

INTERIM COMPLETION DATE

THE CONTRACTOR SHALL HAVE ALL THE CONCRETE REPAIRS, IF ANY, COMPLETED BY AUGUST 31ST AND ALL THE ASPHALT REPAIRS COMPLETED BY OCTOBER 1ST.

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 & 107.16 IN THE CONSTRUCTION & MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

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.

ITEM 621 - RAISED PAVEMENT MARKER REMOVED

IN AREAS WHERE THE RAISED PAVEMENT MARKER CASTINGS CANNOT BE REPLACED BECAUSE OF PAVEMENT CONDITIONS, USE THIS ITEM INSTEAD OF ITEM 621 RPM, INSTALLATION ONLY TO COMPENSATE THE CONTRACTOR FOR REMOVAL OF THE EXISTING RPM AND RESTORATION OF THE PAVEMENT.

ALL BROKEN, CRACKED, FRAGMENTED OR PARTIAL REMNANTS OF RAISED PAVEMENT MARKERS OR MISSING RAISED PAVEMENT MARKERS SHALL BE TOTALLY REMOVED AND THE PAVEMENT RESTORED AS DESCRIBED IN CONSTRUCTION AND MATERIAL SPECIFICATION ITEM 621.08.

THE FOLLOWING IS AN ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER FOR THE ABOVE WORK:

621, RAISED PAVEMENT MARKER REMOVED 40 EACH

ITEM 642 - PAVEMENT MARKINGS

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS DIRECTED BY THE PROJECT ENGINEER TO MATCH EXISTING PAVEMENT MARKINGS.

THE UNIT BID PRICES ON THESE ITEMS WILL NOT BE ADJUSTED AS PER CMS 104.02.D.

ITEM 642, EDGE LINE, 6" 5.06 MILES
ITEM 642, LANE LINE, 6" 2.16 MILES
ITEM 642, CHANNELIZING LINE, 12" 100 FT
ITEM 642, CENTER LINE 0.5 MILES

ITEM 646 - PAVEMENT MARKINGS

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS DIRECTED BY THE PROJECT ENGINEER TO MATCH EXISTING PAVEMENT MARKINGS.

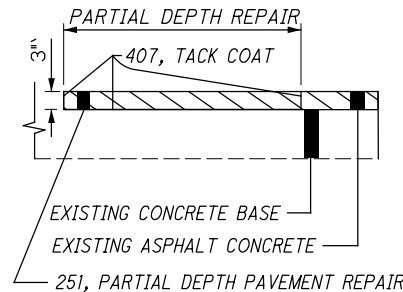
THE UNIT BID PRICES ON THESE ITEMS WILL NOT BE ADJUSTED AS PER CMS 104.02.D.

ITEM 646, EDGE LINE, 6" 0.06 MILES
ITEM 646, LANE LINE, 6" 0.16 MILES
ITEM 646, CHANNELIZING LINE, 12" 1392 FT

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (449), PG64-22. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. PAVEMENT REPAIRS WILL BE MARKED IN THE FIELD BY THE PROJECT ENGINEER ACCORDING TO CMS 251.02. MINIMUM WIDTH IS 2'. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

251, PARTIAL DEPTH PAVEMENT REPAIR (441), 19250 SQ. YD.



BREAKDOWN OF TOTAL BY LOCATION:

LOCATION 1
ATB-7: S.R. 6 TO S.R. 176 (SLM 15.00 TO 17.50)
ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR (441), 9000 SY

LOCATION 3
MAH-680: SOUTH AVE TO U.S. 224 SOUTHBOUND (SLM 7.11 TO 11.79) - LEFT/MIDDLE LANES ONLY, 4' WIDE PATCHES
ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR (441), 4600 SY

LOCATION 4
MAH-680: U.S. 224 TO SOUTH AVE NORTHBOUND (SLM 11.79 TO 7.11) - LEFT/MIDDLE LANES ONLY, 4' WIDE PATCHES
ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR (441), 3150 SY

LOCATION 5
MAH-680: U.S. 224 TO TURNPIKE SOUTHBOUND (SLM 11.79 TO 15.98) - LEFT LANE ONLY, 4' WIDE PATCHES
ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR (441), 1350 SY

LOCATION 6
MAH-680: TURNPIKE TO U.S. 224 NORTHBOUND (SLM 15.98 TO 11.79) - LEFT LANE ONLY, 4' WIDE PATCHES
ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR (441), 1150 SY

ITEM 888 - HIGH FRICTION SURFACE TREATMENT, SINGLE LIFT - LOCATION 7

THIS WORK CONSISTS OF PAVEMENT PREPARATION & PLACEMENT OF A HIGH FRICTION SURFACE TREATMENT (HFST). THE BELOW QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

TRU-80: SLM 3.38 TO 3.53
ITEM 646, REMOVAL OF PAVEMENT MARKING 0.22 MILE
ITEM 646, REMOVAL OF PAVEMENT MARKING 1392 FEET
ITEM 888, HIGH FRICTION SURFACE TREATMENT, SINGLE LIFT, 2300 SY

ITEM 255 - FULL DEPTH REMOVAL AND RIGID REPLACEMENT; CLASS RRCM OR QC3, AS PER PLAN - LOCATION 2

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 9" CONCRETE CLASS RRCM OR QC3.

IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

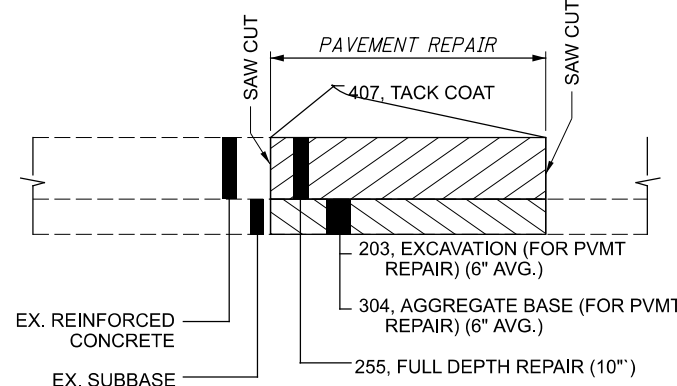
THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 255 - FULL DEPTH REMOVAL AND RIGID REPLACEMENT, MISC.: CLASS RRCM OR QC3, AS PER PLAN, 309 SY

ITEM 255 - FULL DEPTH PAVEMENT SAWING, 1500 FT

LOCATION 2

ATB-90 WB: (SLM 3.45 TO 7.35)
ITEM 255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, MISC.: CLASS RRCM OR QC3, AS PER PLAN, 309 SY



ITEM 203 - EXCAVATION (FOR PAVEMENT REPAIR)

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
203, EXCAVATION (FOR PAVEMENT REPAIR) 51 CU YD

ITEM 304 - AGGREGATE BASE (FOR PAVEMENT REPAIR)

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
304, AGGREGATE BASE (FOR PAVEMENT REPAIR) 51 CU YD

CONCRETE, CLASS RRCM OR QC3, AS PER PLAN (FOR FULL DEPTH REPAIRS)

THE MATERIAL REQUIREMENTS OF CMS 255.02 MAY BE MODIFIED AS FOLLOWS:

PROVIDE A RRCM MIXTURE MEETING THE REQUIREMENTS OF CMS 255.02 OR AN ALTERNATE RRCM MIXTURE CONFORMING THE FOLLOWING REQUIREMENTS:

PORTLAND CEMENT CONCRETE 499.03, CLASS QC3, W/MACRO-FIBERS

PROVIDE A MIXTURE MEETING THE REQUIREMENTS OF WELL GRADED IN ITEM 499.

AIR CONTENT: 4 TO 8 PERCENT

FLEXURAL STRENGTH: DEVELOP A RRCM CONCRETE MIX THAT WILL ACHIEVE A FLEXURAL STRENGTH OF 300 PSI (2.8 MPA) IN NOT LESS THAN 4 HOURS AND NOT MORE THAN 6 HOURS USING 6" X 6" (150 MM X 150 MM) BEAM SAMPLES CONFORMING TO ASTM C293.

PERMEABILITY: 2,000 COULOMBS

COARSE AGGREGATE (NO. 57 & NO. 8)	703.02 & 703.13
FINE AGGREGATE (NATURAL SAND)	703.02
PORTLAND CEMENT, TYPE 1*	701.04
FLY ASH OR NATURAL POZZOLAN	701.13
SLAG CEMENT	701.11
WATER	499.02
CHEMICAL ADMIXTURE**	705.12
AIR-ENTRAINING ADMIXTURE	705.10
MACRO-FIBERS FOR CONCRETE***	705.29
LIQUID MEMBRANE-FORMING COMPOUNDS FOR CONCRETE CURING	705.07

* PROVIDE A MIXTURE WITH A PORTLAND CEMENT CONTENT OF 660 LB OR LESS AND A TOTAL CEMENTITIOUS CONTENT OF 850 LB OR LESS.

** MAXIMUM OF 0.5% CALCIUM CHLORIDE BY MASS OF CEMENTITIOUS CONTENT OR A LIQUID NON-CHLORIDE ACCELERATING ADMIXTURE MAY BE USED TO GENERATE EARLY STRENGTH DEVELOPMENT. SPECIALTY TYPE 'S' ADMIXTURE ALSO PERMITTED (SUBMITTAL OF MANUFACTURER'S DATA SHEET REQUIRED).

*** USE A MINIMUM DOSAGE RATE OF FIBERS OF 4.0 LB/CY OF CONCRETE. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. A DEMONSTRATION OF THE MIX PRODUCTION, OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

SUBMIT LAB TESTING RESULTS OF THE ALTERNATE RRCM MIXTURE USING THE ACTUAL MATERIALS THAT WILL BE USED ON THE PROJECT. MAKE AT LEAST FIVE BEAM SPECIMENS AND TEST THEM AT 3, 4, 5, 6, & 8 HOURS AGE. ALTERNATELY, THE CONTRACTOR MAY DEVELOP THE MIX'S MATURITY CURVE ACCORDING TO SUPPLEMENT 1098.

DO NOT OPEN THE RIGID REPLACEMENT TO TRAFFIC UNTIL THE RRCM ATTAINS A MODULUS OF RUPTURE OF 300 POUNDS PER SQUARE INCH (2.8 MPA) BASED ON MATURITY TESTING OR BEAM TESTING ON THE PROJECT.

THE JMF WILL NOT BE APPROVED FOR USE ON THE ENTIRE PROJECT UNTIL A SUCCESSFUL FIELD PLACEMENT IS PERFORMED ON THE PROJECT WITH THE MIX DESIGN. THIS PLACEMENT MUST DEMONSTRATE THE MIXTURE IS CAPABLE OF MEETING THE PRESCRIBED FLEXURAL STRENGTH AND TIME REQUIREMENTS.

SHEET NUM.

PART.

ITEM

ITEM

EXT

GRAND

TOTAL

UNIT

DESCRIPTION

SEE SHEET NO.

01/NFP/PV

3

5

6

51

51

203

10000

51

CY

EXCAVATION

ROADWAY

EROSION CONTROL

3,000

832

30000

3,000

EACH

EROSION CONTROL

PAVEMENT

19,250

19,250

251

01000

19,250

SY

PARTIAL DEPTH PAVEMENT REPAIR (441)

309

309

255

10200

309

SY

FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, MISC.: CLASS RRCM OR QC3

3

1,500

1,500

255

20000

1,500

FT

FULL DEPTH PAVEMENT SAWING

51

51

304

20000

51

CY

AGGREGATE BASE

2,300

2,300

888

10000

2,300

SY

HIGH FRICTION SURFACE TREATMENT, SINGLE LIFT

TRAFFIC CONTROL

40

40

621

54000

40

EACH

RAISED PAVEMENT MARKER REMOVED

5.06

5.06

642

00104

5.06

MILE

EDGE LINE, 6", TYPE 1

2.16

2.16

642

00204

2.16

MILE

LANE LINE, 6", TYPE 1

0.5

0.5

642

00300

0.5

MILE

CENTER LINE, TYPE 1

100

100

642

00404

100

FT

CHANNELIZING LINE, 12", TYPE 1

ADDED ITEMS

0.06

0.06

646

10010

0.06

MILE

EDGE LINE, 6"

0.16

0.16

646

10110

0.16

MILE

LANE LINE, 6"

1,392

1,392

646

10310

1,392

FT

CHANNELIZING LINE, 12"

1,392

1,392

646

50100

1,392

FT

REMOVAL OF PAVEMENT MARKING

0.22

0.22

646

50300

0.22

MILE

REMOVAL OF PAVEMENT MARKING

MAINTENANCE OF TRAFFIC

160

160

614

11110

160

HOUR

LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE

20

20

614

12460

20

EACH

WORK ZONE MARKING SIGN

10

10

614

13000

10

CY

ASPHALT CONCRETE FOR MAINTAINING TRAFFIC

3

3

614

18600

3

SNMT

PORTABLE CHANGEABLE MESSAGE SIGN

INCIDENTALS

LS

614

11000

LS

MAINTAINING TRAFFIC

3

619

16010

3

MNTH

FIELD OFFICE, TYPE B

LS

624

10000

LS

MOBILIZATION

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER JRF

REVIEWER

RMM 12-31-21

PROJECT ID

115833

SHEET TOTAL P.7 7