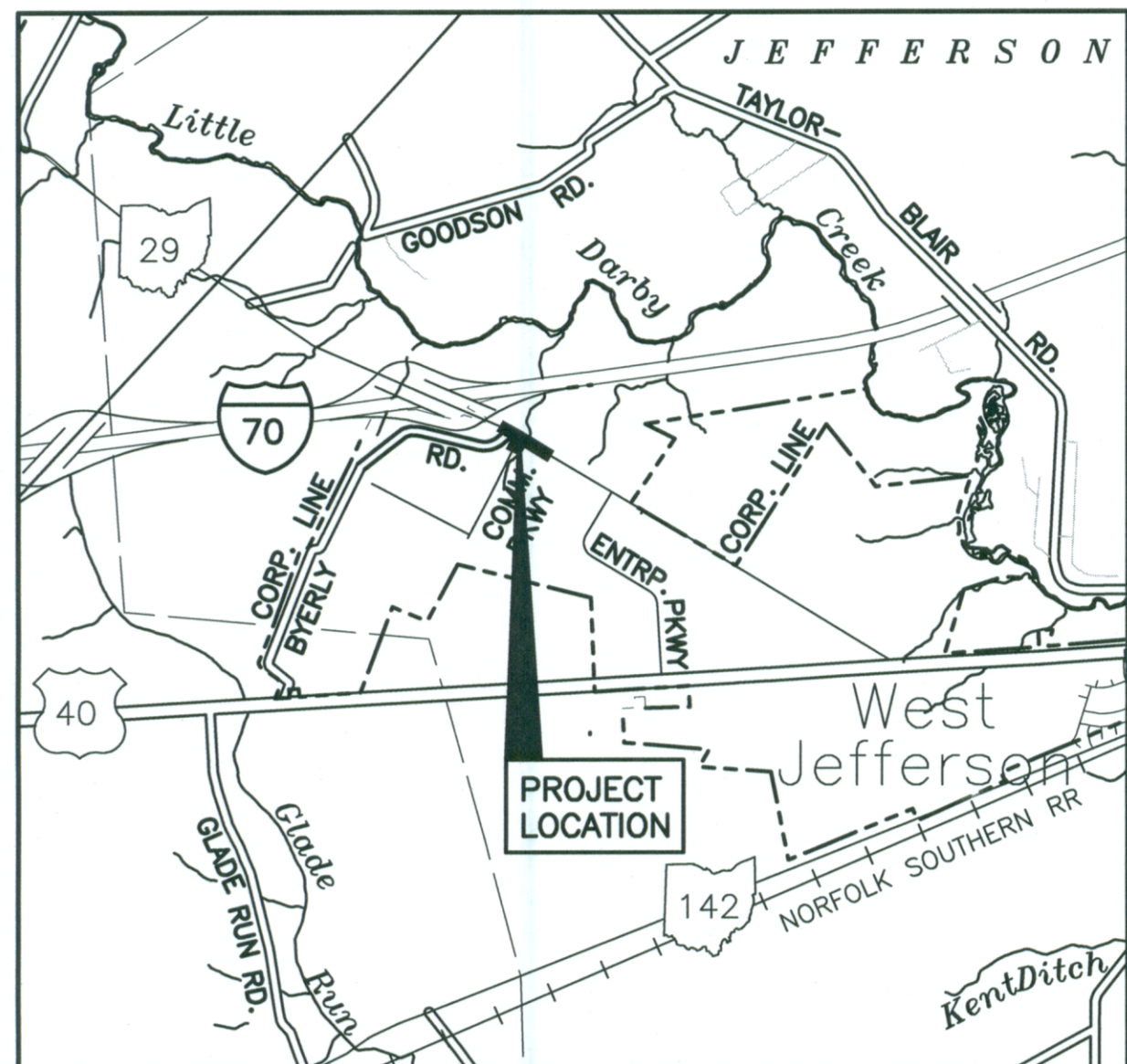


STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION  
**S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY**  
VILLAGE OF WEST JEFFERSON  
JEFFERSON TOWNSHIP  
MADISON COUNTY



PORTIONS TO BE IMPROVED -----  
STATE AND FEDERAL ROUTES -----  
OTHER ROADS -----

**DESIGN DESIGNATION**

	COMMERCE PKWY.	S.R. 29
CURRENT ADT (2018)	2,050	3,510
DESIGN YEAR (2040)	3,280	24,670
DESIGN HOURLY VOLUME (2040)	328	2,467
DIRECTIONAL DISTRIBUTION	44%	50%
TRUCKS	7%	7%
DESIGN SPEED	35 MPH	50 MPH
LEGAL SPEED	35 MPH	50 MPH
FUNCTIONAL CLASSIFICATION	LOCAL	RURAL COLLECTOR

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**UNDERGROUND UTILITIES**  
CONTACT BOTH SERVICES  
CALL TWO WORKING DAYS  
**BEFORE YOU DIG**  
OIL & GAS PRODUCERS PROTECTIVE  
SERVICE CALL: 1-800-929-0988

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECS.	
BP-3.1	7-18-14	HW-2.1	7-21-17	TC-41.20	10-18-13	MT-95.31	7-21-17	800	7-20-18
		HW-2.2	7-21-17	TC-41.30	10-18-13	MT-95.45	7-21-17	809	1-19-18
				TC-41.40	10-18-13	MT-97.11	1-20-17	832	1-17-14
RM-3.1	7-19-13			TC-41.41	10-18-13	MT-101.70	7-20-18	902	12-31-12
		MH-1.1	1-15-16	TC-42.20	10-18-13	MT-101.75	7-15-16		
		MH-1.2	1-15-16	TC-52.10	10-18-13				
CB-1.1	1-15-16			TC-52.20	1-19-18	MT-105.10	7-19-13		
CB-2.1	1-15-16					MT-120.00	1-20-17		
CB-3.2	1-15-16	DM-1.1	7-21-17	TC-65.10	1-17-14				
		DM-1.2	1-18-13	TC-65.11	7-21-17				
		DM-3.1	1-18-13	TC-71.10	1-19-18				
		DM-4.2	7-20-12						
		DM-4.4	1-15-16						
				TC-84.20	10-18-13				
				TC-85.22	1-19-18	L-7401	1-26-18		

**PROJECT DESCRIPTION**

THIS PROJECT CONSISTS OF THE WIDENING OF S.R. 29 TO PROVIDE TURN LANES AT COMMERCE PARKWAY AND THE ASSOCIATED SIGNAL IMPROVEMENTS.

PROJECT EARTH DISTURBED AREA: 0.88 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.06 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: 0.94 ACRES

**2016 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.

SOURCE BENCHMARK

MADISON COUNTY ENGINEER MONUMENT 02-016, BRASS TABLET IN MONUMENT IN THE MEDIAN LANDSCAPING AT THE NORTHEAST CORNER OF THE MADISON COUNTY ENGINEER'S OFFICE.  
NORTH = 712047.38, EAST = 1722575.80,  
ELEVATION= 999.24 (NAVD 88)

BENCHMARKS

BM #200  
IRON PIN SET WITH "STANTEC" CAP, BEING 27.16 FEET RIGHT OF S.R. 29  
CENTERLINE STATION 603+89.93.  
NORTH = 712794.19, EAST = 1735400.15  
ELEVATION= 971.88 (NAVD 88)

BM #206  
IRON PIN SET WITH "STANTEC" CAP, BEING 21.25 FEET LEFT OF S.R. 29  
CENTERLINE STATION 575+03.27.  
NORTH = 714260.46, EAST = 1732914.20  
ELEVATION= 973.73 (NAVD 88)

SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSE AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

VILLAGE ENGINEER, WEST JEFFERSON      9-12-18  
DATE

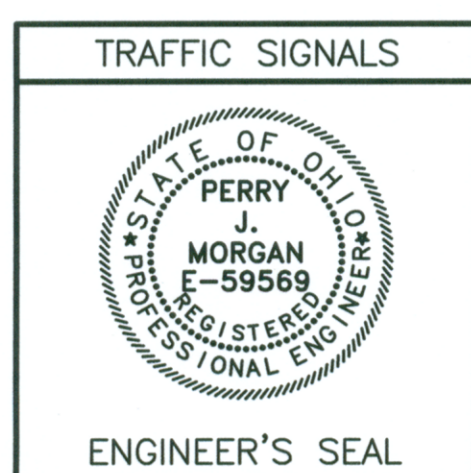
VILLAGE SERVICE DIRECTOR, WEST JEFFERSON      9-12-18  
DATE

REVISION #1 9-21-2018 (BMP) - SHEETS 8, 9, 12

Revision #2 10-16-2018 (Storm) - Sheets 10,11,26,27



REGISTERED ENGINEER      9-5-18  
DATE



REGISTERED ENGINEER      9-5-18  
DATE

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FEDERAL PROJECT NO. N/A  
PID NO. N/A  
CONSTRUCTION PROJECT NO. N/A  
RAILROAD INVOLVEMENT N/A  
S.R. 29 IMPROVEMENTS AT COMMERCE PARKWAY  
09/05/18  
1/33



REFERENCE POINTS			
STATION	DESCRIPTION	NORTHING	EASTING
S.R. 29			
560+00	P.O.T	714830.20	1731521.81
572+86.25	P.C.	714331.21	1732707.33
574+19.73	P.I.	714279.43	1732830.36
575+53.10	P.T.	714219.18	1732949.47
582+69.48	P.C.	713895.86	1733588.74
584+77.07	P.I.	713802.17	1733773.98
586+84.48	P.T.	713695.31	1733951.96
600+00	P.O.T	713018.18	1735079.82
COMMERCE PARKWAY			
15+00	P.O.T	713291.43	1733655.43
20+00 COMMERCE PARKWAY = P.O.C 585+95.92 S.R. 29	P.O.T	713740.31	1733875.68

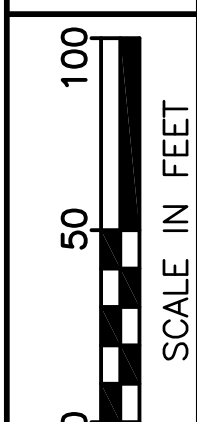
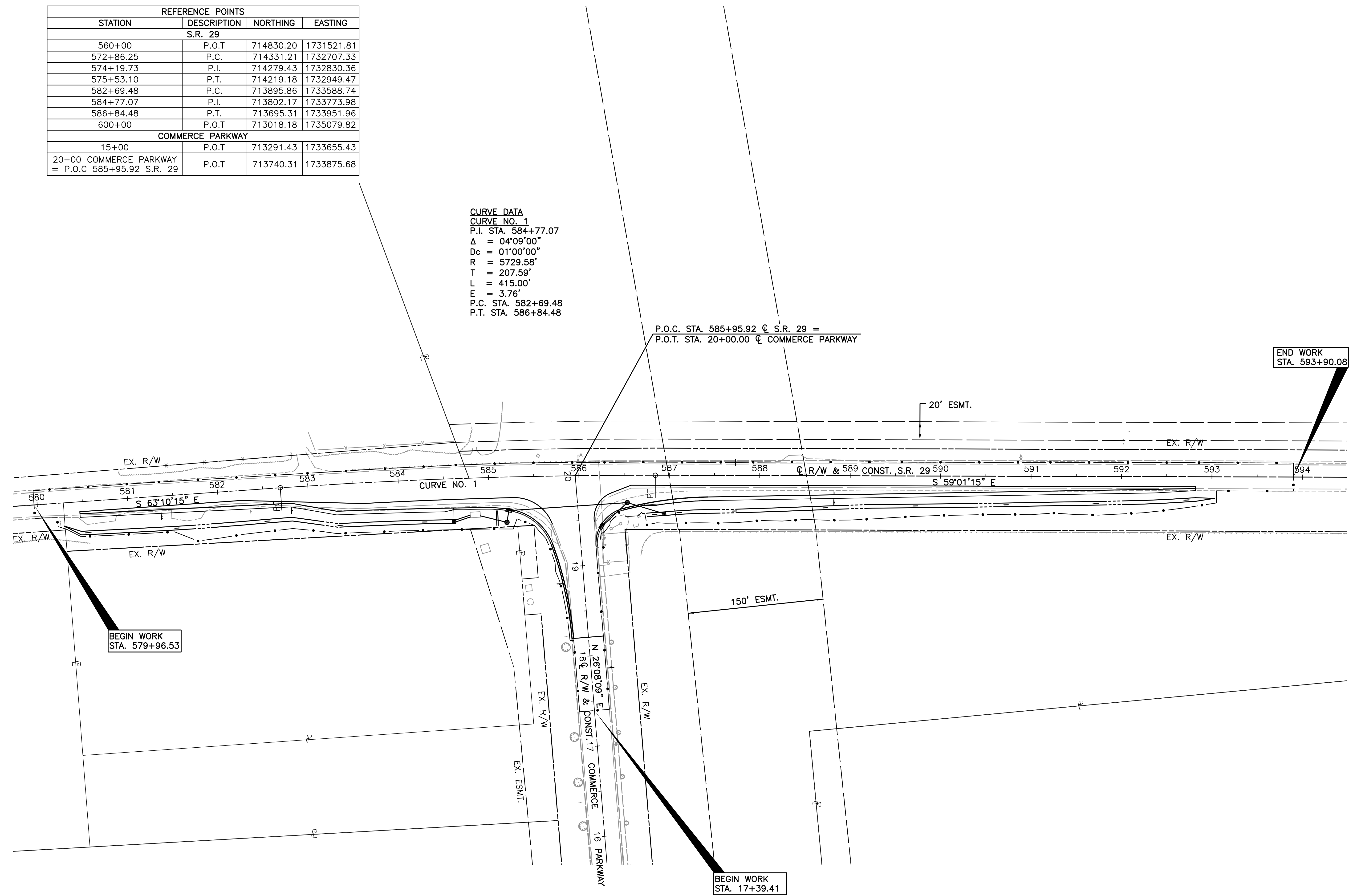
**CURVE DATA**  
**CURVE NO. 1**  
 P.I. STA. 584+77.07  
 $\Delta = 04^{\circ}09'00''$   
 $D_c = 01^{\circ}00'00''$   
 $R = 5729.58'$   
 $T = 207.59'$   
 $L = 415.00'$   
 $E = 3.76'$   
 P.C. STA. 582+69.48  
 P.T. STA. 586+84.48

P.O.C. STA. 585+95.92  $\text{C}$  S.R. 29 =  
 P.O.T. STA. 20+00.00  $\text{C}$  COMMERCE PARKWAY

END WORK  
 STA. 593+90.08

BEGIN WORK  
 STA. 579+96.53

BEGIN WORK  
 STA. 17+39.41



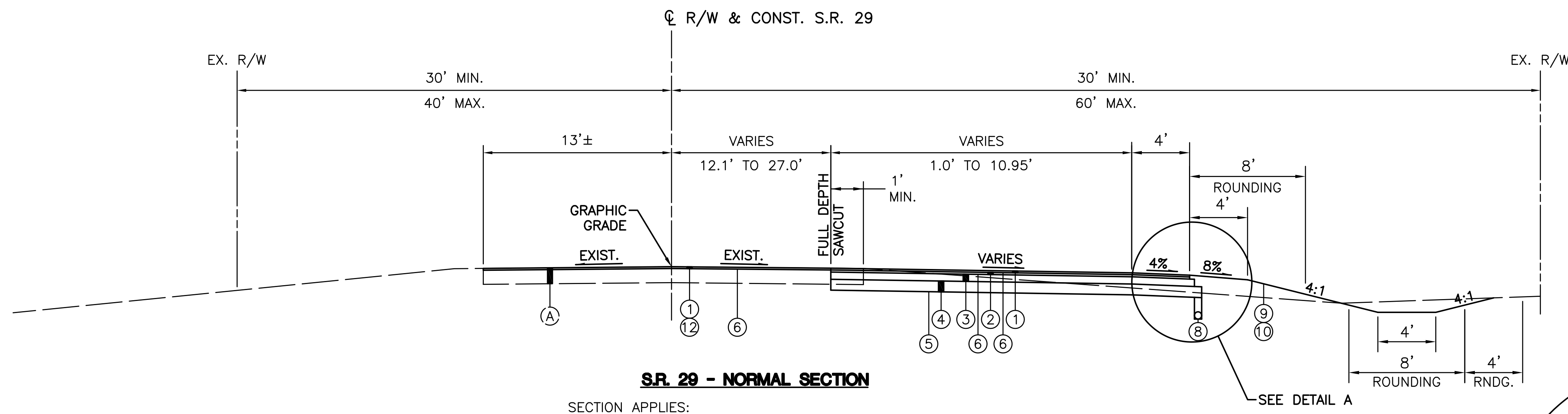
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SCHEMATIC PLAN AND REFERENCE POINTS

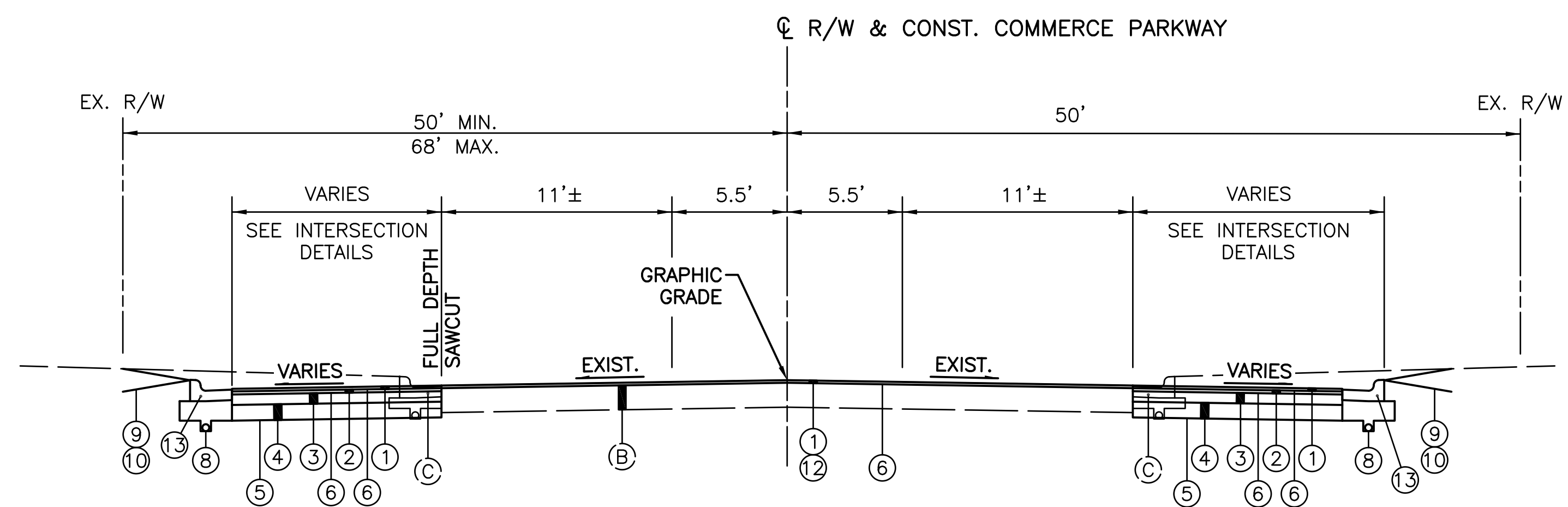
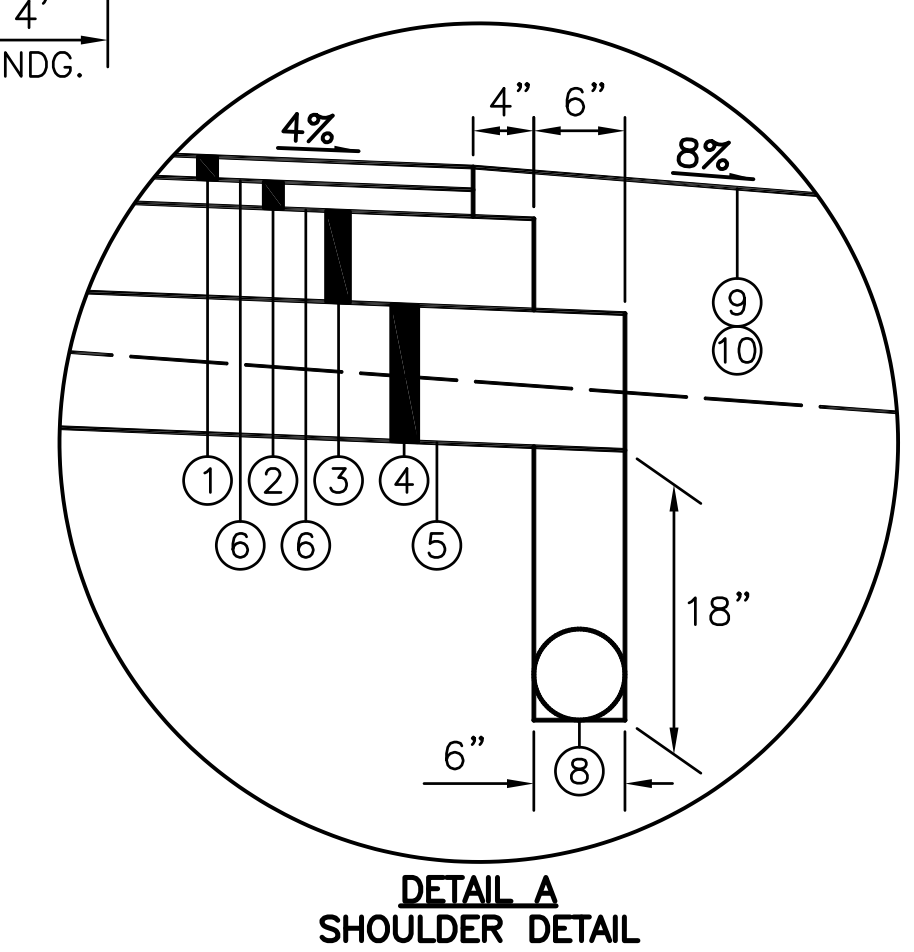
S.R. 29 IMPROVEMENTS AT  
 COMMERCE PARKWAY

09/05/18

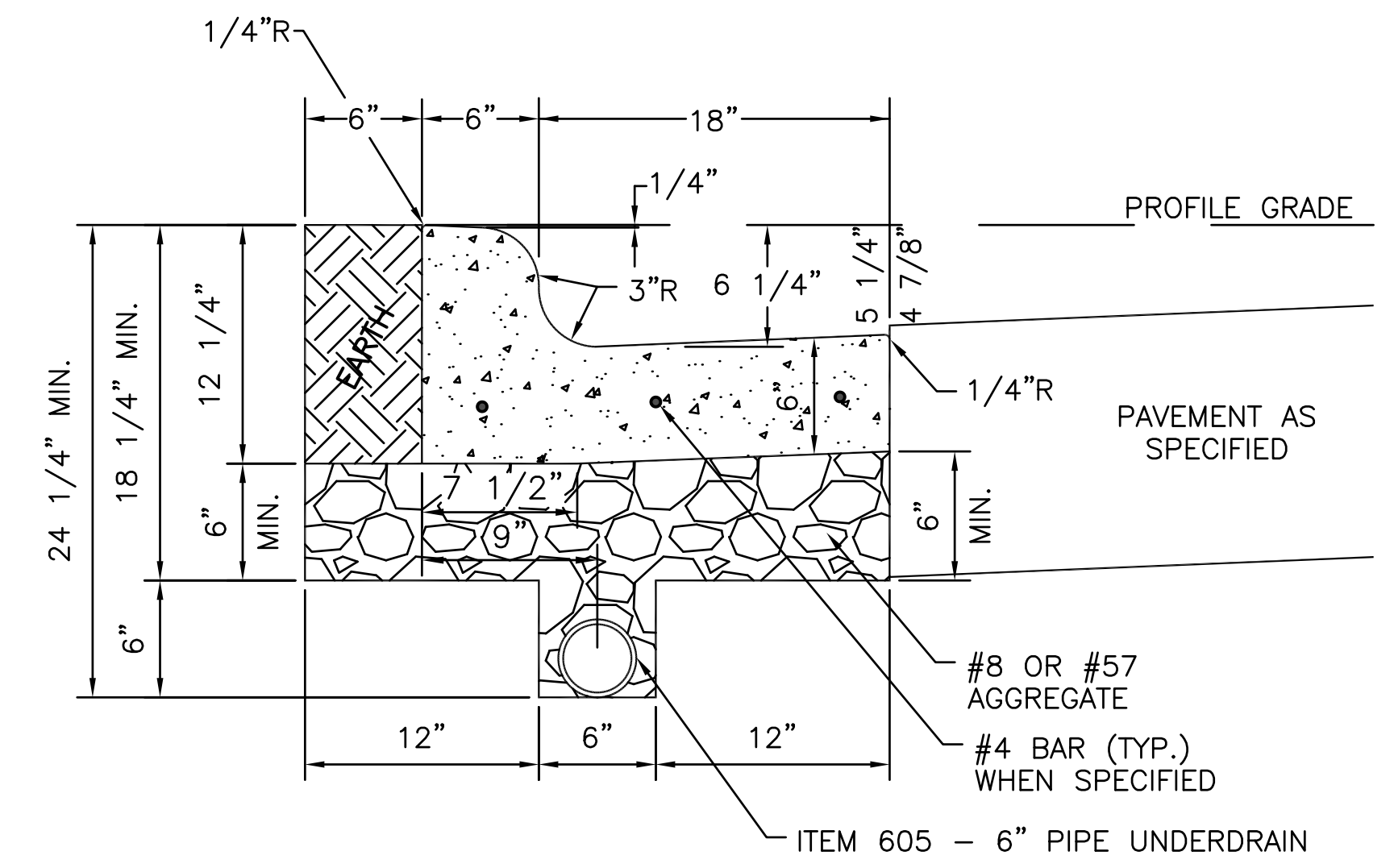
MCDANIEL, ABBON, USA\173608979\Commerce Parkway\transportation\design\drawing\plonset\173608979\sc01.dwg SCHEMATIC PLAN Last Saved: Jul 20, 2018, 1:56 PM Plotted: Aug 24, 2018, 12:17 PM



**S.R. 29 - NORMAL SECTION**  
SECTION APPLIES:  
STA. 580+46.53 TO STA. 592+81.81 = 1235.28 FT.



**COMMERCE PARKWAY - NORMAL SECTION**  
SECTION APPLIES:  
STA. 18+20.74 TO STA. 19+81.39 = 160.65 FT.



**LEGEND**

- |  |   |
|--|---|
| ① ITEM 441 - 1.50" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 | ⑩ ITEM 653 - 4" TOPSOIL FURNISHED AND PLACED                                |
| ② ITEM 441 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)     | ⑪ NOT USED  |
| ③ ITEM 301 - 6" ASPHALT CONCRETE BASE                                      | ⑫ ITEM 254 - 1.50" DEPTH ASPHALT PAVEMENT PLANING, ASPHALT CONCRETE         |
| ④ ITEM 304 - 9" AGGREGATE BASE   | ⑬ ITEM 609 - COMBINATION CURB AND GUTTER, AS PER PLAN                       |
| ⑤ ITEM 204 - SUBGRADE COMPACTION   | (A) EXISTING PAVEMENT - 2" (MIN.) ASPHALT OVER 2.50" BRICK OVER 7" CONCRETE |
| ⑥ ITEM 407 - NON-TRACKING TACK COAT  | (B) EXISTING PAVEMENT - VARIABLE DEPTH ASPHALT (8"-12") OVER 6" STONE       |
| ⑦ NOT USED   | (C) EXISTING CURB AND GUTTER  |
| ⑧ ITEM 605 - 6" BASE PIPE UNDERDRAINS                                      |   |
| ⑨ ITEM 659 - SEEDING AND MULCHING  |   |

TYPICAL SECTIONS

S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18

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**ROUNDING**

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES 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:

AT&T 111 NORTH FOURTH STREET ROOM 802 COLUMBUS, OHIO 43215 614-223-5872 MIKE LEPLEY ti9569@att.com	OHIO EDISON 420 YORK STREET SPRINGFIELD, OHIO 45505 937-327-1272 NAT BENOY nbenoy@firstenergycorp.com
COLUMBIA GAS 3550 JOHNNY APPLESEED COURT COLUMBUS, OHIO 43231 614-818-2116 CLAY KOENIG ckoenig@nisource.com	VILLAGE OF WEST JEFFERSON DIRECTOR, PUBLIC SERVICE 28 EAST MAIN STREET WEST JEFFERSON, OHIO 43162 614-879-8655 JOHN MITCHELL jmitchell@westjeffersonohio.gov
MADISON COUNTY ENGINEER MADISON COUNTY ENGINEER'S OFFICE 825 US 42 NE LONDON, OHIO 43140 740-852-9404 BRYAN DHUME bryan@co.madison.oh.us	CHARTER COMMUNICATIONS/SPECTRUM 3760 INTERCHANGE ROAD COLUMBUS, OHIO 43204 614-975-7468 DAVE HOLSTEIN david.holstein@charter.com
MADISON COUNTY SANITARY ENGINEER MADISON COUNTY ENGINEER'S OFFICE 825 US 42 NE LONDON, OHIO 43140 740-845-1702 NATHAN PETERS npeters@co.madison.oh.us	CENTURYLINK 1025 ELDORADO BLVD. BROOMFIELD, COLORADO 80021 740-888-1089 XAN MARIE RYPKEMA REF. FILE 117029 OH xan.rypkema@centurylink.com
PARK 70 OWNERS ASSOCIATION 6640 RIVERSIDE DRIVE SUITE 320 DUBLIN, OHIO 43017 614-932-6105 MARK GIALLUCA mark.gialluca@dukerealty.com	

THE LOCATION 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.

**CONSTRUCTION NOISE**

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES IN COMPLIANCE WITH ALL APPLICABLE LOCAL ORDINANCES AND REGULATIONS PERTAINING TO CONSTRUCTION NOISE. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

**PROTECTION OF RIGHT-OF-WAY LANDSCAPING**

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT OF WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRUCT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL, AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

**CLEARING AND GRUBBING**

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

**ITEM 204, SUBGRADE COMPACTION AND PROOF ROLLING**

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:  
1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO 204.03.

4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.  
5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

**ITEM 204, PROOF ROLLING**

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING:

204, PROOF ROLLING, 1 HOUR

**GAS LINE CROSSING**

PRIOR TO THE CONSTRUCTION OF THE 15" STORM FROM STRUCTURES 2-3, THE CONTRACTOR SHALL LOCATE AND EXPOSE THE EXISTING 6" GAS LINE (STA. 585+68, 35' RT. ±) A MINIMUM OF ONE FOOT (1') BEYOND THE STORM TRENCH.

A MINIMUM OF ONE FOOT (1') CLEARANCE SHALL BE MAINTAINED BETWEEN THE BOTTOM OF THE CONCRETE ENCASUREMENT AND THE TOP OF THE EXISTING 6" GAS LINE.

IF THE PROPOSED STORM IS IN CONFLICT WITH THE EXISTING 6" GAS LINE, CONTACT CLAY KOENIG AT 614-818-2116 TO RESOLVE CONFLICT.

IF NO CONFLICT EXISTS, CONTRACTOR SHALL AROUND THE EXISTING 6" GAS LINE WITH SAND.

THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 611-15" CONDUIT, TYPE B, CONCRETE ENCASED.

**ITEM SPECIAL, SOIL STERILANT**

USE ONE OF THE SOIL STERILANT PRODUCTS LISTED BELOW, OR AN APPROVED EQUAL. APPLY THE SOIL STERILANT TO LOCATIONS ONLY WHERE IN-ROAD VEGETATION EXISTS AS DETERMINED BY THE ENGINEER. THIS SHOULD BE DONE IMMEDIATELY PRIOR TO PLACING THE PROPOSED AGGREGATE BASE.

PRAMITOL 25E  
GIBA SPECIALTY CHEMICALS  
MCINTOSH, ALABAMA 36553

ROUNDUP PRO L  
MONSANTO COMPANY  
800 N. LINDBERGH BLVD.  
ST. LOUIS, MO 63167

HYVAR XL  
DUPONT CORPORATION  
1007 MARKET STREET  
WILMINGTON, DELAWARE 19898

COMPACT THE SITE FOLLOWING PLOWING OR DISKING. APPLY THE SOIL STERILANT AT THE SUGGESTED MANUFACTURER'S RATE.

THE PREFERRED TIME FRAME TO APPLY THE SOIL STERILANT IS BETWEEN JUNE 15 AND OCTOBER 15. VERY DRY SOIL CONDITIONS MAY RESULT IN POOR WEED CONTROL. DO NOT APPLY THE SOIL STERILANT TO SOIL OR BALLAST MATERIAL WHICH IS SATURATED WITH WATER. CONSULT THE MANUFACTURER IN REGARD TO THE HANDLING AND PHYSICAL CHEMICAL HAZARDS ASSOCIATED WITH THE SOIL STERILANT.

PAYMENT FOR THE ABOVE REFERENCED ITEM IS INCLUDED IN THE PRICE PER SQUARE YARD OF ITEM SPECIAL, SOIL STERILANT. A QUANTITY OF 900 SQUARE YARDS IS INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DETERMINED BY THE ENGINEER.

EACH SUCCESSFUL BIDDER MUST BE LICENSED BY THE STATE OF OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL APPLICATOR. IN ADDITION, ALL PERSONS INVOLVED IN THE ACTUAL SPRAYING OF HERBICIDE WILL BE LICENSED AS COMMERCIAL OPERATORS IN THE APPROPRIATE SPRAY CATEGORY. SUBMIT APPROPRIATE LICENSES TO THE PROJECT ENGINEER, PRIOR TO COMMENCING WORK, FOR VERIFICATION.

**SEEDING AND MULCHING**

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

653, TOPSOIL FURNISHED AND PLACED 330 CU. YD.  
659, COMMERCIAL FERTILIZER 0.41 TON  
659, LIME 0.14 ACRE  
659, WATER 17 M GAL.

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 SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

**ITEM 304, AGGREGATE BASE**

THE CONTRACTOR IS TO ENSURE THAT THE SUBGRADE ELEVATION OF THE WIDENING IS AT OR BELOW THE ELEVATION OF THE EXISTING SUBGRADE. AS SHOWN IN THE PLANS, AND AS DIRECTED BY THE ENGINEER, ADDITIONAL ITEM 304, AGGREGATE BASE SHALL BE PLACED BELOW THAT SHOWN ON THE TYPICAL SECTIONS. ADDITIONAL QUANTITIES OF ITEM 203, EXCAVATION AND ITEM 304, AGGREGATE BASE REQUIRED TO MEET THIS CONDITION SHALL BE PAID AT THE CONTRACT BID PRICE.

**ITEM SPECIAL, WATERLINE LOWERING**

THIS WORK SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND APPURTENANCES NECESSARY TO LOWER EXISTING WATER LINE PER CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING L-7401, IF CONFLICTS WITH PROPOSED WORK IS ENCOUNTERED DURING CONSTRUCTION.

THE FOLLOWING QUANTITY HAS BEEN ADDED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

SPECIAL, WATERLINE LOWERING 2 EACH

CALCULATED  
TUS  
CHECKED  
BMH

GENERAL NOTES

S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18

4  
33

MCDANIEL, ARRON\_U:\173608979\Commerce Parkway\transportation\design\planets\173608979.dwg GENERAL NOTES Last Saved: Aug 24, 2018 10:56 AM Plotted: Aug 24, 2018 12:17 PM



**CROSSINGS 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 611 CONDUIT ITEMS.

**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 LIMITS BY ITEM 611 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 611 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE 1 FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 611, 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-1.1, 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 ITEMS.

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

- 611, 12" CONDUIT, TYPE B 20 FT.
- 611, 12" CONDUIT, TYPE E 20 FT.
- 611, 12" CONDUIT, TYPE F 20 FT.
- 601, ROCK CHANNEL PROTECTION TYPE C WITH FILTER 5 CU. YD.

**UNRECORDED UNTREATED NON-STORMWATER DRAINAGE**

FURNISH NO CONTINUANCE FOR ANY UNRECORDED UNTREATED NON-STORMWATER DRAINAGE SUCH AS UNTREATED SEPTIC, UNTREATED WASTEWATER, UNTREATED CURTAIN/GRADIENT DRAINS, AND UNTREATED FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK. PLUG ANY UNRECORDED UNTREATED NON-STORMWATER DRAINAGE WITH CLASS C CONCRETE AT THE RIGHT OF WAY LINE. PAYMENT FOR PLUGGING SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 OR 203 ITEM.

**REVIEW OF DRAINAGE FACILITIES**

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE 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 APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

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 STATE.

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 OPERATIONS 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 611 CONDUIT ITEMS.

**ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT**

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 12 INCH DIAMETER CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

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

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

THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

**GAS VALVES ADJUSTED TO GRADE**

THE CONTRACTOR SHALL CONTACT COLUMBIA GAS AT 614-460-2244 TO COORDINATE THE ADJUSTMENT OF GAS VALVES.

**EXISTING SUBSURFACE DRAINAGE**

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE.

UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

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

- 601, TIED CONCRETE BLOCK MAT, TYPE 1 4 SQ. YD.
- 611, 6" CONDUIT, TYPE F 100 FT.
- 611, PRECAST REINFORCED CONCRETE OUTLET 2 EACH
- 605, 6" UNCLASSIFIED PIPE UNDERDRAINS 100 FT.

**UNSUITABLE FOUNDATION SOILS**

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 203.02.R. THE LOCATIONS AND DIMENSIONS WILL BE AS DETERMINED BY THE ENGINEER.

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

- 203, EMBANKMENT 100 CU. YD.
- 203, EXCAVATION 200 CU. YD.
- 203, GRANULAR MATERIAL, TYPE B 100 CU. YD.
- SPECIAL, GEOTEXTILE FABRIC, 712.09, TYPE D 500 SQ. YD.

**ITEM 621, RAISED PAVEMENT MARKER REMOVED**

IN AREAS WHERE THE RAISED PAVEMENT MARKER CASTINGS CANNOT BE REPLACED BECAUSE OF PAVEMENT CONDITIONS, USE THIS ITEM INSTEAD OF ITEM 621 RPM, INSTALLATION ONLY TO COMPENSATE THE CONTRACTOR FOR REMOVAL OF THE EXISTING RPM AND RESTORATION OF THE PAVEMENT.

ALL BROKEN, CRACKED, FRAGMENTED OR PARTIAL REMNANTS OF RAISED PAVEMENT MARKERS OR MISSING RAISED PAVEMENT MARKERS SHALL BE TOTALLY REMOVED AND THE PAVEMENT RESTORED AS DESCRIBED IN CONSTRUCTION AND MATERIAL SPECIFICATION ITEM 621.08.

THE FOLLOWING IS AN ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER FOR THE ABOVE WORK:

- 621, 22 EACH RAISED PAVEMENT MARKER REMOVED

**ENDANGERED BAT HABITAT REMOVAL**

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

IDENTIFICATION OF SUCH TREES IS TO BE PERFORMED BY A CONSULTANT THAT HAS BEEN PRE-QUALIFIED BY ODOT FOR DOING ECOLOGICAL SURVEYS. THE CONTRACTOR IS RESPONSIBLE FOR ENGAGING THE SERVICES OF AN ECOLOGICAL CONSULTANT. THE CURRENT LIST OF PRE-QUALIFIED CONSULTANTS IS AVAILABLE THROUGH THE ODOT CONSULTANT SERVICES SECTION (614-466-3742) OR THROUGH ODOT'S INTERNET SITE AT <http://www.dot.state.oh.us>.

ALL WORK AND COSTS ASSOCIATED WITH THE COMPLIANCE OF THIS NOTE SHALL BE INCLUDED IN THE CONTRACT LUMP SUM BID PRICE FOR ITEM SPECIAL, MISC.: IDENTIFICATION OF BAT HABITAT TREES.

SHEET NO.	STATION TO STATION	SIDE	611	605	605	BEGIN ELEVATION	END ELEVATION	NOTES	BENDS & BRANCHES
			6" CONDUIT, TYPE F FT.	6" BASE PIPE UNDERDRAINS FT.	6" UNCLASSIFIED PIPE UNDERDRAINS FT.				
	<b>S.R. 29</b>								
10	580+46.53 - 584+60.27	RT.		414		967.83	964.78	TEE	1
	584+60.27 - 584+80.00	RT.			20	964.78	965.09		
	584+60.27	RT.	12			964.78	964.48	OUTLET IN CATCH BASIN NO. 6, STA. 585+60.27 RT.	
10-11	584+88 - 585+21.55	RT.	10	23		965.07	964.94	OUTLET IN CURB INLET NO. 2, STA. 585+21.55 RT.	
11	19+41.75 - 586+73.08	RT.	30	25		965.59	966.64	OUTLET IN CURB INLET NO. 5, STA. 19+41.75 RT.	
	586+73.08 - 586+98.43	RT.			25	966.64	966.76		
11-12	586+98.43 - 592+81.81	RT.		584		966.76	970.72		
	<b>COMMERCE PARKWAY</b>								
11,22	18+20.74 - 585+21.55	LT/RT	10	160		966.01	964.29	OUTLET IN CURB INLET NO. 2, STA. 585+21.55 RT. CONNECT TO EXIST.	
22	19+20.38 - 19+41.75	RT.	10	13		965.90	965.59	OUTLET IN CURB INLET NO. 5, STA. 19+41.75 RT. CONNECT TO EXIST.	
	<b>TOTALS CARRIED TO GENERAL SUMMARY</b>		<b>72</b>	<b>1,219</b>	<b>45</b>				

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GENERAL NOTES AND UNDERDRAIN QUANTITIES

S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18



**SEQUENCE OF CONSTRUCTION**

**PHASE 1**

PER STANDARD CONSTRUCTION DRAWING MT-97.11, MILL SURFACE COURSE ON S.R. 29 AND COMMERCE PARKWAY. APPLY WORK ZONE MARKINGS PER MOT TYPICAL SECTION.

**PHASE 2**

ERECT ALL MAINTENANCE OF TRAFFIC SIGNS AND DRUMS, AND SHIFT TRAFFIC ON S.R. 29 PER PHASES 3 & 4 MOT TYPICAL SECTION AND STANDARD CONSTRUCTION DRAWING MT-95.31. DURING NON-WORKING HOURS, LANES SHALL BE OPEN AND TRAFFIC SHALL BE MAINTAINED PER STANDARD CONSTRUCTION DRAWING MT-95.45.

**PHASE 3**

CONSTRUCT WIDENING UP TO THE INTERMEDIATE COURSE AND ALL APPURTENANCES FOR S.R. 29 SOUTHBOUND AND THE NORTHWEST QUADRANT OF COMMERCE PARKWAY.

**PHASE 4**

USING THE NEWLY COMPLETED PAVEMENT ON THE NORTHWEST QUADRANT OF COMMERCE PARKWAY, APPLY WORK ZONE MARKINGS AND SHIFT TRAFFIC PER THE MOT TYPICAL SECTION. CONSTRUCT WIDENING UP TO THE INTERMEDIATE COURSE AND ALL APPURTENANCES FOR S.R. 29 SOUTHBOUND AND THE SOUTHWEST QUADRANT OF COMMERCE PARKWAY.

**PHASE 5**

PER STANDARD CONSTRUCTION DRAWING MT-97.11, CONSTRUCT SURFACE COURSE ON S.R. 29 AND COMMERCE PARKWAY. INSTALL PERMANENT SIGNAGE AND MARKINGS. ADJUST SIGNAL HEAD LOCATIONS PER PLANS. OPEN TO TRAFFIC.

**ALTERNATE METHODS**

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.

**ITEM 614, MAINTAINING TRAFFIC**

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON S.R. 29 BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

- CHRISTMAS YEARS
- MEMORIAL DAY
- FOURTH OF JULY
- LABOR DAY THANKSGIVING
- JULY FOURTH VILLAGE OX ROAST (JULY 1-JULY 4)
- FARM SCIENCE REVIEW (SEPTEMBER 18-SEPTEMBER 20)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$50 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

INGRESS & EGRESS FOR ALL DRIVES AND PARKING AREAS SHALL BE MAINTAINED AS PER ODOT C&MS 614.02(A). AREAS WITH MULTIPLE DRIVES SHALL HAVE AT LEAST HALF OF THE DRIVES OPEN AT ALL TIMES. NOTIFICATION SHALL BE GIVEN TO ADJOINING PROPERTIES A MINIMUM OF TWO BUSINESS DAYS IN ADVANCE OF ACCESS INTERRUPTIONS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OMUTCD. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

**PLACEMENT OF ASPHALT CONCRETE**

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

**TRENCH FOR WIDENING**

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.

**DUST CONTROL**

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 8 M GAL.

**DELINEATION OF PORTABLE AND PERMANENT BARRIER**

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND CONCRETE PERMANENT BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT- 101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, AND SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEMS.

**ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS, UNIDIRECTIONAL**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

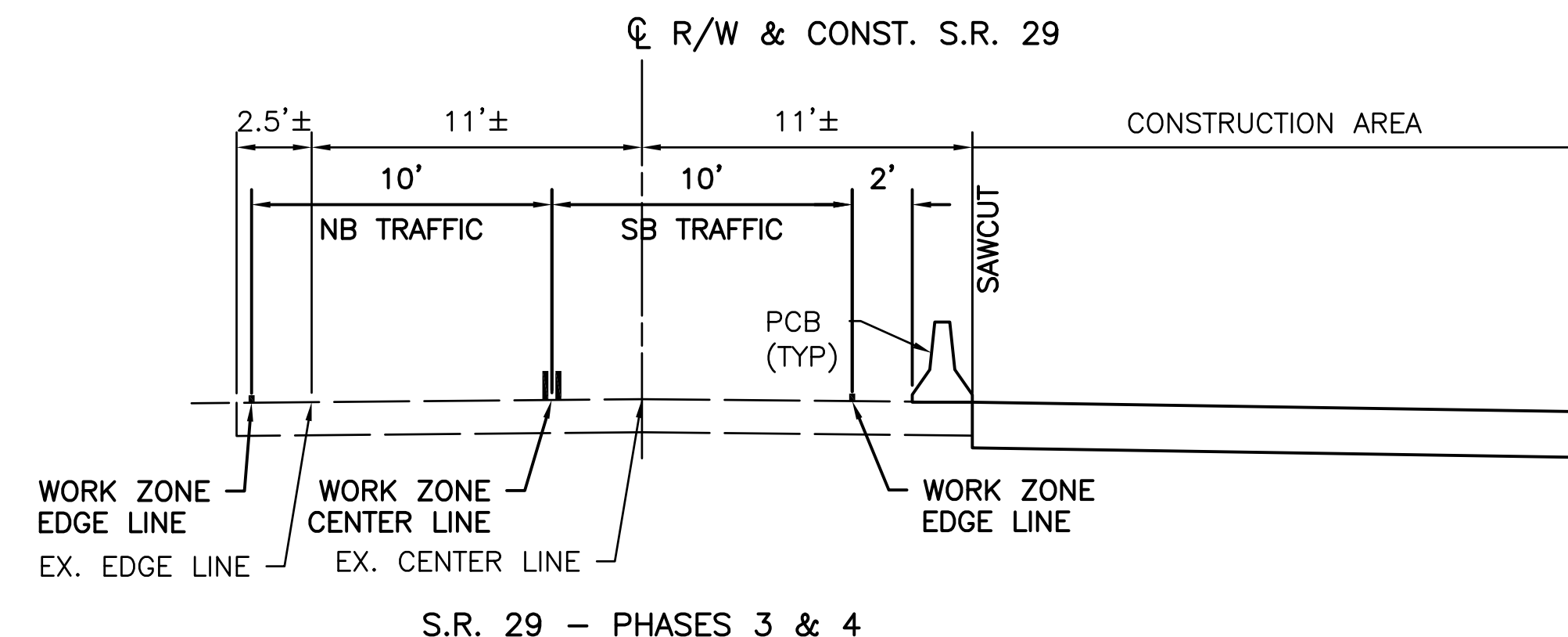
INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN SCD-MT-101.75 IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

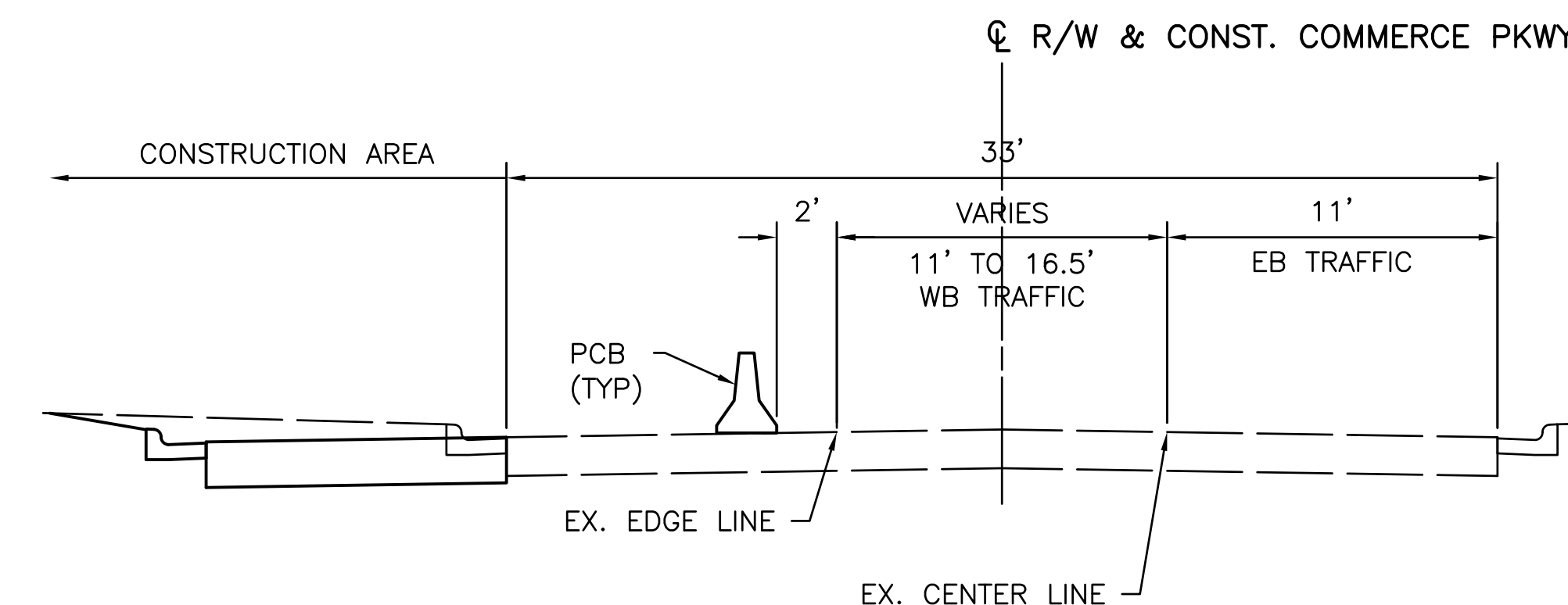
WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

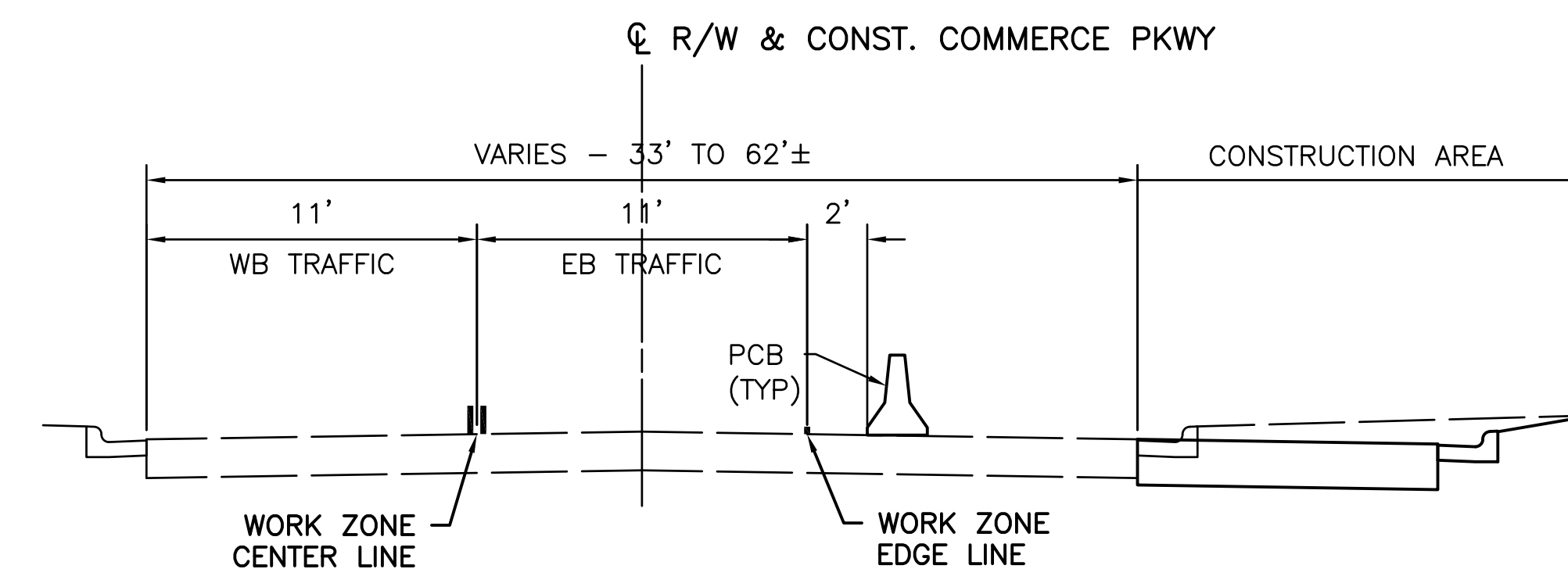
PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.



S.R. 29 - PHASES 3 & 4



COMMERCE PARKWAY - PHASE 3



COMMERCE PARKWAY - PHASE 4

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MAINTENANCE OF TRAFFIC  
GENERAL NOTES

S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18

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**ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS**

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON AN HOURLY BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 60 HOURS

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

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**ITEM 614, REPLACEMENT SIGN**

FLAT SHEET SIGNS 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. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED BUT GOOD CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 5 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

**DRUM REQUIREMENTS**

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, WILL NOT BE ACCEPTED.

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM BID FOR MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED.

**ITEM 614, 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. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, 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.

AN ESTIMATED QUANTITY OF 20 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

**COVERING OF SIGNS**

WHERE THE PLANS CALL FOR A PERMANENT SIGN TO BE COVERED, THE CONTRACTOR SHALL DO SO IN SUCH A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE COVER IS REMOVED. THE COVER SHALL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO A SIGN FACE IS STRICTLY PROHIBITED.

**FLOODLIGHTING**

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**NOTIFICATION OF CONSTRUCTION INITIATION**

AT LEAST FOURTEEN DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS VIA EMAIL AT d06.pio@dot.state.oh.us AND THE DISTRICT WORK ZONE TRAFFIC MANAGER VIA EMAIL AT d06.mot@dot.state.oh.us OF THE ANTICIPATED START DATE OF ANY CONSTRUCTION ACTIVITIES, INCLUDING BUT NOT LIMITED TO THE PLACING OF WORK ZONE SIGNS. THE NOTIFICATION SHALL ALSO INCLUDE THE PROJECT NUMBER, PID, NAME AND PHONE NUMBER OF THE CONTRACTOR, A POINT OF CONTACT AND THE ANTICIPATED IMPACT ON TRAFFIC. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT WORK ZONE TRAFFIC MANAGER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION INITIATION DATE.

ADDITIONALLY, THE VILLAGE OF WEST JEFFERSON SHALL BE NOTIFIED A MINIMUM OF FOURTEEN (14) WORKING DAYS PRIOR TO STARTING WORK AND/OR PRIOR TO EACH PHASE OR MAJOR CHANGE IN TRAFFIC PATTERNS, EITHER PERMANENT OR TEMPORARY WITHIN THE ROADWAY RIGHT-OF-WAY.

**PUBLIC OUTREACH AND NOTIFICATION**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE DISTRICT 6 PUBLIC INFORMATION OFFICE AT 740-833-8260 TO COORDINATE EFFORTS TO NOTIFY ADJACENT RESIDENTS AND BUSINESSES OF THE UPCOMING RESURFACING PROJECT. ADVANCE NOTIFICATION SHALL OCCUR NO LATER THAN FOURTEEN (14) DAYS PRIOR TO THE FIRST DAY OF WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE DISTRICT 6 PUBLIC INFORMATION OFFICE AT 740-833-8260 TO COORDINATE EFFORTS TO NOTIFY ALL LOCAL COUNTY, STATE AND FEDERAL EMERGENCY SERVICES, SCHOOL DISTRICTS AND ADJACENT RESIDENTS AND BUSINESSES OF THE UPCOMING CLOSURE. ADVANCE NOTIFICATION SHALL OCCUR NO LATER THAN FOURTEEN (14) DAYS PRIOR TO CLOSING THE ROAD. IF, SUBSEQUENT TO THE ADVANCE NOTIFICATION, THE START DATE IS CHANGED, THEN A NEW SEVEN (7) DAY NOTIFICATION WILL BE REQUIRED. THE ROAD CANNOT BE CLOSED UNLESS PRIOR NOTIFICATION HAS BEEN ACCOMPLISHED. THE SAME PARTIES SHALL BE NOTIFIED WHEN THE CLOSURE HAS CONCLUDED AND THE ROAD IS BACK OPEN TO TRAFFIC.

AGENCIES TO BE NOTIFIED INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EMERGENCY SERVICES AND SCHOOL FACILITIES:

JEFFERSON LOCAL SCHOOL DISTRICT 906 WEST MAIN STREET WEST JEFFERSON, OHIO 43162 614-879-7654 SUPERINTENDENT WILLIAM MULLETT	JEFFERSON TOWNSHIP FIRE DEPARTMENT 745 WEST MAIN STREET WEST JEFFERSON, OHIO 43162 614-879-8265
---	--

WEST JEFFERSON VILLAGE POLICE DEPARTMENT  
28 EAST MAIN STREET  
WEST JEFFERSON, OHIO 43162  
614-879-7672  
CHIEF RICK HARDY

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (hauling.permits@dot.ohio.gov) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

ITEM	DURATION OF CLOSURE	NOTIFICATION TIME TABLE	
		NOTICE DUE TO PERMITS & PIO	
RAMP &	>=2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE	
ROAD CLOSURES	>12 HOURS & <2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE	
LANE CLOSURES & RESTRICTIONS	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
	<2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE	

START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES 14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTICE TO OFFICE OF COMMUNICATIONS TIME TABLE.

CALCULATED  
CNK  
CHECKED  
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MAINTENANCE OF TRAFFIC  
GENERAL NOTES

S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18



K:\BLANGTIS\_KC\_U\173608979\Commerce Parkway\transportation\design\drawing\summary\summary.dwg GENERAL SUMMARY - Lot Sheet - Sep 21, 2018 10:02 AM Plotter: Sep 21, 2018 10:17 AM

ITEM	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHT. NO.	ITEM	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHT. NO.	CALCULATED TJS	CHECKED BMH	
<b>ROADWAY</b>					<b>TRAFFIC CONTROL</b>							
201	LUMP		CLEARING & GRUBBING		621	38	EACH	RPM				
202	170	FT.	PIPE REMOVED, 24" AND UNDER		621	22	EACH	RAISED PAVEMENT MARKER REMOVED				
202	176	FT.	PIPE REMOVED, OVER 24"		630	12.5	SQ. FT.	SIGN, FLAT SHEET				
202	5	EACH	CATCH BASIN REMOVED		630	93.5	FT.	GROUND MOUNTED SUPPORT, NO. 3 POST				
202	159	FT.	CURB AND GUTTER REMOVED		630	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION				
203	1,790	CU. YD.	EXCAVATION		630	5	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL				
203	189	CU. YD.	EMBANKMENT		630	5	EACH	SIGN POST REFLECTOR				
203	100	CU. YD.	GRANULAR MATERIAL, TYPE B		644	0.49	MILE	EDGE LINE, 6"				
204	1,884	SQ. YD.	SUBGRADE COMPACTION		644	0.51	MILE	CENTER LINE, 4"				
204	1	HOUR	PROOF ROLLING		644	357	FT.	CHANNELIZING LINE, 12"				
653	330	CU. YD.	TOPSOIL FURNISHED AND PLACED		644	80	FT.	STOP LINE, 24"				
SPEC.	900	SQ. YD.	SOIL STERILANT	4	644	229	FT.	TRANSVERSE LINE, 24"				
SPEC.	LUMP		MISC.: IDENTIFICATION OF BAT HABITAT TREES	5	644	11	EACH	LANE ARROW				
SPEC.	500	SQ. YD.	GEOTEXTILE FABRIC, 712.09, TYPE D	5								
<b>EROSION CONTROL</b>					<b>TRAFFIC SIGNALS</b>							
601	5	CU. YD.	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER									
601	4	SQ. YD.	TIED CONCRETE BLOCK MAT, TYPE 1		632	5	EACH	VEHICULAR SIGNAL HEAD RELOCATED, AS PER PLAN			30	
659	2,965	SQ. YD.	SEEDING AND MULCHING		632	473	FT.	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG				
659	0.41	TON	COMMERCIAL FERTILIZER		632	130	FT.	SIGNALIZATION MISC.: UNLASH AND RELASH MESSENGER WIRE			30	
659	0.14	ACRE	LIME		632	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION				
659	17	M GAL.	WATER		809	2	EACH	ADVANCE RADAR DETECTION				
670	386	SQ. YD.	DITCH EROSION PROTECTION		809	1	EACH	STOP-BAR RADAR DETECTION				
670	23	SQ. YD.	SLOPE EROSION PROTECTION									
832	LUMP		STORM WATER POLLUTION PREVENTION PLAN									
832	20,000	EACH	EROSION CONTROL									
<b>DRAINAGE</b>					<b>MAINTENANCE OF TRAFFIC</b>							
605	1,219	FT.	6" BASE PIPE UNDERDRAINS		614	20	EACH	REPLACEMENT DRUM				
605	145	FT.	6" UNCLASSIFIED PIPE UNDERDRAINS		614	5	EACH	REPLACEMENT SIGN				
611	2	EACH	PRECAST REINFORCED CONCRETE OUTLET		614	60	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE				
611	2	EACH	MANHOLE, NO. 3		616	8	M GAL.	WATER				
611	1	EACH	CATCH BASIN, NO. 2-2B									
611	2	EACH	CATCH BASIN, NO. 3									
611	1	EACH	CATCH BASIN, NO. 5 WITHOUT APRON									
611	172	FT.	6" CONDUIT, TYPE F									
611	101	FT.	12" CONDUIT, TYPE B									
611	20	FT.	12" CONDUIT, TYPE E									
611	20	FT.	12" CONDUIT, TYPE F									
611	131	FT.	15" CONDUIT, TYPE B, CONCRETE ENCASED									
611	50	FT.	15" CONDUIT, TYPE C									
611	16	FT.	18" CONDUIT, TYPE C									
611	24	FT.	24" CONDUIT, TYPE C									
SPEC.	48	FT.	FILL AND PLUG EXISTING CONDUIT	5								
<b>PAVEMENT</b>					<b>WATER WORK</b>							
252	1,227	FT.	FULL DEPTH PAVEMENT SAWING		108	LUMP		TYPE B CPM PROGRESS SCHEDULE				
254	5,230	SQ. YD.	PAVEMENT PLANING, ASPHALT CONCRETE		614	LUMP		MAINTAINING TRAFFIC				
301	281	CU. YD.	ASPHALT CONCRETE BASE, PG64-22		623	LUMP		CONSTRUCTION LAYOUT STAKES AND SURVEYING				
304	435	CU. YD.	AGGREGATE BASE		624	LUMP		MOBILIZATION				
407	4,287	GAL.	NON-TRACKING TACK COAT									
441	287	CU. YD.	ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (448), PG64-22									
441	80	CU. YD.	ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (448)									
609	310	FT.	COMBINATION CURB AND GUTTER, AS PER PLAN	3								
<b>WATER WORK</b>												
SPEC.	2	EACH	WATERLINE LOWERING	4								

GENERAL SUMMARY

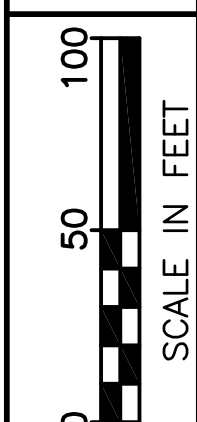
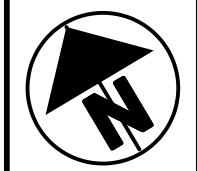
S. R. 29 IMPROVEMENTS AT COMMERCE PARKWAY

09/05/18

9-21-18 (BMP)

8  
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CALCULATED  
TJS  
CHECKED  
BMH

PROJECT DATA			
TOTAL AREA (RIGHT-OF-WAY)	3.34 ACRES	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.3 - 0.7
PROJECT EARTH DISTURBED AREA	0.88 ACRES	RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.3 - 0.7
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.06 ACRES	POST CONSTRUCTION BMP'S ARE NOT REQUIRED	
NOI EARTH DISTURBED AREA	0.94 ACRES	IMMEDIATE RECEIVING WATERS	UNNAMED TRIBUTARY
IMPERVIOUS AREA FOR PRE-CONSTRUCTION SITE	1.19 ACRES	SUBSEQUENT RECEIVING WATERS	LITTLE DARBY CREEK
IMPERVIOUS AREA FOR POST-CONSTRUCTION SITE	1.45 ACRES		

### PROJECT DESCRIPTION

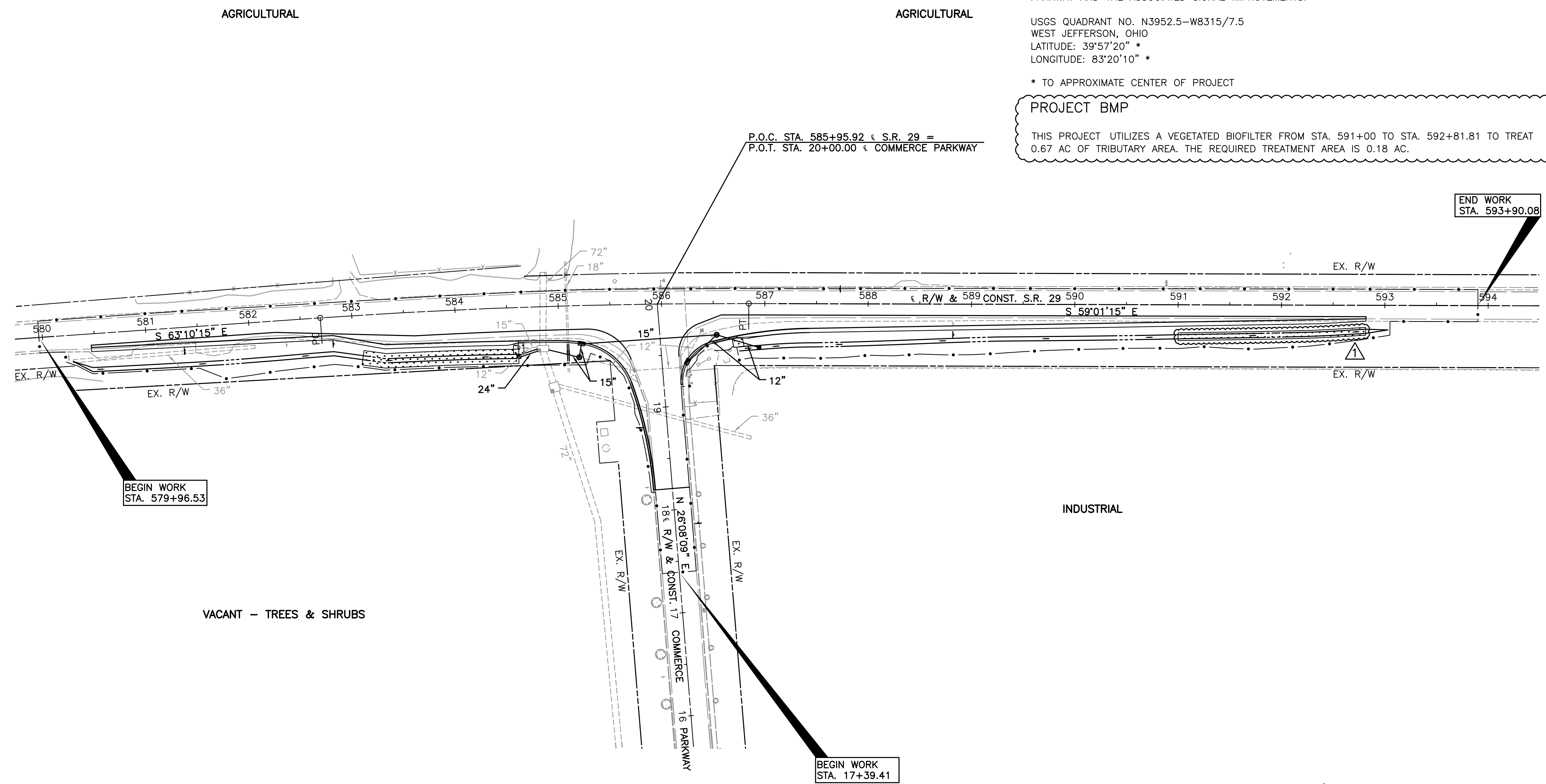
THIS PROJECT CONSISTS OF THE WIDENING OF S.R. 29 TO PROVIDE TURN LANES AT COMMERCE PARKWAY AND THE ASSOCIATED SIGNAL IMPROVEMENTS.

USGS QUADRANT NO. N3952.5-W8315/7.5  
WEST JEFFERSON, OHIO  
LATITUDE: 39°57'20" \*  
LONGITUDE: 83°20'10" \*

\* TO APPROXIMATE CENTER OF PROJECT

### PROJECT BMP

THIS PROJECT UTILIZES A VEGETATED BIOFILTER FROM STA. 591+00 TO STA. 592+81.81 TO TREAT 0.67 AC OF TRIBUTARY AREA. THE REQUIRED TREATMENT AREA IS 0.18 AC.



PROJECT SITE PLAN

S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18

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K:\BLANGTIS\_KC\_U\173608979\Commerce Parkway\transportation\design\drawing\plan\173608979\swppp.dwg PROJECT SITE PLAN Last Saved: Sep 21, 2018 10:16 AM Plotted: Sep 21, 2018 10:18 AM

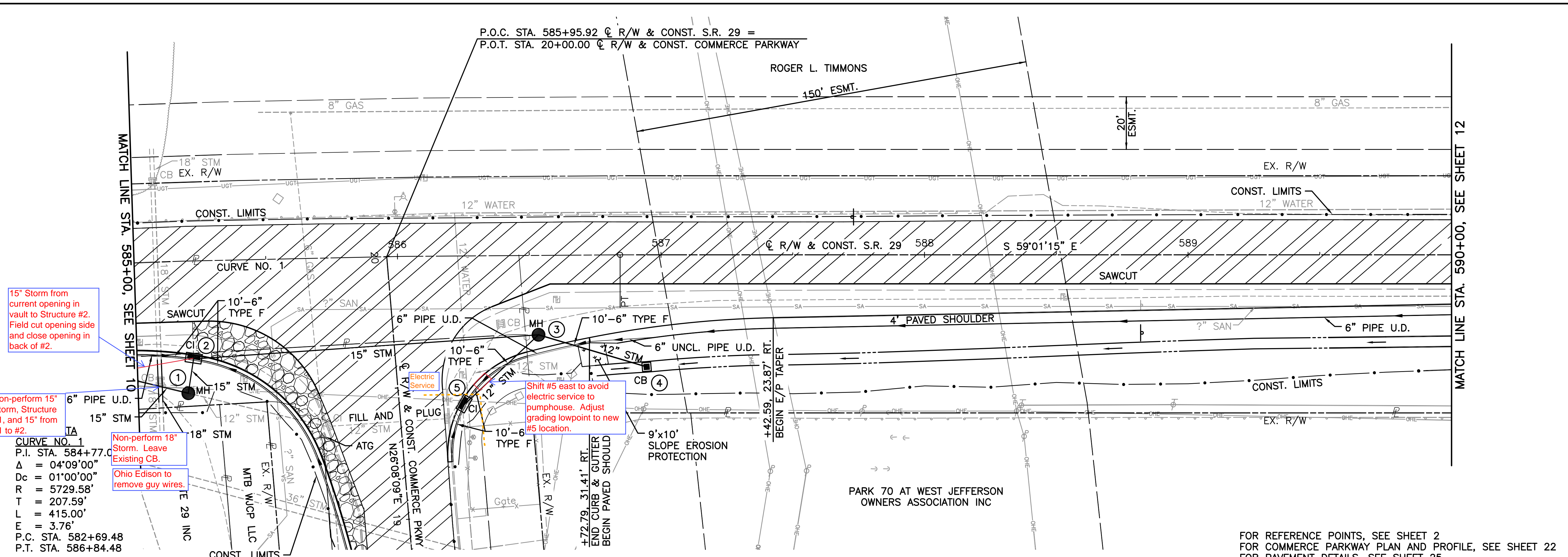
9-21-18 (BMP)







MCDANIEL, ARRON, USA 173608979 Commerce Parkway Transportation\design\drawing\plan\Plan AND PROFILE - S.R. 29 STA. 585+00 TO STA. 590+00.dwg Plot Date: Aug 24, 2018 12:19 PM



15" Storm from current opening in vault to Structure #2. Field cut opening side and close opening in back of #2.

Non-perform 15" Storm, Structure #1, and 15" from #1 to #2.

**CURVE NO. 1**  
 P.I. STA. 584+77.0  
 $\Delta = 04^{\circ}09'00''$   
 $Dc = 01^{\circ}00'00''$   
 $R = 5729.58'$   
 $T = 207.59'$   
 $L = 415.00'$   
 $E = 3.76'$   
 P.C. STA. 582+69.48  
 P.T. STA. 586+84.48

Non-perform 18" Storm. Leave Existing CB.  
 Ohio Edison to remove guy wires.

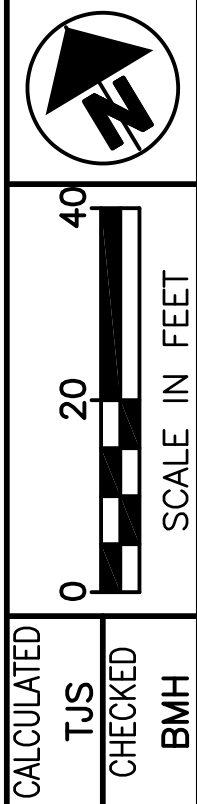
Shift #5 east to avoid electric service to pumphouse. Adjust grading lowpoint to new #5 location.

- UNDERCUT AND REPLACE WITH ITEM 304, AGGREGATE BASE TO MATCH EXISTING SUBGRADE

- 1.50" ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE  
 1.50" ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

FOR REFERENCE POINTS, SEE SHEET 2  
 FOR COMMERCE PARKWAY PLAN AND PROFILE, SEE SHEET 22  
 FOR PAVEMENT DETAILS, SEE SHEET 25  
 FOR INTERSECTION DETAILS, SEE SHEET 26  
 FOR STORM SEWER PROFILES, SEE SHEET 27  
 FOR TRAFFIC CONTROL PLAN, SEE SHEETS 28-29  
 FOR SIGNAL PLAN, SEE SHEETS 31-33

945	968.98	969.03	969.24	969.47	969.73	969.98	970.23	970.52	970.69	970.84	970.93	971.01	971.12	971.21	971.26	971.32	971.34	971.42	971.61	971.81	972.03	945
950																						950
955																						955
960																						960
965																						965
970																						970
975																						975
980																						980
985																						985
585+00	968.98	969.03	969.24	969.47	969.73	969.98	970.23	970.52	970.69	970.84	970.93	971.01	971.12	971.21	971.26	971.32	971.34	971.42	971.61	971.81	972.03	590+00



PLAN AND PROFILE - S.R. 29  
 STA. 585+00 TO STA. 590+00

S.R. 29 IMPROVEMENTS AT  
 COMMERCE PARKWAY

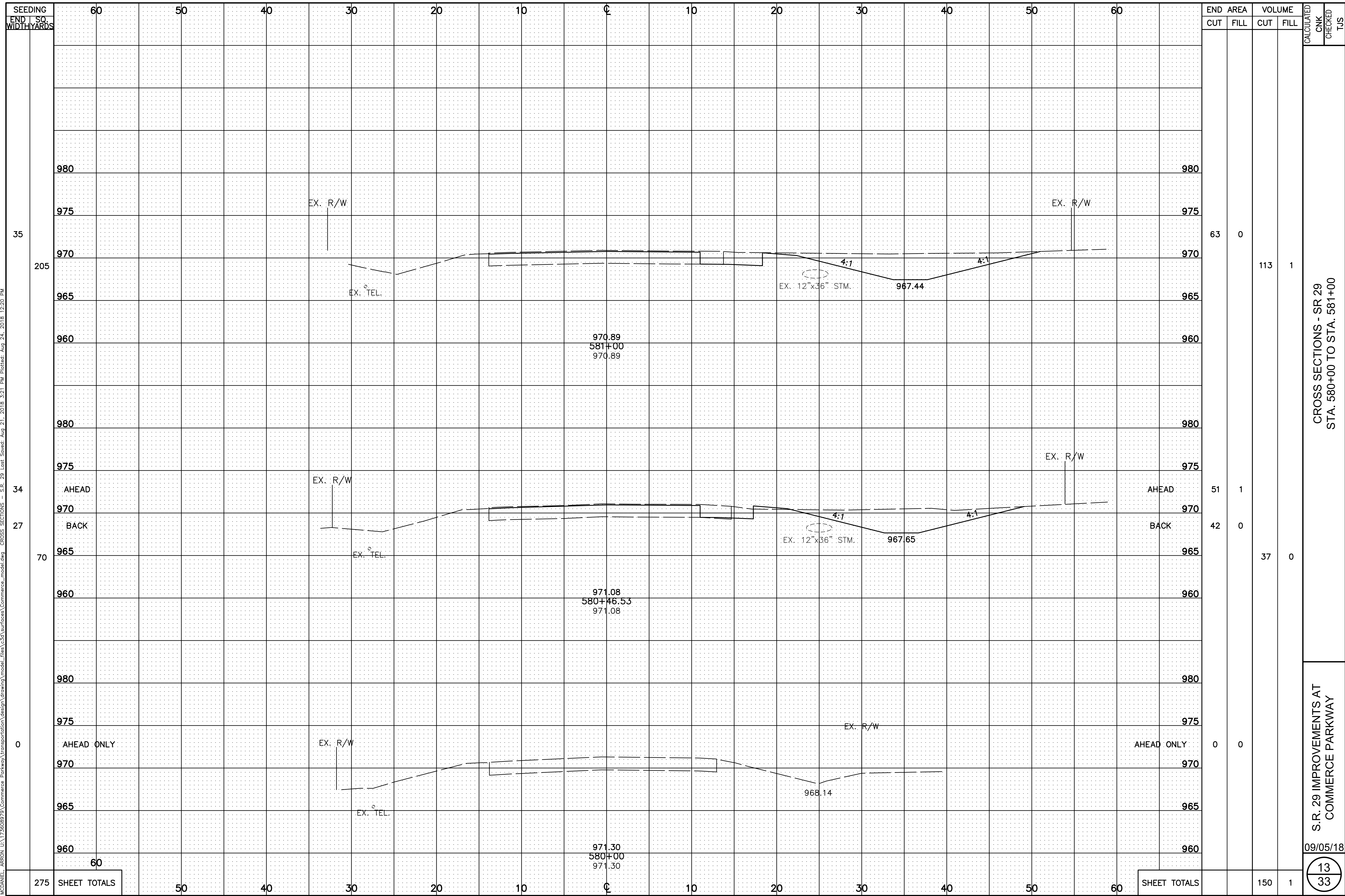
09/05/18







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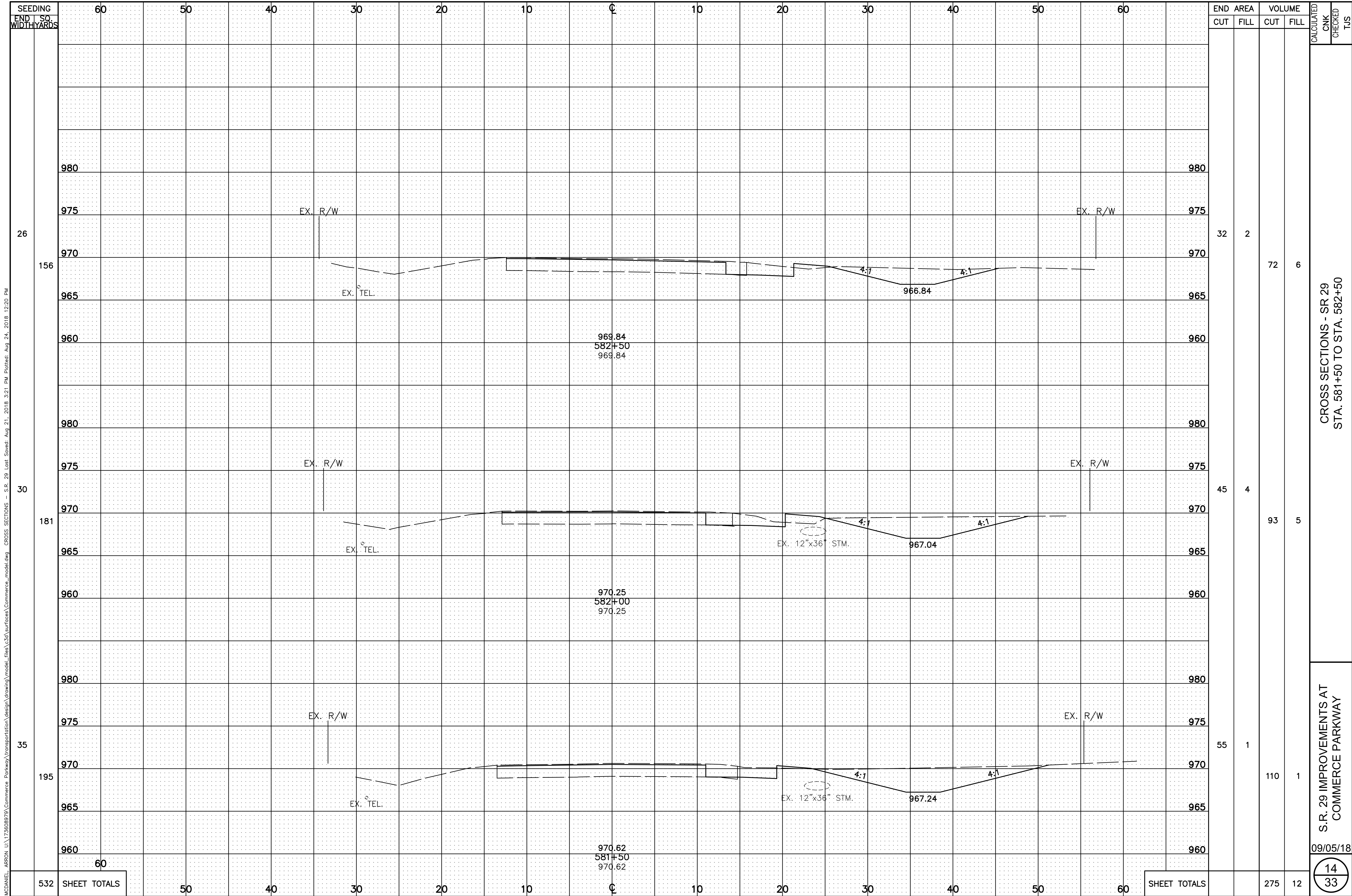
CROSS SECTIONS - SR 29  
STA. 580+00 TO STA. 581+00

S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18

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SEEDING END SO WIDTH YARDS	END AREA		VOLUME		CALCULATED CNK	CHECKED TUS
	CUT	FILL	CUT	FILL		
26		2				
156			72	6		
30		4				
181			93	5		
35		1				
195			110	1		
532	SHEET TOTALS		275	12		

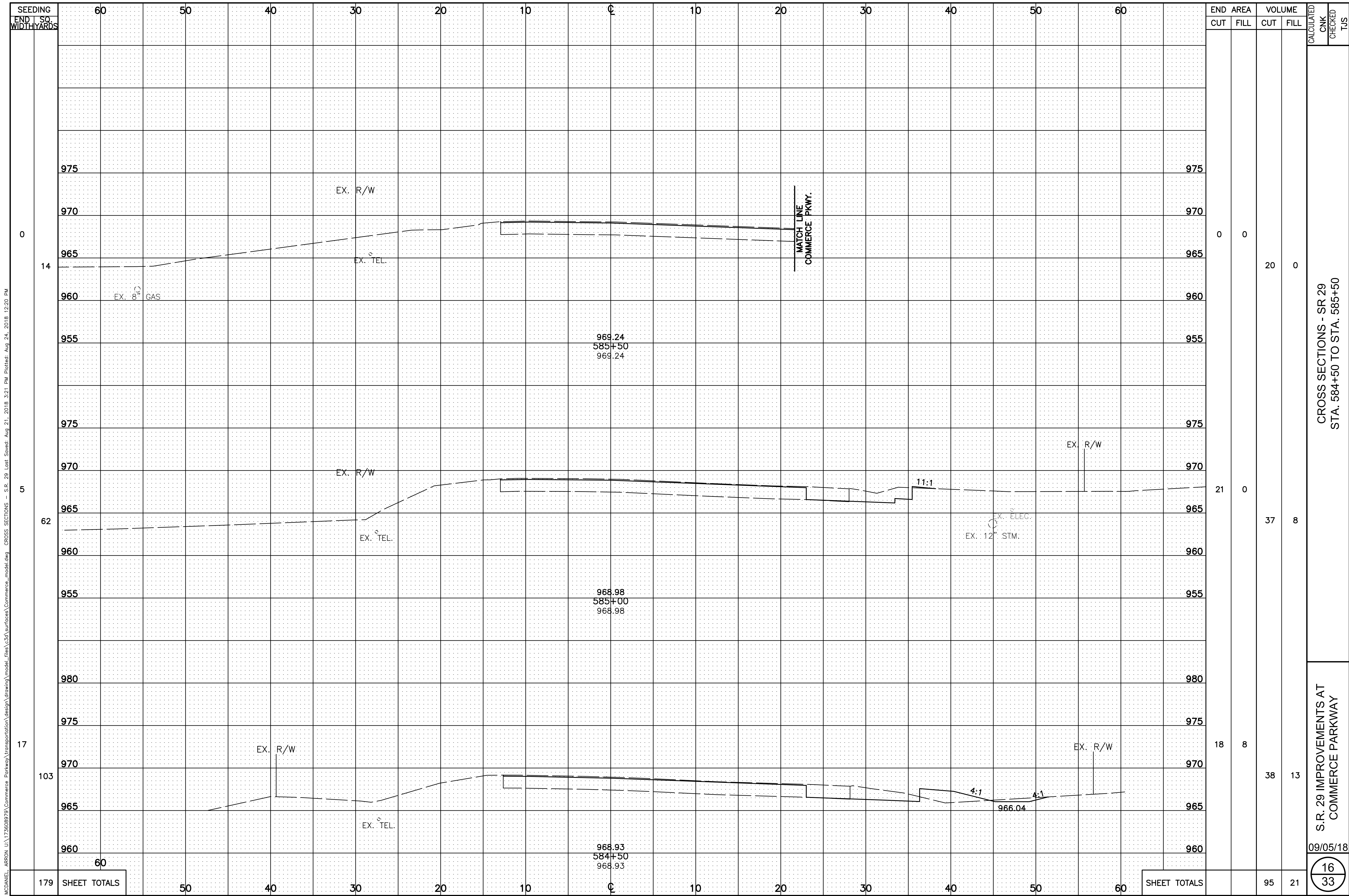
CROSS SECTIONS - SR 29  
 STA. 581+50 TO STA. 582+50

S.R. 29 IMPROVEMENTS AT  
 COMMERCE PARKWAY

09/05/18  
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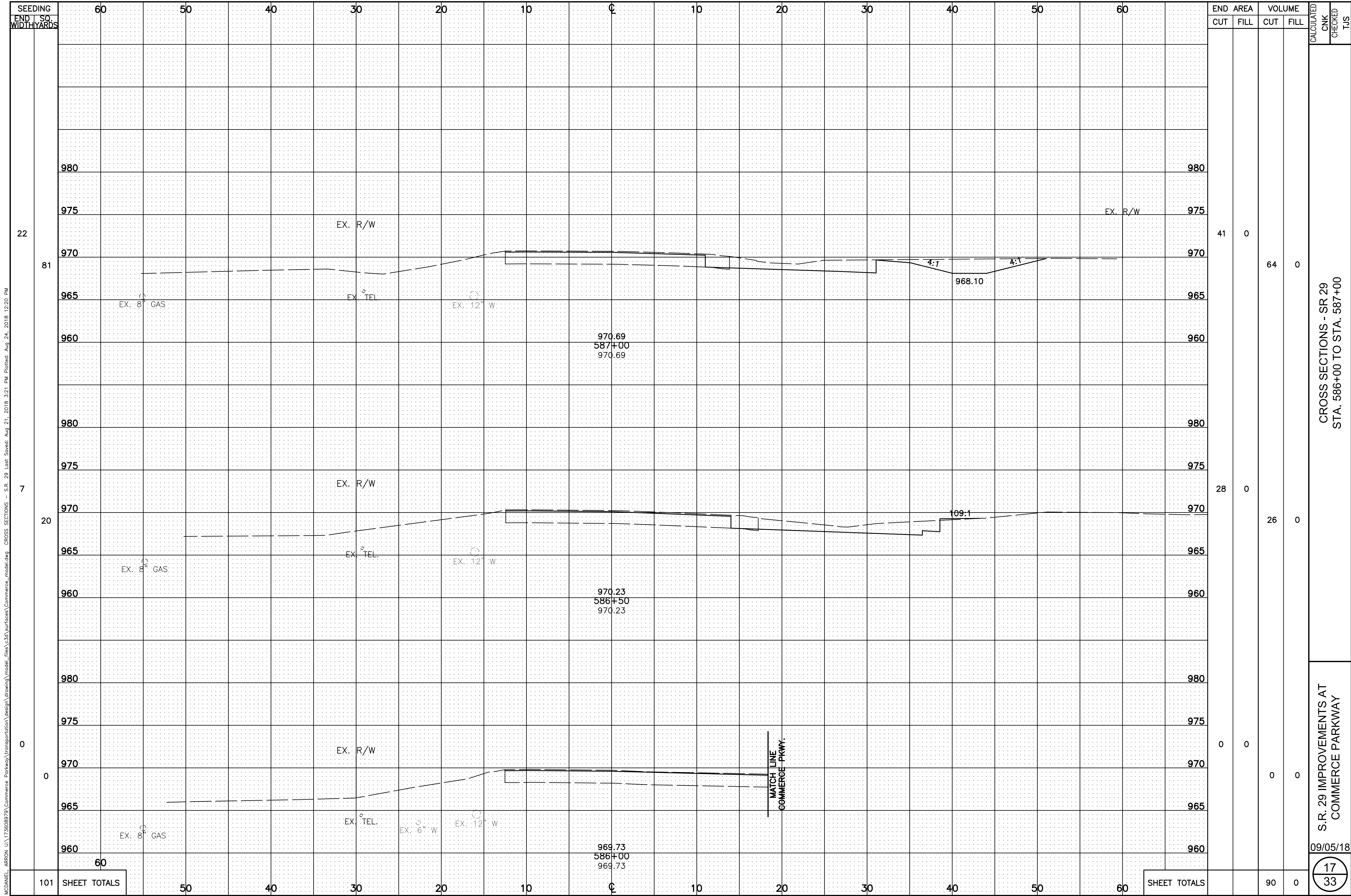
END STA	AREA	VOLUME	CALCULATED		CNK	CHECKED	TUS
			CUT	FILL			
975							
970							
965	0	0					
960							
955							
975							
970							
965	21	0					
960							
955							
980							
975							
970							
965	18	8					
960							
<b>SHEET TOTALS</b>							
			95	21			

CROSS SECTIONS - SR 29  
 STA. 584+50 TO STA. 585+50

S.R. 29 IMPROVEMENTS AT  
 COMMERCE PARKWAY

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END STA	AREA		VOLUME		CALCULATED	CNK	CHECKED	TUS
	CUT	FILL	CUT	FILL				
980								
975								
970	41	0						
965			64	0				
960								
980								
975								
970	28	0						
965			26	0				
960								
980								
975								
970	0	0						
965			0	0				
960								
<b>SHEET TOTALS</b>			<b>90</b>	<b>0</b>				

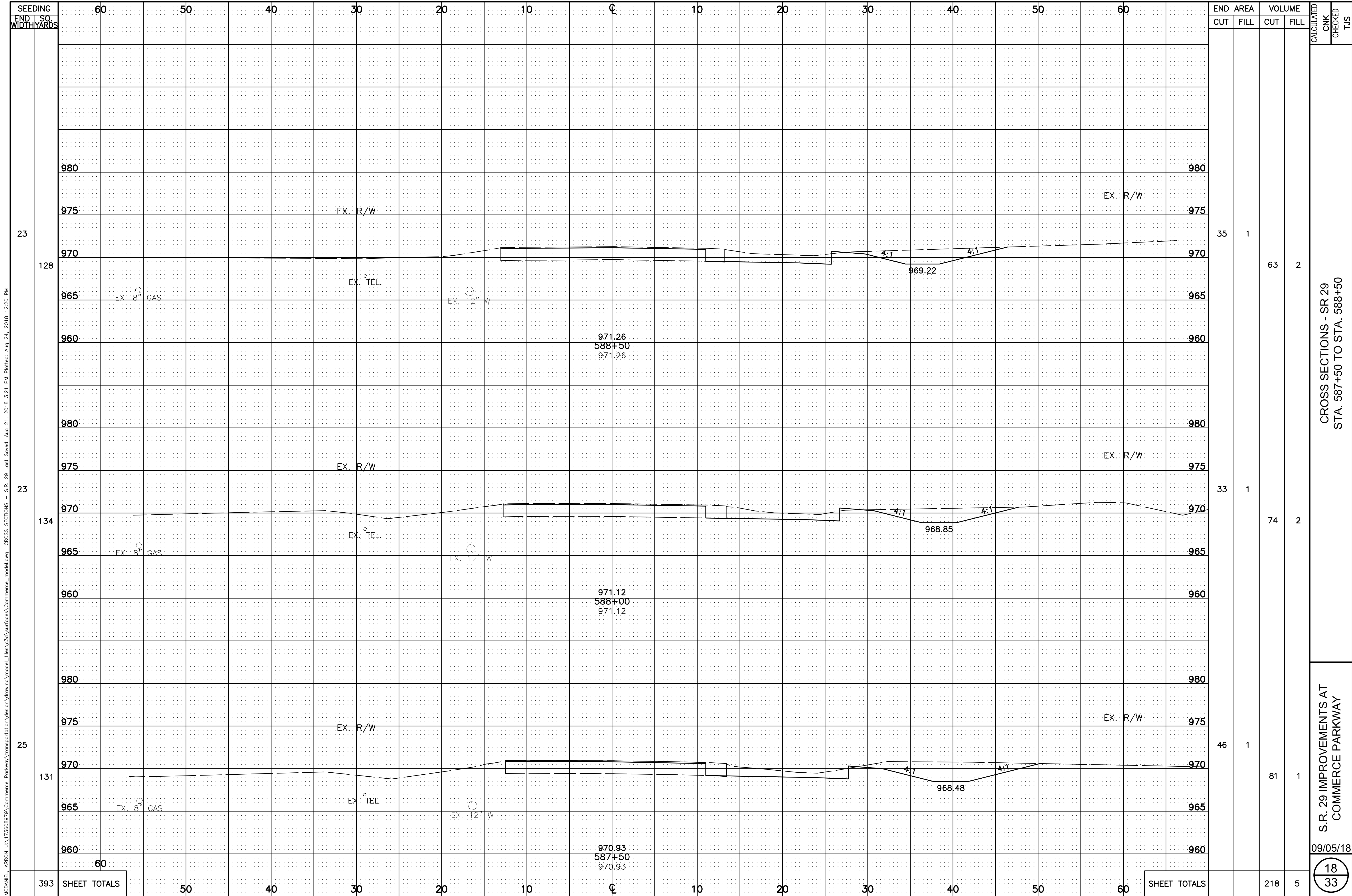
CROSS SECTIONS - SR 29  
 STA. 586+00 TO STA. 587+00

S.R. 29 IMPROVEMENTS AT  
 COMMERCE PARKWAY

09/05/18

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 33





MCDANIEL, ARRON, USA\173608979\Commerce Parkway\transportation\design\drawing\model\_files\c3a\surfaces\Commerce\_model.dwg CROSS SECTIONS - SR 29 - SR 29 Lost Street, Aug 21, 2018 3:21 PM, Plotted: Aug 24, 2018 12:20 PM

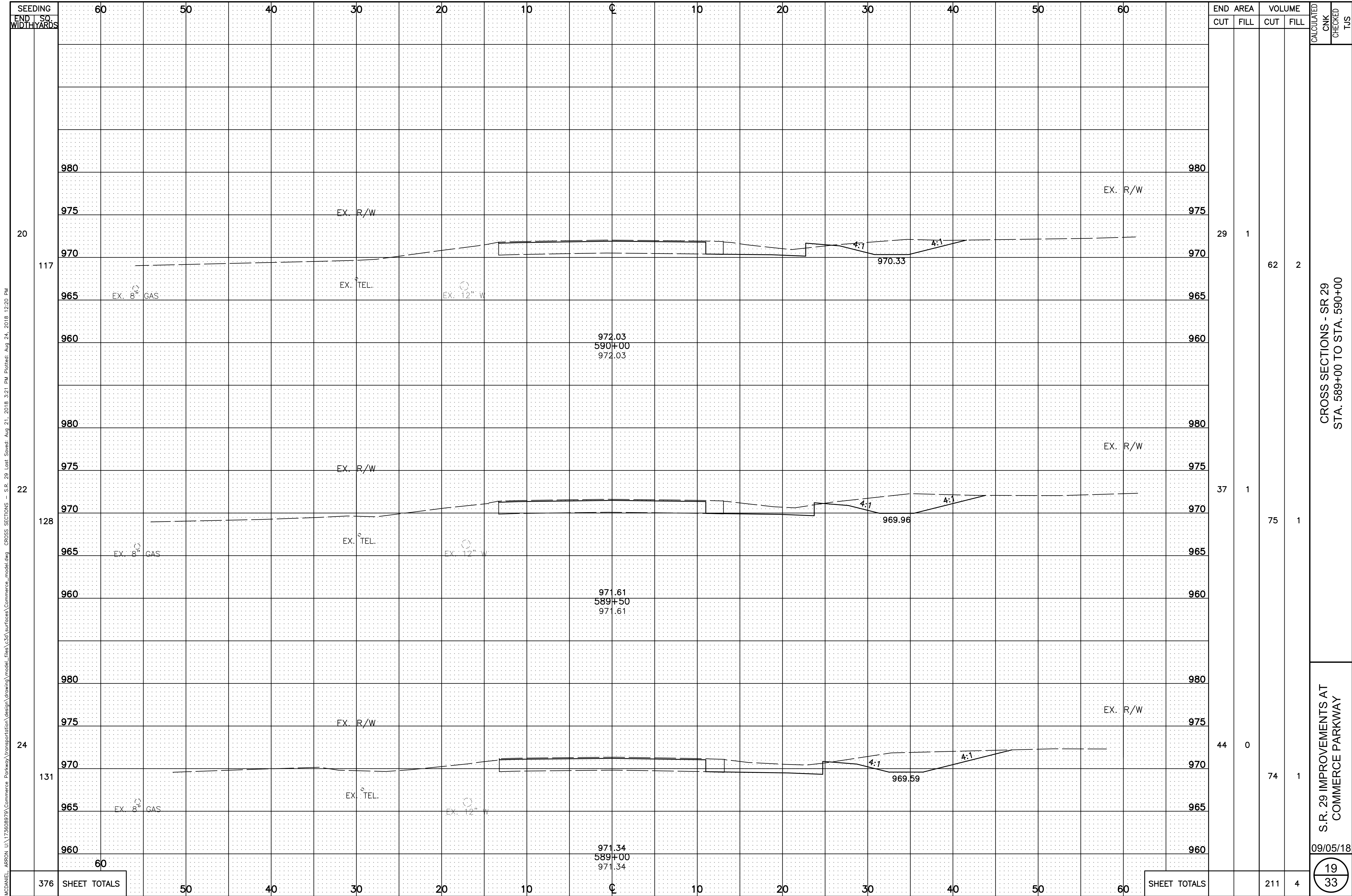
CROSS SECTIONS - SR 29  
 STA. 587+50 TO STA. 588+50

S.R. 29 IMPROVEMENTS AT  
 COMMERCE PARKWAY

09/05/18

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 33





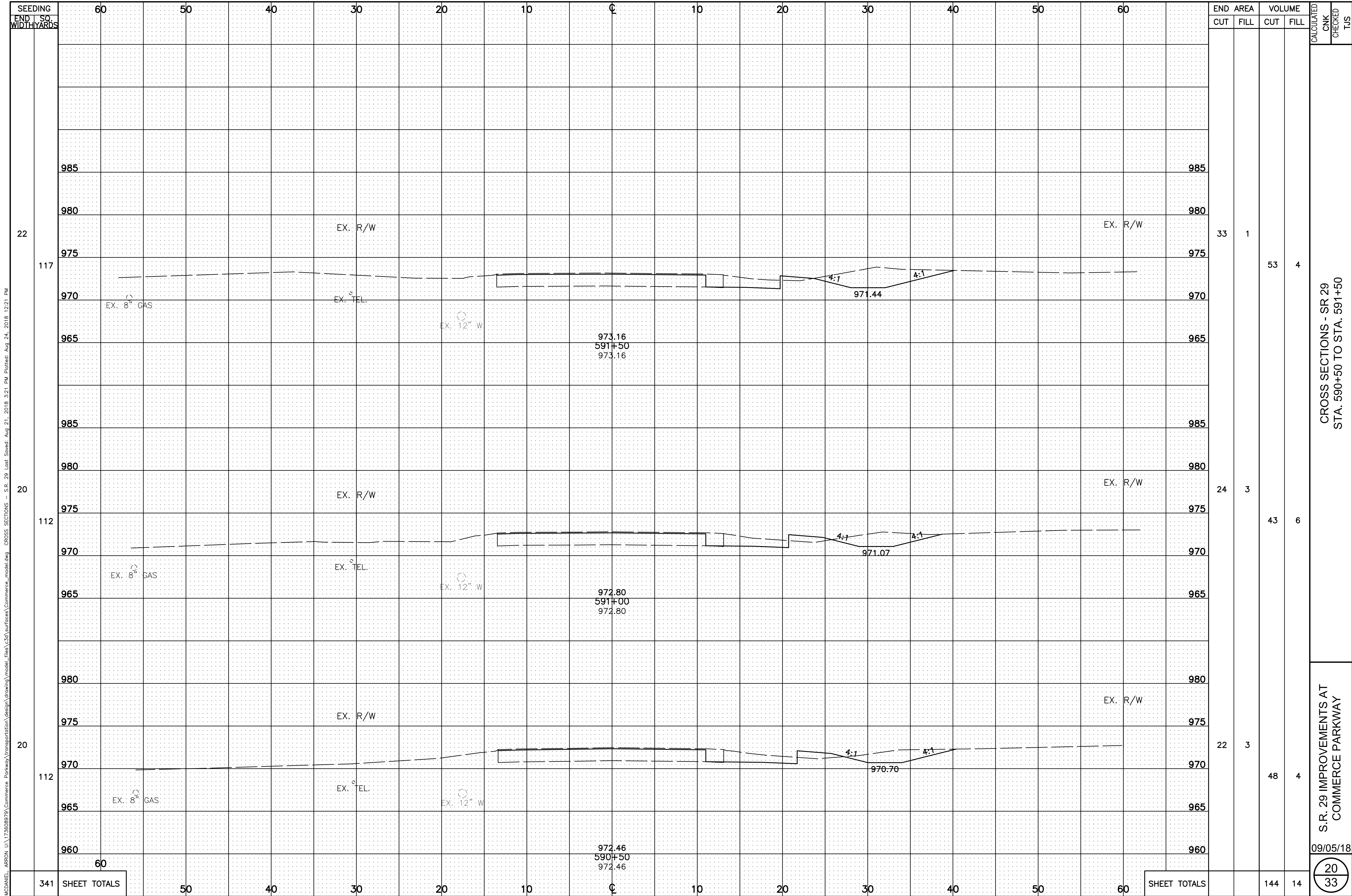
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CROSS SECTIONS - SR 29  
 STA. 589+00 TO STA. 590+00

S.R. 29 IMPROVEMENTS AT  
 COMMERCE PARKWAY

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33



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SEEDING END SO WIDTH YARDS	END AREA		VOLUME		CALCULATED CNK	CHECKED TUS
	CUT	FILL	CUT	FILL		
22		1				
117			53	4		
20		3				
112			43	6		
20		3				
112			48	4		
341	SHEET TOTALS		144	14		

CROSS SECTIONS - SR 29  
 STA. 590+50 TO STA. 591+50

S.R. 29 IMPROVEMENTS AT  
 COMMERCE PARKWAY

09/05/18

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 33



SEEDING END SO WIDTH YARDS	60 50 40 30 20 10 0 10 20 30 40 50 60														END AREA		VOLUME		CALCULATED CNK	CHECKED TUS		
															CUT	FILL	CUT	FILL				
															ITEM 203 EXCAVATION 1,443 CU. YD. ITEM 203 EMBANKMENT 84 CU. YD. ITEM 659 SEEDING & MULCHING 2,871 SQ. YD.							
															QUANTITIES CARRIED TO THE GENERAL SUMMARY							
17	985															985						
	980															980						
	975	EX. R/W														975						
66	970															970	11	3	18	4		
	965	974.06 592+81.81 974.06														965						
	985															985						
	980															980						
20	975	EX. R/W														975						
	970															970	18	3	46	5		
	965	973.89 592+50 973.89														965						
	985															985						
	980															980						
23	975	EX. R/W														975						
	970															970	31	2	60	3		
	965	973.55 592+00 973.55														965						
311	SHEET TOTALS	60	50	40	30	20	10	0	10	20	30	40	50	60	SHEET TOTALS			124	12			

CROSS SECTIONS - SR 29  
STA. 592+00 TO STA. 592+81.81

S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18

21  
33

MCDANIEL, ARRON, USA\173608979\Commerce Parkway\transportation\design\drawing\model\_files\3d\surfaces\Commerce\_model.dwg CROSS SECTIONS - SR 29, Last Saved: Aug 21, 2018 3:21 PM, Plotted: Aug 24, 2018 12:21 PM





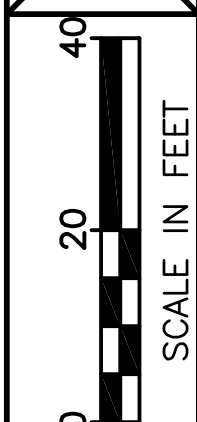
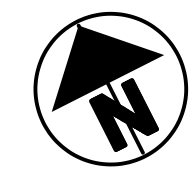




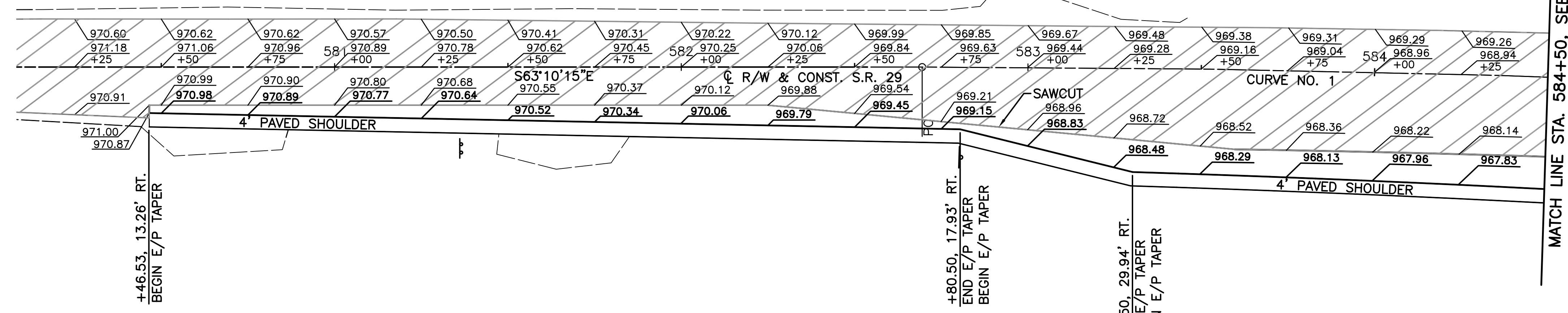


MCDANIEL, ARRON, USA\173608979\Commerce Parkway\transportation\design\drawing\plans\173608979pd01.dwg PAVEMENT DETAILS Last Saved: Aug 17, 2018, 10:50 AM Plotted: Aug 24, 2018, 12:22 PM

**CURVE DATA**  
**CURVE NO. 1**  
 P.I. STA. 584+77.07  
 $\Delta = 04^{\circ}09'00''$   
 $D_c = 01^{\circ}00'00''$   
 $R = 5729.58'$   
 $T = 207.59'$   
 $L = 415.00'$   
 $E = 3.76'$   
 P.C. STA. 582+69.48  
 P.T. STA. 586+84.48



CALCULATED  
 MRD  
 CHECKED  
 CNK



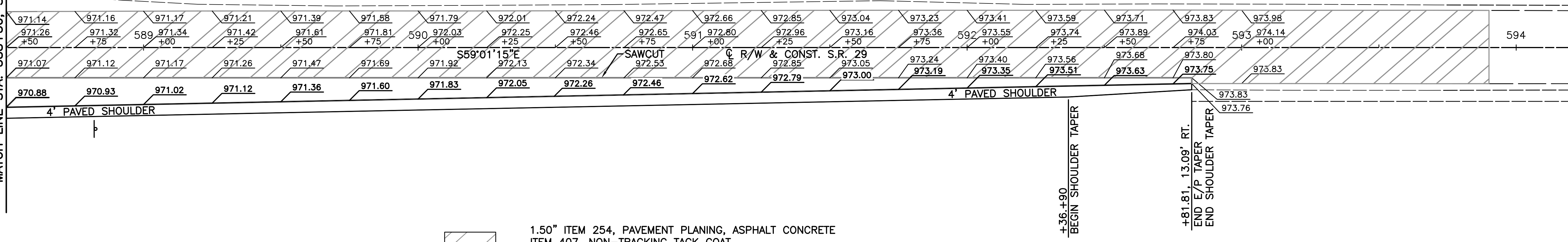
MATCH LINE STA. 584+50, SEE SHEET 26

**LEGEND**

- 734.60 - EXIST. ELEVATION
- 734.42 - PROP. ELEVATION



MATCH LINE STA. 588+50, SEE SHEET 26



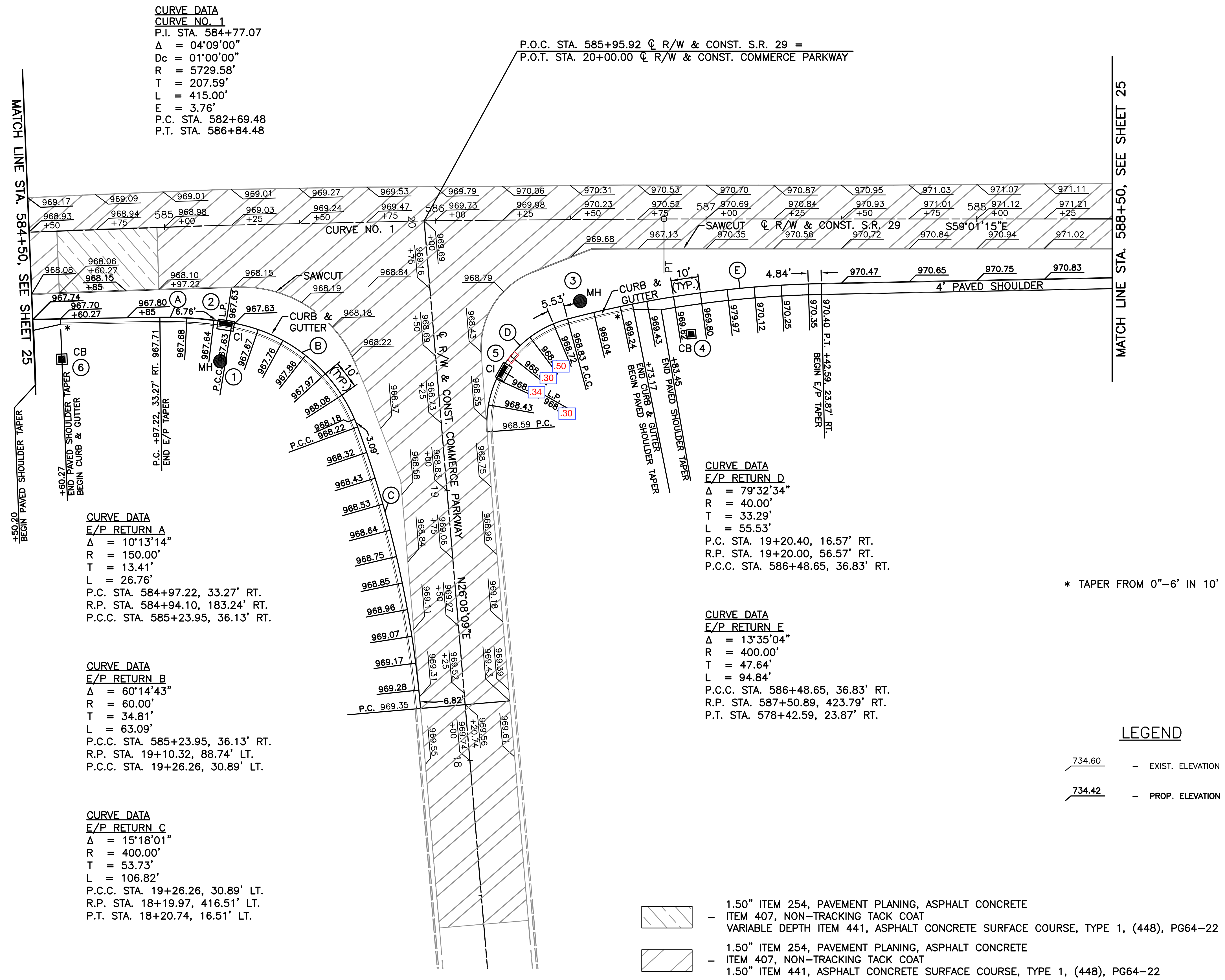
- 1.50" ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE
- ITEM 407, NON-TRACKING TACK COAT
- 1.50" ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

PAVEMENT DETAILS  
 S.R. 29

S.R. 29 IMPROVEMENTS AT  
 COMMERCE PARKWAY

09/05/18

MCDANIEL, ARRON, USA\173608979\Commerce Parkway\transportation\design\drawing\plans\173608979\1.dwg INTERSECTION DETAILS (last saved: Aug 17, 2018, 10:32 AM Plotted: Aug 24, 2018, 12:22 PM)



CALCULATED  
 CNK  
 CHECKED  
 TJS

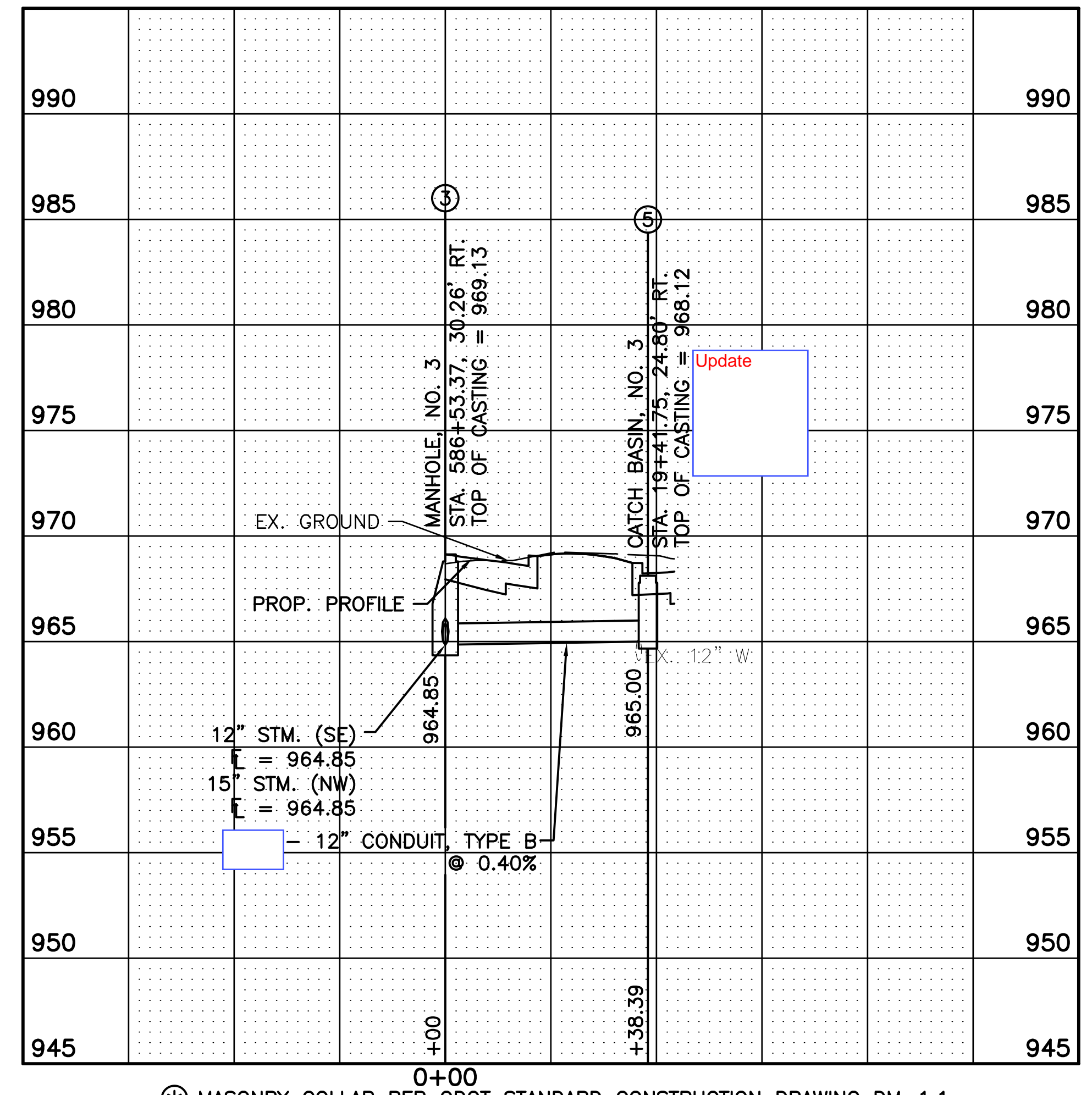
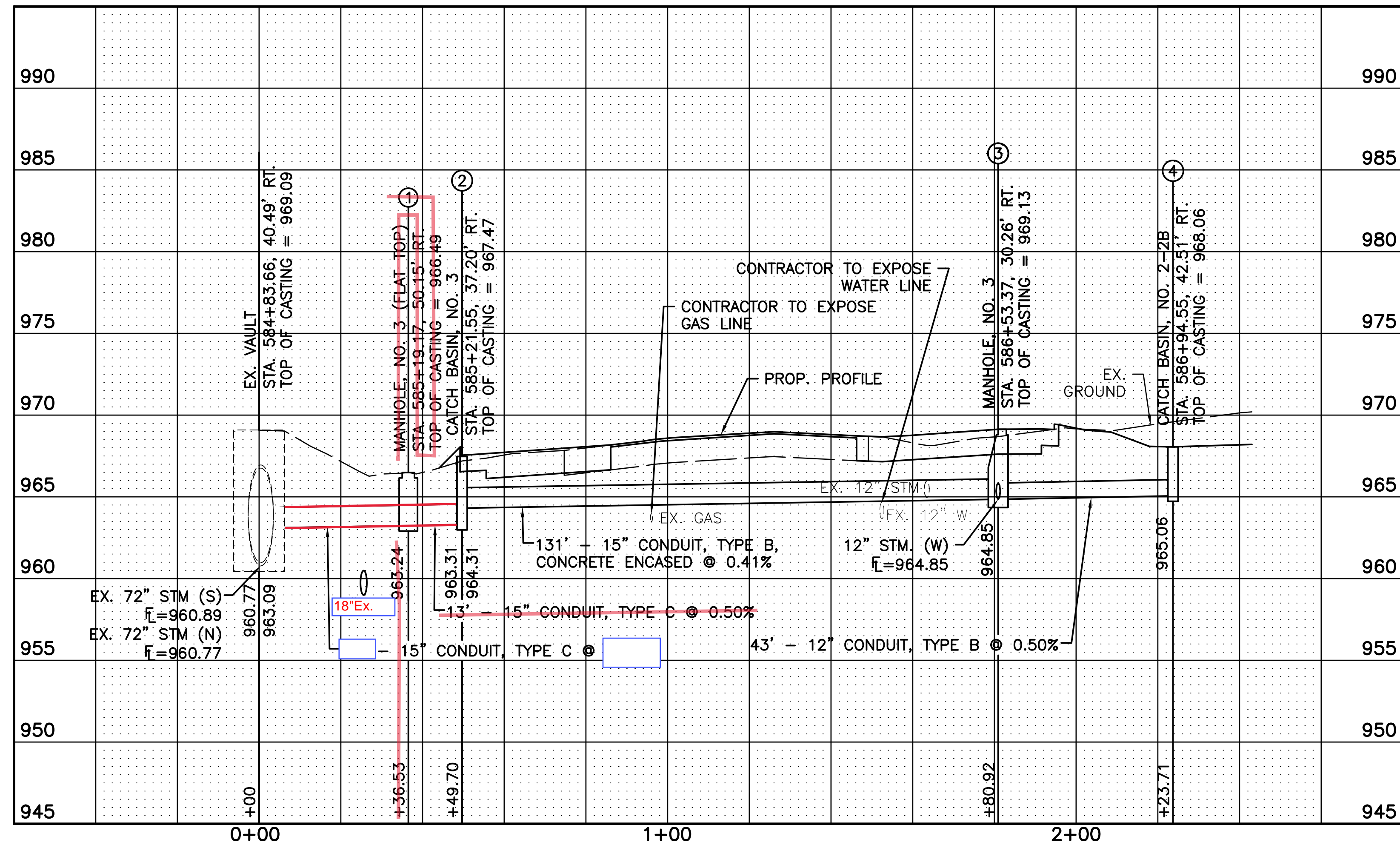
INTERSECTION DETAILS  
 S.R. 29 AT COMMERCE PARKWAY

S.R. 29 IMPROVEMENTS AT  
 COMMERCE PARKWAY

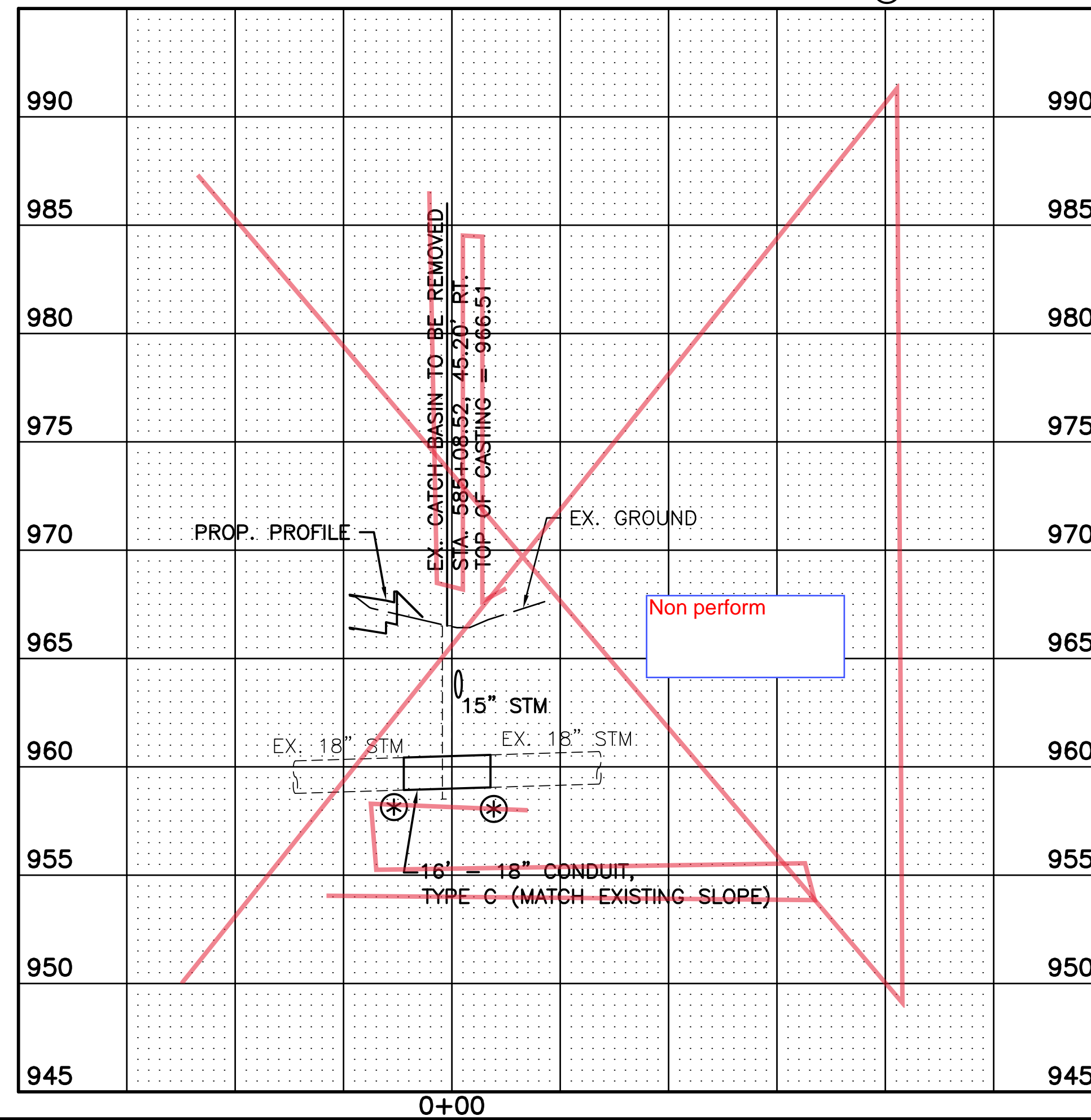
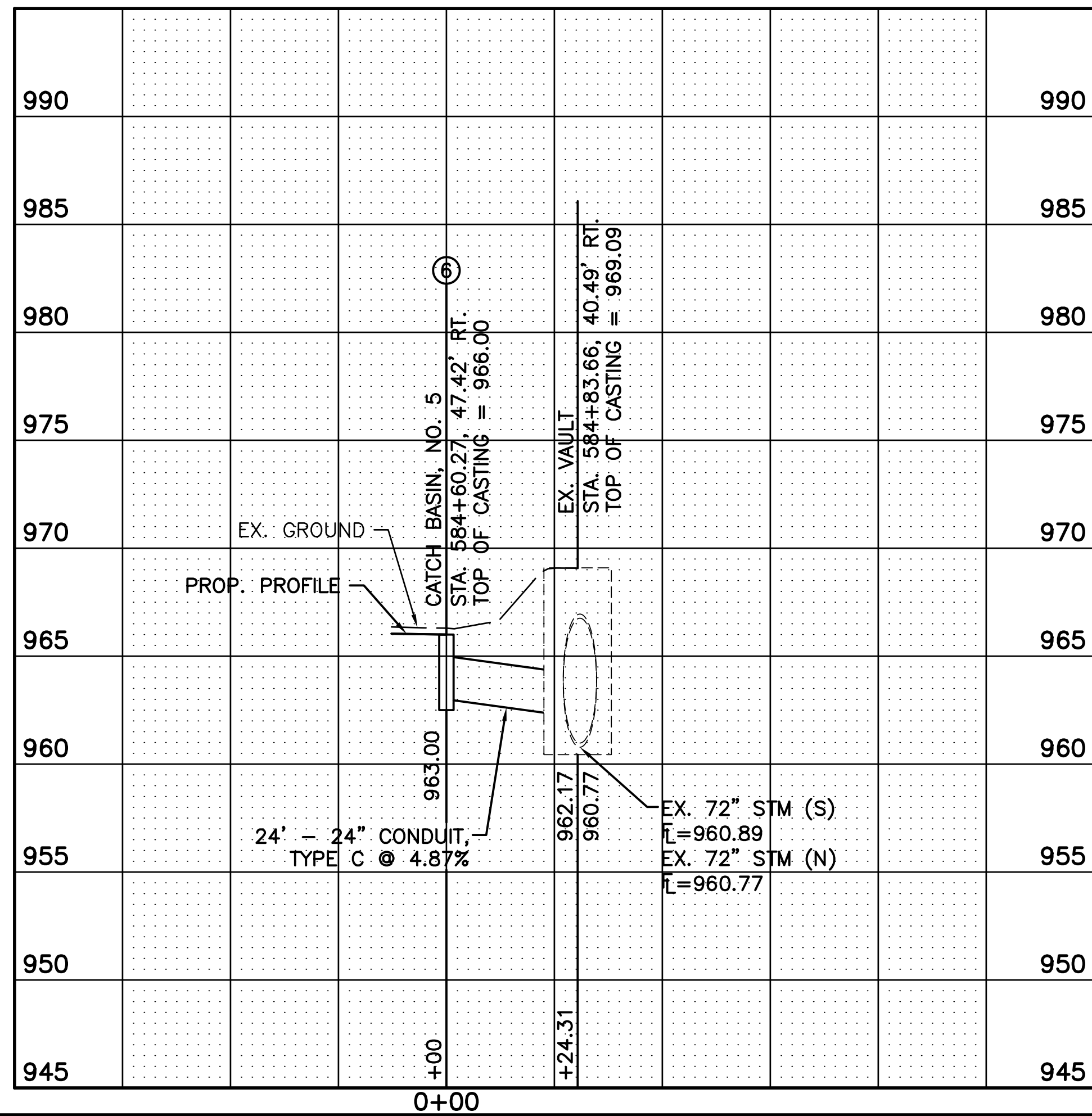
NOTE: ALL ELEVATIONS ARE TOP OF PAVEMENT



MCDANIEL, ARRON, USA\173608979\Commerce Parkway\transportation\design\drawing\storm\storm\_sewer\_profiles\173608979swp01.dwg STORM\_SEWER\_PROFILES\_Last\_Sheet: Aug 21, 2018 4:59 PM, TSHKOLNIK Plotted: Aug 24, 2018 12:22 PM



⊗ MASONRY COLLAR PER ODOT STANDARD CONSTRUCTION DRAWING DM-1.1



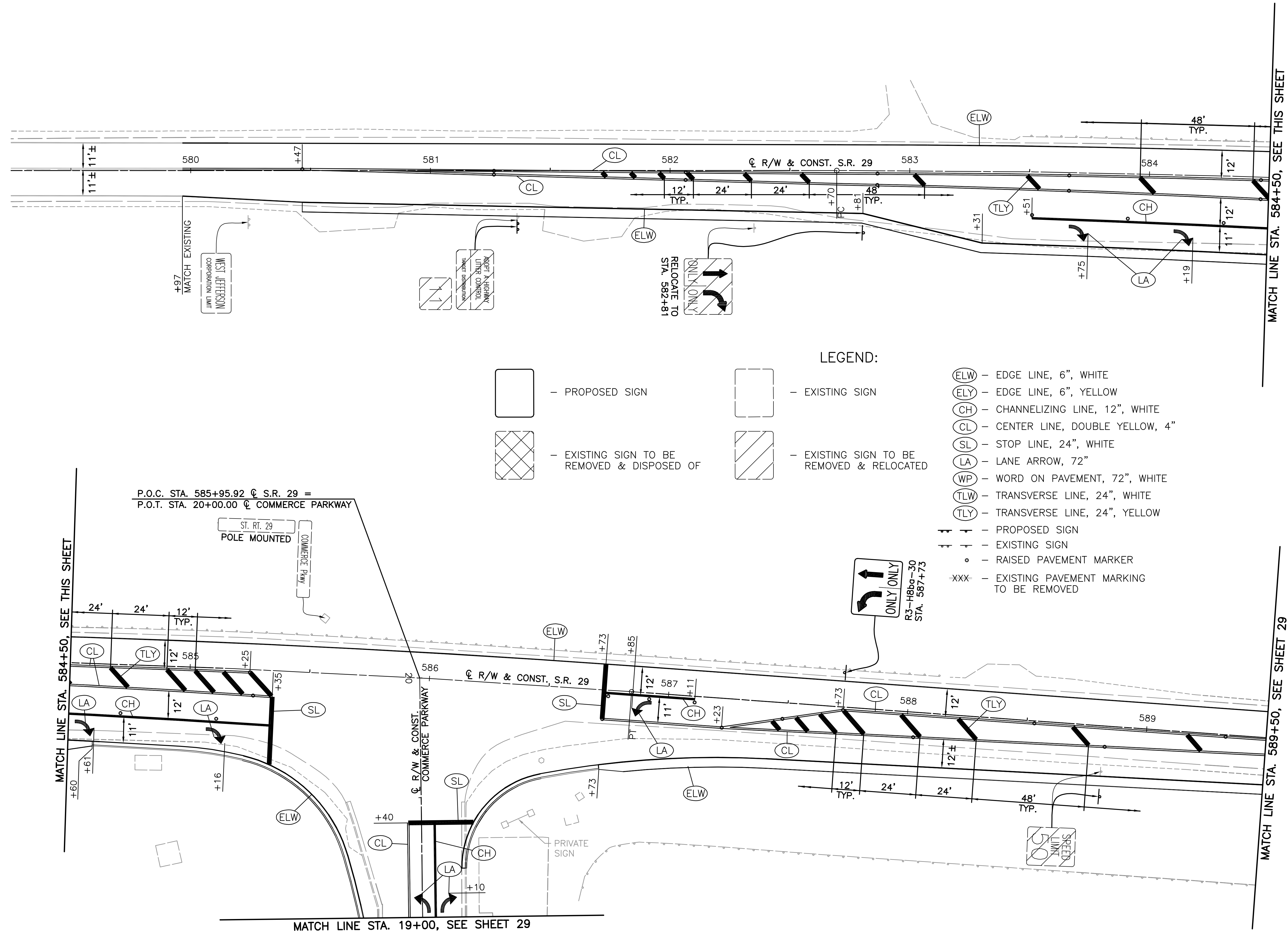
CALCULATED  
CNK  
CHECKED  
TJS

STORM SEWER PROFILES

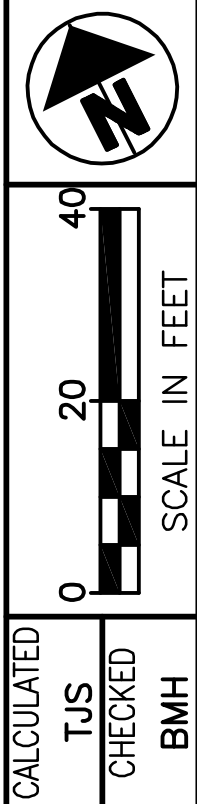
S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18

SHKOLNIK\_TODD\_U:\17369879\Commerce\_Parkway\transportation\design\drawing\planned\Traffic\_Control\17369879.eco.dwg TRAFFIC CONTROL Last Saved: Aug 17, 2018 12:28 PM Plotted: Sep 05, 2018 12:48 PM



- LEGEND:**
- |  |   |  |   |  |   |
|--|---|--|---|--|---|
|  | - PROPOSED SIGN                             |  | - EXISTING SIGN                           |  | (ELW) - EDGE LINE, 6", WHITE                  |
|  | - EXISTING SIGN TO BE REMOVED & DISPOSED OF |  | - EXISTING SIGN TO BE REMOVED & RELOCATED |  | (ELY) - EDGE LINE, 6", YELLOW                 |
|  |   |  |   |  | (CH) - CHANNELIZING LINE, 12", WHITE          |
|  |   |  |   |  | (CL) - CENTER LINE, DOUBLE YELLOW, 4"         |
|  |   |  |   |  | (SL) - STOP LINE, 24", WHITE                  |
|  |   |  |   |  | (LA) - LANE ARROW, 72"                        |
|  |   |  |   |  | (WP) - WORD ON PAVEMENT, 72", WHITE           |
|  |   |  |   |  | (TLW) - TRANSVERSE LINE, 24", WHITE           |
|  |   |  |   |  | (TLY) - TRANSVERSE LINE, 24", YELLOW          |
|  | - PROPOSED SIGN                             |  | - EXISTING SIGN                           |  | o - RAISED PAVEMENT MARKER                    |
|  | - PROPOSED SIGN                             |  | - EXISTING SIGN                           |  | xxx - EXISTING PAVEMENT MARKING TO BE REMOVED |



CALCULATED TJS CHECKED BMH

TRAFFIC CONTROL  
STA. 289+50 BACK

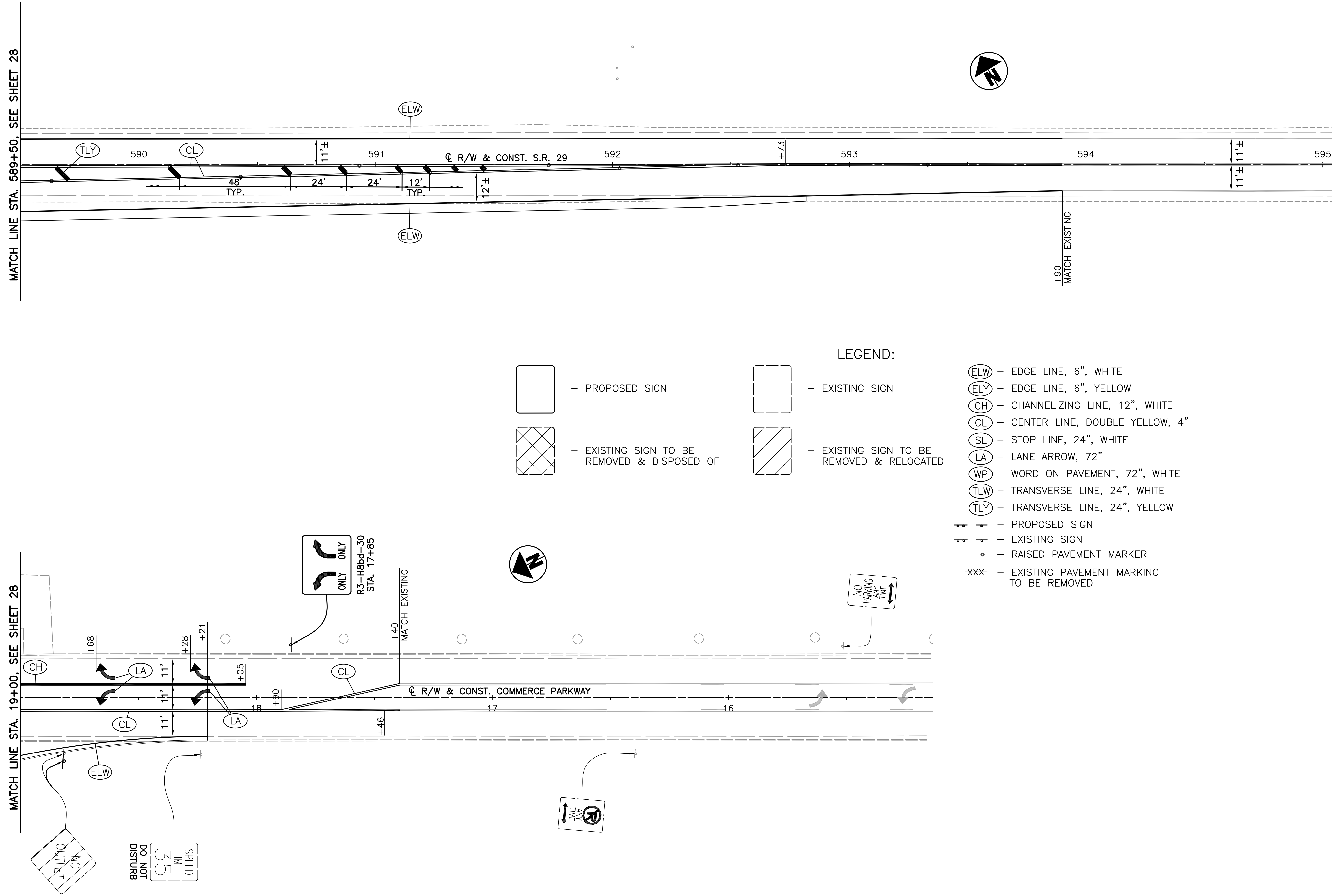
S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18

28  
33



MCDANIEL, ABRON, USA\173608979\Commerce Parkway\transportation\design\drawing\plans\Traffic Control\173608979\01.dwg - TRAFFIC CONTROL - Last Saved: Aug 17, 2018 12:04 PM Plotted: Aug 24, 2018 12:23 PM



**LEGEND:**

- PROPOSED SIGN
- EXISTING SIGN
- EXISTING SIGN TO BE REMOVED & DISPOSED OF
- EXISTING SIGN TO BE REMOVED & RELOCATED

- EDGE LINE, 6", WHITE
- EDGE LINE, 6", YELLOW
- CHANNELIZING LINE, 12", WHITE
- CENTER LINE, DOUBLE YELLOW, 4"
- STOP LINE, 24", WHITE
- LANE ARROW, 72"
- WORD ON PAVEMENT, 72", WHITE
- TRANSVERSE LINE, 24", WHITE
- TRANSVERSE LINE, 24", YELLOW
- PROPOSED SIGN
- EXISTING SIGN
- RAISED PAVEMENT MARKER
- EXISTING PAVEMENT MARKING TO BE REMOVED

		CALCULATED TJS CHECKED BMH	<b>TRAFFIC CONTROL</b> STA. 589+50 TO STA. 595+00 S.R. 29 STA. 16+00 TO STA. 19+00 COMMERCE PARKWAY
<b>S.R. 29 IMPROVEMENTS AT COMMERCE PARKWAY</b>		09/05/18	

**NEW TRAFFIC SIGNAL INSTALLATION**

THIS WORK CONSISTS OF FURNISHING AND INSTALLING TRAFFIC SIGNAL EQUIPMENT, COMPLETE AND READY FOR SERVICE. THIS WORK ALSO INCLUDES NECESSARY EXCAVATION AND BACKFILL, DISPOSAL OF DISCARDED MATERIALS, RESTORATION OF DISTURBED FACILITIES AND SURFACES TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE WORK STARTED, AND ELECTRICAL TESTING AS SPECIFIED.

PULL BOXES, CONDUITS, GROUND RODS, AND CABLE SPLICING KITS REQUIRED FOR TRAFFIC SIGNAL EQUIPMENT INSTALLATIONS ARE SPECIFIED IN ITEM 625.

BEFORE ANY WORK IS STARTED ON THE TRAFFIC SIGNAL, THE VILLAGE OF WEST JEFFERSON (614-879-8655) AND THE CONTRACTORS REPRESENTATIVE SHALL REVIEW AND RESOLVE ANY POTENTIAL PROBLEMS AT THE LOCATION WHERE THE NEW SIGNAL WILL BE CONSTRUCTED.

ALL OF THE REQUIRED PERMANENT SIGNS SHALL BE ERECTED AND THE REQUIRED PERMANENT PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO THE FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL.

PRIOR TO THE FINAL ACCEPTANCE OF THE COMPLETED TRAFFIC SIGNAL, THE VILLAGE OF WEST JEFFERSON REPRESENTATIVE AND THE CONTRACTORS REPRESENTATIVE, SHALL INSPECT AND RESOLVE ANY EXISTING PROBLEMS PRIOR TO THE ACCEPTANCE OF EACH NEW SIGNAL BY THE VILLAGE OF WEST JEFFERSON.

**SIGNAL ACTIVATION**

PRIOR TO ACTIVATING THE NEW TRAFFIC SIGNAL TO STOP-AND-GO MODE AND/OR REMOVING THE EXISTING TRAFFIC SIGNAL FROM SERVICE, ALL ITEMS IN THE PROPOSED SIGNAL PLAN SHALL BE FULLY COMPLETED, (I.E., VEHICLE DETECTION, PEDESTRIAN SIGNAL HEADS, ETC.) IF THERE ARE CONSTRUCTABILITY ISSUES (I.E., ROADWAY WIDENING, ETC.) THAT PREVENT THE SIGNAL FROM BEING COMPLETED PRIOR TO ACTIVATION, IT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER AND VILLAGE OF WEST JEFFERSON. THE VILLAGE OF WEST JEFFERSON WILL THEN REVIEW, APPROVE OR REJECT PROPOSALS TO ACTIVATE THE TRAFFIC SIGNAL PRIOR TO COMPLETION.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND VILLAGE OF WEST JEFFERSON AT LEAST 10 WORKING DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION OF THE SIGNAL INSTALLATION. FINAL INSPECTION IS NOT CONSIDERED COMPLETE UNTIL DESIGNATED VILLAGE OF WEST JEFFERSON PERSONNEL INSPECT THE TRAFFIC SIGNAL AND ISSUE WRITTEN APPROVAL. IF ISSUES ARE FOUND DURING THE FINAL INSPECTION THAT EFFECT THE SAFETY OF THE TRAVELING PUBLIC AND/OR THE EFFICIENCY OF THE INTERSECTION, THE SIGNAL SHALL NOT BE ACTIVATED ON THE PROPOSED DATE. ANY PUNCH LIST ITEMS THAT ARE FOUND SHALL BE CORRECTED AND REINSPECTED BY VILLAGE OF WEST JEFFERSON PERSONNEL PRIOR TO FINAL ACCEPTANCE. VILLAGE OF WEST JEFFERSON SHALL ONLY ASSUME DAY TO DAY MAINTENANCE OF THE TRAFFIC SIGNAL AFTER FINAL WRITTEN ACCEPTANCE HAS BEEN ISSUED.

**ITEM 632 - REMOVAL OF TRAFFIC SIGNAL INSTALLATION**

TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, CABINET, CONTROLLER, ETC., AT THE INTERSECTION OF S.R. 29 AND COMMERCE PARKWAY SHALL BE REMOVED IN ACCORDANCE WITH C&MS 632.26 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE REUSED AS PART OF A NEW INSTALLATION ON THE PROJECT OR STORED ON THE PROJECT FOR SALVAGE BY VILLAGE OF WEST JEFFERSON IN ACCORDANCE WITH THE LISTING GIVEN HEREIN.

**WORK INSPECTION**

THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER WITH 72 HOUR NOTICE OF ANY SIGNAL WORK TO BE PERFORMED AT THE INTERSECTION SITE(S) SO THAT INSPECTION SERVICES CAN BE SUPPLIED.

**ITEM 632 - VEHICULAR SIGNAL HEAD RELOCATED, AS PER PLAN**

VEHICULAR SIGNAL HEADS 6b, 2a, 2b, 4a, AND 4b SHALL BE REUSED AND RELOCATED AS SHOWN ON SHEET 31.

PAYMENT FOR ITEM 632 VEHICULAR SIGNAL HEAD RELOCATED, AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH AND SHALL INCLUDE ALL LABOR AND EQUIPMENT TO RELOCATE SIGN HEADS.

**GUARANTEE**

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 90 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLERS AND ASSOCIATED EQUIPMENT, DETECTOR UNITS, INTERCONNECTION ITEMS AND MASTER CONTROL EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE VILLAGE OF WEST JEFFERSON FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

**632 SIGNALIZATION, MISC.: UNLASH AND RELASH MESSENGER WIRE**

THE CONTRACTOR SHALL REMOVE EXISTING MESSENGER WIRE LASHING RODS AND REINSTALL THEM AS NECESSARY FOR THE INSTALLATION OF ANY NEW CABLES ON THE EXISTING INTERSECTION SIGNAL SPANS. THE CABLES SHALL ENTER THE EXISTING STRAIN POLE THROUGH THE POLE CABLE ENTRANCE FITTING AND USE THE EXISTING CONDUIT SYSTEM TO GET TO THE CONTROLLER CABINET. THE NEW CABLES SHALL BE SUPPORTED BY A NEW CABLE SUPPORT ASSEMBLY AT THE TOP OF THE STRAIN POLE.

THE NEW SIGNAL CABLES SHALL BE BID BY SEPARATE BID ITEMS.

PAYMENT FOR ITEM 632 "SIGNALIZATION MISC.: UNLASH AND RELASH MESSENGER WIRE" SHALL BE MADE AT THE CONTRACT UNIT PRICE PER PER FOOT AND SHALL INCLUDE ALL LABOR, MATERIALS, CABLE SUPPORT ASSEMBLIES AND EQUIPMENT TO INSTALL NEW CABLES ON EXISTING SIGNAL SPAN WIRE INSTALLATIONS.

**ITEM 809 - ADVANCE RADAR DETECTION**

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR ADVANCE DETECTION UNIT (MODEL SS-200E). THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

- POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
- ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
- THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE OR MAST ARM, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.
- SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.
- THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
- A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MIN. 7 FEET)
- THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR A UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.
- PRIOR TO PROGRAMMING, THE CONTRACTOR SHALL CONTACT THE VILLAGE OF WEST JEFFERSON AT 614-879-8655. A VILLAGE OF WEST JEFFERSON REPRESENTATIVE SHALL BE PRESENT DURING THE PROGRAMMING OF THE SYSTEM.

PAYMENT FOR ITEM 809 ADVANCE RADAR DETECTION SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT, CONNECTIONS TESTED AND ACCEPTED, AND ANY OTHER NECESSARY HARDWARE TO ESTABLISH A FULLY FUNCTIONAL DETECTION SYSTEM.

**ITEM 809 STOP-BAR RADAR DETECTION**

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR MATRIX DETECTION UNIT. THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

- POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
- ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
- THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE OR MAST ARM, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.
- SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.
- THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
- A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MIN. 7 FEET)
- THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR A UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.
- PRIOR TO PROGRAMMING, THE CONTRACTOR SHALL CONTACT THE VILLAGE OF WEST JEFFERSON AT 614-879-8655. A VILLAGE OF WEST JEFFERSON REPRESENTATIVE SHALL BE PRESENT DURING THE PROGRAMMING OF THE SYSTEM.

PAYMENT FOR ITEM 809 STOP-BAR RADAR DETECTION SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT AND CONNECTIONS TESTED AND ACCEPTED.

**MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CIRCUMSTANCES:

- EXISTING SIGNAL INSTALLATION WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES, OR OTHERWISE DISTURBS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME THE CONTRACTOR'S OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.
- NEW SIGNAL INSTALLATION OR DEVICE, INSTALLED BY THE CONTRACTOR: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THIS FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS AND PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH WITH THE NAME(S) AND PHONE NUMBER(S) OF THE CONTRACTORS REPRESENTATIVE(S) TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MUST GIVE PROMPT ATTENTION TO THESE CALLS AND BE READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF AN OUTAGE.

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 NEW SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROLLERS ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO OPERATION WITHIN THE ALLOWED 8 HOUR TIME PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

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

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

WHERE THE CONTRACTOR HAS FAILED OR CANNOT RESPOND TO AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE COSTS FOR POLICE SERVICES AND MAINTENANCE SERVICES BY THE PROVIDING AGENCY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

ANY VEHICULAR TRAFFIC SIGNAL HEAD EITHER NEW OR EXISTING THAT WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

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

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

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

MCDANIEL, ABBON, USA\173608979\Commerce Parkway\transportation\design\drawing\blonnet\Sigmal\173608979sig04.dwg Traffic Signal General Notes Last Saved: Aug 17, 2018 1:44 PM Plotted: Aug 24, 2018 12:23 PM

CALCULATED  
CNK  
CHECKED  
PJM

TRAFFIC SIGNAL GENERAL NOTES

S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18

30  
33

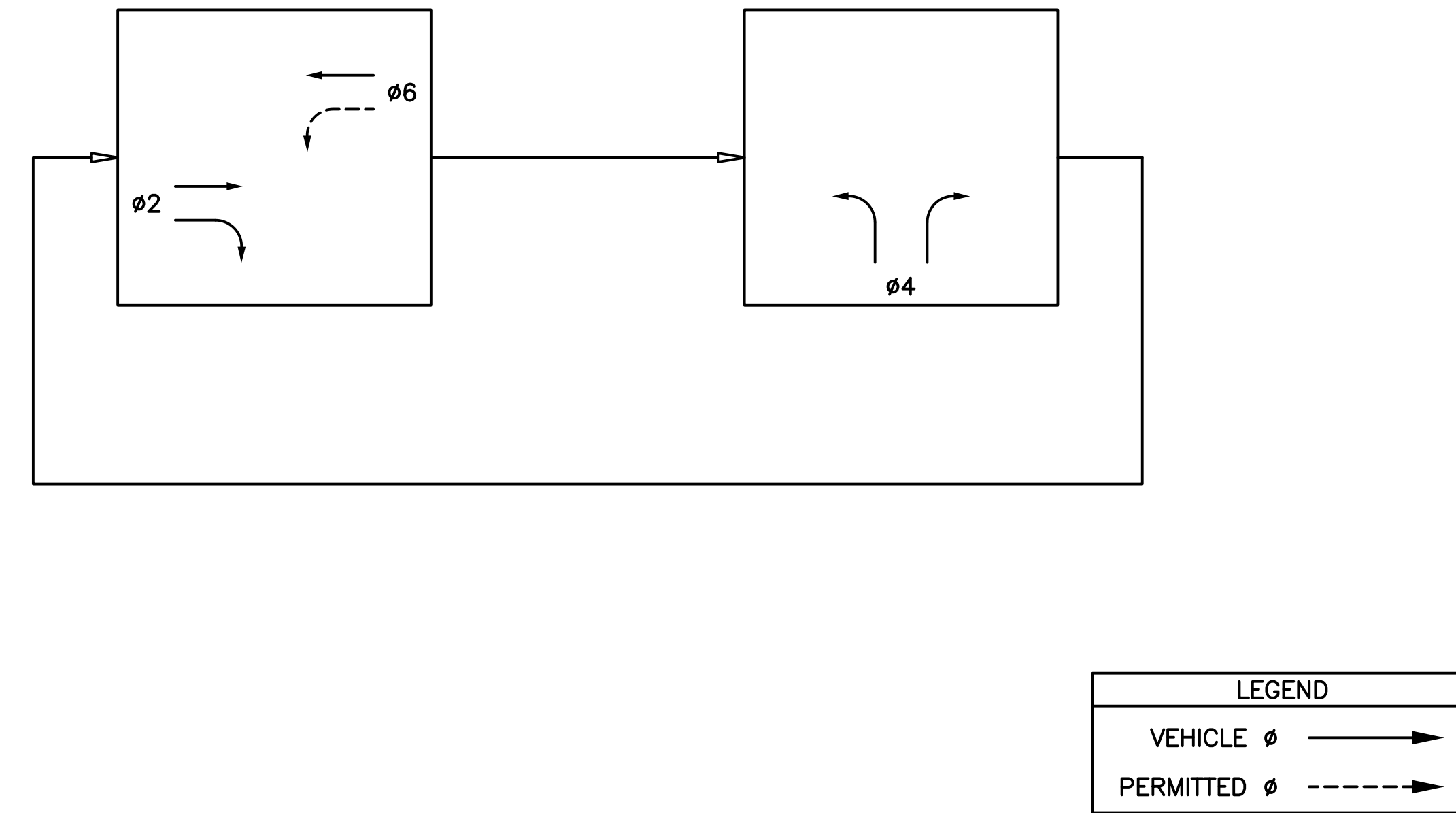




**SIGNAL TIMING CHART**

INTERSECTION: SR 29 / COMMERCE PARKWAY			MAINTAINING AGENCY: VILLAGE OF WEST JEFFERSON							
START UP			DUAL ENTRY: -		PHASES: -					
START IN: ALL RED			REST IN RED: RING 1 NO		RING 2 NO		NO			
TIME FOR FLASH OR ALL RED: -			OVERLAP		A	B	C	D		
FIRST PHASE(S): 2 & 6			PHASES		-	-	-	-		
COLOR DISPLAYED: GREEN			CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8
DIRECTION			-	SB	-	EB	-	NB	-	-
MINIMUM GREEN (INITIAL) (SEC.)			-	30	-	10	-	30	-	-
ADDED INITIAL *(SEC./ACTUATION)			-	-	-	-	-	-	-	-
MAXIMUM INITIAL (SEC.)			-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)			-	1	-	3	-	1	-	-
TIME BEFORE REDUCTION *(SEC.)			-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)			-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)			-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)			-	50	-	20	-	50	-	-
MAXIMUM GREEN II (SEC.)			-	60	-	30	-	60	-	-
YELLOW CHANGE (SEC.)			-	5	-	3	-	5.5	-	-
ALL RED CLEARANCE (SEC.)			-	1	-	1.5	-	1	-	-
WALK (SEC.)			-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE (SEC.)			-	-	-	-	-	-	-	-
RECALL			MAXIMUM	(ON/OFF)	-	OFF	-	OFF	-	-
			MINIMUM	(ON/OFF)	-	ON	-	ON	-	-
			PEDESTRIAN	(ON/OFF)	-	OFF	-	OFF	-	-
MEMORY			(ON/OFF)	-	-	-	-	-	-	-

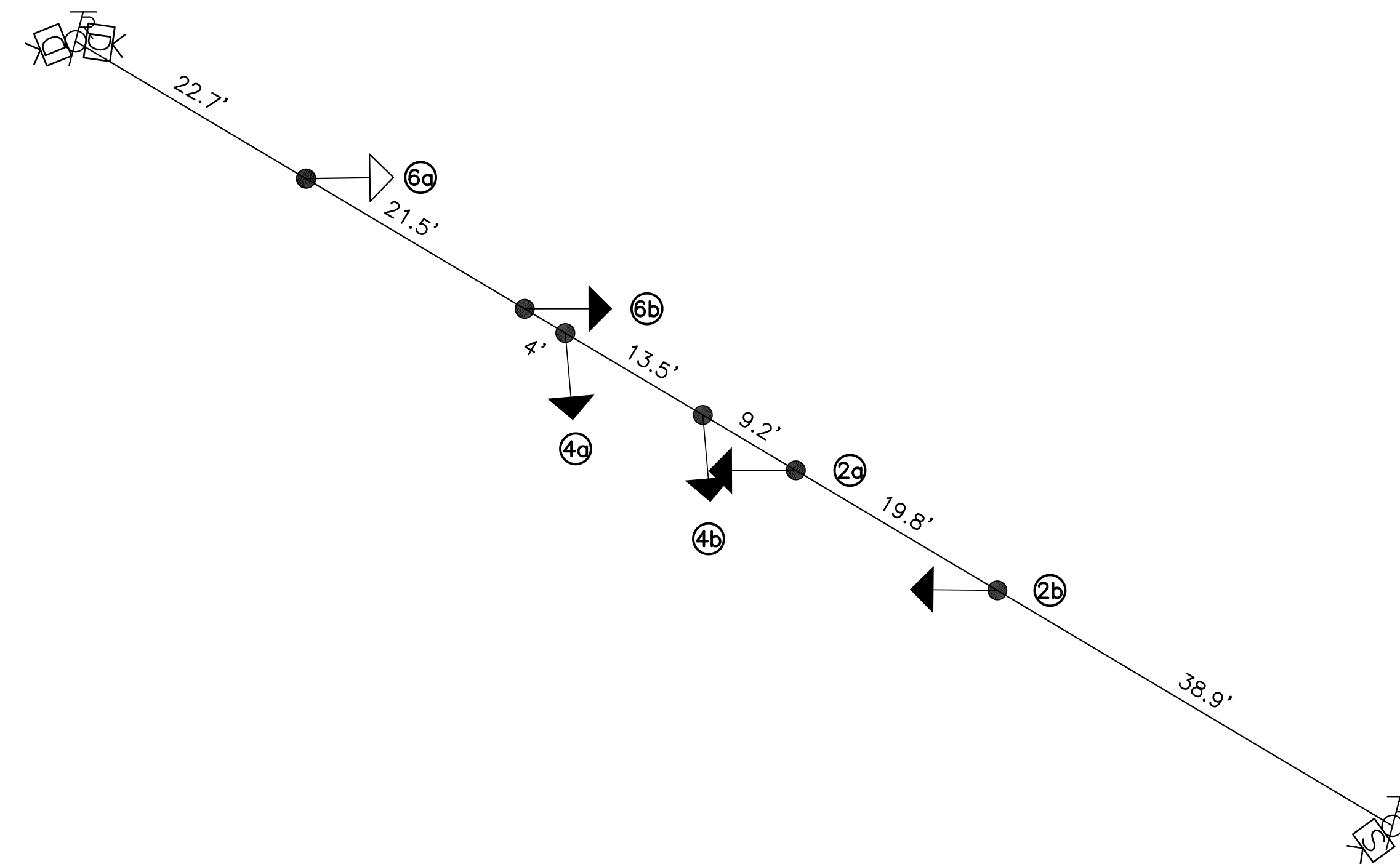
**PHASING DIAGRAM**



**RADAR DETECTION CHART**

DETECTION ZONE	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY IN CONTROLLER (SEC)	DELAY INHIBIT PHASE	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ2	SB THRU	PULSE	2	-	-	DILEMMA ZONE	50-400
RDZ6	NB THRU	PULSE	6	-	-	DILEMMA ZONE	50-400
RDZ4a	EB THRU	PRESENCE	4	3	4	CALL/EXTEND PHASE 4	25
RDZ4b	EB THRU	PRESENCE	4	10	4	CALL/EXTEND PHASE 4	25

**PLAN VIEW FOR SPANWIRE DETAIL**



NOTE: RADAR DETECTORS ARE SHOWN ON PLAN FOR INFORMATION ONLY. LOCATION OF RADAR DETECTORS SHALL BE PER MANUFACTURER'S RECOMMENDATION.

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SIGNAL PLAN  
COMMERCE PARKWAY AT S.R. 29

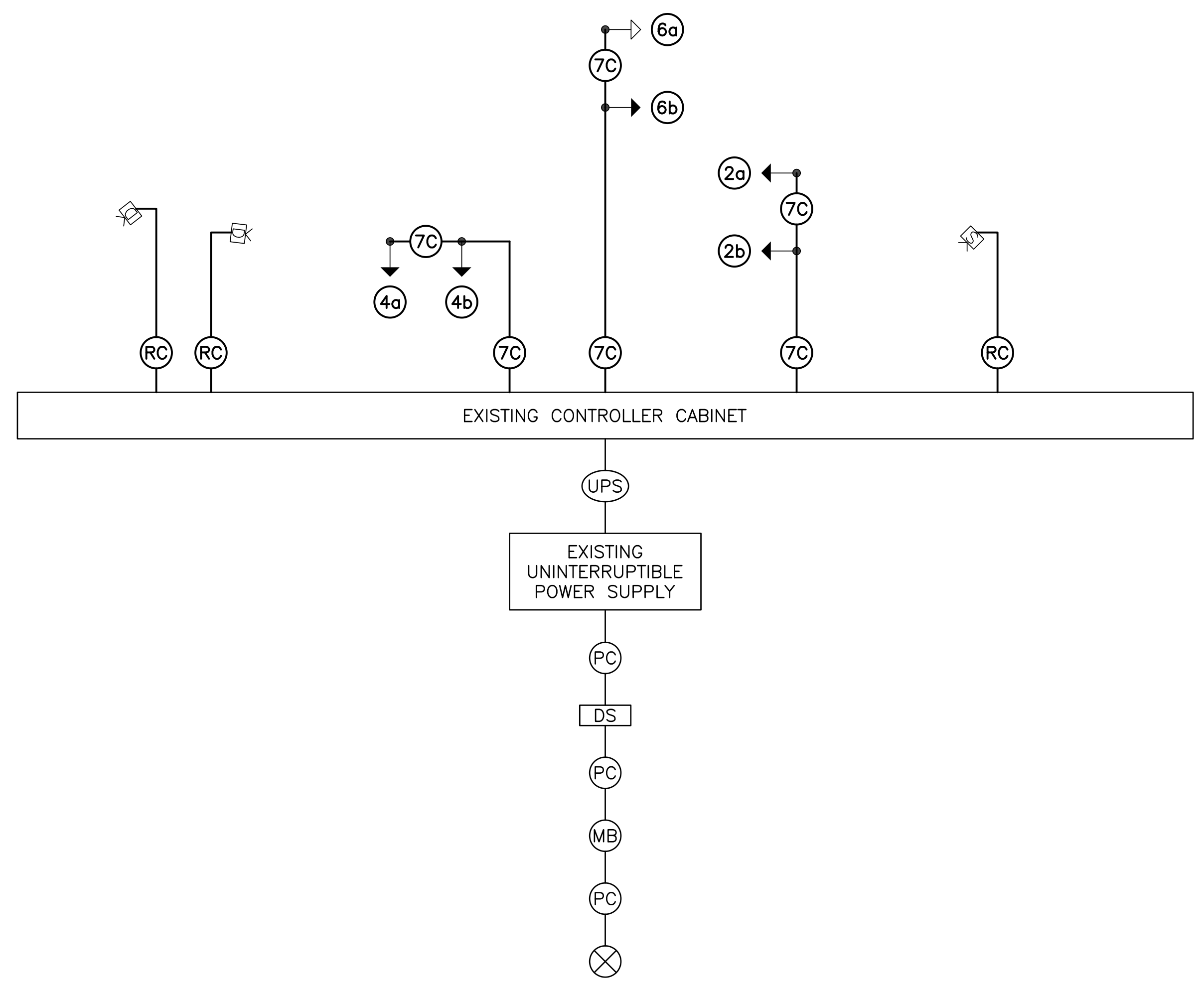
S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

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**WIRING DIAGRAM**

**LEGEND**

- 3 SECTION VEHICULAR SIGNAL HEAD, 1-WAY
- DILEMMA ZONE RADAR DETECTION UNIT
- STOP BAR RADAR DETECTION UNIT
- METER BASE
- EX 3 SECTION VEHICULAR SIGNAL HEAD, 1-WAY
- EX POWER CABLE, 1 CONDUCTOR, NO. 8 AWG
- EX UNINTERRUPTIBLE SUPPLY CABLE
- SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
- RADAR DETECTION CABLE
- EX POWER SOURCE
- EX DISCONNECT SWITCH

**FIELD WIRING HOOK-UP CHART**

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
2a,2b SB	R	ø2R	Y
	Y	ø2Y	
	G	ø2G	
6a,6b NB	R	ø6R	Y
	Y	ø6Y	
	G	ø6G	
4a,4b EB	R	ø4R	R
	Y	ø4Y	
	G	ø4G	

CALCULATED  
CNK  
CHECKED  
PJM

SIGNAL PLAN  
COMMERCE PARKWAY AT S.R. 29

S.R. 29 IMPROVEMENTS AT  
COMMERCE PARKWAY

09/05/18