

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE: X071-2A

NUMBER	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	66
20300100	CHANNEL EXCAVATION	CU YD	2,025
20700400	POROUS GRANULAR EMBANKMENT (SPECIAL)	CU YD	92
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.25
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	45
28000400	PERIMETER EROSION BARRIER	FOOT	1,060
28100207	STONE RIPRAP, CLASS A4	TON	374
28200200	FILTER FABRIC	SQ YD	445
35501320	HOT-MIX ASPHALT BASE COURSE, 9"	SQ YD	1,200
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	222
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	186
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	93
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	48
44000100	PAVEMENT REMOVAL	SQ YD	1,612
48100100	AGGREGATE SHOULDERS, TYPE A	TON	248
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	224
50300225	CONCRETE STRUCTURES	CU YD	80.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	257.2
50300260	BRIDGE DECK GROOVING	SQ YD	739
50300280	CONCRETE ENCASEMENT	CU YD	57.9
50300300	PROTECTIVE COAT	SQ YD	1,077
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	3,222
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	68,910
50800515	BAR SPLICERS	EACH	72
50901050	STEEL RAILING, TYPE SM	FOOT	331
51201800	FURNISHING STEEL PILES HP14X73	FOOT	2,337
51202305	DRIVING PILES	FOOT	2,337
51203800	TEST PILE STEEL HP14X73	EACH	2
51500100	NAME PLATES	EACH	1
52100520	ANCHOR BOLTS, 1"	EACH	24
52100530	ANCHOR BOLTS, 1/4"	EACH	24
56109210	WATER VALVES TO BE ADJUSTED	EACH	2
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	61
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	4
60109580	PIPE UNDERDRAINS FOR STRUCTURE 4"	FOOT	140
60255500	MANHOLES TO BE ADJUSTED	EACH	1
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	12.5
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	460
63300725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	75
67100100	MOBILIZATION	L SUM	1
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,153
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1

*SEE SPECIAL PROVISIONS

△ SPECIALTY ITEMS

PAVEMENT DESIGN

STRUCTURAL DESIGN TRAFFIC (S.D.T.): YEAR 2018; P.V. = 4,123, S.U. = 85, M.U. = 42
CLASS II ROAD

MINIMUM SOIL SUPPORT: I.B.R. = 3.0 (ASSUMED) (> 3 K.S.I.)

PERCENT OF S.D.T. IN DESIGN LANE P = 50%, S = 50%, M = 50%
T.F. = 0.26

TEMP. = 78.4° F.; E_{ac} = 500; DESIGN STRAIN = 220

APPLICATION RATES USED IN QUANTITY CALCULATIONS

STONE RIPRAP, CLASS A4	1.65 TON/CU YD
AGGREGATE SHOULDERS	2.05 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT) ON H.M.A.	0.10 GAL/SQ YD
HOT-MIX ASPHALT, BASE, BINDER AND SURFACE COURSE	112*/SQ YD/IN

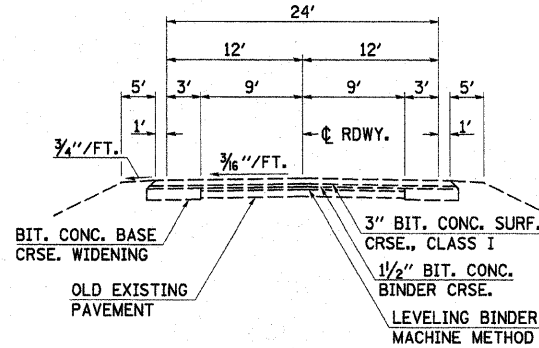
GENERAL NOTES

THE EXISTING STRUCTURE MUST BE REMOVED IN A MANNER THAT WILL PREVENT PORTIONS OF THE EXISTING BRIDGE FROM FALLING INTO COON CREEK AND LIMIT THE DEGREE TO WHICH DEBRIS AND BROKEN CONCRETE ENTERS THE CREEK. SEE SPECIAL PROVISIONS.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

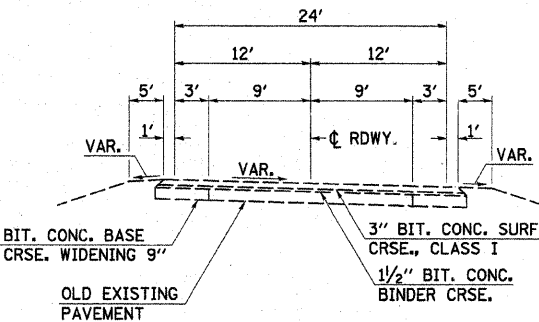
THE AREA TO BE SEEDDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY, AS DIRECTED BY THE ENGINEER.

SEEDING, CLASS 2 (SPECIAL) = 0.25 ACRE



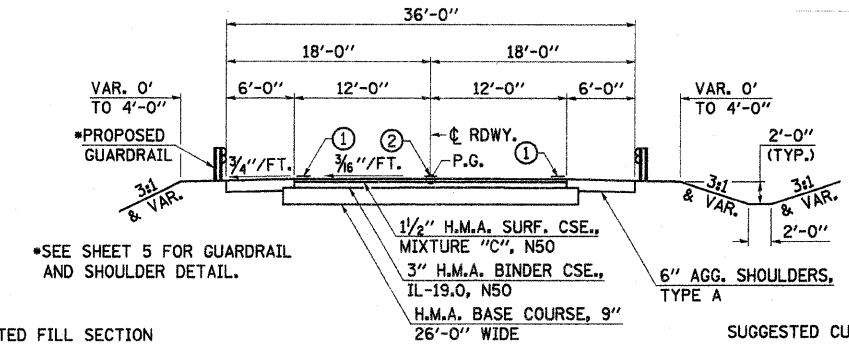
EXISTING TYPICAL CROSS SECTION #1

STA. 45+00 TO STA. 48+26



EXISTING TYPICAL CROSS SECTION #2

STA. 48+26 TO STA. 50+55



TYPICAL PROPOSED CROSS SECTION #1

STA. 45+50 TO STA. 46+98.75
TRANSITION FROM EXISTING PAVEMENT WIDTH
STA. 45+00 TO PROPOSED AT STA. 45+50

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN BY
STATION CROSS SECTIONS

SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN BY
STATION CROSS SECTIONS

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN BY
STATION CROSS SECTIONS

SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN BY
STATION CROSS SECTIONS

TYPICAL PROPOSED CROSS SECTION #2

TRANSITION FROM NORMAL CROWN STA. 48+26
TO S.E. 0.026'/' AT STA. 49+76 AND FROM
S.E. 0.026'/' AT STA. 49+76 TO EXISTING S.E. STA. 50+55

- ① SOLID WHITE PAINT PAVEMENT MARKING - LINE 4"
- ② SKIP-DASH YELLOW PAINT PAVEMENT MARKING - LINE 4"

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USE(S)	SURFACE	BINDER	BIT. BASE COURSE
PG _s	PG 58-22	PG 58-22	PG 58-22
DESIGN AIR VOIDS:	3.0 @ N50	3.0 @ N50	2 @ N50
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5 OR 12.5	IL 19.0	BAM
FRICITION AGGREGATE	C	N/A	N/A
20 YEAR ESAL	0.0	0.0	N/A
MIX UNIT WEIGHT	112 LBS/SY/IN		

LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	H.M.A. BASE COURSE, 9"	H.M.A. BINDER CSE., IL-19.0, N50	H.M.A. SURFACE CSE., MIXTURE "C", N50	AGGREGATE SHOULDERS, TYPE A	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) WIDTH 36'
	GALLON	TON	TON	TON	TON	SQ YD
STA. 45+00 TO STA. 46+98.75	108	580	90	45		
STA. 49+06.25 TO STA. 50+55	80	432	67	33.5		
N. LYNDON ROAD	34	188	29	14.5		
LT. STA. 45+00 TO LT. STA. 47+34.75					61	
RT. STA. 45+00 TO RT. STA. 47+34.75					61	
LT. STA. 48+70.25 TO LT. STA. 50+55					75	
RT. STA. 48+70.25 TO RT. STA. 50+55					51	
STA. 46+98.75 TO STA. 47+04.75						24
STA. 49+00.25 TO STA. 49+06.25						24
TOTAL	222	1200	186	93	248	48

FILE NAME = 47515_SUM.TYP.DGN

DESIGNED - G.J.C.	REVISED - 4/10/09
DRAWN - S.A.P.	REVISED -
CHECKED - G.J.C.	REVISED -
DATE - 3/20/09	REVISED -

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SUMMARY OF QUANTITIES, GENERAL NOTES AND TYPICAL CROSS SECTIONS

SCALE: N/A

PROPOSED STRUCTURE @ STA. 48+02.50

F.A. RTE. C.H. 3	SECTION 07-00188-00-BR	COUNTY WHITESIDE	TOTAL SHEETS 32	SHEET NO. 2
			CONTRACT NO. 85465	