

# NorthEast Transportation Training & Certification Program

## HMA Pavement Nuclear Density Test Report (D 2950)

<b>Date/Time:</b> September 24, 2020		<b>Location:</b> Tilcon, CT	
<b>Weather:</b> Sunny	<b>Date Rec'd #:</b> 9/24/2020	<b>Random Sample:</b> No <input type="checkbox"/>	
<b>Project:</b> Durham Meadows Waterline - Durham, CT		<b>Lab Login #:</b> -	<b>Lot #:</b> -
<b>Contract #:</b> 19-75-012-106		<b>Material ID:</b> SP 1.0"	<b>Sublot #:</b> -
<b>Contractor:</b> Ludlow Construction Co., Inc.		<b>Material #:</b> -	<b>Sample Location:</b> First Lift
<b>Pay Item #:</b> -		<b>Sample #:</b> -	<b>Station:</b> See Below
<b>Source:</b> Tilcon, CT		<b>Sample Type:</b> QC <input type="checkbox"/>	<b>Offset:</b> See Below
<b>Plant Type:</b> -		<b>Sampled By/Cert. #:</b> Stephen Sturges/#4395	

Density Gauge Information			
Make:	Troxler	Date of Calibration:	4/1/2020
Model #:	3440	Source of Calibration:	Q/C Resource
Serial #:	17249	Standard Count:	-
Gauge #:	17249	Duration of Test:	15 Seconds
Other:	-	Thickness of Lift Tested:	3.0"

Density of HMA in Place by Nuclear Method (D 2950)							
Sublot #	Station	Offset	Time	Random (Y/N)	(B) Max Theor. Density (From T 209)	(A) In-Place Density, kg / m <sup>3</sup>	% Compaction (A/B * 100)
-	126+25	-	-	N	167.2	159.6	95.5
-	126+50	-	-	N	167.2	160.1	95.8
-	126+75	-	-	N	167.2	158.6	94.9
-	127+00	-	-	N	167.2	160.5	96.0
-	127+25	-	-	N	167.2	159.4	95.3
-	127+50	-	-	N	167.2	159.0	95.1
-	127+75	-	-	N	167.2	158.0	94.5
-	128+00	-	-	N	167.2	161.4	96.5
-	128+25	-	-	N	167.2	158.2	94.6
-	128+50	-	-	N	167.2	157.4	94.1
-	128+75	-	-	N	167.2	156.9	93.8
-	129+00	-	-	N	167.2	158.0	94.5
-	129+00	-	-	N	167.2	159.0	95.1
-	129+25	-	-	N	167.2	158.7	94.9
-	129+50	-	-	N	167.2	159.4	95.3
-	129+75	-	-	N	167.2	158.4	94.7
-	130+00	-	-	N	167.2	157.0	93.9

Comments:

<b>Tested by:</b> Stephen Sturges		<b>Reviewed by:</b> Nicholas Lisowski	
<b>Certification #:</b> 4395		<b>Certification #:</b> 3139	
<b>Date:</b> 9/24/2020		<b>Date:</b> 10/5/2020	
<b>Test Results Within Engineering Limits:</b>		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>

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<b>Date/Time:</b> September 24, 2020		<b>Location:</b> Tilcon, CT	
<b>Weather:</b> Sunny	<b>Date Rec'd #:</b> 9/24/2020	<b>Random Sample:</b> No <input type="checkbox"/>	
<b>Project:</b> Durham Meadows Waterline - Durham, CT		<b>Lab Login #:</b> -	<b>Lot #:</b> -
<b>Contract #:</b> 19-75-012-106		<b>Material ID:</b> SP 1.0"	<b>Sublot #:</b> -
<b>Contractor:</b> Ludlow Construction Co., Inc.		<b>Material #:</b> -	<b>Sample Location:</b> Second Lift
<b>Pay Item #:</b> -		<b>Sample #:</b> -	<b>Station:</b> See Below
<b>Source:</b> Tilcon, CT		<b>Sample Type:</b> QC <input type="checkbox"/>	<b>Offset:</b> See Below
<b>Plant Type:</b> -		<b>Sampled By/Cert. #:</b> Stephen Sturges/#4395	

Density Gauge Information			
Make:	Troxler	Date of Calibration:	4/1/2020
Model #:	3440	Source of Calibration:	Q/C Resource
Serial #:	17249	Standard Count:	-
Gauge #:	17249	Duration of Test:	15 Seconds
Other:	-	Thickness of Lift Tested:	3.0"

Density of HMA in Place by Nuclear Method (D 2950)							
Sublot #	Station	Offset	Time	Random (Y/N)	(B) Max Theor. Density (From T 209)	(A) In-Place Density, kg / m <sup>3</sup>	% Compaction (A/B * 100)
-	126+25	-	-	N	167.2	158.1	94.6
-	126+50	-	-	N	167.2	160.6	96.1
-	126+75	-	-	N	167.2	160.3	95.9
-	127+00	-	-	N	167.2	157.1	94.0
-	127+25	-	-	N	167.2	158.3	94.7
-	127+50	-	-	N	167.2	160.1	95.8
-	127+75	-	-	N	167.2	157.0	93.9
-	128+00	-	-	N	167.2	157.3	94.1
-	128+25	-	-	N	167.2	157.7	94.3
-	128+50	-	-	N	167.2	160.0	95.7
-	128+75	-	-	N	167.2	159.4	95.3
-	129+00	-	-	N	167.2	157.0	93.9
-	129+25	-	-	N	167.2	158.4	94.7
-	129+50	-	-	N	167.2	157.0	93.9
-	129+75	-	-	N	167.2	160.1	95.8
-	130+00	-	-	N	167.2	158.6	94.9

Comments:

<b>Tested by:</b> Stephen Sturges		<b>Reviewed by:</b> Nicholas Lisowski	
<b>Certification #:</b> 4395		<b>Certification #:</b> 3139	
<b>Date:</b> 9/24/2020		<b>Date:</b> 10/5/2020	
<b>Test Results Within Engineering Limits:</b>		<b>YES</b> <input type="checkbox"/>	<b>NO</b> <input type="checkbox"/>

# NorthEast Transportation Training & Certification Program

## HMA Field Temperatures Test Report (Sub-Base, Air, Mix)

<b>Date/Time:</b> September 24, 2020		<b>Location:</b> Tilcon, CT	
<b>Weather:</b> Sunny	<b>Date Rec'd #:</b> 9/24/2020	<b>Random Sample:</b> <input type="checkbox"/>	
<b>Project:</b> Durham Meadows Waterline	<b>Lab Login #:</b> -	<b>Lot #:</b> -	
<b>Contract #:</b> 19-75-012-106	<b>Material ID:</b> SP 1.0"	<b>Sublot #:</b> -	
<b>Contractor:</b> Ludlow Construction Co., Inc.	<b>Material #:</b> -	<b>Sample Location:</b> First Lift	
<b>Pay Item #:</b> -	<b>Sample #:</b> -	<b>Station:</b> See Below	
<b>Source:</b> Tilcon, CT	<b>Sample Type:</b> QC <input type="checkbox"/>	<b>Offset:</b> See Below	
<b>Plant Type:</b> -	<b>Sampled By/Cert. #:</b> Stephen Sturges/#4395		

Temperature Reference Information			
<b>Weather:</b>	Sunny	<b>Sub Base Temperature, °F (BT):</b>	64
<b>Thermometer Type:</b>	Infrared Temp Gun	<b>Air Temperature High, °F (ATH):</b>	76
<b>Calibration Source:</b>	Manufacturer	<b>Air Temperature Low, °F (ATL):</b>	52
<b>Calibration Date:</b>			

HMA Field Temperature Measurements							
Sublot #	Station	Offset	Time	Mat Thickness (inches)	Random (Y/N)	Location	Mix Temp, °F (MT)
-	126+25	-	-	3.0"	N	Route 17	304
-	126+50	-	-	3.0"	N	Route 17	
-	126+75	-	-	3.0"	N	Route 17	
-	127+00	-	-	3.0"	N	Route 17	
-	127+25	-	-	3.0"	N	Route 17	303
-	127+50	-	-	3.0"	N	Route 17	
-	127+75	-	-	3.0"	N	Route 17	
-	128+00	-	-	3.0"	N	Route 17	
-	128+25	-	-	3.0"	N	Route 17	310
-	128+50	-	-	3.0"	N	Route 17	
-	128+75	-	-	3.0"	N	Route 17	
-	129+00	-	-	3.0"	N	Route 17	311
-	129+25	-	-	3.0"	N	Route 17	
-	129+50	-	-	3.0"	N	Route 17	
-	129+75	-	-	3.0"	N	Route 17	309
-	130+00	-	-	3.0"	N	Route 17	

Comments:

<b>Tested by:</b> Stephen Sturges	<b>Reviewed by:</b> Nicholas Lisowski
<b>Certification #:</b> 4395	<b>Certification #:</b> 3139
<b>Date:</b> 9/24/2020	<b>Date:</b> 10/5/2020
<b>Test Results Within Engineering Limits:</b>	<b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/>