

October 10, 2016

Addendum No. 1

RE: Contract ID C203869

WBS # 53011.3.1

F. A. # NHP-0077(008)

**Mecklenburg County (I-5768)** 

I-77 From South Carolina Line To SR-1577 (West Tyvola Road)

October 18, 2016 Letting

To Whom It May Concern:

Reference is made to the plans and proposal form furnished to you on this project.

The following revisions have been made to the plans:

Sheet No.	Revisions		
6 thru 25	Revised "C1" in the Pavement Schedule to remove the words "in each of		
	two layers". C1 shall be placed in one layer.		
27	Revised the Summary of Quantities to remove the column for		
. <b>4</b> I	"Application of Ultrathin Hot Mix"		

Please void the above listed sheets in your plans and staple the revised sheets thereto.

The following revisions have been made to the proposal:

Page No.	Revisions
Proposal Cover	Note added that reads "Includes Addendum No. 1 Dated 10-10-
Proposal Cover	2016".

Please void the Proposal Cover and staple the revised proposal cover thereto.

On the item sheets the following pay item has been added:

Item<br/>018-1839200000-E-<br/>661Description<br/>Application Of Ultrathin<br/>Hot Mix AsphaltOld Quantity<br/>319,085 SYNew Quantity<br/>DELETED

The Contractor's bid must not include this pay item. The contract will be prepared accordingly.

The Expedite File has been updated to reflect this revision. Please download the Expedite Addendum File and follow the instructions for applying the addendum. Bid Express will not accept your bid unless the addendum has been applied.

Sincerely,

R. A. Garris, PE Contract Officer

RAG/jag Attachments

cc: Mr. Lamar Sylvester, PE

Mr. Louis Mitchell, PE

Mr. Rodger Rochelle, PE

Mr. R.E. Davenport, PE

Mr. Ken Kennedy, PE

Ms. Lori Strickland

Ms. Jaci Kincaid

Project File (2)

Mr. Ray Arnold, PE

Ms. Theresa Canales, PE

Mr. Andy Gay, PE

Mr. Mike Gwyn

Mr. Mitchell Dixon

Ms. Marsha Sample

Ms. Penny Higgins

# STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH, N.C.

## **PROPOSAL**

# **INCLUDES ADDENDUM No. 1 DATED 10-10-16**

DATE AND TIME OF BID OPENING: OCTOBER 18, 2016 AT 2:00 PM

CONTRACT ID

C203869

WBS

53011.3.1

FEDERAL-AID NO. NHP-0077(008)

**COUNTY** 

MECKLENBURG

T.I.P. NO.

I-5768

**MILES** 

5.468

ROUTE NO.

I 77

LOCATION

I-77 FROM SOUTH CAROLINA LINE TO SR-1577 (WEST TYVOLA RD).

TYPE OF WORK

PAVEMENT AND BRIDGE REHABILITATION.

#### NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A ROADWAY & STRUCTURE PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
		F	ROADWAY ITEMS			
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0106000000-E	230	BORROW EXCAVATION	2,060 CY		
0003	1220000000-E	545	INCIDENTAL STONE BASE	160 TON		
0004	1245000000-E	SP	SHOULDER RECONSTRUCTION	15.12 SMI		
0005	1297000000-E	607	MILLING ASPHALT PAVEMENT, ***" DEPTH (1-1/2")	416,258 SY		
0006	1297000000-E	607	MILLING ASPHALT PAVEMENT, ***" DEPTH (2")	16,631 SY		
0007	1297000000-E	607	MILLING ASPHALT PAVEMENT, ***" DEPTH (2-1/2")	18,668 SY		
0008	1308000000-E	607	MILLING ASPHALT PAVEMENT, ***" TO ******" (0" TO 1-1/2")	5,736 SY		
0009	1308000000-E	607	MILLING ASPHALT PAVEMENT, ***" TO ******" (1-1/2" TO 2")	100 SY		
0010	1330000000-E	607	INCIDENTAL MILLING	14,642 SY		
0011	1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	4,724 TON		
0012	1524000000-E	SP	ASPHALT CONC SURFACE COURSE, TYPE S9.5C (LEVELING COURSE)	150 TON		
0013	1524200000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5D	51,055 TON		
0014	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	288 TON		
0015	1577000000-E	620	POLYMER MODIFIED ASPHALT BIN- DER FOR PLANT MIX	3,476 TON		
0016	1704000000-E	SP	PATCHING EXISTING PAVEMENT	16,840 TON		
0017	1839140000-E	661	ULTRA-THIN BONDED WEARING COURSE	10,878 TON		

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0019	184000000-E	665	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)	111,725 LF		
0020	440000000-E	1110	WORK ZONE SIGNS (STATIONARY)	320 SF		
0021	4405000000-E	1110	WORK ZONE SIGNS (PORTABLE)	442 SF		
0022	4410000000-E	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	64 SF		
0023	4415000000-N	1115	FLASHING ARROW BOARD	6 EA	·	
0024	4420000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN	8 EA		
0025	4422000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN (SHORT TERM)	45 DAY		
0026	4430000000-N	1130	DRUMS	250 EA		
0027	4445000000-E	1145	BARRICADES (TYPE III)	32 LF		
0028	4480000000-N	1165	ТМА	2 EA		
0029	4510000000-N	SP	LAW ENFORCEMENT	300 HR		
0030	4650000000-N	1251	TEMPORARY RAISED PAVEMENT MARKERS	1,370 EA		
0031	4685000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	640 LF		
0032	4686000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)	150 LF		
0033	4688000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (6", 90 MILS)	133,966 LF		
0034	469000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (6", 120 MILS)	38,718 LF		
0035	4695000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	131 LF		
0036	4697000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (8", 120 MILS)	268 LF		

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0037	4700000000-Е	1205	THERMOPLASTIC PAVEMENT MARKING LINES (12", 90 MILS)	21,359 LF		
0038	4702000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (12", 120 MILS)	2,700 LF	·	
0039	4710000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)	132 LF		
0040	4721000000-E	1205	THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)	36 EA		
0041	4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	97 EA		
0042	4770000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (4") (II)	200 LF		
0043	4770000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (4") (IV)	3,205 LF		
0044	4775000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (6") (II)	3,412 LF		
0045	4780000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (8") (II)	462 LF		·
0046	4785000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (12") (II)	271 LF		
0047	4795000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (24") (II)	56 LF		
0048	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4")	146,755 LF		
0049	4820000000-E	1205	PAINT PAVEMENT MARKING LINES (8")	7,442 LF		
0050	484000000-N	1205	PAINT PAVEMENT MARKING CHARAC- TER	28 EA		
0051	4845000000-N	1205	PAINT PAVEMENT MARKING SYMBOL	89 EA		

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0052	4850000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (4")	200 LF	÷	
				LF		
0053	4855000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (6")	218 LF		
0054	4860000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (8")	422 LF		
0055	4865000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (12")	40 LF		
0056	4870000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (24")	56 LF		
0057	4905000000-N	1253	SNOWPLOWABLE PAVEMENT MARKERS	4,578 EA		
0058	5255000000-N	1413	PORTABLE LIGHTING	Lump Sum	L.S.	
0059	6000000000-Е	1605	TEMPORARY SILT FENCE	1,906 LF	·	
0060	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	255 TON		
0061	6012000000-E	1610	SEDIMENT CONTROL STONE	132 TON		·
0062	6071010000-E	SP	WATTLE	440 LF		
	6071020000-E		POLYACRYLAMIDE (PAM)	15 LB		
		s	TRUCTURE ITEMS			
0064	8296000000-N	442	POLLUTION CONTROL	Lump Sum	L.S.	
0065	8692000000-N	SP	FOAM JOINT SEALS	Lump Sum	L.S.	
0066	8860000000-N	SP	GENERIC STRUCTURE ITEM CLEANING AND PAINTING OF EXISTING WEATHERING STEEL BRIDGE #114	Lump Sum	L.S.	

## ITEMIZED PROPOSAL FOR CONTRACT NO. C203869

0067						
	8860000000-N	SP	GENERIC STRUCTURE ITEM CLEANING AND PAINTING OF EXISTING WEATHERING STEEL BRIDGE #116	Lump Sum	L.S.	
 0068	886000000-N	SP	GENERIC STRUCTURE ITEM CLEANING AND PAINTING OF EXISTING WEATHERING STEEL BRIDGE #45	Lump Sum	L.S.	
0069	N-000000088	SP	GENERIC STRUCTURE ITEM CLEANING AND PAINTING OF EXISTING WEATHERING STEEL BRIDGE #46	Lump Sum	L.S.	
 0070	N-000000088	SP	GENERIC STRUCTURE ITEM CLEANING AND PAINTING OF EXISTING WEATHERING STEEL BRIDGE #658	Lump Sum	L.S.	
 0071	N-000000088	SP	GENERIC STRUCTURE ITEM CLEANING AND PAINTING OF EXISTING WEATHERING STEEL BRIDGE #70	Lump Sum	L.S.	
 0072	8860000000-N	SP	GENERIC STRUCTURE ITEM CLEANING AND PAINTING OF EXISTING WEATHERING STEEL BRIDGE #75	Lump Sum	L.S.	
 0073	N-000000088	SP	GENERIC STRUCTURE ITEM PAINTING CONTAINMENT FOR BRIDGE #114	Lump Sum	L.S.	
0074	N-000000088	SP	GENERIC STRUCTURE ITEM PAINTING CONTAINMENT FOR BRIDGE #116	Lump Sum	L.S.	
 0075	8860000000-N	SP	GENERIC STRUCTURE ITEM PAINTING CONTAINMENT FOR BRIDGE #45	Lump Sum	L.S.	
 0076	886000000-N	SP	GENERIC STRUCTURE ITEM PAINTING CONTAINMENT FOR BRIDGE #46	Lump Sum	L.S.	
 0077	8860000000-N	SP	GENERIC STRUCTURE ITEM PAINTING CONTAINMENT FOR BRIDGE #658	Lump Sum	L.S.	
 0078	8860000000-N	SP	GENERIC STRUCTURE ITEM PAINTING CONTAINMENT FOR BRIDGE #70	Lump Sum	L.S.	

Oct 10, 2016 11:02 am

#### ITEMIZED PROPOSAL FOR CONTRACT NO. C203869

Page 6 of 6

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0079	N-0000000888	SP	GENERIC STRUCTURE ITEM PAINTING CONTAINMENT FOR BRIDGE #75	Lump Sum	L.S.	
080	8867000000-E	SP	GENERIC STRUCTURE ITEM EXPANSION JOINT SEAL REPAIR	301 LF		
0081	8882000000-E	SP	GENERIC STRUCTURE ITEM ELASTOMERIC CONCRETE	133 CF		
0082	8892000000-E	SP	GENERIC STRUCTURE ITEM BRIDGE JOINT DEMOLITION	528 SF		
0083	8892000000-E	SP	GENERIC STRUCTURE ITEM CONCRETE DECK REPAIR FOR EPOXY OVERLAY	21 SF		
0084	8892000000-E	SP	GENERIC STRUCTURE ITEM EPOXY OVERLAY SYSTEM- MECHANICALLY DISTRIBUTED	109,011 SF		
1102/	Oct10/Q1154636.12/D	14222664700	00/E83 Total Amount Of Bid	For Entire Project		

#### GENERAL NOTES:

MAINLINE TYPICALS INCLUDE ACCELERATION AND DECELERATION LANES FOR THE RAMPS UP TO THE PHYSICAL GORE. THESE TYPICALS GENERALLY DEPICT MILLING 1.5" AND THEN PAVING ASHPALT CONCRETE SURFACE COURSE S9.5D AT A DEPTH OF 2.0" FOR THE FULL WIDTH OF THE ROADWAY TO INCLUDE SHOULDERS.

THE ULTRATHIN BONDED WEARING COURSE SHOWN IN TYPICALS 1-23 AND 44-49 AND 50-52 ARE INTENDED TO BE PLACED IN THE TRAVEL LANES AND GORE AREAS BUT NOT ON THE SHOULDERS.

RAMP TYPICALS 24-43 ARE APPLICABLE BETWEEN PHYSICAL GORE AND INTERSECTING Y-LINE EDGE OF TRAVEL. ULTRATHIN BONDED WEARING COURSE IS NOT INTENDED TO BE PLACED ON THE RAMPS BETWEEN THE PHYSICAL GORE AND THE INTERSECTING Y-LINE.

MAINLINE TYPICALS 44-49 APPLY TO I-77 NORTHBOUND AND SOUTHBOUND UNDER THE BRIDGES AT I-485 INTERCHANGE AND NATIONS FORD RD INTERCHANGE. THE COMBINATION OF MILLING AND REPLACING ASPHALT PAVEMENT TO THE EXISTING GRADE IS NECESSARY TO MAINTAIN THE EXISTING BRIDGE CLEARANCE.

MAINLINE TYPICALS 50-52 APPLY TO AREA 100 FEET BEFORE AND AFTER THE BRIDGES TO MAKE A SMOOTH TRANSITION FROM 1.5" TO 2.0" MILLING IN ORDER TO MAKE FLUSH TIE-IN WITH BRIDGE.

INCIDENTAL MILLING SHALL BE USED FOR BUT JOINTS. THE TRANSITION PERIOD FOR BUT JOINTS SHALL BE A LONGITUDINAL LENGTH RATE OF 50' PER 1" OF MILLING DEPTH UNLESS OTHERWISE SPECIFIED.

THE MILLING AND PAVEMENT STRUCTURE OF THE MAINLINE TRAVEL LANES SHALL BE THE CONTROLLING GRADE. ALL OTHER MILLING AND PAVING SHALL TIE-IN ACCORDINGLY.

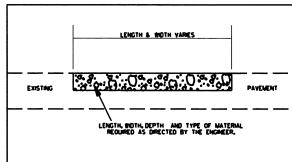
THE MAINLINE CROSS SECTION OF S9.5D SHALL BE PLACED IN SUCH A MANNER THAT THE MAT, AND EACH INDIVIDUAL PULL, WILL BE FLUSH WITH EACH OTHER ACROSS THE ENTIRE WIDTH OF THE ROADWAY TO INCLUDE SHOULDERS. THE TRAVEL LANES WEARING SURFACE OF ULTRATHIN BONDED WEARING COURSE SHALL BE PLACED IN SUCH A MANNER THAT IT WILL EXIST AT AN ELEVATION APPROXIMATELY 5/8" HIGHER THAN THE SURROUNDING SHOULDER PAVEMENT.

THE EXISTING PAVEMENT STRUCTURE CONSISTS OF AN OPEN GRADED FRICTION COURSE OVER ASPHALT CONRETE PAVEMENT OVER CONCRETE PAVEMENT.

SHOULDER RECONSTRUCTION ON THE MAINLINE WILL BE PLACED AS DIRECTED BY THE ENGINEER.

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	1-5768	6	
WBS NO.	530L3J		

#### PATCHING DETAIL



	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, 0" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

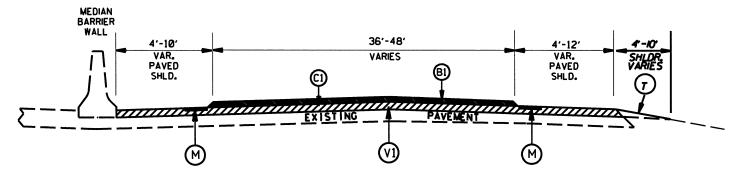
1-5768 Interstate 77 Pavement Rehabilitation

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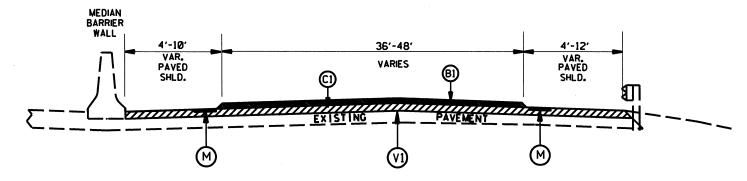




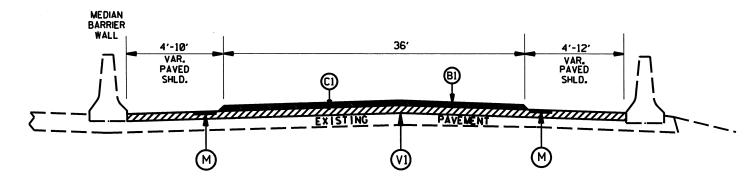
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	1-5768	7	
WBS NO.	5304.3.1		



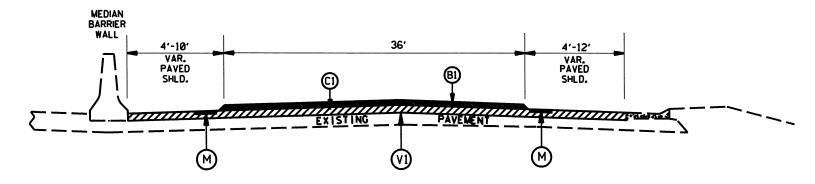
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TYPICAL SECTION NO.2



TYPICAL SECTION NO.3



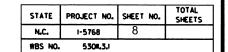
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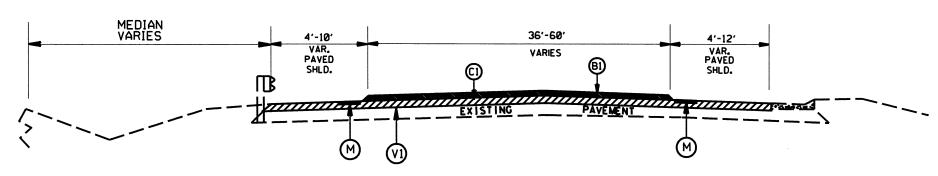
	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

1-5768	Interstate	77	Povement	Rehabilitation

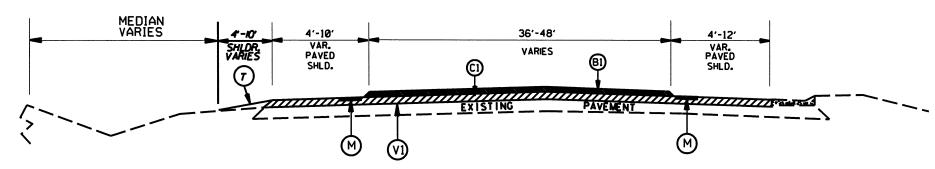
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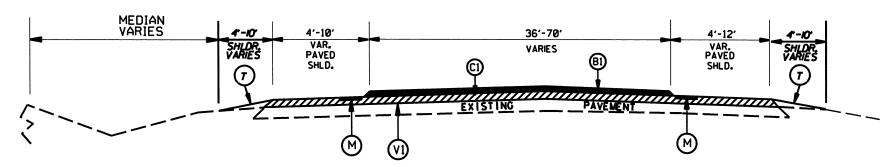




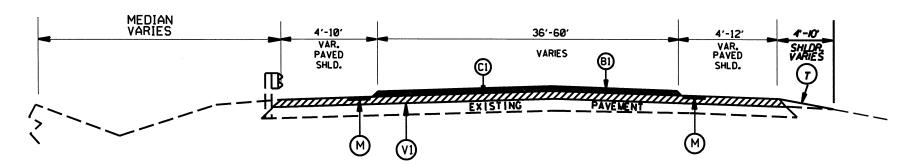
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TYPICAL SECTION NO.6



TYPICAL SECTION NO.7



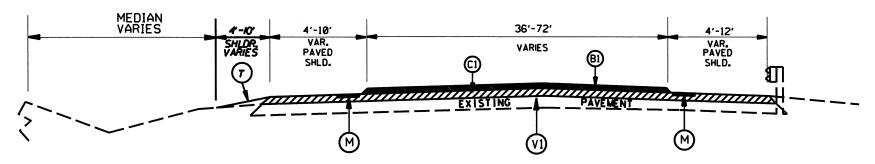
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	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

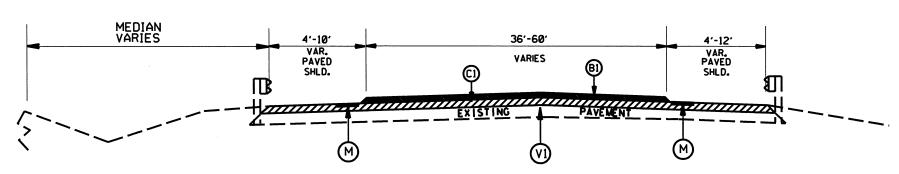
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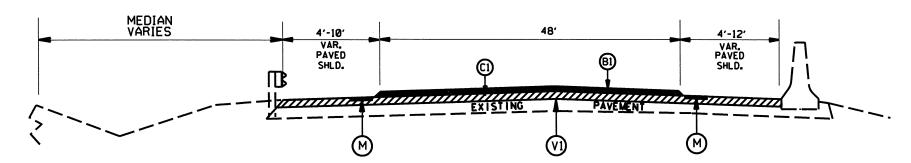
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	1-5768	9	
WBS NO.	5304.3.1		



TYPICAL SECTION NO.9



TYPICAL SECTION NO.10



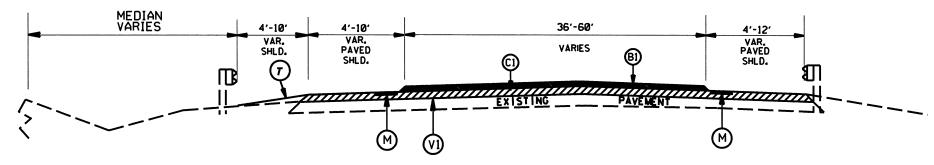
TYPICAL SECTION NO.11

	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C; AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

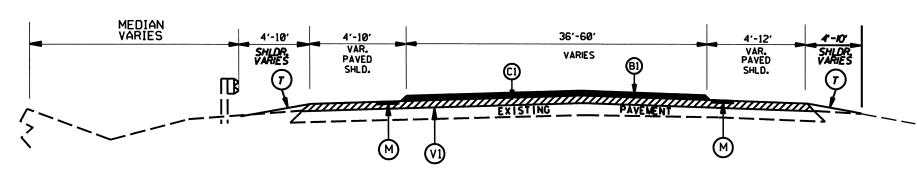
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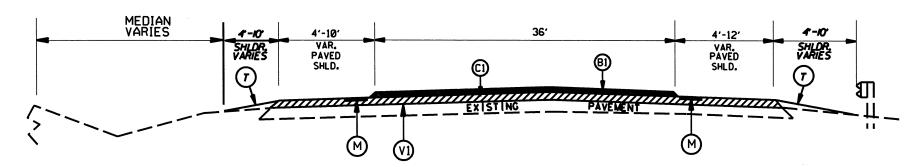
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	i-5768	10	
WBS NO.	5304,3,1		



TYPICAL SECTION NO.12



TYPICAL SECTION NO.13



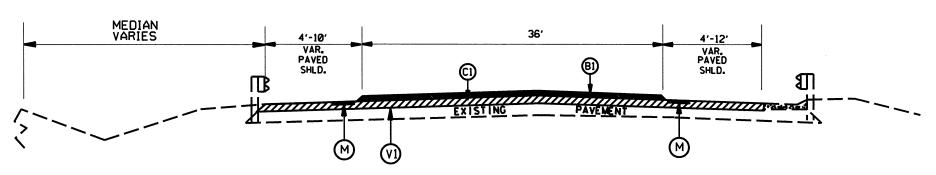
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	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
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C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

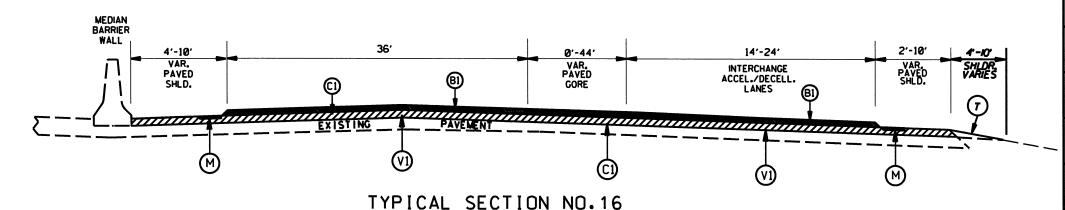
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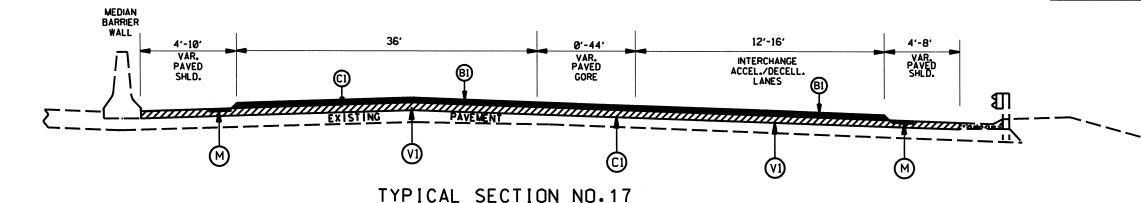
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DATE	8/16
DWG. BY	TJP
DESIGN BY	TJP
APPROVED	WAT

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5768	11	
WBS NO.	5304,3,1		



TYPICAL SECTION NO.15





PAVEMENT SCHEDULE

B1 PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.

C1 PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE. TYPE S9.5D. AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.

C2 PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.

V1 MILLING 1.5" DEPTH

V2 PROFILE MILLING, 0" to 1.5" DEPTH

V3 PROFILE MILLING, 1.5" to 2.0" DEPTH

V4 MILLING, 2.0" DEPTH

V5 MILLING, 2.5" DEPTH

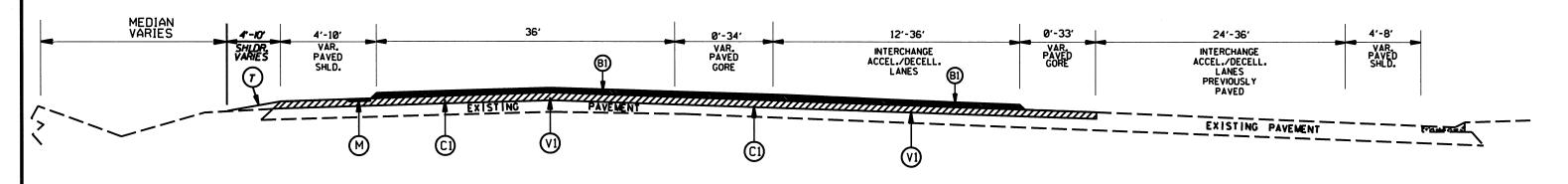
T SHOULDER RECONSTRUCTION

M MILLED RUMBLE STRIPS

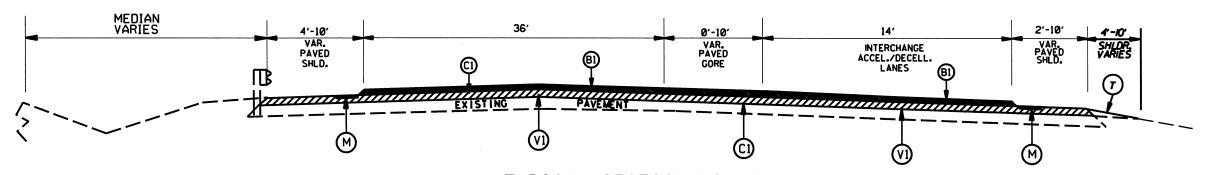
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STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5768	12	
WBS NO.	5304.34		



# TYPICAL SECTION NO.18



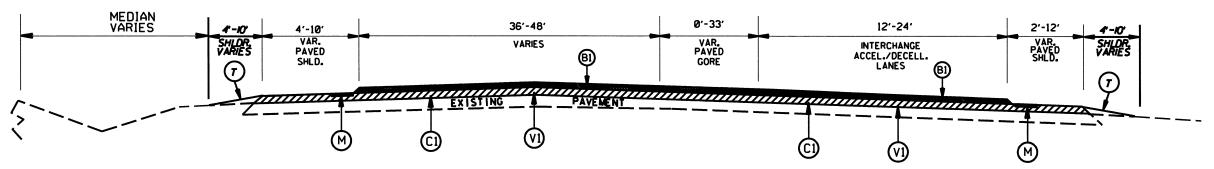
TYPICAL SECTION NO.19

	PAVEMENT SCHEDULE
В1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

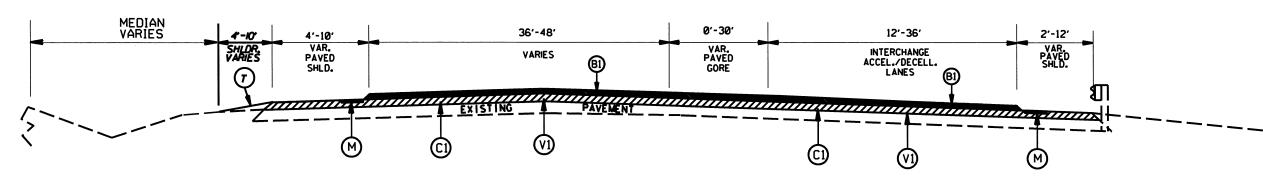
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STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5768	13	
WBS NO.	5304.3.1		



TYPICAL SECTION NO.20



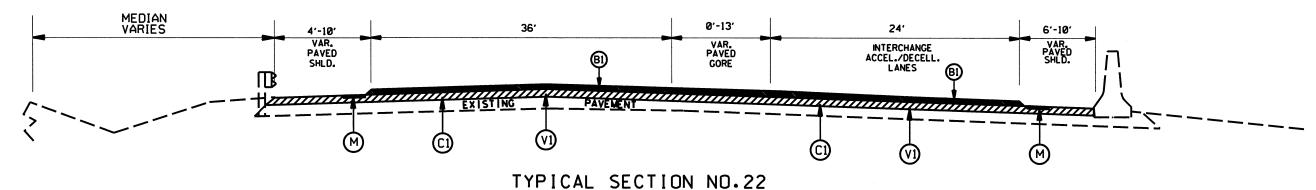
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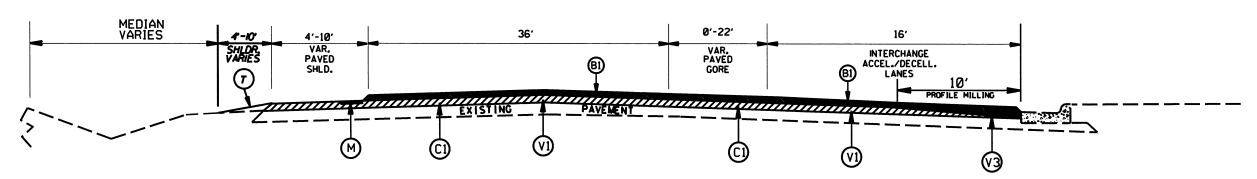
	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

SCALE	-NA-
DATE	8/16
DWG. BY	TJP
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STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5768	14	
WBS NO.	5304.3,1		





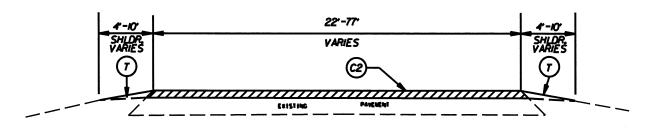
TYPICAL SECTION NO.23
REST AREA ON RAMP NB I-77

PAVEMENT SCHEDULE	
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
Т	SHOULDER RECONSTRUCTION
M	MILLED RUMBLE STRIPS

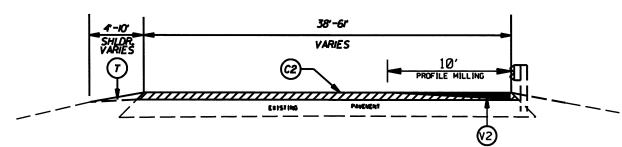
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DESIGN BY	TJP
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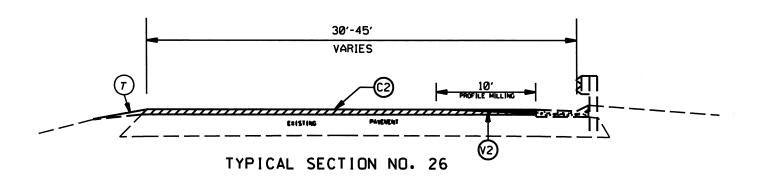
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5768	15	
WBS NO.	5304.3.1		



TYPICAL SECTION NO. 24



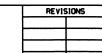
TYPICAL SECTION NO. 25



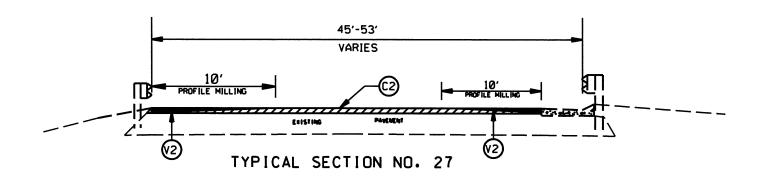
	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
T	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

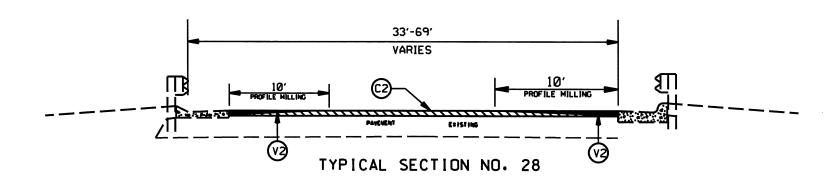
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DATE	8/16
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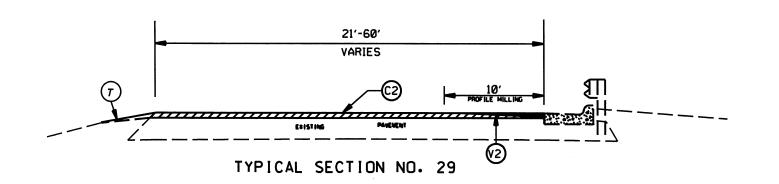




STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	1-5768	16	
WBS NO.	5304.3.1		





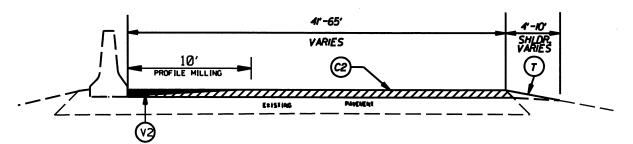


	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
· V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

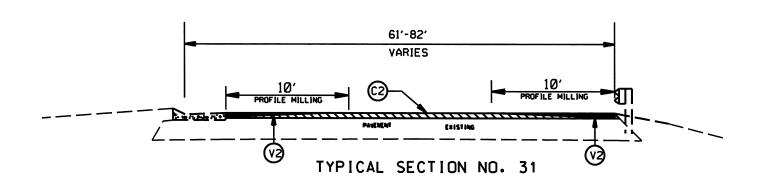
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DATE	8/16
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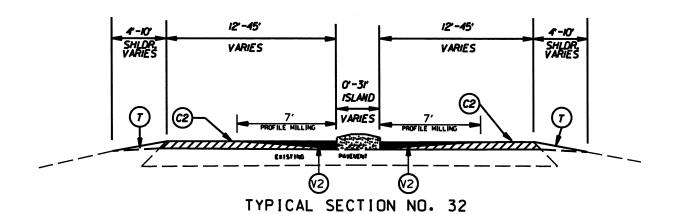


STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	1-5768	17	
WBS NO.	5304.3.1		



TYPICAL	SECTION	NO.	30

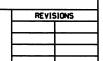




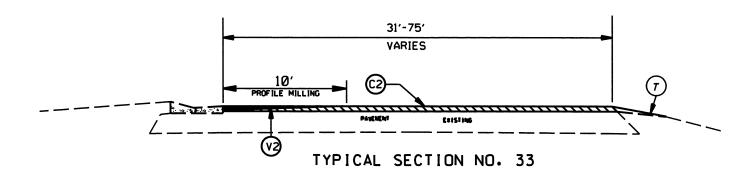
	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

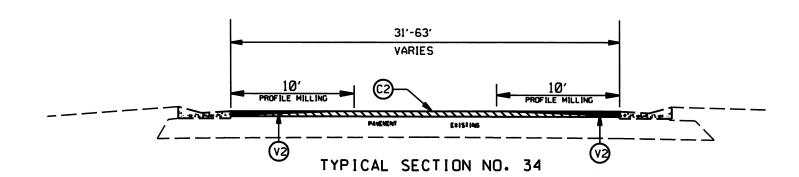
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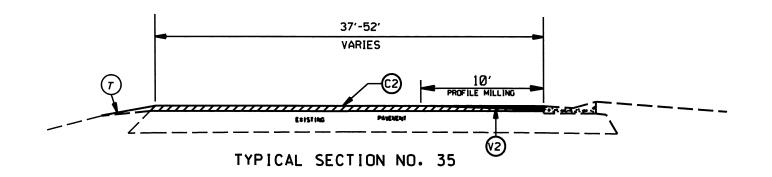




STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	1-5768	18	
WBS NO.	53011.3.1		





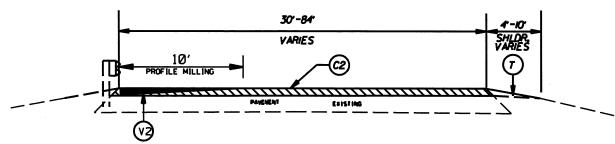


	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

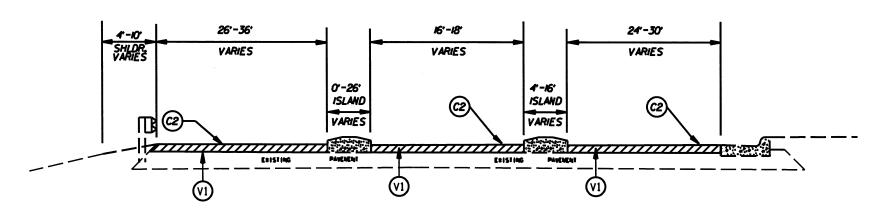
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DATE	8/16
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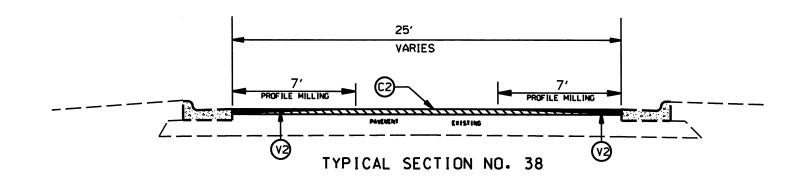
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5768	19	
WBS NO.	5304.3.		







TYPICAL SECTION NO. 37

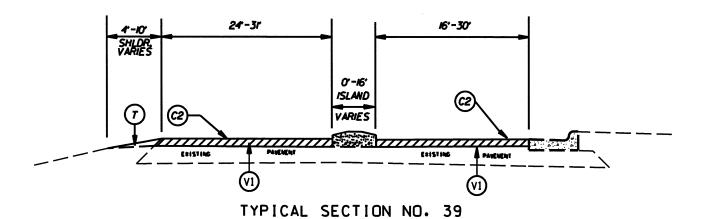


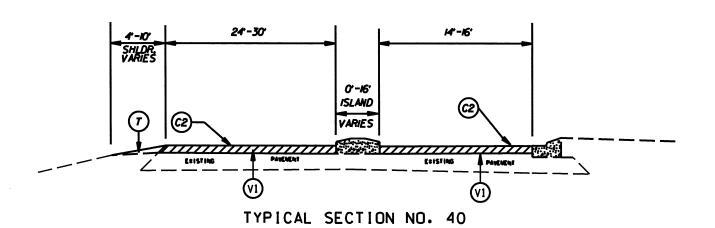
	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

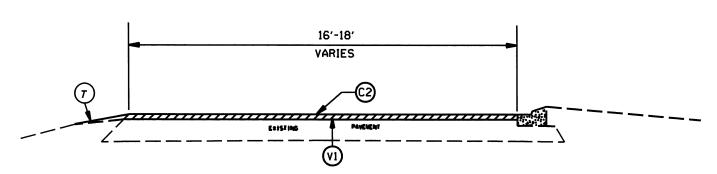
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STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5768	20	
WBS NO.	5304.34		







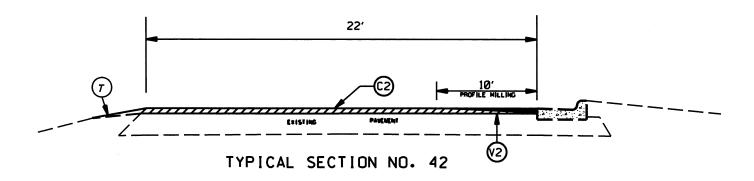
TYPICAL SECTION NO. 41

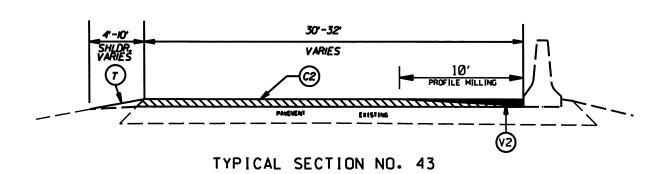
	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
VЗ	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

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STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	1-5768	21	
WBS NO.	53011,3,1		





	PAVEMENT SCHEDULE	
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.	
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.	
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	
V1	MILLING 1.5" DEPTH	
V2	PROFILE MILLING, O" to 1.5" DEPTH	
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH	
V4	MILLING, 2.0" DEPTH	
V5	MILLING, 2.5" DEPTH	
Т	SHOULDER RECONSTRUCTION	
М	MILLED RUMBLE STRIPS	

SCALE	-NA-
DATE	8/16
DWG. BY	TJP
DESIGN BY	TJP
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STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5768	22	
WBS NO.	5304.3.1		

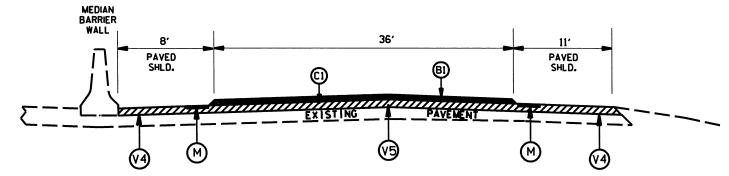
#### Notes:

MAINLINE TYPICALS 44-49 APPLY TO I-77 NORTHBOUND AND SOUTHBOUND UNDER THE BRIDGES AT I-485 INTERCHANGE AND NATIONS FORD RD INTERCHANGE. THE COMBINATION OF MILLING AND REPLACING ASPHALT PAVEMENT TO THE EXISTING GRADE IS NECESSARY TO MAINTAIN THE EXISTING BRIDGE CLEARANCE.

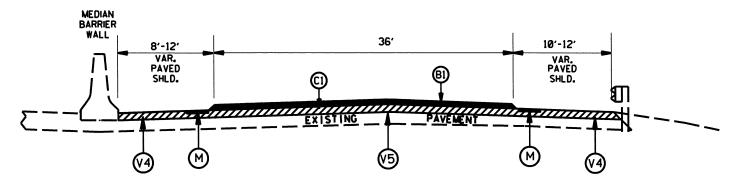
THE EXISTING MAINLINE HAS AN OPEN GRADED FRICTION COURSE OF APPROXIMATELY 5/8" AS PART OF THE PAVEMENT STRUCTURE IN THE TRAVEL LANES. TYPICALS 44-49 SHOW A MILLING DEPTH OF 2.5" IN THE TRAVEL LANES WHERE THE 5/8" FRICTION COURSE EXISTS AND A 2" MILLING DEPTH ON THE SHOULDERS. THE USE OF THESE MILLING DEPTHS ARE INTENDED TO MAINTAIN THE EXISTING GRADE AFTER THE PROPOSED PAVEMENT STRUCTURE IS PLACE.

TYPICALS 44-49 WILL APPLY TO THE AREA OF I-77 500' ON BOTH SIDES OF THE BRIDGES AT THE I-485 AND NATIONS FORD RD INTERCHANGES.

TRANSITION THE MILLING FROM 1.5" TO 2.5" OVER THE COARSE OF 100' ON EACH END OF THE 1000' WHERE TYPICALS 44-49 APPLY.



TYPICAL SECTION NO.44

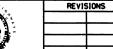


TYPICAL SECTION NO.45

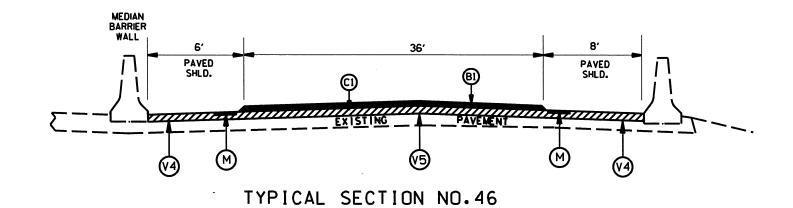
	PAVEMENT SCHEDULE
В1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

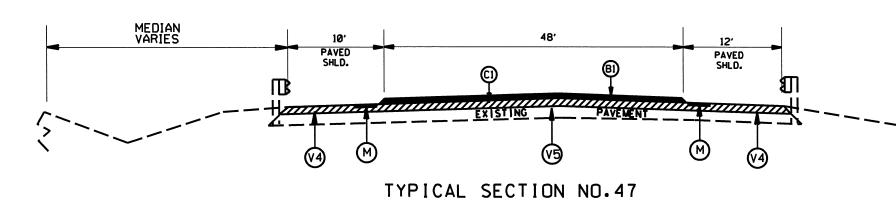
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STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	1-5768	23	
WBS NO.	5304.3.1		



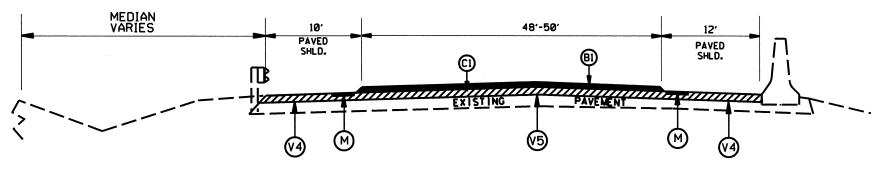


	PAVEMENT SCHEDULE
В1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, 0" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

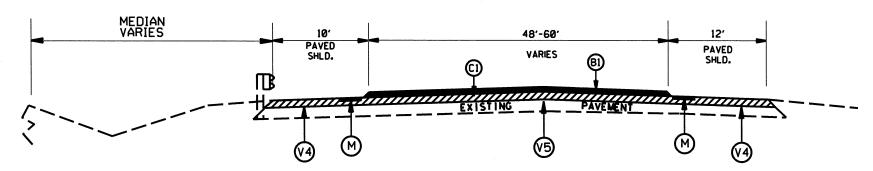
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STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	1-5768	24	
WBS NO.	5304,3,1		



TYPICAL SECTION NO.48



TYPICAL SECTION NO.49

	PAVEMENT SCHEDULE
B1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
M	MILLED RUMBLE STRIPS

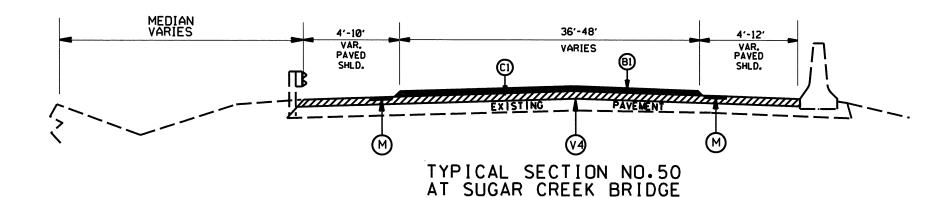
SCALE	-NA-	
DATE	8/16	
DWG. BY	TJP	
DESIGN BY	TJP	
APPROVED	₩AT	

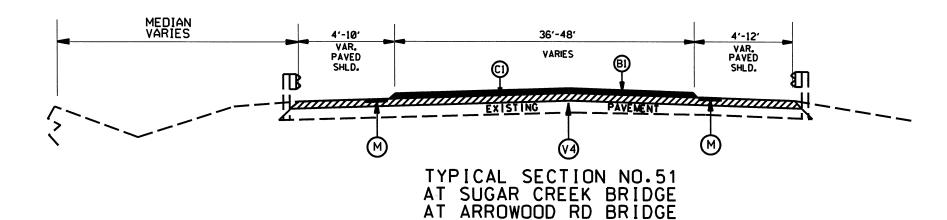


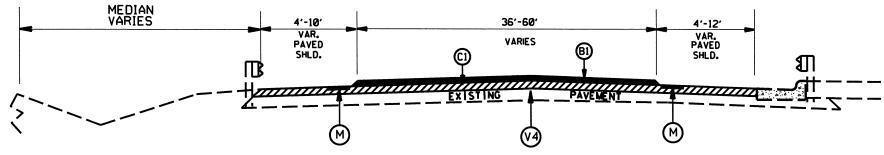
#### Notes:

FOR TYPICALS 50-52 USE 100 FEET BEFORE AND AFTER THE BRIDGES TO MAKE A SMOOTH TRANSITION FROM 1.5" TO 2.0" MILLING IN ORDER TO MAKE FLUSH TIE-IN WITH BRIDGE.

FOR SECTIONS 100 FEET BEFORE AND AFTER THE BRIDGES USE A COMBINATION OF MILLING AN PAVING TECHNIQUES TO REMOVE ANY DIPS OR SETTLEMENTS TO REESTABLISH A SMOOTH ROADWAY PROFILE.







TYPICAL SECTION NO.52 AT ARROWOOD RD BRIDGE AT WESTINGHOUSE RD BRIDGE

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	1-5768	25	
WBS NO.	5304.3.		

	PAVEMENT SCHEDULE
В1	PROP. APPROX. 5/8" ULTRATHIN HOT MIX ASPHALT COURSE, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING, O" to 1.5" DEPTH
V3	PROFILE MILLING, 1.5" to 2.0" DEPTH
V4	MILLING, 2.0" DEPTH
V5	MILLING, 2.5" DEPTH
Т	SHOULDER RECONSTRUCTION
М	MILLED RUMBLE STRIPS

#### I-5768 Interstate 77 Pavement Rehabilitation

SCALE	-NA-
DATE	8/16
DWG. BY	TJP
DESIGN BY	TJP
APPROVED	WAT.



PROJECT NO.	SHEET NO.	TOTAL NO.
I-5768	27	

## SUMMARY OF QUANTITIES

	COUNTY	MAP	ROUTE	DESCRIPTION	ТҮР	LANES	TYPE	1	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BORROW	INCIDENTAL STONE BASE	SHOULDER RECON- STRUCTION	1.5" MILLING	2" MILLING	2.5" MILLING	1.5" TO 2" MILLING	0" TO 1.5" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5C	LEVELING COURSE, S9.5C	COURSE,	ASPHALT BINDER FOR PLANT MIX	MODIFIED	PATCHING EXISTING PAVEMENT	THIN	RUMBLE STRIPS	PORTABLE LIGHTING	SILT	STONE FOR EROSION CONTROL, CLASS B	SEDIMENT CONTROL STONE		POLY- ACRYLAMIDE (PAM)
NO		NO			NO		-			MI	FT	CY	TONS	SMI	SY	SY	SY	SY	SY	SY	TONS	TONS	TONS	TONS	TONS	TONS	TON	LF	LS	LF	TN	TN	LF	LB
		,	L 77 MORTUROUND	FROM SC STATE LINE TO MM 5.3	1-3, 5-18, 20-23, 44	1,	MD	NO	NO	5.32	66.3	715		5.84	206.732	8.228	9,334	100		4,236		l	25,469		1.720	7.020	F 250	55.470	0.77	700	407		!	1 - 1
		-	I-77 NONTHBOOND	PROMISC STATE LINE TO WIN 5.5	1-11, 16-21, 44, 45,	1 3	IVID	NO	NU	3.32	00.3	/13		5.84	200,732	0,220	9,334	100		4,236	<del> </del>		25,469		1,730	7,920	5,350	56,179	0.23	798	107	54	160	
		2	I-77 SOUTHBOUND	FROM MM 5.3 TO SC STATE LINE	48, 50-52	3	MD	NO	NO	5.26	67.3	778		6.36	207.675	8.403	9.334			4.300			25.586		1,746	7,667	5,528	55,546	0.23	789	105	53	160	1 , 1
			I-77 SB OFF RAMP	FROM PHYSICAL GORE TO	,															,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						.,,		00,010	0.00	,,,,,				
1		3	TYVOLA RD	TYVOLA RD	24-30	2	MD	NO	NO	0.16	46.26	17		0.13					974	670	405	40		26		50	1		0.05	25	4	2	10	1
			I-77 SB ON RAMP	FROM TYVOLA RD TO PHYSICAL																			İ				1						, ,	
		4	TYVOLA RD	GORE FROM PHYSICAL GORE TO	25, 26, 29-31	2	MD	NO	NO	0.2	39	40		0.19					1,022	617	418	ļ	<b></b>	25		60	<b>-</b>		0.05	30	4	2	10	1
		5	I-77 SB OFF RAMP NATIONS FORD RD	NATIONS FORD RD	24, 32	1	MD	NO	NO	0.07	32	30		0.14					31	333	136					10	1		0.05	11	-	1	10	1 . 1
			I-77 SB ON RAMP	FROM NATIONS FORD RD TO	24, 32	t	IVID	- 110	110	0.07	32	30		0.14					31	333	130		<del> </del>			10	+		0.05	- 11			10	10 1
		6	NATIONS FORD RD	PHYSICAL GORE	24, 32	1	MD	NO	NO	0.15	29	70		0.29					31	628	231		1	14		30			0.05	23		4	10	1 1
1-5768	Mecklenburg		I-77 SB OFF RAMP	FROM PHYSICAL GORE TO																														
13700	vicencinoui's	7	ARROWOOD RD	ARROWOOD RD	24, 33-35	2	MD	NO	NO	0.21	54.5	50		0.23					1,064	770	695	50		44		216			0.05	33	4	2	10	1
1 1			I-77 NB ON RAMP	FROM ARROWOOD RD TO		l .	1																1										, ,	( )
1 1		8	ARROWOOD RD	PHYSICAL GORE FROM PHYSICAL GORE TO	24, 33, 38	2	MU	NO	NO	0.47	40	150	60	0.76					713	664	1,109	<b></b>	<u> </u>	65		336			0.05	70	10	5	20	1
1 1		١٩١	NATIONS FORD RD	NATIONS FORD RD	24, 36	1	MD	NO	NO	0.12	50	50		0.22					279	539	275	20		18		44			0.05	18	4	,	10	1 . !
1 1			I-77 NB ON RAMP	FROM NATIONS FORD RD TO	24,50	Ť	1	110	110	0.12	1 30			0.22			-		2/3	333	2/3	20	<b> </b>	10			1		0.03	10			10	
		10	NATIONS FORD RD	PHYSICAL GORE	24, 37, 39-41	2	2WD	NO	NO	0.17	34	40	20	0.19	1,851					284	320		1	19		20	1		0.05	26	4	2	10	1 1
			I-77 NB OFF RAMP	FROM PHYSICAL GORE TO																														
		11	TYVOLA RD	TYVOLA RD	24, 25, 36	2	MD	NO	NO	0.17	45.3	40		0.25					743	650	420	40	<u> </u>	27		33			0.05	26	4	2	10	1
		12	I-77 NB ON RAMP TYVOLA RD	FROM TYVOLA RD TO PHYSICAL  GORE	24 20 42	,	ME		NO.	0.17	30.2	20	80	0.10					404	505	355						1				_		, !	
		12	I-77 NB OFF RAMP	FROM PHYSICAL GORE TO PVMT	24, 30, 42	+	MD	NO	NO	0.17	39.2	30	80	0.18	<b></b>				484	606	356	<b> </b>	<del> </del>	21	<u> </u>	40	<b>-</b>	ļ	0.05	25	3	1	10	1
		13	ARROWOOD RD	JNT AT I-485 RAMP	24, 43	1	MD	NO	NO	0.21	31	50		0.34			1		395	345	359			21		414			0.05	32	4	,	10	1 , 1
	TOTAL FOR	PROJ N			- 7 :-	T -	1	T	1	12.68	1	2,060	160	15.12	416,258	16,631	18,668	100	5,736	14,642	4,724	150	51,055	288	3,476	16,840	10,878	111,725	1.00	1,906	255	132	440	15
																				·														
L	GRA	ND TOT	AL	l				L		12.68		2,060	160	15.12	416,258	16,631	18,668	100	5,736	14,642	4,724	150	51,055	288	3,476	16,840	10,878	111,725	1.00	1,906	255	132	440	15

## SUMMARY OF QUANTITIES

PROJECT	COUNTY	МАР	ROUTE	DESCRIPTION	ТҮР	LANES	TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH		WORK ZONE SIGNS STATIONA RY	WORK ZONE SIGNS PORTABLE	WORK ZONE SIGNS BARRICADE MOUNTED	FLASHING ARROW BOARD	PORTABLE CHANGE- ABLE MESSAGE SIGN	PORTABLE CHANGE- ABLE MESSAGE SIGN (SHORT TERM)	DRUMS	BARRICADES TYPE III	TMA	LAW ENFORCE- MENT
NO		NO			NO					м	FT	SF	SF	SF	EA	EA	DAY	EA	l LE	EA	HR
					1-3, 5-18, 20-23, 44-						···	<u> </u>	- J.		<u> </u>		באו				+
		1 1	I-77 NORTHBOUND	FROM SC STATE LINE TO MM 5.3	52	3	MD	NO	NO	5.32	66.3	320	442	64	6	8	45	250	32	2	300
			177 NONTIBOONS	THOM SO STATE LINE TO MIN S.S.	1-11, 16-21, 44, 45,		14.0	110	110	J.J.	00.5	320	1772	- 04				230	32		300
		2	I-77 SOUTHBOUND	FROM MM 5.3 TO SC STATE LINE	48, 50-52	3	MD	NO	NO	5.26	67.3								1		
i			I-77 SB OFF RAMP	FROM PHYSICAL GORE TO	10, 50 52		15		- '''	5.20	07.5	<b></b>									1
		3	TYVOLA RD	TYVOLA RD	24-30	2	MD	NO	NO	0.16	46.26										1 1
l		$\Box$	I-77 SB ON RAMP	FROM TYVOLA RD TO PHYSICAL																	+
		4	TYVOLA RD	GORE	25, 26, 29-31	2	MD	NO	NO	0.2	39	1									1 1
			I-77 SB OFF RAMP	FROM PHYSICAL GORE TO									1								1
		5	NATIONS FORD RD	NATIONS FORD RD	24, 32	1	MD	NO	NO	0.07	32										
			I-77 SB ON RAMP	FROM NATIONS FORD RD TO							<b>1</b>										
		6	NATIONS FORD RD	PHYSICAL GORE	24, 32	1	MD	NO	NO	0.15	29	1		ł							
1-5768	Mecklenburg		I-77 SB OFF RAMP	FROM PHYSICAL GORE TO																	
1-3706	Meckleriburg	7	ARROWOOD RD	ARROWOOD RD	24, 33-35	2	MD	NO	NO	0.21	54.5										
			1-77 NB ON RAMP	FROM ARROWOOD RD TO																	
		8	ARROWOOD RD	PHYSICAL GORE	24, 33, 38	2	MU	NO	NO	0.47	40		Ì								
			I-77 NB OFF RAMP	FROM PHYSICAL GORE TO																	
		9	NATIONS FORD RD	NATIONS FORD RD	24, 36	1	MD	NO	NO	0.12	50								1		
			I-77 NB ON RAMP	FROM NATIONS FORD RD TO																	
		10	NATIONS FORD RD	PHYSICAL GORE	24, 37, 39-41	2	2WD	NO	NO	0.17	34										1
			I-77 NB OFF RAMP	FROM PHYSICAL GORE TO																	
	1	11	TYVOLA RD	TYVOLA RD	24, 25, 36	2	MD	NO	NO	0.17	45.3					1					
	1		I-77 NB ON RAMP	FROM TYVOLA RD TO PHYSICAL																	
	1	12	TYVOLA RD	GORE	24, 30, 42	2	MD	NO	NO	0.17	39.2										
	1		I-77 NB OFF RAMP	FROM PHYSICAL GORE TO PVMT																	
		13	ARROWOOD RD	JNT AT I-485 RAMP	24, 43	1	MD	NO	NO	0.21	31		<u></u>								
	TOTAL FOR	PROJ N	IO. I-5768	L	L		<u> </u>	L		12.68	<u></u>	320	442	64	6	8	45	250	32	2	300
				,	y																
	GRA	ND TO	ΓAL	1	I	l	1	1	I	12.68	I	320	442	64	6	8	45	250	32	2	300