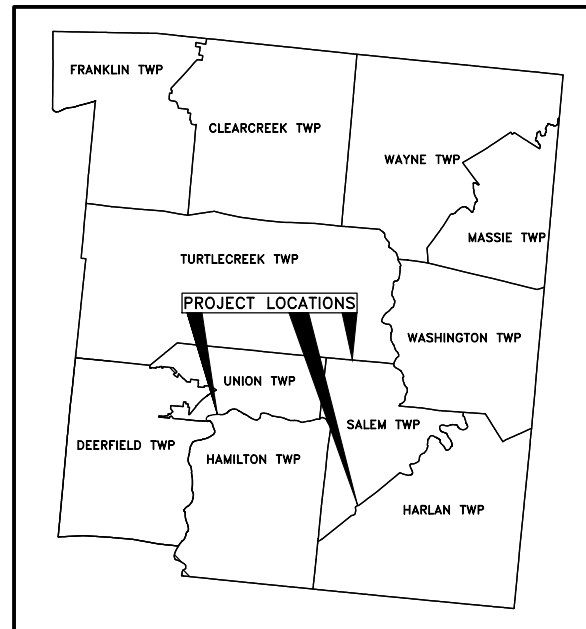


WARREN COUNTY, OHIO



VICINITY MAP
NOT TO SCALE

WAR-VAR GUARDRAIL-FY24

WARREN COUNTY, OHIO

INDEX OF SHEETS:

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PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE REMOVAL OF OBSOLETE GUARDRAIL AND INSTALLATION OF NEW TYPE MGS GUARDRAIL AT VARIOUS LOCATIONS THROUGHOUT WARREN COUNTY, OHIO

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	N/A
(MAINTENANCE PROJECT)	
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A
(MAINTENANCE PROJECT)	
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A
(MAINTENANCE PROJECT)	

2023 SPECIFICATIONS

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

FEDERAL PROJECT NO.

PID NO.

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT

NONE

WAR-VAR
GUARDRAIL-FY24

1
18

L:\ENGINEER\PROJECTS\Guardrail\2024\DWG\WAR-VAR-GUARDRAIL-FY24

ROUTE	PROJECT BEGINS (MILEAGE)	PROJECT ENDS (MILEAGE)	LENGTH (FT)	EX. R/W	ROUTE	PROJECT BEGINS (MILEAGE)	PROJECT ENDS (MILEAGE)	LENGTH (FT)	EX. R/W	ROUTE	PROJECT BEGINS (MILEAGE)	PROJECT ENDS (MILEAGE)	LENGTH (FT)	EX. R/W	ROUTE	PROJECT BEGINS (MILEAGE)	PROJECT ENDS (MILEAGE)	LENGTH (FT)	EX. R/W
CR 23 RT.	5.376	5.403	150	60'	CR 24 LT.	7.343	7.367	125	60'	CR 51 LT.	4.556	4.598	225	UNDEFINED	CR 196 LT.	0.854	0.874	100	UNDEFINED
CR 23 LT.	5.377	5.403	137.5	60'	CR 24 RT.	8.185	8.201	87.5	UNDEFINED	CR 51 LT.	4.629	4.670	218.75	UNDEFINED	CR 196 RT.	2.340	2.358	100	30'-60'
CR 23 RT.	5.900	5.920	100	60'	CR 24 LT.	8.187	8.203	87.5	UNDEFINED	CR 52 RT.	3.135	3.159	112.5	UNDEFINED	CR 196 LT.	2.340	2.358	100	30'-60'
CR 23 LT.	5.899	5.921	112.5	60'	CR 24 RT.	9.362	9.476	587.5	60'	CR 52 LT.	3.137	3.157	87.5	UNDEFINED	CR 196 RT.	3.878	3.896	100	30'-60'
CR 23 RT.	6.280	6.303	125	60'	CR 27 RT.	1.811	1.839	150	50'	CR 156 RT.	1.750	1.772	112.5	40'	CR 196 LT.	3.878	3.896	100	30'-60'
CR 23 LT.	6.278	6.309	162.5	60'	CR 27 RT.	2.725	2.757	162.5	60'	CR 156 LT.	1.754	1.768	75	40'	CR 200 RT.	0.245	0.263	100	30'-60'
CR 24 RT.	3.105	3.119	75	60'	CR 27 RT.	3.428	3.454	137.5	60'	CR 163 RT.	0.612	0.626	75	66'	CR 200 LT.	0.240	0.268	150	30'-60'
CR 24 LT.	3.105	3.119	75	60'	CR 27 LT.	3.428	3.454	137.5	60'	CR 163 RT.	0.932	0.959	137.5	66'	CR 200 RT.	0.288	0.302	75	30'-60'
CR 24 RT.	3.307	3.323	87.5	60'	CR 27 RT.	3.561	3.577	87.5	60'	CR 163 LT.	0.926	0.966	212.5	66'	CR 200 RT.	0.325	0.341	87.5	30'-60'
CR 24 LT.	3.307	3.323	87.5	60'	CR 27 LT.	3.561	3.577	87.5	60'	CR 163 RT.	1.938	1.988	262.5	66'	CR 200 RT.	0.843	0.911	362.5	30'-60'
CR 24 RT.	4.340	4.363	112.5	60'	CR 45 LT.	0.400	0.420	100	60'	TR 170 RT.	0.965	0.996	168.75	32'	CR 200 RT.	1.703	1.736	175	30'-60'
CR 24 LT.	4.340	4.361	100	60'	CR 45 RT.	1.262	1.283	125	60'	TR 170 LT.	0.965	0.996	168.75	32'	CR 200 LT.	1.703	1.736	175	30'-60'
CR 24 LT.	4.544	4.570	137.5	60'	CR 45 LT.	1.253	1.308	300	60'	TR 183 RT.	0.753	0.785	175	40'	CR 200 RT.	1.958	1.982	125	30'-60'
CR 24 RT.	6.208	6.238	162.5	40'	CR 45 RT.	2.473	2.487	75	60'	TR 183 LT.	0.765	0.786	125	40'	CR 313 RT.	2.073	2.102	156.25	UNDEFINED
CR 24 LT.	6.217	6.229	100	40'	CR 45 LT.	2.472	2.488	87.5	60'	TR 192 RT.	1.199	1.239	187.5	UNDEFINED	CR 313 LT.	2.073	2.107	168.75	UNDEFINED
CR 24 RT.	6.611	6.619	100	60'	CR 45 LT.	3.218	3.234	87.5	60'	TR 192 LT.	1.194	1.236	175	UNDEFINED	CR 313 RT.	2.139	2.149	50	UNDEFINED
CR 24 LT.	6.601	6.619	100	60'	CR 51 RT.	4.003	4.075	375	40'	CR 196 RT.	0.853	0.875	112.5	UNDEFINED	CR 313 LT.	2.133	2.155	112.5	UNDEFINED
CR 24 RT.	7.345	7.365	112.5	60'															

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
MGS-1.1	7/16/21	MT-97.10	4/19/19					SS800	1/15/21		
MGS-2.1	1/19/18	MT-105.10	1/17/20					SS832	10/19/18		
MGS-2.3	1/20/23	TC-61.30	7/19/19								
MGS-4.3	1/18/13										
MGS-5.3	7/15/16										
ENGINEERS SEAL:											
SIGNED: _____											
DATE: _____											

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

APPROVED _____
DATE _____ WARREN COUNTY ENGINEER

SPECIFICATIONS

EXCEPT AS OTHERWISE SPECIFIED HEREIN, ALL WORK SHALL BE DONE AND MATERIAL FURNISHED IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS), 2023 EDITION AND THE TECHNICAL SPECIFICATION OF THE WARREN COUNTY ENGINEER, MOST CURRENT EDITION.

UTILITIES

THE CONTRACTOR SHALL CAUSE NOTICE TO BE GIVEN TO THE OHIO UTILITIES PROTECTION SERVICE (OUPS) (TELEPHONE 1-800-362-2764, TOLL FREE), THE OHIO OIL AND GAS PRODUCERS PROTECTIVE SERVICE (TELEPHONE 1-800-925-0988, TOLL FREE) AND THE OWNERS OF UTILITY FACILITIES SHOWN ON THE PLANS WHO ARE NOT MEMBERS OF REGISTERED UNDERGROUND UTILITY PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. THE ABOVE MENTIONED NOTICE SHALL BE GIVEN AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

THE IDENTITY AND LOCATION OF THE EXISTING UNDERGROUND UTILITY FACILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 OF THE OHIO REVISED CODE. THE OWNER AND/OR ENGINEER ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OR THE DEPTHS OF THE UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS.

SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. EXISTING UTILITY POLES WITHIN THE INFLUENCE OF THE TRENCH SHALL BE SECURED BY THE UTILITY OWNER PRIOR TO ANY EXCAVATION IN THE AREA. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE UTILITY OWNER. IN THE EVENT THAT AN EXISTING UTILITY MUST BE RELOCATED, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION WITH THE OWNER OF THE AFFECTED UTILITY.

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

COMMUNICATIONS:

ALTA FIBER/CINCINNATI BELL:
BRECK M. COWAN, CPM
SPECIALIST-STRUCTURE ENGINEER
221 E 4TH ST. (BUILDING 121-900)
CINCINNATI, OH 45202
(513)-565-7187 OFFICE
(513)-702-1040 CELL
BRECK.COWAN@ALTA FIBER.COM

AT&T:
ALAN STUTES
AT&T ENGINEERING
7201 FAR HILLS AVE.
DAYTON, OH 45459
(937)-708-1026
ASI634@ATT.COM

BRIGHTSPEED / CENTURYLINK / LUMEN
JORDAN LANGSTON
20 NORTH MECHANIC ST.
LEBANON, OH 45036
(513)-933-3502 OFFICE
(513)-885-9444 CELL
JORDAN.LANGSTON@BRIGHTSPEED.COM

COMNET, INC./INDEPENDENT FIBER NETWORKS:
SARAH EMANS
OSP MANAGER
PLANT GIS & DESIGN
13888 CO RD. 25A
WAPAKONETA, OH 45895
(419)-739-3124 OFFICE
(419)-905-6941 CELL
SEMANS@CNITEAM.COM

FRONTIER
241 S. NELSON AVE.
WILMINGTON, OH 45177
DAVID LONGWORTH
(937)-283-5735 OFFICE
DAVID.M.LONGWORTH@FTR.COM

LITTLE MIAMI GIG, LLC
CHASE STRUNA
SERVICE AREA MANAGER
(513)-375-9993 OFFICE
(440)-567-8953 CELL
CSTRUNA@LITTLEMIAMIGIG.COM

SPECTRUM-CHARTER:
KENT RIEGER
CONSTRUCTION COORDINATOR
10920 KENWOOD RD.
CINCINNATI, OH 45242
(513)-386-5499 OFFICE
(513)-233-5678 CELL
KENT.RIEGER@CHARTER.COM

TDS TELECOMMUNICATION
JEFFERY WELLS
MANAGER-NETWORK CONSTRUCTION
(616)-301-3033 OFFICE
(810)-813-5641 CELL
JEFF.WELLS@TDSTELECOM.COM

ELECTRIC:

AES/DAYTON POWER & LIGHT:
MICHAEL KHOR
(513)-514-8210 OFFICE
(513)-504-0082 CELL
MICHAEL.KHOR@AES.COM

DUKE ELECTRIC:
AARON WRIGHT
SENIOR ENGINEERING TECHNOLOGIST
7600 COLERAIN AVE.
CINCINNATI, OH 45207
(513)-514-8211 OFFICE
(513)-479-1886 CELL
AARON.WRIGHT@DUKE-ENERGY.COM
NICK HAMILTON
ENGINEERING SPECIALIST-ASSET DESIGN
(513)-514-8214 OFFICE
(513)-240-8825 CELL
NICHOLAS.HAMILTON@DUKE-ENERGY.COM
TROY COLEMAN
ENGINEERING SPECIALIST II-ASSET DESIGN NORTH
(513)-260-6509 CELL
TROY.COLEMAN@DUKE-ENERGY.COM

GAS:

DUKE GAS:
JIM MARA
DISTRIBUTION PROJECT SPECIALIST GAS OPERATIONS
(513)-256-9041
JAMES.MARA@DUKE-ENERGY.COM
OH/KYHOUSEBILL@DUKE-ENERGY.COM

WATER:

WARREN COUNTY WATER & SEWER:
CHRIS WOJNICZ, P.E., LEED AP
ASSISTANT SANITARY ENGINEER
406 JUSTICE DR.
LEBANON, OH 45036
(513)-695-1646
CHRISTOPHER.WOJNICZ@CO.WARREN.OH.US

WESTERN WATER:
KURT MEEKER
(513)-899-3211
KMEEKER@WESTERN-H2O.COM

SAFETY REQUIREMENTS

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

LIMITS OF WORK

CONSTRUCTION ACTIVITIES SHALL BE CONFINED TO THE RIGHT-OF-WAY AND LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL NOT TRESPASS UPON OR IN ANY WAY DISTURB PRIVATE PROPERTY WITHOUT THE OWNER'S CONSENT, A COPY OF WHICH IS TO BE PROVIDED TO THE PROJECT ENGINEER PRIOR TO SUCH TRESPASS OR DISTURBANCE.

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

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE WARREN COUNTY ENGINEER'S OFFICE. THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS

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

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMIT AND PIO
RAMP & ROAD CLOSURES	>=2 WEEKS >12 HOURS & <2 WEEKS <=12 HOURS	21 CALENDAR DAYS PRIOR TO CLOSURE 14 CALENDAR DAYS PRIOR TO CLOSURE 4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>=2 WEEKS <2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE 5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE

SHOP-CURVED RAIL SECTIONS

ALL RAILS WITH A RADIUS OF 5- FEET TO 125- FEET SHALL BE SHOP CURVED RAILS. APPROXIMATE RADII ARE INDICATED ON THE PLANS TO ASSIST THE CONTRACTOR IN PREPARING HIS BID. HOWEVER, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD DETERMINE THE NECESSARY RADII FOR EACH CURVED RAIL SECTION PRIOR TO CONSTRUCTION. THE COST OF SHOP-CURVED RAILS SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND PAYMENT SHALL BE INCLUDED IN THE BID FOR ITEM 606 - GUARDRAIL, TYPE MGS.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 202-GUARDRAIL REMOVED, AS PER PLAN

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

W-BEAM GUARDRAIL REMOVED AS PART OF THIS CONTRACT SHALL REMAIN THE PROPERTY OF THE WARREN COUNTY ENGINEER AND SHALL BE TRANSPORTED BY THE CONTRACTOR AND DEPOSITED AT THE WARREN COUNTY HIGHWAY DEPARTMENT, 105 MARKEY ROAD, LEBANON, OH 45036.

W-BEAM RAILING THAT IS TO BE REMOVED AS PART OF THIS CONTRACT MAY NOT BE CUT WITHOUT THE APPROVAL OF THE ENGINEER.

ALL OTHER MATERIALS REMOVED AS PART OF THIS CONTRACT (POSTS, BOLTS, CONCRETE, ETC.) SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND THE CONTRACTOR SHALL DISPOSE OF THESE MATERIALS IN A LAWFUL MANNER AT NO ADDITIONAL COST TO THE WARREN COUNTY ENGINEER.

GUARDRAIL REMOVAL SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY FOR THE COMPLETE REMOVAL AND DISPOSAL OF RAILING AND EXISTING POSTS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 202-EXISTING GUARDRAIL REMOVED, AS PER PLAN.

ITEM 202-ANCHOR ASSEMBLIES REMOVED, TYPE A, AS PER PLAN

ANCHOR ASSEMBLY REMOVAL SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY FOR THE COMPLETE REMOVAL AND DISPOSAL OF ANCHOR ASSEMBLIES, FOUNDATIONS AND POSTS AND FOR THE FILLING OF FOUNDATION HOLES.

W-BEAM GUARDRAIL REMOVED AS PART OF THIS CONTRACT SHALL REMAIN THE PROPERTY OF THE WARREN COUNTY ENGINEER AND SHALL BE TRANSPORTED TO AND DEPOSITED AT THE WARREN COUNTY HIGHWAY DEPARTMENT, 105 MARKEY ROAD, LEBANON, OH 45036. ALL OTHER MATERIALS REMOVED AS PART OF THIS CONTRACT (POSTS, BOLTS, CONCRETE, ETC.) SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND THE CONTRACTOR SHALL DISPOSE OF THESE MATERIALS IN A LAWFUL MANNER.

W-BEAM RAILING THAT IS TO BE REMOVED AS PART OF THIS CONTRACT MAY NOT BE CUT WITHOUT THE APPROVAL OF THE ENGINEER.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR THE ITEM 202-TYPE A ANCHOR ASSEMBLIES REMOVED, AS PER PLAN.

ITEM 614 - MAINTENANCE OF TRAFFIC

THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC TO EXISTING DRIVES AT ALL TIMES. ACCESS TO ALL PROPERTIES WITHIN THE PROJECT SHALL BE MAINTAINED AT ALL TIMES.

A MINIMUM OF ONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF EXISTING PAVEMENT. LANE CLOSURES WITH FLAGGERS SHALL BE PROVIDED BY THE CONTRACTOR. IN ACCORDANCE WITH THE OHIO MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) AND STATE OF OHIO STANDARD CONSTRUCTION DRAWING MT-97.10 DURING THE CONSTRUCTION OF WORK EXCEPT AS OTHERWISE AUTHORIZED BY THE ENGINEER. THE CONTRACTOR SHALL SET UP AND OPERATE HIS EQUIPMENT IN SUCH A MANNER THAT ENCROACHMENT UPON THE TRAVELED WIDTH OF THE PAVEMENT WILL BE KEPT TO A MINIMUM. THE LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE CONTRACTOR SHALL NOT BEGIN WORK WITHIN ANY PUBLIC RIGHT-OF-WAY UNTIL BARRICADES AND WARNING SIGNS ARE IN ACCEPTABLE POSITION IN ACCORDANCE WITH THE (OMUTCD).

ALL TEMPORARY AND PERMANENT TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

OVER-NIGHT LANE CLOSURES WILL NOT BE PERMITTED.

ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS SHALL BE MAINTAINED THROUGHOUT THIS PROJECT BY THE CONTRACTOR. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARILY RELOCATED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, AND IMPROPERLY PLACED SIGNS.

THE TRACKING OF MUD, DIRT, DEBRIS, OR SPILLAGE OF THE SAME UPON PAVEMENTS OR RESIDENTIAL DRIVES IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. FAILURE TO REMOVE SAID MUD, DIRT, DEBRIS, OR SPILLAGE MAY RESULT IN THE OWNER PROVIDING THAT SERVICE AND THE COST OF THAT SERVICE BEING WITHHELD FROM MONIES WHICH MAY BECOME DUE TO THE CONTRACTOR.

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

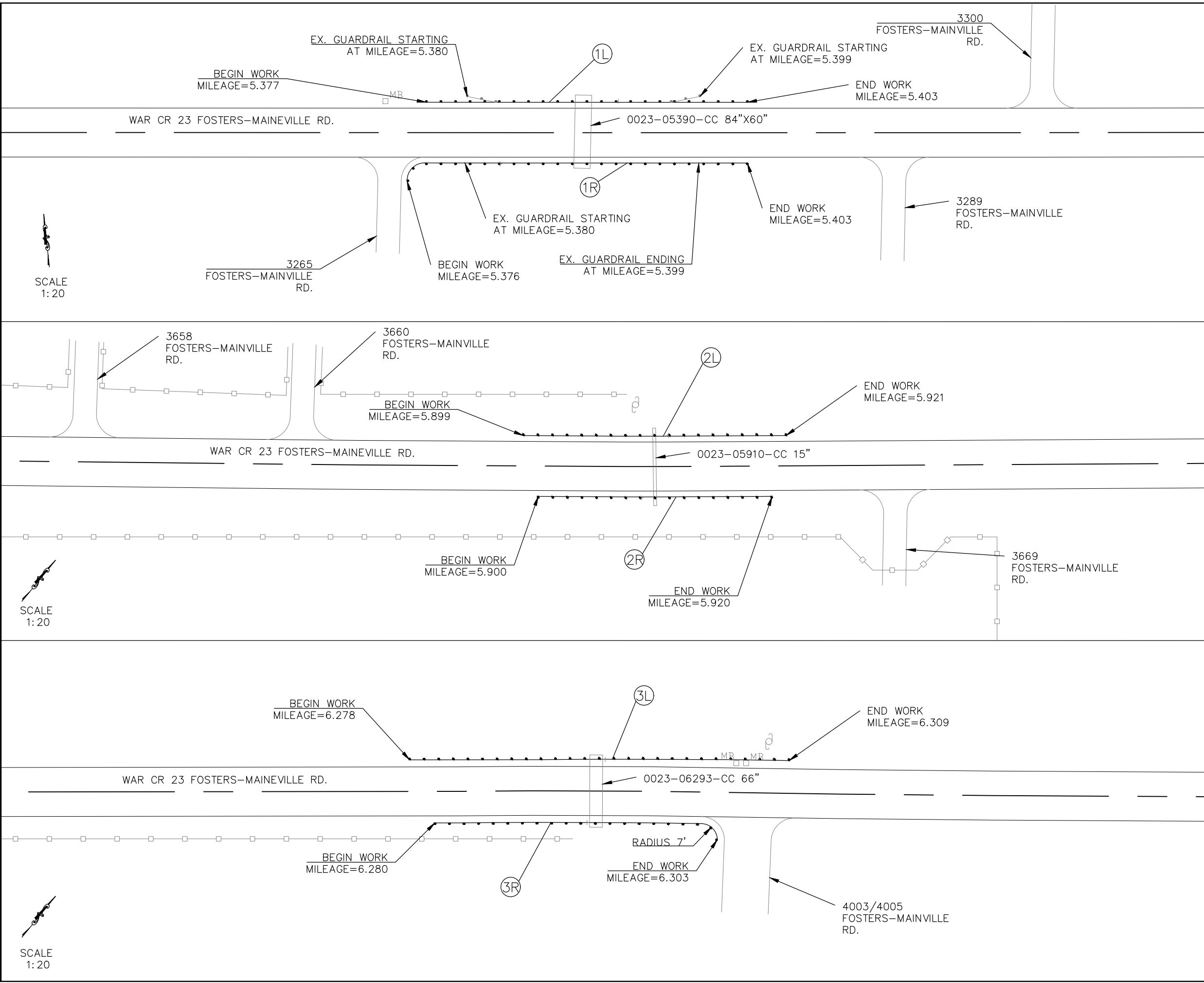
ITEM 606 - GUARDRAIL, TYPE MGS

AT SOME LOCATIONS IT MAY BE NECESSARY TO OMIT ONE POST WITHIN A STANDARD RUN OF MGS RAIL TO AVOID UTILITIES, CULVERTS, OR OTHER UNDERGROUND CONFLICTS. FIFTY FEET OF GUARDRAIL (WHICH MAY INCLUDE THE ANCHOR) SHOULD BE AVAILABLE BOTH UPSTREAM AND DOWNSTREAM OF THE OMITTED POST TO MAINTAIN TENSION AND STRENGTH IN THE SYSTEM.

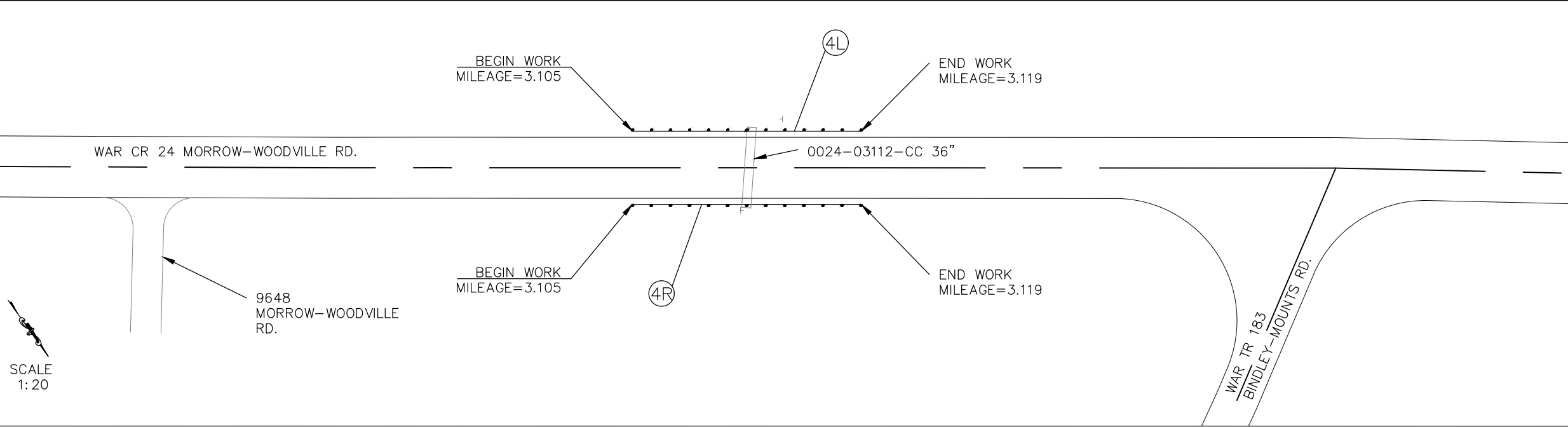
ALL GUARDRAIL SECTIONS SHALL START AND END WITH A BUFFERED END PIECE. A REFLECTIVE STRIP SHALL BE ATTACHED TO EACH OF THOSE END PIECES. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 606 GUARDRAIL, TYPE MGS.

PRECONSTRUCTION MEETING

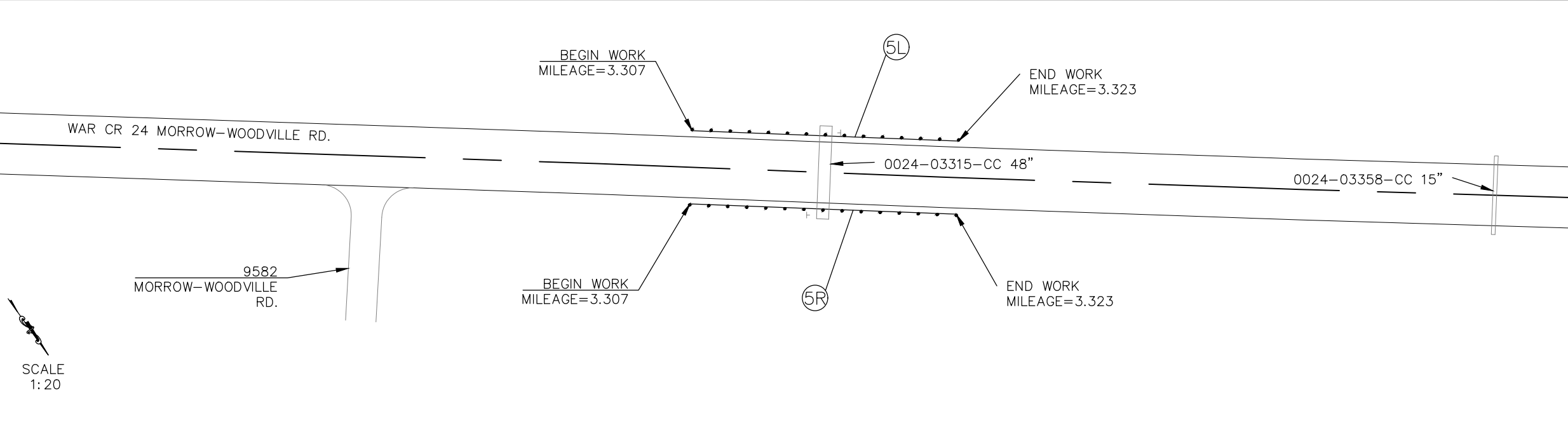
PRIOR TO COMMENCEMENT OF THE CONSTRUCTION ACTIVITIES, THE WARREN COUNTY ENGINEER WILL ARRANGE A MEETING BETWEEN THE CONTRACTOR AND THE WARREN COUNTY ENGINEER. THE TIME, DATE, AND LOCATION OF SAID MEETING WILL BE DETERMINED AFTER THE AWARDING OF THE PROJECT, AND ALL PARTIES WILL BE NOTIFIED BY THE WARREN COUNTY ENGINEER. AT THE PRECONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT TO THE PROJECT MANAGER A CONSTRUCTION SCHEDULE, LIST OF SUBCONTRACTORS, AND A LIST OF SUPPLIERS.



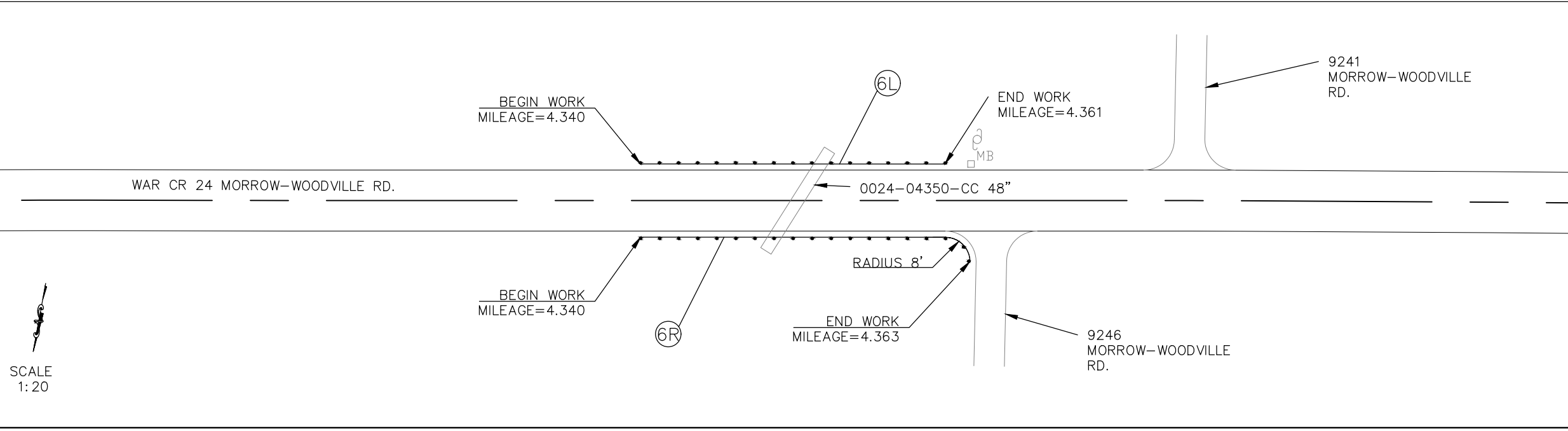
REF. NO.	202	606	606	202	626	202	202	202	630	630
1L	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)	
1R	100	137.5	150		3			1	1	
2L	100	112.5	150		3			1	1	
2R	100	100	162.5		2			1	1	
3L	125	125	787.5		3		2	1	1	
3R	200	787.5			17		2	1	1	
TOTAL TO GEN. SUMMARY										6



SCALE
1:20

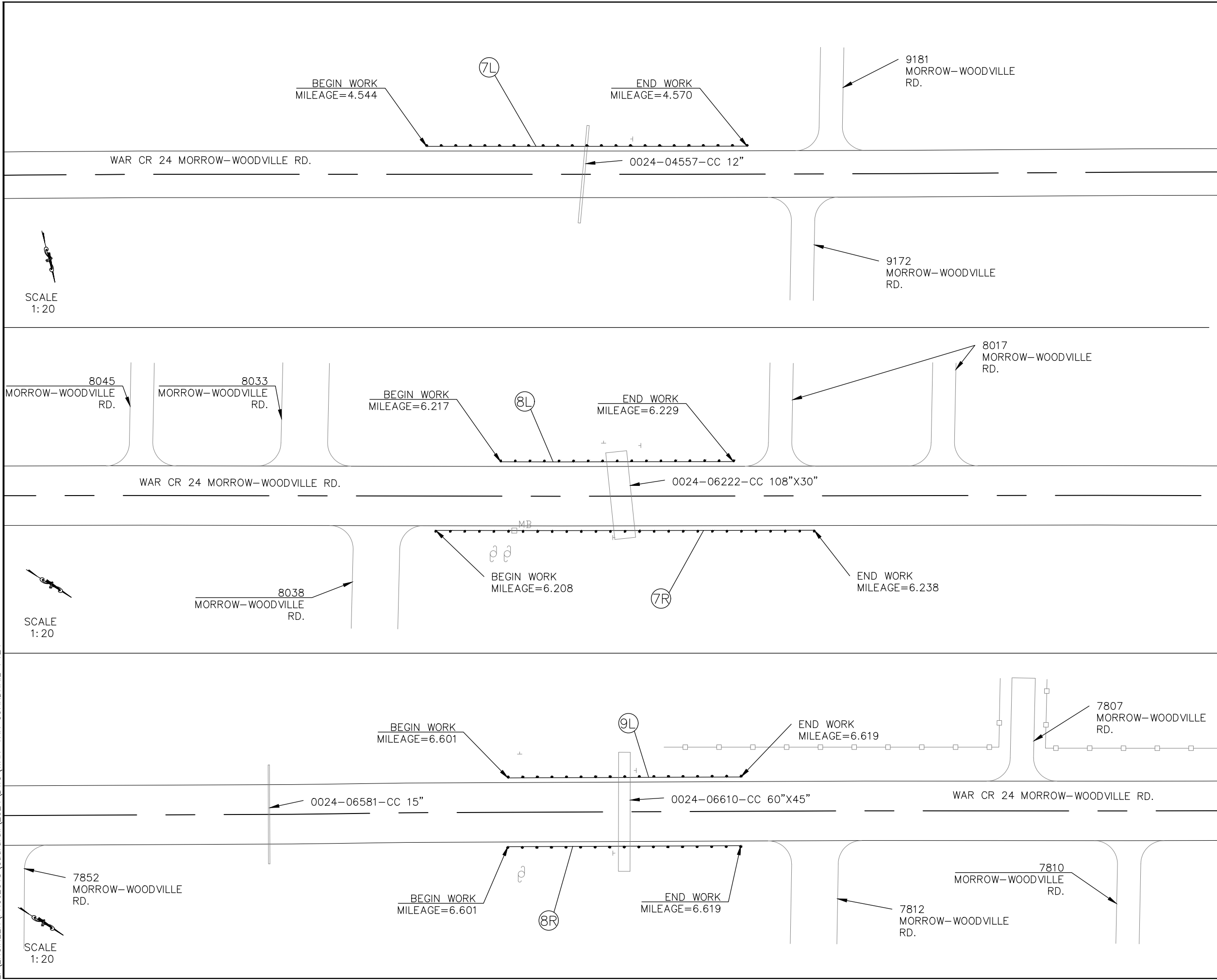


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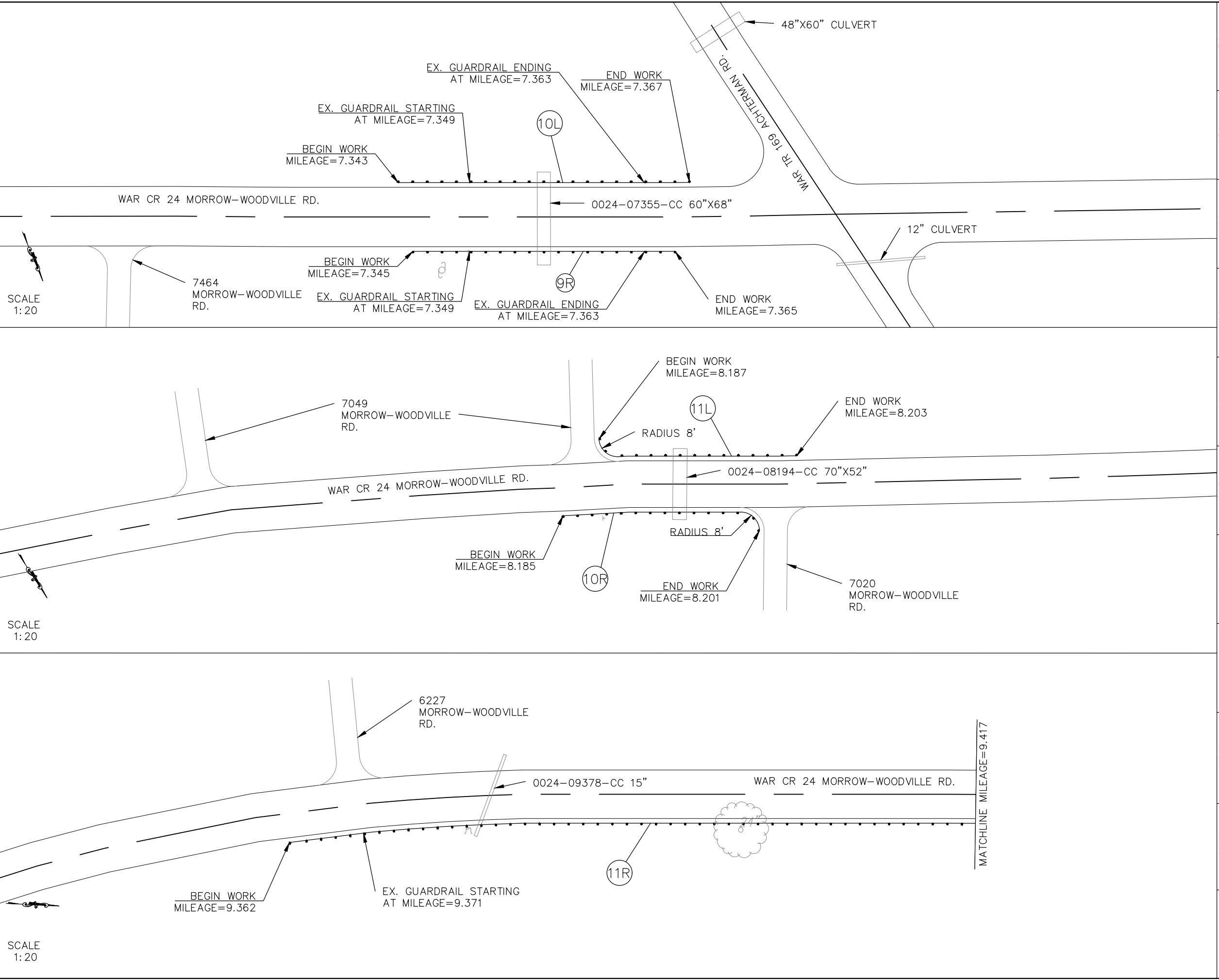
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REF. NO.	202	606	606	202	626	202	202	202	630	630
4L	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	75	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET, AS PER PLAN (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)	
4R	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	75	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET, AS PER PLAN (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)	
5L	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	87.5	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET, AS PER PLAN (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)	1
5R	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	87.5	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET, AS PER PLAN (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)	1
6L	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	100	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET, AS PER PLAN (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)	
6R	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	112.5	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET, AS PER PLAN (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)	
TOTAL TO GEN. SUMMARY		537.5			13					1



REF. NO.	202	606	606	606	202	626	202	202	630	630
7L										
8L			137.5			3				
7R		100			2					
9L		162.5			3			1		
8R		100			2					
TOTAL TO GEN. SUMMARY		600			12					

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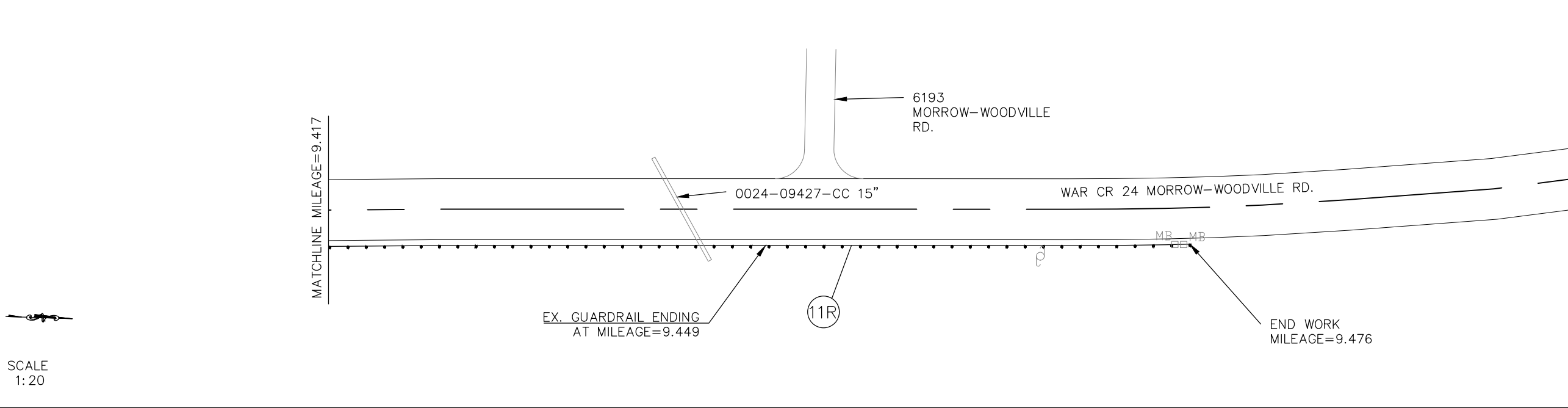
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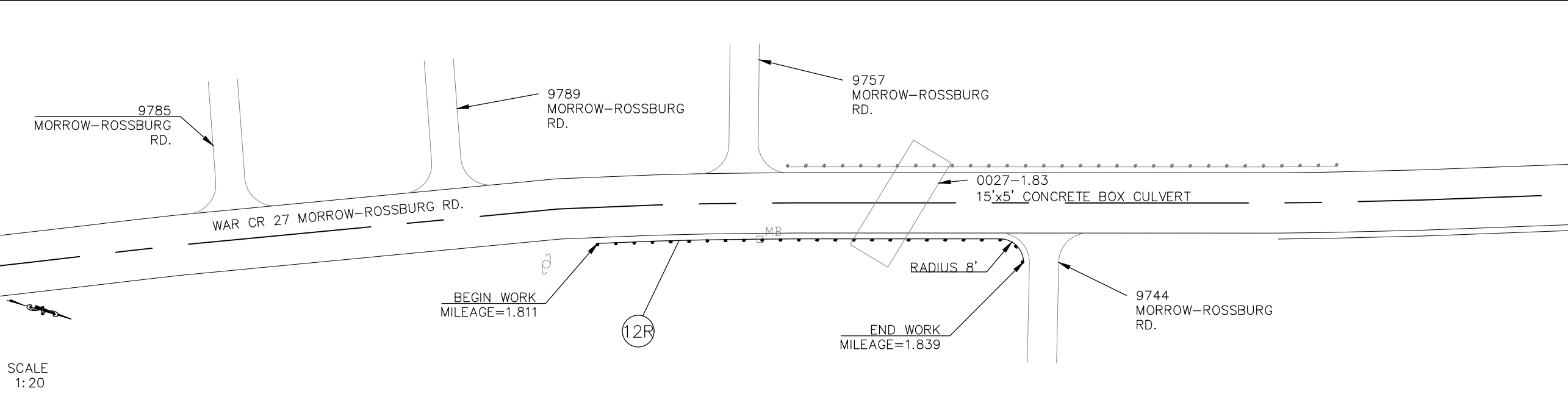
REF. NO.	202	606	606	606	202	626	202	202	630	630
10L	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)
9R	75	125	112.5	87.5		3			1	1
11L	75	112.5	87.5	87.5		3			1	1
10R		87.5	87.5	87.5		2				
11R	412.5	587.5	587.5	587.5		7	412.5	2		
TOTAL TO GEN. SUMMARY	562.5	1,000				17	412.5	2	2	2

WAR-VAR GUARDRAIL FY-24

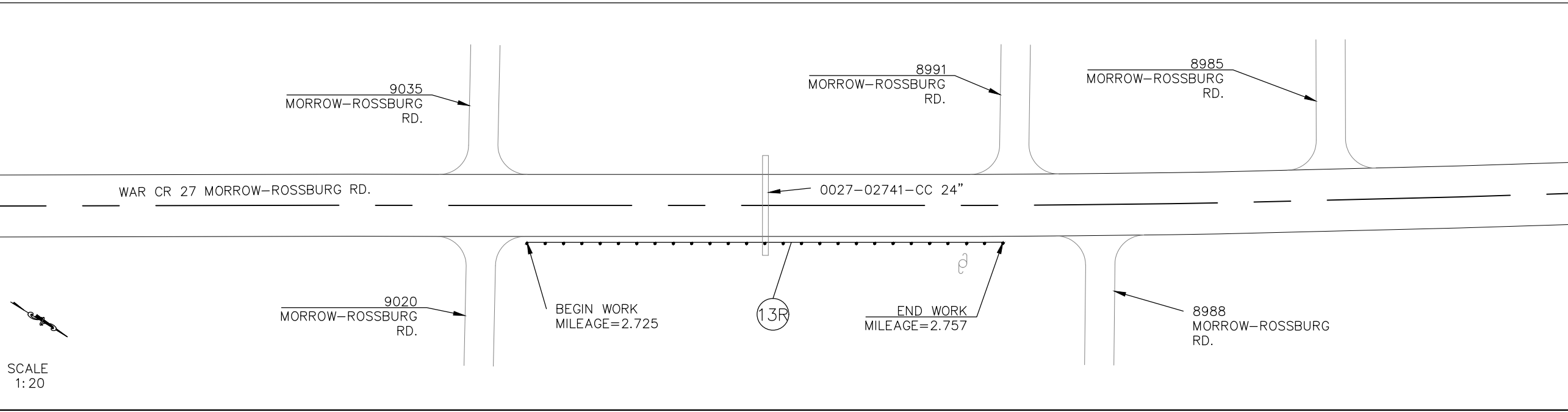
CR 24-MORROW-WOODVILLE RD.



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REF. NO.	202	606	606	606	202	626	202	202	202	630	630
12R	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	POST AND CABLE REMOVED (FT)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)
13R	GUARDRAIL REMOVED, AS PER PLAN (FT)	GUARDRAIL, TYPE MGS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	POST AND CABLE REMOVED (FT)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)
TOTAL TO GEN. SUMMARY			100	162.5	262.5	3	3	6	1	1	1

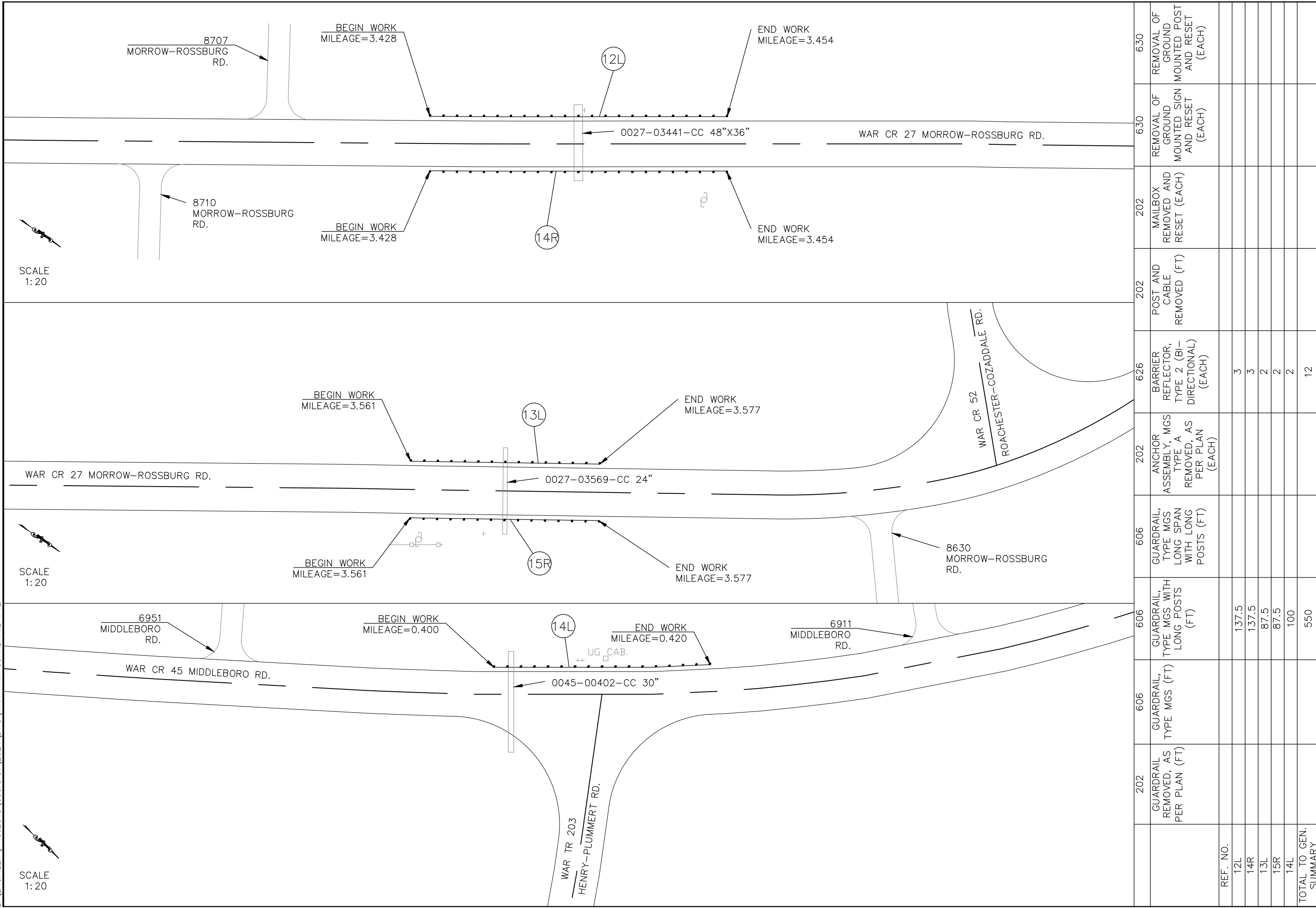
WAR-VAR GUARDRAIL FY-24

CR 24-MORROW-WOODVILLE RD., CR 27-MORROW-ROSSBURG RD.

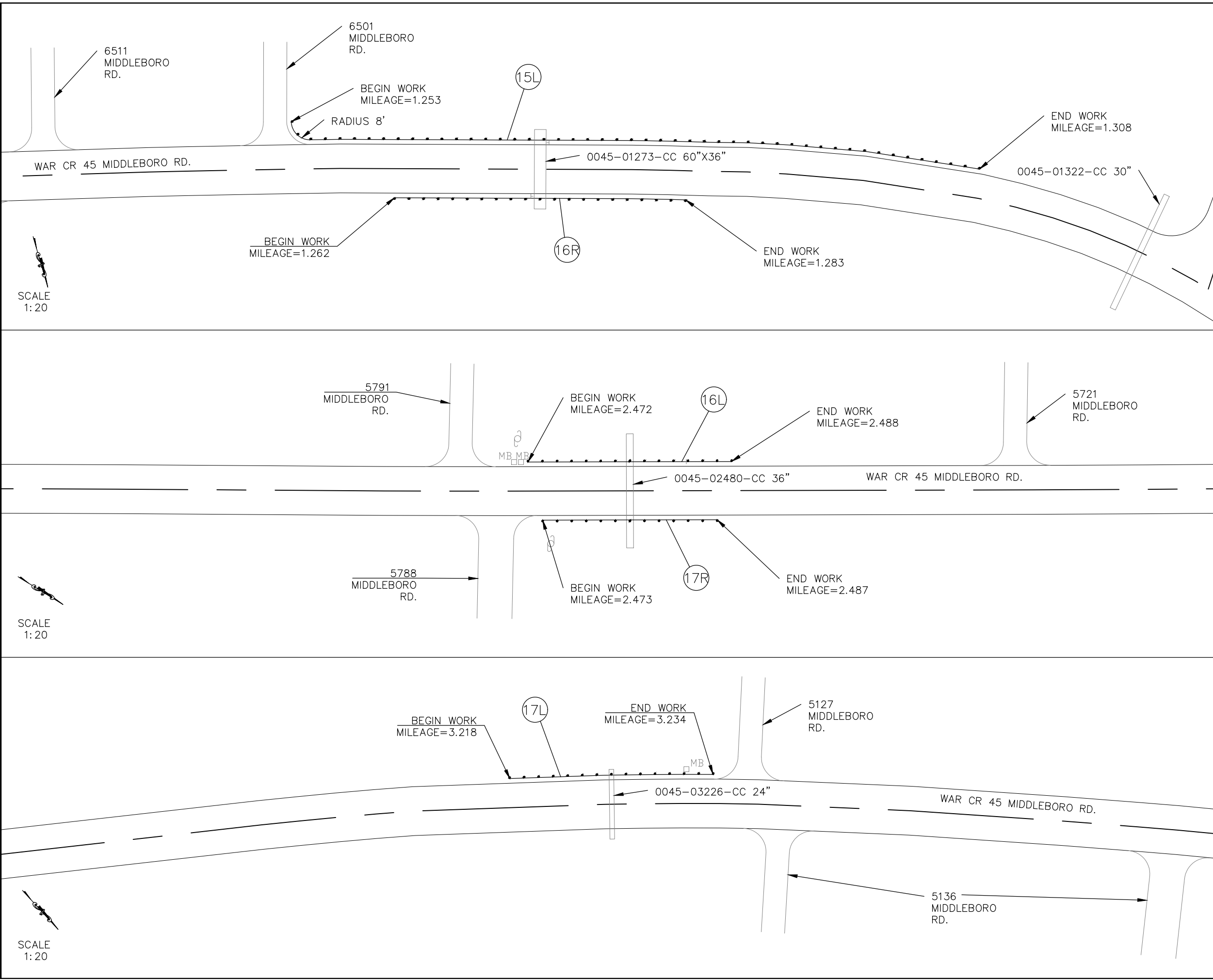
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REF. NO.	202	606	606	606	202	626	202	202	202	630	630
12L											
14R											
13L											
15R											
14L											
TOTAL TO GEN. SUMMARY											

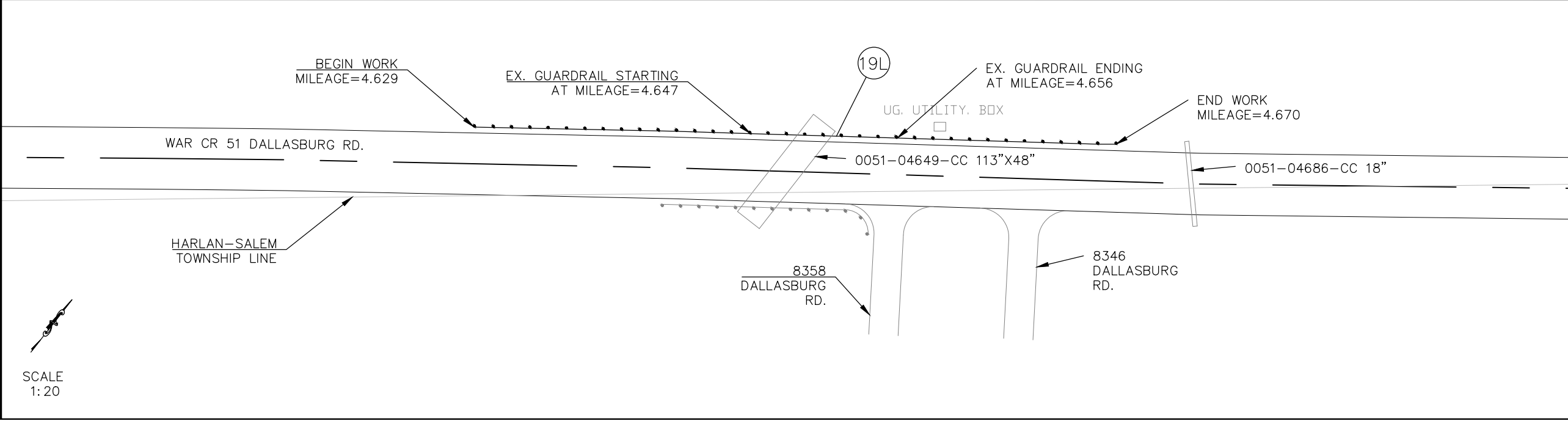
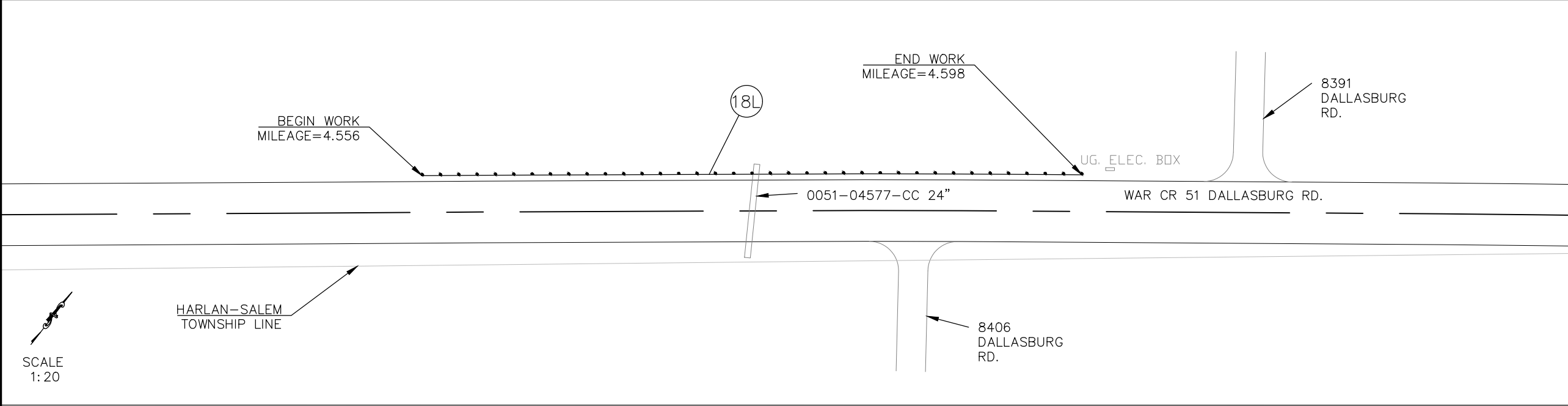
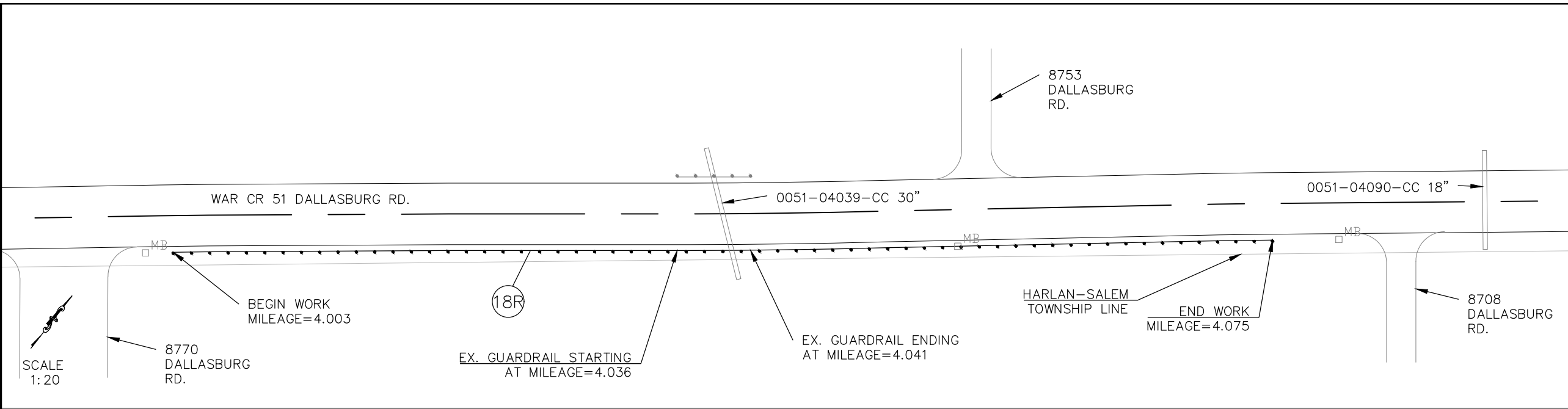


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REF. NO.	GUARDRAIL REMOVED, AS PER PLAN (FT)	GUARDRAIL, TYPE MGS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS LONG SPAN WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)
15L			300			4			1	1
16R			125			3			1	1
16L			87.5			2			1	1
17R			75			2				
17L			87.5			2		1		
TOTAL TO GEN. SUMMARY			675			13		1	3	3



REF. NO.	202	606	606	606	202	626	202	202	202	630	630
18R	25					5			1		
18L		225				4					
19L	25	175			4	4					
TOTAL TO GEN. SUMMARY	50	225	550	43.75	2	13	162.5	162.5	1		

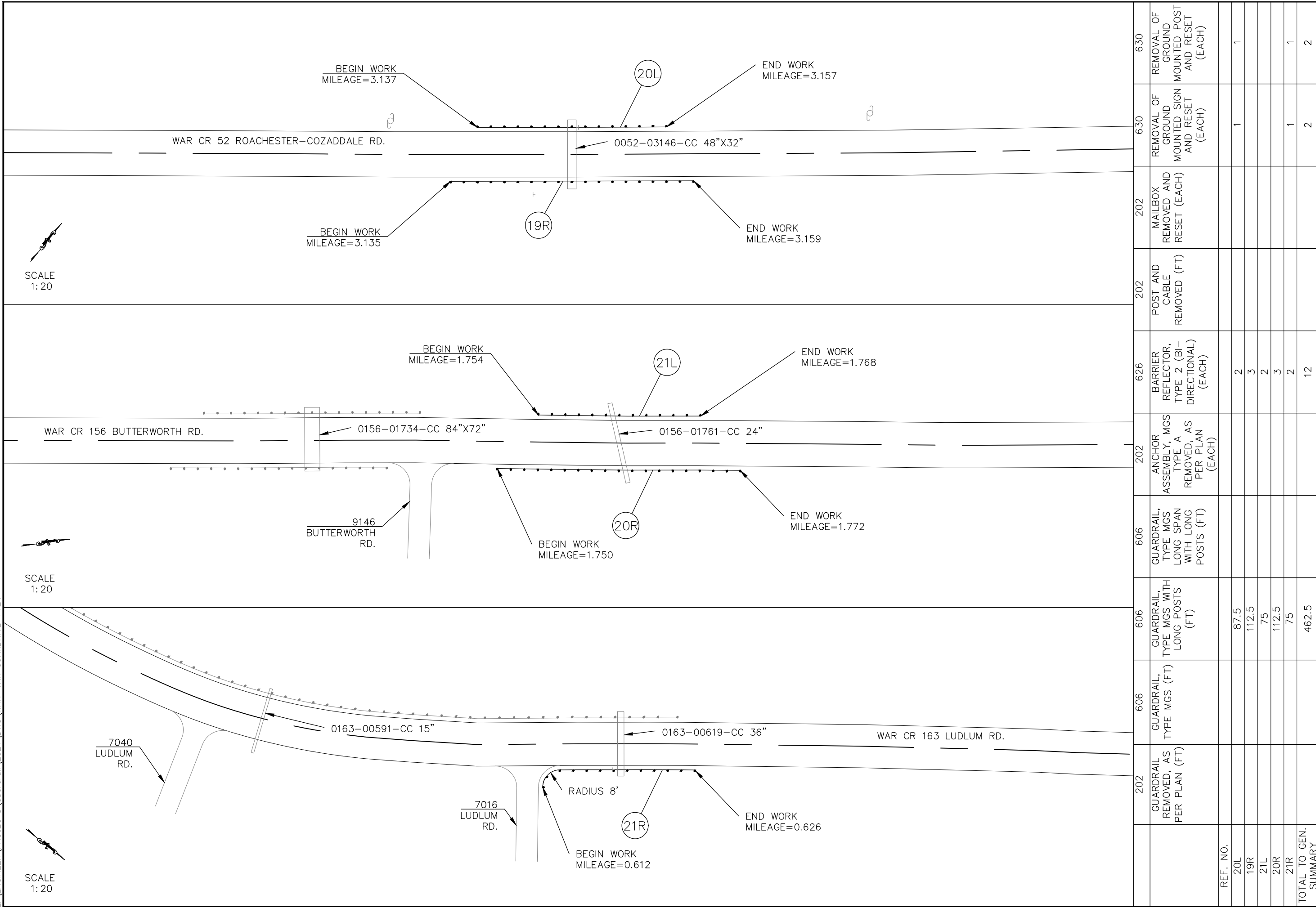
WAR-VAR GUARDRAIL-FY24

CR 51-DALLASBURG RD.

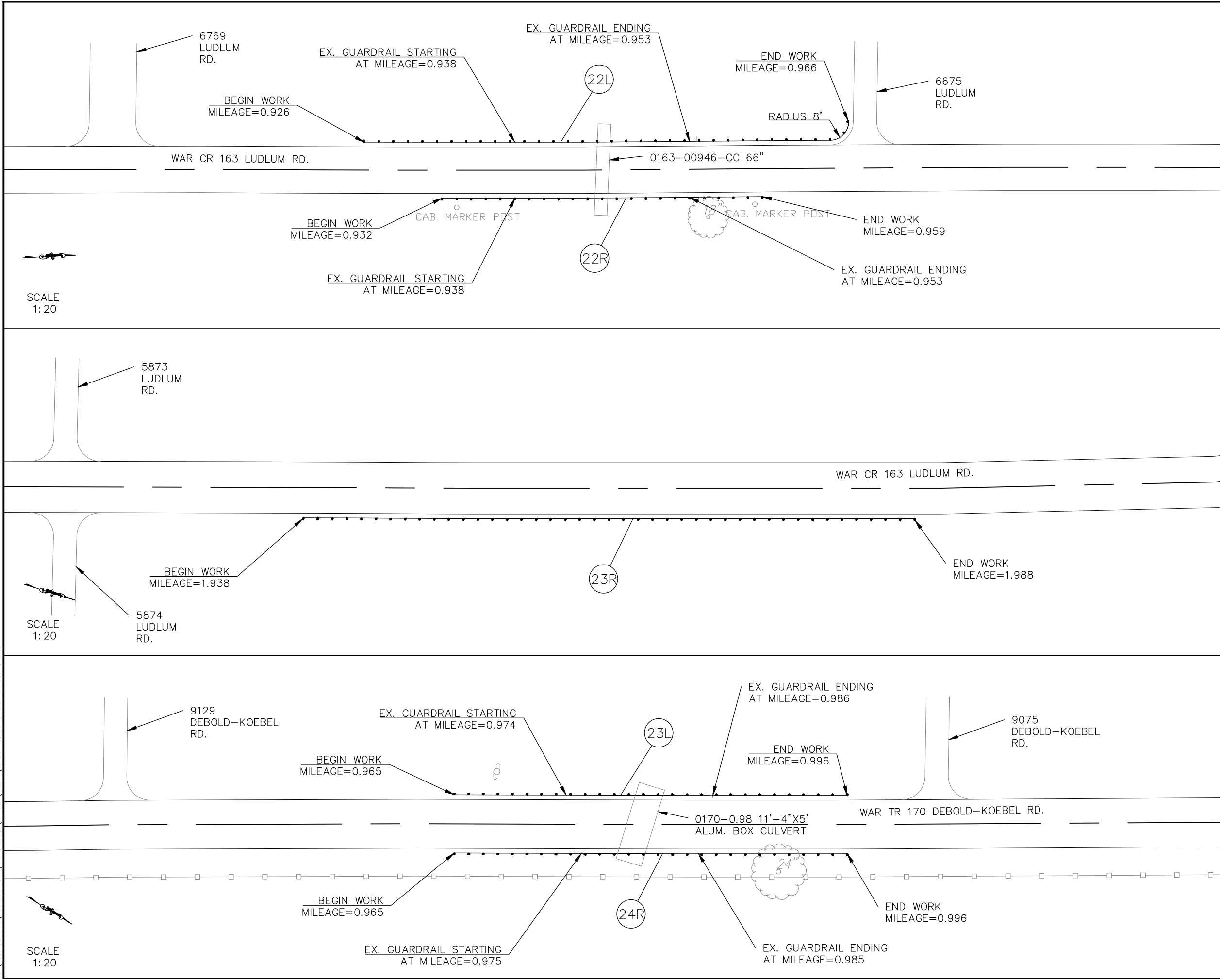
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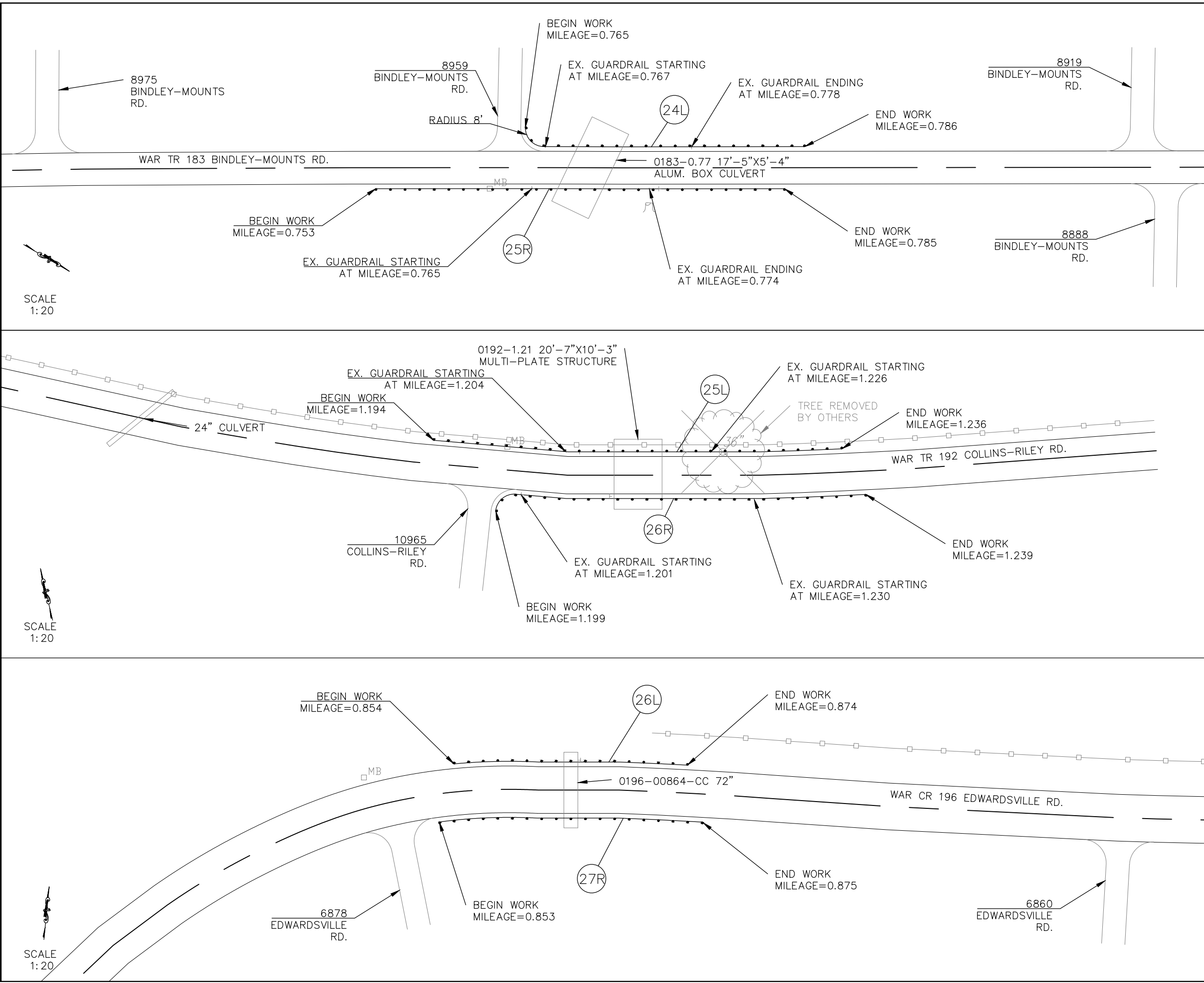
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REF. NO.	20L	19R	21L	20R	21R	TOTAL TO GEN. SUMMARY	202	606	606	606	202	626	202	202	630
							GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)
							87.5	112.5	75		2				1
							112.5	75			3				1
							112.5	75			2				1
							75				3				1
							462.5				12				2



REF. NO.	GUARDRAIL REMOVED, AS PER PLAN (FT)	GUARDRAIL, TYPE MGS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG SPAN WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)
22L	75	212.5				4				1
22R	75	137.5				3				1
23R	62.5	262.5				4				1
23L	50	125		43.75		3				1
24R		125		43.75		3				2
TOTAL TO GEN. SUMMARY	262.5	862.5		87.5		17				2

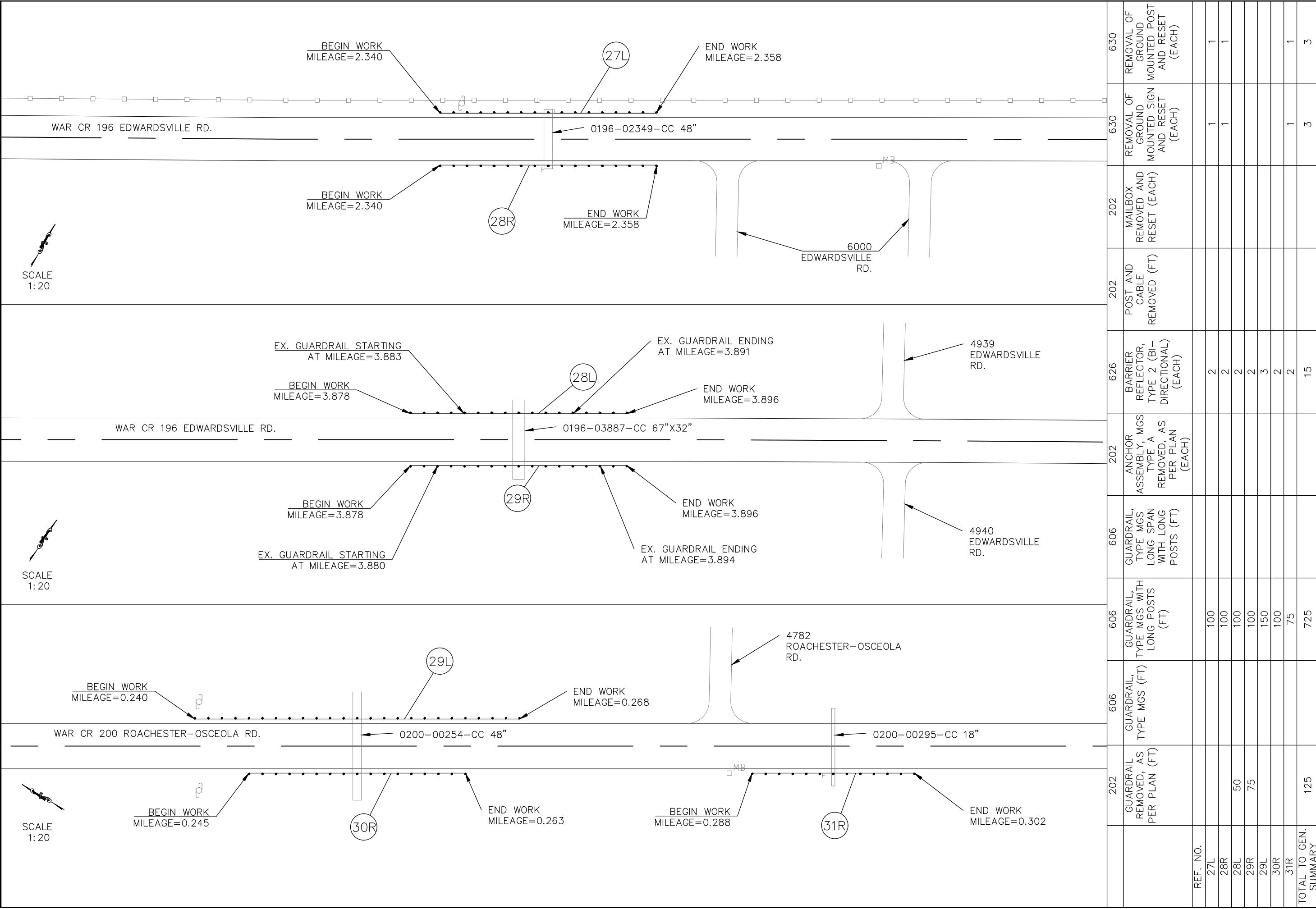


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REF. NO.	202	606	606	606	606	606	626	202	202	630	630
	GUARDRAIL REMOVED, AS PER PLAN (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS LONG SPAN (FT)	GUARDRAIL, TYPE MGS LONG SPAN WITH LONG POSTS (FT)	BARRIER, REFLECTOR, TYPE 2 (BI- DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET AND RESET (EACH)		
24L		75			3			1	1		
25R		50			3		1	2	2		
25L	125	50			3			2	2		
26R	100	137.5			3	3		2	2		
26L		100			2			1	1		
27R		112.5			3			1	1		
TOTAL TO GEN. SUMMARY	275	262.5	100	100	17	3	1	8	8		



REF. NO.	GUARDRAIL REMOVED, AS PER PLAN (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG SPAN WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)
27L		100			2			1	1
28R		100			2			1	1
28L	50	100			2				
29R	75	100			2				
29L		150			3				
30R		100			2				
31R		75			2			1	1
TOTAL TO GEN. SUMMARY	125	725	606	202	626	202	202	630	630

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BEGIN WORK
MILEAGE=0.325

END WORK
MILEAGE=0.341

BEGIN WORK
MILEAGE=0.843

EX. GUARDRAIL STARTING
AT MILEAGE=0.848

END WORK
MILEAGE=0.911

EX. GUARDRAIL ENDING
AT MILEAGE=0.911

32R

33R

0200-00333-CC 36"

WAR CR 200 ROACHESTER-OSCEOLA RD.

0200-00860-CC 18"

WAR CR 200 ROACHESTER-OSCEOLA RD.

0200-00930-CC 18"

4840
ROACHESTER-OSCEOLA
RD.

4868
ROACHESTER-OSCEOLA
RD.

REF. NO.	202	606	606	606	202	626	202	202	202	630	630
32R	GUARDRAIL REMOVED, AS PER PLAN (FT)	GUARDRAIL, TYPE MGS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER, REFLECTOR, TYPE 2 (BI- DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)	630
33R			87.5	362.5		2		1			
TOTAL TO GEN. SUMMARY	337.5	337.5	450			11		1		2	4
										2	4

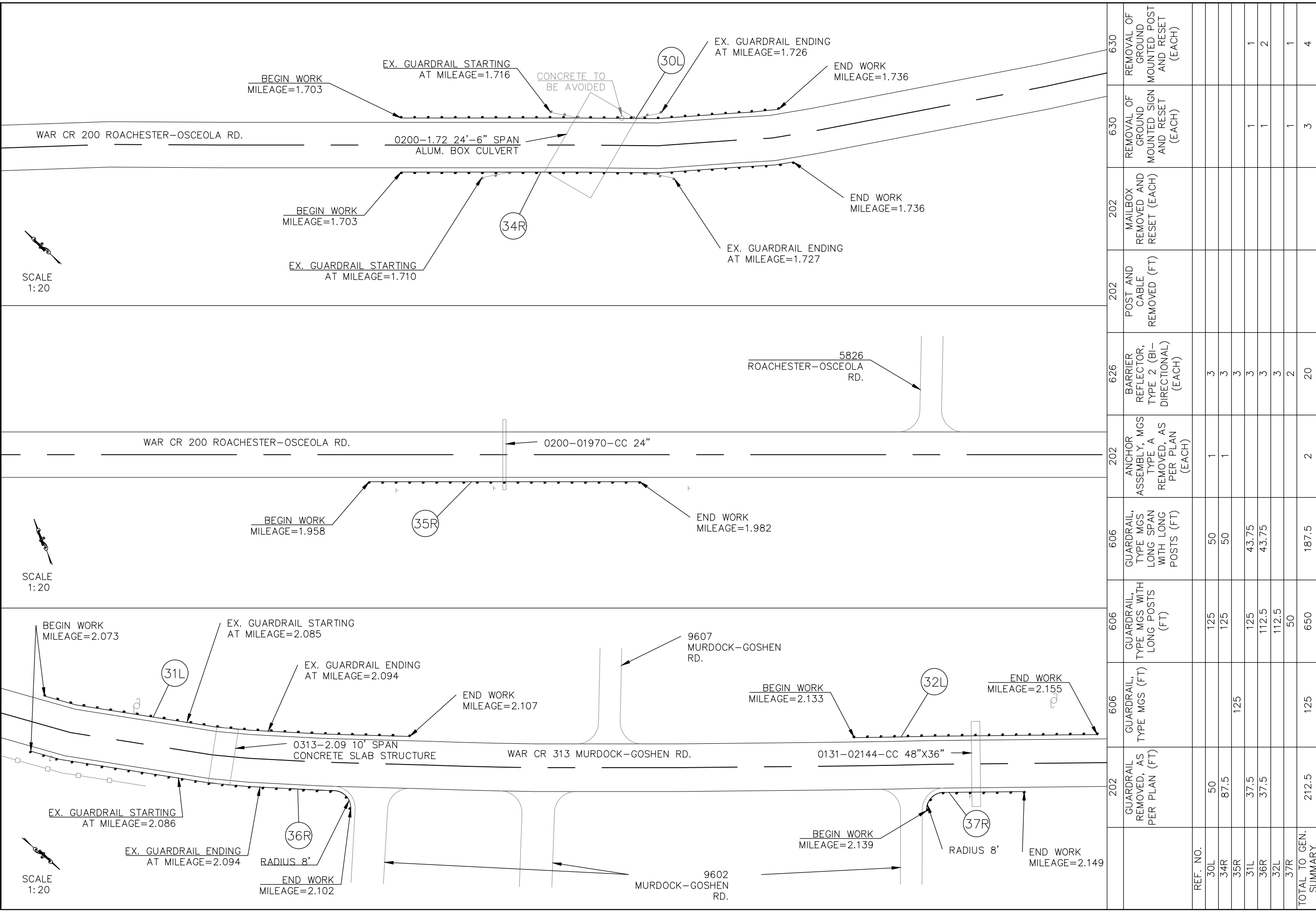
WAR-VAR
GUARDRAIL-FY24

WAR-VAR
GUARDRAIL-FY24

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18

CR 200-ROACHESTER-OSCEOLA RD.

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REF. NO.	GUARDRAIL REMOVED, AS PER PLAN (FT)	GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	GUARDRAIL, TYPE MGS LONG SPAN WITH LONG POSTS (FT)	ANCHOR ASSEMBLY, MGS TYPE A REMOVED, AS PER PLAN (EACH)	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) (EACH)	POST AND CABLE REMOVED (FT)	MAILBOX REMOVED AND RESET (EACH)	REMOVAL OF GROUND MOUNTED SIGN AND RESET (EACH)	REMOVAL OF GROUND MOUNTED POST AND RESET (EACH)
30L	50	125	50	1	3				630
34R	87.5	125	50	1	3				630
35R		125			3				
31L	37.5	125	43.75		3				1
36R	37.5	112.5	43.75		3				2
32L		112.5			3				1
37R		50			2				1
TOTAL TO GEN. SUMMARY	212.5	650	187.5	2	20				4

WAR-VAR GUARDRAIL-FY24

CR 200-ROACHESTER-OSCEOLA RD., CR 313-MURDOCK-GOSHEN RD.