

**UTILITIES**

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJECENT TO THE WORK AREA.

AERIAL TELEPHONE UTILITIES FROM SLM 5.03 TO 5.67 SHALL BE BURIED BY UTILITY PROVIDER PRIOR TO CONSTRUCTION.

**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.

**SEEDING AND MULCHING**

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

659, SEEDING AND MULCHING  
 1696 SQ. YD.

659, COMMERICAL FERTILIZER  
 0.23 TON

659, WATER  
 9 M. GAL

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AS DIRECTED BY THE ENGINEER.

**PROFILE AND ALIGNMENT**

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT.

**ITEM 617 COMPACTED AGGREGATE, AS PER PLAN**

THIS ITEM SHALL MEET ALL REQUIREMENTS FOR ITEM 617 COMPACTED AGGREGATE WITH THE FOLLOWING EXCEPTION:

- 1) NO RECLAIMED ASPHALT PAVEMENT (RAP) SHALL BE USED.

ALL COSTS ASSOCIATED WITH THE EQUIPMENT, LABOR, AND MATERIALS NECCESARY FOR SUPPLYING AND PLACING THIS ITEM SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

**PERSONAL PROTECTION EQUIPMENT (PPE)**

THE CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF SECTIONS XXIV AND XXXIV OF THE OHIO DEPARTMENT OF TRANSPORTATION SAFETY AND HEALTH STANDARD OPERATING PROCEDURE 220-006(SP) EFFECTIVE: NOVEMBER 1, 2018 (EXCEPT AS AMENDED BELOW) AND ALL SUBSEQUENT UPDATES POSTED AT THE FOLLOWING WEBSITE:

HTTP://WWW.DOT.STATE.OH.US/POLICY/POLICIESANDSOPS/POLICIES/220-006(SP).PDF

AMENDMENTS TO THE REQUIREMENTS OF THIS DOCUMENT ARE:

XXIV. HEAD PROTECTION (HARD HATS)  
 ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR APPROPRIATE HEAD PROTECTION. ALL HARD HATS MUST MEET OR EXCEED ANSI Z89.1-2009 TYPE 1, CLASS E-G REQUIREMENTS.

XXXIV. SAFETY APPAREL AND VEST (HIGH VISIBILITY)  
 ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR A HIGH-VISIBLTY SAFETY VEST THAT MEETS THE PERFORMANCE CLASS II OR CLASS III REQUIREMENTS OF THE ANSI/ISEA 107-2015 PUBLICATION ENTITLED "AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND ACCESSORIES."

WORKERS MAY WEAR AN ANSI CLASS II OR ANSI CLASS III APPROVED RAIN SUIT, JACKET OR OTHER APPAREL WITHOUT A SAFETY VEST OVER IT.

**WINDOWS CONTRACT**

DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISINCENTIVE \$ PER DAY	WORK WINDOW	
			START	END
ALL WORK THAT MUST BE COMPLETED DURING CLOSURE	45	\$5,000 PER DAY	3/1/2025	5/15/2025
ALL WORK ON PROJECT	75	PER C&MS 108.07	3/1/2025	7/1/2025

**EXTRA AREAS**

EXTRA AREAS SHALL INCLUDE DRIVEWAYS, MAILBOX PULL-OFFS AND OTHER SIMILAR AREAS, AS DETERMINED BY THE ENGINEER. MOST DRIVEWAYS AND MAILBOX APPROACHES ALREADY MEET THE PROPOSED WIDTH OF THE TYPICAL SECTION. THE PROPOSED WIDENING WILL BE SUSPENDED IN ALL EXTRA AREAS WHERE THE EXISTING SHOULDER MEETS OR EXCEEDS THE PROPOSED WIDTH, AS DIRECTED BY THE ENGINEER.

ALL WORK, MATERIALS, LABOR AND EQUIPMENT NECCESARY TO COMPLETE THE ABOVE DESCRIBED WORK SHALL BE INCIDENTAL TO THE PLACEMENT OF THE FLEXIBLE CONCRETE. NO EXTRA QUANTITY HAS BEEN ADDED FOR EXTRA AREAS AS WORK WILL GET SUSPENDED IN MANY OF THESE AREAS THAT ALREADY MEET THE PROPOSED WIDENED WIDTH.

**ITEM 209 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN.**

PREPARE THE SHOULDER FOR PAVING A CONSISTENT SAFETY EDGE IN BOTH THICKNESS AND WIDTH.

PRIOR TO PAVING THE SAFETY EDGE, GRADE AN AREA 10 INCHES (250 MM) WIDE, BEGINNING AT THE EDGE OF THE PAVED ROADWAY, TO PROVIDE A LEVEL SURFACE FREE OF VEGETATION FOR CONSTRUCTION OF THE SAFETY EDGE. IF NECCESARY, EXCAVATE THE GRADED AREA TO THE DEPTH NEEDED TO CONSTRUCT THE SAFETY EDGE. COMPACT THE GRADED SHOULDER ACCORDING TO 617.05, OR AS DIRECTED BY THE ENGINEER.

A QUANTITY OF 4.82 MILES HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN.

DESIGN AGENCY



DESIGNER

TLI

REVIEWER

JHN 07-26-24

PROJECT ID

117074

SHEET TOTAL

3 16



**GUARDRAIL (GENERAL PROVISIONS)**

ALL MATERIAL EXCAVATED FOR POST HOLES OR FOUNDATION TUBES SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH 202.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE AREA RESTORED TO A NEAT CONDITION SATISFACTORY TO THE ENGINEER. THE COST OF THIS WORK IS TO BE INCLUDED IN THE APPLICABLE GUARDRAIL BID ITEM. THE LOCATIONS OF THE GUARDRAIL LISTED IN THESE PLANS ARE SUBJECT TO ADJUSTMENTS TO ASSURE THAT THE PLANNED INSTALLATION WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

**PROTECTION OF INCOMPLETE WORK**

ANY HAZARD DURING NON-WORKING HOURS SHALL BE ADEQUATELY PROTECTED WITH DRUMS OR BARRIER, OR AS DIRECTED BY THE ENGINEER. FOR ANY SUCH WORK REQUIRED, IT SHALL BE CONSIDERED AS INCIDENTAL AND INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE REPAIR ITEMS.

**RESHAPING UNDER GUARDRAIL**

THE CONTRACTOR SHALL RE-SHAPE THE SHOULDERS TO ENSURE A SMOOTH SURFACE FREE OF IRREGULARITIES AT LOCATIONS WHERE EXISTING GUARDRAIL IS REMOVED OR WHERE NEW GUARDRAIL IS TO BE ERECTED. THE REMOVAL AND DISPOSAL OF THE EXCESS EXCAVATION MATERIAL RESULTING FROM THIS OPERATION SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR AS DESCRIBED IN 209 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE CONTRACTOR SHALL NOT PERFORM THIS WORK UNTIL ALL POST HOLES FROM THE EXISTING GUARDRAIL HAVE BEEN FILLED AND COMPACTED TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE PER STATION FOR ITEM 209 RESHAPING UNDER GUARDRAIL.

**ITEM 606 - GUARDRAIL, TYPE MGS, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ITEM 606, THIS ITEM REQUIRES STEEL POSTS AND COMPOSITE OR POLYMER ALTERNATIVE BLOCKOUTS. THE BLOCKOUTS SHALL BE FROM THE APPROVED PRODUCTS LIST THAT IS MAINTAINED BY THE OFFICE OF ROADWAY ENGINEERING AND INSTALLED PER CONSTRUCTION AND MATERIALS SPECIFICATION 606 AND ALL PERTINENT STANDARD DRAWINGS AND PLAN INSERT SHEETS. ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING STEEL POSTS AND APPROVED ALTERNATIVE MGS BLOCKOUTS SHALL BE INCLUDED IN THE UNIT BIDS FOR THE FOLLOWING ITEM:

- ITEM 606 - GUARDRAIL, TYPE MGS, AS PER PLAN
- ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS, AS PER PLAN

**ITEM 606 - GUARDRAIL, TYPE 5, AS PER PLAN**

THIS ITEM REQUIRES STEEL POSTS AND ALTERNATIVE BLOCKOUTS WHEN PERMITTED BY THE DETAILS FOR THE BRIDGE TERMINAL ASSEMBLY.

**TEMPORARY SEDIMENT AND EROSION CONTROL**

THE FOLLOWING ITEM HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THIS ITEM OF WORK.

- ITEM 832 - EROSION CONTROL = 1,000 EACH

**ITEM 202 - GUARDRAIL REMOVED, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF 202, THIS ITEM INCLUDES THE REMOVAL OF ANY ANCHOR ASSEMBLIES, BRIDGE TERMINAL ASSEMBLIES, AND ANY CONCRETE ENCASED POSTS. THE CONCRETE AND ALL GUARDRAIL COMPONENTS SHALL BE DISPOSED OF IN ACCORDANCE WITH C&MS 202.

ALL HOLES REMAINING AFTER THE REMOVAL OF GUARDRAIL POSTS AND THE REMOVAL OF ANY CONCRETE ENCASED POSTS SHALL BE FILLED IN ACCORDANCE WITH 202.02 OF THE C&MS. FILL MATERIAL CONTAINING SOD SHALL NOT BE USED. FILL MATERIAL MUST MEET THE SPECIFICATIONS OF C&MS 703.11 AND MUST MEET THE APPROVAL OF THE ENGINEER PRIOR TO ITS USE. ALL HOLES SHALL BE FILLED AND THOROUGHLY COMPACTED TO THE SATISFACTION OF THE ENGINEER PRIOR TO THE CONTRACTOR PERFORMING THE RESHAPING UNDER GUARDRAIL WORK. PAYMENT FOR THE ABOVE SHALL BE INCLUDED WITH THE UNIT PRICE FOR ITEM 202, GUARDRAIL REMOVED, AS PER PLAN.

**ITEM 606 - BRIDGE TERMINAL ASSEMBLY, TYPE 4, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ITEM 606 AND PLAN INSERT SHEET GR-3.4, THIS ITEM REQUIRES THE USE OF STEEL POSTS AND APPROVED ALTERNATIVE BLOCKOUTS (IF AVAILABLE). THE BLOCKOUTS SHALL BE FROM THE APPROVED PRODUCTS LIST THAT IS MAINTAINED BY THE OFFICE OF ROADWAY ENGINEERING. ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING STEEL POSTS AND APPROVED ALTERNATIVE BLOCKOUTS SHALL BE INCLUDED IN THE UNIT BID FOR ITEM 606, BRIDGE TERMINAL ASSEMBLY, TYPE 4, AS PER PLAN.

**ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL 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 BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016), 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 202 - ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN**

THE CONTRACTOR SHALL REMOVE THE EXISTING ANCHOR ASSEMBLY, TYPE A IN ACCORDANCE WITH THE REQUIREMENTS OF 202.09 OF THE C&MS. IN ADDITION THE CONCRETE ENCASED POSTS AND THE CONCRETE ANCHOR AT THE GUARDRAIL TERMINAL SHALL BE COMPLETELY REMOVED AND DISPOSED OF IN ACCORDANCE WITH 202.02 OF THE C&MS.

ALL HOLES REMAINING AFTER REMOVAL OF CONCRETE ENCASED POSTS AND THE REMOVAL OF THE CONCRETE ANCHOR SHALL BE FILLED IN ACCORDANCE WITH 202.02 OF THE C&MS. FILL MATERIAL CONTAINING SOD SHALL NOT BE USED. FILL MATERIAL MUST MEET THE SPECIFICATION OF C&MS 703.11 AND MUST MEET THE APPROVAL OF THE ENGINEER PRIOR TO ITS USE. MATERIAL PLACED IN HOLES SHALL BE THOROUGHLY COMPACTED AND LEVELED OFF AS DIRECTED BY THE ENGINEER PRIOR TO THE CONTRACTOR PERFORMING THE RESHAPING UNDER GUARDRAIL WORK. PAYMENT FOR THE ABOVE SHALL BE INCLUDED WITH THE UNIT PRICE FOR ITEM 202 ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN

**ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC., AS PER PLAN**

THIS ITEM SHALL CONSIST OF A CONTRACTOR DESIGNED MIX INSTEAD OF CMS 451.02. THE MIX SHALL BE CAPABLE OF ACHIEVING AN INDIRECT TENSILE STRENGTH OF 85 PSI AND CONTINUING TO CARRY LOAD THROUGH A VERTICAL AND HORIZONTAL STRAIN OF 5%. THE MIX SHALL BE PLACED BY USE OF A ROAD WIDENING MACHINE OR EQUIVALENT. CMS 451.03-451.06, 451.08-451.21 SHALL NOT APPLY. THE METHOD OF MEASUREMENT IS BY THE SQUARE YARD.

IN ADDITION, THIS ITEM IS TO BE TESTED USING A STANDARD 4 INCH DIAMETER CYLINDER WITH A THICKNESS OF 2 INCHES. THE CONTRACTOR SHALL TAKE ATLEAST ONE TEST CYLINDER FOR EVERY 250 CUBIC YARDS PLACED OR AS DIRECTED BY THE ENGINEER. THE TEST CYLINDERS SHALL BE SENT TO A TEST LAB CAPABLE OF TESTING FOR THE SPECIFICATIONS ABOVE AT THE EXPENSE OF THE CONTRACTOR.

TEXTURE THE SURFACE IN THE LONGITUDINAL OR TRANSVERSE DIRECTION USING A BROOM TO PRODUCE A UNIFORM, GRITTY, TEXTURE. IMMEDIATELY FOLLOWING THE BRROM DRAG TEXTURE, TINE THE PAVEMENT IN THE LONGITUDINAL DIRECTION USING AN APPROVED DEVICE THAT PRODUCES UNIFORM TINE SPACING 3/4 INCHES (19 MM) APART, 1/8 INCH DEEP (3 MM). DO NOT TINE WITHIN 3 INCHES (75 MM) OF PAVEMENT EDGES OR LONGITUDINAL JOINTS. ONLY USE EQUIPMENT THAT WILL TINE THE FULL WIDTH OF THE PAVEMENT IN ONE OPERATION AND USES STRING LINE CONTROLS FOR LINE AND GRADE TO ASSURE STRAIGHT TINE TEXTURE.

**ITEM 690 - SPECIAL, CONCRETE TESTING, AS PER PLAN**

THIS ITEM SHALL BE USED FOR PAYMENT OF TESTING EACH SAMPLE AS REQUIRED PER ITEM 452. IT IS ESTIMATED THAT APPROXIMATELY 10 SAMPLES WILL BE TESTED. A QUANTITY OF 10 HAS BEEN CARRIED TO THE GENERAL SUMMARY.

**ITEM 614, MAINTAINING TRAFFIC**

**DESIGNATED LOCAL DETOUR ROUTE**

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS SHOWN ON SHEET 4. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST & STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER. THE REPLACEMENT PAVEMENT FOR ITEM 253 PAVEMENT REPAIR SHALL CONSIST OF 1-1/4" ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449) PG64-22 AND ITEM 407, TACK COAT PLACED ON 5" OF ITEM 301, ASPHALT CONCRETE BASE, PG64-22 (449).

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

- ITEM 253 - PAVEMENT REPAIR = 20 CY
- ITEM 407 - TACK COAT = 20 GAL
- ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22 = 10 CY
- ITEM 617 - COMPACTED AGGREGATE = 50 CY

DESIGN AGENCY	
DESIGNER	TLI
REVIEWER	JHN 07-26-24
PROJECT ID	117074
SHEET	TOTAL
4	16