

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MIA TIPP CITY 25A RECONSTRUCTION, PH. 1
PID #90852

SOUTH CR 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
MIAMI COUNTY, OHIO

INDEX OF SHEETS

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE RECONSTRUCTION OF C.R. 25-A FROM MICHAELS RD. TO ST. RT. 571. CONSTRUCTION CONSISTS OF PAVEMENT, CURBING, REPLACEMENT OF A WATERLINE, REPLACEMENT OF THE SANITARY SEWER, AND THE INSTALLATION OF A NEW STORM SEWER SYSTEM.

DBE GOAL

△ AT LEAST 6 PERCENT OF THIS CONTRACT AS BID SHALL BE SUBCONTRACTED TO DBE (DISADVANTAGED BUSINESS ENTERPRISES) WHO HAVE BEEN CERTIFIED AS DBEs BY THE OHIO DEPARTMENT OF TRANSPORTATION.

2013 SPECIFICATIONS

THE CONSTRUCTION STANDARDS AND DRAWINGS OF THE CITY OF TIPP CITY AND THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND GENERAL NOTES LISTED IN THE PLAN, SHALL GOVERN THIS IMPROVEMENT. THE MOST RESTRICTIVE SHALL APPLY.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA 9.01 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA 0.50 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA 9.51 ACRES

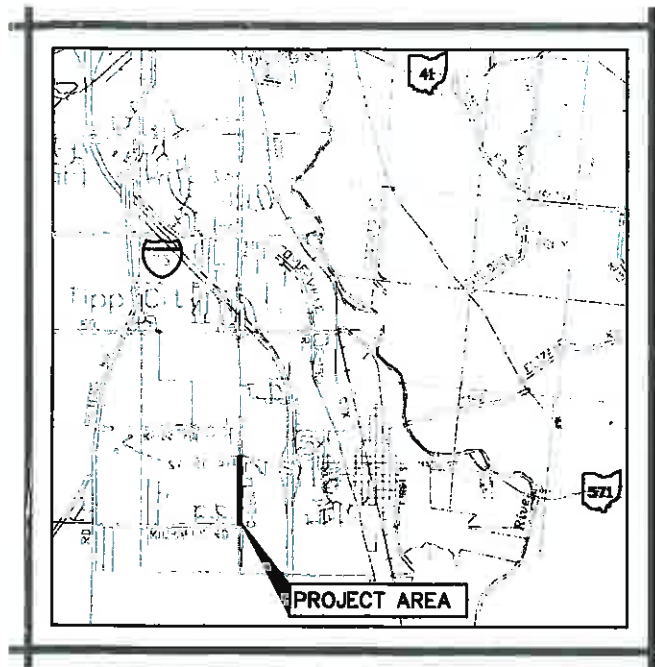
REVISIONS:
△ 07-02-2015
DBE GOAL CHANGED FROM 6% TO 6%

CHOICE ONE ENGINEERING
RELEASE FOR CONSTRUCTION
AUGUST 11, 2015

CHOICE ONE ENGINEERING
RELEASE FOR BIDDING
JUNE 24, 2015

Approved: *[Signature]*
Date: 6/24/15 CITY MANAGER

OEPA, STORM: SUBMITTED 05/05/15 APPROVED 05/22/15
OEPA, WATER: SUBMITTED 05/05/15 APPROVED 05/19/15
OEPA, SANITARY: SUBMITTED 05/05/15 APPROVED 05/19/15



LOCATION MAP

LATITUDE: N 39°-57'-10" LONGITUDE: W 84°-11'-56"



PORTION TO BE IMPROVED: [Symbol]
STATE & FEDERAL ROUTES: [Symbol]
OTHER ROADS: [Symbol]

VICINITY MAP

DESIGN DESIGNATION

MIA TIPP CITY 25A RECONSTRUCTION, PH. 1

CURRENT ADT (2012) ----- X
DESIGN YEAR ADT (2032) ----- X
DESIGN HOURLY VOLUME (2032) ----- X
DIRECTIONAL DISTRIBUTION ----- X%
TRUCKS (24 HOUR B&C) ----- X%
DESIGN SPEED ----- 45 MPH
LEGAL SPEED ----- 45 MPH

DESIGN FUNCTIONAL CLASSIFICATION -
URBAN MINOR ARTERIAL

DESIGN EXCEPTIONS

NONE REQUIRED

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:



445 E. HOEVENHUR ROAD • SENECA, OHIO 43085 • (937) 497-0200
201 W. LOVELAND AVENUE • LOVELAND, OHIO 45140 • (938) 239-8554
www.choiceoneengineering.com

TITLE SHEET	1
TYPICAL SECTIONS AND GENERAL DETAILS	2-4
GENERAL NOTES AND ESTIMATED QUANTITIES	5-8
MAINTENANCE OF TRAFFIC	9
DETOUR PLAN	10
MAINTENANCE OF TRAFFIC PLAN	11-17
STORM SEWER DETAILS	18
DRIVE DETAILS AND PAVEMENT LEGEND	19
WATER MAIN TESTING NOTES AND DETAILS	20
SANITARY SEWER TESTING NOTES AND DETAILS	21
INTERSECTION DETAILS	22-23
SITE PLAN	24-25
C.R. 25-A PLAN AND PROFILE	26-37
C.R. 25-A CROSS SECTIONS	38-61
MICHAELS RD. PLAN AND PROFILE	62
MICHAELS RD. CROSS SECTIONS	63-64
STRUCTURES, UNDER 20'	65-70
STREET LIGHTING NOTES AND DETAILS	71
PAVEMENT MARKING, SIGNAGE, AND LIGHTING PLAN	72-76
SOUTH CR-25A AND SR 571 TRAFFIC SIGNAL MODIFICATION PLAN	77
RIGHT OF WAY SHEETS	78-115

JUNE 24, 2015

CITY OF TIPP CITY STANDARD CONSTRUCTION DRAWINGS	ODOT STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS			
	BP 1.1	07-28-00	HL-20.11	01-16-15	MT-95.31	07-18-14	800	04-17-15
			HL-30.11	01-16-15	MT-95.50	07-19-13	832	01-17-14
	BP 7.1	07-18-14	HL-30.21	01-17-14	MT-97.10	07-18-14	895	04-18-14
			HL-30.22	01-17-14	MT-97.12	07-18-14	995	01-20-12
	CB-1.1	01-18-13			MT-99.20	07-19-13		
					MT-101.60	07-19-13		
					MT-101.90	07-18-14		
	MH-1.2	01-18-13			MT-105.10	07-19-13		
					TC-52.10	10-18-13		
	DM 1.1	01-18-13			TC-52.20	01-17-14		
	HW 2.2	01-18-13			TC-71.10	01-17-14		
					TC-82.10	10-18-13		
	MGS 1.1	07-19-13			TC-84.20	10-18-13	NWP 14	
	MGS 2.1	07-19-13			TC-84.21	10-18-13		

ENGINEER'S SEAL:

SIGNED: *Anthony V. Schroeder*
DATE: 6/24/15

CHOICE ONE ENGINEERING

PID NO. 90852

FEDERAL NO. E130637

STATE NO. 479380

SOUTH CR 25-A RECONSTRUCTION, PH. 1

MIA TIPP CITY 25A RECONSTRUCTION, PH. 1

FILE NAME: MIATC1116GTA

DRAWN BY: GCA

CHECKED BY: AVS

CITY OF: TIPP CITY

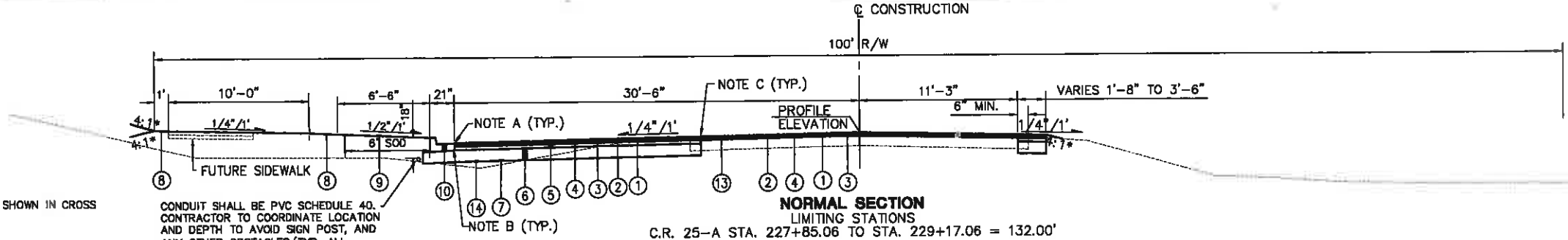
COUNTY: MIAMI

SHEET NUMBER: 1 OF 115

REVISIONS:
FILE NAME MIATCI1116GYA
DRAWN BY GCA
CHECKED BY AVS
PROJECT No. MIATCI1116
DATE 06-17-15
SHEET NUMBER 2 OF 115

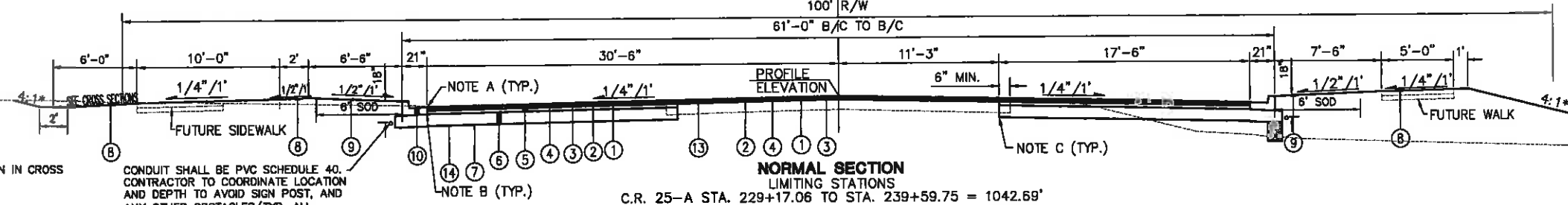
* UNLESS OTHERWISE SHOWN IN CROSS SECTIONS

CONDUIT SHALL BE PVC SCHEDULE 40. CONTRACTOR TO COORDINATE LOCATION AND DEPTH TO AVOID SIGN POST, AND ANY OTHER OBSTACLES.(TYP. ALL CONDUIT) CONDUIT SHALL ALSO INCLUDE EXTRA PULL STRINGS IN ALL CONDUITS WHEN NO WIRING IS INSTALLED.



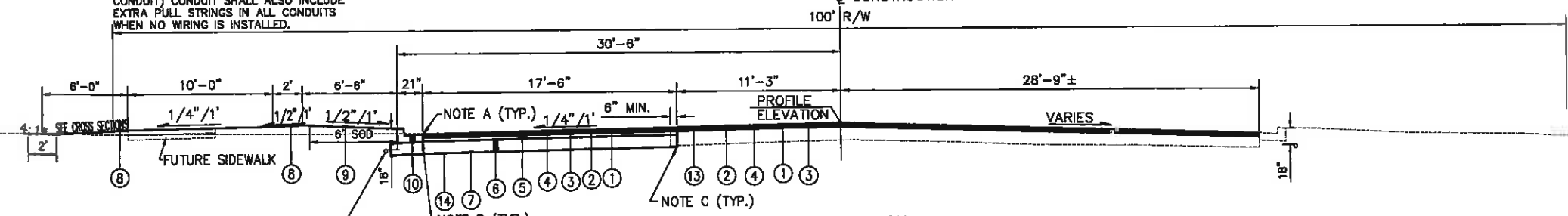
* UNLESS OTHERWISE SHOWN IN CROSS SECTIONS

CONDUIT SHALL BE PVC SCHEDULE 40. CONTRACTOR TO COORDINATE LOCATION AND DEPTH TO AVOID SIGN POST, AND ANY OTHER OBSTACLES.(TYP. ALL CONDUIT) CONDUIT SHALL ALSO INCLUDE EXTRA PULL STRINGS IN ALL CONDUITS WHEN NO WIRING IS INSTALLED.

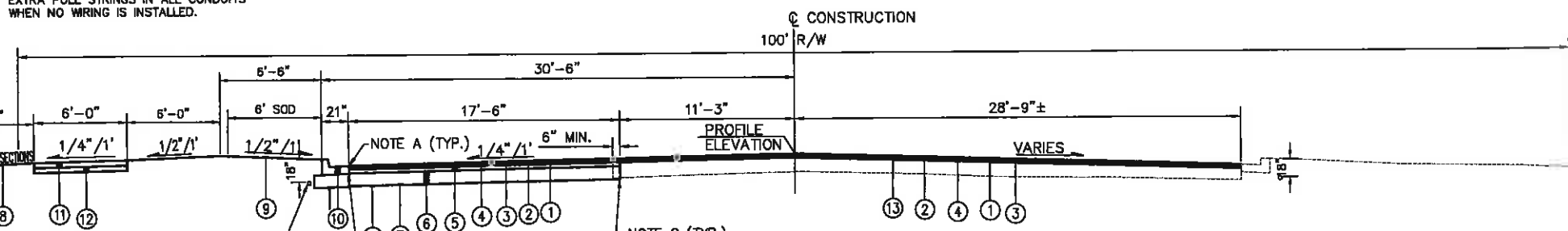


* UNLESS OTHERWISE SHOWN IN CROSS SECTIONS

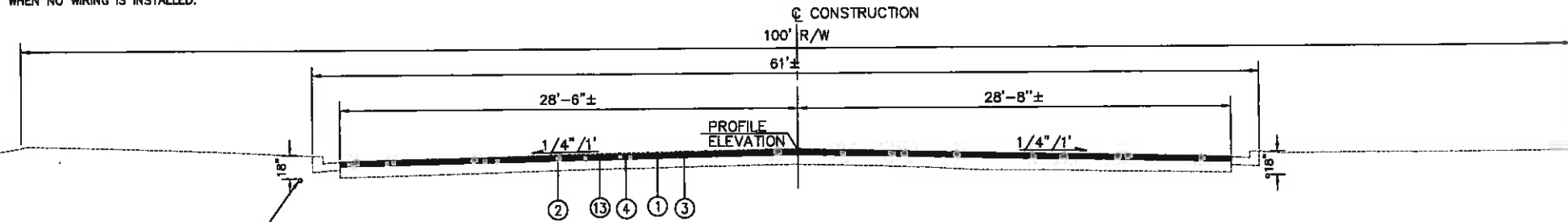
CONDUIT SHALL BE PVC SCHEDULE 40. CONTRACTOR TO COORDINATE LOCATION AND DEPTH TO AVOID SIGN POST, AND ANY OTHER OBSTACLES.(TYP. ALL CONDUIT) CONDUIT SHALL ALSO INCLUDE EXTRA PULL STRINGS IN ALL CONDUITS WHEN NO WIRING IS INSTALLED.



CONDUIT SHALL BE PVC SCHEDULE 40. CONTRACTOR TO COORDINATE LOCATION AND DEPTH TO AVOID SIGN POST, AND ANY OTHER OBSTACLES.(TYP. ALL CONDUIT) CONDUIT SHALL ALSO INCLUDE EXTRA PULL STRINGS IN ALL CONDUITS WHEN NO WIRING IS INSTALLED.



CONDUIT SHALL BE PVC SCHEDULE 40. CONTRACTOR TO COORDINATE LOCATION AND DEPTH TO AVOID SIGN POST, AND ANY OTHER OBSTACLES.(TYP. ALL CONDUIT) CONDUIT SHALL ALSO INCLUDE EXTRA PULL STRINGS IN ALL CONDUITS WHEN NO WIRING IS INSTALLED.



* UNLESS OTHERWISE SHOWN IN CROSS SECTIONS

* UNLESS OTHERWISE SHOWN IN CROSS SECTIONS

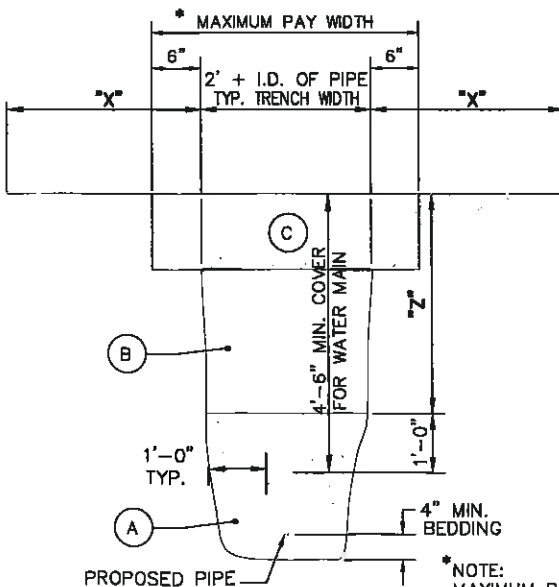
* UNLESS OTHERWISE SHOWN IN CROSS SECTIONS

CONDUIT SHALL BE PVC SCHEDULE 40. CONTRACTOR TO COORDINATE LOCATION AND DEPTH TO AVOID SIGN POST, AND ANY OTHER OBSTACLES. (TYP. ALL CONDUIT) CONDUIT SHALL ALSO INCLUDE EXTRA PULL STRINGS IN ALL CONDUITS WHEN NO WIRING IS INSTALLED.

CONDUIT SHALL BE PVC SCHEDULE 40. CONTRACTOR TO COORDINATE LOCATION AND DEPTH TO AVOID SIGN POST, AND ANY OTHER OBSTACLES. (TYP. ALL CONDUIT) CONDUIT SHALL ALSO INCLUDE EXTRA PULL STRINGS IN ALL CONDUITS WHEN NO WIRING IS INSTALLED.

LEGEND

- ① ITEM 442, 1-1/2" ASPHALT CONCRETE, SURFACE COURSE, 12.5mm, TYPE A (448)
- ② ITEM 407, TACK COAT FOR INTERMEDIATE COURSE (APPLIED AT THE RATE OF 0.075 GALLONS PER SQUARE YARD)
- ③ ITEM 407, TACK COAT (APPLIED AT THE RATE OF 0.075 GALLONS PER SQUARE YARD)
- ④ ITEM 441, 1-3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (448)
- ⑤ ITEM 301, 3" ASPHALT CONCRETE BASE, PG 64-22
- ⑥ ITEM 304, 10" AGGREGATE BASE (IN TWO EQUAL LIFTS), AS PER PLAN
- ⑦ ITEM 204, SUBGRADE COMPACTION, AS PER PLAN
- ⑧ ITEM 659, SEEDING AND MULCHING, AS PER PLAN
- ⑨ ITEM 660, SODDING UNSTAKED, AS PER PLAN
- ⑩ ITEM 609, TIPP CITY TYPE 1 COMBINATION CURB AND GUTTER, AS PER PLAN
- ⑪ ITEM 608, 4" CONCRETE WALK, AS PER PLAN
- ⑫ ITEM 304, 4" AGGREGATE BASE, SATURATE W/ WATER PRIOR TO COMPACTION (COST INCLUDED WITH ITEM 608, 4" CONCRETE WALK, AS PER PLAN)
- ⑬ ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE
- ⑭ ITEM 204, GEOGRID, AS PER PLAN (ONLY AS NEEDED PER DIRECTION OF CITY)



TRENCH DETAIL

NOTE: MAXIMUM PAY LIMITS, ANY PAVEMENT REPAIR BEYOND THE MAXIMUM PAY LIMITS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

TRENCH DETAIL NOTES

A. STORM BEDDING SHALL BE SAND OR 310, SANITARY #8'S (60% CRUSHED MIN.), WATER: SAND, 310 MATERIAL, OR #8'S.

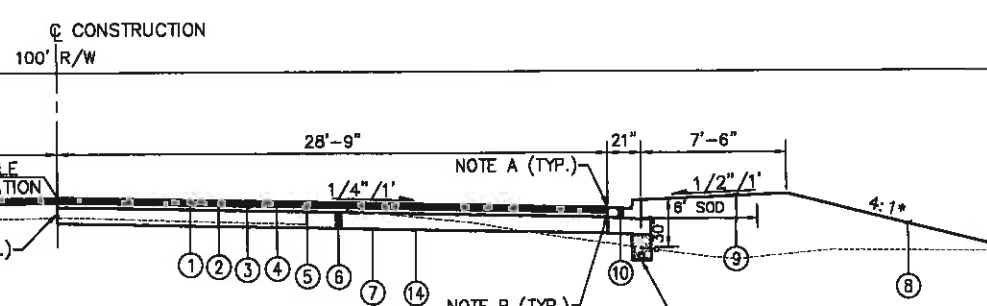
B. ALL TRENCHES WHERE "X" IS GREATER THAN "Z" FOR PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS CAN BE COMPACTED EXISTING NATIVE MATERIAL IN 12" MAXIMUM LIFTS OR AS APPROVED BY THE CITY. NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS STONE, ROCKS, ETC., GREATER THAN 4" DIAMETER.

ALL TRENCHES WHERE "Z" IS GREATER THAN "X" FOR PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS SHALL BE COMPACTED WITH STRUCTURAL BACKFILL MATERIAL ODOT ITEM 611 TYPE 1 OR 2 IN 6" MAXIMUM LIFTS UNTIL THE TOP OF THE COMPACTED STRUCTURAL BACKFILL IS HIGH ENOUGH WHERE X+18" IS GREATER THAN "Z".

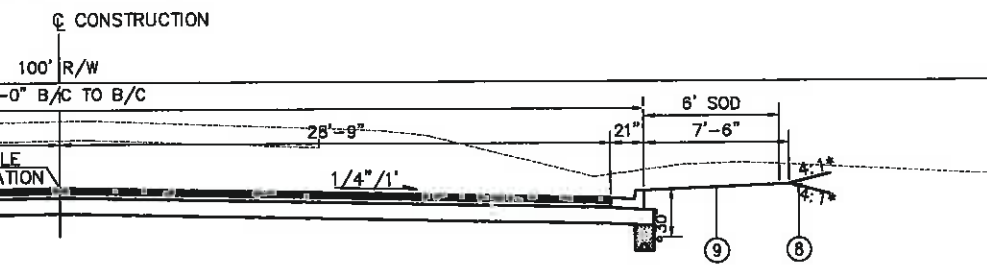
C. OFF-PAVEMENT AREAS SHALL BE PROVIDED WITH A MINIMUM OF 6" OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED AND MULCHED PER ODOT ITEM 659.

IN-PAVEMENT AREAS SHALL FOLLOW TYPICAL PAVEMENT DETAILS SHOWN ON THE TYPICAL SECTION.

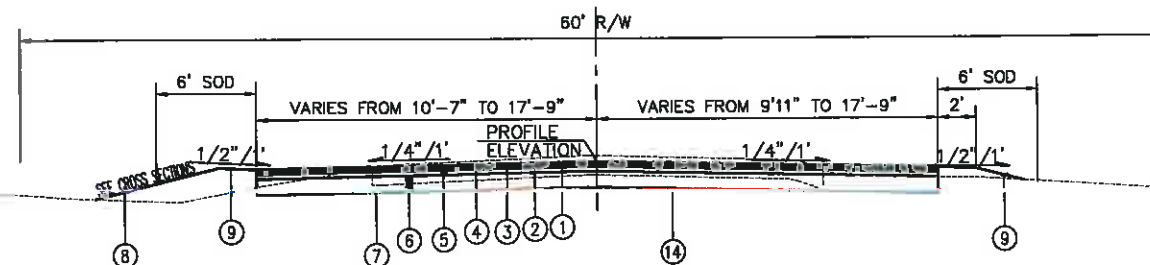
D. THE OPEN ENDS OF ALL PIPES SHALL BE PLUGGED TO THE APPROVAL OF THE CITY BEFORE LEAVING THE WORK FOR THE NIGHT.



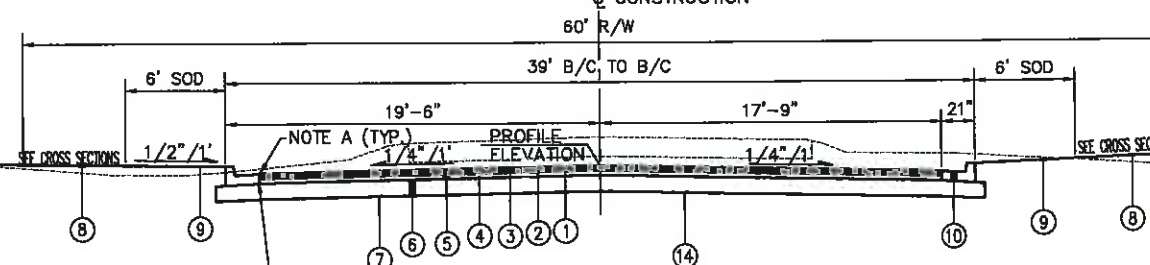
NORMAL SECTION
LIMITING STATIONS
C.R. 25-A STA. 248+55 TO STA. 251+92.59 = 337.59'



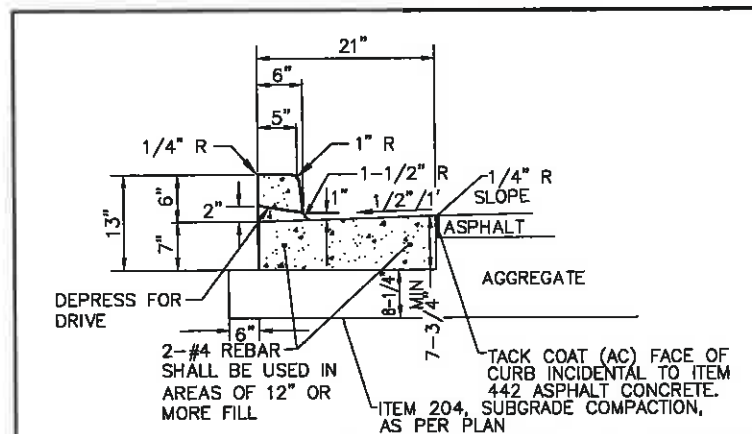
NORMAL SECTION
LIMITING STATIONS
C.R. 25-A STA. 251+92.59 TO STA. 266+72.36 = 1479.77'



NORMAL SECTION
LIMITING STATIONS
MICHAELS RD STA. 46+49.62 TO STA. 47+49.97 = 100.35'



NORMAL SECTION
LIMITING STATIONS
MICHAELS RD STA. 47+49.97 TO STA. 49+67.37 = 217.40'



TIPP CITY TYPE 1 COMBINATION CURB AND GUTTER

NOTE A
ITEM 442 ASPHALT SURFACE COURSE IS TO BE LEVEL OR 1/4" ABOVE GUTTER PLATE.

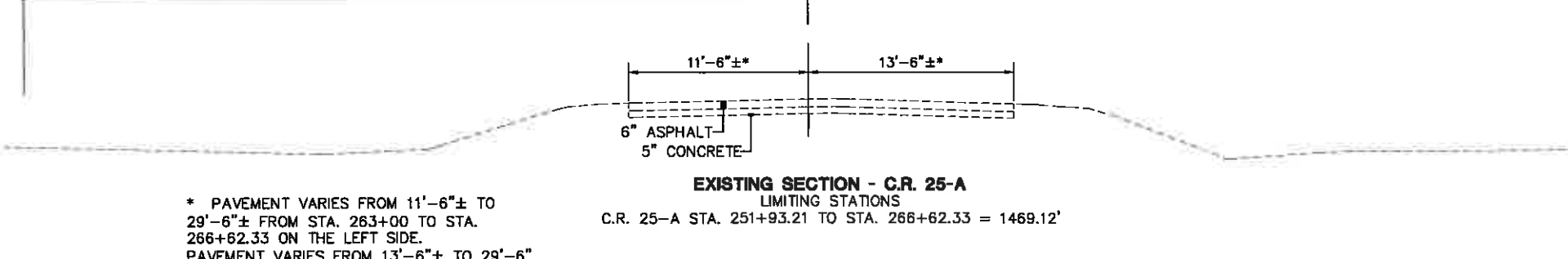
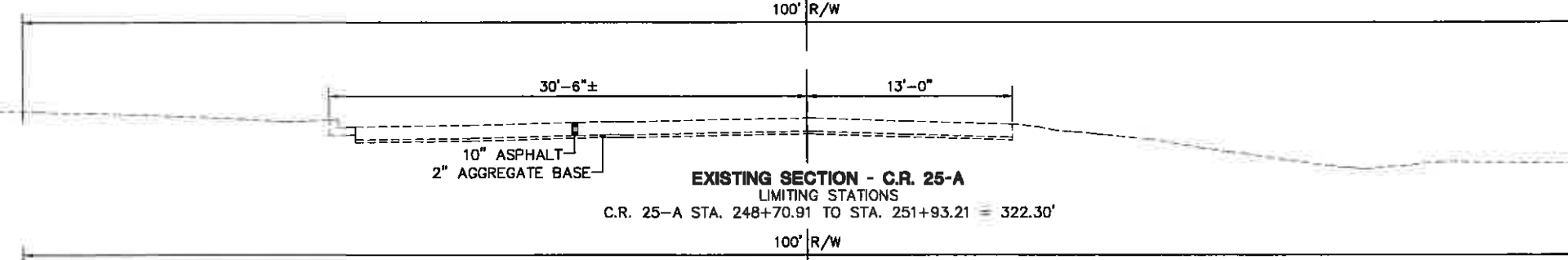
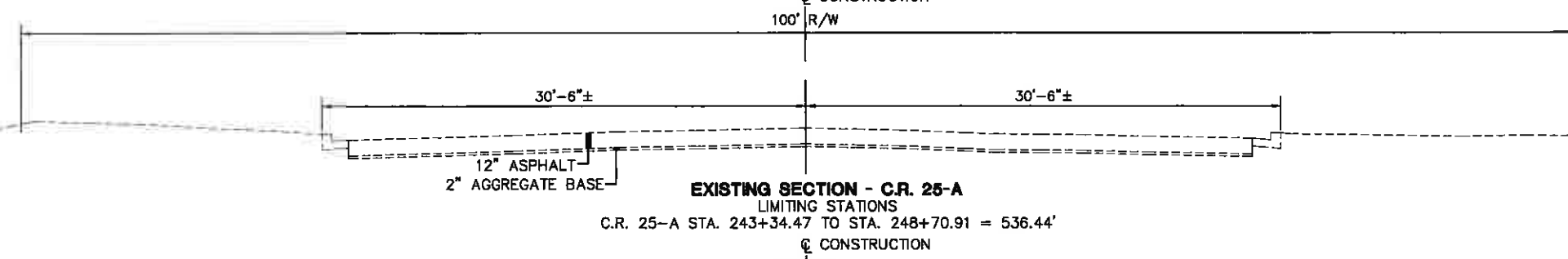
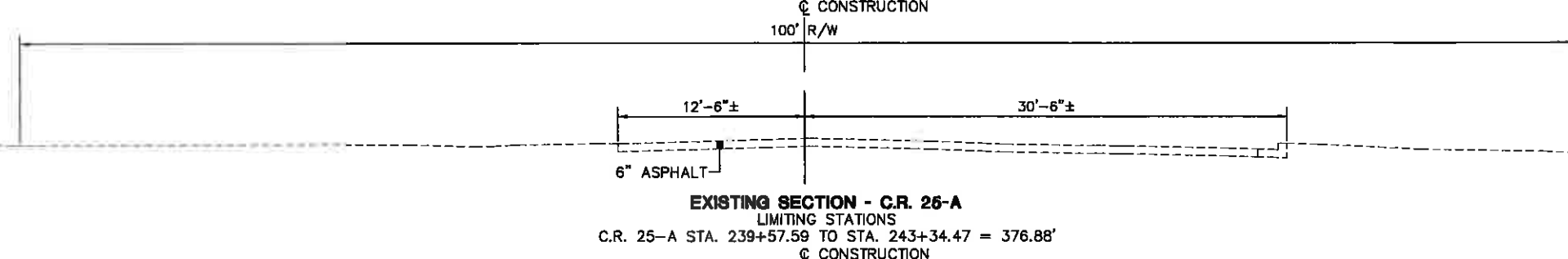
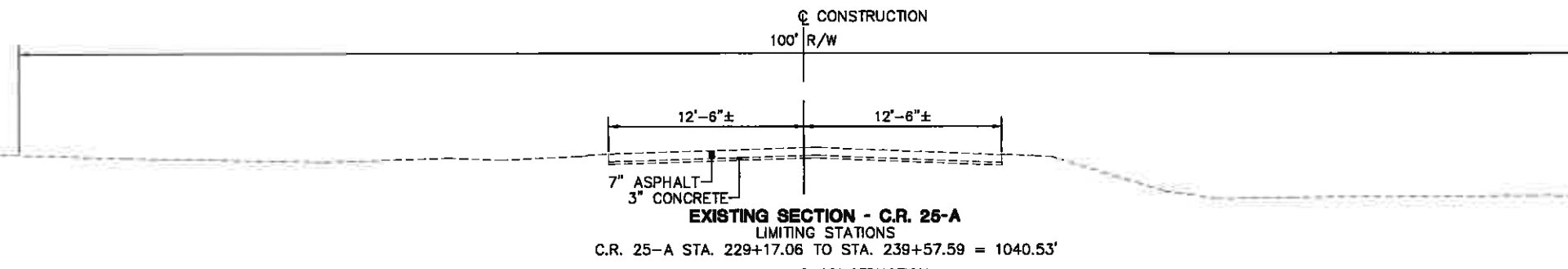
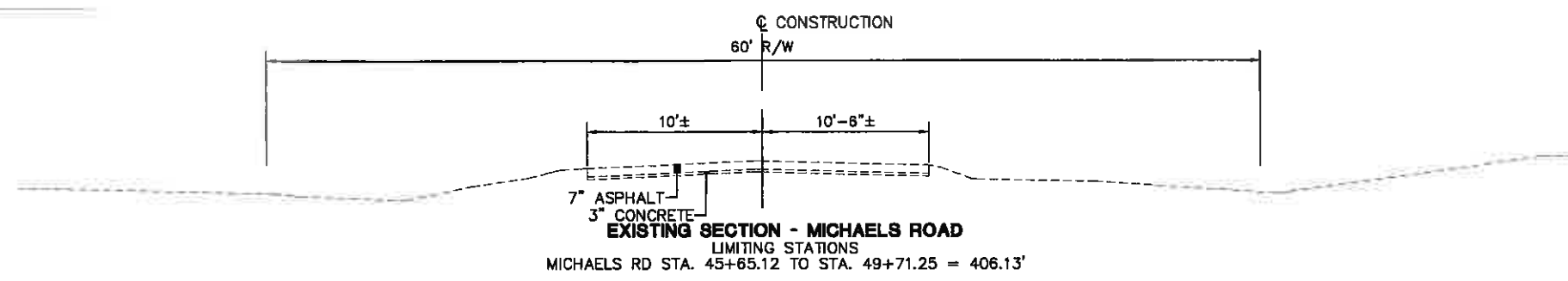
NOTE B
TACK COAT FACE OF CURB PRIOR TO ITEM 442 PLACEMENT, INCIDENTAL TO ITEM 442 ASPHALT CONCRETE.

NOTE C
PER C&MS 203.04E, LOCATE SOUND PAVEMENT EDGES, AND CURT AND TIM PAVEMENT TO A NEAT LINE. REPAIR AND RESTORE DAMAGE CAUSED BY THE EQUIPMENT OR METHODS. INCLUDE THE COST OF CUTTING, TRIMMING, AND DISPOSAL UNDER ITEM 203.

GENERAL NOTES

1. CONCRETE AND WORK SHALL MEET THE REQUIREMENTS SET FORTH IN ODOT QC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL) AND REINFORCE WITH CONCRETE FIBERS.
2. CURBING SHALL HAVE CONTRACTION JOINTS EVERY 10'.
3. MINIMUM OF 8-1/4" OF ODOT 304 SHALL BE PLACED UNDER CURBING.
4. CURBING SHALL BE BACKFILLED IMMEDIATELY AFTER FORMS ARE REMOVED.
5. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.
6. USE CLEAR CURING COMPOUND IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHODS OR TYPE OF CURING COMPOUND MUST BE PRE-APPROVED.
7. 1/2" PREMOLDED EXPANSION JOINTS SHALL BE INSTALLED AT EACH SIDE OF DRIVE APPROACH SECTIONS AND AT P.C. POINTS, AT INTERSECTIONS, AND AT 100' MAX. INTERVALS.
8. ALL UNDERGROUND UTILITY LATERALS SHALL BE MARKED IN THE TOP OF ALL CURB WHILE IT IS BEING POURED AS FOLLOWS:
"S" - SANITARY LATERAL
"W" - WATER LATERAL

REVISIONS:
FILE NAME MIATC1116GYB
DRAWN BY GCA
CHECKED BY AVS
PROJECT No. MIATC1116
DATE 06-17-15
SHEET NUMBER 3 of 115



* PAVEMENT VARIES FROM 11'-6"± TO 29'-6"± FROM STA. 263+00 TO STA. 266+62.33 ON THE LEFT SIDE.
 PAVEMENT VARIES FROM 13'-6"± TO 29'-6"± FROM STA. 263+00 TO STA. 266+62.33 ON THE RIGHT SIDE.

REVISIONS:
FILE NAME MIATCH116GYC
DRAWN BY GCA
CHECKED BY AVS
PROJECT No. MIATCH116
DATE 06-17-15
SHEET NUMBER 4 OF 115

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. AND CITY OF TIPP CITY DATUM.

GENERAL NOTES AND DETAILS

ALL CONSTRUCTION METHODS, MATERIALS, AND SPECIFICATIONS SHALL COMPLY WITH THE CITY OF TIPP CITY ENGINEERING STANDARDS AND SPECIFICATIONS OR OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION STANDARDS AND SPECIFICATIONS WHICHEVER IS MORE RESTRICTIVE AS DETERMINED BY THE CITY.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE DATA. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING THEM IN THE FIELD PRIOR TO CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THEM. CONTRACTOR TO CONTACT OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION. NON-MEMBERS MUST BE CALLED DIRECTLY.

UTILITY OWNERSHIP

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

ELECTRIC, WATER STORM & SANITARY	CITY OF TIPP CITY MUNICIPAL BLDG. 260 S. GARBER ST. TIPP CITY, OHIO 45371 937-667-6305	CABLE	TIME WARNER 3691 TURNER RD. DAYTON, OH 45415 937-416-3584 CONTACT: TIM KUSS
GAS	VECTREN 6500 CLYO RD. CENTERVILLE OHIO, 45459 937-312-2533 CONTACT: DON SPECHT	ELECTRIC	DAYTON POWER AND LIGHT CO 1900 DRYDEN ROAD DAYTON, OHIO 45439 WILLIAM GOURLY 937-331-4521
TELEPHONE	FRONTIER COMMUNICATIONS 6464 WESTBROOK RD. CLAYTON, OHIO 45315 740-474-7197 CONTACT: MIKE EDWARDS		DP&L TRANSMISSION 1900 DRYDEN ROAD DAYTON, OHIO 45439 GREG TOKAR 937-331-4647

OHIO UTILITIES PROTECTION SERVICE
2 WORKING DAYS BEFORE YOU DIG
CALL TOLL FREE 800-362-2764

UTILITY INTERFERENCE

IF, DURING THE CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITY COMPANY INVOLVED. ANY AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS. THE CONTRACTOR SHALL NOTIFY, AT LEAST 7 DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRES, POLES, PIPES, CONDUITS, MANHOLES, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS. THERE WILL BE NO DELAYS ALLOWED FOR UTILITY INTERFERENCES.

EXISTING TILE HOOKUPS

THE DRAINAGE TILE CURRENTLY CONNECTED TO THE EXISTING STORM SEWER SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ANY DRAINAGE TILE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ALL TILE REMOVED, REPLACED AND/OR CONNECTED TO THE STORM SEWER SHALL BE NOTED ON THE RECORD DRAWINGS AND SHALL BE INSPECTED BY THE CITY BEFORE THEY ARE COVERED.

ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE CITY. THE CITY WILL ASSIST IN ANY NECESSARY INVESTIGATION OR DYE TESTING PRIOR TO APPROVING PLUGGING A FIELD OR STORM TILE. CONNECTION OF INTERSECTING DRAIN TILES AND THE PROPOSED STORM SEWER SHALL BE THROUGH MANUFACTURED TEES, UNLESS OTHERWISE APPROVED BY THE CITY. COST OF ALL THE ITEMS ABOVE SHALL BE INCLUDED IN THE COST OF ITEM 611 STORM SEWERS.

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 CITY 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 ANY EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE CITY 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 ITEM.

GRAFFITI AND VANDALISM

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ANY CONCRETE WORK OR OTHER PAY ITEM UNDER THIS CONTRACT WHICH IS DEEMED UNACCEPTABLE BY THE CITY DUE TO GRAFFITI OR VANDALISM DAMAGE.

SUBCONTRACTOR SUPERVISION

THE CONTRACTOR IS REQUIRED TO HAVE A PROJECT SUPERVISOR ON-SITE TO SUPERVISE THE SUBCONTRACTOR FOR QUALITY CONTROL PURPOSES AND TO PROVIDE ANY NECESSARY ASSISTANCE TO THE SUBCONTRACTOR TO ENSURE QUALITY WORK.

COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF RELATED PAY ITEMS OF THIS PROJECT.

TESTING AND CERTIFICATION

PROVIDE TESTING OF OR CERTIFICATION THAT MATERIAL SUPPLIED FOR THIS PROJECT MEETS THE PROJECT SPECIFICATIONS, IF REQUIRED.

POTENTIAL ITEMS FOR TESTING CONSIST OF TRENCH BACKFILL, EMBANKMENT, AND CONCRETE, WHICH MAY BE PERFORMED BY THE CITY IF THEY SUSPECT DEFECTIVE WORK OR MATERIALS.

PAYMENT FOR CERTIFICATION OF WORK SHALL BE INCIDENTAL TO THE VARIOUS ITEMS IT IS RELATED TO AND SHALL INCLUDE ALL COST RELATED TO PROVIDING THE CERTIFICATION AS REQUIRED. COST OF ANY TESTING BY A TESTING LAB CONTRACTED BY THE CITY SHALL BE BORNE BY THE CITY, UNLESS THE TEST DOES NOT MEET PROJECT SPECIFICATIONS OR WORK IS FOUND TO BE DEFECTIVE, AT WHICH, THE CONTRACTOR SHALL PAY THE EXPENSES FOR TESTING.

PROPERTY POINTS AND SURVEY MONUMENTS

CARE SHALL BE TAKEN BY THE CONTRACTOR TO SAFEGUARD ANY PROPERTY POINTS OR OTHER SURVEY REFERENCE MARKS ENCOUNTERED DURING CONSTRUCTION OF THIS PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESET ANY PROPERTY POINT OR SURVEY MONUMENT WHICH IS DISTURBED AS A RESULT OF CONSTRUCTION OF THIS PROJECT. THE PROPERTY POINTS AND SURVEY MONUMENTS SHALL BE RESET UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL SURVEYOR.

PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO THE OTHER ITEMS PAID FOR IN THIS PROJECT.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY, REPRESENTATIVES OF THE CITY, AND THE CONTRACTOR, 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.

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 CITY.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

MISCELLANEOUS

COMPENSATION FOR THE WORK AS SHOWN ON THE PLANS SHALL BE AT THE UNIT PRICES INCLUDED ON THE BID PROPOSAL. NO SEPARATE PAYMENT WILL BE MADE FOR TASKS (NOT ALL INCLUSIVE) INCLUDING SUCH ITEMS AS MOBILIZATION, RECORD DRAWINGS AND CONNECTIONS TO EXISTING FACILITIES.

WORK LIMITS

ALL WORK SHALL BE WITHIN EXISTING RIGHT-OF-WAY AND/OR CONSTRUCTION LIMITS UNLESS OTHERWISE INSTRUCTED BY THE CITY.

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.

RECORD DRAWINGS

THE CONTRACTOR SHALL PROVIDE 2 COMPLETE SETS OF RECORD DRAWINGS TO THE CITY WITHIN 30 DAYS OF PROJECT COMPLETION. THESE DRAWINGS SHALL SHOW ALL CHANGES TO THE ORIGINAL DRAWINGS, ALL MANHOLE AND CATCH BASIN LOCATIONS AND INVERTS, ALL LATERAL LOCATIONS AND DEPTHS, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION AND ALL OTHER PERTINENT DATA TO THE IMPROVEMENTS. PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO THE OTHER ITEMS PAID FOR IN THIS PROJECT.

SPECIAL CONDITIONS

ALL CONCRETE WORK MUST BE FINISHED TO THE SATISFACTION OF THE CITY. CONCRETE CURBING PLACED BY MACHINE MUST BE HAND TROWELED PRIOR TO BROOMING. NO WATER MAY BE USED TO ASSIST TROWELING.

ASPHALT MAY NOT OVERLAP CURBING. ANY EXCESS ASPHALT MUST BE REMOVED FROM CURBING BEFORE FINAL ROLLING.

MUD

THE TRACKING OR SPILLAGE OF MUD, DIRT, OR DEBRIS UPON CITY STREETS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

SAWCUT PAVEMENT JOINTS

SAWCUT PAVEMENT JOINTS SHALL BE INCLUDED IN THE PAYMENT OF ITEM 202, REMOVED, AS PER PLAN. MORE THAN ONE SAWCUT MAY BE NECESSARY TO ENSURE A CLEAN CUT JUST PRIOR TO ASPHALT OR CONCRETE PLACEMENT. ASPHALT MATERIAL SHALL BE PLACED ON THE VERTICAL FACE OF SAWCUT JOINTS PRIOR TO PAVING AS PER 401.14. AFTER THE ASPHALT WORK IS COMPLETED, THE TRANSVERSE JOINTS SHALL BE SEALED WITH LIQUID ASPHALT. THE JOINT PREPARATION AND SEALING SHALL BE INCLUDED IN THE PAYMENT FOR ASPHALT CONCRETE.

DEWATERING

ANY DEWATERING OR PUMPING NECESSARY FOR THE CONSTRUCTION OF ANY ITEMS SHALL BE INCIDENTAL TO THOSE PARTICULAR CONSTRUCTION ITEMS.

NOTE

ROOF DRAINS, FOUNDATION DRAINS AND ALL OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SYSTEM ARE PROHIBITED.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 3" BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. CONTRACTOR SHALL HAVE ON SITE STEEL PLATES FOR MAINTENANCE OF TRAFFIC AS DEEMED NECESSARY BY THE CITY IF THE 3" TOLERANCE IS NOT MET. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25' OR LESS) OF A WORK SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE CITY. CONTRACTOR SHALL ALSO PROVIDE ANY DRIVEWAY RAMPING NEEDED DURING PAVEMENT REMOVAL.

MASONRY COLLAR

A CONCRETE COLLAR SHALL BE PROVIDED WHERE PROPOSED STORM SEWER PIPE IS CONNECTED TO AN EXISTING PIPE. THE COST SHALL BE INCLUDED IN THE PRICE BID FOR THE NEW CONDUIT.

FUNDING

DUE TO FUNDING, THE OWNER RESERVES THE RIGHT TO INCREASE, DECREASE, OR OMIT ANY ITEMS LISTED IN THE BID SCHEDULE.

NO FINAL UNIT PRICE ADJUSTMENTS PER ODOT 104.02 WILL BE MADE AT CONTRACT FINALIZATION.

SAFETY

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

MODIFICATIONS

ANY MODIFICATIONS TO THE SPECIFICATIONS OR CHANGES TO THE WORK AS SHOWN ON THE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE CITY.

WATER MAIN CROSSING SEPARATION

WHENEVER A SANITARY SEWER OR STORM SEWER AND WATERLINE MUST CROSS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18" BELOW THE BOTTOM OF THE WATERLINE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SANITARY SEWER SHALL BE CONSTRUCTED WITH WATERLINE TYPE MATERIALS WHICH WILL WITHSTAND A 150 PSI PRESSURE TEST. THESE REQUIREMENTS WILL EXTEND FOR A DISTANCE OF 10', MEASURED PERPENDICULAR, ON BOTH SIDES OF THE WATERLINE.

AT CROSSINGS, THE WATER MAIN SHALL HAVE A MINIMUM VERTICAL DISTANCE OF 18" FROM STORM AND SANITARY SEWERS. ALSO ONE FULL LENGTH OF WATER MAIN SHALL BE LOCATED SO THE JOINTS ARE AS FAR FROM THE STORM OR SANITARY SEWERS AS POSSIBLE.

RESIDENTIAL, COMMERCIAL, STORM DRAINAGE AND SEWER FACILITIES

EXISTING ROOF DRAINS, FOOTER DRAINS, STORM DRAINS, SANITARY LATERALS, OR YARD DRAINS, DISTURBED BY THE WORK, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTING THE CONDUITS.

ALL CLEAN WATER CONNECTIONS (ROOF DRAINS, SUMP PUMPS, ETC.) ENCOUNTERED SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ALL SANITARY LATERALS SHALL BE RECONNECTED TO SANITARY SEWER PER THE CITY'S DIRECTION. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEW CONDUIT REQUIRED TO REPLACE OR EXTEND THE EXISTING DRAIN WILL BE DETERMINED BY THE OWNER DURING CONSTRUCTION, AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS AND INCLUDE ALL MATERIALS NECESSARY SUCH AS GRANULAR BEDDING, PROPER FITTINGS AND CONNECTIONS, AND PIPE. PERMISSION FROM PROPERTY OWNERS SHALL BE GRANTED TO THE CONTRACTOR PRIOR TO ANY CONSTRUCTION ON PRIVATE PROPERTY.

THE FOLLOWING CONTINGENT ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS FOR THE WORK NOTED ABOVE:

ITEM 611	4" PVC SDR-35 CONDUIT, TYPE B	100 FEET
ITEM 611	6" PVC SDR-35 CONDUIT, TYPE B	100 FEET
ITEM 611	8" PVC SDR-35 CONDUIT, TYPE B	100 FEET

CONCURRENT ACTIVITY

THE CONTRACTOR IS HEREBY ADVISED THAT ALL UTILITY COMPANIES AFFECTED BY THIS PROJECT MAY BE WORKING CONCURRENTLY WITHIN THE PROJECT LIMITS.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING CORPORATION MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN-SERVICE OR ABANDONED. FURTHER, CHOICE ONE ENGINEERING CORPORATION DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH CHOICE ONE ENGINEERING CORPORATION DID LOCATE AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. CHOICE ONE ENGINEERING CORPORATION HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

ASPHALT

ALL ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL APPLY TO THIS PROJECT EXCEPT FOR ODOT ITEM 401.20 ASPHALT BINDER PRICE ADJUSTMENT.

ALL ASPHALT DELIVERED SHALL BE ACCOMPANIED WITH A LOAD TICKET AS PER ITEM 402.07. ASPHALT CONCRETE BID ITEMS ARE NOT ELIGIBLE FOR ANY ASPHALT BINDER PRICE ADJUSTMENT.

ONE CHOICE ENGINEERING	
440 E. HOEWISHER ROAD SIDNEY, OHIO 45345 (937) 497-0200 WWW.CHOICEENGINEERING.COM	203 W. LOVELAND AVENUE LOVELAND, OHIO 45140 (513) 239-8954
SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1 CITY OF TIPP CITY GENERAL NOTES	
REVISIONS:	
FILE NAME MIATCH1116GNA	
DRAWN BY GCA	
CHECKED BY AVS	
PROJECT No. MIATCH1116	
DATE 06-17-15	
SHEET NUMBER 5 OF 115	

CONTRACT WORK PERFORMED BY THE CITY

IF THE CONTRACTOR REFUSES OR FAILS TO PERFORM WORK OF ANY IMMEDIATE NATURE SUCH AS THE PLACEMENT OF BARRICADES, REPLACEMENT OF SIGNS, OR OTHER DEVICES REQUIRED BY THIS CONTRACT IN A REASONABLE TIME, THE CITY WILL PERFORM THE NECESSARY WORK. THE CONTRACTOR SHALL REIMBURSE THE CITY AT THE RATE OF 2.5 TIMES THE ACTUAL COST OF LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PERFORM SUCH WORK. THE CITY SHALL NOTIFY OR ATTEMPT TO NOTIFY THE CONTRACTOR OF THE NECESSITY TO PERFORM SUCH WORK. THE CITY SHALL BE REIMBURSED BY A DEDUCTION FROM THE CONTRACTOR'S NEXT PAYMENT UNDER THE CONTRACT. REASONABLE TIME FOR ALL STREETS INVOLVED ON THIS CONTRACT IS 1 HOUR FROM THE TIME OF NOTIFICATION BY THE CITY.

NONRUBBER TIRE VEHICLES

NO NONRUBBER TIRE VEHICLES SHALL BE MOVED ON CITY STREETS. EXCEPTIONS MAY BE GRANTED BY THE CITY WHERE SHORT DISTANCES AND SPECIAL CIRCUMSTANCES ARE INVOLVED. GRANTING OF EXCEPTIONS MUST BE IN WRITING AND ANY RESULTING DAMAGE MUST BE REPAIRED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL USE EXTREME CARE WHEN OPERATING NONRUBBER TIRE VEHICLES ON STREETS OR DRIVEWAYS TO AVOID MARKING OR DAMAGING THE PAVEMENT. PROTECTION OF THE PAVEMENT FROM DAMAGE RESULTING FROM THE TRACKS OF NONRUBBER TIRE VEHICLES UTILIZED IN TRENCH EXCAVATION SHALL BE REQUIRED. A WOOD PLANK SYSTEM, USED TIRES, RUBBER MATS, OR OTHER MEANS AS APPROVED BY THE CITY'S REPRESENTATIVE SHALL BE USED TO PROTECT THE PAVEMENT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

CONSTRUCTION NOISE

IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICES SHALL NOT BE OPERATED BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. IN ADDITION, ANY SUCH DEVICE SHALL NOT BE OPERATED AT ANY TIME 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.

DEMOLITION NOTES

1. THE CONTRACTOR SHALL SAW CUT ALL EXISTING PAVEMENT, SIDEWALK AND CURB AGAINST WHICH ALL IMPROVEMENTS ARE PROPOSED. PAVEMENT, WALK, AND CURB SHALL BE SAW CUT IN NEAT, STRAIGHT LINES. COST FOR SAW CUTTING SHALL BE INCLUDED IN ITEM 202 REMOVED, AS PER PLAN.

2. LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL UTILITIES, STRUCTURES AND BUILDING FACADES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE METHOD OF SUPPORT OR PROTECTION MUST BE APPROVED BY THE CITY, AND IF FACILITY IS DAMAGED BY THE CONTRACTOR ALL REPAIRS SHALL BE MADE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

3. THE EXISTING SIDEWALK IS EXPECTED TO HAVE LOW LOAD BEARING CAPACITY, EXERCISE CARE.

CONCRETE FIBERS

ALL CURB, DRIVEWAYS, WALKS, AND CURB RAMPS SHALL HAVE 3 LBS, OF 2.25" IN LENGTH FIBRILLATED MACROFIBERS PER CUBIC YARD.

CONTRACTOR IS TO NOTIFY THE FIBER MANUFACTURER'S SUPPLIER REPRESENTATIVE 48 HOURS PRIOR TO THE FIRST POUR OF THE CONCRETE UTILIZING EACH DIFFERENT FIBER TYPE TO ENSURE FIBERS ARE MIXED CORRECTLY, PLACEMENT, AND FINISHING. FIBER REPRESENTATIVE MUST BE ON SITE FOR THE FIRST POUR OF EACH FIBER TYPE.

PROPOSED ABANDONED WATER MAIN NOTE

DURING THE CONSTRUCTION OF THIS PROJECT WHERE THERE ARE CONFLICTS THAT ARISE BETWEEN PROPOSED CONSTRUCTION AND THE PROPOSED ABANDONED WATER MAIN, THE CONTRACTOR MAY CUT AND REMOVE THIS WATER MAIN AND PLUG THE OPEN ENDS ONLY AFTER IT IS COMPLETELY ABANDONED. THE ABOVE WORK IS INCIDENTAL TO THE APPROPRIATE ITEM.

CONTROL OF SPILLS

THIS PROJECT IS LOCATED WITHIN THE BOUNDARIES OF A DESIGNATED SOLE SOURCE AQUIFER. BEST CONSTRUCTION PRACTICES ARE TO BE IMPLEMENTED TO MINIMIZE WATER QUALITY IMPACTS. IDLE EQUIPMENT, PETROCHEMICALS, AND TOXIC/HAZARDOUS MATERIALS SHALL NOT BE STORED NEAR DRAINAGE WAYS, DITCHES OR STREAMS. REFUELING SHALL NOT BE UNDERTAKEN NEAR DRAINAGE WAYS, DITCHES OR STREAMS. A SPILL CONTAINMENT KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. SPILLS OF FUELS, OILS, CHEMICALS, OR OTHER MATERIALS WHICH COULD POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY. IF THE SPILL IS A REPORTABLE AMOUNT, THE TIPP CITY FIRE DEPARTMENT (937-669-8477) IS TO BE CONTACTED.

ENDANGERED SPECIES HABITAT

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE INDIANA BAT AND THE NORTHERN LONG-EARED BAT. NO TREES MAY BE REMOVED FROM APRIL 1 TO SEPTEMBER 30.

ITEM 201 CLEARING AND GRUBBING, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 201 CLEARING AND GRUBBING, EXCEPT AS HEREIN MODIFIED.

THIS WORK SHALL CONSIST OF REMOVING AND TRIMMING TREES, REMOVING STUMPS, TRIMMING AND/OR REMOVING BUSHES, REMOVING LANDSCAPE TIMBERS, ETC. AS NOTED ON THE PLANS, WORK SHALL BE COORDINATED WITH THE INDIVIDUAL PROPERTY OWNERS TO ENHANCE MAXIMUM POSSIBLE SATISFACTION.

ALL STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN. STUMPS SHALL BE REMOVED BY METHOD OF USING A STUMP GRINDER, ESPECIALLY OVER THE NEW GAS LINE LOCATIONS.

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE EACH BID ITEM LISTED BELOW. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED, QUANTITIES MAY BE ADJUSTED IN FIELD:

SIZE	No. TREES	No. STUMPS	TOTAL
<12"	3	1	4
12"-24"	61	12	73
24"-36"	4	4	8
36"-60"	1	1	2

ALL TREE REMOVAL SHALL BE COMPLETED AS SOON AS ALLOWED AND COMPLETED BY NOVEMBER 15, 2015.

PAYMENT FOR ITEM 201 CLEARING AND GRUBBING, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT LUMP SUM BID PRICE EXCEPT FOR ITEMS PAID FOR AS EACH AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 202 REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS, EXCEPT AS HEREIN MODIFIED.

ITEM 202 REMOVED, AS PER PLAN CONSISTS OF SUCH ITEMS AS GUARDRAIL, CONCRETE PAVEMENT, WALLS, HEADWALLS, POSTS, ASPHALT PAVEMENT, CATCH BASINS, EXISTING PAVEMENT, ROCKS, HANDRAILS, LANDSCAPE TIMBERS/PAVERS, BRICK PAVERS, PULL BOXES, TRAFFIC SIGNAL CONDUIT, DETECTOR LOOPS, ETC., AS NECESSARY FOR THE CONSTRUCTION OF THE PROJECT, INCLUDING SAW CUTTING PAVEMENT.

THE REMOVAL OF EXISTING SIDEWALK, EXISTING FENCE, EXISTING PIPE, AND EXISTING CURB SHALL BE PAID UNDER THEIR RESPECTIVE ITEMS.

ANY ITEM THAT IS REMOVED UNDER OR WITHIN 5' OF PROPOSED CURB, PAVEMENT, SIDEWALKS, OR DRIVEWAY SHALL BE BACKFILLED AND COMPACTED USING ITEM 611 TYPE 1 OR 2 STRUCTURAL MATERIAL.

ANY PRIVATE PROPERTY SHALL BE REMOVED CAREFULLY AND STORED FOR THE PROPERTY OWNER AT A PLACE DESIGNATED BY THE OWNER ON THAT PARTICULAR PROPERTY. ANY SALVAGED PUBLIC ITEMS SHALL REMAIN CITY PROPERTY AND SHALL BE CAREFULLY REMOVED BY THE CONTRACTOR AND STORED AT A DESIGNATED LOCATION ON THE PROJECT SITE FOR CITY PICKUP.

PAYMENT FOR ITEM 202 REMOVED, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 203 EXCAVATION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 203 ROADWAY EXCAVATION AND EMBANKMENT, EXCEPT AS HEREIN MODIFIED.

ALL SURFACE MATERIAL, EXCAVATED UNSUITABLE MATERIAL AND ALL EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN RESPONSIBILITY AND EXPENSE OUTSIDE OF THE RIGHT-OF-WAY AT A SITE APPROVED BY THE CITY. THIS ITEM SHALL ALSO INCLUDE THE PLACING OF A MINIMUM OF 6" OF TOPSOIL ON ALL DISTURBED AREAS DURING FINAL GRADING.

PAYMENT FOR ITEM 203 EXCAVATION, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 204 EXCAVATION OF SUBGRADE AND STRUCTURAL EMBANKMENT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN MODIFIED.

THIS WORK SHALL INCLUDE THE EXCAVATING OF UNSUITABLE SUBGRADE AND REPLACING WITH ODOT ITEM 304 AGGREGATE BASE, ODOT #1, ODOT #2, OR ANY COMBINATION AS DIRECTED BY THE CITY. LOCATION AND AMOUNT OF THIS ITEM SHALL BE LOCATED BY THE CITY AT THE TIME OF CONSTRUCTION ONLY AFTER THE CONTRACTOR HAS SATISFACTORILY ATTEMPTED TO DRY OUT AND WORK THE SUBGRADE. THIS ITEM INCLUDES EXCAVATION AND DISPOSAL OF UNSUITABLE MATERIAL, SUBGRADE COMPACTION, AND THE SUPPLY AND PLACEMENT OF THE ABOVE MENTIONED GRANULAR MATERIAL. THE ESTIMATED QUANTITY IS **9500 CUBIC YARDS**, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY OR EXCEEDS THE ESTIMATED QUANTITY, IF NECESSARY.

PAYMENT FOR ITEM 204 EXCAVATION OF SUBGRADE AND GRANULAR EMBANKMENT, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE (REGARDLESS OF QUANTITY) AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 204 SUBGRADE COMPACTION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN MODIFIED.

THIS WORK SHALL INCLUDE "PROOF ROLLING" WITH A LOADED TANDEM DUMP TRUCK AS DIRECTED BY THE CITY UNTIL NO DEFLECTION OR TIRE INDENTATION IN SUBGRADE IS PRESENT.

PAYMENT FOR ITEM 204 SUBGRADE COMPACTION, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 204 GEOGRID, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN MODIFIED.

THE WORK SHALL INCLUDE SUBGRADE STABILIZATION BY UTILIZING TENSAR TX5 GEOGRID, NAUE SECUGRID 60/20, COLBOND ENKAGRID PRO 40, OR AN APPROVED EQUIVALENT. LOCATION AND AMOUNT SHALL BE LOCATED BY THE CITY AT THE TIME OF CONSTRUCTION. TENSAR TX5 GEOGRID SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. THIS WORK SHALL INCLUDE THE ADDITIONAL LABOR AND EQUIPMENT TO PROPERLY PLACE 304 AGGREGATE BASE OVER TENSAR AS RECOMMENDED BY THE MANUFACTURER.

THE ESTIMATED QUANTITY IS **18925 SQUARE YARDS**, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY OR EXCEED THE ESTIMATED QUANTITY, IF NECESSARY. THE METHOD OF MEASUREMENT SHALL BE THE SURFACE AREA COVERED BY STABILIZATION MEMBRANE, NOT INCLUDING OVERLAP OR WASTE.

PAYMENT FOR ITEM 204 GEOGRID, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE (REGARDLESS OF QUANTITY) AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 304 AGGREGATE BASE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 304 AGGREGATE BASE, EXCEPT AS HEREIN MODIFIED.

THIS ITEM SHALL ALSO INCLUDE SATURATING THE AGGREGATE BASE WITH WATER DURING PLACEMENT OF EACH LIFT PRIOR TO COMPACTING.

THIS WORK SHALL INCLUDE "PROOF ROLLING" WITH LOADED TANDEM DUMP TRUCK AS DIRECTED BY THE CITY UNTIL NO DEFLECTION OR TIRE INDENTATION IN THE AGGREGATE BASE IS PRESENT.

PAYMENT FOR ITEM 304 AGGREGATE BASE, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 452 NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 452 NON-REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT, EXCEPT AS HEREIN MODIFIED.

CONCRETE DRIVE APPROACHES SHALL HAVE A MINIMUM THICKNESS OF 6". 6" AGGREGATE BASE SATURATED W/ WATER PRIOR TO COMPACTION, THIS SHALL BE PAID UNDER THE RESPECTIVE ITEM. CONCRETE SHALL BE ODOT QC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL) AND REINFORCED WITH CONCRETE FIBERS. PERFORM A BROOM FINISH AND TOOLED EDGES ON ALL SURFACES AND APPLY CURING COMPOUND IMMEDIATELY. PROVIDE 1/2" PREMOLDED EXPANSION JOINT TO ISOLATE APPROACHES AND WALKS.

DRIVES SHALL BE INSTALLED TO MATCH INTO EXISTING. REMOVAL AND DISPOSAL OF EXISTING DRIVE MATERIALS SHALL BE INCLUDED IN THIS ITEM.

PAYMENT FOR ITEM 452 NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE AND SHALL INCLUDE ALL MATERIAL, LABOR, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 517, RAILING (ALUMINUM), AS PER PLAN

1. RAILING SHALL BE PROVIDED AND INSTALLED PER ODOT ITEM 517 RAILINGS, EXCEPT AS MODIFIED IN PLAN DOCUMENTS. THIS ITEM SHALL INCLUDE ALL MANPOWER, MATERIALS, EQUIPMENT, APPURTENANCES AND INCIDENTALS TO INSTALL THE PRESCRIBED RAILING COMPLETE AND IN PLACE PER PLAN.

2. HANDRAIL SHALL BE NON-WELDED ALUMINUM PIPE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS FOR ALUMINUM-ALLOY PIPE ASTM B-241, 6063 T6 ASA, SCHEDULE NUMBER 40, HANDRAIL AND ALL HARDWARE NEEDED FOR INSTALLATION SHALL BE INCLUDED. COLOR AND FINISH SHALL BE DETERMINED BY THE CITY.

3. CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.

4. CONTRACTOR SHALL REPAIR ANY SCRATCHES OR CHIPPED PAINT PRIOR TO FINAL ACCEPTANCE. PAINTED SURFACE SHALL BE WARRANTED TO BE FREE OF BLISTERS AND FLAKING PAINT FOR ONE YEAR FROM DATE OF PROJECT ACCEPTANCE. SCRATCHES FROM USE AFTER FINAL PROJECT ACCEPTANCE ARE NOT PROTECTED BY WARRANTY.

5. ANY MODIFICATIONS TO RAILING DESIGN AND ANCHORING METHOD SHALL REQUIRE APPROVAL OF ENGINEER.

6. BASIS OF PAYMENT - ALL MANPOWER, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL RAILING COMPLETELY AND IN PLACE, INCLUDING PAINTING, ANCHORING, AND SITE RESTORATION SHALL BE INCLUDED IN THE UNIT PRICE PER FOOT (FT.) OF RAILING INSTALLED, MEASURED LENGTH IS FROM OUTSIDE EDGE TO OUTSIDE EDGE OF INSTALLED RAILING SECTIONS.

REVISIONS:

FILE NAME

MIATC1116GNB

DRAWN BY

GCA

CHECKED BY

AVS

PROJECT No.

MIATC1116

DATE

06-17-15

SHEET NUMBER

6 of 115

ITEM 606 ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAILS AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 608 4' CONCRETE WALK, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 608 WALKS, CURB RAMPS, AND STEPS, EXCEPT AS HEREIN MODIFIED.

THIS WORK SHALL CONSIST OF CONSTRUCTING WALKS OF SPECIFIED MATERIALS IN REASONABLY CLOSE CONFORMITY WITH LINES, GRADES, AND DIMENSIONS SHOWN ON THE PLANS OR ESTABLISHED BY THE ENGINEER.

4" OF 304 AGGREGATE BASE SATURATED W/ WATER PRIOR TO COMPACTION SHALL BE PLACED UNDER ALL PROPOSED SIDEWALK.

ALL CONCRETE SHALL BE ODOT QC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL) AND REINFORCE WITH CONCRETE FIBERS. EXPANSION JOINT MATERIAL, AND CURING AND SEALING COMPOUND SHALL ALSO BE INCLUDED IN THIS ITEM.

PAYMENT FOR ITEM 608 CONCRETE WALK, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT SQUARE FOOT BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 608 CURB RAMPS, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 608 WALKS, CURB RAMPS, AND STEPS, EXCEPT AS HEREIN MODIFIED.

TRUNCATED DOME SPECIFICATIONS:

INSTALL DETECTABLE WARNINGS (TRUNCATED DOMES) FOR A DISTANCE OF 24" FROM THE BACK OF CURB FOR THE ENTIRE WIDTH OF THE RAMP OPENING WHERE IT IS FLUSH WITH THE PAVEMENT.

THE PANELS SHALL BE CAST IRON PRODUCT PANELS MOLDED IN THE SQUARE PATTERN. COLOR OF THE PANEL SHALL BE APPROVED BY THE CITY PRIOR TO ORDERING.

PAYMENT FOR ITEM 608 CURB RAMPS, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK PER RAMP.

ITEM 611 PIPING/CONDUITS AND RELATED WORK, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 611, PIPE CULVERTS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES, EXCEPT AS HEREIN MODIFIED.

ALL PIPE CULVERTS, CONDUITS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES SHALL MEET THE MATERIAL REQUIREMENTS OF THIS ITEM. THE FOLLOWING ITEMS WILL NOT BE REQUIRED UNLESS OTHERWISE NOTED: 1) INSTALLATION PLAN, 2) CONSTRUCTION INSPECTION FORMS, 3) PERFORMANCE INSPECTIONS AND REPORTS, 4) CONDUIT AND DRAINAGE STRUCTURE EVALUATIONS.

THE INSTALLATION OF ALL PIPE CULVERTS, CONDUITS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES SHALL BE PER MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN A HIGH STANDARD OF WORK. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK IS PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. CONTRACTOR SHALL ALSO ENSURE THAT ALL ITEMS ARE FULLY AND PROPERLY FUNCTIONAL, AND TO A QUALITY ACCEPTABLE BY THE OWNER.

ITEM 611 STORM SEWER, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 611, PIPE CULVERTS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES, EXCEPT AS HEREIN MODIFIED.

THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD LOCATE ALL EXISTING STORM SEWER, STRUCTURES AND OTHER UTILITIES, PRIOR TO INSTALLING THE PROPOSED STORM SEWER SYSTEM. THE EXISTING STORM SEWER AND LATERALS SHOWN ON THE PLANS ARE IN THE APPROXIMATE LOCATION, AND IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD LOCATE PROPOSED TIE-INS TO THE EXISTING STORM PRIOR TO ANY STORM SEWER CONSTRUCTION. ALL TIE-INS SHALL BE THROUGH PRECAST TEES OR HOLES INSTALLED USING A CORING MACHINE.

PAYMENT FOR ITEM 611 STORM SEWER, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT FOOT BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 623 CONSTRUCTION LAYOUT STAKES, EXCEPT AS HEREIN MODIFIED.

THE VERTICAL CONTROL IS LISTED ON THE PLANS WITH THE BENCHMARKS. TRAVERSE POINTS ARE SHOWN BELOW FOR HORIZONTAL CONTROL. THE BEARINGS ARE LISTED FOR THE CENTERLINE OF CONSTRUCTION.

PAYMENT FOR ITEM 623 CONSTRUCTION LAYOUT STAKES, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT, REQUIRED TO COMPLETE THIS ITEM OF WORK.

TRAVERSE POINT #	STATION	OFFSET	NORTH	EAST	TYPE
100	268+32.47	40.30' RT	719303.167	1492248.877	MAG NAIL
106	240+44.18	165.76' LT	716515.305	1492045.933	MAG NAIL
109	229+84.37	14.80' RT	715454.703	1492221.759	MAG NAIL
110	43+99.77	31.54' RT	715420.948	1491606.655	IRON PIN

ITEM 623 MONUMENT ASSEMBLY, AS PER PLAN

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAIL SHOWN IN THE PLANS AND AT THE LOCATIONS SHOWN ON THE CENTERLINE PLAT.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE ENGINEER'S ESTIMATE FOR THIS WORK.

ITEM 623 MONUMENT ASSEMBLY, AS PER PLAN.....12 EACH

ITEM 638 WATER MAIN, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 638 WATER MAINS AND SERVICE BRANCHES, EXCEPT AS HEREIN MODIFIED.

ALL MATERIALS, PROCEDURES, AND TESTING USED SHALL CONFORM WITH THE CITY OF TIPP CITY ENGINEERING STANDARDS AND SPECIFICATIONS.

PAVEMENT RESTORATION, CURB AND GUTTER AND PLAIN CONCRETE PAVEMENT AND SIDEWALK REPLACEMENT SHALL BE PAID UNDER THEIR RESPECTIVE ITEM NUMBER. HOWEVER STRUCTURAL BEDDING AND ANY REQUIRED STRUCTURAL BACKFILL SHALL BE INCLUDED WITH THIS ITEM.

HYDROSTATIC PRESSURE TEST SHALL INCLUDE ALL WATER MAIN, FH BRANCHES, AND COPPER WATER SERVICES TO THE CURB BOX

CONTRACTOR TO USE ONLY DOMESTIC PIPE AND FITTINGS.

CONTRACTOR TO USE ALL STAINLESS STEEL BANDS FOR ALL TAPPING SLEEVE AND VALVES.

PAYMENT FOR ITEM 638 WATER MAIN, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED (INCLUDING TESTING AND PURITIES) ABOVE SHALL BE AT THE CONTRACT FOOT BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 638 6-INCH FIRE HYDRANT ASSEMBLY, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 638 WATER MAINS AND SERVICE BRANCHES, EXCEPT AS HEREIN MODIFIED.

THE ASSEMBLY WILL CONSIST OF THE FIRE HYDRANT, ANCHOR PIPE, PIPE BRANCH, THRUST BLOCKING, REDUCERS (IF NECESSARY), A GATE VALVE WITH VALVE BOX AND RESTRAINING GLANDS.

PAYMENT FOR ITEM 638 6-INCH FIRE HYDRANT ASSEMBLY, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 659 SEEDING AND MULCHING, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 659 SEEDING AND MULCHING, EXCEPT AS HEREIN MODIFIED.

ALL AREAS DESIGNATED FOR SEEDING SHALL HAVE A MINIMUM OF 6" OF TOPSOIL OVER THE ENTIRE AREA. THE AREA SHALL BE HAND RAKED AND DRESSED READY FOR SEEDING. NO STONE OVER 1" IN SIZE PERMITTED.

COMMERCIAL FERTILIZER 12-12-12 SHALL BE INCLUDED IN ITEM 659 SEEDING AND MULCHING, AS PER PLAN AND SHALL BE APPLIED AT THE RATE OF 20 POUNDS PER 1000 SQUARE FEET.

SEEDING APPLICATION SHALL BE AT THE RATE OF 6 POUNDS PER 1000 SQUARE FEET. THE FOLLOWING SEED MIXTURE OR EQUIVALENT SHALL BE USED IN LIEU OF THE MIXTURES LISTED IN 659.09:

- 30% KENTUCKY BLUE(VNS)
- 23% PALMER II PERENNIAL RYE
- 22% YORKTOWN III PERENNIAL RYE
- 15% CREEPING RED FESCUE(VNS)
- 10% BARON KENTUCKY BLUEGRASS

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE CONSTRUCTION LIMITS EXCLUDING THE AREA WHERE SODDING IS CALLED FOR. QUANTITY CALCULATIONS FOR ITEM 659 SEEDING AND MULCHING, AS PER PLAN ARE BASED ON THESE LIMITS.

ALL FINAL SEEDING AND MULCHING SHALL BE COMPLETED BY THE SUBSTANTIAL COMPLETION DATE. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH 108.07 FOR EACH CALENDAR DAY THAT THE SEEDING AND MULCHING IS NOT COMPLETE.

IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THE GRASS IS ESTABLISHED TO THE SATISFACTION OF THE CITY, WHICH MAY REQUIRE WATERING AND RESEEDING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REGRADING AND RESEEDING ANY AREAS THAT HAVE ERODED OR AREAS THAT NEW GRASS DID NOT GERMINATE UNTIL THE ENTIRE SEEDDED AREAS ARE STABILIZED, SHAPED AND DRAINED, AS PER PLAN.

CONTRACTOR IS RESPONSIBLE TO RESTORE ANY LAWN AREA, OUTSIDE OF THE CONSTRUCTION LIMITS, CAUSED BY HIS WORK, WHETHER ACCEPTABLE TO PROPERTY OWNER OR NOT, TO THE SATISFACTION OF THE PROPERTY OWNER AND THE CITY, AT THE CONTRACTORS SOLE EXPENSE.

THE TECHNICAL SPECIFICATIONS MOST RESTRICTIVE SHALL APPLY AS DETERMINED BY THE CITY.

PAYMENT FOR ITEM 659 SEEDING AND MULCHING, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 659 SEEDING AND MULCHING (ROADSIDE MIX), AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 659 SEEDING AND MULCHING, EXCEPT AS HEREIN MODIFIED.

ALL AREAS DESIGNATED FOR SEEDING SHALL HAVE A MINIMUM OF 6" OF TOPSOIL OVER THE ENTIRE AREA. THE AREA SHALL BE HAND RAKED AND DRESSED READY FOR SEEDING. NO STONE OVER 1" IN SIZE PERMITTED.

COMMERCIAL FERTILIZER 12-12-12 SHALL BE INCLUDED IN ITEM 659 SEEDING AND MULCHING, AS PER PLAN AND SHALL BE APPLIED AT THE RATE OF 20 POUNDS PER 1000 SQUARE FEET.

SEEDING APPLICATION SHALL BE AT THE RATE OF 6 POUNDS PER 1000 SQUARE FEET. THE FOLLOWING SEED MIXTURE OR EQUIVALENT SHALL BE USED IN LIEU OF THE MIXTURES LISTED IN 659.09:

- CLASS 2 ROADSIDE MIX
- 30% KENTUCKY BLUEGRASS
- 40% KENTUCKY 31 FESCUE
- 30% PERENNIAL RYEGRASS

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN STA. 210+70 TO STA. 227+85 RIGHT SIDE AND STA. 213+68 TO 223+38 LEFT SIDE. QUANTITY CALCULATIONS FOR ITEM 659 SEEDING AND MULCHING (ROADSIDE MIX), AS PER PLAN ARE BASED ON SEEDING A 20' STRIP IN THE AREA OF WHERE THE CONTRACTOR WILL BE CLEARING AND GRUBBING THE BRUSH.

ALL FINAL SEEDING AND MULCHING SHALL BE COMPLETED BY THE SUBSTANTIAL COMPLETION DATE. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH 108.07 FOR EACH CALENDAR DAY THAT THE SEEDING AND MULCHING IS NOT COMPLETE.

IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THE GRASS IS ESTABLISHED TO THE SATISFACTION OF THE CITY, WHICH MAY REQUIRE WATERING AND RESEEDING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REGRADING AND RESEEDING ANY AREAS THAT HAVE ERODED OR AREAS THAT NEW GRASS DID NOT GERMINATE UNTIL THE ENTIRE SEEDDED AREAS ARE STABILIZED, SHAPED AND DRAINED, AS PER PLAN.

CONTRACTOR IS RESPONSIBLE TO RESTORE ANY LAWN AREA, OUTSIDE OF THE CONSTRUCTION LIMITS, CAUSED BY HIS WORK, WHETHER ACCEPTABLE TO PROPERTY OWNER OR NOT, TO THE SATISFACTION OF THE PROPERTY OWNER AND THE CITY, AT THE CONTRACTORS SOLE EXPENSE.

THE TECHNICAL SPECIFICATIONS MOST RESTRICTIVE SHALL APPLY AS DETERMINED BY THE CITY.

PAYMENT FOR ITEM 659 SEEDING AND MULCHING (ROADSIDE MIX), AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 660 SODDING UNSTAKED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 660 SODDING, EXCEPT AS HEREIN MODIFIED.

ALL AREAS DESIGNATED FOR SODDING SHALL HAVE A MINIMUM OF 6" OF TOPSOIL OVER THE ENTIRE AREA. THE AREA SHALL BE HAND RAKED AND DRESSED READY FOR SODDING. NO STONE OVER 1" IN SIZE PERMITTED.

COMMERCIAL FERTILIZER 12-12-12 SHALL BE INCLUDED IN ITEM 660 SODDING, AS PER PLAN AND SHALL BE APPLIED AT THE RATE OF 20 POUNDS PER 1000 SQUARE FEET.

SODDING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL 6' FROM THE PROPOSED BACK OF CURB. QUANTITY CALCULATIONS FOR ITEM 660 SODDING, AS PER PLAN ARE BASED ON THESE LIMITS.

ALL SODDING SHALL BE COMPLETED BY THE SUBSTANTIAL COMPLETION DATE. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH 108.07 FOR EACH CALENDAR DAY THAT THE SODDING IS NOT COMPLETE.

IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THE GRASS IS ESTABLISHED TO THE SATISFACTION OF THE CITY, WHICH MAY REQUIRE WATERING AND RESEEDING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REGRADING AND RESODDING ANY AREAS THAT HAVE ERODED OR AREAS THAT NEW GRASS DID NOT GERMINATE UNTIL THE ENTIRE SODDED AREAS ARE STABILIZED, SHAPED AND DRAINED, AS PER PLAN.

THE TECHNICAL SPECIFICATIONS MOST RESTRICTIVE SHALL APPLY AS DETERMINED BY THE CITY.

PAYMENT FOR ITEM 660 SODDING UNSTAKED, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ONE CHOICE ENGINEERING

440 E. HOFWISHER ROAD
SIDNEY, OHIO 45365
(937) 497-0888
www.choiceengineering.com
203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 239-9554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
GENERAL NOTES

REVISIONS:

FILE NAME
MIATC1116GNC

DRAWN BY
GCA

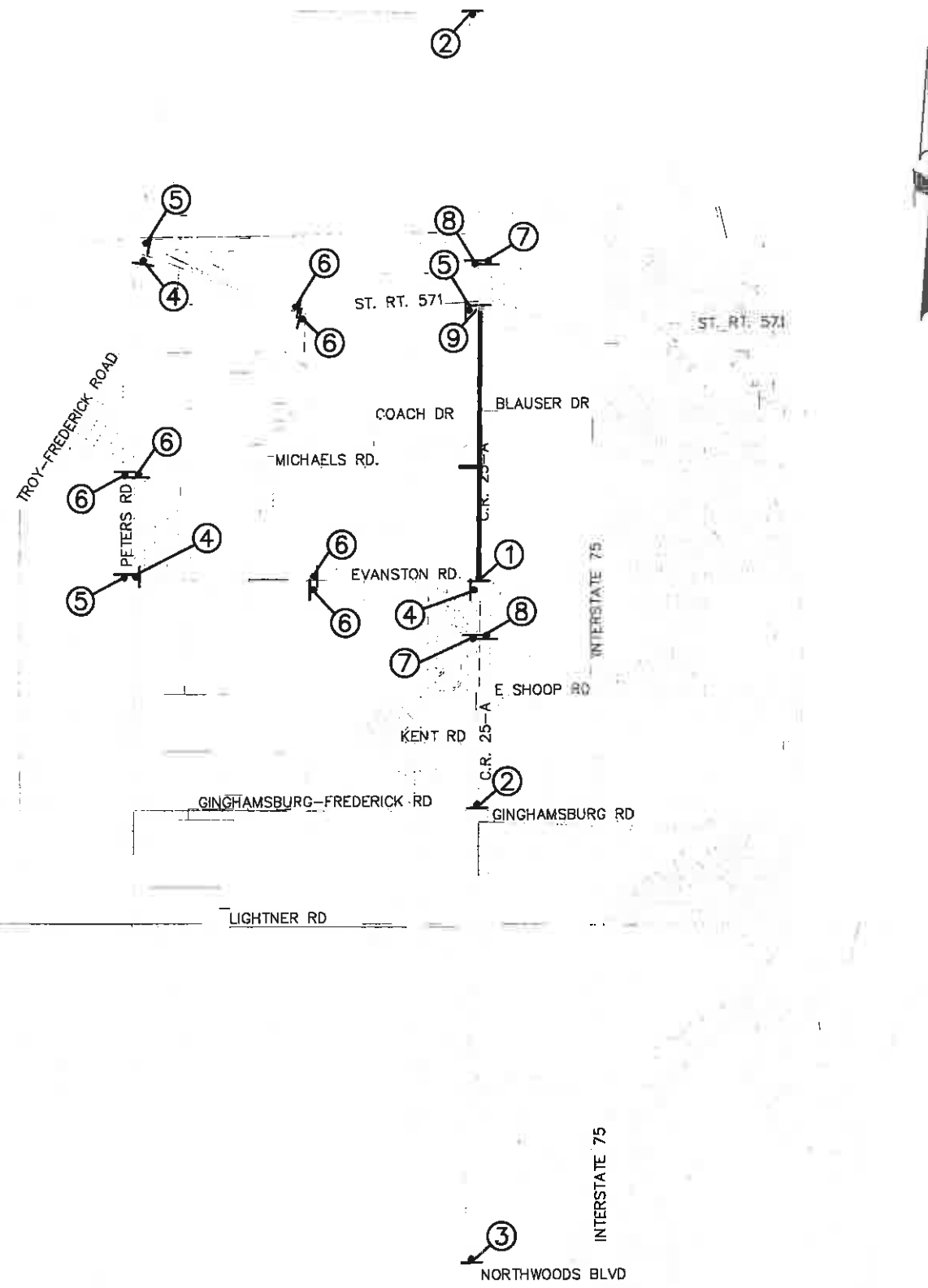
CHECKED BY
AVS

PROJECT No.
MIATC1116

DATE
06-17-15

SHEET NUMBER

7 OF 115



R11-3A-60
ROAD CLOSED
LOCAL TRAFFIC ONLY

DETOUR ← ①

M4-10L-48
(DUAL SIGN ON BARRICADES AND NIGHT BEACONS)

R11-3A-60
ROAD CLOSED
1.0 MILES AHEAD
LOCAL TRAFFIC ONLY ②

R11-3A-60
ROAD CLOSED
3.0 MILES AHEAD
LOCAL TRAFFIC ONLY ③

D3-48
N.C.R. 25-A

DETOUR → ④

M4-9R-30

D3-48
N.C.R. 25-A

DETOUR ← ⑤

M4-9L-30
D3-48
N.C.R. 25-A

DETOUR ↑ ⑥

M4-9-30
M4-8a

END
DETOUR ⑦

DETOUR AHEAD ⑧

W20-2-36
R11-3A-60

ROAD CLOSED
LOCAL TRAFFIC ONLY

DETOUR → ⑨

M4-10R-48
(DUAL SIGN ON BARRICADES AND NIGHT BEACONS)

PAYMENT FOR ALL OF THE WORK REQUIRED BY THE CONTRACTOR FOR TRAFFIC CONTROL NOTED ON THIS SHEET INCLUDING PROVIDING, ERECTING, MAINTAINING, AND REMOVING ALL FLASHERS, SIGNS, BARRICADES, SUPPORTS, AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 DETOUR SIGNING. (THE CONTRACTOR SHALL INSTALL ADVANCE WARNING SIGNS PER STANDARD DRAWING MT-101.60.)

ONE CHOICE ENGINEERING

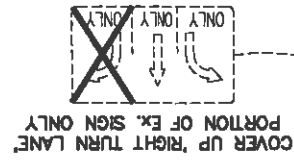
440 E. HOSWISHER ROAD
SIDNEY, OHIO 45365
(937) 497-0200
www.choiceengineering.com

203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 239-8554

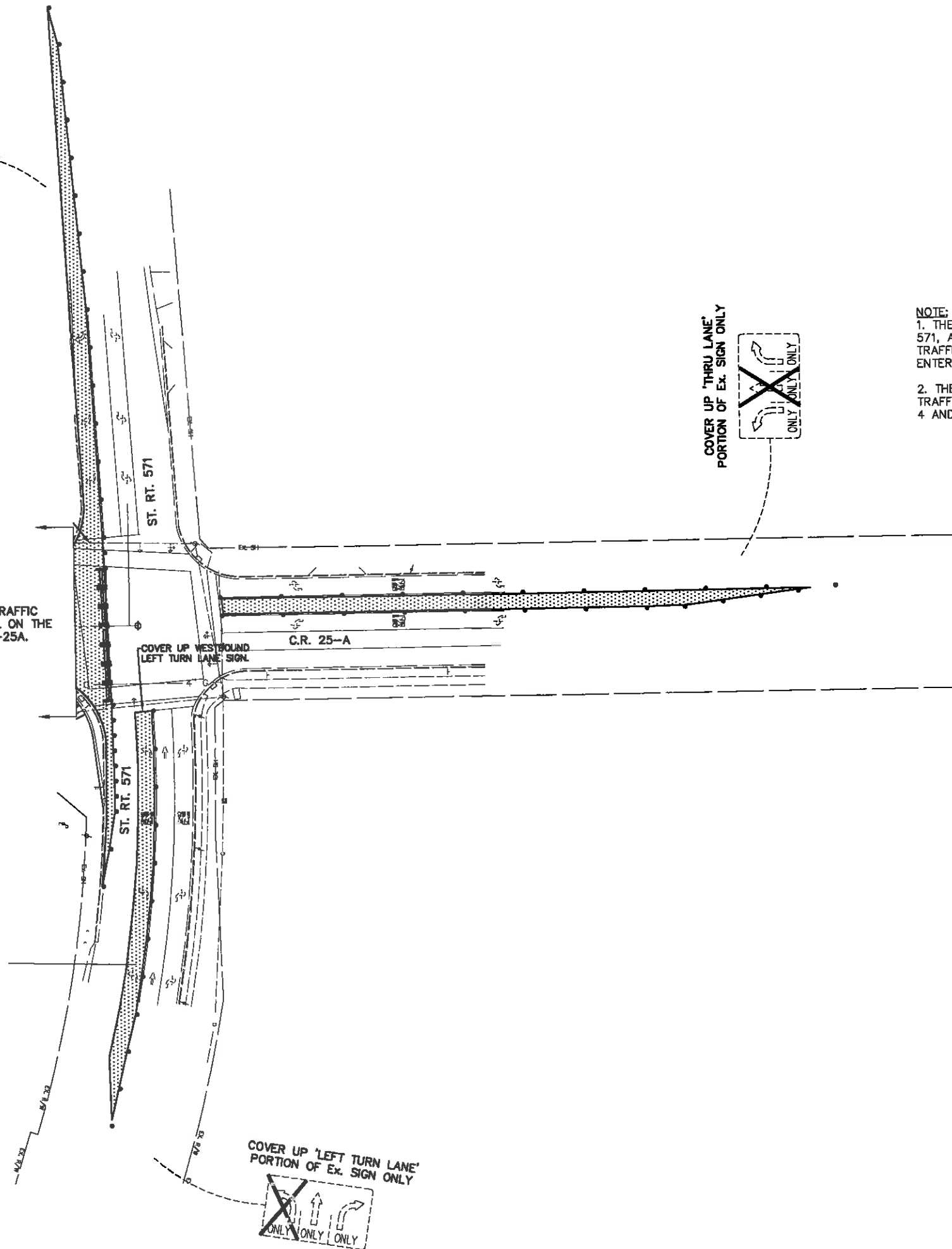
**SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
DETOUR PLAN**

REVISIONS:

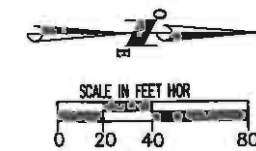
FILE NAME	MIATCH1116DET
DRAWN BY	GCA
CHECKED BY	JSP
PROJECT No.	MIATCH1116
DATE	06-17-15
SHEET NUMBER	10 OF 115



SEE PHASES 1 - 6
MAINTENANCE OF TRAFFIC
SHEETS FOR DETAIL ON THE
SOUTH LEG OF CR-25A.

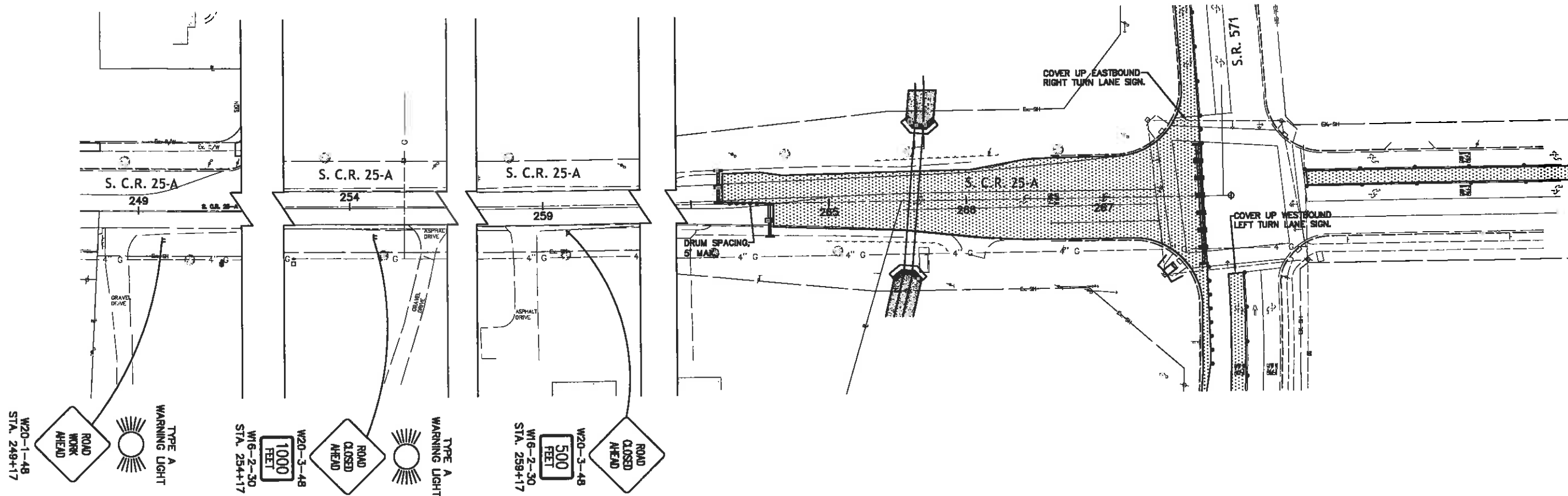


- NOTE:**
1. THE WESTBOUND LEFT TURN LANE AND EASTBOUND RIGHT TURN LANE ON SR 571, AND THE SOUTHBOUND THRU LANE ON CR-25A WILL REMAIN CLOSED TO TRAFFIC THROUGH **PHASE 4** OF THE PROJECT IN ORDER TO PREVENT TRAFFIC ENTERING THE SOUTH LEG OF THE INTERSECTION.
 2. THE LOOP DETECTORS FOR THE AFOREMENTIONED LANES BEING CLOSED TO TRAFFIC DURING THIS PROJECT SHALL BE DEACTIVATED DURING PHASES 1 THRU 4 AND BE REACTIVATED ONCE S. CR-25A IS OPENED UP TO TRAFFIC.

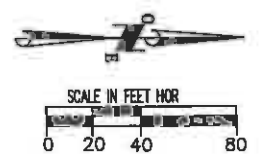


LEGEND	
	• 2' ORANGE TRAFFIC BARREL
	TYPE 3 BARRICADE
	CLOSED LANES FOR CONSTRUCTION

REVISIONS:
FILE NAME MIATC116MTA
DRAWN BY MJT
CHECKED BY AVS
PROJECT No. MIATC1116
DATE 06-17-15
SHEET NUMBER 11 of 115



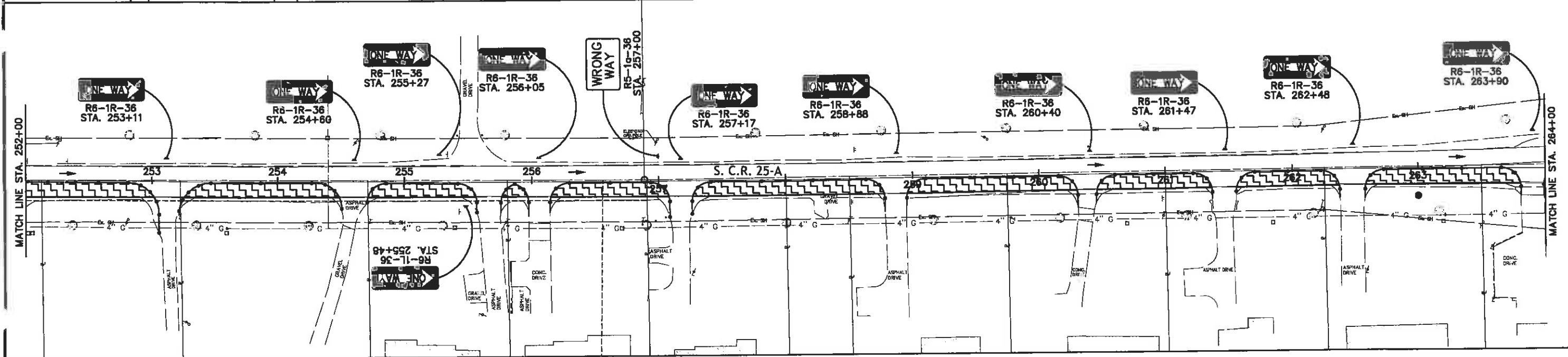
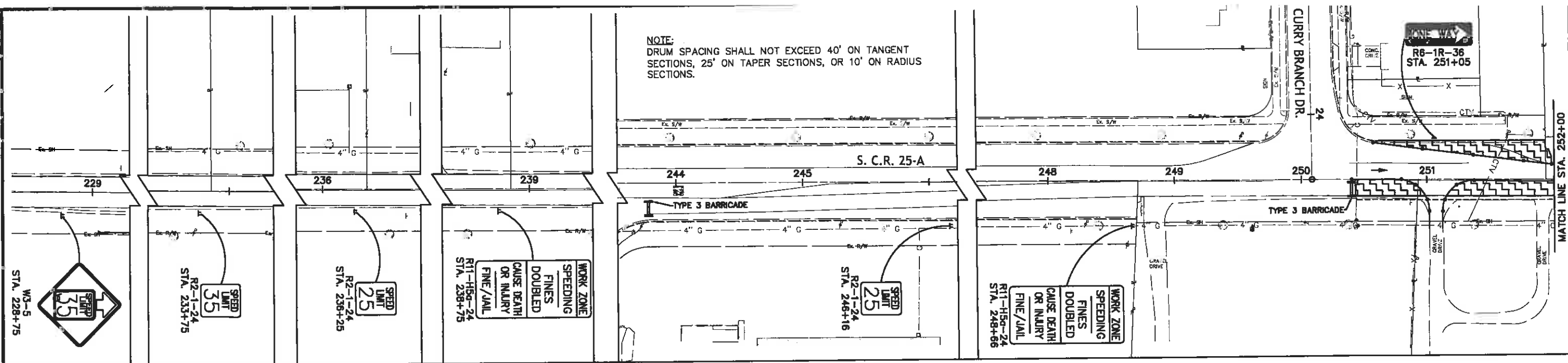
NOTE:
 CONTRACTOR SHALL FOLLOW ODOT'S MAINTENANCE OF TRAFFIC DRAWINGS MT-95.31, MT-101.60, MT-101.90, AND MT-105.10, AND ANY OTHER APPLICABLE MAINTENANCE OF TRAFFIC STANDARD DRAWINGS, AS PART OF PHASE 1.



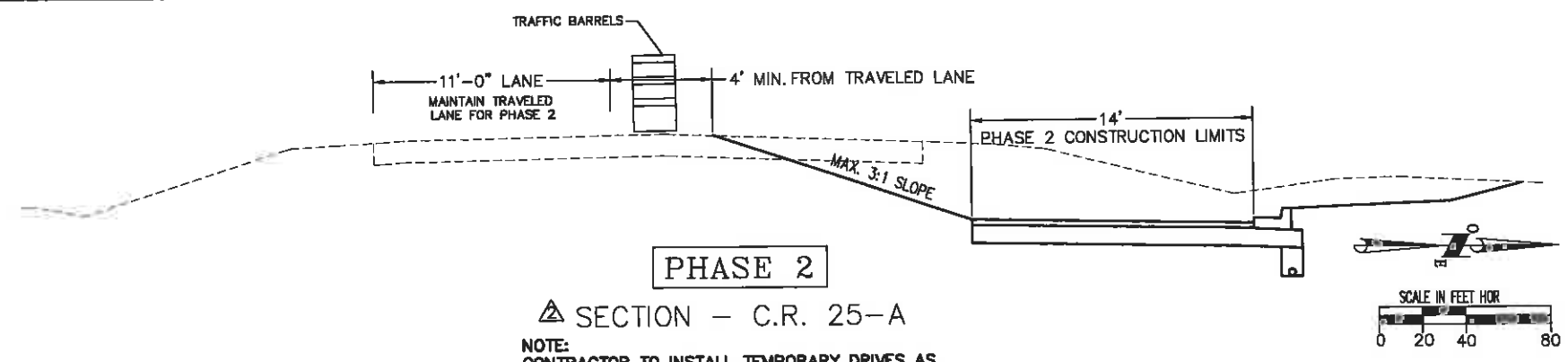
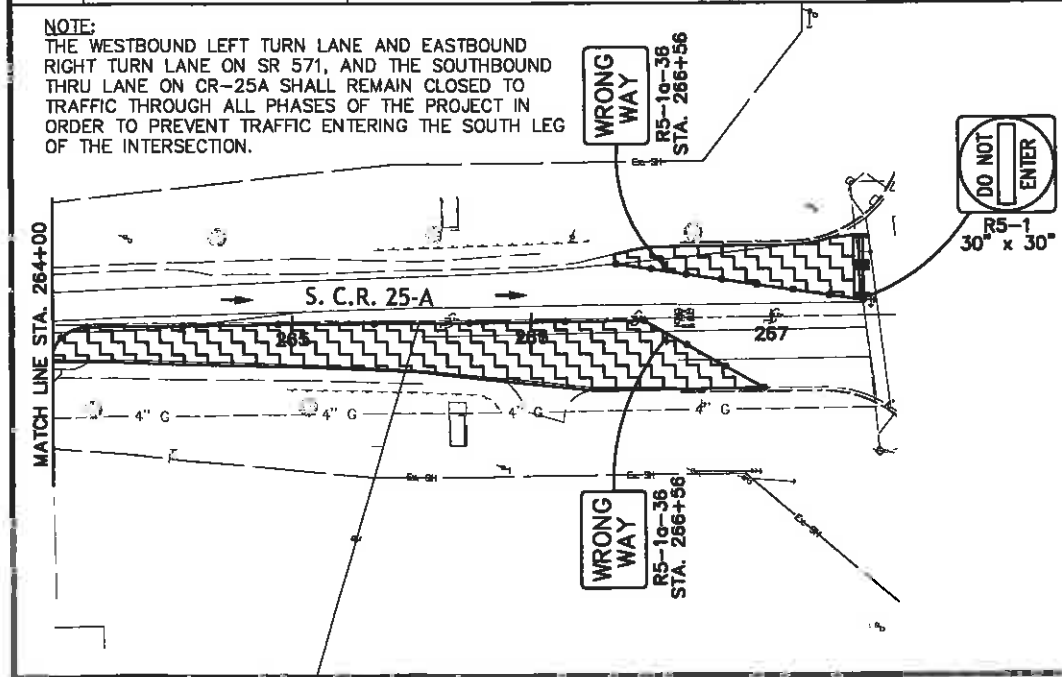
LEGEND	
	2' ORANGE TRAFFIC BARREL
	TYPE 3 BARRICADE
	CLOSED LANES FOR CONSTRUCTION

440 E. HOBBSHER ROAD SIDNEY, OHIO 45335 (937) 497-0200 www.choiceoneengineering.com 203 W. LOVELAND AVENUE LOVELAND, OHIO 45140 (513) 239-8554
SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1 CITY OF TIPP CITY MAINTENANCE OF TRAFFIC PLAN - PHASE 1
REVISIONS:
FILE NAME MIATC116M.TB
DRAWN BY MJT
CHECKED BY AVS
PROJECT No. MIATC1116
DATE 06-17-15
SHEET NUMBER 12 of 115

NOTE:
 DRUM SPACING SHALL NOT EXCEED 40' ON TANGENT SECTIONS, 25' ON TAPER SECTIONS, OR 10' ON RADIUS SECTIONS.



NOTE:
 THE WESTBOUND LEFT TURN LANE AND EASTBOUND RIGHT TURN LANE ON SR 571, AND THE SOUTHBOUND THRU LANE ON CR-25A SHALL REMAIN CLOSED TO TRAFFIC THROUGH ALL PHASES OF THE PROJECT IN ORDER TO PREVENT TRAFFIC ENTERING THE SOUTH LEG OF THE INTERSECTION.

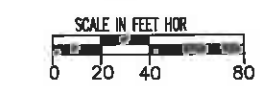


PHASE 2

SECTION - C.R. 25-A

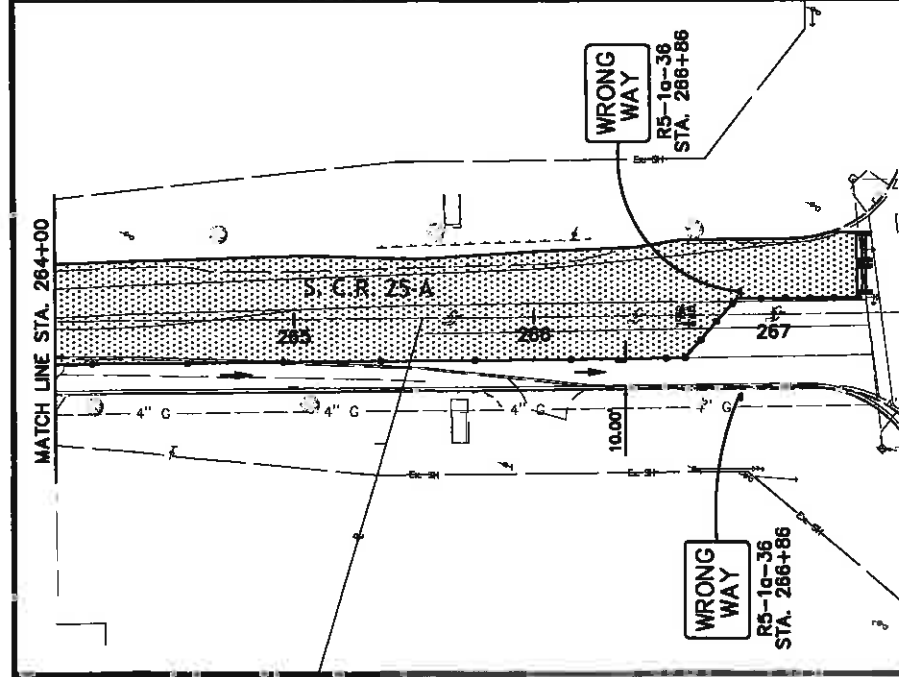
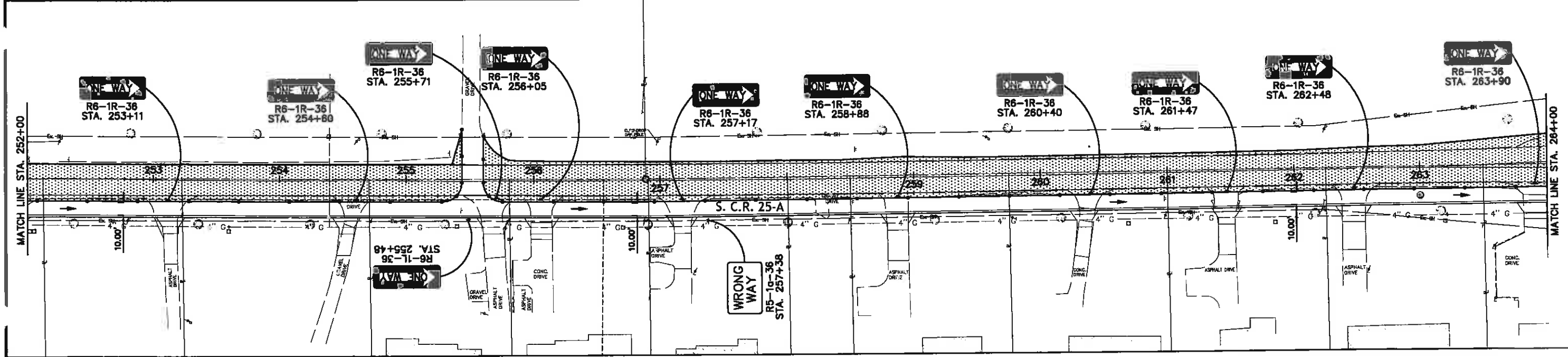
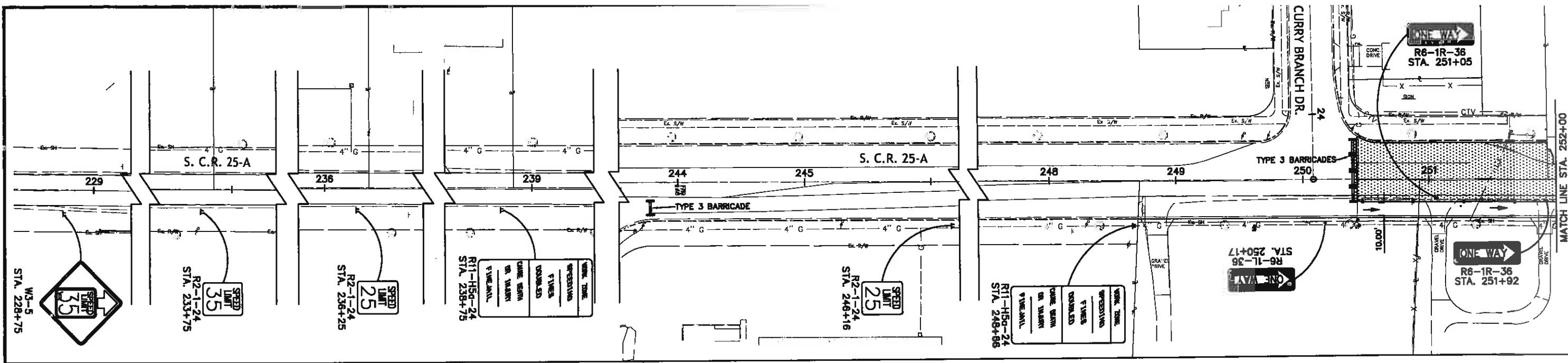
NOTE:
 CONTRACTOR TO INSTALL TEMPORARY DRIVES AS NEEDED. CONTRACTOR SHALL GRADE DRIVES TO THE SATISFACTION OF THE CITY.

CONTRACTOR SHALL ADHERE TO ODOT SCB MT-101.90 IN REGARDS TO DROP-OFFS IN WORK ZONES.



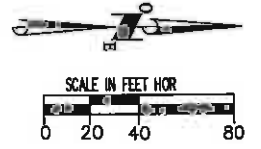
LEGEND

- 2' ORANGE TRAFFIC BARREL
- ▬ TYPE 3 BARRICADE
- ▨ EXISTING PAVEMENT TO BE CLOSED TO PUBLIC TRAVEL
- DIRECTION OF TRAFFIC



NOTE:
 THE WESTBOUND LEFT TURN LANE AND EASTBOUND RIGHT TURN LANE ON SR 571, AND THE SOUTHBOUND THRU LANE ON CR-25A SHALL REMAIN CLOSED TO TRAFFIC THROUGH ALL PHASES OF THE PROJECT IN ORDER TO PREVENT TRAFFIC ENTERING THE SOUTH LEG OF THE INTERSECTION.

NOTE:
 DRUM SPACING SHALL NOT EXCEED 40' ON TANGENT SECTIONS, 25' ON TAPER SECTIONS, OR 10' ON RADIUS SECTIONS.



LEGEND	
	2' ORANGE TRAFFIC BARREL
	TYPE 3 BARRICADE
	CLOSED LANES FOR CONSTRUCTION
	DIRECTION OF TRAFFIC

440 E. HOEWISHER ROAD
 SIDNEY, OHIO 45365
 (937) 497-0200
 www.choiceengineering.com

ONE
 CHOICE
 ENGINEERING

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
 CITY OF TIPP CITY
 MAINTENANCE OF TRAFFIC PLAN - PHASE 3

REVISIONS:

FILE NAME
MIATCH116MTD

DRAWN BY
MJT

CHECKED BY
AVS

PROJECT No.
MIATCH1116

DATE
06-17-15

SHEET NUMBER
14 OF 115

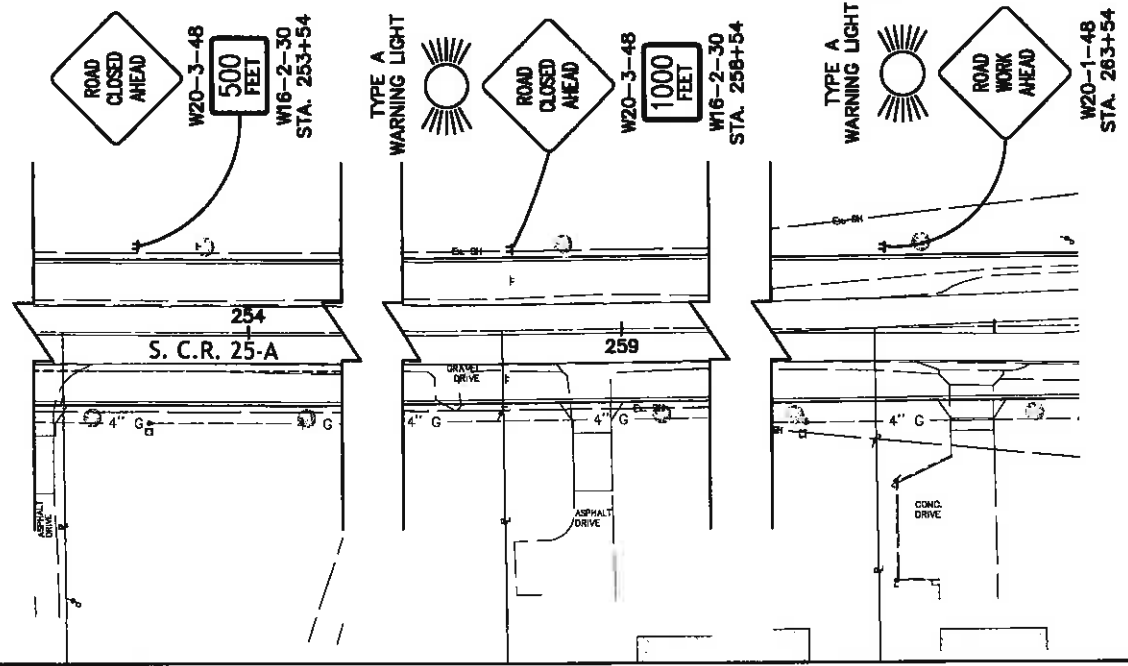
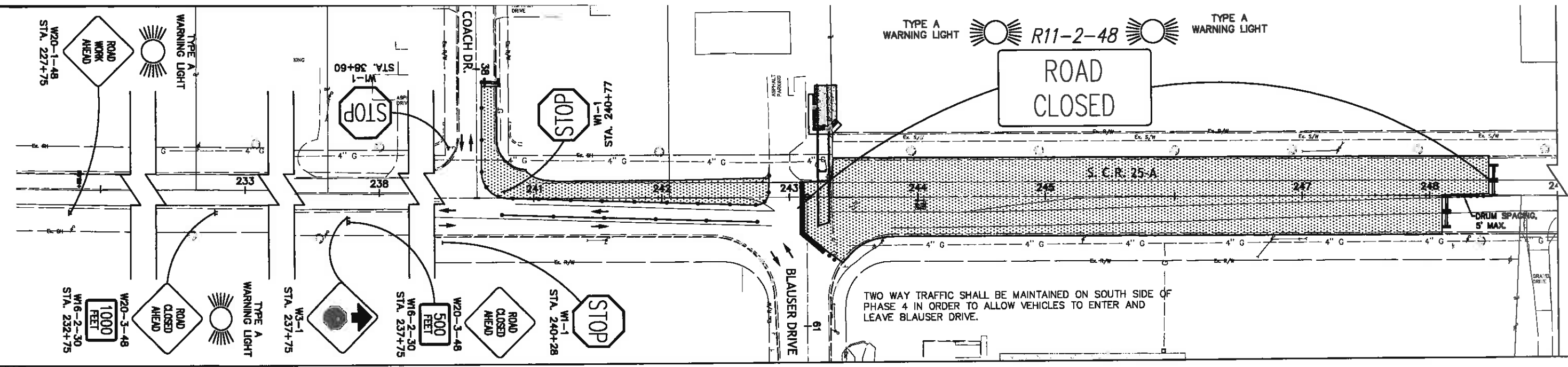
REVISIONS:

FILE NAME
MIATC116MTE
DRAWN BY
MJT
CHECKED BY
AVS
PROJECT No.
MIATC1116
DATE
06-17-15
SHEET NUMBER

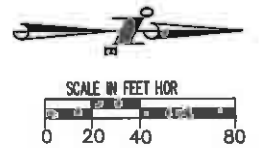
TYPE A WARNING LIGHT R11-2-48 TYPE A WARNING LIGHT

ROAD CLOSED

TWO WAY TRAFFIC SHALL BE MAINTAINED ON SOUTH SIDE OF PHASE 4 IN ORDER TO ALLOW VEHICLES TO ENTER AND LEAVE BLAUSER DRIVE.

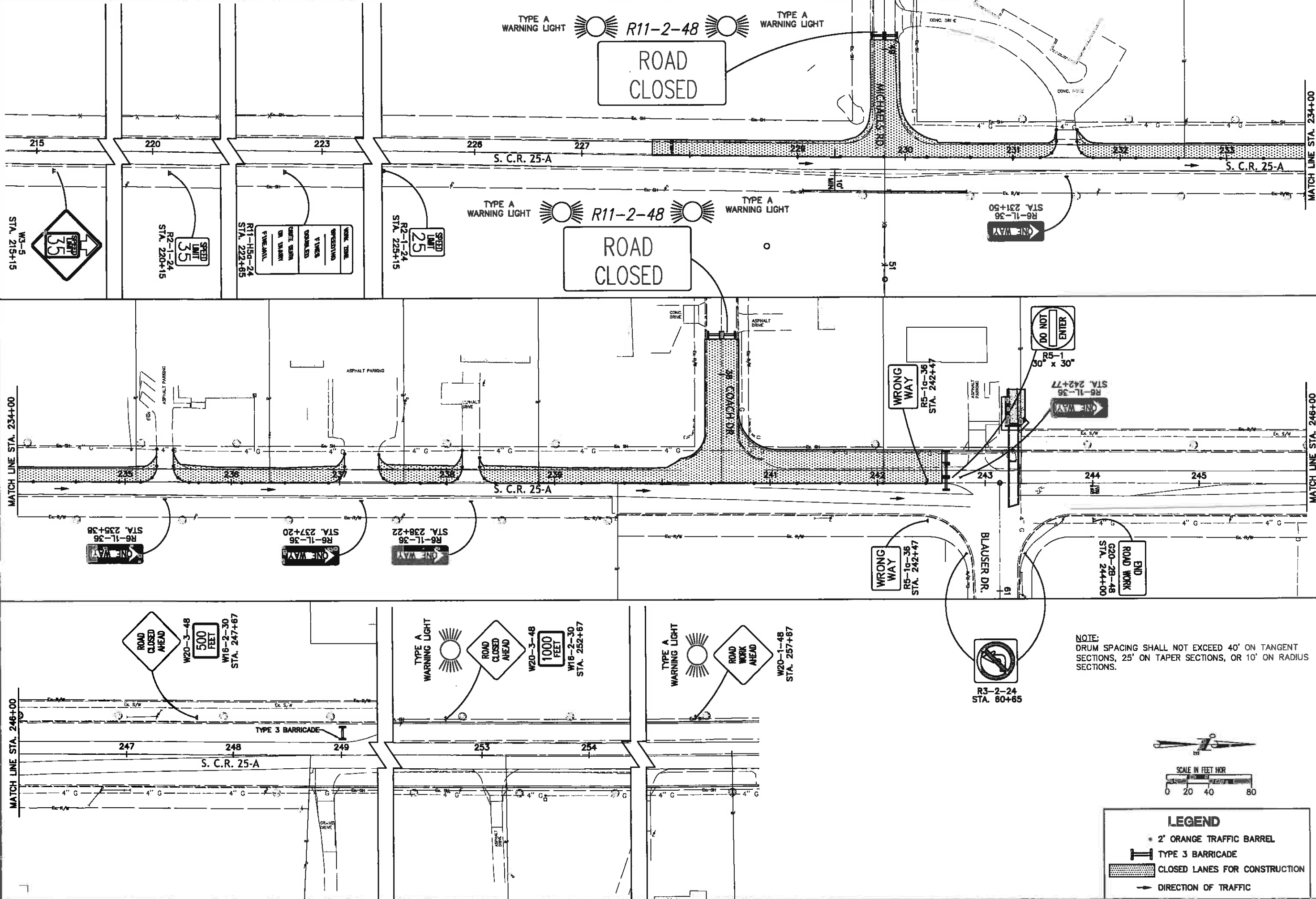


NOTE:
1. DRUM SPACING SHALL NOT EXCEED 25' ON THIS PHASE.
2. PHASE 4 MAY BE COMPLETED IN CONJUNCTION TO EITHER PHASE 1 OR PHASE 2.

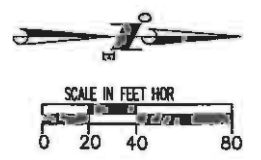


LEGEND

- 2' ORANGE TRAFFIC BARREL
- ▬ TYPE 3 BARRICADE
- ▨ CLOSED LANES FOR CONSTRUCTION
- ➔ DIRECTION OF TRAFFIC
- ▩ PORTABLE CONCRETE JERSEY BARRIER



NOTE:
 DRUM SPACING SHALL NOT EXCEED 40' ON TANGENT
 SECTIONS, 25' ON TAPER SECTIONS, OR 10' ON RADIUS
 SECTIONS.



LEGEND

- 2' ORANGE TRAFFIC BARREL
- ▬ TYPE 3 BARRICADE
- ▨ CLOSED LANES FOR CONSTRUCTION
- DIRECTION OF TRAFFIC

ONE CHOICE ENGINEERING

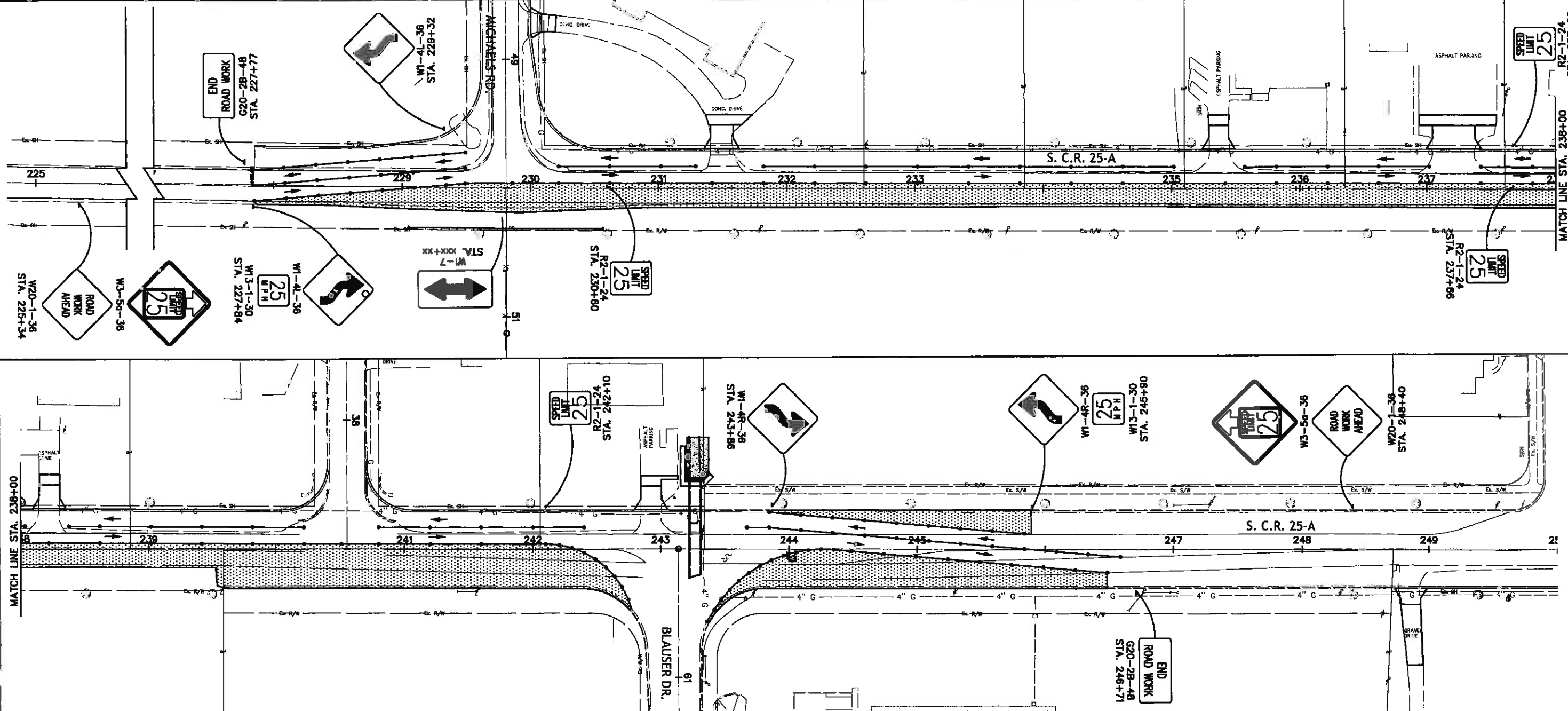
440 E. HENWISHER ROAD
 SIDNEY, OHIO 45365
 (513) 497-0200
 www.choiceoneengineering.com

203 W. LOVELAND AVENUE
 LOVELAND, OHIO 45140
 (513) 231-8554

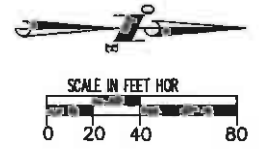
**SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
 CITY OF TIPP CITY
 MAINTENANCE OF TRAFFIC PLAN - PHASE 5**

REVISIONS:

FILE NAME	MIATCH115M.TIF
DRAWN BY	MJT
CHECKED BY	AVS
PROJECT No.	MIATCH1116
DATE	06-17-15
SHEET NUMBER	16 OF 115



NOTE:
 DRUM SPACING SHALL NOT EXCEED 40' ON TANGENT SECTIONS, 25' ON TAPER SECTIONS, OR 10' ON RADIUS SECTIONS.



LEGEND	
	2' ORANGE TRAFFIC BARREL
	TYPE 3 BARRICADE
	CLOSED LANES FOR CONSTRUCTION
	DIRECTION OF TRAFFIC

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
 CITY OF TIPP CITY
MAINTENANCE OF TRAFFIC PLAN - PHASE 6

REVISIONS:

FILE NAME
MIATCH116MTG

DRAWN BY
MJT

CHECKED BY
AVS

PROJECT No.
MIATCH116

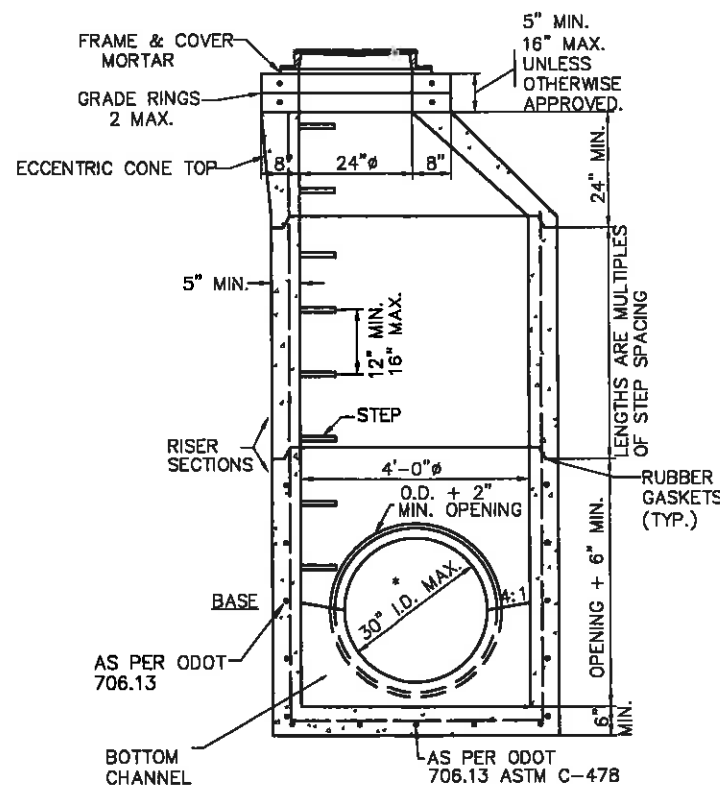
DATE
06-17-15

SHEET NUMBER
17 of 115

ONE
CHOICE
ENGINEERING

440 E. HOEWISER ROAD
SIDNEY, OHIO 45385
(937) 497-0200
www.choiceoneengineering.com

203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 297-8554



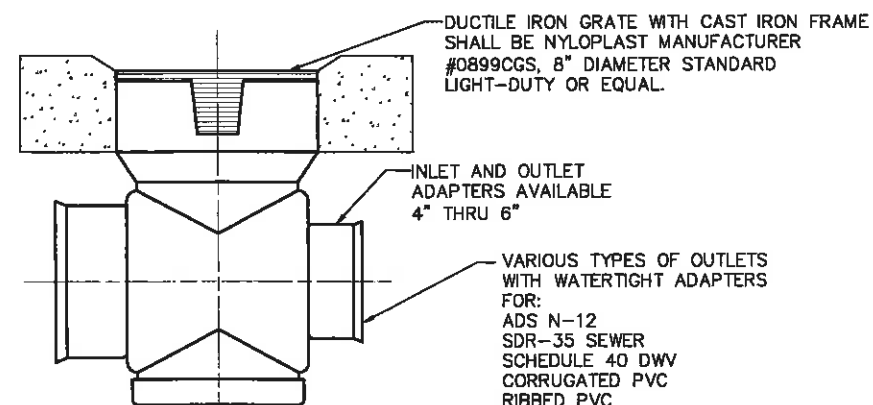
TYPE 3 STORM MANHOLE

STORM MANHOLE NOTES

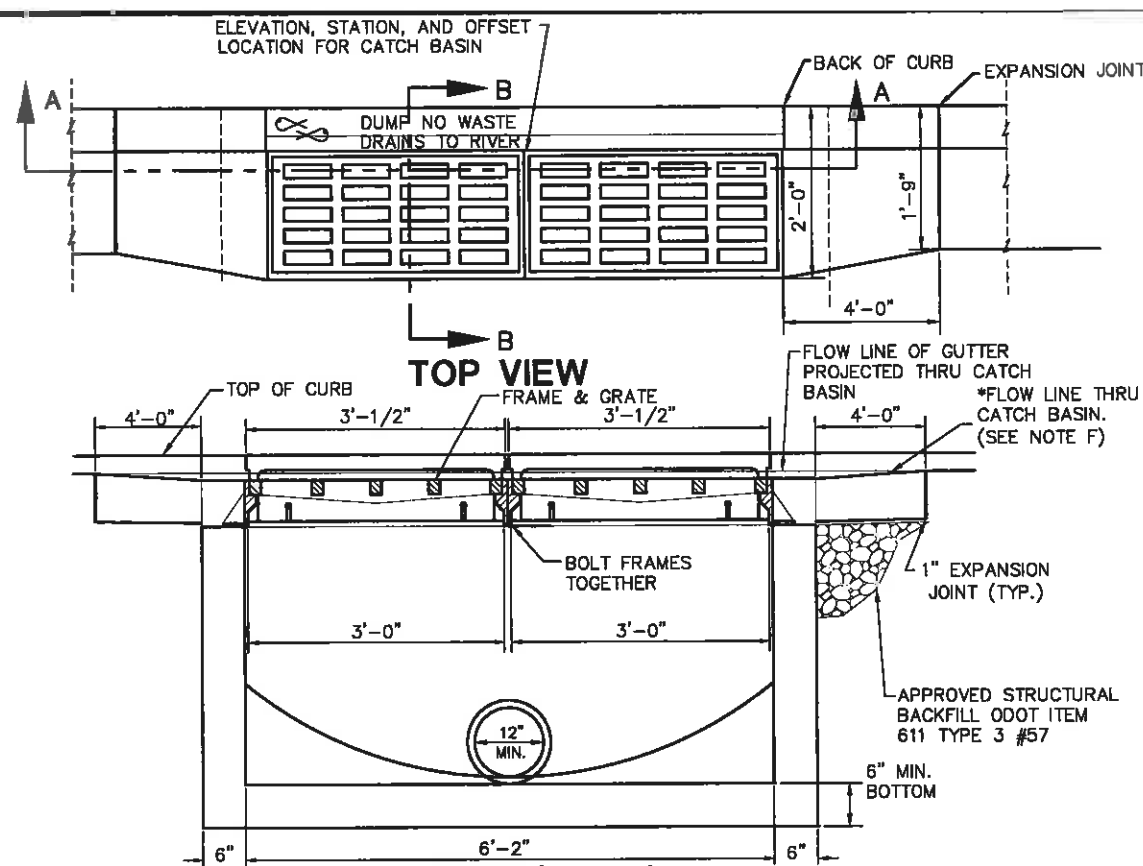
- A. STORM MANHOLE FRAME AND LID SHALL BE EQUAL OF NEENAH NO. R-1772 OR EAST JORDAN IRON WORKS NO. 1022.
- B. SECTIONS OF THE PRECAST MANHOLE SHALL BE CAST AND ASSEMBLED WITH EITHER ALL TONGUE OR ALL GROOVE ENDS UP. LIFT HOLES MAY BE PROVIDED IN EACH SECTION FOR HANDLING.
- C. TOP AND TRANSITION (OR REDUCER) SECTIONS MAY BE EITHER ECCENTRIC CONE OR FLAT SLAB.
- D. OPENINGS IN RISER SECTIONS FOR 18" AND SMALLER INLET PIPES MAY BE PREFABRICATED OR CUT IN THE FIELD PROVIDED THE SIDES OF THE PIPE AT THE SPRING LINE DO NOT PROJECT INTO THE MANHOLE.
- E. MATERIALS FOR BASES AND OTHER PRECAST SECTIONS, INCLUDING REINFORCEMENT NOT SPECIFIED HEREIN, SHALL COMPLY WITH ODOT REQUIREMENT OF 706.13 (ASTM C-478).
- F. LOCATE THE CENTERLINE OF MANHOLE CONES OVER THE CENTERLINE OF THE MAIN SEWER WHENEVER POSSIBLE.
- G. NO LATERALS MAY PROTRUDE INTO THE INTERNAL MANHOLE.
- H. WHEN CONNECTING TO AN EXISTING STORM MANHOLE CARE SHALL BE TAKEN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF POSSIBLE, SAW CUT OR USE ROTARY HAMMER FOR OPENING TO MINIMIZE DAMAGE TO STORM MANHOLE AND PIPE MUST BE CUT PARALLEL TO STORM MANHOLE. USE NONSHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND STORM MANHOLE.
- I. JOINTS BETWEEN SECTIONS TO BE EITHER MORTAR OR BITUMINOUS PIPE JOINT FILLER (ODOT 706.10)

-STANDARD OR CUSTOM DRAIN BASIN FOR VARIABLE INLET HEIGHT SHALL BE NYLOPLAST MANUFACTURER #2808AG OR EQUAL.

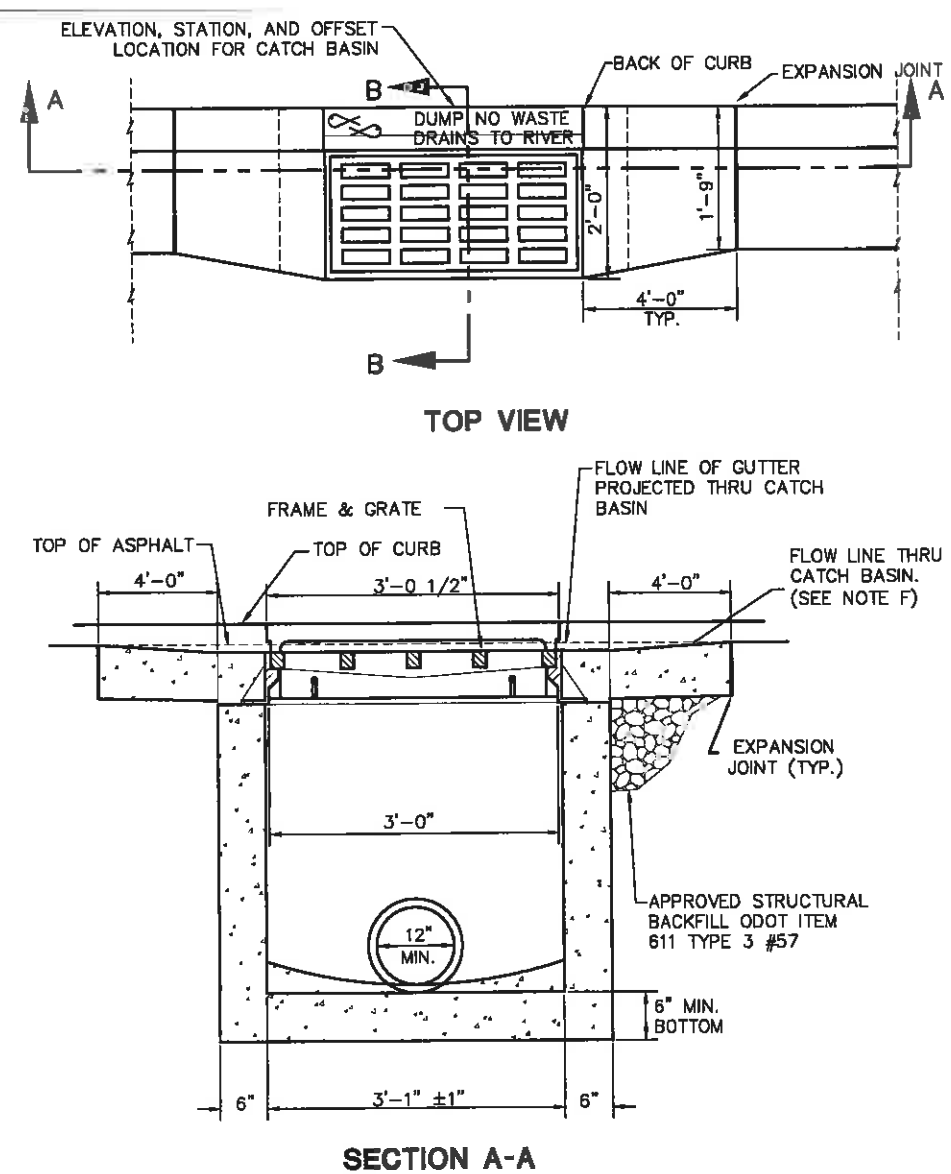
-CONTRACTOR TO INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



TYPE 2 YARD DRAIN



**SECTION A-A
TYPE 1A CATCH BASIN**



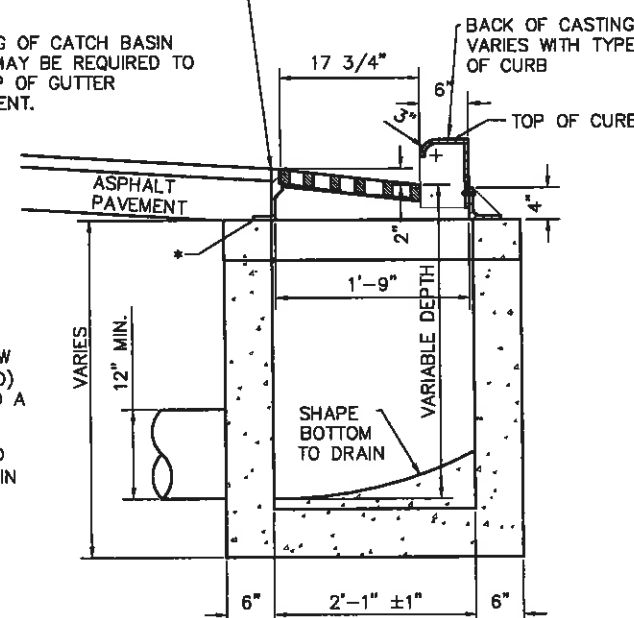
TYPE 1 CATCH BASIN

CATCH BASIN NOTES

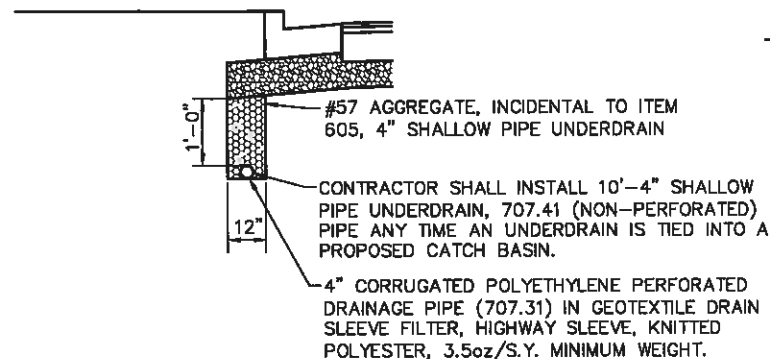
- A. CASTING SHALL BE EAST JORDAN 7030 OR NEENAH R-3246 OR EQUIVALENT (EAST JORDAN 7031 FOR TYPE 1A).
- B. CATCH BASIN IN DRIVE APPROACHES (TO BE AVOIDED, IF POSSIBLE) THE BACKS SHALL BE EAST JORDAN TYPE T3 OR NEENAH (R-3246-A) WITH CURB PLATE.
- C. STANDARD GRATE SHALL BE EAST JORDAN TYPE M2, NEENAH TYPE C, OR EQUIVALENT. ALL BAR EDGES TO BE ROUNDED 1/8" RADIUS.
- D. CONCRETE, CAST-IN-PLACE, TO BE ODOT QC MISC. (NO POZZOLAN MATERIAL) KNOCKOUTS MAY BE PROVIDED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.
- E. CARE SHALL BE TAKEN WHEN CONNECTING TO AN EXISTING CATCH BASIN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF POSSIBLE, SAWCUT OR USE ROTARY HAMMER FOR OPENING TO MINIMIZE DAMAGE TO CATCH BASIN. PIPE TO INTRUDE INTO CATCH BASIN 1" ONLY AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. USE NONSHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND CATCH BASIN.
- F. DROP FLOW LINE 1/2" WITHIN BLOCK OUT OF COMBINED CURB AND GUTTER WHILE KEEPING LIP OF GUTTER CONSISTENT WITH TOP OF CURB.

* NOTE: SHIMMING OF CATCH BASIN FRAME MAY BE REQUIRED TO KEEP LIP OF GUTTER CONSISTENT.

NOTE: ASPHALT SURFACE TO REMAIN LEVEL THROUGH CATCH BASINS. DO NOT DEPRESS AT GUTTER INLET.



SECTION B-B

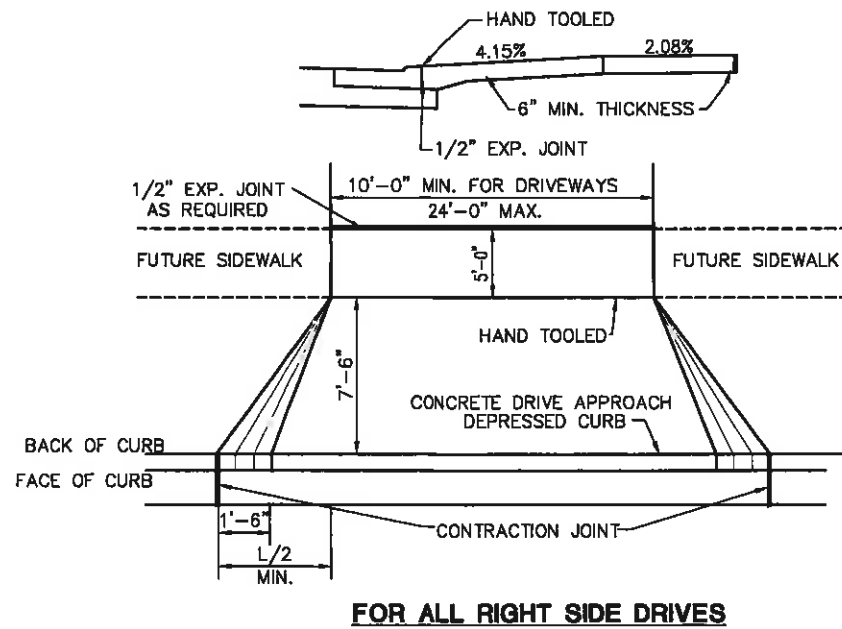


4\"/>

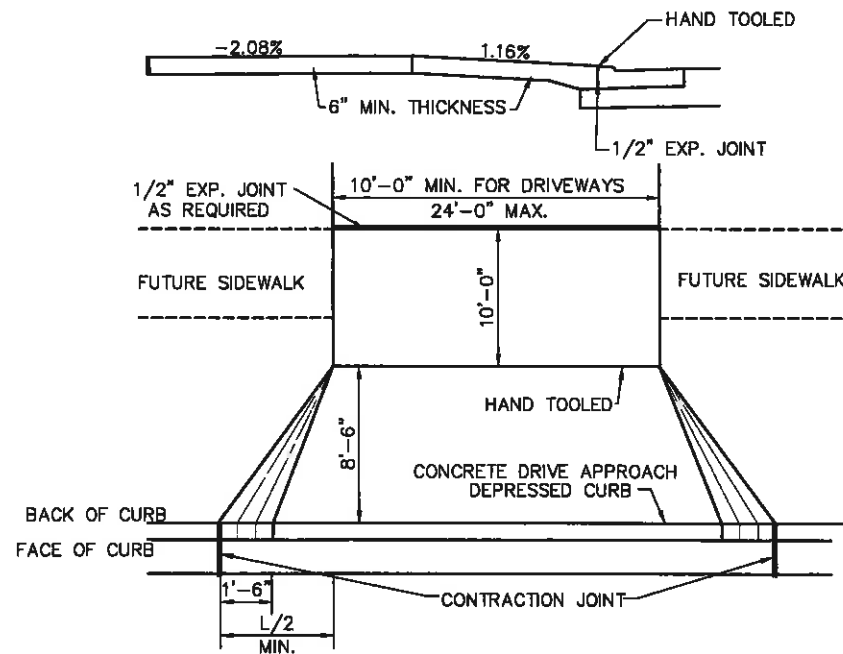
NOTE: UNDERDRAINS ARE TO BE PLACED 50' FROM THE HIGH SIDE OF THE CATCH BASINS OR AS DIRECTED BY ENGINEER OR CITY. IF CATCH BASIN IS IN A SAG, 50' OF UNDERDRAINS SHALL BE PLACED ON BOTH SIDES OF THE CATCH BASIN.

REVISIONS:

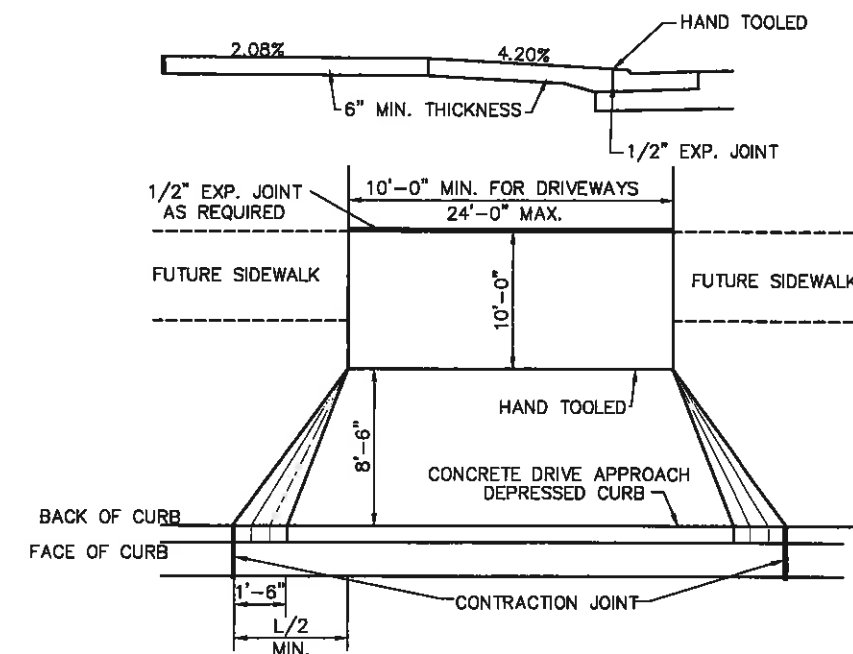
FILE NAME	MIATC1116GMA
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC1116
DATE	06-17-15
SHEET NUMBER	



FOR ALL RIGHT SIDE DRIVES



FOR ALL LEFT DRIVES FROM MICHAELS RD. TO COACH DRIVE



FOR ALL LEFT DRIVES FROM COACH DRIVE TO S.R. 571

NOTE #1
SIDEWALK THICKNESS SHALL BE EQUAL TO THE THICKNESS OF THE DRIVEWAY IN THIS AREA.

NOTES

- A. DRIVE APPROACHES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 452, 499, 608, AND 609 CAST IN-PLACE CONCRETE.
- B. DRIVE APPROACHES MAY BE PLACED MONOLITHICALLY WITH CURB
- C. MAXIMUM JOINT SPACING SHALL BE 10' LONGITUDINALLY, TRANSVERSELY AND AT TAPERS.
- D. EXPANSION MATERIAL SHALL BE 1/2" PREMOLDED, ODOT APPROVED.
- E. 6" OF COMPACTED ODOT ITEM 304 AGGREGATE BASE SHALL BE PLACED UNDER DRIVE APPROACHES. COST INCLUDED WITH ITEM 452, NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- F. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.
- G. WHERE ASPHALTIC CONCRETE PAVEMENT IS DISTURBED, THE ASPHALT SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE CITY.
- H. JOINTS SHALL BE CLEANED AND EDGED BY A 1/4" RADIUS EDGER. LONGITUDINAL JOINTS SHALL BE AS DIRECTED BY THE CITY. EXPANSION JOINTS SHALL BE OF SUCH DIMENSIONS AS SHOWN ON STANDARD DRAWINGS FOR CONSTRUCTION JOINTS.
- I. CONCRETE SHALL BE ODOT QC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL) AND REINFORCE WITH CONCRETE FIBERS.
- J. IF CURB IS REMOVED AND REPLACED DURING DRIVEWAY CONSTRUCTION, JOINTS BETWEEN EXISTING AND NEW CURB ARE TO BE DOWELLED WITH #4 REBAR 6" INTO CURB AND GUTTER 18" O.C.

PAVEMENT SYMBOL LEGEND

<p>COMMERCIAL ASPHALT DRIVE: 1-1/2" ITEM 441 ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (448) PG 64-22 ON 1-1/2" ITEM 441 ASPHALT CONCRETE, INTERMEDIATE COURSE, (448) TYPE 2, ON 4" ITEM 301 ASPHALT CONCRETE BASE, PG 64-22 ON 6" ITEM 304 AGGREGATE BASE, AS PER PLAN ITEM 204 SUBGRADE COMPACTION, AS PER PLAN</p>	<p>RESIDENTIAL GRAVEL DRIVE: 4" ITEM 411 STABILIZED CRUSHED AGGREGATE (LIMESTONE OR CRUSHED GRAVEL ONLY) ON 4" ITEM 304 AGGREGATE BASE, AS PER PLAN. ITEM 204 SUBGRADE COMPACTION, AS PER PLAN</p>	<p>CURB RAMP: ITEM 608 CURB RAMPS, AS PER PLAN 4" ITEM 304 AGGREGATE BASE, AS PER PLAN ITEM 204 SUBGRADE COMPACTION, AS PER PLAN</p>
<p>COMMERCIAL CONCRETE DRIVE: ITEM 452-8" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN ON ITEM 304-6" AGGREGATE BASE, AS PER PLAN ITEM 204 SUBGRADE COMPACTION, AS PER PLAN</p>	<p>FULL DEPTH PAVEMENT REPLACEMENT: SEE TYPICAL SECTION</p>	<p>GRIND AND OVERLAY AREAS: 1-1/2" ITEM 442 ASPHALT CONCRETE, SURFACE COURSE, 12.5mm, TYPE A, PG 76-22M(448) ON 1-1/2" ITEM 441 ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (448), ON ITEM 407 TACK COAT 0.075 GAL./S.Y. ITEM 407 TACK COAT FOR INTERMEDIATE COURSE 0.04 GAL./S.Y. 3"± ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE</p>
<p>RESIDENTIAL CONCRETE DRIVE: 6" ITEM 452 NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN ON 6" ITEM 304 AGGREGATE BASE, AS PER PLAN ITEM 204 SUBGRADE COMPACTION, AS PER PLAN</p>	<p>RESIDENTIAL ASPHALT DRIVE: 1-1/2" ITEM 441 ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (448) PG 64-22 ON 1-1/2" ITEM 441 ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (448) ON 6" ITEM 304 AGGREGATE BASE, AS PER PLAN. ITEM 204 SUBGRADE COMPACTION, AS PER PLAN</p>	<p>MANHOLE, CATCH BASIN, & VALVE ADJUSTED OR RECONSTRUCTED TO GRADE (TBA) TO BE ABANDONED (TBR) TO BE REMOVED (ATG) ADJUSTED TO GRADE</p>

REVISIONS:
FILE NAME MIATCH1116GMK
DRAWN BY GCA
CHECKED BY AVS
PROJECT No. MIATCH1116
DATE 06-17-15
SHEET NUMBER 19 OF 115

HYDROSTATIC TEST

A. AFTER THE PIPE HAS BEEN LAID AND BACKFILLED, ALL NEWLY LAID PIPE OR VALVED SECTION, INCLUDING COPPER WATER SERVICES, SHALL BE SUBJECTED TO HYDROSTATIC PRESSURE AND LEAKAGE TEST. ALL WATER MAINS MUST BE HYDROSTATICALLY TESTED (AWWA C-600). THE TESTS MUST BE PERFORMED IN THE PRESENCE OF A REPRESENTATIVE OF THE CITY OF TIPP CITY. THE LEAKAGE TEST PRESSURE SHALL BE NOT LESS THAN 150 PSI. THE DURATION OF THE LEAKAGE TEST SHALL NOT BE LESS THAN 2 HOURS. HYDROSTATIC PRESSURE SHALL BE APPLIED BY MEANS OF A PUMP TAKING WATER FROM AN AUXILIARY SUPPLY. ALL PIPING MUST BE PROPERLY FILLED AND FLUSHED TO DISPEL ALL AIR BEFORE THE TEST IS MADE USING POTABLE WATER.

B. LEAKAGE IS DEFINED AS THE QUANTITY OF WATER TO BE SUPPLIED INTO THE NEWLY LAID PIPE, OR ANY VALVED SECTION THEREOF, NECESSARY TO MAINTAIN THE SPECIFIED LEAKAGE TEST PRESSURE AFTER THE PIPE HAS BEEN FILLED WITH WATER AND THE AIR EXPELLED.

C. NO PIPE INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE EXCEEDS THE LEAKAGE DETERMINED BY THE FOLLOWING FORMULA:

Where: S = length of pipe tested, in ft. $L = \frac{S * D * \sqrt{P}}{148,000}$
 D = pipe diameter, in inches
 P = average test pressure
 L = allowable leakage per hour

During the hydrostatic test, a thorough examination of all piping, fittings, valves, hydrants, etc. shall be performed. Leaking joints shall be tightened and cracked or otherwise defective material shall be removed and replaced and the test shall be repeated until satisfactory results are obtained.

Below is a table which represents the allowable leakage in gallons per hour.

ALLOWABLE LEAKAGE PER 1000 FT. (305M) OF PIPELINE (GPH+)

Avg. Test Pressure psi(bar)	(DIP) NOMINAL PIPE DIAMETER-- INCHES					
	3	4	6	8	10	12
450(31)	0.43	0.57	0.86	1.15	1.43	1.72
400(28)	0.41	0.54	0.81	1.08	1.35	1.62
350(24)	0.38	0.51	0.76	1.01	1.26	1.52
300(21)	0.35	0.47	0.70	0.94	1.17	1.40
275(19)	0.34	0.45	0.67	0.90	1.12	1.34
250(17)	0.32	0.43	0.64	0.85	1.07	1.28
225(16)	0.30	0.41	0.61	0.81	1.01	1.22
200(14)	0.29	0.38	0.57	0.76	0.96	1.15
175(12)	0.27	0.36	0.54	0.72	0.89	1.07
150(10)	0.25	0.33	0.50	0.66	0.83	0.99
125(9)	0.23	0.30	0.45	0.60	0.76	0.91

DISINFECTION

A. AFTER SATISFACTORY HYDROSTATIC TESTING, THE COMPLETED WATER WORK SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C-651.

B. MAINTAIN PIPES FREE OF DIRT AND FOREIGN MATTER DURING CONSTRUCTION BY DEWATERING TRENCH AND SEALING OPEN PIPE BARRELS. SWAB EACH LENGTH OF PIPE AS IT IS INSTALLED. UPON COMPLETION OF MAIN, ISOLATE MAIN SEGMENTS AND FLUSH PIPE AT 2 FPS VELOCITY.

C. STERILIZE MAIN IN ACCORDANCE WITH AWWA C-651. INJECT 3% TO 5% HYPO-CHLORITE SOLUTION TO PROVIDE 50 TO 60 MG PER LITER CONCENTRATION IN MAIN. CHLORINE MAY BE PLACED IN EACH SECTION OF PIPE AT THE TIME OF INSTALLATION. SAMPLE WATER AT EACH HYDRANT OR IF NO HYDRANT IS AVAILABLE, AT A TAP IN THE PROPOSED LINE. ANALYZE SAMPLE USING ORTHOTOLIDINE REAGENT TO VERIFY FREE CHLORINE CONCENTRATION. MAINTAIN CONCENTRATION IN MAIN FOR 24 HOURS. SAMPLE HYDRANTS AT COMPLETION OF STERILIZATION VERIFYING MINIMUM CHLORINE RESIDUAL (SEE CITY WATER DEPARTMENT FOR MINIMUM REQUIREMENTS).

D. FLUSH CHLORINE SOLUTION TO WASTE INTO SANITARY SEWER AT A CONTROLLED RATE, NOT TO EXCEED 25 GPM. IF CHLORINE RESIDUAL DROPS IN 10 MG PER LITER, FLUSH MAIN AT 2 FPS AND REPEAT STERILIZATION PROCEDURE.

E. WATER SAMPLES - PERFORM BACTERIOLOGICAL TEST PER AWWA C-651. SAMPLE MAIN AT HYDRANT OR IF HYDRANT IS NOT AVAILABLE, AT A TAP IN THE PROPOSED LINE. DELIVER SAMPLE TO STATE-CERTIFIED LABORATORY. DELIVER COPIES OF LABORATORY REPORT TO THE CITY IN THE EVENT OF DETECTION OF COLIFORM ORGANISM, REPEAT FLUSHINGS, STERILIZATION, AND SAMPLING OF MAINS UNTIL ACCEPTABLE TEST RESULTS ARE ACHIEVED. THIS IS TO BE PERFORMED PRIOR TO TRANSFER OF SERVICE AT CONTRACTOR'S EXPENSE. CITY PERSONNEL WILL PERFORM BACTERIA SAMPLES.

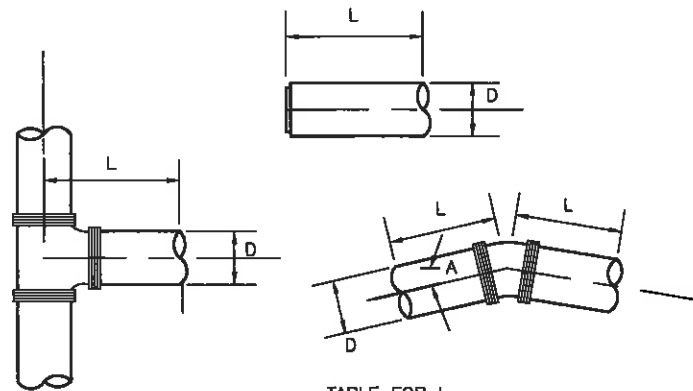
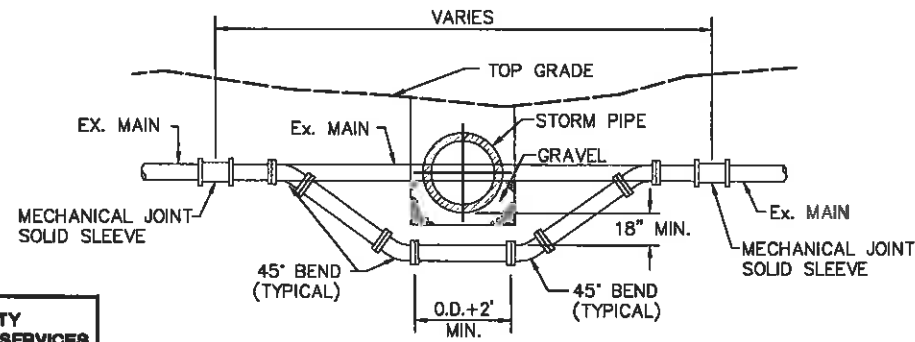
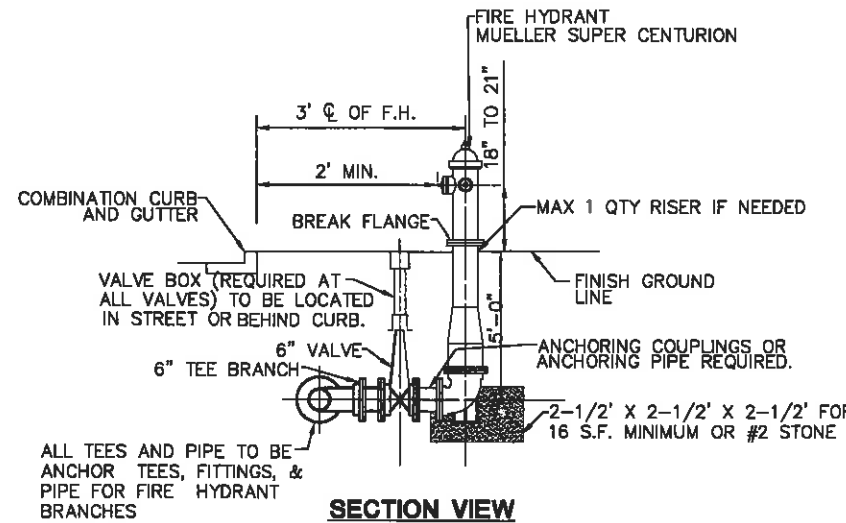
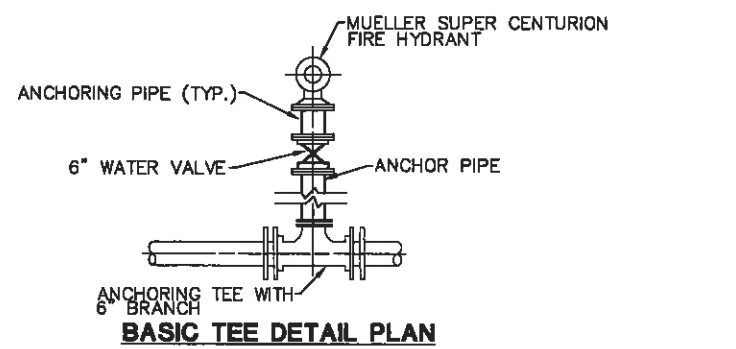


TABLE FOR L
REQUIRED LENGTH OF RESTRAINED JOINTS FOR WATER MAINS

A - DEGREE OF DEFLECTION	D-DIAMETER OF PIPE							
	4"	6"	8"	10"	12"	16"	20"	24"
11 1/4'	*	*	*	*	*	5	5	6
22 1/2'	*	2	3	5	6	8	10	12
45'	4	8	12	14	20	30	36	45
90'	12	26	38	48	66	98	125	145
TEE	12	26	38	48	66	98	125	145
END	12	26	38	48	66	98	125	145

*REQUIRED RESTRAINED JOINT AT FITTING ONLY
 USE MEGALUG MECHANICAL JOINT RESTRAINT OR EQUAL
 FIRE HYDRANT BRANCHES MUST BE ANCHOR PIPE



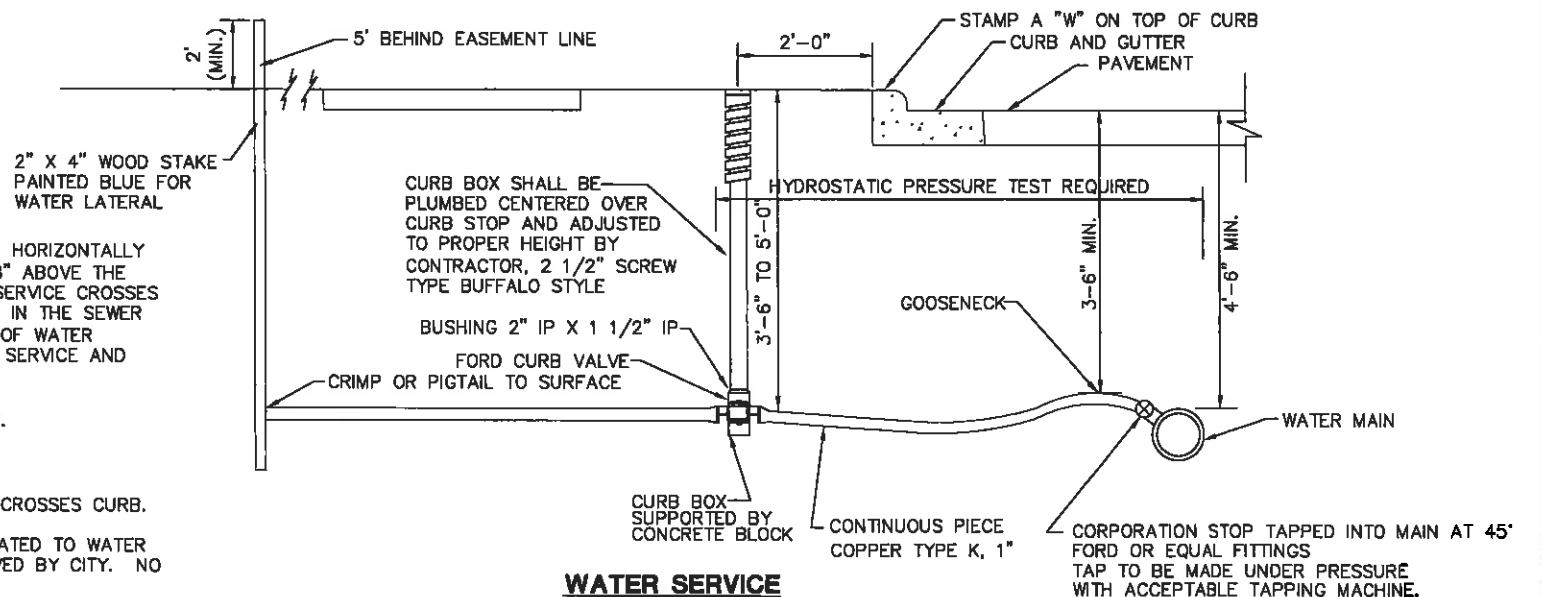
WATER MAIN RELOCATED
GENERAL DETAIL

THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL PROPERTY OWNERS 48 HOURS PRIOR TO SHUTTING OFF THEIR WATER SERVICES.

FORD PARTS	
CORPORATION	F-1000-4
CURB STOP	B-44-444

NOTES

- SERVICES SHALL BE COPPER TYPE K, 1" IN SIZE.
- WATER SERVICE SHALL BE A MINIMUM OF 10' MEASURED HORIZONTALLY FROM THE SEWER SERVICE AND SHALL BE A MINIMUM OF 18" ABOVE THE CROWN OF THE SANITARY SEWER MAIN WHERE THE WATER SERVICE CROSSES THE SEWER MAIN. WATER SERVICE MAY BE LAID ON BENCH IN THE SEWER LATERAL TRENCH IF CROWN IS AT LEAST 18" BELOW INVERT OF WATER SERVICE, AND THE MINIMUM DISTANCE BETWEEN THE WATER SERVICE AND THE SEWER LATERAL IS 5'-0".
- THE CURB BOX SHALL BE PLACED 2' BEHIND THE CURB.
- WATER SERVICE LOCATION IS 3' INSIDE PROPERTY LINE.
- STAMP A "W" IN TOP OF CURB WHERE WATER SERVICE CROSSES CURB.
- CURB STOP, CORP STOP, AND ANY APPURTENANCE RELATED TO WATER SERVICES MUST BE SUPPLIED BY CONTRACTOR AND APPROVED BY CITY. NO FLARED FITTINGS WILL BE ACCEPTED.
- COPPER WATER SERVICE SUBJECT TO HYDROSTATIC TEST.



WATER SERVICE

FIRE HYDRANT NOTES

- ALL WATER MAINS SHALL BE CONSTRUCTED USING DUCTILE IRON CEMENT MORTAR LINED PIPE.
- PIPE SHALL CONFORM TO SPECIFICATIONS ANSI A21.51, AWWA C 151 CLASS 53, PUSH ON TYPE.
- CEMENT MORTAR LINING SHALL CONFORM TO AWWA C 104, ANSI 21.4 SPECIFICATIONS.
- ALL FITTINGS SHALL CONFORM TO THE LATEST AWWA OR ASA SPECIFICATIONS AS MAY BE APPLICABLE. ALL PIPE & FITTINGS TO BE AMERICAN MADE.
- ALL JOINTS SHALL BE CLOW "BELL-TITE" JOINTS OR EQUAL.
- MINIMUM DEPTH OF COVER OVER THE TYPE OF PIPE SHALL BE 4'-6" AS MEASURED TO THE FINISH GRADE OF THE STREET OVER THE PIPE.
- ALL FIRE HYDRANTS SHALL BE MANUFACTURED BY THE MUELLER COMPANY (MUELLER SUPER CENTURION 250) AND SHALL BE A "BREAK FLANGE" MODEL HYDRANT. HYDRANTS SHALL BE FURNISHED WITH ONE (1) FOUR AND HALF INCH (OPEN LEFT) STEAMER NOZZLE AND TWO 2-1/2 INCH HOSE NOZZLES WITH MALE NATIONAL STANDARD THREADS TO FIT COUPLINGS USED BY MUNICIPAL FIRE DEPARTMENT.
- ALL VALVES SHALL BE MANUFACTURED BY THE MUELLER CO. (OR EQUAL) VALVES SHALL BE IRON BODY, RESILIENT WEDGE, BRONZE MOUNTED AND SHALL CONFORM TO LATEST AWWA SPECIFICATIONS. ALL VALVES SHALL BE DESIGNED FOR WORKING PRESSURE OF 150 P.S.I. AND SHALL OPEN BY TURNING COUNTER-CLOCKWISE. VALVES SHALL BE PROVIDED WITH EITHER BELL OR MECHANICAL JOINT. ALL VALVES AT DEAD ENDS OF MAINS ARE TO BE SECURELY STRAPPED TO THE MAIN. ONLY CITY OF TIPP CITY EMPLOYEES MAY OPERATE WATER VALVES, COORDINATE WITH CITY.
- ALL VALVE BOXES SHALL BE HEAVY DUTY BUFFALO TYPE TWO PIECE 5-1/4" SHAFT, WITH COVER MARKED "WATER." THE BOX SHALL BE OF SUCH LENGTH SO AS TO EXTEND UPWARD TO THE FINISH GRADE OF THE GROUND OR STREET.
- ALL FIRE HYDRANTS SHALL BE PAINTED A COLOR CONSISTENT WITH TIPP CITY'S STANDARDS.

ONE CHOICE ENGINEERING
 408 E. HOVENSBER ROAD
 SUITE 200
 TIPP CITY, OHIO 45156
 (937) 497-0200
 www.choiceengineering.com
 203 W. LOVELL AVE
 LOVELAND, OHIO 45140
 (513) 239-8854

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
WATER MAIN TESTING NOTES AND DETAILS

REVISIONS:
FILE NAME MIATCH1116GMB
DRAWN BY GCA
CHECKED BY AVS
PROJECT No. MIATCH1116
DATE 06-17-15
SHEET NUMBER 20 OF 115

SANITARY SEWER TESTING NOTES

LOW PRESSURE AIR TEST

A. AFTER BACKFILLING, THE AIR TEST SHALL BE CONDUCTED BETWEEN TWO CONSECUTIVE MANHOLES. ALL PIPE OUTLETS MUST BE PLUGGED IN THE SECTION BEING TESTED WITH SUITABLE TEST PLUGS. ONE OF THE PLUGS USED AT A MANHOLE MUST BE TAPPED AND EQUIPPED FOR AN AIR INLET CONNECTION FOR FILLING THE LINE FROM THE AIR COMPRESSOR. AIR SHALL BE SUPPLIED SLOWLY TO THE TEST SECTION UNTIL THE INTERNAL PRESSURE REACHES APPROXIMATELY 4 PSI. IF THE PIPE IS BELOW EXISTING GROUNDWATER LEVEL, THE INTERNAL PRESSURE SHALL BE INCREASED BY THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY BE OVER THE PIPE, BUT IN NO CASE SHOULD THE INTERNAL PRESSURE EVER EXCEED 5 PSI.

B. AT LEAST 2 MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE. WHEN THE PRESSURE HAS STABILIZED AND IS AT OR ABOVE 3.5 PSI, THE AIR SUPPLY SHALL BE DISCONNECTED AND TIMING SHALL BEGIN WITH A STOP WATCH. THE STOP WATCH SHALL BE ALLOWED TO RUN UNTIL THE PRESSURE HAS DROPPED 1.0 PSI. IF THE TIME SHOWN ON THE STOP WATCH IS GREATER THAN THE SPECIFIED MINIMUM TIME, THE SECTION SHALL BE CONSIDERED TO HAVE PASSED THE TEST. TIME MAY BE INTERPOLATED FROM THE FIGURES LISTED BELOW.

PIPE DIA. (IN.)	Time for Longer Length (sec)	Specified Minimum for Length (L) Shown (min:sec)						
		100 FT.	150 FT.	200 FT.	250 FT.	300 FT.	350 FT.	400 FT.
4	0.380L	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	0.854L	5:40	5:40	5:40	5:40	5:40	5:40	5:42
8	1.520L	7:34	7:34	7:34	7:34	7:36	8:52	10:08
10	2.374L	9:26	9:26	9:26	9:53	11:52	13:51	15:49
12	3.418L	11:20	11:20	11:24	14:15	17:05	19:56	22:47
15	5.342L	14:10	14:10	17:48	22:15	26:42	31:09	35:36
18	7.692L	17:00	19:13	25:38	32:03	38:27	44:52	51:16
21	10.470L	19:50	26:10	34:54	43:37	52:21	61:00	69:48
24	13.674L	22:47	34:11	45:34	56:58	68:22	79:46	91:10

SPECIFICATION TIME FOR LENGTH (L) SHOWN (MIN-SEC)

DEFLECTION TEST

A. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS AND AFTER 1 YEAR TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM.

B. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF DEFLECTION EXCEEDS 5%, REPLACEMENT OR CORRECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY.

C. THE RIGID BALL OR MANDREL USED FOR THE DEFLECTION TEST SHALL HAVE A DIAMETER NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE DEPENDING ON WHICH IS MANUFACTURED. THE PIPE SHALL BE MEASURED IN COMPLIANCE WITH ASTM D-2122 STANDARD TEST METHOD OF DETERMINING DIMENSIONS OF THERMOPLASTIC PIPE AND FITTINGS. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

MANHOLE VACUUM TEST

ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED USING THE FOLLOWING PROCEDURES FROM ASTM C-1244.

A. PREPARATION OF THE MANHOLE

1. ALL LIFT HOLES SHALL BE PLUGGED.
2. ALL PIPES ENTERING THE MANHOLE SHALL BE TEMPORARILY PLUGGED TAKING CARE TO SECURELY BRACE THE PIPES AND PLUGS TO PREVENT THEM FROM BEING DRAWN INTO THE MANHOLE.

B. PROCEDURE

1. THE FIRST HEAD SHALL BE PLACED AT THE TOP OF THE MANHOLE IN THE CASTING OR AT SURFACE OF FRAME IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS (ALL JOINTS, INCLUDING FRAME TO MANHOLE, MUST BE TESTED).

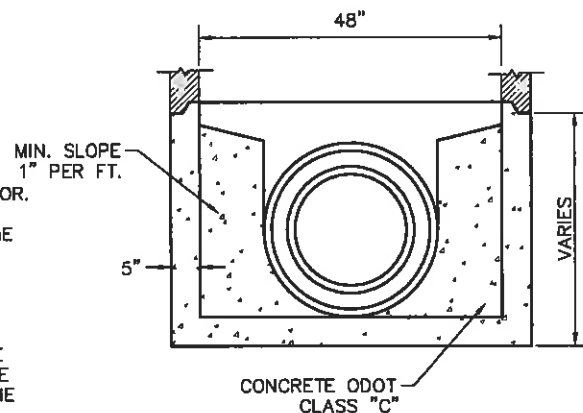
2. A VACUUM OF 10" OF MERCURY (4.9 PSI) SHALL BE DRAWN ON THE MANHOLE, THE VALVE ON THE VACUUM LINE OF THE TEST HEAD CLOSED, AND THE VACUUM PUMP SHUT OFF. THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO 9" OF MERCURY (4.9 PSI).

3. THE MANHOLE SHALL PASS IF THE TIME FOR THE VACUUM READING TO DROP FROM 10" OF MERCURY (4.0 PSI) TO 9" OF MERCURY (4.4 PSI) MEETS OR EXCEEDS THE VALUES INDICATED ON THE TABLE.

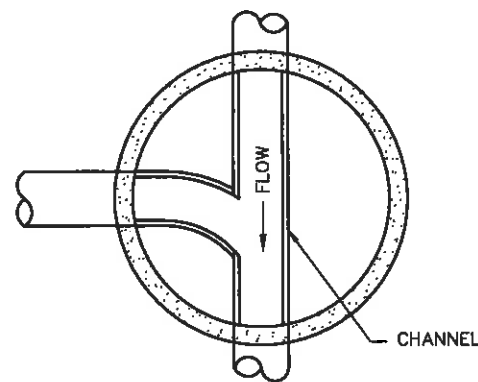
4. IF THE MANHOLE FAILS THE INITIAL TEST, NECESSARY REPAIRS SHALL BE MADE BY AN APPROVED METHOD. THE MANHOLE SHALL THEN BE RETESTED UNTIL A SATISFACTORY TEST IS OBTAINED.

DEPTH (FT.)	DIAMETER, INCHES		
	48	60	72
8 OR LESS	20	26	33
10	25	33	41
12	30	39	49
14	35	46	57
16	40	52	67
18	45	59	73
20	50	65	81
22	55	72	89
24	59	78	97
26	64	85	105
28	69	91	113
30	74	98	121

MINIMUM TEST TIMES FOR VARIOUS MANHOLE DIAMETERS



PRECAST BASE SECTION

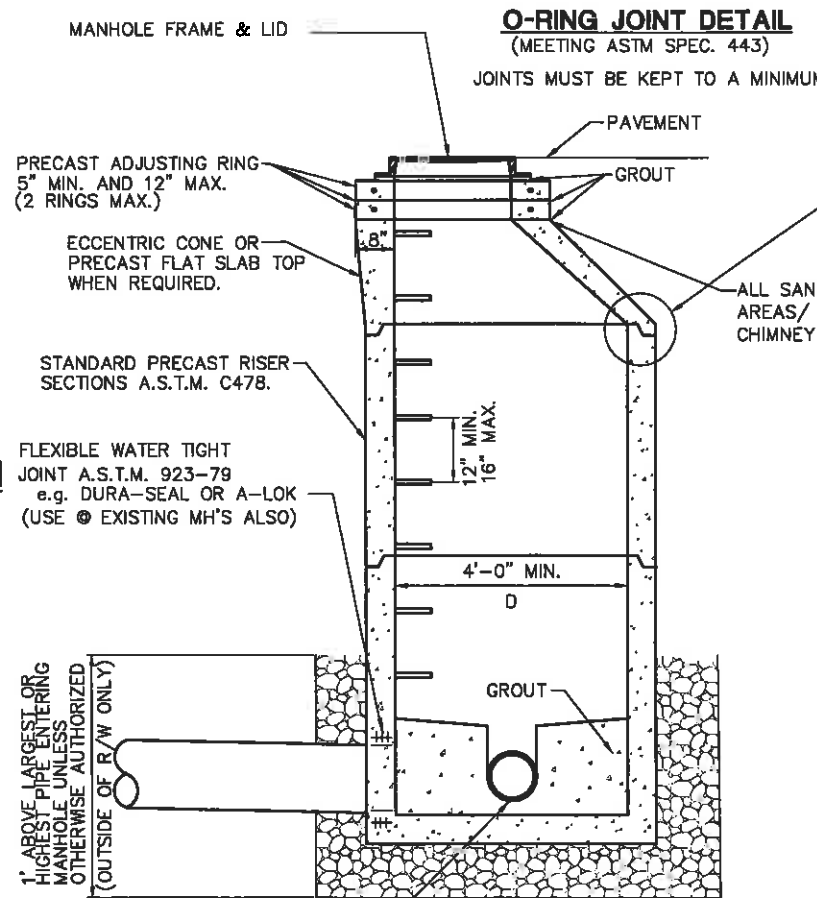


STANDARD INVERT CHANNEL

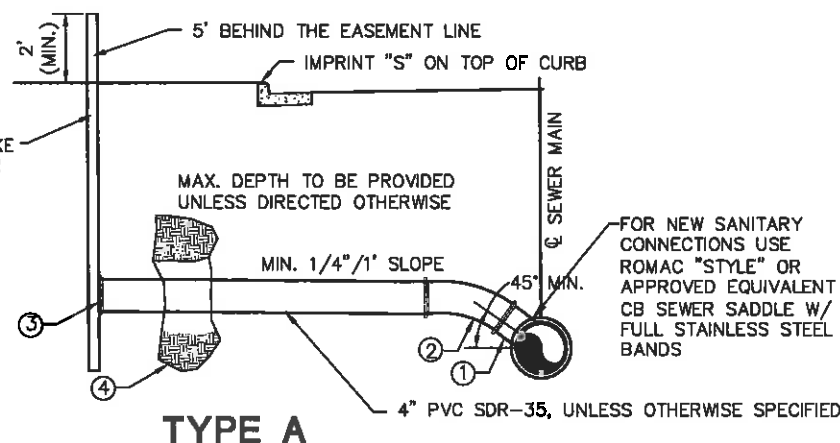
ALL INVERTS TO BE CHANNLED FOR OPTIMUM FLOW.

NOTES

- TO CONNECT INTO EXISTING MANHOLE, THE MANHOLE SHALL BE CORED AND A CORE-N-SEAL FLEXIBLE CONNECTOR OR EQUIVALENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS (NO GROUTED CONNECTIONS WILL BE ACCEPTED).
- LOCATE THE CENTERLINE OF MANHOLE COVERS OVER THE CENTERLINE OF THE MAIN SEWER WHENEVER POSSIBLE.
- CONSEAL CS-102 FLEXIBLE BUTYL RESIN SEALANT OR EQUIVALENT SHALL BE 3/8" X 1" MINIMUM STRIPS UNDER GRADE RINGS AND CASTING.
- SANITARY MANHOLE FRAMES AND COVERS SHALL BE EQUAL OF NEENAH No. R-1767 OR EAST JORDAN IRON WORKS No. 1600.



TYPE 3 SANITARY MANHOLE



TYPE A

- 4" WYE--ROTATE 45° FROM HORIZONTAL UNLESS OTHERWISE SPECIFIED.
- 4" 1/8 BEND OR 1/16 BEND AS NEEDED.
- CAP UNLESS JOINING EXISTING SERVICE LATERAL.
- BED PIPE WITH 6" GRANULAR MATERIAL AND BACKFILL WITH GRANULAR MATERIAL TO 8" ABOVE PIPE. ODOT 603 TYPE 3 #57 OR #67.
- EXACT RECORD OF BEND LOCATIONS MUST BE MADE, AS TO DEPTH FROM SURFACE AND DISTANCE FROM CENTERLINE OF SEWER, BEFORE BACKFILL IS PLACED.

SANITARY SERVICE LATERAL

NOTES:

- CUT PIPE SHALL NOT EXTEND BEYOND THE INSIDE FACE OF THE MANHOLE WALL.
- CONCRETE PLACED INSIDE THE MANHOLE SHALL NOT BE PLACED BETWEEN THE PIPE AND THE OPENING SO AS TO INTERFERE IN ANY WAY WITH THE FLEXIBILITY OF THE JOINT.

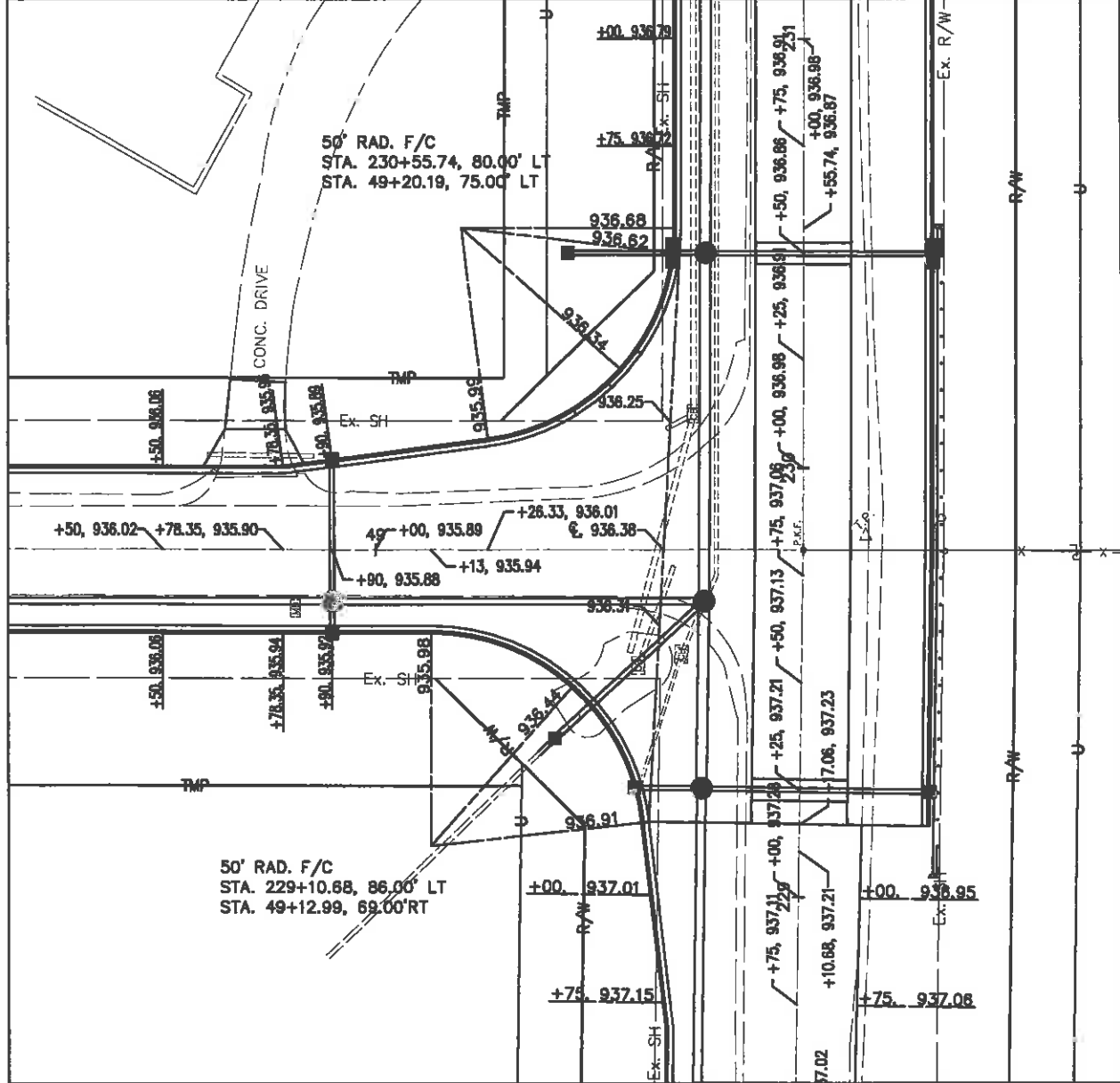
SANITARY SEWER TV REQUIREMENTS

BEFORE THE CITY ACCEPTS ANY SANITARY SEWER AND BEFORE THE FINAL PAYMENT, THE CONTRACTOR WILL SUPPLY THE CITY WITH PASSING DVD AND WRITTEN LOG OF THE ENTIRE NEW SYSTEM, INCLUDING THE TV OF ALL NEW LATERALS. THIS DVD MUST SHOW THE LOCATION OF ALL LATERALS, THEIR CLOCK POSITIONS AND DISTANCES FROM THE MANHOLE. THE DVD MUST ALSO SHOW A SYSTEM CLEAR OF ANY BENDS, BELLIES, LEAKS, PIPE IMPERFECTIONS, DEBRIS OR ANY CONDITIONS NOT SPECIFICALLY SHOWN ON THE PLANS. THE CONTRACTOR MUST ALSO SUPPLY A WRITTEN COPY OF ALL LATERAL LOCATIONS. ANY SEWER JETTING OR OTHER CLEANING ASSOCIATED WITH A PASSING DVD IS THE RESPONSIBILITY OF THE CONTRACTOR.

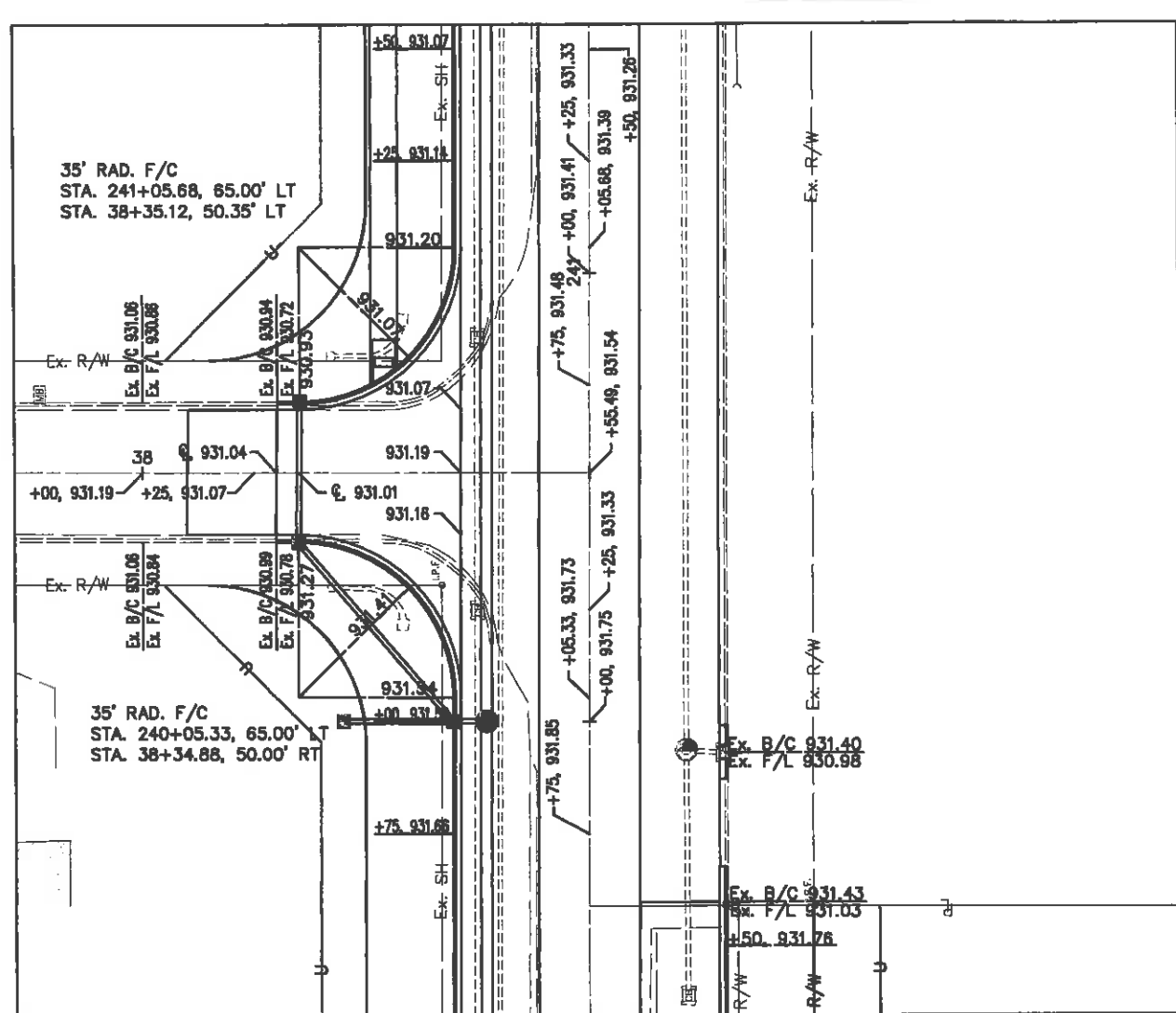
THE CITY SHALL REQUIRE THE USE OF A PAN AND TILT TYPE CAMERA TO REVIEW ALL LATERAL CONNECTIONS ON SEWER MAIN REPLACEMENT PROJECTS.

THE ABOVE PROCEDURES WILL BE AT THE CONTRACTOR'S EXPENSE.

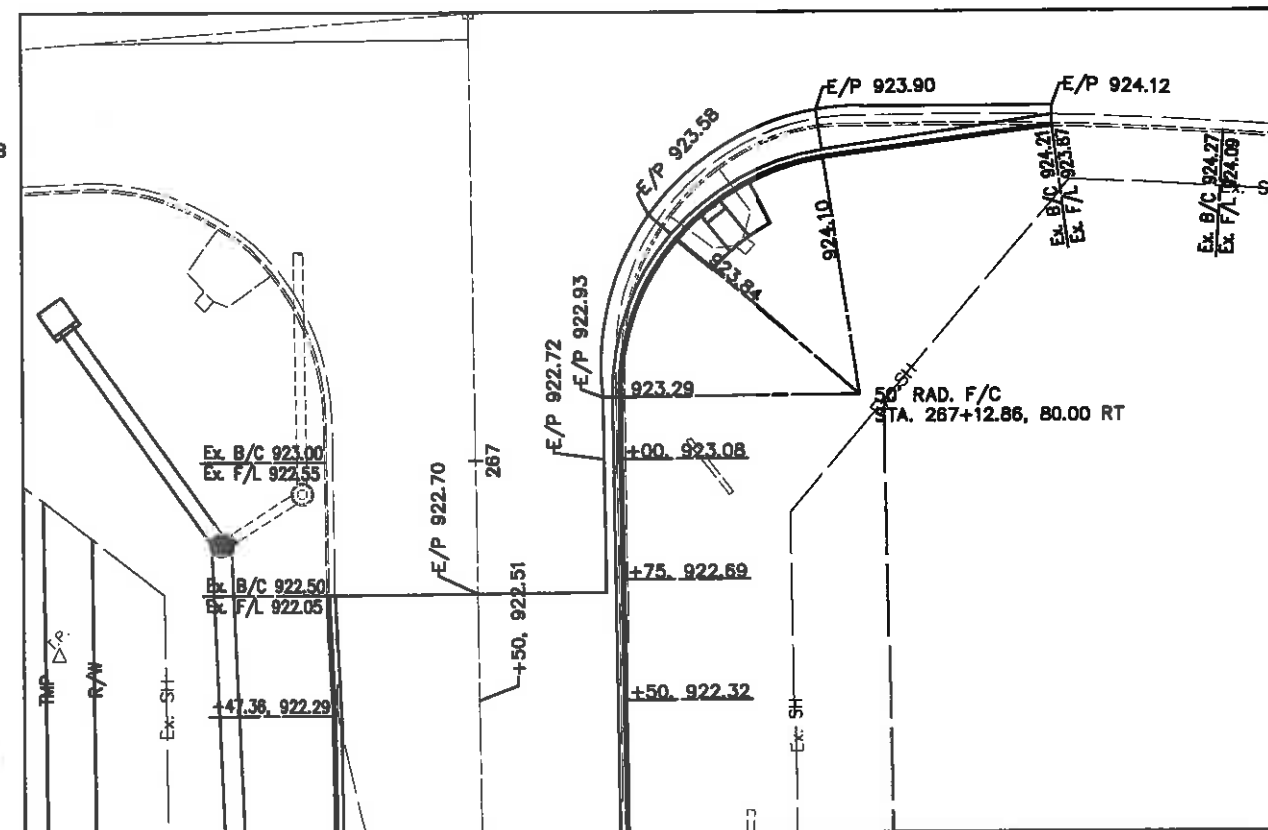
THE CITY RESERVES THE RIGHT TO A FINAL TELEVISIONING OF THE SEWER SYSTEM AT THE CITY'S EXPENSE BEFORE THE PROJECT IS FINALIZED.



INTERSECTION OF C.R. 25-A AND MICHAELS RD.



INTERSECTION OF C.R. 25-A AND COACH DRIVE

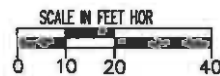


INTERSECTION OF C.R. 25-A AND ST. RT. 571

LEGEND

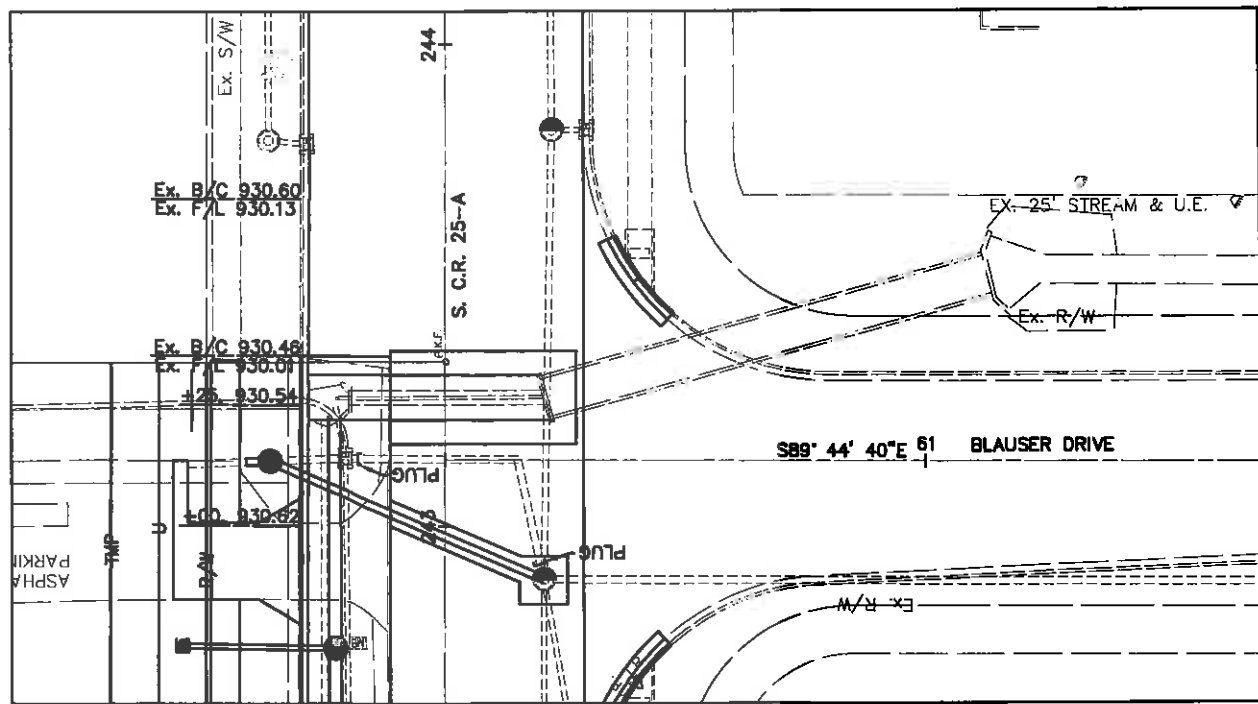
ALL ELEVATIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED

- Ex. B/C - Ex. BACK OF CURB
- Ex. F/L - Ex. FLOWLINE OF GUTTER
- F/C - FACE OF CURB
- E/P - EDGE OF PAVEMENT
- ℄ - Ex. CENTERLINE OF ROAD

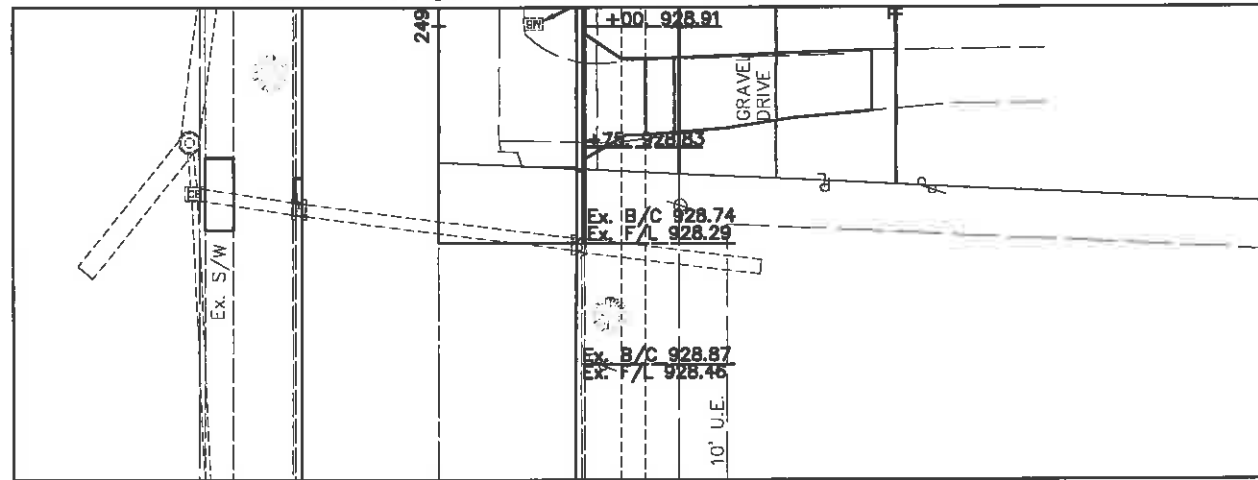


REVISIONS:

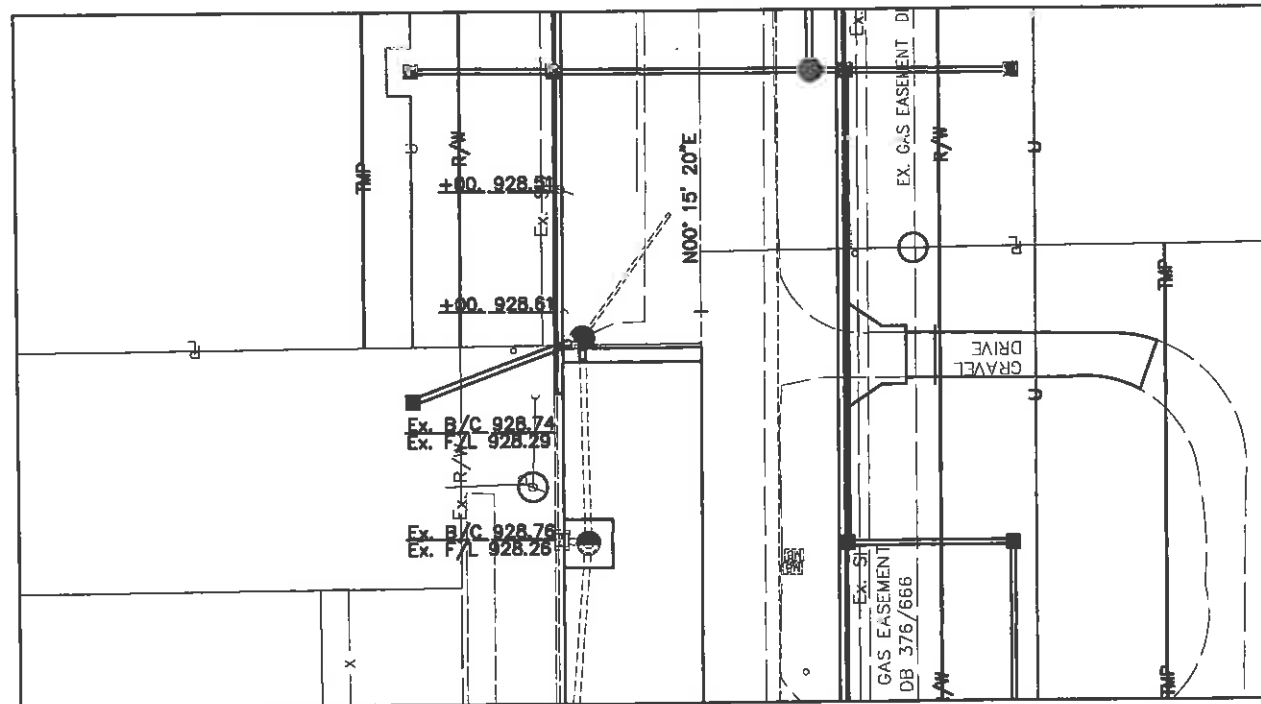
FILE NAME	MIATCI116INTA
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT NO.	MIATCI116
DATE	06-17-15
SHEET NUMBER	



TIE IN AT C.R. 25-A AND BLAUSER DRIVE

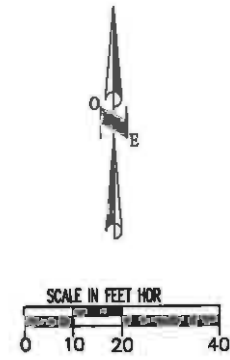


TIE IN AT C.R. 25-A AND CURRY BRANCH DRIVE (SOUTH)

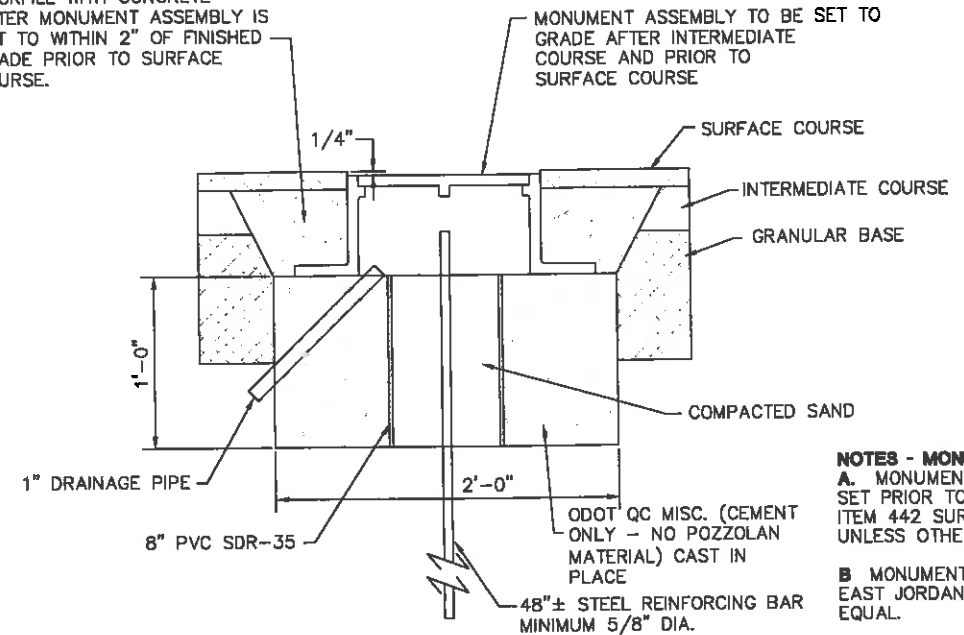


TIE IN AT C.R. 25-A AND CURRY BRANCH DRIVE (NORTH)

LEGEND
 ALL ELEVATIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED
 Ex. B/C - Ex. BACK OF CURB
 Ex. F/L - Ex. FLOWLINE OF GUTTER
 F/C - FACE OF CURB
 E/P - EDGE OF PAVEMENT
 CL - Ex. CENTERLINE OF ROAD



BACKFILL WITH CONCRETE AFTER MONUMENT ASSEMBLY IS SET TO WITHIN 2" OF FINISHED GRADE PRIOR TO SURFACE COURSE.



MONUMENT ASSEMBLY

NOTES - MONUMENT ASSEMBLY
A. MONUMENT ASSEMBLIES SHALL BE SET PRIOR TO THE LAYING OF ODOT ITEM 442 SURFACE ASPHALT COURSE UNLESS OTHERWISE PREAPPROVED.
B. MONUMENT ASSEMBLIES SHALL BE EAST JORDAN IRON WORKS B380 OR EQUAL.
C. MONUMENT ASSEMBLIES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 623 UNLESS OTHERWISE SPECIFIED WITHIN.

ONE CHOICE ENGINEERING

440 E. HOEWISHER ROAD
 SIDNEY, OHIO 45385
 (937) 497-0000
 www.choiceengineering.com

203 W. LOVELAND AVENUE
 LOVELAND, OHIO 45140
 (513) 238-8554

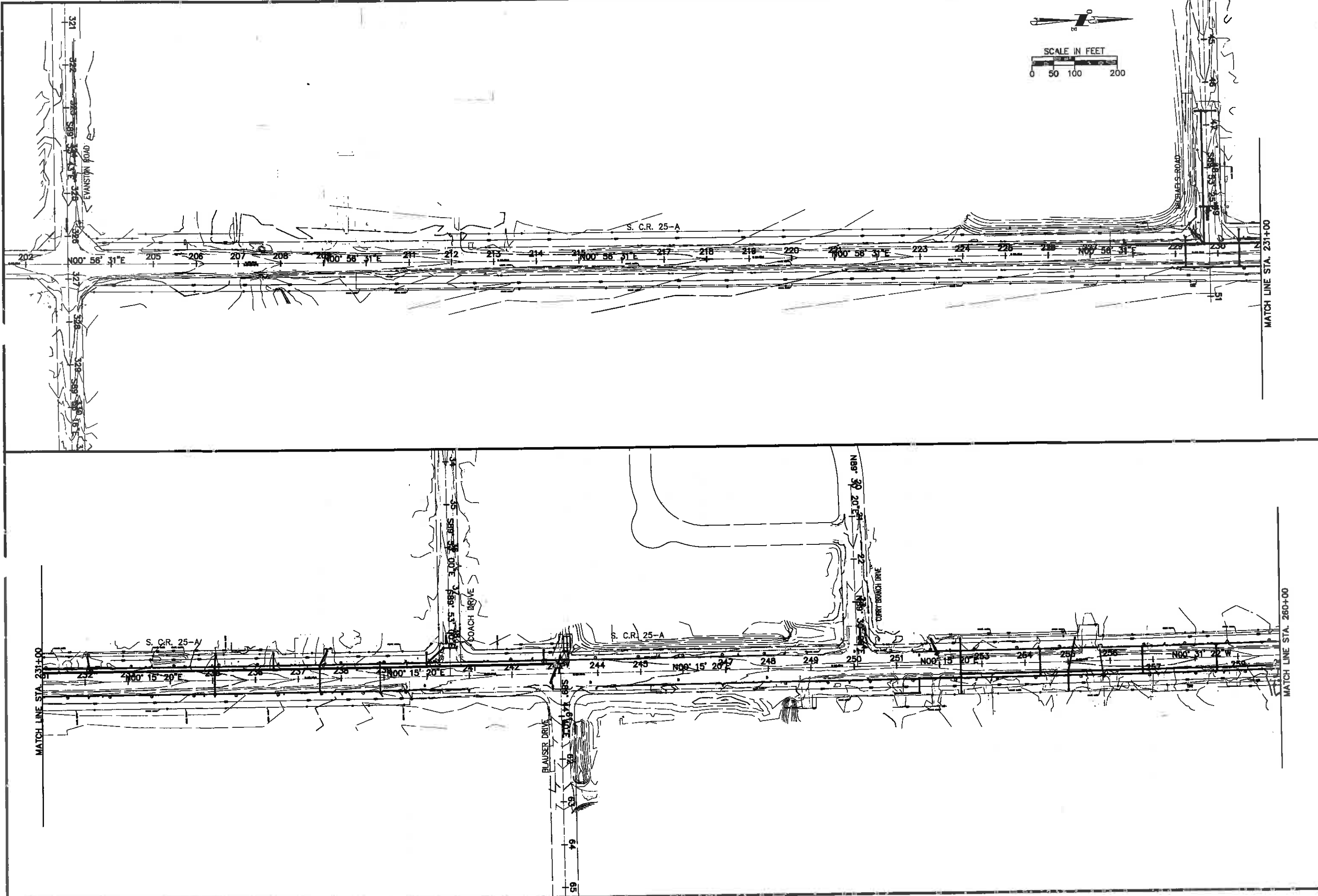
SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1

CITY OF TIPP CITY

INTERSECTION DETAILS

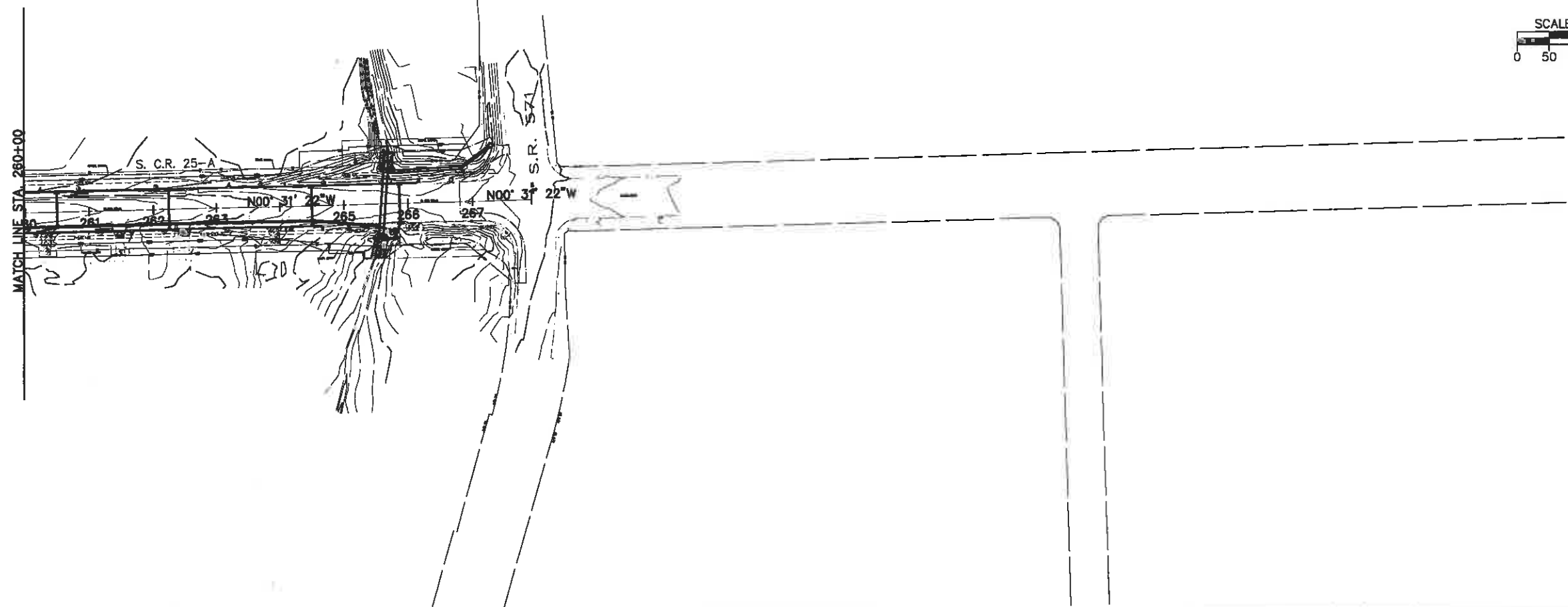
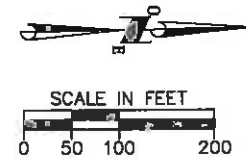
REVISIONS:

FILE NAME	MIATC1116IN1B
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC1116
DATE	06-17-15
SHEET NUMBER	23 OF 115



SOUTH COUNTY ROAD-25A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
SITE PLAN

REVISIONS:
FILE NAME MIATC1116SITA
DRAWN BY MJT
CHECKED BY AVS
PROJECT No. MIATC1116
DATE 06-17-15
SHEET NUMBER 24 OF 115



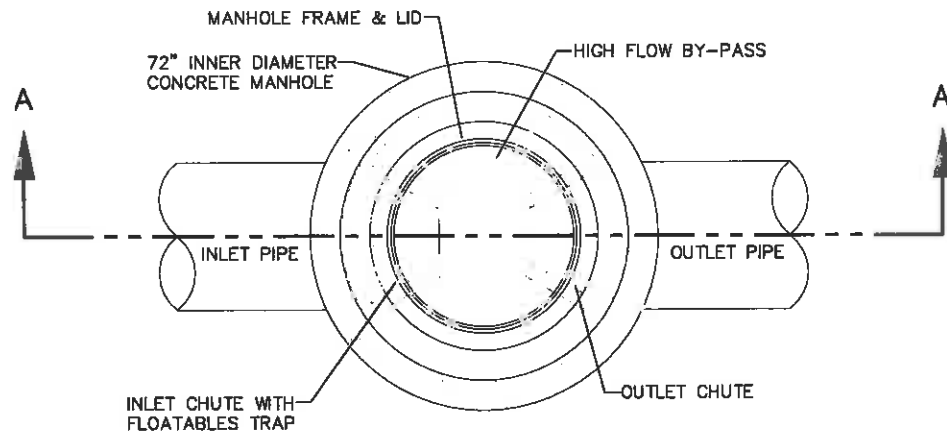
PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE RECONSTRUCTION OF C.R. 25A FROM MICHAELS ROAD TO ST. RT. 571. CONSTRUCTION CONSIST OF PAVEMENT, CURBING, REPLACEMENT OF A WATERLINE, REPLACEMENT OF THE SANITARY SEWER, AND THE INSTALLATION OF A NEW STORM SEWER SYSTEM.

USGS TIPP CITY QUADRANGLE
 LATITUDE: N 39°-57'-40"
 LONGITUDE: W 84°-10'-17"

PROJECT DATA

TOTAL AREA (RIGHT-OF-WAY):	10.44 ACRES
PROJECT EARTH DISTURBED AREA:	9.01 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.50 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	9.51 ACRES
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE:	4.19 ACRES
IMPERVIOUS (PAVED) AREA FOR POST CONSTRUCTION SITE:	6.19 ACRES
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE:	0.55
RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE:	0.68
IMMEDIATE RECEIVING WATERS:	CITY STORM SEWER
SUBSEQUENT RECEIVING WATER:	GREAT MIAMI RIVER

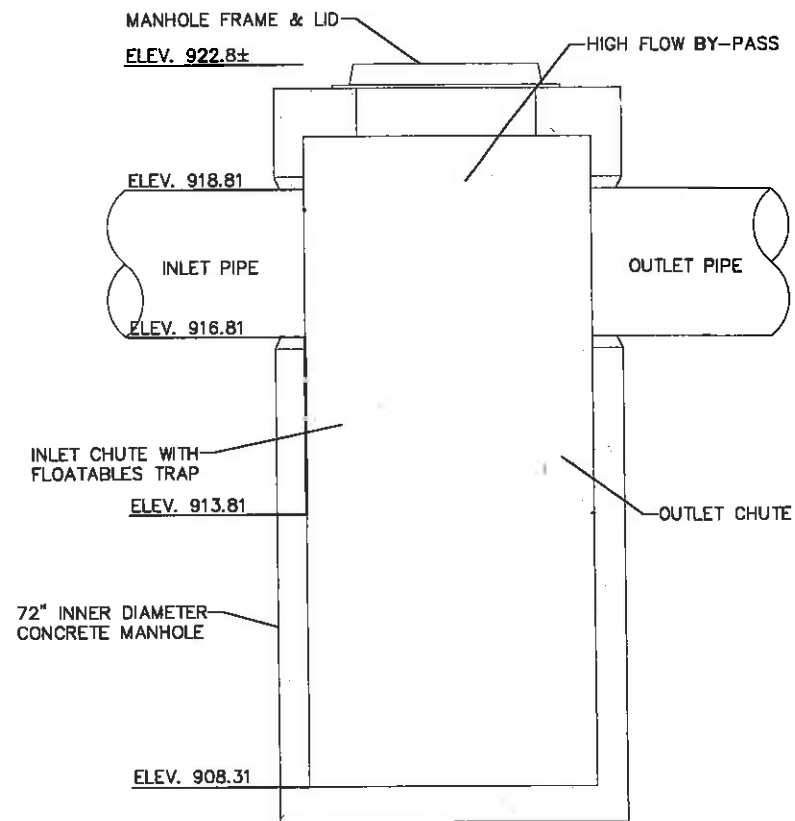


DESIGN INFORMATION:

1. PEAK HYDRAULIC FLOW: 18.0 CFS
2. TREATMENT FLOW: 2.2 CFS
3. SEDIMENT STORAGE CAPACITY: 3.1 C.Y.
4. OIL STORAGE CAPACITY: 420 GAL.
5. MAXIMUM INLET/OUTLET PIPE DIAMETER: 24"
6. MAXIMUM NUMBER OF INLET PIPES: 2
7. MINIMUM ANGLE BETWEEN PIPES: 90°

NOTES:

1. CONTRACTOR TO CONTACT WATER QUALITY STRUCTURE MANUFACTURER PRIOR TO ORDERING MATERIALS FOR BOTTOM OF STRUCTURE ELEVATION.
2. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIAMETER, AND PIPE ORIENTATION PRIOR TO ORDERING MATERIALS.
3. THE WATER QUALITY STRUCTURE SHALL BE INSTALLED IN STRICT ACCORDANCE TO THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
4. ALL COST ASSOCIATED WITH THE CONSTRUCTION/INSTALLATION OF THE MANUFACTURED WATER QUALITY STRUCTURE SHALL BE AS AN EACH ITEM AND INCLUDED IN ITEM 895 MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2



SECTION A-A

MANUFACTURED WATER QUALITY STRUCTURE T/2

CHOICE ENGINEERING
 440 E. HENRISHER ROAD
 SIDNEY, OHIO 45365
 (937) 497-0200
 WWW.CHOICEENGINEERING.COM
 203 W. LOVELAND AVENUE
 LOVELAND, OHIO 45140
 (513) 239-8554

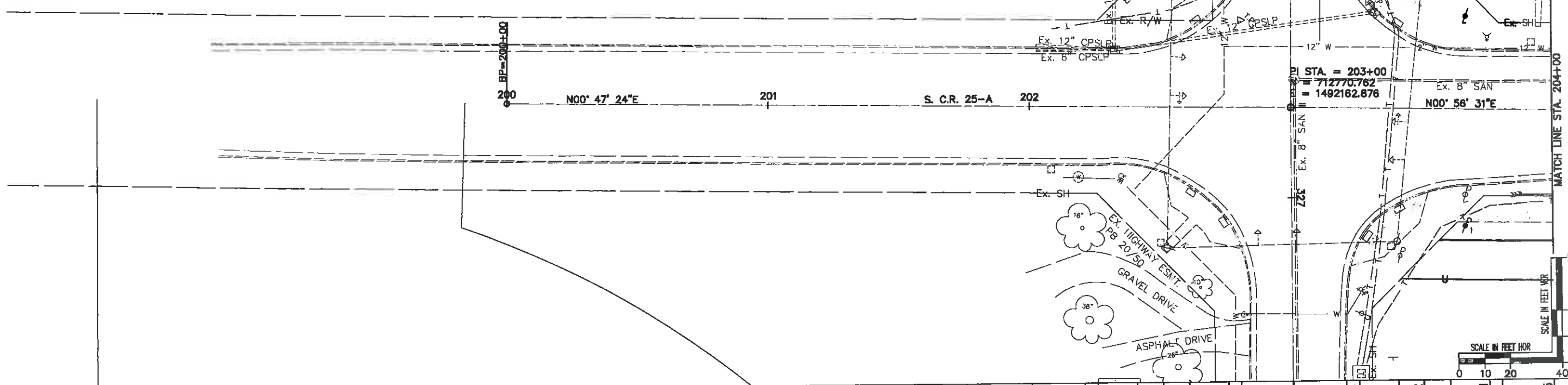
SOUTH COUNTY ROAD 25A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
SITE PLAN

REVISIONS:

FILE NAME	MIATC1116SITB
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC1116
DATE	06-17-15
SHEET NUMBER	25 of 115



BENCHMARK #7 ELEV. 944.10
 F.H. BOLT TIP ARROW, NORTHEAST
 CORNER OF 25A AND EVANSTON



PROPOSED CENTERLINE ELEVATIONS																					943.54	943.62	943.71	943.75	950
950																									
945																									
940																									
935																									
930																									
925																									
920																									
915																									
910																									
EXISTING CENTERLINE ELEVATIONS	198+00	199+00	200+00	942.9	942.8	942.7	201+00	942.8	942.8	942.9	943.0	943.1	943.2	943.4	943.5	203+00	943.7	943.8	943.8	943.8	204+00				

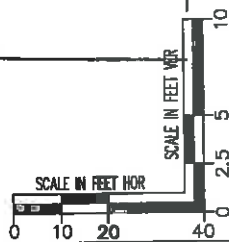
Ex. CB #1
 STA. 202+31.99, 21.58 LT
 TOP 942.8±
 S INV. 939.67
 N INV. 939.77
 W INV. 940.37
 S INV. 940.42

Ex. SAN MH
 STA. 326+54.83, 1.33 LT
 TOP 943.3±
 F INV. 926.59
 N INV. 926.72

Ex. CB #5
 STA. 203+31.30, 35.53 LT
 TOP 942.9±
 S INV. 940.85
 W INV. 941.65



TOP OF ROCK 933.9

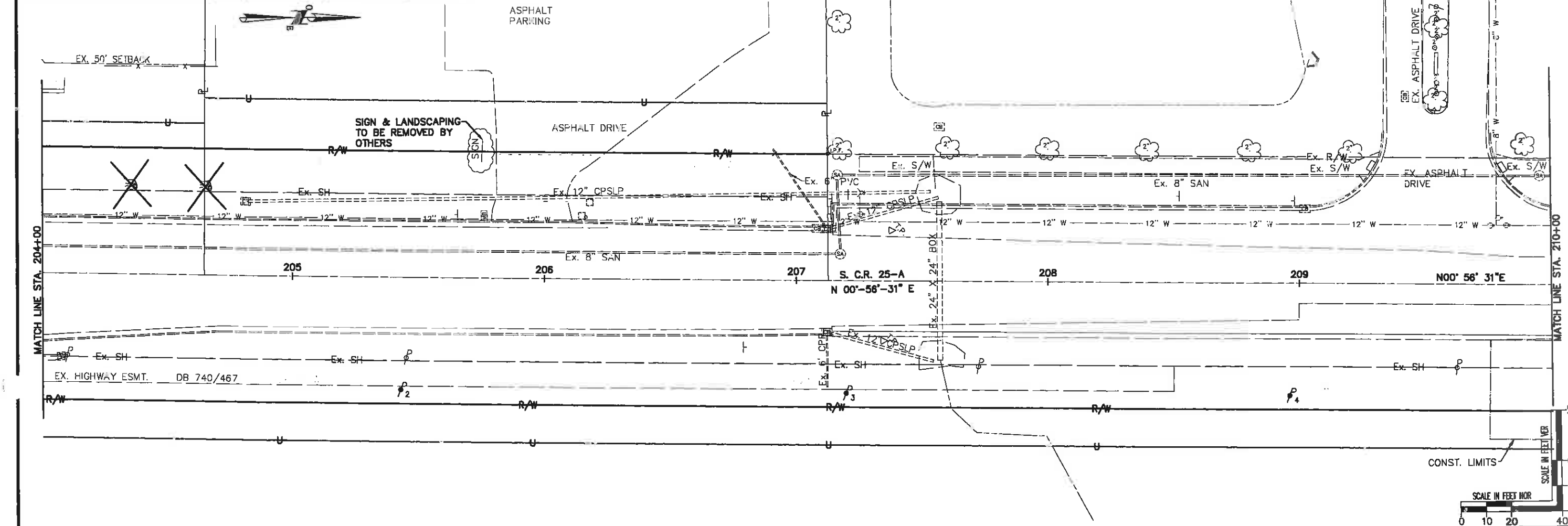


SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH 1
 CITY OF TIPP CITY
 C.R. 25-A P/P STA. 198+00 TO STA. 204+00

REVISIONS:

FILE NAME	25-A-PPA
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATCH116
DATE	06-17-15
SHEET NUMBER	26 OF 115

CHOICE ONE ENGINEERING
 440 E. HOEWISHER ROAD
 SIDNEY, OHIO 45365
 (937) 497-0200
 www.choiceoneengineering.com
 203 W. LOVELAND AVENUE
 LOVELAND, OHIO 45140
 (513) 239-8554



	950	943.70	943.61	943.51	943.41	943.32	943.22	943.13	943.03	942.95	942.88	942.80	942.73	942.65	942.58	942.50	942.43	942.35	942.28	942.20	942.13	942.05	941.98	941.90	941.83	
	945			Ex. CB #8 STA. 204+81.10, 29.39 LT TOP 941.8± N INV. 940.18						Ex. SAN MH STA. 207+16.14, 41.76 LT TOP 942.6± E INV. 928.78 N INV. 928.78 W INV. 935.78		Ex. SAN MH STA. 207+17.46, 10.54 LT TOP 942.3± S INV. 928.53 W INV. 928.53												Ex. SAN MH STA. 209+95.34, 43.14 LT TOP 941.9± S INV. 929.97 N INV. 929.97		
	940												Ex. 6" PVC													
	935													Ex. CB #8 STA. 207+12.25, 20.37 LT TOP 942.1± SW INV. 939.69 N INV. 937.79	Ex. 12" CPSLP	Ex. 24" X 24" BOX									Ex. 12" WATER	
	930																									
	925																									
	920																									
	915																									
	910																									
EXISTING CENTERLINE ELEVATIONS	943.8	943.8	943.7	943.6	943.5	943.5	943.3	943.2	943.1	943.0	942.9	942.7	942.6	942.4	942.3	942.1	942.0	941.9	941.9	941.9	941.9	941.9	941.9	941.9	941.7	
	204+00				205+00				206+00				207+00				208+00					209+00			210+00	

ONE CHOICE ENGINEERING

440 E. HOEHLER ROAD
SIDNEY, OHIO 45365
(937) 497-0080
www.choiceoneengineering.com

203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 239-8554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25-A P/P STA. 204+00 TO STA. 210+00

REVISIONS:

FILE NAME
25-A-PPB

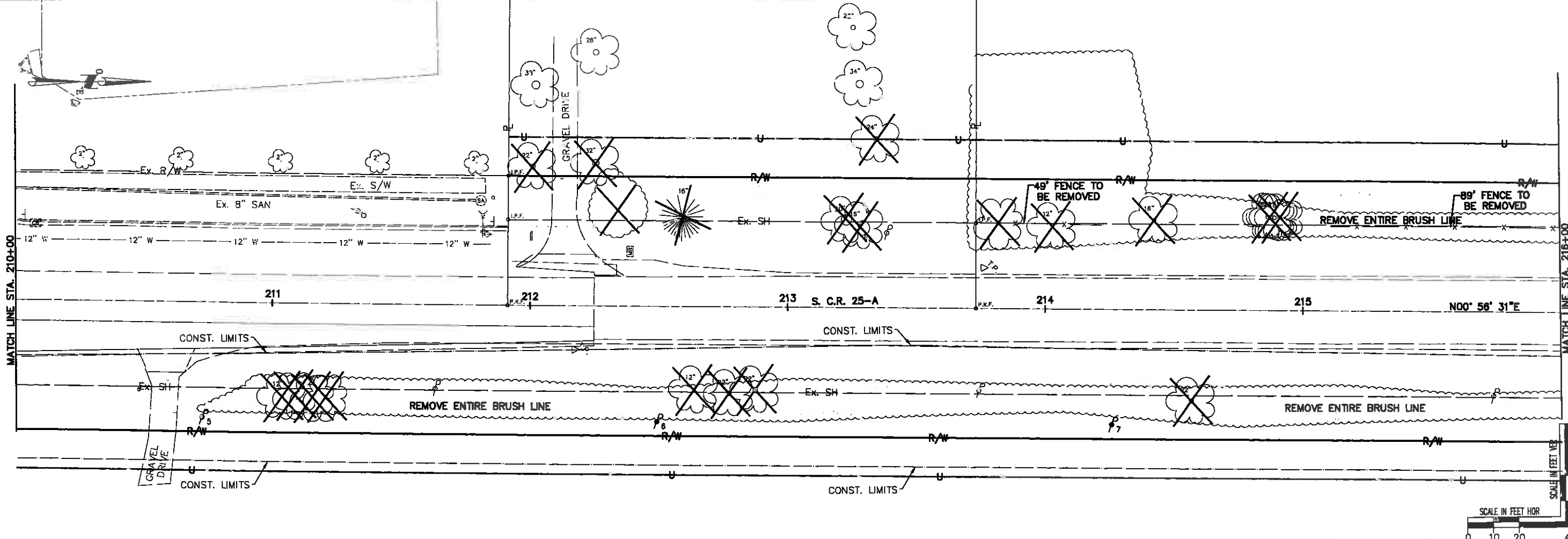
DRAWN BY
GCA

CHECKED BY
AVS

PROJECT No.
MIATCH116

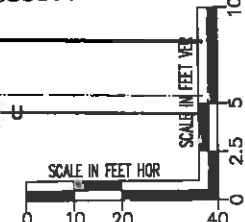
DATE
06-17-15

SHEET NUMBER
27 OF 115



PROPOSED CENTERLINE ELEVATIONS	941.75	941.68	941.60	941.53	941.45	941.38	941.30	941.23	941.15	941.08	941.00	940.93	940.85	940.78	940.70	940.63	940.55	940.48	940.40	940.36	940.41	940.49	940.56	940.64	
950																									
945																									
940																									
935																									
930																									
925																									
920																									
915																									
910																									
EXISTING CENTERLINE ELEVATIONS	941.7	941.6	941.5	941.4	941.4	941.3	941.2	941.1	941.0	940.9	940.8	940.7	940.6	940.6	940.5	940.5	940.4	940.4	940.4	940.4	940.4	940.4	940.5	940.5	

-0.30%
 Ex. SAN MH
 STA. 211+80.48, 40' 23' LT
 TOP 941.2#
 S INV. 930.80
 0.31%
 TOP OF ROCK 933.5
 TOP OF ROCK 934.9

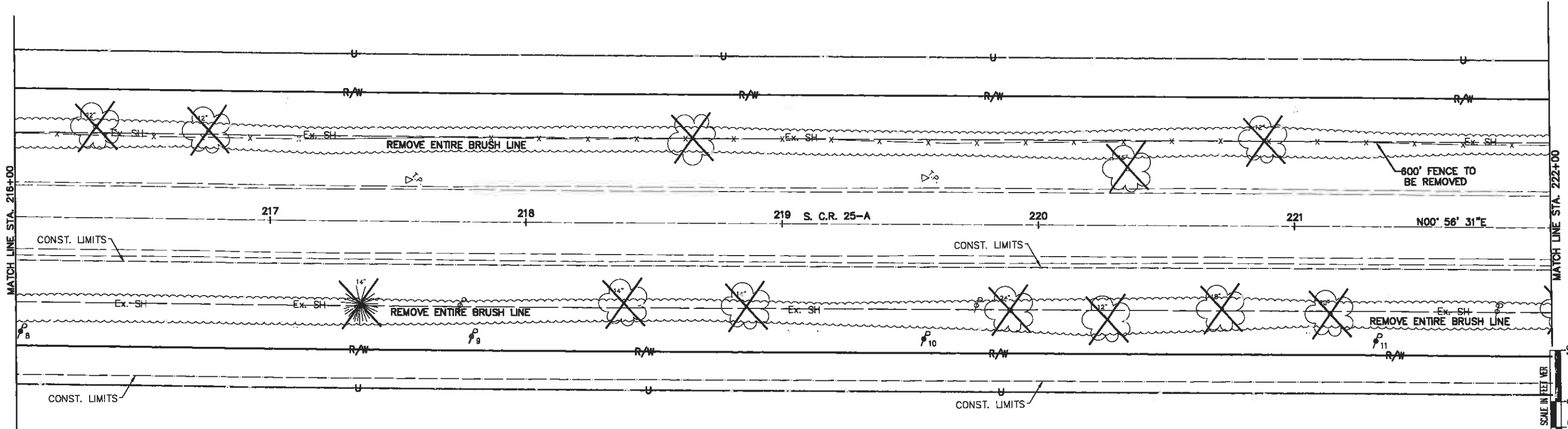


CHOICE ONE ENGINEERING
 440 E. HEDWISHER ROAD
 SUITE 200
 LOVELAND, OHIO 45140
 (513) 298-9524
 www.choiceoneengineering.com

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25-A P/P STA. 210+00 TO STA. 216+00

REVISIONS:

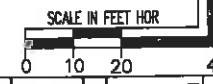
FILE NAME	25-A-PPC
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC1116
DATE	06-17-15
SHEET NUMBER	28 OF 115



950	PROPOSED CENTERLINE ELEVATIONS	940.72	940.75	940.69	940.58	940.47	940.37	940.26	940.15	940.04	939.93	939.82	939.72	939.61	939.50	939.39	939.28	939.17	939.06	938.96	938.85	938.74	938.63	938.52	938.41	950	
945																											945
940																											940
935																											935
930																											930
925																											925
920																											920
915																											915
910																											910
940.5	EXISTING CENTERLINE ELEVATIONS	940.5	940.5	940.5	940.4	940.3	940.2	940.1	940.0	940.0	939.9	939.7	939.7	939.5	939.4	939.2	939.1	939.0	938.8	938.7	938.6	938.5	938.5	938.4	938.3	940	
216+00					217+00				218+00				219+00				220+00				221+00				222+00		

TOP OF ROCK 935.9

-0.4%

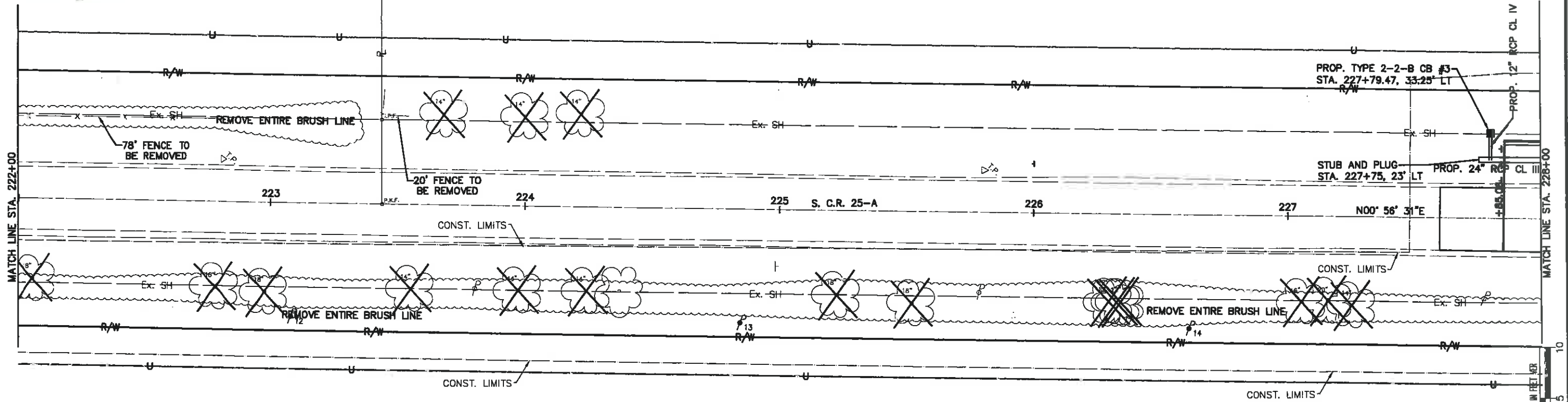


CHOICE ONE ENGINEERING
 440 E. HENRISHER ROAD
 SUITE 200
 (317) 977-0200
 www.choiceoneengineering.com
 203 W. LOVELAND AVENUE
 LOVINGTON, IN 46146
 (317) 739-8224

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25-A P/P STA. 216+00 TO STA. 222+00

REVISIONS:

FILE NAME	25-A-PPD
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATCI116
DATE	06-17-15
SHEET NUMBER	29 OF 115



STATION	EXISTING CENTERLINE ELEVATIONS	PROPOSED CENTERLINE ELEVATIONS
222+00	938.3	938.31
	938.2	938.20
	938.0	938.09
223+00	937.9	937.98
	937.8	937.89
	937.8	937.81
	937.7	937.72
224+00	937.6	937.63
	937.5	937.54
	937.6	937.46
	937.6	937.37
225+00	937.6	937.32
	937.6	937.36
	937.6	937.43
	937.6	937.51
226+00	937.6	937.58
	937.5	937.66
	937.5	937.73
	937.4	937.81
227+00	937.5	937.85
	937.3	937.81
	937.2	937.73
	937.1	937.66
228+00	937.1	937.58



BEGN CURB INSTALLATION
STA. 227+85.06

STUB AND PLUG
STA. 227+75, 23' LT

PROP. 12" RCP

25'-24" RCP CL III @ 0.30%

REVISIONS:

FILE NAME
25-A-PPE

DRAWN BY
GCA

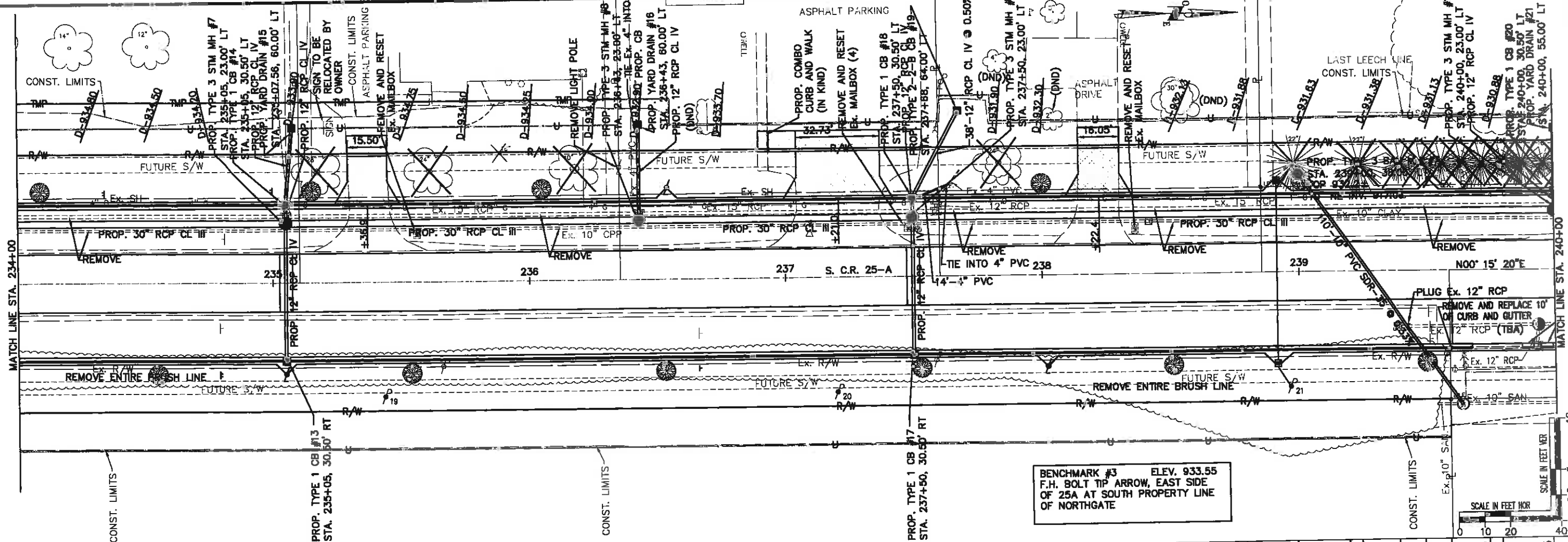
CHECKED BY
AVS

PROJECT No.
MIATC1116

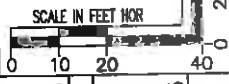
DATE
06-17-15

SHEET NUMBER

30 OF 115



BENCHMARK #3 ELEV. 933.55
 F.H. BOLT TIP ARROW, EAST SIDE
 OF 25A AT SOUTH PROPERTY LINE
 OF NORTHGATE



950	PROPOSED CENTERLINE ELEVATIONS	936.02	935.88	935.74	935.60	935.36	935.15	934.93	934.70	934.49	934.27	934.06	933.85	933.63	933.42	933.21	932.99	932.78	932.57	932.35	932.14	932.04	931.95	931.85	931.75		
945																											
940				PROP. TYPE 3 STM MH #7 STA. 235+06, 23.00' LT TOP 935.1± 30" S INV. 928.24 12" E INV. 931.59 12" W INV. 930.75 30" N INV. 928.24																							
935				EX. CB #16 (REMOVE) STA. 235+05.05, 25.76' LT TOP 933.4± S INV. 931.42 N INV. 931.42																							
930				PROP. TYPE 3 STM MH #8 STA. 236+43, 23.00' LT TOP 933.8± 30" S INV. 927.83 30" N INV. 927.83 12" W INV. 929.56 EX. CB #18 (REMOVE) STA. 236+43.11, 25.57' LT TOP 931.8± S INV. 930.21 N INV. 930.21 W INV. 931.16																							
925				PROP. TYPE 3 STM MH #9 STA. 237+50, 23.00' LT TOP 932.9± 30" S INV. 927.51 30" N INV. 927.51 12" W INV. 928.95 EX. CB #20 (REMOVE) STA. 237+59.19, 25.16' LT TOP 931.5± S INV. 929.74 N INV. 929.74 W INV. 929.66																							
920				PROP. TYPE 3 SAN MH #7 STA. 239+00, 38.00' LT TOP 932.2± 10" NE INV. 917.06																							
915																											
910	EXISTING CENTERLINE ELEVATIONS	936.1	936.0	935.8	935.7	935.5	935.3	935.0	934.8	934.5	934.3	934.1	933.9	933.7	933.5	933.2	932.9	932.7	932.5	932.3	932.1	932.0	931.9	931.8	931.6		
234+00					235+00				236+00				237+00				238+00				239+00				240+00		

ONE CHOICE ENGINEERING

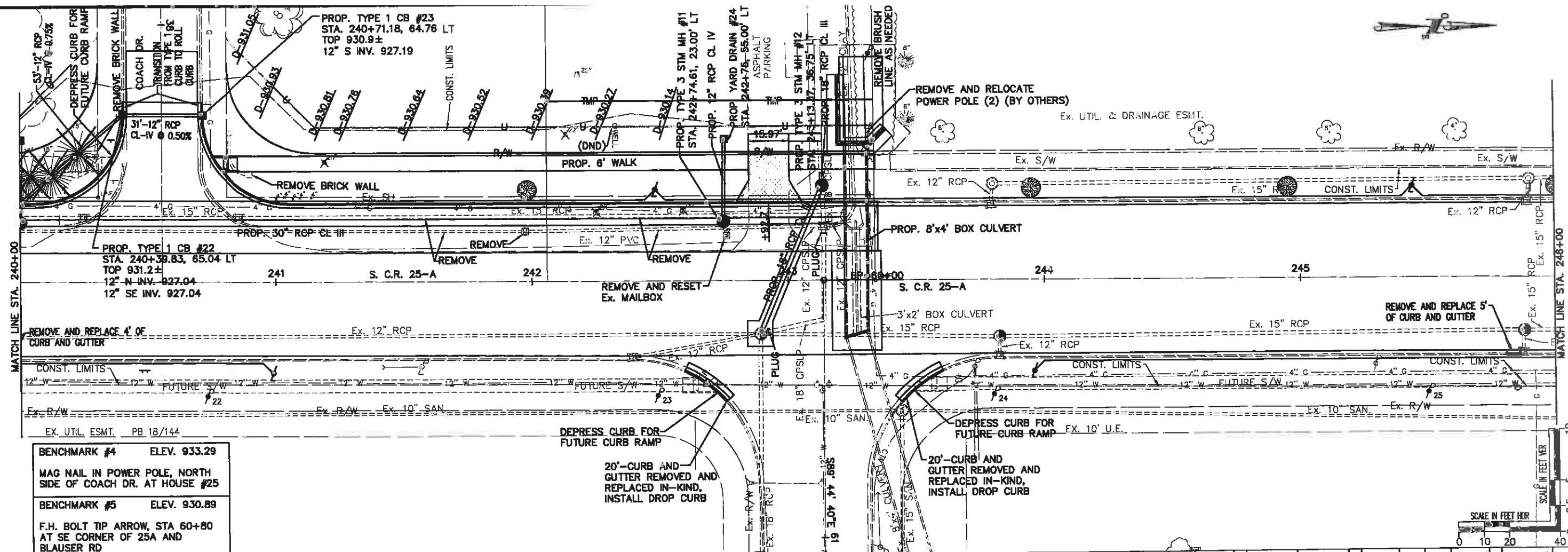
440 E. WINDRIVER ROAD
 SHELBY, OHIO 43065
 (614) 497-0200
 www.choiceoneengineering.com

283 W. LOVELAND AVENUE
 LOVELAND, OHIO 45140
 (513) 239-8584

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25-A P/P STA. 234+00 TO STA. 240+00

REVISIONS:

FILE NAME	25-A-PPG
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATCH116
DATE	06-17-15
SHEET NUMBER	32 OF 115



BENCHMARK #4 ELEV. 933.29
 MAG NAIL IN POWER POLE, NORTH SIDE OF COACH DR. AT HOUSE #25

BENCHMARK #5 ELEV. 930.89
 F.H. BOLT TIP ARROW, STA 60+80 AT SE CORNER OF 25A AND BLAUSER RD

PROPOSED CENTERLINE ELEVATIONS	931.66	931.56	931.48	931.41	931.33	931.26	931.18	931.11	931.03	930.96	930.88	930.81	930.73	930.65	930.57	930.49	930.41	930.33	930.25	930.16	930.08	930.00	929.92	929.84	
950																									
945																									
940																									
935																									
930																									
925																									
920																									
915																									
910																									
EXISTING CENTERLINE ELEVATIONS	931.6	931.4	931.3	931.2	931.1	931.0	930.9	930.8	930.8	930.8	930.8	930.8	930.8	930.7	930.7	930.6	930.5	930.5	930.4	930.4	930.4	930.4	930.3	930.2	
240+00	241+00	242+00	243+00	244+00	245+00	246+00																			

ONE CHOICE ENGINEERING

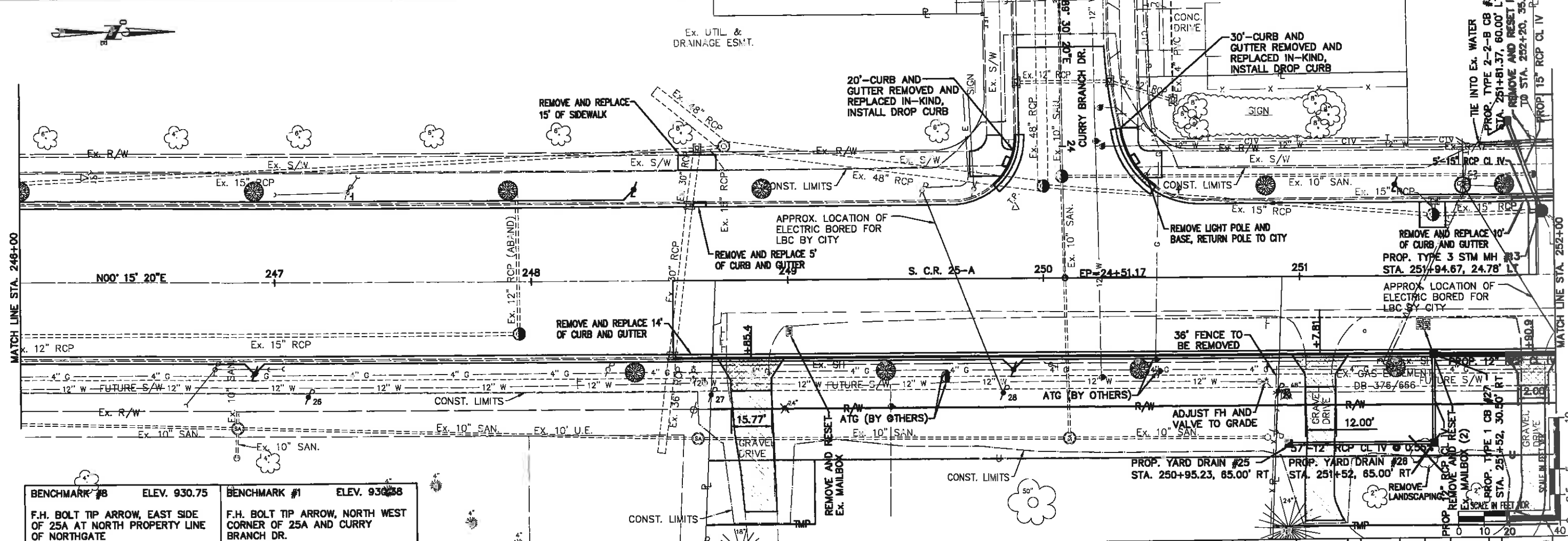
440 E. UNIVERSITY ROAD
 SUITE 400
 SUREY, OHIO 43085
 (614) 497-0200
 www.choiceoneengineering.com

203 W. LOVELAND AVENUE
 LOVELAND, OHIO 43140
 (513) 239-8554

**SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
 CITY OF TIPP CITY
 C.R. 25-A P/P STA. 240+00 TO STA. 246+00**

REVISIONS:

FILE NAME	25-A-PPH
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATCH1116
DATE	06-17-15
SHEET NUMBER	33 OF 115



BENCHMARK #8	ELEV. 930.75	BENCHMARK #1	ELEV. 930.58
F.H. BOLT TIP ARROW, EAST SIDE OF 25A AT NORTH PROPERTY LINE OF NORTHGATE		F.H. BOLT TIP ARROW, NORTH WEST CORNER OF 25A AND CURRY BRANCH DR.	

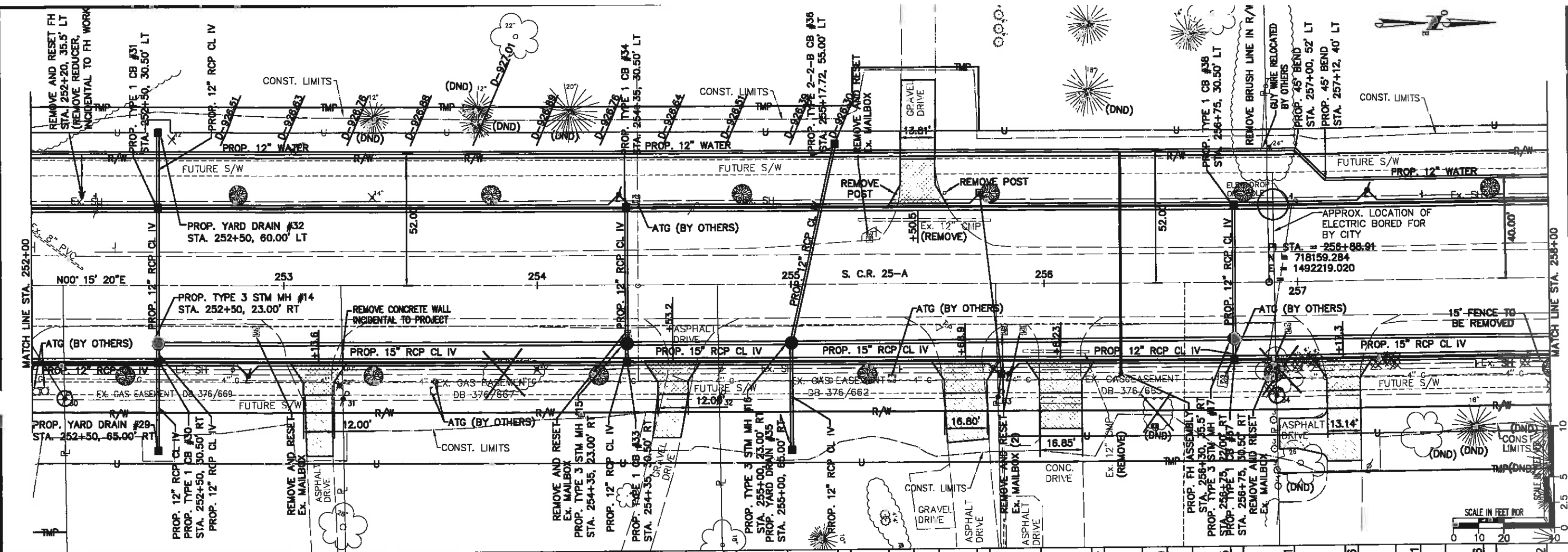
950	929.76	929.68	929.60	929.52	929.43	929.35	929.27	929.19	929.11	929.03	929.02	929.10	929.23	929.35	929.48	929.60	929.50	929.40	929.30	929.20	929.10	929.00	928.90	928.80	
945																									
940																									
935																									
930																									
925																									
920																									
915																									
910																									
930.2	930.1	929.9	929.8	929.7	929.5	929.4	929.2	929.1	929.1	929.1	929.1	929.2	929.2	929.2	929.2	929.2	929.2	929.2	929.2	929.1	929.1	929.1	929.1	929.2	
246+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00	247+00

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25-A P/P STA. 246+00 TO STA. 252+00

REVISIONS:

FILE NAME	25-A-PPI
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC1116
DATE	06-17-15
SHEET NUMBER	34 of 115

ONE CHOICE ENGINEERING
 440 E. HERRISHER ROAD
 SIDNEY, OHIO 45365
 (937) 497-0200
 www.onechoiceengineering.com
 703 W. LOVELAND AVENUE
 LOVELAND, OHIO 45140
 (513) 239-8554



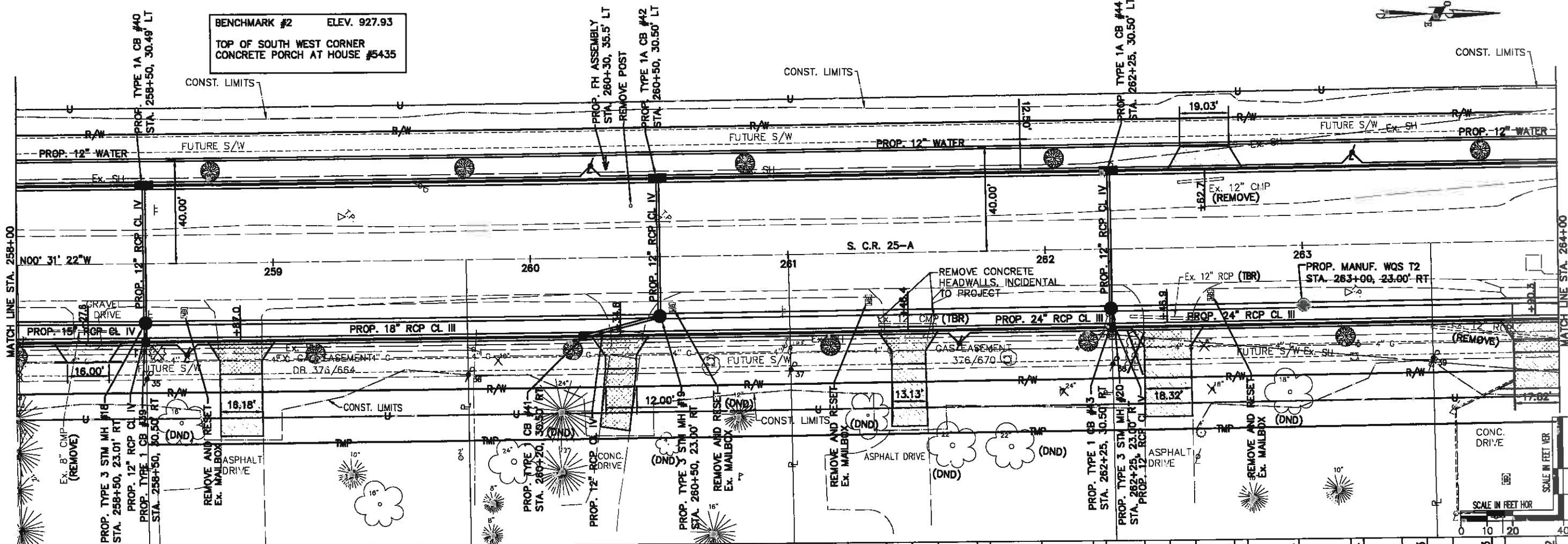
PROPOSED CENTERLINE ELEVATIONS	928.70	928.60	928.50	928.40	928.30	928.20	928.10	928.00	927.90	927.80	927.70	927.60	927.50	927.40	927.30	927.20	927.10	927.00	926.85	926.71	926.56	926.41	926.26	926.12	
950																									
945																									
940																									
935																									
930																									
925																									
920																									
915																									
910																									
909.2																									
EXISTING CENTERLINE ELEVATIONS	929.3	929.4	929.5	929.5	929.6	929.7	929.7	929.7	929.8	929.9	929.9	930.0	930.1	930.1	930.2	930.3	930.4	930.4	930.4	930.4	930.3	930.3	930.1	930.0	
252+00	253+00	254+00	254+00	254+00	254+00	254+00	254+00	254+00	254+00	255+00	255+00	255+00	255+00	255+00	256+00	256+00	256+00	257+00	257+00	257+00	257+00	257+00	258+00	258+00	



REVISIONS:

FILE NAME	25-A-PPJ
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC1116
DATE	06-17-15
SHEET NUMBER	35 OF 115

BENCHMARK #2 ELEV. 927.93
TOP OF SOUTH WEST CORNER CONCRETE PORCH AT HOUSE #5435



PROPOSED CENTERLINE ELEVATIONS	925.97	925.82	925.68	925.53	925.38	925.23	925.09	924.94	924.79	924.64	924.50	924.35	924.20	924.06	923.91	923.76	923.66	923.55	923.45	923.34	923.24	923.13	923.03	922.92
EXISTING CENTERLINE ELEVATIONS	929.9	929.7	929.5	929.3	929.1	929.0	928.8	928.6	928.5	928.4	928.2	928.1	927.9	927.7	927.5	927.2	926.9	926.5	926.2	925.9	925.6	925.2	924.8	924.3
STATIONING	258+00	259+00	259+00	259+00	259+00	259+00	259+00	259+00	260+00	260+00	260+00	261+00	261+00	261+00	261+00	262+00	262+00	262+00	262+00	263+00	263+00	263+00	263+00	264+00

925.97	925.82	925.68	925.53	925.38	925.23	925.09	924.94	924.79	924.64	924.50	924.35	924.20	924.06	923.91	923.76	923.66	923.55	923.45	923.34	923.24	923.13	923.03	922.92
PROP. TYPE 3 STM MH #18 STA. 258+50, 23.01 RT TOP 925.3± 15" S INV. 918.42 18" N INV. 918.42 12" E INV. 921.36 12" W INV. 921.08				PROP. TYPE 1 CB #41 STA. 259+20, 30.50 RT TOP 924.5± 12" N INV. 920.63				PROP. TYPE 3 STM MH #19 STA. 260+50, 23.00 RT TOP 924.2± 18" S INV. 917.42 24" N INV. 917.42 12" S INV. 920.48 12" W INV. 920.18				PROP. TYPE 1 CB #20 STA. 262+25, 30.50 RT TOP 923.2± 24" S INV. 917.07 24" N INV. 917.07 12" E INV. 919.19 12" W INV. 919.19				PROP. MANUF. WQS T2 STA. 263+00, 23.00 RT TOP 922.8± 24" S INV. 918.81 24" N INV. 918.81 BOTTOM 908.31							

50'-15" RCP CL IV @ 0.50%	200'-18" RCP CL III @ 0.50%	31'-12" RCP CL IV @ 0.50%	600'-12" DIP CL 53 WATER MAIN	175'-24" RCP CL III @ 0.20%	75'-24" RCP CL III @ 0.35%	100'-24" RCP CL III @ 0.35%
---------------------------	-----------------------------	---------------------------	-------------------------------	-----------------------------	----------------------------	-----------------------------

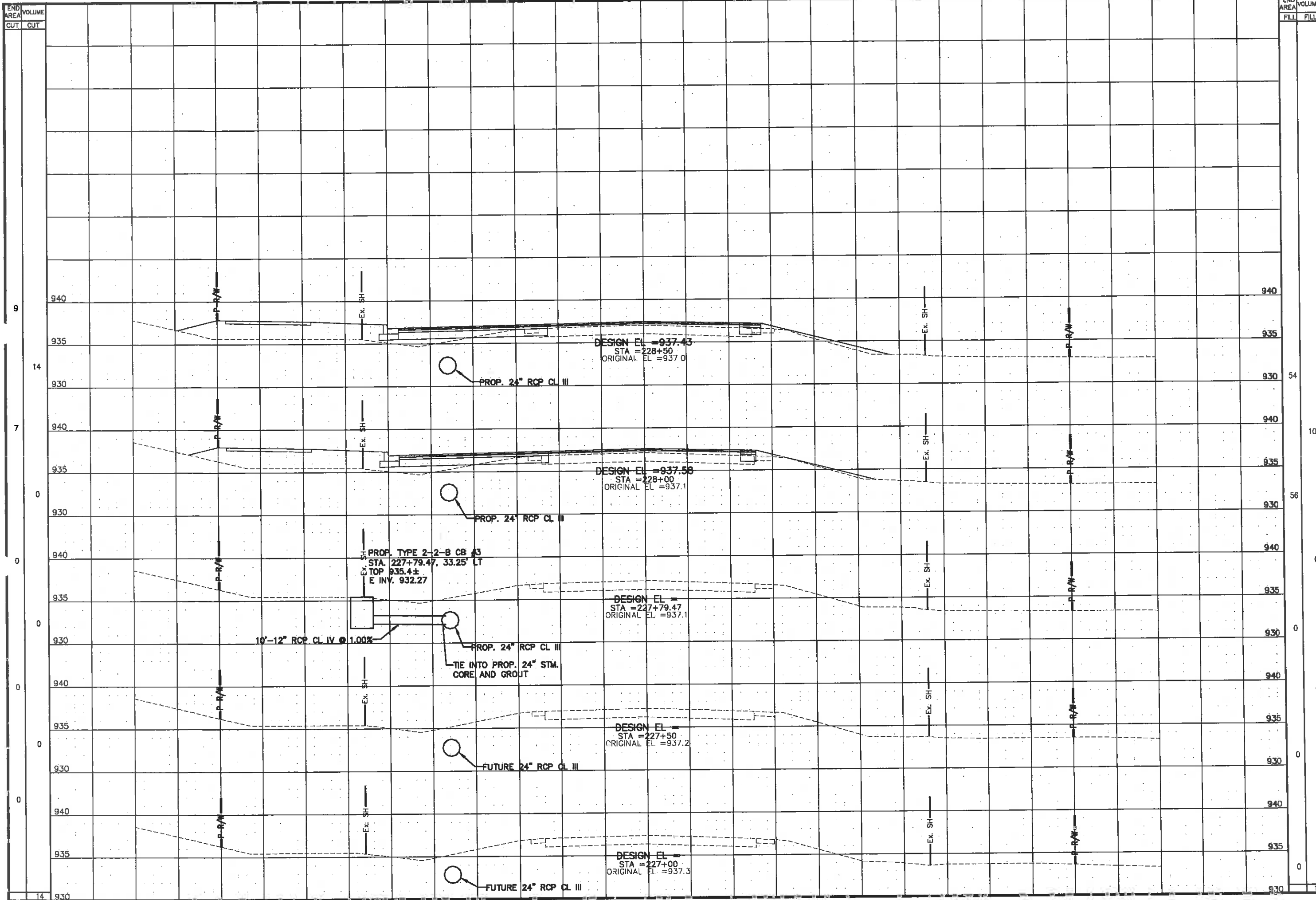
ONE CHOICE ENGINEERING
440 E. HOEVISSER ROAD
SIDNEY, OHIO 45365
(937) 497-0000
www.onechoiceengineering.com
203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 239-8554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25-A P/P STA. 258+00 TO STA. 264+00

REVISIONS:
FILE NAME: 25-A-PPK
DRAWN BY: GCA
CHECKED BY: AVS
PROJECT No.: MIATCH1116
DATE: 06-17-15
SHEET NUMBER: 36 OF 115

END AREA	VOLUME
CUT	CUT

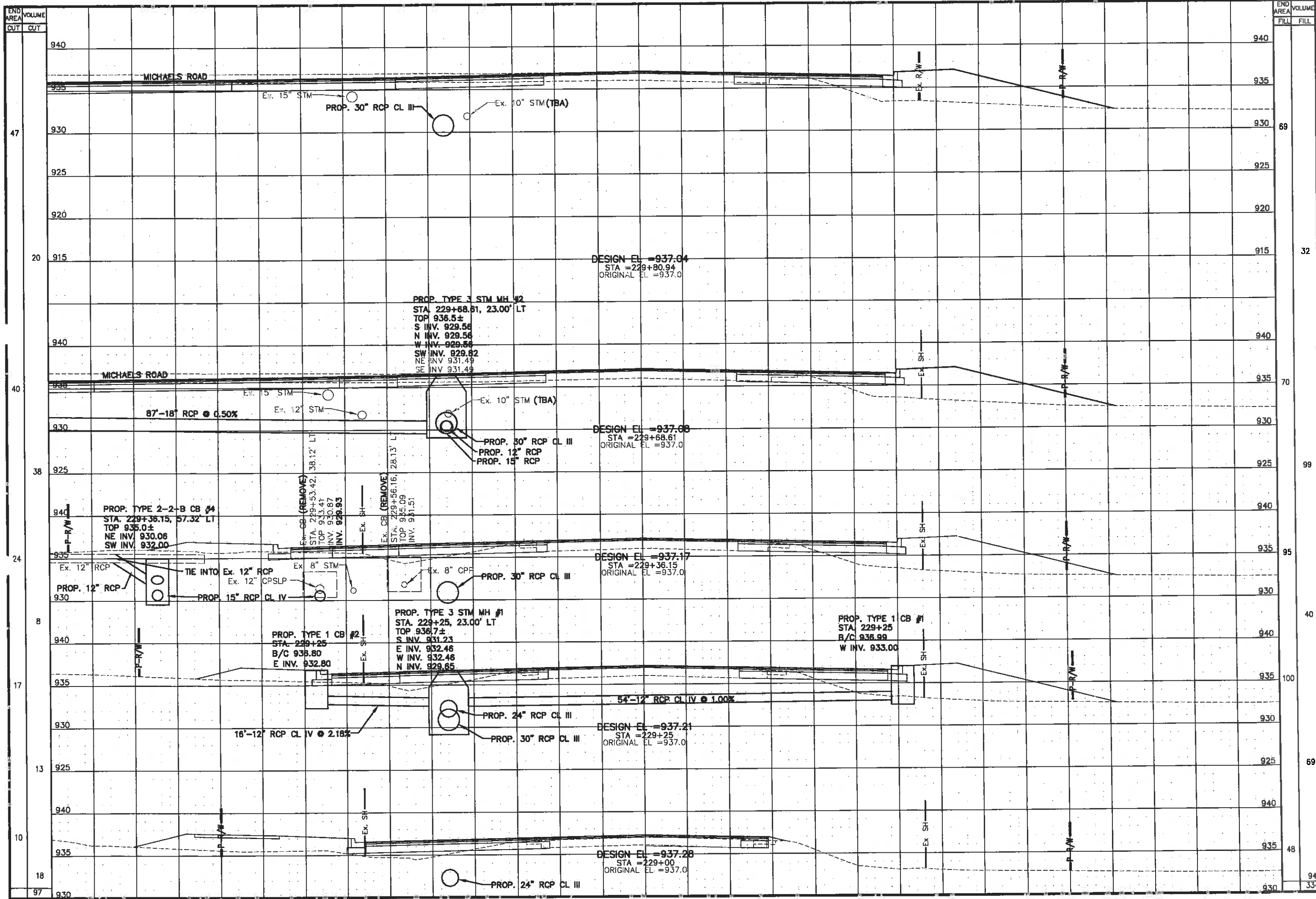
END AREA	VOLUME
FILL	FILL



CHOICE ONE ENGINEERING
 440 E. HOEWISHER ROAD
 SIDNEY, OHIO 45365
 (937) 497-0200
 FAX (937) 497-0300
 www.choiceoneengineering.com

**SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
 CITY OF TIPP CITY
 C.R. 25A P/P STA. 227+00 TO STA. 228+50**

REVISIONS:
FILE NAME 25A-(1)
DRAWN BY GCA
CHECKED BY AVS
PROJECT No. MIATC1116
DATE 06-17-15
SHEET NUMBER 38 of 115



END AREA	VOLUME	END AREA	VOLUME
CUT	FILL	CUT	FILL
47		69	
20		32	
40		70	
38		99	
24		95	
8		40	
17		100	
13		69	
10		48	
18		94	
97		334	

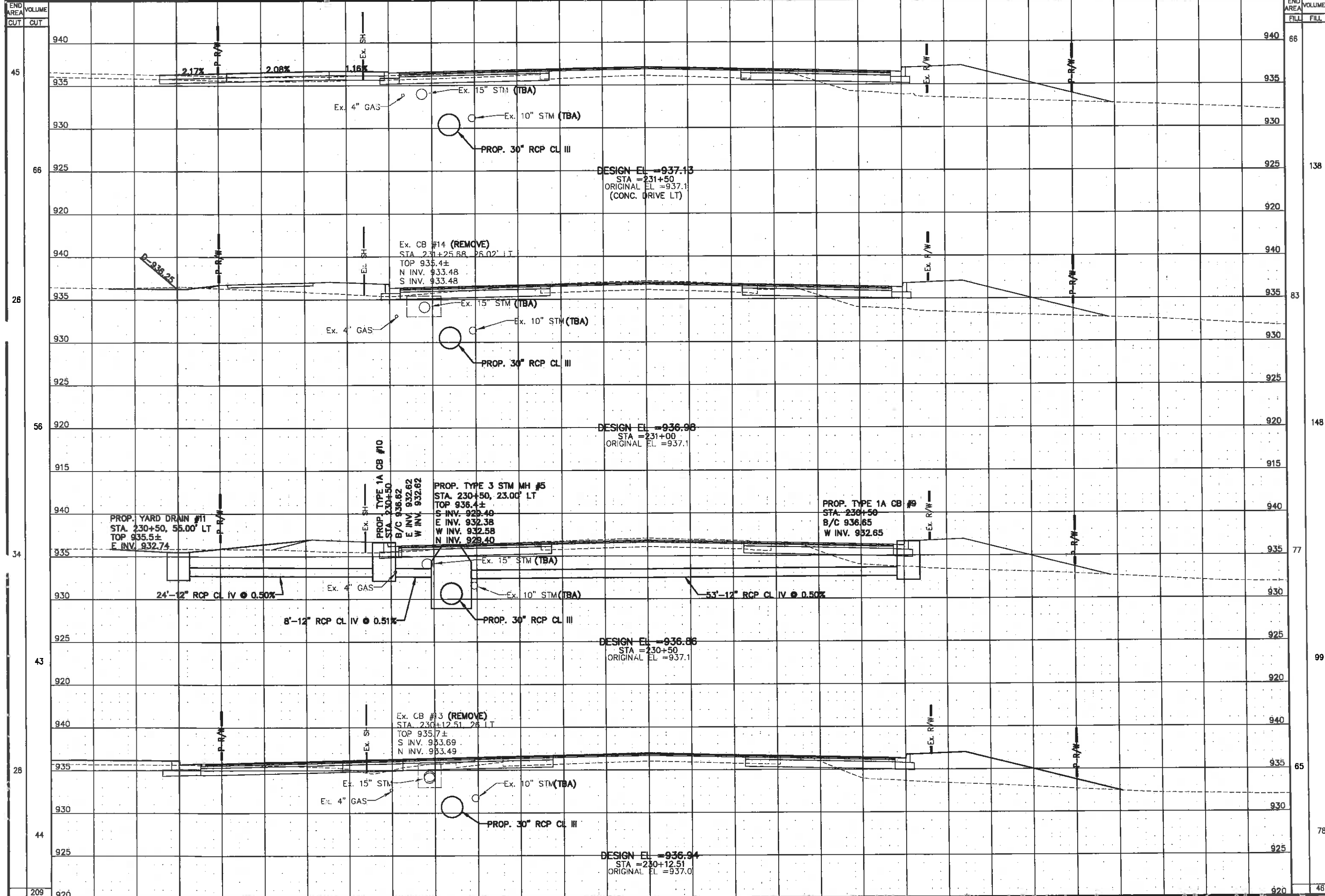
FILE NAME 25A-(2)
DRAWN BY GCA
CHECKED BY AVS
PROJECT No. MIATCH1116
DATE 06-17-15
SHEET NUMBER 39 of 115

CHOICE ONE ENGINEERING
 440 E. HOEWISER ROAD
 SIDNEY, OHIO 45365
 (937) 497-0200
 www.choiceoneengineering.com
 203 W. LOVELAND AVENUE
 LOVELAND, OHIO 45140
 (513) 731-8554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 229+00 TO STA. 229+80.94

REVISIONS:

 FILE NAME
 25A-(2)
 DRAWN BY
 GCA
 CHECKED BY
 AVS
 PROJECT No.
 MIATCH1116
 DATE
 06-17-15
 SHEET NUMBER
 39 of 115



END AREA	VOLUME
CUT	CUT
45	
66	
26	
56	
34	
43	
28	
44	
209	

END AREA	VOLUME
FILL	FILL
66	
138	
83	
148	
77	
99	
65	
78	
463	

ONE CHOICE ENGINEERING

440 E. HOEWISHER ROAD
SIDNEY, OHIO 45365
(937) 497-0200
www.choiceoneengineering.com
203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 239-8554

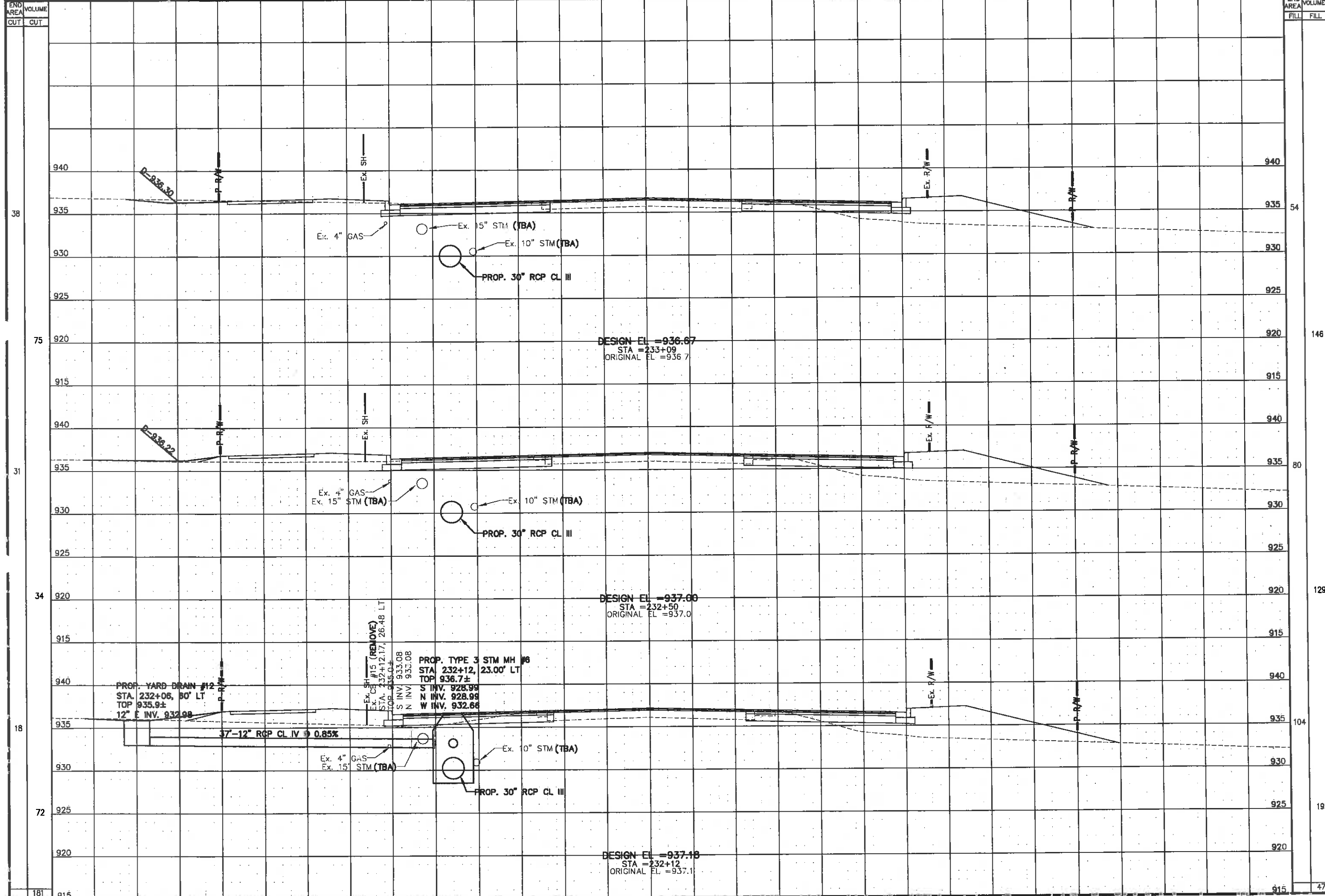
SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A STA. 230+12.51 TO STA. 231+50

REVISIONS:

FILE NAME	25-A-(3)
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC1116
DATE	06-17-15
SHEET NUMBER	40 of 115

END AREA
VOLUME
CUT CUT

END AREA
VOLUME
FILL FILL



DESIGN EL = 936.67
STA = 233+09
ORIGINAL EL = 936.7

DESIGN EL = 937.00
STA = 232+50
ORIGINAL EL = 937.0

DESIGN EL = 937.13
STA = 232+12
ORIGINAL EL = 937.1

PROP. TYPE 3 STM MH #6
STA 232+12, 23.00' LT
TOP 936.7±
S INV. 928.99
N INV. 928.99
W INV. 932.66

PROP. YARD DRAIN #12
STA. 232+06, 30' LT
TOP 935.9±
12" E INV. 932.98

EX. CH #15 (REMOVE)
STA. 232+12.17, 26.48 LT
TOP 935.0±
S INV. 933.08
N INV. 933.08

CHOICE ONE ENGINEERING

440 E. HOEWISHER ROAD
SIDNEY, OHIO 45345
(937) 497-0000
WWW.CHOICEONEENGINEERING.COM

703 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 239-8554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 232+12 TO STA. 233+09

REVISIONS:

FILE NAME
25A-(4)

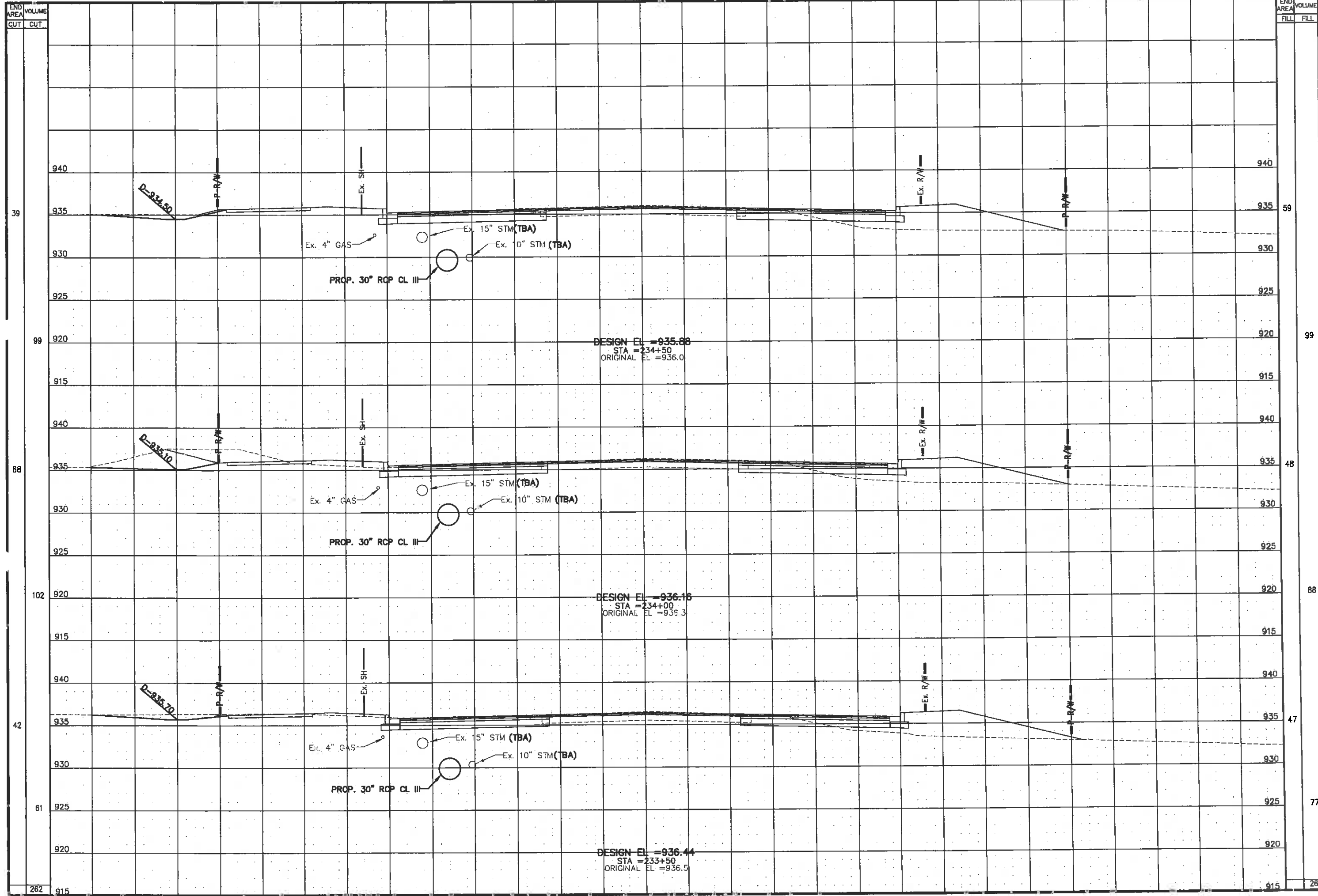
DRAWN BY
GCA

CHECKED BY
AVS

PROJECT No.
MIATC1116

DATE
06-17-15

SHEET NUMBER
41 OF 115



END AREA FILL	VOLUME	END AREA FILL	VOLUME
CHOICE ONE ENGINEERING 440 E. DEWEYER ROAD SIDNEY, OHIO 45365 (937) 497-0020 www.choiceoneengineering.com 203 W. LOVELAND AVENUE LOVELAND, OHIO 45140 (513) 239-8554			
SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1 CITY OF TIPP CITY C.R. 25A C.S. STA. 233+50 TO STA. 234+50			
REVISIONS:			
FILE NAME 25A-(5)			
DRAWN BY GCA			
CHECKED BY AVS			
PROJECT No. MIATC1116			
DATE 06-17-15			
SHEET NUMBER 42 OF 115			

END AREA
CUT

37

24

63

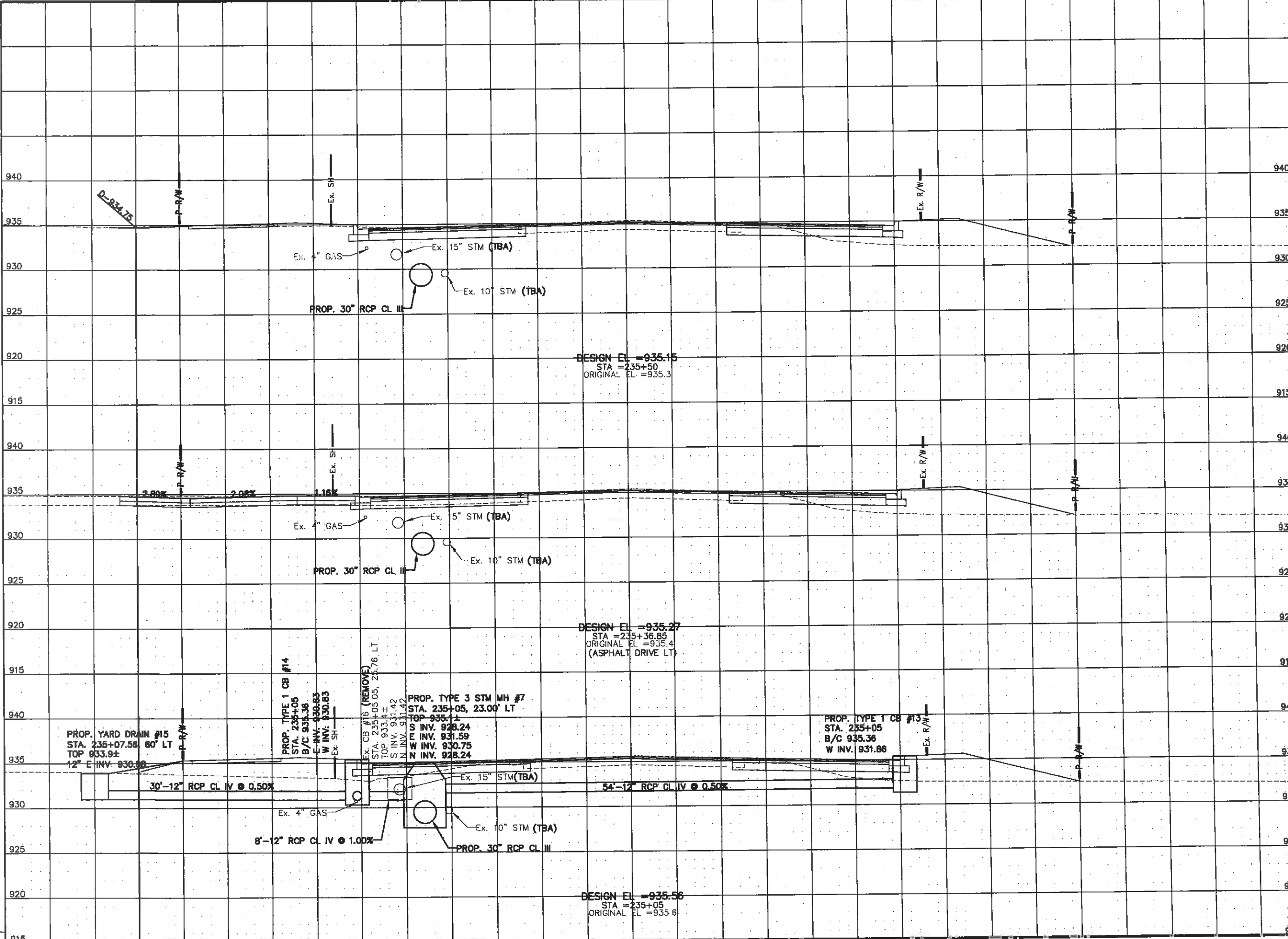
48

19

59

131

VOLUME
CUT



END AREA
FILL

47

22

44

81

94

156

259

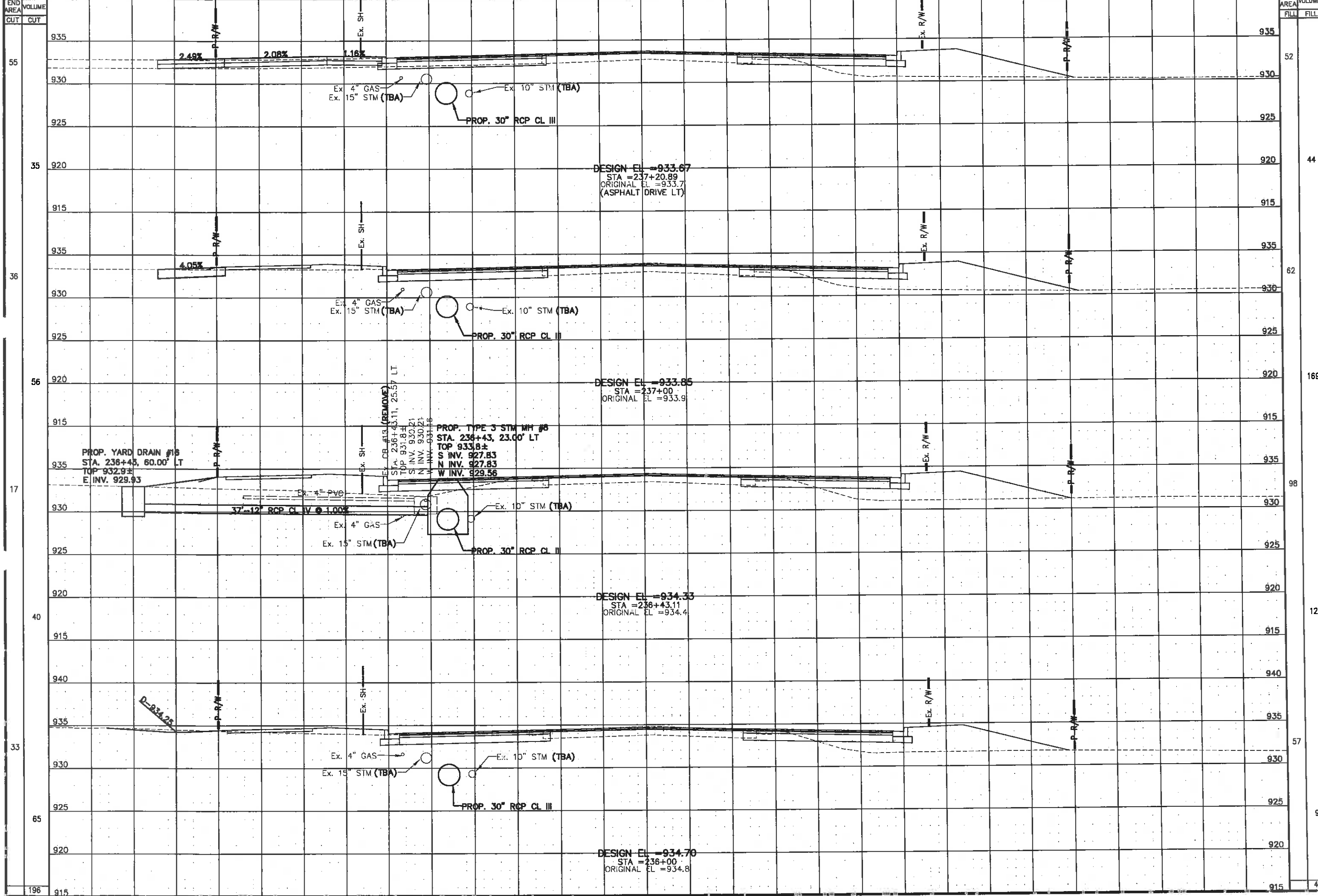
CHOICE
ONE
ENGINEERING

400 E. HERRINGER ROAD
SUNBELT, OHIO 45385
(937) 497-0200
www.choiceoneengineering.com
203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 729-8554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 235+05 TO STA. 235+50

REVISIONS:

FILE NAME	25A-(6)
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATCI1116
DATE	06-17-15
SHEET NUMBER	43 OF 115



END AREA	VOLUME
CUT	CUT
55	
35	
36	
56	
17	
40	
33	
65	
196	

END AREA	VOLUME
FILL	FILL
52	
44	
62	
169	
98	
124	
57	
96	
433	

ONE CHOICE ENGINEERING

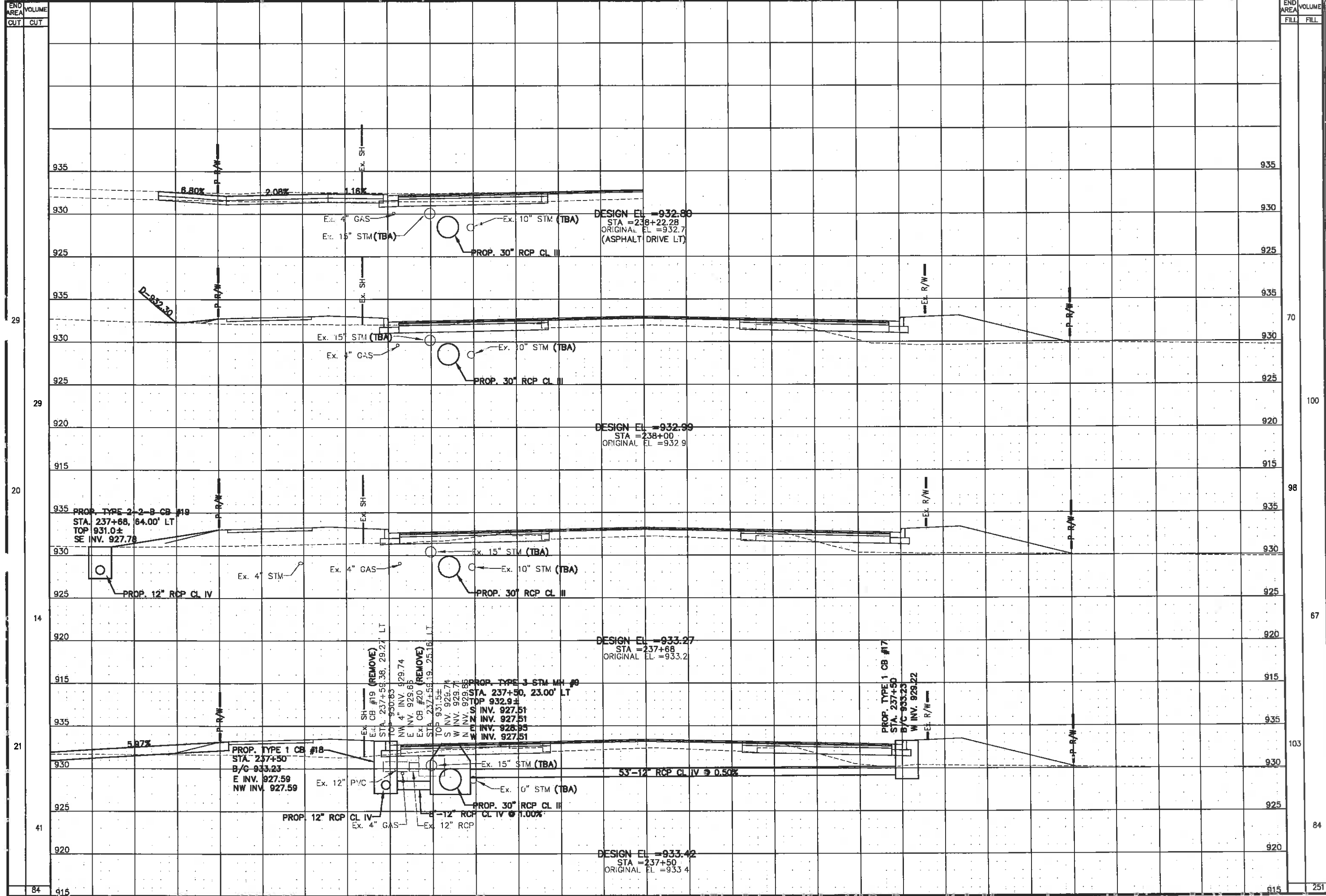
440 E. HOEWISER ROAD
 SUITE 117, #17-165
 (937) 497-0200
 www.choiceengineering.com
 203 W. LOVELAND AVENUE
 LOVELAND, OH 45140
 (513) 238-8854

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 236+00 TO STA. 237+20.89

REVISIONS:	
FILE NAME	25A--(7)
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATCH1116
DATE	06-17-15
SHEET NUMBER	44 of 115

END AREA
CUT CUT

END AREA
FILL FILL



CHOICE ONE ENGINEERING

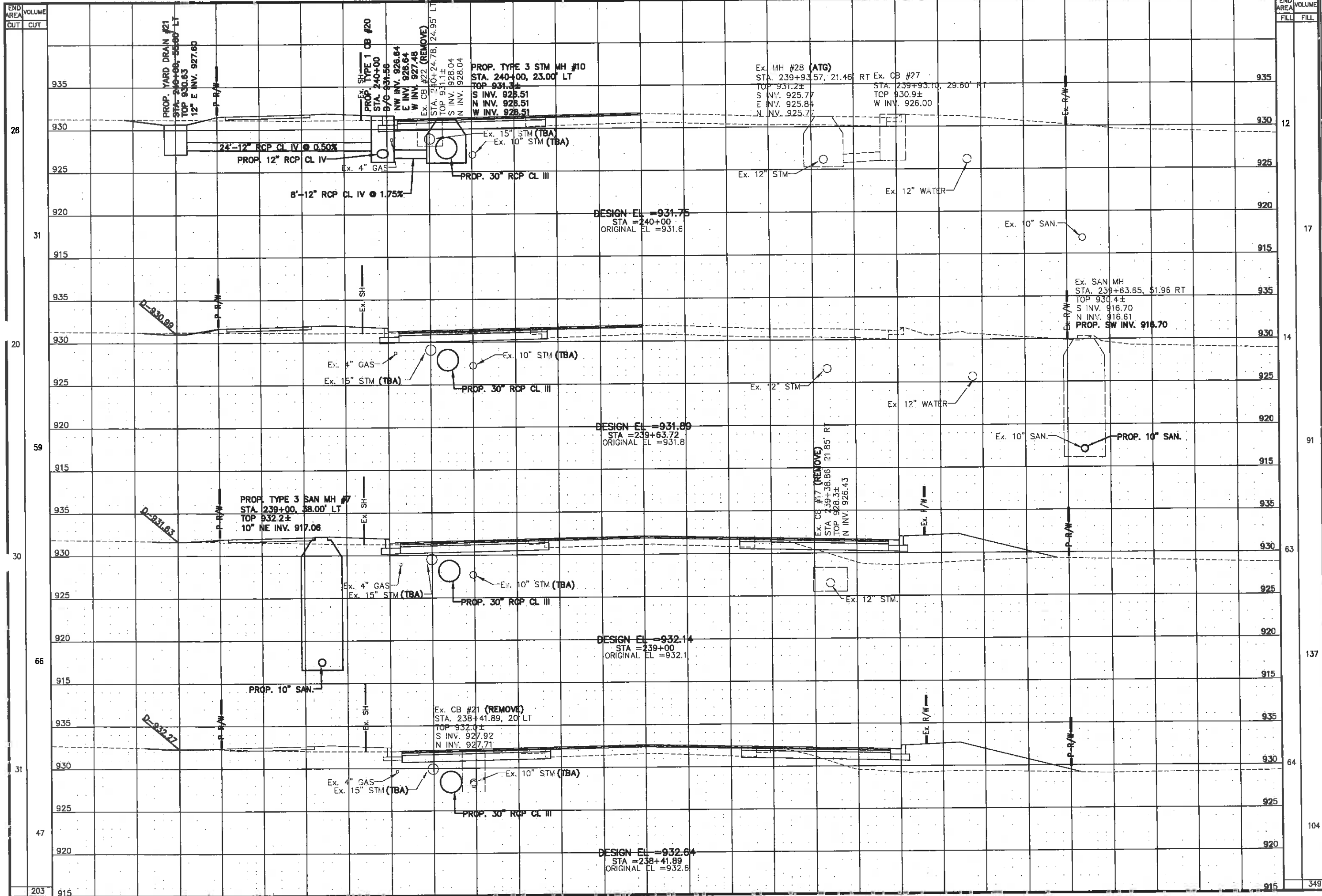
440 E. ROEWISER ROAD
SIDNEY, OHIO 45365
(937) 497-0220
www.choiceoneengineering.com

203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 239-0554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 237+50 TO STA. 238+22.28

REVISIONS:

FILE NAME	25A-(8)
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC1116
DATE	06-17-15
SHEET NUMBER	45 of 115



END AREA	VOLUME
CUT	CUT
26	
31	
20	
59	
30	
66	
31	
47	
203	

END AREA	VOLUME
FILL	FILL
12	
17	
14	
91	
63	
137	
64	
104	
349	

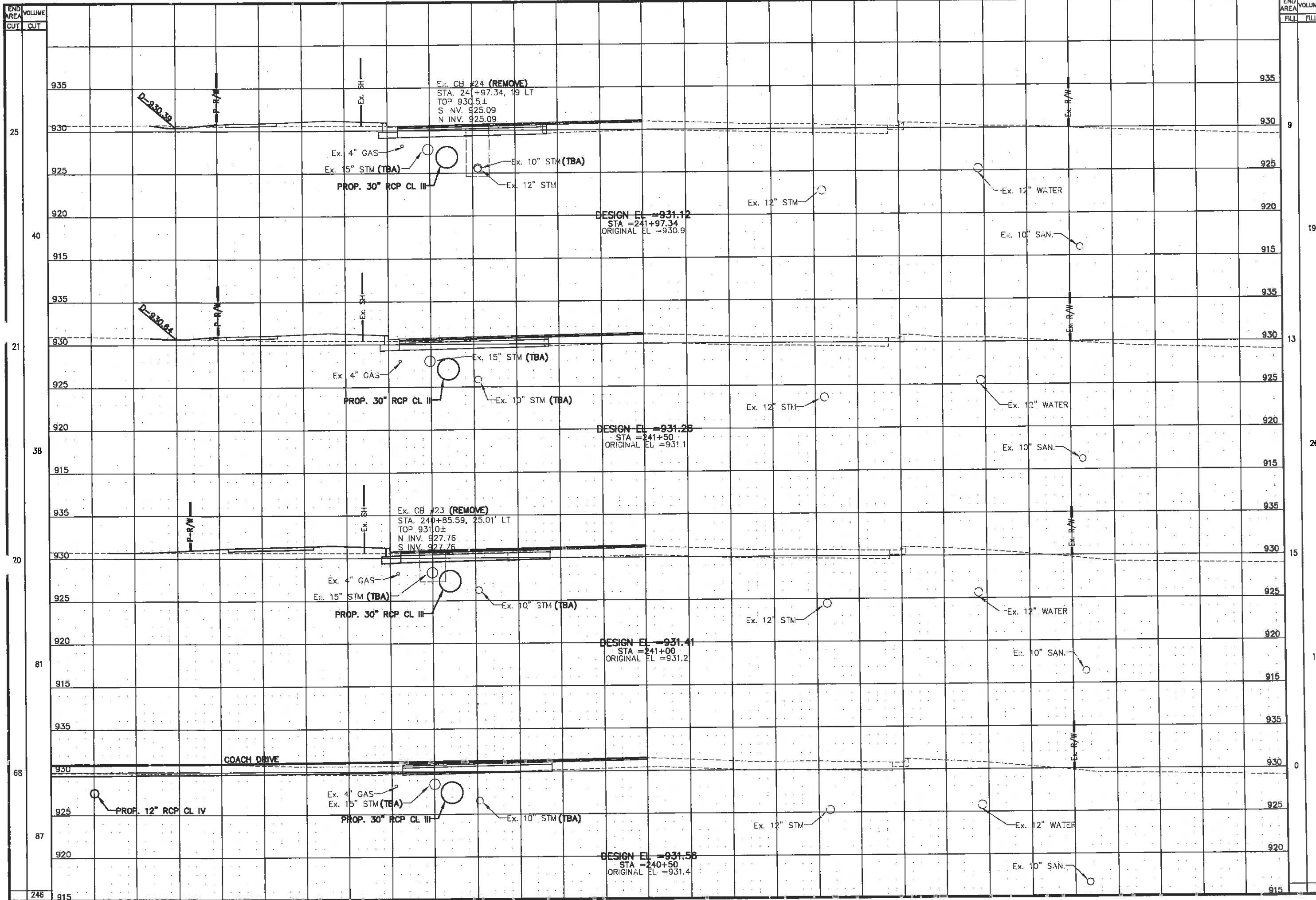
ONE CHOICE ENGINEERING

440 E. HOEWISHER ROAD
SIDNEY, OHIO 45365
(937) 497-0200
www.choiceengineering.com
203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 239-8554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 238+41.89 TO STA. 240+00

REVISIONS:

FILE NAME	25A-(9)
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC1116
DATE	06-17-15
SHEET NUMBER	46 OF 115



END AREA	VOLUME
CUT	CUT
25	
40	
21	
38	
20	
81	
68	
87	
246	

END AREA	VOLUME
FILL	FILL
935	
930	9
925	
920	19
915	
935	
930	13
925	
920	26
915	
935	
930	15
925	
920	14
915	
935	
930	0
925	
920	11
915	
935	
930	70

ONE CHOICE ENGINEERING

440 E. HOFWISHER ROAD
SIDNEY, OHIO 45365
(937) 497-0200
www.choiceengineering.com

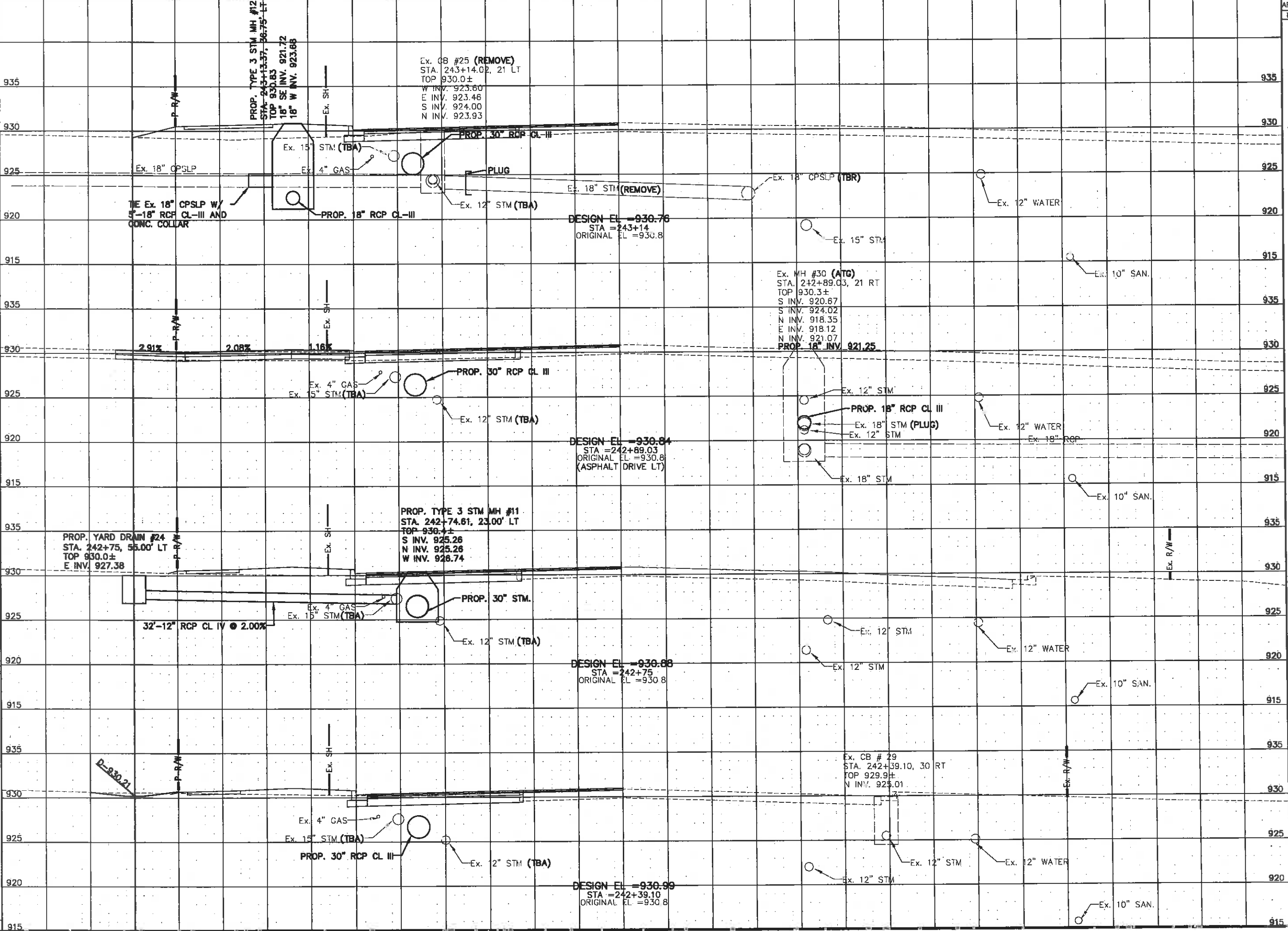
203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 299-8554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 240+50 TO STA. 241+97.34

REVISIONS:

FILE NAME	25A-(10)
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATCI1116
DATE	06-17-15
SHEET NUMBER	47 of 115

END AREA	VOLUME
CUT	CUT
18	
31	
50	
18	
21	
29	
23	
37	
115	



END AREA	VOLUME
FILL	FILL
32	
15	
0	
3	
12	
14	
9	
14	
46	

CHOICE ENGINEERING

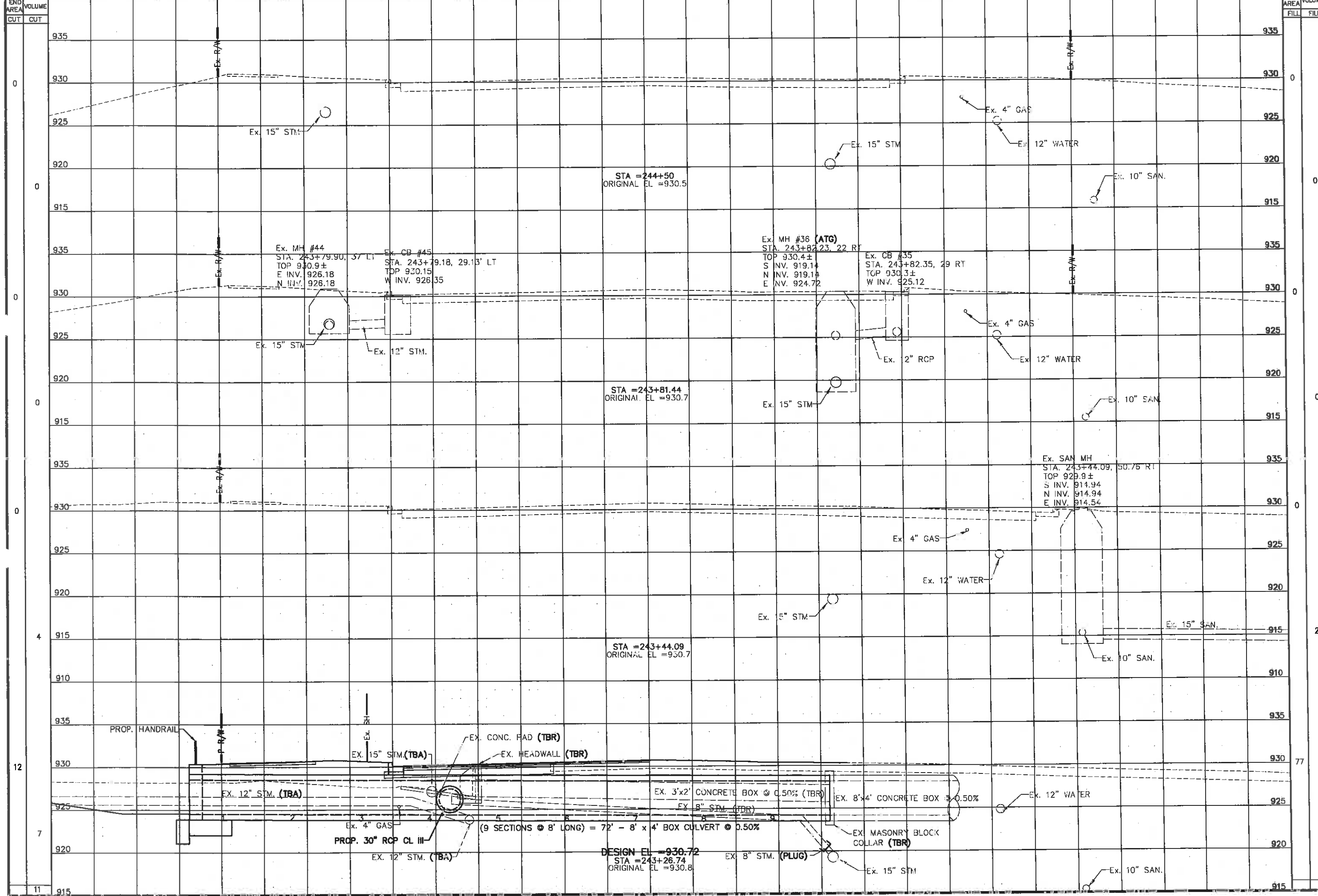
440 E. HOEWISHER ROAD
SIDNEY, OHIO 45365
(937) 497-0000
www.choiceengineering.com

203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 239-8554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 242+39.10 TO STA. 243+14

REVISIONS:

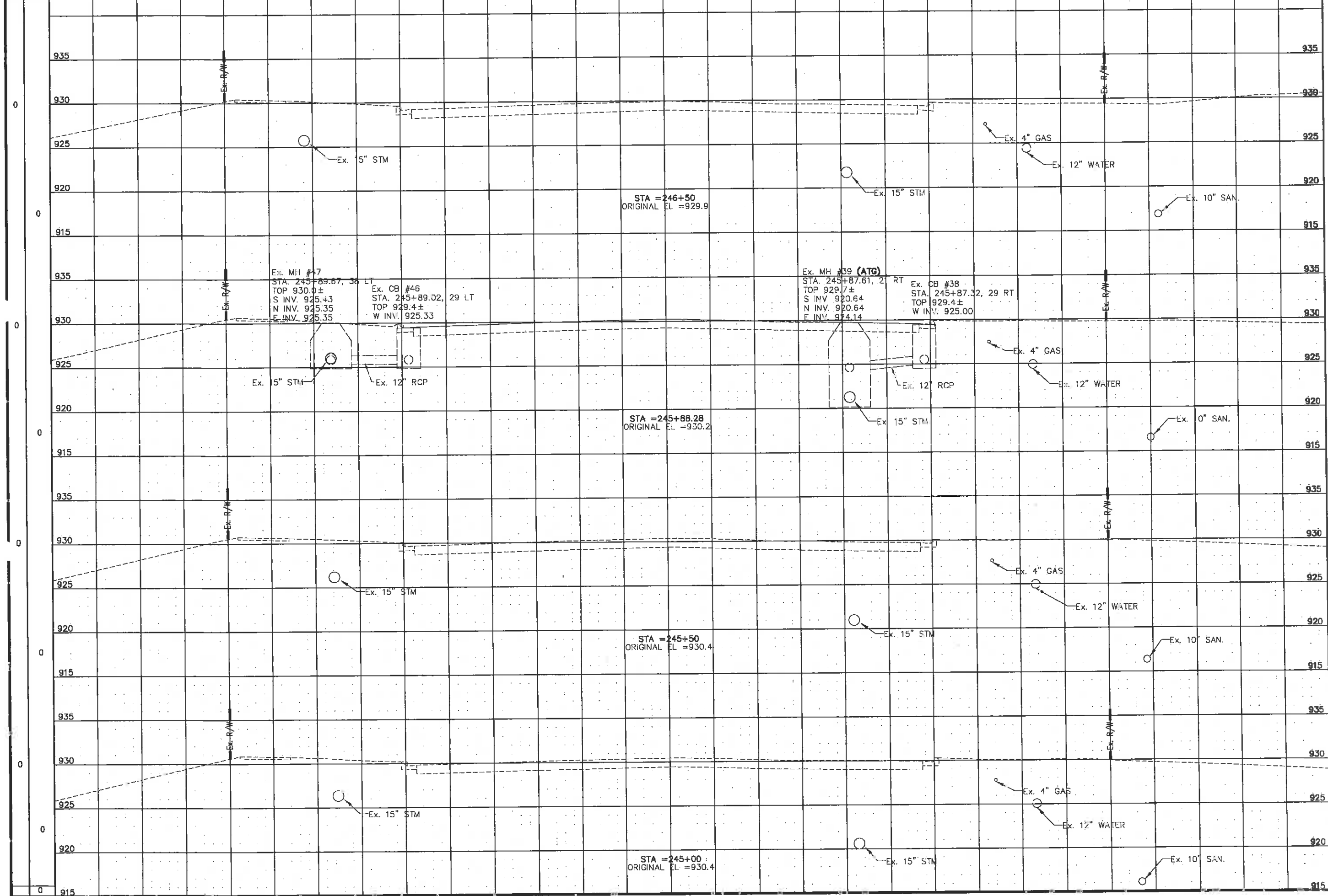
FILE NAME	25A--(11)
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATCH1116
DATE	06-17-15
SHEET NUMBER	48 of 115



CHOICE
440 E. HOEWISHER ROAD SIDNEY, OHIO 45365 (937) 971-0200 www.choiceengineering.com 203 W. LOVELAND AVENUE LOVELAND, OHIO 45140 (513) 239-8554
ONE ENGINEERING
SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1 CITY OF TIPP CITY C.R. 25A C.S. STA. 243+26.74 TO STA. 244+50
REVISIONS: FILE NAME: 25A-(12) DRAWN BY: GCA CHECKED BY: AVS PROJECT No.: MIATC1116 DATE: 06-17-15 SHEET NUMBER: 49 OF 115

END AREA
CUT CUT

END AREA
FILL FILL

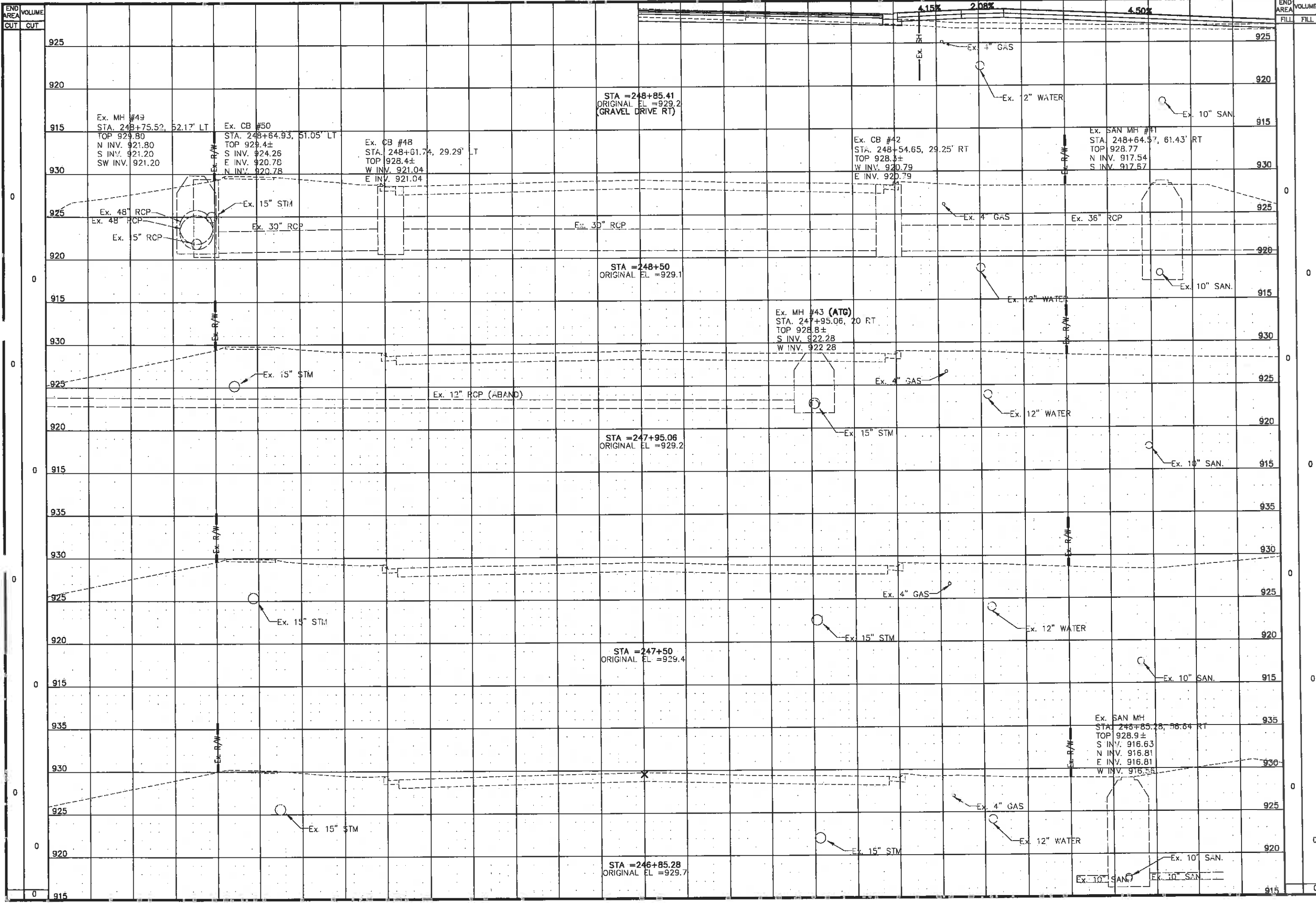


CHOICE ENGINEERING
 440 E. HOEWISHER ROAD
 SIDNEY, OHIO 45365
 (937) 497-0200
 www.choiceengineering.com
 203 W. LOVELAND AVENUE
 LOVELAND, OHIO 45140
 (513) 238-9554

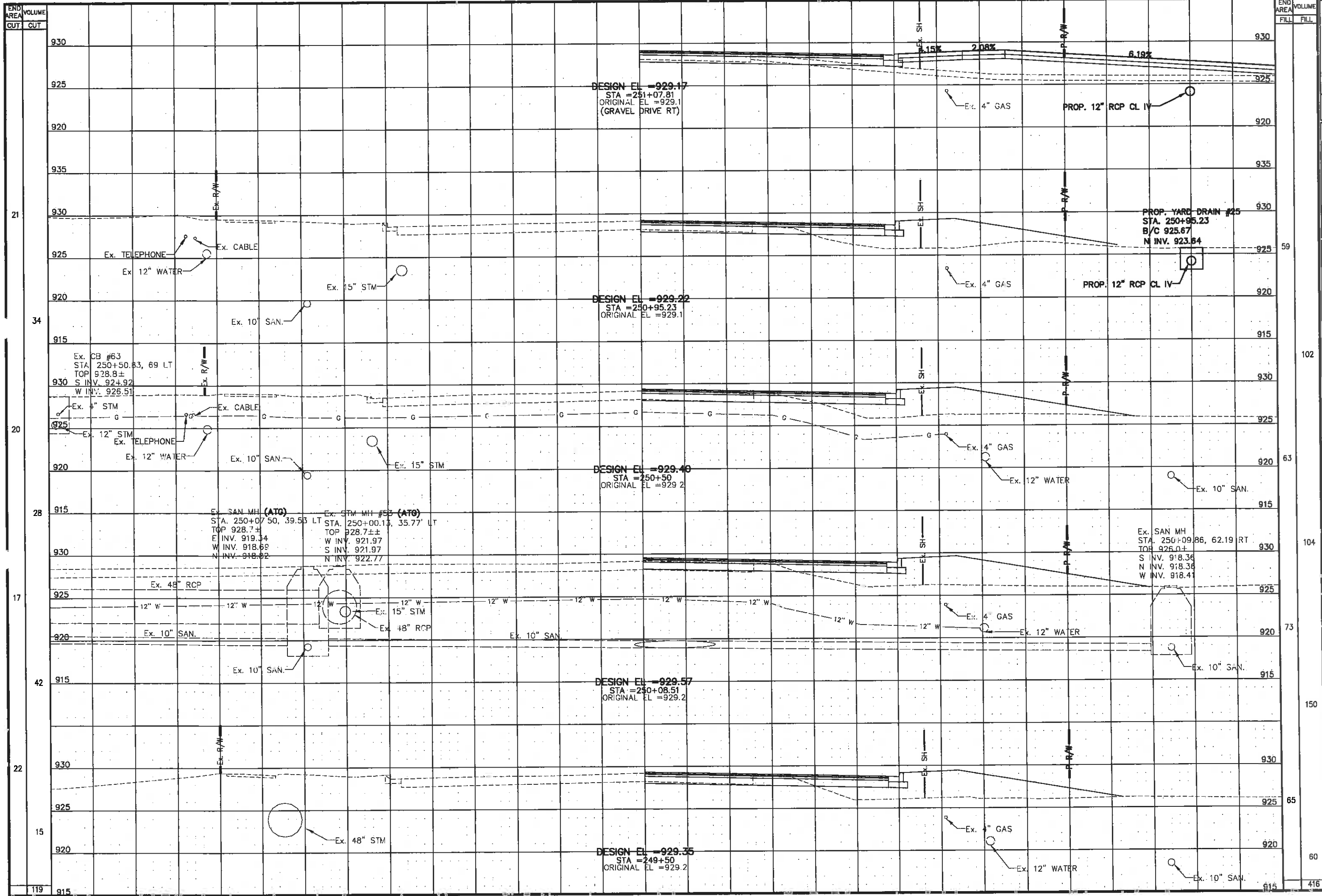
SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 245+00 TO STA. 246+50

REVISIONS:

FILE NAME	25A-(13)
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC1116
DATE	06-17-15
SHEET NUMBER	50 OF 115



<p>ONE CHOICE ENGINEERING</p>
<p>440 E. HOEWISHER ROAD SIDNEY, OHIO 45365 (937) 497-0020 www.choiceengineering.com</p> <p>703 W. LOVELAND AVENUE LOVELAND, OHIO 45140 (513) 239-8554</p>
<p>SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1 CITY OF TIPP CITY C.R. 25A C.S. STA. 246+85.28 TO STA. 248+85.41</p>
<p>REVISIONS:</p>
<p>FILE NAME 25A-(14)</p>
<p>DRAWN BY GCA</p>
<p>CHECKED BY AVS</p>
<p>PROJECT No. MIATCH116</p>
<p>DATE 06-17-15</p>
<p>SHEET NUMBER 51 OF 115</p>



CHOICE ENGINEERING

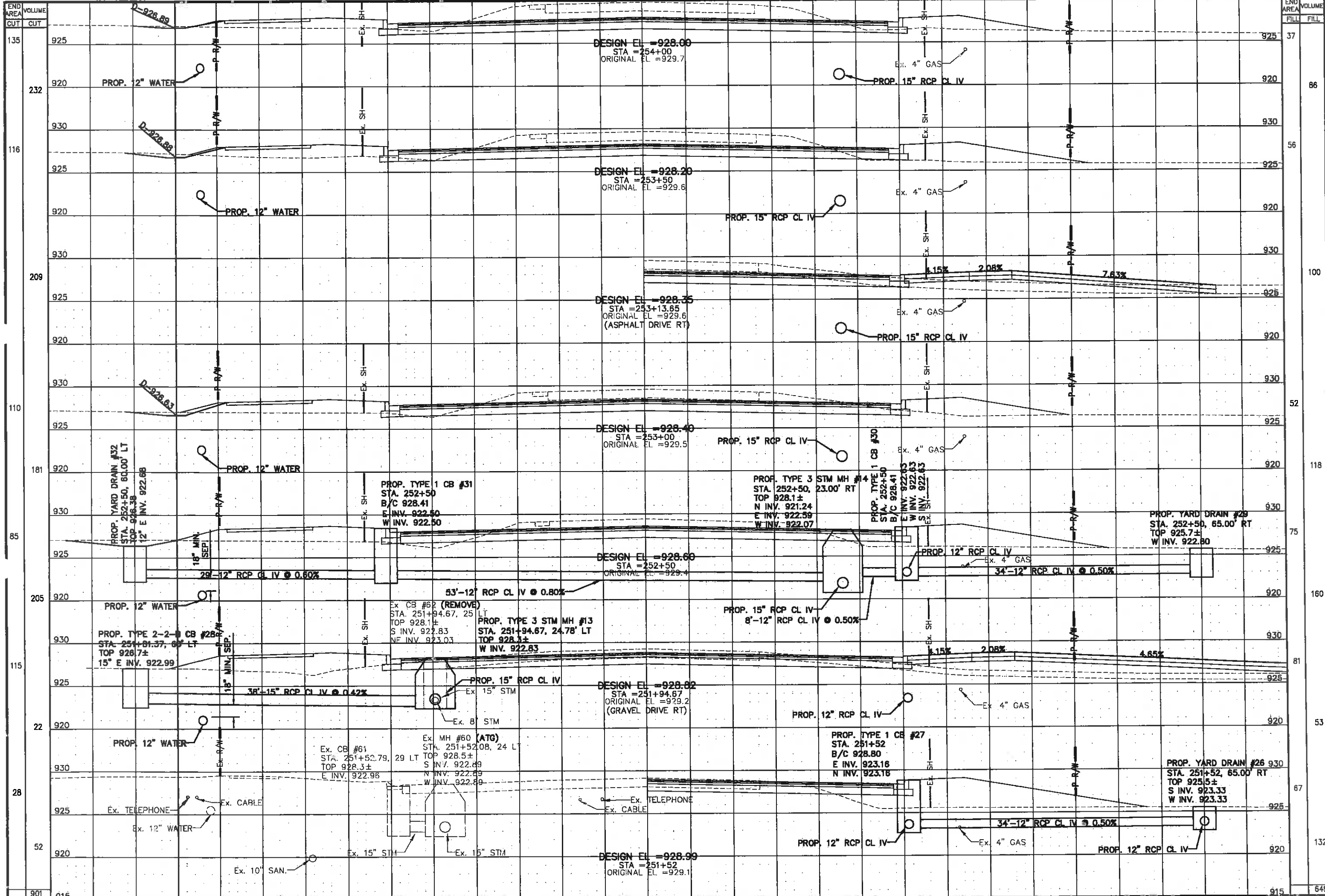
140 E. HOWESHER ROAD
 SIDNEY, OHIO 45365
 (937) 497-0200
 www.choiceengineering.com

203 W. LOVELAND AVENUE
 LOVELAND, OHIO 45140
 (513) 231-8554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 249+50 TO STA. 251+07.81

REVISIONS:

FILE NAME	25A-(15)
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC11116
DATE	06-17-15
SHEET NUMBER	52 of 115



END AREA CUT	VOLUME CUT	END AREA FILL	VOLUME FILL
135	925	37	925
232	920	86	920
116	930	56	930
209	925	100	925
110	920	52	920
181	930	118	930
85	925	75	925
205	920	160	920
115	930	81	930
22	925	53	925
28	920	67	920
52	930	132	930
901	915	649	915

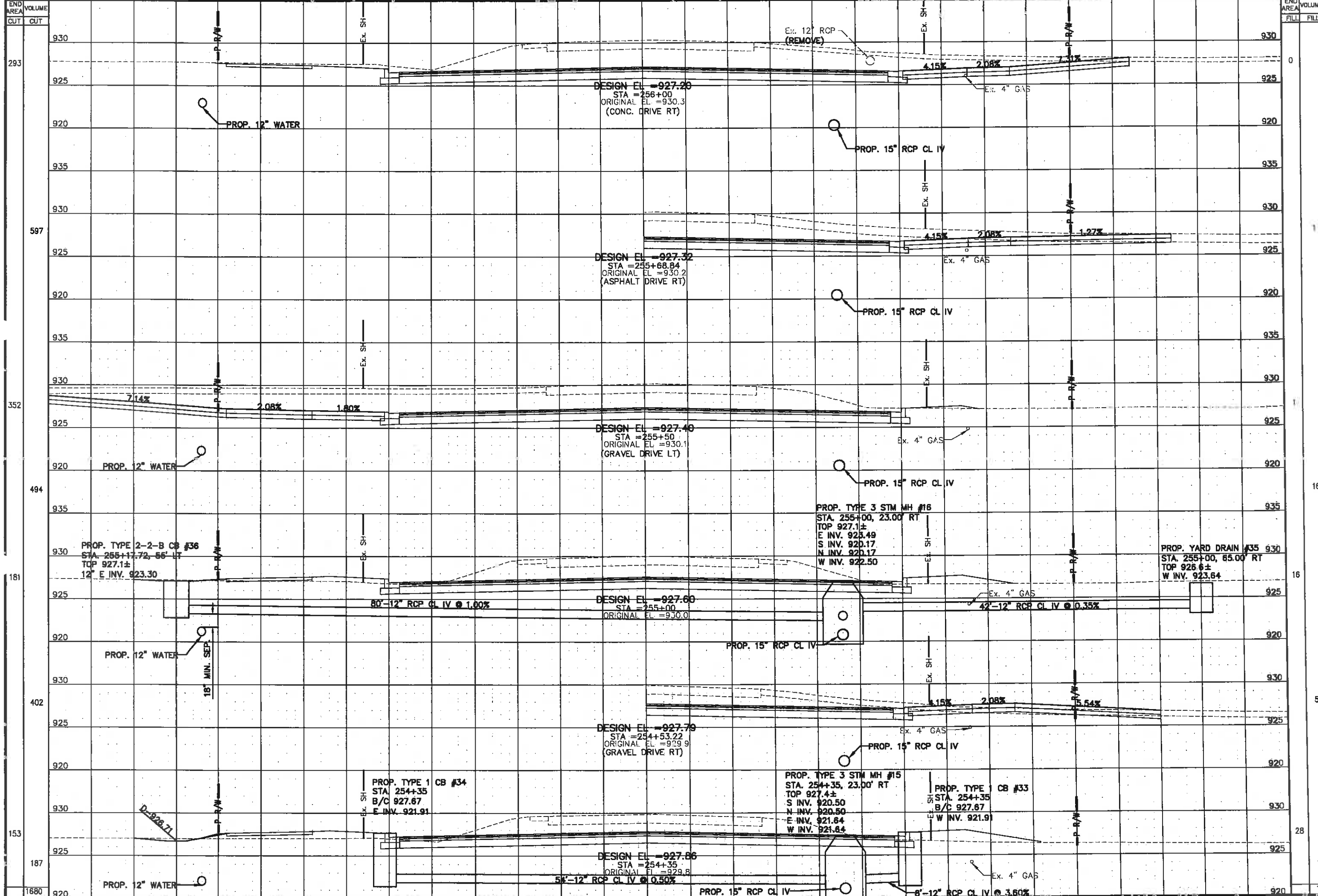
ONE CHOICE ENGINEERING

440 E. HOEWISHER ROAD
SIDNEY, OHIO 45365
(937) 497-0000
www.choiceengineering.com

203 W. LOVELAND AVENUE
LOVELAND, OHIO 46140
(513) 231-8554

**SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 251+52 TO STA. 254+00**

REVISIONS:
FILE NAME 25A-(16)
DRAWN BY GCA
CHECKED BY AVS
PROJECT No. MIATC1116
DATE 06-17-15
SHEET NUMBER 53 OF 115



END AREA	VOLUME
CUT	CUT
293	
597	
352	
494	
181	
402	
153	
187	
1680	

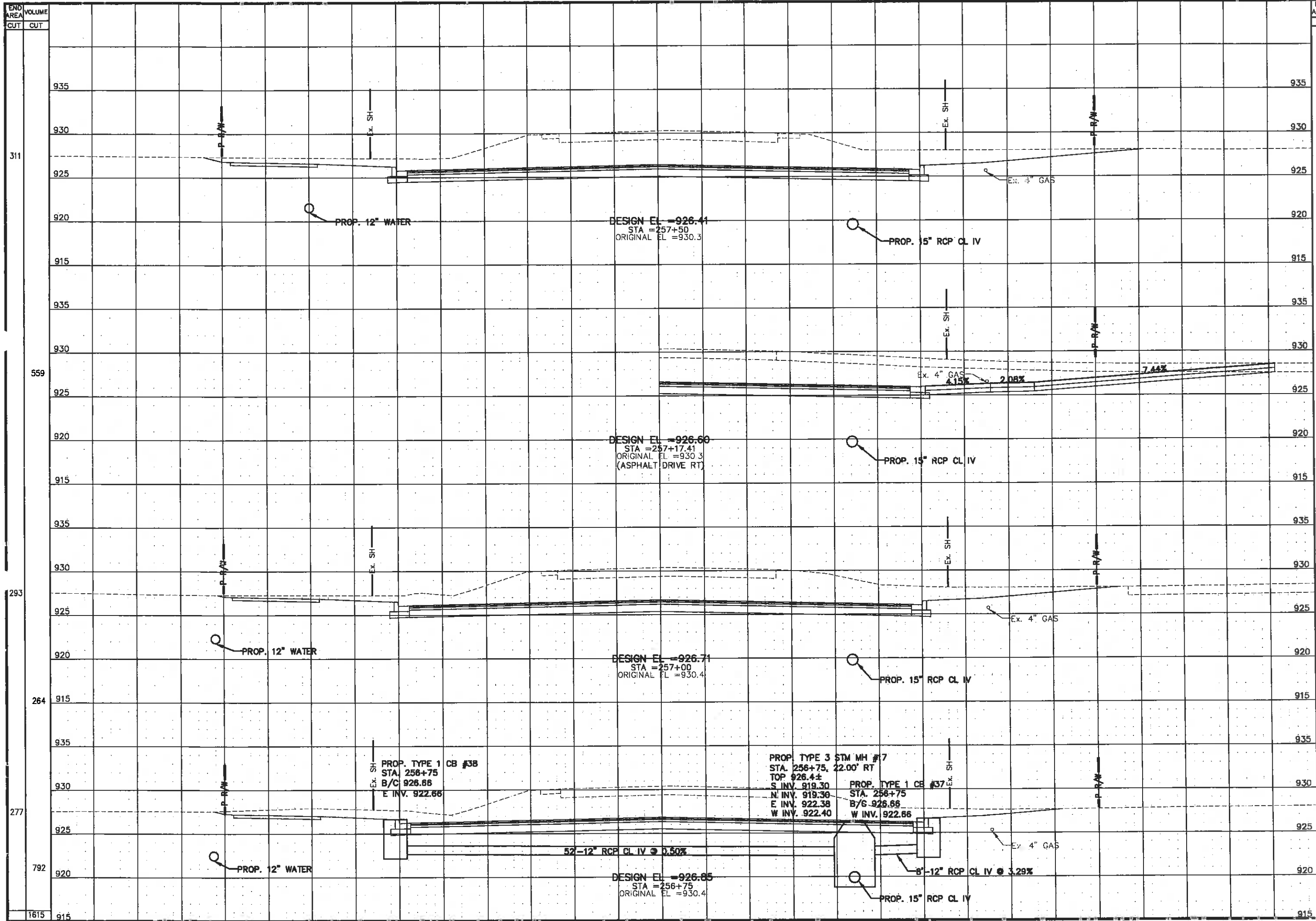
END AREA	VOLUME
FILL	FILL
0	
16	
16	
53	
28	
42	
112	

ONE CHOICE ENGINEERING

440 E. HOEWISHER ROAD
 SONEY, OHIO 45305
 (937) 497-0200
 www.choiceoneengineering.com
 203 W. LOVELAND AVENUE
 LOVELAND, OHIO 45140
 (513) 292-9554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 254+35 TO STA. 256+00

REVISIONS:
FILE NAME 25A-(17)
DRAWN BY GCA
CHECKED BY AVS
PROJECT No. MIATCI1116
DATE 06-17-15
SHEET NUMBER 54 OF 115



END AREA	VOLUME	END AREA	VOLUME
CUT	CUT	FILL	FILL
311			0
559			0
293			0
264			0
277			0
792			0
1615			0

ONE CHOICE ENGINEERING

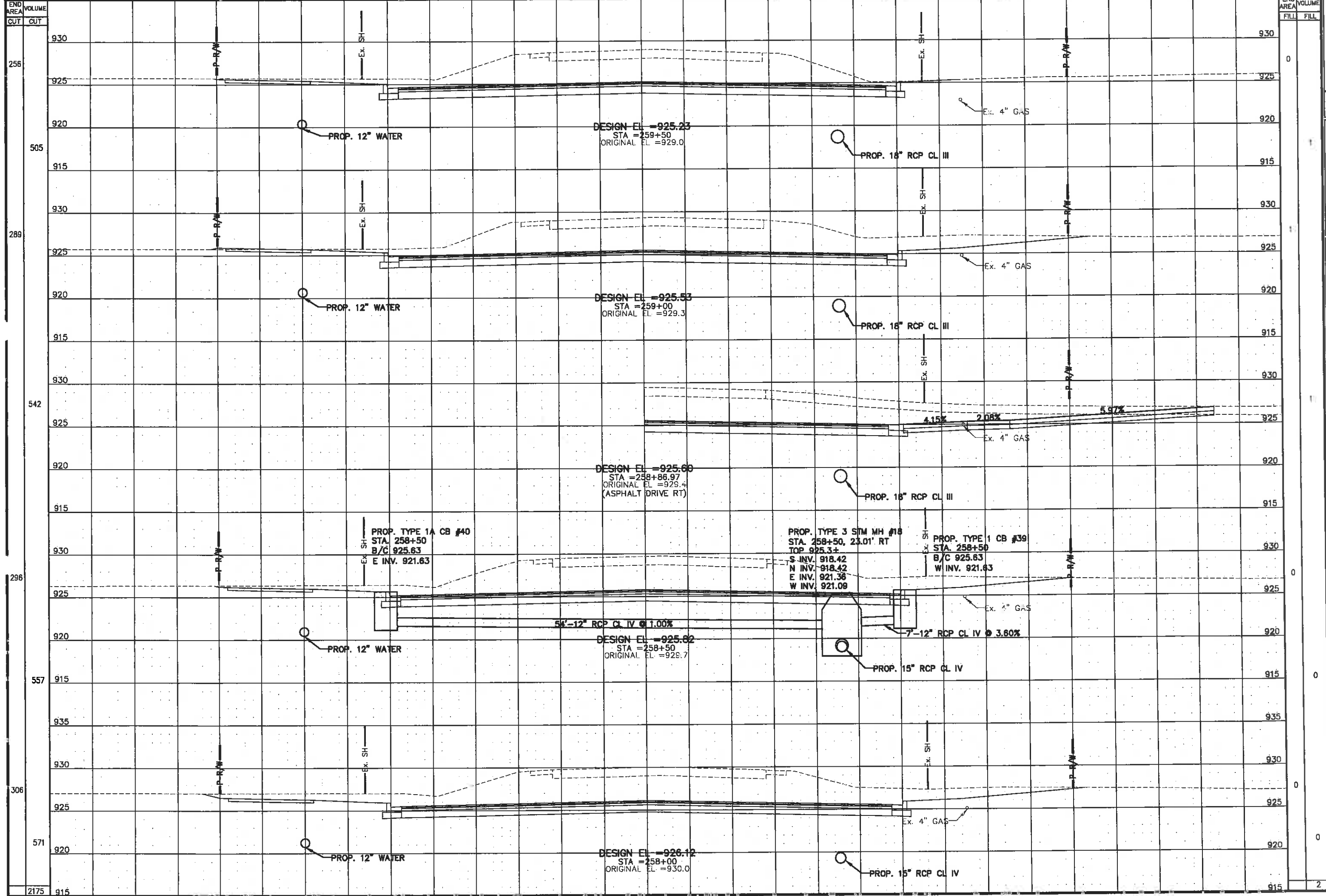
440 E. HOEWISHER ROAD
SIDNEY, OHIO 45385
(937) 497-0200
www.choiceengineering.com

203 W. LOVELAND AVENUE
LOVELAND, OHIO 45140
(513) 339-8554

SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1
CITY OF TIPP CITY
C.R. 25A C.S. STA. 256+75 TO STA. 257+50

REVISIONS:

FILE NAME	25A-(18)
DRAWN BY	GCA
CHECKED BY	AVS
PROJECT No.	MIATC11116
DATE	06-17-15
SHEET NUMBER	55 of 115



END AREA	VOLUME	
	CUT	FILL
256		
505		
289		
542		
296		
557		
306		
571		
2175		

CHOICE ONE ENGINEERING
440 E. HOEWISHER ROAD SIDNEY, OHIO 45365 (937) 497-0200 www.choiceoneengineering.com 203 W. LOVELAND AVENUE LOVELAND, OHIO 45140 (513) 298-8554
SOUTH COUNTY ROAD 25-A RECONSTRUCTION, PH. 1 CITY OF TIPP CITY C.R. 25A C.S. STA. 258+00 TO STA. 259+50
REVISIONS:
FILE NAME 25A-(19)
DRAWN BY GCA
CHECKED BY AVS
PROJECT No. MIATC1116
DATE 06-17-15
SHEET NUMBER 56 OF 115

