



QUALITY ASSURANCE MONTHLY SITE ASSESSMENT REPORT

Site or Project Name:

Airfield Modernization Program
Runway 5L-23R Reconstruction
Project 2 / Project 3
Project 4 / Repair TWY Lighting
Project 5 / Project 6

Applicable Permit #:

NPDES TN0081868 (Individual)
NPDES TNR134734 (General)

Contractor:

Eutaw Construction (Project 2)
The Harper Co. (Project 3 & 4)
The Harper Co. (Repair TWY Lighting)
Eutaw Construction (Project 5 & 6)

Site Assessment Dates:

10/19/20
10/29/20

Site Assessment Reviewer:

Jason R. Hunt, P.E. / Larry Davis
Jason R. Hunt, P.E. / Larry Davis

Company:

Cannon & Cannon, Inc.
Cannon & Cannon, Inc.

Site Assessment Certification:

"I certify under penalty of law that these inspection records and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated information presented. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that inspections of stormwater discharge points (outfalls) and of erosion and sediment controls have been performed as recorded in these records. I certify that erosion prevention and sediment controls in the drainage area of the identified outfall were installed as planned and designed and in working order as recorded in these records. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Primary Permittee:

Eric Williamson
Project Manager
Metropolitan Knoxville Airport Authority

Site Assessment Reviewer:

Jason R. Hunt, P.E.
Cannon & Cannon, Inc.

(See attached documents for areas noted as requiring additional erosion control measures or maintenance of installed devices)



QUALITY ASSURANCE SITE ASSESSMENT

Site Assessment Date:

10/29/2020

Start and End Time

9:30 am - 4:30 pm

Site or Project Name:

Airfield Modernization Program
Runway 5L-23R Reconstruction
Project 2 / Project 3 / Project 4
PSXE820001-Repair Taxiway Lighting
Project 5 and 6

Site Assessment Reviewer:

Jason R. Hunt, P.E.

Site Conditions:

Rain, 75

Company:

Cannon & Cannon, Inc.

Applicable Permit #:

NPDES TN0081868 (Individual)
NPDES TNR134734 (General)

Contractor:

Eutaw Construction Co. (Project 2)
The Harper Co. (Project 3)
The Harper Co. (Project 4)
The Harper Co. (TWY Lighting)
Eutaw Construction Co.(Projects 5 & 6)

Coordination:

Jim McNamara (CHA Companies)

Clark Chitwood (CCI)

Larry Davis (CCI)

Distribution:

Valerie McFall (TDEC Knoxville)
Todd Henry (CHA)
Jim McNamara (CHA)

Eric Williamson (MKAA)
Bryan White (MKAA)
Scott Crimmins (CHA)

Samantha Kleem (Harper)
Dennis Rauch (Harper)
Austin Smith (Eutaw)

Site Assessment Comments:

Site assessment was performed with the EPSC Inspector (Larry Davis-CCI). Site conditions were wet from recent and ongoing rainfall.

Current disturbed area remains at approximately 43.1 acres (based on areas that have not received application of stabilization measure - not based on actual grass establishment).

See attached Photo Log for areas requiring additional measures or modification. Reference the EPSC inspection reports for additional site requirements and coordination. The site assessment may not include all measures that are required.



**QUALITY ASSURANCE
SITE ASSESSMENT**
Review Date: 10/29/2020
Reviewer: Jason R. Hunt, P.E.

AIRFIELD MODERNIZATION PROGRAM RUNWAY 5L-23R RECONSTRUCTION

**PROJECT 2 – VOLUMES 1 AND 2
(CONTRACTOR – EUTAW CONSTRUCTION CO.)**

**PROJECT 3 – RUNWAY AND ASSOCIATED TAXIWAY PAVING
(CONTRACTOR – THE HARPER COMPANY)**

**PROJECT 4 – TAXIWAYS B4/B5/B/Y/G4/G
(CONTRACTOR – THE HARPER COMPANY)**

**TNANG – REPAIR TAXIWAY LIGHTING SYSTEM
(CONTRACTOR – THE HARPER COMPANY)**

**PROJECT 5/6 – RUNWAY 5L-23R NAVAIDS
(CONTRACTOR – EUTAW CONSTRUCTION CO.)**



Photo 1
Sta. 111+56 RT
(Line LB)
NLET 01
Project 2

North Lateral End Treatment 01 (Outfall A).
Clear flow observed.



Photo 2
Sta. 111+82 LT
(Line LB)
NLET 02
Project 2

Main outfall to Lackey Creek. This section of the site was inaccessible at time of inspection.



Photo 3
Sta. 114+00
(Line LB)
Project 2

Guard Lateral End Treatment 02.
This section of the site was inaccessible at time of inspection.



Photo 4
Sta. 117+00
(Line LB)
Project 2

Guard Lateral End Treatment 01.
Color contrast present at time of inspection.



Photo 5
Sta. 117+00
(Line LB)
Project 2

Guard Lateral Ditch (Outfall B).
Color contrast present at time of inspection.



Photo 6
Sta. 117+00 (RT)
Project 2

78" culvert in the Guard Lateral Ditch.
Color contrast present at time of inspection.



Photo 7
Sta. 287+21 LT
(RW 5L-23R)
Structure 124
Project 3

Structure 124.



Photo 8
Sta. 289+13 LT
(RW 5L-23R)
Structure 122
Project 3

Structure 122.

Bare areas are mostly covered in stone and are considered stable at the time of inspection.



Photo 9
Sta. 298+71 LT
(RW 5L-23R)
Structure 116
Project 3

Structure 116.
Recommend removing accumulated sediment and immediately stabilizing bare areas to reduce the probability of future erosion issues (see photos #10 and #111 below).



Photo 10
Sta. 298+71 LT
(RW 5L-23R)
Structure 116
Project 3

Above Structure 116.
Due to recent storm events, rills have started to form and sediment has accumulated in ditch line. Recommend removing accumulated sediment. Recommend stabilizing remaining bare areas.



Photo 11
Sta. 298+71 LT
(RW 5L-23R)
Structure 116
Project 3

Above Structure 116 on Taxiway G2.
Recommend repairing rills and stabilizing bare areas.



Photo 12
Sta. 302+54 LT
(RW 5L-23R)
Structure 114
Project 3

Structure 114.
Recommend removing inlet protection.



Photo 13
Sta. 303+36 LT
(RW 5L-23R)
Structure 12
Project 3

Structure 12.
Recommend removing sediment tubes.



Photo 14
Sta. 310+04 LT
(RW 5L-23R)
Structure 10
Project 3

Structure 10.
Bare areas above structure have been stabilized, recommend removing all sediment tubes.



Photo 15
Sta. 310+00 LT
(RW 5L-23R)
Project 3

Structure 112 and Concrete Washout Area.
Site of recently demolished concrete batch plant.
Bare areas recently stabilized.



Photo 16
Sta. 310+00 LT
(RW 5L-23R)
Project 3

Site of recently demolished concrete batch plant.
Bare areas recently stabilized. Grass establishing.



Photo 17
Sta. 314+48 LT
(RW 5L-23R)
ES Endwall 108
Project 3

Enhanced Swale Endwall 108.
Rills never repaired.
Recommend repairing long-standing rills and immediately stabilizing bare areas (see next photo).



Photo 18
Sta. 314+48 LT
(RW 5L-23R)
ES Endwall 108
Project 3

Enhanced Swale Endwall 108.
Rills never repaired.
Recommend repairing long-standing rills and immediately stabilizing bare areas.



Photo 19
Sta. 324+86 LT
(RW 5L-23R)
ES Endwall 106
Project 3

Enhanced Swale Endwall 106.



Photo 20
Sta. 324+86 to Sta. 335+73 LT
(RW 5L-23R)
ES Endwall 106
Project 3

Enhanced Swale Endwall 106.



Photo 21
Sta. 335+73 LT
(RW 5L-23R)
ES Endwall 104
Project 3

Enhanced Swale Endwall 104.



Photo 22
Sta. 335+73 LT
(RW 5L-23R)
ES Endwall 104
Project 3

Enhanced Swale Endwall 104.



Photo 23
Sta. 341+50 LT
(RW 5L-23R)
Between ES Endwall 104 and 102
Project 3

Repaired construction fallouts recently stabilized.



Photo 24
Sta. 347+31 LT
(RW 5L-23R)
ES Endwall 102
Project 3

Enhanced Swale Endwall 102
Recommend repairing long-standing rills.
Recommend coordinating with CHA on possible use of matting to help stabilization.
Recommend stabilizing all remaining bare areas.
Construction activities are per Project 6 (EUTAW).



Photo 25
Sta. 347+31 LT
(RW 5L-23R)
ES Endwall 102
Project 3

Enhanced Swale Endwall 102
Recommend repairing long-standing rills.
Recommend coordinating with CHA on possible use of matting to help stabilization.
Recommend stabilizing all remaining bare areas.
Construction activities are per Project 6 (EUTAW).



Photo 26
Sta. 354+75 LT
(RW 5L-23R)
ES Endwall 100
Project 2

Enhanced Swale Endwall 100.



Photo 27
Sta. 354+75 LT
(RW 5L-23R)
ES Endwall 100
Project 3

Enhanced Swale Endwall 100.



Photo 28
Sta. 361+39 LT
(RW 5L-23R)
Structure 100
Project 3

Structure 100.

Bare areas are mostly covered in stone and are considered stable at the time of inspection.



Photo 29
Sta. 363+35 LT
(RW 5L-23R)
Existing Structure
Project 2

Existing Structure.
Construction activities are per Project 6 (EUTAW).



Photo 30
Sta. 366+25 LT
(RW 5L-23R)
Existing Structure
Project 2

Existing Structure.
Bare areas are mostly covered in stone and are considered stable at the time of inspection.
Construction activities are per Project 6 (EUTAW)



Photo 31
Sta. 369+11 LT
(RW 5L-23R)
Existing Structure
Project 2

Existing Structure.
Recommend stabilizing long-standing bare areas.
Recommend repairing damaged sediment tubes.
Construction activities are per Project 6 (EUTAW)



Photo 32
Sta. 677+00 RT
(RW 5L-23R)
Existing Structure
Project 4

Existing structure south of Taxiway "G".
Erosion and rills continue to occur along the graded slope that was never stabilized.
Recommend repairing long-standing eroded areas, removing accumulated sediment, and
immediately stabilizing slope to reduce the probability of future erosion issues.
See photo below.



Photo 33
Sta. 677+00 RT
(RW 5L-23R)
Existing Structure
Project 4

Existing structure south of Taxiway "G" (see previous photo).
Recommend removing long-standing sediment from behind sediment tubes and on top of structure. Recommend replacing sediment tubes.



Photo 34
Sta. 677+00 RT
(RW 5L-23R)
Project 4

Structure between taxiway and UPS.
Recommend repairing long-standing rills that were never repaired. Recommend immediately stabilizing slope to reduce the probability of future erosion issues.



Photo 35
Sta. 676+00 RT
(RW 5L-23R)
Project 4

Structure adjacent to UPS.
Sediment tubes recently removed and not replaced. Area not stable.
Recommend reseeding bare areas.



Photo 36
New structure
Project 4

New structure north of Taxiway G
Sediment is accumulating on top of electrical structure.
Recommend reseeding bare areas.



Photo 37
New structure
Project 4

Bare areas recently stabilized.



Photo 38
Sta. 366+89 RT
(RW 5L-23R)
Existing Structure
Project 4

Existing Structure adjacent to Outfall C.
Recommend removing old inlet protection.



Photo 39
Sta. 366+25 RT
(RW 5L-23R)
Outfall C
Project 4

Outfall C.



Photo 40
Sta. 365+69 RT
(RW 5L-23R)
Structure 300
Project 4

Structure 300



Photo 41
(RW 5L-23R)
TWY Y Tie-in
Project 4

Existing structure north of Taxiway Y.



Photo 42
(RW 5L-23R)
TWY Y Tie-in
Project 4

Existing structure south of Taxiway Y.
Recommend removing inlet protection.



Photo 43
Sta. 362+02 LT
(RW 5L-23R)
Structure 400
Project 4

Structure 400.
Bare areas never stabilized and continue to push sediment onto existing structure.
Recommend stabilizing long-standing bare areas after removing accumulated sediment.



Photo 44
Sta. 353+56 RT
(RW 5L-23R)
Structure 20
Project 4

Structure 20.
Area appears stable.
Recommend removing inlet protection.



Photo 45
Sta. 347+26 RT
(RW 5L-23R)
Structure 22
Project 4

Structure 22.
Sediment never removed from top of structure.
Recommend removing long-standing sediment from top of structure.



Photo 46
Sta. 353+56 RT
(RW 5L-23R)
Structure 200
Project 4

Structure 200.



Photo 47
Sta. 347+26 RT
(RW 5L-23R)
Structure 202
Project 4

Structure 202.



Photo 48
Sta. 341+86 RT
(RW 5L-23R)
Structure 204
Project 4

Structure 204.



Photo 49
Sta. 338+02 RT
(RW 5L-23R)
Structure 206
Project 4

Structure 206.



Photo 50
Sta. 338+02 RT
(RW 5L-23R)
Structure 208
Project 3

Structure 208.



Photo 51
Sta. 329+86 RT
(RW 5L-23R)
Structure 210
Project 3

Structure 210.



Photo 52
Sta. 321+73 RT
(RW 5L-23R)
Structure 212
Project 3

Structure 212.
Area was never stabilized but erosion control measures were removed.
Recommend adding sediment tubes. Recommend coordinating with CHA on use of matting with seed (or sod) to help achieve stabilization.



Photo 53
Sta. 314+32 RT
(RW 5L-23R)
Structure 214
Project 3

Structure 214.



Photo 54
Sta. 307+99 RT
(RW 5L-23R)
Structure 216
Project 3

Structure 216.



Photo 55
Sta. 301+87 RT
(RW 5L-23R)
Structure 218
Project 3

Structure 218.
Rill above structure continues to erode (see photo below).



Photo 56
Sta. 301+87 RT
(RW 5L-23R)
Structure 218
Project 3

Structure 218.
Previously formed rills were never remediated.
Sediment tube recently placed in rills and area stabilized.
Recommend removing sediment tubes, repairing rills and stabilizing resulting bare areas.



Photo 57
Sta. 296+83 RT
(RW 5L-23R)
Structure 220
Project 2

Structure 220.
Recommend stabilizing remaining bare areas.



Photo 58
Sta. 288+26
(RW 5L-23R)
Structure 224
Project 2

Structure 224.
Grass established at recently stabilized areas.



Photo 59
Sta. 288+26
(RW 5L-23R)
Structure 224
Project 2

Below structure 224.
Grass established at recently stabilized areas.



Photo 60
Sta. 290+26 RT
(RW 5L-23R)
Structure 600 Ditch
Project 2

Structure 600 Ditch.
Recommend removing sediment tubes from entire 600 ditch and stabilizing bare areas.



Photo 61
Sta. 290+26 RT
(RW 5L-23R)
Structure 222
Project 2

Structure 222.
Recommend removing inlet protection.
Recommend stabilizing bare areas.



Photo 62
Sta. 290+26 RT
(RW 5L-23R)
Structure 600 Ditch
Project 2

Structure 600 ditch.
Recommend removing sediment tubes from entire 600 ditch and stabilizing bare areas.



Photo 63
Sta. 284+59
(RW 5L-23R)
Structure 600
Project 3

Structure 600.
Recommend removing inlet protection and stabilizing bare areas.



Photo 64
Sta. 284+59
(RW 5L-23R)
Project 3

Area adjacent to blast pad.
Rills have formed.
Recommend regrading area and stabilizing any resulting bare areas.



Photo 65
Sta. 37+25 RT
Proposed Haul Route
Project 3

Haul Road.
Due to recent storm events, Rills have formed.
Recommend coordinating with CHA on remediation of rills.



Photo 66
Sta. 37+25 RT
Proposed Haul Route
Project 3

Haul Road.
Lower side of haul road slopes have not been stabilized since regrading.
Due to recent storm events, Rills have formed.
Recommend coordinating with CHA on remediation of rills.
Recommend stabilizing bare areas.



Photo 67
Sta. 37+25 RT
Proposed Haul Route
Project 3

Haul Road.
Recommend removing filter fabric and sediment tubes.



Photo 68
Sta. 32+50 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.
Recommend removing filter fabric and sediment tubes.



Photo 69
Sta. 32+50 RT
Proposed Haul Route
Project 3

Haul Road.
Recommend repairing rills (including any not pictured) and stabilizing resulting bare areas. Once rills are repaired and slope stabilized, recommend removing filter fabric and sediment tubes from storm structures along Haul Road.



Photo 70
Sta. 302+54
(RW 5L-23R)
Project 3

North Lateral Fill Area
Rills continue to erode. Recommend filling rills, removing sediment and stabilizing bare areas. Recommend adding slope drain at this location.



Photo 71
Sta. 302+54
(RW 5L-23R)
Project 3

Soil stockpile area next to haul road at Taxiway B.
Bare area in front of slope drain is full of stone and was never stabilized.
Recommend stabilizing bare area. Undermined sediment tubes never repaired.
Recommend repairing or adding tubes to close gap and capture future sediment before it enters drain.



Photo 72
Sta. 302+54
(RW 5L-23R)
Project 3

Above North Lateral Endwall 100.
Sediment has accumulated.
Recommend removing sediment, replacing sediment tubes and stabilizing bare areas at the same time in order to prevent further erosion. See next photo.



Photo 73
Sta. 302+54
(RW 5L-23R)
Project 3

Above North Lateral Endwall 100.
Sediment has settled in the North lateral ditch.
Recommend removing sediment.
See previous photo.



Photo 74
Sta. 302+54
(RW 5L-23R)
Project 3

Above North Lateral Endwall 100.
Slopes recently stabilized.
Rills have formed and have dropped sediment at toe of slope.
Recommend removing sediment and repairing rills.



Photo 75
Sta. 302+54 to Sta. 313+50
(RW 5L-23R)
Project 2

North Lateral Endwall 100.
Slopes recently stabilized.



Photo 76
Sta. 300+60
(RW 5L-23R)
Project 2

North Lateral Endwall 102.



Photo 77
Sta. 29+00 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.
Sod recently installed.
Recommend stabilizing remaining bare areas as soon as practical.



Photo 78
Sta. 25+50 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.
Sod recently installed.
Recommend stabilizing remaining bare areas as soon as practical.



Photo 79
Sta. 22+00 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.
Area drain is full of stone and sediment.
Recommend removing sediment from area drain and insuring that french drain is unclogged.
Recommend removing any filter fabric as well as sediment tubes.



Photo 80
Sta. 297+01
(RW 5L-23R)
Project 2

North Lateral Endwall 104.



Photo 81
Sta. 295+10
(RW 5L-23R)
Project 2

North Lateral Endwall 106.



Photo 82
Sta. 292+08
(RW 5L-23R)
Project 2

North Lateral Endwall 108.



Photo 83
Sta. 290+50 LT
(RW 5L-23R)
Project 2

North Lateral Endwall 110.



Photo 84
Sta. 15+50 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.
Recommend removing sediment from area drain.
Recommend removing any filter fabric as well as sediment tubes.



Photo 85
Sta. 15+50 RT
Proposed Haul Route
Project 3

Recommend stabilizing bare areas along haul route as soon as practical.



Photo 86
Sta. 284+00 LT
(RW 5L-23R)
Project 2

Existing vault at old Liberty street.
Construction fallout present. Recommend coordinating with CHA on remediation.



Photo 87
(Repair TWY Lighting)
Existing Structure

Existing structure south of Taxiway G.



Photo 88
(Repair TWY Lighting)
Existing Structure

Existing structure south of Taxiway G.



Photo 89
(Repair TWY Lighting)
Existing Structure

Taxiway G
Bare areas recently stabilized.



Photo 90
(Repair TWY Lighting)
Existing Structure

Existing structure north of Taxiway G.
Bare areas recently stabilized.
Recent storm events have moved the seed downstream.
Recommend restabilizing resulting bare areas.



Photo 91
(Repair TWY Lighting)

Shoulder of Taxiway G (Looking back towards cargo apron)
Bare areas recently stabilized.
Recent storm events have moved the seed downstream.
Recommend restabilizing resulting bare areas.



Photo 92
(Project 5/6)

Fill area adjacent to Liberty Street.



Photo 93
(Project 5/6)

Above main outfall to Lackey Creek.
This section of the site was inaccessible at time of inspection.
Slopes were recently stabilized.



Photo 94
(Project 5/6)

Above main outfall to Lackey Creek.
This section of the site was inaccessible at time of inspection.
Slopes were recently stabilized.



Photo 95
(Project 5/6)

Area adjacent to haul road.
Signage recently added. Concrete washout facility is at capacity.
Recommend dewatering washout with approved methods or adding second facility.



Photo 96
(Project 5/6)

Proposed MALSR access road.
After the last rain event, small rills have started to form on portions of graded side slope.
Side slopes have remained un-stabilized past the allowable 14 days as per the permit.
Recommend stabilizing side slopes outside of active roadway construction area.



Photo 97
(Project 5/6)

Proposed MALSR access road.
Side slopes have remained un-stabilized past the allowable 14 days as per the permit.
Recommend stabilizing side slopes outside of active roadway construction area.



Photo 98
(Project 5/6)

Proposed MALSR access road.
New storm structure recently installed.
Once area is to finished grade and structure will receive runoff, recommend installing inlet protection per the plans.



Photo 99
(Project 5/6)

Proposed MALSR access road.
Sediment shown in pipe from previous report has exited the endwall and entered the Guard Lateral ditch. Recommend removing sediment.



Photo 100
(Project 5/6)

Proposed MALSR access road.
During recent storm events, Sediment has started to accumulate above the guard lateral ditch. Recommend monitoring for any further sediment movement and adding sediment tubes as needed.



Photo 101
(Project 5/6)

Existing structure #120 adjacent to proposed MALSR access road.
Once area is to grade and structure receives run-off, recommend adding inlet protection per the plans. Recommend monitoring back side of structure that is already at grade for sediment migration.



Photo 102
(Project 5/6)

Above existing structure #120.
Sediment is entering new structure.
Recommend adding temporary sediment tubes.
Once area is to grade, recommend adding inlet protection per the plans.



Photo 103
(Project 5/6)

Existing structure #118 adjacent to proposed MALSR access road.



Photo 104
(Project 5/6)

Proposed MALSR access road.



Photo 105
(Project 5/6)

Structure 116.
Recommend stabilizing all bare areas above structure from duct bank installation.



Photo 106
(Project 5/6)

Recommend stabilizing all bare areas from duct bank installation.



Photo 107
(Project 5/6)

23R Midpoint RVR
Side slopes appear to be at grade.
Recommend adding sediment tubes per the plans.
Recommend stabilizing bare areas.



Photo 108
(Project 5/6)

23R Glide Slope and Touchdown RVR
Recommend repairing/replacing damaged sediment tubes.



Photo 109
(Project 5/6)

Inlet protection in place near TWY A.



Photo 110
(Project 5/6)

23R PAPI
Area recently backfilled.
Recommend removing remaining spoil piles and stabilizing bare areas.



Photo 111
(Project 5/6)

5L Localizer
Construction activities underway.



Photo 112
(Project 5/6)

5L Localizer



Photo 113
(Project 5/6)

Airfield Lighting Vault
Storm events continue to cause rills and erosion issues while depositing sediment in the North Lateral Ditch. Recommend on site coordination with CCI and CHA on possible shaping of area to direct runoff into existing structure. See next photo.



Photo 114
(Project 5/6)

Airfield Lighting Vault
Rills have formed on side slope.
See previous photo.



Photo 115
(Project 5/6)

Existing structure.



Photo 116
(Project 5/6)

Airfield Lighting Vault
Structure and inlet protection recently installed.
See next photo.



Photo 117
(Project 5/6)

Airfield Lighting Vault
Ditch line above structure from previous photo.
Swale appears to be close to being at grade.
Recommend installing erosion control measures in ditch line per the plans.



Photo 118
(Project 5/6)

Airfield Lighting Vault
Recommend installing inlet protection and sediment tube check dams in ditch line per the plans
(sheet EC102)



Photo 119
(Project 5/6)

Airfield Lighting Vault
Concrete washout facility.
Recommend adding signage per detail #6 on sheet EC201.



Photo 120
(Project 5/6)

Airfield Lighting Vault
Headwall recently installed at North Lateral Ditch.



Photo 121
(Project 5/6)

Outlet side of 54" haul route crossing culvert.



QUALITY ASSURANCE SITE ASSESSMENT

Site Assessment Date:

09/14/2020

Start and End Time

10:00 am - 2:30 pm

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Runway 5L-23R Reconstruction
Project 2 / Project 3 / Project 4
PSXE820001-Repair Taxiway Lighting
Project 5 and 6

Site Assessment Reviewer:

Jason R. Hunt, P.E.

Site Conditions:

Cloudy, 84

Company:

Cannon & Cannon, Inc.

Applicable Permit #:

NPDES TN0081868 (Individual)
NPDES TNR134734 (General)

Contractor:

Eutaw Construction Co. (Project 2)
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Samantha Kleem (Harper)
Dennis Rauch (Harper)
Austin Smith (Eutaw)

Site Assessment Comments:

Site assessment was performed with the EPSC Inspector (Larry Davis-CCI). Site conditions mostly dry.

Current disturbed area remains at approximately 43.1 acres (based on areas that have not received application of stabilization measure - not based on actual grass establishment).

See attached Photo Log for areas requiring additional measures or modification. Reference the EPSC inspection reports for additional site requirements and coordination. The site assessment may not include all measures that are required.



**QUALITY ASSURANCE
SITE ASSESSMENT**
Review Date: 09/14/2020
Reviewer: Jason R. Hunt, P.E.

AIRFIELD MODERNIZATION PROGRAM RUNWAY 5L-23R RECONSTRUCTION

**PROJECT 2 – VOLUMES 1 AND 2
(CONTRACTOR – EUTAW CONSTRUCTION CO.)**

**PROJECT 3 – RUNWAY AND ASSOCIATED TAXIWAY PAVING
(CONTRACTOR – THE HARPER COMPANY)**

**PROJECT 4 – TAXIWAYS B4/B5/B/Y/G4/G
(CONTRACTOR – THE HARPER COMPANY)**

**TNANG – REPAIR TAXIWAY LIGHTING SYSTEM
(CONTRACTOR – THE HARPER COMPANY)**

**PROJECT 5/6 – RUNWAY 5L-23R NAVAIDS
(CONTRACTOR – EUTAW CONSTRUCTION CO.)**



Photo 1
Sta. 111+56 RT
(Line LB)
NLET 01
Project 2

North Lateral End Treatment 01 (Outfall A).
No flow observed.



Photo 2
Sta. 111+56 RT
(Line LB)
NLET 01
Project 2

North Lateral End Treatment 01 (Outfall A).
No flow observed.



Photo 3
Sta. 111+82 LT
(Line LB)
NLET 02
Project 2

Main outfall to Lackey Creek. This section of the site was inaccessible at time of inspection.



Photo 4
Sta. 114+00
(Line LB)
Project 2

Guard Lateral End Treatment 02.
This section of the site was inaccessible at time of inspection.



Photo 5
Sta. 117+00
(Line LB)
Project 2

Above the Guard Lateral Ditch (Outfall B).
Construction fall out present. Recommend coordinating remediation with CHA.



Photo 6
Sta. 117+00
(Line LB)
Project 2

Guard Lateral Ditch (Outfall B).



Photo 7
Sta. 117+00 (RT)
Project 2

78" culvert in the Guard Lateral Ditch.



Photo 8
Sta. 287+21 LT
(RW 5L-23R)
Structure 124
Project 3

Structure 124.



Photo 9
Sta. 289+13 LT
(RW 5L-23R)
Structure 122
Project 3

Structure 122.
Recommend stabilizing remaining bare areas.



Photo 10
Sta. 298+71 LT
(RW 5L-23R)
Structure 116
Project 3

Structure 116.
Recommend stabilizing bare areas and repairing rills (see photos #11 and #12 below).



Photo 11
Sta. 298+71 LT
(RW 5L-23R)
Structure 116
Project 3

Above Structure 116.
Due to recent storm events, rills have started to form and sediment has accumulated in ditch line.
Recommend removing accumulated sediment. Recommend stabilizing remaining bare areas.



Photo 12
Sta. 298+71 LT
(RW 5L-23R)
Structure 116
Project 3

Above Structure 116 on Taxiway G2.
Recommend repairing rills and stabilizing bare areas.



Photo 13
Sta. 302+54 LT
(RW 5L-23R)
Structure 114
Project 3

Structure 114.
Recommend stabilizing remaining bare areas.



Photo 14
Sta. 303+36 LT
(RW 5L-23R)
Structure 12
Project 3

Structure 12.
Once bare areas above structure have been stabilized, recommend removing all sediment tubes.
See previous photo.



Photo 15
Sta. 310+04 LT
(RW 5L-23R)
Structure 10
Project 3

Structure 10.
Once bare areas above structure have been stabilized, recommend removing all sediment tubes.



Photo 16
Sta. 310+00 LT
(RW 5L-23R)
Project 3

Structure 112 and Concrete Washout Area.
Batch plant stone area being removed.



Photo 17
Sta. 310+00 LT
(RW 5L-23R)
Project 3

Batch plant stone area being removed. Recommend stabilizing bare areas as soon as possible.



Photo 18
Sta. 314+48 LT
(RW 5L-23R)
ES Endwall 108
Project 3

Enhanced Swale Endwall 108.
Recommend repairing rills above endwall (see next photo).



Photo 19
Sta. 314+48 LT
(RW 5L-23R)
ES Endwall 108
Project 3

Enhanced Swale Endwall 108.
Recommend repairing rills above endwall.



Photo 20
Sta. 324+86 LT
(RW 5L-23R)
ES Endwall 106
Project 3

Enhanced Swale Endwall 106.



Photo 21
Sta. 324+86 to Sta. 335+73 LT
(RW 5L-23R)
ES Endwall 106
Project 3

Enhanced Swale Endwall 106.



Photo 22
Sta. 335+73 LT
(RW 5L-23R)
ES Endwall 104
Project 3

Enhanced Swale Endwall 104.



Photo 23
Sta. 335+73 LT
(RW 5L-23R)
ES Endwall 104
Project 3

Enhanced Swale Endwall 104.



Photo 24
Sta. 341+50 LT
(RW 5L-23R)
Between ES Endwall 104 and 102
Project 3

First potential construction fallout on Storm Line 1 between ES Endwall 104 and 102.



Photo 25
Sta. 341+50 LT
(RW 5L-23R)
Between ES Endwall 104 and 102
Project 3

Second construction fallout on Storm Line 1 between ES Endwall 104 and 102.
Coordinate remediation with CHA.



Photo 26
Sta. 341+50 LT
(RW 5L-23R)
Between ES Endwall 104 and 102
Project 3

Third construction fallout on Storm Line 1 between ES Endwall 104 and 102.
Coordinate remediation with CHA.



Photo 27
Sta. 341+50 LT
(RW 5L-23R)
Between ES Endwall 104 and 102
Project 3

Fourth construction fallout on Storm Line 1 between ES Endwall 104 and 102.
Coordinate remediation with CHA.



Photo 28
Sta. 341+50 LT
(RW 5L-23R)
Between ES Endwall 104 and 102
Project 3

McGhee Tyson Airport

Airfield Modernization Program Runway 5L-23R Reconstruction

Individual Permit TN0081868

Site Photographs – Cannon & Cannon, Inc.



Photo 29
Sta. 341+50 LT
(RW 5L-23R)
Between ES Endwall 104 and 102
Project 3

Sixth construction fallout on Storm Line 1 between ES Endwall 104 and 102.
Coordinate remediation with CHA.



Photo 30
Sta. 341+50 LT
(RW 5L-23R)
Between ES Endwall 104 and 102
Project 3

Seventh construction fallout on Storm Line 1 between ES Endwall 104 and 102.
Coordinate remediation with CHA.



Photo 31
Sta. 341+50 LT
(RW 5L-23R)
Between ES Endwall 104 and 102
Project 3

Eighth construction fallout on Storm Line 1 between ES Endwall 104 and 102.
Coordinate remediation with CHA.



Photo 32
Sta. 347+31 LT
(RW 5L-23R)
ES Endwall 102
Project 3

Enhanced Swale Endwall 102.
Rills have started to form.
Recommend repairing rills and stabilizing all remaining bare areas.



Photo 33
Sta. 347+31 LT
(RW 5L-23R)
ES Endwall 102
Project 3

Enhanced Swale Endwall 102.
Rills have started to form.
Recommend repairing rills and stabilizing all remaining bare areas.



Photo 34
Sta. 341+50 LT
(RW 5L-23R)
ES Endwall 102
Project 3

Eighth construction fallout on Storm Line 1 between ES Endwall 102 and 100.
Fallout being remediated at time of inspection.



Photo 35
Sta. 354+75 LT
(RW 5L-23R)
ES Endwall 100
Project 2

Enhanced Swale Endwall 100.



Photo 36
Sta. 354+75 LT
(RW 5L-23R)
ES Endwall 100
Project 3

Enhanced Swale Endwall 100.



Photo 37
Sta. 361+39 LT
(RW 5L-23R)
Structure 100
Project 3

Structure 100.
Recommend stabilizing remaining bare areas.



Photo 38
Sta. 363+35 LT
(RW 5L-23R)
Existing Structure
Project 2

Existing Structure.



Photo 39
Sta. 366+25 LT
(RW 5L-23R)
Existing Structure
Project 2

Existing Structure.
Recommend stabilizing bare areas.



Photo 40
Sta. 369+11 LT
(RW 5L-23R)
Existing Structure
Project 2

Existing Structure.
Recommend stabilizing bare areas.



Photo 41
Sta. 677+00 RT
(RW 5L-23R)
Existing Structure
Project 4

Structure south of Taxiway "G".
Erosion and rills continue to occur along the graded slope.
Recommend repairing eroded areas, removing accumulated sediment, and immediately stabilizing slope to reduce the probability of future erosion issues.
See photo below.



Photo 42
Sta. 677+00 RT
(RW 5L-23R)
Existing Structure
Project 4

Existing structure south of Taxiway "G" (see previous photo).
Recommend removing from behind sediment tubes and on top of structure.
Recommend replacing sediment tubes.



Photo 43
Sta. 677+00 RT
(RW 5L-23R)
Project 4

Structure between taxiway and UPS.
Recommend repairing rills as needed and stabilizing remaining bare areas.



Photo 44
Sta. 676+00 RT
(RW 5L-23R)
Project 4

Storm structure adjacent to UPS.
Recommend removing sediment and repairing sediment tubes.



Photo 45
New structure
Project 4

New storm structure located north of Taxiway G.
Area recently regraded to capture runoff from the helipad apron. Sod recently installed.
Recommend stabilizing remaining bare areas.



Photo 46
New structure
Project 4

New storm structure located north of Taxiway G.
Area recently regraded to capture runoff from the helipad apron. Sod recently installed.
Recommend stabilizing remaining bare areas.



Photo 47
Sta. 366+89 RT
(RW 5L-23R)
Existing Structure
Project 4

Existing Structure adjacent to Outfall C.



Photo 48
(RW 5L-23R)
TWY Y Tie-in
Project 4

Existing structure north of Taxiway Y.



Photo 49
(RW 5L-23R)
TWY Y Tie-in
Project 4

Existing structure south of Taxiway Y.
Recommend removing inlet protection.



Photo 50
Sta. 362+02 LT
(RW 5L-23R)
Structure 400
Project 4

Structure 400.
Recommend removing accumulated sediment, regrading area as needed, and immediately stabilizing remaining bare areas to reduce the probability of future erosion issues.



Photo 51
Sta. 362+02 LT
(RW 5L-23R)
Structure 400
Project 4

Structure 400.
Recommend removing accumulated sediment, regrading area as needed, and immediately stabilizing remaining bare areas to reduce the probability of future erosion issues.



Photo 52
Sta. 353+56 RT
(RW 5L-23R)
Structure 20
Project 4

Structure 20.
Area appears stable.
Recommend removing inlet protection.



Photo 53
Sta. 347+26 RT
(RW 5L-23R)
Structure 22
Project 4

Structure 22.
Recommend removing sediment from top of structure.
Recommend adding sediment tubes.
Recommend stabilizing bare areas.



Photo 54
Sta. 353+56 RT
(RW 5L-23R)
Structure 200
Project 4

Structure 200.
Recommend removing inlet protection and stabilizing bare areas.



Photo 55
Sta. 347+26 RT
(RW 5L-23R)
Structure 202
Project 4

Structure 202.
Sod recently installed.
Recommend stabilizing remaining bare areas and then removing inlet protection.



Photo 56
Sta. 341+86 RT
(RW 5L-23R)
Structure 204
Project 4

Structure 204.



Photo 57
Sta. 341+86 RT
(RW 5L-23R)
Project 4

Potential construction fallout on Storm Line 2 between structures 204 and 206 just downgradient of an underdrain outlet.
Recommend coordinating remediation with CHA.



Photo 58
Sta. 341+86 RT
(RW 5L-23R)
Project 4

Construction fallout on Storm Line 2 between structures 204 and 206.
Remediation taking place at time of inspection.



Photo 59
Sta. 338+02 RT
(RW 5L-23R)
Structure 206
Project 4

Structure 206.
Recommend removing inlet protection.



Photo 60
Sta. 338+02 RT
(RW 5L-23R)
Structure 208
Project 4

Structure 208.



Photo 61
Sta. 329+86 RT
(RW 5L-23R)
Structure 210
Project 3

Structure 210.



Photo 62
Sta. 321+73 RT
(RW 5L-23R)
Structure 212
Project 3

Structure 212.
Recommend repairing eroded ditch line
Recommend removing sediment. Recommend replacing all sediment tubes.
Recommend stabilizing remaining bare areas.



Photo 63
Sta. 314+32 RT
(RW 5L-23R)
Structure 214
Project 3

Structure 214.



Photo 64
Sta. 307+99 RT
(RW 5L-23R)
Structure 216
Project 3

Structure 216.



Photo 65
Sta. 301+87 RT
(RW 5L-23R)
Structure 218
Project 3

Structure 218.
Rill above structure continues to erode (see photo below).



Photo 66
Sta. 301+87 RT
(RW 5L-23R)
Structure 218
Project 3

Structure 218.
Recommend stabilizing bare areas and repairing rill above structure.



Photo 67
Sta. 296+83 RT
(RW 5L-23R)
Structure 220
Project 2

Structure 220.
Recommend stabilizing remaining bare areas.



Photo 68
Sta. 288+26
(RW 5L-23R)
Structure 224
Project 2

Structure 224.



Photo 69
Sta. 288+26
(RW 5L-23R)
Structure 224
Project 2

Below structure 224.
Side slope has eroded causing damage to the articulated concrete block.
CHA, Harper and KMAA were already aware of the issue as discussed in a progress meeting dated 07/16/2020.



Photo 70
Sta. 290+26 RT
(RW 5L-23R)
Structure 600 Ditch
Project 2

Structure 600 Ditch.
Recommend removing sediment tubes from entire 600 ditch and stabilizing bare areas.



Photo 71
Sta. 290+26 RT
(RW 5L-23R)
Structure 222
Project 2

Structure 222.
Recommend removing inlet protection.
Recommend stabilizing bare areas.



Photo 72
Sta. 290+26 RT
(RW 5L-23R)
Structure 600 Ditch
Project 2

Structure 600 ditch.
Recommend removing sediment tubes from entire 600 ditch and stabilizing bare areas.



Photo 73
Sta. 284+59
(RW 5L-23R)
Structure 600
Project 3

Structure 600.
Recommend removing inlet protection and stabilizing bare areas.



Photo 74
(RW 5L-23R)
Project 3

Existing structure adjacent to crushing operations.
Rills have started to form adjacent to existing structure.



Photo 75
(RW 5L-23R)
Project 3

Existing structure.
Grading operations appear to be complete.
Recommend stabilizing remaining bare areas of entire pad.



Photo 76
(RW 5L-23R)
Project 3

Silt fence above North Lateral Ditch at stone stockpile area.
Silt fence continues to erode during storm events.
Recommend repairing undermined silt fence and adding sediment tube "J" hooks.



Photo 77
Sta. 39+00 CL
Proposed Haul Route
Project 3

Inlet side of 54" haul route crossing culvert.



Photo 78
Sta. 39+00 CL
Proposed Haul Route
Project 3

Outlet side of 54" haul route crossing culvert.



Photo 79
Sta. 37+25 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.



Photo 80
Sta. 37+25 RT
Proposed Haul Route
Project 3

New storm structure installed along haul road.



Photo 81
Sta. 32+50 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.
Sod recently installed.
Recommend stabilizing remaining bare areas as soon as practical.



Photo 82
Sta. 32+50 RT
Proposed Haul Route
Project 3

Haul Route recently paved.
Sod recently installed.
Recommend stabilizing remaining bare areas as soon as practical.



Photo 83
Sta. 302+54
(RW 5L-23R)
Project 2

North Lateral Fill Area
Area was recently regraded. Rills have reformed.
Recommend filling rills, removing sediment and stabilizing bare areas.
Recommend adding slope drain.



Photo 84
Sta. 302+54
(RW 5L-23R)
Project 2

Above North Lateral Endwall 100.
Recommend stabilizing bare areas.



Photo 85
Sta. 302+54
(RW 5L-23R)
Project 2

Above North Lateral Endwall 100.
Rills have formed and have dropped sediment at toe of slope.
Recommend removing sediment and repairing rills.
At the same time, in order to reduce chances of further erosion issues, recommend stabling all bare areas.



Photo 86
Sta. 302+54
(RW 5L-23R)
Project 2

Soil stockpile area next to haul road at Taxiway B.
Sediment tubes at slope drain have been undermined. Recommend repairing or adding tubes to prevent runoff under the sediment tubes.
Recommend stabilizing all bare areas.



Photo 87
Sta. 302+54 to Sta. 313+50
(RW 5L-23R)
Project 2

North Lateral Endwall 100.
Recommend stabilizing bare areas.



Photo 88
Sta. 300+60
(RW 5L-23R)
Project 2

North Lateral Endwall 102.



Photo 89
Sta. 29+00 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.
Sod recently installed.
Recommend stabilizing remaining bare areas as soon as practical.



Photo 90
Sta. 25+50 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.
Sod recently installed.
Recommend stabilizing remaining bare areas as soon as practical.



Photo 91
Sta. 297+01
(RW 5L-23R)
Project 2

North Lateral Endwall 104.



Photo 92
Sta. 295+10
(RW 5L-23R)
Project 2

North Lateral Endwall 106.



Photo 93
Sta. 22+00 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.
Sod recently installed.
Recommend stabilizing remaining bare areas as soon as practical.



Photo 94
Sta. 292+08
(RW 5L-23R)
Project 2

North Lateral Endwall 108.



Photo 95
Sta. 290+50 LT
(RW 5L-23R)
Project 2

North Lateral Endwall 110.



Photo 96
Sta. 15+50 RT
Proposed Haul Route
Project 3

Inlet structure along haul road.
Sod recently installed.
Recommend stabilizing remaining bare areas as soon as practical.



Photo 97
Sta. 15+50 RT
Proposed Haul Route
Project 3

Recommend stabilizing bare areas along haul route as soon as practical.



Photo 98
Sta. 284+00 LT
(RW 5L-23R)
Project 2

Existing vault at old Liberty street.
Construction fallout present. Recommend coordinating with CHA on remediation.



Photo 99
(Repair TWY Lighting)

Fill area adjacent to Liberty Street.
Sediment has migrated and come to rest on silt fence.
Recommend removing accumulated sediment.



Photo 100
(Repair TWY Lighting)

Fill area adjacent to Liberty Street.
Grading operations have moved towards ditch line.
Recommend monitoring for sediment movement.



Photo 101
(Repair TWY Lighting)
Existing Structure

Existing structure south of Taxiway G
Recommend stabilizing bare areas.



Photo 102
(Repair TWY Lighting)
Existing Structure

Existing structure south of Taxiway G.
Recommend stabilizing bare areas.



Photo 103
(Repair TWY Lighting)
Existing Structure

Existing structure north of Taxiway G.
Recommend stabilizing bare areas.



Photo 104
(Repair TWY Lighting)

Sod establishing along Taxiway G.
Recommend stabilizing remaining bare areas.



Photo 105
(Repair TWY Lighting)

Existing structure adjacent to old Taxiway G4.
Inlet protection recently removed.
Recommend stabilizing bare areas.



Photo 106
(Repair TWY Lighting)

Demolished old Taxiway G4 and shoulder.
Recommend stabilizing bare areas.



Photo 107
(Project 5/6)

Area adjacent to haul road.
Concrete washout area recently installed.
Recommend adding signage per the permit.



Photo 108
(Project 5/6)

Proposed access road
Fill material recently installed. Contractor to install sediment tubes as needed.



Photo 109
(Project 5/6)

Proposed access road
commend reinstalling sediment tubes at toe of slope per plans before rainfall events, at the end
of the day, or if grading is complete.



Photo 110
(Project 5/6)

Proposed access road.
Storm pipe recently installed.
Inlet protection recently installed.



Photo 111
(Project 5/6)

Existing structure #120.
Side of structure recently opened up to receive proposed pipe. Recommend adding sediment tubes (while waiting to close up structure) so that structure does not receive sediment during rain events. Also recommend adding sediment tubes above inlet of structure.
See next photo for upstream end of pipe.



Photo 112
(Project 5/6)

Storm pipe above existing structure #120.
Recommend adding inlet protection to prevent sediment from entering storm system.



Photo 113
(Project 5/6)

Existing structure #118.
Inlet protection recently installed.



Photo 114
(Project 5/6)

Duct bank recently installed.
Recommend removing spoil piles or adding sediment tubes on downhill side of spoil piles and stabilizing spoil piles.
Recommend stabilizing all bare areas.



Photo 115
(Project 5/6)

Duct bank being installed at time of inspection.
Once installation is complete, recommend removing any spoil piles or adding sediment tubes on downhill side of spoil piles and stabilizing spoil piles.
Once installation is complete, recommend stabilizing all bare areas.
Some existing bare areas are per Project 4 construction activities (Harper).



Photo 116
(Project 5/6)

Proposed access road.



Photo 117
(Project 5/6)

Construction activities taking place at time of inspection.
Inlet protection recently installed.



Photo 118
(Project 5/6)

Inlet protection recently installed.
Construction activities are per Project 4 (Harper).



Photo 119
(Project 5/6)

Inlet protection recently installed.
Sediment tubes repaired.



Photo 120
(Project 5/6)

Sediment tubes recently installed.



Photo 121
(Project 5/6)

ILS area under construction.



Photo 122
(Project 5/6)

Silt fence recently installed for Project 5/6.