

# DISTRICT 10 - BRIDGE DEPARTMENT

MUSKINGUM DRIVE, BOX 658, MARIETTA OHIO 45750

COUNTY: MEG ROUTE: 124 SECTION: 55.89

SHEET 1 OF 4

DATE: \_\_\_\_\_  
DATE: \_\_\_\_\_  
CALCULATED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_

CLASS QC2 CONCRETE, SUPERSTRUCTURE

$$(275.63')(29.5')(8.75'/12) / 27 = 219.60 \text{ CY}$$

GIRDER 1 HAUNCH :  $(275.57')(14"/12)(2"/12) / 27 = 1.98 \text{ CY}$

GIRDER 2 - 4 HAUNCH :  $(276.89')(14"/12)(2"/12) / 27 = 1.99 \text{ CY}$

SPAN 1 LT DECK EDGE :  $(2.89' \text{ AVG. WIDTH})(86.96')(9.25'/12) / 27 = 7.13 \text{ CY}$

SPAN 2 LT DECK EDGE :  $(2.26' \text{ AVG. WIDTH})(107.78')(9.25'/12) / 27 = 6.93 \text{ CY}$

SPAN 3 LT DECK EDGE :  $(1.49' \text{ AVG. WIDTH})(80.43')(9.25'/12) / 27 = 3.42 \text{ CY}$

SPAN 1 RT DECK EDGE :  $(2.07' \text{ AVG. WIDTH})(87.50')(9.25'/12) / 27 = 5.17 \text{ CY}$

SPAN 2 RT DECK EDGE :  $(1.95' \text{ AVG. WIDTH})(108.59')(9.25'/12) / 27 = 6.05 \text{ CY}$

SPAN 3 RT DECK EDGE :  $(2.09' \text{ AVG. WIDTH})(81.08')(9.25'/12) / 27 = 4.84 \text{ CY}$

TOTAL 257.11 CY

CLASS QC1 CONCRETE, PIER

PIER 1 :  $(35.5')(3')(0.86') / 27 = 3.39 \text{ CY}$

PIER 2 :  $(35.5')(3')(0.82') / 27 = 3.23 \text{ CY}$

TOTAL 6.62 CY

TYPE 2 WATERPROOFING

REAR ABUTMENT :  $(77.5')(3') / 9 = 25.83 \text{ SY}$

FORWARD ABUTMENT :  $(62')(3') / 9 = 20.67 \text{ SY}$

46.50 SY

1/2 PEJF

REAR ABUTMENT :  $(5.40')(1.75') = 9.45 \text{ SF}$

$(6.43')(1.75') = 11.25 \text{ SF}$

20.70 SQ FT

# DISTRICT 10 - BRIDGE DEPARTMENT

MUSKINGUM DRIVE, BOX 658, MARIETTA OHIO 45750

COUNTY: MEG ROUTE: 124 SECTION: 55.89

SHEET 2 OF 4

CLASS	QCI	CONCRETE	ABUTMENT		
REAR ABUTMENT :					
			$\frac{1}{2}(2.15' + 5.40')(13')(1.75')/27 = 3.18$	CY	
			$(5.40')(3.96')(1.75')/27 = 1.39$	CY	
			$(5.40')(1.33')(1.75')/27 = 1.05$	CY	
			$\frac{1}{2}(5.40' + 6.43')(39.73')(1.75')/27 = 15.23$	CY	
			$(6.43')(3.97')(1.75')/27 = 1.65$	CY	
			$(6.43')(0.46')(1.75')/27 = 0.19$	CY	
			$\frac{1}{2}(6.43' + 2.68')(15')(1.75')/27 = 4.43$	CY	
			GIRDER 1 SEAT : $(3.08')(2')(0.57')/27 = 0.13$	CY	
			GIRDER 2+3 SEAT : $2(3')(2')(0.62')/27 = 0.28$	CY	
			GIRDER 4 SEAT : $(3.08')(2')(0.57')/27 = 0.13$	CY	
			DEDUCT APP. SLAB SEAT : $(39.73')(0.5')(1.50')/27 = 1.10$	CY	
			<u>26.56</u>	CY	
FORWARD ABUTMENT :					
			$\frac{1}{2}(3.66' + 6.91')(9.75')(1.75')/27 = 3.34$	CY	
			$(6.91')(5.45')(1.75')/27 = 2.44$	CY	
			$\frac{1}{2}(6.91' + 5.85')(34.87')(1.75')/27 = 14.42$	CY	
			$(5.85')(4.67')(1.75')/27 = 1.77$	CY	
			$\frac{1}{2}(5.85' + 3.78')(7.25')(1.75')/27 = 2.26$	CY	
			GIRDER SEATS : $4 \times (3')(2')(0.63')/27 = 0.56$	CY	
			DEDUCT APP. SLAB SEAT : $(34.87')(0.5')(1.50')/27 = 0.97$	CY	
			<u>23.82</u>	CY	
			TOTAL = 26.56 + 23.82 = 50.38	CY	

DATE: \_\_\_\_\_  
DATE: \_\_\_\_\_

CALCULATED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_

# DISTRICT 10 - BRIDGE DEPARTMENT

MUSKINGUM DRIVE, BOX 658, MARIETTA OHIO 45750

COUNTY: MEG ROUTE: 124 SECTION: 55.89

SHEET 3 OF 4

SEALING OF CONCRETE SURFACES

SUPER : LEFT DECK EDGE :  $(274.26')(2')/9 = 60.95 \text{ SY}$

RIGHT DECK EDGE :  $(277.16')(2')/9 = 61.59 \text{ SY}$

122.54 SY

REAR ABUTMENT :  $\frac{1}{2}(5.84' + 9.09')(13')/9 = 10.78 \text{ SY}$

$(9.09')(6.13')/9 = 6.19 \text{ SY}$

$\frac{1}{2}(9.09' + 10.12')(39.7')/9 = 42.38 \text{ SY}$

$(10.12')(3.69')/9 = 4.15 \text{ SY}$

$\frac{1}{2}(10.12' + 6.37')(15')/9 = 13.74 \text{ SY}$

$(2.7')(2')/9 = 0.60 \text{ SY}$

$(36')(2')/9 = 8.00 \text{ SY}$

$(3.57')(2')/9 = 0.79 \text{ SY}$

$(5.84')(1.75')/9 = 1.14 \text{ SY}$

$(19.53')(1.75')/9 = 3.80 \text{ SY}$

$(17.53')(1')/9 = 1.95 \text{ SY}$

$(6.37')(1.75')/9 = 1.24 \text{ SY}$

$(19.15')(1.75')/9 = 3.72 \text{ SY}$

$(20.24')(1')/9 = 2.25 \text{ SY}$

100.73 SY

FORWARD ABUTMENT :  $\frac{1}{2}(7.55' + 10.80')(9.75')/9 = 9.94 \text{ SY}$

$(14.66')(1')/9 = 1.63 \text{ SY}$

$(10.80')(6')/9 = 7.20 \text{ SY}$

$(7.67')(1.75')/9 = 1.49 \text{ SY}$

$\frac{1}{2}(10.80' + 9.74')(34.8')/9 = 39.91 \text{ SY}$

$(11.65')(1.75')/9 = 2.27 \text{ SY}$

$(9.74')(4.11')/9 = 4.45 \text{ SY}$

$(12.48')(1')/9 = 1.39 \text{ SY}$

$\frac{1}{2}(9.74' + 7.67')(7.25')/9 = 7.01 \text{ SY}$

91.12 SY

$(4.36')(2')/9 = 0.97 \text{ SY}$

$(43')(2')/9 = 9.56 \text{ SY}$

TOTAL ABUTMENT =  $100.73 + 91.12 = 191.85 \text{ SY}$

$(3.44')(2')/9 = 0.76 \text{ SY}$

$(7.55')(1.75')/9 = 1.47 \text{ SY}$

$(16.28')(1.75')/9 = 3.17 \text{ SY}$

DATE:

DATE:

CALCULATED BY:

CHECKED BY:

# DISTRICT 10 - BRIDGE DEPARTMENT

MUSKINGUM DRIVE, BOX 658, MARIETTA OHIO 45750

COUNTY: MEG ROUTE: 124 SECTION: 55.89

SHEET 4 OF 4

## POROUS BACKFILL WITH GEOTEXTILE FABRIC

REAR ABUTMENT:  $\frac{1}{2}(5.00 + 8.45)(13')(2) / 27 = 6.57 \text{ CY}$

$(8.45)(4.53)(2) / 27 = 2.87 \text{ CY}$

$\frac{1}{2}(8.75 + 9.48)(39.68)(2) / 27 = 26.35 \text{ CY}$

$(9.48)(5.24)(2) / 27 = 3.68 \text{ CY}$

$\frac{1}{2}(9.78 + 5.73)(15)(2) / 27 = 8.45 \text{ CY}$

47.89 CY

FORWARD ABUTMENT:  $\frac{1}{2}(6.23 + 9.48)(9.75)(2) / 27 = 5.67 \text{ CY}$

$(9.48)(4.91)(2) / 27 = 3.45 \text{ CY}$

$\frac{1}{2}(9.78 + 8.42)(34.89)(2) / 27 = 23.13 \text{ CY}$

$(8.42)(5.23)(2) / 27 = 3.26 \text{ CY}$

$\frac{1}{2}(8.42 + 6.35)(7.25)(2) / 27 = 3.97 \text{ CY}$

39.48 CY

TOTAL = 47.89 + 39.48 = 87.37 CY

## REINFORCED CONCRETE APPROACH SLAB

$2 \times (27.5)(25) / 9 = 163.89 \text{ SY}$

DATE:

DATE:

CALCULATED BY:

CHECKED BY: