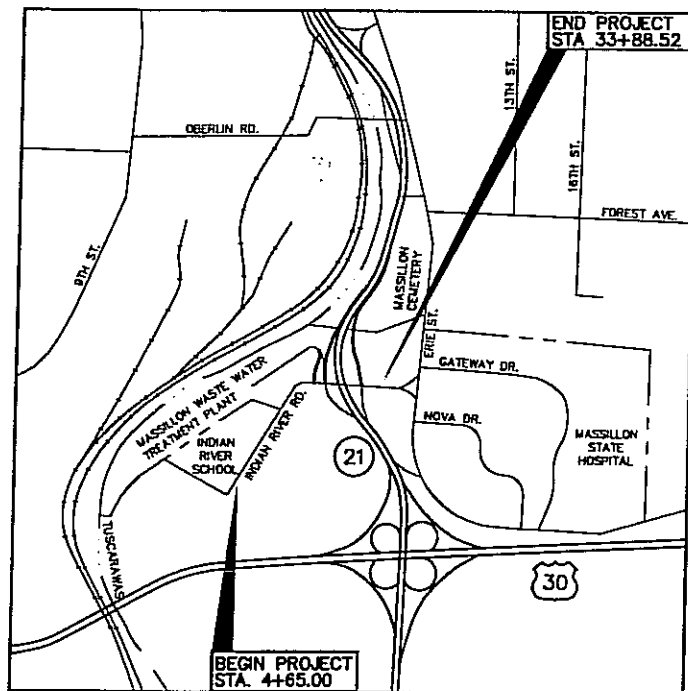
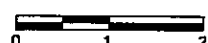




LOCATION MAP

SCALE IN MILES



Portion to be Improved
Other Roads

DESIGN DESIGNATION

	ERIE STREET
OPENING DAY A.D.T. (2000)	= 15,064
DESIGN YEAR A.D.T. (2020)	= 20,575
D.H.V.	= 1,646
D	= 0.50
T24	= 5%
DESIGN SPEED	= 35 MPH
LEGAL SPEED	= 25/35 MPH
FUNCTIONAL CLASSIFICATION	= URBAN COLLECTOR

CITY OF MASSILLON

ERIE STREET AND S.R. 21 INTERCHANGE ROADWAY IMPROVEMENTS

1997 SPECIFICATIONS

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

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.

INDEX OF SHEETS

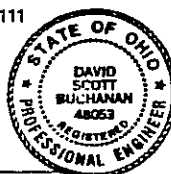
TITLE SHEET	1
SCHEMATIC PLAN	1A
TYPICAL SECTIONS	2-5
GENERAL NOTES	6-7
MAINTENANCE OF TRAFFIC	8-13
GENERAL SUMMARY	14-17
QUANTITY CALCULATIONS	18-21
STORM WATER POLLUTION PREVENTION PLAN	22-24
PLAN & PROFILE (ERIE STREET)	25-31
CROSS SECTIONS (ERIE STREET)	32-45
PLAN & PROFILE (RAMPS)	46-50
CROSS SECTIONS (RAMPS)	51-59
DRAINAGE DETAILS	60-63
DRIVEWAY DETAILS	64
INTERSECTION DETAILS	65-67
TRAFFIC CONTROL	68-93
LIGHTING	94-102

APPROVED James J. Bunker
DATE 1/28/2000 CITY OF MASSILLON, ENGINEER

PLANS PREPARED BY

URS Greiner Woodward Clyde
Engineering & Architectural Services

AKRON COLUMBUS CLEVELAND
564 WHITE POND DRIVE
AKRON, OH 44320-1100 (330) 836-9111



David Scott Buchanan
D. SCOTT BUCHANAN REG. ENGINEER No. 48053

ODOT STANDARD CONSTRUCTION DRAWINGS

ODOT STANDARD CONSTRUCTION DRAWINGS												ODOT SUPPLEMENTAL SPECIFICATIONS			
BP-2.1M	4-08-97	GR-1.3M	11-30-94	CB-2.2M	7-12-95	HL-20.11M	3-31-95	TC-12.30M	2-01-94	TC-51.11M	9-30-94	TC-83.10M	11-24-93		
BP-2.2M	10-28-94	GR-2.1M	4-14-98	CB-3.2M	7-12-95	HL-30.11M	3-31-95	TC-16.20M	2-01-94	TC-51.12M	3-31-94	TC-83.20M	11-24-93	877	4-13-99
BP-3.1M	10-28-94	GR-4.1M	11-30-94			HL-30.21M	5-01-95	TC-17.10M	2-01-94	TC-52.10M	7-29-94	TC-85.20M	11-24-93		
BP-4.1M	10-28-94	GR-4.2M	10-21-97	HW-2.2M	7-12-95	HL-30.22M	3-31-95	TC-21.20M	12-10-96	TC-52.20M	7-29-94				
BP-5.1M	10-28-94			MH-1.1M	10-21-97	HL-10.11M	5-01-95	TC-22.10M	3-13-97	TC-61.10M	3-31-94	MT-97.10M	4-25-94		
		RM-1.1	4-29-99	MH-1.2M	9-06-95	HL-10.12M	5-01-95	TC-41.10M	3-31-94	TC-71.10M	9-01-93	MT-97.11M	1-30-95		
FM-1.1M	4-08-97					HL-10.13M	5-01-95	TC-41.20M	7-01-94	TC-81.10M	12-10-96	MT-101.60M	4-25-94		
		CB-1.1M	7-12-95	DM-1.1M	10-21-97	HL-40.10M	3-31-95	TC-41.50M	7-01-94	TC-81.20M	11-24-93	MT-105.10M	4-25-94		
GR-1.1M	10-21-97	CB-1.2M	7-12-95	DM-4.3M	4-29-99	HL-60.11M	5-01-95	TC-42.10M	3-31-94	TC-82.10	1-19-99	MT-105.11M	4-25-94		
GR-1.2M	1-03-96	CB-2.1M	7-12-95	DM-4.4M	4-29-99	HL-60.31M	3-31-95	TC-42.20M	3-31-94	TC-82.11	1-19-99	MT-99.10M	1-30-95		

UNDERGROUND UTILITIES
2 WORKING DAYS
BEFORE YOU DIG
Call...800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

FEDERAL PROJECT NO.

PID NO.

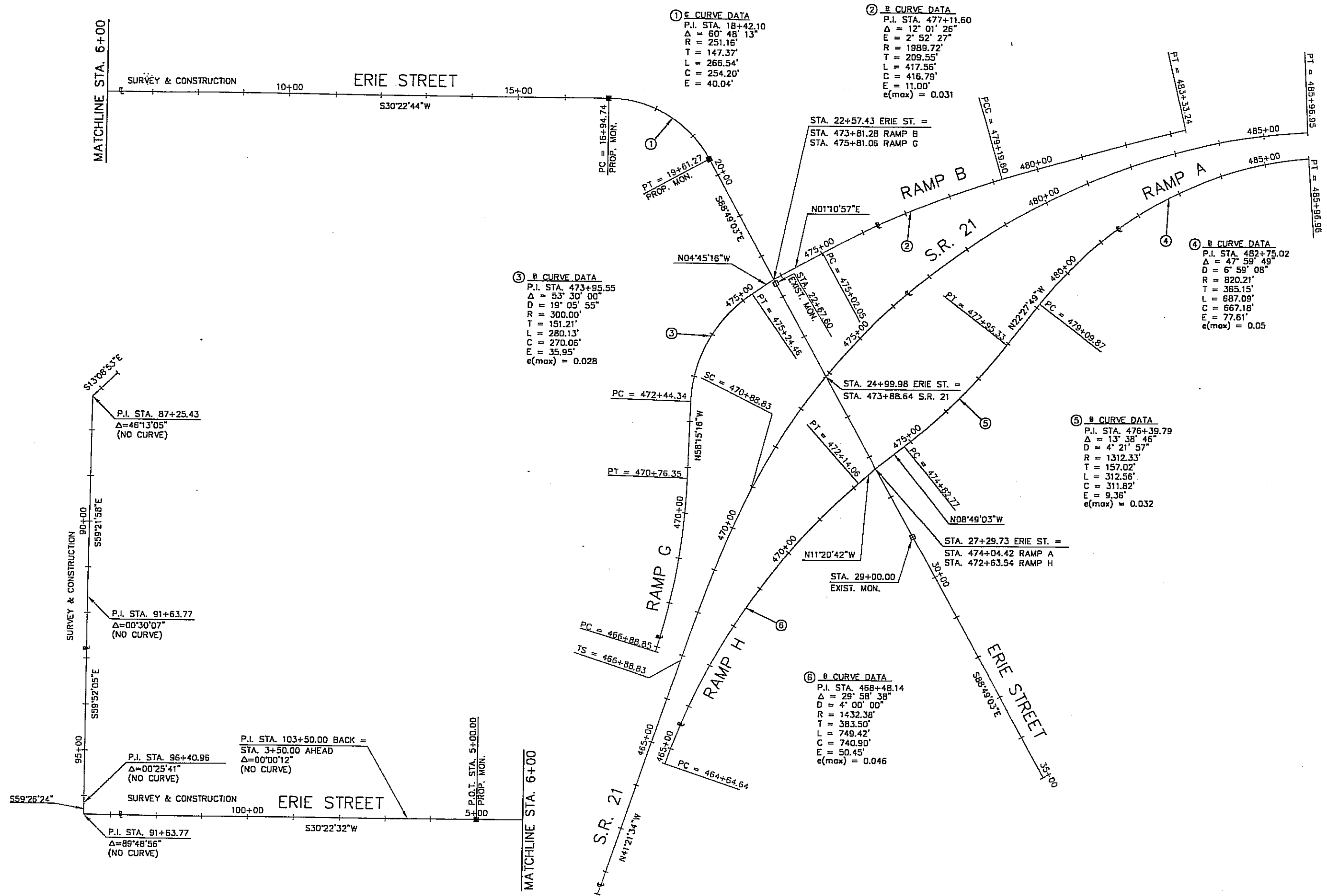
CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT

NONE

S.R. 21/ERIE STREET
CITY OF MASSILLON

1
102

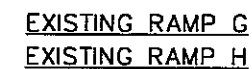
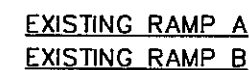
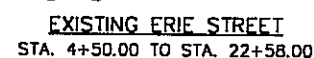


CALCULATED
CHECKED

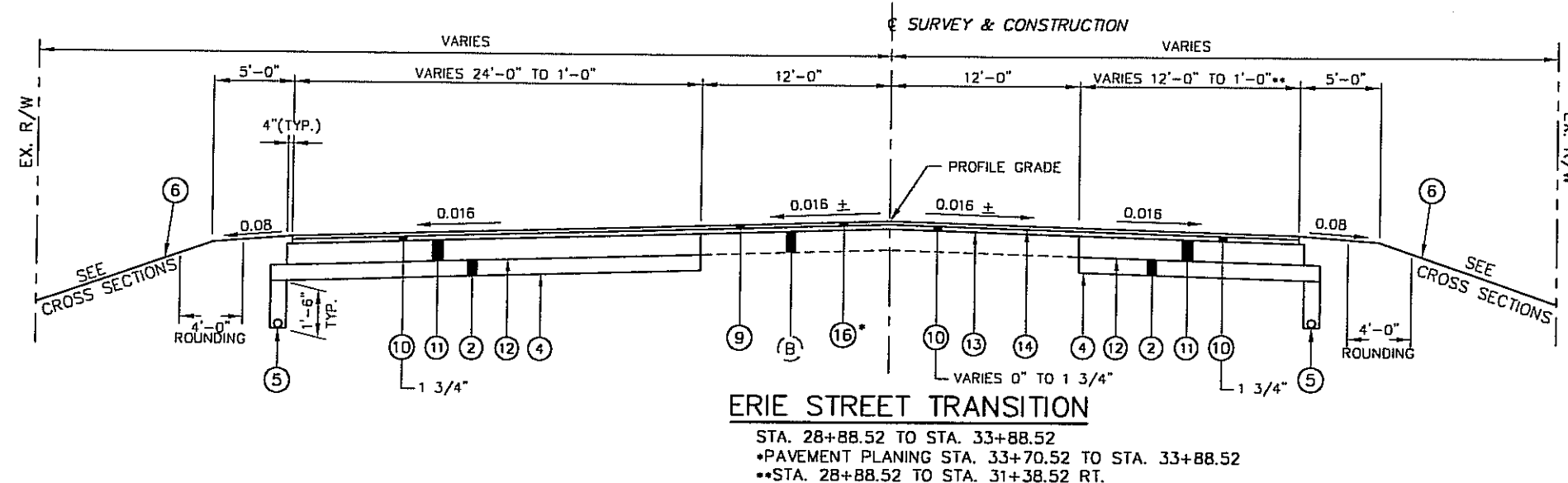
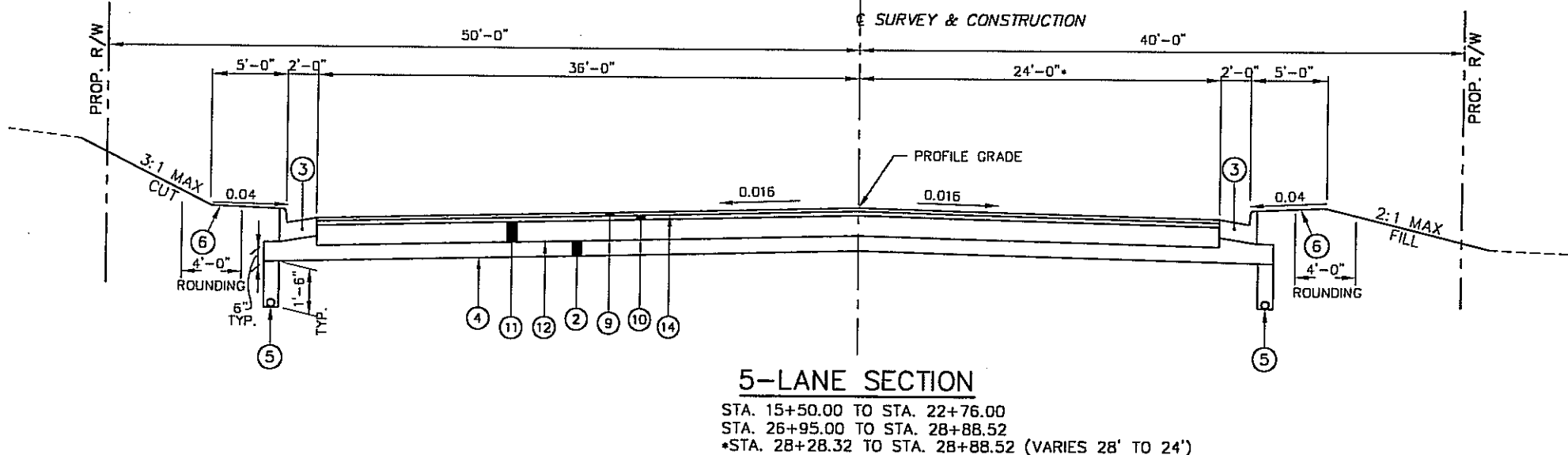
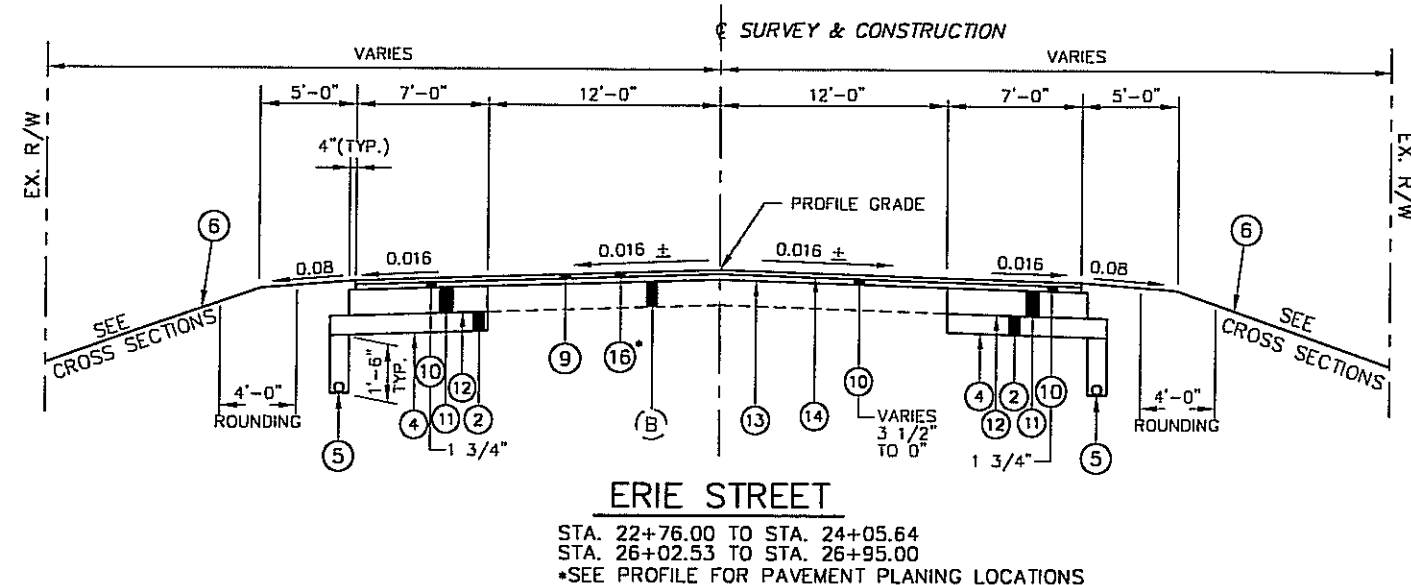
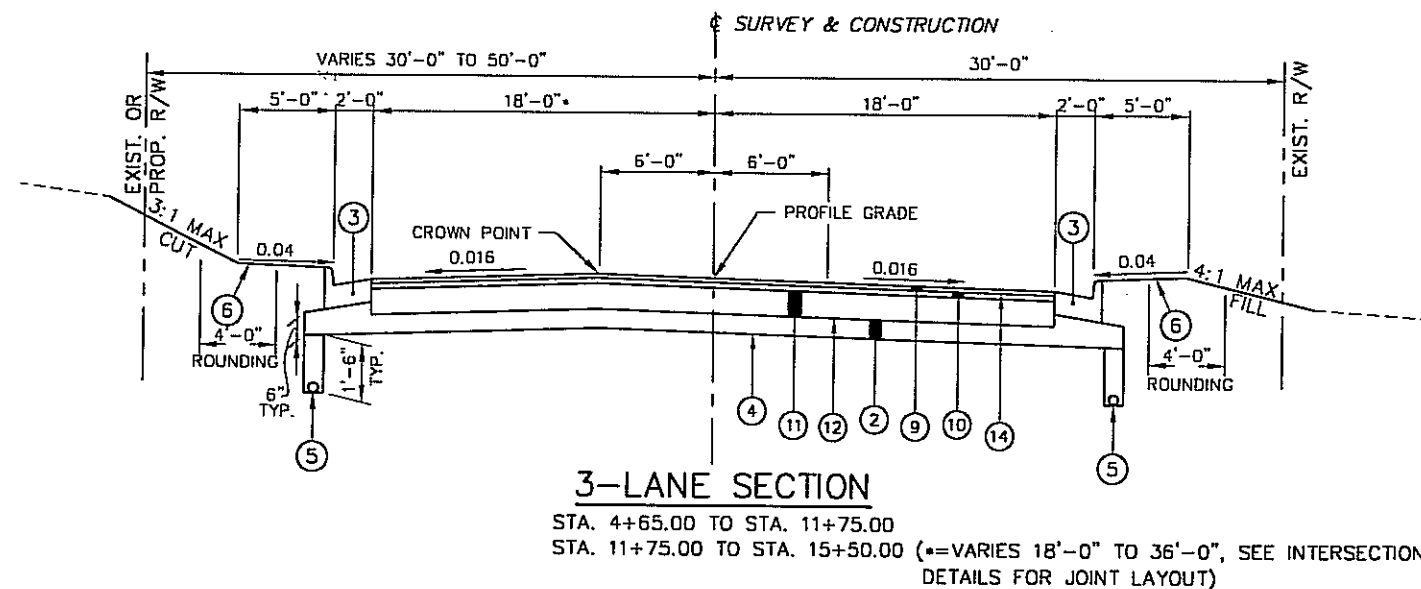
SCHEMATIC PLAN

S.R. 21/ERIE STREET
CITY OF MASSILLON

■ PROPOSED MONUMENT
□ EXISTING MONUMENT



(A) EXISTING ASPHALT CONCRETE SURFACE
(B) EXISTING 9"± REINFORCED CONCRETE PAVEMENT
(C) EXISTING AGGREGATE BASE
(D) EXISTING 4" PIPE UNDERDRAIN
(E) EXISTING 3" ASPHALT CONCRETE BASE

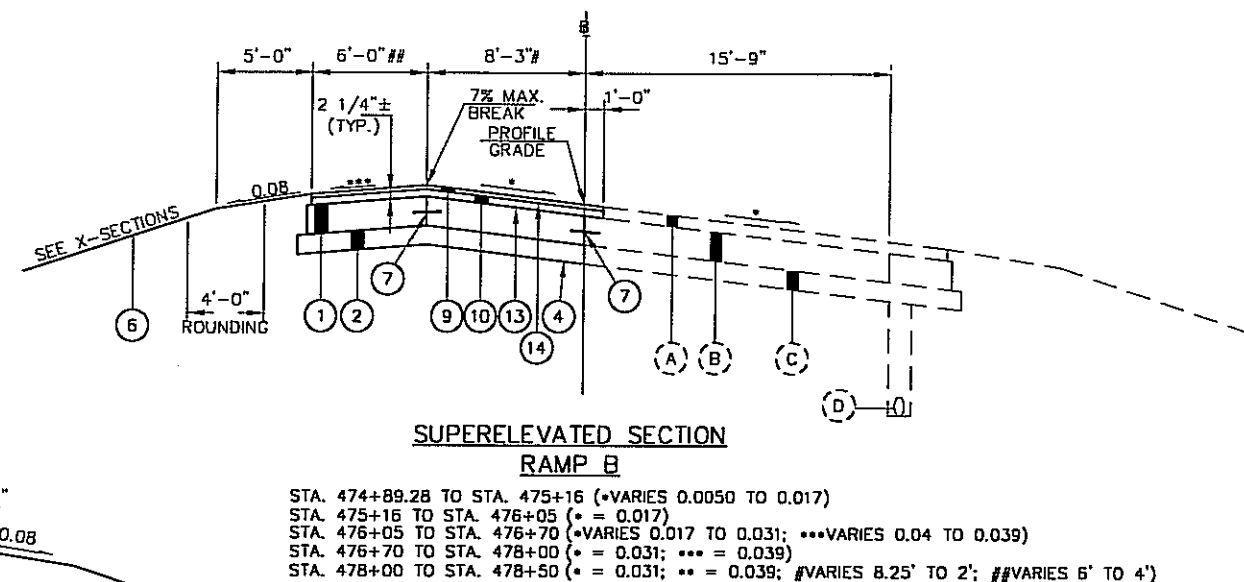
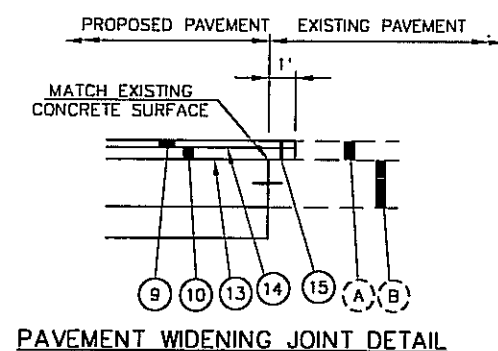
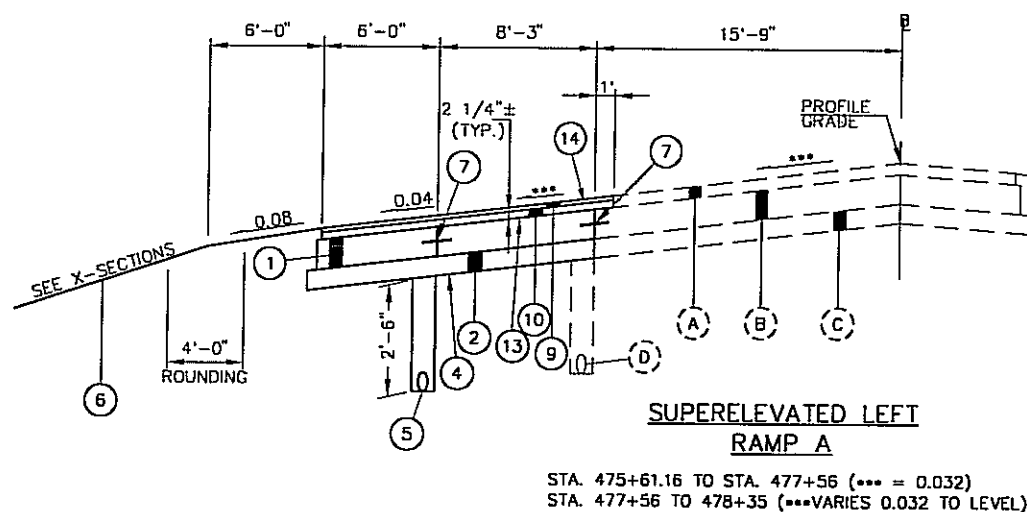
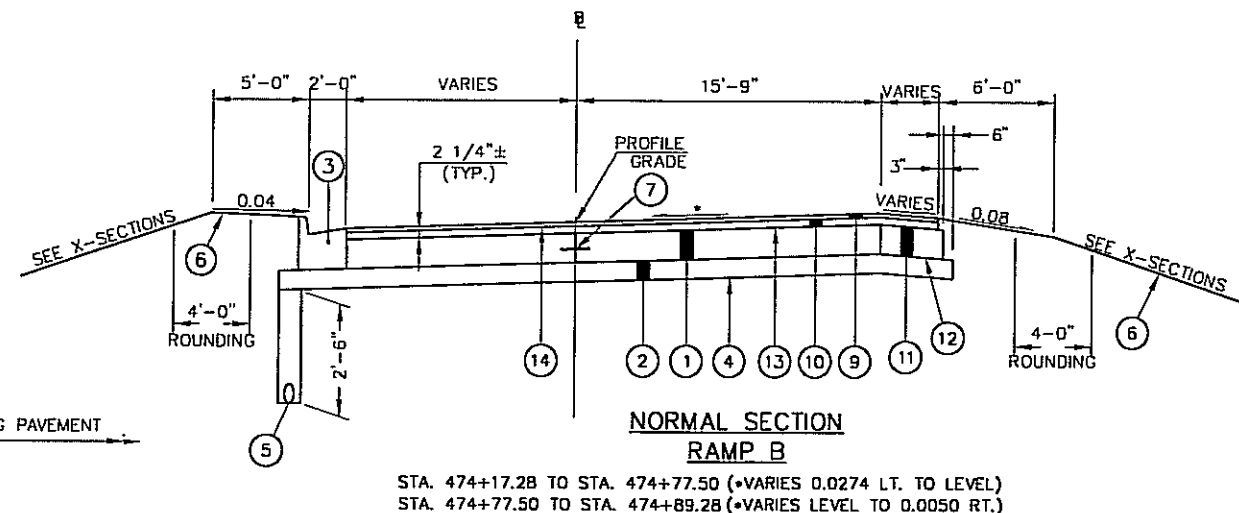
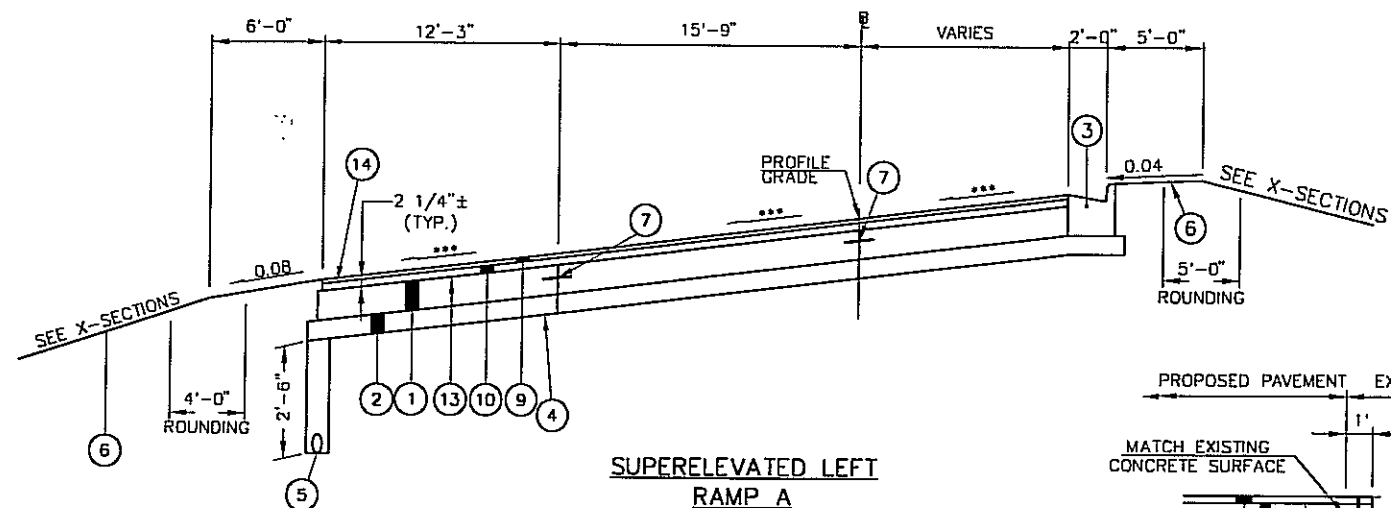


PROPOSED LEGEND

- (1) 305 - 9" CONCRETE BASE
- (2) 304 - 6" AGGREGATE BASE
- (3) 609 - COMBINATION CURB AND GUTTER, TYPE 2
- (4) 203 - SUBGRADE COMPACTION
- (5) 605 - 4" SHALLOW PIPE UNDERDRAIN
- (6) 659 - SEEDING AND MULCHING
- (7) LONGITUDINAL JOINT WITH TIEBARS, AS PER BP-2.1M.
- (8) LONGITUDINAL JOINT-UNTIED
- (9) 448 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22
- (10) 448 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22
- (11) 301 - 9" BITUMINOUS AGGREGATE BASE, PG 64-22
- (12) 408 - BITUMINOUS PRIME COAT
- (13) 407 - TACK COAT
- (14) 407 - TACK COAT FOR INTERMEDIATE COURSE
- (15) 254 - PAVEMENT PLANING, BITUMINOUS
- (16) 254 - PAVEMENT PLANING, PORTLAND CEMENT CONCRETE

EXISTING LEGEND

- (A) EXISTING ASPHALT CONCRETE SURFACE
- (B) EXISTING 9"± REINFORCED CONCRETE PAVEMENT
- (C) EXISTING AGGREGATE BASE
- (D) EXISTING 4" PIPE UNDERDRAIN
- (E) EXISTING 3" ASPHALT CONCRETE BASE

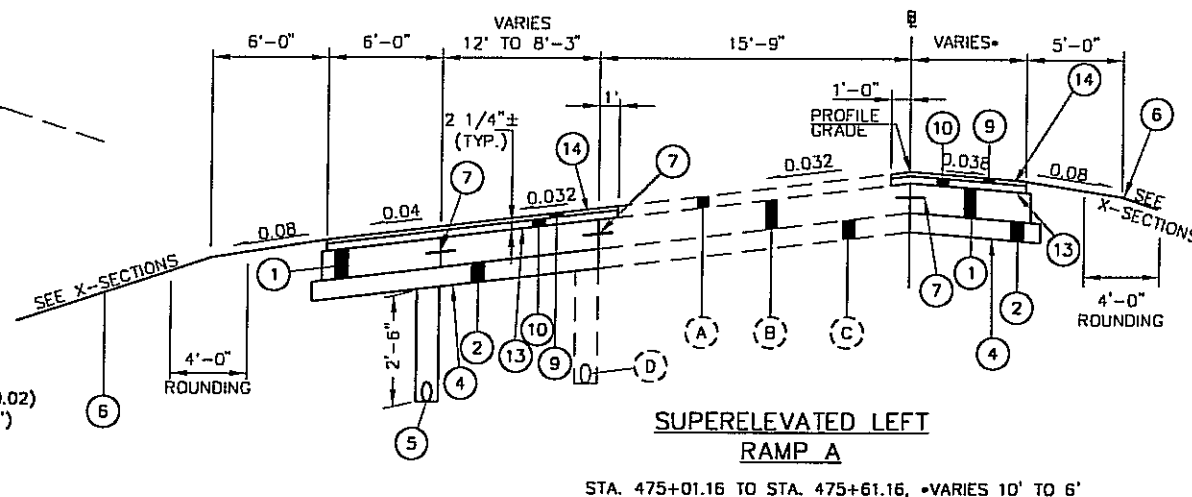
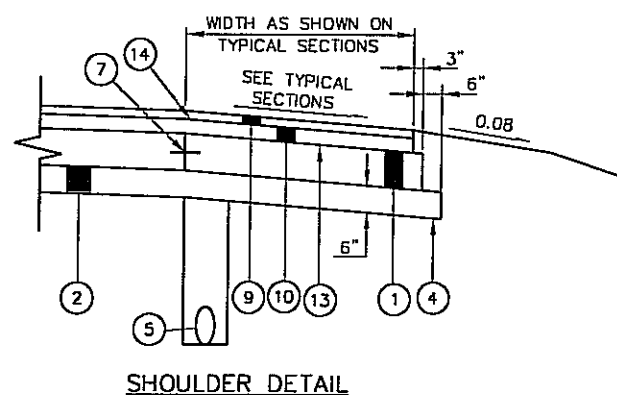
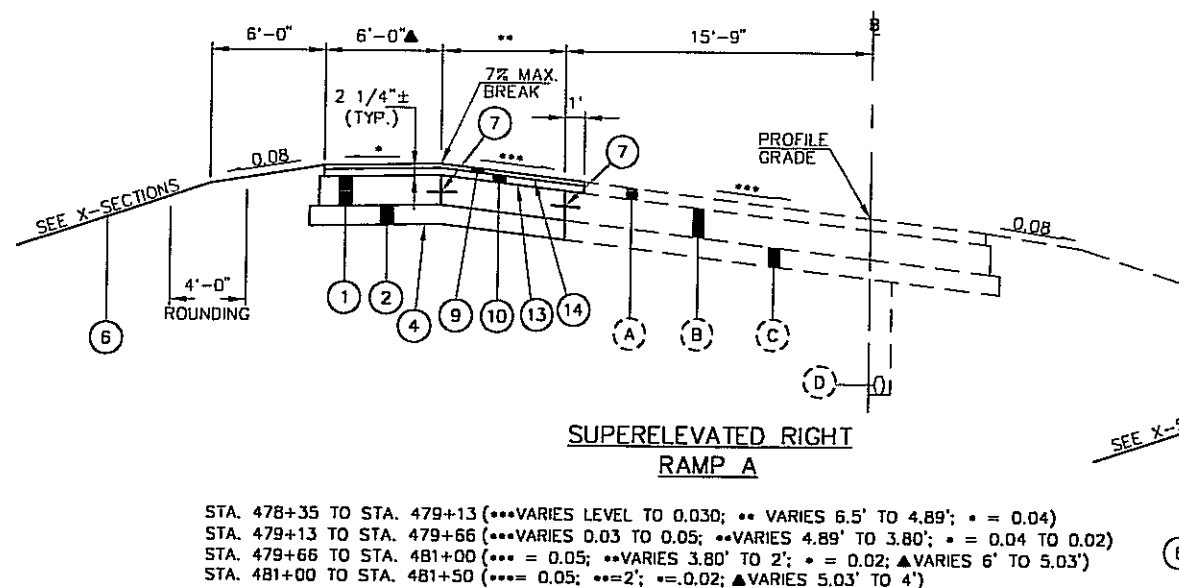


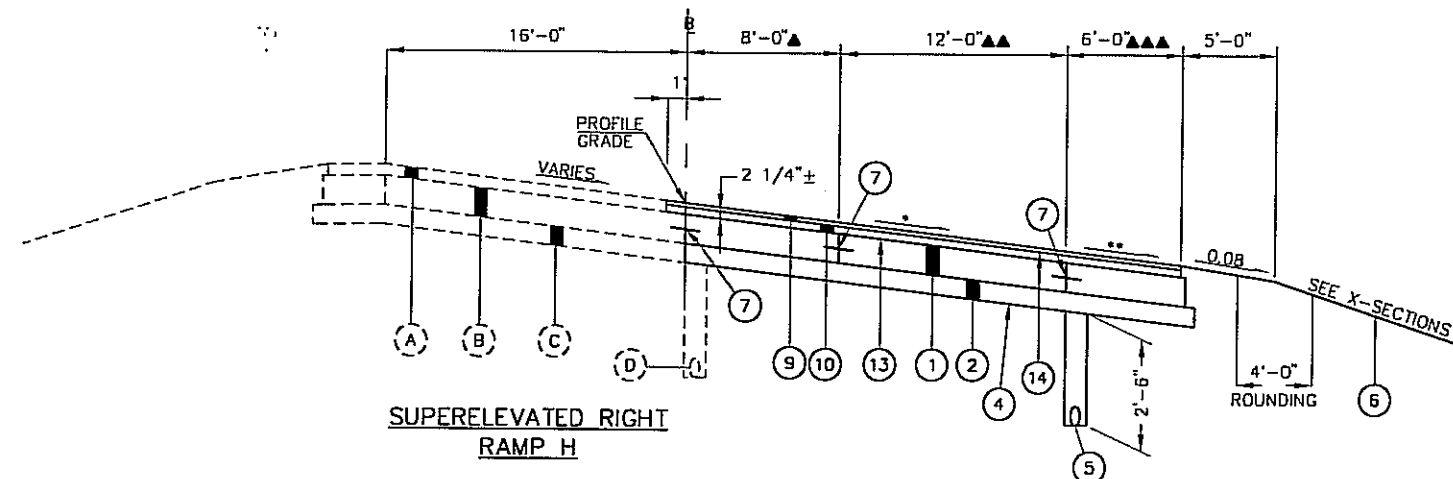
EXISTING LEGEND

- (A) EXISTING ASPHALT CONCRETE SURFACE
- (B) EXISTING 9"± REINFORCED CONCRETE PAVEMENT
- (C) EXISTING AGGREGATE BASE
- (D) EXISTING 4" PIPE UNDERDRAIN
- (E) EXISTING 3" ASPHALT CONCRETE BASE

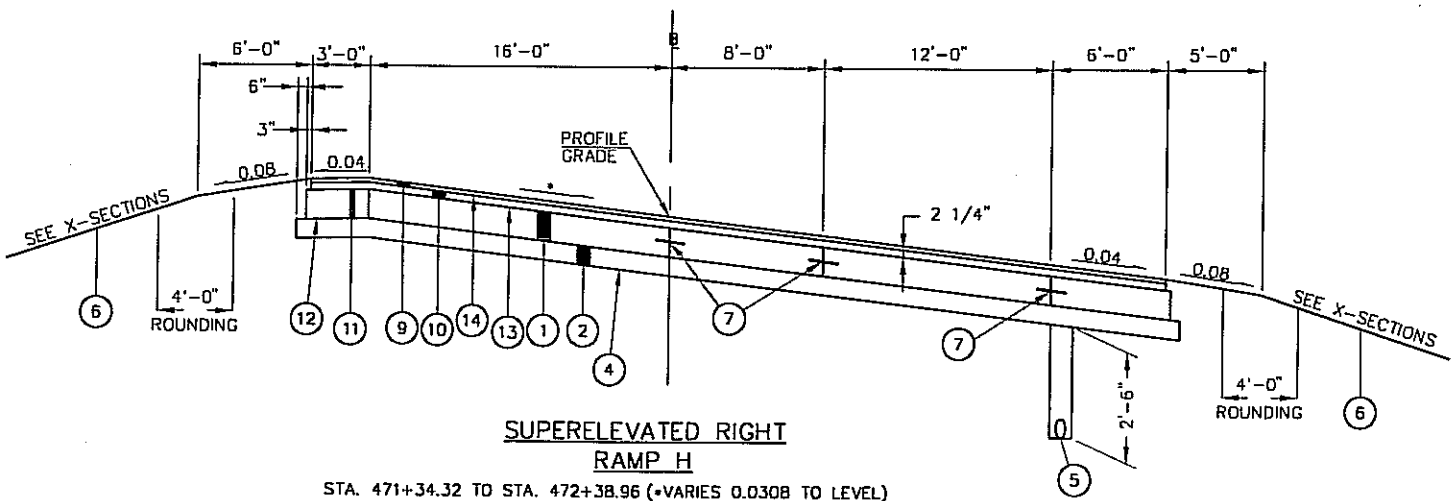
PROPOSED LEGEND

- (1) 305 - 9" CONCRETE BASE
- (2) 304 - 6" AGGREGATE BASE
- (3) 609 - COMBINATION CURB AND GUTTER, TYPE 2
- (4) 203 - SUBGRADE COMPACTION
- (5) 605 - 4" SHALLOW PIPE UNDERDRAIN
- (6) 659 - SEEDING AND MULCHING
- (7) LONGITUDINAL JOINT WITH TIEBARS, AS PER BP-2.1M
- (8) LONGITUDINAL JOINT-UNTIED
- (9) 44B - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22
- (10) 44B - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22
- (11) 301 - 9" BITUMINOUS AGGREGATE BASE, PG 64-22
- (12) 40B - BITUMINOUS PRIME COAT
- (13) 407 - TACK COAT
- (14) 407 - TACK COAT FOR INTERMEDIATE COURSE
- (15) 254 - PAVEMENT PLANING, BITUMINOUS

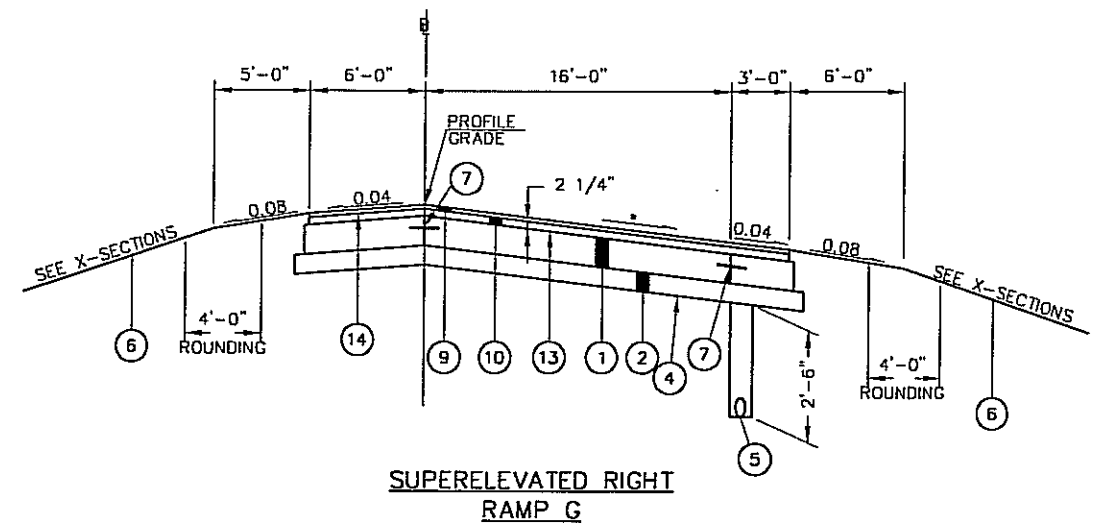




STA. 467+50 TO STA. 468+00 (VARIES 2' TO 8'; $\Delta\Delta=0$; $\Delta\Delta\Delta=0$; $\Delta\Delta\Delta\Delta$ VARIES 4' TO 6'; * = 0.046; ** = 0.046)
 STA. 468+00 TO STA. 469+00 ($\Delta\Delta=0$; * = 0.046; ** = 0.046)
 STA. 469+00 TO STA. 469+50 ($\Delta\Delta$ VARIES 0' TO 12'; * VARIES 0.046 TO 0.035; ** VARIES 0.046 TO 0.04)
 STA. 469+50 TO STA. 471+20 (* = 0.035; ** = 0.04)
 STA. 471+20 TO STA. 471+34.32 (* VARIES 0.035 TO 0.0308; ** = 0.04)



STA. 471+34.32 TO STA. 472+38.96 (* VARIES 0.0308 TO LEVEL)



STA. 474+04.06 TO STA. 474+87 (* VARIES 0.028 RT. TO LEVEL)
 STA. 474+87 TO STA. 475+57 (* VARIES LEVEL TO 0.0274 LT.)

EXISTING LEGEND

- (A) EXISTING ASPHALT CONCRETE SURFACE
- (B) EXISTING 9" $\pm$ REINFORCED CONCRETE PAVEMENT
- (C) EXISTING AGGREGATE BASE
- (D) EXISTING 4" PIPE UNDERDRAIN
- (E) EXISTING 3" ASPHALT CONCRETE BASE

PROPOSED LEGEND

- (1) 305 - 9" CONCRETE BASE
- (2) 304 - 6" AGGREGATE BASE
- (3) 609 - COMBINATION CURB AND GUTTER, TYPE 2
- (4) 203 - SUBGRADE COMPACTION
- (5) 605 - 4" SHALLOW PIPE UNDERDRAIN
- (6) 659 - SEEDING AND MULCHING
- (7) LONGITUDINAL JOINT WITH TIEBARS, AS PER 8P-2.1M
- (8) LONGITUDINAL JOINT-UNTIED
- (9) 448 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22
- (10) 448 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22
- (11) 301 - 9" BITUMINOUS AGGREGATE BASE, PG 64-22
- (12) 408 - BITUMINOUS PRIME COAT
- (13) 407 - TACK COAT
- (14) 407 - TACK COAT FOR INTERMEDIATE COURSE
- (15) 254 - PAVEMENT PLANING, BITUMINOUS

j:\Proj3\7044800\ROADWAY\7044800A.dwg User: cob05502 Jan 28, 2000 - 7:58am

GENERAL

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

NORTHEAST OHIO NATURAL GAS
9081 S.R. 250
STRASBURG, OH 33680
CHAD WALLACE
(800) 848-5589

EAST OHIO GAS
4725 SOUTHWAY ST., S.W.
CANTON, OH 44706
STEVE CROWL
(330) 478-3129

CITY OF MASSILLON ENGINEERING DEPT.
ONE JAMES DUNCAN PLAZA
MASSILLON, OH 44646
JAMES BENEKOS
(330) 830-1722

MASSILLON CABLE
PO BOX 814
MASSILLON, OH 44646
TOM MOGUS
(330) 833-3778

OHIO EDISON
2600 S. ERIE ST.
MASSILLON, OH 44646
JACK DEDMON
(330) 830-7056

CONSUMERS OHIO WATER COMPANY
870 THIRD ST. N.W.
MASSILLON, OH 44647-4206
DONALD L. SNYDER
(330) 833-4156

GREAT LAKES ENERGY PARTNERS L.L.C.
125 S.R. 43
HARTVILLE, OH 44632-0550
SUE BARCLAY
(330) 877-6747

AMERITECH
50 W. BOWERY ST., 6TH FLOOR
AKRON, OH 44308
JAMES McGLAUGHLIN
(330) 384-8057

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM (NGVD 1927).

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THE PLANS SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

GENERAL NOTES

EROSION CONTROL

ITEM 659, SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR ITEM 659, SEEDING AND MULCHING, ARE BASED ON THESE LIMITS.

WATERING PERMANENT SEEDED AREAS

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR PERMANENT SEEDED AREAS PER 659.09:

659, WATER 22 M. GAL.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE PLACED BY THE CONTRACTOR WITH THE ENGINEER'S CONCURRENCE FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

877, TEMPORARY SEEDING AND MULCHING 2000 SQ. YD.
877, TEMPORARY BENCHES, DAMS AND SEDIMENT BASINS 500 CU. YD.
877, TEMPORARY PERIMETER FILTER FABRIC FENCE 2000 LIN. FT.
877, TEMPORARY DITCH CHECK FILTER FABRIC FENCE 20 LIN. FT.
877, TEMPORARY INLET PROTECTION FILTER FABRIC FENCE 150 LIN. FT.
877, TEMPORARY DITCH PROTECTION 120 SQ.YD.
601, ROCK CHANNEL PROTECTION, TYPE C WITH FILTER 100 CU. YD.
601, ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER 100 CU YD.
659, COMMERCIAL FERTILIZER 0.50 TON
659, REPAIR SEEDING AND MULCHING 500 SQ. YD.
659, WATER 5 M GAL.

EROSION CONTROL

ITEMS 601 AND 670 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES OF THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THESE ITEMS SHALL MEET THE REQUIREMENT OF 108.04.

ROADWAY

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ROADWAY CONT.

ITEM 203, PROOF ROLLING

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 203, PROOF ROLLING 8 HOUR

ITEM 203 - EXCAVATION, INCLUDING EMBANKMENT CONSTRUCTION

IF UNSUITABLE FOUNDATION SOILS ARE ENCOUNTERED IN THE AREAS OF THE PROPOSED ROADBED, THEY SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL MEETING THE REQUIREMENTS OF 203.08. THE LOCATIONS AND DIMENSIONS WILL BE DETERMINED BY THE ENGINEER.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 203, EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION 500 CU. YD.
ITEM 203, EMBANKMENT 500 CU. YD.

DRAINAGE

CROSSING AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

FARM DRAINS

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE (RIGHT-OF-WAY) (CONSTRUCTION) LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 603, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1M, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEM.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

603, 6" CONDUIT, TYPE B 50 LIN. FT.
603, 6" CONDUIT, TYPE E 50 LIN. FT.
603, 6" CONDUIT, TYPE F 50 LIN. FT.
601 ROCK CHANNEL PROTECTION TYPE C WITH FILTER 2 CU. YDS.

J:\Proj3\7044800\ROADWAY\70448GNGNB.dwg User: cob05502 Jan 28, 2000 - 7:58am

GENERAL NOTES

DRAINAGE (CONT.)

SPRING DRAINS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR DRAINING ANY SPRINGS SHOWN IN THE PLAN OR ENCOUNTERED DURING CONSTRUCTION. THE FOLLOWING TYPES OF PIPES MAY BE USED: 707.33, 707.41, 707.42, OR 707.45 PERFORATED PER 707.31.

SPRING DRAINS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD CONSTRUCTION DRAWING DM-1.1M AND PAID FOR AT THE CONTRACT PRICE FOR:

605, 6" UNCLASSIFIED PIPE UNDERDRAIN FOR SPRINGS	50 L.F.
605, AGGREGATE DRAIN FOR SPRINGS	50 L.F.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY OF MASSILLON, REPRESENTATIVES OF THE CITY AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE CITY.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE CITY OF MASSILLON.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATION SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

UNRECORDED SANITARY CONNECTIONS

ANY UNRECORDED ACTIVE CONNECTION TO A SANITARY SEWER ENCOUNTERED DURING CONSTRUCTION SHALL BE RECONNECTED TO THE EXISTING SANITARY SEWER TO THE SATISFACTION OF THE ENGINEER.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.42, 707.43, 707.44, 707.45, 707.46, 707.47, 707.51, 707.52 PS46 MIN., 706.01, 706.02, OR 706.08 WITH JOINTS AS PER 706.11 OR 706.12.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

603, 6" CONDUIT, TYPE B, FOR SANITARY	100 L.F.
603, 6" CONDUIT, TYPE C, FOR SANITARY	100 L.F.

WATER TRAPPED BEHIND CURB

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR DRAINING ANY WATER TRAPPED BEHIND THE CURB DETERMINED DURING CONSTRUCTION.

ITEM 603, 12" CONDUIT, TYPE B, 706.02	100 L.F.
ITEM 603, 12" CONDUIT, TYPE C, 706.02	100 L.F.
ITEM 604 - INLET, NO. 1	3 EACH

UNDERDRAIN LOCATION

THE LOCATION OF THE UNDERDRAINS SHALL BE ADJUSTED AS REQUIRED TO PROVIDE SUFFICIENT LATERAL CLEARANCE FROM THE PROPOSED LIGHT POLE FOUNDATIONS. THE ADJUSTED LOCATIONS SHALL BE APPROVED BY THE ENGINEER. ALL COSTS FOR THIS WORK SHALL BE INCLUDED WITH ITEM 605.

PAVEMENT

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL, IN AL CASES, BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2M AND THE SPECIFICATIONS.

CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING

WHERE NEW CONCRETE IS PLACED ADJACENT TO EXISTING CONCRETE, CONTRACTION JOINTS SHALL BE PROVIDED IN THE NEW CONCRETE SO AS TO FORM CONTINUOUS JOINTS WITH THOSE IN THE EXISTING CONCRETE.

THE MAXIMUM DISTANCE BETWEEN THE JOINTS IN THE NEW CONCRETE SHALL BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2M. IF NECESSARY, ADDITIONAL JOINTS SHALL BE PROVIDED IN THE NEW CONCRETE AT APPROXIMATELY EQUAL INTERVALS BETWEEN EXISTING JOINTS THAT EXCEED THE MAXIMUM SPACING.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND CONSTRUCTING THE FULL PAVEMENT WIDTH IN STAGES, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LONGITUDINAL JOINTS SHALL BE LAPPED AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1M.

ITEM 407, TACK COAT AND ITEM 407, TACK COAT FOR INTERMEDIATE COURSE

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATED AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSE ONLY.

WATER

RELOCATION OF 12" WATERMAIN

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER TO LOWER THE EXISTING 12" WATERMAIN WHEN A MINIMUM 12" CLEARANCE FROM THE PROPOSED DRAINAGE CONDUITS TO THE EXISTING 12" WATERMAIN CANNOT BE OBTAINED.

ITEM 638 - 12" WATERMAIN DUCTILE IRON PIPE, ANSI CLASS 53, PUSH-ON JOINTS AND MECHANICAL JOINT FITTINGS 30 L.F.

WATERMAIN RELOCATION SHALL MEET ALL REQUIREMENTS AND SPECIFICATIONS OF CONSUMERS OHIO WATER COMPANY.

GENERAL NOTES

S.R. 21/ERIE STREET
CITY OF MASSILLON

J:\Proj3\7044800\ROADWAY\70448MNA.dwg User: ccb05502 Jan 28, 2000 - 7:58am

GENERAL

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION, LATEST REVISION. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

EQUIPMENT STORAGE AND STAGING AREA

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE PROJECT ENGINEER THE LOCATION OR LOCATIONS THAT THE CONTRACTOR INTENDS TO USE FOR PARKING PRIVATE VEHICLES, EQUIPMENT AND MATERIAL STORAGE AND/OR STAGING AREA. THESE LOCATIONS SHALL BE APPROVED BY THE PROJECT ENGINEER.

TEMPORARY DRAINAGE

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ADEQUATE DRAINAGE OF THE TRAVELLED ROADWAYS DURING ALL PHASES OF CONSTRUCTION BY USING DITCHES, EXISTING DRAINAGE FACILITIES, TEMPORARY DRAINAGE FACILITIES, AND PERMANENT DRAINAGE FACILITIES.

TEMPORARY PAVEMENT MARKINGS

ALL TEMPORARY PAVEMENT MARKINGS TO BE APPLIED TO FINAL SURFACES SHALL BE 740.06, TYPE 1, ONLY. TEMPORARY MARKINGS APPLIED TO UNFINISHED SURFACES SHALL BE PAINT. ALL TEMPORARY MARKINGS SHALL BE 4" WIDE AND INSTALLED ACCORDING TO 614.10

UTILITY WORK

EXCAVATIONS MADE FOR CONDUIT OR UTILITIES RESULTING IN OPEN TRENCHES SHALL BE ADEQUATELY MAINTAINED AND PROTECTED AT ALL TIMES. UPON COMPLETING THE SUBSURFACE CONNECTIONS, THE OPENING SHALL BE RETURNED TO THE ROADWAY SURFACE LEVEL WITH APPROVED BACKFILL MATERIAL AND REPAVED.

WORK SHALL BE ACCOMPLISHED ON ONE SIDE OF THE ROADWAY AT A TIME.

PAVEMENT FOR MAINTENANCE OF TRAFFIC

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER FOR MAINTENANCE OF TRAFFIC.

ITEM 614 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	<u>20</u> CUBIC YARD
ITEM 614 - TEMPORARY CENTER LINE, CLASS I, 740.06, TYPE 1	<u>0.10</u> MILE
ITEM 411 - STABILIZED CRUSHED AGGREGATE	<u>5</u> CUBIC YARD
ITEM 615 - TEMPORARY PAVEMENT, CLASS A	<u>300</u> SQUARE YARD
ITEM 622 - PORTABLE CONCRETE BARRIER, 32"	<u>200</u> LINEAR FEET

ITEM SPECIAL - REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS, AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM SPECIAL - REPLACEMENT DRUM AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL - REPLACEMENT DRUM	<u>50</u> EACH
---------------------------------	----------------

RAMP WIDTH RESTRICTION

CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE 12 FOOT LANE AT ALL TIMES ON ALL RAMPS USING EXISTING PAVEMENT, PROPOSED PAVEMENT, TEMPORARY PAVEMENT, OR A COMBINATION.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE THE EXISTING GUARDRAIL, PREPARE THE SITE, AND INSTALL NEW GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON THE SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED UNTIL SUCH TIME AS THE ENGINEER IS ASSURED OF COMPLIANCE.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616 - CALCIUM CHLORIDE	<u>5</u> TON
ITEM 616 - WATER	<u>50</u> M GALLON

TRAFFIC CONTROL DEVICES

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE ERECTED AND MAINTAINED IN COMPLIANCE WITH THE STATE OF OHIO "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" CURRENT EDITION, LATEST REVISION. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR PROVIDING AND MAINTAINING LIGHTS, SIGNS, AND BARRICADES FOR THE MAINTENANCE OF TRAFFIC AND SAFETY OF THE WORK AT THE LOCATIONS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER. ANY REPAIRS TO TRAFFIC CONTROL DEVICES SHALL BE PERFORMED WITHIN 24 HOURS OF NOTIFICATION.

USE OF TRAFFIC CONES

CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT EXTEND BETWEEN ONE HALF HOUR BEFORE SUNSET TO ONE HALF HOUR AFTER SUNRISE.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

ITEM 642 - REMOVAL OF PAVEMENT MARKINGS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER TO ELIMINATE CONFLICTING PAVEMENT MARKINGS DURING CONSTRUCTION.

ITEM 642 - REMOVAL OF PAVEMENT MARKING	<u>5</u> EACH
ITEM 642 - REMOVAL OF PAVEMENT MARKING	<u>200</u> LINEAR FEET

THE QUANTITY IS FOR ESTIMATING PURPOSES ONLY. ANY ADDITIONAL PAVEMENT MARKING REMOVALS SHALL BE PAID AT THE UNIT PRICE BID.

ALTERNATE MAINTENANCE OF TRAFFIC PLANS

IF THE CONTRACTOR SO ELECTS, THE CONTRACTOR MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE ENGINEER. AT LEAST 10 WORKING DAYS WILL BE REQUIRED FOR CITY TO REVIEW THE ALTERNATIVE MAINTENANCE OF TRAFFIC PLAN.

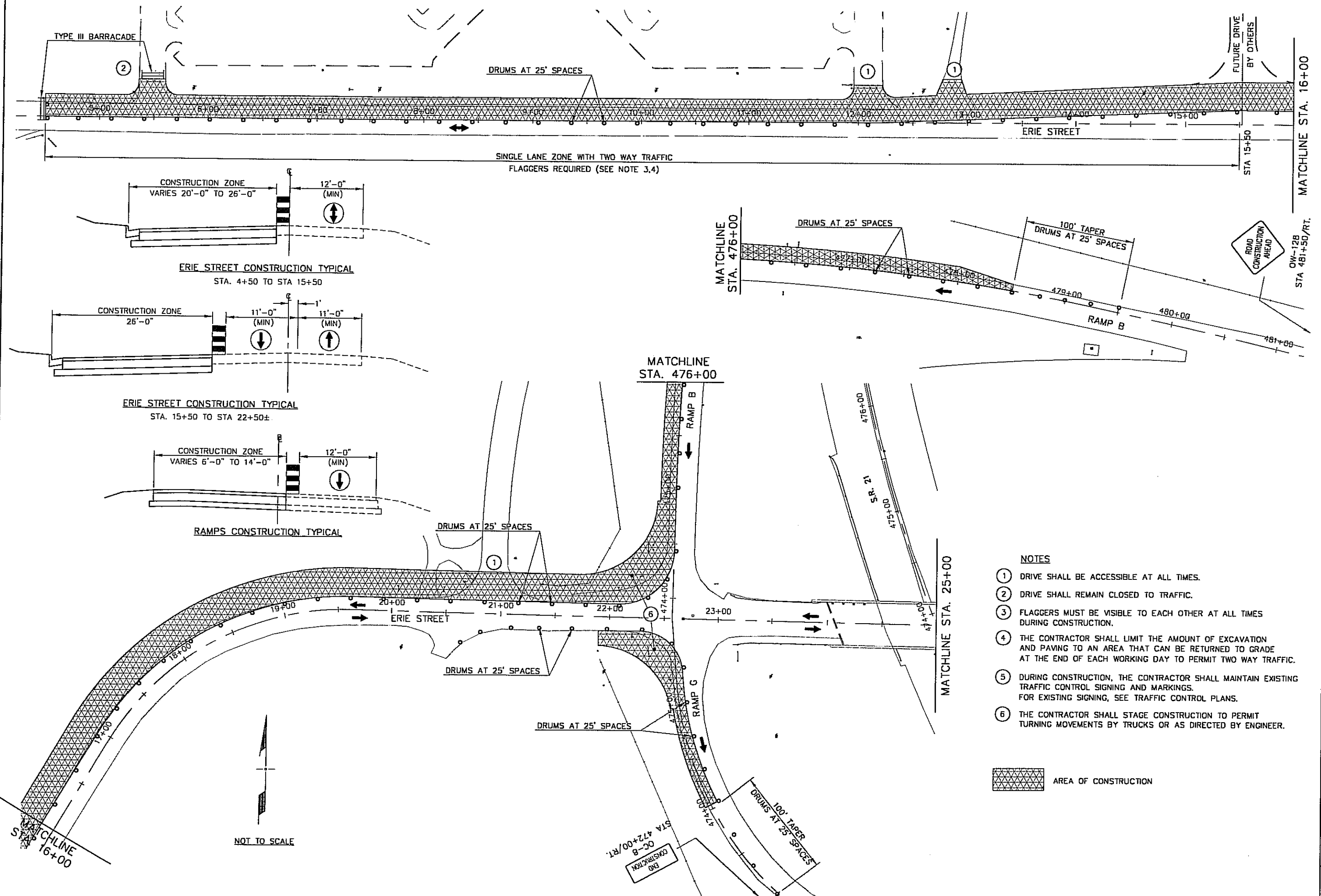
SUSPENSION OF WORK

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE MANUAL, THE ENGINEER MAY SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

METHOD OF PAYMENT

PAYMENT FOR THE MAINTENANCE OF TRAFFIC ITEMS, UNLESS SPECIFIED SEPARATELY, SHALL BE AT THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS TO COMPLETE THE WORK AS DETAILED IN THE PLANS.

TOTALS CARRIED TO
GENERAL SUMMARY



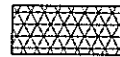
MAINTENANCE OF TRAFFIC

PHASE 1

**S.R. 21/ERIE STREET
CITY OF MASSILLON**

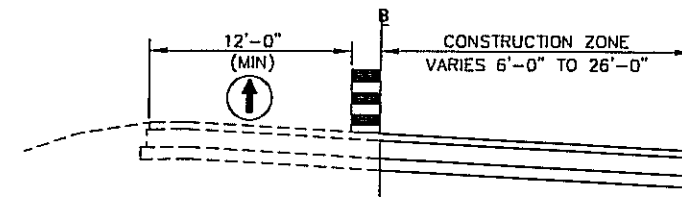
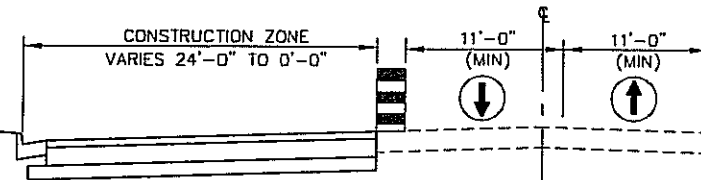
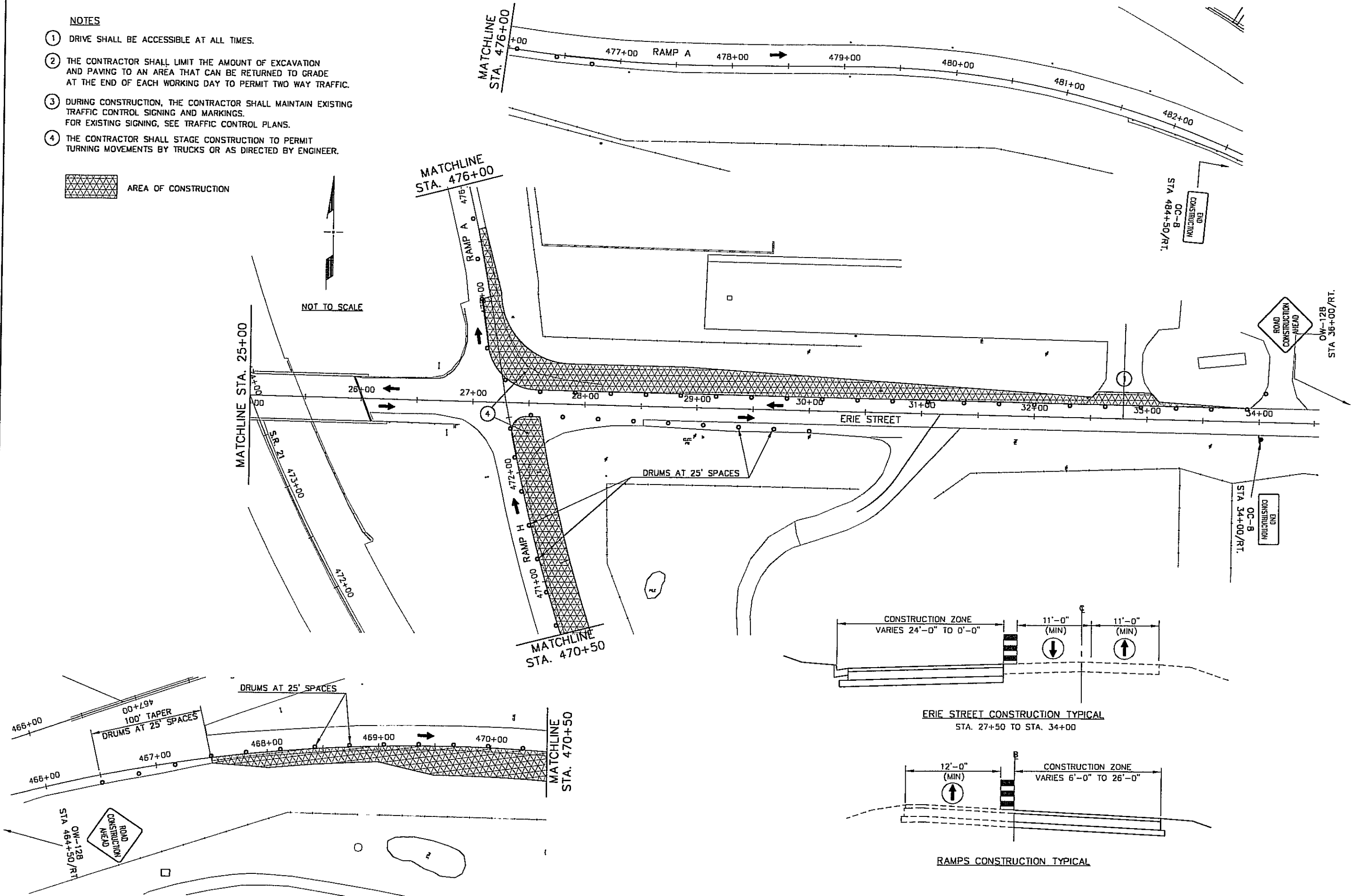
NOTES

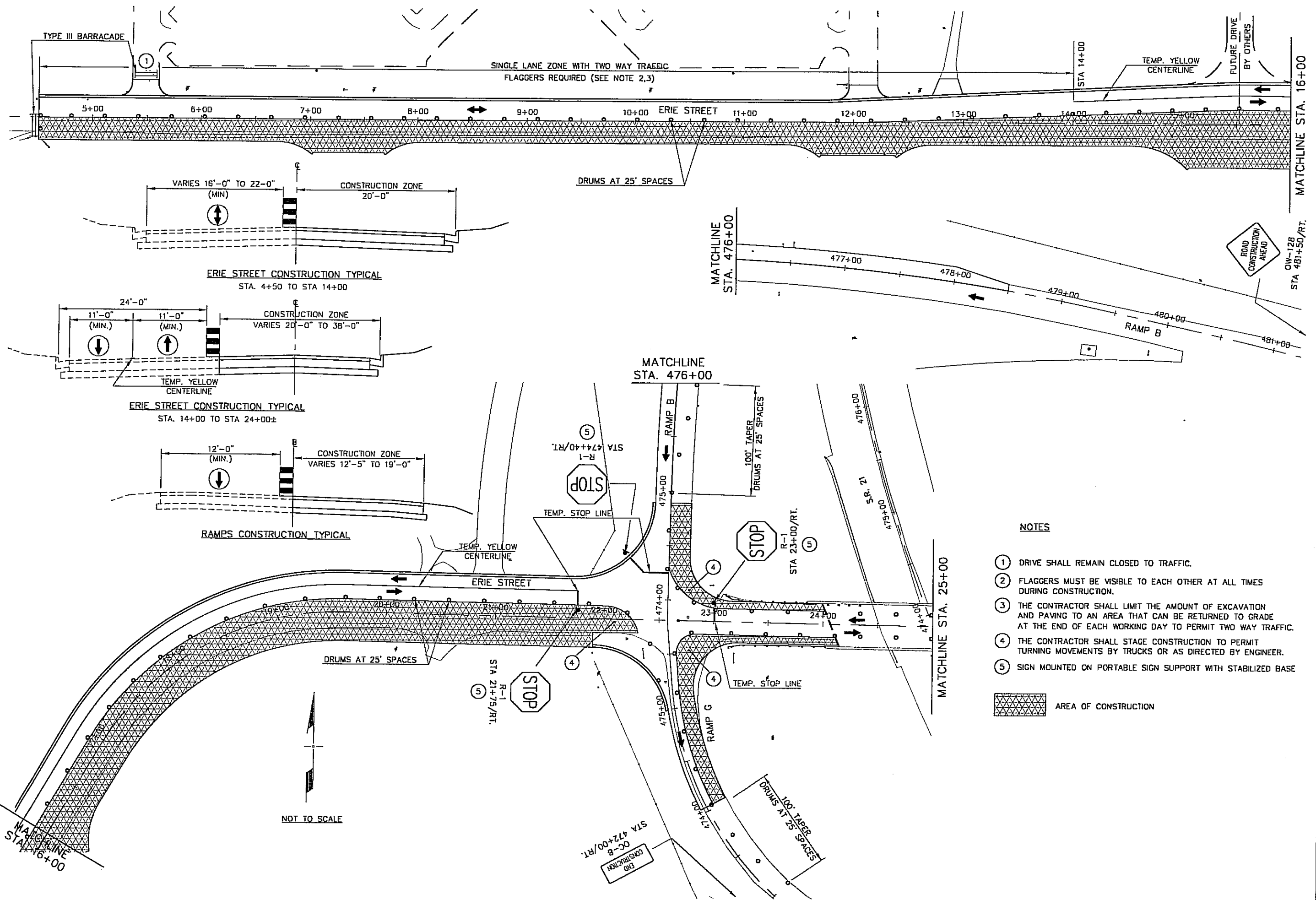
- 1 DRIVE SHALL BE ACCESSIBLE AT ALL TIMES.
- 2 THE CONTRACTOR SHALL LIMIT THE AMOUNT OF EXCAVATION AND PAVING TO AN AREA THAT CAN BE RETURNED TO GRADE AT THE END OF EACH WORKING DAY TO PERMIT TWO WAY TRAFFIC.
- 3 DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC CONTROL SIGNING AND MARKINGS. FOR EXISTING SIGNING, SEE TRAFFIC CONTROL PLANS.
- 4 THE CONTRACTOR SHALL STAGE CONSTRUCTION TO PERMIT TURNING MOVEMENTS BY TRUCKS OR AS DIRECTED BY ENGINEER.



AREA OF CONSTRUCTION

NOT TO SCALE





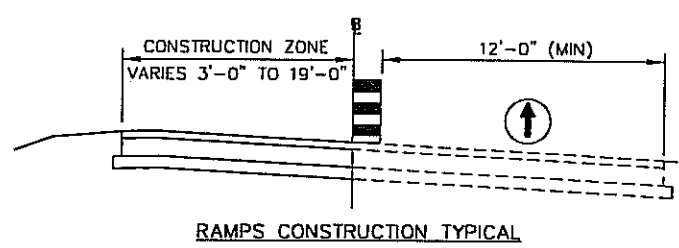
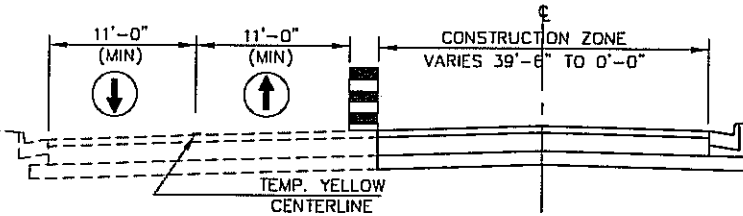
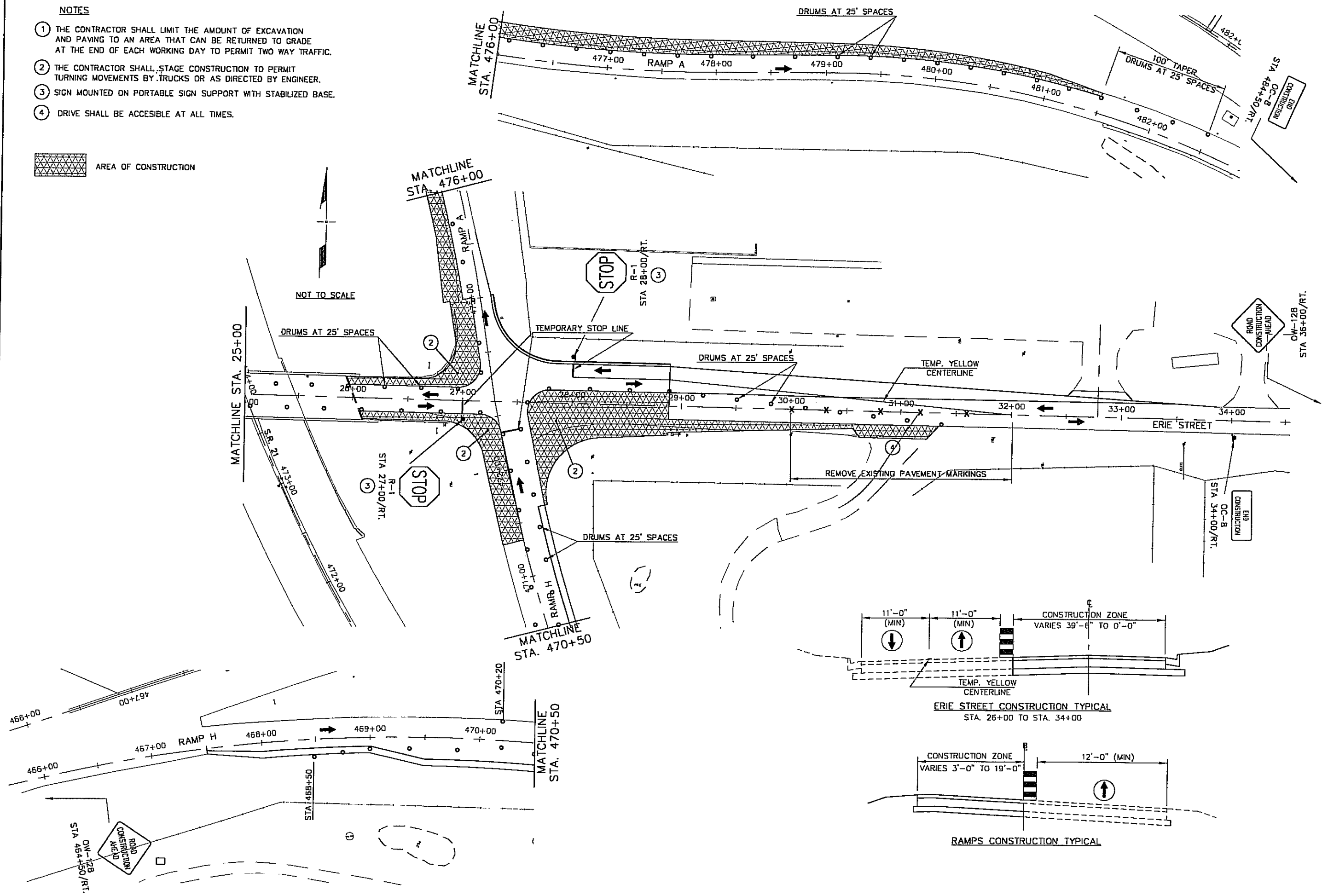
MAINTENANCE OF TRAFFIC
PHASE 2

J:\Proj3\7044800\ROADWAY\70448mpd.dwg User: cob05502 Jan 28, 2000 - 7:59am

NOTES

- 1 THE CONTRACTOR SHALL LIMIT THE AMOUNT OF EXCAVATION AND PAVING TO AN AREA THAT CAN BE RETURNED TO GRADE AT THE END OF EACH WORKING DAY TO PERMIT TWO WAY TRAFFIC.
- 2 THE CONTRACTOR SHALL STAGE CONSTRUCTION TO PERMIT TURNING MOVEMENTS BY TRUCKS OR AS DIRECTED BY ENGINEER.
- 3 SIGN MOUNTED ON PORTABLE SIGN SUPPORT WITH STABILIZED BASE.
- 4 DRIVE SHALL BE ACCESSIBLE AT ALL TIMES.

 AREA OF CONSTRUCTION



GENERAL SUMMARY

SHEET NUMBER											ITEM NO.	EST. QUAN.	UNIT	DESCRIPTION	AS PER PLAN SHEET
6		18	19	20	22	45	59								
														ROADWAY	
										201		LUMP		CLEARING AND GRUBBING	
				2703						202		2703	SY	PAVEMENT REMOVED	
		20								202		20	LF	CURB REMOVED	
			266	24						202		290	LF	PIPE REMOVED, 24" AND UNDER	
				4						202		4	EACH	ANCHOR ASSEMBLY REMOVED FOR REUSE	
				337.5						202		337.5	LF	GUARDRAIL REMOVED FOR REUSE	
				240						202		240	LF	FENCE REMOVED FOR REUSE	
500		47				7673	1035			203		9255	CY	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	
500						2910	411			203		3821	CY	EMBANKMENT	
8										203		8	HOUR	PROOF ROLLING	
		18352								203		18352	SY	SUBGRADE COMPACTION	
			2	1						604		3	EACH	MONUMENT ASSEMBLY	
				2						604		2	EACH	MONUMENT BOX ADJUSTED TO GRADE	
				375						606		375	LF	GUARDRAIL, TYPE 5	
				337.5						606		337.5	LF	GUARDRAIL, REBUILT, TYPE 5	
				4						606		4	EACH	ANCHOR ASSEMBLY, REBUILT	
				1						606		1	EACH	ANCHOR ASSEMBLY, TYPE A	
				1						606		1	EACH	ANCHOR ASSEMBLY, TYPE T	
				240						607		240	LF	FENCE REBUILT, TYPE CLT	
														EROSION CONTROL	
102				50						601		152	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
100										601		100	CY	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER	
						7681	2574			659		10255	SY	SEEDING AND MULCHING	
500										659		500	SY	REPAIR SEEDING AND MULCHING	
0.5						0.69	0.23			659		1.42	TON	COMMERCIAL FERTILIZER	
27										659		27	MGAL	WATER	
			340	134						670		474	SY	DITCH EROSION PROTECTION	
2000										877		2000	SY	TEMPORARY SEEDING AND MULCHING	
500										877		500	CY	TEMPORARY BENCHES, DAMS, AND SEDIMENT BASINS	
2000					3319					877		5319	LF	TEMPORARY PERIMETER FILTER FABRIC FENCE	
20					70					877		90	LF	TEMPORARY DITCH CHECK FILTER FABRIC FENCE	

CALCULATED
J.S.
CHECKED
K.M.

GENERAL SUMMARY

S.R. 21/ERIE STREET
CITY OF MASSILLON

GENERAL SUMMARY

SHEET NUMBER											ITEM NO.	EST. QUAN.	UNIT	DESCRIPTION	AS PER PLAN SHEET
6	7	19	20	21	22									EROSION CONTROL (CONTINUED)	
150					280						877	430	LF	TEMPORARY INLET PROTECTION FILTER FABRIC FENCE	
120											877	120	SY	TEMPORARY DITCH PROTECTION	
														DRAINAGE	
			0.99								602	1	CY	CONCRETE MASONRY	
				38							603	38	LF	4" CONDUIT, TYPE B	
				279							603	279	LF	4" CONDUIT, TYPE F	
50	100										603	150	LF	6" CONDUIT, TYPE B	
	100										603	100	LF	6" CONDUIT, TYPE C	
50											603	50	LF	6" CONDUIT, TYPE E	
50											603	50	LF	6" CONDUIT, TYPE F	
	100	361	62								603	523	LF	12" CONDUIT, TYPE B, 706.02	
	100										603	100	LF	12" CONDUIT, TYPE C, 706.02	
		121	6								603	127	LF	12" CONDUIT, TYPE C, 707.33	
		139	146								603	285	LF	15" CONDUIT, TYPE C, 707.33	
			148								603	148	LF	15" CONDUIT, TYPE A, 706.02	
		200									603	200	LF	18" CONDUIT, TYPE C, 707.33	
		450									603	450	LF	21" CONDUIT, TYPE C, 707.33	
		260									603	260	LF	24" CONDUIT, TYPE C, 707.33	
		215	63								603	278	LF	27" CONDUIT, TYPE C, 707.33	
		300	1031								603	1331	LF	30" CONDUIT, TYPE C, 707.33	
		1									604	1	EACH	CATCH BASIN, No. 2-2A	
		3									604	3	EACH	CATCH BASIN, No. 2-2B	
			1								604	1	EACH	CATCH BASIN, No. 2-3	
		2									604	2	EACH	CATCH BASIN No.3	
		11	2								604	13	EACH	CATCH BASIN No.3A	
				4							604	4	EACH	PRECAST REINFORCED CONCRETE OUTLET	
	3										604	3	EACH	INLET, No. 1	
		7	4								604	11	EACH	MANHOLE, No. 3	
		1									604	1	EACH	MANHOLE ADJUSTED TO GRADE	
			1								604	1	EACH	MANHOLE RECONSTRUCTED TO GRADE	
				5245							605	5245	LF	4" SHALLOW PIPE UNDERDRAIN	
				451							605	451	LF	4" UNCLASSIFIED PIPE UNDERDRAIN	
	50										605	50	LF	6" UNCLASSIFIED PIPE UNDERDRAIN FOR SPRINGS	
	50										605	50	LF	AGGREGATE DRAIN FOR SPRINGS	

J:\Proj3\7044800\ROADWAY\70448ggB.dwg User: cob05502 Jan 28, 2000 - 10:46am

CALCULATED	CHECKED
JJS	KDK

GENERAL SUMMARY

**S.R. 21/ERIE STREET
CITY OF MASSILLON**

CALCULATED	SM
CHECKED	KOK

GENERAL SUMMARY

**S.R. 21/ERIE STREET
CITY OF MASSILLON**

*INCLUDES CORRECTION FACTOR FOR CURVE

CALCULATED	CHECKED
SCW	KDK

[illegible]

J:\Proj3\7044800\ROADWAY\7044800.dwg User: cab05502 Jan 28, 2000 - 7:59am

PAVEMENT SUBSUMMARY

**S.R. 21/ERIE STREET
CITY OF MASSILLON**

$$\frac{18}{102}$$

CALCULATED	JJ5
CHECKED	KDK

QUANTITY SUBSUMMARY

S.R. 21/ERIE STREET
CITY OF MASSILLON

UNDERDRAIN SUBSUMMARY

NOTES:

- 1. CONNECT TO RAMP B U.D.
- 2. CONNECT TO RAMP G U.D.
- 3. CONNECT TO RAMP A U.D.
- 4. CONNCET TO RAMP H U.D.
- 5. 25' UNCLASSIFIED U.D. - TRANSITION FROM 18" TO 30" DEPTH
- 6. CONNECT TO EXISTING U.D.
- 7. CONNECT TO ERIE ST. U.D.

STATION				SIDE	NOTES	ITEM NUMBERS																BENDS AND BRANCHES FOR INFORMATION ONLY			
						603				604				605								4" X 4" TEE	4" X 45' BEND	4" X 90' BEND	
						4" CONDUIT, TYPE B	4" CONDUIT, TYPE F			PRECAST REINFORCED CONCRETE OUTLET		4" SHALLOW PIPE UNDERDRAIN	4" UNCLASSIFIED PIPE UNDERDRAIN												
FROM	TO																								
ERIE STREET																									
4+65	5+25	LT			10					50										1					
4+65	5+25	RT			10					50										1					
5+25	7+35	LT			10					200										1					
5+25	6+90	RT			10					165										1					
7+40	9+95	LT			10					245										1					
7+80	9+95	RT			10					205										1					
10+00	12+35	LT			10					225										1					
10+00	11+85	RT			10					175										1					
12+40	14+45	LT			10					195										1					
12+53	14+45	RT			10					182										1					
14+50	16+45	LT			10					185										1					
14+50	15+04	RT			10					45										1					
16+07	16+50	RT			10						35									1					
16+50	18+95	LT			10					235										1					
16+50	18+95	RT			10					235										1					
19+00	22+30	LT			10					331										1					
19+00	22+45	RT			10					342										1					
23+00	24+00	LT	1								100														
23+00	24+10	RT	2								110														
26+00	26+75	LT	3								75														
26+25	27+00	RT			12		1			75											1				
475+00 RAMP A	33+88	LT			12		1			697											1				
28+00	31+38	RT	4							338															
RAMP A																									
474+30	478+35	LT	5,6		6					380	25									1		1			
RAMP B																									
474+45	474+90	LT	6		32					40										1		1			
474+10	474+90	RT	5,6							75	25									1					
RAMP C																									
474+05	475+50	RT	5		50		1			125	25														
474+99	475+30	LT	7								31										1				
RAMP H																									
467+50	472+10	RT	5		35		1			450	25										1				
TOTALS CARRIED TO GENERAL SUMMARY					38	279		4		5245	451														

PROJECT DESCRIPTION

WIDENING AND CONSTRUCTION OF 0.5 MILES OF ERIE STREET INCLUDING PAVEMENT, CURB & GUTTER, STORM SEWER, LIGHTING, TRAFFIC SIGNALS, TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS. LIMITED WIDENING WORK ON S.R. 21 INTERCHANGE RAMP.

SYMBOL LEGEND

- DC = TEMPORARY DITCH CHECK FILTER FABRIC FENCE
- FF = TEMPORARY PERIMETER FILTER FABRIC FENCE
- IF = TEMPORARY INLET PROTECTION FILTER FABRIC FENCE

EROSION CONTROL LEGEND

- PROPOSED DITCH LINE
- FF TEMP. FILTER FABRIC FENCE
- DIRECTION OF OVERLAND FLOW
- DC TEMP. DITCH CHECK FILTER FABRIC FENCE
- DRAINAGE DIVIDE

USGS QUADRANGLES

MASSILLON

SITE DATA

PROJECT AREA(WITHIN ROW) 18.7 ACRES
DISTURBED AREA 7.0 ACRES
IMMEDIATE RECEIVING STREAM TUSCARAWAS RIVER
SUBSEQUENT RECEIVING STREAM MUSKINGUM RIVER
GEOGRAPHICAL LOCATION
LATITUDE, 40° 46' 15"
LONGITUDE, 81° 31' 15"

SOIL INFORMATION:

SEE SOIL REPORT
PRE-CONSTRUCTION "C" FACTOR 0.55
POST-CONSTRUCTION "C" FACTOR 0.59

REF. NO.	STA. TO STA.	ITEM 877- TEMP. PERIMETER 30" FILTER FABRIC FENCE (FEET)	ITEM 877- DITCH CHECK 30" FILTER FABRIC FENCE (FEET)	ITEM 877- TEMP. INLET 18" FILTER FABRIC FENCE (FEET)
FF-1	STA. 4+37 TO STA. 4+65	38		
IF-1	STA. 5+25			14
IF-2	STA. 5+25			14
IF-3	STA. 5+80			14
DC-1	STA. 6+71		14	
IF-4	STA. 7+40			14
IF-5	STA. 7+40			14
IF-6	STA. 6+95			14
IF-6A	STA. 7+83.7			14
DC-2	STA. 9+71		14	14
IF-7	STA. 10+00			14
IF-8	STA. 10+00			14
IF-9	STA. 12+40			14
IF-10	STA. 12+40			14
IF-11	STA. 12+53			14
IF-12	STA. 14+50			14
IF-13	STA. 14+50			14
IF-14	STA. 14+50			14
IF-15	STA. 16+50			14
IF-16	STA. 16+50			14
IF-17	STA. 19+00			14
IF-18	STA. 19+00			14
DC-3	STA. 20+75 TO STA. 20+62		28	
FF-2	STA. 20+51 TO STA. 20+81	30		
FF-3	STA. 20+62 TO STA. 474+02	322		
FF-4	STA. 21+05 TO STA. 478+52	539		
FF-5	STA. 474+02 TO STA. 24+03	172		
FF-6	STA. 474+89 TO STA. 23+86	253		
FF-7	STA. 26+06 TO STA. 481+50	784		
FF-8	STA. 26+13 TO STA. 471+32	207		
FF-9	STA. 474+31 TO STA. 29+05	275		
IF-20	STA. 29+50			14
FF-10	STA. 467+50 TO STA. 30+63	699		
DC-4	STA. 468+99		14	
TOTALS		3319	70	280

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE RECONSTRUCTED AS DETAILED HEREIN AND ON STD. CONSTRUCTION DRAWINGS DM-4.3 AND DM-4.4. ALL REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATIONS 877 SHALL APPLY.

ALL IF ITEMS SHALL BE CONSTRUCTED AND PAID FOR AS DESCRIBED IN ODOT STD. DWG. DM4.4.

STORM WATER POLLUTION PREVENTION PLAN

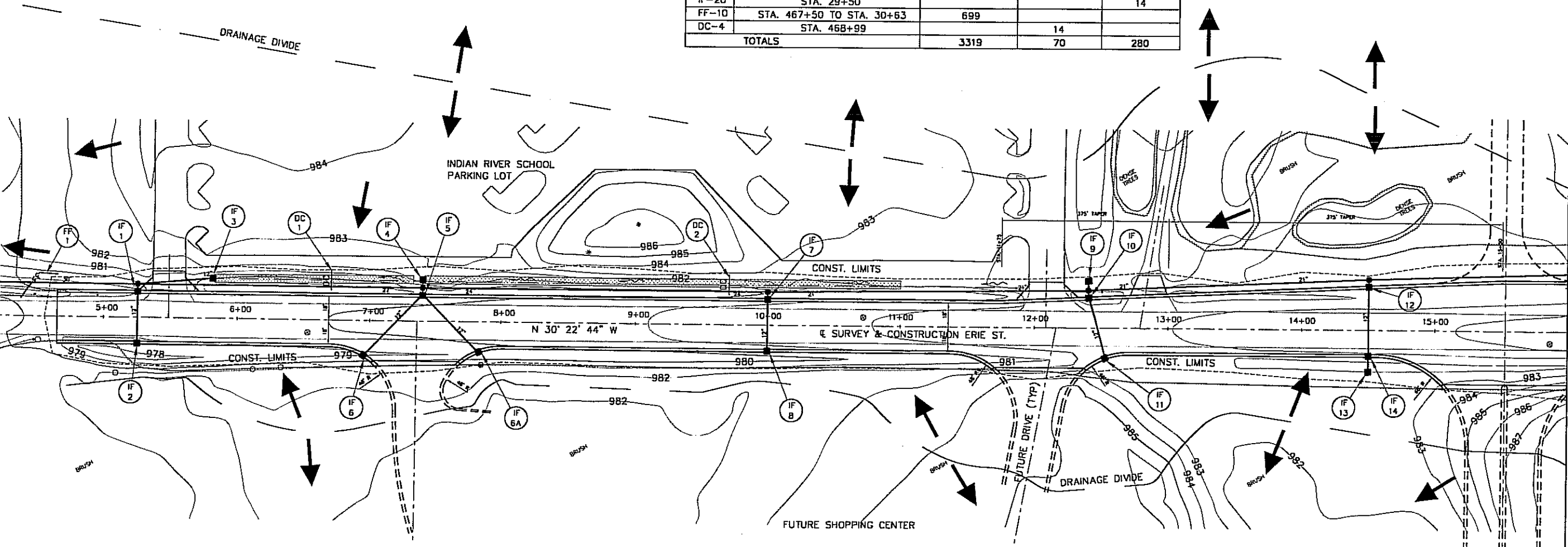
THE CONDITIONS OF THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT (SEE PROPOSAL) SHALL BE MET DURING ALL STAGES OF CONSTRUCTION. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECEIVING WATERS. IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLANS SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED.

INSTALLATION OF SEDIMENT BASINS/DAMS, PERIMETER FILTER FABRIC FENCE, AND DITCH CHECKS SHALL BE CONCURRENT WITH CLEARING AND GRUBBING AND/OR GRADING OPERATIONS.

ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND.

AREAS TO REMAIN DORMANT FOR MORE THAN 45 DAYS SHOULD BE IMMEDIATELY STABILIZED WITH TEMPORARY SEEDING AND MULCHING, EROSION CONTROL MATTING OR OTHER APPROPRIATE EROSION CONTROL MEASURES.

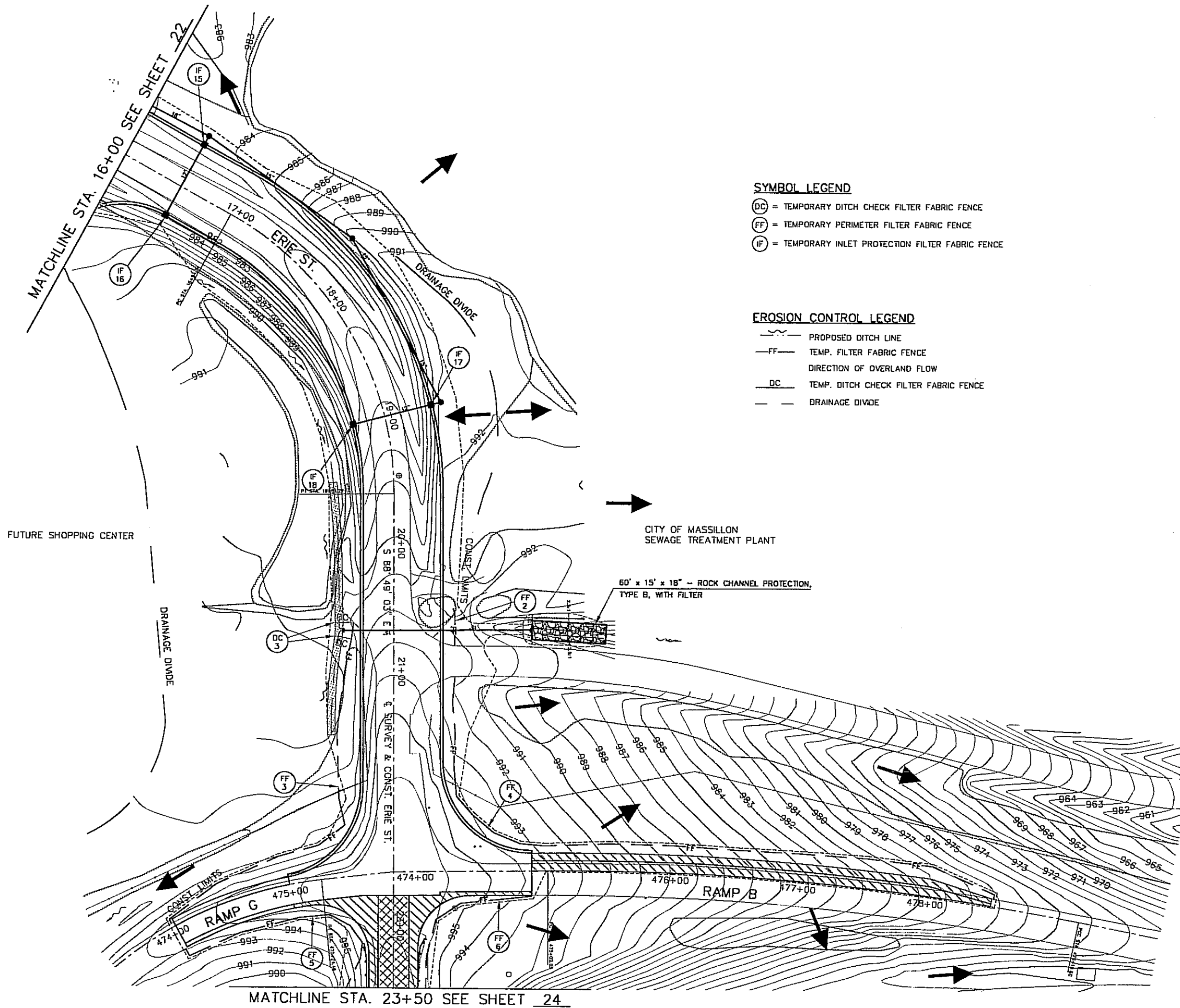
ADDITIONAL QUANTITIES OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL ITEMS ARE GIVEN IN THE GENERAL NOTES.



CALCULATED
CHECKED

STORMWATER POLLUTION PREVENTION PLAN

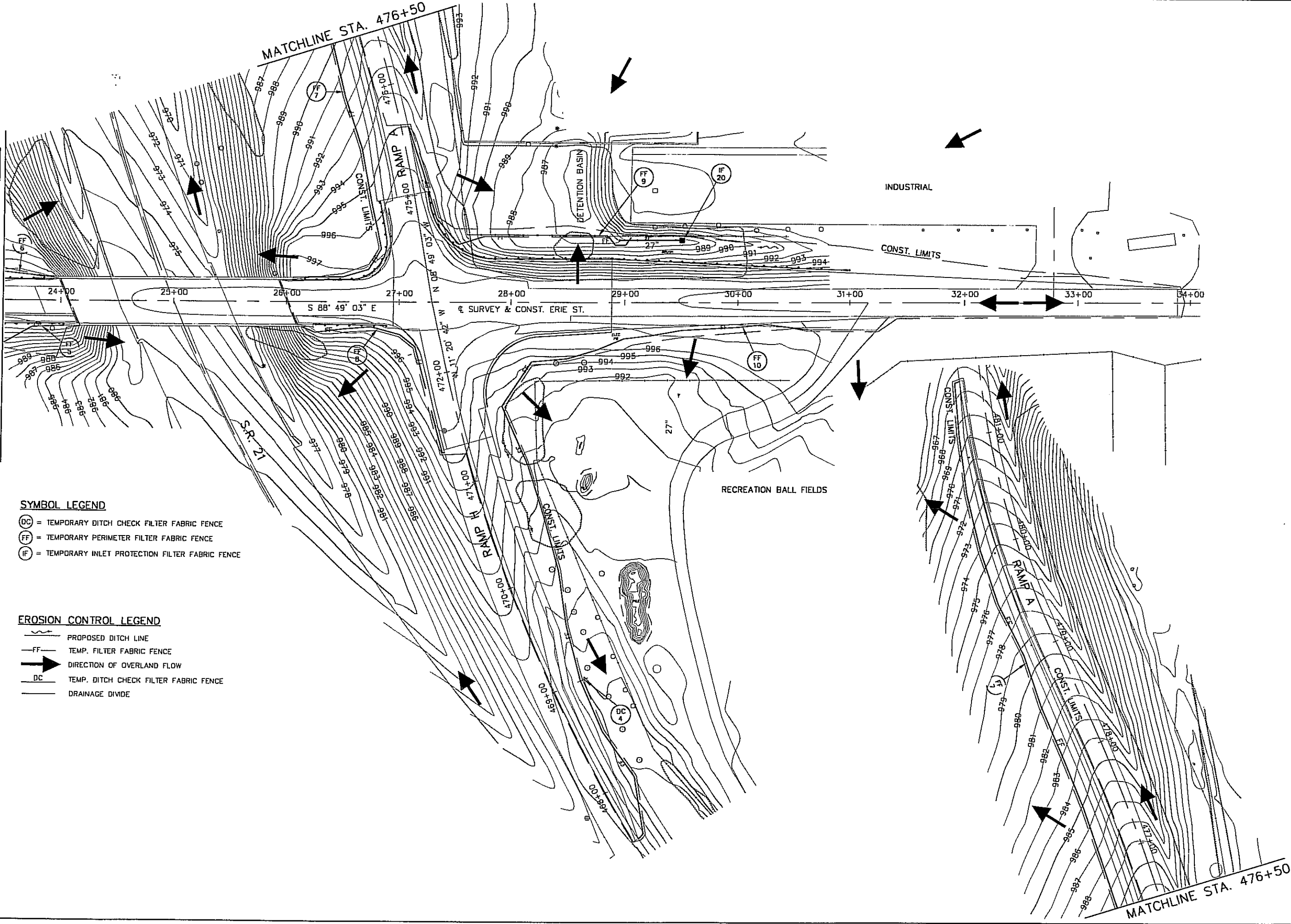
S.R. 21/ERIE STREET
CITY OF MASSILLON



- SYMBOL LEGEND**
- DC = TEMPORARY DITCH CHECK FILTER FABRIC FENCE
 - FF = TEMPORARY PERIMETER FILTER FABRIC FENCE
 - IF = TEMPORARY INLET PROTECTION FILTER FABRIC FENCE

- EROSION CONTROL LEGEND**
- PROPOSED DITCH LINE
 - TEMP. FILTER FABRIC FENCE
 - DIRECTION OF OVERLAND FLOW
 - TEMP. DITCH CHECK FILTER FABRIC FENCE
 - DRAINAGE DIVIDE

MATCHLINE STA. 23+50 SEE SHEET 23



SYMBOL LEGEND

- (DC) = TEMPORARY DITCH CHECK FILTER FABRIC FENCE
- (FF) = TEMPORARY PERIMETER FILTER FABRIC FENCE
- (IF) = TEMPORARY INLET PROTECTION FILTER FABRIC FENCE

EROSION CONTROL LEGEND

- PROPOSED DITCH LINE
- FF — TEMP. FILTER FABRIC FENCE
- ➔ DIRECTION OF OVERLAND FLOW
- DC — TEMP. DITCH CHECK FILTER FABRIC FENCE
- DRAINAGE DIVIDE

24

102

STORMWATER POLLUTION PREVENTION PLAN

S.R. 21/ERIE STREET
CITY OF MASSILLON

CALCULATED

CHECKED

0 10 20

(IN FEET)

N

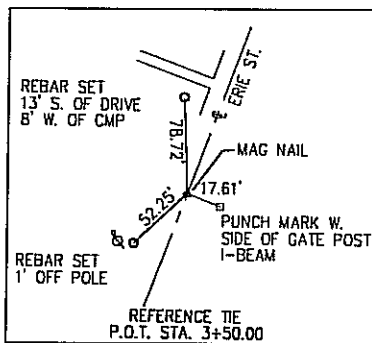
MATCHLINE STA. 2+50 SEE SHEET 63

MATCHLINE STA. 8+00 SEE SHEET 26

P.I. STA. 103+50.00 BACK =
STA. 3+50.00 AHEAD

BEGIN WORK
STA. 4+65.00

BENCHMARK
TOP R.R. SPIKE 1' UP E. SIDE OF
POWER POLE #447
STA. 10+13±, 27' LT.
ELEV. 982.23



DITCH EROSION PROTECTION
SOIL BORING

FOR QUANTITIES, SEE SHEET 19
FOR INTERSECTION DETAILS, SEE SHEET 65



CALCULATED

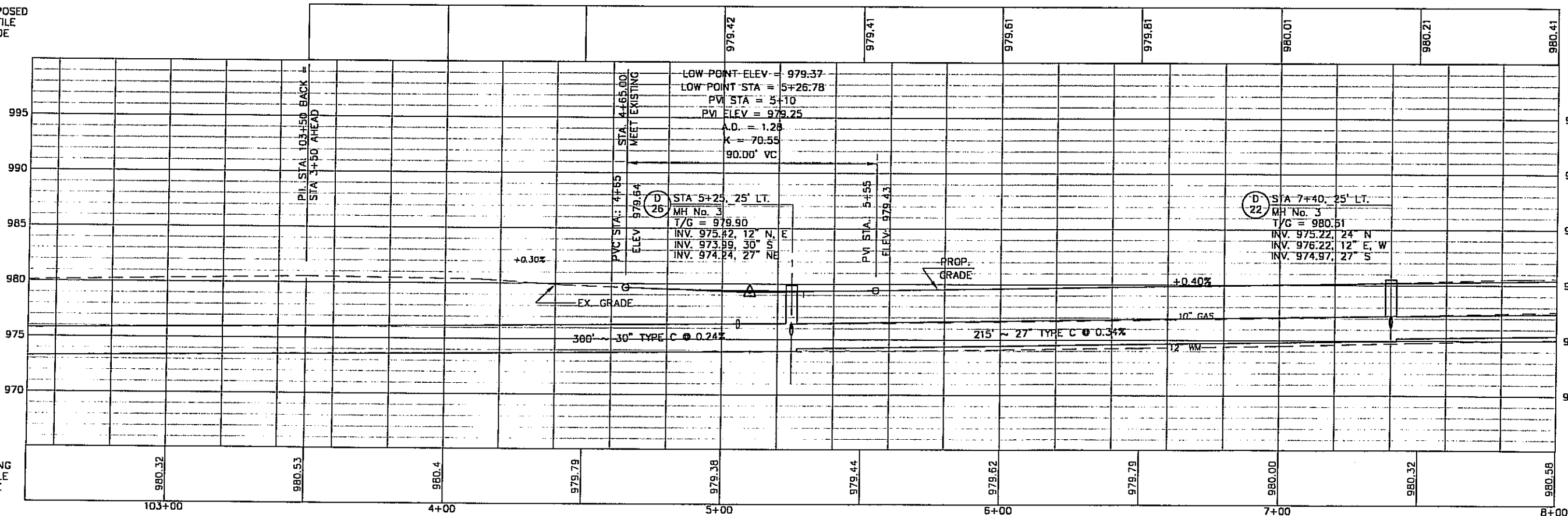
CHECKED

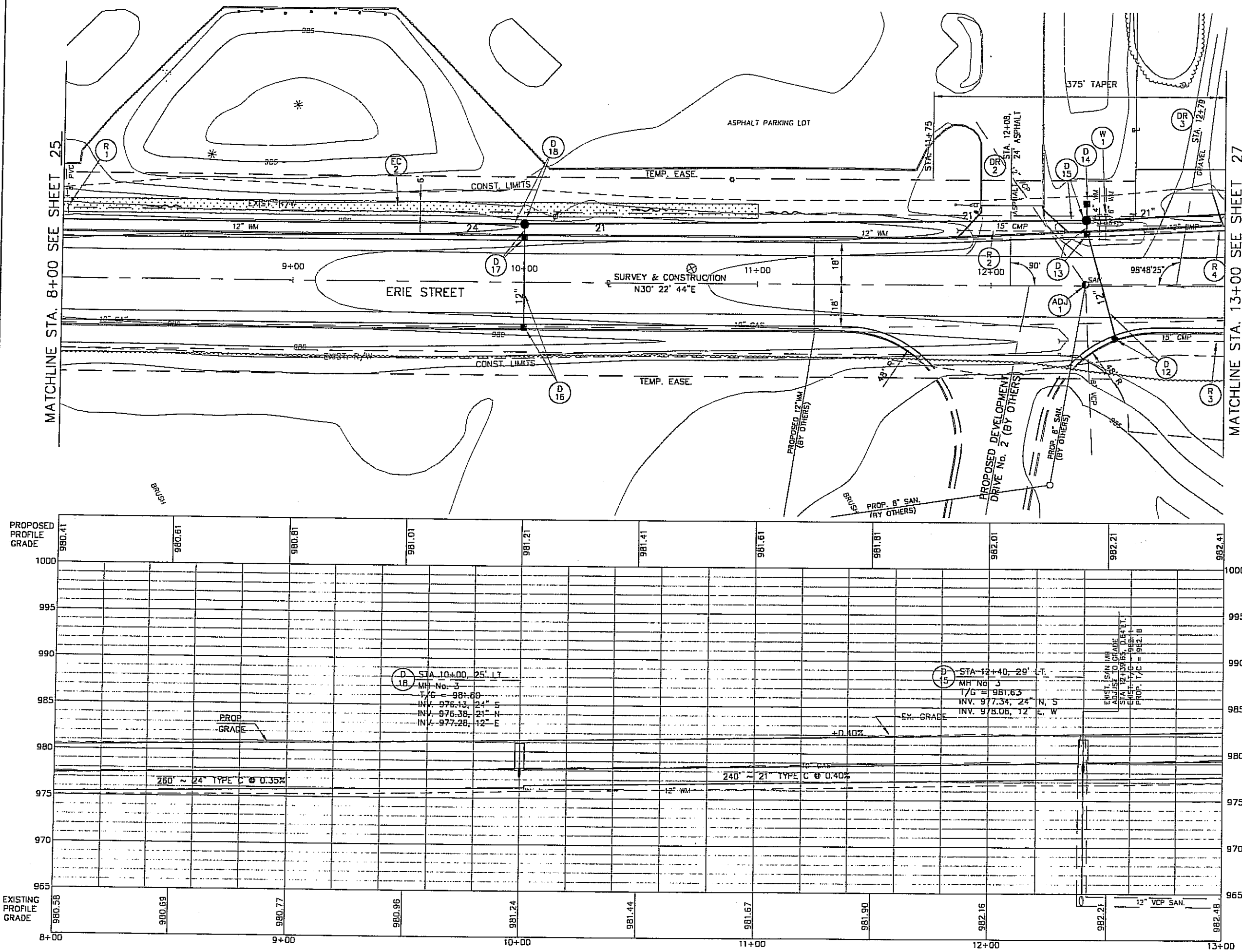
PLAN AND PROFILE
STA. 3+00 TO STA. 8+00

SR. 21/ERIE STREET
CITY OF MASSILLON

PROPOSED
PROFILE
GRADE

EXISTING
PROFILE
GRADE

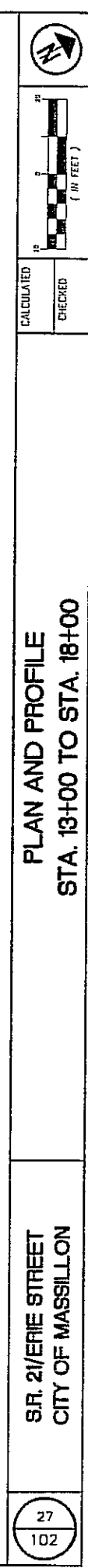




BENCHMARK
TOP R.R. SPIKE 1' UP E. SIDE OF
POWER POLE #447
STA. 10+13±, 27' LT.
ELEV. 982.23

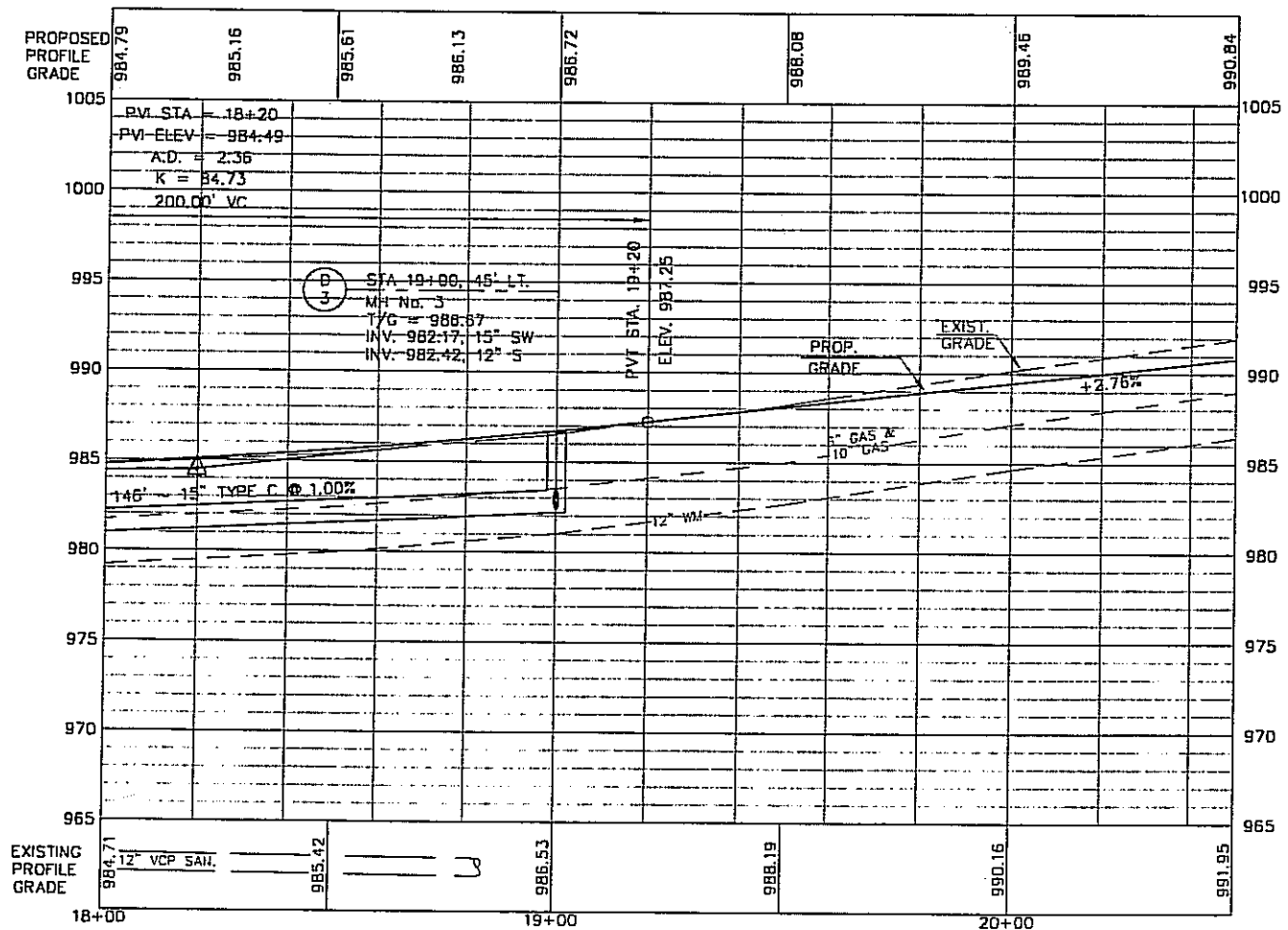
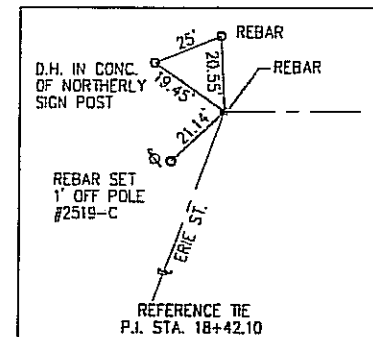
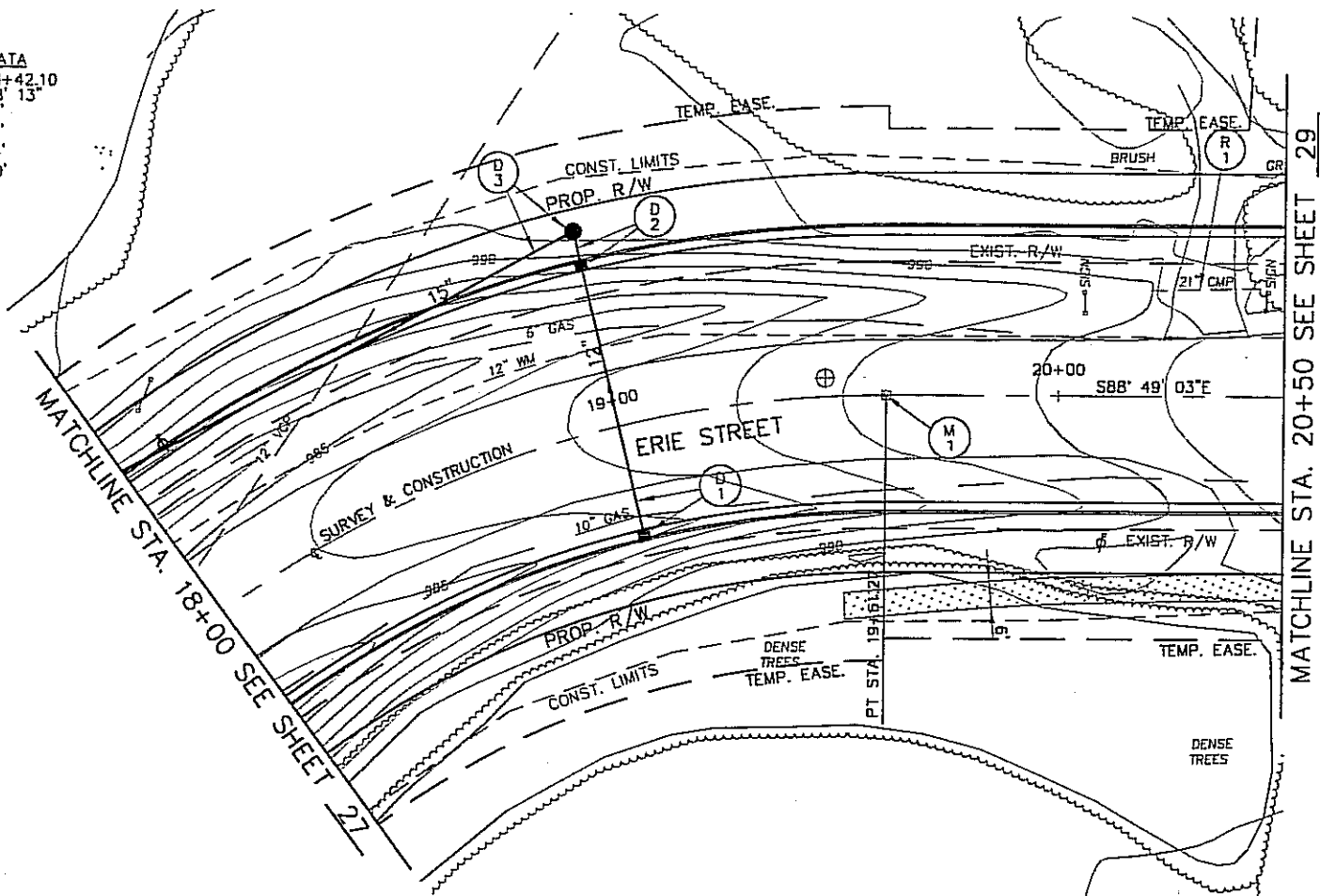
LEGEND
DITCH EROSION PROTECTION
SOIL BORING

FOR QUANTITIES, SEE SHEET 19
FOR INTERSECTION DETAILS, SEE SHEET 65



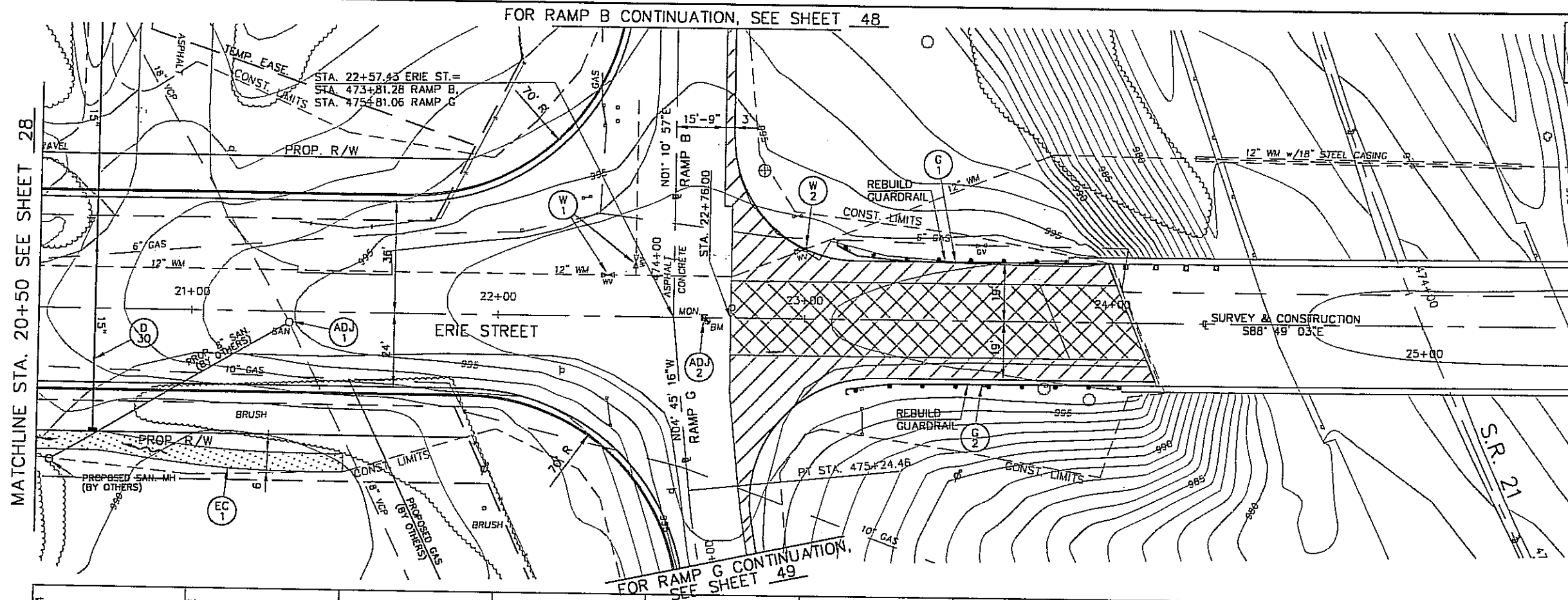
d:\proj\3\7044800\ROADWAY\7044800.dwg User: cdb05502 Jan 28, 2000 8:02am

§ CURVE DATA
P.I. STA. 18+42.10
 $\Delta = 60^\circ 48' 13''$
 $R = 251.16'$
 $T = 147.37'$
 $L = 266.54'$
 $C = 254.20'$
 $E = 40.04'$



PLAN AND PROFILE
STA. 18+00 TO STA. 20+50

SR. 21/ERIE STREET
CITY OF MASSILLON



BENCHMARK
TOP S.E. CORNER OF MONUMENT BOX
STA. 22+68.5, 1' RT.
ELEV. 997.11

EXISTING STRUCTURE
TYPE: CONTINUOUS STEEL BEAMS
WITH REINFORCED CONCRETE
DECK AND SUBSTRUCTURE.
SPANS: 41'-51'-59'-41' c/c
BEARINGS.
ROADWAY: 40'-0\"/>

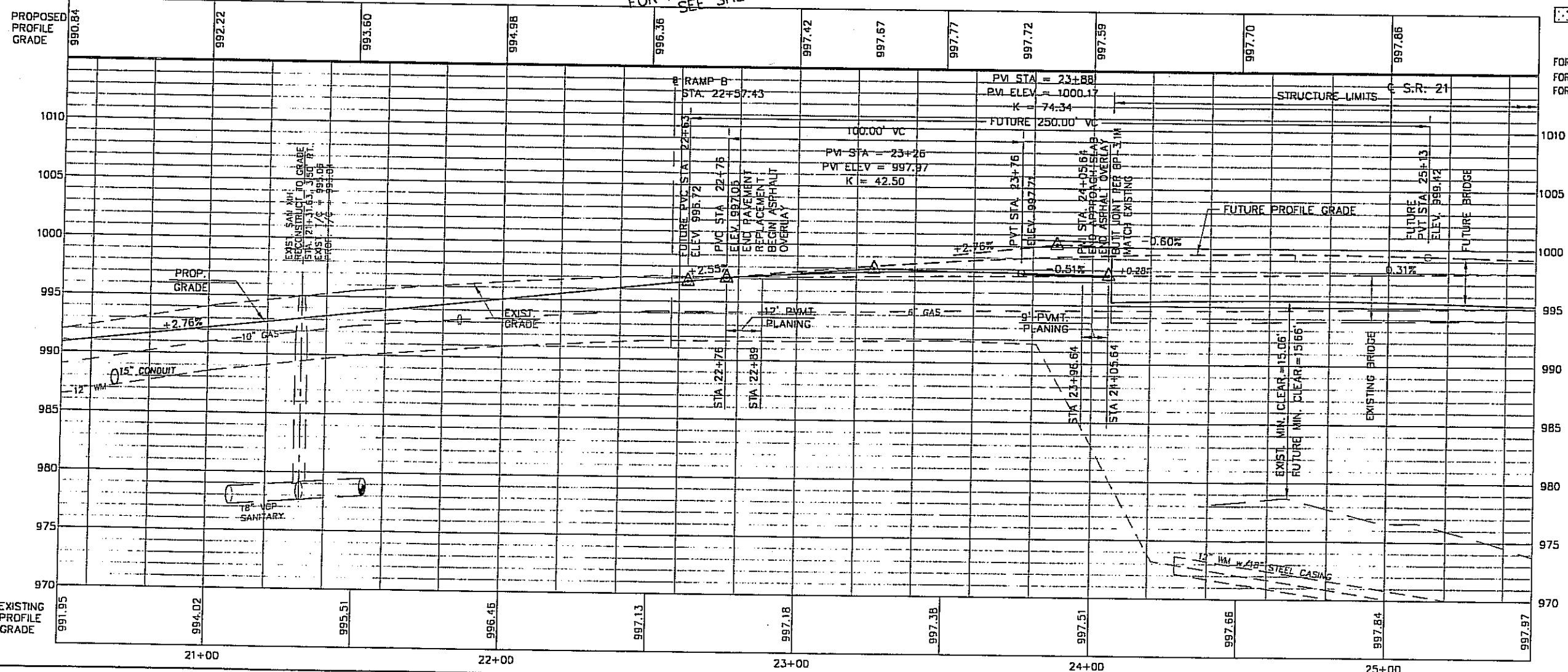
MON.
PUNCH MARK SET
ON COVER

P.O.T. STA. 22+67.48
& REFERENCE TIE

LEGEND

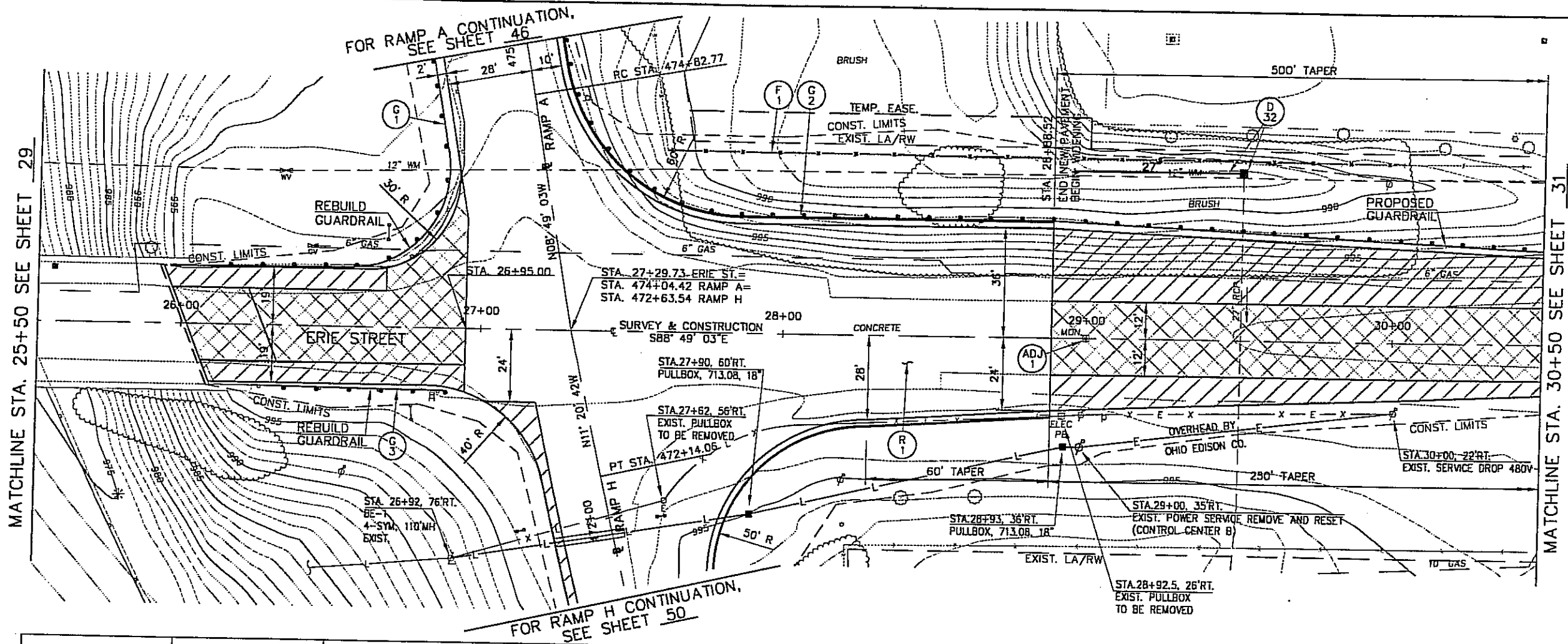
- FULL DEPTH ASPHALT
WIDENING
- ASPHALT OVERLAY
- DITCH EROSION PROTECTION
- SOIL BORING

FOR QUANTITIES, SEE SHEET 20
FOR CULVERT DETAILS, SEE SHEET 60
FOR INTERSECTION DETAILS,
SEE SHEET 66

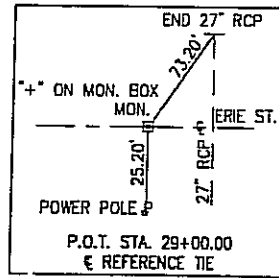


PLAN AND PROFILE
STA. 20+50 TO STA. 25+50

S.R. 21/ERIE STREET
CITY OF MASSILLON



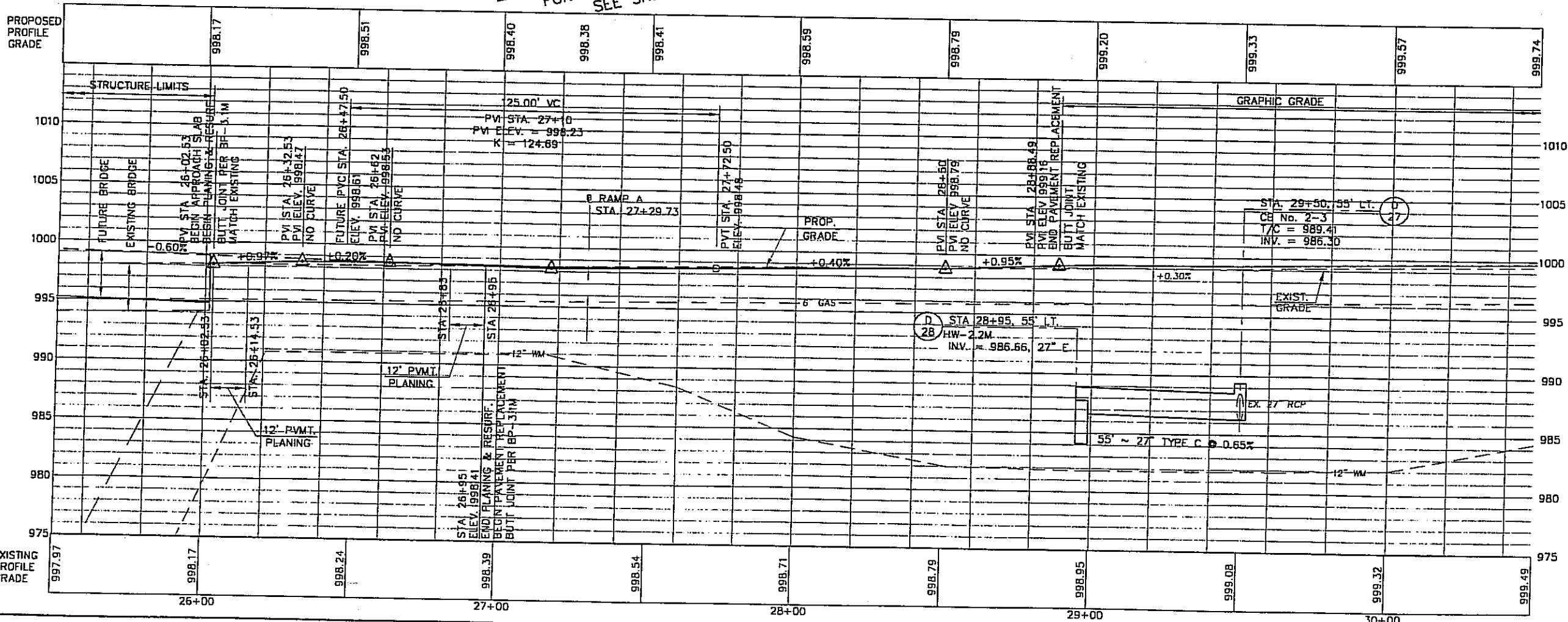
BENCHMARK
TOP S.E. CORNER OF MONUMENT BOX
STA. 22+68.5, 1' RT.
ELEV. 997.11



LEGEND

- FULL DEPTH WIDENING
- ASPHALT OVERLAY
- SOIL BORING
- LIGHTING CABLES TO BE ABANDONED
- OVERHEAD ELECTRIC TO BE REMOVED

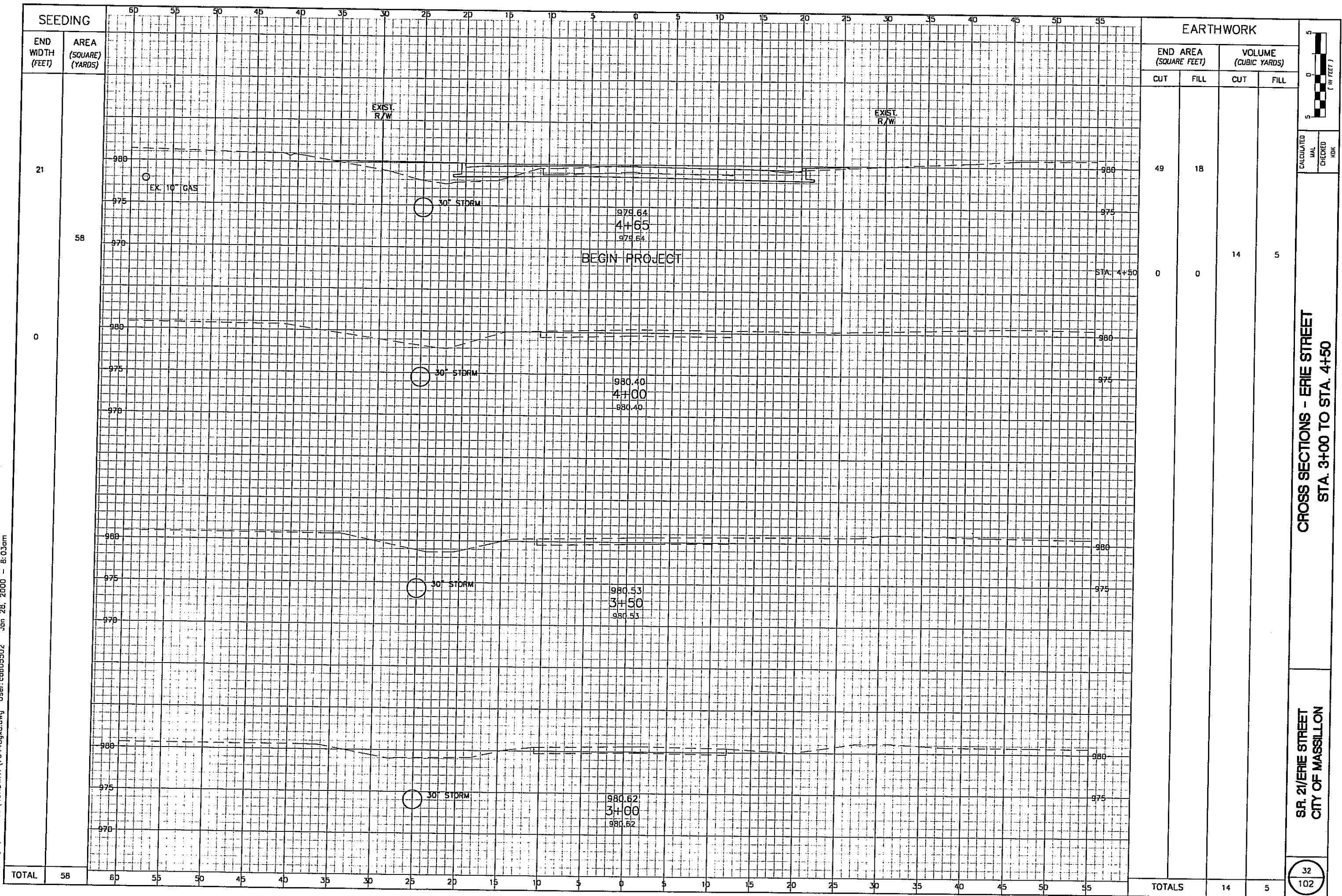
FOR QUANTITIES, SEE SHEET 20.
FOR LIGHTING QUANTITIES, SEE SHEET 98.
FOR INTERSECTION DETAILS, SEE SHEET 67.



PLAN AND PROFILE
STA. 25+50 TO STA. 30+50

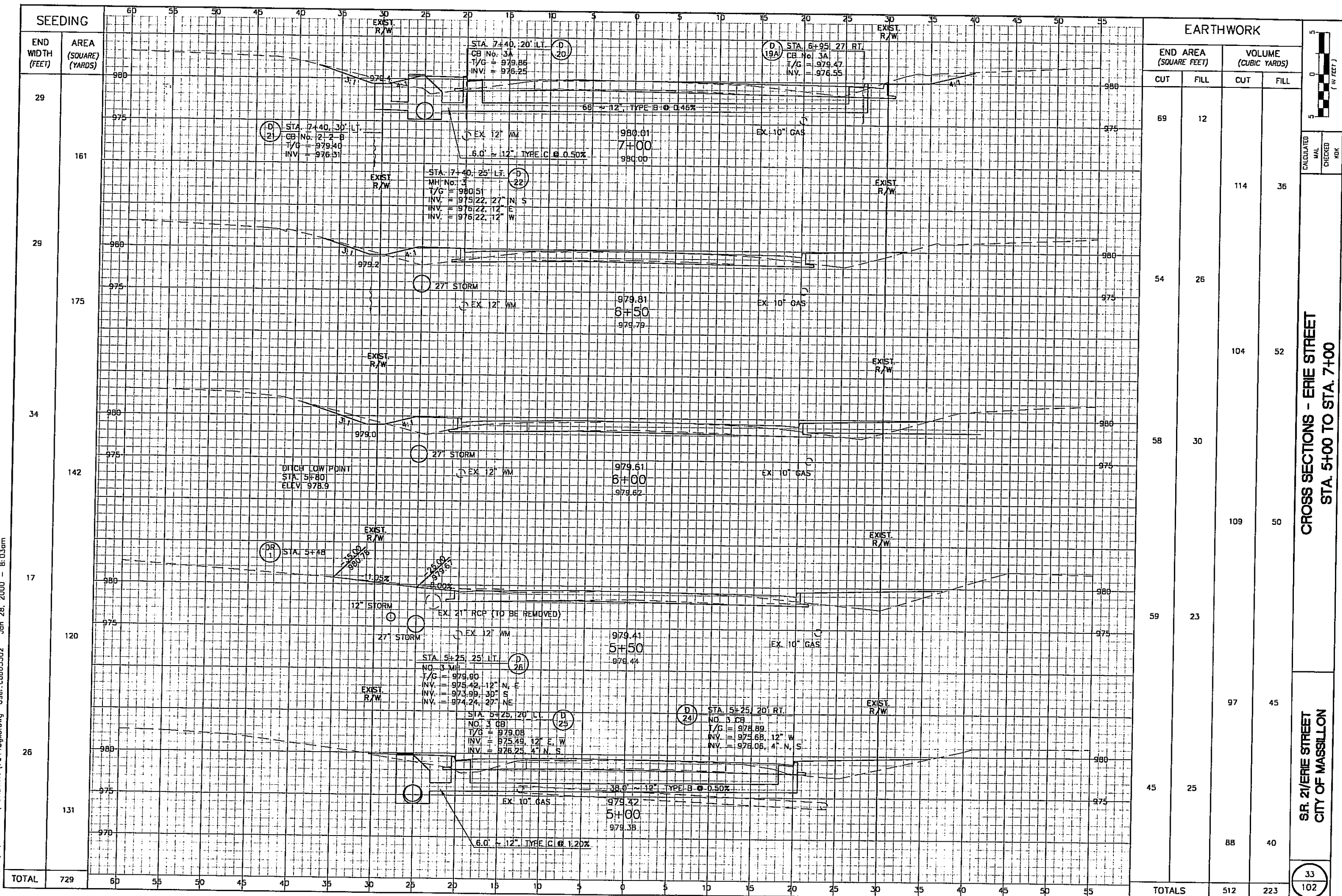
S.R. 21/ERIE STREET
CITY OF MASSILLON

J:\Proj3\7044800\ROADWAY\70448gko.dwg User: cab05502 Jan 28, 2000 - 8:03am



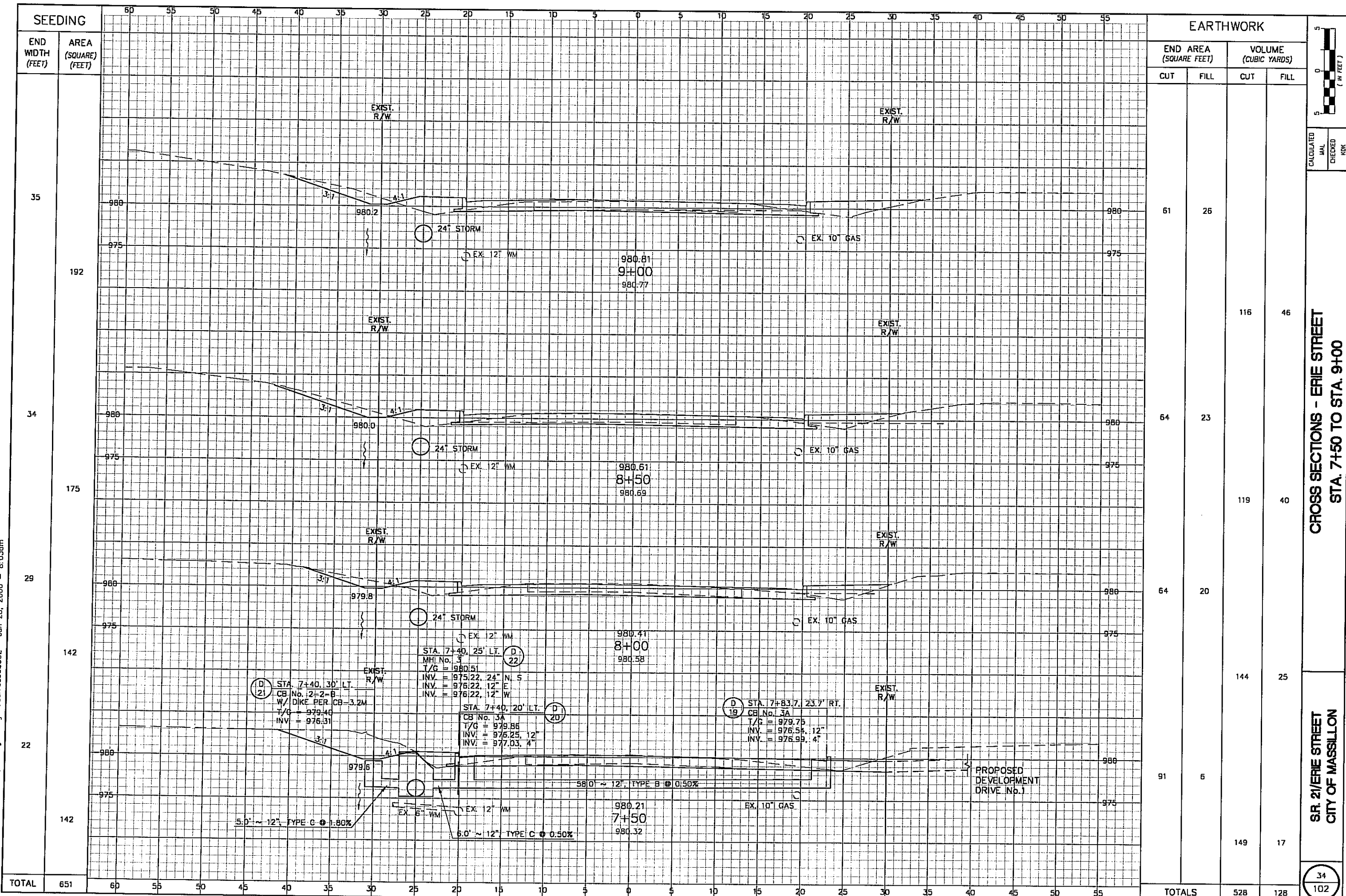
CROSS SECTIONS - ERIE STREET
STA. 3+00 TO STA. 4+50

S.R. 21/ERIE STREET
CITY OF MASSILLON



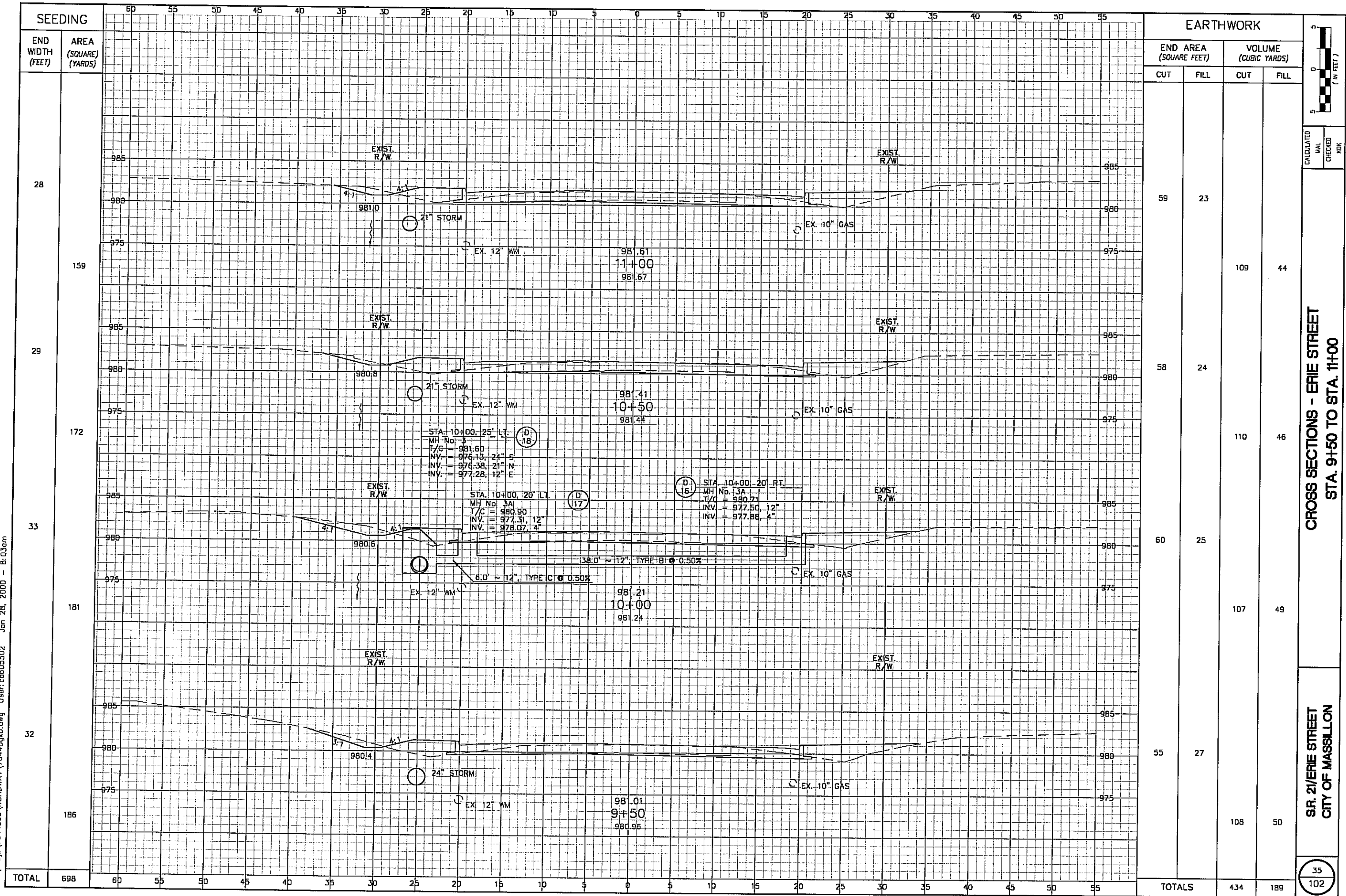
CROSS SECTIONS - ERIE STREET
STA. 5+00 TO STA. 7+00

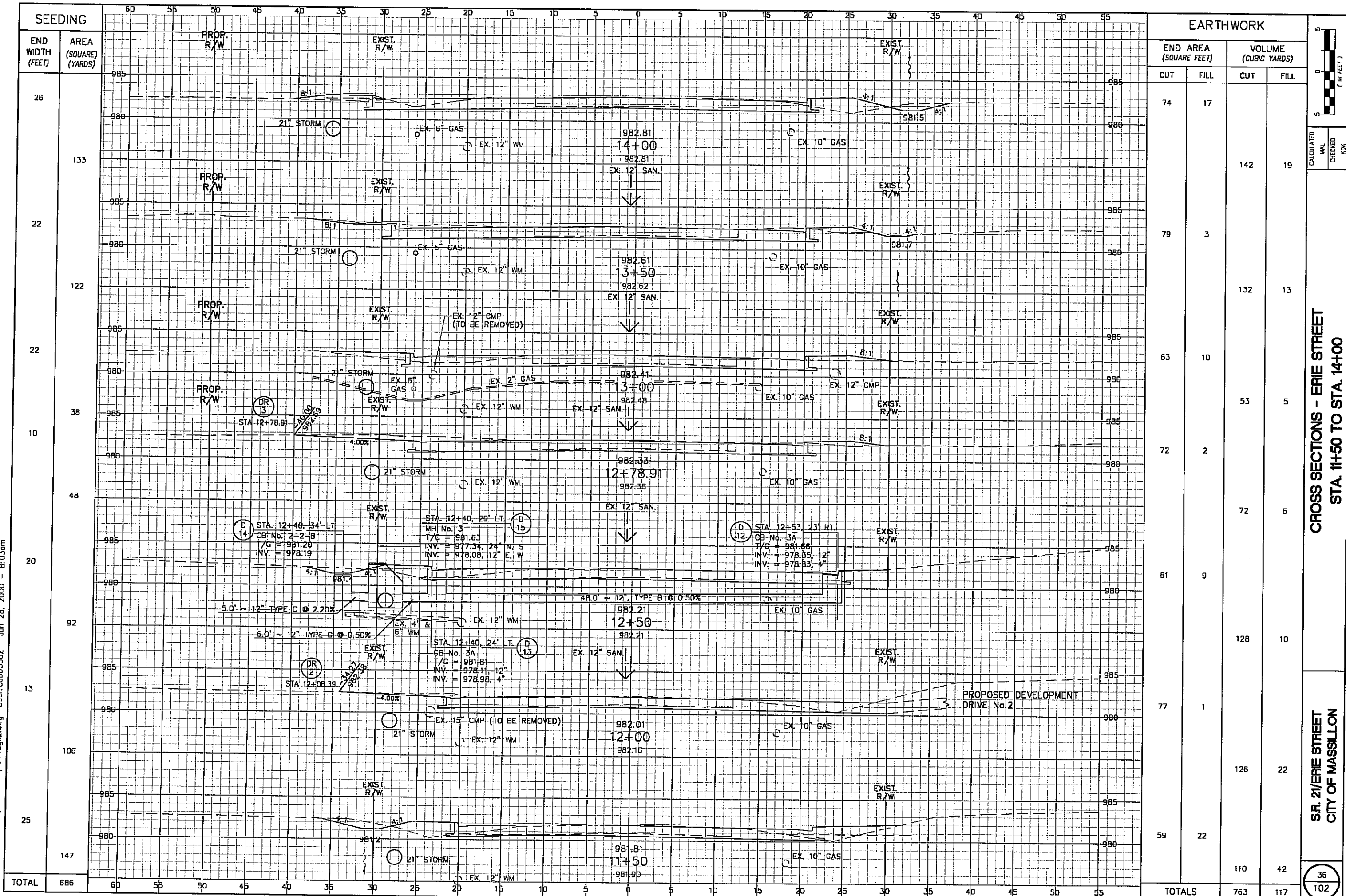
SR. 21/ERIE STREET
CITY OF MASSILLON



CROSS SECTIONS - ERIE STREET
STA. 7+50 TO STA. 9+00

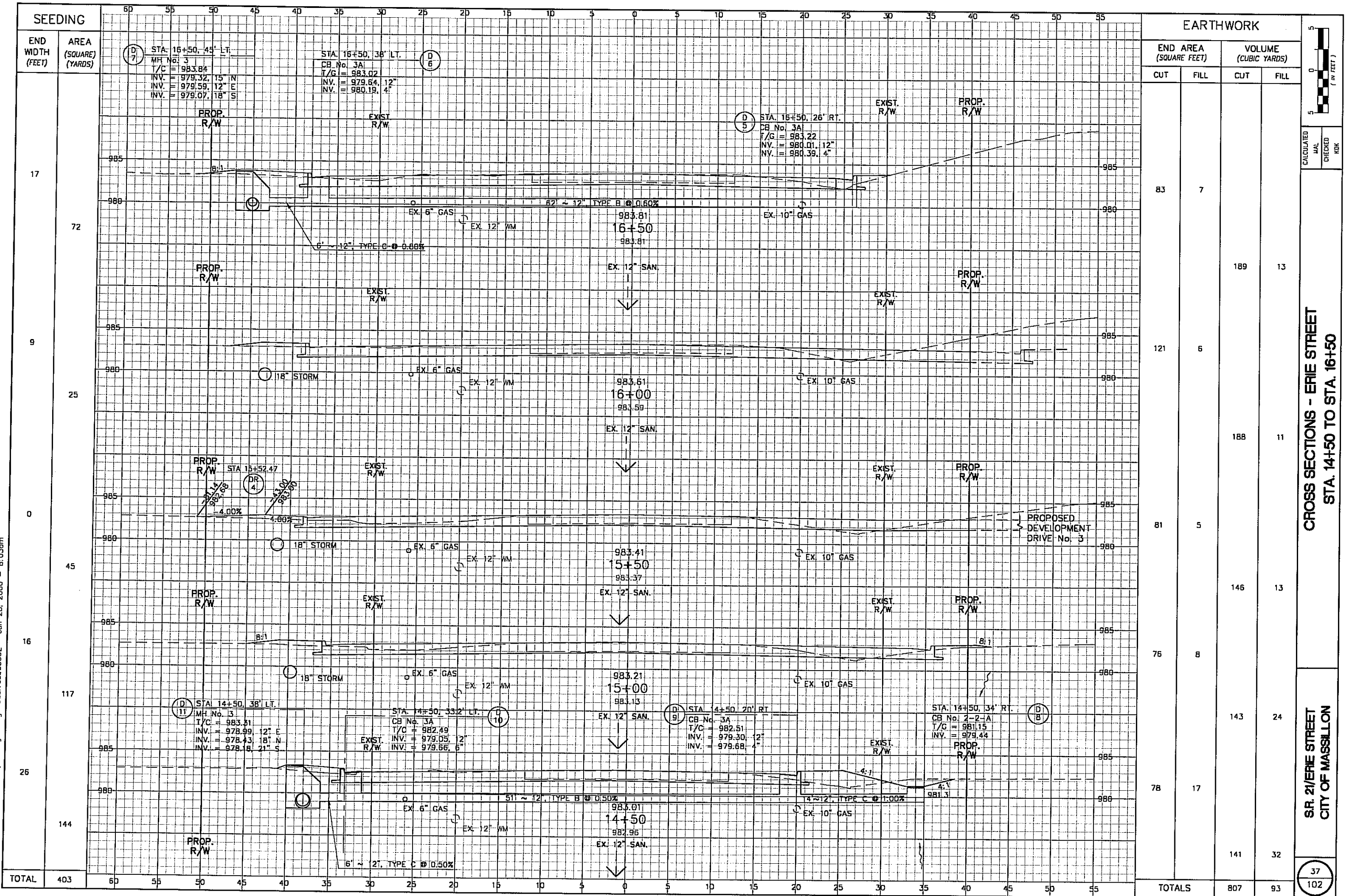
S.R. 21/ERIE STREET
CITY OF MASSILLON





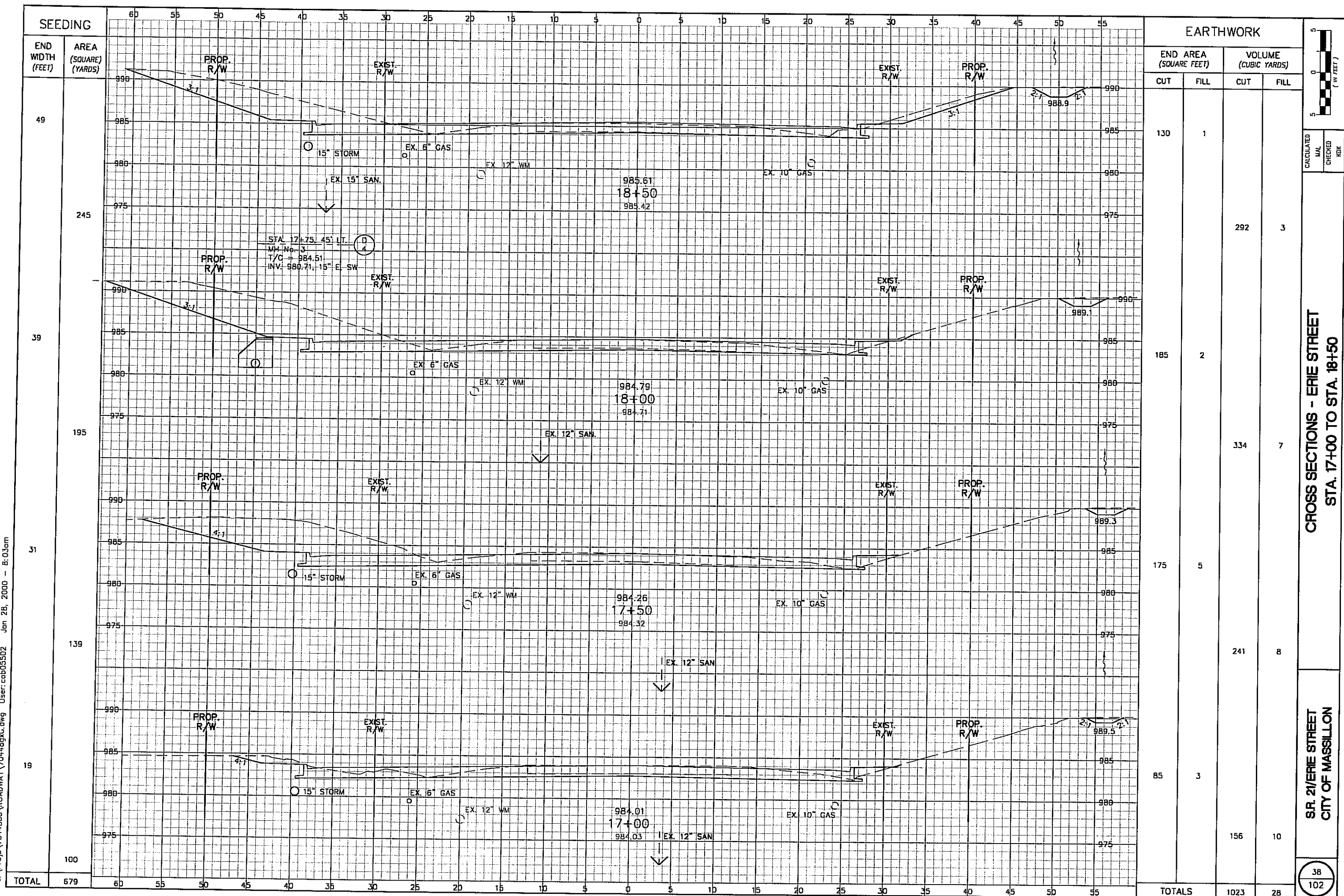
CROSS SECTIONS - ERIE STREET
STA. 11+50 TO STA. 14+00

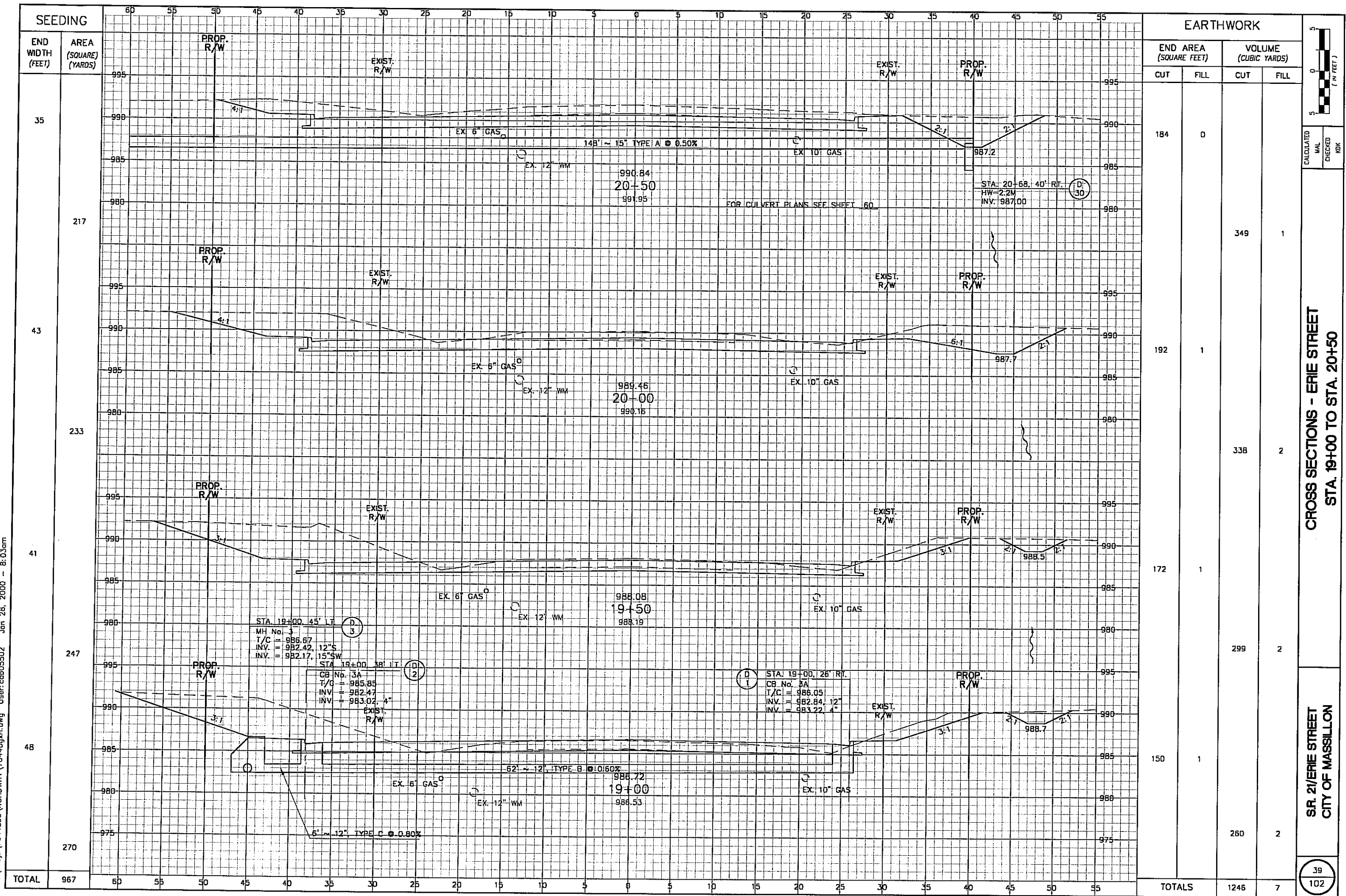
S.R. 21/ERIE STREET
CITY OF MASSILLON



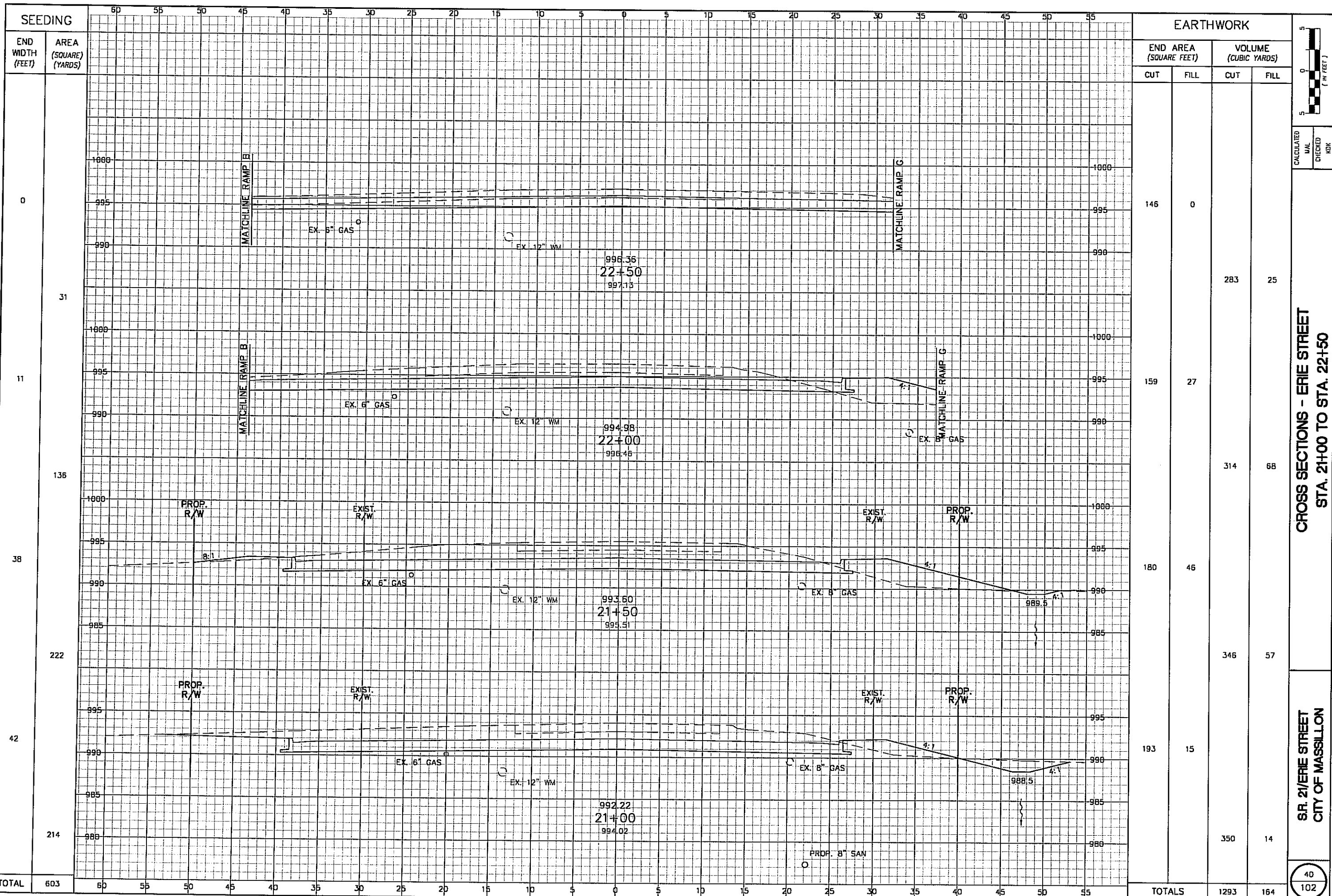
CROSS SECTIONS - ERIE STREET
STA. 14+50 TO STA. 16+50

S.R. 2/ERIE STREET
CITY OF MASSILLON



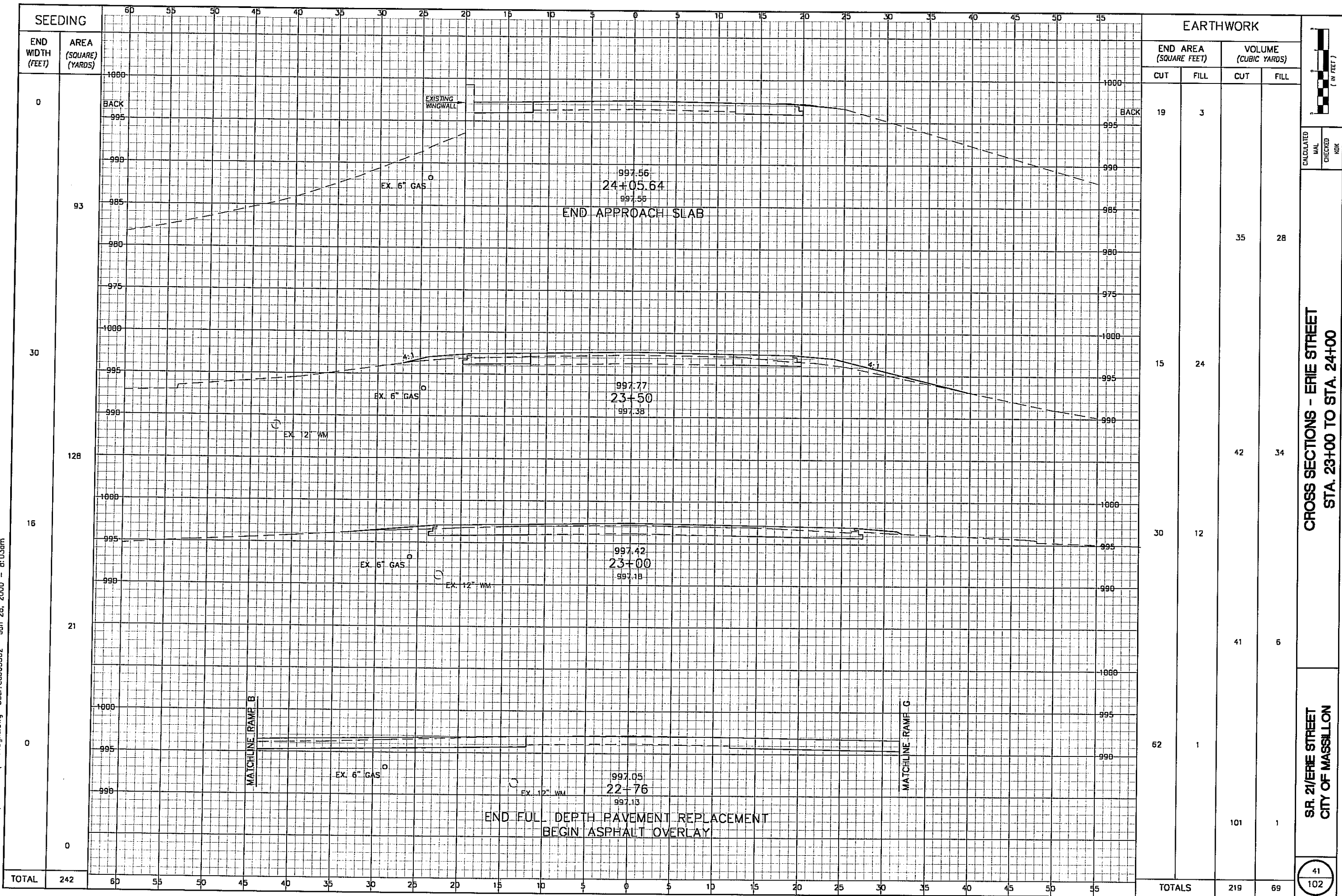


J:\Proj3\7044800\ROADWAY\70448gxi.dwg User: cob05502 Jan 28, 2000 - 8:03am



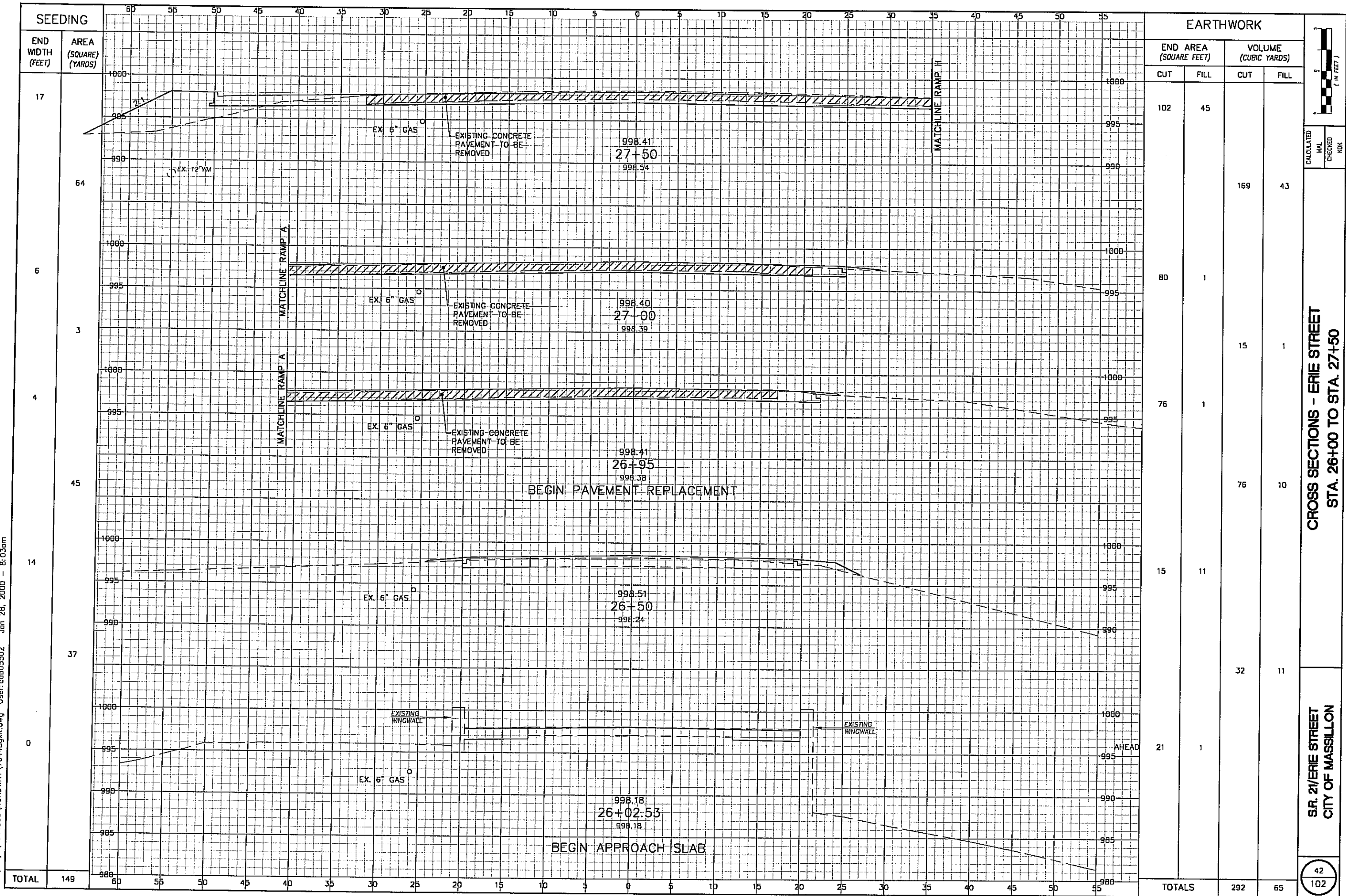
CROSS SECTIONS - ERIE STREET
STA. 21+00 TO STA. 22+50

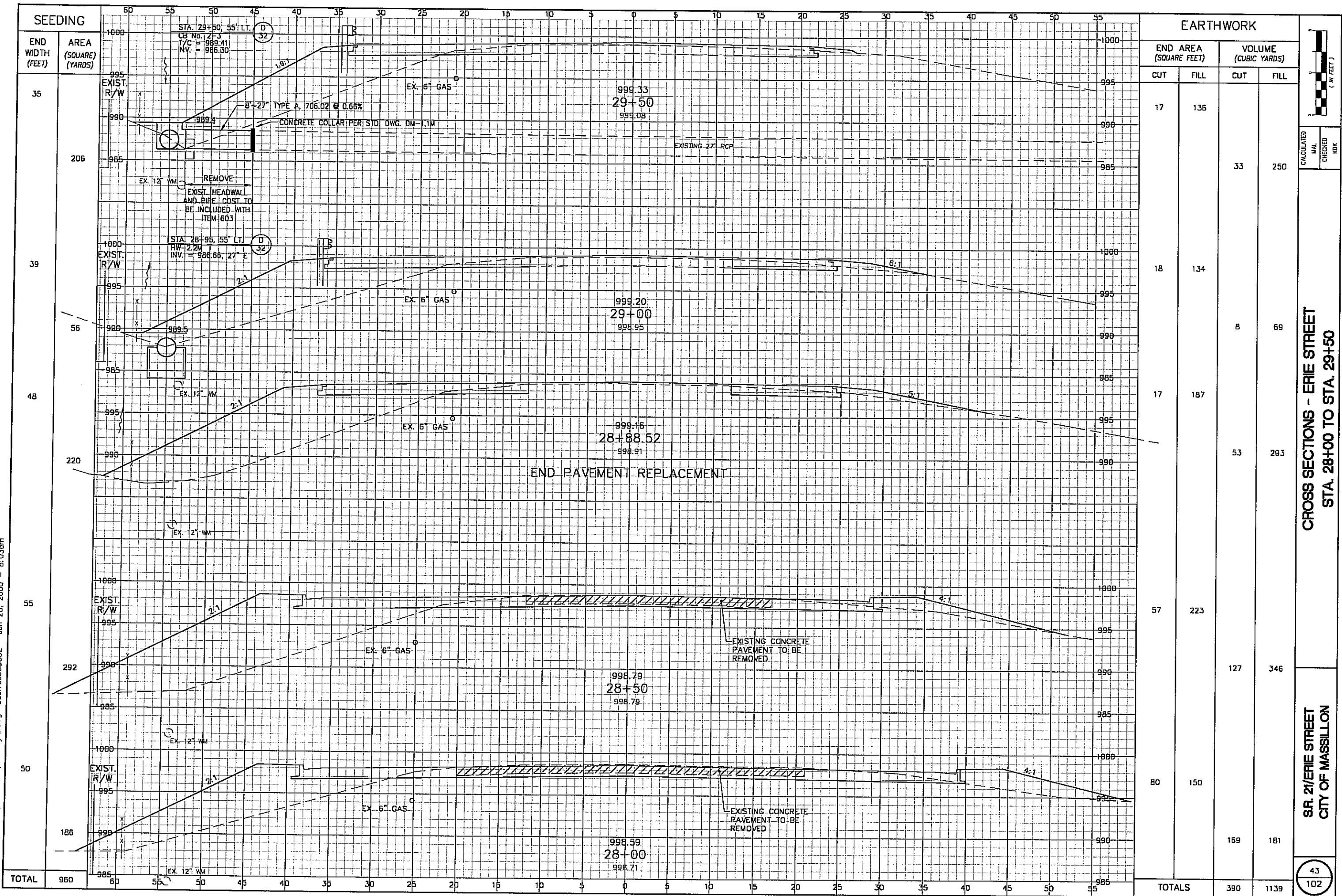
S.R. 21/ERIE STREET
CITY OF MASSILLON



CROSS SECTIONS - ERIE STREET
STA. 23+00 TO STA. 24+00

S.R. 2/ERIE STREET
CITY OF MASSILLON

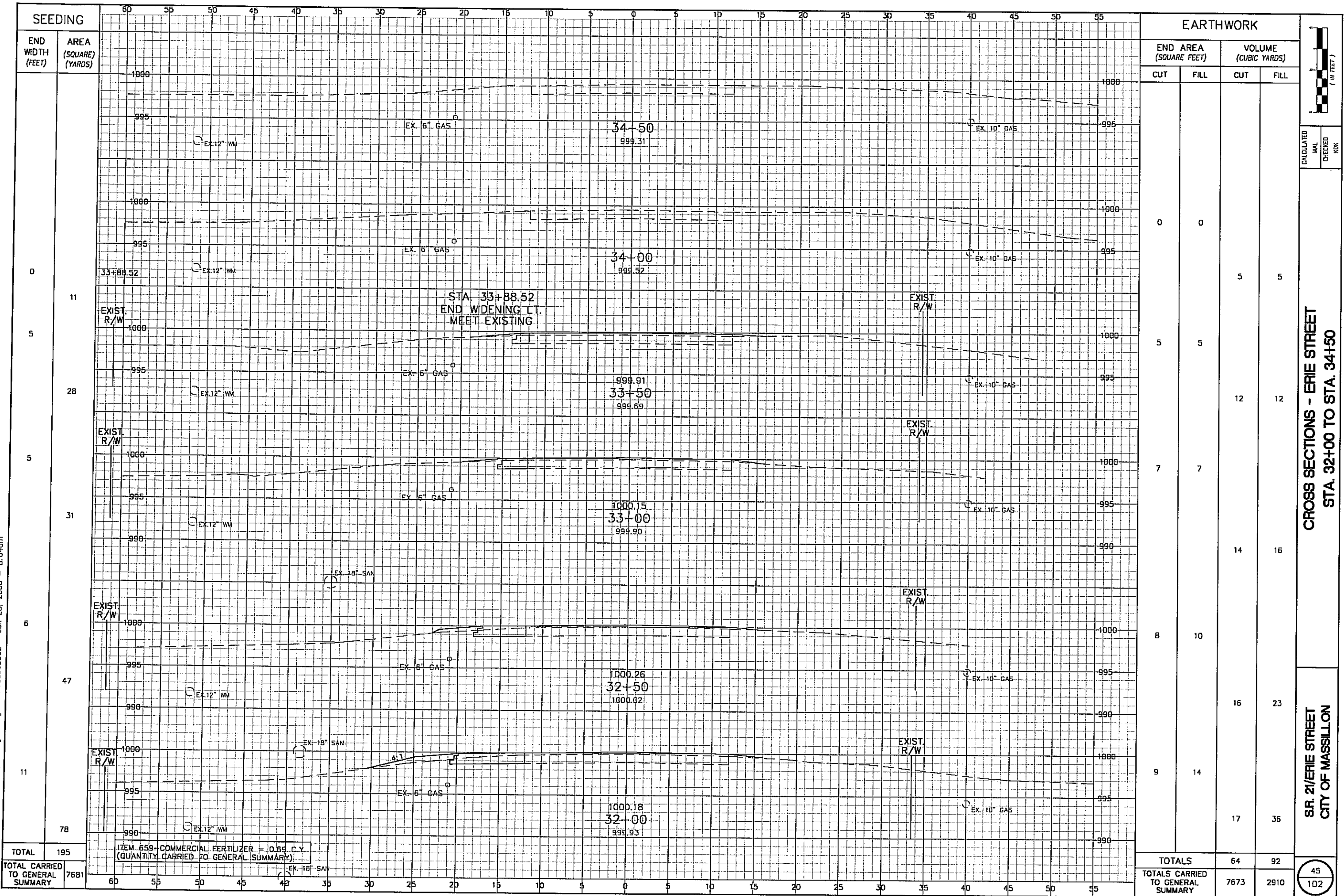




EARTHWORK			
END AREA (<i>SQUARE FEET</i>)		VOLUME (<i>CUBIC YARDS</i>)	
CUT	FILL	CUT	FILL
9	24	20	75
12	57	23	137
12	90	20	168
9	91	25	211
TOTALS		88	591

**S.R. 21/ERIE STREET
CITY OF MASSILLON**

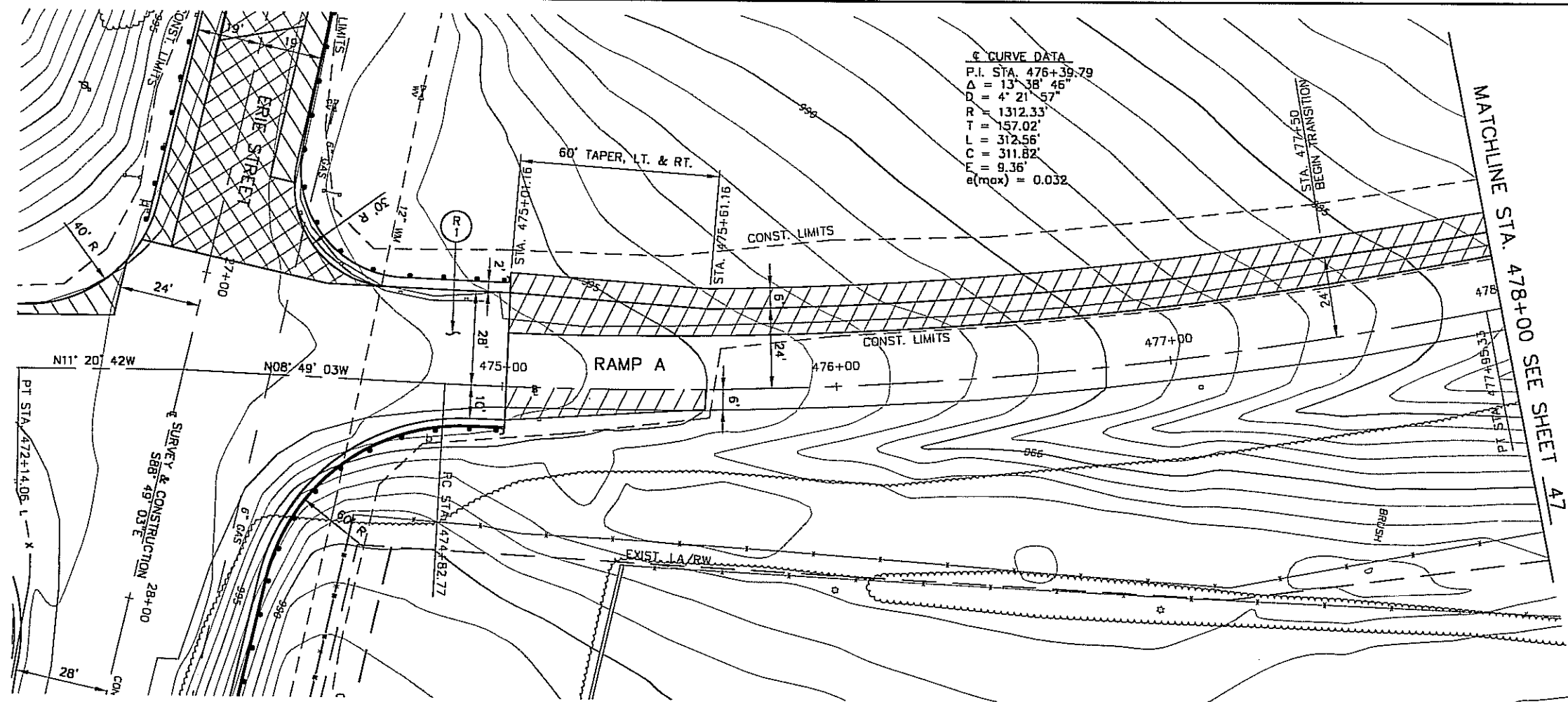
J:\Proj3\7044800\ROADWAY\704480xN.dwg User: cdb05502 Jan 28, 2000 - B: 04cm



CROSS SECTIONS - ERIE STREET
STA. 32+00 TO STA. 34+50

S.R. 21/ERIE STREET
CITY OF MASSILLON

45
102

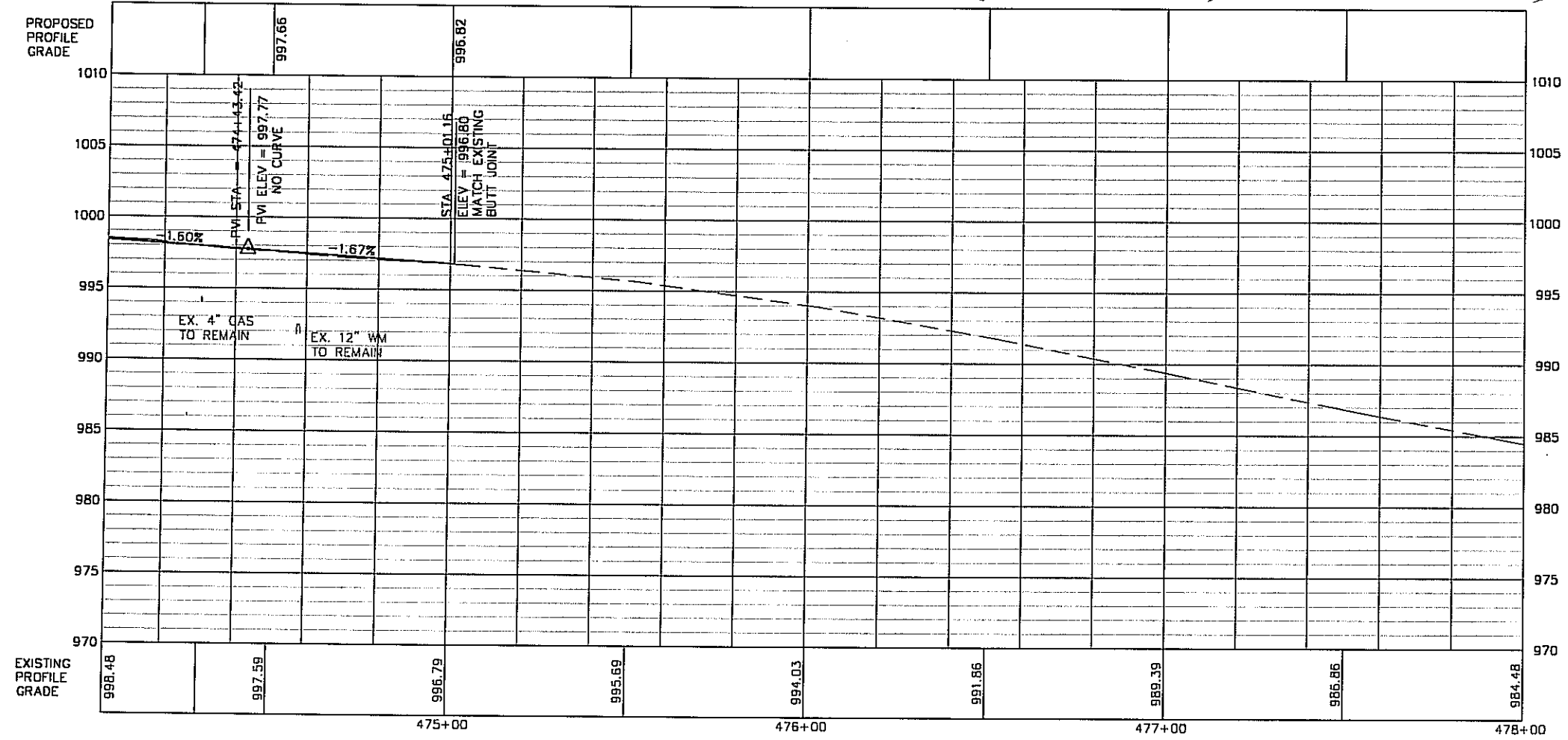


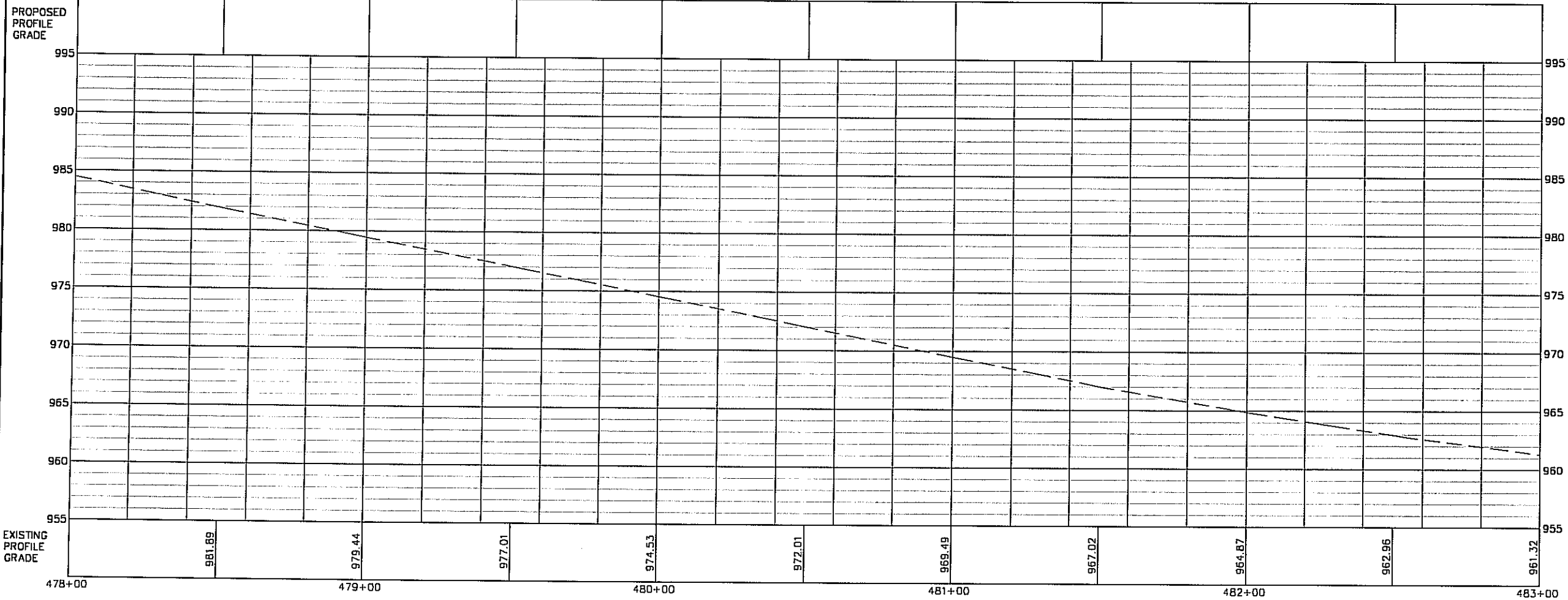
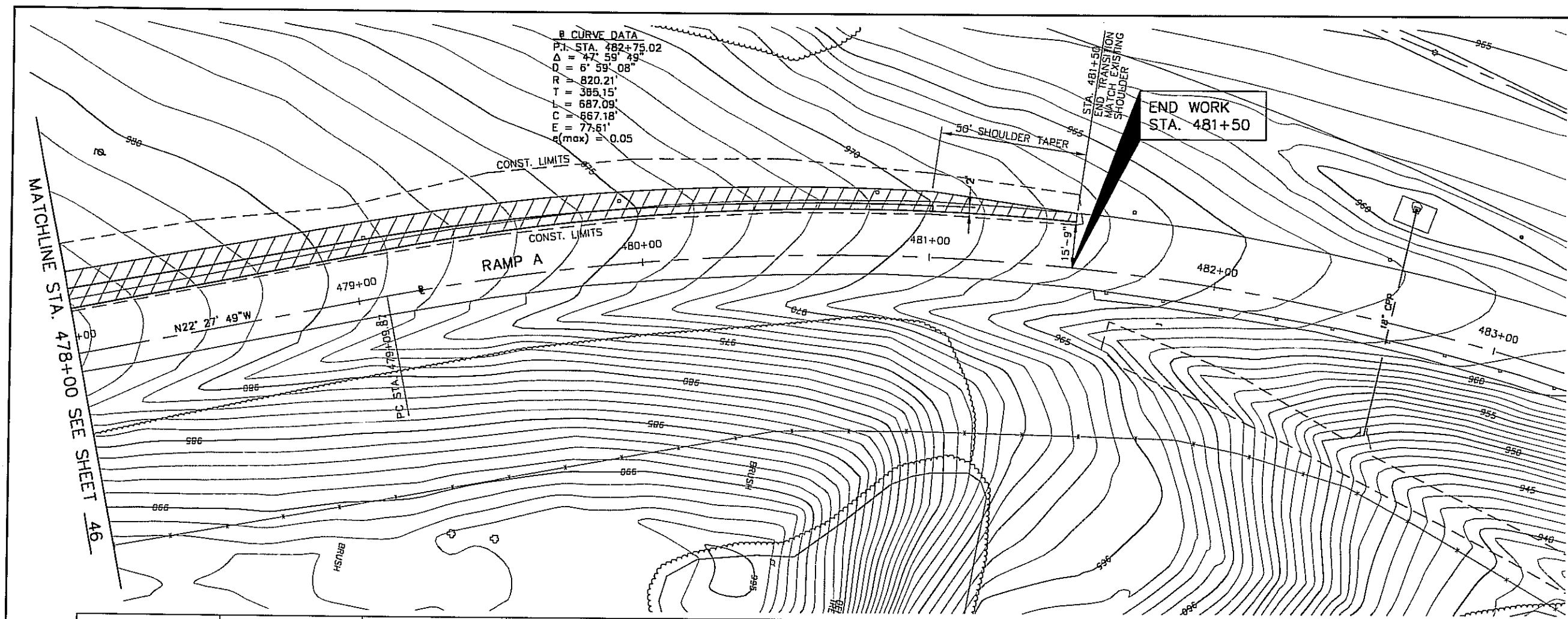
CURVE DATA
P.I. STA. 476+39.79
 $\Delta = 13^\circ 38' 46"$
 $D = 4^\circ 21' 57"$
 $R = 1312.33'$
 $T = 157.02'$
 $L = 312.56'$
 $C = 311.82'$
 $E = 9.36'$
 $e(\max) = 0.032$

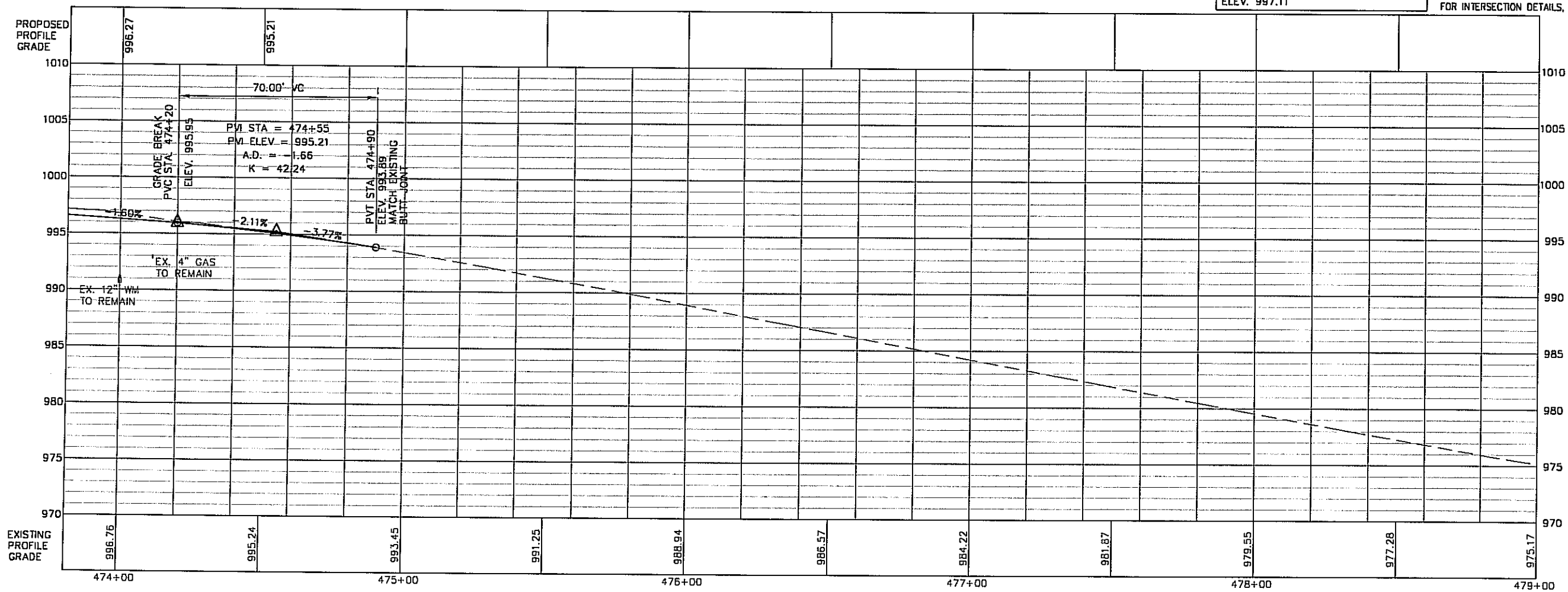
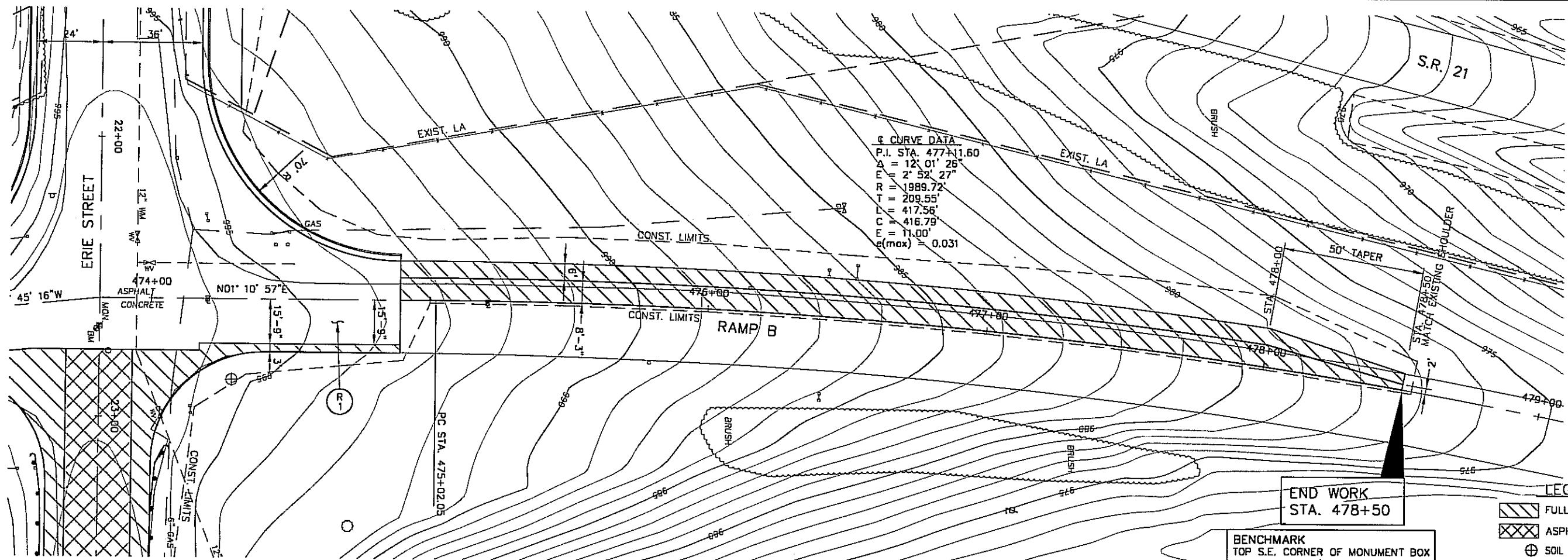
BENCHMARK
TOP S.E. CORNER OF MONUMENT BOX
STA. 22+68.5, 1' RT.
ELEV. 997.11

LEGEND

- FULL DEPTH WIDENING
- ASPHALT OVERLAY
- SOIL BORING
- FOR QUANTITIES, SEE SHEET 20
- FOR ERIE ST. PLAN & PROFILE, SEE SHEET 30
- FOR INTERSECTION DETAILS, SEE SHEET 67

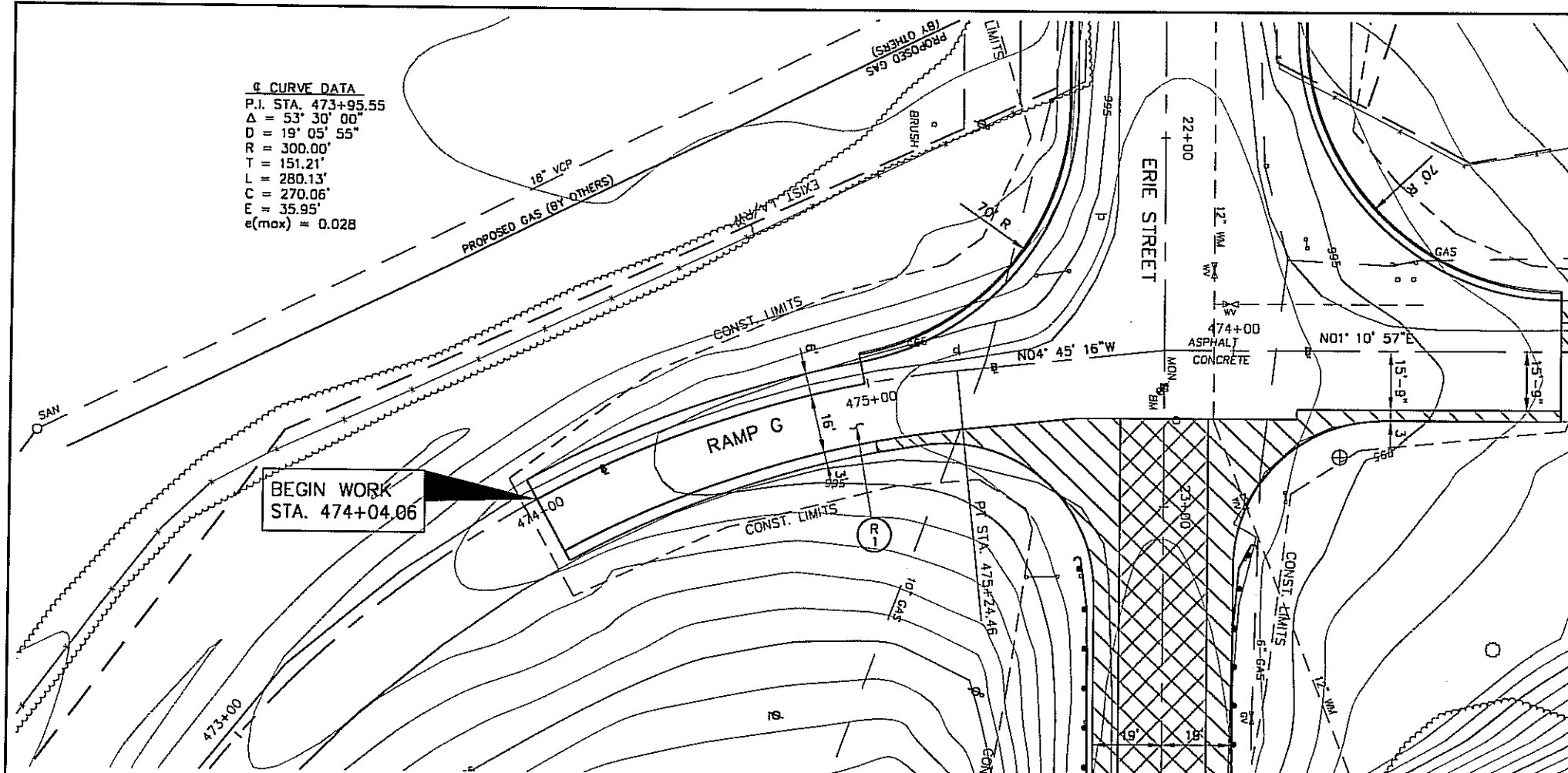






CURVE DATA
P.I. STA. 473+95.55
 $\Delta = 53^\circ 30' 00''$
 $R = 19^\circ 05' 55''$
 $D = 300.00'$
 $T = 151.21'$
 $L = 280.13'$
 $C = 270.06'$
 $E = 35.95'$
 $e(\max) \approx 0.028$

BENCHMARK
TOP S.E. CORNER OF MONUMENT BOX
STA. 22+68.5, 1' RT.
ELEV. 997.11



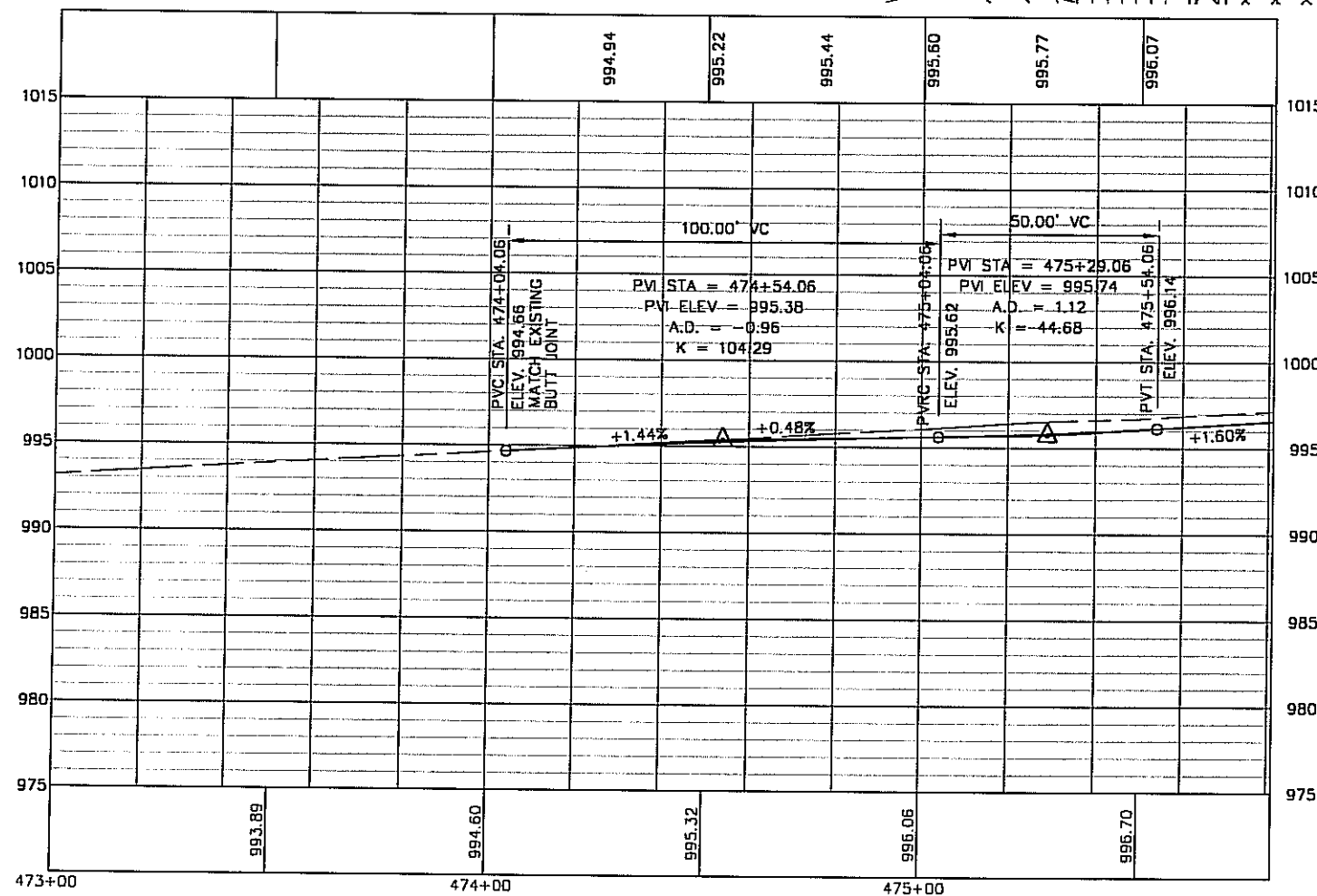
LEGEND

 FULL DEPTH ASPHALT
WIDENING

 ASPHALT OVERLAY

 SOIL BORING

FOR QUANTITIES, SEE SHEET 20
FOR ERIE STREET PLAN & PROFILE, SEE SHEET 29
FOR INTERSECTION DETAILS, SEE SHEET 66



J:\Proj\7044800\ROADWAY\7044800\J.dwg User: cab05502 Jan 28, 2000 - 8:05am

BENCHMARK
TOP S.E. CORNER OF MONUMENT BOX
STA. 22+68.5, 1' RT.
ELEV. 997.11

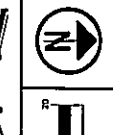
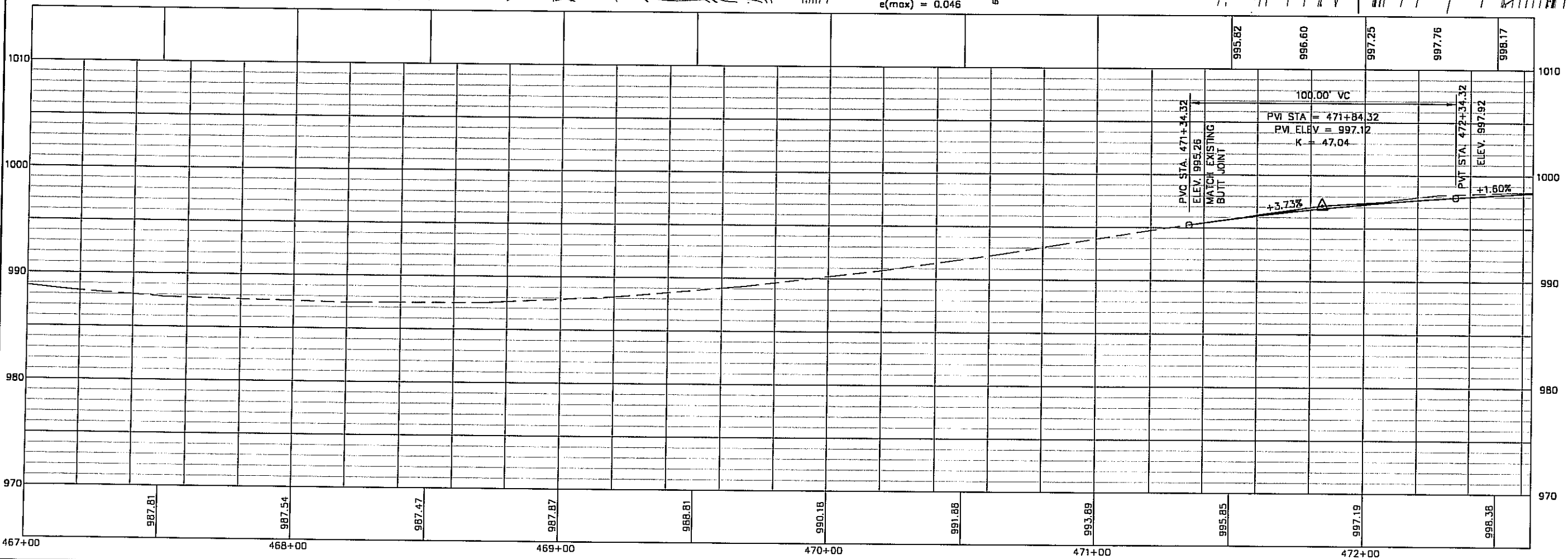
LEGEND

- FULL DEPTH WIDENING
- ASPHALT OVERLAY
- SOIL BORING

FOR QUANTITIES, SEE SHEET 20
FOR ERIE STREET PLAN & PROFILE, SEE SHEET 30
FOR INTERSECTION DETAILS, SEE SHEET 66

BEGIN WORK
STA. 467+50

B CURVE DATA
P.I. STA. 468+48.14
 $\Delta = 29^\circ 58' 38''$
 $D = 4' 00'' 00''$
 $R = 1432.38'$
 $T = 383.50'$
 $L = 749.42'$
 $C = 740.90'$
 $E = 50.45'$
 $e(\max) = 0.046$

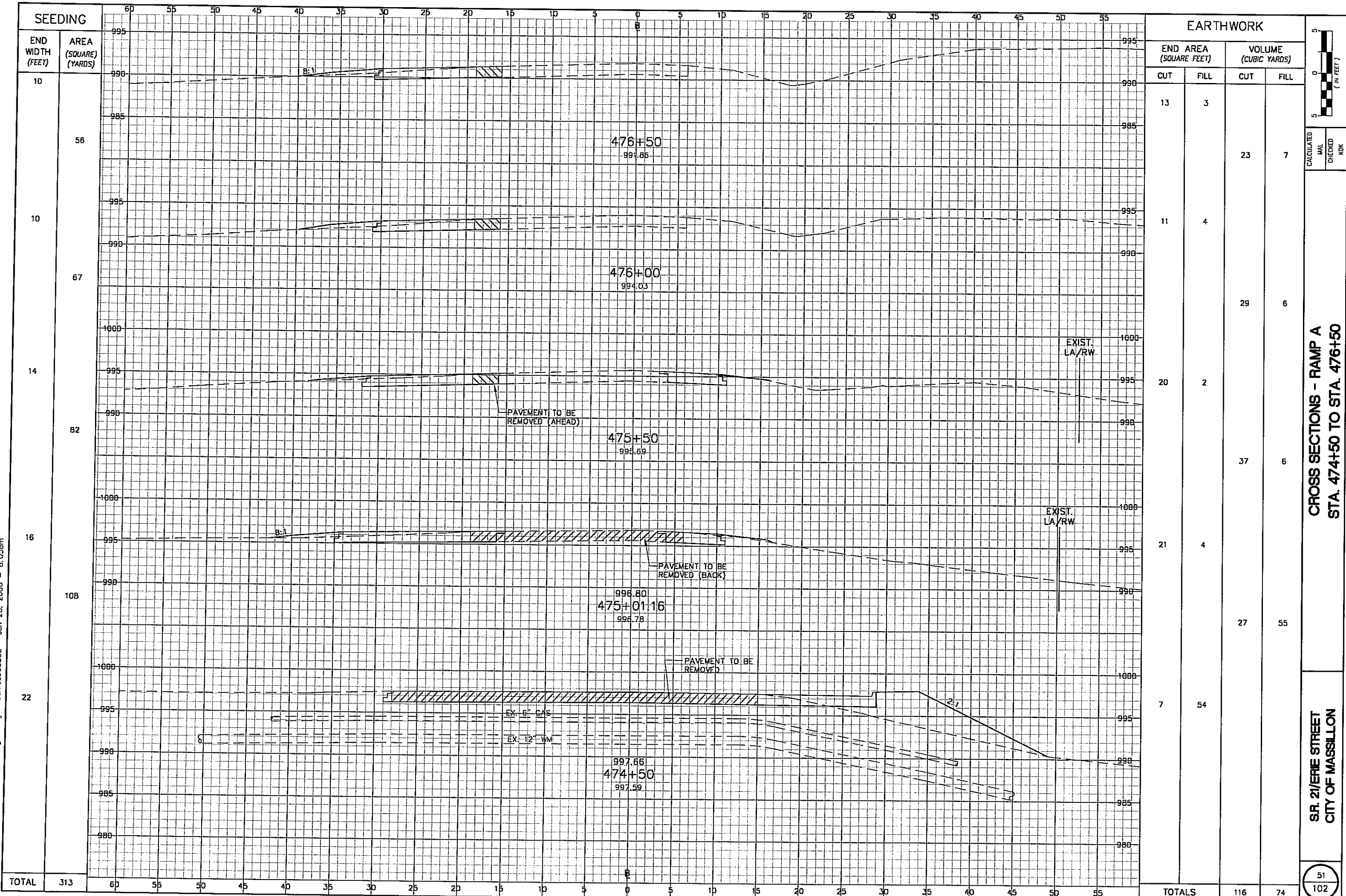


CALCULATED
CHECKED

PLAN AND PROFILE - RAMP H
STA. 467+00 TO 473+81.28

SR. 21/ERIE STREET
CITY OF MASSILLON

J:\Proj3\7044800\ROADWAY\70448gxd.dwg User: cob05502 Jan 28, 2000 - 8:05am

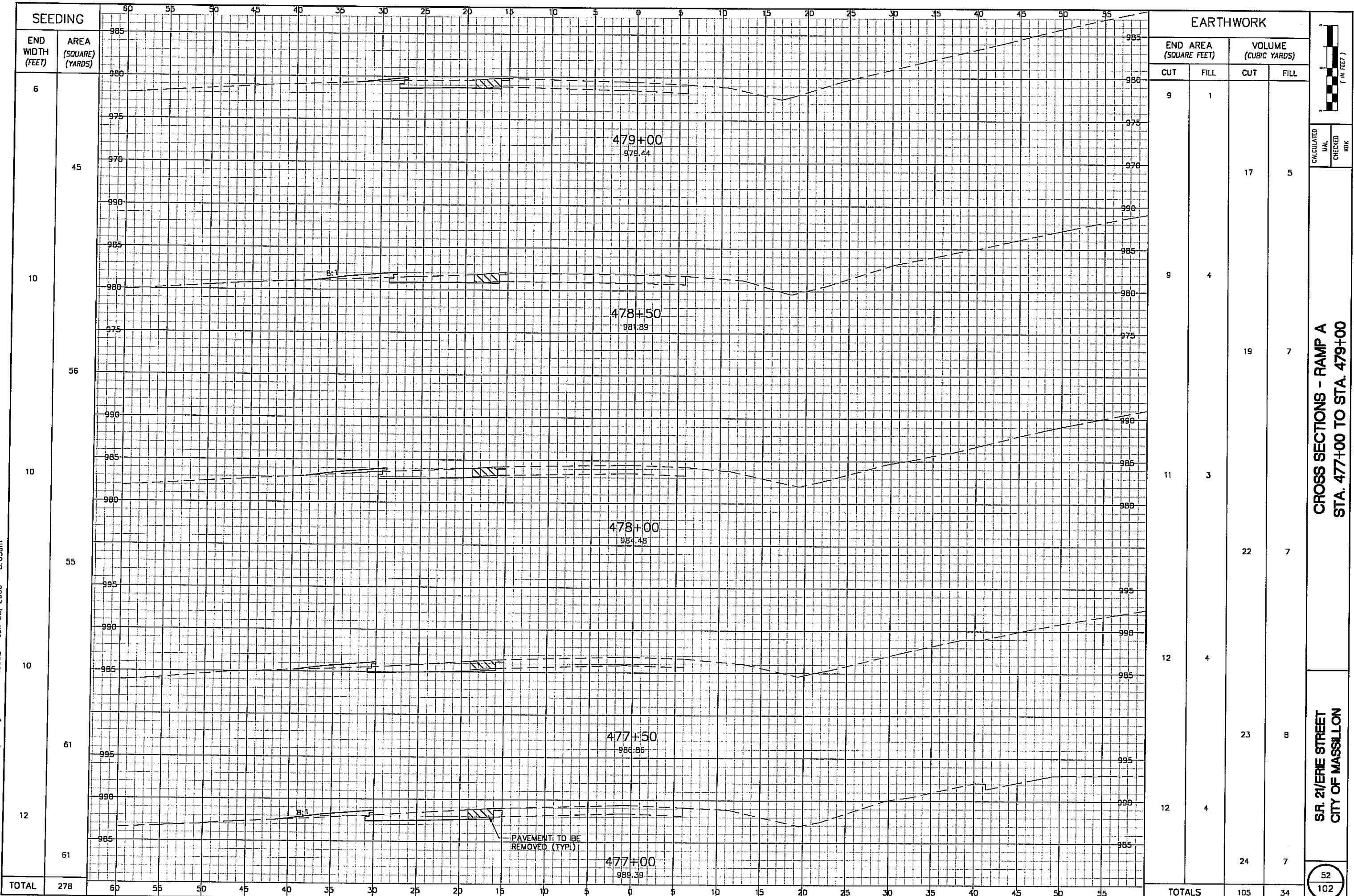


TOTAL	313	60	55	50	45	40	35	30	25	20	15	10	5	0	5	10	15	20	25	30	35	40	45	50	55	TOTALS	116	74
-------	-----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	----	----	----	----	----	----	----	----	----	----	--------	-----	----

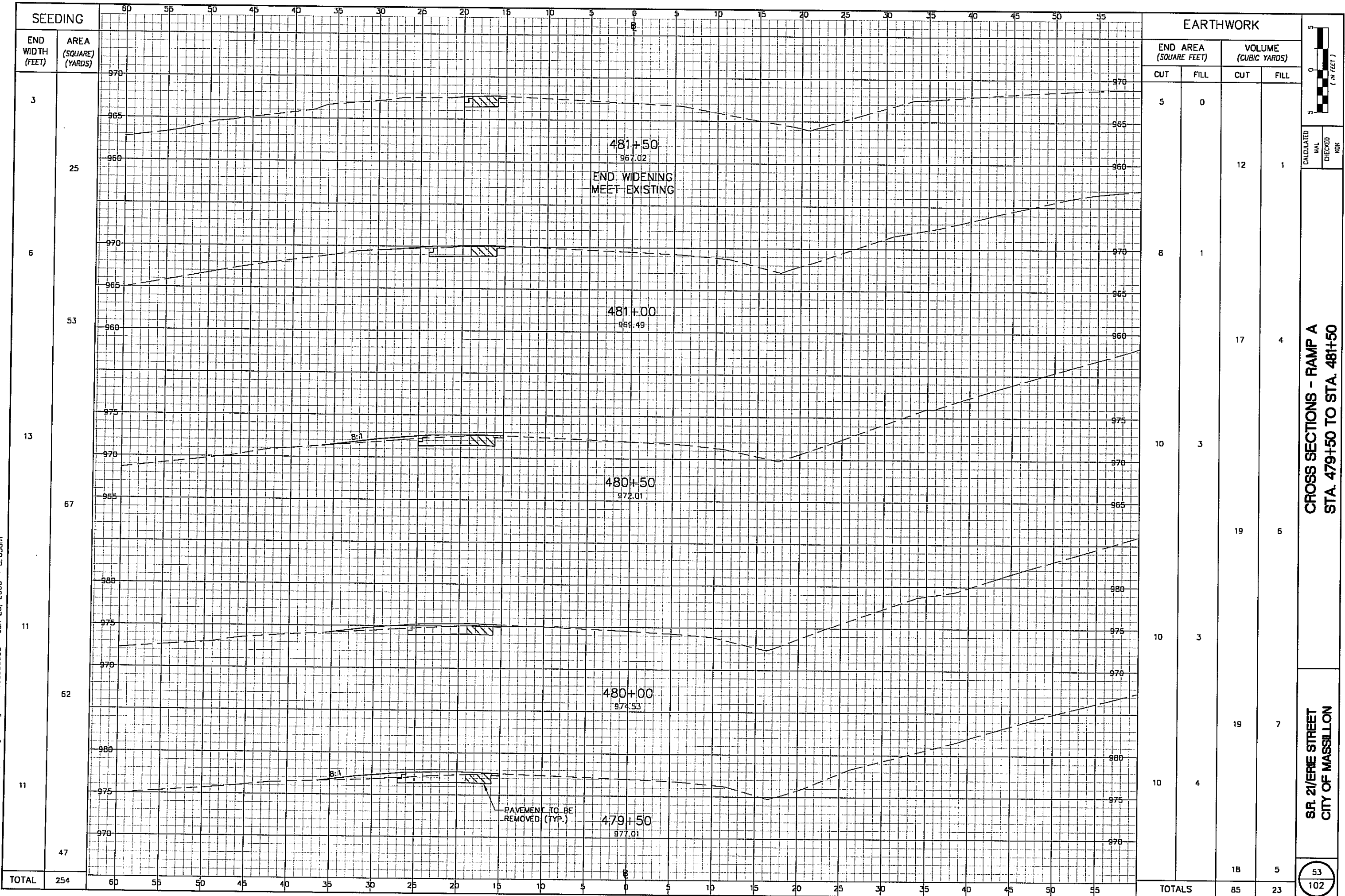
CROSS SECTIONS - RAMP A
STA. 474+50 TO STA. 476+50

S.R. 21/ERIE STREET
CITY OF MASSILLON

J:\Proj3\7044800\ROADWAY\70448xp.dwg User: cob05502 Jan 28, 2000 - 8:05am

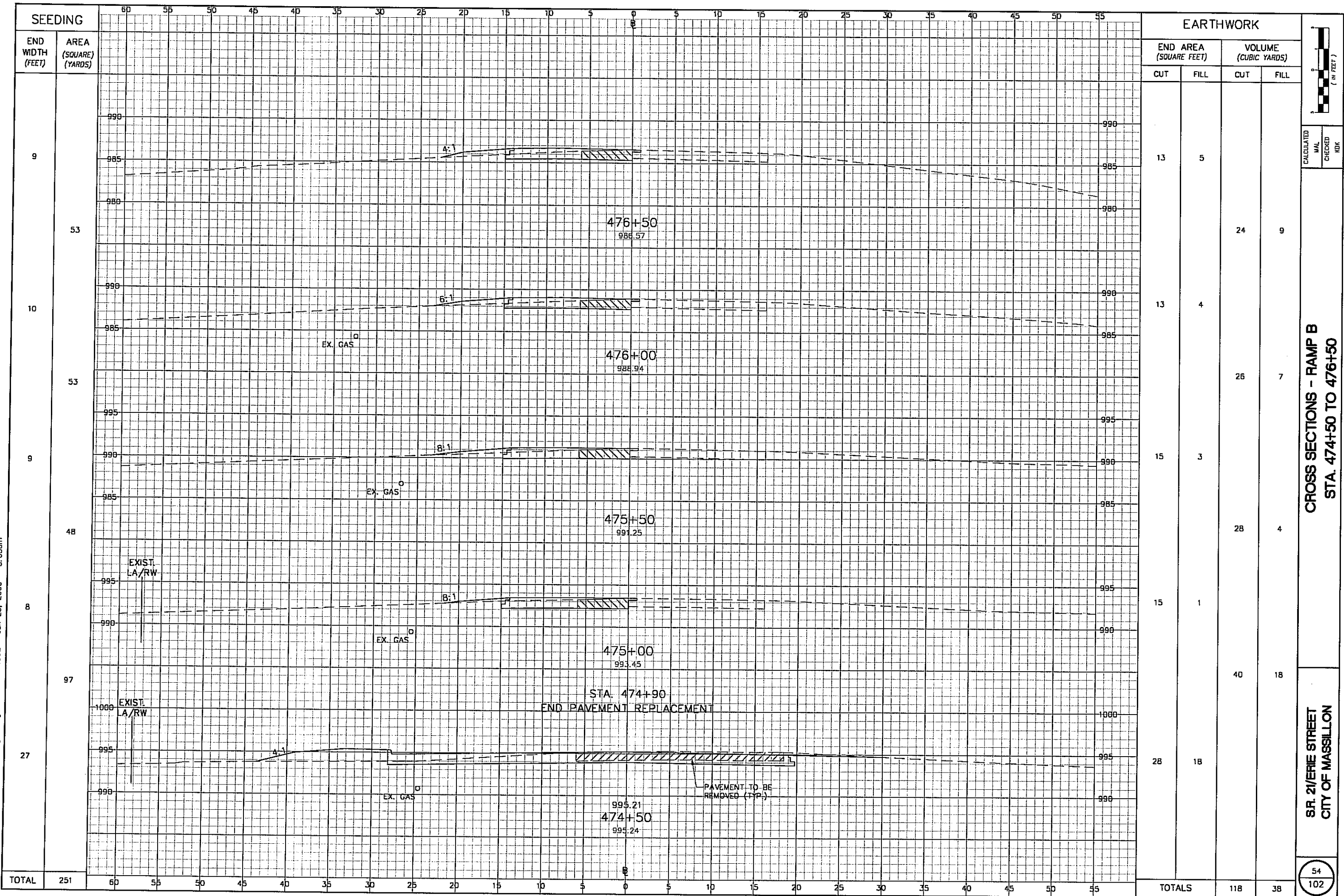


J:\ProJ3\7044800\ROADWAY\7044800.dwg Jan 28, 2000 - B: 05am User: cob05502



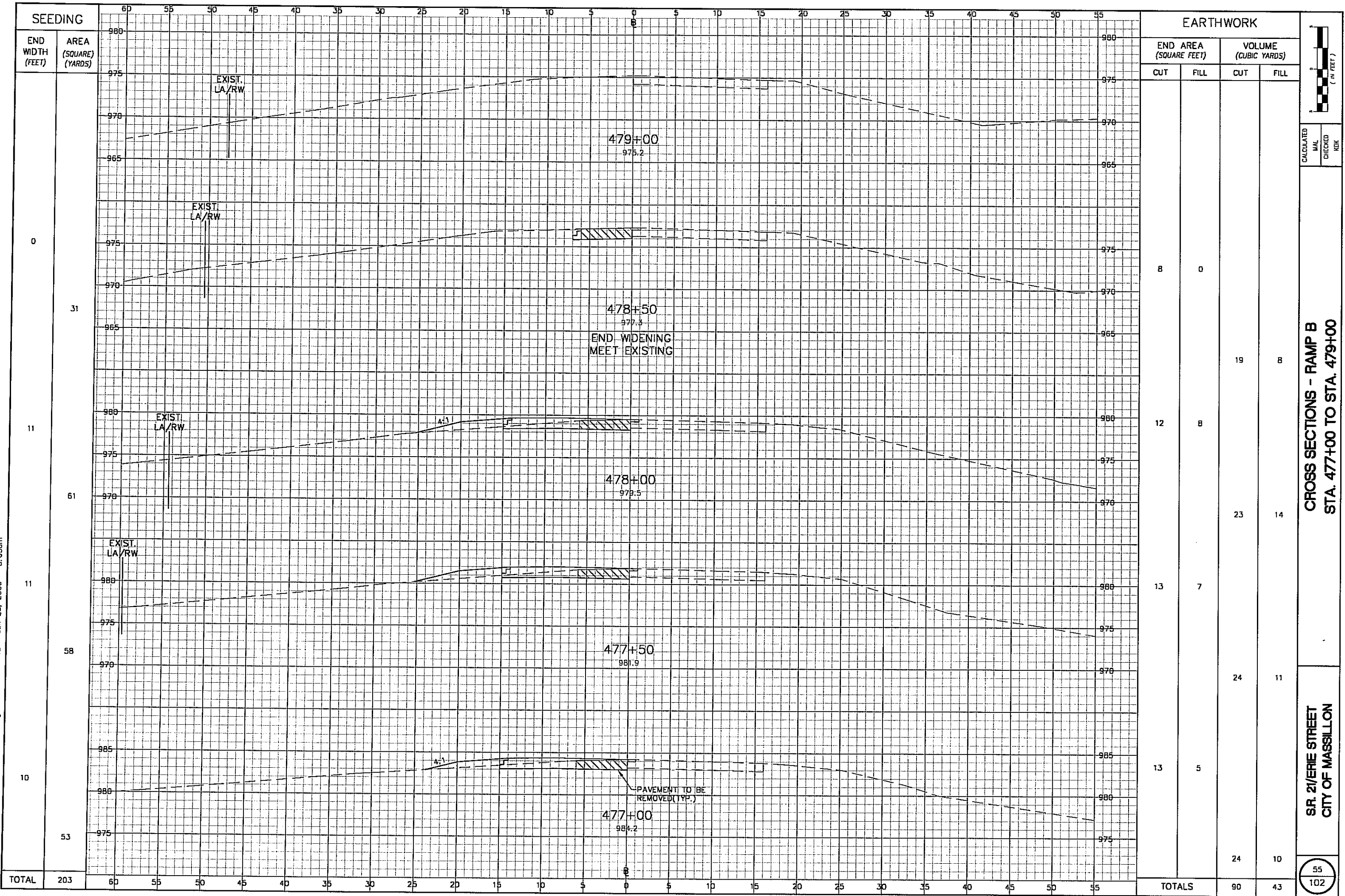
CROSS SECTIONS - RAMP A
STA. 479+50 TO STA. 481+50

SR. 2/ERIE STREET
CITY OF MASSILLON



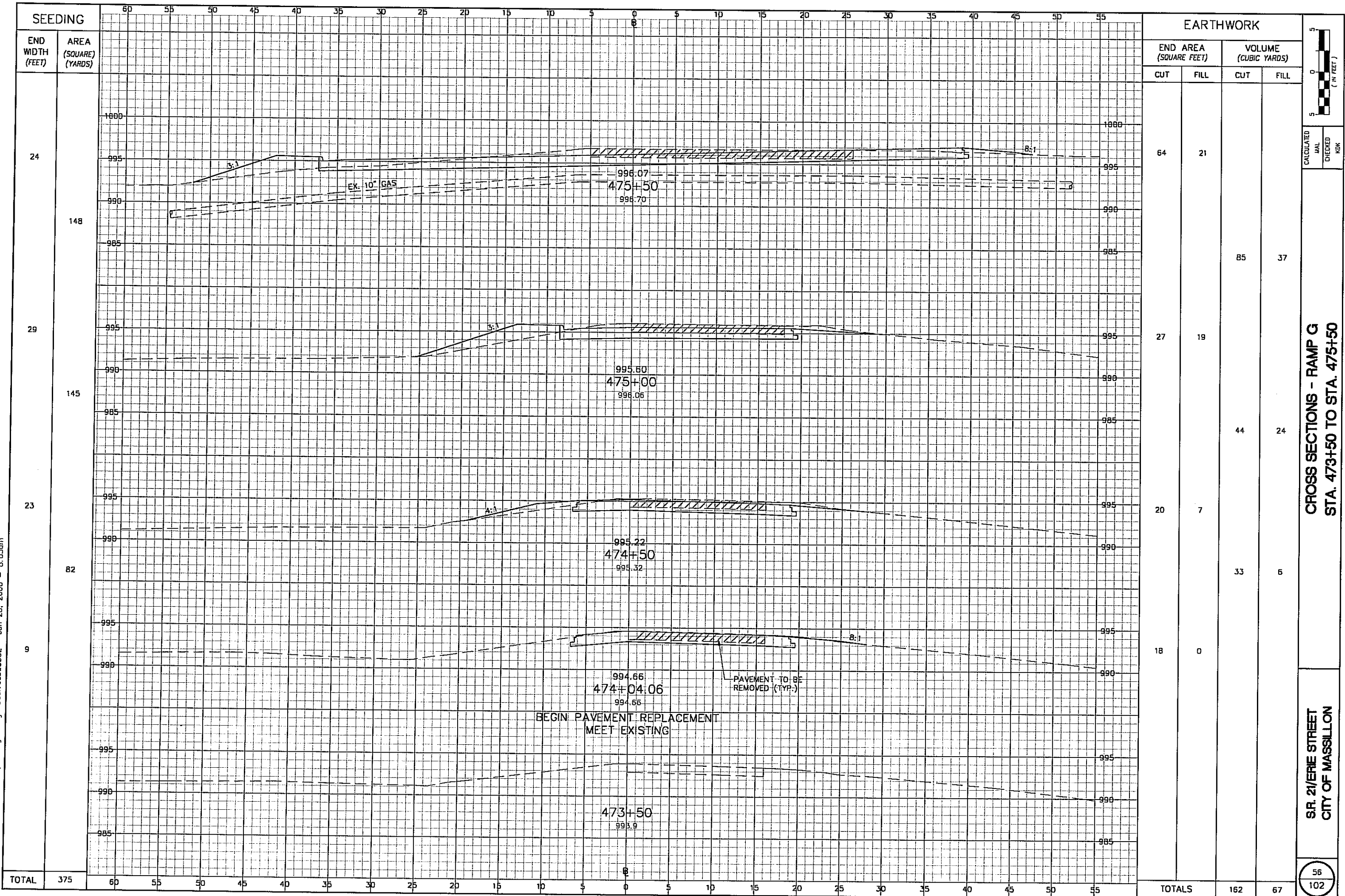
CROSS SECTIONS - RAMP B
STA. 474+50 TO 476+50

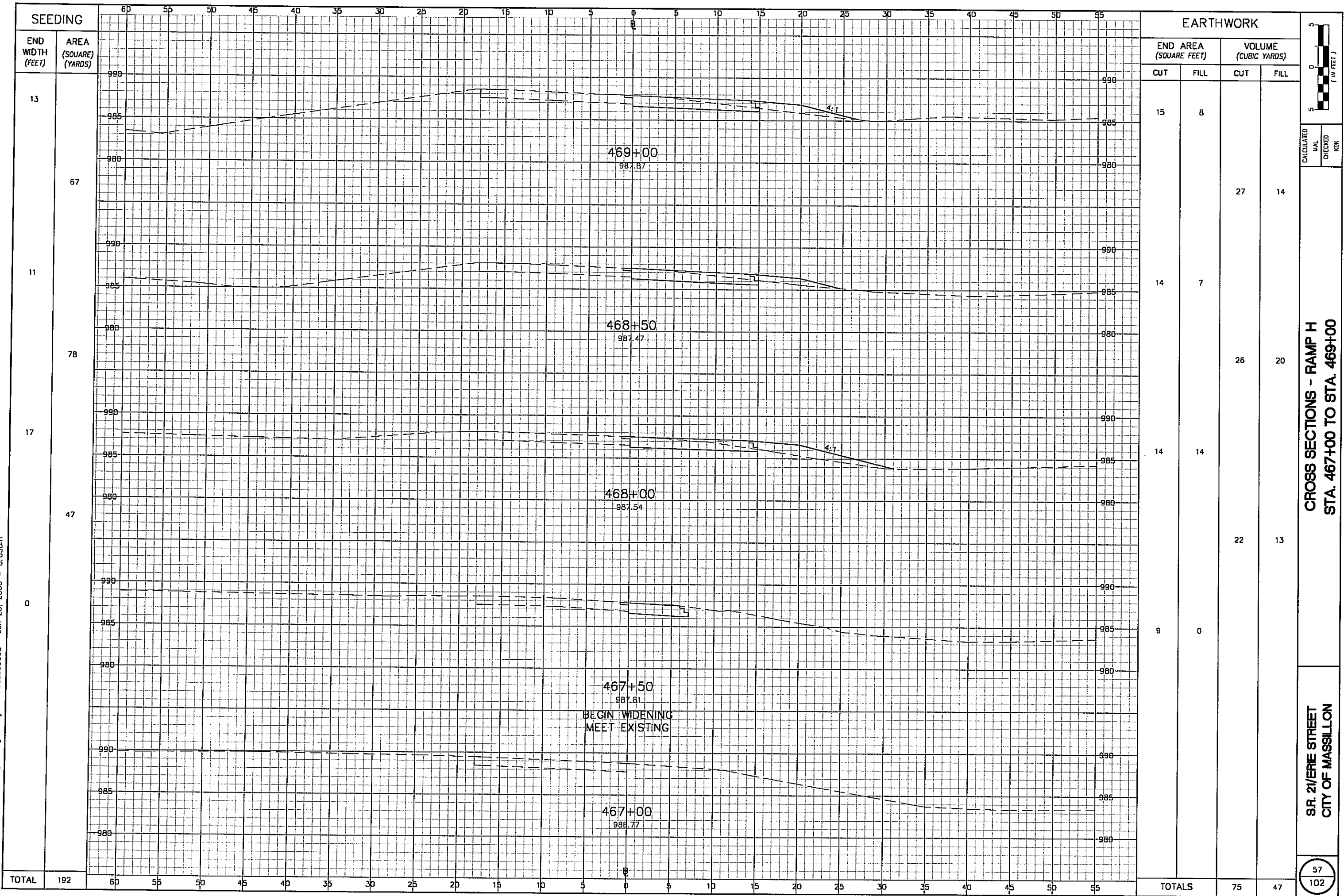
S.R. 21/ERIE STREET
CITY OF MASSILLON

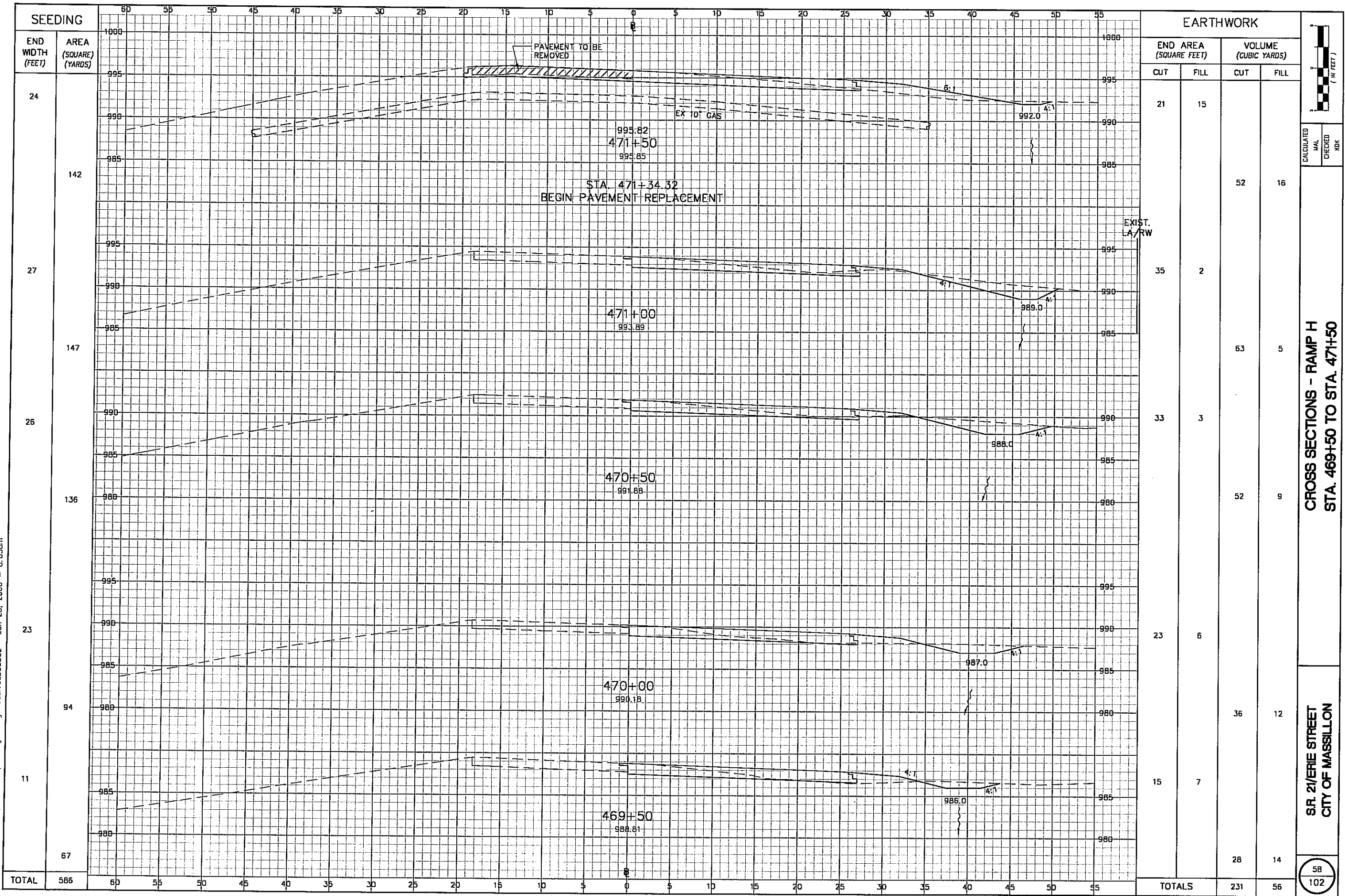


CROSS SECTIONS - RAMP B
STA. 477+00 TO STA. 479+00

S.R. 21/ERIE STREET
CITY OF MASSILLON



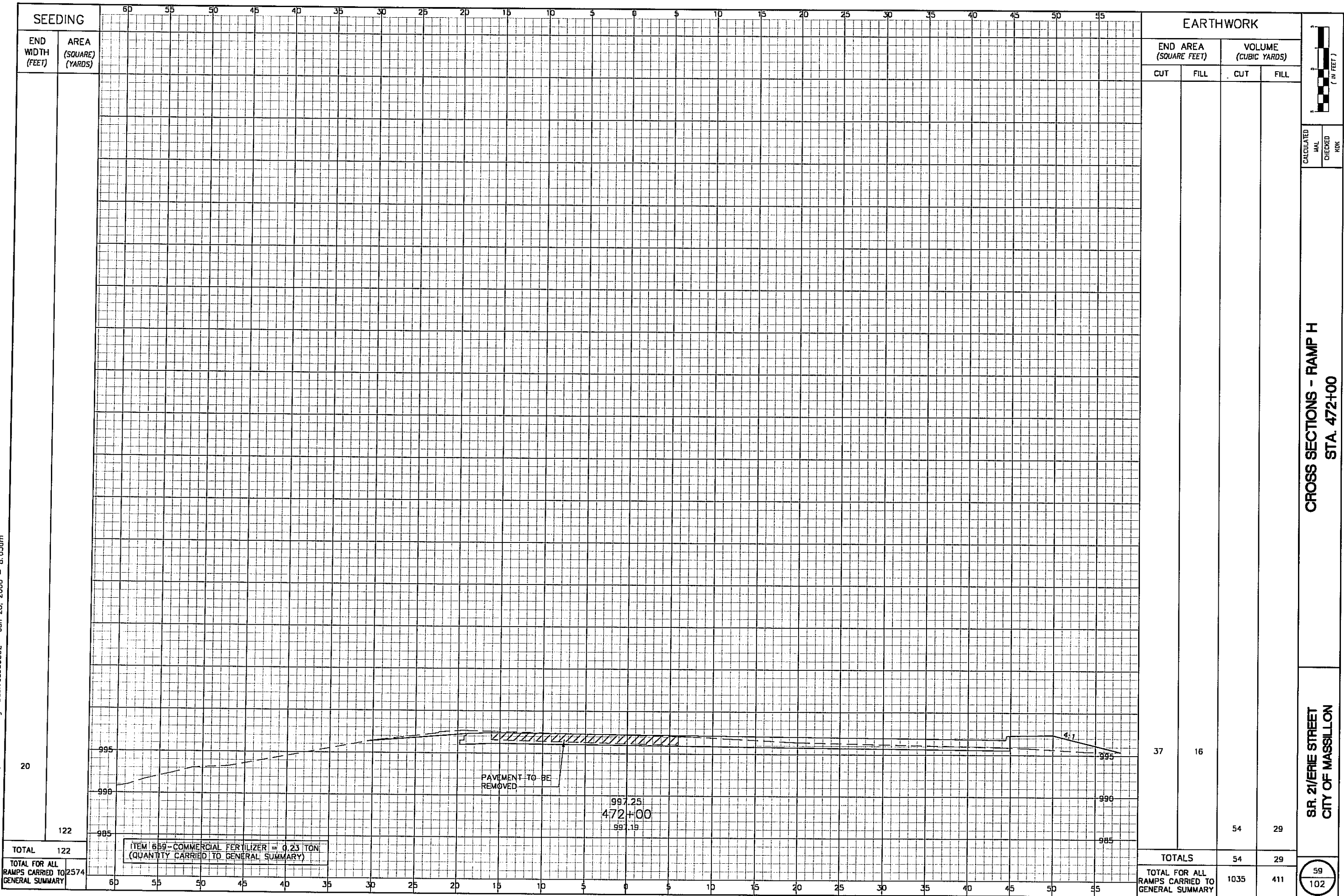




CROSS SECTIONS - RAMP H
STA. 469+50 TO STA. 471+50

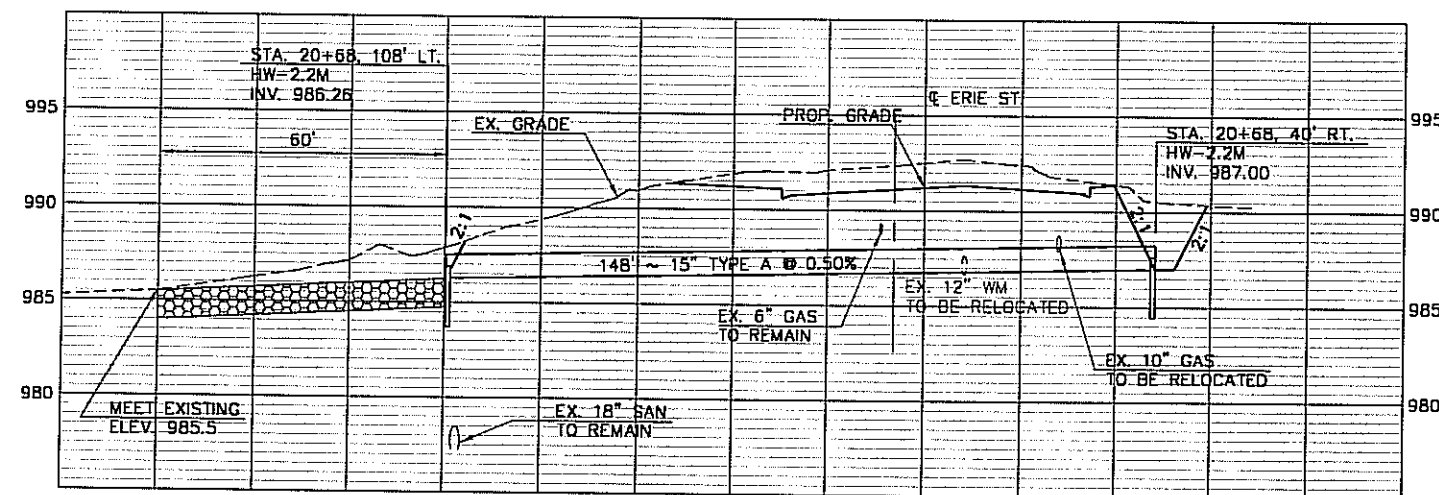
S.R. 21/ERIE STREET
CITY OF MASSILLON

J:\Proj3\7044800\ROADWAY\704480XW.dwg User: ccb05502 Jan 28, 2000 - 8:05am



CROSS SECTIONS - RAMP H
STA. 472+00

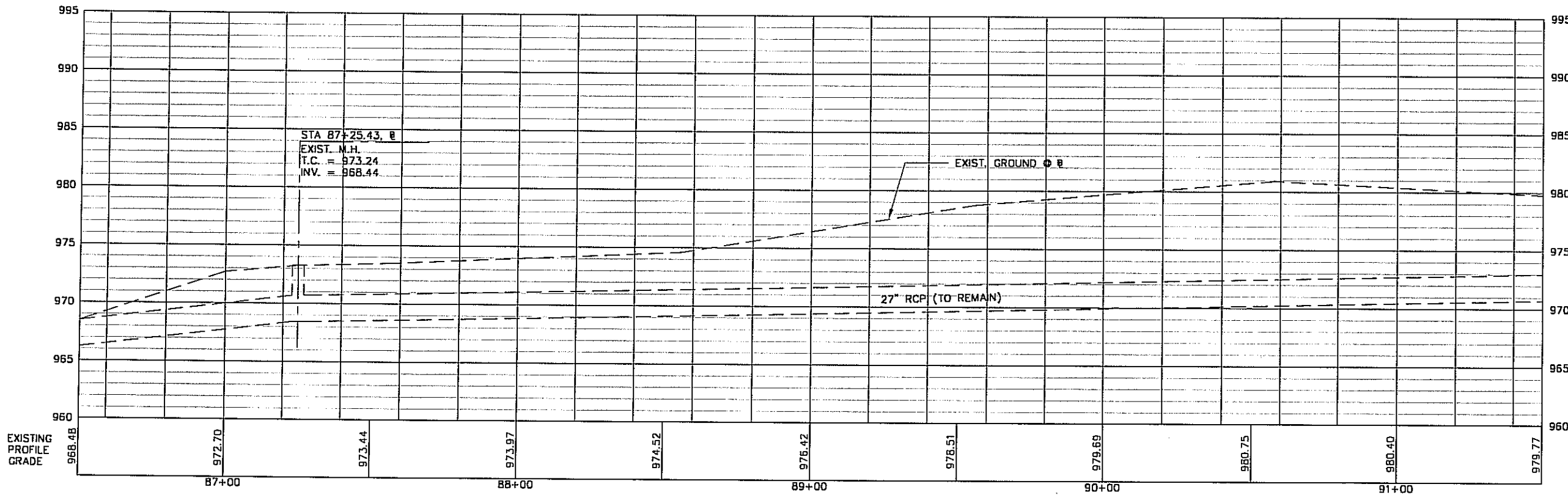
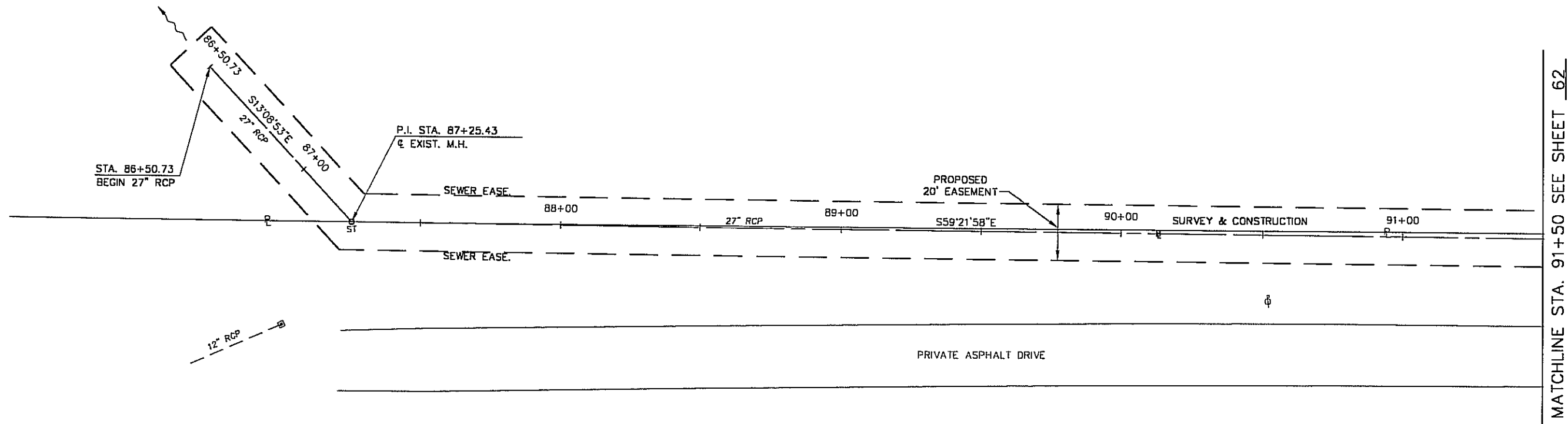
S.R. 21/ERIE STREET
CITY OF MASSILLON



CALCULATED

DRAINAGE DETAILS

**S.R. 21/ERIE STREET
CITY OF MASSILLON**



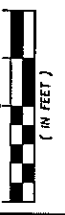
MATCHLINE STA. 91+50 SEE SHEET 61

BENCHMARK:
RIM OF MANHOLE
STA. 91+63.77, E
ELEV. 979.59

□ DITCH EROSION PROTECTION
⊙ SOIL BORING

FOR QUANTITIES, SEE SHEET 20

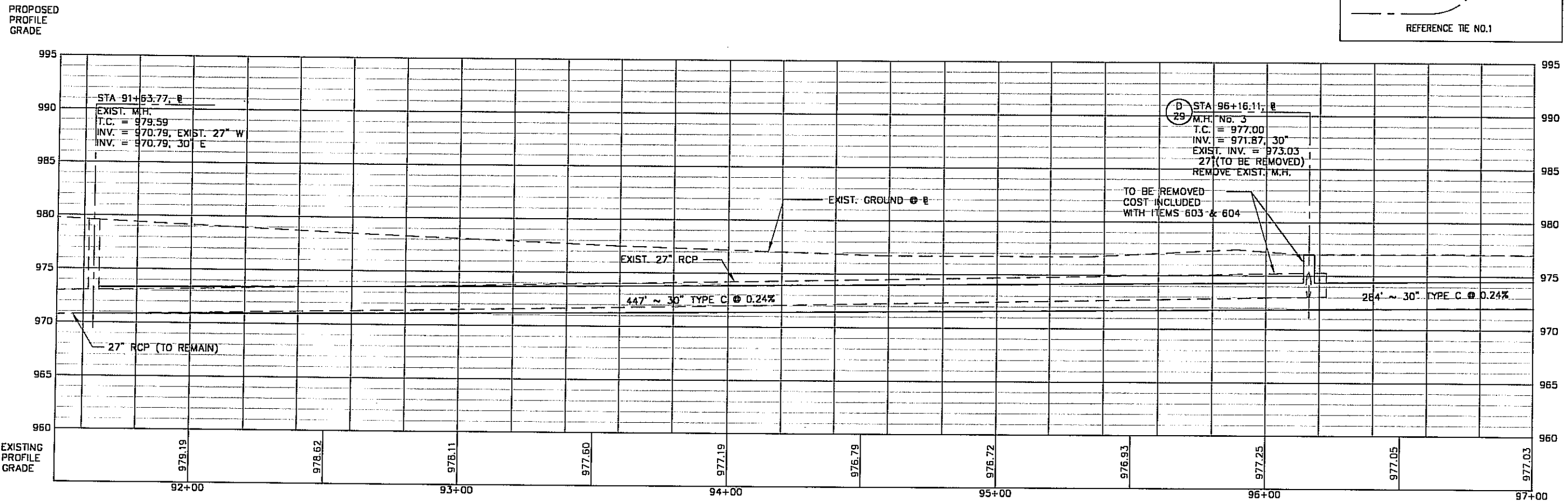
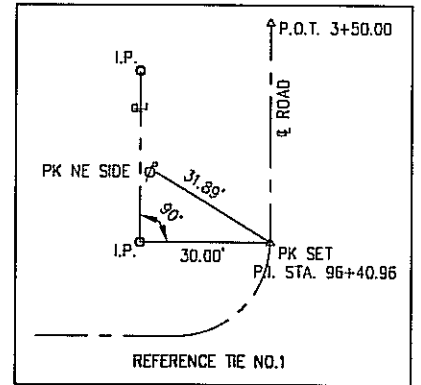
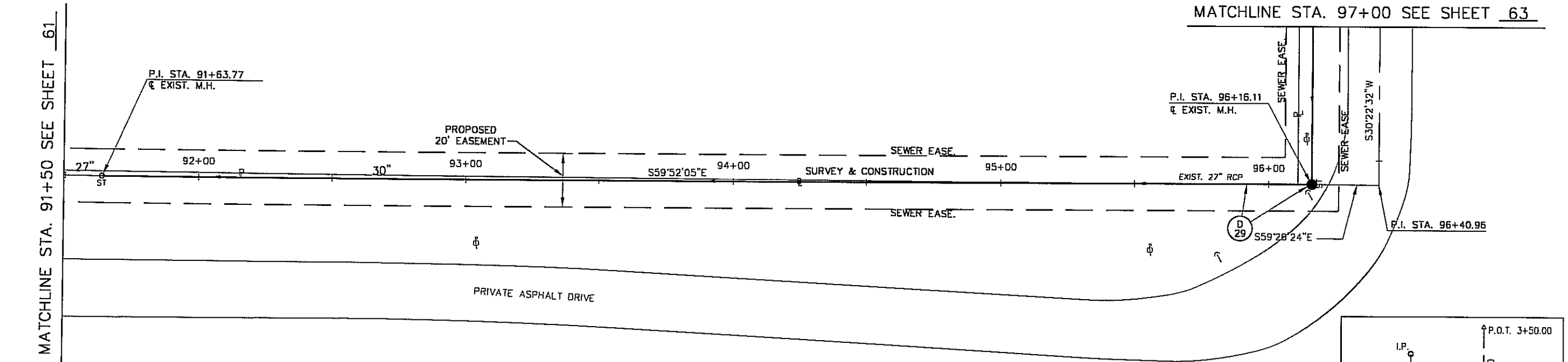
MATCHLINE STA. 97+00 SEE SHEET 63



CALCULATED
CHECKED

PLAN AND PROFILE
STA. 91+50 TO STA. 97+00

SR. 21/ERIE STREET
CITY OF MASSILLON



MATCHLINE STA. 97+00 SEE SHEET 62

MATCHLINE STA. 2+50 SEE SHEET 25

DITCH EROSION PROTECTION
SOIL BORING

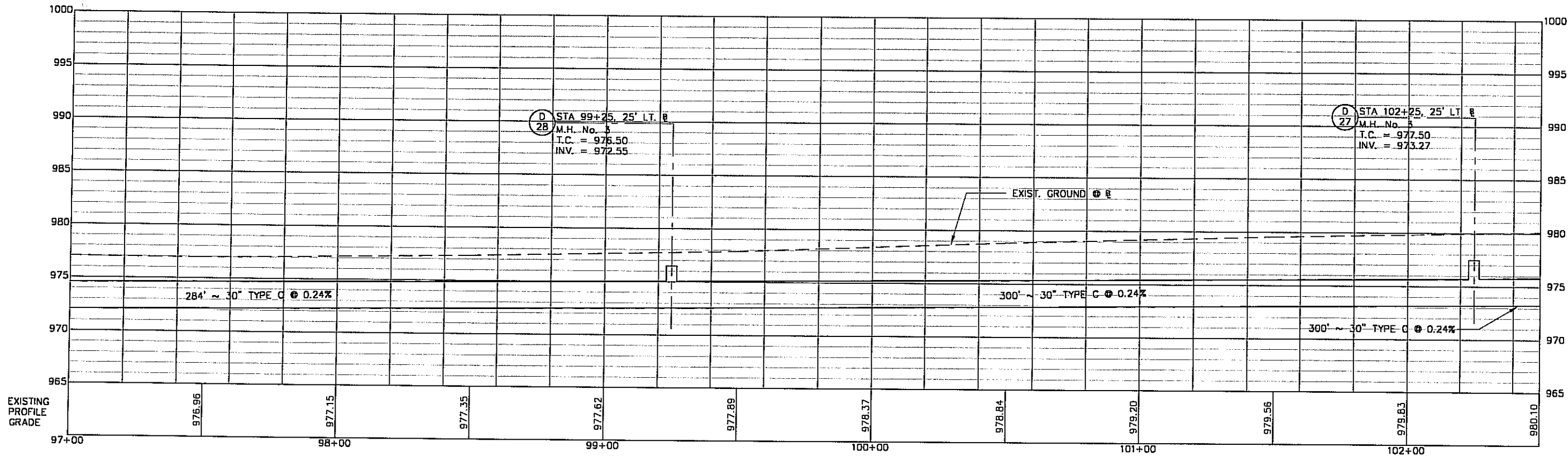
FOR QUANTITIES, SEE SHEET 20

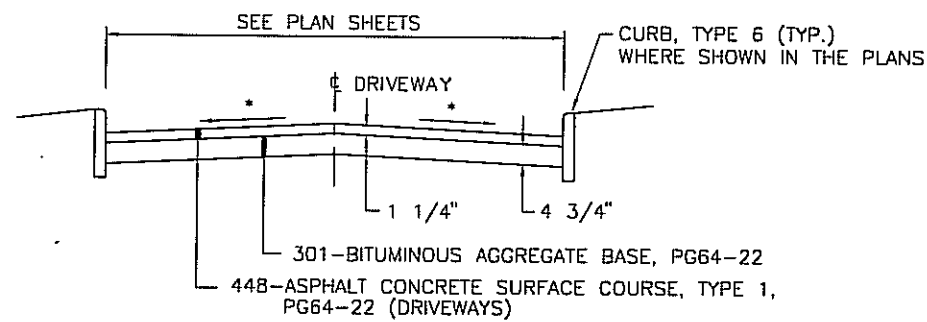


CALCULATED
CHECKED

PLAN AND PROFILE
STA. 97+00 TO STA. 102+50

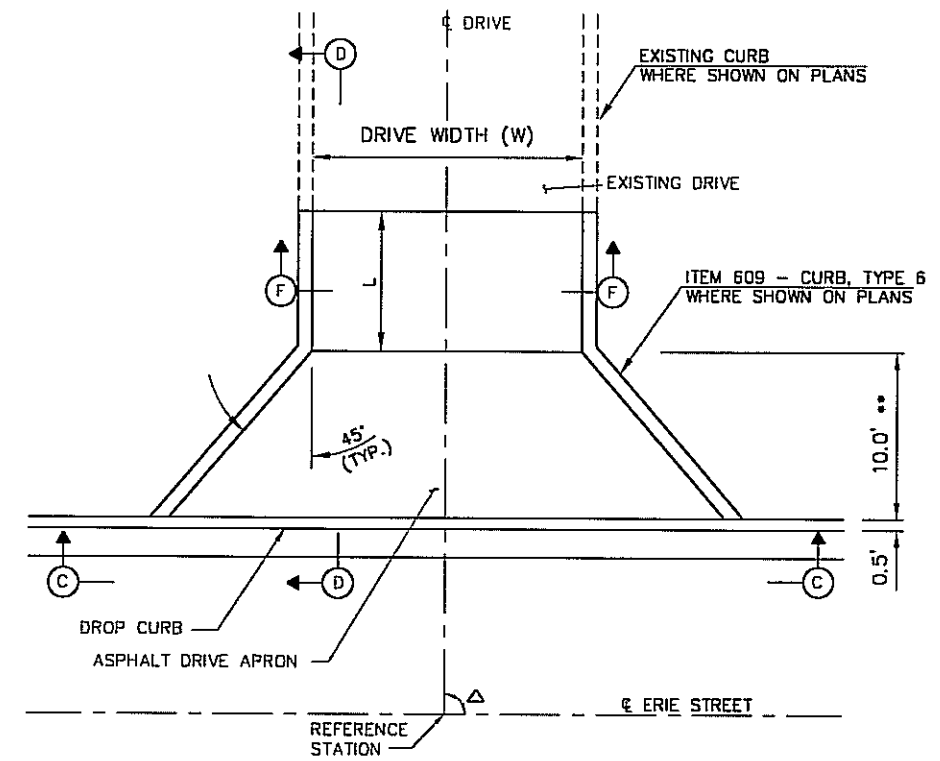
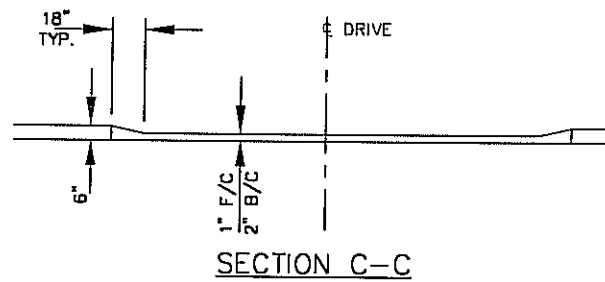
S.R. 2/ERIE STREET
CITY OF MASSILLON



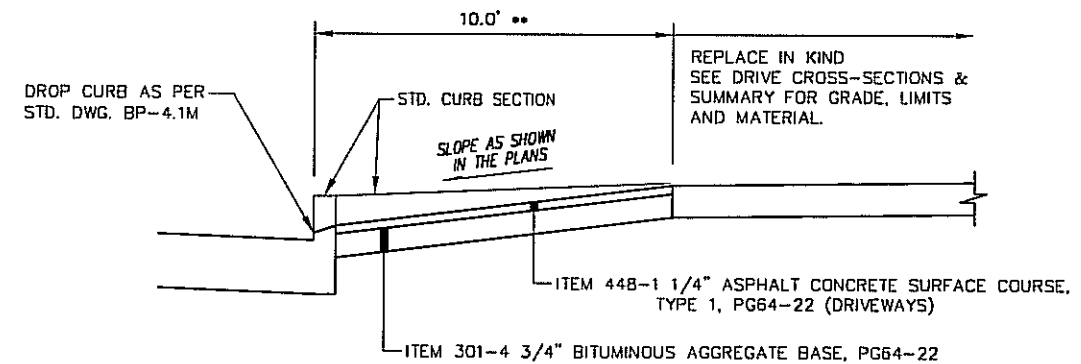


* SLOPE AS DIRECTED
BY THE ENGINEER

SECTION F-F
ASPHALT DRIVE

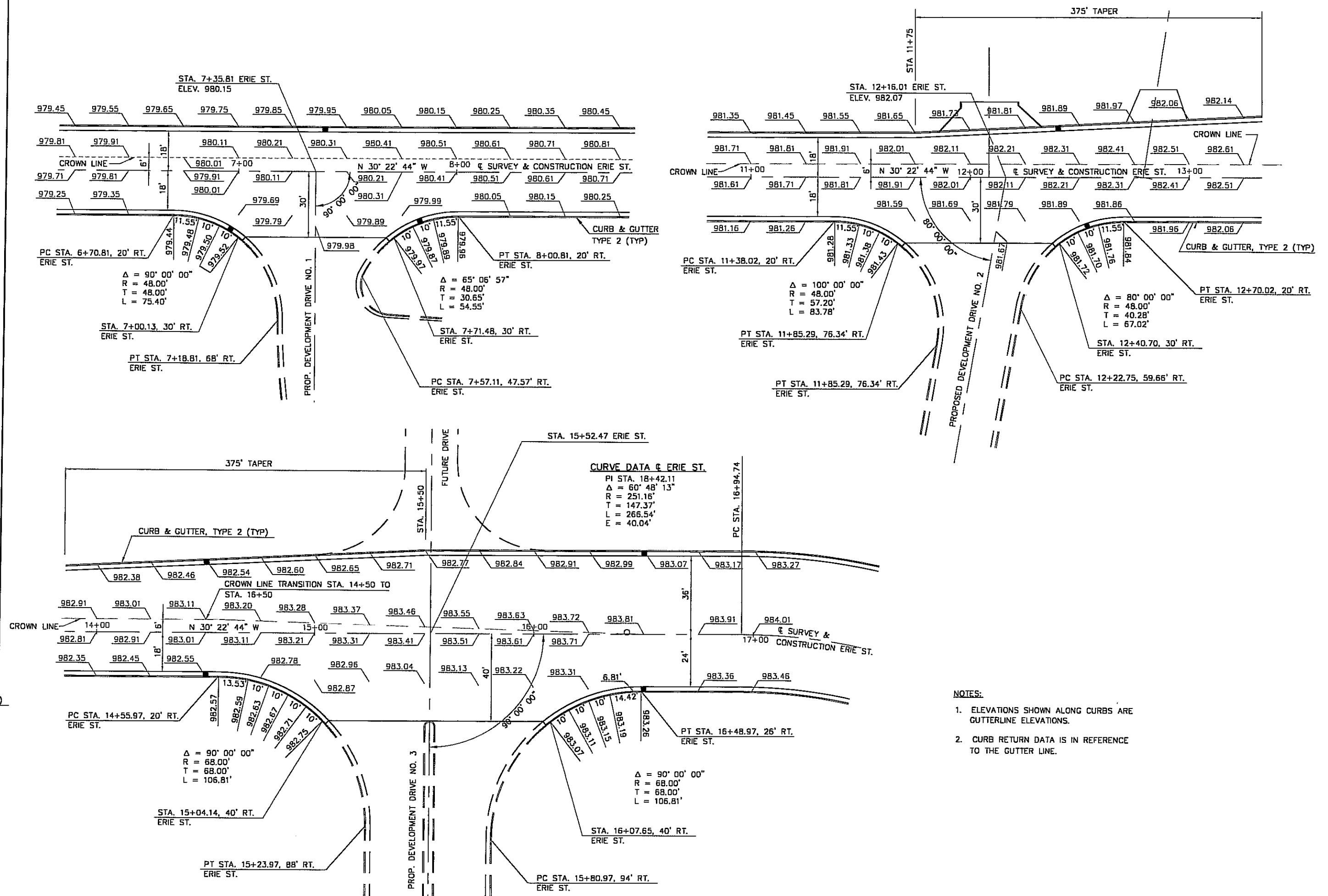


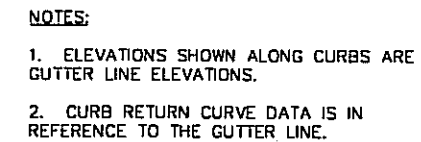
DRIVE APRON DETAIL

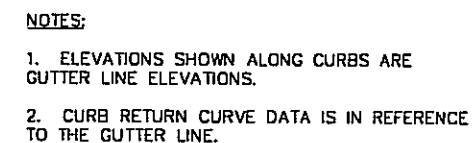


SECTION D-D

.. UNLESS SHOWN OTHERWISE IN THE PLANS







J:\Proj3\7044800\Traffic\70448CNA.dwg User: ccb05302 Jan 28, 2000 - 8:07am

ITEM 603 - 4" CONDUIT, TYPE E

REFERENCE IS MADE TO THE STANDARD CONSTRUCTION DRAWINGS FOR DETAILS OF DRAINING PULLBOXES. UNDERDRAINS FOR PULLBOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 40 FEET. AN ESTIMATED QUANTITY OF 480 FEET OF ITEM 603, CONDUIT, TYPE E, 4", IS INCLUDED IN THE TRAFFIC CONTROL GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 614 - TEMPORARY MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION

INCIDENTAL TO THE REQUIREMENTS FOR MAINTAINING TRAFFIC IN ACCORDANCE WITH 614.03, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TRAFFIC SIGNAL INSTALLATION UNDER THE FOLLOWING CONDITIONS:

- A. NEW SIGNAL INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE, TIMING AND ANY DAMAGE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED BY THE CITY OF MASSILLON ENGINEER.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE CITY OF MASSILLON 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 OR MALFUNCTIONS. SUCH A PERSON OR PERSON 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, SEVEN DAYS A WEEK. ALL LAMP OUTAGES, CABLE FAILURES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS, AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN THREE (3) HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGES OR MALFUNCTIONS.

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 ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN EIGHT (8) HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF DAMAGE.

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. HE SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

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

WHERE OUTAGES OR MALFUNCTIONS 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 COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO OR CANNOT RESPOND TO AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY OR WITHIN PERIODS AS SPECIFIED ABOVE, THE CITY MAY TAKE ANY ACTION AS IT MAY DEEM NECESSARY. THIS ACTION MAY INCLUDE CONTROL OF THE INTERSECTION BY POLICE OFFICERS AND COMPLETE REMOVAL OF THE MALFUNCTIONING TRAFFIC CONTROL DEVICES AND INSTALLATION OF DEVICES TO RETURN THE INTERSECTION TO OPERATION. ANY SUBSEQUENT BILLINGS BY THE STATE OR THE CITY OF MASSILLON FOR THESE POLICE AND/OR MAINTENANCE BY THE CITY SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

WHERE A TRAFFIC SIGNAL IS OUT OF SERVICE DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, TRAFFIC SHALL BE DIRECTED BY AN OFF-DUTY CITY OF MASSILLON POLICE OFFICER HIRED BY THE CONTRACTOR UNTIL SAID SIGNAL IS OPERATING AGAIN. ALL COSTS INCURRED IN USING POLICE OFFICERS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ITEM 614 - TEMPORARY MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION(CONT.)

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING: 1. TIME OF NOTIFICATION OF MALFUNCTION; 2. TIME OF WORK CREW'S ARRIVAL TO CORRECT THE MALFUNCTION; 3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED; 4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE; AND 5. TIME OF COMPLETION OF REPAIR AND SYSTEM RESTORED TO FULL SERVICE. A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE CITY OF MASSILLON TRAFFIC ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

THE CONTRACTOR SHALL ERECT AND MAINTAIN SIGNS, SUPPORTS, AND LIGHTS AS DETAILED ON SHEET NO. 93.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTENANCE TRAFFIC.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR

A UNIFORMED CITY OF MASSILLON POLICE OFFICER AND AN OFFICIAL PATROL CAR WITH TOP-MOUNTED FLASHING LIGHTS OPERATING SHALL BE PRESENT WHENEVER LANE BLOCKAGE IS REQUIRED FOR THE ERECTION OF SIGNAL EQUIPMENT OR SIGNAL SHUTDOWN IS REQUIRED AS SPECIFIED UNDER ITEM 614 MAINTAINING TRAFFIC. THE USE OF THE LAW ENFORCEMENT OFFICE (L.E.O.) SHALL BE APPROVED BY THE ENGINEER. ARRANGEMENTS AND PAYMENTS FOR THE SERVICES OF THE L.E.O. WILL BE MADE BY THE CONTRACTOR. AN ESTIMATED QUANTITY OF 24 HOURS HAS BEEN INCLUDED ON THE TRAFFIC SIGNAL SUB-SUMMARY, FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 625 - POWER SUPPLY FOR TRAFFIC SIGNAL

ELECTRIC POWER SHALL BE OBTAINED FROM OHIO EDISON COMPANY AT THE LOCATIONS INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 120 VOLTS.

OHIO EDISON COMPANY
111 CASCADE PLAZA
AKRON, OHIO 44308
(330) 384-5095

SIGN LOCATIONS

SIGN LOCATIONS OF EXISTING AND PROPOSED SIGNS ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR PRIOR TO ERECTION OF ALL SIGN SUPPORTS (POSTS, BEAMS, AND OVERHEADS) SHALL STAKE THE PROPOSED LOCATION, INCLUDING OFFSET. OVERHEAD SUPPORT LOCATIONS SHALL ALSO INCLUDE FOUNDATION ELEVATIONS. THE ENGINEER SHALL APPROVE ALL SUPPORT LOCATIONS AND MAY ADJUST THE LOCATION TO CORRECT SLOPE AND SUBSURFACE DIFFICULTIES, SIGN SIGHT DISTANCE OBSTRUCTIONS, IMPROVE SAFETY AND ELIMINATE OVERHEAD OBSTACLES.

ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND STORAGE

IN ADDITION TO THE REQUIREMENTS OF 630.12, ALL SIGNS REMOVED SHALL BE STORED ON PROJECT SITE FOR PICKUP BY THE CITY OF MASSILLON.

ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE

IN ADDITION TO THE REQUIREMENTS OF 630.12, ALL POST SUPPORTS REMOVED SHALL BE STORED ON PROJECT SITE FOR PICKUP BY THE CITY OF MASSILLON.

ITEM 630 - REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE

IN ADDITION TO THE REQUIREMENTS OF 630.12, ALL BEAM SUPPORTS REMOVED SHALL BE STORED ON PROJECT SITE FOR PICKUP BY THE CITY OF MASSILLON.

ITEM 630 - SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN

SIGNS MOUNTED ON SIGNAL MAST ARMS ARE TO BE RIGID MOUNTED PER ODOT STANDARD CONSTRUCTION DRAWING TC-16.20M.

ITEM 632 - POWER CABLE, 3-CONDUCTOR NO. 6 AWG. AS PER PLAN

THE SERVICE FEE CHARGED BY OHIO EDISON COMPANY FOR ELECTRICAL HOOK-UP AT EACH INTERSECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THESE FEES ARE INCIDENTAL TO THE CONTRACT BID PRICE PER LINEAR FOOT OF ITEM 632 - POWER CABLE, 3-CONDUCTOR NO 6. AWG., AS PER PLAN

ITEM 632 - LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 632 AND 732.07 OR 732.08, LOOP DETECTOR UNITS SHALL HAVE THE FOLLOWING REQUIREMENTS OR FEATURES.

THE OUTPUT DEVICE SHALL BE A RELAY, AND ALL CONTACT SHALL BE INCLUDED IN THE WIRING HARNESS.

THE UNIT'S ELECTRICAL CONNECTION PLUGS OR WIRING HARNESS SHALL ALLOW READY REPLACEMENT WITH A SINGLE CHANNEL AMPLIFIER AS DESCRIBED IN THE FINAL PARAGRAPH OF 732.07.

ITEM 632 - VEHICULAR SIGNAL HEAD, (BY TYPE), POLYCARBONATE, AS PER PLAN

SECTION 732.01 OF THE SPECIFICATIONS IS MODIFIED FOR THIS PROJECT AS FOLLOWS:

- A) SIGNAL HEADS SHALL BE CONSTRUCTED OF POLYCARBONATE PLASTIC, HAVING A HIGHWAY YELLOW CASING.
- B) PLASTIC LENSES SHALL BE USED.
- C) PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.
- D) PIPE, SPACER, AND FITTINGS SHALL BE CONSTRUCTED OF GALVANIZED STEEL OR ALUMINUM MATERIAL.
- E) SIGNALS ATTACHED TO MAST ARMS SHALL USE RIGID MOUNTING FIXTURES AS SHOWN ON TC-85.20M.

ITEM 633 - CONTROLLER, ACTUATED, THREE PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN

THE CONTRACTOR SHALL FURNISH AND INSTALL AN ACTUATED, SOLID STATE DIGITAL MICROPROCESSOR CONTROLLER WITH MENU DRIVEN PROMPTS, INTERNAL TBC AND ALL OTHER DESIGN FEATURES, AUXILIARY EQUIPMENT AND ACCESSORIES THAT ARE NECESSARY TO MAKE THE CONTROLLER COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS.

THE CONTROLLER SHALL BE AN EPAC, AS MANUFACTURED BY EAGLE SIGNAL CORPORATION, 8004 CAMERON ROAD, AUSTIN, TEXAS 78753

THE CONTROLLER AND RELATED EQUIPMENT SHALL CONFORM TO ODOT SPECIFICATIONS 633 AND 733 AND THE FOLLOWING FEATURES SHALL BE PROVIDED:

1. THE LOAD SWITCHES SHALL PROVIDE INPUT AND OUTPUT INDICATIONS.
2. THE CONFLICT MONITOR SHALL BE CAPABLE OF 6 OR 12 CHANNEL OPERATION, EXTENDED MONITORING, LCD DISPLAY, RS-232 PORT AND FAULT/EVENT STORAGE AND REPORTING.
3. THE FOLLOWING SWITCHES SHALL BE ACCESSIBLE VIA THE POLICE PANEL DOOR:
- A. SIGNAL SHUTDOWN
- B. FLASH CONTROL
- C. MANUAL SWITCH AND DETACHABLE PUSHBUTTON WITH 10' CORD
4. THE FOLLOWING SWITCHES SHALL BE MOUNTED ON THE SWITCH PANEL IN THE CABINET:
- A. RUN/STOP TIMING
- B. CONTROLLER TIMER POWER
- C. DETECTOR TEST
- D. PEDESTRIAN TEST
5. A SERVICE LAMP WITH DOOR ACTIVATED ON/OFF SWITCH.
6. THE CABINET EXTERIOR SHALL BE BARE METALLIC ALUMINUM.

(CONTINUED ON NEXT SHEET)

ITEM 633 - CONTROLLER, ACTUATED, 3 PHASE, SOLID STATE DIGITAL
MICROPROCESSOR, AS PER PLAN (CONT.)

7. THE CONTRACTOR SHALL FURNISH FOR APPROVAL A CABINET PLAN
SHOWING COMPONENT PLACEMENT.

PAYMENT FOR ITEM 633 - CONTROLLER, ACTUATED, 3 PHASE, SOLID STATE
DIGITAL MICROPROCESSOR, AS PER PLAN WILL BE MADE AT THE CONTRACT UNIT
PRICE FOR THE CONTROLLER IN PLACE, INCLUDING PRE-WIRED CABINET,
ACCESSORIES, AND ALL CONNECTIONS COMPLETELY INSTALLED, WIRED, TESTED,
AND ACCEPTED.

d:\Proj3\7044800\Traffic\70448TGA.dwg User: cab05502 Jan 28, 2000 - 10:49am

GENERAL SUMMARY

SHEET NUMBER									PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN SHEET REF.
	68	77	78			84	88	92									
	480											603		480	LIN. FT.	4" CONDUIT, TYPE E	
	24											614		24	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
		2				4	3	3				625		12	EACH	GROUND ROD	
						2	4	3				625		9	EACH	PULL BOX, 713.08, 18"	
						1	1	1				625		3	EACH	PULL BOX, 713.08, 24"	
						229.5	351	251				625		832	LIN. FT.	TRENCH	
						85.5	38	33				625		157	LIN. FT.	TRENCH IN PAVED AREAS, TYPE B	
							43	12				625		55	LIN. FT.	CONDUIT, 2", 713.04	
						187	268	174				625		629	LIN. FT.	CONDUIT, 3", 713.04	
						28	83	106				625		217	LIN. FT.	CONDUIT, 3", 713.07	
		244.5	267.5									630		512	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 2 POST	
		56.5	44									630		101	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 3 POST	
			43									630		43	LIN. FT.	GROUND MOUNTED SUPPORT, W8 x 18 BEAM	
		28	28									630		56	LIN. FT.	ONE WAY SUPPORT, NO. 3 POST	
		1										630		1	EACH	SPAN WIRE SIGN SUPPORT, TYPE TC-17.10M, DESIGN 4	
		7	2									630		9	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	68
		200.75	80									630		281	SQ. FT.	SIGN, FLAT SHEET, TYPE G	
			2									630		2	EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION	
		2										630		2	EACH	SPAN WIRE SIGN SUPPORT FOUNDATION	
		8	5									630		13	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	
												630					
		13	10									630		23	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
			1									630		1	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	
		12	11									630		23	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE	
			2									630		2	EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE	
						8	5	5				632		18	EACH	VEHICULAR SIGNAL HEAD, 3-SECTION, 12 INCH LENS, ONE-WAY, POLYCARBONATE, AS PER PLAN	68
							1	1				632		2	EACH	VEHICULAR SIGNAL HEAD, 5-SECTION, 12 INCH LENS, ONE-WAY, POLYCARBONATE, AS PER PLAN	68
						3	2	3				632		8	EACH	LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, AS PER PLAN	68
						3	2	3				632		8	EACH	DETECTOR LOOP	
						3	2	2				632		7	EACH	SIGNAL SUPPORT FOUNDATION	
								1				632		1	EACH	SIGNAL SUPPORT, TYPE TC-81.20M, DESIGN 2	
						1						632		1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.20M, DESIGN 2	
						1	1					632		2	EACH	SIGNAL SUPPORT, TYPE TC-81.20M, DESIGN 12	
												632		1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.20M, DESIGN 12	
							1	1				632		2	EACH	SIGNAL SUPPORT, TYPE TC-12.30M DESIGN 5 POLE, WITH MAST ARMS TC-81.20M DESIGN 4 AND TC-81.20M DESIGN 11	
						1	2	2				632		5	EACH	CONDUIT RISER, 2" DIAMETER	
						641	491	751				632		1883	LIN. FT.	SIGNAL CABLE, 5-CONDUCTOR NO.14 AWG	
							305	208				632		513	LIN. FT.	SIGNAL CABLE, 7-CONDUCTOR NO.14 AWG	
							125	50				632		175	LIN. FT.	INTERCONNECT CABLE, 6 PAIR, NO. 19 AWG, SOLID, REA (PE-38)	
							485					632		485	LIN. FT.	INTERCONNECT CABLE, INTEGRAL MESSENGER WIRE TYPE, 6 PAIR, NO. 19 AWG, SOLID, REA (PE-38)	

TRAFFIC CONTROL GENERAL SUMMARY

SR. 21/ERIE STREET
CITY OF MASSILLON

CALCULATED
T.K.L.
CHECKED
E.W.S.

GENERAL SUMMARY

[illegible]

J:\Proj3\7044800\Traffic\70448TGB.dwg User: cab05502 Jan 28, 2000 - 8:07am

**S.R. 2/ERIE STREET
CITY OF MASSILLON**

TRAFFIC CONTROL GENERAL SUMMARY

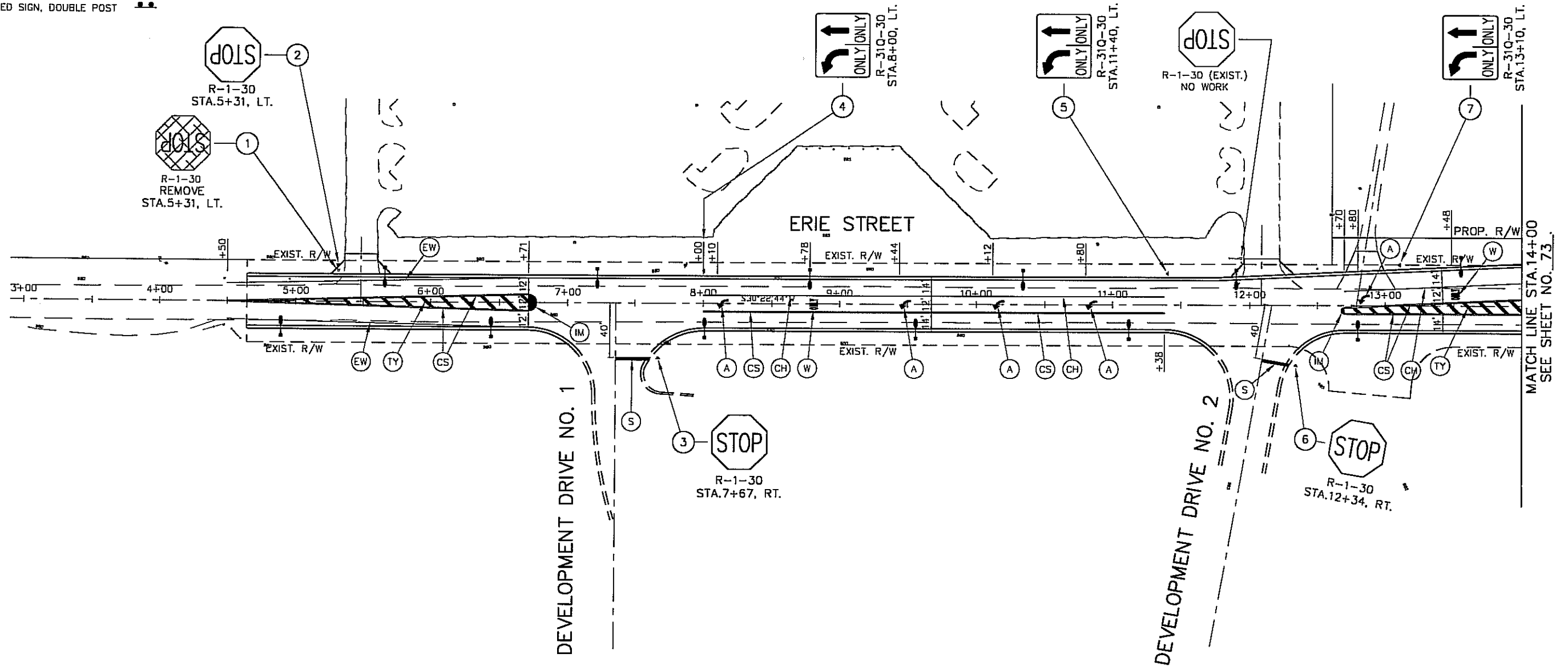
CALCULATED	T.K.E.	CHECKED
------------	--------	---------

SIGN LEGEND

NEW	
EXISTING, TO REMAIN	
EXISTING, TO BE REERECTED	
EXISTING, TO BE REMOVED	
EXISTING SIGN, SINGLE POST	
EXISTING SIGN, DOUBLE POST	
PROPOSED SIGN, SINGLE POST	
PROPOSED SIGN, DOUBLE POST	

PAVEMENT MARKING LEGEND

(EW) EDGE LINE, WHITE, TYPE 1	(TY) TRANSVERSE LINE, TYPE 1(YELLOW), 12' C/C
(EY) EDGE LINE, YELLOW, TYPE 1	(TW) TRANSVERSE LINE, TYPE 1(WHITE), 12' C/C
(L) LANE LINE, TYPE 1	(IM) ISLAND MARKING, YELLOW, TYPE 1
(CS) CENTER LINE, TYPE 1, DOUBLE, SOLID	(A) LANE ARROW, TYPE 1
(CH) CHANNELIZING LINE, TYPE 1	(W) WORD ON PAVEMENT, 72", TYPE 1
(S) STOP LINE, TYPE 1	(DW) DOTTED LINE, 4 INCH, WHITE, TYPE 1
	(DY) DOTTED LINE, 4 INCH, YELLOW, TYPE 1

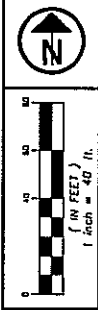


FOR SIGNING QUANTITIES
SEE SHEET NO. 77-78.

FOR PAVEMENT MARKING QUANTITIES
SEE SHEET NO. 79-80.

SEE SHEET NO. 73
MATCH LINE STA.24+00

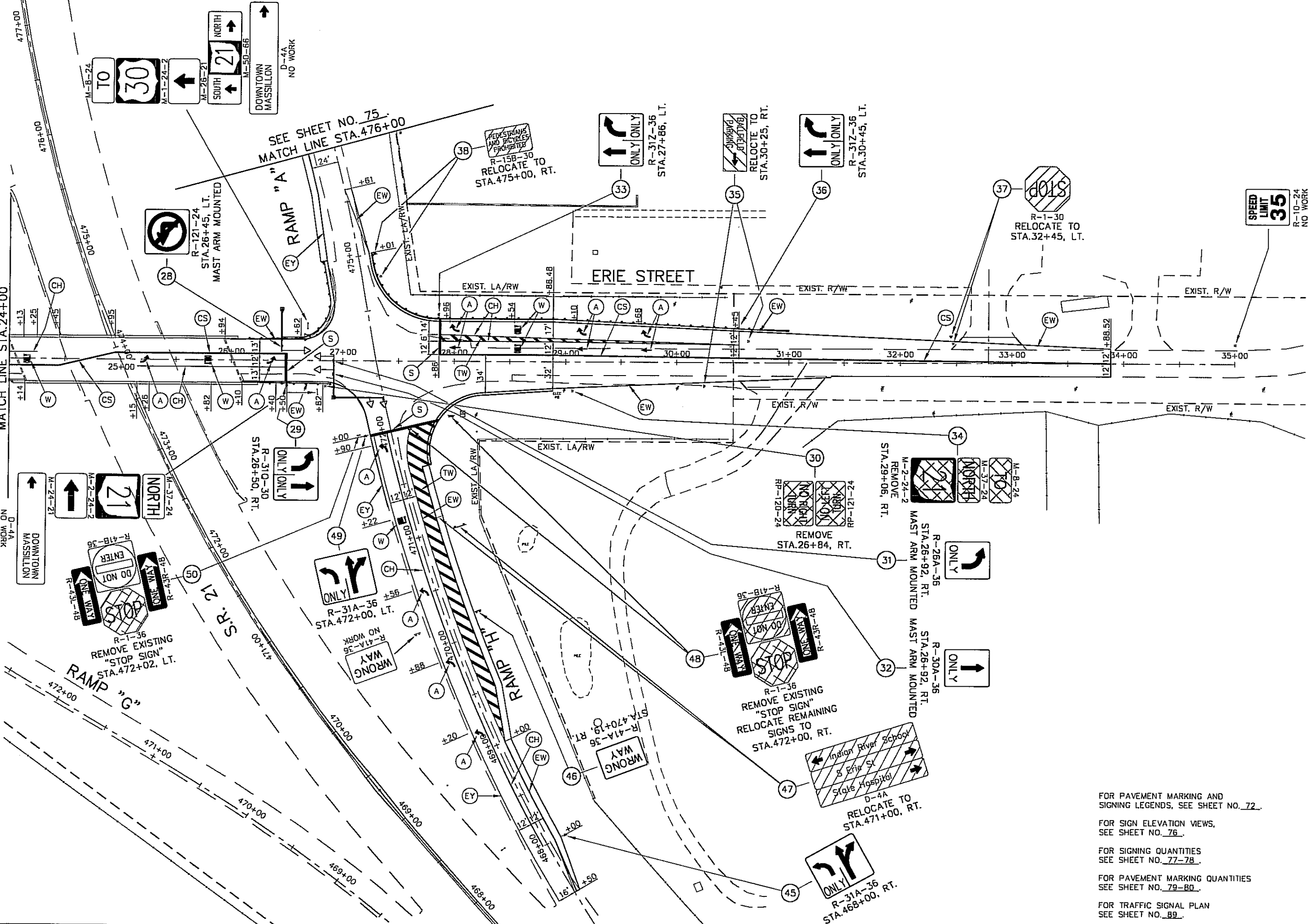
SEE SHEET NO. 75
MATCH LINE STA.476+00



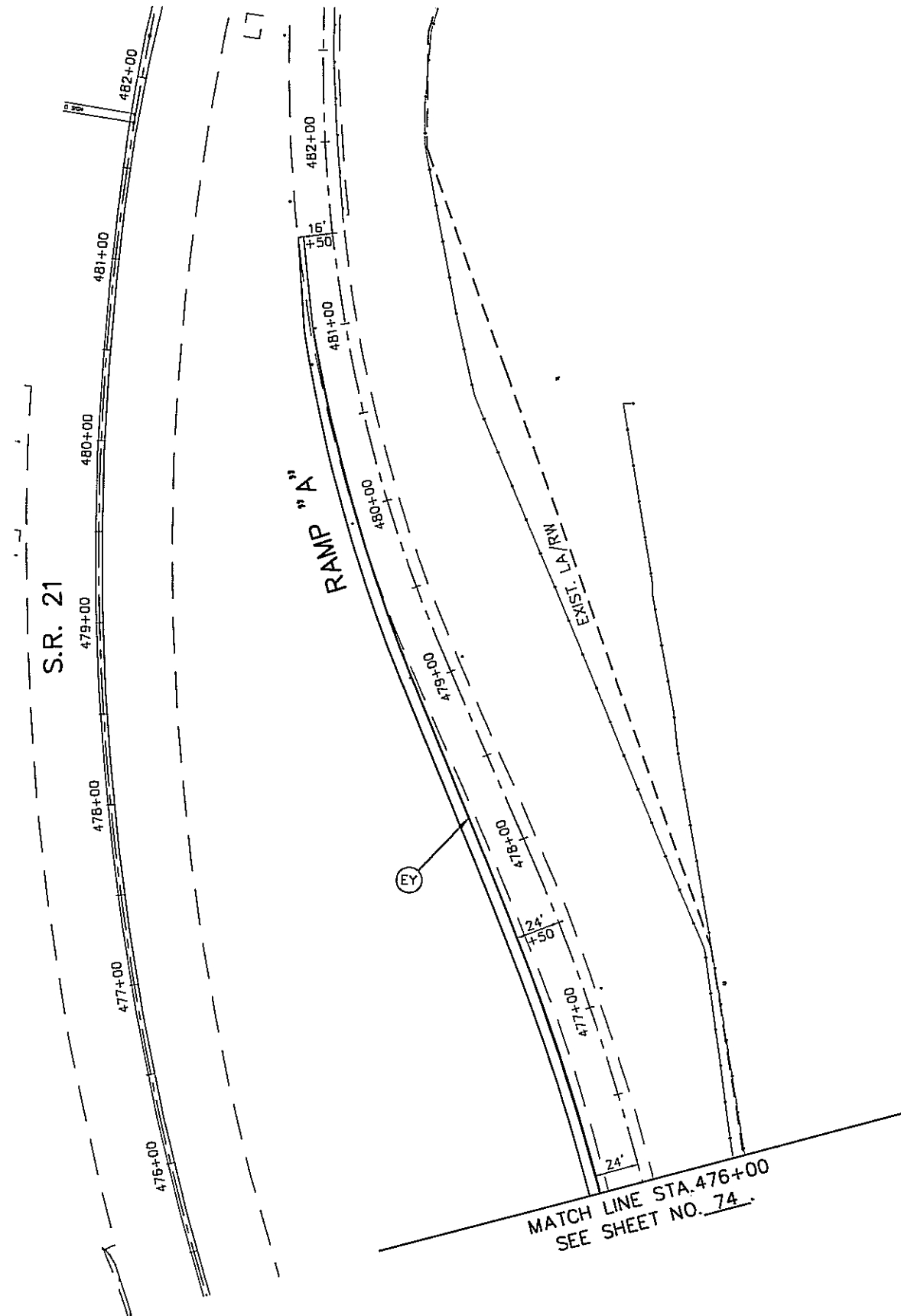
CALCULATED
T.K.L.
CHECKED
E.W.S.

SIGNING AND PAVEMENT MARKING PLAN
STA.24+00 TO STA.35+00

SR. 21/ERIE STREET
CITY OF MASSILLON



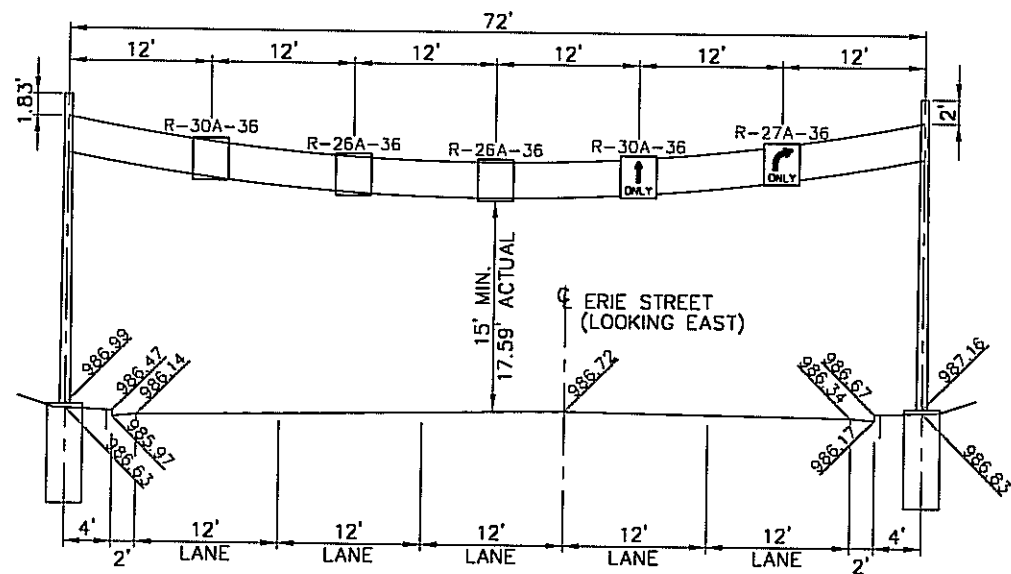
FOR PAVEMENT MARKING AND
SIGNING LEGENDS, SEE SHEET NO. 72.
FOR SIGN ELEVATION VIEWS,
SEE SHEET NO. 76.
FOR SIGNING QUANTITIES
SEE SHEET NO. 77-78.
FOR PAVEMENT MARKING QUANTITIES
SEE SHEET NO. 79-80.
FOR TRAFFIC SIGNAL PLAN
SEE SHEET NO. 89.



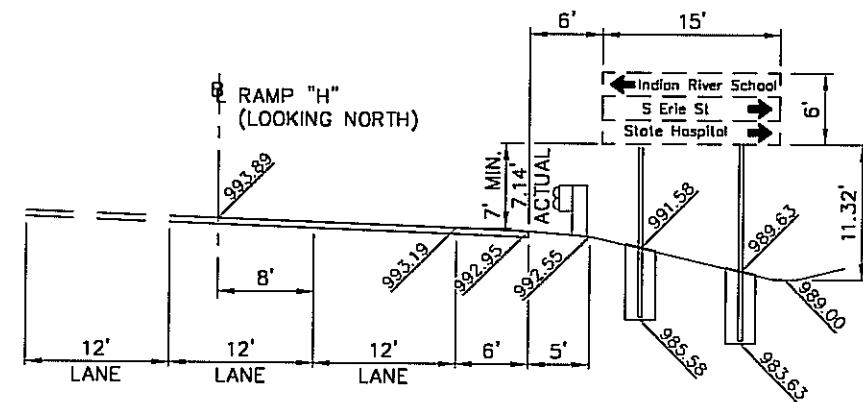
FOR PAVEMENT MARKING AND
SIGNING LEGENDS, SEE SHEET NO. 72.

FOR SIGNING QUANTITIES
SEE SHEET NO. 77-78.

FOR PAVEMENT MARKING QUANTITIES
SEE SHEET NO. 79-80.



OVERHEAD SIGN SUPPORT NO. (15)
STA. 19+00 @ ERIE STREET
TYPE TC-17.10M
DESIGN 4
LEFT POLE = 26'
RIGHT POLE = 26'



GROUND MOUNTED SUPPORT NO. (47)
STA. 471+00, 37' RT.
BEAM TYPE = W8 x 18
LEFT BEAM = 20.5'
RIGHT BEAM = 22.45'

CALCULATED	T.K.I.
CHECKED	E.W.S.

SIGNING SUBSUMMARY

**S.R. 21/ERIE STREET
CITY OF MASSILLON**

J:\Proj3\7044B00\Traffic\7044BTSB.dwg User: cab05302 Jan 28, 2000 - 8:11am

SIGNING SUB-SUMMARY

						ITEM NUMBERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
SHEET NO.	REFERENCE NO.	STATION	SIDE	CODE	SIZE (INCHES)	630																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
						GROUND-MOUNTED SUPPORT, NO. 2 POST	GROUND-MOUNTED SUPPORT, NO. 3 POST	GROUND-MOUNTED SUPPORT, W8 x 18 BEAM	ONE WAY SUPPORT, NO. 3 POST		SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN		SIGN, FLAT SHEET, TYPE G		GROUND MOUNTED BEAM SUPPORT FOUNDATION		REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	REMOVAL OF GROUND MOUNTED SIGN AND RECRECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND RECRECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

SIGNING SUBSUMMARY

S.R. 21/ERIE STREET
CITY OF MASSILLON

CALCULATED
T.K.L.
CHECKED
E.W.S.

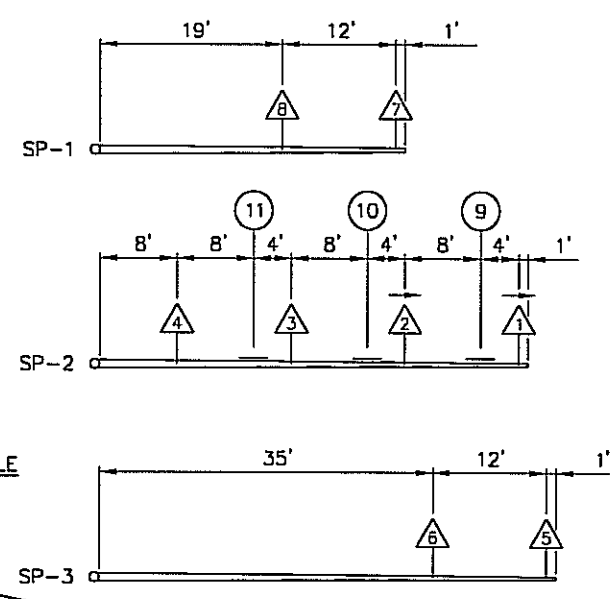
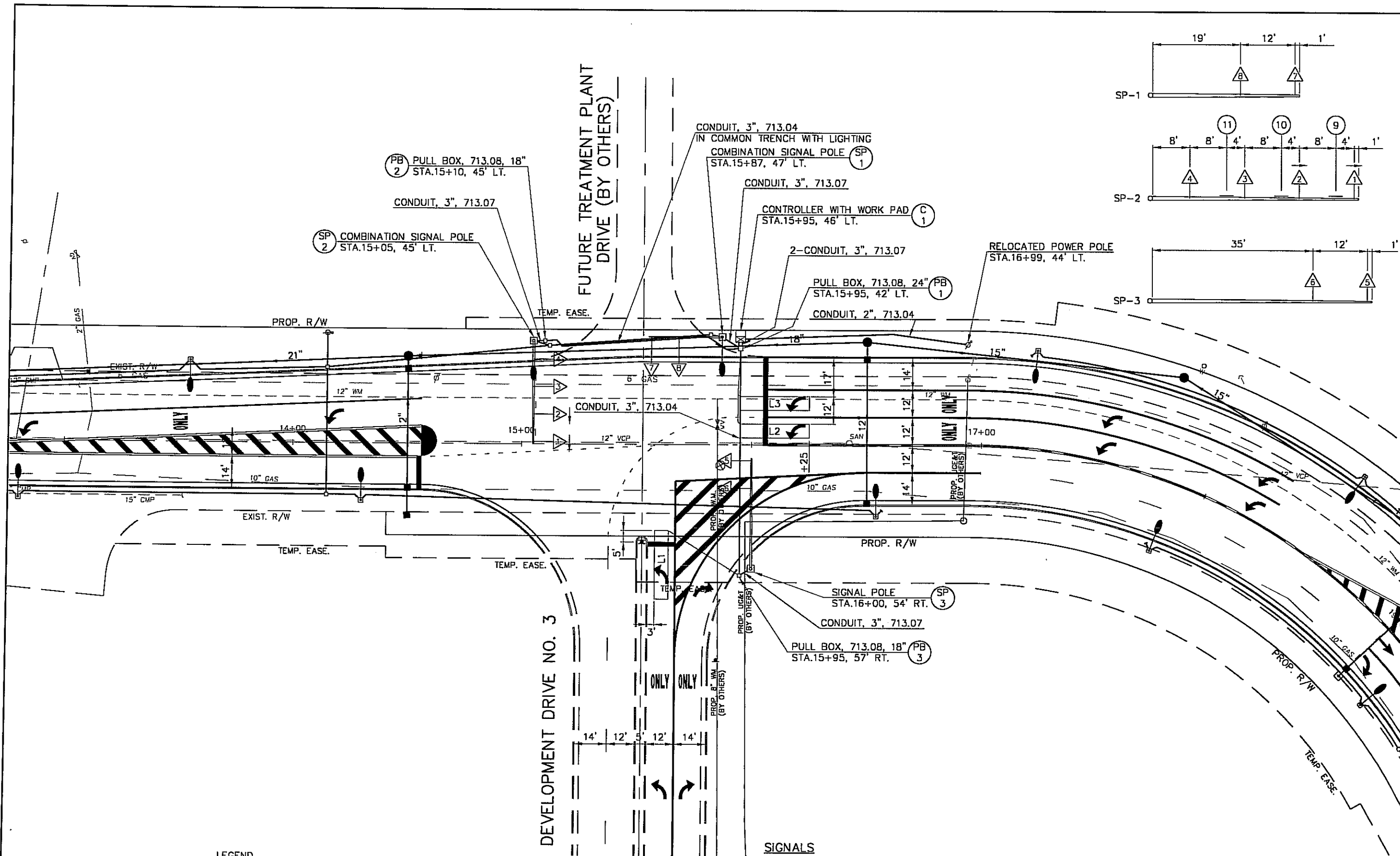
78
102

PAVEMENT MARKING SUB-SUMMARY

						ITEM NUMBERS					
						642					
SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	EDGE LINE, WHITE, TYPE 1	EDGE LINE, YELLOW, TYPE 1	LANE LINE, TYPE 1	CENTER LINE, TYPE 1, DOUBLE, SOLID	CHANNELIZING LINE, TYPE 1	STOP LINE, TYPE 1
			FROM	TO		L.F.	L.F.	L.F.	L.F.	L.F.	L.F.
72	EW	ERIE STREET	4+50	6+71 (x2)	LT/RT	442					
73	EW	RAMP "B"	474+89.3	478+50	LT.	361					
73	EY	RAMP "B"	23+16.5 ERIE	478+50	RT.		472				
73	EW	RAMP "G"	474+04	475+00	R	96					
73	EY	RAMP "G"	474+04	23+23 ERIE	RT.		180				
73	EW	ERIE STREET	23+16.5	23+98	LT.	82					
73-74	EW	ERIE STREET	23+23	24+14	RT.	91					
74	EW	ERIE STREET	25+94	26+62	LT.	68					
74	EW	ERIE STREET	26+10	26+82	RT.	72					
74-75	EY	RAMP "A"	26+62 ERIE	481+50	LT.		738				
74	EW	RAMP "A"	475+01	475+61	LT.	60					
74	EY	RAMP "H"	467+50	26+82 ERIE	LT.		450				
74	EW	RAMP "H"	467+50	28+88 ERIE	RT.	450					
74	EW	ERIE STREET	475+01 "A"	33+88	LT.	344					
74	EW	ERIE STREET	28+88.48	33+88	RT.	500					
73	L	DEVELOPMENT DRIVE NO.3	-	-	LT.			150			
73	L	ERIE STREET	17+00	19+00	RT.			200			
73	L	ERIE STREET	18+30	21+50	LT.			320			
-	CS	ERIE STREET	4+50	33+88	LT/RT				2939		
72	CS	ERIE STREET	4+50	6+71	LT.				221		
72-73	CS	ERIE STREET	12+70	14+56	LT.				186		
73	CS	ERIE STREET	18+50	21+90	LT.				340		
72	CH	ERIE STREET	8+00	11+38	LT.					338	
72-73	CH	ERIE STREET	12+70	14+56	LT.					186	
73	CH	ERIE STREET	15+67	17+00	RT.					133	
73	CH	ERIE STREET	16+05	18+30(X2)	LT.					450	
73	CH	ERIE STREET	19+00	21+90	RT.					290	
73	CH	ERIE STREET	21+50	22+61.43	LT.					111	
73-74	CH	ERIE STREET	23+45	24+25	LT.					80	
74	CH	ERIE STREET	25+15	26+50	RT.					135	
74	CH	ERIE STREET	27+86	30+45(X2)	LT.					518	
73	CH	DEVELOPMENT DRIVE NO.3	-	(X2)	RT.					307	
73	CH	RAMP "B"	21+71.4 ERIE	478+00	LT/RT					446	
73	CH	RAMP "B"	22+61.4 ERIE	474+89.3	RT.					87	
74	CH	RAMP "H"	468+00	472+00	LT.					400	
72	S	DEVELOPMENT DRIVE NO.1	-	-	RT.						26
72	S	DEVELOPMENT DRIVE NO.2	-	-	RT.						20
73	S	DEVELOPMENT DRIVE NO.3	-	-	RT.						12
73	S	ERIE STREET	14+56	-	RT.						14
73	S	ERIE STREET	16+05	-	LT.						38
73	S	ERIE STREET	21+90	-	RT.						26
73	S	ERIE STREET	23+45	-	LT.						25
73	S	RAMP "B"	474+30	-	RT.						15
74	S	ERIE STREET	26+50	-	RT.						25
74	S	ERIE STREET	27+86	-	LT.						32
74	S	RAMP "H"	472+00	-	LT/RT						63
SUB-TOTAL						2566	1840				
TOTAL						4406	670	3686	3481	296	
TOTAL (MILE)						0.83	0.13	0.70	-	-	

						ITEM NUMBERS				
						642				
						TRANSVERSE LINE, TYPE 1, YELLOW	TRANSVERSE LINE, TYPE 1, WHITE	ISLAND MARKING, YELLOW, TYPE 1	LANE ARROW, TYPE 1	
SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	L.F.	L.F.	S.F.	EACH	
			FROM	TO		L.F.	L.F.	S.F.	EACH	
72	TY	ERIE STREET	4+50	6+71	LT/RT	110				
72-73	TY	ERIE STREET	12+70	14+56	LT/RT	174				
73	TY	ERIE STREET	18+50	21+90	LT.	416				
73	TW	ERIE STREET	15+67	16+49	RT.		153			
73	TW	ERIE STREET	21+71.4	22+61.43	LT.		224			
74	TW	ERIE STREET	27+86	30+45	LT.		71			
74	TW	RAMP "H"	469+00	472+00	RT.		463			
72	IM	ERIE STREET	6+71	-	℄			56.5		
72	IM	ERIE STREET	12+70	-	RT.			45		
73	IM	ERIE STREET	14+56	-	℄			71		
73	IM	ERIE STREET	21+90	-	LT.			56.5		
72	A	ERIE STREET	8+10	-	℄				1	
72	A	ERIE STREET	9+44	-	℄				1	
72	A	ERIE STREET	10+12	-	℄				1	
72	A	ERIE STREET	10+80	-	℄				1	
72	A	ERIE STREET	12+80	-	LT.				1	
73	A	ERIE STREET	14+14	-	LT.				1	
73	A	ERIE STREET	16+15	-	LT.				2	
73	A	ERIE STREET	17+49	-	LT.				2	
73	A	ERIE STREET	18+17	-	LT.				2	
73	A	ERIE STREET	19+10	-	RT.				2	
73	A	ERIE STREET	19+78	-	RT.				2	
73	A	ERIE STREET	20+46	-	RT.				2	
73	A	ERIE STREET	21+80	-	RT.				2	
73	A	ERIE STREET	23+55	-	℄				1	
74	A	ERIE STREET	25+26	-	℄				1	
74	A	ERIE STREET	26+40	-	℄				1	
74	A	ERIE STREET	27+96	-	LT.				2	
74	A	ERIE STREET	29+10	-	LT.				2	
74	A	ERIE STREET	29+68	-	LT.				2	
73	A	DEVELOPMENT DRIVE NO.3	-	-	RT.				4	
73	A	RAMP "B"	474+90	-	℄				1	
73	A	RAMP "B"	476+24	-	℄				1	
73	A	RAMP "B"	476+92	-	℄				1	
74	A	RAMP "H"	469+20	-	LT.				1	
74	A	RAMP "H"	469+88	-	LT.				1	
74	A	RAMP "H"	470+56	-	LT.				1	
74	A	RAMP "H"	471+90	-	LT.				1	
SUB-TOTAL						700	911			
TOTAL						1611		229	40	
TOTAL (MILE)						-		-	-	

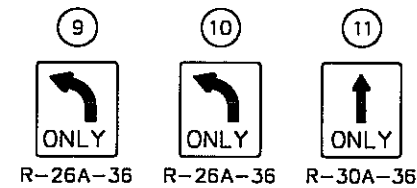
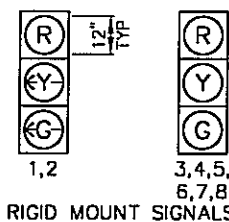
[illegible]



LEGEND

- SIGNAL POLE
- GROUND MOUNTED CONTROLLER W/WORK PAD
- PULL BOX
- VEHICULAR SIGNAL 3-SECTION
- VEHICULAR SIGNAL 3-SECTION WITH ARROW LENS
- LOOP DETECTOR
- CONDUIT

SIGNALS



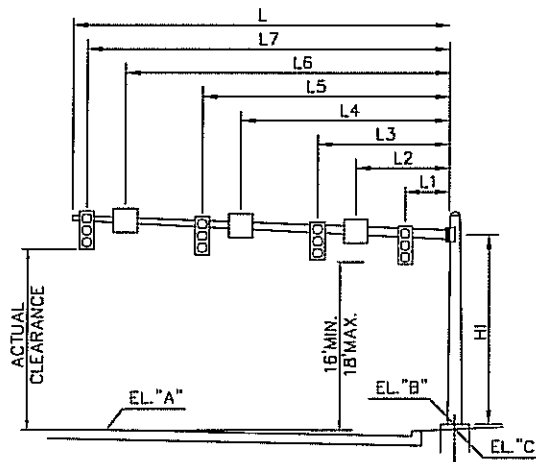
FOR SIGNING AND PAVEMENT MARKING PLAN, SEE SHEET NO. 73.

FOR PHASING, TIMING, POLE AND DETECTOR CHART, SEE SHEET NO. 82.

FOR WIRING DIAGRAM, SEE SHEET NO. 83.

FOR SIGNAL QUANTITIES, SEE SHEET NO. 84.

INTERVAL OR FEATURE		NEMA PHASE NO.							
		1	2	3	4	5	6	7	8
INTERSECTION MOVEMENT		WBLT	EB		NB		WB		
MINIMUM GREEN (INITIAL)	(SEC.)	4.0	4.0		4.0		4.0		
ADDED INITIAL	(SEC.)	16.0	16.0		16.0		16.0		
PASSAGE TIME (PRESET GAP)	(SEC.)	3.0	3.0		3.0		3.0		
TIME BEFORE REDUCTION	(SEC.)	0.0	0.0		0.0		0.0		
MINIMUM GAP	(SEC.)	0.0	0.0		0.0		0.0		
TIME TO REDUCE	(SEC.)	0.0	0.0		0.0		0.0		
MAXIMUM GREEN I	(SEC.)	29.0	38.0		23.0		67.0		
MAXIMUM GREEN II	(SEC.)								
YELLOW CHANGE	(SEC.)	3.0	3.0		3.0		3.0		
ALL RED CLEARANCE	(SEC.)	1.0	1.0		1.0		1.0		
WALK	(SEC.)	0.0	0.0		0.0		0.0		
PEDESTRIAN CLEARANCE	(SEC.)	0.0	0.0		0.0		0.0		
RECALL	MAXIMUM (ON/OFF)	OFF	OFF		OFF		OFF		
	MINIMUM (ON/OFF)	ON	ON		OFF		ON		
	PEDESTRIAN (ON/OFF)	OFF	OFF		OFF		OFF		
MEMORY (ON/OFF)		ON	OFF		OFF		OFF		
CALL TO NON-ACTUATED	NO.1								
	NO.2								

[illegible][illegible]

NOTES:
1) ALL ANGLES MEASURED CLOCKWISE.
2) BASE PLATE IS ORIENTED SQUARE TO MAST ARM "A" (LARGEST ARM) EVEN IF SUPPORT HAS TWO MAST ARMS.

The diagram shows a vertical line representing the mast arm 'A' and a horizontal line representing the track. An arrow at the top right points to the right, labeled 'INCREASING STATIONS'. A 90° angle is indicated between the vertical mast arm and the horizontal track line. The mast arm 'A' is shown at an angle to the vertical, with an arc indicating the 'ORIENTATION ANGLES'. The mast arm is labeled 'MAST ARM "A"' and 'ORIENTATION ANGLE'.

[illegible]

J:\Proj3\7044800\Traffic\70448TDD.dwg User: cab05502 Jan 28, 2000 8:12am

2

1

L1

VEHICULAR SIGNAL HEAD, 3-SECTION

VEHICULAR SIGNAL HEAD, 3-SECTION WITH ARROW LENS

LOOP DETECTOR

POWER CABLE, 3-CONDUCTOR NO.6 AWG

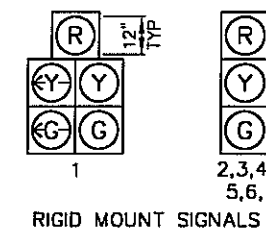
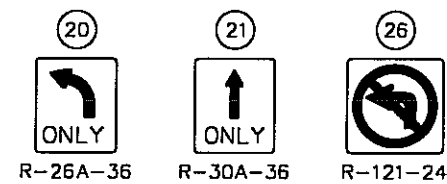
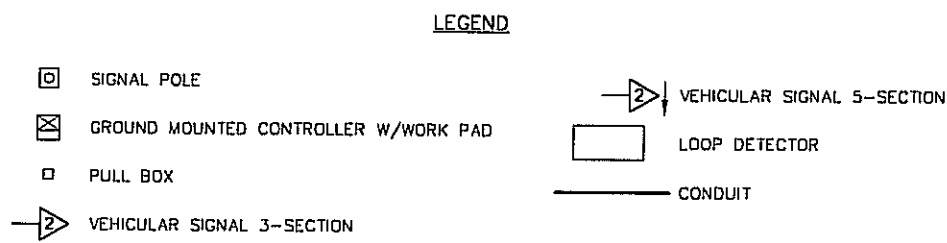
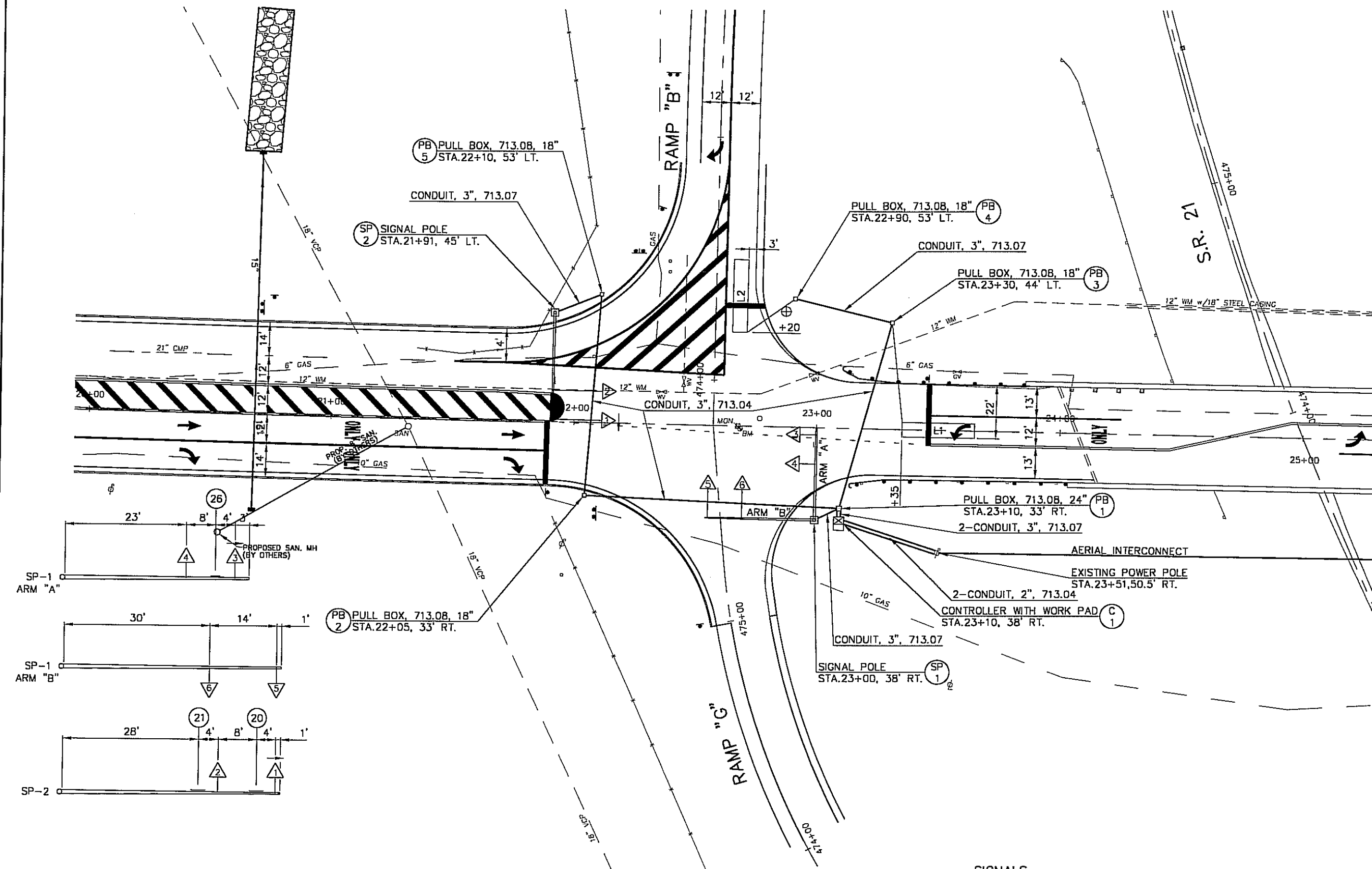
SIGNAL CABLE, 5-CONDUCTOR NO.14 AWG

LOOP DETECTOR LEAD-IN CABLE

CALCULATED TKJ	CHECKED EWS	WIRING DIAGRAM INTERSECTION OF ERIE STREET AND DEVELOPMENT DRIVE NO.3	S.R. 21/ERIE STREET CITY OF MASSILLON	83
				102

CALCULATED	CHECKED
T.K.I.	E.W.S.

CALCULATED	CHECKED
T.K.I.	E.W.S.



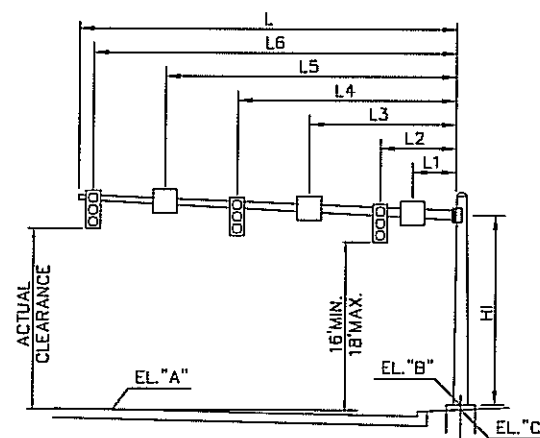
FOR SIGNING AND PAVEMENT MARKING PLAN, SEE SHEET NO. 73.

FOR PHASING, TIMING, POLE AND DETECTOR CHART, SEE SHEET NO. 86.

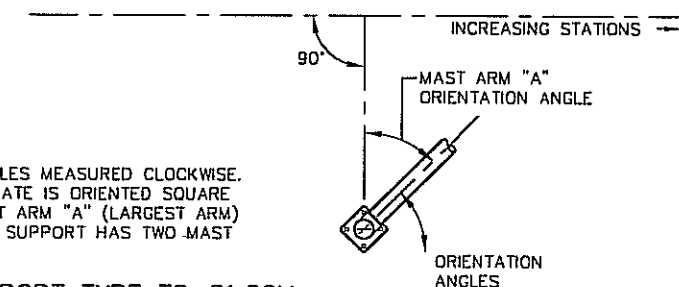
FOR WIRING DIAGRAM, SEE SHEET NO. 87.

FOR SIGNAL QUANTITIES, SEE SHEET NO. 88.

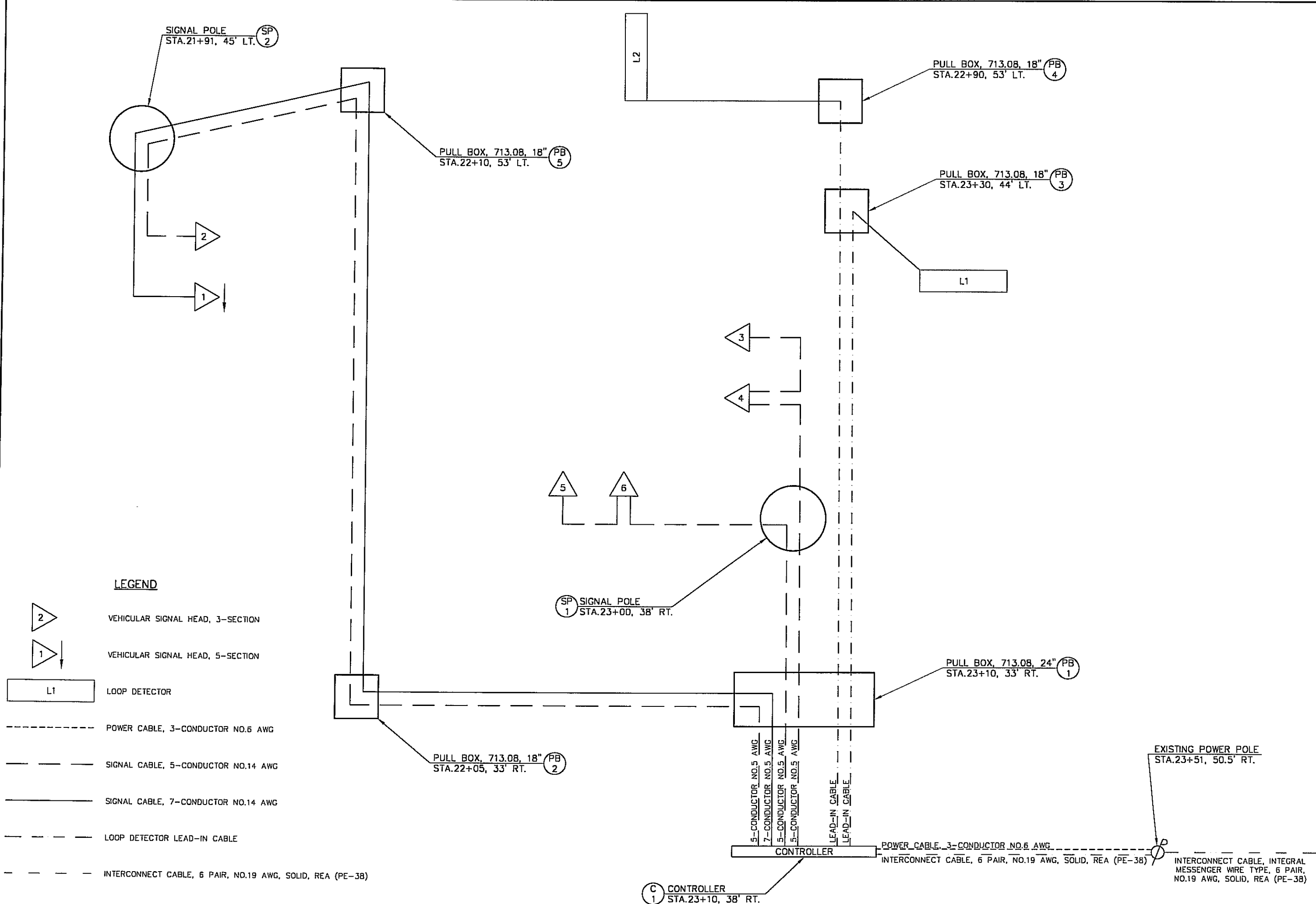
INTERVAL OR FEATURE		NEMA PHASE NO.							
		1	2	3	4	5	6	7	8
INTERSECTION MOVEMENT		WBLT	EB		SB		WB		
MINIMUM GREEN (INITIAL)	(SEC.)	3.0	3.0		3.0		3.0		
ADDED INITIAL	(SEC.)	5.0	17.0		7.0		17.0		
PASSAGE TIME (PRESET GAP)	(SEC.)	3.0	3.0		3.0		3.0		
TIME BEFORE REDUCTION	(SEC.)	0.0	0.0		0.0		0.0		
MINIMUM GAP	(SEC.)	3.0	3.0		3.0		3.0		
TIME TO REDUCE	(SEC.)	0.0	0.0		0.0		0.0		
MAXIMUM GREEN I	(SEC.)	20.0	52.0		18.0		72.0		
MAXIMUM GREEN II	(SEC.)								
YELLOW CHANGE	(SEC.)	3.0	3.0		3.0		3.0		
ALL RED CLEARANCE	(SEC.)	1.0	1.0		1.0		1.0		
WALK	(SEC.)	0.0	0.0		0.0		0.0		
PEDESTRIAN CLEARANCE	(SEC.)	0.0	0.0		0.0		0.0		
RECALL	MAXIMUM (ON/OFF)	OFF	OFF		OFF		OFF		
	MINIMUM (ON/OFF)	OFF	ON		OFF		ON		
	PEDESTRIAN (ON/OFF)	OFF	OFF		OFF		OFF		
MEMORY (ON/OFF)		OFF	OFF		OFF		OFF		
CALL TO NON-ACTUATED	NO.1								
	NO.2								

[illegible]

NOTES:
1) ALL ANGLES MEASURED CLOCKWISE.
2) BASE PLATE IS ORIENTED SQUARE TO MAST ARM "A" (LARGEST ARM) EVEN IF SUPPORT HAS TWO MAST ARMS.

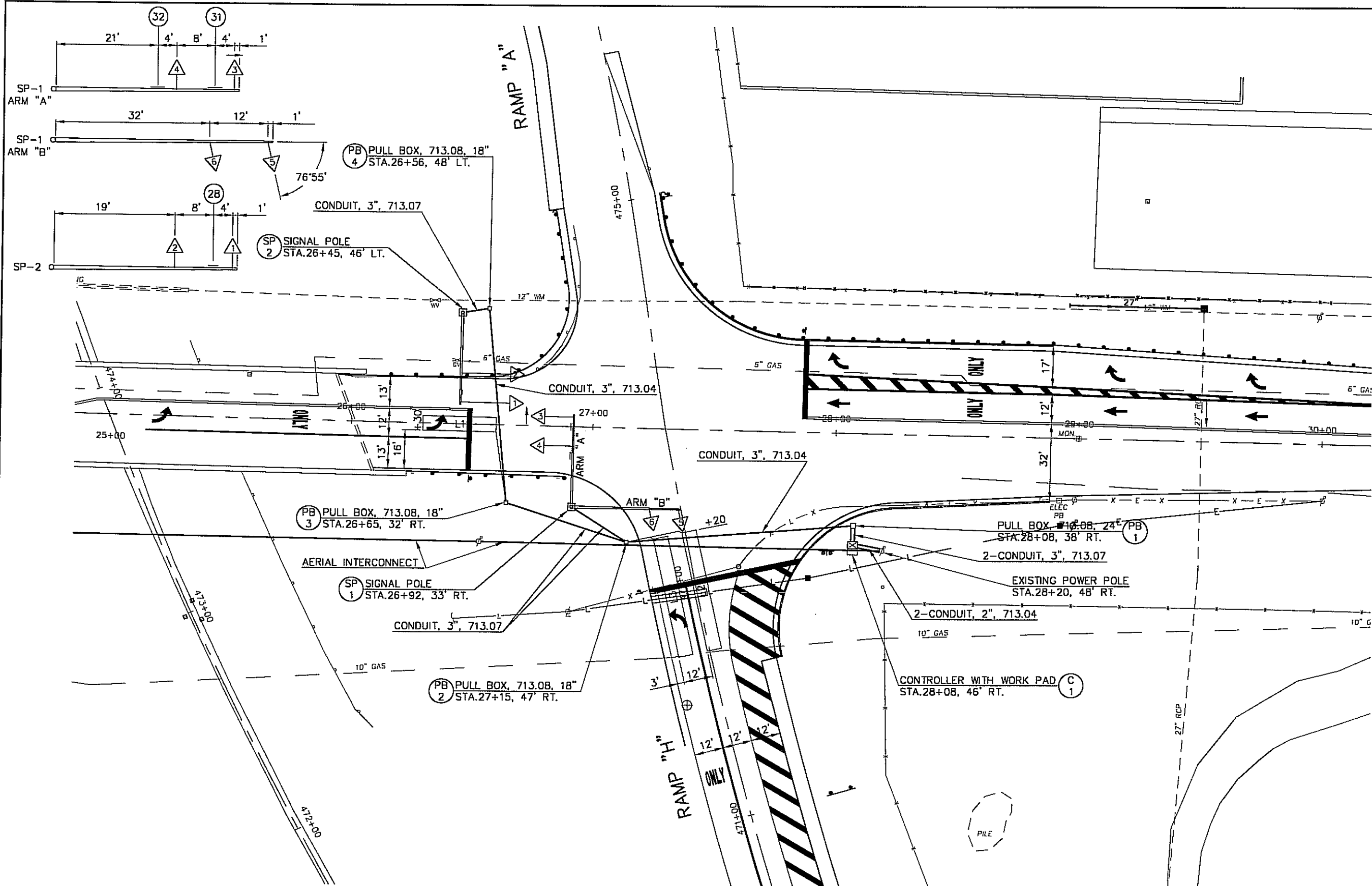
[illegible][illegible]

* - TC-12.30



TRAFFIC SIGNAL QUANTITY SUBSUMMARY

LOCATION				625												632												633																								
SHEET No.	REFERENCE No.	STATION TO STATION	SIDE	GROUND ROD	PULL BOX, TYPE 713.05, 18"	PULL BOX, TYPE 713.05, 24"	TRENCH	TRENCH IN PAVED AREAS, TYPE B	CONDUIT, 2", 713.04	CONDUIT, 3", 713.04	CONDUIT, 3", 713.07	VEHICULAR SIGNAL HEAD, 3-SEC., 12 INCH LENS, ONE-WAY, POLYCARBONATE, AS PER PLAN	VEHICULAR SIGNAL HEAD, 5-SEC., 12 INCH LENS, ONE-WAY, POLYCARBONATE, AS PER PLAN	LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, AS PER PLAN	DETECTOR LOOP		SIGNAL SUPPORT FOUNDATION	SIGNAL SUPPORT, TYPE TC-12.30M DESIGN 5 POLE, WITH MAST ARMS TC-81.20M DESIGN 4 AND TC-81.20M DESIGN 11	SIGNAL SUPPORT, TYPE TC-81.20M, DESIGN 12	CONDUIT RISER, 2" DIA.	SIGNAL CABLE, 5-CONDUCTOR NO.14 AWG	SIGNAL CABLE, 7-CONDUCTOR NO.14 AWG	INTERCONNECT CABLE, 6 PAIR, NO.19 AWG, SOLID, REA (PE-35)	INTERCONNECT CABLE, INTEGRAL MESSENGER WIRE TYPE, 6 PAIR, NO.19 AWG, SOLID, REA (PE-35)	LOOP DETECTOR LEAD-IN CABLE	POWER CABLE, 3-CONDUCTOR NO.6 AWG, AS PER PLAN	POWER SERVICE	COVERING OF VEHICULAR SIGNAL HEAD	CONTROLLER, ACTUATED, 3 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN	CONCRETE FOR CABINET FOUNDATION	CONTROLLER WORK PAD																					
				EACH	EACH	EACH	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	EACH	C.Y.	S.F.																						
85	C-1	23+10	RT.	1																																																
	PB-1	23+10 TO 23+10	RT.			1	5				10																																									
	SP-1	23+10 TO 23+00	RT.	1			11				11						1	1																																		
	PB-2	23+10 TO 22+05	RT.		1		105			105																																										
	PB-5	22+05 TO 22+10	LT.		1		83			83																																										
	SP-2	22+10 TO 21+91	LT.	1			21				21						1		1																																	
	PB-3	23+10 TO 23+30	LT.		1		42	38		80																																										
85	PB-4	23+30 TO 22+90	LT.		1		41				41																																									
		C-1 TO POWER POLE																		1								80	1																							
		INTERCONNECT TO CONTROLLER AT STA.28+08					43		43											1																																
		C-1 TO VEHICULAR SIGNAL NO. 1											1										305																													
		C-1 TO VEHICULAR SIGNAL NO. 2										1										293																														
		C-1 TO VEHICULAR SIGNAL NO. 3 AND 4										2										95																														
		C-1 TO VEHICULAR SIGNAL NO. 5 AND 6										2										103																														
		C-1 TO LOOP DETECTOR L-1												1	1												100																									
		C-1 TO LOOP DETECTOR L-2												1	1											141																										
TOTAL				3	4	1	351	38	43	268	83	5	1	2	2		2		1	1	2	491	305	125	485	241	80	1	6	1	1.85	10.4																				



FOR SIGNING AND PAVEMENT MARKING PLAN, SEE SHEET NO. 74.

FOR PHASING, TIMING, POLE AND DETECTOR CHART, SEE SHEET NO. 90.

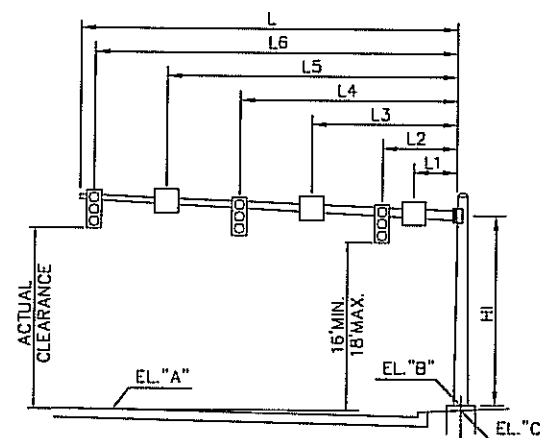
FOR WIRING DIAGRAM, SEE SHEET NO. 91.

FOR SIGNAL QUANTITIES, SEE SHEET NO. 92.

TRAFFIC SIGNAL PLAN - ERIE STREET
INTERSECTION OF ERIE STREET AND RAMPS 'A' AND 'H'

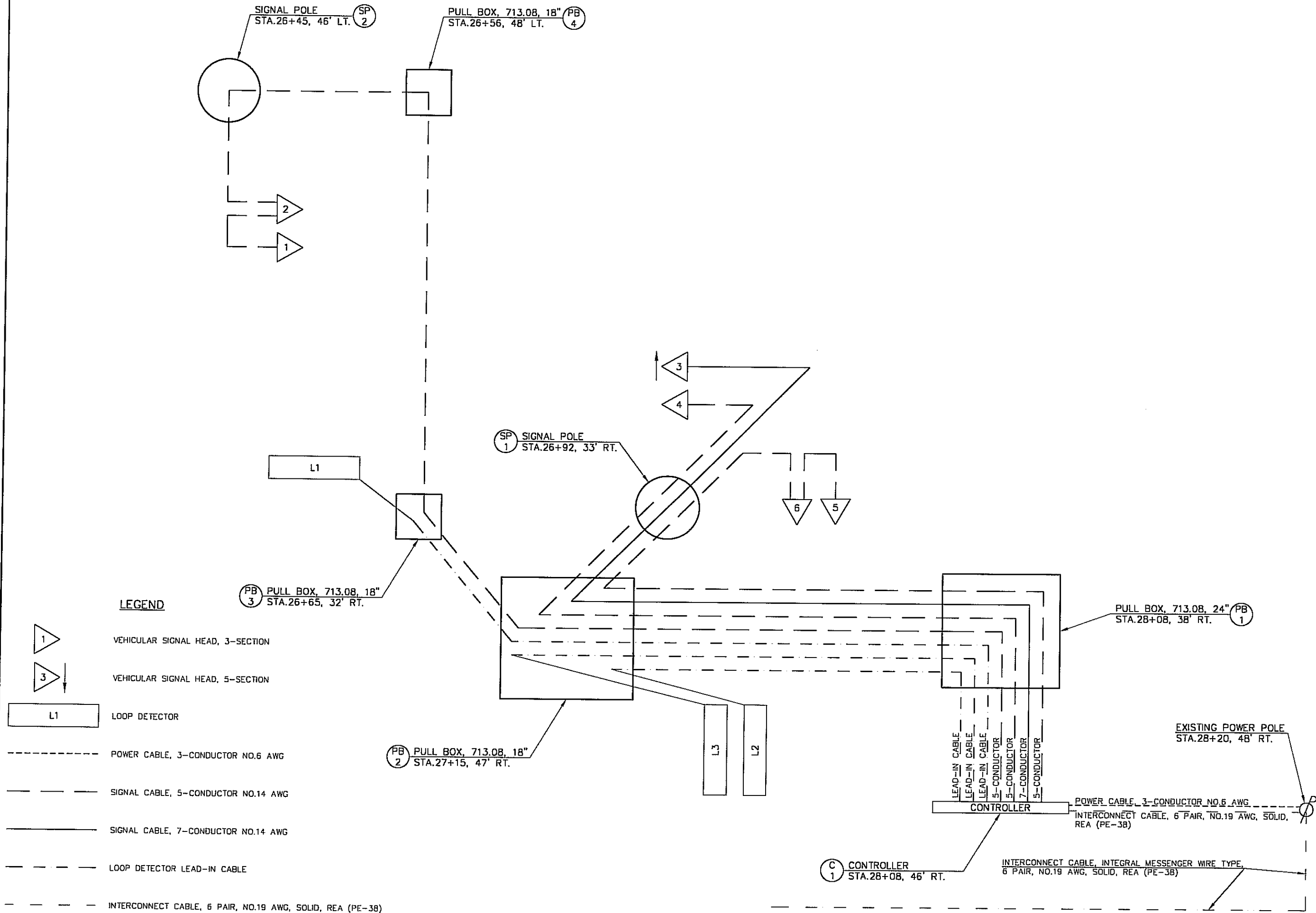
S.R. 21/ERIE STREET
CITY OF MASSILLON

INTERVAL OR FEATURE		NEMA PHASE NO.							
		1	2	3	4	5	6	7	8
INTERSECTION MOVEMENT			EB			EBLT	WB		NB
MINIMUM GREEN (INITIAL) (SEC.)			4.0			4.0	4.0		4.0
ADDED INITIAL (SEC.)			16.0			4.0	16.0		16.0
PASSAGE TIME (PRESET GAP) (SEC.)			3.0			3.0	3.0		3.0
TIME BEFORE REDUCTION (SEC.)			0.0			0.0	0.0		0.0
MINIMUM GAP (SEC.)			3.0			3.0	3.0		3.0
TIME TO REDUCE (SEC.)			0.0			0.0	0.0		0.0
MAXIMUM GREEN I (SEC.)			55.0			23.0	32.0		35.0
MAXIMUM GREEN II (SEC.)									
YELLOW CHANGE (SEC.)			3.0			3.0	3.0		3.0
ALL RED CLEARANCE (SEC.)			1.0			1.0	1.0		1.0
WALK (SEC.)									
PEDESTRIAN CLEARANCE (SEC.)									
RECALL	MAXIMUM (ON/OFF)		OFF			OFF	OFF		OFF
	MINIMUM (ON/OFF)		ON			OFF	ON		OFF
	PEDESTRIAN (ON/OFF)		OFF			OFF	OFF		OFF
MEMORY (ON/OFF)			OFF			OFF	OFF		OFF
CALL TO NON-ACTUATED	NO.1								
	NO.2								

[illegible][illegible][illegible]

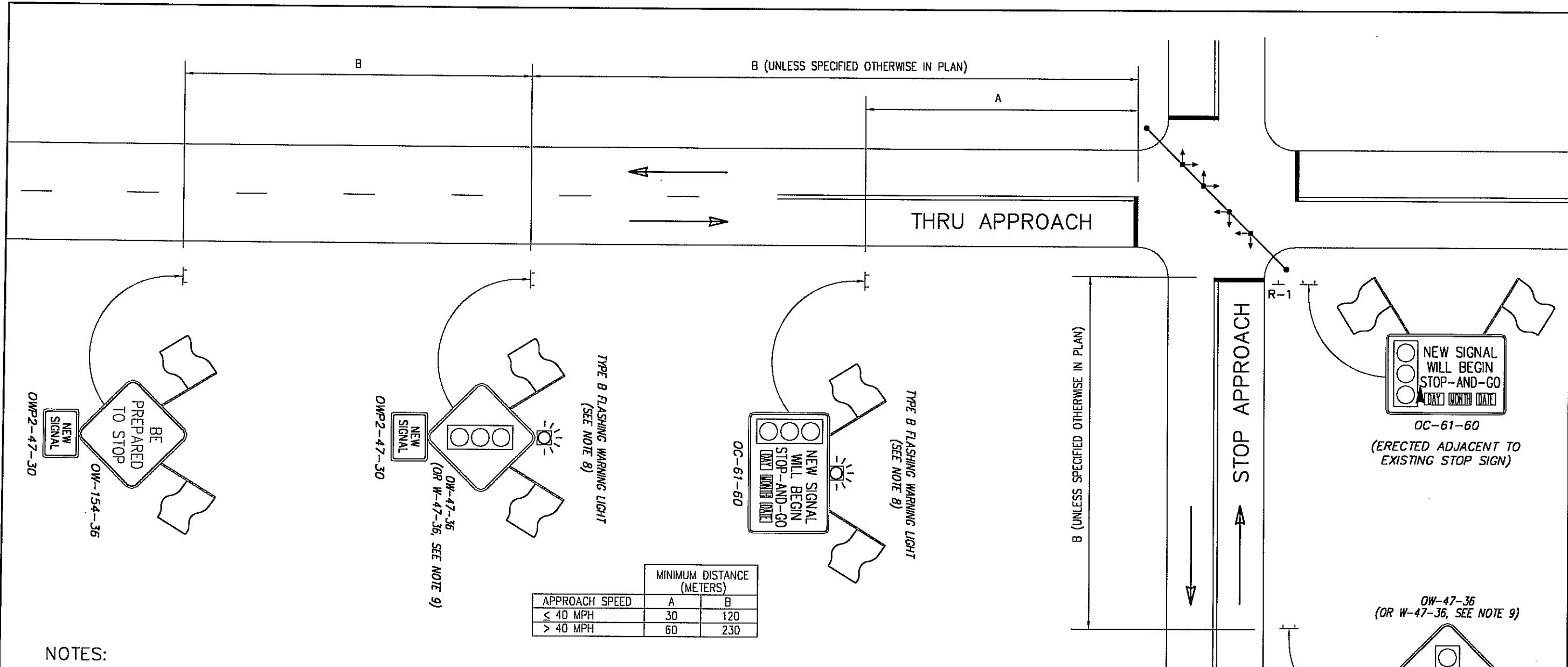
PHASING, TIMING, POLE CHART, AND DETECTOR CHART
INTERSECTION OF ERIE STREET AND RAMP'S 'A' AND 'H'

**S.R. 21/ERIE STREET
CITY OF MASSILLON**



TRAFFIC SIGNAL SUBSUMMARY

CALCULATED	
T.X.I.	
CHECKED	
F.W.S.	



NOTES:

1. THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN ALL SIGNS, FLASHING WARNING LIGHTS (WHEN REQUIRED) AND FLAGS AS SHOWN ABOVE, INCLUDING SUPPORTS AND ALL NECESSARY MOUNTING HARDWARE.
2. AFTER RECEIVING APPROVAL FROM THE ENGINEER TO ACTIVATE THE SIGNAL, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST TEN (10) DAYS PRIOR TO PLACING SIGNAL IN STOP-AND-GO MODE TO ALLOW THE ENGINEER TIME TO NOTIFY LOCAL MEDIA AND LAW ENFORCEMENT OF THE SCHEDULED SIGNAL ACTIVATION.
3. A PERMANENT NEW SIGNAL OR SIGNAL UPGRADE FROM A FLASHER, SHALL OPERATE IN FLASH MODE FOR THREE (3) TO TEN (10) CONSECUTIVE DAYS BEFORE BEING PLACED IN A STOP-AND-GO MODE FOR THE TEN (10) DAY BURN TEST, AS DIRECTED BY THE ENGINEER.
4. THE CONTRACTOR SHALL ERECT THE OC-61-60 (WITH ACTIVATION DAY, MONTH, AND DATE; E.G. MON AUG 12) SIGNS EQUIPPED WITH ORANGE FLAGS AND FLASHING WARNING LIGHTS (WHEN REQUIRED) AS SHOWN ABOVE ON EACH APPROACH OF THE INTERSECTION AT THE TIME THE SIGNAL IS PLACED IN FLASH MODE.
5. IMMEDIATELY BEFORE PLACING THE NEW SIGNAL INSTALLATION IN STOP-AND-GO MODE, THE CONTRACTOR SHALL REMOVE THE OC-61-60 SIGNS AND INSTALL OR UNCOVER THE (O)W-47 AND OW-154 SIGN ASSEMBLIES AS SHOWN ABOVE.
6. IMMEDIATELY AFTER CHANGING THE SIGNAL TO STOP-AND-GO OPERATION, THE CONTRACTOR SHALL REMOVE THE EXISTING STOP SIGNS AND POST SUPPORTS.
7. THE CONTRACTOR SHALL REMOVE THE FLASHING WARNING LIGHTS, FLAGS, BRACKETS, OWP2-47, OW-47, AND OW-154 SIGNS 21-30 DAYS AFTER THE SIGNAL IS PLACED IN STOP-AND-GO MODE.
8. FLAGS SHALL BE ERECTED AS SHOWN ABOVE. THE FLAGS SHALL BE 450 mm X 450 mm IN SIZE, MADE OF ORANGE VINYL MATERIAL, AND SECURELY FASTENED TO THE SIGN OR SIGN SUPPORT. WHEN REQUIRED BY PLAN NOTE, TYPE B FLASHING WARNING LIGHTS SHALL BE INSTALLED AS SHOWN ABOVE.

9. THE OW-154 SIGN INSTALLATION (INCLUDING THE OWP2-47 SIGN AND FLAGS) ON THE THRU APPROACH SHALL BE OMITTED WHEN A PERMANENT "PREPARE TO STOP WHEN FLASHING" (W-44) SIGN IS ERECTED. WHEN SPECIFIED IN THE PLAN, A W-47 SIGN SHALL BE USED IN PLACE OF THE OW-47 SIGN ON THE THRU APPROACH. THE "NEW SIGNAL" (OWP2-47) SIGN, FLAGS, AND FLASHING WARNING LIGHT, WHEN REQUIRED, SHALL BE INSTALLED WITH THE W-47 SIGN AS SHOWN. WHEN SPECIFIED IN THE PLAN, A W-47 SIGN SHALL BE USED IN PLACE OF THE OW-47 SIGN ON THE STOP APPROACH. THE "NEW SIGNAL" (OWP2-47) SHALL BE INSTALLED WITH THE (O)W-47 SIGN AS SHOWN.
10. ON MULTILANE THRU APPROACHES, REPLACE THE OW-154-36 SIGN WITH AN OW-154-48 SIGN, AND REPLACE THE OW-47-36 SIGN WITH AN OW-47-48 SIGN. ON MULTILANE DIVIDED THRU APPROACHES, ERECT SIGNS IN MEDIAN IDENTICAL TO THOSE ON RIGHT TO CREATE DUAL INSTALLATIONS, INCLUDING SUPPLEMENTAL SIGNS AND FLAGS, AND, WHEN REQUIRED BY PLAN NOTE, FLASHING WARNING LIGHTS.
11. FOR MULTI-WAY STOP APPROACHES, EACH APPROACH CONTROLLED BY A STOP SIGN SHALL BE TREATED AS SHOWN ABOVE FOR THE STOP APPROACH.
12. THE SIGNAL SHALL NOT BE ACTIVATED TO STOP-AND-GO OPERATION ON A FRIDAY, SATURDAY OR SUNDAY, OR THE DAY PRECEDING OR DURING A NATIONAL HOLIDAY, (NEW YEARS, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING, OR CHRISTMAS).
13. PERMANENT SUPPORTS, PERMANENT SIGNS (W-44 AND W-47), AND TYPE B FLASHING WARNING LIGHTS SHALL BE PAID FOR UNDER SEPARATE PAY ITEM IN THE PLAN. PAYMENT FOR ALL OTHER LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR 614 MAINTAINING TRAFFIC.

J:\Proj3\7044800\LIGHTING\70448LNA.dwg User: cab05502 Jan 28, 2000 - 8:14am

LIGHTING GENERAL NOTES

SPECIFICATIONS

THESE NOTES ARE SUPPLEMENTAL TO ITEMS 625 AND 713 OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

REFERENCE SHALL BE MADE TO STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET OF THESE PLANS.

625.03-POWER SERVICE, AS PER PLAN

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS OHIO EDISON COMPANY, 1910 W. MARKET ST. AKRON, OH 44308, TELEPHONE (330) 384-5151.

THE PROJECT WILL RECEIVE 120 VOLT/240 VOLT THREE-WIRE SECONDARY SERVICE FROM OHIO EDISON COMPANY.

THIS PROJECT HAS BEEN DESIGNED ON THE BASIS OF 5 PERCENT VOLTAGE DROP WITH A MAXIMUM UNIFORMITY RATIO OF 4.0 TO 1 FOR CONVENTIONAL UNITS.

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY. THE CONTRACTOR SHALL PAY ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. UPON COMPLETION OF THIS PROJECT, POWER SERVICE ELECTRICAL ENERGY ACCOUNTS SHALL BE TRANSFERRED TO THE MAINTAINING AGENCIES NOTED IN THE PLANS. THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF THE EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT. FOR DETAILS REFER TO THE LIGHTING DETAILS ON SHEET 101.

REMOVAL OF EXISTING FACILITIES

THE EXISTING WOOD POWER POLES, METAL POLES, (INCLUDING STREET LIGHTING) THAT DO NOT HAVE COMBINATION SIGNAL POLES SHALL BE REMOVED "BY OTHERS" (OHIO EDISON COMPANY). EXISTING POLES SHALL NOT BE REMOVED UNTIL AFTER THE UNDERGROUND ELECTRIC SERVICE IS IN PLACE AND OPERATIONAL.

ITEM 625 - CONDUIT, 2", 713.07

IN ADDITION TO THE REQUIREMENTS OF 713.07, THE CONDUIT FURNISHED AND INSTALLED UNDER THIS BID ITEM, SHALL BE TYPE DB, 120.

ITEM 625 - CONDUIT, 2", 713.07, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 713.07, THE CONDUIT FURNISHED AND INSTALLED UNDER THIS BID ITEM, SHALL BE TYPE DB, 120. ALL CONDUIT SHALL BE CONCRETE ENCASED AS DETAILED IN THE TRENCH DETAILS.

CONNECTOR KITS

WHEN TYPE II OR TYPE III CABLE CONNECTION KITS ARE SPECIFIED, TYPE IX KITS MAY NOT BE SUBSTITUTED.

CONDUIT

AS PER 625.13, ALL CONDUIT WHICH WILL NOT HAVE CIRCUIT WIRE OR CABLE PULLED INTO IT DURING CONSTRUCTION SHALL HAVE A NO. 10 AWG COPPER-CLAD OR ALUMINUM-CLAD PULL WIRE INSTALLED IN IT AND THE ENDS SHALL BE CLOSED WITH CAPPED BUSHINGS OR OTHERWISE SEALED IN AN APPROVED MANNER TO COMPLETELY KEEP ALL MOISTURE AND FOREIGN MATTER OUT OF THE CONDUIT.

HIGH VOLTAGE DIRECT CURRENT TEST

A HIGH VOLTAGE DIRECT CURRENT TEST, AS DESCRIBED IN SUPPLEMENTAL SPECIFICATION 1003, SHALL BE PERFORMED ON ALL (DISTRIBUTION CABLE) (AND) (DUCT CABLE) SYSTEMS TO BE INSTALLED ON THIS PROJECT. THE TEST SHALL NOT BE PERFORMED UNTIL AFTER ALL NEW CONSTRUCTION, SUCH AS GUARDRAIL, FENCE, DELINEATOR POSTS, SIGN SUPPORTS, ETC., IN THE IMMEDIATE VICINITY OF THE LOCATION OF THE CABLE RUN BEING TESTED, HAS BEEN COMPLETED.

THE CONTRACTOR SHALL NOT TEST EXISTING CABLES.

ITEM 625 - LUMINAIRE, CONVENTIONAL

STYLE B LUMINAIRES SHALL BE SINGLE RATED 120 VOLT, 250 WATT WITH INTEGRAL REGULATOR BALLASTS FOR USE WITH HIGH-PRESSURE SODIUM LAMPS AND SHALL BE GENERAL ELECTRIC M-400, CROUSE-HINDS OVM, AMERICAN 25/26, OR EQUAL APPROVED BY THE ENGINEER. ALL LUMINAIRES SHALL CONFORM TO SECTION 713.11 OF THE SPECIFICATIONS.

HIGH-PRESSURE SODIUM LAMPS

HIGH-PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX", SYLVANIA "LUMALUX", WESTINGHOUSE "CERAMALUX", OR EQUAL APPROVED BY THE ENGINEER AND SHALL CONFORM TO SECTION 713.14 OF THE SPECIFICATIONS.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO STANDARD DRAWING HL-30.11 FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 20 FT. A QUANTITY OF ITEM 603, 4 IN. CONDUIT, TYPE E" HAS BEEN PROVIDED IN THE LIGHTING SUB- SUMMARY AT EACH PULL BOX FOR THIS PURPOSE.

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE CITY, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE CITY'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE CITY, THE MAINTAINING AGENCY, AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT MADE AND SIGNED AS OUTLINED HEREIN.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR (4) SETS OF THE TEMPORARY LIGHTING PLAN TO THE CITY FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATION OF POLES, LENGTH OF BRACKET ARMS, STYLE OF LUMINAIRES, MOUNTING HEIGHT, WIRING METHODS, AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 4:1. MOUNTING HEIGHT FOR TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 27 FT. AND MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FT. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "A" FOR STRENGTH REQUIREMENT AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING (CONT.)

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL, AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL - MAINTAINING EXISTING LIGHTING, SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS, AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

ITEM SPECIAL - PLASTIC CAUTION TAPE

ALL LOCATIONS OF UNDERGROUND DUCT CABLE OR NON-METALLIC CONDUIT SHALL BE MARKED BY THE USE OF A CONTINUOUS IDENTIFYING TAPE BURIED IN THE TRENCH ABOVE THE LINE. THE IDENTIFYING MARK SHALL BE AN INERT MATERIAL, APPROXIMATELY 6" WIDE, COMPOSED OF POLYETHYLENE PLASTIC HIGHLY RESISTANT TO ALKALIS, ACID OR OTHER CHEMICAL COMPONENTS LIKELY TO BE ENCOUNTERED IN SOILS. THE TAPE SHALL BE BRIGHT YELLOW WITH IDENTIFYING PRINTING "ELECTRIC" IN BLACK LETTERS, ONE SIDE ONLY. TAPES SHALL BE SUPPLIED IN CONTINUOUS ROLLS WITH THE IDENTIFYING LETTERING REPEATED CONTINUOUSLY THE FULL LENGTH OF THE TAPE. IDENTIFYING TAPES SHALL BE BURIED IN THE ELECTRIC LINE TRENCH WITH ONE STRIP PLACED APPROXIMATELY DOWN THE CENTERLINE AND LOCATED APPROXIMATELY 8" TO 12" BELOW THE FINAL FINISHED GRADE. THE TAPE SHALL BE PLACED IN THE TRENCH WITH PRINTED SIDE UP AND SHALL BE ESSENTIALLY PARALLEL WITH THE FINISHED SURFACED. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO INSURE THAT THE TAPE IS NOT PULLED, DISTORTED OR OTHERWISE MISPLACED IN COMPLETING THE TRENCH BACKFILL. TAPE SHALL BE ALLEN SYSTEM 'S' TERRA TAPE, TECTA TAPE OR EQUAL AS APPROVED BY THE ENGINEER.

THE TAPE SHALL BE PAID FOR PER LINEAR FEET OF "ITEM SPECIAL - PLASTIC CAUTION TAPE" COMPLETE AND IN PLACE.

ITEM 625 - PULL BOX, MISC.; HANDHOLE, 13"x24"x18"

THE TYPE AND SIZE OF HANDHOLES AND COVERS FURNISHED AND INSTALLED SHALL BE AS REQUIRED IN 625.11 AND 713.081, AS MANUFACTURED BY CDR SYSTEMS, 17X30 SERIES OR APPROVED EQUAL.

ITEM 625 - TRENCH, MISC.: 36" DEEP

IN ADDITION TO THE REQUIREMENTS OF 625.12, THE TRENCH SHALL BE CONSTRUCTED AS DETAILED IN SECTION C-C ON SHEET 99.

ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER FOOT OF ITEM 625 - TRENCH, MISC.: 36" DEEP.

ITEM 625 - TRENCH, MISC.: 36" DEEP, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 625.12, THE TRENCH SHALL BE CONSTRUCTED AS DETAILED IN SECTION A-A ON SHEET 99.

ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER FOOT OF ITEM 625 - TRENCH, MISC.: 36" DEEP, AS PER PLAN.

TRANSFORMER AND PADS

TRANSFORMERS AND PADS SHOWN ON THE PLANS SHALL BE PLACED BY THE OHIO EDISON COMPANY. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE CONDUIT RUN TO THE TRANSFORMER LOCATION AS DETAILED ON SHEET NO. 101. THE CONDUIT SHALL TERMINATE 4" TO 6" ABOVE THE FINISHED GRADE LINE. THE CONTRACTOR SHALL GRADE THE TRANSFORMER SITES AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE FOLLOWING ITEMS HAVE BEEN INCLUDED IN THE SUBSUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR SITE GRADING:

ITEM 203 - EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION

ITEM 203 - EMBANKMENT

LIGHTING GENERAL NOTES

S.R. 21/ERIE STREET
CITY OF MASSILLON

CALCULATED
CHECKED

LIGHTING GENERAL NOTES

ITEM 202 PULL BOX REMOVED, AS PER PLAN

THIS ITEM OF WORK WILL CONSIST OF REMOVING AN EXISTING PULL BOX WHICH SHALL THEN BE PROPERLY DISPOSED OF, THE RESULTANT OPENING SHALL THEN BE BACKFILLED TO GRADE WITH SUITABLE COMPACTED SOIL AND RESTORED TO MATCH THE SURROUNDING AREA.

PAYMENT WILL BE MADE FOR EACH ITEM 202--PULL BOX REMOVED, AS PER PLAN.

ITEM 202 -- DISCONNECT EXISTING CIRCUIT

THIS ITEM OF WORK CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX, MEDIAN PULL BOX OR TRANSFORMER BASE.

DISCONNECTION AT A PULL BOX SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL SPLICE KITS. DISCONNECTION AT A TRANSFORMER BASE SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING THE EXISTING CONNECTOR KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED IN A MANNER SUCH THAT NO CABLE IS LEFT IN THE PULL BOX. ALL EXISTING CABLE THAT IS DISCONNECTED BY CUTTING SHALL BE CUT IN A MANNER SO THAT THERE IS A SUFFICIENT LENGTH OF CABLE LEFT FOR RECONNECTION.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 202--DISCONNECT EXISTING CIRCUIT, AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE DISCONNECTION IN A SATISFACTORY MANNER.

ITEM 625 -- LIGHTING MISC.; REMOVE AND RELOCATE EXISTING CONTROL CENTER

THIS ITEM OF WORK SHALL CONSIST OF THE CAREFUL REMOVAL, CLEANING, AND REINSTALLATION OF THE EXISTING SC100 ENCLOSURE AND RELATED EQUIPMENT TO THE LOCATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THIS WORK WITH THE POWER COMPANY. PAYMENT FOR THIS ITEM WILL BE PAID ON A CONTRACT LUMP SUM BASIS WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THIS ITEM WITH ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED, AND ACCEPTED.

CALCULATED	CHECKED	LIGHTING GENERAL NOTES	S.R. 21/ERIE STREET CITY OF MASSILLON	95 102

LIGHTING DESIGN CRITERIA

LEGEND

 LUMINAIRE, STYLE B, 150 WATT HIGH-PRESSURE SODIUM, TYPE III 30' MOUNTING HEIGHT

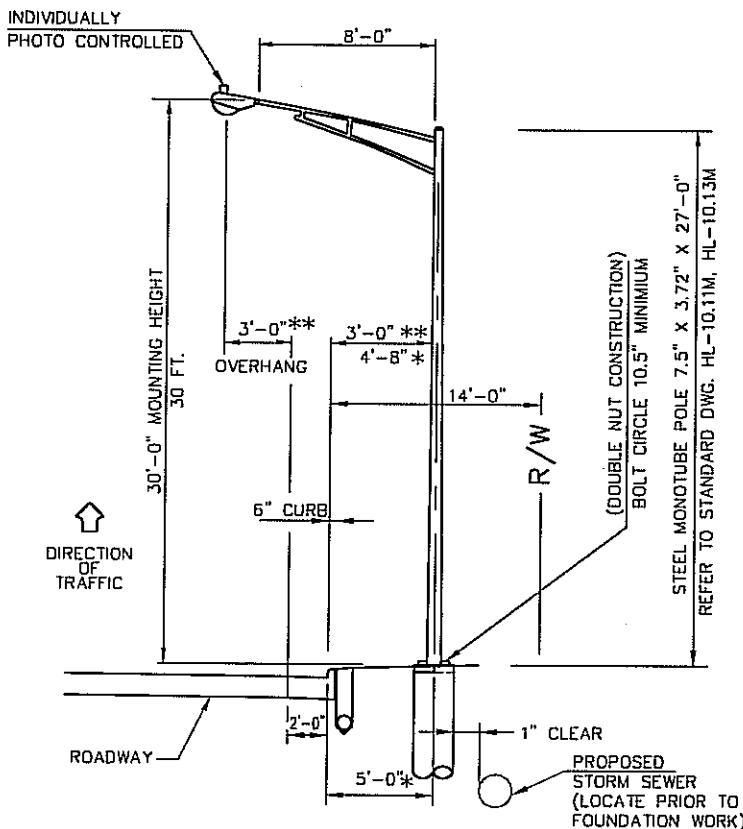
 COMBINATION SIGNAL POLE

 BRACKET ARM, 10'-0" TYPICAL

 PULL BOX, MISC.: HANDHOLE, 13"x24"x18"

 INDICATES NUMBER OF CONDUITS, CONCRETE ENCASED

 STUB OUT



COBRA HEAD STANDARD

** ADJACENT TO STORM SEWER
* TYPICAL DIMENSION EXCEPT ADJACENT TO STORM SEWER.

MAXIMUM ROADWAY WIDTH CONSIDERED	60 FT.
LUMINAIRE	
OVERHANG (FOR 8'-0" BRACKET)	3 FT.,
MOUNTING HEIGHT	30 FT.,
DISTRIBUTION	
LATERAL	TYPE III
VERTICAL	MEDIUM
VERTICAL CONTROL	SEMI-CUTOFF
LAMP LIGHT CHARACTERISTICS	
TYPE	HPS
WATTS	150
DESIGNATION	
INITIAL VERTICAL	16000 LUMENS
INITIAL HORIZONTAL	16000 LUMENS
END OF LIFE	11680 LUMENS
FACTORS	
DIRT	0.95
MAINTENANCE	0.6935
ILLUMINATION LEVEL	1 f.c. (AVERAGE MAINTAINED)
UNIFORMITY RATIO	3:1 AND 4:1
CIRCUIT TYPE	MULTIPLE
CONDUCTOR SIZE	*6 AWG (EXCEPT AS INDICATED)
CIRCUIT VOLTAGE	120/240 VOLT 3 WIRE
TRANSFORMER	
CAPACITY	25 KVA
TYPE	PAD MOUNTED
VOLTAGE	CONSULT AT POWER CO. (120V.)
VOLTAGE DROP	5% MAXIMUM
BALLAST	
CAPACITY	150 WATTS
TYPE	MAGNETIC REGULATOR
POWER FACTOR	98%
MOUNTING	BUILT IN
RATED INPUT VOLTAGE	120 VOLTS

NOTE:
SEE PROPOSAL FOR LIGHTING SPECIFICATIONS

GENERAL SUMMARY

SHEET NUMBER							PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN SHEET REF.
						98									
						2				202		2	EACH	PULL BOX REMOVED, AS PER PLAN	95
						1				202		1	EACH	DISCONNECT EXISTING CIRCUIT	95
						7				203		7	CU. YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	
						7				203		7	CU. YD.	EMBANKMENT	
						200				603		200	LIN. FT.	4" CONDUIT, TYPE E	
						24				625		24	EACH	CONNECTOR KIT, TYPE II	
						24				625		24	EACH	CONNECTOR KIT, TYPE III	
						28				625		28	EACH	CABLE SPLICING KIT	
						22				625		22	EACH	LIGHT POLE, DESIGN ABB30	
						LUMP				625		LUMP		LIGHTING MISC.: REMOVE AND RELOCATE EXISTING CONTROL CENTER	95
						22				625		22	EACH	LIGHT POLE FOUNDATION, 24 INCH X 6 FOOT	
						2				625		2	EACH	BRACKET ARM, 10 FOOT	
						238				625		238	LIN. FT.	1-1/2" DUCT-CABLE WITH TWO NO. 2 AWG 5000 VOLT CABLES	
						9426				625		9426	LIN. FT.	NO. 6AWG 600 VOLT DISTRIBUTION CABLE	
						1824				625		1824	LIN. FT.	NO. 10AWG POLE AND BRACKET CABLE	
						2279				625		2279	LIN. FT.	CONDUIT, 2", 713.07	
						593				625		593	LIN. FT.	CONDUIT, 2", 713.07, AS PER PLAN	94
						57				625		57	LIN. FT.	CONDUIT, 3", 713.04	
						24				625		24	EACH	LUMINAIRE, CONVENTIONAL, STYLE B TYPE III 250 WATT HIGH PRESSURE SODIUM, 713.11, 120 VOLT	
						185				625		185	LIN. FT.	TRENCH, 24" DEEP	
						23				625		23	LIN. FT.	TRENCH, IN PAVED AREAS, TYPE B	
						593				625		593	LIN. FT.	TRENCH MISC.: 36" DEEP, AS PER PLAN	94
						8				625		8	EACH	PULL BOX, MISC.: HANDHOLE, 13"x24"x18"	94
						2				625		2	EACH	PULL BOX, 713.08, 18"	
						2279				625		2279	LIN. FT.	TRENCH MISC.: 36" DEEP	94
						3				625		3	EACH	POWER SERVICE, AS PER PLAN	94
						22				625		22	EACH	GROUND ROD	
										625		LUMP		HIGH VOLTAGE TEST	
						2279				SPECIAL		2279	LIN. FT.	PLASTIC CAUTION TAPE	94
										SPECIAL		LUMP		MAINTAIN EXISTING LIGHTING	94

LIGHTING GENERAL SUMMARY

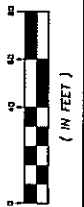
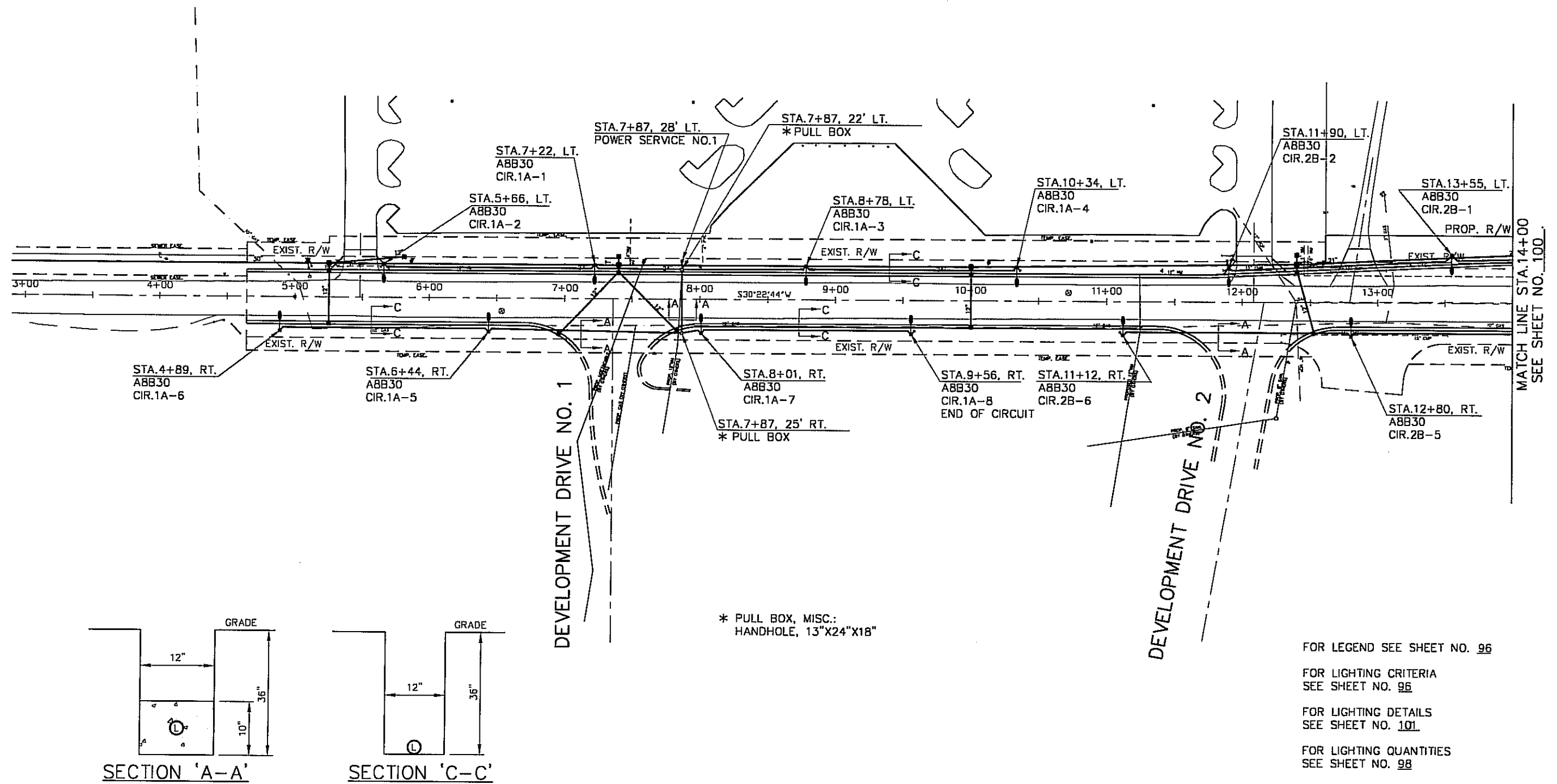
**S.R. 21/ERIE STREET
CITY OF MASSILLON**

CHECKED	CALCULATED
---------	------------

LIGHTING SUBSUMMARY

**S.R. 21/ERIE STREET
CITY OF MASSILLON**

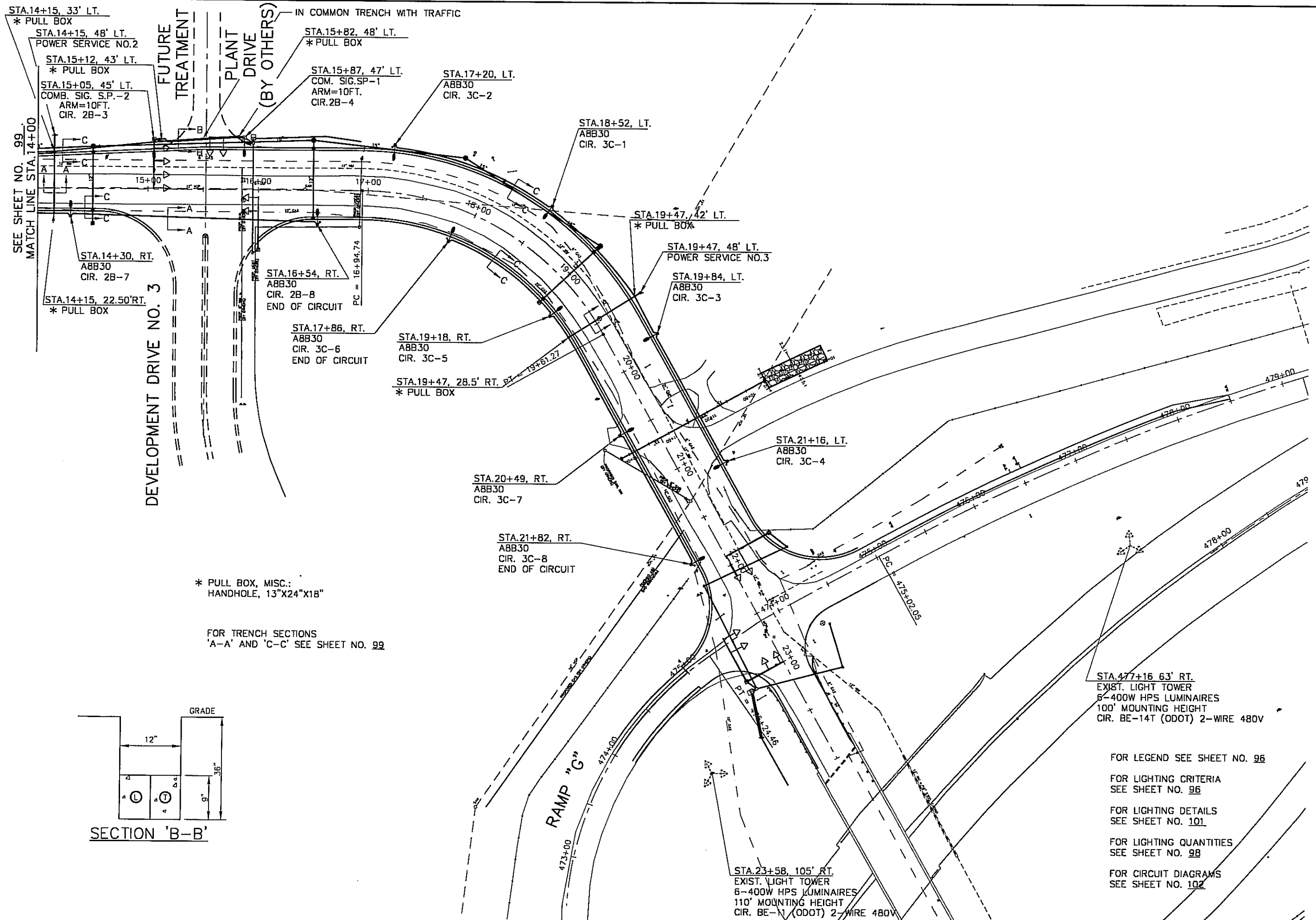
J:\Proj3\7044800\LIGHTING\70448LPA.dwg User: cab05502 Jan 28, 2000 8:14am



CALCULATED
CHECKED

LIGHTING PLAN
STA.3+00 TO STA.14+00

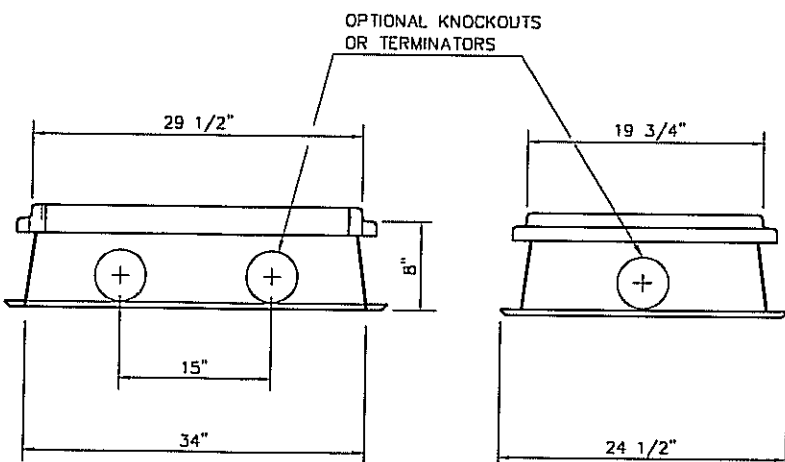
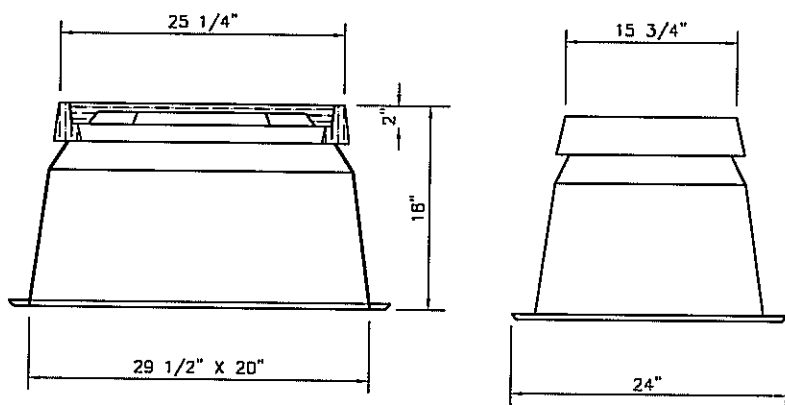
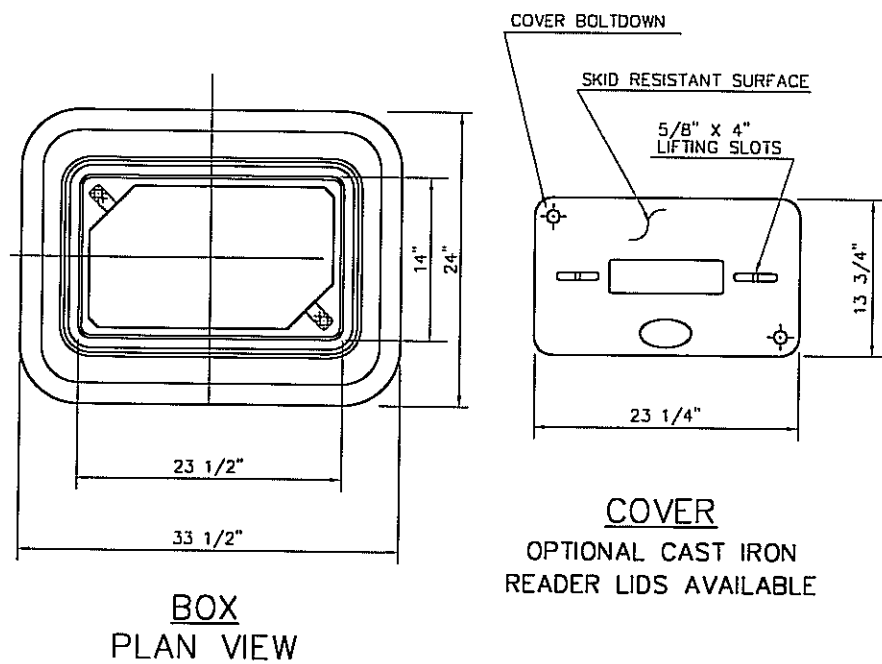
SR. 2/ERIE STREET
CITY OF MASSILLON



LIGHTING PLAN
STA.14+00 TO STA.24+00

SR. 2/ERIE STREET
CITY OF MASSILLON

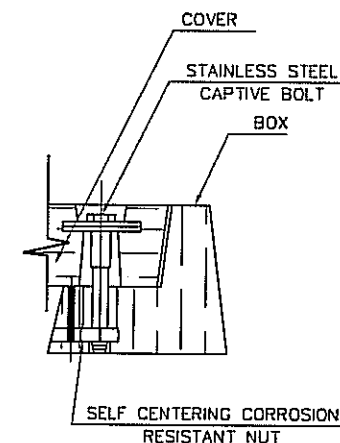
J:\Pro3\7044800\LIGHTING\7044800.dwg User: cob05502 Jan 28, 2000 - 8:15am



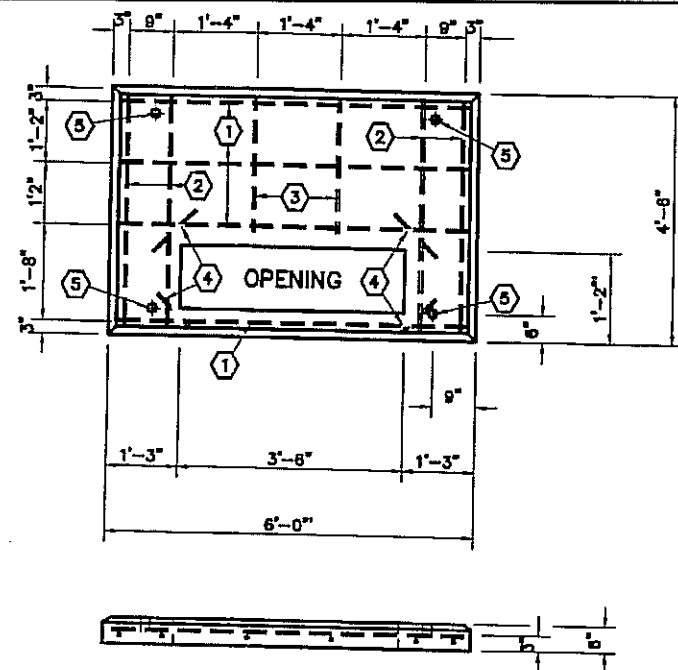
EXTENSION SECTION

END VIEWS

ITEM 625 - PULL BOX, MISC.:
HANDHOLE, 13"X24"X18"



COVER BOLTDOWN
OPTION



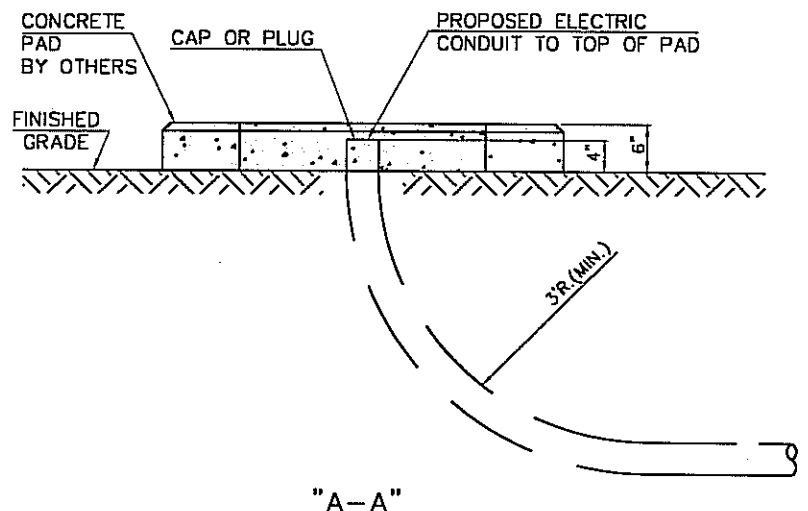
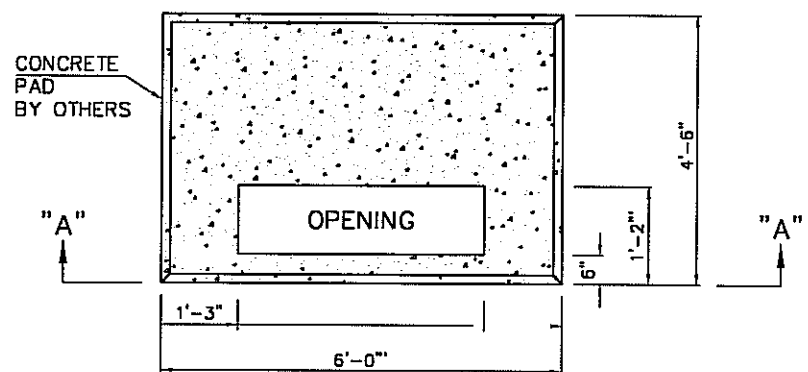
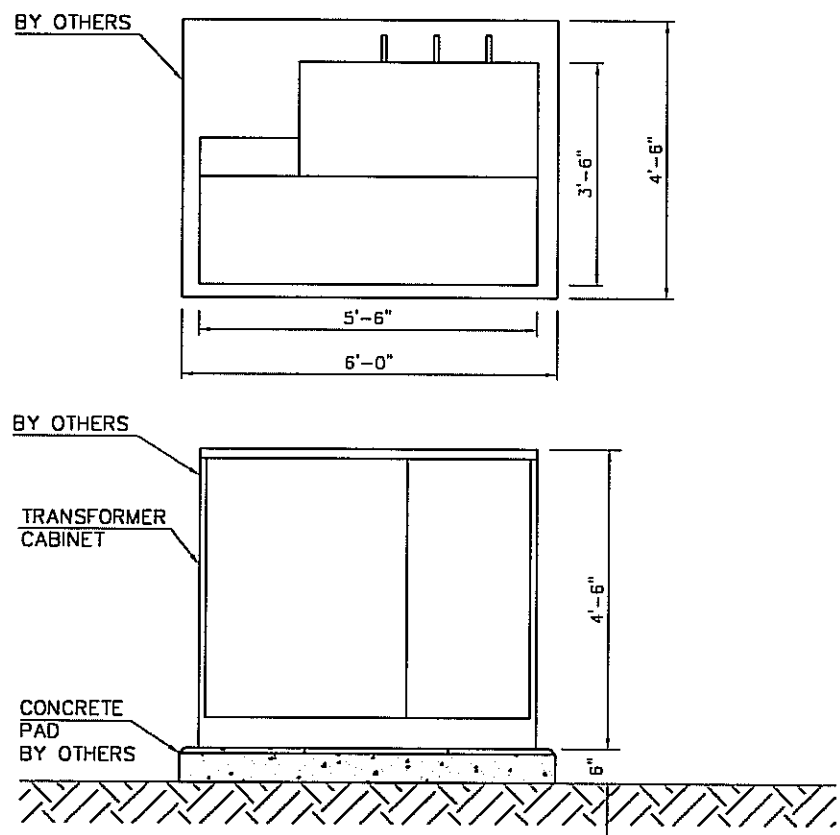
CONCRETE PAD
SINGLE PHASE PAD MOUNTED TRANSFORMER
150 KVA AND BELOW 22.86 Y/13.2 KV AND BELOW

MATERIALS

MK	ITEM	DESCRIPTION	QUANTITY
	CONCRETE	FINE AGGREGATE FROM 3/8" SIEVE. MINIMUM COMPRESSIVE STRENGTH-3000 PSI IN 28 DAYS. SPECIFICATION OE-MCN-1	.42 CU. YDS.
		INTERMEDIATE GRADE DEFORMED REINFORCING STEEL	
		SIZE	LENGTH
1	REBAR	4	5'-8"
2	REBAR	4	4'-2"
3	REBAR	4	2'-6"
4	REBAR	4	1'-0"
5	ANCHOR	5/8" U.S. STANDARD THREAD-11 THREADS PER INCH	4

NOTE

1. CHAMFER ALL EXPOSED EDGES 1"
2. FINISH TOP SURFACE SMOOTH AND LEVEL.
3. SIDES MAY BE TAPERED UP TO 1/2".
4. WHEN CONTRACTING PAD CONSTRUCTION REFER TO SPECIFICATION OE-MCP-7.



TYPICAL TRANSFORMER AND CONCRETE
PAD DIMENSIONS

POWER SERVICE, AS PER PLAN

CIRCUIT DIAGRAMS

