



U.S. Department
of Transportation
**Federal Aviation
Administration**

Construction Progress and Inspection Report

NAPMRC

Inspection Date
06/18/2018

Project Name
Reflective Cracking
Outdoor Phase I

<i>Contractor & # of Personnel</i> GDIT - 6	<i>Contractor & # of Personnel</i> Gemini - 2	<i>Contractor & # of Personnel</i> JBT Building Co. - 2	<i>Contractor & # of Personnel</i>
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Equipment On-Site

- Hitachi ZAXIS 160CC (Excavator)
- JCB 718 (Dump Truck)
- Multi-Quip SP1 (Slab Saw)
- Kubota L4330HST (Tractor)

<i>Start Time</i> – 8:30 AM	<i>Temperature</i> Min – 82 F Max – 86 F	<i>Humidity</i> Min – 59 % Max – 77 %	<i>Conditions</i> Clear
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Site Activities

JBT Building Co. arrived onsite at 8 AM and a kickoff meeting was held at the job site with GDIT, Gemini and FAA personnel in attendance. Upon completion of the meeting JBT began installing the silt fence and hay bales. 196 LF of silt fence was installed by hand after digging a small trench with the Kubota L4330HST tractor. The hay bales were placed near the inlet but were not installed. After completion of the silt fence, the Multi-Quip SP1 Slab Saw was used to cut the asphalt at the project extents. The 5-inch thick HMA layer was removed using the Hitachi ZAXIS 160CC with a bucket attachment and a JCB 718. JBT removed 6 truckloads of material (~ 70 tons) and stockpiled it in the 207 yard. GDIT personnel covered the test area for the night once excavation of the HMA was completed. JBT Building Co. operated all machinery in this period.

Materials Delivered

(4) Haybales
196 LF Silt Fence

Materials Removed

~ 70 tons of HMA removed and stockpiled in 207 yard

Laboratory and Field Testing Performed

No testing performed

Meetings/Discussions

Kick-off Meeting was held with JBT, GDIT, Gemini and FAA personnel to discuss demolition and excavation plans. The meeting started at 8:00 AM and lasted 20-25 minutes.

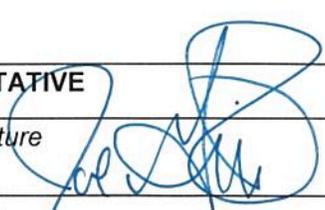
Safety Concerns

None

Problem Areas/Additional Comments

Develop solution for P-401 formwork and sequence of paving. GDIT to work with United and supply cut sheet showing plan.

INSPECTOR OR REPRESENTATIVE

<i>Date</i> 6/18/2018	<i>Typed or Printed Name and Title</i> JOE GAWRYSIAK	<i>Signature</i> 
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Matthew Bremer 



U.S. Department
of Transportation
**Federal Aviation
Administration**

Construction Progress and Inspection Report

NAPMRC

Inspection Date
06/19/2018

Project Name
Reflective Cracking
Outdoor Phase I

<i>Contractor & # of Personnel</i> GDIT - 6	<i>Contractor & # of Personnel</i> Gemini - 1	<i>Contractor & # of Personnel</i> JBT Building Co. - 3	<i>Contractor & # of Personnel</i>
----------------------------------------------------	------------------------------------------------------	----------------------------------------------------------------	----------------------------------------

Equipment On-Site

- Hitachi ZAXIS 160CC (Excavator)
- JCB 718 (Dump Truck)
- RL-SV2S (Laser Level)
- John Deere 310SG (Backhoe)
- Dynapac CA25D (Roller)

<i>Start Time</i> – 8:00 AM	<i>Temperature</i>	<i>Humidity</i>	<i>Conditions</i>
<i>Stop Time</i> – 4:30 PM	Min – 82 F Max – 90 F	Min – 55 % Max – 76 %	Clear to Partly cloudy

Site Activities

JBT Building Co. arrived onsite at 8 AM and used a Hitachi ZAXIS 160CC to excavate a 2,325 SF area 12" down to the existing subgrade (9 truckloads DGA ~ 2,325 CF). Originally the plan called for an excavation depth of 10" but after excavation of a 25' x 15' area it was determined that the interface surface was intermixed with existing DGA and subgrade. After some discussion Gemini and GDIT engineers decided to excavate an additional 2" to provide a clean surface of existing subgrade free of DGA. The excavated DGA was stockpiled in the 207 yard and covered after all material was removed. GDIT and JBT Building Co. confirmed the excavated area was to specified depth/slopes with the RL-SV2S laser level. The area was leveled and compacted using the John Deere 310SG for 4 passes and Dynapac CA25D for 2 passes (back and forth equal to 1 pass). GDIT personnel covered the test area for the night once excavation was completed. JBT Building Co. personnel operated all machinery in this period.

Materials Delivered

None

Materials Removed

2,325 CF of DGA removed and stockpiled in 207 yard for future use in shoulder areas

Laboratory and Field Testing Performed

(7) 5-gallon buckets of existing subgrade removed for lab testing purposes (Proctor, Gradation)

Meetings/Discussions

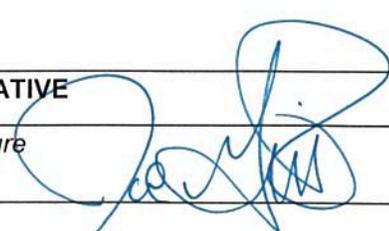
Safety Concerns

None

Problem Areas/Additional Comments

Interface at final excavation depth of 15" was a mix of subgrade & DGA, after consideration it was decided to excavate an additional 2" to provide a clean level surface. See attached Deviation Form.

INSPECTOR OR REPRESENTATIVE

<i>Date</i> 6/19/18	<i>Typed or Printed Name and Title</i> JOE GAWRYSIAK	<i>Signature</i> 
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MATTHEW BRYNLER 

DO #15: Deviation from Expected Results Form

Project: Reflective Cracking Outdoor Phase 1

Date: 06/19/2018

Test Performed: Final P-152MR lift elevation and P-154MR layer thickness

Standard/Plans: Reflective Cracking Outdoor Phase I 100% Design Drawings (dated 04/23/2018)

Observation: Demolition plans indicate excavation of 5" asphalt and 10" DGA to a total depth of 15" total. At this depth the contractor discovered the interface to be a mix of existing DGA and subgrade as shown below in the picture. It was the intention to have a clean subgrade interface with no residual DGA remaining.

Solution: After discussion with GDIT and Gemini personnel, it was determined that excavation should proceed another 2" to a depth that provides a clean level surface of existing subgrade. Any additional excavation will be made up by increasing the P-154MR layer thickness.

Conclusion: Contractor will excavate to a total depth of 17". P-154MR layer thickness will be increased from 6" to compensate for extra excavation. Final layer elevations and thicknesses will be measured and shown on the as-built drawings.



GDIT Delivery Order Lead Signature: _____


MATTHEW BRYNICK

Date: _____

6/19/18

FAA Delivery Order Lead Signature: _____

Date: _____



U.S. Department
of Transportation
**Federal Aviation
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Construction Progress and Inspection Report

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Inspection Date
06/20/2018

Project Name
Reflective Cracking
Outdoor Phase I

<i>Contractor & # of Personnel</i> GDIT - 3	<i>Contractor & # of Personnel</i>	<i>Contractor & # of Personnel</i>	<i>Contractor & # of Personnel</i>
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Equipment On-Site
None

<i>Start Time</i> – 8:30 AM	<i>Temperature</i>	<i>Humidity</i>	<i>Conditions</i>
<i>Stop Time</i> – 4:30 PM	Min – 75.9 F Max – 84 F	Min – 44 % Max – 87 %	Partly cloudy

Site Activities
No site activities

Materials Delivered
None

Materials Removed
None

Laboratory and Field Testing Performed
Proctor and Gradation tests performed from samples of existing subgrade

Meetings/Discussions

Safety Concerns
None

Problem Areas/Additional Comments

INSPECTOR OR REPRESENTATIVE

Date
6/20/2018

Typed or Printed Name and Title
JOE GAWRYSIAK

Signature

MATTHEW BREMER



U.S. Department
of Transportation
**Federal Aviation
Administration**

Construction Progress and Inspection Report

NAPMRC

Inspection Date
06/21/2018

Project Name
Reflective Cracking
Outdoor Phase I

<i>Contractor & # of Personnel</i> GDIT - 6	<i>Contractor & # of Personnel</i> Gemini - 1	<i>Contractor & # of Personnel</i> Craig Testing - 1	<i>Contractor & # of Personnel</i> Rodriguez - 1
----------------------------------------------------	------------------------------------------------------	-------------------------------------------------------------	---------------------------------------------------------

Equipment On-Site

- InstroTek 3430 (Moisture-Density Gauge)
- Leica Total Station
- Dynapac CA25D (Roller)

<i>Start Time</i> – 8:30 AM	<i>Temperature</i> Min – 73 F Max – 75 F	<i>Humidity</i> Min – 87 % Max – 91 %	<i>Conditions</i> Overcast, brief rain mid-day
<i>Stop Time</i> – 4:30 PM			

Site Activities

Craig Testing arrived on-site at 8 AM to obtain moisture content and compaction readings at randomly generated locations using an Instrotek 3430 nuclear density meter. Initial testing results did not fall within project specifications (100% compaction). Readings during the 1st round of testing yielded results of 88.8% to 95.3% compaction and 9.4% to 17.7% MC. GDIT personnel operated the Dynapac Roller and completed 11 passes with the vibrator (back and forth equal to 1 pass) on subgrade to achieve further compaction. A 2nd round Readings were obtained and results ranged from 91.3% to 97.9% compaction and 10.9% to 16.2% MC. Another 11 passes of the roller were completed before a 3rd set of readings were taken. Results from the 3rd round of testing yielded compaction values of 92.1% to 96.3% and moisture contents of 10.1% to 16.5%. Shortly after the 3rd round of testing the site was covered with a tarp due to a brief rain shower at 11 AM. The tarp was removed after the rain shower at 12:30 PM so the surface could be scanned using the Leica 3D scanner. Rodriguez Consulting set up the scanner in (2) separate locations with (6) back-sights each. This information will be used to determine surface elevations and conformance to specifications. Once the scanning was completed, a final set of density readings were taken throughout the entire test section at an interval of every 10'. These (16) readings ranged from 91.0% to 109.0% with a majority of them falling at or above 95% compaction. Moisture content also ranged from 7.0% to 14.7%. The test area was covered once testing was completed.

Materials Delivered

None

Materials Removed

None

Laboratory and Field Testing Performed

- Moisture Content and Compaction: Test #1 – Results did not pass (8:30-8:45 AM) (see attached)
Test #2 – Results did not pass (9:15-9:30 AM)
Test #3 – Results did not pass (10:15-10:30 AM)
Test #4 – Results passed (3:30 PM-4:15 PM)

Meetings/Discussions

- GDIT, Gemini and FAA personnel discussed the validity of the proctor curve distributed in the morning. Compaction requirements for this subgrade soil type were also discussed to determine feasibility of achieving the specified value of 100%.

Safety Concerns

None

Problem Areas/Additional Comments

- Proctor curve was re-evaluated and revised, value changed from 125.8 pcf @ 9.0% MC to 125.7 pcf @ 8.9% MC
- Compaction requirements based upon design criteria and specifications were investigated, acceptance criteria revised to 95% compaction requirement for existing P-152MR subgrade.

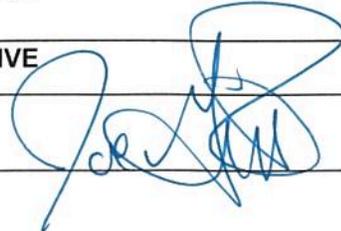
INSPECTOR OR REPRESENTATIVE

Date
6/21/2018

Typed or Printed Name and Title

JOE GAWRYSIAK

Signature



MATTHEW BREWER 

DO #15: Deviation from Expected Results 2

Project: Reflective Cracking Outdoor Phase 1

Test Performed: P-152MR Compaction Requirements

Standard/Plans: Specifications for Outdoor Reflective Cracking Phase I Construction

Observation: FAA's NextGen Pavement Materials Laboratory performed gradation and Atterberg limits on in-situ P-152MR subgrade to determine the material was non-cohesive. The lab determined the maximum dry density is 125.7 pcf and optimum moisture is 8.9 percent per ASTM D1557. JBT Building Company and GDIT performed compaction effort using the Daynapac Roller with vibrator totaling 24 passes (back and forth equal to 1 pass) on the in-situ P-152MR subgrade. Craig testing obtained moisture content and density readings at randomly generated locations per ASTM D6938. ASTM D6938 results show an average density of 96.5 percent of the maximum dry density and average moisture of 12.5 percent. Weather, pending rain, necessity to cover subgrade with plastic, and in-situ soils conditions prohibit achieving optimum moisture. The P-152MR specification states "the subgrade under areas to be paved shall be compacted to a depth of 6" and to a density not less than 100 percent of the maximum density as determined by ASTM D1557. The material to be compacted shall be within ± 2 percent of optimum moisture content before being rolled to obtain the prescribed compaction."

Solution: Gemini performed a FAARFIELD rigid pavement design assuming 9" P-501 on 8" P-154 on in-situ P-152. Compaction requirements were computed in FAARFIELD suggesting the in-situ non-cohesive P-152MR subgrade shall be compacted to a depth of 6" and to a density not less than 95 percent of the maximum dry density. Efforts to dry the subgrade were considered; however, due to the variability of the subgrade soil material and understanding that efforts to reduce the moisture content may have limited effectiveness at all subgrade depths it was decided that limiting the disturbance of the in-situ material was more critical to the objectives of the experiment than reducing the moisture content.

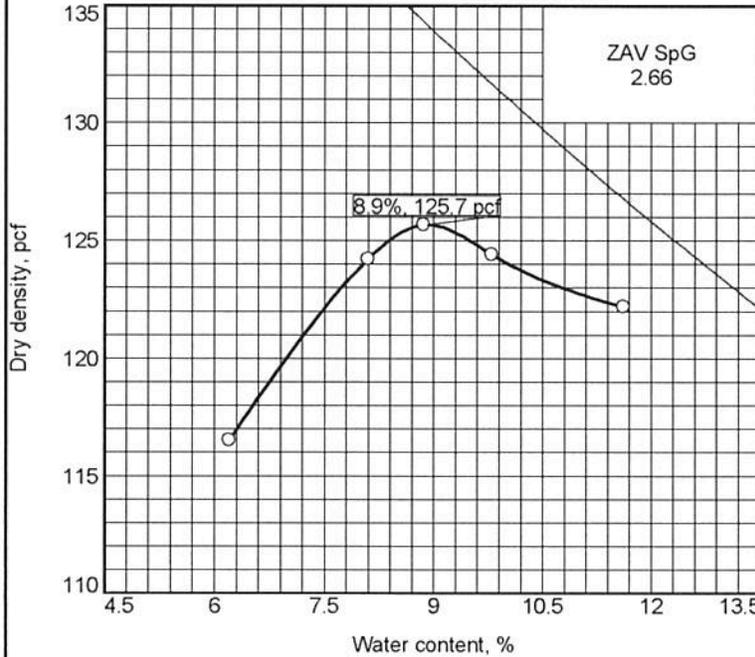
Conclusion: Seven of the sixteen D6938 resulting densities were less than 95 percent of the maximum dry density and thirteen of the sixteen moisture readings were greater than the +2 percent of optimum moisture content. After considering the D6938 individual results and the variability of the in-situ soil it was decided that the uniform compaction effort and an average of the D6938 results of the density of 96.5 percent of the maximum dry density are acceptable. The documented compaction of the in-situ P-152MR subgrade does not negatively impact the objectives of the Outdoor Reflective Cracking Phase I and installation of the P-154MR subbase will proceed as scheduled. Deviations from 100% design drawings and specifications will be shown in as-built drawings and specifications. Supporting documentation are attached.

GDIT Delivery Order Lead Signature:  Date: 6/29/18

FAA Delivery Order Lead Signature: _____ Date: _____

COMPACTION TEST REPORT

Curve No. _____



Test Specification:
ASTM D 1557-07 Method A Modified

Preparation Method Dry
 Hammer Wt. 10 lb.
 Hammer Drop 18 in.
 Number of Layers five
 Blows per Layer 25
 Mold Size 0.03333 cu. ft.
 Test Performed on Material
 Passing #4 Sieve
 NM LL PI
 Sp.G. (ASTM D 854) 2.658
 %>#4 0.1 %<No.200 19.1
 USCS SM/SC AASHTO
 Date Sampled 6/21/18
 Date Tested 6/20/18
 Tested By RHN

TESTING DATA

	1	2	3	4	5	6
WM + WS	6256.1	6415.3	6453.7	6450.4	6447.4	
WM	4385.4	4385.4	4385.4	4385.4	4385.4	
WW + T #1	259.3	297.6	232.8	451.9	333.0	
WD + T #1	254.5	287.3	222.3	428.6	317.1	
TARE #1	177.1	160.1	103.8	190.8	180.3	
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	6.2	8.1	8.9	9.8	11.6	
DRY DENSITY	116.5	124.2	125.7	124.4	122.2	

TEST RESULTS

Maximum dry density = 125.7 pcf
 Optimum moisture = 8.9 %

Project No. _____ **Client:** _____
Project: Outdoor Reflective Cracking Phase 1
 TO #15
 Source of Sample: Native Subgrade

Federal Aviation Administration

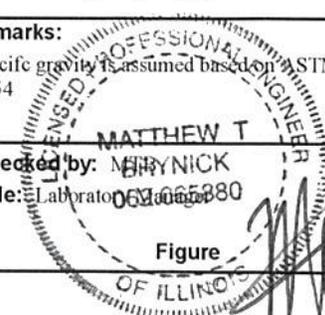
 Atlantic City, New Jersey

Material Description

Orange silty/clayey sand

Remarks:
 Specific gravity is assumed based on ASTM D854

Checked by: MATTHEW T. BRYNICK
Title: Laboratory Technician



Field Notes of Craig Testing Nuclear Density Gage Results
ASTM D6938

TO 015 Reflective Cracking Outdoor Phase 1 P-152MR Subgrade

Performed by Craig Testing Laboratories

Final Testing results to be provided 6/22/2018

Notes compiled by Matthew Brynick 6/21/2018

Station Range in Relation to Slab Joints	Offset	Station	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	0.00	10.4	96.7	14.0
0+12.5 to 0+22.5	0.00	14.5	91.0	16.2
0+12.5 to 0+22.5	0.50	21	94.6	13.7
0+22.5 to 0+32.5	4.00	29	93.6	14.6
0+32.5 to 0+42.5	2.50	36.5	109.0	7.0
0+42.5 to 0+52.5	-2.00	50.5	94.4	12.5
0+52.5 to 0+62.5	1.00	62	94.3	9.3
0+62.5 to 0+72.5	-0.50	71	98.0	11.7
0+72.5 to 0+82.5	-3.00	78	96.3	13.2
0+82.5 to 0+92.5	2.50	86	95.0	13.3
0+92.5 to 1+02.5	0.00	95	94.8	14.1
1+02.5 to 1+12.5	2.50	106	93.8	14.5
1+12.5 to 1+22.5	-1.00	117.5	96.9	11.9
1+22.5 to 1+32.5	0.00	130	96.2	11.7
1+32.5 to 1+42.5	0.50	137.5	100.1	12.5
1+42.5 to 1+52.5	-2.00	148	99.9	9.8
Average:			96.5	12.5

FAARFIELD

FAARFIELD v 1.42 - Airport Pavement Design

Section NewRigid in Job RC.

Working directory is C:\Users\Hao Surface\Documents\FAARFIELD\

The aircraft list contains only one aircraft. Please see the introduction to the Help File for a discussion on using FAARfield to make single aircraft comparisons.

The structure is New Rigid.

Design Life = 20 years.

A design for this section was completed on 06/21/18 at 15:05:21.

Compaction requirements for this section were computed on 06/21/18 at 15:05:49.

Pavement Structure Information by Layer, Top First

No.	Type	Thickness in	Modulus psi	Poisson's Ratio	Strength R,psi
1	PCC Surface	8.97	4,000,000	0.15	900
2	P-154 UnCr Ag	8.00	24,341	0.35	0
3	Subgrade	0.00	22,500	0.40	0

Total thickness to the top of the subgrade = 16.97 in

Airplane Information

No.	Name	Gross Wt. lbs	Annual Departures	% Annual Growth
1	SWL-50	40,000	1,200	0.00

Additional Airplane Information

No.	Name	CDF Contribution	CDF Max for Airplane	P/C Ratio
1	SWL-50	1.00	1.00	5.18

Subgrade Compaction Requirements

NonCohesive Soil

Percent Maximum Dry Density(%)	Depth of compaction from pavement surface (in)	Depth of compaction from top of subgrade (in)	Critical Airplane for Compaction
100	0 - 6	--	SWL-50
95	6 - 23	0 - 6	SWL-50
90	23 - 52	6 - 35	SWL-50
85	52 - 83	35 - 66	SWL-50

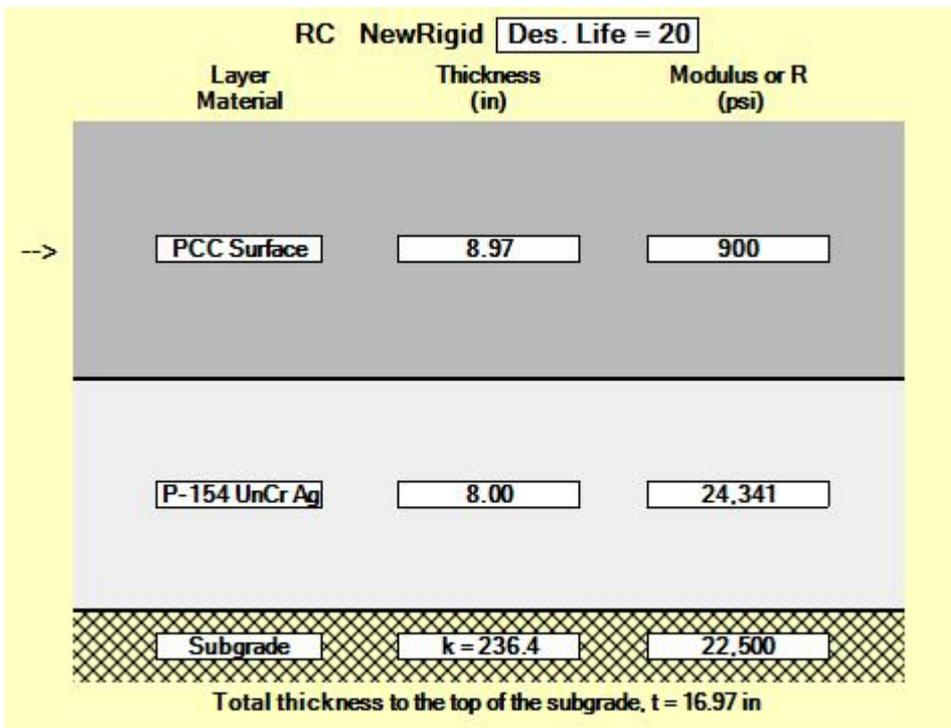
Cohesive Soil

Percent Maximum Dry Density(%)	Depth of compaction from pavement surface (in)	Depth of compaction from top of subgrade (in)	Critical Airplane for Compaction
95	0 - 5	--	SWL-50
90	5 - 9	--	SWL-50
85	9 - 32	0 - 15	SWL-50
80	32 - 51	15 - 34	SWL-50

Subgrade Compaction Notes:

1. Noncohesive soils, for the purpose of determining compaction control, are those with a plasticity index (PI) less than 3.
2. Tabulated values indicate depth ranges within which densities should equal or exceed the indicated percentage of the maximum dry density as specified in item P-152.
3. Maximum dry density is determined using ASTM Method D 698.
4. The subgrade in cut areas should have natural densities shown or should (a) be compacted from the surface to achieve the required densities, (b) be removed and replaced at the densities shown, or (c) when economics and grades permit, be covered with sufficient select or subbase material so that the uncompacted subgrade is at a depth where the in-place densities are satisfactory.
5. For swelling soils refer to AC 150/5320-6F paragraph 3.10.

User is responsible for checking frost protection requirements.





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Outdoor Phase I

<i>Contractor & # of Personnel</i> GDIT - 5	<i>Contractor & # of Personnel</i> Gemini - 2	<i>Contractor & # of Personnel</i>	<i>Contractor & # of Personnel</i>
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Equipment On-Site

- DPSPA
- LWD and PDA connected via bluetooth

<i>Start Time</i> – 8:30 AM	<i>Temperature</i>	<i>Humidity</i>	<i>Conditions</i>
<i>Stop Time</i> – 12:00 PM	Min – 70 F Max – 71.1 F	Min – 78 % Max – 84 %	Overcast

Site Activities

GDIT personnel operated testing equipment in this period. PSPA and LWD testing performed at stations predetermined by the material characterization plan. Each location was positioned near the center of each slab 10 feet apart for a total of 15 locations. Measuring for (4) thermocouple locations was completed and each thermocouple was installed below the subbase surface. After all testing was complete, the test area was covered for the weekend. Additional weights were placed on the perimeter of cover to prepare for upcoming expected bad weather.

Materials Delivered

None

Materials Removed

None

Laboratory and Field Testing Performed

PSPA testing and LWD testing performed at Sta. 0+7.5, 0+17.5, 0+27.5, 0+37.5, 0+47.5, 0+57.5, 0+97.5, 1+07.5, 1+17.5, 1+27.5, 1+37.5 and 1+47.5. Offsets were at the centerline for all tests.

Meetings/Discussions

None

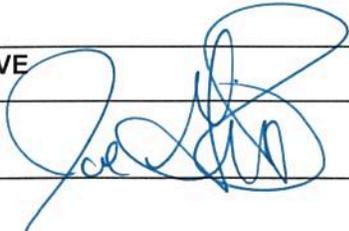
Safety Concerns

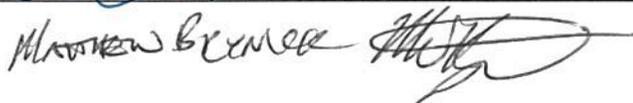
None

Problem Areas/Additional Comments

Due to certain predetermined test locations not being ideal for testing, the locations were moved slightly to a level area within a few feet of the original location. These final locations will be accurately represented in the field testing report.

INSPECTOR OR REPRESENTATIVE

<i>Date</i> 06/22/2018	<i>Typed or Printed Name and Title</i> JOE GAWRYSIAK	<i>Signature</i> 
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Matthew Bremer



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**Federal Aviation
Administration**

Construction Progress and Inspection Report

NAPMRC

Inspection Date
06/25/2018

Project Name
Reflective Cracking
Outdoor Phase I

<i>Contractor & # of Personnel</i> GDIT - 1	<i>Contractor & # of Personnel</i> JBT Building Co. - 2	<i>Contractor & # of Personnel</i>	<i>Contractor & # of Personnel</i>
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Equipment On-Site

- John Deere 310 SG (Tractor)
- CAT D3CXL Hystat (Bulldozer)
- Lee G440 (Power Grader)

<i>Start Time</i> – 8:30 AM	<i>Temperature</i> Min – 75.9 F Max – 84.0 F	<i>Humidity</i> Min – 38 % Max – 62 %	<i>Conditions</i> Clear, scattered clouds
<i>Stop Time</i> – 4:00 PM			

Site Activities
JBT Building Co. arrived on site at 8 AM to begin the removal of material of excavated material from the 207 yard. A total of (5) truckloads of material were removed, (4) of HMA and (1) of mixture of other materials. Approximately 70 tons of HMA and 675 CF of HMA, DGA, and subgrade mix were removed. The CAT D3CXL Hystat and Lee G440 were brought onsite for grading of the subgrade surface in the next work period.

Materials Delivered
None

Materials Removed
(4) Trucks of HMA (~70 tons)
(1) Truck of Mixed HMA, DGA & Subgrade (~675 CF)

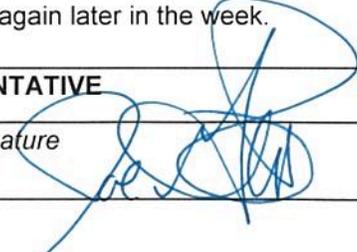
Laboratory and Field Testing Performed
None

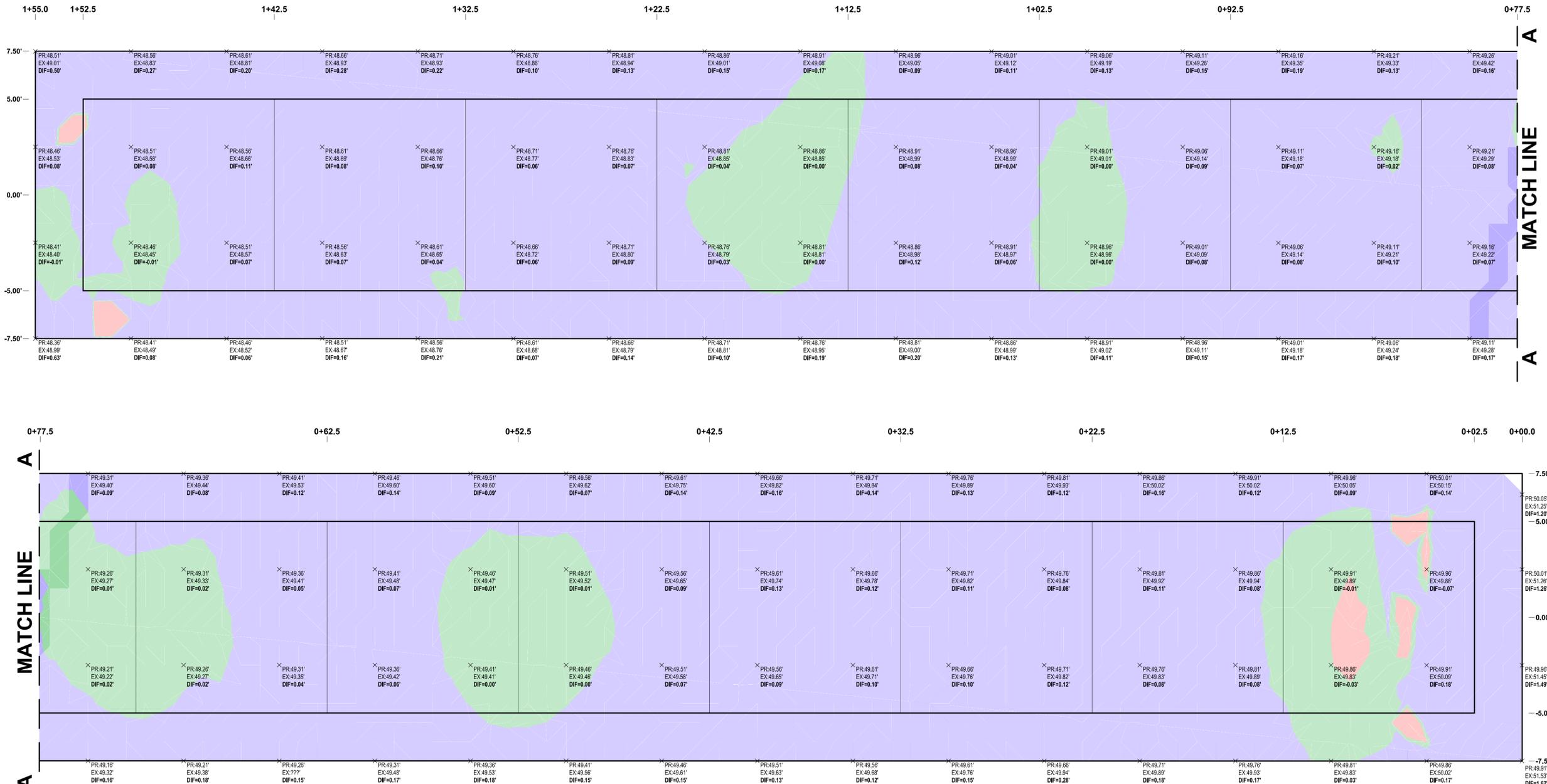
Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
3D Scan results revealed that a majority of the excavation was not deep enough to produce a consistent 8" layer of P-154 according to the proposed grades. It was determined to re-excavate the area to match a 1% slope in the north direction along with a 1% cross slope. These grades will be calculated from the SE corner of the excavation. JBT will excavate and compact the area before acceptance and characterization tests are run again later in the week.

INSPECTOR OR REPRESENTATIVE

<i>Date</i> 6/25/18	<i>Typed or Printed Name and Title</i> JOE GAWRYSIAK	<i>Signature</i> 
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PLAN VIEW
SCALE: 1"=3'

- LEGEND:**
- x 50.020' - SPOT ELEVATION
 - GRADE TOLERANCE: ± 0.031' (3/8")
 - CONFORMING ELEVATION
 - ELEVATION BELOW THE CONFORMANCE RANGE
 - ELEVATION ABOVE THE CONFORMANCE RANGE

NO.	REVISIONS	DATE	BY	CHK	APR

CSRA SRA INTERNATIONAL, A CSRA COMPANY
200 DECADON DRIVE
EGG HARBOR TOWNSHIP, NJ 08234 FOR
PHONE: (609) 677-8406



NAME	DATE
DRAWN M. MAZUREK	06/25/2018
CHECKED H.Y. / J.G.	
FAA APPROVAL DATE:	
PROJECT NO:	

REFLECTIVE CRACKING OUTDOOR PHASE I SUBGRADE ELEVATION MAP		
SIZE: ANSI D	SCALE: 1"=3'	SHEET 1 OF 1



U.S. Department
of Transportation
**Federal Aviation
Administration**

Construction Progress and Inspection Report

NAPMRC

Inspection Date
06/26/2018

Project Name
Reflective Cracking
Outdoor Phase I

<i>Contractor & # of Personnel</i>			
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Equipment On-Site

- John Deere 310 SG (Tractor)
- CAT D3CXL Hystat (Bulldozer)
- Lee G440 (Power Grader)

<i>Start Time – No Work</i> <i>Stop Time – No Work</i>	<i>Temperature</i> Min – 69.0 F Max – 79.0 F	<i>Humidity</i> Min – 45 % Max – 84 %	<i>Conditions</i> Clear, fair
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Site Activities
No activity for the day

Materials Delivered
None

Materials Removed
None

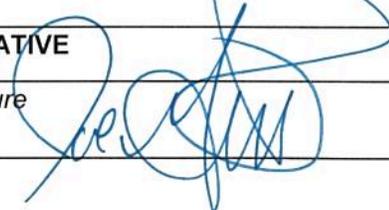
Laboratory and Field Testing Performed
None

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
3D Scan results revealed that a majority of the excavation was not deep enough to produce a consistent 8" layer of P-154 according to the proposed grades. JBT will excavate and compact the test section to match a 1% slope in the north direction along with a 1% cross slope. These grades will be calculated and measured from the SE corner of the excavation.

INSPECTOR OR REPRESENTATIVE

<i>Date</i> 6/26/18	<i>Typed or Printed Name and Title</i> JOE GAWRYSIAK	<i>Signature</i> 
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U.S. Department
of Transportation
**Federal Aviation
Administration**

Construction Progress and Inspection Report

NAPMRC

Inspection Date
06/27/2018

Project Name
Reflective Cracking
Outdoor Phase I

<i>Contractor & # of Personnel</i> GDIT - 6	<i>Contractor & # of Personnel</i> Gemini. - 1	<i>Contractor & # of Personnel</i> JBT Building Co. - 3	<i>Contractor & # of Personnel</i>
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Equipment On-Site

- Lee G440 (Power Grader)
- JCB 718 (Dump Truck)
- RL-SV2S (Laser Level)
- John Deere 310SG (Backhoe)
- Dynapac CA25D (Roller)
- Hamm HD12 (Roller)
- ZAXIS 160LC (Excavator)

<i>Start Time</i> – 8:30 AM	<i>Temperature</i>	<i>Humidity</i>	<i>Conditions</i>
<i>Stop Time</i> – 4:00 PM	Min – 69.0 F Max – 76.0 F	Min – 62 % Max – 75 %	Cloudy

Site Activities

JBT Building Co. arrived on site at 8 AM for grading of subgrade surface according to the proposed elevations. JBT Building Co. personnel used the Lee G440 Power Grader for majority of the grading and the Dynapac CA25D Roller for 2 passes. A dirt ramp was used for getting into and out of excavated area. It was removed and metal plates lifted were lifted into place to allow for the smaller Hamm HD12 Roller to compact the portion from 0+00 to 0+10. The roller completed a total of 10 passes (back and forth equal to 1 pass). Final grades were confirmed by GDIT using a level and rod. GDIT personnel also covered the site at end of the work period.

Materials Delivered
None

Materials Removed
Subgrade material removed from site

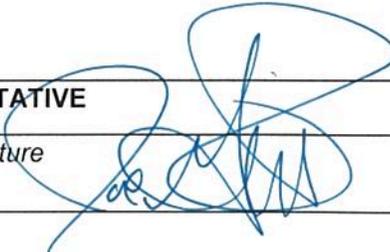
Laboratory and Field Testing Performed
None

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
None

INSPECTOR OR REPRESENTATIVE

<i>Date</i> 6/27/18	<i>Typed or Printed Name and Title</i> JOE GAWRYSTAK	<i>Signature</i> 
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U.S. Department
of Transportation
**Federal Aviation
Administration**

Construction Progress and Inspection Report

NAPMRC

Inspection Date
06/28/2018

Project Name
Reflective Cracking
Outdoor Phase I

<i>Contractor & # of Personnel</i> GDIT - 7	<i>Contractor & # of Personnel</i> Gemini. - 2	<i>Contractor & # of Personnel</i> Craig Testing - 1	<i>Contractor & # of Personnel</i>
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Equipment On-Site

- Dynapac CA25D (Roller)
- ZAXIS 160LC (Excavator)
- Instrotek Nuclear Moisture-Density Gauge 3440

<i>Start Time</i> – 8:00 AM	<i>Temperature</i>	<i>Humidity</i>	<i>Conditions</i>
<i>Stop Time</i> – 4:00 PM	Min – 79.0 F Max – 92.0 F	Min – 47 % Max – 88 %	Cloudy, Partly Cloudy

Site Activities
GDIT personnel placed (2) sump pumps in the water collected on top of the tarps prior to removing the tarps. Craig Testing came in at 9 AM to perform Nuclear testing, results passed for all but (3) readings. Craig Personnel left at 10:45 AM. GDIT and JBT used the Dynapac CA25D Roller onsite to compact 0+02.5 to 0+22.5 section, which was not meeting requirement. The ZAXIS 160LC Excavator was used to lower temporary ramps into place for the roller to get down to site level. The Dynapac CA25D Roller did (16) passes on the total site and (25) additional passes on section not reaching required compaction. The Excavator then removed the temporary ramps from site. Craig Testing personnel arrived again at 2:45 PM and took a third round of Nuclear Moisture and Density tests until 4:00 PM.

Materials Delivered
None

Materials Removed
None

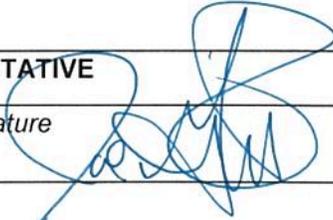
Laboratory and Field Testing Performed
Nuclear Moisture and Density tests (see attached)

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
None

INSPECTOR OR REPRESENTATIVE

<i>Date</i> 6/28/18	<i>Typed or Printed Name and Title</i> JOE GAWRYSIAK	<i>Signature</i> 
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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-2

PROJECT: Reflective Cracking Outdoor Phase I, Building 296
Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-3

INSPECTED BY: Harvey Rheiner

DATE INSPECTED: June 28, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: Building Pad Slab Foundation Other: Test Area
 Utility Trench Sub-Grade Pavement Sub-Base Compactor Model: Dynapac CA 25D

Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf)	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
			ASTM D1557			
1 Between stations 0+02.5 - 0+12.5	112.3	11.8	125.7	8.9	95.0	89.3%
2 Between stations 0+12.5 - 0+22.5	118.6	10.9	125.7	8.9	95.0	94.4%
3 Between stations 0+22.5 - 0+32.5	118.6	13.1	125.7	8.9	95.0	94.4%
4 Between stations 0+32.5 - 0+42.5	120.7	13.0	125.7	8.9	95.0	96.0%
5 Between stations 0+42.5 - 0+52.5	119.9	15.5	125.7	8.9	95.0	95.4%
6 Between stations 0+52.5 - 0+62.5	117.1	9.0	125.7	8.9	95.0	93.2%
7 Between stations 0+62.5 - 0+72.5	121.7	11.5	125.7	8.9	95.0	96.8%
8 Between stations 0+72.5 - 0+82.5	119.5	12.0	125.7	8.9	95.0	95.1%
9 Between stations 0+82.5 - 0+92.5	119.0	8.7	125.7	8.9	95.0	94.7%
10 Between stations 0+92.5 - 1+02.5	122.7	9.6	125.7	8.9	95.0	97.6%

Fill Placement: Controlled Uncontrolled

Loose Lift Thickness (in.): N/A

Continued on following page . . .

CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-2

PROJECT: Reflective Cracking Outdoor Phase I, Building 296
Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-3

INSPECTED BY: Harvey Rheiner

DATE INSPECTED: June 28, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: Building Pad Slab Foundation Other: Test Area
 Utility Trench Sub-Grade Pavement Sub-Base Compactor Model: Dynapac CA 25D

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D155'	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
11	Between stations 1+02.5 - 1+12.5	120.7	12.4	125.7	8.9	95.0	96.0%
12	Between stations 1+12.5 - 1+22.5	120.8	11.2	125.7	8.9	95.0	96.1%
13	Between stations 1+22.5 - 1+32.5	119.4	11.4	125.7	8.9	95.0	95.0%
14	Between stations 1+32.5 - 1+42.5	123.7	8.1	125.7	8.9	95.0	98.4%
15	Between stations 1+42.5 - 1+52.5	125.6	7.8	125.7	8.9	95.0	99.9%
16	Between stations 1+52.5 - 1+62.5	121.5	13.1	125.7	8.9	95.0	96.7%
17	Between stations 1+62.5 - 1+72.5	128.7	6.1	125.7	8.9	95.0	102.4%
18	Between stations 1+72.5 - 1+82.5	124.2	9.4	125.7	8.9	95.0	98.8%
19	Between stations 0+22.5 - 0+32.5	114.9	13.1	125.7	8.9	95.0	91.4%
20	Between stations 0+02.5 - 0+12.5	114.0	11.4	125.7	8.9	95.0	90.7%

Gauge Serial No.: 33785 Gauge Standard Counts: MS: 632 DS: 1897

Fill Placement: Controlled Uncontrolled Loose Lift Thickness (in.): N/A

Hours on Site: 8:00 am - 11:00 am

Inspection Findings
Report for Informational Purposes Only

Remarks:

Reported to:
Project Distribution

Reviewed By: Ian Craig

Station Range in Relation to Slab Joints	Offset	Station	Percent of Maximum Dry Density (%)	Moisture (%)
0+02.5 to 0+12.5	0 -1	3.7	89.3	11.8
0+12.5 to 0+22.5	3 -6	14 11.8	94.3	10.9
0+22.5 to 0+32.5	1 0	22 17.3	94.4	13.1
0+32.5 to 0+42.5	1 -0.3	34 25.1	96.1	13.0
0+42.5 to 0+52.5	4 2.5	43 35	95.4	15.5
0+52.5 to 0+62.5	1 0.5	59 46	93.2	9.0
0+62.5 to 0+72.5	1 -1.5	69 48	96.8	11.5
0+72.5 to 0+82.5	5 4.5	77 57.5	95.1	12.0
0+82.5 to 0+92.5	0 3.5	84 69.0	94.7	8.7
0+92.5 to 1+02.5	5 . 1	94 80.0	97.6	9.6
1+02.5 to 1+12.5	3 . 2	109 87.0	96.0	12.4
1+12.5 to 1+22.5	1 1	115 96.0	96.1	11.2
1+22.5 to 1+32.5	2 1.5	126 107	95.0	11.4
1+32.5 to 1+42.5	2 -2.5	138 114.5	98.4	8.1
1+42.5 to 1+52.5	2 2.5	143 126	99.9	7.8

X
X
X

~~11.8 11.5~~

1.5	136	96.6	13.1
0.5	145.5	102.4	6.1
-1.5	153.5	98.8	9.4
5	17.3	91.4	13.1
1.5	5	90.7	11.4
2.5	7	94.9	11.5

X
X

CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-2

PROJECT: Reflective Cracking Outdoor Phase I, Building 296
Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-5

INSPECTED BY: Kirk Herman

DATE INSPECTED: June 28, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: Building Pad Slab Foundation Other: Test Area
 Utility Trench Sub-Grade Pavement Sub-Base Compactor Model: _____

Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf)	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
			ASTM D155			
1 Station 11 - Offset 0.00	120.2	11.7	125.7	8.9	95.0	95.6%
2 Station 18.5 - Offset -4.00	116.9	12.7	125.7	8.9	95.0	93.0%
3 Station 32 - Offset 1.00	117.7	11.4	125.7	8.9	95.0	93.6%
4 Station 36.5 - Offset -2.00	121.6	13.0	125.7	8.9	95.0	96.7%
5 Station 51.5 - Offset 2.00	114.7	5.2	125.7	8.9	95.0	91.2%
6 Station 53.5 - Offset 0.00	112.6	6.3	125.7	8.9	95.0	89.6%
7 Station 67.5 - Offset -2.00	119.8	11.8	125.7	8.9	95.0	95.3%
8 Station 73.5 - Offset 2.00	121.7	11.5	125.7	8.9	95.0	96.8%
9 Station 86.5 - offset -1.00	121.6	13.1	125.7	8.9	95.0	96.7%
10 Station 98.5 - Offset 0.00	121.5	10.8	125.7	8.9	95.0	96.7%

Fill Placement: Controlled Uncontrolled

Loose Lift Thickness (in.): N/A

Continued on following page . . .

CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-2

PROJECT: Reflective Cracking Outdoor Phase I, Building 296
Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-5

INSPECTED BY: Kirk Herman

DATE INSPECTED: June 28, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: Building Pad Slab Foundation Other: Test Area
 Utility Trench Sub-Grade Pavement Sub-Base Compactor Model: _____

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D15	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
11	Station 111 - Offset -2.00	121.3	9.6	125.7	8.9	95.0	96.5%
12	Station 113.5 - Offset 3.00	122.1	9.7	125.7	8.9	95.0	97.1%
13	Station 130 - Offset -3.00	121.9	8.1	125.7	8.9	95.0	97.0%
14	Station 139.5 - Offset 2.00	124.0	7.3	125.7	8.9	95.0	98.6%
15	Station 144 - Offset -3.00	120.8	6.5	125.7	8.9	95.0	96.1%
16							
17							
18							
19							
20							

Gauge Serial No.: 25540 Gauge Standard Counts: MS: 633 DS: 1693

Fill Placement: Controlled Uncontrolled Loose Lift Thickness (in.): N/A

Hours on Site: 2:00 PM - 4:15 PM

Inspection Findings
Report for Informational Purposes Only

Remarks:

Reported to:
Project Distribution

Reviewed By: Ian Craig

Field Notes of Craig Testing Nuclear Density Gage Results
ASTM D6938

TO 015 Reflective Cracking Outdoor Phase 1 P-152MR Subgrade

Performed by Craig Testing Laboratories

Final Testing results to be provided 6/28/2018

Notes compiled by Tirupan Mandal 6/28/2018

Station Range in Relation to Slab Joints	Offset	Station	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	-1.00	3.7	89.3	11.8
0+12.5 to 0+22.5	0.00	17.3	94.4	13.1
0+22.5 to 0+32.5	-0.30	25.1	96.1	13.0
0+32.5 to 0+42.5	2.50	35.0	95.4	15.5
0+42.5 to 0+52.5	-1.50	48.0	96.8	11.5
0+52.5 to 0+62.5	4.50	57.5	95.1	12.0
0+62.5 to 0+72.5	3.50	69.0	94.7	8.7
0+72.5 to 0+82.5	1.00	80.0	97.6	9.6
0+82.5 to 0+92.5	2.00	87.0	96.0	12.4
0+92.5 to 1+02.5	1.00	96.0	96.1	11.2
1+02.5 to 1+12.5	1.50	107.0	95.0	11.4
1+12.5 to 1+22.5	-2.50	114.5	98.4	8.1
1+22.5 to 1+32.5	2.50	126.0	99.9	7.8
1+32.5 to 1+42.5	1.50	136.0	96.6	13.1
1+42.5 to 1+52.5	0.50	145.5	102.4	6.1
Average:			96.3	11.0

Field Notes of Craig Testing Nuclear Density Gage Results
ASTM D6938

TO 015 Reflective Cracking Outdoor Phase 1 P-152MR Subgrade

Performed by Craig Testing Laboratories

Final Testing results to be provided 6/29/2018

Notes compiled by Tirupan Mandal 6/28/2018

Station Range in Relation to Slab Joints	Offset	Station	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	0.00	11	95.6	11.7
0+12.5 to 0+22.5	-4.00	18.5	93.0	12.7
0+22.5 to 0+32.5	1.00	32	93.6	11.4
0+32.5 to 0+42.5	-2.00	36.5	96.7	13.0
0+42.5 to 0+52.5	2.00	51.5	91.2	5.2
0+52.5 to 0+62.5	0.00	53.5	89.6	6.3
0+62.5 to 0+72.5	-2.00	67.5	95.3	11.8
0+72.5 to 0+82.5	2.00	73.5	96.8	11.5
0+82.5 to 0+92.5	-1.00	86.5	96.7	13.1
0+92.5 to 1+02.5	0.00	98.5	96.7	10.8
1+02.5 to 1+12.5	-2.00	111	96.5	9.6
1+12.5 to 1+22.5	3.00	113.5	97.1	9.7
1+22.5 to 1+32.5	-3.00	130	97.0	8.1
1+32.5 to 1+42.5	2.00	139.5	98.0	7.3
1+42.5 to 1+52.5	-3.00	144	96.1	6.5
Average:			95.3	9.9



U.S. Department
of Transportation
**Federal Aviation
Administration**

Construction Progress and Inspection Report

NAPMRC

Inspection Date
06/29/2018

Project Name
Reflective Cracking
Outdoor Phase I

<i>Contractor & # of Personnel</i> GDIT - 9	<i>Contractor & # of Personnel</i> Gemini - 3	<i>Contractor & # of Personnel</i> Rodriguez - 1	<i>Contractor & # of Personnel</i>
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Equipment On-Site

- DPSPA
- LWD and PDA connected via Bluetooth
- Leica 3D Scanner

<i>Start Time</i> – 8:20 AM	<i>Temperature</i>	<i>Humidity</i>	<i>Conditions</i>
<i>Stop Time</i> – 4:30 PM	Min – 70 F Max – 71.1 F	Min – 78 % Max – 84 %	Overcast

Site Activities
Rodriguez personal arrived onsite at 8:20 AM to perform Leica 3D scan. GDIT personnel assisted in the setup of Leica equipment. GDIT and Gemini personnel performed LWD Testing and PSPA Testing. GDIT personnel placed thermal couples at stations 10.5, 54.5, 102.5, and 144.5.

Materials Delivered
None

Materials Removed
None

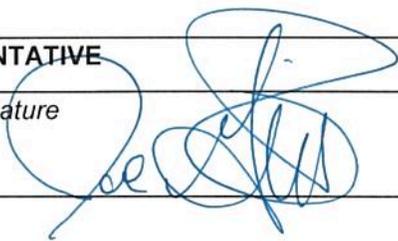
Laboratory and Field Testing Performed
PSPA testing and LWD testing performed at Sta. 0+7.5, 0+17.5, 0+27.5, 0+37.5, 0+47.5, 0+57.5, 0+97.5, 1+07.5, 1+17.5, 1+27.5, 1+37.5 and 1+47.5. Offsets were at the centerline for all tests.

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
LWD test gauge not releasing properly due to wear on device

INSPECTOR OR REPRESENTATIVE

<i>Date</i> 6/29/18	<i>Typed or Printed Name and Title</i> JOE GAWRYSIAK	<i>Signature</i> 
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