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<u>ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN</u>

PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 77 SHALL BE REMOVED TO PROVIDE ACCESS TO PIER 1 AND PIER 3 AT LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77); PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 480 RAMP SHALL BE REMOVED TO PROVIDE ACCESS TO PIER 1 AT LOCATION 6: CUY-77-0881 (IR 77 RAMP OVER IR 480 RAMP) AND PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 271 SHALL BE REMOVED TO PROVIDE ACCESS TO PIER 2 AND PIER 4 AT LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271).

IN ADDITION TO CMS ITEM 202, THIS ITEM SHALL INCLUDE SAWCUTTING THE EXISTING ASPHALT PAVEMENT AT A DISTANCE OF 4" FROM THE TOE OF THE EXISTING CONCRETE BARRIER; CAREFULLY REMOVING 4" OF THE ASPHALT PAVEMENT ADJACENT AND PARALLEL TO THE EXISTING CONCRETE BARRIER; AND SAWCUTTING THE EXISTING CONCRETE BARRIER TO BE REMOVED. THE EXISTING CONCRETE BARRIER SAWCUTS SHALL BE LOCATED AT THE EXISTING CONTRACTION JOINTS AROUND THE EXISTING REBAR AND CHIPPING THE CONCRETE AWAY LEAVING THE EXISTING REBAR IN PLACE. THE LENGTH OF EXISTING CONCRETE BARRIER TO BE REMOVED SHALL BE DETERMINED BASED ON THE DISTANCE REQUIRED TO PERFORM THE PIER REPAIRS. THE CONCRETE BARRIER END SECTIONS SHALL REMAIN AND SHALL NOT BE DISTURBED.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS WORK, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN FOR PAYMENT.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77)

ITEM 202 - CONCRETE BARRIER REMOVED. AS PER PLAN

LOCATION 6: CUY-77-0881 (IR-77 RAMP OVER IR 480 RAMP)

<u>54</u> FT ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN

LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271)

ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN

ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN (A)

THE EXISTING CONCRETE BARRIER ALONG IR 71 SHALL BE REMOVED TO PROVIDE ACCESS TO PIER I AND PIER 3 AT LOCATION 3: CUY-71-0467 (WHITNEY ROAD OVER IR TID. IN ADDITION TO CMS ITEM 202, THIS ITEM SHALL INCLUDE SAWCUTTING THE EXISTING ASPHALT PAVEMENT AT A DISTANCE OF 4" FROM THE TOE OF THE EXISTING BARRIER AND CAREFULLY REMOVING THE EXISTING CONCRETE BARRIER AND THE 4" OF ASPHALT PAVEMENT.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS WORK, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN (A) FOR PAYMENT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

LOCATION 3: CUY-71-0467 (WHITNEY ROAD OVER IR 71)

ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN (A) 110 FT

ITEM 202 - GUARDRAIL REMOVED

<u>275</u> FT

240 FT

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE CALCULATIONS AND CARRIED TO THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE PLAN SHEET _I4_ FOR ADDITIONAL INFORMATION.

ITEM 204 - PROOF ROLLING

<u>_1</u>__ HOUR

ITEM 606 - ANCHOR ASSEMBLY. MGS TYPE E (NCHRP 350)

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

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NÉCESSARY 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 609 - CURB, TYPE 6, AS PER PLAN

PORTIONS OF THE EXISTING CURB ALONG TURNEY ROAD SHALL BE REPLACED ALONG THE APPROACH SLABS AT LOCATION 14: CUY-480-2019 (TURNEY ROAD OVER IR 480), AND PORTIONS OF THE EXISTING CURB ALONG US 6A (DETROIT RD.) SHALL BE REPLACED AT THE REAR NW CORNER OFF THE APPROACH SLAB AT LOCATION 15: CUY-06A-0042 (US 6A [DETROIT ROAD] OVER ROCKY RIVER).

IN ADDITION TO CMS 609. THIS ITEM SHALL MATCH THE EXISTING CURB HEIGHT OF THE BRIDGE AND SMOOTHLY TRANSITION DOWN TO MATCH TO THE HEIGHT OF THE

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS WORK TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 609 - CURB, TYPE 6, AS PER PLAN.

ITEM 619 - FIELD OFFICE. TYPE B. AS PER PLAN

A TYPE B FIELD OFFICE IS REQUIRED FOR THIS PROJECT. THE FOLLOWING REVISIONS TO EQUIPMENT SUPPLIED WITH THE TYPE B FIELD OFFICE, AS SPECIFIED IN CMS TABLE 619.02-1, FIELD OFFICE, SHALL APPLY:

THE COPIER SUPPLIED MUST MEET THE REQUIREMENTS OF THE COPIER SUPPLIED WITH THE TYPE C FIELD OFFICE.

THE BROAD BAND INTERNET CONNECTION MUST MEET A MINIMUM DOWN OAD SPEED OF 10MB PER SECOND AND A MINIMUM UPLOAD SPEED OF 5MB PER SECOND.

THE CONTRACTOR SHALL FURNISH. SET-UP AND MAINTAIN A WI-FI ROUTER MEETING THE REQUIREMENTS OF IEEE 802.11ac FOR THE EXCLUSIVE USE OF THE DEPARTMENT.

ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE B FIELD OFFICE.

ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN

ASPHALT PAVEMENT PATCHING

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PATCHING ANY DETERIORATED ASPHALT FOLLOWING THE BACKWALL REPAIRS AT LOCATION 6: CUY-77-0881 (IR 77 RAMP OVER IR 480 RAMP), THE APPROACH SLAB REPLACEMENT AT LOCATION 8: CUY-90-0683 (RAMP B OVER IR 90), AND THE JOINT REPAIRS AND CURB REPLACEMENT AT LOCATION 14: CUY-480-2019 (TURNEY ROAD OVER IR 480) AND IS TO BE USED AS DIRECTED BY THE ENGINEER.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR THE ASPHALT PATCHING AT THE LOCATIONS PROVIDED ABOVE.:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441) 10 CY

THE ABOVE QUANTITY IS BASED ON A PAVEMENT WIDTH OF TWO FEET ALONG THE LENGTH OF THE ROADWAY AND AN ESTIMATED THICKNESS OF THREE INCHES.

THE COST OF ALL THE WORK DESCRIBED ABOVE INCLUDING LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THIS WORK TO THE SATISFACTION OF THE ENGINEER SHALL BE PAID FOR AT THE UNIT CONTRACT BID PRICE FOR ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441).

ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 77 SHALL BE REPLACED AT PIER 1 AND PIER 3 OF LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77); PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 480 RAMP SHALL BE REPLACED AT PIER 1 OF LOCATION 6: CUY-77-0881 (IR 77 RAMP OVER IR 480 RAMP); AND PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 271 SHALL BE REPLACED AT PIER 2 AND PIER 4 OF LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARDJ OVER IR 271).

IN ADDITION TO CMS 622, THIS ITEM SHALL INCLUDE CONSTRUCTING A SPREAD FOOTING THAT EXTENDS FROM THE BACK OF THE BARRIER TO 4° FROM THE TOE OF THE CONCRETE BARRIER. THE SPREAD FOOTING SHALL BE PER STANDARD DRAWING RM-4.6. THE CROSS-SLOPE OF THE CONCRETE FOOTING SURFACE SHALL MATCH THE CROSS-SLOPE OF THE EXISTING ASPHALT PAVEMENT ADJACENT TO THE BARRIER. THE ELEVATION OF THE CONCRETE FOOTING SURFACE SHALL MATCH INTO THE EXISTING ADJACENT ASPHALT SURFACE. FORM THE BARRIER AROUND THE EXISTING REBAR TO MATCH INTO THE EXISTING CONCRETE END SECTION.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS ITEM, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 622 - CÓNCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN FOR PAYMENT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77)

ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

LOCATION 6: CUY-77-0881 (IR 77 RAMP OVER IR 480 RAMP)

ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

<u>40</u> FT

<u>52</u> FT

LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271) ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

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ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (A)

THE EXISTING CONCRETE BARRIER ALONG IR 71 SHALL BE REPLACED AT PIER 1 AND PIER 3 OF LOCATION 3: CUY-71-0467 (WHITNEY ROAD OVER IR 71). IN ADDITION TO CMS ITEM 622, THIS ITEM SHALL INCLUDE CONSTRUCTING A SPREAD FOOTING THAT EXTENDS FROM THE BACK OF THE BARRIER TO 4" FROM THE TOE OF THE CONCRETE BARRIER. THE SPREAD FOOTING SHALL BE PER THE STANDARD DRAWING RM-4.6. THE CROSS-SLOPE OF THE CONCRETE FOOTING SURFACE SHALL MATCH THE CROSS-SLOPE OF THE EXISTING ASPHALT PAVEMENT ADJACENT TO THE BARRIER. THE ELEVATION OF THE CONCRETE FOOTING SURFACE SHALL MATCH INTO THE EXISTING ADJACENT ASPHALT SURFACE.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS WORK, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (A) FOR

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

LOCATION 3: CUY-71-0467 (WHITNEY ROAD OVER IR 71)

ITEM 622 - CONCRETE BARRIER. SINGLE SLOPE. TYPE D, AS PER PLAN (A)

<u>82</u> FT

ITEM 622 - CONCRETE BARRIER END SECTION, TYPE D

<u>2</u> EACH

ITEM 606 - MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 _2_ EACH

ITEM 606 - GUARDRAIL. TYPE MGS

<u> 150</u> FT

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350) _2_ EACH

ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D. AS PER PLAN

PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 77 SHALL BE REPLACED AT PIER 1 AND PIER 3 OF LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77; PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 480 RAMP SHALL BE REPLACED AT PIER 1 OF LOCATION 6: CUY-77-0881 (IR 77 RAMP OVER IR 480 RAMP); AND PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 271 SHALL BE REPLACED AT PIER 2 AND PIER 4 OF LOCATION 10: CUY-422-1122 [CHAGRIN BOULEVARDJ OVER IR 271).

IN ADDITION TO CMS 622, THIS ITEM SHALL INCLUDE CONSTRUCTING A SPREAD FOOTING THAT EXTENDS FROM THE BACK OF THE BARRIER TO 4" FROM THE TOE OF THE CONCRETE BARRIER. THE SPREAD FOOTING SHALL BE PER STANDARD DRAWING RM-4.6. THE CROSS-SLOPE OF THE CONCRETE FOOTING SURFACE SHALL MATCH THE CROSS-SLOPE OF THE EXISTING ASPHALT PAVEMENT ADJACENT TO THE BARRIER. THE ELEVATION OF THE CONCRETE FOOTING SURFACE SHALL MATCH INTO THE EXISTING ADJACENT ASPHALT SURFACE.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS ITEM, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 622 - CÓNCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN FOR

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271)

LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77)

ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN

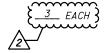
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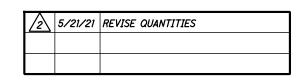
LOCATION 6: CUY-77-0881 (IR-77 RAMP OVER IR 480 RAMP)

ITEM 622 - CONCRETE BARRIER. END ANCHORAGE. REINFORCED, TYPE D, AS PER PLAN

__1__ EACH

ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN







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LOCATION 7: CUY-77-0909 (IR 77 OVER IR 480)

(CONTINUED FROM SHEET <u>12</u>)

THE CONTRACTOR SHALL PERFORM THE WORK IN FIVE PHASES OF CONSTRUCTION ON THE IR 77 NORTHBOUND BRIDGE. THE CONTRACTOR SHALL PERFORM THE REAR ABUTMENT JOINT REPLACEMENT, REAR ABUTMENT PATCHING AND SEALING OF PATCHED AREAS OF THE REAR ABUTMENT DURING PHASES ONE, TWO AND THREE FOR THE IR 77 NORTHBOUND STRUCTURE. THE CONTRACTOR SHALL SHIM THE FORWARD ABUTMENT JOINT DURING PHASES FOUR AND FIVE FOR THE IR 77 NORTHBOUND STRUCTURE. THE FIRST PHASE SHALL CLOSE THE EAST PORTION OF THE BRIDGE AND SHIFT TRAFFIC TO THE INSIDE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO LANES OF TRAFFIC. THE FIRST PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMP TO THE SOUTH IN ACCORDANCE WITH MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP). THE SECOND PHASE SHALL CLOSE THE OUTSIDE PORTION OF THE BRIDGE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC TYPICAL SECTION, MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) WHILE MAINTAINING ONE LANE OF TRAFFIC. THE SECOND PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMP TO THE SOUTH IN ACCORDANCE WITH MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP). THE CONTRACTOR SHALL PERFORM THE WORK FOR PHASE TWO IN ONE WEEKEND CLOSURE. THE THIRD PHASE SHALL CLOSE THE WEST PORTION OF THE BRIDGE AND SHIFT TRAFFIC TO THE OUTSIDE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO LANES OF TRAFFIC. THE THIRD PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMP TO THE SOUTH IN ACCORDANCE WITH MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP). THE FOURTH PHASE SHALL CLOSE THE OUTSIDE TRAVEL LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE LANE OF TRAFFIC. THE FOURTH PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMP TO THE SOUTH IN ACCORDANCE WITH MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP). THE FIFTH PHASE SHALL CLOSE THE INSIDE TRAVEL LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE LANE OF TRAFFIC. THE FIFTH PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMP TO THE SOUTH IN ACCORDANCE WITH MT-98.10 (LANE CLOSURE AT FNTRANCE RAMP).

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR IR 77 AT THE BRIDGE LOCATION.

THE CONTRACTOR SHALL NOT PERFORM REPAIRS FOR LOCATION 6 (CUY-77-0881) AND LOCATION 7 (CUY-77-0909) CONCURRENTLY.

LOCATION 8: CUY-90-0683 (RAMP B OVER IR 90)

THE CONTRACTOR SHALL PERFORM THE WORK IN THREE PHASES OF CONSTRUCTION ON RAMP B. THE CONTRACTOR SHALL PERFORM THE ABUTMENT JOINT REPLACEMENT, TRIMMING BEAM ENDS, PAINTING DAMAGED STEEL, APPROACH SLAB REPLACEMENT, FORWARD APPROACH CURB REPLACEMENT, GROUND MOUNTED SIGN REMOVAL AND REERECTION, RAILING PATCHING, RAILING SEALING, FORWARD ABUTMENT DOWNSPOUT MODIFICATION, AND GUARDRAIL REMOVAL AND REERECTION DURING PHASE ONE ON RAMP B. THE CONTRACTOR SHALL PERFORM THE ABUTMENT JOINT REPLACEMENT, TRIMMING BEAM ENDS, PAINTING DAMAGED STEEL AND APPROACH SLAB REPLACEMENT DURING PHASE TWO ON RAMP B. THE CONTRACTOR SHALL PERFORM THE ABUTMENT JOINT REPLACEMENT, TRIMMING BEAM ENDS, PAINTING DAMAGED STEEL, APPROACH SLAB REPLACEMENT, FORWARD APPROACH CURB REPLACEMENT, GROUND MOUNTED SIGN REMOVAL AND REERECTION, RAILING PATCHING, RAILING SEALING, AND GUARDRAIL REMOVAL AND REERECTION DURING PHASE THREE ON RAMP B. THE FIRST PHASE SHALL CLOSE THE INSIDE PORTION OF THE BRIDGE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER) AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO LANES OF TRAFFIC. THE FIRST PHASE SHALL ALSO CLOSE THE LEFT TURN LANE AT THE INTERSECTION WITH HILLIARD BOULEVARD. THE ADJACENT THRU LANE WILL BE MARKED WITH A THRU/LEFT TURN ARROW DURING PHASE ONE. LANE AND SIGNAL MODIFICATION WILL BE REQUIRED AT THE INTERSECTION WITH HILLIARD BOULEVARD DURING PHASE ONE. THE CONTRACTOR SHALL INSTALL TEMPORARY RUMBLE STRIPS PER MAINTENANCE OF TRAFFIC NOTE "ITEM SPECIAL - RUMBLE STRIPS". THE SECOND PHASE SHALL CLOSE THE OUTSIDE PORTION OF THE BRIDGE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER), MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-95.32 (CLOSING LEFT LANES OF A MULTI-LANE UNDIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE LANE OF TRAFFIC. THE CONTRACTOR SHALL PERFORM THE WORK FOR PHASE TWO IN ONE WEEKEND WITH A SINGLE LANE CLOSURE. THE THIRD PHASE SHALL CLOSE THE OUTSIDE PORTION OF THE BRIDGE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS. MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER) AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO LANES OF TRAFFIC. THE THIRD PHASE SHALL ALSO CLOSE THE RIGHT TURN LANE AT HILLIARD BOULEVARD. THE ADJACENT LANE WILL BE MARKED WITH A THRU/RIGHT ARROW DURING PHASE THREE, LANE AND SIGNAL MODIFICATION WILL BE REQUIRED AT THE INTERSECTION WITH HILLIARD BOULEVARD DURING PHASE THREE. THE CONTRACTOR SHALL INSTALL TEMPORARY RUMBLE STRIPS PER MAINTENANCE OF TRAFFIC NOTE "ITEM SPECIAL - RUMBLE STRIPS".

THE CONTRACTOR SHALL PERFORM THE WORK IN TWO PHASES OF CONSTRUCTION ON IR 90. THE CONTRACTOR SHALL PERFORM THE PIER ONE REPAIRS, THE PIER THREE REPAIRS, ABUTMENT SEALING AND ABUTMENT PATCHING DURING PHASE ONE ON IR 90. THE CONTRACTOR SHALL PERFORM THE PIER TWO REPAIRS DURING PHASE TWO ON IR 90. THE FIRST PHASE SHALL CLOSE THE EASTBOUND OUTSIDE SHOULDER AND THE WESTBOUND OUTSIDE SHOULDER IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) WHILE MAINTAINING THREE LANES OF TRAFFIC IN EACH DIRECTION. THE SECOND PHASE SHALL CLOSE THE EASTBOUND INSIDE SHOULDER IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) AND SHALL CLOSE THE WESTBOUND INSIDE TRAVEL LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING THREE LANES OF TRAFFIC IN THE EASTBOUND DIRECTION AND TWO LANES OF TRAFFIC IN THE WESTBOUND DIRECTION. THE CONTRACTOR MAY CLOSE THE WESTBOUND INSIDE SHOULDER AND THE EASTBOUND INSIDE TRAVEL LANE AS AN ALTERNATIVE FOR PHASE TWO CONSTRUCTION ON IR 90.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR IR 90 AT THE BRIDGE LOCATION.

MULTIPLE WEEKEND CLOSURES WILL BE REQUIRED TO COMPLETE THE WORK ON IR 90.

LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271)

THE CONTRACTOR SHALL PERFORM THE WORK IN FIVE PHASES OF CONSTRUCTION ON CHAGRIN BOULEVARD. THE CONTRACTOR SHALL REPLACE PORTIONS OF THE NORTH GIRDER. REPLACE PORTIONS OF THE NORTH DECK AND REPLACE PORTIONS OF THE NORTH SIDEWALK DURING PHASE ONE ON CHAGRIN BOULEVARD. THE CONTRACTOR SHALL REPLACE PORTIONS OF THE SOUTH GIRDER, REPLACE PORTIONS OF THE SOUTH DECK AND REPLACE PORTIONS OF THE SOUTH SIDEWALK DURING PHASE TWO ON CHAGRIN BOULEVARD. THE CONTRACTOR SHALL PATCH THE NORTH PARAPET AND SEAL THE NORTH PARAPET DURING PHASE THREE ON CHAGRIN BOULEVARD. THE CONTRACTOR SHALL REPLACE THE REAR STRIP SEAL DURING PHASE FOUR ON CHAGRIN BOULEVARD. THE CONTRACTOR SHALL PATCH THE SOUTH PARAPET AND SEAL THE SOUTH PARAPET DURING PHASE FIVE ON CHAGRIN BOULEVARD. THE FIRST PHASE SHALL SHIFT THE TRAVEL LANES TO THE SOUTH IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO LANES OF TRAFFIC IN THE WESTBOUND DIRECTION AND TWO LANES OF TRAFFIC IN THE EASTBOUND DIRECTION, SIGNAL MODIFICATION MAY BE REQUIRED AT THE INTERSECTIONS WITH THE IR 271 SOUTHBOUND RAMPS TO THE WEST OF THE BRIDGE AND AT THE INTERSECTION WITH THE IR 271 NORTHBOUND RAMPS TO THE EAST OF THE BRIDGE DURING PHASE ONE, PEDESTRIAN TRAFFIC SHALL BE DETOURED TO THE SOUTH SIDEWALK IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS) DURING PHASE ONE. THE RAMPS TO THE EAST AND TO THE WEST OF THE STRUCTURE SHALL REMAIN OPEN AT ALL TIMES DURING PHASE ONE. THE SECOND PHASE SHALL SHIFT THE TRAVEL LANES TO THE NORTH IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO LANES OF TRAFFIC IN THE WESTBOUND DIRECTION AND TWO LANES OF TRAFFIC IN THE EASTBOUND DIRECTION. SIGNAL MODIFICATION MAY BE REQUIRED AT THE INTERSECTIONS WITH THE IR 271 SOUTHBOUND RAMPS TO THE WEST OF THE BRIDGE AND AT THE INTERSECTION WITH THE IR 271 NORTHBOUND RAMPS TO THE EAST OF THE BRIDGE DURING PHASE TWO. PEDESTRIAN TRAFFIC SHALL BE DETOURED TO THE NORTH SIDEWALK IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS) DURING PHASE TWO. THE RAMPS TO THE EAST OF THE STRUCTURE AND TO THE WEST OF THE STRUCTURE SHALL REMAIN OPEN AT ALL TIMES DURING PHASE TWO. THE THIRD PHASE SHALL CLOSE THE OUTSIDE WESTBOUND LANE IN ACCORDANCE MT-95.31 (CLOSING RIGHT LANES OF A MULTI-LANE UNDIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE WESTBOUND LANE OF TRAFFIC ON THE EXISTING INSIDE WESTBOUND LANE AND TWO EASTBOUND LANES OF TRAFFIC IN THE EXISTING EASTBOUND LANES. PEDESTRIAN TRAFFIC SHALL BE DETOURED TO THE SOUTH SIDEWALK IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS) DURING PHASE THREE. THE RAMPS TO THE EAST AND TO THE WEST OF THE STRUCTURE SHALL REMAIN OPEN AT ALL TIMES DURING PHASE THREE. PHASE THREE WILL REQUIRE MULTIPLE OVERNIGHT CLOSURES TO COMPLETE. LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS DURING PHASE THREE. THE FOURTH PHASE SHALL REQUIRE 3 SUBPHASES TO COMPLETE. THE FIRST SUBPHASE SHALL CLOSE THE OUTSIDE WESTBOUND LANE AS DESCRIBED FOR PHASE 3. THE SECOND SUBPHASE SHALL CLOSE THE INSIDE WESTBOUND LANE AND THE INSIDE EASTBOUND LANE IN ACCORDANCE MT-95.32 (CLOSING LEFT LANES OF A MULTI-LANE UNDIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE WESTBOUND LANE OF TRAFFIC ON THE EXISTING OUTSIDE WESTBOUND LANE AND ONE EASTBOUND LANE OF TRAFFIC ON THE EXISTING OUTSIDE EASTBOUND LANE. THE THIRD SUBPHASE SHALL CLOSE THE OUTSIDE EASTBOUND LANE AS DESCRIBED FOR PHASE 5. THE REAR STRIP SEAL SHALL BE INSTALLED IN ONE CONTINUOUS PIECE. PHASE THREE WILL REQUIRE ONE SINGLE OVERNIGHT CLOSURE TO COMPLETE, LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS DURING PHASE FOUR. THE FIFTH PHASE SHALL CLOSE THE OUTSIDE EASTBOUND LANE IN ACCORDANCE MT-95.31 (CLOSING RIGHT LANES OF A MULTI-LANE UNDIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE EASTBOUND LANE OF TRAFFIC ON THE EXISTING INSIDE EASTBOUND LANE AND TWO WESTBOUND LANES OF TRAFFIC IN THE EXISTING WESTBOUND LANES. PEDESTRIAN TRAFFIC SHALL BE DETOURED TO THE NORTH SIDEWALK IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS) DURING PHASE FIVE. THE RAMPS TO THE EAST OF THE STRUCTURE AND TO THE WEST OF THE STRUCTURE SHALL REMAIN OPEN AT ALL TIMES DURING PHASE FIVE. PHASE FIVE WILL REQUIRE MULTIPLE OVERNIGHT CLOSURES TO COMPLETE. LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS DURING PHASE FIVE.

THE CONTRACTOR SHALL PERFORM THE WORK IN FOUR PHASES OF CONSTRUCTION ON IR 271. THE CONTRACTOR SHALL REPAIR THE ABUTMENTS, REFURBISH THE BEARINGS, REPAIR PIER ONE AND REPAIR PIER FIVE DURING PHASE ONE ON IR 271. THE CONTRACTOR SHALL REPAIR PIER TWO AND REPAIR PIER FIVE DURING PHASE ONE ON IR 271. THE CONTRACTOR SHALL REPAIR PIER TWO AND REPAIR PIER FOUR DURING PHASE TWO ON IR 271. THE WORK WILL REQUIRE THE REMOVAL AND REPLACEMENT OF PORTIONS OF THE TYPE D. CONCRETE BARRIER LOCATED ADJACENT TO PIERS TWO FOUR AND FIVE DURING PHASE ONE AND TWO. THE CONTRACTOR SHALL REPAIR PIER THREE DURING PHASE THREE ON IR 271. THE CONTRACTOR SHALL REPAIR PIER THREE DURING PHASE THREE ON IR 271. THE CONTRACTOR SHALL PROVIDE A SHOULDER CLOSURE IN THE OUTSIDE NORTHBOUND LANE

OF IR 271 DURING PHASE FOUR ON IR 271 IN ORDER TO REMOVE THE EXISTING SOUTH

GIRDER, DECK AND SIDEWALK ON CHAGRIN BOULEVARD. THE FIRST PHASE SHALL CLOSE
THE OUTSIDE SHOULDERS ON IR 271 NORTHBOUND IN ACCORDANCE WITH MT-95,45 (CLOSING)
SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY AND IR 271 SOUTHBOUND IN ACCORDANCE
WITH OMUTOD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) WHILE MAINTAINING FOUR LANES OF TRAFFIC IN THE NORTHBOUND DIRECTION ON IR 271, ONE ENTRANCE RAMP ACCELERATION LANE IN THE NORTHBOUND DIRECTION ON IR 271, THREE LANES OF TRAFFIC IN THE SOUTHBOUND DIRECTION ON IR 271, ONE ENTRANCE RAMP ACCELERATION LANE IN THE SOUTHBOUND DIRECTION ON IR 271 AND ALL EXISTING IR 271 EXPRESS LANES. THE SECOND PHASE SHALL CLOSE THE NORTHBOUND INSIDE SHOULDER ON IR 271 AND THE SOUTHBOUND INSIDE SHOULDER ON IR 271 LANE IN ACCORDANCE WITH MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY) AND THE SECOND PHASE SHALL CLOSE THE NORTHBOUND OUTSIDE SHOULDER ON THE IR 271 EXPRESS AND THE SOUTHBOUND OUTSIDE SHOULDER ON IR 271 EXPRESS IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) WHILE MAINTAINING FOUR LANES OF TRAFFIC IN THE NORTHBOUND DIRECTION ON IR 271, ONE ENTRANCE RAMP ACCELERATION LANE IN THE NORTHBOUND DIRECTION ON IR 271, THREE LANES OF TRAFFIC IN THE SOUTHBOUND DIRECTION ON IR 271, ONE ENTRANCE RAMP ACCELERATION LANE IN THE SOUTHBOUND DIRECTION ON IR 271 AND ALL EXISTING IR 271 EXPRESS LANES. THE THIRD PHASE SHALL CLOSE THE NORTHBOUND INSIDE LANE AND THE SOUTHBOUND INSIDE LANE ON IR 271 EXPRESS IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) WHILE MAINTAINING ALL LANES OF TRAFFIC ON IR 271 AND IR 271 EXPRESS. THE FOURTH PHASE SHALL CLOSE THE NORTHBOUND SHOULDER ON IR 271 IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) IN ORDER TO REMOVE THE EXISTING SOUTH GIRDER. DECK AND SIDEWALK ON CHAGRIN BOULEVARD. THE THIRD PHASE SHALL OCCUR CONCURRENTLY WITH PHASE TWO ON CHAGRIN BOULEVARD.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR IR 271 AT THE BRIDGE LOCATION. MULTIPLE OVERNIGHT/WEEKEND CLOSURES WILL BE REQUIRED TO COMPLETE THE WORK ON IR 271 DURING PHASE ONE, PHASE TWO AND PHASE THREE.

<u>LOCATION 11: CUY-422-1827 L (US 422 WB OVER SOLON ROAD)</u> LOCATION 12: CUY-422-1827 R (US 422 EB OVER SOLON ROAD)

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.

ALL TRAFFIC SHALL BE SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR IS ONLY PERMITTED TO RESTRICT TRAFFIC OR CLOSE LANES ON US 422 FOR WORK NOT ASSOCIATED WITH THE APPROACH SLAB REPLACEMENT PER THE ODOT DISTRICT 12 PERMITTED LANE CLOSURE TIMES PUBLISHED ON THE ODOT WEBSITE LISTED BELOW.

http://www.dot.state.oh.us/districts/D12/HighwayManagement/Pages/ PermittedLaneClosures.aspx

THE REVISION APPLICABLE FOR THIS PROJECT SHALL BE THE MOST CURRENT REVISION PUBLISHED 30 DAYS PRIOR TO THE BID DATE.

NO RAMP CLOSURES TO OR FROM US 422 ARE PERMITTED AT ANY TIMES.

TRAFFIC ON SOLON ROAD SHALL BE MAINTAINED AT ALL TIMES. ONE LANE IS PERMITTED TO BE CLOSED WITH THE USE OF FLAGGERS. BOTH LANES SHALL BE MAINTAINED WEEKDAYS FROM 6:00 AM TO 9:00 AM AND 3:00 PM TO 6:00 PM.

THE CONTRACTOR SHALL PERFORM THE PARAPET PATCHING, PARAPET SEALING, AND SCUPPER CLEANING IN TWO PHASES OF CONSTRUCTION ON THE WESTBOUND US-422 BRIDGE. THE WORK WILL REQUIRE CLOSING THE SHOULDERS IN ACCORDANCE WITH SCD MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY), MT-98.20 LANE CLOSURE AT EXIT RAMP USING DRUMS) AND MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS).

(CONTINUED ON SHEET 14)

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LOCATION 16: CUY-490-0100 (IR 490 OVER CUYAHOGA RIVER)

THE CONTRACTOR SHALL PERFORM THE DECK PATCHING - OVERLAY REMOVAL USING HYDRODEMOLITION AND MICROSILICA MODIFIED CONCRETE OVERLAY PER ITEM 848 AND FULL DEPTH DECK REPAIR - ITEM 848.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE ODOT PLCM HOURS. THE CONTRACTOR SHALL PREPARE AND SUBMIT A MOT PLAN FOR THIS WORK FOR REVIEW AND ACCEPTANCE BY ODOT UNDER ITEM 614 IN ADVANCE OF SCHEDULING THIS WORK.

IT IS ANTICIPATED THAT THE CONTRACTOR WILL PERFORM THE WORK IN THREE PHASES OF CONSTRUCTION ON IR 490. THE FOLLOWING IS A CONCEPTUAL PHASE SUMMARY FOR

THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE, PERFORM DECK PATCHING, AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE ONE ON IR 490 WESTBOUND. PHASE ONE WOULD CLOSE THE WESTBOUND OUTSIDE SHOULDER. THE WEST 7TH STREET DECELERATION LANE AND THE ROCKEFELLER AVENUE ACCELERATION LANE IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) AND MT-98.29 (EXIT RAMP CLOSURE) WHILE MAINTAINING FOUR WESTBOUND LANES OF IR 490 TRAFFIC, THE IR 77 SOUTHBOUND RAMP AND THE IR 77 NORTHBOUND RAMP. PHASE ONE WOULD REQUIRE THE CLOSURE OF THE ROCKEFELLER AVENUE ENTRANCE RAMP AND THE WEST 7TH STREET EXIT RAMP. PHASE ONE WOULD REQUIRE MULTIPLE WEEKEND CLOSURES TO COMPLETE. PHASE ONE WOULD REQUIRE ODOT'S APPROVAL FOR THE CLOSURE OF THE ROCKEFELLER AVENUE ENTRANCE RAMP AND THE WEST 7TH STREET EXIT RAMP.

THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE, PERFORM DECK PATCHING, AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE ONE ON IR 490 EASTBOUND. PHASE ONE WOULD CLOSE THE EASTBOUND OUTSIDE SHOULDER, THE WEST 7TH STREET ACCELERATION LANE AND THE BROADWAY AVENUE DECELERATION LANE IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3), MT-98.11 (LANE CLOSURE AT ENTRANCE RAMP ACCELERATION LANE) AND MT-98.29 (EXIT RAMP CLOSURE) WHILE MAINTAINING FOUR EASTBOUND LANES OF IR 490 TRAFFIC, THE WEST 7TH STREET ENTRANCE RAMP, THE IR 77 SOUTHBOUND RAMP AND THE IR 77 NORTHBOUND RAMP. PHASE ONE WOULD REQUIRE THE CLOSURE OF THE BROADWAY AVENUE EXIT RAMP. PHASE ONE WOULD REQUIRE MULTIPLE WEEKEND CLOSURES TO COMPLETE. PHASE ONE WOULD REQUIRE ODOT'S APPROVAL FOR THE CLOSURE OF THE BROADWAY AVENUE EXIT RAMP.

THE CONTRACTOR SHALL PERFORM DECK PATCHING AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE TWO ON IR 490 WESTBOUND. THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, AND REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE AT THE FORWARD END OF THE STRUCTURE TO THE EAST OF THE ROCKEFELLER ENTRANCE RAMP DURING PHASE TWO ON IR 490 WESTBOUND. THE SECOND PHASE SHALL CLOSE THE TWO OUTSIDE LANES OF THE WESTBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-98.29 (EXIT RAMP CLOSURE) WHILE MAINTAINING TWO WESTBOUND LANES OF IR 490 TRAFFIC. PHASE TWO WOULD REQUIRE CLOSURE OF THE ROCKEFELLER AVENUE ENTRANCE RAMP, CLOSURE OF THE IR 77 SOUTHBOUND ENTRANCE RAMP AND CLOSURE OF THE IR 77 NORTHBOUND ENTRANCE RAMP. PHASE TWO WOULD REQUIRE CLOSURE OF THE EXIT RAMP TO WEST 7TH STREET. PHASE TWO WOULD REQUIRE MULTIPLE WEEKEND CLOSURES TO COMPLETE. PHASE TWO WOULD REQUIRE ODOT'S APPROVAL FOR THE CLOSURE OF THE ROCKEFELLER AVENUE ENTRANCE RAMP, THE IR 77 SOUTHBOUND ENTRANCE RAMP. THE IR 77 NORTHBOUND ENTRANCE RAMP AND THE WEST 7TH STREET EXIT RAMP.

THE CONTRACTOR SHALL PERFORM DECK PATCHING AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE TWO ON IR 490 EASTBOUND. THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS. AND REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE AT THE FORWARD END OF THE STRUCTURE TO THE EAST OF THE BROADWAY AVENUE EXIT RAMP DURING PHASE TWO ON IR 490 EASTBOUND. THE SECOND PHASE SHALL CLOSE THE TWO OUTSIDE LANES OF THE EASTBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS), MT-98.11 (LANE CLOSURE AT ENTRANCE RAMP ACCELERATION LANE) AND MT-98.29 (EXIT RAMP CLOSURE) WHILE MAINTAINING TWO EASTBOUND LANES OF IR 490 TRAFFIC, THE WEST 7TH STREET ENTRANCE RAMP, THE IR 77 SOUTHBOUND RAMP LANE AND THE IR 77 NORTHBOUND RAMP LANE. PHASE TWO WOULD REQUIRE CLOSURE OF THE BROADWAY AVENUE EXIT RAMP. PHASE TWO WOULD REQUIRE MULTIPLE WEEKEND CLOSURES TO COMPLETE. PHASE TWO WOULD REQUIRE ODOT'S APPROVAL FOR THE CLOSURE OF THE BROADWAY AVENUE EXIT RAMP.

5/24/21 REVISED DATE

THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE, PERFORM DECK PATCHING, AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE THREE ON IR 490 WESTBOUND. THE THIRD PHASE SHALL CLOSE THE TWO INSIDE LANES OF THE WESTBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-101.60 (ROAD CLOSURE USING TYPE 3 BARRICADES) WHILE MAINTAINING TWO WESTBOUND LANES OF IR 490 TRAFFIC ON THE STRUCTURE, THE ROCKEFELLER AVENUE ENTRANCE RAMP, THE IR 77 SOUTHBOUND ENTRANCE RAMP, THE IR 77 NORTHBOUND ENTRANCE RAMP AND THE WEST 7TH STREET EXIT RAMP. PHASE THREE WOULD REQUIRE CLOSING THE WESTBOUND LANES OF IR 490 TO THE EAST OF THE STRUCTURE (CLOSURE PERMITTED BY THE PLCM FOR WEEKEND CLOSURES). PHASE THREE WOULD REQUIRE MULTIPLE WEEKENDS TO COMPLETE.

THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE, PERFORM DECK PATCHING, AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE THREE ON IR 490 EASTBOUND. THE THIRD PHASE SHALL CLOSE THE TWO INSIDE LANES OF THE EASTBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TWO EASTBOUND LANES OF IR 490 TRAFFIC, THE BROADWAY AVENUE EXIT RAMP, THE IR 77 SOUTHBOUND EXIT RAMP, THE IR 77 NORTHBOUND EXIT RAMP AND THE WEST 7TH STREET ENTRANCE RAMP. PHASE THREE WOULD REQUIRE MULTIPLE WEEKENDS TO COMPLETE.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR IR 490 AT THE BRIDGE LOCATION. ALL MOT SHALL BE COORDINATED WITH ODOT PRIOR TO SCHEDULING THE WORK.

TO ACCOMMODATE THE OPENING OF THE OPPORTUNITY CORRIDOR PROJECT, ALL WORK (DECK REPAIRS, PARAPET REPAIRS AND FENCE REPAIRS) ON BRIDGE NO. CUY-490-0100 (SFN 1811991) SHALL BE COMPLETED BY OCTOBER 15, 2021.

III. MAINTENANCE OF TRAFFIC SYSTEMS

WHEN REQUIRED

WHENEVER ANY PART OF THE TRAVELED SURFACE IS BEING WORKED UPON OR IS OTHERWISE NOT SUITABLE FOR SAFE AND CONVENIENT USE BY VEHICLES, TRAFFIC CONTROL DEVICES SUFFICIENT TO PROTECT SUCH AREAS TO ASSURE THE SAFE AND CONVENIENT PASSAGE OF VEHICULAR TRAFFIC SHALL BE INSTALLED AND MAINTAINED. SUCH TRAFFIC CONTROL DEVICES AND THE MANNER IN WHICH THEY ARE USED SHALL BE CONSISTENT WITH THESE PLANS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, HEREINAFTER REFERRED TO AS THE "MANUAL". THE TRAFFIC CONTROL DEVICE SYSTEM SHALL CONSTITUTE THE MINIMUM PROVISIONS FOR TRAFFIC CONTROL FOR EACH PARTICULAR SITUATION. WHENEVER THE ENGINEER DEEMS IT NECESSARY ESPECIALLY WHERE A GRADE, CURVE, OR MERGE CONDITION EXISTS, THE ENGINEER MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED.

<u>CONDITIONS</u>

DURING ALL PARTS OF THIS PROJECT, FLAGGERS, SIGNING, BARRICADES, FLASHING ARROWS, ETC. SHALL BE LOCATED AS INDICATED IN THE "MANUAL" OR AS SHOWN IN THE STANDARD DRAWINGS.

3. ADVANCE WARNING SIGNS

ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE.

FLAGGERS

AT LEAST TWO FLAGGERS ARE REQUIRED FOR EACH LANE CLOSURE REQUIRING FLAGGERS. THE CONTRACTOR SHALL FURNISH ADDITIONAL FLAGGERS AS DIRECTED BY THE ENGINEER.

PROTECTION OF PUBLIC

PERSONAL CARS SHALL NOT BE PARKED WITHIN THE RIGHT OF WAY.

FAILURE TO COMPLY

IF THERE IS ANY FAILURE TO COMPLY WITH PROVISIONS FOR TRAFFIC CONTROL SET OUT IN THESE PLANS AND NOTES, OR WITH THE PROVISIONS OF THE "MANUAL", THE HIGHWAY IN THE VICINITY OF THE WORK AREA SHALL NOT BE CONSIDERED IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC. ANY FAILURE TO KEEP THE HIGHWAY, IN THE VICINITY OF THE WORK AREA, IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

IV. MAINTENANCE OF TRAFFIC MATERIALS

<u>SIGNS</u> 1.

SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES ARE TO BE AS PROVIDED IN THE "MANUAL", OR IN DESIGN DRAWINGS PROVIDED BY THE DEPARTMENT OF TRANSPORTATION. THE SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER PRIOR TO THE START OF THE PROJECT.

SIGN SUPPORT 2.

SIGN SUPPORTS SHALL BE OF SUFFICIENT SIZE AND MASS AS TO SUPPORT THE SIGNS AT THE APPROPRIATE HEIGHT. SUPPORTS SHALL BE AS SHOWN ON THE STANDARD DRAWINGS.

3. FLASHING ARROW REQUIREMENT

WHENEVER ANY PART OF THE TRAVELED SURFACE OF THE INTERSTATES IS CLOSED, THE MOTORISTS SHALL BE WARNED AND DIRECTED BY THE CONTRACTOR THROUGH THE USE OF ONE FLASHING ARROW PANEL FOR EACH LANE CLOSED. THE CONTRACTOR SHALL REFER TO SUPPLEMENTAL SPECIFICATIONS 821 AND 921, AND THE PROVISIONS SET FORTH IN THE "MANUAL" FOR ALL INFORMATION REGARDING FURNISHING. MAINTAINING. AND USE OF FLASHING ARROW PANELS. PAYMENT FOR THE ABOVE MENTIONED ITEMS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

4.

DRUMS SHALL BE IN ACCORDANCE WITH PERTINENT SECTIONS OF THE "MANUAL". ALL COSTS FOR INSTALLING, MAINTAINING, AND SUBSEQUENT REMOVAL OF SAID DRUMS IS TO BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

5. <u>CONES</u>

CONES, IF UTILIZED, ARE TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

6. BARRIER

PORTABLE CONCRETE BARRIER, IF NECESSARY, IS TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

7. FLASHERS

FLASHERS SHALL BE 12 VOLT BATTERY-OPERATED MODELS WITH 7 INCH DIAMETER YELLOW LENSES ILLUMINATED BY RAPID INTERMITTENT FLASHERS OF SHORT DURATION AND ARE TO BE PLACED ON ALL SIGNS AT ALL TIMES AS REQUIRED BY THE "MANUAL" AND THE STANDARD CONSTRUCTION DRAWINGS.

<u>FLOODLIGHTING</u>

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

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

9. WORK VEHICLES

ALL WORK VEHICLES LICENSED TO OPERATE ON THE HIGHWAY, SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT AND SHALL BE OPERATED WITH LIGHTED HEAD AND TAIL LAMPS. THE AMBER LIGHT SHALL BE IN OPERATION AT ALL TIMES WITHIN THE WORK ZONE AND WHILE TRAVELING TO AND FROM THE WORK ZONE WHENEVER THE VEHICLE SPEED IS BELOW THE POSTED LEGAL LIMIT. VEHICLE HAZARD LIGHTS DO NOT SATISFY THIS REQUIREMENT. ALL OTHER EQUIPMENT SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT. THE AMBER LIGHT SHALL BE IN OPERATION WHILE THE EQUIPMENT IS WITHIN THE WORK ZONE.

V. <u>ALTERNATE MAINTENANCE OF TRAFFIC PLANS</u>

IF THE CONTRACTOR SO ELECTS, HE/SHE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLANS SHALL BE PLACED IN EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE ODOT DISTRICT CONSTRUCTION ENGINEER.

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14+45.19 BARRIER 16+97.00 LOCATION 10: PHAS BLACKOUT TAPE	TO SE 1 19+57.62	SIDE RT/LT RT	TEMPORARY VANDAL PROTECTION FENCE,	MORK ZONE IMPACT S ATTENUATOR, 24" WIDE HAZARDS, UNIDIRECTIONAL)	BARRIER RELECTOR,	HOUSE WAY	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	WORK ZONE BEGE LINE, □ CLASS I, 6", 740.06, TYPE I	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE I	(ZONE MENT MARKING, : REMOVABLE, REFLECTIVE ORMED BLACKOUT TAI	PORTABLE BARRIER, UNANCHORED	3LE BARRIER , RED	LINE, 4"	TINE	4LK LINE					
BLACKOUT TAPE 14+45.19 WORK ZONE PAVEMENT M 14+45.19 14+45.19 BARRIER 16+97.00 LOCATION 10: PHAS BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT	SE 1 19+57.62 MARKING 19+57.62 19+57.62								5333	WORK PAVE MISC. NON-	ORTA JNANC	PORTABLE ANCHORED	LANE LI	CENTER	CROSSWALK					
BLACKOUT TAPE 14+45.19 WORK ZONE PAVEMENT M 14+45.19 14+45.19 BARRIER 16+97.00 LOCATION 10: PHAS BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT	MARKING 19+57.62 19+57.62						MILE	MILE	FT	FT	FT	FT	MILE	MILE	FT					
WORK ZONE PAVEMENT M 14+45.19 14+45.19 BARRIER 16+97.00 LOCATION 10: PHAS BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT	19+57.62 MARKING 19+57.62 19+57.62																			
WORK ZONE PAVEMENT M 14+45.19 14+45.19 BARRIER 16+97.00 LOCATION 10: PHAS BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT	19+57.62 MARKING 19+57.62 19+57.62			1														<u> </u>		
14+45.19 14+45.19 BARRIER 16+97.00 LOCATION 10: PHAS BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT 1	19+57.62 19+57.62	RT								1537.29										
14+45.19 14+45.19 BARRIER 16+97.00 LOCATION 10: PHAS BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT 1	19+57.62 19+57.62	RT																		
BARRIER 16+97.00 LOCATION 10: PHAS BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT	19+57.62		+				512.43	512.43	512.43											
BARRIER 16+97.00 LOCATION 10: PHAS BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT																				
LOCATION 10: PHAS BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT	17+60.00	LT		<u> </u>				512.43	512.43											
LOCATION 10: PHAS BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT	11.00.00	LT		1	2	1					63									
BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT		LI		,	2	,					03									
BLACKOUT TAPE 11+45.38 WORK ZONE PAVEMENT																				
11+45.38 WORK ZONE PAVEMENT	ISE 2																			
11+45.38 WORK ZONE PAVEMENT	PE																			
	18+92.80	RT/LT								2242.26										
11+45.38	MARKING																			
	18+89.13	RT						743.75	743.75											
11+45.38	18+94.77	LT					749.39	749.39	749.39											
BARRIER																				
16+37.00	17+03.00	RT	66	1	1	1						66								
17+03.00	17+58.00	RT			1	1					55									
PERMANENT PAVEMENT		07.47											1001.10	242.24						
11+45.38 PARK E. DR. NORTH SIDE OF US	19+57.62 S 422	RT/LT LT											1624.48	812.24	185.00					
PARK E. DR. SOUTH SIDE OF US		RT													123.00					
US 422 WEST SIDE OF PARK E. L US 422 TO IR 271 SB RAMP (SOU		RT/LT RT													171.00 46.00					
US 422 TO IR 271 NB RAMP (SOU	OUTH OF US 422)	RT													46.00					
IR 271 NB TO US 422 RAMP ORANGE PLACE SOUTH SIDE OF (USS 422	RT RT													135.00 87.00					
WALNUT HILLS SOUTH SIDE OF U US 422 WEST OF MAPLECREST R		RT RT/LT													55.00 83.00				1	
IR 271 SB TO US 422 RAMP (NOR	PRTH OF US 422)	LT													127.00					
US 422 TO IR 271 SB RAMP (NOR US 422 TO IR 271 NB RAMP (NOR		LT LT													42.00 40.00					
															70.00					
LOCATION 10: IR 271 F		······	$\frac{1}{2}$	<u>, </u>			\overline{m}				116	\sim								
{												3								
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	PHASE 4		+	1							116								 	
LOCATION 10: IR 271 P				1							86	30						-		
(uuuuuuuuu	^			<u> </u>	3						ξ									
	2			1	}						E						5/21/2	1 400 1.00	ATION 100 TI	R 271 PHASE 2,4,5
				}							}					1/2	7 0,51,51	100 200	- 110N 10• IN	. 211 1 HMSL 2,7,0
TOTALS				 }	SI						I C		1					1		
CONVERT TO MILES			66	\$ 5	4	3	1261.82	2518 00	2518.00	3779 55	} 436	96	1624.48	812.24	1140 00		+			

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								NUME						PARTIC	ALT XX)	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	s	SEE SHEET
3-11	12-66	74-80	81	89-102	103-106	107-115	116-125	126-150	151-170	171-188	189-205	206-229 2	30-236 237-253	. 01/ NFP/BR	SI 15		EXT.	TOTAL		DEGGIIII IIGN		NO.
																				ROADWAY		
LS														LS		201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN		9
		605												605		202	30000	605	SF	WALK REMOVED		
		70												70		202	30001	70	SF	WALK REMOVED, AS PER PLAN		9
~		80												80 \$374.		202	30700	80 2 \374	FT	CONCRETE BARRIER REMOVED		
743	2													374	2	202	30701	A \$3742	FT	CONCRETE BARRIER REMOVED, AS PER PLAN		10
	74\														74	000				001/00575 0400750 051/01/50 40 050 0141/41		
10		20							20					110		202	30701	110	FT FT	CONCRETE BARRIER REMOVED, AS PER PLAN (A)		10
75		28 385		250					28					56 910		202 202	<i>32000</i> <i>38000</i>	56 910	FT	CURB REMOVED GUARDRAIL REMOVED	-+	
7.5		112.5		200										112.5		202	38200	112.5	FT	GUARDRAIL REMOVED FOR REUSE		
		110												110		202	75000	110	FT	FENCE REMOVED		
										600				600		202	75201	600	FT	FENCE REMOVED FOR REUSE, AS PER PLAN	171,174,1	178,17
			5											5		202	75800	5	EACH	DISCONNECT EXISTING CIRCUIT		
00														100		203	10000	100	CY	EXCAVATION		
00		F10								10.0				100		203	20000	100	CY	EMBANKMENT COMPACTION		
		518		-						108				626		204	10000	626	SY	SUBGRADE COMPACTION		-
		1			1					1				2		204	45000	2	HOUR	PROOF ROLLING	+	
		<u>'</u>			1					730				730		209	10001	730	FT	DITCH CLEANOUT, AS PER PLAN	1	171,174
50		162.5		25										337.5		606	15050	337.5	FT	GUARDRAIL, TYPE MGS		
		112.5												112.5		606	16500	112.5	FT	GUARDRAIL REBUILT, TYPE 5		
2		4		2										8		606	26150	8	EACH	ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350)		
				ļ .										_								
				2										2		606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T		
2		4 2		4										10		606 606	35002 35010	10	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1		
		2			_									2		606	35102	2	EACH EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	+	
		2												2		606	35110	2	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 2	-+	
														_								
		110												110		607	20000	110	FT	FENCE, TYPE CL		
										600				600		607	70000	600	FT	FENCELINE SEEDING AND MULCHING		
~		675												675		608	10000	675	SF	4" CONCRETE WALK		
903	<u>_</u>													{290.	2	622	10161	A 2300	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN		10
32	۷۲													82	727	622	10161 2	82	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (A)		10
2														2		622	25000	2	EACH	CONCRETE BARRIER END SECTION, TYPE D		
<u>ই</u> ম	^													(\frac{1}{5}.		622	25051	v 523	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN		10
25	-2													<u>LS</u>	1/2	SPECIAL	69098400	2 LS		SITE ACCESS		11
																				EDOCTON CONTROL		
,,,					_									171		CEO.	00700	171	CV	EROSION CONTROL		
131 771														131 771		659 659	00300 10000	131 771	CY SY	TOPSOIL SEEDING AND MULCHING	+	
15														15		659	14000	15	SY	REPAIR SEEDING AND MULCHING	-+	
.04														0.04		659	20000	0.04	TON	COMMERCIAL FERTILIZER		
3														3		659	35000	3	MGAL	WATER		
200														25000		832	30000	25000	EACH	EROSION CONTROL		
				-																	\longrightarrow	
					+															DRAINAGE		
		137			+									137		605	11110	137	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	-+	
		1 .5,			1									1							-+	
																				PAVEMENT		
10		1			1									10		251	01010	10	CY	PARTIAL DEPTH PAVEMENT REPAIR (441)		
		84			+				- 00	18				102		304	20000	102	CY	AGGREGATE BASE		
		28	-						28					28 28		609 609	24510 26001	28 28	FT FT	CURB, TYPE 4-C CURB, TYPE 6, AS PER PLAN		10
		20												20		609	20001	20	F /	LUND, TIPE O, AS PER PLAN		
		1,				<u> </u>																
] <i>/</i> î	3/8/	/21 REMO	VE PARTI	ICIPATIC	N SPLIT			<u>L</u>														
1/2		/21 REVIS																				
1/2	7 3/5/	- ZI NEVIS	L GUANT	111E3																		
1																						
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					SHEET NUM						O1/	ALT	ITEM	ITEM	GRAND	UNIT	DESCRIPTION
8-11	12-66	74-80	81	89-102 103-10	06 107-115 116-125 126-150	0 151-170 171-188	189-205 20	6-229 230	0-236	237-253	01/ } NFP/RF	3 X)		EXT.	TOTAL		
											- tuqu						
											_	1/1					STRUCTURE REPAIR (CUY-422-1827L, SFN: 1814958 - LOCATION 11)
						LS					LS		202	11202	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN
						824					824		202 512	32800 10100	824 38	SY SY	CONCRETE SLOPE PROTECTION REMOVED
					+ + -	38					38 17	1	512	10600	17	FT	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) CONCRETE REPAIR BY EPOXY INJECTION
						5558					5558	+	513	21500	5558	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES
													0.0	2,000	0000		THE ENGLISH OF BETEING WITES ENGLISHMEN
						77					77		513	90000	77	LB	STRUCTURAL STEEL, MISC.: GIRDER END REPAIR
						620					620		514	27700	620	SF	FIELD PAINTING, MISC.: GIRDER END REPAIR AND END CROSSFRAMES
						12					12		516	45305	12	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
						LS					LS		516	47001	LS	65	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
						28					28		SPECIAL	51900100	28	SF	COMPOSITE FIBER WRAP SYSTEM
						26					26		519	11101	26	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN
						LS					LS			53000200		31	STRUCTURES MISC.: CLEANING OF DRAINAGE SYSTEMS
						824					824		601	21001	824	SY	CONCRETE SLOPE PROTECTION, AS PER PLAN
						28					28		844	10001	28	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN
												1					CTDUOTUDE DEDATE (OUR 400 MOZD CEL MANAGO LOCATION CO.
					+ + + -	1					15	+	202	11202	LS	-	STRUCTURE REPAIR (CUY-422-1827R, SFN: 1814966 - LOCATION 12) PORTIONS OF STRUCTURE REMOVED. OVER 20 FOOT SPAN
					+ + + -	LS 108					LS 108		202 202	22900	108	SY	APPROACH SLAB REMOVED
					+ + + -	929					929		202	32800	929	SY	CONCRETE SLOPE PROTECTION REMOVED
						54					54		503	21100	54	CY	UNCLASSIFIED EXCAVATION
						80					80		512	10100	80	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
						31					31		512	10600	31	FT	CONCRETE REPAIR BY EPOXY INJECTION
						6503					6503		513	21500	6503	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES
						325					325		513	90000	325	LB	STRUCTURAL STEEL, MISC.: GIRDER END REPAIR
					+ + -	728					728 14	+	514 516	27700 45305	728 14	SF EACH	FIELD PAINTING, MISC.: GIRDER END REPAIR AND END CROSSFRAMES REFURBISH BEARING DEVICE. AS PER PLAN
					+ + + -	17					77		310	40000	14	LACIT	NEI ONDIGHT BEANING BEVICE, AS I EN I EAN
						LS					LS		516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
						50					50		519	11101	50	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN
						108					108		526	25000	108	SY	REINFORCED CONCRETE APPROACH SLABS (T=15")
						LS					LS		-	53000200			STRUCTURES MISC.: CLEANING OF DRAINAGE SYSTEMS
						929					929		601	21001	929	SY	CONCRETE SLOPE PROTECTION, AS PER PLAN
												-					
																	STRUCTURE REPAIR (CUY-480-1955, SFN: 1812556 - LOCATION 13)
							LS				LS		202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
							441				441		202	75260	441	FT	VANDAL PROTECTION FENCE REMOVED
							18361				18361		509	10000	18361	LB	EPOXY COATED REINFORCING STEEL
							564				564		510	10000	564	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT
							183				183		511	34410	183	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE
							255				255		512	10050	255	CV	SEALING OF CONCRETE SURFACES (NON-EPOXY)
					+ + + - +		999				255 999		512	10101	999	SY	SEALING OF CONCRETE SURFACES (NON-EPOXT) SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN
					+ + + + + + + + + + + + + + + + + + + +		609				609		512	74001	609	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN
							LS				LS		514	00100	LS	<u> </u>	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL
							LS				LS		514	00200	LS		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT
							LS		4		LS		514	00300	LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT
							LS	~~~	$\overline{}$	~~~	wizhoun.	~~~	514	00401 12200	سننب	TFT.	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN
							£100	·····	ww	muu	<i>!</i>	ψ	516 516	46701		EACH	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN STRUCTURAL STEEL EXPANSION JOINT (SIDEWALK) RESET BEARING, AS PER PLAN
							LS				LS		516	47001	LS	EACH	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
												1	0,0	,,,,,,,			STEELES AND TERM CHART COLL ON TO COLLEGE MOTERY AS TERM
					+ + + -		6061				6061		SPECIAL	51900100	6061	SF	COMPOSITE FIBER WRAP SYSTEM
							429				429	1	519	11101	429	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN
							30				30		519	12200	30	SY	PATCHING CONCRETE BRIDGE DECK - TYPE A
							34				34		526	98200	34	FT	APPROACH SLABS, MISC.: CURB REMOVAL AND REPLACEMENT
							4901				4901		SPECIAL	53000600	4901	SF	STRUCTURES: TIMBER SUBDECK
							1 1	1				1	1	1	1		
	7.00	מו מריים	/E D4071	CIDATION COLIT			111				111		607	70001	111	<i></i>	VANDAL PROTECTION FENCE BY STRAIGHT COATER FARRIC AS RED BLAN
<u></u>				CIPATION SPLIT			441				441 665		607 844	39901 10001	441 665	FT SE	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION. AS PER PLAN
7	3/8/2						441 665				441 665		607 844	39901 10001	441 665	FT SF	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN

						IEET NUME					PARTICIPATION A	LTITEM	ITEM	GRAND	IINIT	DESCRIPTION	SE SHE
11	12-66	74-80	81	89-102 103-106	107-115	116-125 126-150	151-170 171-188	189-205	206-229 230-236	237-253	01/ { NFP/BR ((X)	EXT.	TOTAL		DESCRIPTION	NO
												\triangle					
	1500												70004	1500		MAINTENANCE OF TRAFFIC	
-	1506 708						64				1506 772	607 614	39994 11110	1506 772	FT HOUR	TEMPORARY VANDAL FENCE, TYPE B LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	4						04				4	SPECIAL	61411300	4	FACH	WORK ZONE TRAFFIC SIGNAL	18
												614	11630	4423	FT	INCREASED BARRIER DELINEATION	
	4423						2				4423	614	12380	4423	EACH		
	- ω	\\\\ 2\\									(32)			2/100			
	1894										1894	614	12800	1894	EACH	WORK ZONE RAISED PAVEMENT MARKER	
	229										229	614	13310	229	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
	124										124	614	13310	124	EACH	BARRIER REFLECTOR, TYPE 1, TWO WAY	
	105										105	614 614	13312 13350	105 294		BARRIER REFLECTOR, TYPE 2, ONE WAY	
	294										294	614	13350	294	EALH	OBJECT MARKER, ONE WAY	
+	121										121	614	13360	121	EACH	OBJECT MARKER, TWO WAY	
+	74										74	614	18601	74		PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	15
\top	0.84										0.84	614	21200	0.84		WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
							1.00				1.00	614	22110	1.00	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
\Box	11.09										11.09	614	22210	11.09	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
-											1500		070:-			WORK TONE OUTSHIELD IN COLUMN ASSESSMENT	
\perp	16074						1500				1500	614	23210	1500	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
+	16934 2089										16934 2089	614 614	23400 23410	16934 2089	FT FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE I WORK ZONE CHANNELIZING LINE, CLASS I, 12", 740.06, TYPE I	
+	2003						2040				2040	614	24200	2040	FT	WORK ZONE DOTTED LINE, CLASS I, 12, 140.00, TIFE I	
+							25				25	614	24202	25	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	
	5185										5185	614	24402	5185	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE I	
	166										166	614	26400	166	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
_	30										30	614	30400	30	EACH	WORK ZONE ARROW, CLASS I, 740.06, TYPE I	
-	13792										13792	614	98100	13792	FT	WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT	TAPE 1
+											LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
+	170										170	615	20000	∧ 170	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
1	6015										1	616	10000 Z	2\\ 1	MGAL	WATER	
7	0013	R					2290				8305	622	41100	<i>(8305)</i>	FT	PORTABLE BARRIER, UNANCHORED	
	1536 1280	Ĭ A					45				1581	622	41110	č . ,15,81, 3	FT	PORTABLE BARRIER, ANCHORED	
4	1280	2									1280 /2	SPECIAL	69013000	1280	FT	RUMBLE STRIPS	
+																	
+																INCIDENTALS	
											LS	108	10000	LS		CPM PROGRESS SCHEDULE	
	LS										LS	614	11000	LS		MAINTAINING TRAFFIC	
	LS										LS	614	12420	LS		DETOUR SIGNING	
											12	619	16011	12	MNTH	FIELD OFFICE, TYPE B, AS PER PLAN	1
											LS	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	,
											LS	624	10000	LS		MOBILIZATION	
+											LS	024	10000	LS		MODILIZATION	
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<u> </u>	3/8/2	21 REMO	VE PART	ICIPATION SPLIT													
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RICHLAND ENGINEERING LIMITED

29 NORTH PARK STREET

MANSFIELD, OHIO 44902

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				ESTIMATED QUANTITIES		CALC CH	ULATED HECKED	<u>dh†</u> [<u>RRB</u> [DATED <u>10/20</u> DATED <u>1/21</u>
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER	PIERS	ABUTS.	GEN'L	REF. SHEET
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	2/17
202	75260	441	FT	VANDAL PROTECTION FENCE REMOVED					
509	10000	18,361	LB	EPOXY COATED REINFORCING STEEL	18,361				
510	10000	564	EACH	DOWEL HOLES WITH NON-SHRINK, NON-METALIC GROUT	540		24		
511	34410	183	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	180		3		
512	10050	255	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	255				
512	10101	999	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	553	291	155		2/17
512	74001	609	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	198	282	129		2/17
514	00100	LS		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL				LS	
514	00200	LS		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT				LS	
514	00300	LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT				LS	
514	00401	LS		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN				LS	2/17
<u> </u>	12200			STRUCTURAL STEEL EXPANSION JOINT (SIDEWALK)					
516	46701	1	EACH	RESET BEARING, AS PER PLAN	1				2/17
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LS	2/17
SPECIAL	51900100	6061	SF	COMPOSITE FIBER WRAP SYSTEM		6061			3/17
519	11101	429	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN		79	350		2/17
519	12200	30	SY	PATCHING CONCRETE BRIDGE DECK - TYPE A	30				
526	98200	34	FT	APPROACH SLABS, MISC.: CURB REMOVAL AND REPLACEMENT				34	11/17
SPECIAL	53000600	4901	SF	STRUCTURE: TIMBER SUBDECK	4901				3/17
607	39901	441	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	441				11/17
844	10001	665	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		665			3/17

5/25/21	ADD LOCATION 13 ITEM