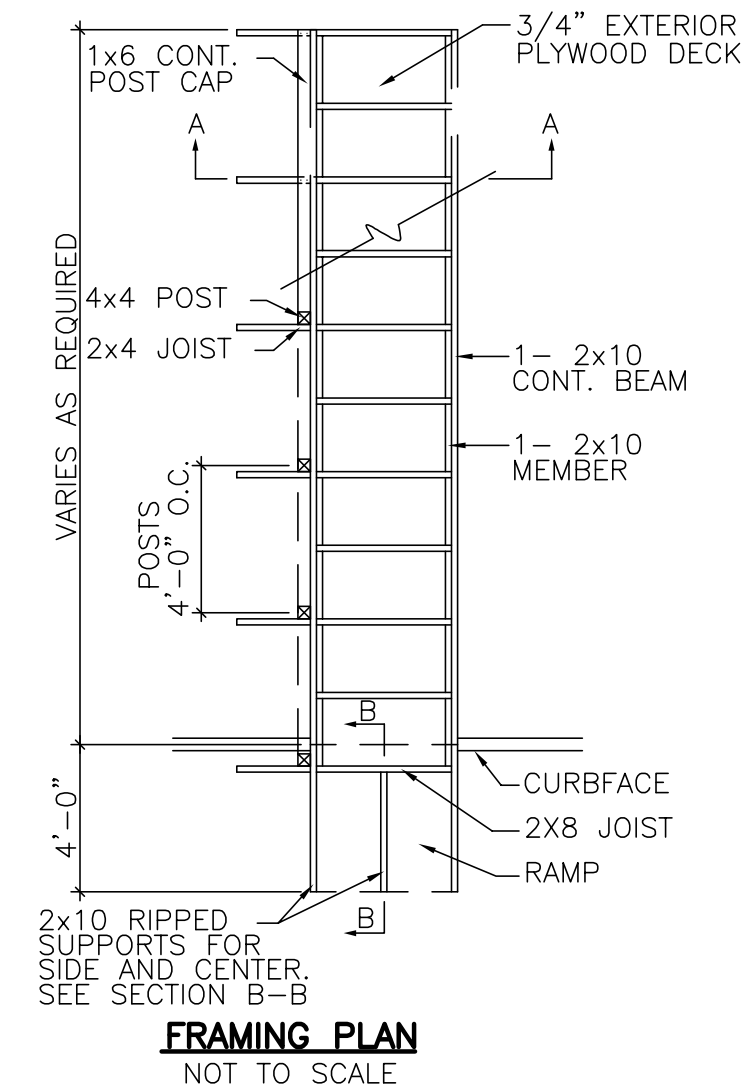
AT PROPOSED STORM LINE, OTHER UTILITY LATERALS, AND CROSSWALKS LOCATED IN THE ROADWAY AND NOT COVERED BY PHASE I AND II, CONTRACTOR TO PROVIDE TRAFFIC CONTROL SCENARIOS IN ACCORDANCE WITH Omutcd AND AS SHOWN ON SHEET 13 THRU 22

(Z) MAINTENANCE OF PEDESTRIAN TRAFFIC

THE CONTRACTOR SHALL TAKE ADEQUATE PROVISIONS (I.E. TEMPORARY WALKWAYS, DETOURS, ETC.) FOR THE SAFETY OF PEDESTRIANS WITHIN THE WORK ZONE.

AT EXISTING SIDEWALK OR CROSSWALK LOCATIONS WHERE PEDESTRIAN TRAFFIC CAN NOT BE MAINTAINED, PROVIDE PEDESTRIAN TRAFFIC CONTROL IN ACCORDANCE WITH THE Omutcd, CURRENT EDITION, LATEST REVISION, FIGURES 6H-28 (SIDEWALK DETOUR OR DIVERSION, TA-28) AND 6H-29 (CROSSWALK CLOSURES AND PEDESTRIAN DETOURS, TA-29).

THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO THE FRONT DOORS OF ALL STORES, OFFICES, RTA BUS STOPS, ETC., AS WELL AS ACCESS TO ALL RESIDENCES, DURING HIS/HER CONSTRUCTION, WITH TEMPORARY CONCRETE OR ASPHALT PAVEMENTS OR PEDESTRIAN BRIDGES. THE PEDESTRIAN BRIDGES ARE DETAILED ON THIS SHEET. EXISTING CONCRETE OR ASPHALT PAVEMENTS (PRIOR TO DEMOLITION) MAY BE USED FOR THE PURPOSES OF REROUTING PEDESTRIAN TRAFFIC. THESE PROVISIONS SHALL BE ADHERED TO TO MAINTAIN ACCESS TO BUILDING ENTRANCES AT ALL TIMES. TEMPORARY ACCESS TO ALL BUILDING ENTRANCES SHALL BE PROVIDED IMMEDIATELY UPON REMOVAL OF EXISTING PAVEMENT. IF A PORTION OF THE PEDESTRIAN WAY IS REROUTED DUE TO CONSTRUCTION, THE PATH OF TRAVEL SHALL BE CLEARLY DEFINED. THE CONTRACTOR SHALL SUBMIT A PEDESTRIAN ACCESS PLAN (INDICATING PEDESTRIAN ACCESS, LIMITATION, REROUTING AND NOTIFICATION) TO THE ENGINEER FOR REVIEW AND APPROVAL. "SIDEWALK CLOSED" SIGNS ON THE MAINTENANCE OF TRAFFIC PLANS REFER TO THE EXISTING SIDEWALKS AND DO NOT AUTHORIZE THE CONTRACTOR TO ELIMINATE PEDESTRIAN ACCESS TO ANY BUSINESSES OR RESIDENCES.



- NOTES:
1. THE CONTRACTOR SHALL ESTABLISH A 5' WIDE PEDESTRIAN ZONE, INDICATED BY BARRICADES AND LIGHTS ALONG THE PORTION OF THE SITE UNDER CONSTRUCTION TO PROVIDE ACCESS TO TEMPORARY WOOD WALKWAYS.
 2. RAMP AT BUILDING ENTRANCE MUST BE ADJUSTED TO ACCOMMODATE VARYING ENTRANCE CONDITIONS.

PEDESTRIAN TEMPORARY WALKWAYS (OR EQUAL) NOT TO SCALE

CALCULATED: GEA
CHECKED: JCG

MAINTENANCE OF TRAFFIC
GENERAL NOTES

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

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ITEM	SHEET NUMBER																			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40						
																								SIGNAL (continued)	
																				633	67300	3	EA	PREEMPTION	
																				633	67310	12	EA	PREEMPTION RECEIVING UNITS	
																				633	67320	2,336	FT	PREEMPTION DETECTOR CABLE	
																				633	67350	8	EA	PREEMPTION PHASE SELECTOR	
																				633		0	EA	PREEMPT CONFIRMATION LIGHT	
																				633		0	EA	REMOTE MONITORING STATION, AS PER PLAN	
																				633	72000	1	LS	TRAINING	
																				633	75001	3	EA	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	
																				816	30001	12	EA	VIDEO DETECTION SYSTEM, AS PER PLAN	
LIGHTING																									
																				625	25401	8,202	FT	CONDUIT, PVC SCHEDULE 40, 2"	
																				625	25501	116	FT	CONDUIT, PVC SCHEDULE 40, 3"	
																				625	23304	16,404	FT	#8 AWG 600 VOLT DISTRIBUTION CABLE	
																				625	23302	24,606	FT	#6 AWG 600 VOLT DISTRIBUTION CABLE	
																				625	23100	702	FT	#2 AWG 600 VOLT DISTRIBUTION CABLE	
																				625	31411	9	EA	PULL BOX, POLYMER CONCRETE, 13"W x 24"L X 18"D	
																				SPCL		7,237	FT	TRENCH AND BACKFILL IN SIDEWALK OR LAWN AREAS	
																				SPCL		895	FT	TRENCH AND BACKFILL IN STREETS	
																				SPCL		65	EA	LIGHT POLE MATERIAL ONLY, FIXTURE TYPE A	
																				SPCL		65	EA	LIGHT POLE FOUNDATION, 30" x 72" DEEP	
																				SPCL		65	EA	LIGHT POLE INSTALLATION, FIXTURE TYPE A	
																				SPCL		12	EA	CONNECTION ONLY, FIXTURE TYPE B	
																				SPCL		3	EA	STUB-UP, SECONDARY RISER POLE, 2" PVC-80	
																				SPCL		4	EA	POWER PEDESTAL	
																				SPCL		7,790	FT	PLASTIC CAUTION TAPE	
MAINTENANCE OF TRAFFIC																									
																				614	11000	1	LS	MAINTAINING TRAFFIC	
																				614	12420	1	LS	DETOUR SIGNING	
																				614	12600	200	EA	REPLACEMENT DRUM	
																				614	12470	10	EA	WORK ZONE SPEED LIMIT SIGN	
																				614	18000	10	EA	MAINTAINING TRAFFIC, MISC.: BUSINESS SIGN	
																				614	11110	320	HR	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
																				614	12460	0	EA	WORK ZONE MARKING SIGN	
																				614	21000	2.00	MILE	WORK ZONE CENTER LINE, CLASS I	
																				614	21400	0	MILE	WORK ZONE CENTER LINE, CLASS II	
																				614	21550	0	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
																				614	23000	540	FT	WORK ZONE CHANNELIZING LINE, CLASS I	
																				614	23660	0	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	
																				614	22000	3.00	MILE	WORK ZONE EDGE LINE, CLASS I	
																				614	26000	132	FT	WORK ZONE STOP LINE, CLASS I	
																				614	26610	0	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
																				614	30000	5	EA	WORK ZONE ARROW, CLASS I	
																				614	13000	100	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
																				614	12490	2	EA	RESUME LEGAL SPEED SIGN	
																				616	10000	20	MGAL	WATER	
																				616	20000	2	TON	CALCIUM CHLORIDE	
																				622	41001	300	FT	PORTABLE CONCRETE BARRIER, 32"	
STREETSCAPE																									
																				652	10000	480	CY	PLACING STOCKPILED TOPSOIL	
																				653	10000	100	CY	TOPSOIL FURNISHED AND PLACED	
																				654	11000	1	TON	COMMERCIAL FERTILIZER	
																				659	00100	2	EA	SOIL ANALYSIS TEST	
																				659	20000	1	TON	COMMERCIAL FERTILIZER	
																				659	31002	2	TON	LIME	
																				659	00500	4,500	SY	SEEDING AND MULCHING, CLASS 1	
																				659	14000	900	SY	REPAIR SEEDING AND MULCHING	
																				659	15000	900	SY	INTER-SEEDING	
																				659	35000	1,000	MGAL	WATER	
																				659	40000	1,000	MSF	MOWING	

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CALCULATED: MAM
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 CHECKED: JGG

GENERAL SUMMARY

REVISIONS
 DATE BY
 4/21/14 GEA
 5/7/14 GEA

CONSTRUCTION BIDDING SET
 APPENDIX NO. 1

MAHONING ROAD NE
 STA-0153-01.70

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SHEET NO.	REFERENCE NO.	LOCATION						201	201	201	202	202	202	202	202	
		FROM			TO			TREE REMOVED, 18" SIZE	STUMP REMOVED, 48" SIZE	STUMP REMOVED, 60" SIZE	PIPE REMOVED (24" AND UNDER), WATER	PIPE REMOVED (24" AND UNDER), STORM	PIPE REMOVED (24" AND UNDER), GAS	PIPE REMOVED (OVER 24"), STORM	POLE REMOVED	
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE	EA	EA	EA	FT	FT	FT	FT	EA	
54	R-15	57+57.90	34.8	LT												
54		55+14.45	21.7	LT					1							
55		67+72.14	30.2	RT				1								
55		68+48.00	30.5	RT				1								
54		57+19.30		LT	60+75.00								365			
55		60+75.00		LT	61+44.65								70			
55		61+98.79		LT	66+50.00								451			
55		66+50.00		LT	66+55.08								5			
55		71+05.24		LT	71+55.40								50			
55		77+64.81		LT	77+93.21								28			
56		78+33.00		LT	78+64.48								32			
54		55+09.74		RT	56+46.78								275			
54		56+85.68		RT	57+05.18								51			
54		58+13.79		RT	58+23.79								10			
54		64+18.49		RT	64+28.49								10			
54		65+33.07		RT	66+28.25								188			
55		67+18.57		RT	67+28.56								10			
55		67+82.58		RT	67+92.58								10			
55		68+48.00		RT	69+66.80								251			
55		70+57.05		RT	73+72.02								630			
55		74+54.40		RT	78+00.00								691			
56		78+00.00		RT	85+28.72								1461			
56		87+04.17		RT	88+35.69								138			
57		90+52.60	68.9	RT			1									
57		90+66.43	68.5	RT			1									
54	WR-1	56+87.53		LT	56+90.09						3					
54	WR-2	62+50.09		RT	62+67.99						20					
54	PR-1	55+54.94	18.7	LT	56+21.83	8.3						68				
54	PR-2	56+66.80	13.5	RT	57+01.82	46.0						69				
54	PR-3	57+03.45	18.7	RT	57+30.22	29.7						55				
54	PR-13	57+30.22	29.7	LT	57+47.67	15.8								23		
54	PR-4	57+47.67	15.8	LT	57+81.29	18.2						33				
54	PR-5	57+30.22	29.7	LT	57+36.40	19.3						50				
54	PR-6	60+53.12	16.1	LT	60+54.20	27.0						43				
55	PR-15	66+52.07	11.8	LT	66+50.85	3.9						8				
55	PR-14	67+92.79	11.5	LT	67+92.50	3.5						8				
55	PR-7	69+52.30	18.0	LT	69+52.18	11.8						6				
55	PR-8	72+52.16	18.9	LT	72+52.38	11.3						8				
55	PR-9	75+54.49	18.6	LT	75+54.50	11.3						7				
55	PR-17	76+11.91	44.9	RT	76+15.71	46.3						4				
56	PR-10	78+17.74	7.7	LT	78+17.31	0.3						8				
56	PR-16	78+72.69	6.9	LT	78+72.72	1.9						5				
56	PR-11	80+30.18	6.9	LT	80+30.18	1.9						5				
56	PR-12	81+79.47	6.9	LT	81+79.33	1.9						5				
56	LR-1	78+57.88	41.6	RT	78+97.55	41.7									2	
57	LR-2	91+26.43	32.3	LT											1	
57	LR-3	92+84.77	106.5	LT											1	
TOTAL CARRIED TO GENERAL SUMMARY							2	2	1	23	382	4726	23	4		

SHEET NO.	REFERENCE NO.	LOCATION						202	202	202	202	202	202	202	202	202		
		FROM			TO			MAN-HOLE REMOVED	CATCH BASIN OR INLET REMOVED	STEPS REMOVED	PARKING BLOCK REMOVED	FENCE REMOVED	GATE REMOVED	BENCH REMOVED FOR REUSE OR STORAGE	TRASH RECEPTACLE REMOVED FOR REUSE OR STORAGE	BOLLARD, STEEL REMOVED	BOLLARD, WOOD REMOVED, AS PER PLAN	
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE	EA	EA	FT	EA	FT	EA	EA	EA	EA	EA	
54	DR-1	55+54.93	18.7	LT														
54	DR-2	56+21.83	8.3	LT				1										
54	DR-3	56+66.80	13.5	RT					1									
54	DR-4	57+30.22	29.7	LT				1										
54	DR-5	57+36.40	19.3	RT									1					
54	DR-6	57+47.67	15.8	LT				1										
54	DR-7	57+81.29	18.2	LT									1					
54	DR-14	60+53.12	13.1	LT									1					
55	DR-8	69+52.30	18.0	LT									1					
55	DR-9	72+52.16	18.9	LT									1					
55	DR-10	74+44.24	37.5	RT									1					
55	DR-11	75+54.49	18.6	LT									1					
55	DR-51	76+15.71	46.3	RT									1					
57	DR-12	91+81.16	45.4	LT									1					
57	DR-13	92+61.05	28.7	LT									1					
54	R-6	56+99.39	68.2	LT												3		
54	R-19	60+67.68	36.1	LT												7		
54	R-20	61+35.41	33.6	LT												5		
54	R-23	62+12.15	33.4	LT												5		
54	R-29	63+36.32	31.1	LT												3		
54	R-31	66+07.42	30.5	LT												3		
54	R-1	55+68.40	29.4	RT	56+24.45	29.9										6		
54	R-17	58+38.44	29.2	LT	58+55.78	29.3										33		
54	R-18	58+80.53	29.2	LT	59+34.73	38.0										59		
54	R-111	58+55.78	29.3	LT	58+80.53	29.2									1			
54	R-32	66+14.53	23.3	RT														
54	R-33	66+20.30	29.1	RT	66+27.36	26.6										2		
55	R-45	72+65.25	25.0	RT												1		
55	R-46	72+67.34	31.0	RT	72+77.88	28.9										2		
56	R-79	87+40.69	26.1	RT												1		
54	R-5	56+56.03	43.6	LT													1	
54	R-93	57+09.33	68.6	LT													1	
54	R-27	62+66.03	40.2	LT													1	
54	R-3	57+13.99	29.6	RT													1	
54	R-24	62+32.65	32.4	LT													1	
54	R-26	62+90.83	32.1	LT													1	
54	R-28	62+96.95	29.6	RT	62+98.64	36.8											2	
54	R-34	66+41.56	32.3	RT	66+39.99	47.6											3	
55	R-37	67+17.10	30.8	RT	67+19.43	46.3											3	
55	R-55	76+27.27	51.4	RT													1	
56	R-76	85+78.59	55.8	RT													1	
56	R-77	86+18.69	55.4	RT													1	
56	R-78	87+62.76	41.6	RT	87+62.42	56.3											3	
56	R-81	87+98.36	49.3	RT													1	
56	R-82	88+51.95	49.7	RT													1	
56	R-83	88+92.44	43.3	RT	88+91.52	57.3											3	
57	R-87	90+64.50	60.8	RT													1	
57	R-97	91+95.13	57.8	RT													1	
TOTAL CARRIED TO GENERAL SUMMARY							3	12	26	6	92	1	5	2	3	24		

CALCULATED BY: GEA
CHECKED: JCG

DEMOLITION SUB-SUMMARY

REVISIONS: CONSTRUCTION BIDDING SET APPENDIX NO. 1

MAHONING ROAD NE STA-0153-01.70



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SHEET NO.	LOCATION						255	202	202
							FULL DEPTH PAVEMENT SAWING	PAVEMENT REMOVED	WALK REMOVED
	FROM			TO			FT	SY	SF
STATION	OFFSET	SIDE	STATION	OFFSET	SIDE				
CONCRETE DRIVE APRON AREAS:									
54	55+40.80	18.6	RT	55+70.08	18.5	RT			263
54	55+90.51	18.3	LT	56+25.56	18.2	LT			346
54	56+14.84	70.6	LT	56+43.03	53.9	LT			271
54	56+28.11	97.9	LT	56+86.50	73.6	LT			558
54	57+35.35	18.5	RT	57+83.39	18.3	RT			539
54	57+49.83	53.6	LT	57+74.53	79.4	LT			322
54	57+59.72	42.4	LT	57+76.54	35.5	LT			121
54	57+60.95	28.9	LT	58+19.05	28.9	LT			487
54	58+53.06	18.6	LT	58+80.31	18.9	LT			270
54	58+75.86	17.9	RT	59+15.64	18.4	RT			463
54	59+33.53	18.0	RT	59+69.92	18.1	RT			449
54	59+65.76	23.9	LT	59+83.35	23.9	LT			72
54	60+21.58	18.3	LT	60+42.95	18.5	LT			236
54	63+80.44	18.4	LT	64+31.26	18.6	LT			491
54	64+49.95	18.5	LT	64+86.50	18.9	LT			324
54	65+25.96	18.4	LT	65+52.37	18.2	LT			254
54	65+62.94	18.2	LT	65+82.99	18.1	LT			154
55	67+02.21	18.5	LT	67+23.21	18.1	LT			188
55	68+13.68	18.4	LT	68+43.23	18.2	LT			280
55	70+55.61	18.8	LT	71+11.45	19.1	LT			508
55	72+84.73	18.4	LT	73+19.47	18.5	LT			299
55	74+24.53	68.0	RT	74+46.68	49.6	RT			258
55	74+83.53	18.0	LT	75+18.78	18.6	LT			304
55	75+28.32	19.2	LT	75+68.90	19.2	LT			359
55	75+79.45	21.6	RT	73+21.23	21.7	RT			2357
56	78+26.89	22.0	RT	78+58.38	21.8	RT			272
56	78+26.97	54.2	RT	78+52.02	53.5	RT			295
56	78+99.34	21.9	RT	89+32.55	21.8	RT			273
56	79+00.81	55.2	RT	79+29.25	55.5	RT			328
56	79+42.37	21.2	RT	80+19.69	21.2	RT			1141
56	80+77.77	21.0	RT	81+08.47	21.8	RT			640
56	80+80.52	18.5	LT	81+18.75	18.6	LT			357
56	82+06.90	18.7	LT	82+38.60	18.6	LT			281
56	82+82.17	18.0	LT	83+17.86	18.2	LT			324
56	83+48.16	21.5	RT	83+82.90	21.5	RT			335
56	83+76.72	18.1	LT	84+11.42	18.3	LT			325
56	84+28.02	21.2	RT	84+61.39	20.9	RT			418
56	84+82.46	18.1	LT	85+17.61	17.0	LT			367
56	85+56.90	17.3	LT	85+92.52	17.3	LT			369
56	85+82.57	22.5	RT	86+18.19	22.5	RT			308
56	86+37.36	17.5	LT	86+71.31	17.3	LT			359
56	87+40.86	39.2	LT	87+68.45	62.2	LT			346
56	87+63.31	22.4	RT	87+98.60	22.3	RT			296
56	88+56.79	23.0	RT	88+91.67	22.9	RT			309
56	88+62.06	17.5	LT	88+92.46	17.4	LT			307
57	89+71.03	16.7	LT	90+43.96	17.3	LT			95
57	90+24.77	167.0	RT	90+49.35	143.5	RT			32
57	92+77.18	111.6	LT	93+06.93	141.6	LT			37
57	93+09.19	21.0	LT	93+46.65	21.0	LT			33
57	94+17.88	20.7	LT	94+57.04	20.7	LT			35
TOTAL THIS SHEET									18055

SHEET NO.	LOCATION						255	202	202
							FULL DEPTH PAVEMENT SAWING	PAVEMENT REMOVED	WALK REMOVED
	FROM			TO			FT	SY	SF
STATION	OFFSET	SIDE	STATION	OFFSET	SIDE				
WALK AREAS:									
54	55+09.80	23.6	LT	55+91.14	23.7	LT			411
54	56+24.17	23.5	LT	56+53.03	19.1	LT			404
54	55+24.52	23.5	RT	55+42.37	23.5	RT			86
54	55+66.75	23.9	RT	56+55.61	22.6	RT			408
54	56+01.13	66.5	LT	56+13.63	66.7	LT			40
54	56+79.66	71.8	LT	57+35.15	101.3	LT			489
54	57+00.71	36.8	RT	57+52.68	29.8	RT			297
54	57+49.83	53.6	LT	57+71.36	23.0	LT			258
54	58+19.19	24.0	LT	58+54.62	24.0	LT			174
54	58+80.42	23.9	LT	59+65.76	23.9	LT			426
54	59+83.35	23.9	LT	60+24.94	23.6	LT			214
54	60+39.94	23.7	LT	61+53.97	28.7	LT			572
54	61+85.75	28.5	LT	62+75.13	24.7	LT			345
54	62+84.60	38.7	RT	63+36.52	27.5	RT			482
54	62+88.44	24.1	LT	63+87.60	28.5	LT			414
54	64+32.23	23.7	LT	64+52.41	23.6	LT			98
54	64+80.03	28.5	LT	65+26.25	23.9	LT			196
54	65+50.08	28.2	LT	65+69.75	28.5	LT			72
54	65+80.55	23.7	LT	66+50.00	23.6	LT			330
54	66+11.53	18.2	RT	66+29.55	18.2	RT			249
54	66+24.56	32.6	RT	66+50.00	36.0	RT			259
55	66+50.00	36.0	RT	66+60.25	37.3	RT			103
55	66+50.00	23.6	LT	67+03.46	23.5	LT			279
56	66+95.29	39.8	RT	67+28.00	33.3	RT			327
55	67+22.59	23.6	LT	68+15.92	23.2	LT			444
55	68+41.23	23.2	LT	70+59.94	24.0	LT			1068
55	69+75.07	37.8	RT	69+89.54	38.0	RT			157
55	70+28.20	47.2	RT	70+52.97	48.5	RT			210
55	71+07.10	23.9	LT	72+87.31	23.6	LT			974
55	72+61.70	21.0	RT	72+79.40	21.0	RT			195
55	73+16.77	23.6	LT	74+86.37	23.3	LT			834
55	73+86.09	40.7	RT	73+98.06	41.6	RT			121
55	74+41.42	40.4	RT	74+51.02	37.7	RT			92
55	75+16.64	23.2	LT	75+30.68	23.2	LT			81
55	75+65.98	23.2	LT	77+88.88	65.7	LT			1238
55	75+76.97	38.1	RT	75+82.54	39.2	RT			66
55	76+18.08	45.7	RT	76+29.97	45.9	RT			117
55	77+74.07	54.5	RT	77+90.40	57.0	RT			593
56	78+19.93	55.6	RT	78+26.59	55.8	RT			60
56	78+31.11	55.7	LT	80+83.18	23.3	LT			1350
56	78+51.89	54.4	RT	78+57.85	54.6	RT			65
56	78+93.81	55.9	RT	79+00.16	56.2	RT			66
56	81+16.18	23.3	LT	82+09.83	23.4	LT			466
56	82+35.87	23.4	LT	82+83.93	23.5	LT			233
56	83+14.20	23.5	LT	83+79.36	23.6	LT			321
56	84+08.73	23.8	LT	84+85.27	24.2	LT			368
56	85+14.82	24.0	LT	85+59.73	23.8	LT			218
56	85+89.00	23.5	LT	86+40.97	23.7	LT			274
56	86+67.72	23.8	LT	87+44.79	36.4	LT			488
56	87+28.70	22.9	RT	87+42.89	23.0	RT			218
56	88+14.97	56.1	LT	88+64.38	28.6	LT			414
56	88+88.88	29.0	LT	89+50.00	30.1	LT			378
TOTAL THIS COLUMN									18042

SHEET NO.	LOCATION						255	202	202
							FULL DEPTH PAVEMENT SAWING	PAVEMENT REMOVED	WALK REMOVED
	FROM			TO			FT	SY	SF
STATION	OFFSET	SIDE	STATION	OFFSET	SIDE				
57	89+50.00	30.1	LT	89+87.78	31.1	LT			232
57	90+26.45	28.5	LT	92+26.97	118.7	LT			1310
57	90+29.45	51.2	RT	90+49.35	143.5	RT			1209
57	91+42.28	101.4	RT	92+09.69	52.2	RT			564
57	91+93.39	37.3	RT	91+96.13	35.0	RT			7
57	92+80.08	111.4	LT	93+12.22	24.5	LT			714
57	93+04.78	147.3	LT	93+13.76	151.6	LT			51
57	93+44.12	24.4	LT	94+20.23	24.4	LT			383
57	94+53.92	24.5	LT	94+85.82	24.2	LT			155
TOTAL THIS COLUMN									4625
TOTAL FROM LEFT COLUMN									18042
TOTAL FROM FAR LEFT COLUMN									18055
TOTAL FROM SHEET 23						13289	6841		
TOTAL CARRIED TO GENERAL SUMMARY						13289	6841	40722	

CALCULATED: GEA
CHECKED: JCG

DEMOLITION SUB-SUMMARY

REVISIONS: CONSTRUCTION BIDDING SET APPENDIX NO. 1
DATE BY: 4/21/14 GEA, 5/7/14 GEA

MAHONING ROAD NE STA-0153-01.70

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SHEET NO.	REFERENCE NO.	LOCATION						304 AGGREGATE BASE (6" UNDER CURB)	609 CURB, TYPE 6	609 CURB, AS PER PLAN	609 COMBINATION CURB AND GUTTER, TYPE 2	609 ASPHALT CONCRETE CURB, TYPE 1	608 CONCRETE STEPS, TYPE A	608 CONCRETE STEPS, TYPE B				
		FROM			TO													
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE										CY	FT
67	VC	55+11.75	18.2	LT	55+36.18	21.5	LT	0.23	25									
67	VC	55+11.75	18.1	RT	55+36.18	21.5	RT	0.23	25									
67	IC	55+36.18	21.5	LT	56+12.12	72.0	LT	1.90	205									
67	IC	55+36.18	21.5	RT	56+51.72	29.5	RT	1.10	119									
67	VC	55+36.65	29.5	RT	55+41.65	34.5	RT	0.09	10									
67	VC	55+65.65	29.5	RT	55+70.65	34.5	RT	0.09	10									
67	VC	56+27.06	30.0	LT	56+37.69	30.0	LT	0.52	56									
67	IC	56+27.60	98.3	LT	57+21.14	66.4	LT	1.04	112									
67		56+46.12		LT	56+54.06		LT	0.46		25								
67	VC	56+51.72	29.5	RT	56+51.26	44.3	RT	0.14	15									
67	VC	56+75.56	59.1	RT	56+94.52	29.3	RT	0.32	35									
67	IC	56+94.52	29.3	RT	62+57.46	30.0	RT	5.30	572									
67	VC	57+21.14	66.4	LT	57+39.41	98.9	LT	0.34	37									
67	IC	57+65.84	84.2	LT	61+53.11	29.5	LT	4.30	464									
67	VC	61+53.11	29.5	LT	61+70.81	60.9	LT	0.33	36									
67	VC	61+88.29	51.2	LT	61+89.77	29.5	LT	0.21	23									
67	IC	61+89.77	29.5	LT	66+50.00	18.9	LT	4.28	462									
67		62+02.21		LT	68+08.86		LT	6.94		375								
67	VC	62+57.46	30.0	RT	62+58.21	49.2	RT	0.19	20									
67	VC	62+86.69	40.0	RT	66+50.00	22.5	RT	3.53	381									
67	IC	66+50.00	18.9	LT	77+94.85	44.7	LT	10.73	1159									
68	VC	66+50.00	22.5	RT	66+55.76	55.0	RT	0.34	37									
68	VC	66+95.00	55.0	RT	69+86.68	62.3	RT	3.37	364									
68	VC	68+13.96	34.4	LT	68+14.08	28.0	LT	0.06	7									
68	VC	68+41.63	34.8	LT	68+41.63	28.2	LT	0.06	7									
68	VC	70+25.99	67.6	RT	73+91.97	63.8	RT	4.10	443									
68	VC	74+19.15	76.5	RT	78+00.00	18.5	RT	3.84	415									
68	VC	75+82.91	24.5	RT	75+82.91	84.1	RT	0.56	60									
68	VC	76+11.84	24.5	RT	76+19.79	86.4	RT	0.64	69									
68	AC	77+62.00	31.3	LT	77+73.13	58.7	LT	0.34			37							
68	VC	77+94.85	44.7	LT	77+94.49	52.4	LT	0.07	8									
69	VC	79+23.82	24.5	RT	79+23.82	79+23.82	78	0.49	53									
69	VC	79+28.96	18.5	RT	79+43.96	55.6	RT	0.43	46									
69	IC	78+30.94	49.1	LT	87+64.84	56.6	LT	9.00	972									
69	AC	78+43.12	54.7	LT	78+64.70	34.5	LT	0.39			42							
69	VC	78+99.82	24.5	RT	78+99.82	68.7	RT	0.41	44									
69	VC	79+76.96	43.2	RT	79+89.96	43.2	RT	0.42	45									
69	VC	79+76.96	59.7	RT	79+89.96	59.7	RT	0.48	52									
69	VC	80+16.96	49.0	RT	90+31.77	18.5	RT	11.11	1200									
69	VC	80+45.96	18.5	RT	89+50.00	33.5	RT	8.43	910									
69	VC	82+33.97	28.0	LT	82+90.21	28.0	LT	0.55	59									
69	VC	83+14.21	30.0	LT	83+14.21	28.0	LT	0.02	2									
69	VC	83+74.21	28.0	LT	83+79.21	30.0	LT	0.02	2									
69	VC	83+74.52	42.4	RT	83+84.55	47.2	RT	0.12	13									
69	VC	84+03.21	28.0	LT	84+47.60	30.0	LT	0.41	44									
69	VC	84+26.99	48.1	RT	84+36.68	42.6	RT	0.12	13									
69	VC	84+60.09	29.7	LT	84+85.42	26.3	LT	0.25	27									
69	VC	85+09.42	26.0	LT	85+45.42	26.0	LT	0.38	41									
69	VC	85+69.42	26.0	LT	86+25.06	30.0	LT	0.55	59									
69	VC	86+41.00	26.5	LT	86+40.71	30.0	LT	0.04	4									
69	VC	86+65.18	29.7	LT	86+65.00	26.5	LT	0.04	4									
69	VC	87+64.84	56.6	LT	87+74.02	83.6	LT	0.28	30									
69	IC	88+06.41	67.6	LT	89+50.00	16.5	LT	1.73	187									
69	VC	88+14.36	62.4	LT	88+15.71	55.4	LT	0.13	14									
TOTAL THIS COLUMN								91	8997	400		79						

SHEET NO.	REFERENCE NO.	LOCATION						304 AGGREGATE BASE (6" UNDER CURB)	609 CURB, TYPE 6	609 CURB, AS PER PLAN	609 COMBINATION CURB AND GUTTER, TYPE 2	609 ASPHALT CONCRETE CURB, TYPE 1	608 CONCRETE STEPS, TYPE A	608 CONCRETE STEPS, TYPE B			
		FROM			TO												
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE										CY
69	VC	88+64.88	26.5	LT	88+64.88	30.0	LT	0.04	4								
69	VC	88+88.88	26.0	LT	89+00.87	30.0	LT	0.14	15								
69	VC	78+00.00	18.5	RT	79+28.96	18.5	RT	1.21	131								
69	VC	78+28.63	24.5	RT	78+25.85	67.0	RT	0.40	43								
69	VC	78+52.57	24.5	RT	78+49.75	69.2	RT	0.42	45	400		79					
70	VC	89+50.00	33.5	RT	90+31.77	171.3	RT	2.24	242								
70	IC	89+50.00	16.5	LT	92+26.53	102.0	LT	2.77	299								
70	VC	89+78.84	26.5	LT	89+88.84	35.1	LT	0.16	17								
70	VC	90+24.73	35.3	LT	90+34.53	26.6	LT	0.16	17								
70	VC	90+90.50	22.5	RT	91+25.05	38.2	RT	1.15	124								
70	VC	91+72.10	40.8	RT	92+13.25	19.2	RT	2.22			48						
70	VC	92+90.65	106.9	LT	92+85.31	83.9	LT	0.29	31								
70	IC	93+04.45	151.9	LT	93+02.75	20.5	LT	1.49	161								
70	VC	93+09.15	143.6	LT	93+10.38	138.8	LT	0.09	10								
70	VC	93+09.81	32.1	LT	93+12.03	29.5	LT	0.04	4								
70	VC	93+44.03	32.0	LT	93+44.03	29.5	LT	0.03	3								
70	VC	94+20.55	30.9	LT	94+20.75	29.5	LT	0.02	2								
70	VC	94+53.82	30.9	LT	94+53.82	29.5	LT	0.02	2								
67	ST-1	60+66.18	30.0	LT	60+71.18	30.0	LT							7			
67	ST-2	61+36.61	30.0	LT	61+40.61	30.0	LT							5			
67	ST-3	63+35.89	30.6	LT	63+39.89	30.6	LT								4		
67	ST-4	66+06.28	29.2	LT	66+10.28	29.2	LT								4		
TOTAL THIS COLUMN								13	1150	400	48	79	12	8			
TOTAL FROM LEFT COLUMN								91	8997	400		79					
TOTAL CARRIED TO GENERAL SUMMARY								104	10147	800	48	158	12	8			

CALCULATED: GEA
CHECKED: JCG

MAHONING ROAD NE
STA-0153-01.70
CURB
SUB-SUMMARY

REVISIONS
CONSTRUCTION BIDDING SET
APPENDIX NO. 1

DATE BY
4/21/14 GEA
5/7/14 GEA

MAHONING ROAD NE
STA-0153-01.70

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SHEET NO.	REFERENCE NO.	LOCATION						SPCL	SPCL	SPCL	SPCL	SPCL																				
		FROM			TO			BOLLARD, WOOD	BOLLARD, WOOD, HINGED	MINOR BRT STOP WITH BUS SHELTER	MAJOR BRT STOP WITH BUS SHELTER	DECORATIVE CONCRETE SEAT WALL																				
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE	EA	EA	EA	EA	EA																				
67	MNR-1	58+24.29	20.5	RT					1																							
67	BW-2	62+99.65	36.3	RT			1																									
67	BH-1	63+00.87	29.4	RT				1																								
67	BW-1	63+02.08	22.5	RT			1																									
68	BH-2	66+47.47	38.3	RT							1																					
68	BW-3	66+47.47	31.3	RT			1																									
68	BW-4	66+47.47	45.3	RT			1																									
68	BW-5	67+05.81	31.3	RT			1																									
68	BH-3	67+05.81	38.3	RT				1																								
68	BW-6	67+05.81	45.3	RT			1																									
68	MNR-2	67+82.08	20.5	RT					1																							
68	MJR-1	69+04.29	24.0	LT						1																						
68	MNR-3	75+18.27	20.5	RT					1																							
68	BW-10	76+23.37	57.6	RT			1																									
68	BH-5	76+23.92	50.6	RT				1																								
68	BW-9	76+24.46	43.7	RT			1																									
68	MJR-2	76+65.20	24.0	LT						1																						
68	MNR-4	77+58.85	20.5	RT					1																							
68	SW-1	77+67.87	28.5	LT	77+84.76	46.2	LT				1																					
69	SW-2	78+41.08	46.9	LT	78+60.32	28.5	LT				1																					
69	MNR-5	87+07.63	22.5	RT					1																							
69	MJR-3	89+41.42	23.5	LT						1																						
TOTAL CARRIED TO GENERAL SUMMARY							8	4	5	3	2																					

CALCULATED: GEA
CHECKED: JGG

MISCELLANEOUS
SUB-SUMMARY

REVISIONS
CONSTRUCTION BIDDING SET
APPENDIX NO. 1

DATE BY
4/21/14 GEA
5/7/14 GEA

MAHONING ROAD NE
STA-0153-01.70

31
108

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SHEET NO.	PHASE	LOCATION		614	614	614	614	614	614	614	614	614	614	614
		FROM	TO	WORK ZONE SPEED LIMIT SIGN	MAINTAINING TRAFFIC, MISC.: BUSINESS SIGN	WORK ZONE MARKING SIGN	WORK ZONE CENTER LINE, CLASS I	WORK ZONE CENTER LINE, CLASS II	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	WORK ZONE EDGE LINE, CLASS I	WORK ZONE STOP LINE, CLASS I	WORK ZONE ARROW, CLASS I
		EA	EA	EA	MILE	MILE	MILE	FT	FT	MILE	FT	EA	EA	
		STATION												
		MAHONING ROAD N.E. S.R. 153												
		55+11.75	55+36.18											
		55+36.18	56+53.86											
		56+27.06	56+37.69											
		56+46.12	56+54.06											
		56+27.60	57+20.26											
		57+20.26	57+39.41											
		57+65.84	61+53.11											
		61+53.11	61+70.81											
		61+88.29	61+89.77											
		61+89.77	77+94.85											
		77+94.85	77+94.49											
		61+89.77	67+21.76											
		77+61.78	77+73.13											
		78+43.12	78+64.81											
		78+30.94	87+64.84											
		87+64.84	87+74.02											
		82+33.97	82+90.21											
		83+14.21	83+19.21											
		83+74.21	83+79.21											
		84+03.21	84+47.60											
		84+60.09	84+85.42											
		85+09.42	85+45.42											
		85+69.42	86+25.56											
		86+36.00	86+40.71											
		86+65.18	86+70.00											
		88+11.69	88+15.71											
		88+59.88	88+64.88											
		88+88.88	89+01.47											
		89+78.84	89+88.84											
		90+24.73	90+34.53											
		TOTAL THIS COLUMN												

SHEET NO.	PHASE	LOCATION		614	614	614	614	614	614	614	614	614	614
		FROM	TO	WORK ZONE SPEED LIMIT SIGN	MAINTAINING TRAFFIC, MISC.: BUSINESS SIGN	WORK ZONE MARKING SIGN	WORK ZONE CENTER LINE, CLASS I	WORK ZONE CENTER LINE, CLASS II	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	WORK ZONE EDGE LINE, CLASS I	WORK ZONE STOP LINE, CLASS I
		EA	EA	EA	MILE	MILE	MILE	FT	FT	MILE	FT	EA	EA
		STATION											
		MAHONING ROAD N.E. S.R. 153											
		55+11.75	55+36.18										
		55+36.18	56+53.86										
		56+27.06	56+37.69										
		56+46.12	56+54.06										
		56+27.60	57+20.26										
		57+20.26	57+39.41										
		57+65.84	61+53.11										
		61+53.11	61+70.81										
		61+88.29	61+89.77										
		61+89.77	77+94.85										
		77+94.85	77+94.49										
		61+89.77	67+21.76										
		77+61.78	77+73.13										
		78+43.12	78+64.81										
		78+30.94	87+64.84										
		87+64.84	87+74.02										
		82+33.97	82+90.21										
		83+14.21	83+19.21										
		83+74.21	83+79.21										
		84+03.21	84+47.60										
		84+60.09	84+85.42										
		85+09.42	85+45.42										
		85+69.42	86+25.56										
		86+36.00	86+40.71										
		86+65.18	86+70.00										
		88+11.69	88+15.71										
		88+59.88	88+64.88										
		88+88.88	89+01.47										
		89+78.84	89+88.84										
		90+24.73	90+34.53										
		TOTAL THIS COLUMN											
		TOTAL FROM LEFT COLUMN											
		TOTAL CARRIED TO GENERAL SUMMARY											

CALCULATED: GEA
CHECKED: JGC

MAINTENANCE OF TRAFFIC
SUB-SUMMARY

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

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SHEET NO.	REFERENCE NO.	LOCATION				644	644	644	644	644	644
						LANE ARROW	WORD ON PAVEMENT, 72"	DOTTED LINE, 4"	STOP LINE	CHANNELIZING LINE, 8"	CROSSWALK LINE
		FROM		TO		EA	EA	FT	FT	FT	FT
		STATION	SIDE	STATION	SIDE						
75	CH	55+09.75	LT	56+53.36	LT					144	
75	CH	55+09.75	RT	56+31.70	RT					173	
75	W	55+81.70	C/L			1					
75	A	56+13.70	C/L			1					
75	S	56+31.70	RT	56+31.70	LT				23		
75	S	56+59.95	LT	56+67.81	LT				16		
75	S	56+72.00	RT	56+88.43	RT				16		
75	S	57+18.86	LT	57+33.26	LT				16		
75	CH	57+73.45	LT	58+48.45	LT					75	
75	S	57+73.45	RT	57+73.45	LT				24		
75	A	57+97.45	LT			1					
75	W	58+29.45	LT				1				
75	A	59+33.44	LT	59+63.44	LT	2					
75	A	60+53.44	LT	60+83.44	LT	2					
75	CW	61+36.61	LT	61+95.93	LT/RT					158	
75	S	61+54.19	LT	61+72.23	LT				15		
75	A	62+05.52	LT	62+35.55	LT	2					
75	CW	62+52.66	RT	62+89.43	RT					65	
75	D	62+59.71	RT	62+69.38	RT			22			
75	S	62+72.38	RT	62+85.79	RT				13		
75	S	62+98.57	RT	62+98.91	RT				1		
75	CW	63+05.43	RT	63+17.70	RT					74	
75	A	63+22.55	LT	63+52.58	LT	2					
75	A	64+42.55	LT	64+72.58	LT	2					
75	A	65+62.54	LT	65+92.57	LT	2					
75	CW	66+28.63	RT	66+35.90	LT					74	
76	D	66+51.85	RT	66+71.31	RT			40			
76	S	66+75.95	RT	66+92.45	RT				17		
76	S	66+93.33	RT	66+98.46	RT				20		
76	A	67+31.86	C/L	67+61.86	C/L	2					
76	A	68+11.86	C/L	68+41.86	C/L	2					
76	D	69+83.74	RT	69+95.99	RT			28			
76	CW	69+92.00	RT	70+32.53	RT					78	
76	S	70+08.00	RT	70+24.85	RT				19		
76	S	70+20.14	RT	70+27.64	RT			22			
76	CW	70+42.23	RT	70+49.23	LT					82	
76	A	70+59.23	C/L	70+89.23	C/L	2					
76	A	71+79.23	C/L	72+09.23	C/L	2					
76	A	72+59.23	C/L	72+89.23	C/L	2					
76	CW	73+97.11	RT	74+32.04	RT					65	
76	S	73+97.76	RT	74+10.55	RT				16		
76	CW	74+65.30	LT/RT	74+72.30	LT/RT					144 74	
76	A	74+78.91	C/L	75+08.91	C/L	2					
76	A	75+90.16	RT	76+04.66	RT	2					
76	CH	75+97.41	RT	75+97.41	RT					55	
76	A	75+98.91	C/L	76+28.91	C/L	2				76	
76	CH	76+97.26	RT	77+73.35	RT						
76	W	77+08.15	C/L				1				
76	A	77+40.15	C/L			1					
76	S	77+73.35	RT	77+73.35	RT				24		
76/77	CW	77+78.85	LT/RT	78+41.46	LT/RT					178	
TOTAL THIS COLUMN						31	3	90	242	667	848

SHEET NO.	REFERENCE NO.	LOCATION				644	644	644	644	644	644
						LANE ARROW	WORD ON PAVEMENT, 72"	DOTTED LINE, 4"	STOP LINE	CHANNELIZING LINE, 8"	CROSSWALK LINE
		FROM		TO		EA	EA	FT	FT	FT	FT
		STATION	SIDE	STATION	SIDE						
77	CW	77+91.53	LT	78+35.05	LT					44	
77	S	77+94.05	LT	78+13.76	LT				20		
77	A	78+34.57	RT	78+46.57	RT	2					
77	CH	78+39.07	RT	78+40.63	RT					30	
77	S	78+56.32	RT	78+56.32	LT				24		
77	A	78+61.63	C/L	78+91.63	C/L	2					
77	A	79+05.82	RT	79+17.82	RT	2					
77	CH	79+11.82	RT	79+60.46	RT					54	
77	A	79+52.21	RT	79+68.71	RT	2					
77	A	80+06.58	RT			1					
77	A	80+21.63	C/L	80+51.63	C/L	2					
77	A	81+85.63	C/L	82+11.63	C/L	2					
77	A	83+41.63	C/L	83+71.63	C/L	2					
77	A	85+01.63	C/L	85+31.63	C/L	2					
77	A	86+61.63	C/L	86+91.63	C/L	2					
77	CW	87+27.13	LT/RT	88+17.65	LT					225	
77	S	87+49.95	LT	97+73.61	LT				24		
77	A	88+43.88	RT	88+73.88	RT	2					
78	CH	89+52.59	RT	91+03.55	RT					302	
78	A	89+52.59	RT			2					
78	W	89+84.59	RT				2				
78	A	90+16.59	RT			2					
78	W	90+48.59	RT				1				
78	D	90+50.70	RT	90+75.85	RT			46			
78	CW	90+59.73	RT	90+96.60	RT					78	
78	CH	90+65.57	RT	90+91.33	RT					31	
78	S	90+67.55	RT	90+97.55	LT				11		
78	W	90+80.64	RT						1		
78	CH	90+85.12	RT	91+52.46	RT					124	
78	CH	90+94.97	RT	91+26.69	RT					58	
78	A	90+99.01	RT			1					
78	W	91+18.09	RT						1		
78	A	91+39.47	RT			1					
78	S	91+43.13	RT	91+52.46	RT				11		
78	S	91+56.73	RT	91+66.93	RT				12		
78	CW	91+99.73	LT	92+74.42	LT					171	
78	S	92+08.83	LT	92+31.58	LT				28		
78	CH	92+22.24	LT	93+00.50	LT					137	
78	A	92+39.81	LT			1					
78	W	92+57.93	LT				1				
78	CW	92+74.42	LT	92+82.12	RT					88	
78	A	92+76.05	LT			1					
78	CH	92+86.92	LT	93+84.32	LT					97	
78	S	92+86.92	LT	92+86.92	RT				29		
78	W	92+94.16	LT				1				
78	A	93+08.92	LT			1					
78	W	93+40.92	LT						1		
78	A	93+72.92	LT			1					
TOTAL THIS COLUMN						31	8	46	159	833	606
TOTAL FROM LEFT COLUMN						31	3	90	242	667	848
TOTAL CARRIED TO GENERAL SUMMARY						62	11	136	401	1500	1454

SHEET NO.	REFERENCE NO.	LOCATION				642	644
						CENTER LINE	TRANSVERSE/DIAGONAL LINE
		FROM		TO		MILE	FT
		STATION	SIDE	STATION	SIDE		
75	CB	55+09.75	LT	55+16.66	LT	0.01	
75	T	55+16.66	LT	55+68.87	LT		54
75	CS	55+16.66	LT	56+31.70	LT	0.02	
75	CB	55+09.75	RT	55+26.11	RT	0.01	
75	CS	55+26.11	RT	55+78.66	RT	0.01	
75	CS	56+18.31	LT/RT	56+72.00	LT/RT	0.02	
75	CS	57+33.26	LT	57+53.31	LT	0.01	
75	CS	57+73.45	RT	59+13.34	LT/RT	0.04	
75	T	58+60.15	RT	59+13.34	RT		53
75	CB	59+13.44	LT/RT	61+36+61	LT/RT	0.08	
75	CB	61+72.23	LT	61+80.73	LT	0.01	
75	CB	61+85.53	LT/RT	62+55.53	LT/RT	0.02	
75	CS	62+48.34	RT	62+59.71	RT	0.01	
75	CS	62+69.38	RT	62+72.38	RT	0.01	
75	CS	62+98.57	RT	63+23.54	RT	0.01	
75	CB	63+11.75	LT/RT	66+28.81	LT/RT	0.12	
75	CB	66+35.72	LT/RT	66+55.81	LT/RT	0.02	
76	CS	66+44.95	RT	66+51.85	RT	0.01	
76	CW	66+59.15	RT	66+94.12	RT	0.02	
76	CS	66+71.31	RT	66+75.95	RT	0.01	
76	CS	66+93.33	RT	67+43.24	RT	0.01	
76	CB	67+01.86	LT/RT	68+49.70	LT/RT	0.06	
76	CS	68+49.70	LT/RT	69+78.42	LT/RT	0.04	
76	T	68+49.70	LT	69+84.25	C/L		195
76	CS	69+53.36	RT	69+83.74	RT	0.01	
76	CS	69+95.99	RT	70+08.00	RT	0.01	
76	CS	70+20.14	RT	70+42.50	RT	0.01	
76	CB	70+49.23	LT/RT	73+40.22	LT/RT	0.11	
76	CS	73+30.76	LT	73+79.23	LT	0.01	
76	T	73+30.76	LT	73+85.06	C/L		70
76	CS	73+40.22	RT	73+79.23	RT	0.01	
76	CS	74+10.55	RT	74+26.34	RT	0.01	
76	CB	74+48.91	LT/RT	74+65.30	LT/RT	0.02	
76	CB	74+72.30	LT/RT	76+42.15	LT/RT	0.06	
76	CS	76+41.82	LT/RT	77+73.55	LT/RT	0.03	
76	T	76+42.15	LT	76+85.44	LT		40
77	CS	78+13.76	LT	78+13.61	LT	0.01	
77	CB	78+56.32	LT/RT	87+27.13	LT/RT	0.16	
77	CS	87+73.61	LT, C/L	88+23.88	LT/RT	0.03	
77	T	87+95.45	LT	88+23.88	RT		39
77	CB	88+23.88	LT/RT	88+93.88	LT/RT	0.05	
77	T	88+93.88	LT	89+39.41	LT		5
77/78	CS	88+93.88	LT/RT	90+67.55	LT	0.04	
78	CS	90+45.40	RT	90+54.43	RT	0.02	
78	CS	90+75.84	RT	91+43.13	RT	0.02	
78	CS	92+21.24	LT	93+09.84	LT	0.03	
78	CS	92+86.92	RT	94+34.32	LT/RT	0.04	
78	T	93+94.40	RT	94+40.15	LT		33
78	CB	94+71.90	LT/RT	94+89.66	LT/RT	0.02	
TOTAL CARRIED TO GENERAL SUMMARY						1.25	489

CALCULATED BY: GEA
CHECKED: JCG

PAVEMENT MARKING SUB-SUMMARY

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SHEET NO.	REFERENCE NO.	LOCATION						304	304	452	452	452	452					
		FROM			TO			AGGREGATE BASE (4" UNDER PAVEMENT, DRIVE AND CROSSWALK)	AGGREGATE BASE (6" UNDER BUS STOP AND PAVERS)	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC1 (BUS PAD)	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC FS (UNDER ROADWAY PAVERS)	NON-REINFORCED CONCRETE PAVEMENT, MISC. ROADWAY BRICK PAVERS	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC FS (CROSSWALK)					
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE	CY	CY	SY	SY	SF	SY					
67	PVT-1	56+35.14	21.5	RT	56+92.50	60.1	LT	16.33										
67	PVT-13	56+43.84	22.5	RT	57+47.42	33.3	LT				554	4991						
67	PVT-2	56+43.84	22.5	RT	57+03.12	22.4	RT	7.33						44				
67	PVT-3	57+16.98	59.4	LT	57+21.18	15.8	RT	14.17						85				
67	PVT-4	57+97.58	2.5	RT	58+47.58	2.5	RT		12.00	72								
68	PVT-5	67+46.08	5.5	RT	67+96.08	5.5	RT		12.00	72								
68	PVT-6	68+90.54	5.5	LT	69+40.54	5.5	LT		12.00	72								
68	PVT-7	74+82.27	5.5	RT	75+32.27	5.5	RT		12.00	72								
68	PVT-8	76+51.45	5.5	LT	77+01.45	5.5	LT		12.00	72								
68	PVT-9	77+23.35	5.5	RT	77+73.35	5.5	RT		12.00	72								
69	PVT-10	86+71.63	7.5	RT	87+21.63	7.5	RT		12.00	72								
69/70	PVT-11	89+27.68	3.5	LT	89+77.68	3.5	LT		12.00	72								
69	PVT-12	91+21.45	27.6	LT	91+86.66	24.5	RT	16.00						96				
70	PVT-14	91+29.45	24.5	RT	92+12.46	17.5	LT		89.50		537	4828						
TOTAL CARRIED TO GENERAL SUMMARY								54	186	576	1091	9819	323					

SHEET NO.	REFERENCE NO.	LOCATION						304	448	301	452	452	407	407			
		FROM			TO			AGGREGATE BASE (4" UNDER PAVEMENT, DRIVE AND CROSSWALK)	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAY)	ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAY)	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC FS (RESIDENTIAL DRIVE APRON)	7" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC FS (COMMERCIAL DRIVE APRON)	TACK COAT (0.15 GAL/SY)	TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SY)			
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE	CY	CY	CY	SY	SY	GAL	GAL			
67	DR-1	55+36.65	22.0	RT	55+70.65	22.5	RT	5.25	0.72	1.20		30	2.59	0.69			
67	DR-2	55+98.06	22.5	LT	56+32.06	22.5	LT	2.67				24					
67	DR-39	56+11.51	71.0	LT	56+40.82	54.0	LT	3.78				34					
67	DR-38	56+27.86	98.7	LT	56+79.23	69.0	LT	6.22				56					
67	DR-3	57+47.00	16.5	RT	57+81.00	16.5	RT	40.33				363					
67	DR-40	57+52.48	58.2	LT	57+66.28	84.0	LT	3.44				31					
67	DR-4	57+88.24	22.5	LT	58+41.24	22.5	LT	49.62	1.02	1.71		422	3.67	0.98			
67	DR-5	58+50.15	22.5	LT	58+86.15	22.5	LT	25.56				230					
67	DR-6	59+17.00	16.5	RT	59+51.00	16.5	RT	40.33				363					
67	DR-7	59+58.90	22.5	LT	59+86.90	22.5	LT	1.02	0.38	0.64	19		1.37	0.36			
67	DR-8	59+80.84	16.5	RT	60+14.84	16.5	RT	4.44				40					
67	DR-9	60+18.38	22.5	LT	60+46.38	22.5	LT				27						
67	DR-10	62+65.92	22.5	LT	62+93.92	22.5	LT	0.86	0.32	0.54	19		1.15	0.31			
67	DR-11	63+66.28	22.0	LT	63+90.28	21.8	LT	0.45	0.17	0.28	16		0.61	0.16			
67	DR-12	63+97.40	21.8	LT	64+31.40	21.5	LT	4.07	0.44	0.74		26	1.58	0.42			
67	DR-13	64+51.40	21.4	LT	64+85.40	21.1	LT	4.18	0.44	0.74		27	1.58	0.42			
67	DR-14	65+24.17	20.8	LT	65+52.17	20.6	LT	0.94	0.35	0.59	21		1.26	0.34			
67	DR-15	65+58.31	20.6	LT	65+85.31	20.4	LT	0.62	0.23	0.39	20		0.83	0.22			
68	DR-41	66+98.69	19.5	LT	67+26.76	19.5	LT	0.93	0.35	0.58	21		1.26	0.34			
68	DR-16	68+08.86	19.5	LT	68+46.86	19.5	LT	5.50	0.73	1.21	32		2.63	0.70			
68	DR-17	70+56.23	19.5	LT	71+11.23	19.5	LT	7.05	0.56	0.93	50		2.02	0.54			
68	DR-18	72+85.04	19.5	LT	73+29.04	19.5	LT	5.07	0.32	0.53	38		1.15	0.31			
68	DR-42	74+22.26	70.7	RT	74+27.72	56.6	RT	1.79	0.67	1.12	9		2.41	0.64			
68	DR-19	74+83.91	19.5	LT	75+17.91	19.5	LT	3.73	0.23	0.39	28		0.83	0.22			
68	DR-20	75+33.66	19.5	LT	75+67.66	19.5	LT	3.90	0.30	0.49	28		1.08	0.29			
68	DR-21	75+80.41	19.0	RT	76+14.41	19.0	RT	22.28	7.48	12.47	21		26.93	7.18			
69	DR-22	78+26.13	19.0	RT	78+55.13	19.0	RT	12.54	3.95	6.59	18		14.22	3.79			
69	DR-23	78+97.32	19.0	RT	79+26.32	19.0	RT	12.99	4.12	6.87	18		14.83	3.96			
69	DR-24	79+28.96	18.5	RT	80+45.96	18.5	RT	45.95	12.48	20.80	114		44.93	11.98			
69	DR-25	80+78.71	19.5	LT	81+12.71	19.5	LT	4.61	0.56	0.94	28		2.02	0.54			
69	DR-26	82+04.97	19.5	LT	82+38.97	19.5	LT	5.48	0.89	1.48	28		3.20	0.85			
69	DR-27	82+85.21	19.5	LT	83+19.21	19.5	LT	5.49	0.89	1.49	28		3.20	0.85			
69	DR-28	83+48.52	19.0	RT	83+76.52	19.0	RT	4.93	1.14	1.90	17		4.10	1.09			
69	DR-29	83+74.21	19.5	LT	84+08.21	19.5	LT	5.21	0.79	1.31	28		2.84	0.76			
69	DR-30	84+34.68	19.0	RT	84+61.46	20.0	RT	5.38	1.31	2.18	17		4.72	1.26			
69	DR-31	84+80.33	17.9	LT	85+14.33	17.5	LT	5.54	0.91	1.52	28		3.28	0.87			
69	DR-32	85+40.33	17.5	LT	85+74.33	17.5	LT	6.58	1.30	2.17	28		4.68	1.25			
69	DR-33	86+36.00	17.5	LT	86+70.00	17.5	LT	4.01	0.34	0.56	28		1.22	0.33			
69	DR-43	87+47.31	32.9	LT	87+65.56	58.5	LT	5.30	0.78	1.30	29		2.81	0.75			
69	DR-34	88+59.88	17.5	LT	88+93.88	17.5	LT	4.18	0.40	0.67	28		1.44	0.38			
70	DR-35	89+78.84	17.5	LT	90+34.92	18.1	LT	10.44				94					
70	DR-44	92+81.76	105.4	LT	93+02.86	147.7	LT	8.59	1.43	2.38	43		5.15	1.37			
70	DR-36	93+07.03	21.5	LT	93+49.03	21.5	LT	5.59	0.72	1.20	33		2.59	0.69			
70	DR-37	94+15.82	21.5	LT	94+58.82	21.5	LT	5.19	0.53	0.88	34		1.91	0.51			
TOTAL CARRIED TO GENERAL SUMMARY								402	47	79	152	2484	170	45			

CALCULATED: GEA
CHECKED: JCG

ROADWAY SUB-SUMMARY

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA

MAHONING ROAD NE
STA-0153-01.70

SITE AND PROJECT INFORMATION

PROJECT NAME AND LOCATION:

PROJECT NAME:
MAHONING ROAD NE ROADWAY IMPROVEMENTS
(STA-0153-01.70)

LOCATION:

MAHONING ROAD NE (S.R. 153) BETWEEN THE GRACE AVENUE NE AND HARMONT AVENUE NE INTERSECTIONS LOCATED IN THE CITY OF CANTON, COUNTY OF STARK, STATE OF OHIO.

OWNER INFORMATION:

CITY OF CANTON
2436 30TH STREET N.E.
CANTON, OHIO 44705
CONTACT: DANIEL J. MOEGLIN, P.E., S.I.
PHONE: 330-489-3370
FAX: 330-489-3337

GENERAL CONTRACTOR INFORMATION:

WENGER EXCAVATING, INC.
BUSINESS NAME
P.O. BOX 499, 26 NORTH COCHRAN STREET
STREET ADDRESS
DALTON OHIO 44618
CITY STATE ZIP CODE

CONTACT INFORMATION FOR THE PERSON RESPONSIBLE FOR AUTHORIZING AND AMENDING THE SWPPP:

CONTACT NAME PHONE NUMBER

PROJECT DESCRIPTION:

THE PROJECT WORK INVOLVES THE SITE IMPROVEMENT OF APPROXIMATELY 0.67 MILES OF MAHONING ROAD NE (S.R. 153) BETWEEN THE GRACE AVENUE NE AND HARMONT AVENUE NE INTERSECTIONS. THE PROJECT CONSISTS OF INSTALLING NEW ADA COMPLIANT HANDICAP RAMPS, WIDENED SIDEWALKS, DECORATIVE BRICK PAVERS, STREET TREES, BUS STOPS, BENCHES, SIGNAGE AND STREET LIGHTING. IN ADDITION TO THE STREETScape PORTION OF THE PROJECT, A SECONDARY STORM SEWER SYSTEM IS BEING INSTALLED TO HELP MINIMIZE FLOODING. REPLACEMENT OF EXISTING CATCH BASINS WILL OCCUR WHERE THE ROAD WIDTH IS INCREASED. ALL EXISTING PAVEMENT WILL BE MILLED AND RESURFACED.

PRIOR LAND USE:

EXISTING 3-LANE ASPHALT PAVED ROAD WITH SIDEWALKS ON BOTH SIDES OF THE ROAD SERVING EXISTING RETAIL BUSINESSES AND RESIDENTIAL HOUSES. UNDERGROUND UTILITIES CONSIST OF SANITARY SEWERS, STORM SEWERS, WATER LINES, GAS LINES AND TELEPHONE FIBEROPTIC.

TYPE OF CONSTRUCTION (CHECK ALL THAT APPLY):

- MAINTENANCE
- REDEVELOPMENT
- NEW DEVELOPMENT
- OTHER: STREETScape/ROADWAY PROJECT
- RETAIL CENTER
- MANUFACTURING
- HEALTH FACILITY
- COMMERCIAL
- INDUSTRIAL
- SUBDIVISION
- OUTLOT

SITE AREA SUMMARY:

TOTAL PROJECT SITE AREA: 6.9 AC.
AREA TO BE DISTURBED: 4.2 AC.
PRE-DEVELOPMENT IMPERVIOUS AREA: _____ S.F.
POST-DEVELOPMENT IMPERVIOUS AREA: _____ S.F.
PERCENT INCREASE OF IMPERVIOUS AREA: _____ %
PRE-DEVELOPMENT RUN-OFF COEFFICIENT: 98
POST-DEVELOPMENT RUN-OFF COEFFICIENT: 98
QUALITY OF STORM WATER DISCHARGE FROM THE SITE: UNKNOWN
QUALITY OF ANY DISCHARGE FROM THE SITE: NOT APPLICABLE
ESTIMATED CONSTRUCTION START DATE: 5/2014
ESTIMATED CONSTRUCTION COMPLETION DATE: 12/2014

SITE SOIL TYPES AND DESCRIPTIONS:

NAME	DESCRIPTION	% OF SITE
_____	_____	_____ %
_____	_____	_____ %

NAME OF RECEIVING STREAM OR SURFACE WATER:

MIDDLE BRANCH NIMISHILLEN CREEK

EROSION AND SEDIMENT CONTROL MEASURES USED ON THE SITE:

SILT FENCE, FILTER SOCK, STORM DRAIN INLET PROTECTION, CONCRETE WASHOUT PIT, TEMPORARY SEEDING, PERMANENT SEEDING AND MULCHING.

EROSION AND SEDIMENT CONTROL MEASURES TO REMAIN AFTER CONSTRUCTION AND BECOME THE POST CONSTRUCTION CONTROL MEASURES:

PERMANENT SEEDING

SOIL PROTECTION CHART

STABILIZATION TYPE	J	F	M	A	M	J	J	A	S	O	N	D
PERMANENT SEEDING			●	●	●	*	*	*	*	●	●	
TEMPORARY SEEDING			●	●	●	*	*	*	*	●	●	
SODDING			*	*	*	*	*	*	*			
MULCHING	●	●	●	●	●	●	●	●	●	●	●	●

(*) - IRRIGATION NEEDED

GENERAL NOTES

- THE CITY OF CANTON WILL SUBMIT A NOTICE OF INTENT TO THE OHIO EPA FOR COVERAGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION STORM WATER PERMIT BECAUSE THE PROJECT WILL CAUSE MORE THAN 1 ACRE OF EARTH DISTURBANCE. THE CONTRACTOR WILL BE REQUIRED TO DEVELOP A STORM WATER POLLUTION PREVENTION PLAN FOR THE PROJECT AND COMPLY WITH ALL NPDES TERMS AND CONDITIONS THROUGHOUT PROJECT CONSTRUCTION.
- THE CONTRACTOR SHALL READ AND FOLLOW THE PRACTICES AND REQUIREMENTS OF EROSION AND SEDIMENT CONTROL IN THE MOST CURRENT STANDARDS AND SPECIFICATIONS FOR:
 - LOCAL EROSION AND SEDIMENT CONTROL REGULATIONS
 - ODNR RAINWATER AND LAND DEVELOPMENT MANUAL
 - OHIO EPA GENERAL PERMIT FOR CONSTRUCTION SITE STORM WATER
- THE CONTRACTOR MUST SUBMIT A CO-PERMITTEE APPLICATION TO THE OHIO EPA PRIOR TO BEGINNING WORK AND SHALL BE RESPONSIBLE FOR ALL TERMS AND CONDITIONS OF THE OHIO NPDES GENERAL PERMIT UNTIL A NOTICE OF TERMINATION (NOT) IS SUBMITTED.
- PRIOR TO COMMENCING WORK, SUBCONTRACTORS INVOLVED IN SWPPP IMPLEMENTATION OR ACTIVITIES THAT IMPACT STORM WATER SHALL COMPLETE THE "SUBCONTRACTOR CERTIFICATION /AGREEMENT FOR SWPPP" ACKNOWLEDGING THEY UNDERSTOOD THE CONDITIONS AND THEIR RESPONSIBILITIES.
- THE CONTRACTOR SHALL USE EROSION CONTROL MEASURES AS NECESSARY TO PREVENT SEDIMENT MOVEMENT INTO STORM SEWERS. SPECIAL PRECAUTIONS IN CONSTRUCTION EQUIPMENT USE SHALL BE MADE TO PREVENT SITUATIONS THAT PROMOTE EROSION. CLEANUP SHALL BE DONE IN A MANNER THAT DOES NOT DISTURB EROSION CONTROL MEASURES.
- SOIL STOCKPILES SHALL BE RINGED WITH SILT FENCE ALONG THE BOTTOM FOOTPRINT. IF THE STOCKPILE WILL BE INACTIVE FOR 21 DAYS OR MORE, THE SURFACE SHALL BE SEEDED OR STABILIZED WITHIN 7 DAYS OF LAST ACTIVITY.
- THE CONTRACTOR MAY NEED ADDITIONAL DEWATERING OR EROSION AND SEDIMENTATION PREVENTION MEASURES TO CONTEND WITH GROUNDWATER. GROUNDWATER, STORM WATER AND SEDIMENT BEARING DRAINAGE SHALL BE FILTERED TO ALLOW REMOVAL OF SILT, SEDIMENT, DEBRIS AND OTHER POLLUTANTS PRIOR TO DISCHARGE FROM THE SITE (I.E. SETTLING IN PLACE OR DEWATERING INTO A SUMP PIT OR FILTER BAG). SETTLED MATERIAL SHALL BE DISPOSED OF IN A STABILIZED LOCATION WHERE IT WILL NOT BE CARRIED OFF-SITE OR INTO A STORM SEWER BY RAINFALL. WATER WITH A VISIBLE SHEEN MUST BE REMOVED BY A VACUUM TRUCK. THERE SHALL BE NO TURBID OR MURKY DISCHARGES TO SURFACE WATERS RESULTING FROM DEWATERING ACTIVITIES. GROUNDWATER DEWATERING WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS DOES NOT REQUIRE TREATMENT PRIOR TO DISCHARGE, BUT CARE MUST BE TAKEN TO ENSURE IT DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES OR ERODE THE DISCHARGE AREA.
- IF UNFORESEEN ENVIRONMENTAL CONDITIONS ARE ENCOUNTERED, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE NECESSARY. IF THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE THAT COULD DISCHARGE POLLUTANTS TO SURFACE WATERS, THE REVISION TO THE SWPPP MUST BE COMPLETED AS SOON AS PRACTICAL AND PRIOR TO THE NEXT STORM EVENT. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY ALSO BE REQUESTED BY THE CITY OF CANTON, SOIL AND WATER CONSERVATION DISTRICT, OR OHIO EPA AT ANYTIME. SUCH REQUEST SHALL BE IMPLEMENTED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO CLEARING, GRUBBING, GRADING OR OTHER CONSTRUCTION ACTIVITY AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND DISTURBED AREAS ARE STABILIZED. APPROPRIATE CONTROLS SHALL BE CONSTRUCTED OR EXISTING CONTROLS ALTERED TO ADDRESS CHANGING DRAINAGE PATTERNS AS CONSTRUCTION PROGRESSES.
- A QUALIFIED INSPECTION PERSON SHALL COMPLETE AND SIGN A CHECKLIST FOLLOWING EACH INSPECTION. AT A MINIMUM, THE INSPECTION REPORT MUST INCLUDE THE FOLLOWING:
 - INSPECTION DATE.
 - INSPECTION PERSON'S NAME, TITLE AND QUALIFICATION.
 - WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION, ESTIMATE OF THE BEGINNING OF EACH PRIOR STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT AND WHETHER ANY DISCHARGES OCCURRED.
 - WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION.
 - LOCATION OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.
 - LOCATION OF BMP'S THAT NEED TO BE MAINTAINED.
 - LOCATION OF BMP'S THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A LOCATION.
 - LOCATION WHERE ADDITIONAL BMP'S WERE NEEDED, BUT DID NOT EXIST AT THE TIME OF INSPECTION.
 - CORRECTIVE ACTION REQUIRED INCLUDING CHANGES TO THE SWPPP AND IMPLEMENTATION DATES.
- THE CONTRACTOR SHALL HAVE COPIES OF THE FOLLOWING ON-SITE:
 - SIGNED NOI APPLICATION
 - OHIO EPA NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT
 - SUBCONTRACTOR CERTIFICATION / AGREEMENT FOR SWPPP
 - DELEGATION OF AUTHORITY FOR SWPPP
 - THESE SWPPP AND ANY SWPPP AMENDMENT LOGS
 - GRADING AND STABILIZATION ACTIVITY LOG
 - INSPECTION LOGS
- THE CONTRACTOR SHALL REMOVE ALL MUD, SOIL OR DEBRIS DEPOSITED ON ROADS, DRIVE LANES, ETC. AT THE END OF EACH WORK DAY OR AS REQUIRED DURING THE DAY.

SPILL PREVENTION AND MATERIAL MANAGEMENT PRACTICES

- STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN AN ORDERLY MANNER IN APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS SHALL BE KEPT IN ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL UNLESS NOT RESEALABLE.
- SUBSTANCES NOT TO BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- WHENEVER POSSIBLE, ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER. FOLLOW LOCAL, STATE AND MANUFACTURERS' RECOMMENDED METHODS FOR DISPOSAL SHALL IF SURPLUS PRODUCT IS TO BE DISPOSED OF.
- THE CONTRACTOR SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON-SITE.
- SAFETY DATA SHEETS (SDS) MUST BE RETAINED ON-SITE.
 - MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP MUST BE POSTED AND SITE PERSONNEL MADE AWARE OF THE PROCEDURES, LOCATION OF THE INFORMATION AND LOCATION OF CLEANUP SUPPLIES.
 - SPILL CLEANUP MATERIAL OR EQUIPMENT SHALL BE KEPT IN A MATERIAL STORAGE AREA ON-SITE (I.E. DUST PANS, BROOMS, MOPS, RAGS, GLOVES, GOGGLES, SAWDUST, KITTY LITTER, SAND, AND PLASTIC OR METAL TRASH CONTAINERS).
 - SPILLS SHALL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING.
 - TOXIC OR HAZARDOUS MATERIAL SPILLS MUST BE REPORTED TO THE APPROPRIATE FEDERAL GOVERNMENT AGENCY, OHIO EPA (800-282-9378), LOCAL FIRE DEPARTMENT (911) AND LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) REGARDLESS OF SIZE AND WITHIN 30 MINUTES OF A SPILL.
 - SPILL PREVENTION PLANS SHALL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT A SPILL TYPE FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT AND THE CLEAN-UP MEASURES SHALL BE INCLUDED.

PRODUCT SPECIFIC PRACTICES

SOLID, SANITARY AND TOXIC WASTE SHALL BE DISPOSED IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. IT IS PROHIBITED TO BURN, BURY OR POUR INTO THE GROUND OR INTO A SEWER SOLVENTS, PAINT, STAINS, DIESEL FUEL, GASOLINE, MOTOR OIL, HYDRAULIC FLUID, CEMENT CURING COMPOUNDS, ANTIFREEZE, OR OTHER TOXIC OR HAZARDOUS WASTE.

PETROLEUM PRODUCTS: ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS AND CLEARLY LABELED

FERTILIZERS: APPLY FERTILIZER ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. CONTENTS OF PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS: CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT IN USE. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER, BUT SHALL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS: CONCRETE TRUCKS SHALL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE. WASH OUT OF CONCRETE TRUCKS SHALL OCCUR IN A DESIGNATED AREA WHERE THE WASHING CAN COLLECT AND BE DISPOSED OF PROPERLY WHEN HARDENED.

WASTE MATERIALS: COLLECT WASTE MATERIALS INCLUDING TRASH AND CONSTRUCTION DEBRIS IN A SECURELY LIDDED DUMPSTER AND DISPOSE IN AN OHIO EPA APPROVED LANDFILL. MATERIALS WHICH CONTAIN ASBESTOS TO COMPLY WITH THE OHIO EPA AIR POLLUTION REGULATIONS. THE DUMPSTER IS TO BE HAULED OFF-SITE AND EMPTIED AS NECESSARY.

HAZARDOUS WASTE: DISPOSE OF HAZARDOUS WASTE MATERIALS IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS OR AS SPECIFIED BY THE MANUFACTURER.

SANITARY WASTE: CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY FACILITIES AT THE SITE AND IT SHALL BE SERVICED BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS 1 TIME PER WEEK, OR MORE OFTEN IF NECESSARY.

OFF-SITE VEHICLE TRACKING: A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. ALL PAVED STREETS ADJACENT TO THE SITE SHALL BE SWEEPED DAILY, OR MORE OFTEN IF NECESSARY, TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE SHALL BE COVERED WITH A TARPAILIN.

FUEL STORAGE TANKS: FUEL STORAGE TANKS SHALL BE LOCATED IN DIKED AREAS AND AWAY FROM DRAINAGE CHANNELS. THE DIKED AREAS SHOULD HOLD A VOLUME OF AT LEAST 110% OF THE LARGEST TANK. THE DIKED AREAS ARE NOT NECESSARY IF THE CONTRACTOR USES SELF-CONTAINED SPILL PROOF TANKS. A GENERAL LOCATION FOR THE FUEL STORAGE TANKS IS SHOWN IN THE SWPPP, BUT MAY BE MOVED TO BETTER SUIT THE CONTRACTOR'S MEANS AND METHODS.

POLLUTION PREVENTION PLAN INVENTORY

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE ANTICIPATED TO BE PRESENT ON-SITE DURING CONSTRUCTION:

<input checked="" type="checkbox"/> CONCRETE	<input checked="" type="checkbox"/> FERTILIZERS	<input checked="" type="checkbox"/> PAINTS (ENAMEL AND LATEX)
<input checked="" type="checkbox"/> ASPHALT	<input checked="" type="checkbox"/> DETERGENTS	<input checked="" type="checkbox"/> PETROLEUM BASED PRODUCTS
<input checked="" type="checkbox"/> TAR	<input type="checkbox"/> CMU BLOCK	<input checked="" type="checkbox"/> CLEANING SOLVENTS

STABILIZATION PRACTICES

- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL DEVICES IN AREAS TO REMAIN DISTURBED FOR 14 DAYS OR UNTIL PERMANENT STABILIZATION IS COMPLETE. PERMANENT VEGETATION SHALL BE GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE AND MATURE ENOUGH TO SURVIVE WINTER WEATHER CONDITIONS.
- ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED UNLESS THE SEWER IS INACTIVE DUE TO PRIOR WORK. DO NOT REMOVE INLET PROTECTION FROM EXISTING STORM INLET BASINS TO BE REMOVED OR ABANDONED UNTIL AFTER THE DOWNSTREAM STORM STRUCTURE IS PLUGGED FROM STORM FLOW.
- PERIMETER CONTROLS SHALL BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE STABILIZED.
- TEMPORARY STABILIZATION:** DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR MORE THAN 14 DAYS, BUT LESS THAN 1 YEAR, SHALL FOLLOW THIS CHART:

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
Disturbed areas within 50 feet of surface water, not at final grade, and to remain idle more than 14 days.	Within 2 days of the most recent disturbance.
Disturbed areas not within 50 feet of surface water, to be dormant more than 14 days, but less than 1 year.	Within 7 days of the most recent disturbance.
Disturbed areas that will remain idle over the winter.	Prior to the onset of winter weather.
For areas to be paved, disturbed areas that will remain dormant for the time constraints mentioned in the above criteria.	Temporarily stabilize with geotextile and/or stone subbase until pavement is installed.
- PERMANENT STABILIZATION:** DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASE SHALL FOLLOW THIS CHART:

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
Areas to be dormant for 1 year or more.	Within 7 days of the most recent disturbance.
Areas within 50 feet of surface water and at final grade.	Within 2 days of reaching final grade.
All other areas at final grade.	Within 7 days of reaching final grade.

MAINTENANCE / INSPECTION PROCEDURES

- REGULAR INSPECTION AND MAINTENANCE SHALL BE PROVIDED FOR EROSION AND SEDIMENT CONTROL PRACTICES. INSPECTIONS SHALL BE PERFORMED UNTIL THE NOTICE OF TERMINATION (NOT) IS FILED WITH THE OHIO EPA. INSPECTIONS TO BE MADE A MINIMUM OF 1 TIME PER WEEK AND WITHIN 24 HOURS AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN IN A 24 HOUR PERIOD. THE INSPECTION FREQUENCY MAY BE REDUCED TO AT LEAST ONCE EVERY MONTH IF THE ENTIRE SITE IS TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WEATHER CONDITIONS (I.E. SITE COVERED WITH SNOW OR THE GROUND IS FROZEN), A WAIVER OF INSPECTION REQUIREMENTS IS AVAILABLE UNTIL 1 MONTH BEFORE THAWING CONDITIONS ARE EXPECTED IF ALL THE FOLLOWING CONDITIONS ARE MET:
 - THE PROJECT IS LOCATED IN AN AREA WHERE FROZEN CONDITIONS ARE ANTICIPATED TO CONTINUE FOR EXTENDED PERIODS OF TIME (I.E., MORE THAN 1 MONTH).
 - LAND DISTURBANCE ACTIVITIES HAVE BEEN SUSPENDED.
 - THE BEGINNING AND ENDING DATES OF THE WAIVER PERIOD ARE DOCUMENTED IN THE SWPPP.
- SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, VERIFICATION FABRIC IS SECURELY ATTACHED TO FENCE POSTS, AND VERIFICATION FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED 1/3 THE FENCE HEIGHT.
- DUST CONTROL:** THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY (I.E. CALCIUM CHLORIDE, WATER OR MOTORIZED DUST-FREE STREET SWEEPING DEVICE) TO MAINTAIN ROADWAYS USED FOR SITE ACCESS AT THE END OF EACH WORK DAY OR AS REQUIRED AND ADHERE TO ALL GOVERNING AUTHORITY ORDINANCES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. ANY REPAIR NEEDED SHALL TO BE INITIATED WITHIN 24 HOURS OF THE REPORT.

- AFTER SUBMITTAL OF THE NOT, THE PERMITTEE SHALL MAINTAIN FOR 3 YEARS A RECORD SUMMARIZING THE RESULTS OF INSPECTIONS, NAMES AND QUALIFICATIONS OF INSPECTION PERSONNEL, THE INSPECTION DATES, MAJOR OBSERVATIONS RELATED TO THE IMPLEMENTATION OF THE SWPPP, A CERTIFICATION WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWPPP AND PERMIT, AND IDENTIFICATION OF ANY INCIDENTS OF NON-COMPLIANCE.
 - WHEN PRACTICE REQUIRES REPAIR OR MAINTENANCE:** IF INSPECTION REVEALS A CONTROL PRACTICE NEEDS REPAIR OR MAINTENANCE, EXCEPT FOR SEDIMENT SETTLING PONDS, REPAIR OR MAINTENANCE SHALL OCCUR WITHIN 3 DAYS OF INSPECTION. SEDIMENT SETTLING PONDS REPAIR OR MAINTENANCE SHALL OCCUR WITHIN 10 DAYS OF INSPECTION.
 - WHEN PRACTICE FAILS TO PROVIDE INTENDED FUNCTION:** IF INSPECTION REVEALS A CONTROL PRACTICE FAILS TO PERFORM ITS FUNCTION AND A MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWPPP SHALL BE AMENDED, THE NEW CONTROL PRACTICE INSTALLED WITHIN 10 DAYS OF INSPECTION, AND THE "STORM WATER POLLUTION PREVENTION PLAN AMENDMENT LOG" FORM COMPLETED.
 - WHEN PRACTICE SHOWN IN THE SWPPP IS NOT INSTALLED:** IF INSPECTION REVEALS A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE, IT SHALL BE IMPLEMENTED WITHIN 10 DAYS OF INSPECTION. IF INSPECTION REVEALS A PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD SHALL CONTAIN A STATEMENT EXPLAINING WHY AND THE "STORM WATER POLLUTION PREVENTION PLAN AMENDMENT LOG" FORM COMPLETED.
- SEEDING SHALL BE INSPECTED FOR BARE SPOTS AND WASHOUTS.
- THE CONTRACTOR SHALL SELECT INDIVIDUALS TO BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND COMPLETING INSPECTION AND MAINTENANCE REPORTS. THE CONTRACTOR SHALL COMPLETE THE "DELEGATION OF AUTHORITY FOR STORM WATER POLLUTION PREVENTION PLAN" FORM.

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES FOR SWPPP:

- A PRE-CONSTRUCTION MEETING TO BE HELD TO DISCUSS THE OHIO EPA NPDES PERMIT REQUIREMENTS.
- CONTRACTOR TO SUBMIT A CONSTRUCTION SCHEDULE FOR PROPOSED CONSTRUCTION ACTIVITIES.
- INSPECTION, MAINTENANCE, RECORD KEEPING AND SITE POSTING OF ALL CONTROLS TO BEGIN AND CONTINUE FOR THE DURATION OF THE PROJECT.
- CONTRACTOR TO ESTABLISH THE STAGING AREA AND ALL NON-SEDIMENT POLLUTION CONTROLS.
- CONTRACTOR TO INSTALL SILT FENCE AND INLET PROTECTION PRIOR TO ANY EARTH DISTURBANCE ACTIVITY.
- INSTALL ALL OTHER TEMPORARY SEDIMENTATION AND EROSION CONTROL ITEMS AS SOON AS POSSIBLE, BUT NO LATER THAN 7 DAYS OF FIRST SOIL DISTURBANCE. CONTROLS TO BE INSPECTED AND MAINTAINED FOR THE PROJECT DURATION OR UNTIL UPSLOPE AREAS ARE PERMANENTLY STABILIZED.
- SITE DEMOLITION AND CONSTRUCTION TO BEGIN.
- INSTALL DEWATERING MEASURES AS NECESSARY.
- EARTHWORK GRADING OPERATIONS TO BEGIN AND SHALL BE PERFORMED TO LIMIT BOTH THE AREA AND DURATION OF BARE SOIL EXPOSURE. ANY AREAS LEFT UNDISTURBED FOR MORE THAN 14 DAYS SHALL REQUIRE TEMPORARY SEEDING AND MULCHING WITHIN 7 DAYS OF LAST DISTURBANCE. ENHANCED SWALE AREAS MAY BE ROUGH GRADED.
- BEGIN STORM SEWER AND INLET CONSTRUCTION. INSTALL INLET PROTECTION AS STORM INLETS ARE CONSTRUCTED.
- CONSTRUCT REMAINING UTILITIES INCLUDING SANITARY, WATER AND ELECTRIC.
- BEGIN PAVING OPERATIONS.
- CONTRACTOR TO INSPECT AND CLEAN EXISTING AND PROPOSED STORM DRAINAGE SYSTEMS.
- PERMANENTLY SEED DISTURBED AREAS WITHIN 7 DAYS OF FINAL GRADING.
- INSTALL LANDSCAPING.
- CONTINUE INSPECTIONS, MAINTENANCE, RECORD KEEPING AND SITE POSTING UNTIL FINAL STABILIZATION IS ACHIEVED.
- REMOVE AND DISPOSE OF TEMPORARY SEDIMENTATION AND EROSION CONTROL ITEMS FROM STORM SEWER AND INLETS AFTER THE SITE IS STABILIZED AND 70% COVERAGE OBTAINED.
- AT COMPLETION OF ALL WORK, CONTRACTOR IS TO:
 - DISPOSE OF ALL DEBRIS AND WASTE MATERIAL FROM THE SITE THAT RESULTED FROM CONSTRUCTION ACTIVITIES.
 - CLEAN ALL ROADS AND LAWNS OF DEBRIS AND DIRT.
 - OPEN GUTTERS TO OBTAIN FREE DRAINAGE.

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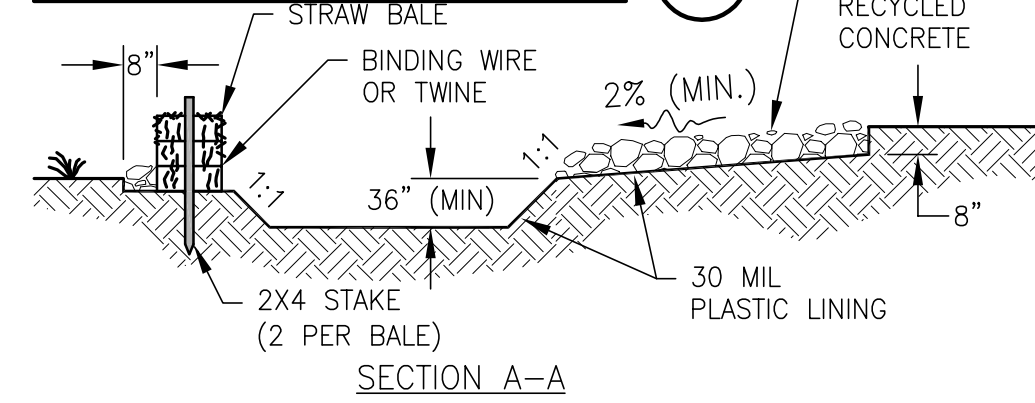
STORM WATER POLLUTION PREVENTION PLAN - NOTES

DATE BY
4/21/14 GEA
9/3/14 GEA

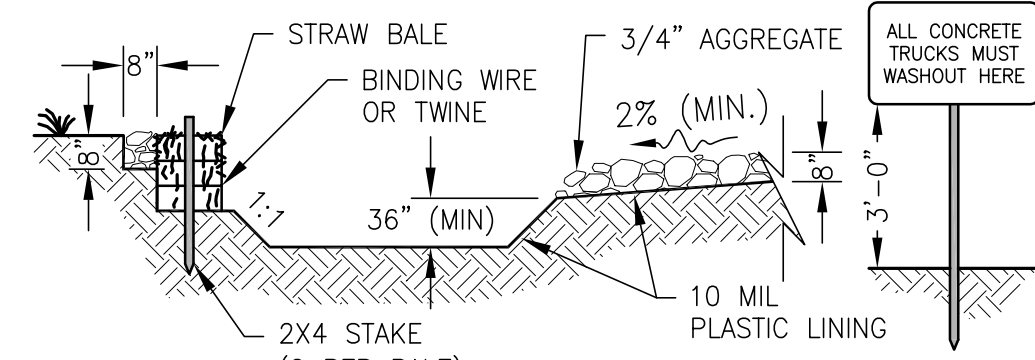
REVISIONS
CONSTRUCTION BIDDING - SET
SWPPP REVIEW COMMENTS

MAHONING ROAD NE STA-0153-01.70

CONCRETE WASHOUT PIT (CW)

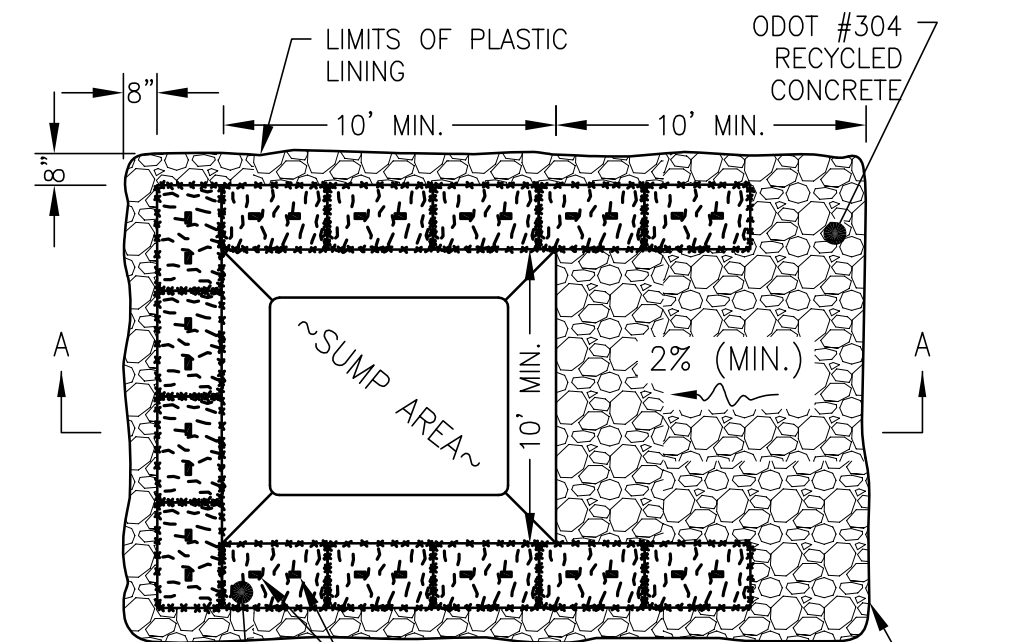


SECTION A-A



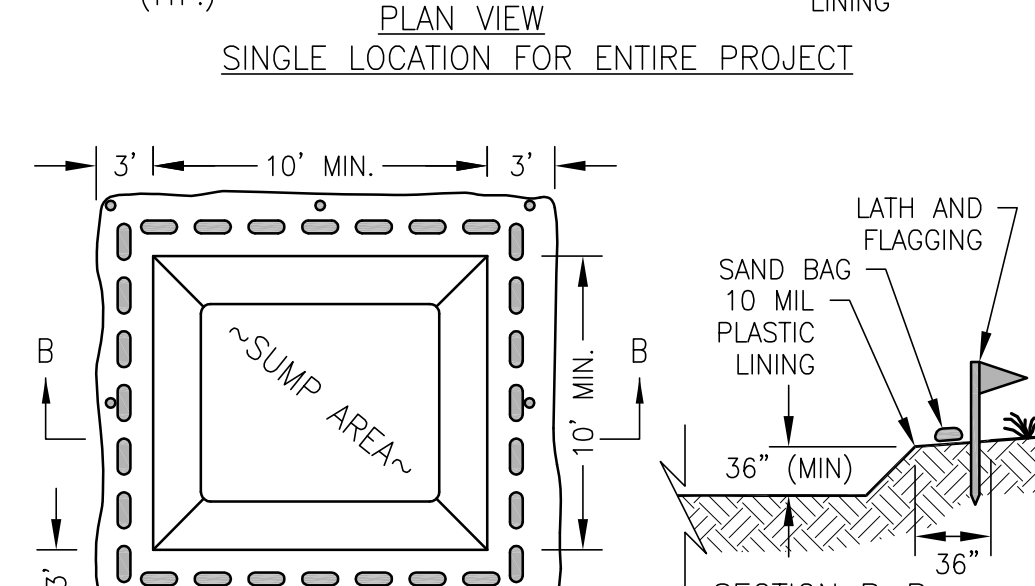
ALTERNATE SECTION

(WHERE MORE THAN ONE ACCESSIBLE SIDE NEEDED)



PLAN VIEW

SINGLE LOCATION FOR ENTIRE PROJECT



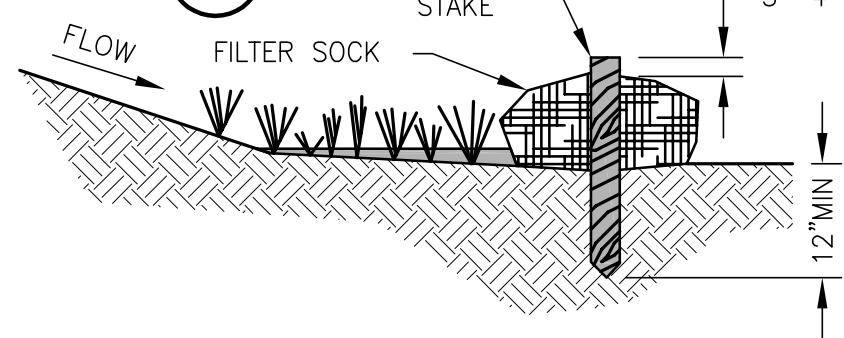
PLAN VIEW

TEMPORARY LOCATION FOR MULTIPLE PHASE PROJECT

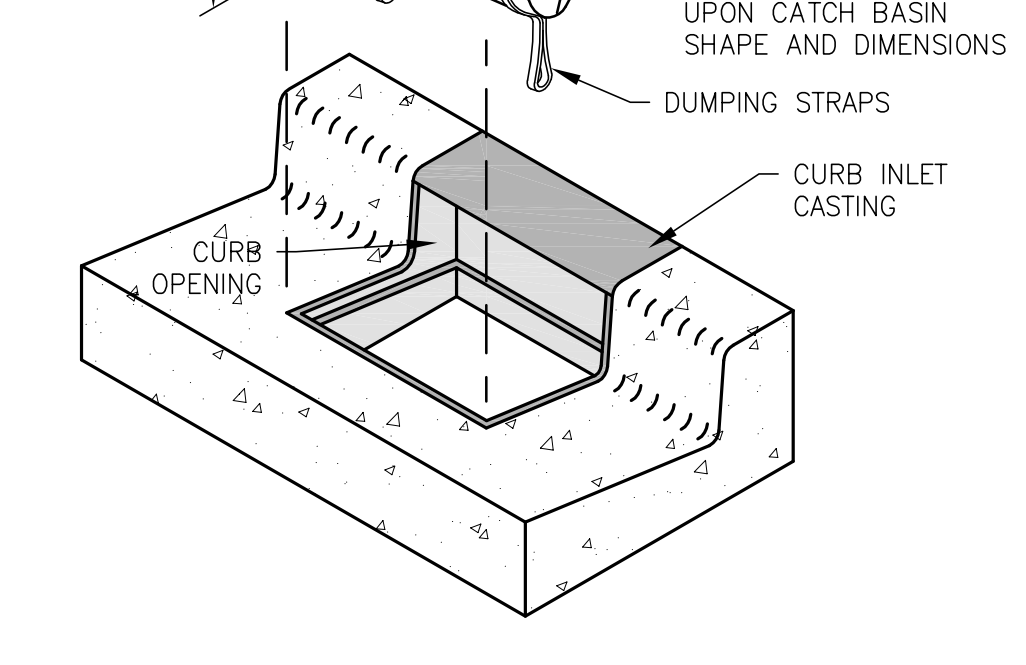
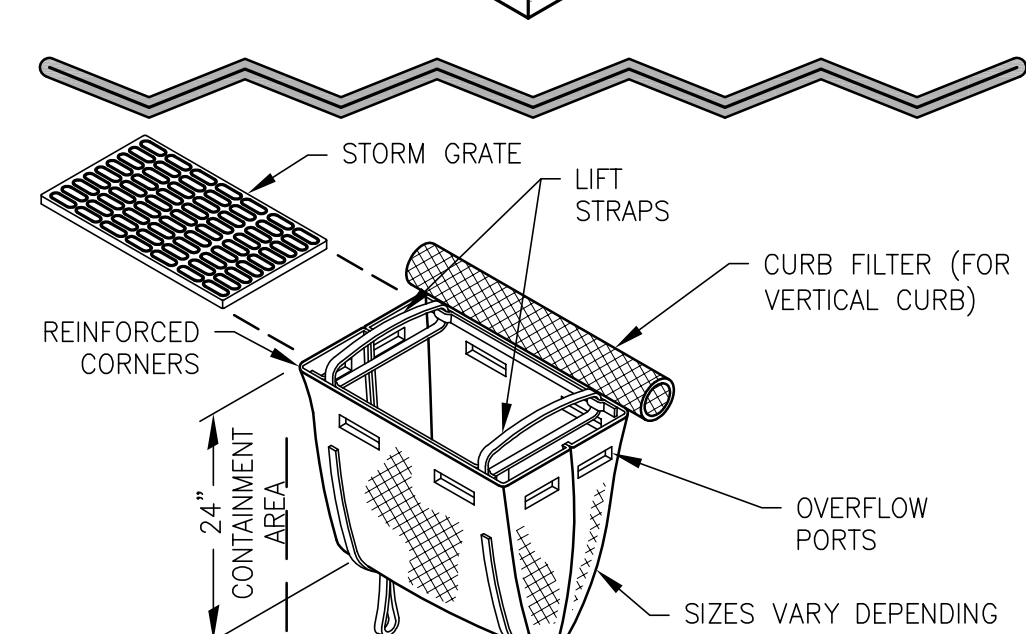
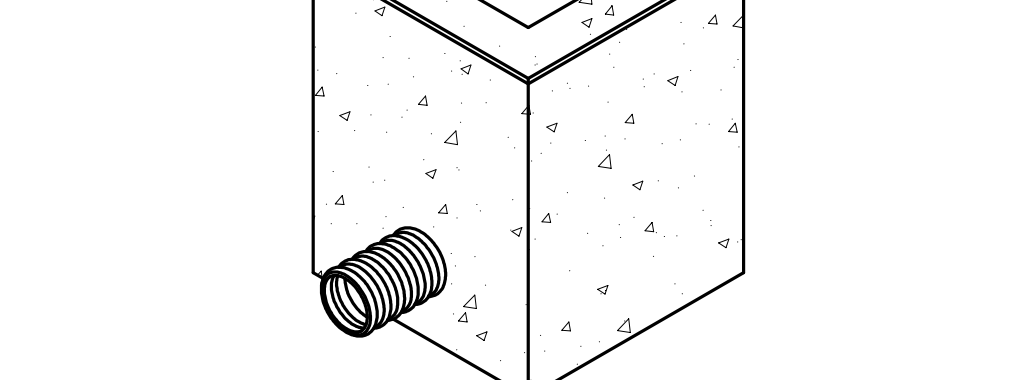
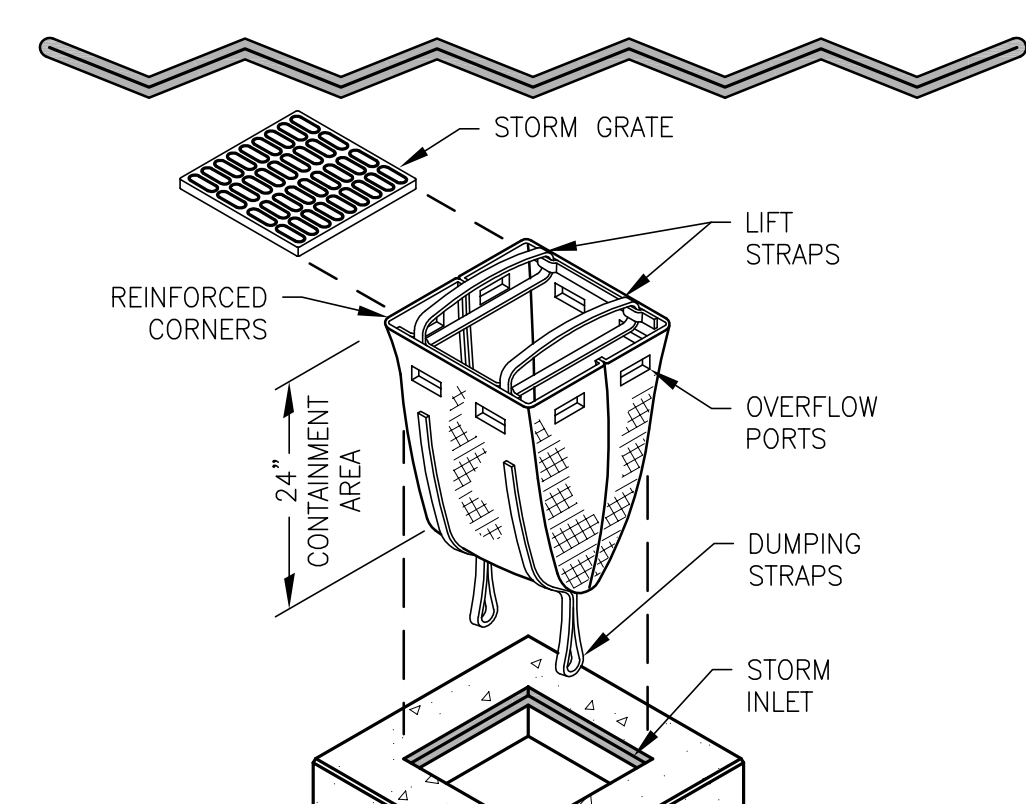
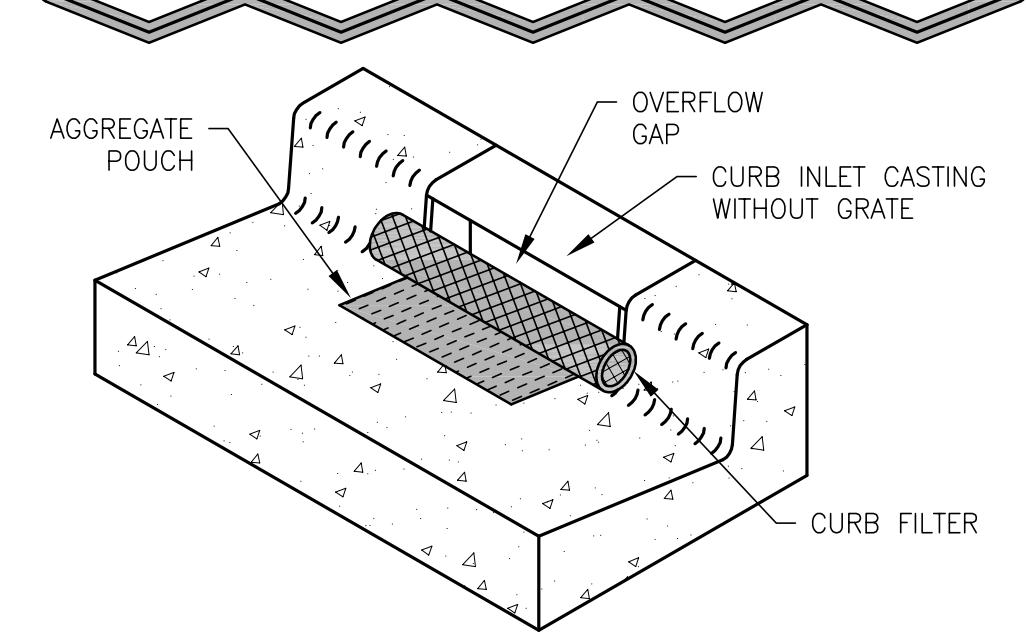
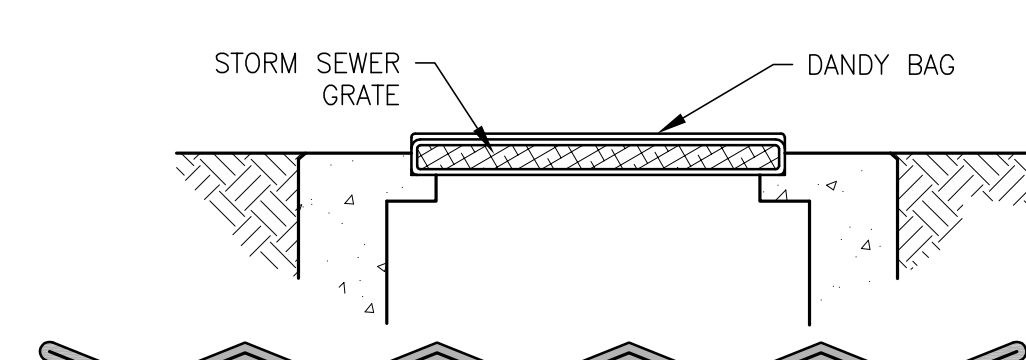
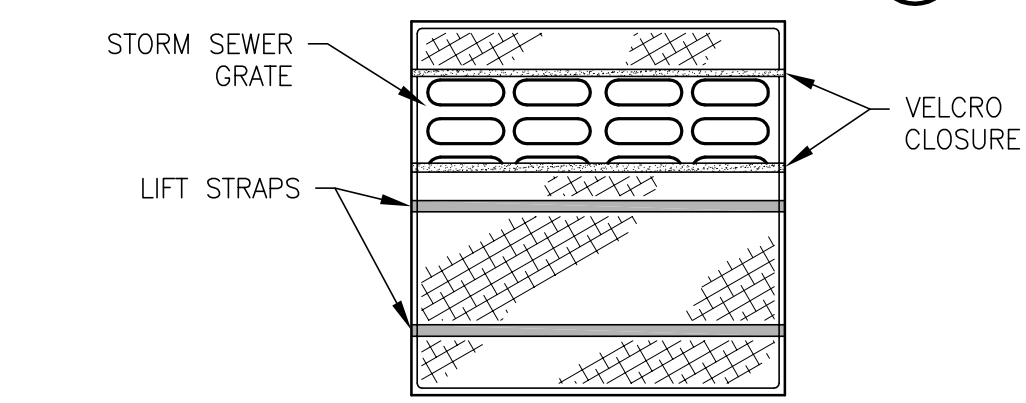
NOTES:

1. WASH WATER SHALL NOT FLOW TO SURFACE WATERS.
2. WASHOUT PIT SHALL BE LOCATED 100' MINIMUM FROM INLETS, STREAMS, WETLANDS AND ANY OTHER SURFACE WATERS.
3. WASHOUT PIT SHALL HAVE SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12".
4. WASHOUT PIT SHALL NOT BE FILLED BEYOND 95% CAPACITY UNLESS A NEW FACILITY IS CONSTRUCTED. MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED.
5. SAW CUT CONCRETE, RESIDUE FROM SAW CUT, AND GRINDINGS SHALL BE DISPOSED OF IN THE WASHOUT PIT.
6. A GENERAL LOCATION FOR THE CONCRETE WASHOUT PIT IS SHOWN IN THE SWPPP, BUT MAY BE MOVED TO BETTER SUIT THE CONTRACTOR'S MEANS AND METHODS.

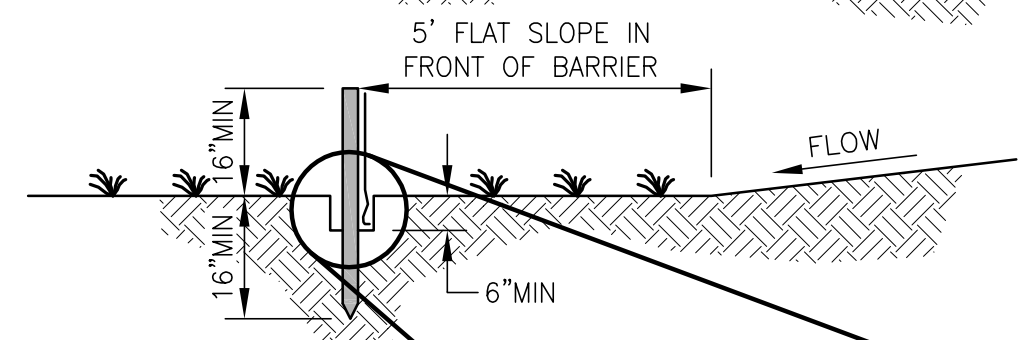
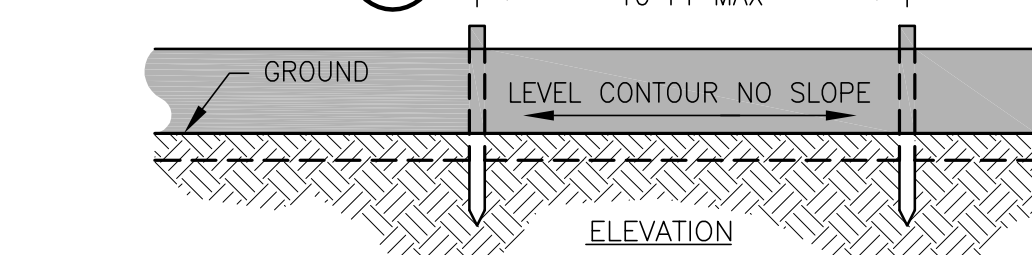
FILTER SOCK (FS)



STORM DRAIN INLET PROTECTIONS (IP)



SILT FENCE (SF)



1. PRESERVE VEGETATION FOR 5 FEET, OR AS MUCH AS POSSIBLE, UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
2. SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. PERFORM ONE OF THE FOLLOWING IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW:
 - CHANGE THE LAYOUT OF THE SILT FENCE.
 - REMOVE ACCUMULATED SEDIMENT.
 - INSTALL OTHER PRACTICES.

FABRIC PROPERTIES	VALUES	TEST METHOD
Grab Tensile Strength	90 lb. min	ASTM D 1682
Mullen Burst Strength	190 psi min	ASTM D 3786
Slurry Flow Rate	0.3 gal./min ² /ft max	
Equivalent Opening Size	40-80	US Std. sieve CW-02215
Ultraviolet Radiation Stability	90% min	ASTM-G-26

MULCHING (MU)

1. APPLY MULCH OR OTHER APPROPRIATE VEGETATIVE PRACTICES TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT FOR MORE THAN 45 DAYS OR ON AREAS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.
2. MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
 - STRAW IS TO BE UNROTTED SMALL-GRAIN STRAW APPLIED AT A RATE OF 2 TONS/AC. OR 90 LB./1,000 S.F. (2 TO 3 BALES). MULCH IS TO BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED.
 - WOOD-CELLULOSE FIBER APPLIED AT A RATE OF 2,000 LB/AC. OR 46 LB/1,000 S.F.
 - OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS/AC.
3. ANCHOR MULCH IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. ACCEPTABLE ANCHORING METHODS ARE AS FOLLOWS:
 - PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL USING A DISK, CRIMPER OR SIMILAR TOOL. DO NOT FINELY CHOP STRAW TO BE MECHANICALLY ANCHORED, BUT LEAVE LONGER THAN 6 INCHES.
 - USE NETTINGS PER THE MANUFACTURER'S RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF OR ON CRITICAL SLOPES.
 - SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.
 - APPLY WOOD-CELLULOSE FIBER BINDER AT A NET DRY WEIGHT OF 750 LB/AC. WOOD CELLULOSE FIBER IS TO BE MIXED WITH WATER AND THE MIXTURE IS TO CONTAIN A MAXIMUM OF 50 LB/100 GAL. OF WOOD CELLULOSE FIBER.

PERMANENT SEEDING (PS)

- SPECIFICATIONS FOR PERMANENT SEEDING SITE PREPARATION:
1. A SUBSOILER, PLOW OR OTHER IMPLEMENT TO BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. SUBSOILING TO BE DONE WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT TO BE DONE ON SLIP-PRONE AREAS.
 2. GRADE THE SITE AS NEEDED TO PERMIT USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.
 3. APPLY RESOIL WHERE NEEDED TO ESTABLISH VEGETATION.

SEEDBED PREPARATION:

1. APPLY AGRICULTURAL GROUND LIMESTONE TO ACIDIC SOIL AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY AT RATE OF 100 LB/1,000 S.F. OR 2 TONS/AC.
2. APPLY FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY AT A RATE OF 12 LB/1,000 S.F. OR 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS.
3. LIME AND FERTILIZER TO BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3".

SEEDING DATES AND SOIL CONDITIONS:

1. SEED MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. THESE ARE IDEAL SEEDING DATES, BUT SEEDING MAY BE MADE ANY TIME THROUGHOUT THE GROWING SEASON WITH THE USE OF ADDITIONAL MULCH AND IRRIGATION. TILLAGE/SEED BED PREPARATION TO BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. SEE THE FOLLOWING SECTION ON DORMANT SEEDING FOR WINTER SEEDING.

DORMANT SEEDINGS:

1. DO NOT PLANT SEEDINGS FROM OCTOBER 1 TO NOVEMBER 20. SEEDS ARE LIKELY TO GERMINATE DURING THIS PERIOD, BUT PROBABLY WILL NOT SURVIVE THE WINTER.
2. THE FOLLOWING METHODS MAY BE USED:
 - FROM OCTOBER 1 TO NOVEMBER 20, PREPARE THE SEED BED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. AFTER NOVEMBER 20 AND BEFORE MARCH 15, INCREASE THE SEEDING RATES BY 50% AND BROADCAST THE SEED MIXTURE.
 - FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEED BED, LIME AND FERTILIZER, APPLY THE SEED MIXTURE, MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.
 - APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTPACKER SEEDER, OR HYDRO-SEEDED (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON FIRM, MOIST SEED BED.
 - WHERE FEASIBLE, EXCEPT WHEN A CULTPACKER TYPE SEEDER IS USED, THE SEED BED IS TO BE FIRMLY FOLLOWING SEEDING OPERATIONS WITH A CULTPACKER, ROLLER, OR LIGHT DRAG.

MULCHING:

1. APPLY MULCH MATERIAL IMMEDIATELY AFTER SEEDING. SEEDING MADE DURING OPTIMUM SEEDING DATES ON FLAT AREAS WITH FAVORABLE SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE STABILIZATION. DORMANT SEEDING IS TO BE MULCHED.
2. SEE MULCHING FOR MATERIALS AND ANCHORING METHODS.

IRRIGATION:

1. PERMANENT SEEDING TO INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS AS NEEDED FOR ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH.
2. EXCESSIVE IRRIGATION RATES TO BE AVOIDED AND IRRIGATION MONITORED TO PREVENT EROSION AND DAMAGE FROM RUNOFF.

SPECIFICATIONS FOR MAINTENANCE OF PERMANENT SEEDING:

1. PERMANENT SEEDING TO NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF PLANTING. SEEDING AREAS TO BE INSPECTED FOR FAILURE AND VEGETATION REESTABLISHED AS NEEDED. DEPENDING ON SITE CONDITIONS, IT MAY BE NECESSARY TO IRRIGATE, FERTILIZE, OVERSEED, OR REESTABLISH PLANTINGS IN ORDER TO PROVIDE PERMANENT VEGETATION FOR ADEQUATE EROSION CONTROL.
2. ESTABLISH MAINTENANCE FERTILIZATION RATES BY SOIL TEST RECOMMENDATIONS OR BY USING THE FOLLOWING RATES:

SEED MIX	SEEDING RATE		NOTES:
	LB./AC.	LB./1,000 S.F.	
GENERAL USE			
Creeping Red Fescue	20-40	1/2 TO 1	
Domestic Ryegrass	10-20	1/4 TO 1/2	
Kentucky Bluegrass	10-20	1/4 TO 1/2	
Tall Fescue	40	1	
Dwarf Fescue	40	1	
STEEP BANKS OR CUT SLOPES			
Tall Fescue	40	1	
Crown Vetch	10	1/4	Do not seed later than August
Tall Fescue	20	1/2	
Flat Pea	20	1/2	Do not seed later than August
Tall Fescue	20	1/2	
ROAD DITCHES AND SWALES			
Tall Fescue	40	1	
Dwarf Fescue	90	2-1/4	Do not seed later than August
Kentucky Bluegrass	5		
LAWN			
Kentucky Bluegrass	60	1-1/2	
Perennial Ryegrass	60	1-1/2	
Kentucky Bluegrass	60	1-1/2	For shaded areas
Creeping Red Fescue	60	1-1/2	

Note: Other approved seed species may be substituted.

PERMANENT SEEDING (continued)

MAINTENANCE FOR PERMANENT SEEDINGS FERTILIZATION AND MOWING				
MIXTURE	FORMULA	LB./AC.	TIME	MOWING
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	10-10-10	500		≥3"
Tall Fescue	10-10-10	500	Fall, yearly or as needed	≥4"
Dwarf Fescue	10-10-10	500		≥2"
Crown Vetch Fescue	0-20-20	400	Spring, yearly following establishment, then every 4-7 years	Do not mow
Flat Pea Fescue	0-20-20	400		

Note: Following soil test recommendations is preferred to the fertilizer rates above.

TEMPORARY SEEDING (TS)

1. TEMPORARY SEED TO BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 14 DAYS OR MORE. THESE IDLE AREAS SHOULD BE SEED AS SOON AS POSSIBLE AFTER GRADING OR BE SEED WITHIN 7 DAYS. SEVERAL APPLICATIONS OF TEMPORARY SEEDING ARE NECESSARY ON TYPICAL CONSTRUCTION PROJECTS.
2. THE SEED BED IS TO BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
3. SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH ADEQUATE STANDS OF VEGETATION. PERFORM SOIL TESTS ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.
4. APPLY SEED UNIFORMLY WITH CYCLONE SEEDER, CULTPACKER SEEDER OR HYDROSEEDER. COVER BROADCASTED SEED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPING INTO PLACE USING A ROLLER OR CULTPACKER. IF HYDROSEEDING IS USED, MIX THE SEED AND FERTILIZER ON SITE AND IMMEDIATELY USE.

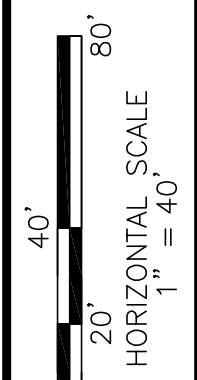
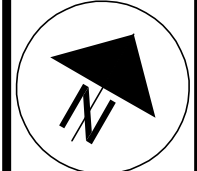
MULCHING TEMPORARY SEEDING

1. APPLY MULCH MATERIAL IMMEDIATELY AFTER SEEDING. SEEDING MADE DURING OPTIMUM SEEDING DATES ON FLAT AREAS WITH FAVORABLE SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE STABILIZATION. DORMANT SEEDING IS TO BE MULCHED.
2. SEE MULCHING FOR MATERIALS AND ANCHORING METHODS.

TEMPORARY SEEDING SPECIES SELECTION

SEEDING DATES	SPECIES	LB./1,000 S.F.	PER AC.
March 1 to August 15	Oats	3	4 bushel
	Tall Fescue	1	40 lb.
	Perennial Ryegrass	1	40 lb.
August 16 to November 1	Perennial Ryegrass	2	40 lb.
	Tall Fescue	1	40 lb.
	Rye	3	2 bushel
November 1 to Spring Seeding	Tall Fescue	1	40 lb.
	Perennial Ryegrass	1	40 lb.
	Perennial Ryegrass	2	40 lb.
	Tall Fescue	1	40 lb.

Use mulch only, sodding practices or dormant seeding.

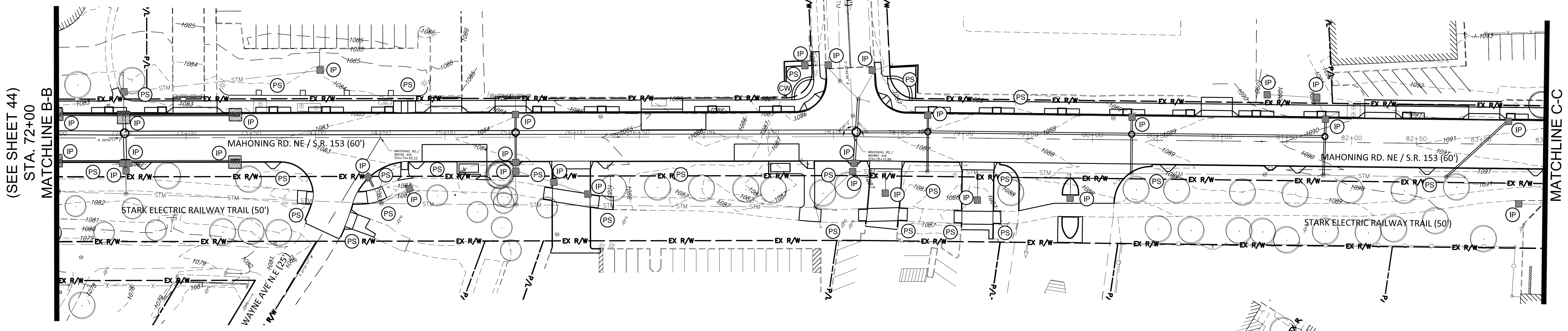


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STORM WATER POLLUTION PREVENTION PLAN

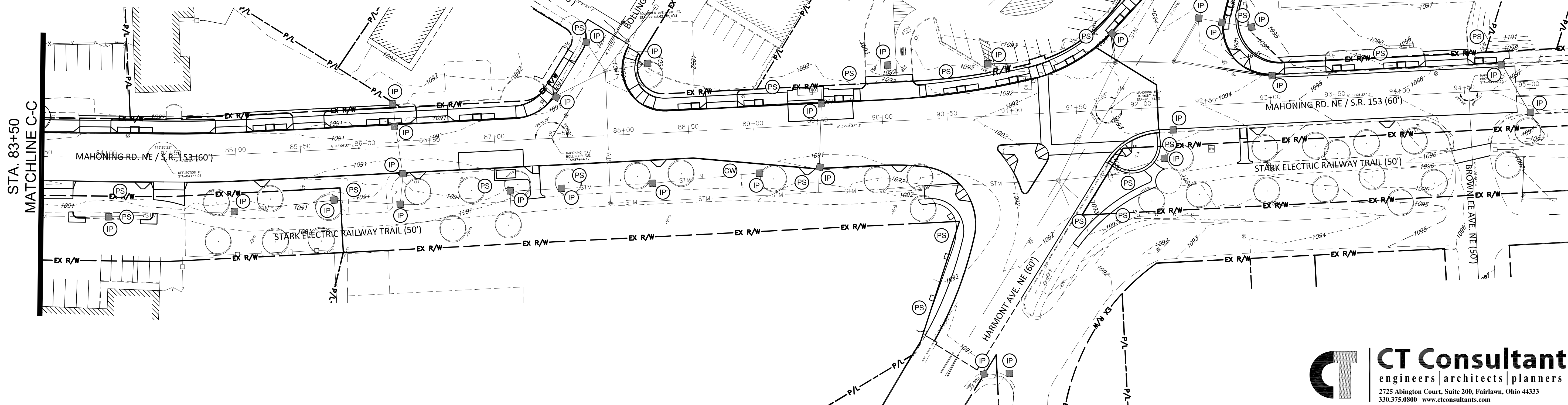
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CONSTRUCTION BIDDING SET	4/21/14	GEA
STM SWR REVISIONS	10/17/14	GEA

MAHONING ROAD NE
STA-0153-01.70



SWPPP LEGEND

	PR. CONCRETE WASHOUT PIT
	PR. PERMANENT SEEDING
	PR. TEMPORARY SEEDING
	PR. SODDING
	PR. SILT FENCE
	PR. FILTER SOCK
	PR. STORM INLET PROTECTION
	PR. TREE PROTECTION FENCE
	PR. CONCRETE PAVEMENT
	PR. CONCRETE SIDEWALK
	PR. MANHOLE
	PR. STORM CATCH BASIN
	PR. STORM SEWER

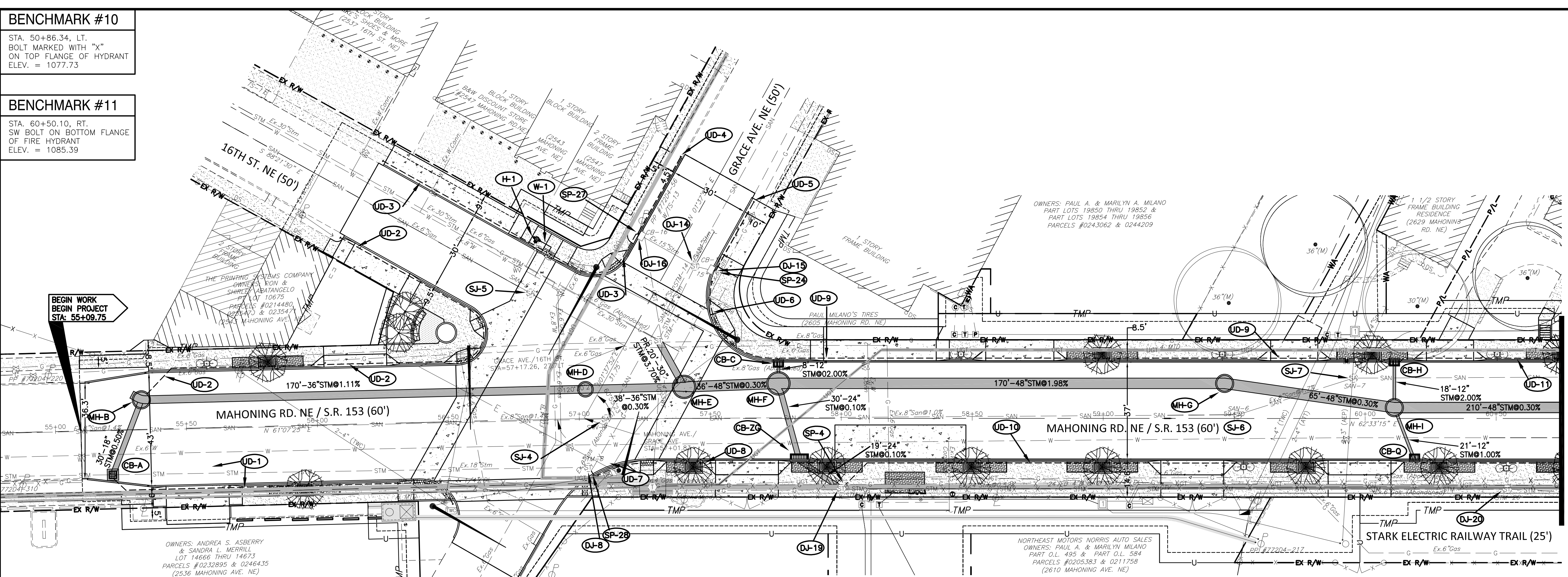
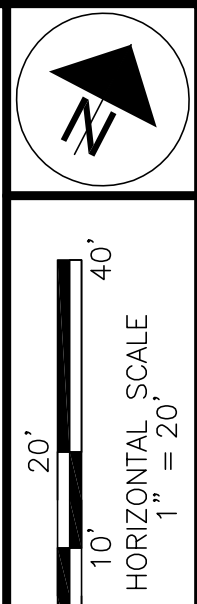


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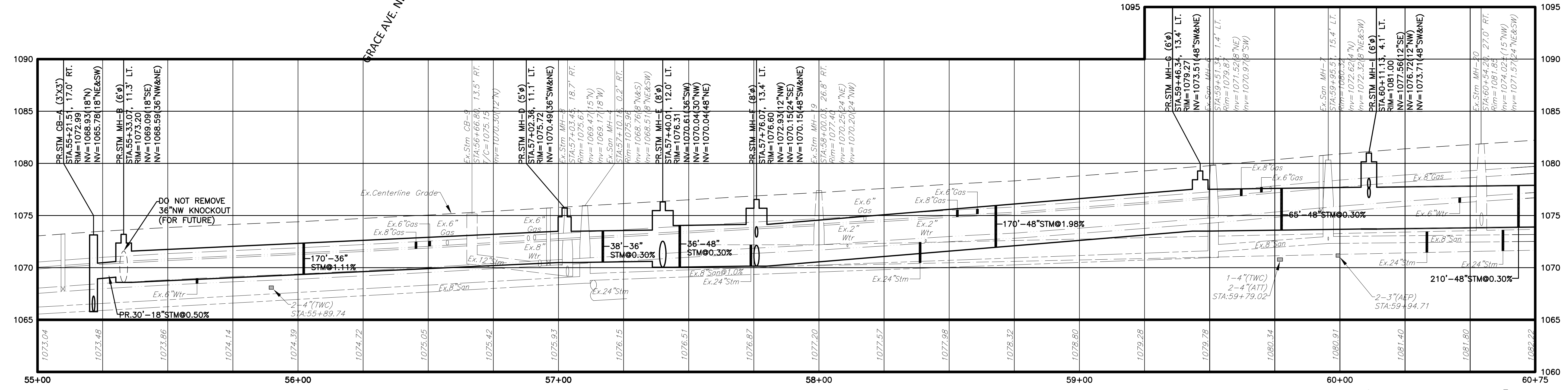
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BENCHMARK #10
 STA. 50+86.34, LT.
 BOLT MARKED WITH "X"
 ON TOP FLANGE OF HYDRANT
 ELEV. = 1077.73

BENCHMARK #11
 STA. 60+50.10, RT.
 SW BOLT ON BOTTOM FLANGE
 OF FIRE HYDRANT
 ELEV. = 1085.39



PLAN
 HORIZ. SCALE: 1"=20'



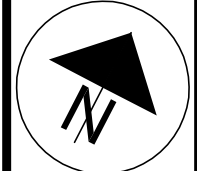
PROFILE
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'

MATCHLINE STA. 60+75
 (SEE SHEET 47)

PLAN & PROFILE
 STA. 55+00 TO STA. 60+75

DATE	BY	REVISIONS
4/21/14	GEA	CONSTRUCTION BIDDING SET
5/7/14	GEA	APPENDIX NO. 1
10/1/14	GEA	STM SWR REVISIONS

MAHONING ROAD NE
 STA-0153-01.70



0 20' 40'
 1" = 20'
 HORIZONTAL SCALE

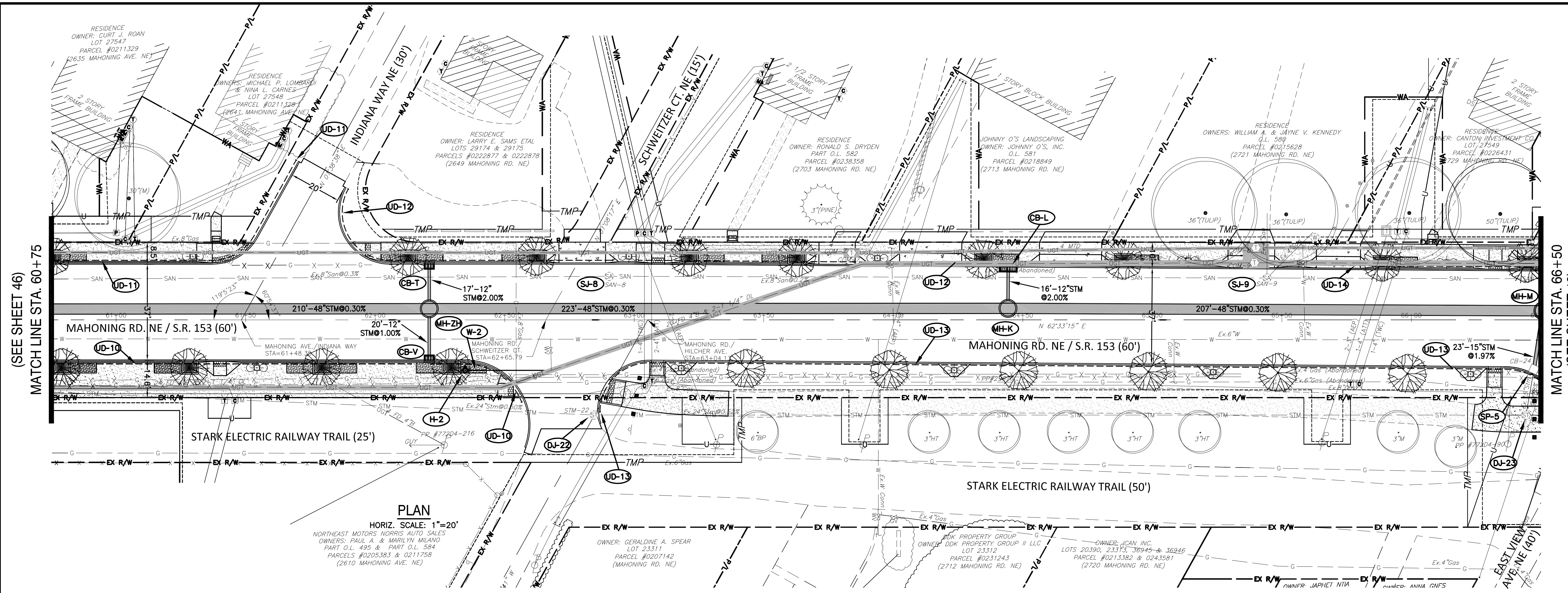
CALCULATED: GEA
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PLAN & PROFILE
 STA. 60+75 TO STA. 66+50

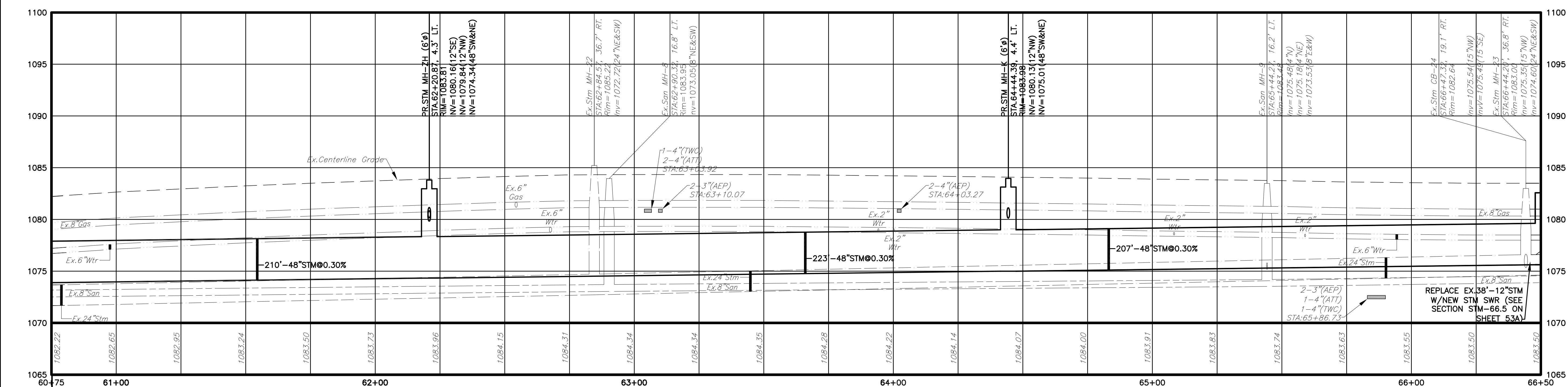
DATE	BY	REVISIONS
4/21/14	GEA	CONSTRUCTION BIDDING SET
5/7/14	GEA	ADDENDUM NO. 1
10/7/14	GEA	STM SWR REVISIONS

MAHONING ROAD NE
 STA-0153-01.70

47
 108



PLAN
 HORIZ. SCALE: 1"=20'



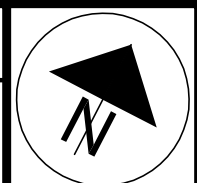
PROFILE
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'

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BENCHMARK #12

STA. 67+99.08, RT.
BOLT MARKED WITH "X"
ON TOP FLANGE OF HYDRANT
ELEV. = 1085.88



0 10 20 40
HORIZONTAL SCALE
1" = 20'

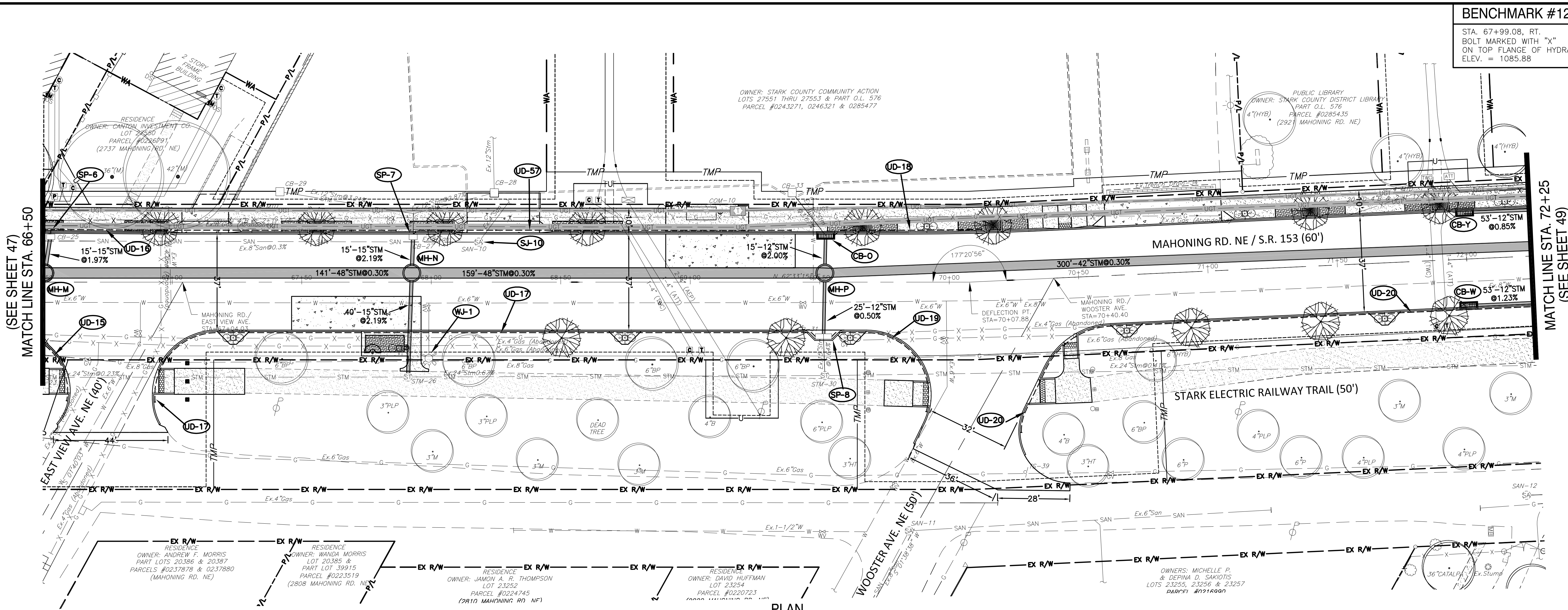
CALCULATED: JCG
G.E.A.
CHECKED: JCG

PLAN & PROFILE
STA. 66+50 TO STA. 72+25
(SEE SHEET 49)

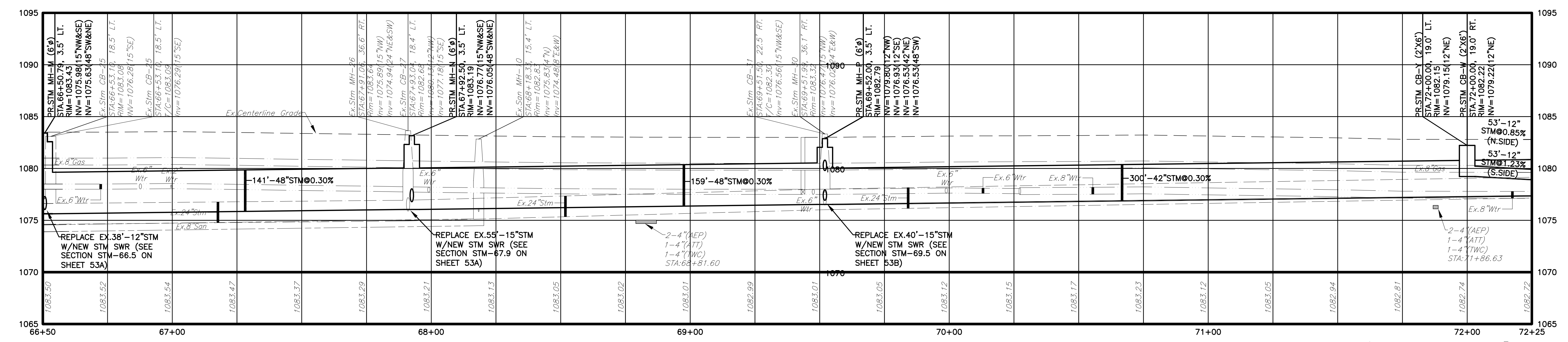
DATE	BY	REVISIONS
4/21/14	GEA	CONSTRUCTION BIDDING SET
5/7/14	GEA	ADDENDUM NO. 1
10/1/14	GEA	STM SWR REVISIONS

MAHONING ROAD NE
STA-0153-01.70

48
108

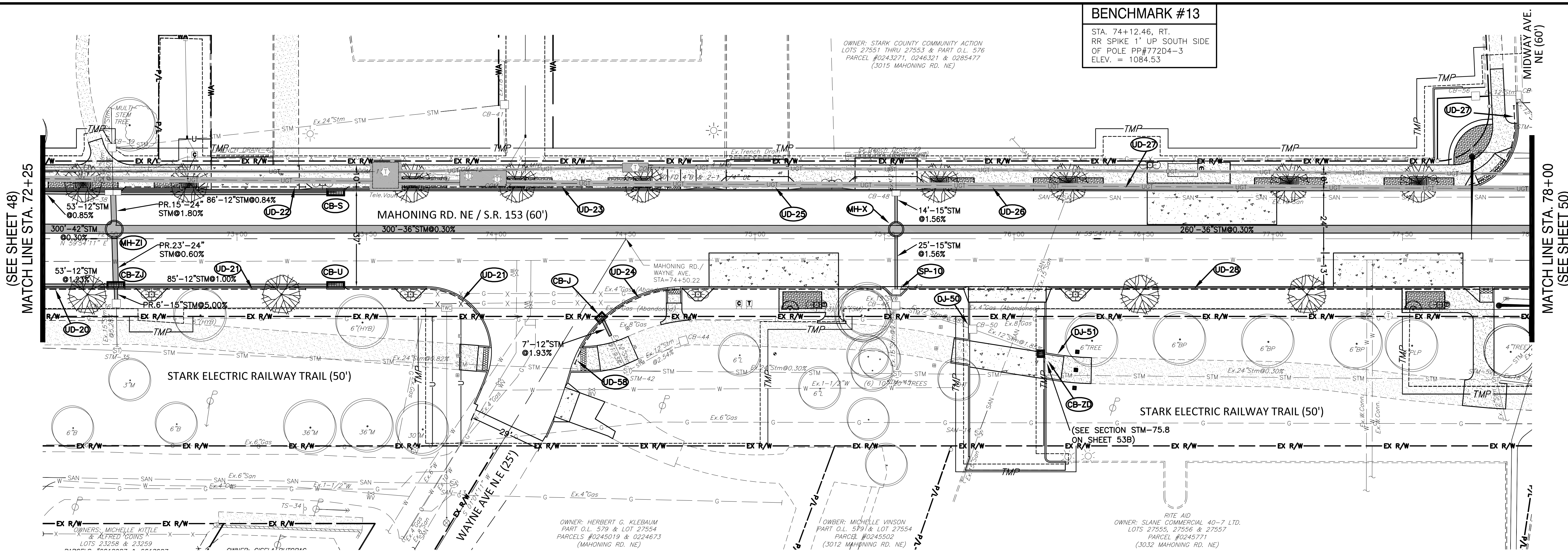


PLAN
HORIZ. SCALE: 1"=20'



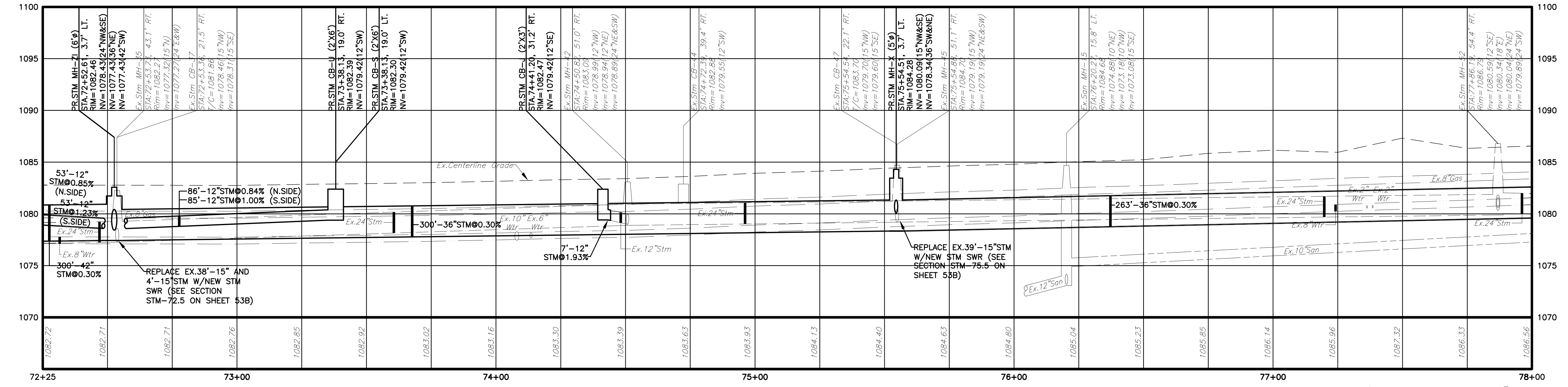
PROFILE
VERT. SCALE: 1"=5'
HORIZ. SCALE: 1"=20'

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PLAN
HORIZ. SCALE: 1"=20'

BENCHMARK #13
STA. 74+12.46, RT.
RR SPIKE 1' UP SOUTH SIDE
OF POLE PP#77204-3
ELEV. = 1084.53



PROFILE
VERT. SCALE: 1"=5'
HORIZ. SCALE: 1"=20'

MAHONING ROAD NE
STA-0153-01.70

PLAN & PROFILE
STA. 72+25 TO STA. 78+00

DATE: 4/21/14
BY: GEA
REVISIONS: CONSTRUCTION BIDDING SET
APPENDIX NO. 1
DATE: 5/7/14
BY: GEA
REVISIONS: STM SWR REVISIONS

CALCULATED: GEA
CHECKED: JGC

49
108

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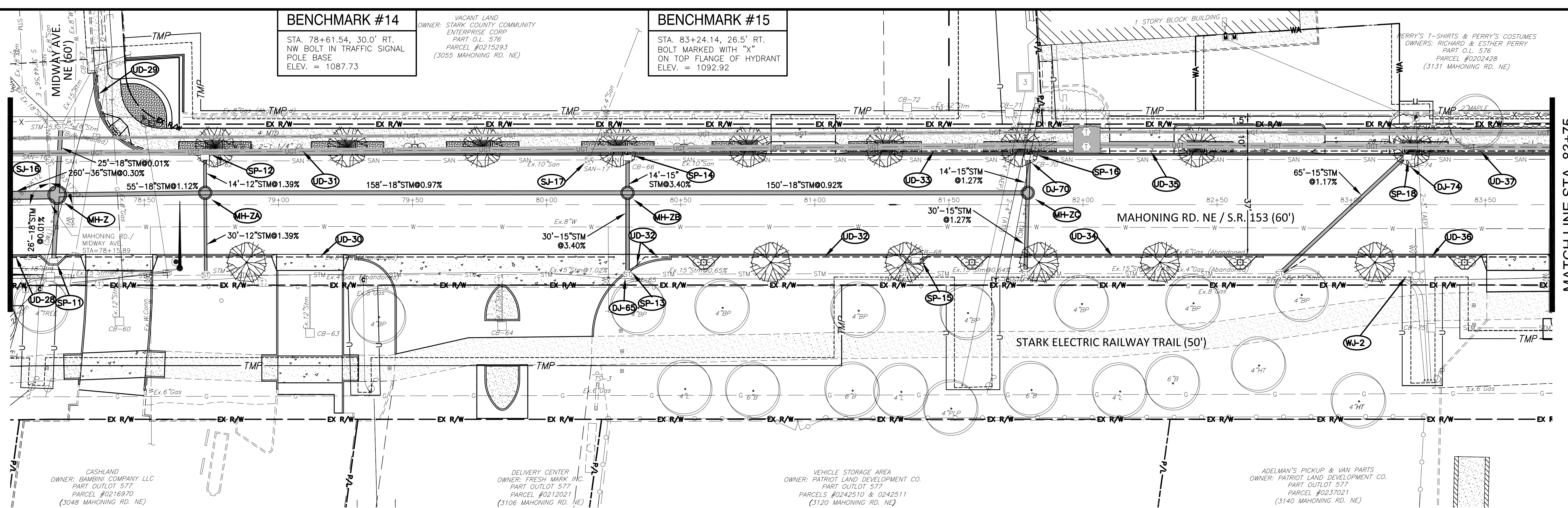
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(SEE SHEET 49)
MATCH LINE STA. 78+00

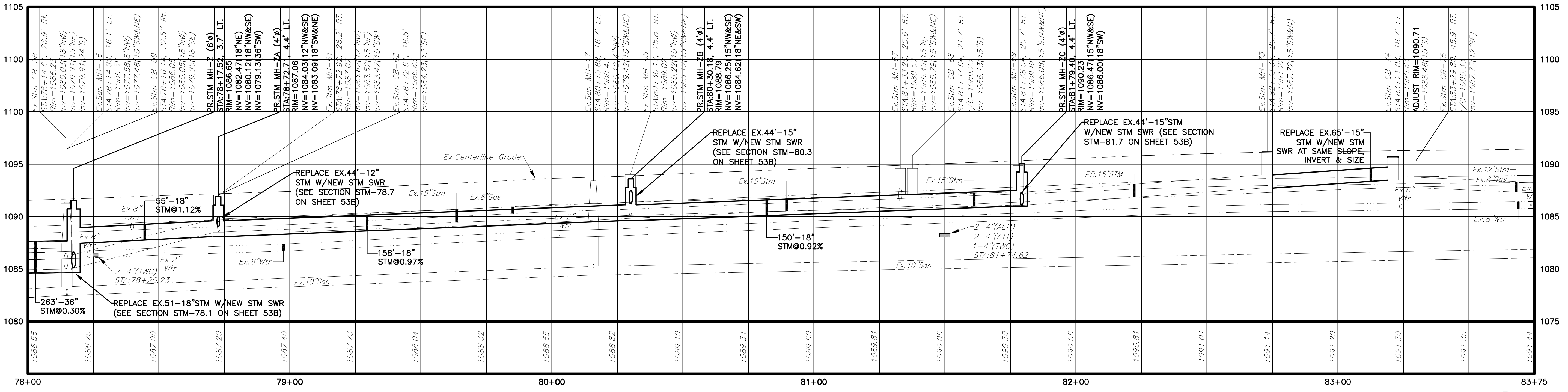
MATCH LINE STA. 83+75
(SEE SHEET 51)

BENCHMARK #14
STA. 78+61.54, 30.0' RT.
NW BOLT IN TRAFFIC SIGNAL
POLE BASE
ELEV. = 1087.73

BENCHMARK #15
STA. 83+24.14, 26.5' RT.
BOLT MARKED WITH "X"
ON TOP FLANGE OF HYDRANT
ELEV. = 1092.92



PLAN
HORIZ. SCALE: 1"=20'



PROFILE
VERT. SCALE: 1"=5'
HORIZ. SCALE: 1"=20'

CALCULATED: GEA
 CHECKED: JGC
 DATE: 4/21/14
 REVISIONS: CONSTRUCTION BIDDING SET
 APPENDIX NO. 1
 STA. SWR REVISIONS

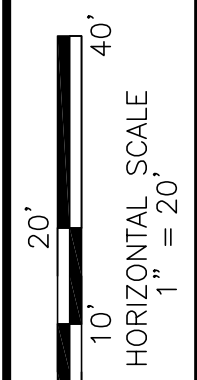
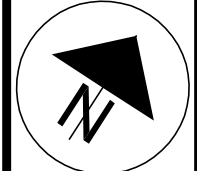
PLAN & PROFILE
STA. 78+00 TO STA. 83+75

MAHONING ROAD NE
STA-0153-01.70

MAHONING ROAD NE
STA-0153-01.70

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108

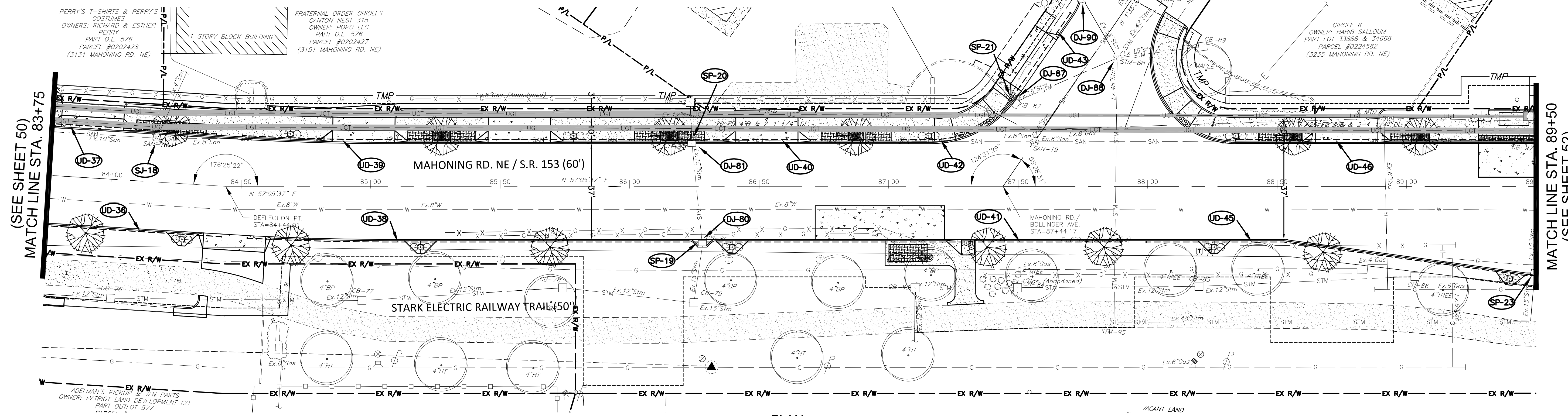


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CHECKED: JGC

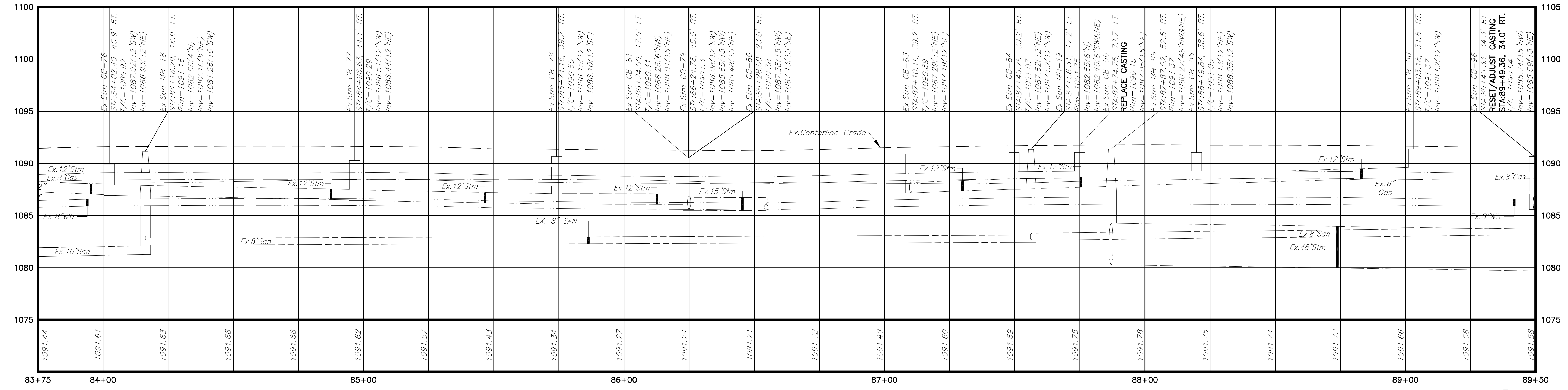
PLAN & PROFILE
STA. 83+75 TO STA. 89+50

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA
STM SWR REVISIONS	10/1/14	GEA

MAHONING ROAD NE
STA-0153-01.70



PLAN
HORIZ. SCALE: 1"=20'



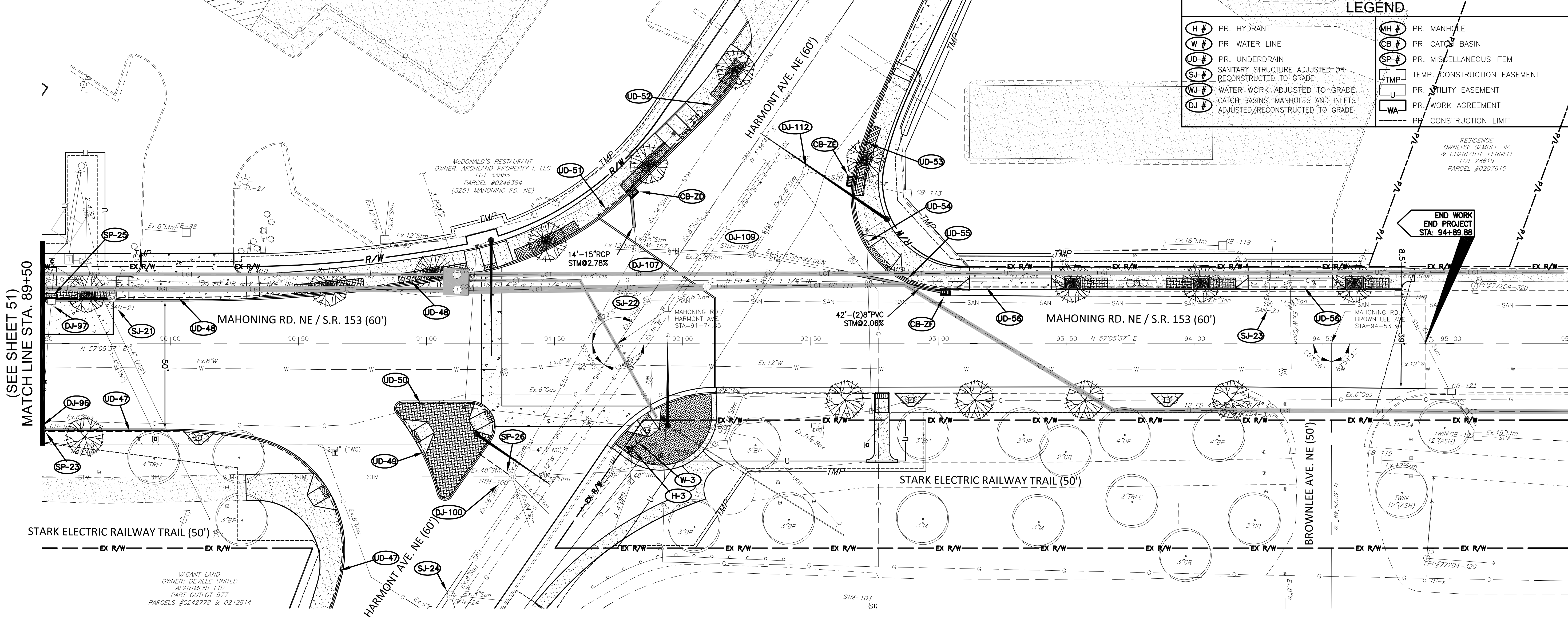
PROFILE
VERT. SCALE: 1"=5'
HORIZ. SCALE: 1"=20'

PERRY'S T-SHIRTS & PERRY'S COSTUMES
OWNERS: RICHARD & ESTHER PERRY
PART O.L. 576
PARCEL #0202428
(3131 MAHONING RD. NE)

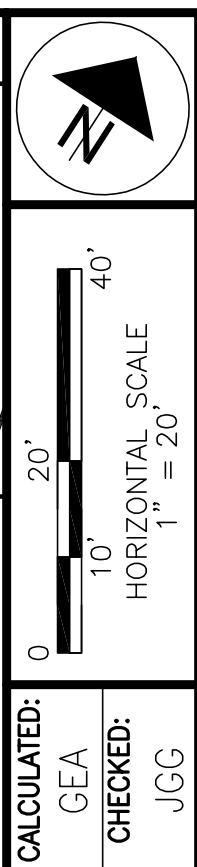
FRATERNAL ORDER OROLES CANTON NEST 315
OWNER: POP2 LLC
PART O.L. 576
PARCEL #0202427
(3151 MAHONING RD. NE)

ADELMAN'S PICKUP & VAN PARTS
OWNER: PATRIOT LAND DEVELOPMENT CO.
PART OUTLOT 577

I:\projects\153\Construction\Drawings\plan & profile.dwg Plot Date: 10/2/2014 2:31 AM

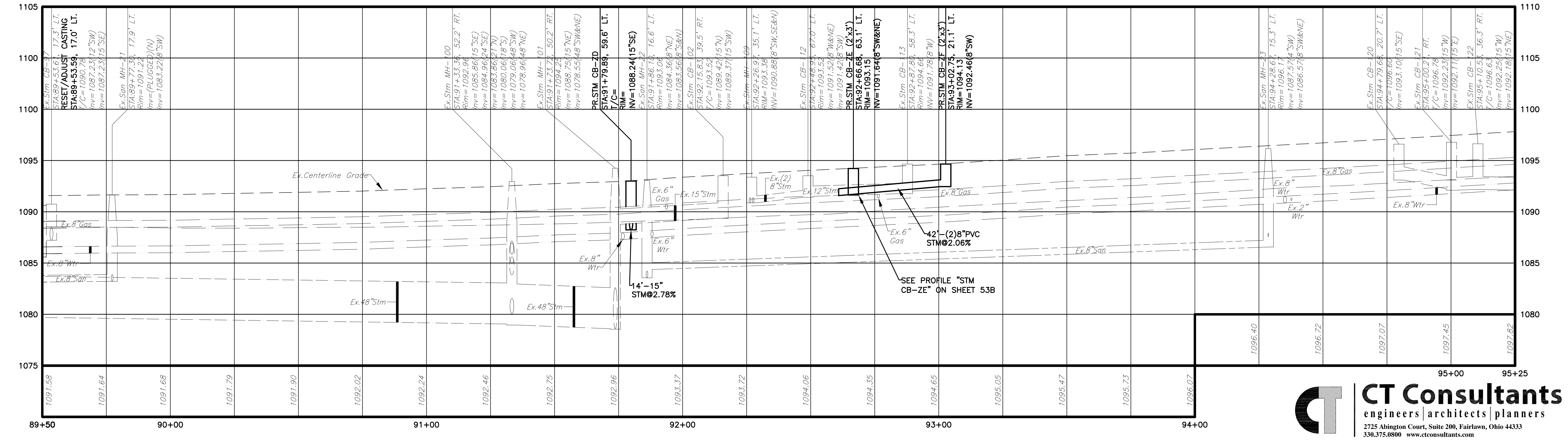


LEGEND			
(H #)	PR. HYDRANT	(MH #)	PR. MANHOLE
(W #)	PR. WATER LINE	(CB #)	PR. CATCH BASIN
(UD #)	PR. UNDERDRAIN	(SP #)	PR. MISCELLANEOUS ITEM
(SJ #)	SANITARY-STRUCTURE-ADJUSTED-OR-RECONSTRUCTED TO GRADE	(TMP)	TEMP. CONSTRUCTION EASEMENT
(WJ #)	WATER WORK ADJUSTED TO GRADE	(U)	PR. UTILITY EASEMENT
(DJ #)	CATCH BASINS, MANHOLES AND INLETS ADJUSTED/RECONSTRUCTED TO GRADE	(WA)	PR. WORK AGREEMENT
		(---)	PR. CONSTRUCTION LIMIT



(SEE SHEET 51)
MATCH LINE STA. 89+50

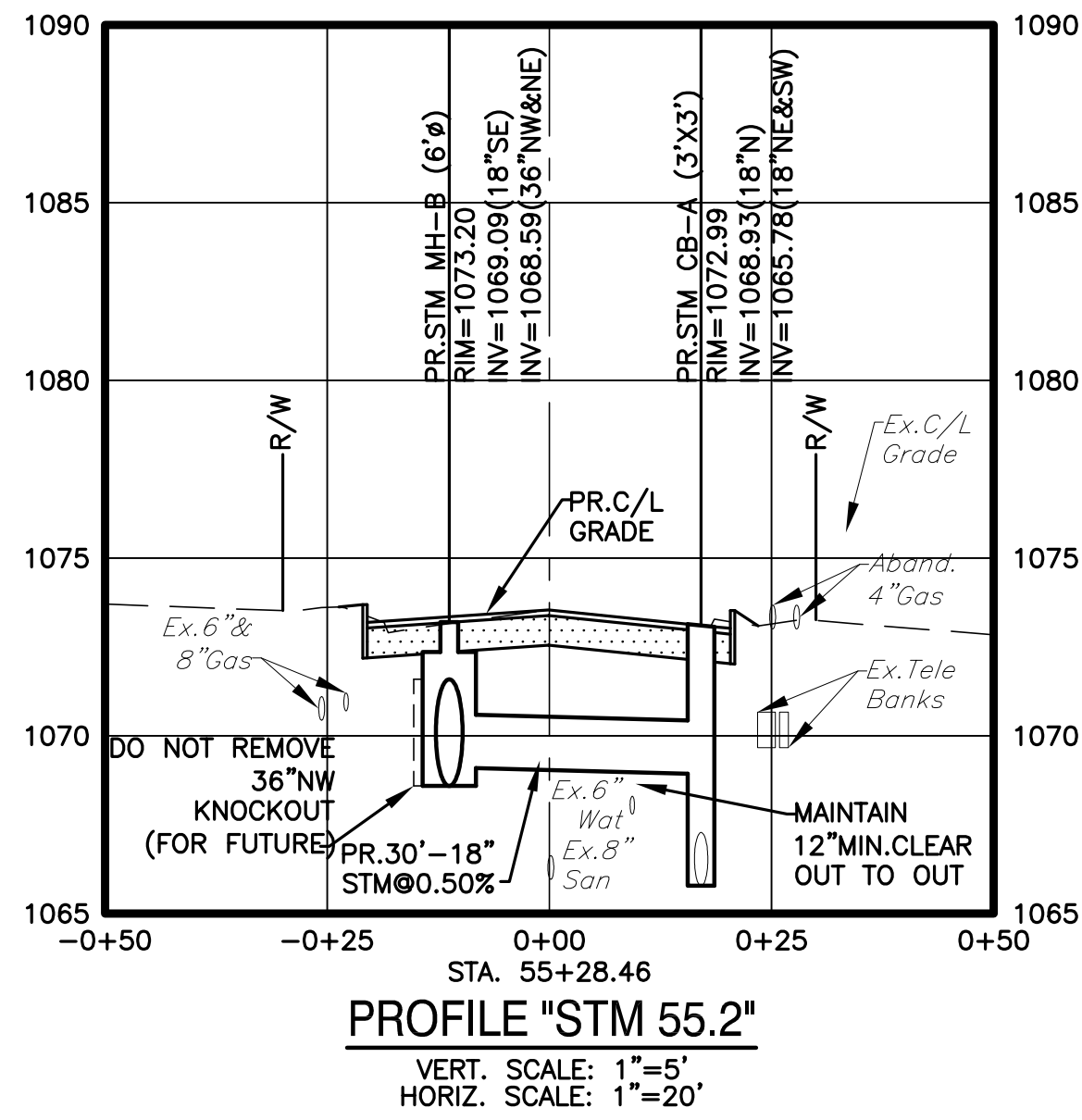
PLAN & PROFILE
STA. 89+50 TO STA. 95+50



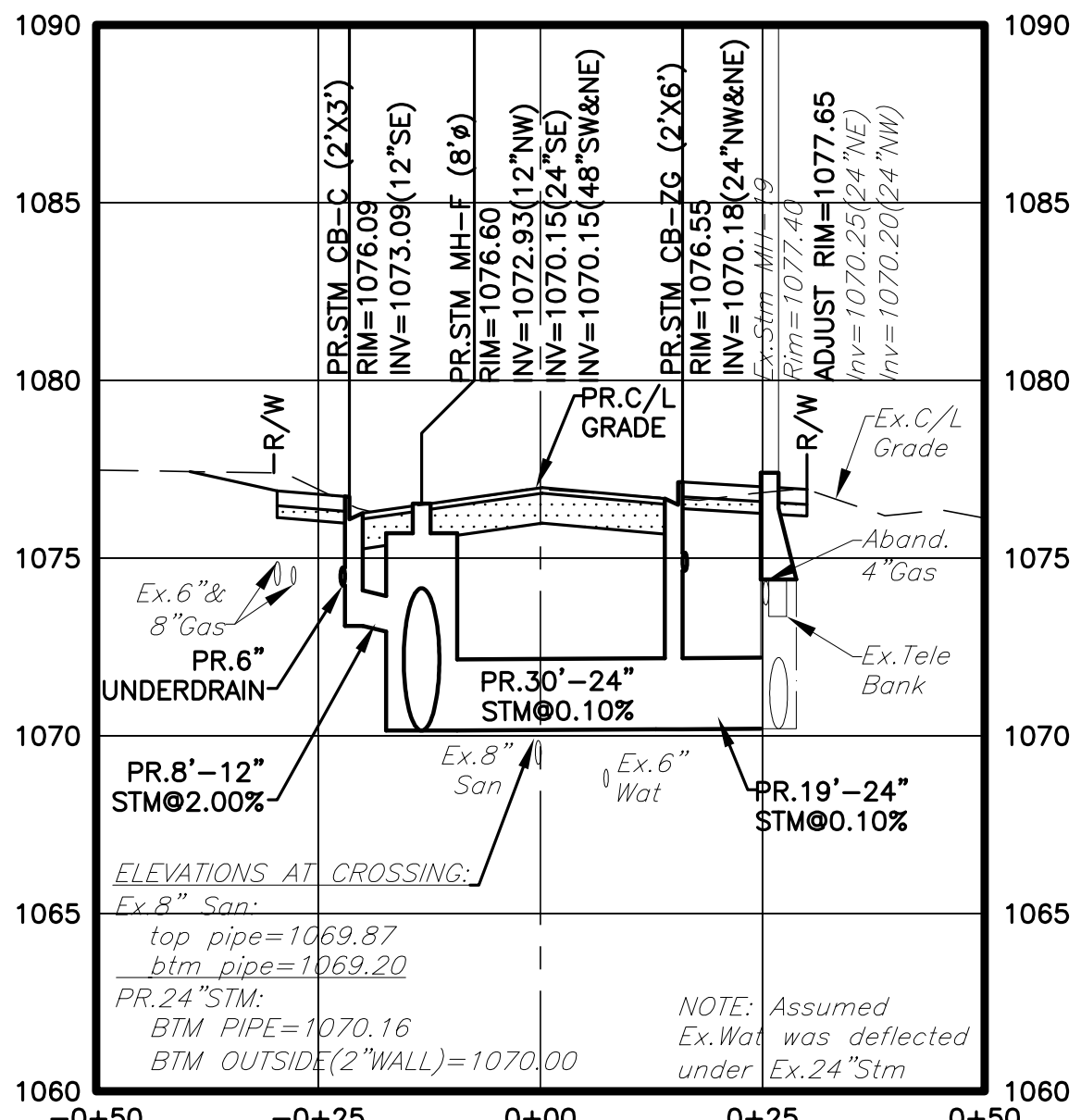
DATE	BY	REVISIONS
4/21/14	GEA	CONSTRUCTION BIDDING SET
5/7/14	GEA	ADDENDUM NO. 1
10/7/14	GEA	STM SWR REVISIONS

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STA-0153-01.70

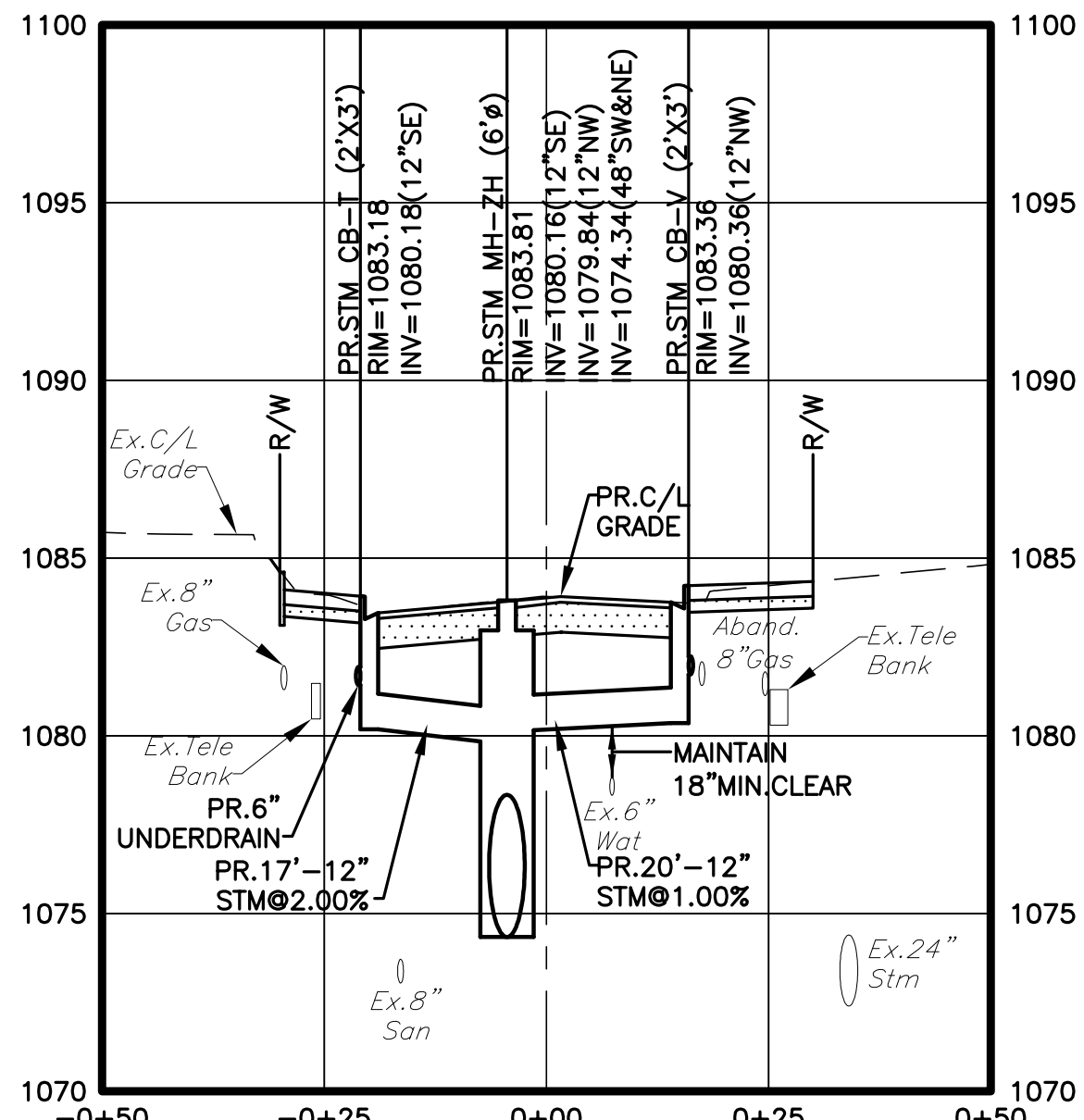
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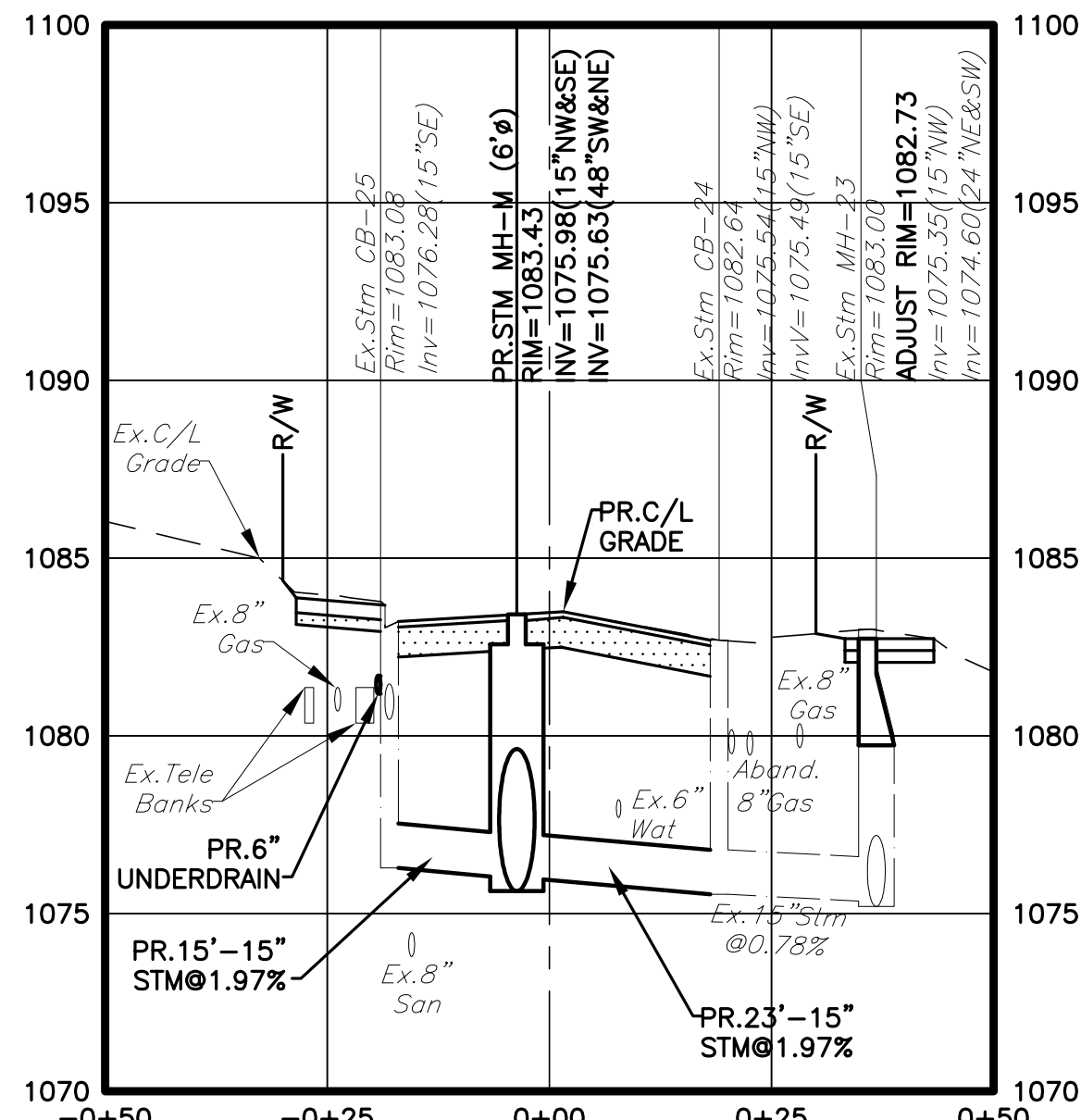
PROFILE "STM 55.2"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



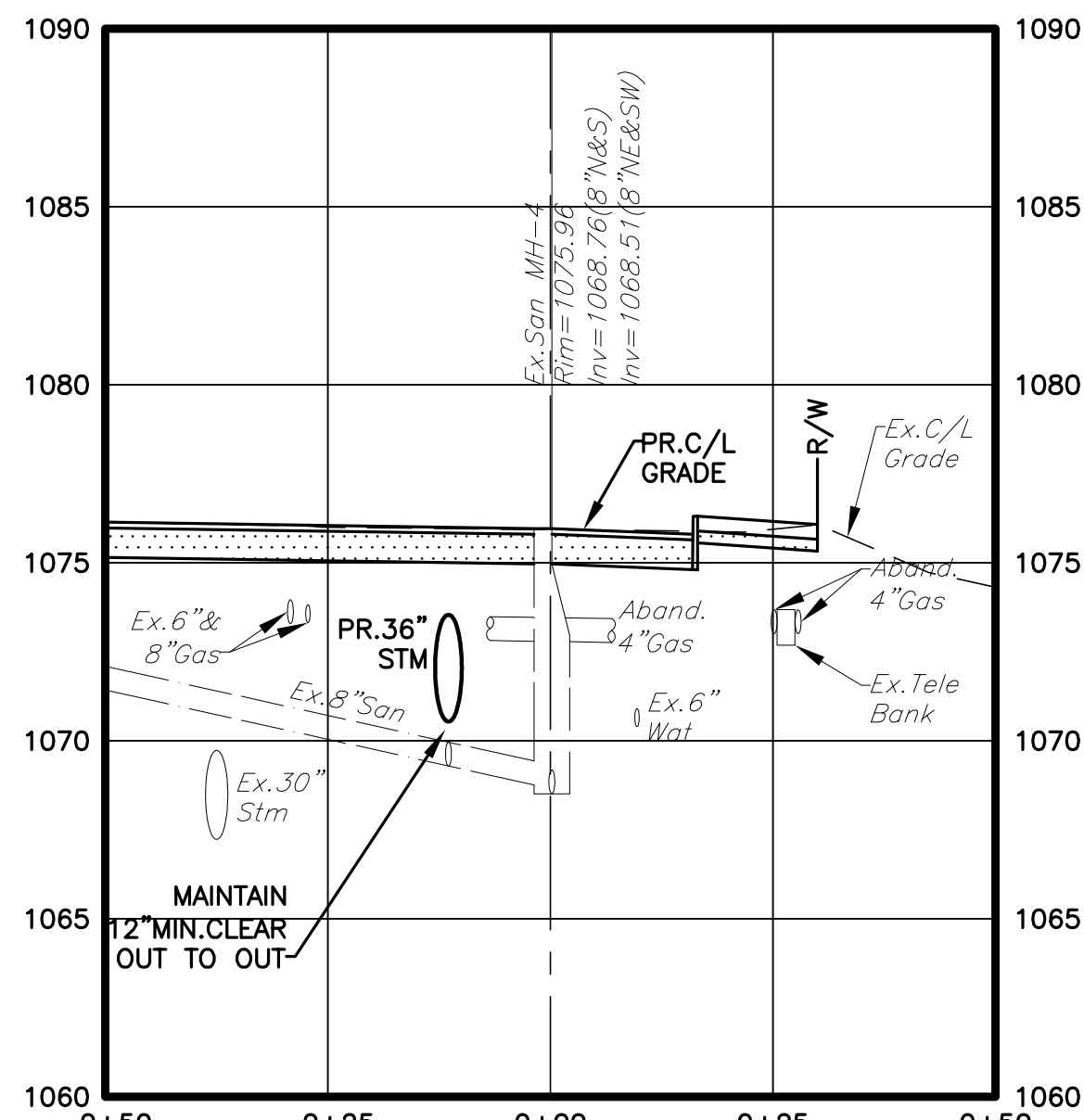
PROFILE "STM 57.7"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



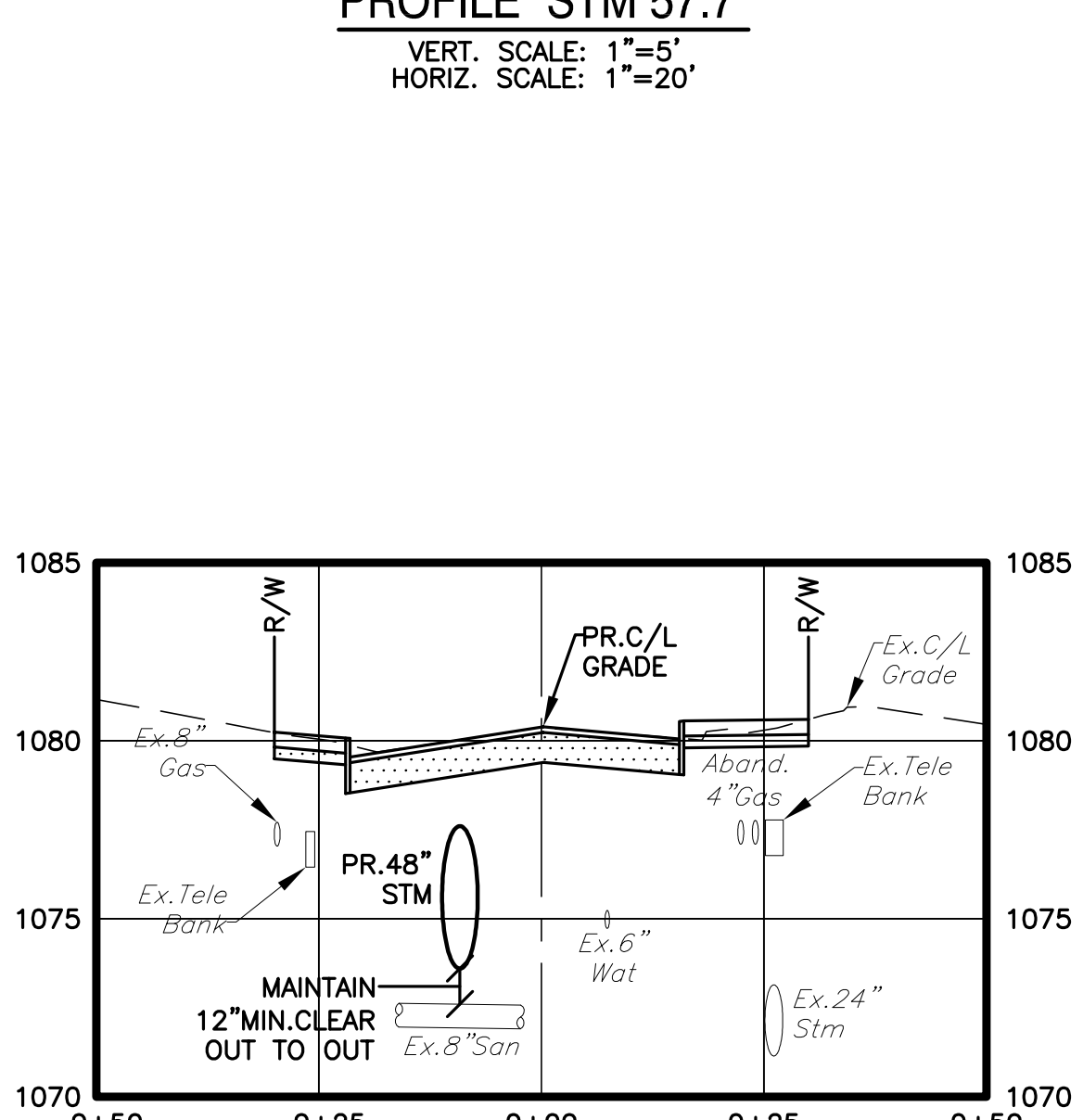
PROFILE "STM 62.2"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



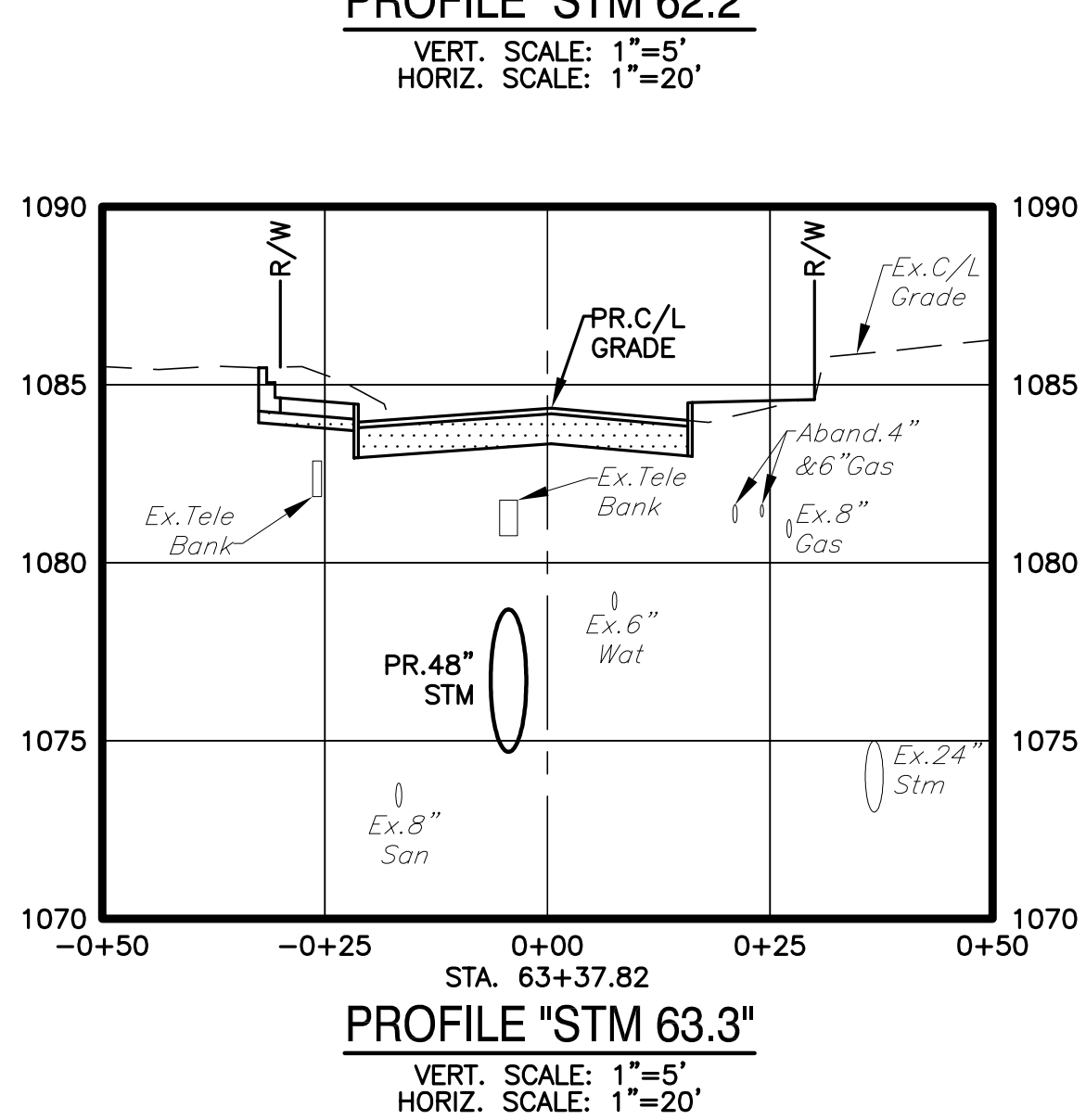
PROFILE "STM 66.5"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



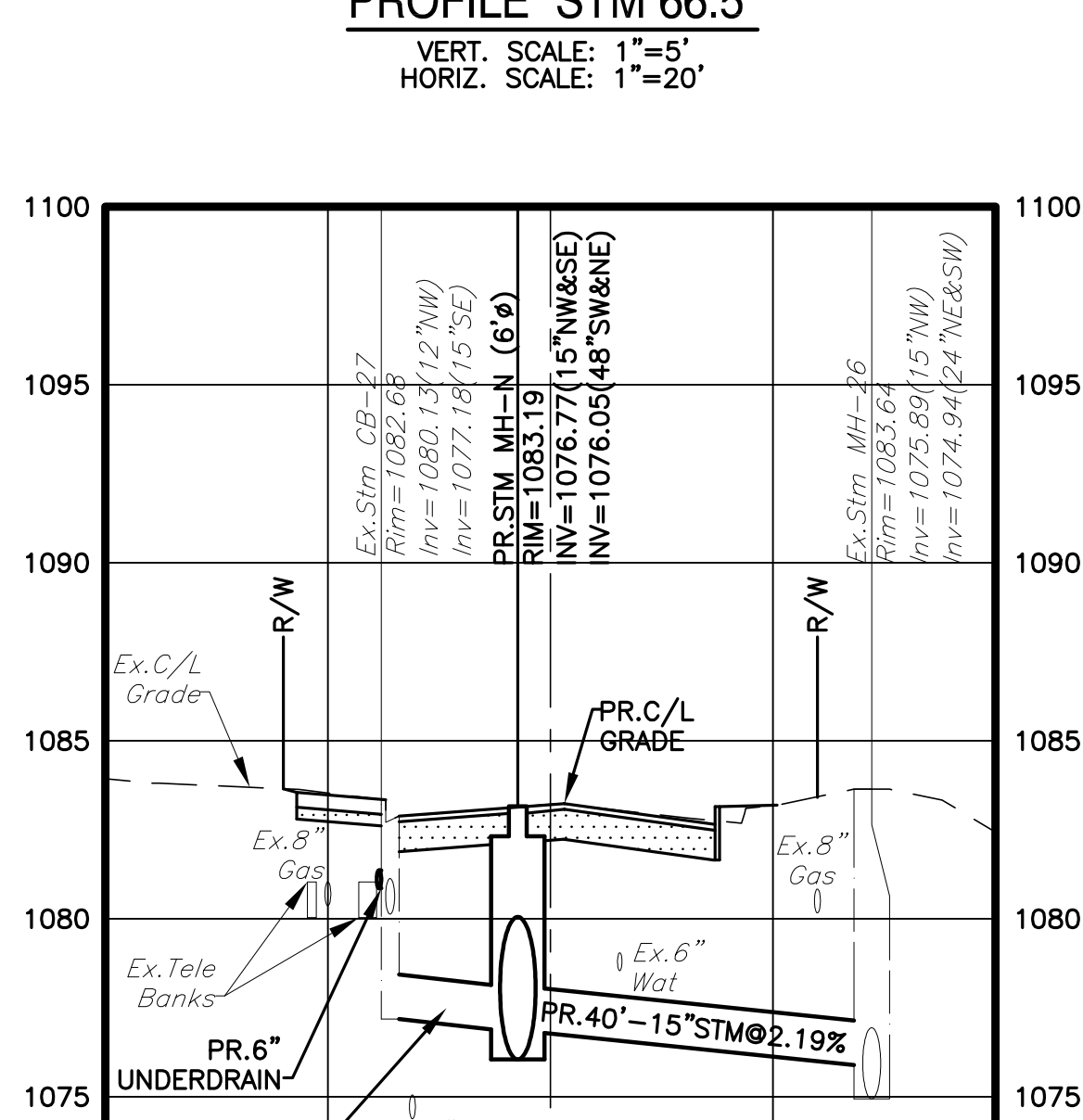
PROFILE "STM 57.1"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



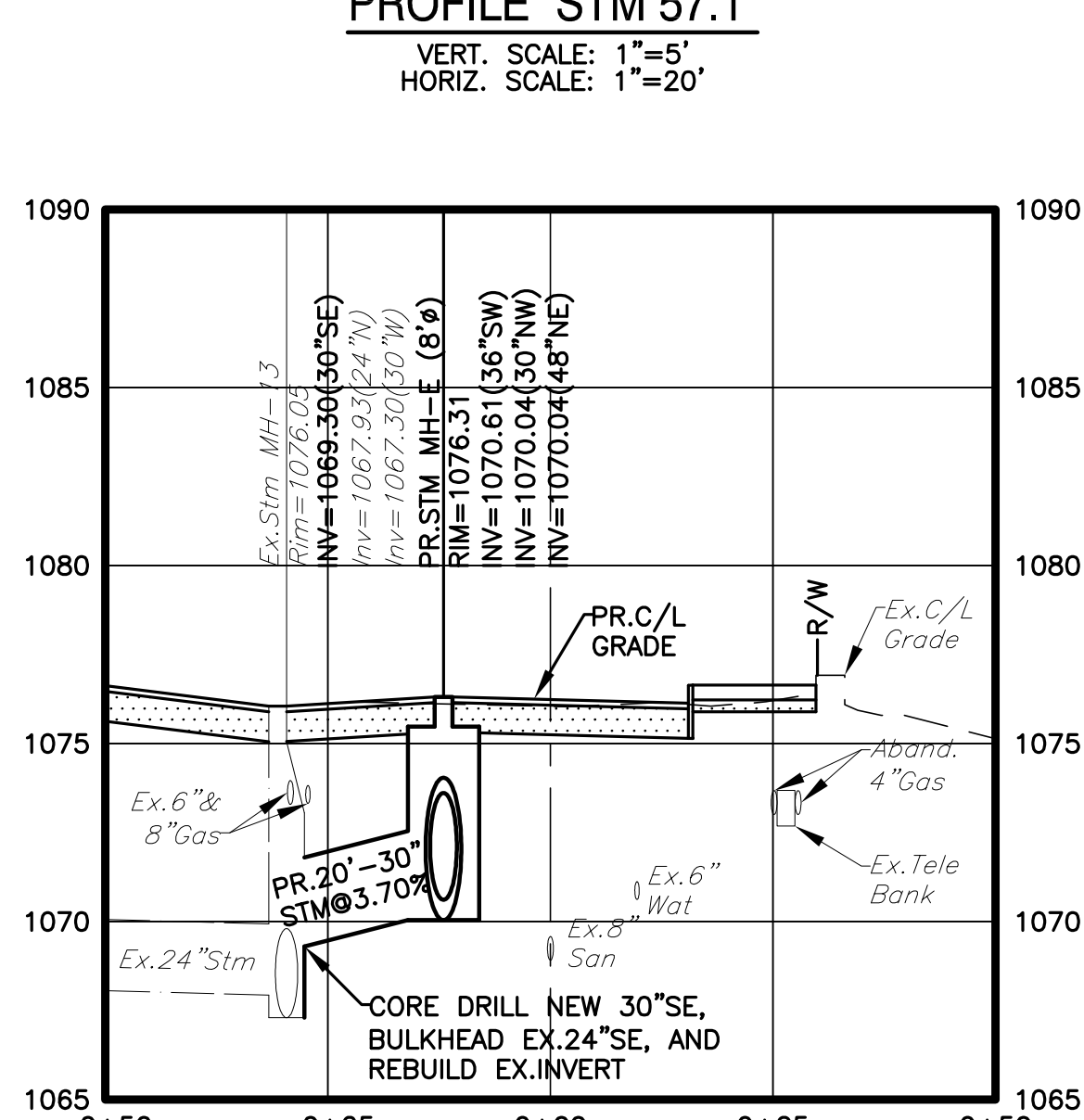
PROFILE "STM 59.7"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



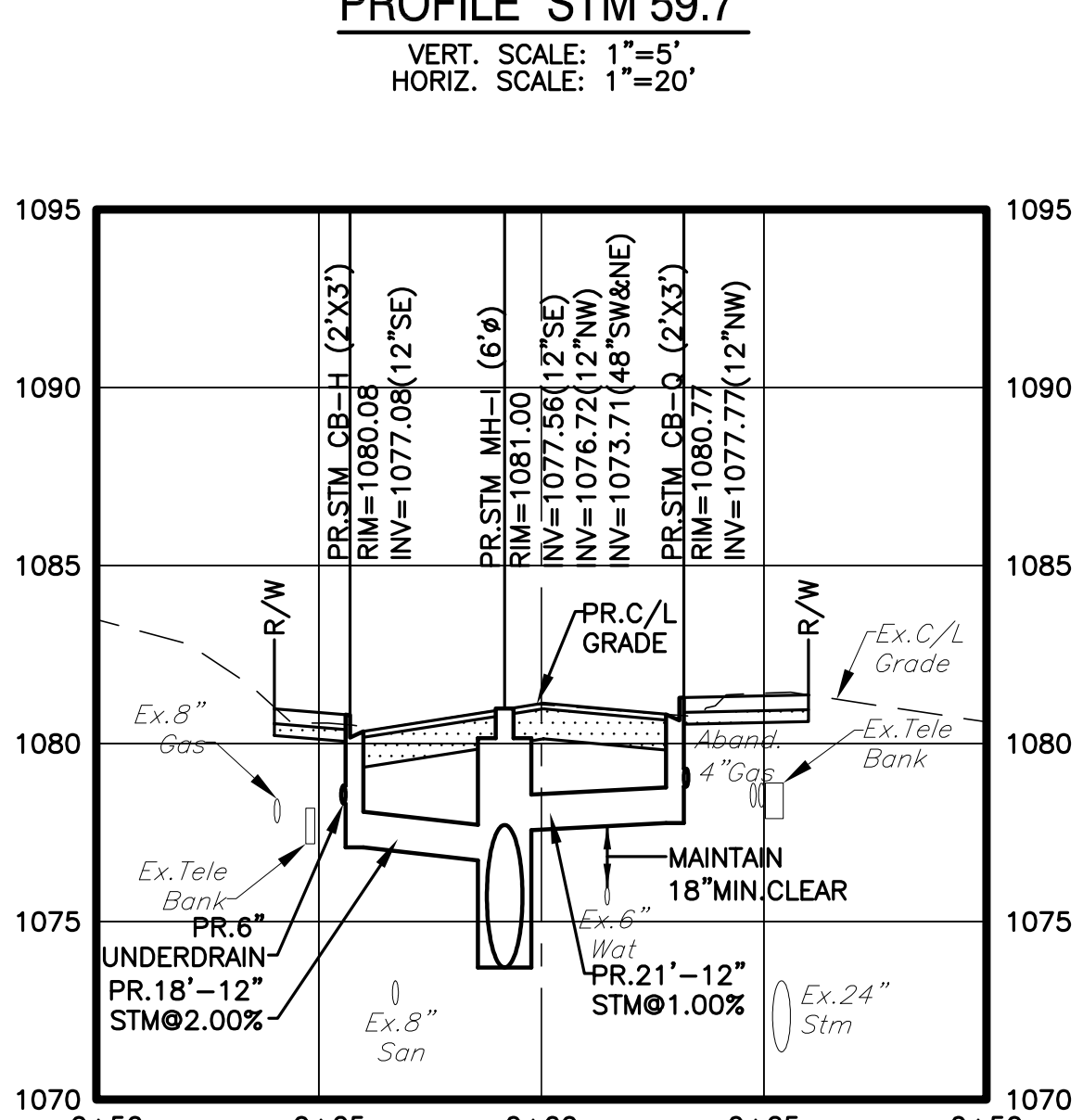
PROFILE "STM 63.3"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



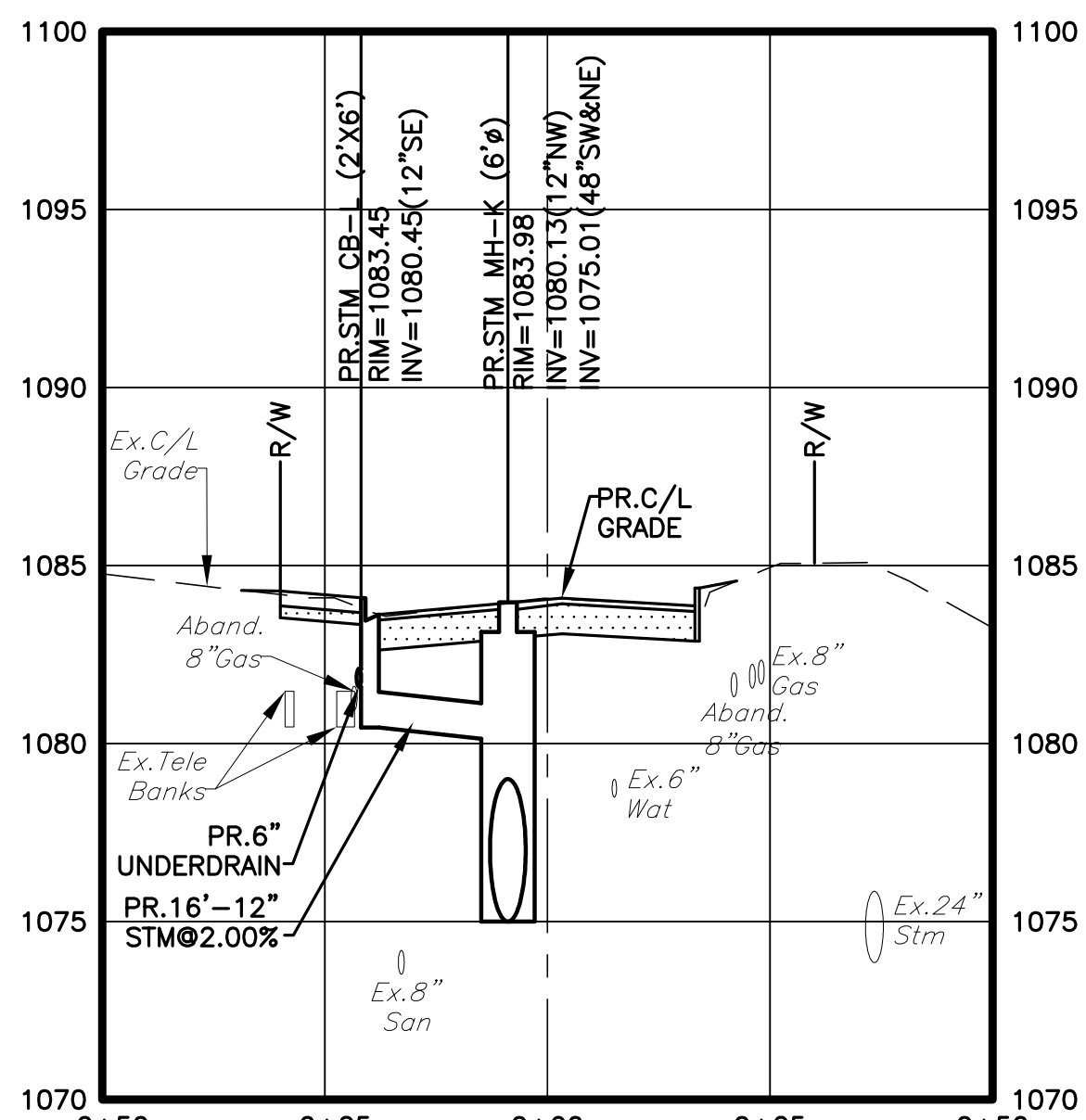
PROFILE "STM 67.9"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



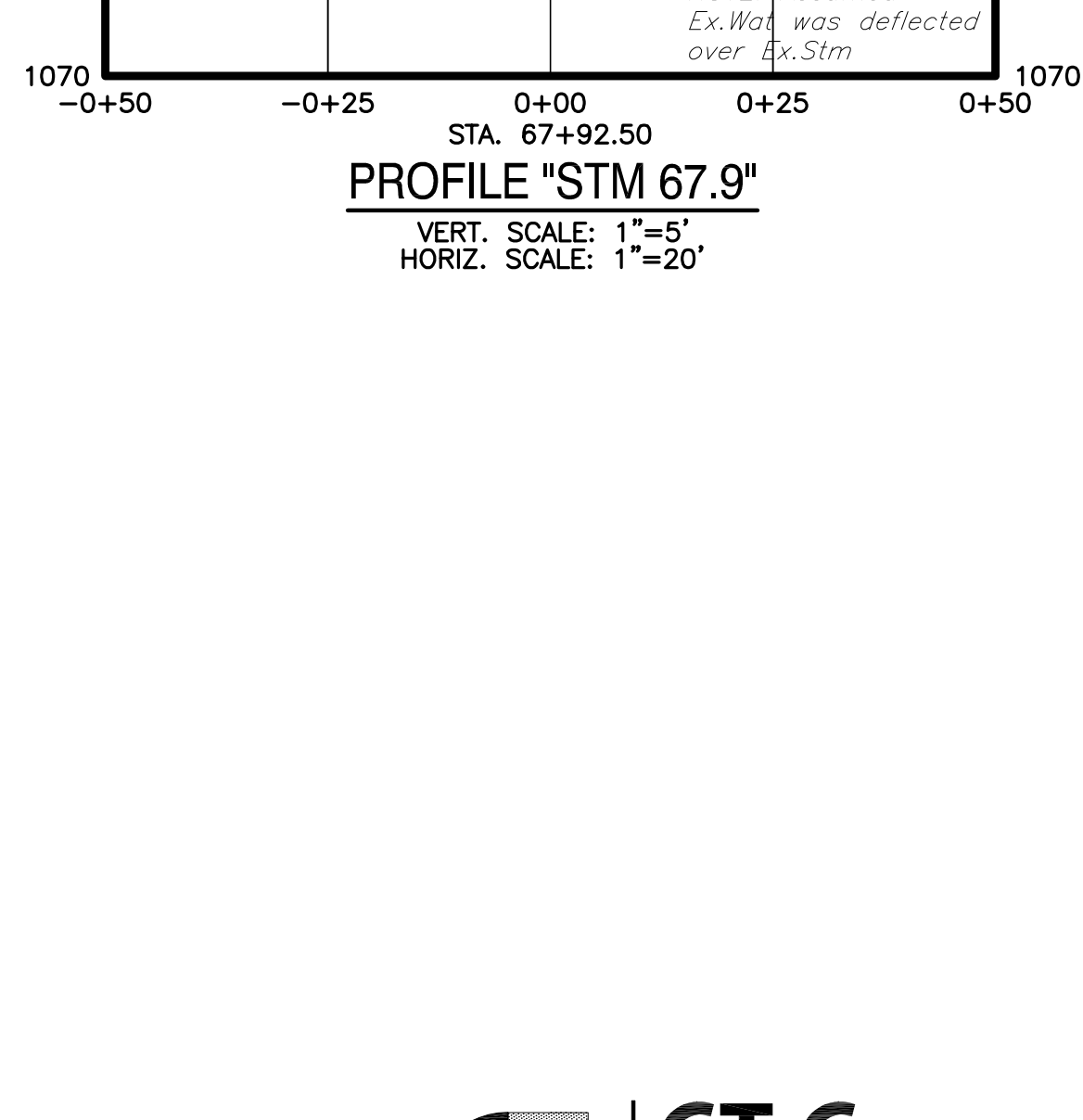
PROFILE "STM 57.4"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



PROFILE "STM 60.1"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



PROFILE "STM 64.4"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



PROFILE "STM 67.9"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'

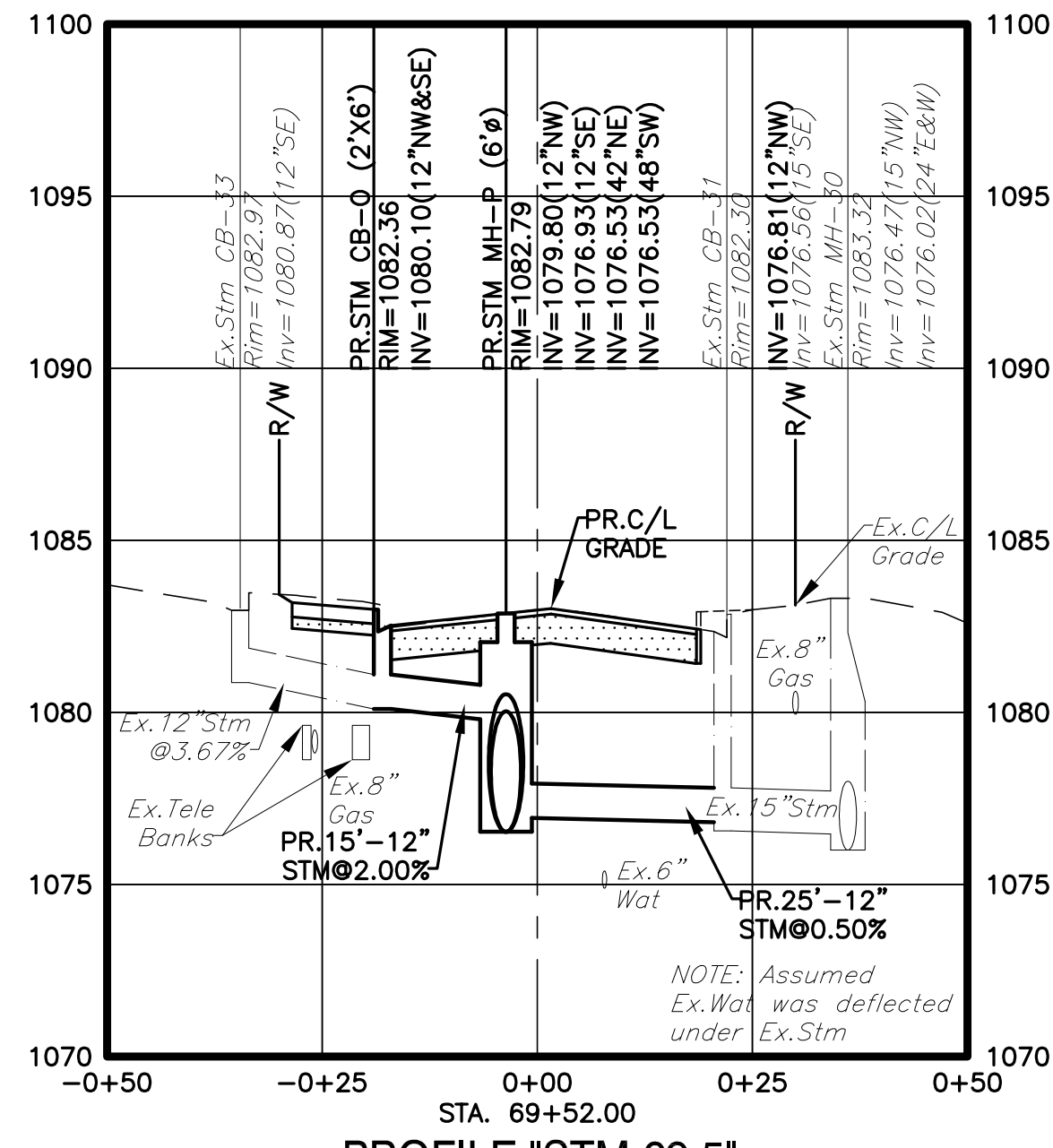
CALCULATED: GEA
 CHECKED: JGC

PROFILE MISC.

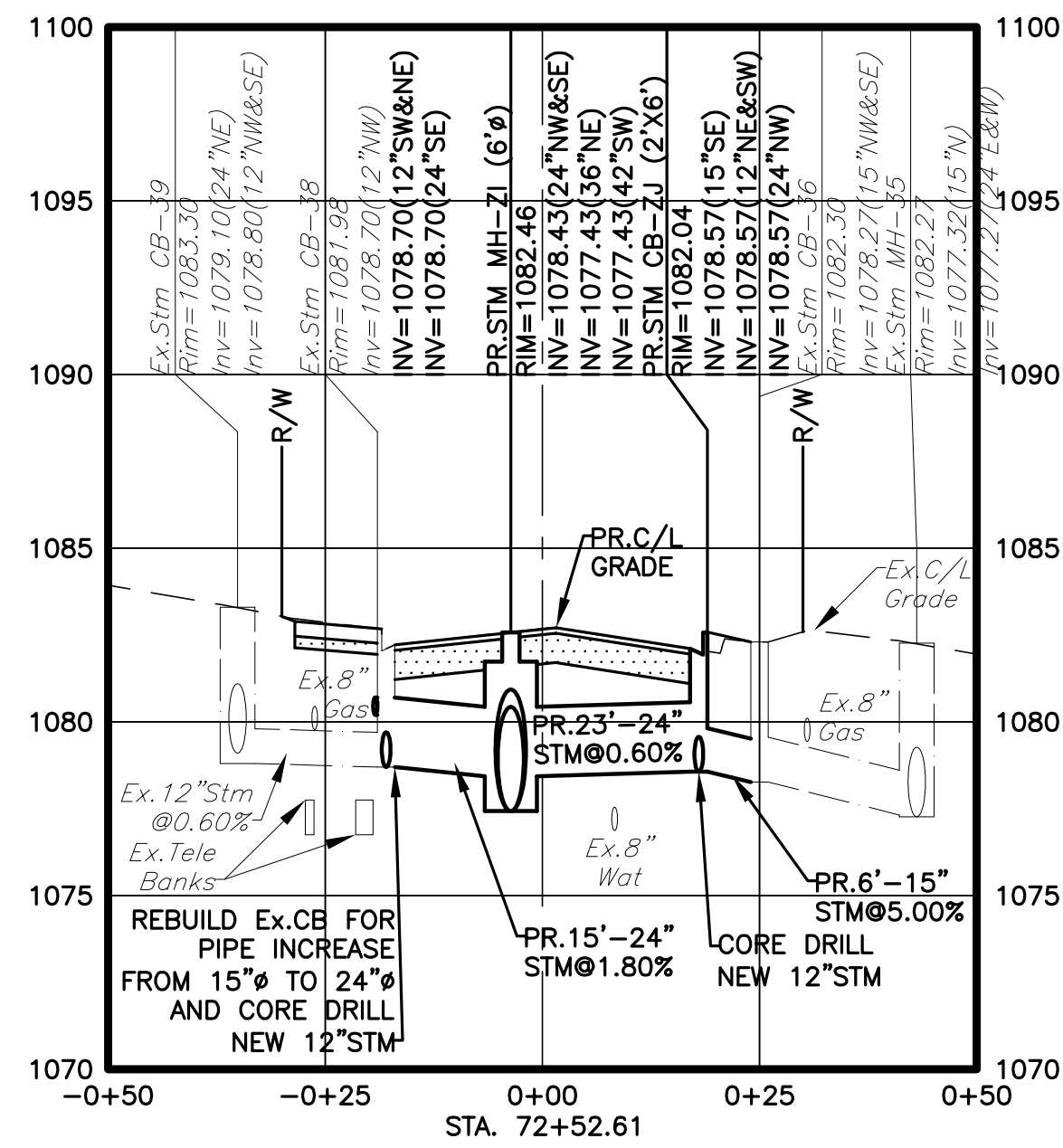
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

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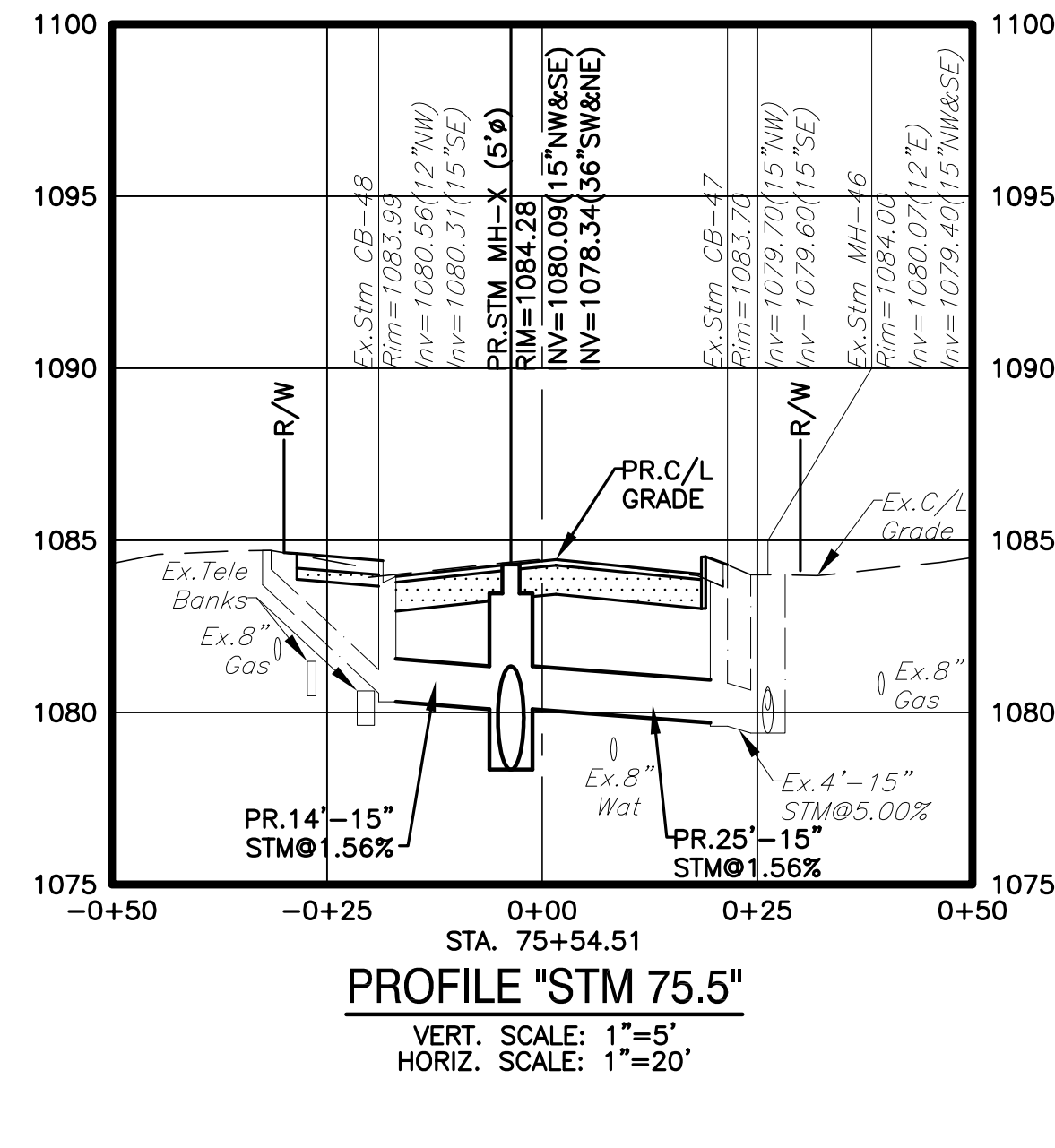
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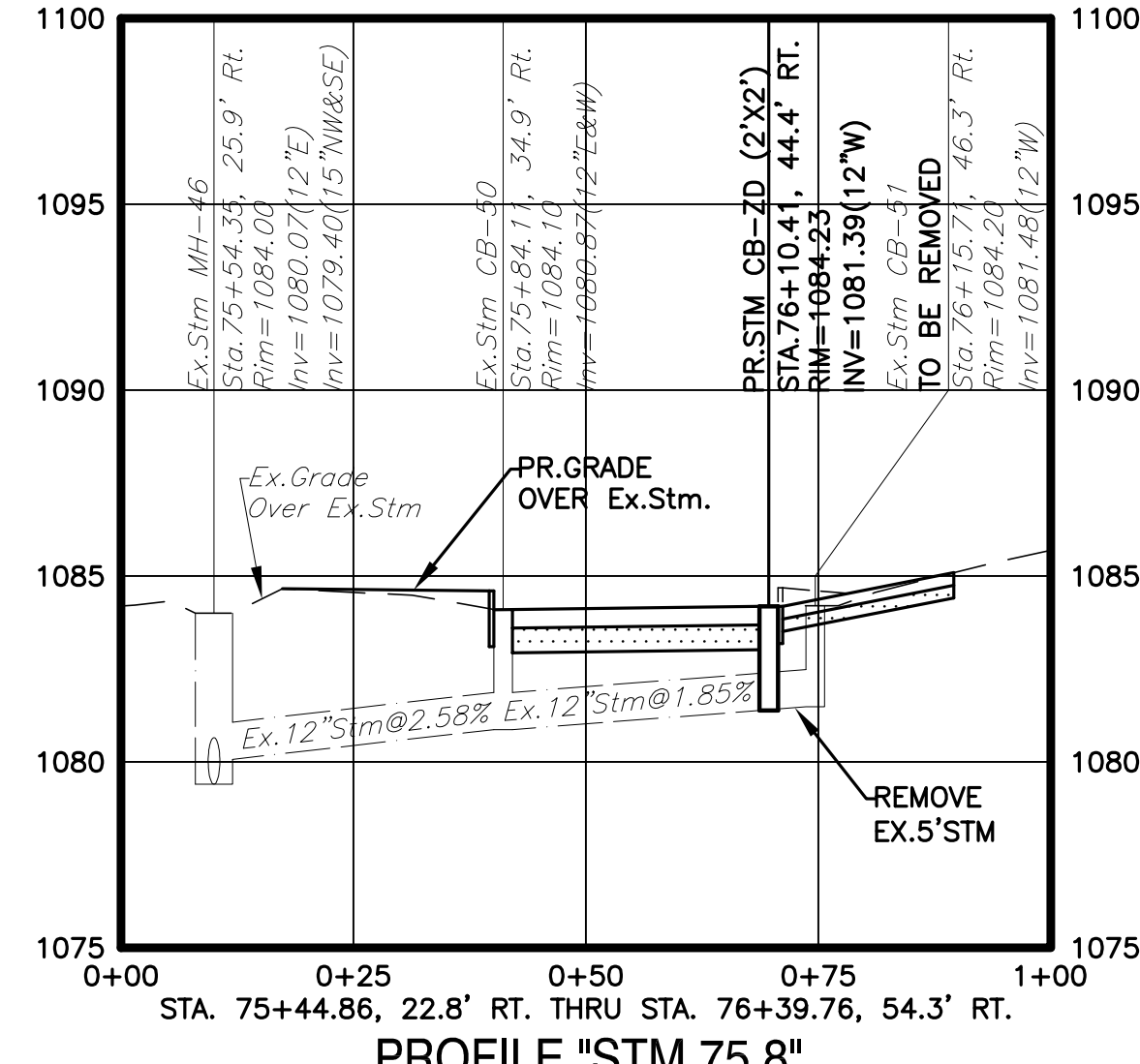
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 HORIZ. SCALE: 1"=20'



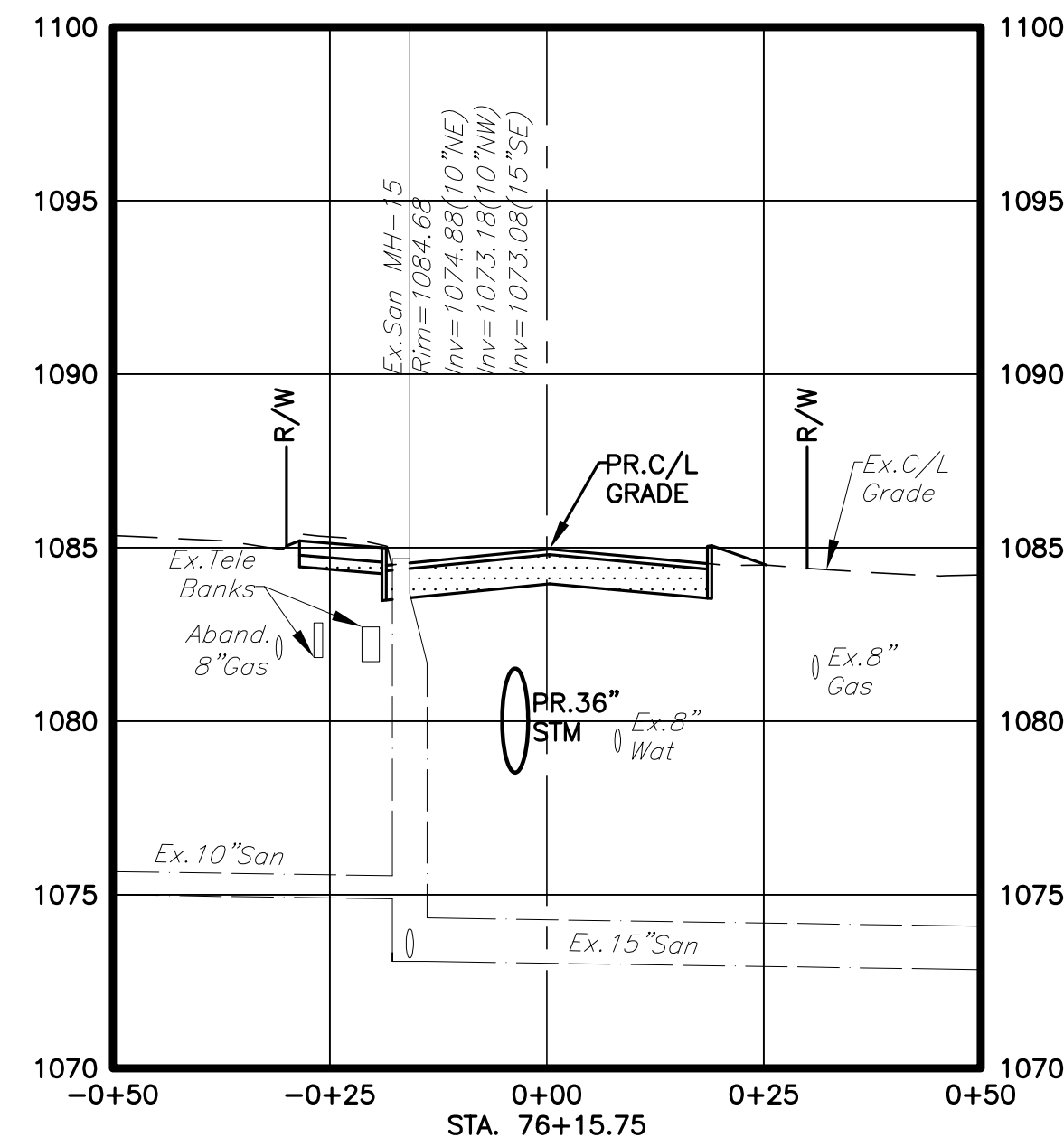
PROFILE "STM 72.5"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



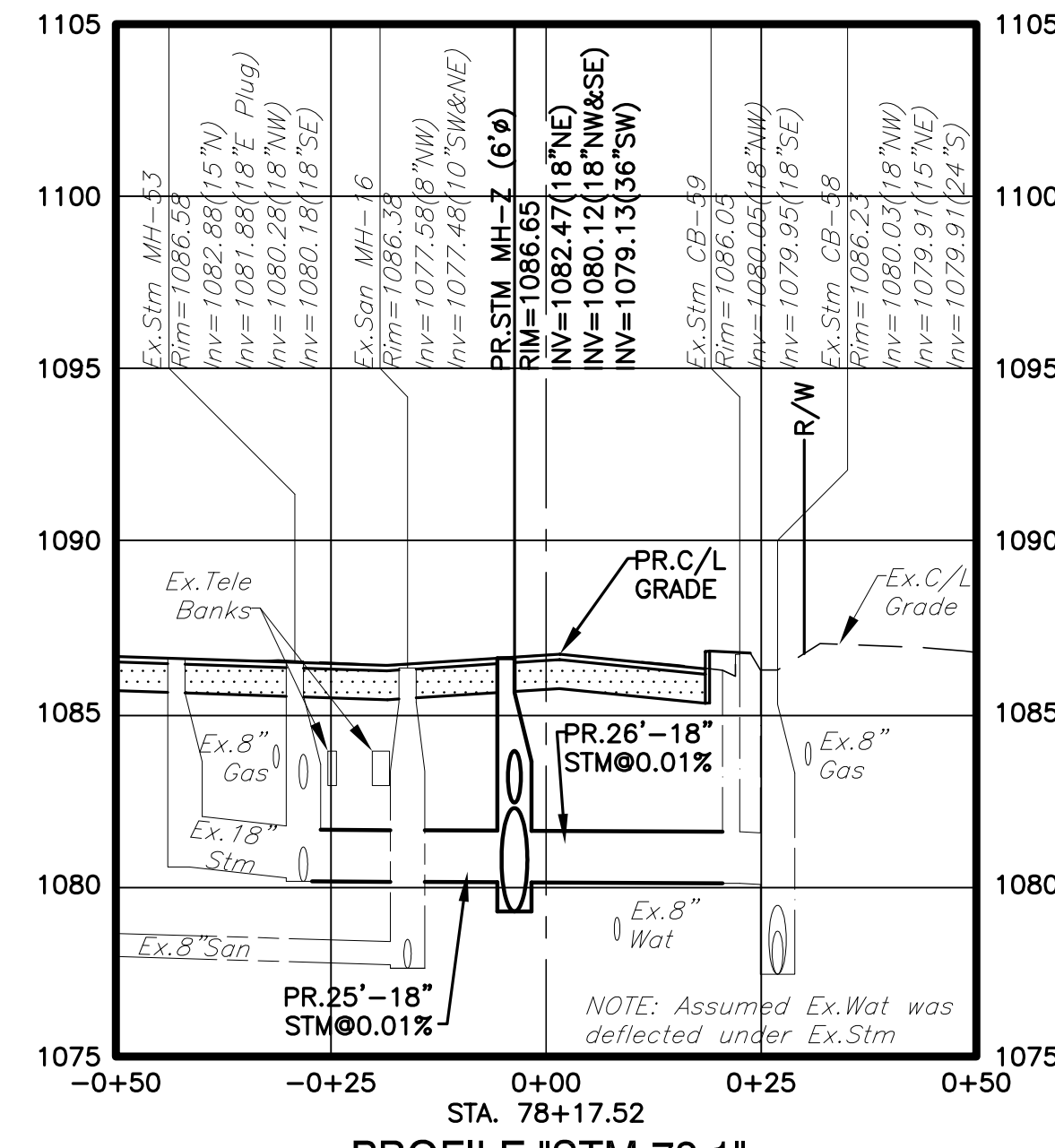
PROFILE "STM 75.5"
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 HORIZ. SCALE: 1"=20'



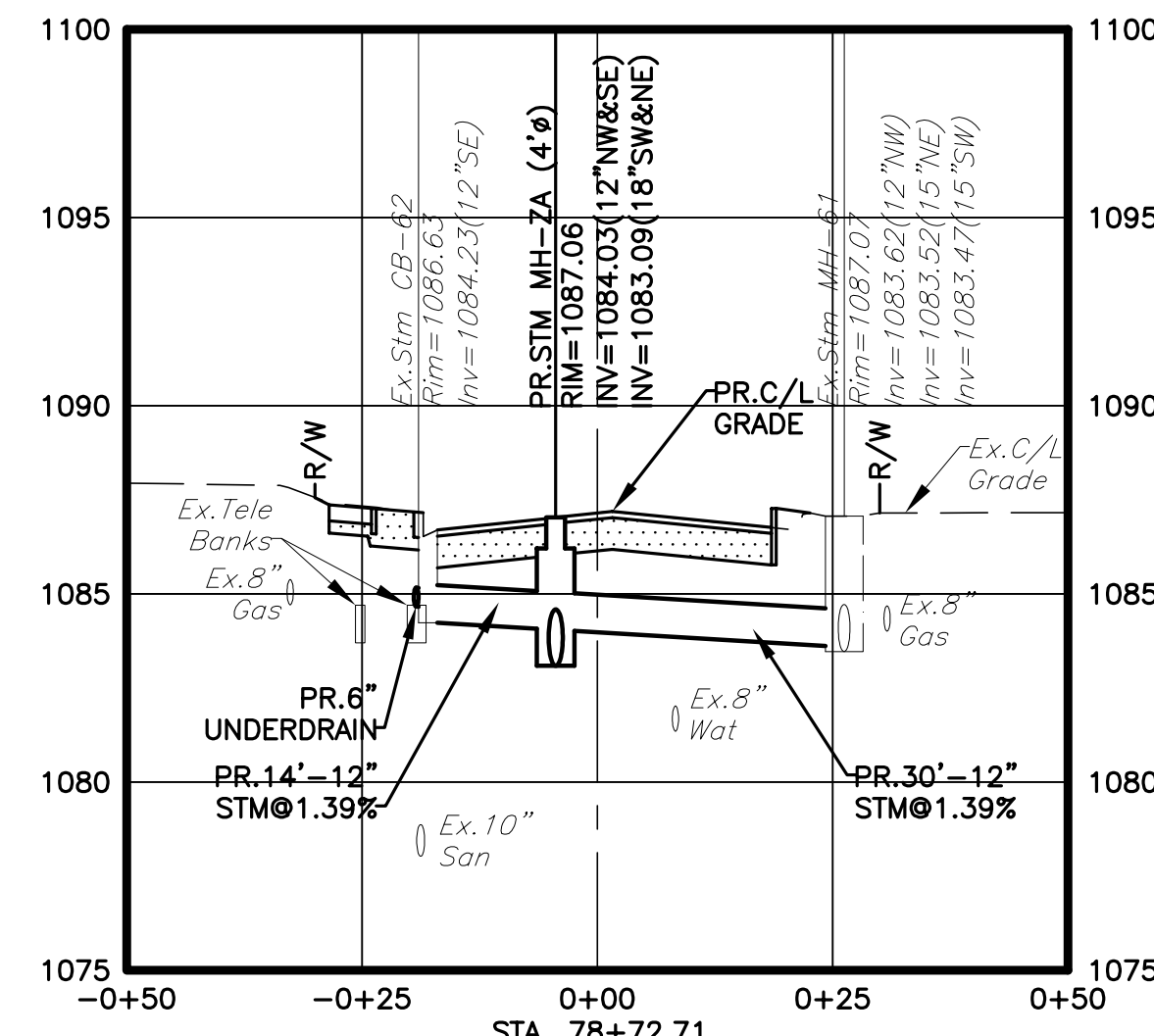
PROFILE "STM 75.8"
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 HORIZ. SCALE: 1"=20'



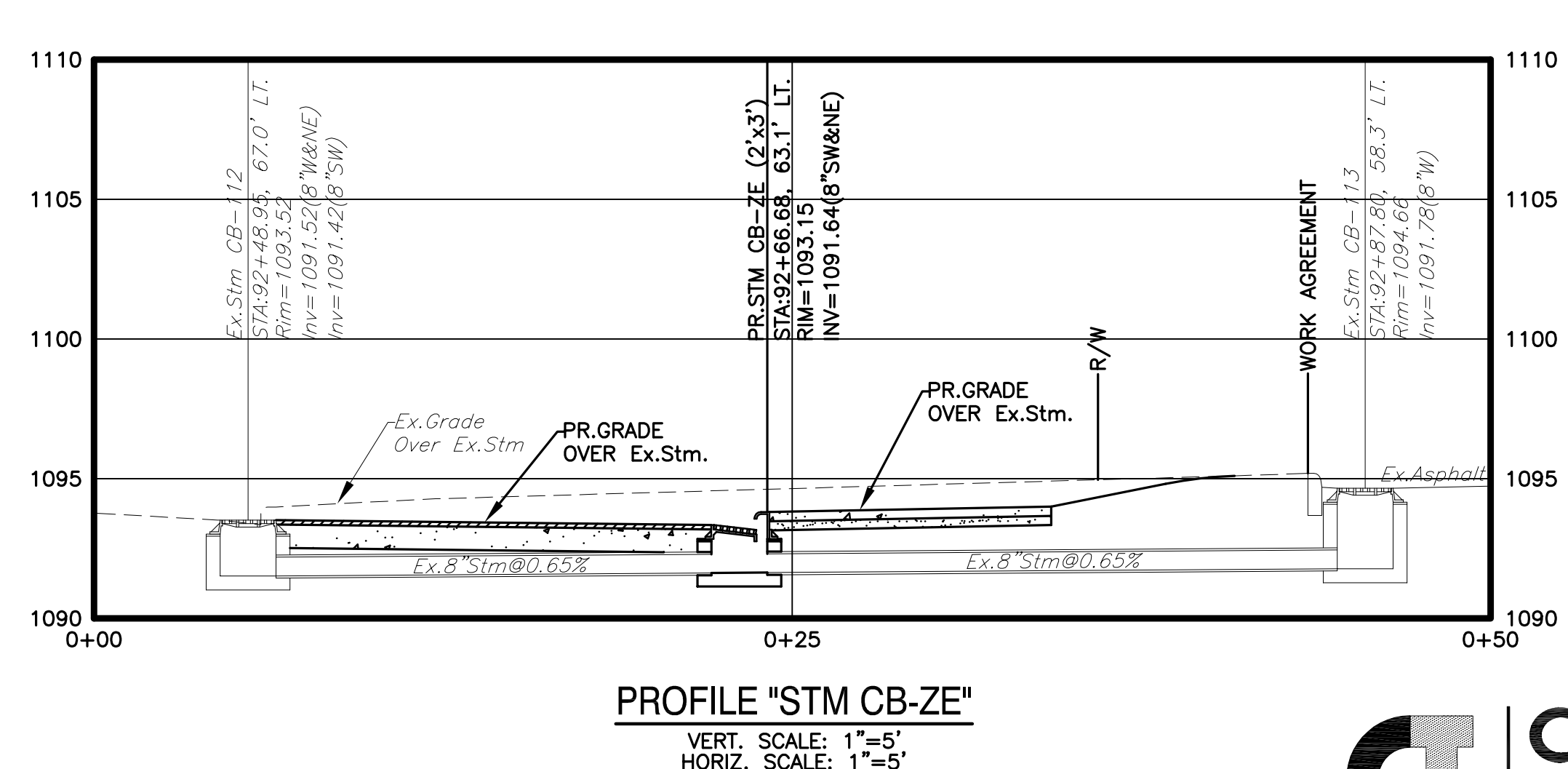
PROFILE "STM 76.1"
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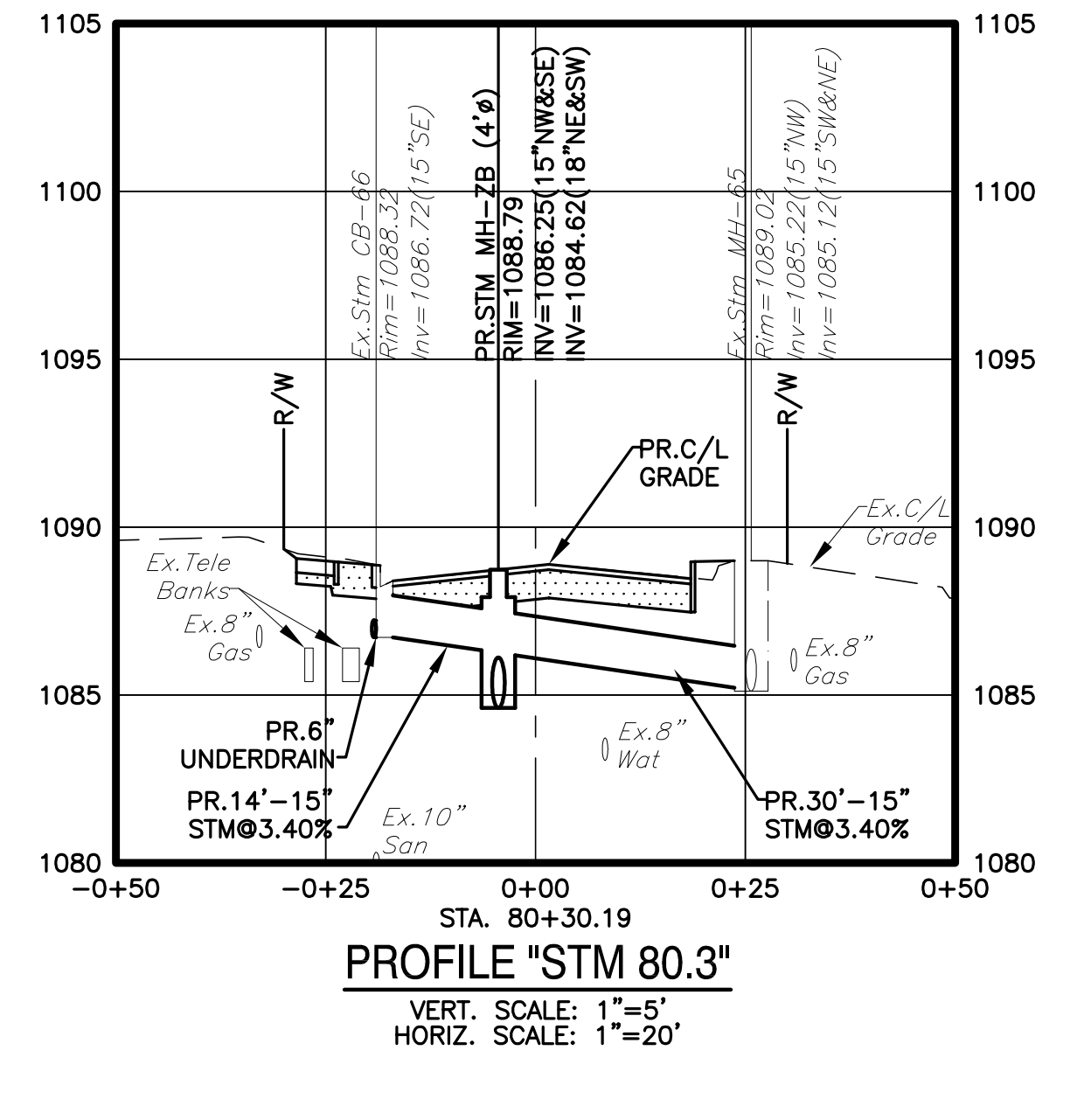
PROFILE "STM 78.1"
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 HORIZ. SCALE: 1"=20'



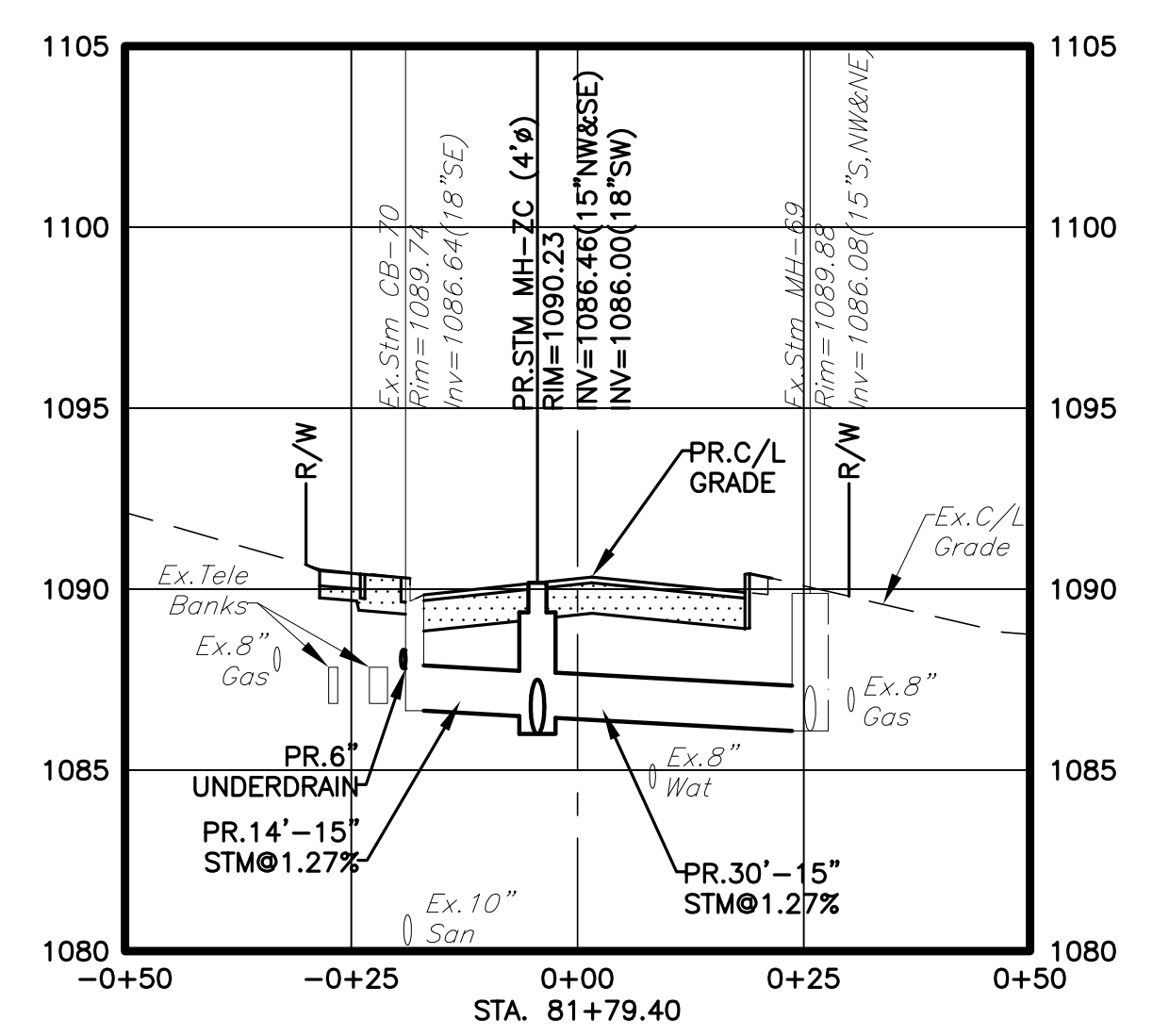
PROFILE "STM 78.7"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



PROFILE "STM CB-ZE"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=5'



PROFILE "STM 80.3"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'



PROFILE "STM 81.7"
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'

CALCULATED: GEA
 CHECKED: JGC

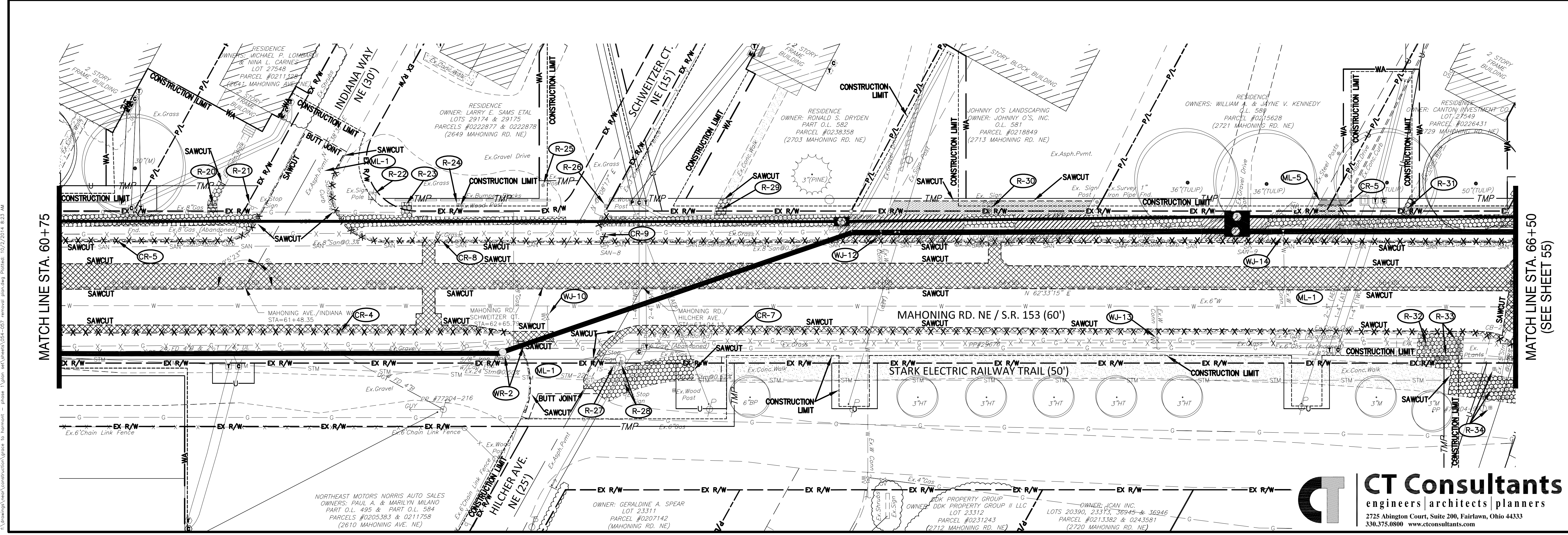
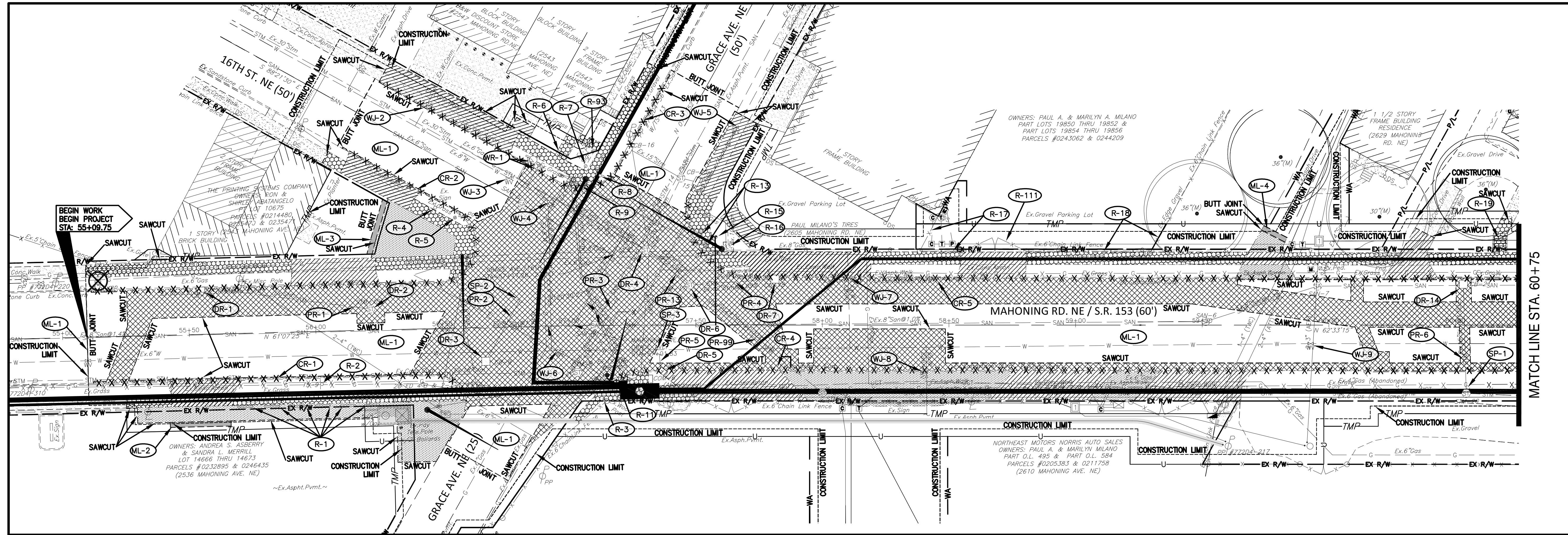
DATE: 4/21/14
 BY: GEA

REVISIONS:
 CONSTRUCTION BIDDING SET

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 STA-0153-01.70

PROFILE MISC.
 53B
 108

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CALCULATED: GEA
 CHECKED: JGC

REMOVAL PLAN
 STA. 54+75 TO STA. 66+50

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA
STM SWR REVISIONS	10/1/14	GEA

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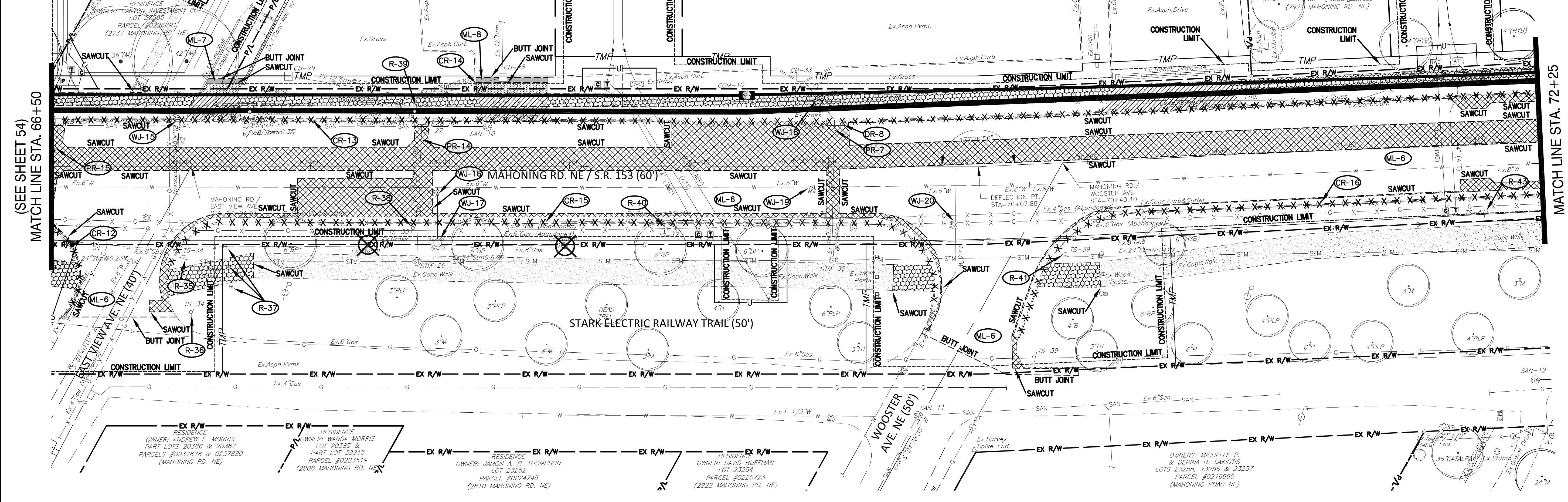
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OWNER: STARK COUNTY COMMUNITY ACTION
 LOTS 27551 THRU 27553 & PART O.L. 576
 PARCEL #0243271, 0246321 & 0285477

OWNER: STARK COUNTY DISTRICT LIBRARY
 PART O.L. 576
 PARCEL #0285433Gross
 (292) MAHONING RD. NE

(SEE SHEET 54)
 MATCH LINE STA. 66+50

MATCH LINE STA. 72+25



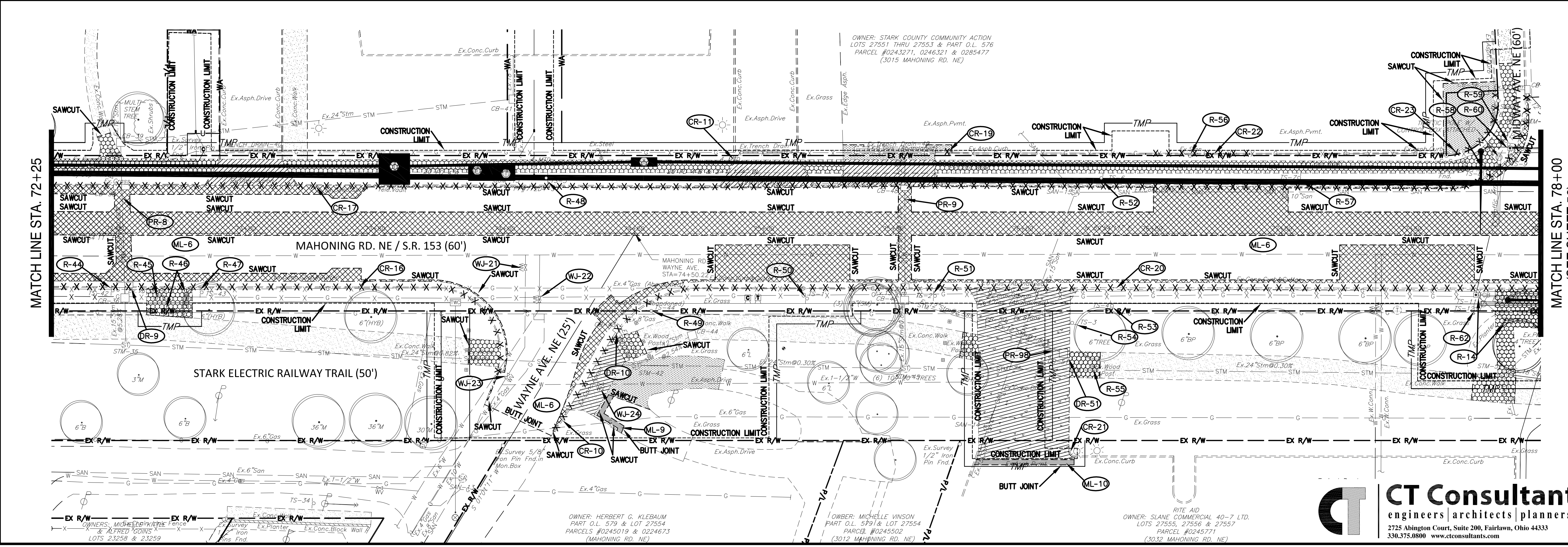
CALCULATED: GEA
 CHECKED: JGC

0 20' 40'
 1" = 20'
 HORIZONTAL SCALE

REMOVAL PLAN
 STA. 66+50 TO STA. 78+00

MATCH LINE STA. 72+25

MATCH LINE STA. 78+00
 (SEE SHEET 56)



REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
STM SWR REVISIONS	10/17/14	GEA

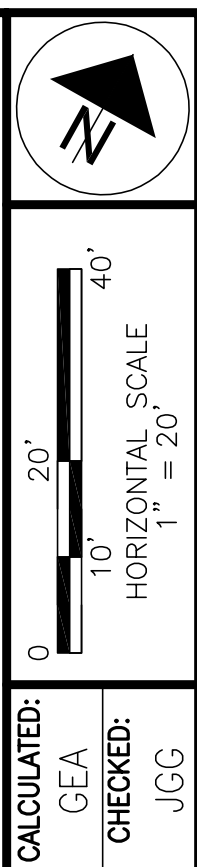
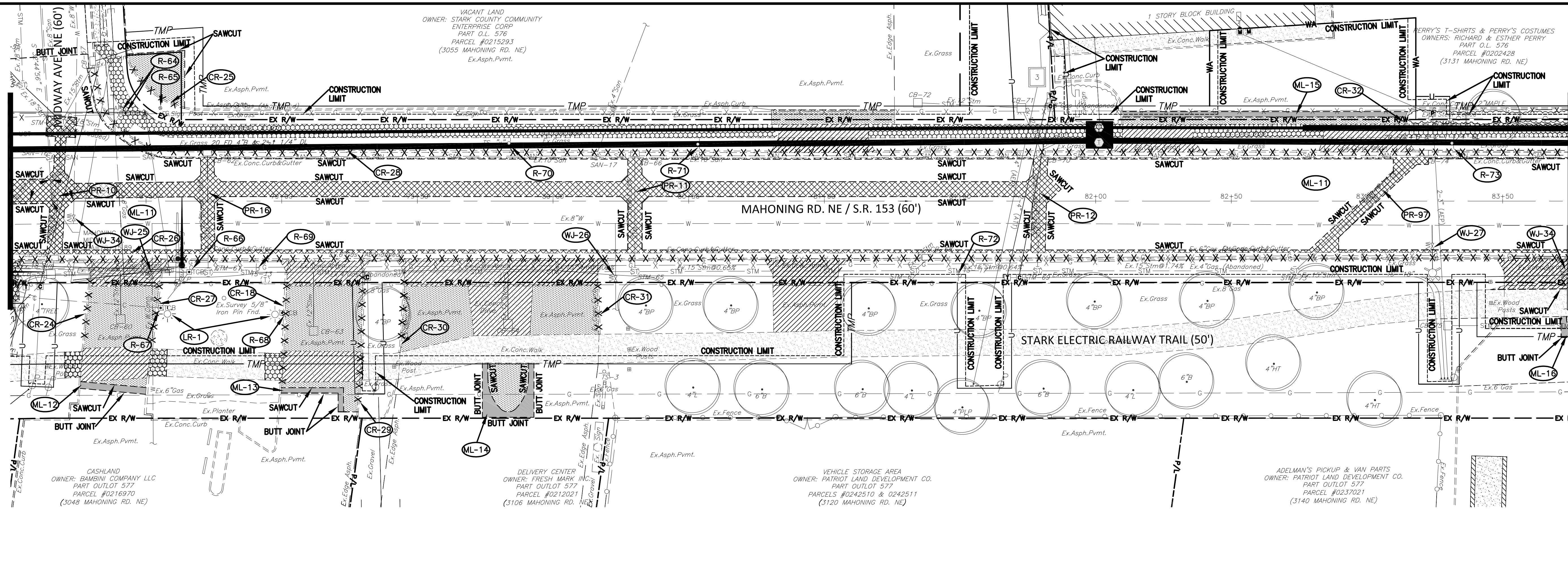
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 STA-0153-01.70

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 330.375.0800 www.ctconsultants.com

(SEE SHEET 55)
MATCH LINE STA. 78+00

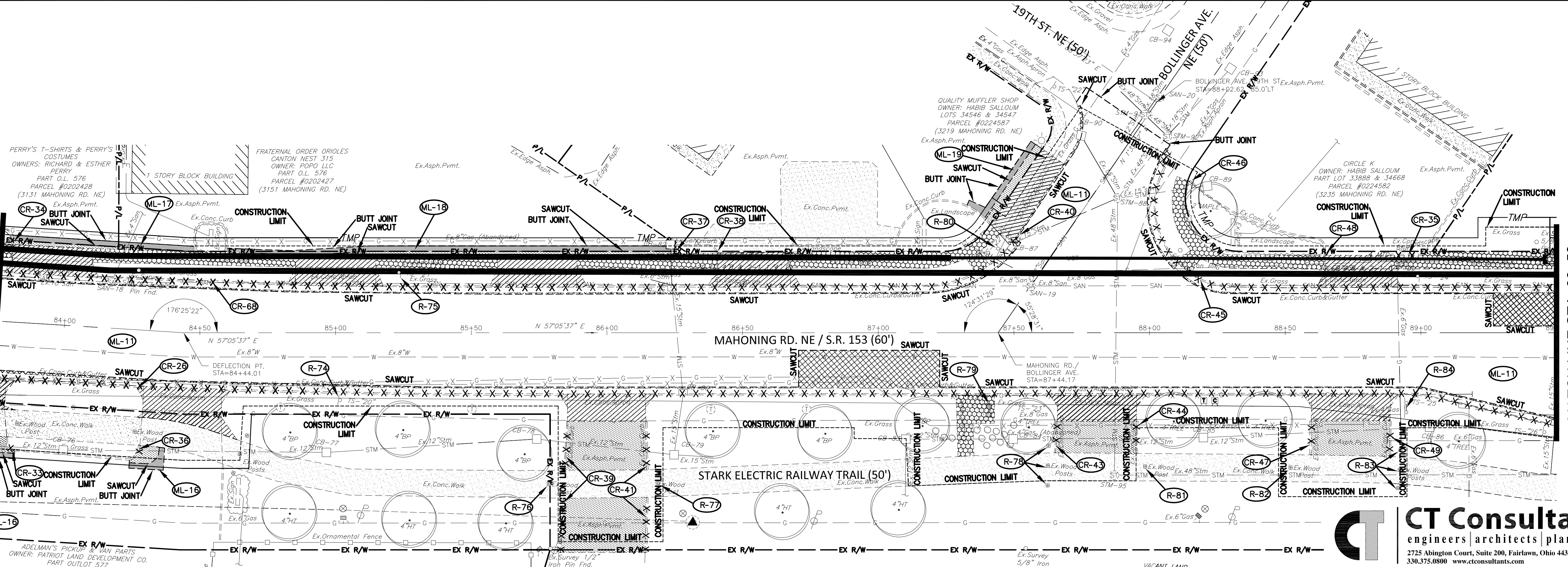
MATCH LINE STA. 83+75



REMOVAL PLAN
STA. 78+00 TO STA. 89+50

MATCH LINE STA. 83+75

MATCH LINE STA. 89+50
(SEE SHEET 57)



REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
STM SWR REVISIONS	10/17/14	GEA

MAHONING ROAD NE
STA-0153-01.70

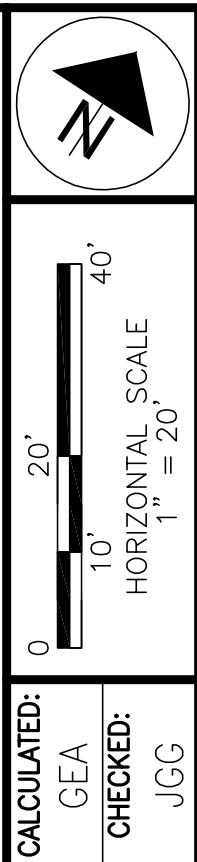
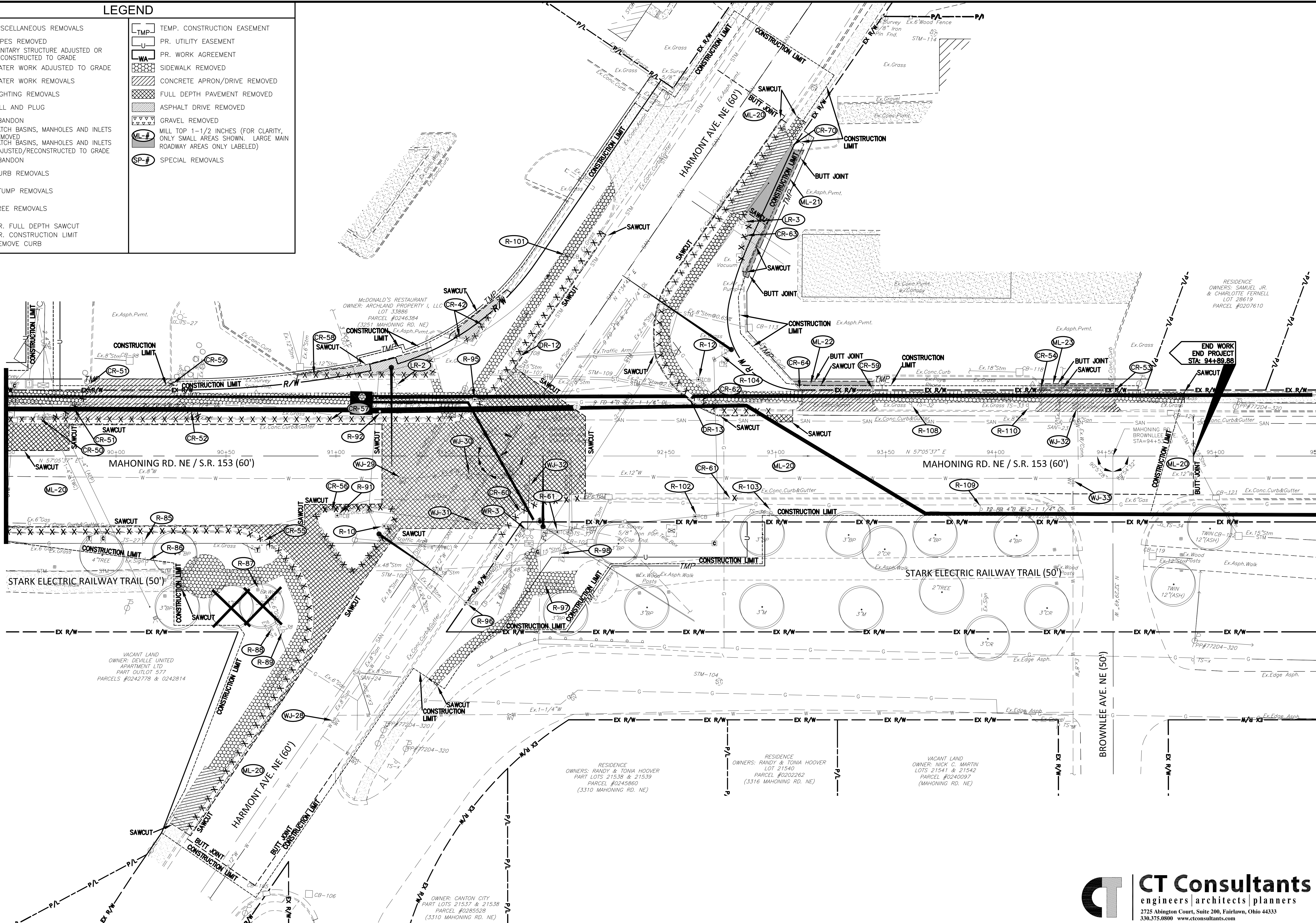
56
108

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I:\projects\2014\mahoning\0153-01.70\removal\plan.dwg, Plot Date: 10/22/2014, 8:24 AM

LEGEND			
(R-#)	MISCELLANEOUS REMOVALS	(TMP)	TEMP. CONSTRUCTION EASEMENT
(PR-#)	PIPES REMOVED	(U)	PR. UTILITY EASEMENT
(SJ-#)	SANITARY STRUCTURE ADJUSTED OR RECONSTRUCTED TO GRADE	(WA)	PR. WORK AGREEMENT
(WJ-#)	WATER WORK ADJUSTED TO GRADE	(Hatched)	SIDEWALK REMOVED
(WR-#)	WATER WORK REMOVALS	(Hatched)	CONCRETE APRON/DRIVE REMOVED
(LR-#)	LIGHTING REMOVALS	(Hatched)	FULL DEPTH PAVEMENT REMOVED
(FP-#)	FILL AND PLUG	(Hatched)	ASPHALT DRIVE REMOVED
(AB-#)	ABANDON	(Hatched)	GRAVEL REMOVED
(CB-#)	CATCH BASINS, MANHOLES AND INLETS REMOVED	(ML-#)	MILL TOP 1-1/2 INCHES (FOR CLARITY, ONLY SMALL AREAS SHOWN. LARGE MAIN ROADWAY AREAS ONLY LABELED)
(DJ-#)	CATCH BASINS, MANHOLES AND INLETS ADJUSTED/RECONSTRUCTED TO GRADE	(SP-#)	SPECIAL REMOVALS
(AB-#)	ABANDON		
(CR-#)	CURB REMOVALS		
(X)	STUMP REMOVALS		
(X)	TREE REMOVALS		
(---)	PR. FULL DEPTH SAWCUT		
(---)	PR. CONSTRUCTION LIMIT		
(X)	REMOVE CURB		

(SEE SHEET 57)
MATCH LINE STA. 89+50



CALCULATED: GEA
CHECKED: JGC

REMOVAL PLAN
STA. 89+50 TO STA. 95+50

DATE	BY	REVISIONS
4/21/14	GEA	CONSTRUCTION BIDDING SET
5/7/14	GEA	ADDENDUM NO. 1
10/1/14	GEA	STM SWR REVISIONS

MAHONING ROAD NE
STA-0153-01.70

I:\projects\2014\Construction\153 to harmon\153 to harmon.dwg, Plot Date: 10/2/2014, 8:24 AM