



CHA COMPUTATION PAD

COMPLETED BY: VS	PROJECT: 35727	PHASE: ---	ORG: ---
CHECKED BY: DOR	SHEET #: 1 OF 30		
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Summary Report		

* Note: All quantities have been rounded in accordance with INDOT Design Manual Chapter 17-1.03.

ITEM	DESCRIPTION	QUANTITY	UNIT	TYPE
202E11203	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	1.00	LS	S
202E23501	WEARING COURSE REMOVED, AS PER PLAN	1,660.00	SY	S
509E20001	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	848.00	LB	M
509E25000	REINFORCING STEEL	801.00	LB	M
510E10001	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	116.00	EACH	M
511E53012	CLASS QC2 CONCRETE, MISC.:	24.00	CY	S
512E10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	1,609.00	SY	S
512E74000	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	273.00	SY	S
513E21500	REPLACEMENT OF DETERIORATED END CROSSFRAMES	1,476.00	LB	S
514E00050	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	21,803.00	SF	R
514E00056	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	21,803.00	SF	U
514E00060	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	21,803.00	SF	U
514E00066	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	21,803.00	SF	U
514E00504	GRINDING FINES, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	38.00	MNHR	S
514E10000	FINAL INSPECTION REPAIR	17.00	EACH	U
516E11211	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN	94.00	FT	U
518E43300	6" PIPE DOWNSPOUT, INCLUDING SPECIALS	89.00	FT	S
519E11101	PATCHING CONCRETE STRUCTURE, AS PER PLAN	2,435.00	SF	S
530E00400	SPECIAL - STRUCTURE, MISC: CLEANING OF SCUPPERS/DRAINAGE SYSTEMS	7.00	EACH	S
690E98400	SPECIAL - CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	1.00	LS	
848E10201	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN	1,794.00	SY	
848E20000	SURFACE PREPARATION USING HYDRODEMOLITION	1,794.00	SY	
848E30200	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	97.00	CY	
848E50000	HAND CHIPPING	56.00	SY	
848E50100	TEST SLAB	1.00	LS	
848E50300	WEARING COURSE REMOVED, ASPHALT	134.00	SY	
848E50320	EXISTING CONCRETE OVERLAY REMOVED	1,660.00	SY	
848E50340	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	554.00	SY	



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COMPLETED BY: VS	PROJECT: 35727	PHASE: ---	ORG: ---
CHECKED BY: DOR	SHEET #: 2	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
202E11203	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	TOTAL:	1.00 LS

Concrete removed same as new concrete placed = 23.6 cy

Downpsouts removed

Abutment 1/Wingwall 1 = 3.0 ft vert + 4.0 ft horz + 2.0 ft horz + 13.5 ft vert = 22.5 ft

Abutment 1/Wingwall 2 = 3.0 ft vert + 4.0 ft horz + 2.0 ft horz + 11.2 ft vert = 20.2 ft

Abutment 2/Wingwall 3 = 3.0 ft vert + 3.0 ft horz + 2.0 ft horz + 13.5 ft vert = 21.5 ft

Abutment 2/Wingwall 4 = 3.0 ft vert + 4.0 ft horz + 2.0 ft horz + 11.2 ft vert = 20.2 ft

Total = 84.4 ft



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CHECKED BY: DOR	SHEET #: 3	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
202E23501 WEARING COURSE REMOVED, AS PER PLAN	TOTAL:	1,659.99	SY

Same as existing concrete overlay removed = 1659.99 sy



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COMPLETED BY: VS	PROJECT: 35727	PHASE: ---	ORG: ---
CHECKED BY: DOR	SHEET #: 4	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
509E20001	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN		TOTAL: 847.94 LB

From the project narrative, 120 linear feet of #5 bars and 120 linear feet of #6 bars are included in the estimate.

Unit weight of #6 bars	=	1.502	lb/ft
Unit weight of #5 bars	=	1.043	lb/ft
Unit weight of #7 bars	=	2.044	lb/ft
Weight of 120 ft of #6 bars	=	180	lb
Weight of 120 ft of #5 bars	=	125	lb
Weight of 120 ft of #7 bars	=	245	lb
Total weight of bars	=	551	lb

We also include 120 linear feet of #7 bars in the estimate, because they are used in the existing plans.

Dowel bars may replace the vertical reinforcing steel bars in the backwall if required and as directed by the engineer.

Since each existing rebar may be replaced with a pair of dowel bars,

Total number of A503 bars that may be replaced	=	48	
Total number of A504 bars that may be replaced	=	68	
Length of dowel bar replacing A503	=	2.75	ft
Length of dowel bar replacing A504	=	2.25	ft
Total length on #5 dowel bars	=	285	ft
Weight of dowel bars	=	297	lb
Total weight of reinforcing steel	=	848	lb



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CHECKED BY: DOR	SHEET #: 5	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
509E25000 REINFORCING STEEL	TOTAL:		801.00 LB

Weight of reinforcing steel bars on:

The roadway slab = 649 lb

Abutment 1 = 76 lb

Abutment 2 = 76 lb

Total Weight of reinforcing steel = 801 lb



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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
510E10001	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	TOTAL:	116.00 EACH

A503 and A504 bars in the backwall from the existing plans (pg 279/348) may be replaced with dowels.

Number of A503 bars to be replaced on abutment 1	=	12
Number of A504 bars to be replaced on abutment 1	=	17
Number of A503 bars to be replaced on abutment 2	=	12
Number of A504 bars to be replaced on abutment 2	=	17
Total number of vertical backwall bars to be replaced	=	58

Since each existing rebar may be replaced with a pair of dowel bars,

Total number of dowel holes to be provided	=	116
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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
511E53012 CLASS QC2 CONCRETE, MISC.:		TOTAL:	23.64 CY

According to the project narrative, the portion from the top of the existing backwall to the approach slab is replaced.

Distance from top of backwall to approach slab seat = 1.25 ft (const127)
 Width of backwall = 1.75 ft
 Length of backwall = 88.667 ft (Abutments 1 & 2)

Volume of backwall to be replaced = 193.958 cft = 7.184 cy

Full depth replacement plan area = 566.6279 sft (ODOT Supplementary spec 848, 2005)
 Full depth replacement deck depth = 0.7083 ft (848.32, 848.03)
 Uniform depth removed across deck = 0.0833 ft (Project_Narrative)

Full depth replacement volume = 354.142 cft = 13.116 cy

Plan area of full depth replacement on either side of deck (adjacent to abutment expansion joints) = 117.3333 sft

(Project narrative - replace 1'-4" of deck adjacent joints)

Full depth replacement volume = 73.333 cft = 2.716 cy

Total Full depth replacement volume = 15.832 cy

Full depth replacement on the deck (incl. ends) = 683.96 sft (From full depth area)
 Volume of full depth replacement = 14.25 cy

Parapet quantity on bridge deck and backwall near expansion joints:

Average length of South parapet on backwall (Abutment 1) = 1.62 ft (Measured from CAD)
 Average length of South parapet on deck (Abutment 1) = 1.50 ft (Measured from CAD)
 Average length of North parapet on backwall (Abutment 1) = 1.92 ft (Measured from CAD)
 Average length of North parapet on deck (Abutment 1) = 1.20 ft (Measured from CAD)



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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		

511E53012	CLASS QC2 CONCRETE, MISC.:	TOTAL:	23.64	CY
	Average length of South parapet on backwall (Abutment 2)	=	1.62 ft (Measured from CAD)	
	Average length of South parapet on deck (Abutment 2)	=	1.50 ft (Measured from CAD)	
	Average length of North parapet on backwall (Abutment 2)	=	1.92 ft (Measured from CAD)	
	Average length of North parapet on deck (Abutment 2)	=	1.20 ft (Measured from CAD)	
	Sectional area of South parapet on backwall (Abutment 1)	=	4.77 sft (Section 3-3 of SX001)	
	Sectional area of South parapet on deck (Abutment 1)	=	4.77 sft (Section 4-4 of SX001)	
	Sectional area of North parapet on backwall (Abutment 1)	=	4.77 sft (Section 5-5 of SX001)	
	Sectional area of North parapet on deck (Abutment 1)	=	4.77 sft (Section 6-6 of SX001)	
	Sectional area of South parapet on backwall (Abutment 2)	=	4.77 sft (Measured from CAD)	
	Sectional area of South parapet on deck (Abutment 2)	=	4.77 sft (Measured from CAD)	
	Sectional area of North parapet on backwall (Abutment 2)	=	4.77 sft (Measured from CAD)	
	Sectional area of North parapet on deck (Abutment 2)	=	4.77 sft (Measured from CAD)	
	Total Parapet volume on bridge deck and backwall	=	59.59 cft = 2.21 cy	
	Total concrete volume required	=	23.640 cy	



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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
512E10100 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		TOTAL:	1,608.64 SY

Based on Project Narrative & ODOT BDM 2019 Fig 302-2, 303-1 and 303-2:

Superstructure Edges:

Length of concrete surface to be sealed = 8.432 ft (measured in CAD)
 Total length of railing = 940.67 ft (North & South Railing - from existing plans)

Surface area of concrete to be sealed = 7931.70 sft
 = 881.30 sft

Abutments:

Length of concrete surface to be sealed = 23.25 ft
 Total length of abutments = 88.667 ft (East & West abutments - from existing plans)

Surface area of concrete to be sealed = 2061.5 sft
 = 229.056 sy

Pier:

Curved surface areas to be sealed = 2700.107 sft (All piers - from existing plans)
 = 300.012 sy

Pier cap:

Average height of pier cap = 4.4167 ft (measured from existing plans)
 Length of pier cap = 39.75 ft (4.417 is the average depth)
 Total longitudinal area of pier caps = 877.8125 sft
 Curved surface areas at ends of caps = 416.428571 sft
 Bottom surface area of per caps = 631.607 sft
 Areas subtracted from bottom surface = 141.429 sft
 Total surface area = 1784.420 sft
 = 198.269 sy

Total area of concrete to be sealed = 1608.636 sy



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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
512E74000 REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES		TOTAL:	272.14 SY

Existing sealer is on the face of abutment and around the side to the stem of abutment

Face of Abutments:

Length of concrete surface to be sealed = 23.25 ft
 Total length of abutments = 88.667 ft (East & West abutments - from existing plans)

Surface area of concrete to be sealed = 2061.5 sft
 = 229.056 sy

Side of abutment:

Length of concrete surface to be sealed = 22.15625 ft
 Height of sealed area = 17.500 ft (East & West abutments - from existing plans)

Surface area of concrete to be sealed = 387.734375 sft
 = 43.082 sy

Total Area= 272.137 sy



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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
513E21500 REPLACEMENT OF DETERIORATED END CROSSFRAMES		TOTAL:	1,476.00 LB

Hot Rolled Square angles 4" x 4" x 5/16" used as end crossframes are replaced.
 Refer ODOT standard drawing CSB-2-56 sheet 2 of 6 for end crossframe detail.

Unit weight of the angle	=	8.2	lb/ft
Length of crossframe element per bay	=	18	ft
Number of bays	=	5	
Number of crossframe ends	=	2	
Total weight of crossframe element	=	1476.000	lb



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COMPLETED BY: VS	PROJECT 35727	PHASE ---	ORG ---
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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
514E00050 SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL		TOTAL:	21,802.18 SF

Beams - W36 x 194

Surface area per foot of length = 8.88 sf/ft (AISC Manual 8th Edition, page 1-117)
(minus top flange surface)

Total length of a beam = 372 ft (Sum of length of all spans)

Total surface area of a beam = 3303.4 sft

Number of beams = 6

Total surface area of all beams = 19820.2 sft

Additional percentage required = 10 % = 1982.016 sft
(for cross frames, bearing assemblies, stiffeners, expansion joints, scuppers, etc.)

Total surface area required = 21802.2 sft



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CHECKED BY: DOR	SHEET #: 13	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
514E00056	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	TOTAL:	21,802.18 SF

Same as surface preparation area = 21,802.18 sft



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CHECKED BY: DOR	SHEET #: 14	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
514E00060	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	TOTAL:	21,802.18 SF

Same as surface preparation area = 21,802.18 sft



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COMPLETED BY: VS	PROJECT 35727	PHASE ---	ORG ---
CHECKED BY: DOR	SHEET #: 15	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
514E00066 FIELD PAINTING STRUCTURAL STEEL, FINISH COAT		TOTAL:	21,802.18 SF

Same as surface preparation area = 21,802.18 sft



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COMPLETED BY: VS	PROJECT 35727	PHASE ---	ORG ---
CHECKED BY: DOR	SHEET #: 16	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
514E00504	GRINDING FINES, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	TOTAL:	37.35 MNHR

Length Per Beam= 373.5 ft

No. of Beams= 6

Time for each linear foot of of beam to be coated= 1 min (2004 BDM 302.4.1.5.c)

Total Time= 37.35 hr



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COMPLETED BY: VS	PROJECT: 35727	PHASE: ---	ORG: ---
CHECKED BY: DOR	SHEET #: 17	OF: 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
514E10000	FINAL INSPECTION REPAIR	TOTAL:	17.00 EACH

Length Per Beam= 373.5 ft

No. of Beams= 6

Repairs for beam= 15 (1 repair per 150ft of beam per CMS 514.21)

Number of Crossframe= 33

Repairs for cross frame= 2 (1 repair per 5% of crossframe per CMS 514.21)

Total Repair= 17



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COMPLETED BY: VS	PROJECT 35727	PHASE ---	ORG ---
CHECKED BY: DOR	SHEET #: 18	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
516E11211	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN	TOTAL:	93.74 FT

Replace the existing expansion joints with those provided in the ODOT standard drawing EXJ-4-87.

Length of expansion joint = 93.74 ft (Measured from plans - approximate)
(includes expansion joints along wingwalls 1 to 4 and at the beginning and end of the deck)



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CHECKED BY: DOR	SHEET #: 19 OF 30		
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
518E43300 6" PIPE DOWNSPOUT, INCLUDING SPECIALS		TOTAL:	88.22 FT

	Beam seat elevations	Bottom of pipe elevations	Vertical length of existing pipe
Abut 1 WW 1	609.57	593.0800	16.4900
Abut 1 WW 2	607.3	593.0800	14.2200
Abut 2 WW 3	609.3	592.8000	16.5000
Abut 2 WW 4	607.02	592.8000	14.2200

Bottom of pipe elevations = Finished grade elevation + 1'

Finished grade elevation = (Bottom of footing elevation + Footing height +

Height of top of weephole from top of footing + Estimated distance from top of finished grade to top of weephole)

Abutment 1 Wingwall 1:

Length of vertical component 1	=	3.5000	ft
Length of angled component 1	=	5.9400	ft
Length of angled component 2	=	2.0616	ft
Length of vertical component 2	=	11.4900	ft

Abutment 1 Wingwall 2:

Length of vertical component 1	=	3.5000	ft
Length of angled component 1	=	5.9400	ft
Length of angled component 2	=	3.0923	ft
Length of vertical component 2	=	8.9700	ft

Abutment 2 Wingwall 3:

Length of vertical component 1	=	3.5000	ft
Length of angled component 1	=	5.9400	ft
Length of angled component 2	=	2.0616	ft
Length of vertical component 2	=	11.5000	ft

Abutment 2 Wingwall 4:

Length of vertical component 1	=	3.5000	ft
Length of angled component 1	=	5.9400	ft
Length of angled component 2	=	2.0616	ft
Length of vertical component 2	=	9.2200	ft

Total length of pipe	=	88.2170	ft
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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
519E11101 PATCHING CONCRETE STRUCTURE, AS PER PLAN		TOTAL:	2,434.58 SF

Total unsound area = 2434.58 sft
 (includes parapets, abutments, wingwalls & piers)

(From Repair Area Estimation spreadsheet)



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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
530E00400 SPECIAL - STRUCTURE, MISC: CLEANING OF SCUPPERS/DRAINAGE SYSTEMS		TOTAL:	7.00 EACH

According to the bridge drainage layout from the existing plans (pg 284/348):

Number of scuppers and downspouts to be cleaned = 4

Number of scupper-downspout-collector systems to be cleaned = 3

Total number of elements to be cleaned = 7



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PROJECT NAME:	HAM-75	DATE:	8/6/2020				
PROJECT LOCATION:	Hamilton County	SUBJECT:	Quantity Calculations				
690E98400	SPECIAL - CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION				TOTAL:	1.00	LS



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COMPLETED BY: VS	PROJECT 35727	PHASE ---	ORG ---
CHECKED BY: DOR	SHEET #: 23	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
848E10201	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN		TOTAL: 1,793.32 SY

Area of concrete overlay on deck = 1659.990 sy
 Depth removed across deck (D) = 1 in
 Thickness of epoxy overlay = 0.25 in
 Thickness of concrete overlay = 2.5 in
 New overall thickness of SDC overlay = 3.75 in (ODOT Supplementary spec 848, 2005)
 (848.32, 848.03)

Superplasticized Dense Concrete overlay using hydro-demolition 3.75 in thick.

Area of conc overlay on approach slab = 133.333 sy

Total Area of concrete overlay = 1793.324 sy



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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
848E20000	SURFACE PREPARATION USING HYDRODEMOLITION		TOTAL: 1,793.32 SY

Same as SDC overlay using hydrodemolition = 1793.324 sy



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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
848E30200	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY		TOTAL: 96.11 CY

Deck Area:

Use 1" over deck

Volume= 1244.99 cft
 46.11 cy

Approach Slab Area:

Volume= 50 cy

Total Volume= 96.11 cy



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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
848E50000 HAND CHIPPING	TOTAL:		55.33 SY

Total Area= 55.333 sy



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COMPLETED BY: VS	PROJECT 35727	PHASE ---	ORG ---
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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
848E50100 TEST SLAB	TOTAL:		1.00 LS

Test slab length = 8 ft (ODOT Supplementary spec 848, 848.15)
 Test slab width = 8.5833 ft (Width should be sufficient to place the finishing machine)
 Test slab thickness = 0.1042 ft
 Test slab volume = 7.153 cft

From the Historical Bid Data Item Search (2015-2019) spreadsheet, the average of all average bid costs for item number 848E50100 is \$1335.00

Lumpsum cost of a test slab = \$ 1,335.00



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PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
848E50300 WEARING COURSE REMOVED, ASPHALT	TOTAL:	133.33	SY

Approach slab (East) area = 600.00 sft (ODOT Supplementary spec 848, 2005, 848.32)
 Approach slab (West) area = 600.00 sft

1 3/4" of asphalt overlay and 1" of the original approach slabs
 must be replaced with 2 3/4" superplasticized dense concrete overlay.

Total area = 1200.00 sft = 133.33 sy



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COMPLETED BY: VS	PROJECT: 35727	PHASE: ---	ORG: ---
CHECKED BY: DOR	SHEET #: 29	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
848E50320 EXISTING CONCRETE OVERLAY REMOVED		TOTAL:	1,659.99 SY

Areas calculated based on existing plan. Areas in blue are approximated. Area numbers are taken from L to R.

Red area 1	=	1137.344	sft	(ODOT Supplementary spec 848, 2005, 848.32)
Red area 2	=	2291.000	sft	
Red area 3	=	2301.875	sft	
Red area 4	=	2301.875	sft	
Red area 5	=	2291.302	sft	
Red area 6	=	1138.401	sft	
Blue area 1	=	570.711	sft	
Blue area 2	=	574.109	sft	
Blue area 3	=	575.469	sft	
Blue area 4	=	574.147	sft	
Blue area 5	=	571.013	sft	
Green + Yellow area 1	=	431.202	sft	
Green + Yellow area 2	=	421.380	sft	
Yellow area 1	=	122.456	sft	
Yellow area 2	=	117.459	sft	
Green area 1	=	308.746	sft	
Green area 2	=	303.921	sft	
Total area	=	14939.91	sft	
	=	1659.99	sy	



CHA COMPUTATION PAD

COMPLETED BY: VS	PROJECT 35727	PHASE ---	ORG ---
CHECKED BY: DOR	SHEET #: 30	OF 30	
PROJECT NAME: HAM-75	DATE: 8/6/2020		
PROJECT LOCATION: Hamilton County	SUBJECT: Quantity Calculations		
848E50340	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	TOTAL:	553.33 SY

Total Area= 553.33 sy (1/3 of total deck area is used because 2 of 6 cores were 5" thick)