CULVERTS

LOCATION MAP CLE-132-1521: LATITUDE: 39.109628 LONGITUDE: -84.140624

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

CLE CULVERTS FY26

STONELICK AND MONROE TOWNSHIPS CLERMONT COUNTY

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FEDERAL PROJECT NUMBER

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

REHABILITATION OF CULVERT AT CLE-132-15.21 BY FIELD PAVING AND REPLACEMENT OF CULVERT AT CLE-222-13.12.

EARTH DISTURBED AREAS

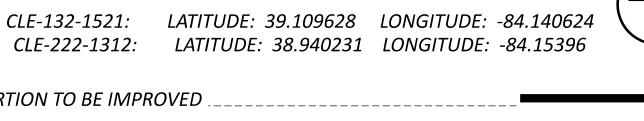
PROJECT EARTH DISTURBED AREA: **ACRES ACRES** ESTIMATED CONTRACTOR EARTH DISTURBED AREA: NOTICE OF INTENT EARTH DISTURBED AREA: **ACRES**

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

District Deputy Director

Director, Department of Transportation



PORTION TO BE IMPROVED	
INTERSTATE HIGHWAY	
FEDERAL ROUTES	
STATE ROUTES	
COUNTY & TOWNSHIP ROADS	
OTHER ROADS	

DESIGN DESIGNATION	CLE-132-1521	CLE-222-1312
CURRENT ADT (2022)	6,700	1,700
DESIGN YEAR ADT (2042)	6,900	2,200
DESIGN HOURLY VOLUME (2042)	<i>850</i>	300
DIRECTIONAL DISTRIBUTION	63.5	68.8
TRUCKS (24 HOUR B&C)	3	2
DESIGN SPEED	50	60
LEGAL SPEED	45	55
DESIGN FUNCTIONAL CLASSIFICATION:	05 - MAJOR COLLECTOR	05 - MAJOR COLLECTOR
NHS PROJECT	NO	NO

DESIGN EXCEPTIONS

APPROVAL DATES SHEET NUMBER DESIGN FEATURE CLE-222-13.12 LANE WIDTH CROSS SLOPE

ADA DESIGN WAIVERS

UNDERGROU	ND UTILITIES
	Working Days
Before	You Dig
	0811,org efore You Dig

PLAN PREPARED BY:

DISTRICT 8 ENGINEERING *505 SOUTH STATE ROUTE 741* LEBANON, OH 45036

STANDARL	CONSTRUCTION I	DRAWINGS	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS

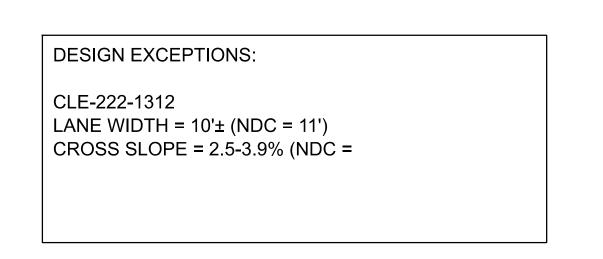
ESIGN AGENCY

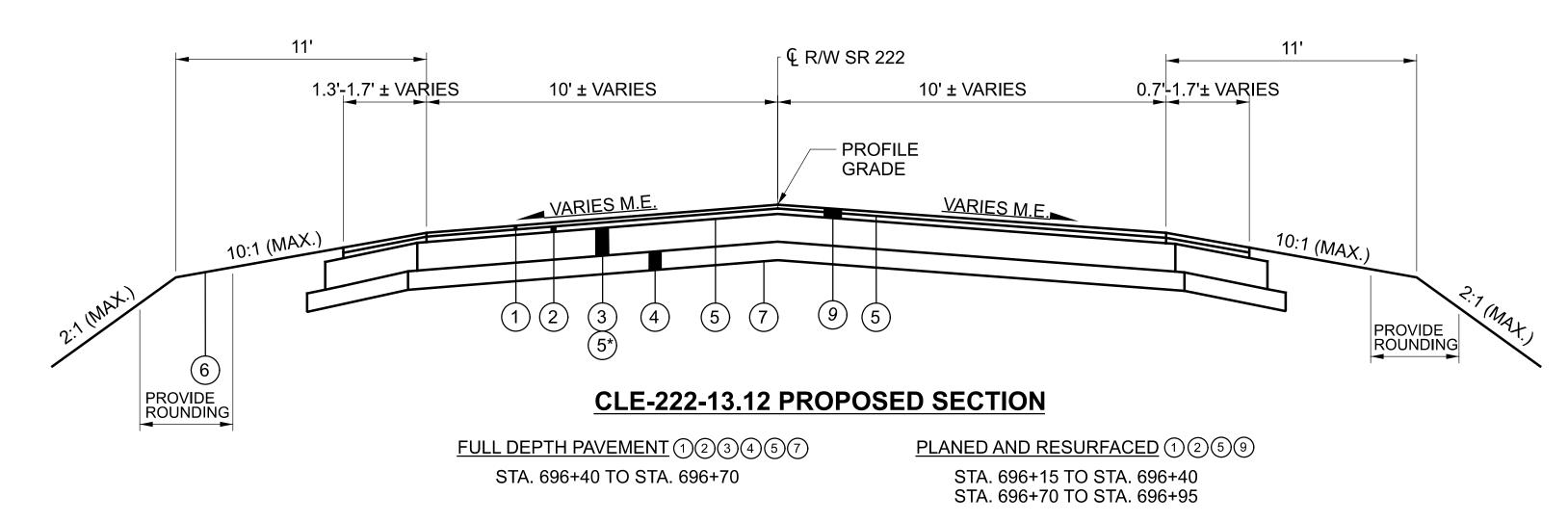


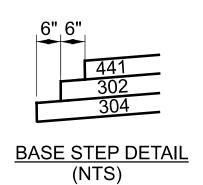
ESIGNER MLB

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113002







PROPOSED LEGEND

- 1) ITEM 441 11/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (449), PG64-22
- (3) ITEM 301 9" ASPHALT CONCRETE BASE, PG 64-22 (449)
- 4 ITEM 304 6" AGGREGATE BASE
- 5 ITEM 407 TACK COAT
- (6) ITEM 659 SEEDING AND MULCHING
- (7) ITEM 204 SUBGRADE COMPACTION
- * TACK COAT TO BE PLACED IN BETWEEN LIFTS OF ITEM 301.
- ** SEE CULVERT DETAIL FOR LIMITS OF GUARDRAIL
- *** FOR FULL DEPTH OVER PROPOSED CULVERTS, IF FULL PROPOSED BUILDUP IS NOT FEASIBLE DUE TO COVER, PLACE A MINIMUM BUILDUP PROVIDING SURFACE COURSE AND AS MUCH BASE COURSE AS IS FEASIBLE (SEE CULVERT DETAILS FOR MINIMUM COVERS ON CULVERTS)

- (2) ITEM 441 13/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22

- 9 ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, DEPTH 3"

ESIGNER MLB REVIEWER XXX MM-DD-ROJECT ID 113002

DESIGN AGENCY

CULVERTS

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

(List all sanitary, telephone, electric, gas, water, cable TV, etc.)

(Name of Owner, Street or P.O. Box, City, State, Zip Ćode, and Emergency Telephone Number.)

WORK LIMITS

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

CLEARING AND GRUBBING

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

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEET NO. ____.

SEEDING AND MULCHING

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

659, TOPSOIL SQ. YD. 659, SEEDING AND MULCHING 659, COMMERCIAL FERTILIZER ACRES
M. GAL. 659, LIME 659, WATER

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

ITEM SPECIAL - PIPE CLEANOUT

THIS WORK CONSISTS OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. DISPOSE OF ALL MATERIAL PER 105.16 AND 105.17. CLEAN OUT TO THE APPROVAL OF THE ENGINEER.

CLEANOUT OF THE PIPE IS PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL, PIPE CLEANOUT. THIS PRICE INCLUDES THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

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

ITEM SPECIAL, PIPE CLEANOUT, OVER 48"

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT, AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

> NOTES ENERAL **(**

ESIGN AGENCY



ESIGNER MLB

REVIEWER XXX MM-DD-ROJECT ID

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CMP REPAIR METHOD A- METAL SEALER

PROTECTIVE COATING REPAIR USING A METAL SEALER: CMP REPAIR METHOD A IS INTENDED FOR REPAIRING AREAS OF CORRUGATED METAL PIPES THAT HAVE NOT EXPERIENCED ANY SIGNIFICANT SECTION LOSS. BUT HAS EXPERIENCED MINOR SURFACE RUST, FRECKLED RUST, LEACHING, OR LOSS OF GALVANIZATION. REPAIR AREAS AS SHOWN IN THE PLANS PER ONE OF THE FOLLOWING MANUFACTURES PRODUCTS:

REPAIR USING DIAMANT/STRONGHOLD ONE METAL SEALER: CLEAN SURFACE TO BE TREATED WITH DIAMANT CLEANER #1417 TO REMOVE ANY OIL. GREASE OR DIRT. APPLY DICHTOL 1546 BLUE BY BRUSH OR BY SPRAY METHOD (BRUSH ONLY IF PERFORMED OVER STANDING WATER) PER MANUFACTURER APPROVED METHOD. APPLY A MINIMUM OF 2 COATS AT 1 MINUTE INTERVALS FOR A TOTAL THICKNESS OF 0.003". MULTIPLE COATS MAY BE NEEDED UNTIL SEALER BEGINS TO BUILD. DO NOT ALLOW TO DRY BETWEEN COATS.

OR

REPAIR USING DEVCON EZ SPRAY CERAMIC RED/BLUE: CLEAN THE SURFACE WITH DEVCON CLEANER BLEND 300 TO REMOVE ANY OIL. GREASE OR DIRT. GRIT BLAST SURFACE WITH 8-40 MESH TO AN SSPC SP-10 PROFILE THEN LEAVE OVERNIGHT TO ALLOW ANY SALT TO SWEAT TO THE SURFACE. REPEAT BLASTING NEXT DAY. PERFORM CHLORIDE PENETRATION TEST TO DETERMINE SOLUBLE SALT CONTENT IS LESS THAN 40 PPM. USE SALT REMOVER SUCH AS CHLOR-RID OR APPROVED EQUAL TO REMOVE SALTS. CLEAN SURFACE AGAIN WITH DEVCON CLEANER BLEND 300. APPLY THE FIRST COAT OF EZ SPRAY CERAMIC AT A THICKNESS OF APPROXIMATELY 15 MIL (0.015 IN). APPLY A SECOND COAT OF EZ SPRAY CERAMIC AT A THICKNESS OF APPROXIMATELY 15 MIL (0.015 IN) DURING THE RE-COAT TIME PERIOD OF 4-6 HOURS AFTER THE FIRST COAT WAS APPLIED TO ENSURE PROPER ADHESION.

OR

REPAIR USING LOCTITE PC 7693 COLD GALVANIZING COATING COMPOUND: CLEAN THE SURFACE WITH LOCTITE 7840 TO REMOVE ANY OIL GREASE OR DIRT. GRIT BLAST SURFACE WITH 8-40 MESH TO AN SSPC SP-10 PROFILE THEN LEAVE OVERNIGHT TO ALLOW ANY SALT TO SWEAT TO THE SURFACE. REPEAT BLASTING NEXT DAY. PERFORM CHLORIDE PENETRATION TEST TO DETERMINE IF SOLUBLE SALT CONTENT IS LESS THAN 40 PPM. USE SALT REMOVER SUCH AS CHLOR-RID OR APPROVED EQUAL TO REMOVE SALTS. APPLY TWO COATS OF LOCTITE PC 7693 GALVANIZING COATING COMPOUND AT 15 MINUTE INTERVALS.

PAYMENT FOR ALL REPAIR OPTIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 CONDUIT. MISC.: REPAIR METHOD A. QUANTITIES LISTED ON PLAN SHEETS ARE FOR ESTIMATE PURPOSES ONLY AND SHALL BE FIELD VERIFIED. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPENCIES.

CMP REPAIR METHOD B- METAL REPAIR OF SECTION LOSS

CMP REAIR METHOD B IS INTENDED TO USE A METAL REPAIR PUTTY FOR REPAIRING AREAS OF CORRUGATED METAL PIPES THAT HAVE EXPERIENCED MINOR TO MODERATE SECTION LOSS AS EVIDENT BY DARK BROWN AREAS, LOSS OF MATERIAL WITH DEEP PITS, AND/OR SMALL FLAKING METAL. PRIOR TO CMP REPAIR DESCRIBED BELOW, ANY REPAIR AREA EXHIBITING ACTIVE WATER INFILTRATION SHALL BE SEALED WITH AN ALL-WEATHER CMP COMPATIBLE HYDROPHOBIC GROUT. THE EXISTING CMP SHALL BE CLEANED AND PREPARED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AND HYDROPHOBIC GROUT SHALL BE INSTALLED AS DIRECTED BY THE MANUFACTURER. REPAIR PER ONE OF THE FOLLOWING MANUFACTURERS PRODUCTS:

REPAIR USING DIAMANT/STRONGHOLD ONE MATERIAL REPACOAT 2447: GRIT BLAST AREAS WITH AN 8-40 MESH GRIT TO AN SSPC SP-10 PROFILE AND TREAT WITH ONE COAT OF DICHTOL 1546 PER REPAIR METHOD A FOR A DISTANCE OF 12" PAST THE LIMITS OF RUST. APPLY REPACOUR 2447 TO FILL THE AREAS OF SECTION LOSS AND RUSTING PLUS AN ADDITIONAL 2" PERIMETER IN ALL DIRECTIONS. THE TOTAL COATING SHALL FILL THE DETERIORATED AND HAVE A MINIMUM THICKNESS OF 0.0125" THICK.

OR

REPAIR USING DEVCON PLASTIC STEEL LIQUID AND EZ SPRAY CERAMIC RED/BLUE: CLEAN THE SURFACE WITH DEVCON CLEANER BLEND 300 TO REMOVE ANY OIL, GREASE OR DIRT. GRIT BLAST TO AN SSPC SP-10 PROFILE FOR A DISTANCE OF 12"PAST THE LIMITS OF RUST. APPLY PLASTIC STEEL LIQUID (B) TO FILL THE AREAS OF SECTION LOSS AND RUSTING FOR A DISTANCE OF 2" PAST THE ORIGINAL LIMITS OF RUST. THE SECTION LOSS SHALL BE FILLED PLUS AN ADDITIONAL MINIMUM THICKNESS OF 1/8" OF MATERIAL SHALL BE SPREAD OVER THE RUSTED/REPAIRED AREA AND THE 2"PERIMETER AREA. APPLY THE FIRST COAT OF EZ SPRAY CERAMIC AT A THICKNESS OF APPROXIMATELY 15 MIL (0.015 IN) DURING THE RE-COAT TIME PERIOD OF 2-4 HOURS AFTER THE PLASTIC STEEL LIQUID IS APPLIED TO ENSURE PROPER ADHESION. APPLY A SECOND COAT OF EZ SPRAY CERAMIC AT A THICKNESS OF APPROXIMATELY 15 MIL (0.015 IN) DURING THE RE-COAT TIME PERIOD OF 4-6 HOURS AFTER THE FIRST COAT WAS APPLIED TO ENSURE PROPER ADHESION. EZ SPRAY CERAMIC SHALL BE PLACED 12" PAST THE LIMITS OF RUST.

OR

CLEAN THE SURFACE WITH LOCTITE 7840 TO REMOVE ANY OIL. GREASE. OR DIRT. REPAIR USING LOCTITE EA 3471 NA (FIXMASTER STEEL PUTTY): GRIT BLAST AREAS WITH AN 8-40 MESH GRIT TO AN SSPC SP-10 PROFILE AND TREAT WITH EITHER PRODUCT IN CMP REPAIR METHOD A FOR A DISTANCE OF 12" PAST THE LIMITS OF RUST. APPLY LOCTITE EA 3471 TO FILL THE AREAS OF SECTION LOSS AND RUSTING FOR A DISTANCE OF 2" PAST THE ORIGINAL LIMITS OF RUST. THE SECTION LOSS SHALL BE FILLED PLUS AN ADDITIONAL MINIMUM THICKNESS OF 1/16" OF MATERIAL SHALL BE SPREAD OVER THE RUSTED/REPAIRED AREA AND THE 2" PERIMETER AREA.

OR

CLEAN THE SURFACE WITH LOCTITIE 7840 TO REMOVE ANY GREASE OR DIRT. GRIT BLAST AREAS WITH AN 8-40 MESH GRIT TO AN SSPC SP-10 PROFILE. APPLY LOCTITIE EA 3471 TO FILL THE AREAS OF SECTION LOSS AND RUSTING PLUS AND ADDITIONAL 4" PERIMETER IN ALL DIRECTIONS. TREAT WITH ONE COAT OF LOCTITE PC 7693 GALVANIZING COATING COMPOUND PER REPAIR METHOD A FOR A DISTANCE OF 12" PAST THE LIMITS OF RUST. THE SECTION LOSS SHALL BE FILLED PLUS AN ADDITIONAL MINIMUM THICKNESS OF 1/16" OF MATERIAL SHALL BE SPREAD OVER THE REPAIR AREA.

PAYMENT FOR ALL REPAIRS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 CONDUIT. MISC.: REPAIR METHOD B. QUANTITIES LISTED ON PLAN SHEETS ARE FOR ESTIMATE PURPOSES ONLY AND SHALL BE FIELD VERIFIED. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPENCIES.

CMP REPAIR METHOD C- METAL REPAIR OF SECTION LOSS WITH **PERFORATIONS**

CMP REPAIR METHOD C IS INTENDED FOR REPAIRING AREAS OF CORRUGATED METAL PIPES THAT ARE PERFORATED OR ARE VERY THIN AFTER GRIT BLASTING AS EVIDENT BY DARK BROWN LAYERED RUST AND OR THE PRESENCE OF HOLES. THIS REPAIR IS NOT INTENDED TO ACT AS A FULLY STRUCTURAL REPAIR, BUT IT IS INTENDED TO STOP CORROSION AND PREVENT BACKFILL INFILTRATION. REPAIR AS FOLLOWS:

REPAIR USING DIAMANT/STRONGHOLD ONE MATERIAL MM1018 PUTTY: FILL HOLES THAT ARE LEAKING BACKFILL WITH EXPANDABLE FOAM, HYDRAULIC CEMENT, OR OTHER REPAIR METHODS AS NECESSARY. THE FILL MATERIAL SHALL NOT REDUCE THE REPAIR THICKNESS BY EXTENDING INTO THE THICKNESS OF THE CONDUIT WALL REPAIR. GRIT BLAST AREAS WITH AN 8-40 MESH GRIT TO AN SSPC SP-10 PROFILE AND TREAT WITH ONE COAT OF DICHTOL 1546 PER REPAIR METHOD A FOR A DISTANCE OF 12" PAST THE LIMITS OF RUST. APPLY MM1018 METAL POLYMER PUTTY TO FILL THE AREAS OF SECTION LOSS AND RUSTING PLUS AN ADDITIONAL 4" PERIMETER IN ALL DIRECTIONS. THE SECTION LOSS SHALL BE FILLED PLUS AN ADDITIONAL MINIMUM THICKNESS OF 1/16" OF MATERIAL SHALL BE SPREAD OVER THE REPAIR AREA. AN 18 GAGE, GALVANIZED METAL MESH WITH A 1/8" GRID SPACING SHALL BE PRESSED INTO THE REPAIR AREA CONFORMING TO THE METAL CORRUGATIONS. THE METAL MESH SHALL EXTEND 2" PAST THE RUSTED AREAS. ADDITIONAL MATERIAL SHALL BE PLACED IN A SECOND COATING TO ENSURE THE METAL MESH IS IN FULLY ENGULFED BY THE PUTTY AND HAS A 1/16" MINIMUM THICKNESS OVERTOP OF THE MESH.

OR

REPAIR USING DEVCON PLASTIC STEEL PUTTY AND EZ SPRAY CERAMIC RED/BLUE: FILL HOLES THAT ARE LEAKING BACKFILL WITH EXPANDABLE FOAM. HYDRAULIC CEMENT. OR OTHER APPROVED REPAIR METHODS AS NECESSARY. THE FILL MATERIAL SHALL NOT REDUCE THE REPAIR THICKNESS BY EXTENDING INTO THE THICKNESS OF THE CONDUIT WALL REPAIR. CLEAN THE SURFACE WITH DEVCON CLEANER BLEND 300 TO REMOVE ANY OIL, GREASE OR DIRT. GRIT BLAST TO AN SSPC SP-10 PROFILE FOR A DISTANCE OF 12" PAST THE LIMITS OF RUST. APPLY DEVCON PLASTIC STEEL PUTTY (A) TO FILL THE AREAS OF SECTION LOSS AND RUSTING PLUS AN ADDITIONAL 4" PERIMETER IN ALL DIRECTIONS. THE SECTION LOSS SHALL BE FILLED PLUS AN ADDITIONAL MINIMUM THICKNESS OF 1/16"OF MATERIAL SHALL BE SPREAD OVER THE REPAIR AREA. AN 18 GAGE, GALVANIZED METAL MESH WITH A 1/8" GRID SPACING SHALL BE PRESSED INTO THE REPAIR AREA CONFORMING TO THE METAL CORRUGATIONS. THE METAL MESH SHALL EXTEND 2" PAST THE RUSTED AREAS. ADDITIONAL MATERIAL SHALL BE PLACED IN A SECOND COATING TO ENSURE THE METAL MESH IS IN FULLY ENGULFED BY THE PUTTY AND HAS A 1/16"MINIMUM THICKNESS OVERTOP OF THE MESH. FOR A DISTANCE OF 12" AROUND THE RUSTED AREA APPLY THE FIRST COAT OF EZ SPRAY CERAMIC AT A THICKNESS OF APPROXIMATELY 15 MIL (0.015 IN) DURING THE RECOAT TIME PERIOD OF 2-4 HOURS AFTER THE PLASTIC STEEL PUTTY IS APPLIED TO ENSURE PROPER ADHESION. APPLY A SECOND COAT OF EZ SPRAY CERAMIC AT A THICKNESS OF APPROXIMATELY 15 MIL (0.015 IN) DURING THE RECOAT TIME PERIOD OF 4-6 HOURS AFTER THE FIRST COAT WAS APPLIED TO ENSURE PROPER ADHESION.

REPAIR USING LOCTITE EA 3471 NA (FIXMASTER STEEL PUTTY): FILL HOLES THAT ARE LEAKING BACKFILL WITH EXPANDABLE FOAM (LOCTITE TITE FOAM), HYDRAULIC CEMENT, OR OTHER REPAIR METHODS AS NECESSARY. THE FILL MATERIAL SHALL NOT REDUCE THE REPAIR THICKNESS BY EXTENDING INTO THE THICKNESS OF THE CONDUIT WALL. CLEAN THE SURFACE WITH LOCTITE 7840 TO REMOVE ANY OIL, GREASE, OR DIRT FOR A DISTANCE OF 12" PAST THE LIMITS OF RUST. GRIT BLAST AREAS WITH AN 8-40 MESH GRIT TO AN SSPC SP-10 PROFILE. APPLY LOCTITE FIXMASTER STEEL PUTTY TO FILL THE AREAS OF SECTION LOSS AND RUSTING PLUS AN ADDITIONAL 4" PERIMETER IN ALL DIRECTIONS. AN 18 GAUGE FALVANIZED METAL MESH WITH 1/8" GIRD SPACING SHALL BE PRESSED INTO THE REPAIR AREA CONFORMING TO THE METAL CORRUGATIONS. THE METAL MESH SHALL EXTEND 2" PAST THE RUSTED AREA. TREAT WITH ONE COAT OF LOCTITE PC 7693 GALVANIZING COATING COMPOUND PER REPAIR METHOD A FOR A DISTANCE OF 12" PAST THE LIMITS OF RUST. THE SECTION LOSS SHALL BE FILLED PLUS AN ADDITIONAL MINIMUM THICKNESS OF 1/16" OF MATERIAL SHALL BE SPREAD OVER THE REPAIR AREA. AN 18 GAGE. GALVANIZED METAL MESH WITH A 1/8" GRID SPACING SHALL BE PRESSED INTO THE REPAIR AREA CONFORMING TO THE METAL CORRUGATIONS. THE METAL MESH SHALL EXTEND 2" PAST THE RUSTED AREA. ADDITIONAL MATERIAL SHALL BE PLACED IN A SECOND COATING TO ENSURE THE METAL MESH IS FULLY ENGULFED BY THE PUTTY AND HAS A 1/16" MINIMUM THICKNESS OVERTOP OF THE MESH.

PAYMENT FOR ALL REPAIRS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 CONDUIT. MISC.: REPAIR METHOD C. QUANTITIES LISTED ON PLAN SHEETS ARE FOR ESTIMATE PURPOSES ONLY AND SHALL BE FIELD VERIFIED. THE ENGINEER SHALL BE NOTIFIED OF ANY QUANTITY DISCREPENCIES.

MOCK UP

FOR REPAIR METHOD A. REPAIR METHOD B. AND REPAIR METHOD C, THE CONTRACTOR SHALL CONDUCT A SEPARATE MOCK-UP REPAIR USING THE PRODUCTS CHOSEN BY THE CONTRACTOR FOR EACH REPAIR METHOD. THE MOCK-UP SHALL BE CONDUCTED IN THE PRESENCE OF THE ENGINEER AND THE PRODUCT'S REPRESENTATIVE FOR ACCEPTANCE OF THE APPLICATION, MEANS AND METHODS. THIS MOCK-UP MAY BE CONDUCTED ON A REPRESENTATIVE SECTION OF THE DEFECTIVE PIPE AT A LOCATION AGREED UPON BY THE ENGINEER. UPON ACCEPTANCE OF THE MOCK-UP BY THE ENGINEER. THE CONTRACTOR MAY PROCEED WITH PROJECT REPAIRS.

ESIGN AGENCY



ESIGNER MLB REVIEWER XXX MM-DD-Y ROJECT ID

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OR

ITEM 614, MAINTAINING TRAFFIC (AT ALL TIMES)

CLE-132: A MINIMUM OF ONE LANE OF TWO-WAY TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE BY USE OF THE EXISTING PAVEMENT.

CLE-222: A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 30 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 05. A DISINCENTIVE SHALL BE ASSESSED PER THE AMOUNT LISTED IN THE LANE VALUE CONTRACT TABLE FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

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

NEW YEAR'S (OBSERVED) GENERAL/REGULAR ELECTION DAY ((NOV)
TOTAL SOLAR ECLIPSE (4/8/24) THANKSGIVING
MEMORIAL DAY CHRISTMAS (OBSERVED)
FOURTH OF JULY (OBSERVED) (OTHER HOLIDAY OR SPECIAL EVENT)
LABOR DAY

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

DAY OF HOLIDAY TIME ALL LANES OR SPECIAL EVENT MUST BE OPEN TO TRAFFIC

SUNDAY 12:00N FRIDAY THROUGH 6:00 AM MONDAY MONDAY 12:00N FRIDAY THROUGH 6:00 AM TUESDAY MONDAY (TOTAL SOLAR ECLIPSE)

12:00N MONDAY THROUGH 6:00 AM WEDNESDAY TUESDAY 12:00N MONDAY THROUGH 6:00 AM WEDNESDAY TUESDAY (GEN./REG. ELECTION)

5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY WEDNESDAY 12:00N TUESDAY THROUGH 6:00 AM THURSDAY THURSDAY 12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY THURSDAY (THANKSGIVING ONLY)

6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY FRIDAY 12:00N THURSDAY THROUGH 6:00 AM MONDAY SATURDAY 12:00N FRIDAY THROUGH 6:00 AM MONDAY

DURING THE SAME PERIODS, MAINTAIN PEDESTRAIN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

[NEWLY CONSTRUCTED LANE ADDITIONS, ONCE COMPLETED AND INITIALLY OPENED TO TRAFFIC, SHALL BE OPEN TO TRAFFIC DURING ALL SUBSEQUENT DESIGNATED HOLIDAYS AND SPECIAL EVENTS, AND RELATED PERIODS OF TIME, SPECIFIED ABOVE.]

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

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.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE ITEM DURATION SIGN DISPLAYED OF CLOSURE TO PUBLIC

RAMP & >=2 WEEKS 14 CALENDAR DAYS
PRIOR TO CLOSURE

ROAD > 12 HOURS 7 CALENDAR DAYS & < 2 WEEKS PRIOR TO CLOSURE

CLOSURES <= 12 HOURS 2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

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 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

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

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

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

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

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

FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:

ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,

AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR

THE ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED LANE; OR

OTHER LOCATION AS APPROVED BY THE ENGINEER.
THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY
RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE
AS THE OPERATIONS PROCEED IN THE LOCALIZED
QUALIFYING WORK AREAS.

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

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

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

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

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

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 40 HOURS

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

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

DESIGN AGENCY



DESIGNER

MLB

REVIEWER

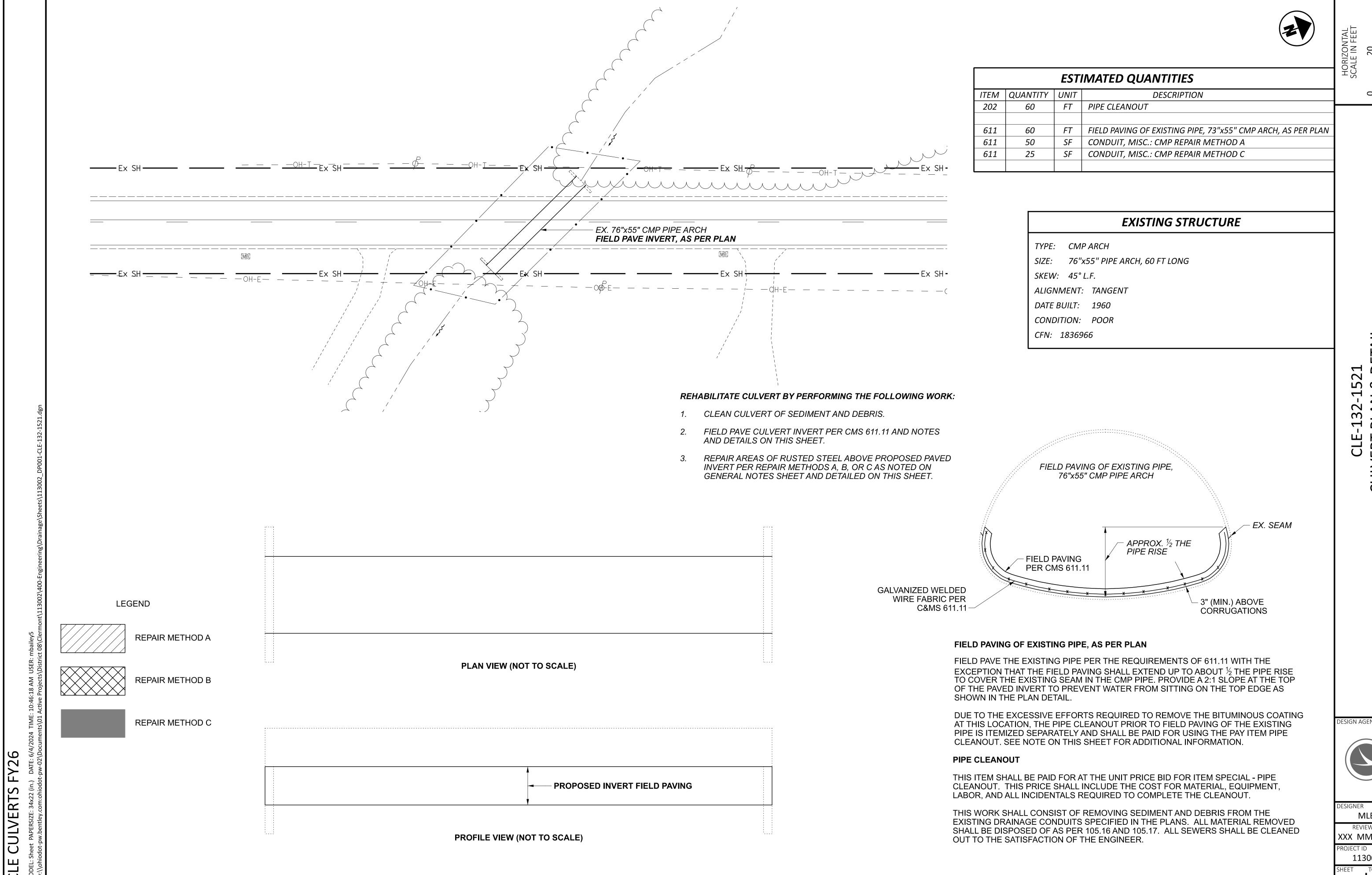
XXX MM-DD-1

PROJECT ID

113002 T TOTAL

TOTAL 0

			JLATIONS			DESIGN AG	DESIGNER N REV XXX M PROJECT I
						DE	X
1.75" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	CU YD	3.6					
1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	CU YD	2.6					
TACK COAT (APPLIED AT 0.09 GAL/SQ YD)	GALLON	6.8					
TACK COAT (APPLIED AT 0.06 GAL/SQ YD)	GALLON	4.7					
6" AGGREGATE BASE	CU YD	13.6					
9" ASPHALT CONCRETE BASE, PG64- 22	CU YD	19.6					
3" PAVEMENT PLANING, ASPHALT CONCRETE	SQ YD	62.5	62.5				
SUBGRADE COMPACTION	SQ YD		81.7				
PAVEMENT REMOVED	SQ YD	75.0					
TOTAL AREA (A = L	SQ FT	562.50 675.00 705.00 735.00	735.00				
AVERAGE WIDTH (W)	FT	22.5 22.5 23.5 24.5	24.5				
END WIDTH	FT	22.5 23.5 24.5	24.5				
BEGIN WIDTH	FT	22.5 23.5 24.5	24.5				
LENGTH OR AVERAGE LENGTH (L)	FT	30.00 30.00 30.00	30.00				
ION	TO	696+40.00 696+70.00 696+70.00	696+70.00 696+95.00				
STAT	FROM	696+15.00 696+40.00 696+40.00 696+40.00	696+40.00 696+70.00				
N			DAT				
DESCRIPTION	CLE-222-1312 PLANING AND RESURFACING	PLANING/SURFACE COURSE/TACK COAT ULL DEPTH SURFACE COURSE/TACK COAT TACK COAT/ASPHALT CONCRETE BASE AGGREGATE BASE	SUBGRADE COMPACTION PLANING AND RESURFACING PLANING/SURFACE COURSE/TACK COAT				



DETAIL

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CULVERT

DESIGN AGENCY



ESIGNER MLB

REVIEWER XXX MM-DD-Y

113002

P.0 0

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113002

SHEET TOTAL P.0 0

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