North Carolina Department of Transportation
Roadside Environmental Unit
Erosion & Sedimentation / Stormwater Report

ICA

Immediate Corrective Action

This project does not comply with the North Carolina Erosion and Sedimentation Control laws. Immediate Corrective Action is needed to resolve the situation to full compliance with the Law: (T15A: 04B.0000).

Project Information

Inspection Date:	12/13/2023	**Evaluator:**	Reid Whitehead		
Project #:	36030.3.GV4	**TIP #:**	I-4700	**Contract #:**	C204266
Division #:	13	**County:**	Buncombe		
Project Type:	Contract	**Engineer:**	Buncombe I-4700 I-26 Widening		
Project Length:	7.49	**Disturbed Acres:**	10		
River Basin:	French Broad	**HQW Zone:**	NO	**Trout Zone:**	NO
Location Description:	I-26 from NC-280 (Exit 40) to I-40				

Project Evaluation

Report Type: ☐ Routine ☑ **ICA** ☐ ICA Ex 1st ☐ ICA Ex 2nd ☐ CICA - SWO ☐ PCN ☐ ECPAR

Length	Section	Installation of BMPs	Maintenance of BMPs	Effectiveness of BMPs	Plan Implementation	Overall Project Evaluation
0.5	Permitted Area(s)	8	8	8	8	8
6.0	Remainder of Project	8	8	8	8	8
0.1	Urgent Action Items	7	6	6	8	6

Grading Scale: 0 - 6 = Immediate Corrective Action Required, 7 = Fair, 8 = Good, 9 = Very Good, 10 = Excellent

Remarks and Recommendations:

Inspection was started and completed on Wednesday 12/13/2023. Inspection was done with Rick Cunningham - Erosion Inspector and partially with Miguel Granados-FluorUnited.
I spoke with Luke Middleton-Resident Engineer and Justin James Asst. Resident Engineer by phone during the inspection.

Grading is underway.

Please continue NPDES inspections.

General Note - When EC measures need to be removed for grading recommend planning what EC measures are going to be reinstalled with the operation inspector and the timeline for reinstallation before removal.

General Note - When major EC measures such as basins need to be impacted by grading recommend consulting the project EC inspector and the Assistant Resident before impacting so that I can be consulted before the impact.

General Note - Basins (storage) should remain installed until permanent cover is growing. The dimensions may need to change. The size might be able to change. Complete elimination is not what is intended in the EC plan if the basin is on the final EC plan.

General Note - Please make sure to install the PAM measures shown in the EC plan

General note EC Measure Clean Out - When maintaining EC measures recommend not placing the cleaned out material near the EC measures where it can wash back in. Recommend instead removing to an approved WA or protected stockpile.

General Note - When active grading is underway and an area on the project is transitioning from the C&G EC plan to the Final EC plan recommend checking the Final EC plan for EC measures and installing a similar number of measures as temporary EC measures even though these measures may need to be installed at the end of one day and removed the next day to continue grading.

Wednesday 12-13-2023

An ICA is being issued for the Urgent Items in this inspection.
Recommend suspension of work on the project except for off-site sediment cleanup and repair/maintenance of erosion and sediment control items until all Urgent Items have been addressed.
These areas will be reviewed again in 5 working days. If it repairs are made sooner reinspection can occur earlier than 5 working days.

Urgent Action Item(s):

The project received 3 inches of rain over the weekend.

Approximately L-station 1052+00 to 1053+50 Lt.
I was notified of a loss of sediment from project beyond the right of way on Monday afternoon 12-12-2023. I am not sure of the exact amount of loss but judging by what the have been able to remove so far It is close to 45 cubic yards of material.
Part of the loss was into wetlands.
Run-off from the paved area between the Blue Ridge Parkway and the Biltmore Access Rd. gained too much speed on the grade.
The installed diversions above the endbent failed during the rain event and part of the embankment at the new Endbent was washed out.
Skimmer Basin 20.3B located just below the endbent embankment on the right side of Biltmore Access Rd. had just been cleaned out last week and the diversion to the basin had been reinstalled.
The diversion washed out during the rain event and the run-off did not go into the basin it flowed down Biltmore Access Rd. and beyond the right of way onto Biltmore Access Rd. and into the wetlands on either side of Biltmore Access Rd.
Run-off and sediment eventually over-whelmed the silt fence on the left side of Biltmore Access Rd. opposite the basin and knocked it down. This is one of the areas where sediment was lost into the wetland.
There is an existing private crosspipe under Biltmore Access Rd. beyond the right-of-way. When sediment ran down the road it went through this pipe and into the wetlands on the left side of Biltmore Access Rd.
There is a special sediment control fence outlet in the silt fence on the left side of the access rd. between the area where the silt fence failed and the existing crosspipe. This measure failed during the rain event and this is another area where sediment was lost into the wetlands.
Run-off flowed down the Bitlmore Access until there was a lowpoint on the right side of the road and sediment was lost into this wetland.
The Contractor has been working on cleanup since Monday but has not made sufficient progress in cleanup and repair.
Recommend adding sufficient forces to cleanup the remaining areas quickly and to maintain/reinstall EC measures.
About one third of the impacted wetlands have been cleaned up. Recommend removing additional material in these areas. I do not believe sufficient material has been removed.
Recommend cleanup of the remaining impacted wetlands and reseeding with Wetland seedmix and mulching.
The Biltmore Access Rd. is still full of sedment. Recommend cleanup of the material in the road and addition of gravel to the road.
Recommend reestablishing the diversion to Skimmer Basin 20.3B. This diversion failed during the rain event over the weekend. Recommend making it much more robust.
Recommend repair of the silt fence opposite the basin that was overwhelmed during the rain event.

Recommend repair of the special sediment control fence outlet in the silt fence along the access road that failed during the rain event.
Recommend maintenance of the checks in the ditch below the skimmer basin outlet.
Since run-off from the pavement between the Blue Ridge Parkway and the endbent overwhemed the diversions above the endbent work area, recommend installing and keeping installed long sandbag checks/diversions installed on the paved areas to slow run-off.
Recommend removing the the sandbag checks/diversions to work and reinstalling. Recommend checking to make sure these are installed before every forecast rainevent.
Recommend reinstallation of the diversions above the endbent work area.
Recommend reinstalling a slope drain down the slope from the median to Biltmore Access Rd. approximately L-station 1052+00 Med.

Approximately L-station 1167+00 to 1168+50 Rt.
I was notified of a loss of sediment from project beyond the right of way into the JS paralleling the project on Monday afternoon 12-12-2023. Project staff estimated the loss to be 4 cubic yards of material.
The berm at the top of the fillslope at approximately station 1168+50 Rt. failed sometime during the rain event.
There was a slope drain installed. The failure in the berm happened up station from the slope drain.
This is an area with two rows of silt fence.
Run-off from the berm failure flowed down the first row of silt fence until it went under the silt fence.
The run-off then flowed down the second row of silt fence until it went through the silt fence/special sediment control fence outlet.
The contractor has cleaned up the material in the JS.
There is still material on the bank of the JS in the flowpath from the silt fence to the JS.
Recommend cleanup of this material and stabilization of the area.
The upper silt fence has been maintained. Recommend adding more outlets in this silt fence.
The lower silt fence closer to the JS has not been maintained yet. Some of the silt fence that is down was knocked down by foot traffic from cleanup efforts.
There are still a couple of rill washes in the slope between the upper and lower silt fence.
Recommend repair of these washes.
Recommend maintenance/repair of the silt fence and the silt fence outlet.
The contractor has put holes in the side of the box on the on the roadway side of the berm and installed a Type C Inlet Protection with a stone diversion to the drop inlet.
Recommend adding a couple of slope drains to the berm in-addition to this measure.
Recommend stabilizing the berm and fillslope.

Approximately L-station 888+75 Lt. a small amount of sediment has gotten into the JS. Recommend removal.
There are special sediment control fence checks at the outlets of the ditches on either side of the JS. These measures get flooded during larger rain events. Recommend maintenance/removal of the Special Sediment Control Fence Outlets at JS. If removal is done recommend restabilizing the streambanks above water with stone.
There is sediment on the silt fence on the roadway side of the rip rap ditchline just above the outlet of the rip rap ditchline that empties into the JS from the South.
Recommend removal of this sediment and removal of the silt fence and special sediment control fence outlet in the silt fence above the rip rap ditch and replacing this perimeter section with a long Temporary Rock Silt Check, Type A outlet in the silt fence.

Approximately L-station 919+00 Lt. There is a wash under the special sediment control fence outlet above the pipe outlet. Recommend repair of wash and removal of the Special Sediment Control Fence Outlet and replacing it with a Temporary Rock Silt Check, Type A outlet in the silt fence.
The stone stabilization at pipe outlet is full of sediment. This sediment was almost lost off of the project.
Recommend removal of sediment and installation of the Temporary Rock Silt Check, Type A outlet at the end of the stone per EC plan.

Approximately L-station 916+75 Lt. the Type C Drop Inlet Protection is damaged and 2 sides of the protection are full of sediment. Recommend maintenance/repair.
There is also a wash in the berm in this same area. Recommend repair of the berm or installation of a stabilized outlet in the berm.
Sediment from the loss reached the perimeter silt fence. It is not high on the silt fence but it did wash South and reached the end of the silt fence but did not go around it.
Recommend either extending the silt fence curved into the slope or installing an endpoint protection at the end of the silt fence.

Approximately L-station 1118+75 Med. a small amount of 57 stone has gotten into the JS at the inlet of the

diversion pipe. Recommend removal of this stone from the JS and removal of the source of 57 stone.
This work was getting ready to be done while I was at the site.

Approximately L-station 891+00 Med. the Type C Drop Inlet Protection turnout is damaged. Recommend repair.

Approximately L-station 914+50 Lt. the Type C Drop Inlet Protection turnout is damaged. Recommend repair.

Approximately L-station 931+60 Med. the Type C Drop Inlet Protection turnout is damaged. Recommend repair.

Approximately L-station 934+20 Med. the Type C Drop Inlet Protection turnout is damaged. Recommend repair.

Approximately L-station 940+20 Med. the Type C Drop Inlet Protection turnout is damaged. Recommend repair.

Approximately L-station 952+50 Med. the Type C Drop Inlet Protection turnout is full with sediment to the top of the 57 stone on 2 sides. Recommend maintenance.

Approximately L-station 1087+50 Rt. the Type C Drop Inlet Protection needs cleanout. The berm diverting run-off to the drop inlet has been washed around.
Recommend cleanout of the drop inlet and repair of the diversion berm.

Action Item(s):

Approximately L- station 835+10 to 841+00 Lt. the JS now flows in the new pipe system. Recommend installing the rip rap ditchline shown in the plans.

Approximately L- station 835+10 to 837+00 Lt. recommend installing ditch checks in the flowpath above the drop inlet with the Type A Inlet Protection installed until the rip rap ditchline in the plans can be installed.

Approximately L- station 839+00 to 841+00 Lt. part of the the silt fence has been impacted by construction activity. Recommend maintenance of the silt fence.

Approximately L- station 841+00 Lt. the old pipe that previously carried the JS has been removed.
Recommend stabilization of the fillslope where it was removed until the rip rap ditchline can be installed.

Approximately L- station 847+20 Lt. there are 2 smaller disturbed areas on the ditch back slope. Recommend stabilization to meet the NPDES cover requirement before the timelimit is reached.

Approximately L- station 849+00 Lt. there are disturbed areas on the shoulder. Recommend stabilization to meet the NPDES cover requirement before the timelimit is reached.

Approximately Y13RPA- 17+00 to 18+00 Rt. recommend reshaping/maintenance of the installed checks in the ditchline North of Silt Basin, Type B 5.2B.
Recommend adding an additional check closer to the basin and making it a PAM measure per EC plan.

Approximately L- station 864+00 to 868+00 Med. there is a gravel flowpath in-between the new concrete pavement and the current I-26W lane. The velocity checks that were previously installed were removed to installed drainage. Recommend reinstalling velocity checks to keep the run-off slowed down.

Approximately L- station 869+00 L. there is slope drain into the permanently stabilized ditchline that could still function. It has been blocked by a gravel berm.
Recommend making an opening in the gravel berm so run-off can reach the the ditch and be removed from the work area.

Approximately L- station 877+00 to 879+00 Lt. the dirt berm at the top of the fillslope/edge of gravel is disturbed. Recommend stabilization to meet the NPDES cover requirement before the timelimit is reached.

Approximately L- station 883+00 to 884+75 Lt. recommend reestablishing/adding the turnouts in the berm into the ditchline above the large check at the inlet of the rip rapped ditchline to get runoff into the ditchline and out

of the roadbed.

Approximately L- station 892+00 to 892+75 Lt. the dirt berm at the top of the fillslope/edge of gravel is disturbed. Recommend stabilization to meet the NPDES cover requirement before the timelimit is reached.

Approximately L- station 896+00 Med. the roadbed on the I-26E side of the drop inlet has been cutdown so that this side of the drop inlet cannot function. Run-off can enter the box from the other sides. The inlet protection was damaged on the roadbed side where the box cannot function. Recommend removal of the damaged side of the drop inlet protection.

Approximately L- station 900+00 to 902+00 Lt. there is a bare area between old I-26E and the future I-26E. This areas has been previously stabilized but has been disturbed again.
Recommend stabilization of this area to meet the NPDES cover requirement.

Approximately L-station 914+50 to 916+75 Lt. there is a wash in the flowpath between the 2 drop inlets. Recommend installation of checks flowpath to slow down the run-off.

Approximately L-station 929+00 Med. the matted ditch frontslope was disturbed to install the shoulder berm gutter outlet with dissipater. Recommend restabilization of this area.

Approximately L-station 931+60 Med. the matted ditch frontslope was disturbed to install the shoulder berm gutter outlet into the side of the box. Recommend restabilization of this area.

Approximately L-station 934+20 Med. the matted ditch frontslope was disturbed to install the shoulder berm gutter outlet into the side of the box. Recommend restabilization of this area.

Approximately L-station 940+20 Med. the matted ditch frontslope was disturbed to install the shoulder berm gutter outlet into the side of the box. Recommend restabilization of this area.

Approximately L-station 943+50 Med. the matted ditch frontslope was disturbed to install the shoulder berm gutter outlet with dissipater. Recommend restabilization of this area.

Approximately L-station 948+75 Lt. the fillslope was disturbed to install the shoulder berm gutter outlet with dissipater. The perimeter silt fence had previously been removed because the slope was stable. Recommend reinstallation of the perimeter silt fence.
The site has been mulched.

Approximately L-station 947+50 Med. a box has been installed. It is not active yet. Recommend installing an inlet protection or blocking the top with a plate or plywood to keep sediment out of box so it does not need cleanout before making it active.

Approximately L-station 951+00 to 960+00 Med. large areas of the cutslope between I-26E and I-26W have been disturbed. Recommend stabilization to meet the NPDES cover requirement before the timelimit is reached.

Approximately L-station 951+00 to 953+00 Med. recommend installing checks in the flowpath per EC plan. These can be removed to work but should be reinstalled especially before forecast rain events.

Approximately L-station 951+50 Med. there are 2 boxes that have had silt fence installed around them to keep them non-functional. Silt fence should not be used to keep boxes non-functional.
Recommend installing an inlet protections or blocking the tops with a plate or plywood to keep sediment out of the boxes instead of using silt fence.

Approximately L-station 956+00 Med. the sandbag check in the ditchline needs cleanout. Recommend maintenance of the check dam.

Approximately L-station 972+00 to 978+00 Lt. there is a disturbed flowpath between the remaining existing pavement and the gravel stabilized lane that is starting to wash. Recommend adding velocity checks to this flowpath.

Approximately L-station 976+00 to 977+00 Med. the slope between I-26W and I-26E and the shoulder have been disturbed to install a box and pipe.
Recommend stabilization to meet the NPDES cover requirement before the timelimit is reached.

Approximately L-station 978+00 to 980+00 Med. the shoulder has been disturbed. Recommend stabilization to meet the NPDES cover requirement before the timelimit is reached.

Approximately L-station 979+00 Lt. the slope drain inlet protection is missing the 57 stone. Recommend adding the 57 stone per detail.

Approximately L-station 986+50 Lt. the fillslope was disturbed to install the shoulder berm gutter outlet with dissipater. Recommend stabilization of the disturbed area to meet the NPDES cover requirement before the timelimit is reached.

Approximately L-station 1000+50 to 1002+00 Lt. recommend stabilization of the disturbed dirt berm to meet the NPDES cover requirement before the timelimit is reached.

Approximately L-station 1000+60 Lt. a new slope drain has been installed through the berm and down the fillslope.
Recommend adding the anchor stakes per detail.
A wattle has been installed on the bare soil at the inlet of the slope drain as the inlet protection. Recommend adding matting under the wattle per detail.

Approximately L-station 1002+50 Lt. there is wash through the gravel berm. Recommend repair of the berm or installation of a turnout measure.

Approximately L-station 1083+50 to 1084+25 Rt. recommend stabilization of the disturbed areas on the shoulder to meet the NPDES cover requirement before the timelimit is reached.

Approximately L-station 1091+00 to 1093+00 Rt. a wash is starting in the flowpath on the right side of the access rd. Recommend installation of checks flowpath to slow down the run-off.

Approximately L-station 1094+00 Rt. sediment has built up on the diversion berm to the drop inlet protection. Recommend removal of the sediment from the berm.

Approximately L-station 1095+00 Rt. the check in the flowpath in front of the retaining wall near the Northern end it needs routine cleanout. Recommend maintenance of the check dam.

Approximately L-station 1105+75 Med.-Rt. the Type C inlet protection has sediment of the face of the 57 stone. Recommend maintenance of the device.

Approximately L-station 1111+50 Med.-Rt. the turnout check is over 50% full of sediment. Recommend maintenance of the turnout device.

Approximately L-station 1154+00 to 1155+00 Rt. there are 2 or 3 new small disturbed stockpiles on the shoulder. Recommend stabilization to meet the NPDES cover requirement before the timelimit is reached.

Approximately L-station 1182+75 to 1183+25 Rt. the checks in the ditchline have been removed to install the rip rapped ditchline. This work was underway during the inspection. Recommend installing the checks shown in the rip rapped ditchline in the final EC plan once the rip rapped ditchline has been installed.
If the rip rapped ditchline is not completed by the forecast rain event for Sunday, recommend reinstalling the C&G checks in the flowpath.

Approximately L-station 1183+75 Rt. wattles have been used as a drop inlet protection but have not been fastened down. Recommend installing a Type C Drop Inlet Protection instead.

Approximately L-station 1184+00 to 1193+00 Rt. there is a ditchline between the cutslope and the shoulder berm gutter. Part of it has been matted already and part of it is not matted. The previously installed checks were removed to install matting.
Recommend adding PAM checks to the matted section of ditchline per Final EC plan.
Recommend completing matting of the bare ditchline and installing PAM checks per Final EC plan or reinstalling C&G checks in the bare ditch before the next forecast rain event which Sunday 1-17-2023.

Approximately L-station 1193+50 to 1194+00 Rt. the shoulder and part of the fillslope are disturbed. Recommend stabilization to meet the NPDES cover requirement before the timelimit is reached.

Approximately L-station 1207+00 to 1209+00 Rt. there are a couple of sections of silt fence that have fallen off of the posts. Recommend tieing the silt fence back up.

Approximately L-station 1207+25 to 1207+75 Rt. there is sediment in the shoulder berm gutter. Recommend cleanup of the sediment.

As work continues, contractor should continue efforts to install and maintain erosion control devices in a timely manner, as per specification, and as per erosion control plans.
Groundcover should be provided to any areas that will remain idle for 7 or 14 days or more, including stockpiles and waste areas.

Continue NPDES inspections weekly and within 24 hours after a 0.5 inch or greater rain event.
Please continue NPDES inspections daily at the French Broad River.
Urgent items should be completed within 24 hours after any storm event or as soon as conditions allow.

North Carolina Department of Transportation
Roadside Environmental Unit
Erosion & Sedimentation / Stormwater Report

Project Information

Inspection Date:	12/21/2023	Evaluator:	Reid Whitehead		
Project #:	36030.3.GV4	TIP #:	I-4700	Contract #:	C204266
Division #:	13	County:	Buncombe		
Project Type:	Contract	Engineer:	Buncombe I-4700 I-26 Widening		
Project Length:	7.49	Disturbed Acres:	10		
River Basin:	French Broad	HQW Zone:	NO	Trout Zone:	NO
Location Description:	I-26 from NC-280 (Exit 40) to I-40				

Project Evaluation

Report Type: ☑Routine ☐ICA ☐ICA Ex 1st ☐ICA Ex 2nd ☐CICA - SWO
☐PCN ☐ECPAR

Length	Section	Installation of BMPs	Maintenance of BMPs	Effectiveness of BMPs	Plan Implementation	Overall Project Evaluation
0.5	Permitted Area(s)	8	8	8	8	8
6.0	Remainder of Project	8	8	8	8	8

Grading Scale: 0 - 6 = Immediate Corrective Action Required, 7 = Fair, 8 = Good, 9 = Very Good, 10 = Excellent

Remarks and Recommendations:

Inspection was started and completed on Thursday 12/21/2023. Inspection was done with Rick Cunningham - Erosion Inspector and Miguel Granados-FluorUnited.

The ICA is lifted.
Cleanup is complete is the areas of loss.
Urgent EC measures in need of repair have been maintained.
Diversions have been reinstalled and additional diversions have been added.

The routine items have been addressed.

Grading is underway.

Please continue NPDES inspections.

General Note - When EC measures need to be removed for grading recommend planning what EC measures are going to be reinstalled with the operation inspector and the timeline for reinstallation before removal.

General Note - When major EC measures such as basins need to be impacted by grading recommend consulting the project EC inspector and the Assistant Resident before impacting so that I can be consulted before the impact.

General Note - Basins (storage) should remain installed until permanent cover is growing. The dimensions may need to change. The size might be able to change. Complete elimination is not what is intended in the EC plan if the basin is on the final EC plan.

General Note - Please make sure to install the PAM measures shown in the EC plan

General note EC Measure Clean Out - When maintaining EC measures recommend not placing the cleaned out material near the EC measures where it can wash back in. Recommend instead removing to an approved WA or protected stockpile.

General Note - When active grading is underway and an area on the project is transitioning from the C&G EC plan to the Final EC plan recommend checking the Final EC plan for EC measures and installing a similar number of measures as temporary EC measures even though these measures may need to be installed at the end of one day and removed the next day to continue grading.

Thursday 12-21-2023

Action Item(s):

Approximately L- station 835+00 Lt. the installed Rock Inlet Sediment Trap, Type A on the drop inlet was impacted on the rip rap ditchline side when rip rap ditchline installation was started.
Recommend repair of this side of the drop inlet protection as quickly as possible but especially before the next forecast rain event.

Approximately L- station 835+10 to 841+00 Lt. rip rap ditchline installation was underway during the inspection. The stone in the rip rap ditchline is being installed too high. Run-off would flow on the outside of the ditchline. The ditchline should be undercut deeper so the stone and the outer edge of the ditchline are even so that the run-off can get into and flow in the stone stabilized ditchline.
Recommend installing the stone lower so the ditchline it can function as designed.
Recommend installing the silt fence shown in the Final EC plan along the new stone stabilized ditchline as soon as possible to keep sediment out of the stone.

Approximately Y13RPA- 17+00 to 18+00 Rt. recommend reshaping/maintenance of the installed checks in the ditchline North of Silt Basin, Type B 5.2B.
Recommend adding an additional check closer to the basin and making it a PAM measure per EC plan.
This item is scheduled to be completed today.

Approximately L- station 883+00 to 884+75 Lt. recommend reestablishing/adding the turnouts in the berm into the ditchline above the large check at the inlet of the rip rapped ditchline to get runoff into the ditchline and out of the roadbed.
This item is scheduled to be completed today.

Approximately L-station 1083+50 to 1084+25 Rt. recommend stabilization of the disturbed areas on the shoulder to meet the NPDES cover requirement before the timelimit is reached.
This work is scheduled for later today.

Approximately L-station 1182+75 Rt. the rip rap ditchline has been completed. Checks have been installed in the rip rap ditchline.
The Temporary Rock Silt Check, Type A shown in the Final EC plan has not been reinstalled yet. Recommend reinstallation.

As work continues, contractor should continue efforts to install and maintain erosion control devices in a timely manner, as per specification, and as per erosion control plans.
Groundcover should be provided to any areas that will remain idle for 7 or 14 days or more, including stockpiles and waste areas.

Continue NPDES inspections weekly and within 24 hours after a 0.5 inch or greater rain event.
Please continue NPDES inspections daily at the French Broad River.
Urgent items should be completed within 24 hours after any storm event or as soon as conditions allow.

North Carolina Department of Transportation
Roadside Environmental Unit
Erosion & Sedimentation / Stormwater Report

ICA

Immediate Corrective Action

This project does not comply with the North Carolina Erosion and Sedimentation Control laws. Immediate Corrective Action is needed to resolve the situation to full compliance with the Law: (T15A: 04B.0000).

Project Information

Inspection Date:	01/08/2024	Evaluator:	Lee Sheppard		
Project #:	34400.3.4	TIP #:	R-2233BB	Contract #:	C204397
Division #:	13	County:	Rutherford		
Project Type:	Contract	Engineer:	Marion Resident Engineer's Office		
Project Length:	5.00	Disturbed Acres:	16		
River Basin:	Broad	HQW Zone:	NO	Trout Zone:	NO
Location Description:	US-221 South of US-74 Business to North of SR 1366 Roper Loop Rd.				

Project Evaluation

Report Type: ☐ Routine ☑ ICA ☐ ICA Ex 1st ☐ ICA Ex 2nd ☐ CICA - SWO
☐ PCN ☐ ECPAR

Length	Section	Installation of BMPs	Maintenance of BMPs	Effectiveness of BMPs	Plan Implementation	Overall Project Evaluation
0.0	Permitted Sites 1, 4 and 16	8	6	6	6	6
0.0	Clearing and Grubbing Operations	6	6	6	6	6

Grading Scale: 0 - 6 = Immediate Corrective Action Required, 7 = Fair, 8 = Good, 9 = Very Good, 10 = Excellent

ICA Comments:

An ICA is being issued due to the lack of implementing EC device installation and failure to properly maintain devices to control and prevent sediment loss in a timely manner at some locations. Silt loss has occured in permitted site locations and it is not evident that the corrective action is adequate enough to prevent further sediment loss.

Remarks and Recommendations:

Inspection was done with project personnel and I spoke with Travis H by phone.
Project encountered +/-1.5 inches of rain on Saturday the 6th. Sediment losses were present in some permitted locations. I was informed that an NPDES inspection was performed on Sunday the 7th. No documentation was recorded however on the NPDES records for priority of urgent corrective actions.

Immediate corrective action needed to address the following:

-From approximately 741+00 - 752+00 including -Y25REV- has recently been cleared and grubbed containing

some locations lacking any perimeter EC devices. All of -Y25REV- was cleared and grubbed towards the end of last week. The project encountered +/- 1.5 inches of rain on Saturday the 6th. With rain in the forecast, better implementation of installing at least the perimeter EC per plan sheet EC-4 and 4A should have been taken prior to rain event. Clearing and grubbing an area of this size should not progress when there are not plans to install EC devices ahead of rain events or idle timeframes. These locations are well over 1 acre in size with steep grades present.
Installation of EC devices per EC 4A needs to begin at this time along -Y25REV- including TSDs, TDs, rock checks, and basin ID 4A.1. No devices were installed upon inspection of this area. At some point during the day the perimeter silt fence was installed.
Installation of the remaining EC devices to include perimeter silt fence, TSDs, TDs, and rock checks on the right and left side of -L3- per EC-4 needs to begin due to the area being cleared and grubbed at this time.

-An area on the north end of the project well in excess of 1 acre containing steep grades has also been cleared and grubbed recently at approximately 942+00 to -Y11-. At the time of inspecting this location no installation of EC devices was present. Heavy rain has been in the forecast predicted for Tuesday the 9th. Perimeter silt fence installation did begin at approximately 2:00 pm, about the same time I inspected this location. This area was cleared and grubbed over this past weekend. At this time due to this location being cleared and grubbed, installation of EC devices per EC-18 and applicable ones on EC-32 along -Y11- needs to begin including TSDs, TDs, rock checks, and basin IDs 18.1 and 32.1.
Clearing and grubbing an area of this size should not progress if EC devices cannot be installed in a timely manner ahead of rain events.

-A sediment loss into the JS at permitted site #1 had occurred from the rain event over the past weekend. The amount of loss noticed appeared to be less than a 5 gallon bucket at the time of inspection. Most of the sediment appears to have come from the new drainage structures that empty at this location. Some also may have come from undermining the silt fence and SSCF adjacent to the JS. Runoff has made its way around the rock pipe inlet protection at STR 689 with some sediment noticed inside the inlet. Sediment is present inside the surrounding catch basins that all drain into this system eventually emptying into the JS including STRs 692, 693 and 694. Sediment is collected against most of the inlet protections in this location. With the additional heavy rain in the forecast for the 9th, additional sediment loss most likely will occur.
By approximately 3:30 pm no corrective action for maintaining devices had been taken in this location with heavy rain forecasted for the 9th.
Sediment needs to be removed from the JS. Sediment inside the catch basins needs to be removed, all inlet protections need to be repaired and maintained, and the silt fence and SSCF near the JS needs to be maintained and repaired. Sediment loss needs to be reported to DEQ agencies if sediment loss is determined to be greater than a 5 gallon bucket.

-A sediment loss into the JS at permitted site #4 had occurred at the outlet of Culvert #1 from the rain event over the past weekend. The SDO sediment control fences are full of sediment with visible sediment collected in the flood plain bench riprap and JS. Due to time restraints, I did not walk down stream to judge the amount of sediment loss. Much of the sediment collected against the SSCF on the left side facing downstream is from runoff coming out of the riprap lined ditch not entering STR 814. It has bypassed the devices and undermined the geotextile lined berm that runs down to the SSCF SDO. Some bays of the nearby skimmer basins are full of sediment.
By approximately 3:30 pm no corrective action had taken place at this location with heavy rain forecasted for the 9th.
Sediment loss needs to be reported to DEQ agencies if not already done so per the NPDES permit.
Sediment needs to be removed from the JS and flood plain bench. Repair needs to begin to maintain devices for preventing additional loss. Silt cleanout in the adjacent basins needs to begin as soon as conditions allow.

-A temporary stream crossing installed in the JS, which leads to permitted site #16, was installed by unapproved best management practices and visible sediment was noticed in JS. This is the location of the planned jack and bore. The riprap backfill of the temporary pipe was capped with soil material and covered with geotextile. Some of the soil material underneath the geotextile has washed into the JS. Some sections of the small stream banks are bare soil and disturbed. The temporary silt fence that was installed lacks outlets, does not contain the entire disturbed area, and one side has material more than half way up on the fence.
At the time of inspection at this location, no corrective action had taken place with heavy rains forecasted for the 9th.
The sediment noticed in the JS looked to be about a 5 gallon bucket amount but I was unable to inspect the outlet end of the existing pipe that empties into site #16 on the west side of US 221 due to time restraints. With the rain forecasted, the potential for additional loss is present.
If sediment loss is determined to be greater than a 5 gallon bucket amount, the loss needs to be reported to DEQ agencies if not already done so.

Soil material should not be used for backfill when constructing temporary stream crossings. Correction needed to remove the soil material from the temporary crossing-refer to NCDOT Best Management Practices Manual for correct installation.
Sediment in the JS needs to be removed. Additional installation of silt fence with outlets needs to be installed. The bare soil section of the stream bank needs to be stabilized. Excessive backfilled material against the silt fence needs to be removed.

-Some urgent corrective actions were present at the Culvert #4 location at the time of the inspection. There was one SDO outlet in the silt fence near basin ID 4.5 that allows runoff to undermine between the hardware cloth and silt fence. This is directly adjacent to the JS. The silt fence at the outlet of basin ID 4.5 does not contain all disturbed areas and lacks an outlet for runoff exiting the basin. Corrective action needed to maintain and correct these devices.
The remaining TSDs and TDs per EC-4 need to be constructed to direct runoff into basin IDs 4.5 and 4.6 A&B as designed. All of this area has been cleared and grubbed.
At the time of inspection of this location no corrective action had taken place.

A follow up review will be conducted within 5 working days.

NPDES Permit Requirements:
- Corrective actions should be described on the SDO sheet and the E&SC Device sheet under 'Corrective Actions Taken'.
- Records need to be signed.
- Inspect E&SC / Stormwater devices at least once every 7 days and within 24 hrs. of 1.0" rainfall or greater.
- Maintain an on-site rain gauge or use the MPE Rainfall Website.
- Maintain rainfall log with amounts & dates. Any rainfall amount should be recorded for each day regardless if it is 1.0 inch or greater.
- Maintain an up to date set of as-built EC plans.
- Maintain records on site for review by Department & Regulatory personnel.

As work continues, contractor should continue efforts to install and maintain erosion control devices in a timely manner, as per specifications, and as per erosion control plans. Groundcover should be provided to any areas that will remain idle for 7 or 14 days or more, including borrow/waste/staging areas.

North Carolina Department of Transportation
Roadside Environmental Unit
Erosion & Sedimentation / Stormwater Report

ICA EX 1st

Immediate Corrective Action Extension (First Issuance)

This project does not comply with the North Carolina Erosion and Sedimentation Control laws. Immediate Corrective Action is needed to resolve the situation to full compliance with the Law: (T15A: 04B.0000).

Project Information

Inspection Date:	01/17/2024	Evaluator:	Lee Sheppard		
Project #:	34400.3.4	TIP #:	R-2233BB	Contract #:	C204397
Division #:	13	County:	Rutherford		
Project Type:	Contract	Engineer:	Marion Resident Engineer's Office		
Project Length:	5.00	Disturbed Acres:	15		
River Basin:	Broad	HQW Zone:	NO	Trout Zone:	NO
Location Description:	US-221 South of US-74 Business to North of SR 1366 Roper Loop Rd.				

Project Evaluation

Report Type: ☐ Routine ☐ ICA ☑ ICA Ex 1st ☐ ICA Ex 2nd ☐ CICA - SWO ☐ PCN ☐ ECPAR

Length	Section	Installation of BMPs	Maintenance of BMPs	Effectiveness of BMPs	Plan Implementation	Overall Project Evaluation
0.0	Permitted Area(s)	8	6	6	6	6

Grading Scale: 0 - 6 = Immediate Corrective Action Required, 7 = Fair, 8 = Good, 9 = Very Good, 10 = Excellent

ICA EX 1st Comments:

ICA is being extended due to some immediate and/or urgent corrective actions still in progress.

Remarks and Recommendations:

Inspection was done with project personnel, Resident Engineer, and contractor personnel.
Since the date of the ICA inspection on 1/8/24, the project has encountered additional rain events in excess of 1.0 inch per event. One event was heavy intensity, greater than 5 inches in less than a 24-hour period. Additional sediment losses occurred in addition to the ones documented on the 1/8/24 ICA report. All work other than erosion control action has been suspended by the Resident Engineer's Office in accordance with 108-7 of the Standard Specifications effective 1/9/24. Contractor has engaged in corrective actions and continues to.

Locations of Immediate Corrective Action remaining include:

-Permitted Site #11 approximately 969+00 LT-L3-, small amounts of sediment and #57 stone needs to be removed from the JS. The perimeter EC devices and SSCF SDOs that surround the outlet of the new drainage system need to be repaired. A failure in the 1/4" hardware cloth and some undermining of the drainage pipe outlet caused the loss into the JS. Contractor anticipated that this repair would be complete by

the end of the day- Wednesday 1/17/24.

-Approximately 965+00 LT-L3-, silt remains in the riprap dissipator basin needing removal, repairs to the SSCF and silt fence needs to be completed, and the fill slope needs stabilization. The section of slope that isn't matted continues to wash in this location resulting in sediment loss. The most recent loss at this location was small and removal beyond the SDO is complete. This area leads to the JS of Permitted Site #11.

-Permitted Site #5 approximately 815+00 LT-L3- still contains sediment in the JS needing removal and repairs to all surrounding EC devices in this location need to be complete. A basin side slope failure and overwhelming of the SDOs was the most recent cause of the sediment loss in this location during the heavy intensity rain event. The new run of storm drainage pipe (STR 915) also was compromised contributing to the failure and loss. We discussed additional EC device installation for addressing this location to possibly include an earthen dam with skimmer at the low point of this drainage area. Repairing the compromised storm drainage and directing the upper side runoff into this system should also help this location. The EC design is for the CWD ditches and treated runoff from skimmer basin right of L3 to enter this system which should relieve the overall impact of all the runoff leaving the site where is currently is now which overwhelms the devices. Refer to detail in the front section of the EC plans for constructing the earthen dam skimmer if utilized.

-Permitted Site #4 Culvert #4 location- repairs are ongoing. Sediment collected in the riprap flood plain bench and #57 stone in the JS needs removal. Repairs to the EC devices and SDOs that surround the inlet and outlet of the culvert needs to be completed. Silt cleanout in the basins is still needed. Contractor is beginning to utilize a vac truck system for this removal but was froze up during this inspection. Repairs and silt cleanout to the EC devices located in the ditch line where STR 819 is are still needed. Removal of silt that has collected along the wattle barriers is needed. Contractor hasn't been able to access all of this location with machinery due to wet and unsafe conditions.

-Permitted Site #1 approximately 779+00 LT-L3- additional sediment has collected in the JS but this was due to a naturally occurring slope failure at the riprap dissipator basin. This occurred during the heavy intensity rain event and was a section of slope that was not disturbed by construction. No failure of EC devices resulted in this slope failure. Resident's Office has been in contact with Division Environmental for addressing corrective action within permit obligations to repair this location.

-Corrective actions/efforts are documented on the NPDES records. Continue to document and complete the Date Corrected sections as items are addressed.

An additional inspection will be conducted towards the beginning of next week.

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- Maintain an on-site rain gauge or use the MPE Rainfall Website.
- Maintain rainfall log with amounts & dates. Any rainfall amount should be recorded for each day regardless if it is 1.0 inch or greater.
- Maintain an up to date set of as-built EC plans.
- Maintain records on site for review by Department & Regulatory personnel.

As work continues, contractor should continue efforts to install and maintain erosion control devices in a timely manner, as per specifications, and as per erosion control plans. Groundcover should be provided to any areas that will remain idle for 7 or 14 days or more, including borrow/waste/staging areas.

North Carolina Department of Transportation
Roadside Environmental Unit
Erosion & Sedimentation / Stormwater Report

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Project Evaluation

Report Type: ☑ Routine ☐ ICA ☐ ICA Ex 1st ☐ ICA Ex 2nd ☐ CICA - SWO
☐ PCN ☐ ECPAR

Length	Section	Installation of BMPs	Maintenance of BMPs	Effectiveness of BMPs	Plan Implementation	Overall Project Evaluation
0.0	Permitted Area(s)	8	8	8	8	8
5.0	Remainder of Project	8	8	8	8	8
	Silt Removal from Basins	8	7	7	8	7

Grading Scale: 0 - 6 = Immediate Corrective Action Required, 7 = Fair, 8 = Good, 9 = Very Good, 10 = Excellent

Comments:
The ICA is lifted.
Cleanup efforts have been underway since all other work was suspended by the Resident Engineer, and most repairs are complete. Some locations at Culvert #1 have remained too wet and frozen to complete silt removal from skimmer basins. Plans remain to address these actions as soon as conditions allow.

Remarks and Recommendations:
Inspection was done with project personnel and contractor personnel.

Permitted Site #1 (Culvert #1 location):
-Silt cleanout/removal from basin ID 8.6, 8.9, and 8.8 is needed as soon as conditions allow. Contractor explained that the slopes in this area have remained too wet to safely utilize excavators for silt removal. A vac truck system has been used as another attempt for removing silt but due to recent temperatures below freezing, this has been unsuccessful as well. Contractor still plans to attempt the vac truck system this week with warmer temperatures now present, and proposed the idea of installing some additional Type B basins in the ditchlines above these skimmer basins and re-routing some of the slope drains to the new Type basins to catch silt in the meantime. This sounds like a good proposal- recommend doing.

-Some additional silt needs to be cleaned out from the riprap flood plain benches at the inlet and outlet of the culvert. Contractor stated they would immediately address this.

-Additional silt removal off of the wattle barriers is needed in some locations.

-Installing another row of wattle barrier below the section of slope that needs retracking, above the culvert outlet, would be beneficial until final repairs to the slope can be performed.

Permitted Site #5 approximately 814+00 thru 816+00:
-Some small amounts of additional sediment was noticed needing removal from the JS. Assistant Resident and I noticed these spots together and contractor immediately addressed during the inspection. Contact Division Environmental for any additional needed removal.

-Recommend installation of silt fence along the edges of the new earthen berm spillway to help direct runoff into the new basin and reduce the amount of potential silt washing towards the last SDO Type A rock check. Recommend matting as much of the area surrounding the new basin as possible as temporary ground cover and stabilization. Install baffles in the earthen berm skimmer basin if possible.

-Approximately 965+00- basin ID 19.2 needs silt cleanout. This area has also remained too wet and recently frozen for contractor to perform removal. The basin is approximately half full of silt and is impeding the functioning of the skimmer itself. Silt removal is needed as soon as conditions allow. Removing enough silt surrounding the skimmer would at least help in the skimmer being able to function. Repositioning all slope drains to the bay furthest from the skimmer is also needed.

For the unstable sections of slope above basin 19.2, recommend installation of additional silt fence or wattle barrier below the parts that aren't matted to catch additional sediment and prevent it from overwhelming the other silt fence and SSCF that surrounds the riprap dissipator basin. Retracking the slope and seeding/matting would be the best stabilization once conditions allow. Matting the unstable section as they are now as a temporary preventative measure may be beneficial to help reduce additional washing and rilling until the final repair can be made. Matting would have to be stapled to the existing contours of the slope to be effective.

-Ensure all corrective actions are documented on NPDES records with the dates corrected and continue inspections.

-I was informed Tuesday morning, the 23rd, that contractor did begin additional silt removal from the basins noted above and where successful in attempts of accessing with machinery.

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