



Transportation

PAT McCrory
Governor

NICHOLAS J. TENNYSON
Secretary

6/06/2016

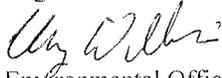
Clay Willis
Environmental Supervisor
NCDOT Division One
118 Airport Drive
Edenton, NC 27932

Mr. Randy Midgett,

Attached to this memo are the US Army Corps of Engineers IP permit modification to R-2551 (visitors center), CAMA major modification to permit 24-03, and NC Land Resources storm water permit for the proposed pedestrian walkway from the Roanoke Island Visitors center to Coastal Studies Institute. The attached permits have conditions that apply to the permit that must be adhered to during the construction process for the pedestrian walkway. There are permit drawings for the construction of the walkway and structures that depict the limits of disturbed area, which must be followed. These drawings must be adhered to in order to stay in compliance with the issued permit. Any changes that could change impact limits may require a permit modification. If the project limits or design change the environmental officer needs to be notified in order to request the proper permit modifications. Before construction begins on this project a preconstruction meeting needs to be scheduled with the regulatory agencies. Please, allow two weeks in advance for scheduling of this meeting. A copy of this permit and the attached conditions need to be on the project site during construction of this project. There is a special restoration component to this authorization and restored wetland elevations need to be strictly adhered to during construction. There is also a mitigation planting component that requires 3 years of monitoring (NCDOT responsibility).

Sincerely,

Jerry Jennings, P.E.
Division One Engineer

Clay Willis 
Division One Environmental Officer

CC: Jim Hoadley, NCDOT District 1





DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

May 31, 2016

Regulatory Division/1200A

Action ID No. SAW-1995-02334 and SAW-2003-10156

Mr. Clay Willis
Environmental Supervisor
NCDOT Division 1
113 Airport Road, Suite 100
Edenton, North Carolina 27932

Dear Mr. Willis:

Reference the Department of the Army (DA) permit issued to the North Carolina Department of Transportation on March 5, 1998, authorizing impacts to jurisdictional areas associated with the widening of approximately 10 miles of U.S. 64-264, including constructing a new bridge over the Croatan Sound and adjacent marshes, from US 64-264 West of Mann's Harbor to NC 345 South of Manteo, in Dare County, North Carolina (TIP No. R-2551, Federal Aid Project No. NHF-64(6), State Project No. 8.T051401).

This office received a permit modification request dated February 24, 2016. NCDOT requested authorization to construct an elevated pedestrian walkway over a mitigation site located to the south of the existing Visitors Center. The proposed walkway would span 60 linear feet of the mitigation site and would have a 5 foot wide travel way. Construction of the walkway would directly conflict with Permit Condition c. of the permit modification issued on May 30, 2001 which states:

NCDOT will maintain the wetland and stream mitigation sites utilized to satisfy Special Condition (b.) in perpetuity in the condition established by the mitigation plan. Prohibited activities within these mitigation areas specifically include, but are not limited to: the construction or placement of roads, walkways, buildings, signs, or structures of any kind (i.e., billboards, interior fences, etc.); filling, grading, excavation, leveling, or any other earth moving activity that may alter the drainage pattern on the property; the cutting, mowing, destruction, removal, damage or other alternation of any vegetation; disposal or storage of any debris, waste or garbage; except as may be authorized by the mitigation plans or subsequent modifications which are approved by the Corps of Engineers. In addition, the permittee shall take no action, whether on or off the mitigation properties, which will adversely impact the mitigation sites.

In order to compensate for the loss of the function in the mitigation area, NCDOT proposes to remove fill material from 2,783 square feet of an existing roadbed located adjacent to the current mitigation area. The area will be graded to meet the elevation of the existing wetland and adjacent mitigation area. Three existing culverts located within the roadbed will be removed from the upper reaches of Collins Creek. The mitigation area will be planted with wetland vegetation including *Juncus roemerianus* black needle rush, *Spartina patens* salt meadow grass, and *Cladiumjamaicense* sawgrass.

The vegetation must be similar to the adjacent coastal species currently present in the mitigation area. NCDOT will monitor the wetland restoration by photographs and determinations of vegetation cover. The vegetation cover must be comprised of at least 75 percent desirable species. The site will be monitored for 3 years, with a brief report on the progress of the area submitted to the USACE, DWR and DCM annually during the monitoring period. Following three years of monitoring, NCDOT will schedule an agency field meeting to determine if the created areas are successful. If, at the end of three years, the restored areas are not successful, the agencies shall determine if additional compensatory mitigation is required or other site manipulations needed for restoration improvement.

This modification request was discussed and coordinated with the appropriate State and Federal agencies during an on-site meeting and the coordination revealed no objections to this modification request. The proposed modification for R-2551 as detailed above is hereby authorized in accordance with the specific work activities described and depicted on the plan sheets, drawings and descriptions enclosed with the permit modification request package dated February 24, 2016. A letter clarifying the mitigation commitment and a revised permit overview drawing were received via email on May 4, 2016. This letter and drawing, combined with the modification request represents the complete modification.

It is understood that all conditions of the original permit and applicable modifications remain valid. In addition, the permittee will comply with the additional special permit conditions as follows:

a.) All work authorized by this permit modification must be performed in strict compliance with the submitted work plans, which are part of this permit. Any modification to the permit plans must be approved by US Army Corps of Engineers (Corps) prior to implementation.

b.) The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit, and any authorized modifications. A copy of this permit, and any authorized modifications, including all conditions, shall be available at the project site during construction and maintenance of this project.

Questions regarding this correspondence may be directed to Tracey Wheeler, NCDOT Regulatory Project Manager at the Washington Regulatory Field Office, telephone (910) 251-4627.

Sincerely,



For/

Kevin P. Landers Sr.
Colonel, U.S. Army
District Commander

Copy Furnished By email:

Chris Rivenbark/NCDOT
Garcy Ward/NCDWR
Greg Daisey/NCDCM



Transportation

PAT McCrory
Governor

NICHOLAS J. TENNYSON
Secretary

05/04/2016

Clay Willis
Environmental Supervisor
NCDOT Division One
118 Airport Drive
Edenton, NC 27932

Mrs. Tracey Wheeler,

Following up for our field meeting on 4/19/2016 to discuss the proposed boardwalk/pedestrian trail connecting the Visitor Center and Coastal Studies Institute, I am provided an additional overview permit sheet. Our original estimate of restored area only encompassed the road way between the tree line, so I clarified we needed to remove the road fill entirely, included the 5-10 year old pine trees bordering the clear road. This increases the available restored area to 2783 sq. feet (0.064 acres). The restored wetland grade will match the existing adjacent wetland elevation and mitigation area. As stated in the original authorization request, we will remove the culverts and open up the Collins Creek/Canal system.

The total elevated boardwalk area is 950 sq. ft., with 250 sq. ft. over the existing mitigation section associated with the original Visitor Center Permits. We are proposing to restore 2783 sq. ft. (removing the old road fill); this would far exceed the 2:1 ratio expectation.

Once the area is restored, NCDOT will commit to planting wetland vegetation, which will be *Juncus roemerianus* Black Needle Rush, *Spartina patens* Salt Meadow Grass, *Cladium jamaicense* Sawgrass. This vegetation will match the adjacent coastal species currently present in the mitigation area. NCDOT can monitor the wetland restoration by photographs and determinations of vegetation cover. The vegetation cover goal is at least 75 percent desirable species. The sites should be monitored for 3 years, with a brief report on the progress of these areas being submitted to the USACOF, DWR and DCM annually during the monitoring period. Following three years of monitoring, NCDOT will schedule an agency field meeting to determine if the created areas have attained jurisdictional wetland status. If, at the end of three years, the restored areas have not attained jurisdictional wetland status, the agencies shall determine if additional compensatory mitigation is required or other site manipulations needed for restoration improvement.

If you have any questions or need clarification, contact me at 252-312-3692.

Sincerely,


Clay Willis
Division One Environmental Officer

Cc: Travis Wilson, NCWRC
Greg Daisy, NCDCM
Gary Ward, NCDWR
Virginia Baker, NCDWR
Randy Midgett, P.E. NCDOT

 Nothing Compares.SM

Willis, Thomas C

From: Ward, Garcy
Sent: Monday, June 06, 2016 5:27 PM
To: Willis, Thomas C
Cc: Brittingham, Cathy; Daisey, Greg; Wheeler, Tracey L SAW
(Tracey.L.Wheeler@usace.army.mil); Carpenter, Kristi; Baker, Virginia; Ward, Garcy
Subject: Pedestrian walkway

Clay,

I've reviewed your request to construct a pedestrian walkway from the NCDOT visitors center in Manteo to the Coastal Studies Institute in Dare County (WBS element number 4426). Portions of the walkway will go through the on-site mitigation area located at the visitors center. Because the original 401 Water Quality Certification (reference DWR project #'s 20000964 and 20010318) did not specifically prohibit activity within the mitigation area and there are no jurisdictional impacts associated with the project, a modification of the 401 will not be required. The information you have provided will be sufficient for our files. Please let me know if you have any questions. Thank you.

Garcy Ward
Environmental Senior Specialist
Division of Water Resources
North Carolina Department of Environmental Quality

252-946-6481
garcy.ward@ncdenr.gov

943 Washington Square Mall
Washington, NC



Nothing Compares

E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.

Permit Class

MODIFICATION/MAJOR

Permit Number

24-08

STATE OF NORTH CAROLINA
Department of Environmental Quality
and
Coastal Resources Commission

Permit

for

Major Development in an Area of Environmental Concern
pursuant to NCGS 113A-118

Excavation and/or filling pursuant to NCGS 113-229

Issued to East Carolina University (ECU), 1001 East Fourth Street, Greenville, NC 27858

Authorizing development in Dare County at Collins Creek and an unnamed manmade canal adjacent to Croatan Sound, as requested in the permittee's application dated 3/3/16 (MP-1) and 2/24/16 (MP-5), including the attached workplan drawings (11) as referenced in Condition No. 1 of this permit

This permit, issued on May 17, 2016, is subject to compliance with the application (where consistent with the permit), all applicable regulations, special conditions and notes set forth below. Any violation of these terms may be subject to fines, imprisonment or civil action; or may cause the permit to be null and void.

Pedestrian and Bicycle Pathway

- 1) This Major Modification authorizes the construction of a pedestrian/bicycle pathway project that will connect the East Carolina University Coastal Studies Institute with the N.C. Department of Transportation (DOT) Roanoke Island Visitor Information Center and Rest Area. Approximately 190 linear feet of the pathway will be an elevated wooden walkway over Collins Creek, and approximately 133 linear feet of the pathway will be an elevated wooden walkway over an unnamed manmade canal. In addition, approximately 0.03 acres of existing fill and 3 existing culverts will be removed from Collins Creek as compensatory mitigation. All work shall be conducted as depicted on the attached workplan drawings (11): 1 dated as received 5/5/16, 3 dated as received 2/24/16, 2 dated 9/11/15, 1 dated 6/11/15, 1 dated 1/25/16, 2 dated 1/27/16, and 1 dated 2/17/16.

(See attached sheets for Additional Conditions)

This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

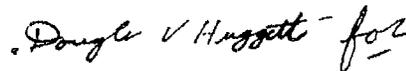
Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

December 31, 2019

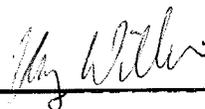
In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

Signed by the authority of the Secretary of DEQ and the Chairman of the Coastal Resources Commission.



Braxton C. Davis, Director
Division of Coastal Management

This permit and its conditions are hereby accepted.



Signature of Permittee

ADDITIONAL CONDITIONS

- 2) Development authorized by this permit shall only be conducted on lands where express written approval has been obtained by the landowners for the authorized activities.
- 3) The permittee shall contact the N.C. Wildlife Resources Commission (WRC) prior to the initiation of construction activities on WRC property. The WRC point of contact is Mr. Tommy K. Hughes, Coastal EcoRegion Supervisor, 1004 Park Drive, Trent Woods, NC 28562, 252-670-9929, Tommy.Hughes@ncwildlife.org.
- 4) In accordance with commitments made by the permittee, this project shall not impact any known archaeological sites or sites listed or eligible for listing on the National Register of Historic Places.

NOTE: Public comments received by the N.C. Division of Coastal Management (DCM) indicate that there are seven gravesites located in proximity to the authorized pathway. The permittee and/or its contractor is strongly encouraged to work with the Town of Manteo and the local Skyco community residents to ensure that the gravesites are properly protected.

NOTE: A portion of the authorized pathway will be located immediately adjacent to private residential areas. The permittee and/or its contractor is strongly encouraged to implement measures that protect the privacy of these residential areas.

- 5) The elevated pathway shall be elevated a minimum of 36" above any Coastal Wetland substrate as measured from the bottom of the decking.
- 6) No wetlands or waters of the State shall be excavated or filled, without permit modification.
- 7) No temporary impacts to wetlands or waters of the State are authorized by this Major Modification without prior approval from DCM.
- 8) The permittee shall minimize the need to cross wetlands in transporting equipment to the maximum extent practicable.
- 9) The temporary placement or double handling of fill materials within wetlands or waters of the State is not authorized.
- 10) Construction staging areas shall be located only in upland areas, and not in wetlands or waters of the State.
- 11) The permittee and/or its contractor shall provide for proper storage and handling of all oils, chemicals, etc. necessary to carry out the project.

ADDITIONAL CONDITIONS**Compensatory Mitigation****NOTE:**

This project will cross approximately 250 square feet (50 linear feet) of the existing Roanoke Island Visitor Information Center and Rest Area mitigation site. In accordance with commitments made by the permittee, the permittee shall remove approximately 0.06 acres of existing fill material and 3 existing culverts from Collins Creek as compensatory mitigation for these impacts to the Roanoke Island Visitor Information Center and Rest Area Mitigation Site.

- 12) The removal and restoration of the old roadbed at Collins Creek shall be completed in accordance with the supplemental information provided by the permittee in their mitigation letter (attached) addressed to the U.S. Army Corps of Engineers dated 5/4/16.
- 13) The new compensatory mitigation area shall be fully contained by silt fence until all of the unsuitable fill material has been removed and the mitigation area has been restored to the approximate natural elevation of the adjacent, similar undisturbed natural areas and stabilized with appropriate native vegetation.
- 14) Turbidity curtains shall be used to isolate all work areas from Collins Creek. The turbidity curtains shall be of sufficient length and effectiveness to prevent a visible increase in the amount of suspended sediments in adjacent waters. The turbidity curtains shall be properly maintained and retained in the water until construction is complete and all of the work area contained by the turbidity curtains has been stabilized by vegetation or other means. The turbidity curtains shall be removed when turbidity within the curtains reaches ambient levels.
- 15) The permittee and/or its contractor shall ensure the removal of all unsuitable material within the new compensatory mitigation area, including the existing fill and 3 existing pipes, and any other unsuitable materials. Any void left by the removal of this unsuitable material shall be filled with clean unconsolidated material to the same approximate elevation as the adjacent, similar undisturbed wetlands.
- 16) The mitigation site shall be protected in perpetuity in its restored or enhanced state as appropriate. Failure to adequately protect the mitigation site may result in further mitigation requirements.
- 17) In accordance with commitments made by the permittee, the permittee shall plant wetland vegetation at the new compensatory mitigation area, which will be *Juncus roemerianus*, *Spartina patens*, and *Cladium jamaicense*. The permittee shall monitor the new compensatory mitigation area by photographs and determinations of vegetation cover. The permittee's vegetation cover goal is at least 75 percent desirable species. The permittee shall provide annual reports on the progress of these areas to DCM for three years following the completion of mitigation site construction. Following three years of monitoring, the permittee shall hold an agency field meeting with DCM to determine if the new compensatory mitigation area has attained jurisdictional wetland status. If at the end of three years DCM determines that the new compensatory mitigation area has not attained jurisdictional wetland status, DCM shall determine if additional compensatory wetland mitigation shall be required or if other site manipulations are needed for restoration improvement.

NOTE:

The new compensatory mitigation provided by this project will not generate any excess mitigation credits for use on future projects.

ADDITIONAL CONDITIONS

Stormwater Management

- 18) In accordance with a letter dated May 4, 2016 from the N.C. Division of Energy, Mineral and Land Resources, a State Stormwater Management Permit is required for this project (Stormwater Project Number SW7160503) under stormwater management rules of the Environmental Management Commission. The Stormwater Management Permit shall be obtained and a copy provided to DCM prior to initiation of construction.

Sedimentation and Erosion Control

NOTE: An Erosion and Sedimentation Control Plan may be required for this project. If required, this plan must be filed at least thirty (30) days prior to the beginning of any land disturbing activity. Submit this plan to the Department of Environmental Quality, Land Quality Section, 943 Washington Square Mall, Washington, NC 27889.

- 19) In order to protect water quality, runoff from construction shall not visibly increase the amount of suspended sediments in adjacent waters.
- 20) Appropriate sedimentation and erosion control devices, measures or structures (e.g. silt fence, diversion swales or berms, etc.) shall be implemented to ensure that eroded materials do not enter adjacent wetlands, watercourses and/or properties.

General

- 21) No attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the authorized work following completion of construction.
- 22) The permittee and/or his contractor shall contact the DCM Transportation Project Coordinator in Elizabeth City at (252) 264-3901 to request a preconstruction conference prior to project initiation.
- 23) The permittee shall exercise all available precautions in the day-to-day operation of the project to prevent waste from entering the adjacent wetlands and waters of the State.
- 24) The permittee shall maintain the authorized work in good condition and in conformance with the terms and conditions of this Major Modification. The permittee is not relieved of this requirement if he abandons the permitted activity without having it transferred to a third party.
- 25) This Major Modification shall not be assigned, transferred, sold, or otherwise disposed of to a third party without the written approval of DCM.

ADDITIONAL CONDITIONS

- 26) If it is determined that additional permanent and/or temporary impacts are necessary that are not shown on the attached workplan drawings or described in the authorized permit application, a permit modification and/or additional authorization from DCM may be required. In addition, any changes in the approved plan may also require a permit modification and/or additional authorization from DCM. The permittee shall contact a representative of DCM prior to commencement of any such activity for this determination and any permit modification.
- 27) This Major Modification does not eliminate the need to obtain any additional state, federal or local permits, approvals or authorizations that may be required, including but not limited to any permits required by the U.S. Army Corps of Engineers (USACE) and/or the N.C. Division of Water Resources (DWR). The permittee shall provide any such permits, if required, to DCM prior to the initiation of any construction activities.
- 28) This Major Modification shall be attached to the transferred Permit No. 24-08, which was transferred to the permittee on 2/8/10, as well as the original of Permit No. 24-08, which was issued on 2/12/08, and the Major Modification which was issued on 6/29/10, as well as all subsequent refinements, modifications, and renewals, and copies of all documents shall be readily available on site when a Division representative inspects the project for compliance.
- 29) All conditions and stipulations of the active permit remain in force under this Major Modification unless altered herein.

NOTE: An application processing fee of \$475 was received by DCM for this project. This fee also satisfied the Section 401 application processing fee requirements of the Division of Water Resources.



Energy, Mineral
and Land Resources
ENVIRONMENTAL QUALITY

PAT MCCRORY

Governor

DONALD R. VAN DER VAART

Secretary

TRACY DAVIS

Director

May 31, 2016

Mr. Robert McClandon
UNC Coastal Studies Institute
850 NC 345
Wanchese, NC 27981

**Subject: Permit No. SW7160509
Roanoke Island Trail – Skyco Road to CSI Campus
Linear Public Stormwater Project
Dare County**

Dear Mr. McClandon:

The Washington Regional Office received a complete Stormwater Management Permit Application for the Roanoke Island Trail – Skyco Road to CSI Campus project on May 24, 2016. Staff review of the plans and specifications has determined that the project, as proposed, will comply with the Stormwater Regulations set forth in Session Law 2008-211 and Title 15A NCAC 2H .1000. We are forwarding Permit No. SW7160509 dated May 31, 2016, for the construction of the subject project.

This permit shall be effective from the date of issuance until rescinded, and shall be subject to the conditions and limitations as specified therein, and does not supercede any other agency permit that may be required.

If any parts, requirements, or limitations contained in this permit are unacceptable, you have the right to request an adjudicatory hearing upon written request within thirty (30) days following receipt of this permit. This request must be in the form of a written petition, conforming to Chapter 150B of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. Unless such demands are made this permit shall be final and binding.

If you have any questions, or need additional information concerning this matter, please contact me at (252) 946-6481.

Sincerely,

Samir Dumpor, PE
Regional Engineer

SD: G:/LR/SWP/SD/Other-Permits

cc: DCM-Cathy Brittingham
Dare County Building Inspections
Washington Regional Office

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES

STATE STORMWATER MANAGEMENT PERMIT
OTHER PERMIT

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules and Regulations

PERMISSION IS HEREBY GRANTED TO
UNC Coastal Studies Institute
Roanoke Island Trail – Skyco Road to CSI Campus
Dare County
FOR THE

construction of a public trail in compliance with the provisions of Session Law 2008-211 and 15A NCAC 2H .1000 (hereafter referred to as the "*stormwater rules*") and the approved stormwater management plans and specifications, and other supporting data as attached and on file with and approved by the Division of Energy, Mineral, and Land Resources and considered a part of this permit.

The Permit shall be effective from the date of issuance until rescinded and shall be subject to the following specific conditions and limitations:

I. DESIGN STANDARDS

1. The runoff from the impervious surfaces has been directed away from surface waters as much as possible.
2. This permit covers the construction of 1,414 linear feet of gravel walkway and 323 linear feet of elevated wooden walkway (5' wide).
3. The amount of built-upon area has been minimized as much as possible.
4. Best Management Practices are employed to minimize water quality impacts.
5. Approved plans and specifications for projects covered by this permit are incorporated by reference and are enforceable parts of the permit and shall be kept on file by the permittee at all times.
6. The only runoff conveyance systems allowed will be vegetated conveyances such as swales with minimum side slopes of 3:1 (H:V) as defined in the stormwater rules and approved by the Division.
7. No piping is allowed except that minimum amount necessary to direct runoff beneath an impervious surface such as a road or to provide access.

II. SCHEDULE OF COMPLIANCE

1. The permittee shall at all times provide adequate erosion control measures in conformance with the approved Erosion Control Plan.

2. The Director may notify the permittee when the permitted site does not meet one or more of the minimum requirements of the permit. Within the time frame specified in the notice, the permittee shall submit a written time schedule to the Director for modifying the site to meet minimum requirements. The permittee shall provide copies of revised plans and certification in writing to the Director that the changes have been made.
3. The permittee shall submit all information requested by the Director or his representative within the time frame specified in the written information request.
4. The permittee shall submit to the Director and shall have received approval for revised plans, specifications, and calculations prior to construction for the following items:
 - a. Any revision to the approved plans, regardless of size.
 - b. Project name change.
 - c. Transfer of ownership.
 - d. Redesign or addition to the approved amount of built-upon area.
 - e. Further subdivision, acquisition, or sale of the project area in whole or in part. The project area is defined as all property owned by the permittee, for which Sedimentation and Erosion Control Plan approval was sought.
 - f. Filling in, altering or piping any vegetative conveyance shown on the approved plan.
5. During construction, erosion shall be kept to a minimum and any eroded areas of the swales or other vegetated conveyances will be repaired immediately.
6. The permittee shall at all times provide the operation and maintenance necessary to operate the permitted stormwater management systems at optimum efficiency to include:
 - a. Inspections
 - b. Sediment removal.
 - c. Mowing, and re-vegetating of the side slopes.
 - d. Immediate repair of eroded areas.
 - e. Maintenance of side slopes in accordance with approved plans and specifications.
7. Within 30 days of completion of the project, the permittee shall certify in writing that the project has been constructed in accordance with the approved plans.
8. The Director may determine that other revisions to the project should require a modification to the permit.

III. GENERAL CONDITIONS

1. Failure to abide by the conditions and limitations contained in this permit may subject the Permittee to an enforcement action by the Division of Energy, Mineral, and Land Resources, in accordance with North Carolina General Statutes 143-215.6A to 143-215.6C.
2. The permit issued shall continue in force and effect until revoked or terminated.
3. The permit may be modified, revoked and reissued or terminated for cause. The filing of a request for a permit modification, revocation and reissuance, or termination does not stay any permit condition.
4. The issuance of this permit does not prohibit the Director from reopening and modifying the permit, revoking and reissuing the permit, or terminating the permit as allowed by the laws, rules, and regulations contained in Session Law 2008-211 and Title 15A of the North Carolina Administrative Code, Subchapter 2H.1000; and North Carolina General Statute 143-215.1 et. al.

5. The permit is not transferable to any person except after notice to and approval by the Director. The Director may require modification or revocation and reissuance of the permit to change the name and incorporate such other requirements as may be necessary. A formal permit request must be submitted to the Division of Energy, Mineral, and Land Resources accompanied by the appropriate fee, documentation from both parties involved, and other supporting materials as may be appropriate. The approval of this request will be considered on its merits, and may or may not be approved. The permittee is responsible for compliance with the terms and conditions of this permit until such time as the Director approves the transfer.
6. The issuance of this permit does not preclude the Permittee from complying with any and all statutes, rules, regulations, or ordinances which may be imposed by other government agencies (local, state and federal) which have jurisdiction.
7. The permittee shall notify the Division of any name, ownership or mailing address changes within 30 days.

Permit issued this, the 31st day of May, 2016.

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION



----- *for*
Tracy E. Davis, PE, CPM
Division of Energy, Mineral, and Land Resources
By Authority of the Environmental Management Commission

Permit No. SW7160509

DEMLR USE ONLY		
Date Received	Fee Paid	Permit Number
5-24-16	\$ 505	SW 7160509
Applicable Rules: <input type="checkbox"/> Coastal SW - 1995 <input type="checkbox"/> Coastal SW - 2008 <input type="checkbox"/> Ph II - Post Construction (select all that apply) <input type="checkbox"/> Non-Coastal SW- HQW/ORW Waters <input type="checkbox"/> Universal Stormwater Management Plan <input type="checkbox"/> Other WQ Mgmt Plan:		

COPY

State of North Carolina
 Department of Environment and Natural Resources
 Division of Energy, Mineral and Land Resources

RECEIVED

MAY 24 2016

STORMWATER MANAGEMENT PERMIT APPLICATION FORM

This form may be photocopied for use as an original

WARO

I. GENERAL INFORMATION

1. Project Name (subdivision, facility, or establishment name - should be consistent with project name on plans, specifications, letters, operation and maintenance agreements, etc.):

Roanoke Island Trail - Skyco Road to CSI Campus

2. Location of Project (street address):

850 NC 345

City: Wanchese County: Dare Zip: 27981

3. Directions to project (from nearest major intersection):

From 64/64 Business intersection; South on NC 345 1 mile; UNC Coastal Studies Institute (CSI) campus is on the right.

4. Latitude: 35° 52' 34.23" N Longitude: 75° 39' 41.33" W of the main entrance to the project.

II. PERMIT INFORMATION:

1. a. Specify whether project is (check one): New Modification Renewal w/ Modification¹
¹Renewals with modifications also requires SIVU-102 - Renewal Application Form

b. If this application is being submitted as the result of a **modification** to an existing permit, list the existing permit number _____, its issue date (if known) _____, and the status of construction: Not Started Partially Completed* Completed* **provide a designer's certification*

2. Specify the type of project (check one):

Low Density High Density Drains to an Offsite Stormwater System Other

3. If this application is being submitted as the result of a **previously returned application** or a **letter from DEMLR** requesting a state stormwater management permit application, list the stormwater project number, if assigned, _____ and the previous name of the project, if different than currently proposed, _____.

4. a. Additional Project Requirements (check applicable blanks; information on required state permits can be obtained by contacting the Customer Service Center at 1-877-623-6748):

CAMA Major Sedimentation/Erosion Control: .068 ac of Disturbed Area
 NPDES Industrial Stormwater 404/401 Permit: Proposed Impacts _____

b. If any of these permits have already been acquired please provide the Project Name, Project/Permit Number, issue date and the type of each permit: _____

5. Is the project located within 5 miles of a public airport? No Yes

If yes, see S.L. 2012-200, Part VI: <http://portal.ncdenr.org/web/ir/rules-and-regulations>

III. CONTACT INFORMATION

1. a. Print Applicant / Signing Official's name and title (specifically the developer, property owner, lessee, designated government official, individual, etc. who owns the project):

Applicant/Organization: Robert A McClendon / UNC Coastal Studies Institute (State of NC)
Signing Official & Title: Roberat A McClendon / Interim Associate Director for Administration

b. Contact information for person listed in item 1a above:

Street Address: 850 NC 345
City: Wanchese State: NC Zip: 27981
Mailing Address (if applicable): same
City: _____ State: _____ Zip: _____
Phone: (252) 475-5407 Fax: (252) 475-3545
Email: ramcclen@csi.northcarolina.edu

c. Please check the appropriate box. The applicant listed above is:

- The property owner (Skip to Contact Information, item 3a)
- Lessee* (Attach a copy of the lease agreement and complete Contact Information, item 2a and 2b below)
- Purchaser* (Attach a copy of the pending sales agreement and complete Contact Information, item 2a and 2b below)
- Developer* (Complete Contact Information, item 2a and 2b below.)

2. a. Print Property Owner's name and title below, if you are the lessee, purchaser or developer. (This is the person who owns the property that the project is located on):

Property Owner/Organization: _____
Signing Official & Title: _____

b. Contact information for person listed in item 2a above:

Street Address: _____
City: _____ State: _____ Zip: _____
Mailing Address (if applicable): _____
City: _____ State: _____ Zip: _____
Phone: (_____) _____ Fax: (_____) _____
Email: _____

3. a. (Optional) Print the name and title of another contact such as the project's construction supervisor or other person who can answer questions about the project:

Other Contact Person/Organization: same
Signing Official & Title: _____

b. Contact information for person listed in item 3a above:

Mailing Address: same
City: _____ State: _____ Zip: _____
Phone: (_____) _____ Fax: (_____) _____
Email: _____

4. Local jurisdiction for building permits: Dare County

Point of Contact: _____ Phone #: (_____) _____

IV. PROJECT INFORMATION

1. In the space provided below, briefly summarize how the stormwater runoff will be treated.

This is a linear public roadway project (walking path) that will be made of gravel and be somewhat pervious.
Any stormwater runoff will be treated adjacent to the path via native soils and mulch.

2. a. If claiming vested rights, identify the supporting documents provided and the date they were approved:

- Approval of a Site Specific Development Plan or PUD Approval Date: _____
- Valid Building Permit Issued Date: _____
- Other: _____ Date: _____

b. If claiming vested rights, identify the regulation(s) the project has been designed in accordance with:

- Coastal SW – 1995
- Ph II – Post Construction

3. Stormwater runoff from this project drains to the _____ River basin.

4. Total Property Area: _____ acres 5. Total Coastal Wetlands Area: _____ acres
 6. Total Surface Water Area: _____ acres

7. Total Property Area (4) – Total Coastal Wetlands Area (5) – Total Surface Water Area (6) = Total Project Area*: _____ acres

* Total project area shall be calculated to exclude the following: the normal pool of impounded structures, the area between the banks of streams and rivers, the area below the Normal High Water (NHW) line or Mean High Water (MHW) line, and coastal wetlands landward from the NHW (or MHW) line. The resultant project area is used to calculate overall percent built upon area (BUA). Non-coastal wetlands landward of the NHW (or MHW) line may be included in the total project area.

8. Project percent of impervious area: (Total Impervious Area / Total Project Area) X 100 = 100 _____ %

9. How many drainage areas does the project have? (For high density, count 1 for each proposed engineered stormwater BMP. For low density and other projects, use 1 for the whole property area)

10. Complete the following information for each drainage area identified in Project Information item 9. If there are more than four drainage areas in the project, attach an additional sheet with the information for each area provided in the same format as below.

Basin Information	Drainage Area	Drainage Area	Drainage Area	Drainage Area
Receiving Stream Name	Croatan Sound			
Stream Class *				
Stream Index Number *				
Total Drainage Area (sf)				
On-site Drainage Area (sf)				
Off-site Drainage Area (sf)				
Proposed Impervious Area ** (sf)	2965			
% Impervious Area *** (total)				

Impervious Surface Area	Drainage Area	Drainage Area	Drainage Area	Drainage Area
On-site Buildings/Lots (sf)				
On-site Streets (sf)				
On-site Parking (sf)				
On-site Sidewalks (sf)				
Other on-site (sf)				
Future (sf)				
Off-site (sf)				
Existing BUA *** (sf)				
Total (sf):				

* Stream Class and Index Number can be determined at: <http://portal.ncdem.org/arch/wq/pgs/csu/classifications>

** Impervious area is defined as the built upon area including, but not limited to, buildings, roads, parking areas, sidewalks, gravel areas, etc.

*** Report only that amount of existing BUA that will remain after development. Do not report any existing BUA that is to be removed and which will be replaced by new BUA.

11. How was the off-site impervious area listed above determined? Provide documentation. _____

Projects in Union County: Contact DEMLR Central Office staff to check if the project is located within a Threatened & Endangered Species watershed that may be subject to more stringent stormwater requirements as per 15A NCAC 02B .0600.

V. SUPPLEMENT AND O&M FORMS

The applicable state stormwater management permit supplement and operation and maintenance (O&M) forms must be submitted for each BMP specified for this project. The latest versions of the forms can be downloaded from <http://portal.ncdenr.org/web/wq/ws/su/bmp-manual>.

VI. SUBMITTAL REQUIREMENTS

Only complete application packages will be accepted and reviewed by the Division of Energy, Mineral and Land Resources (DEMLR). A complete package includes all of the items listed below. A detailed application instruction sheet and BMP checklists are available from http://portal.ncdenr.org/web/wq/ws/su/statew/forms_doc. The complete application package should be submitted to the appropriate DEMLR Office. (The appropriate office may be found by locating project on the interactive online map at <http://portal.ncdenr.org/web/wq/ws/su/maps>.)

Please indicate that the following required information have been provided by initialing in the space provided for each item. All original documents MUST be signed and initialed in blue ink. Download the latest versions for each submitted application package from http://portal.ncdenr.org/web/wq/ws/su/statew/forms_docs.

- | | Initials |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1. Original and one copy of the Stormwater Management Permit Application Form. | PMM |
| 2. Original and one copy of the signed and notarized Deed Restrictions & Protective Covenants Form. (if required as per Part VII below) | NA |
| 3. Original of the applicable Supplement Form(s) (sealed, signed and dated) and O&M agreement(s) for each BMP. | NA |
| 4. Permit application processing fee of \$505 payable to NCDENR. (For an Express review, refer to http://www.envhelp.org/pages/onestopexpress.html for information on the Express program and the associated fees. Contact the appropriate regional office Express Permit Coordinator for additional information and to schedule the required application meeting.) | by mail from
ECU |
| 5. A detailed narrative (one to two pages) describing the stormwater treatment/management | for _____ |
| 6. A USGS map identifying the site location. If the receiving stream is reported as class SA or the receiving stream drains to class SA waters within 1/2 mile of the site boundary, include the 1/2 mile radius on the map. | _____ |
| 7. Sealed, signed and dated calculations (one copy). | _____ |
| 8. Two sets of plans folded to 8.5" x 14" (sealed, signed, & dated), including: | _____ |
| a. Development/Project name. | |
| b. Engineer and firm. | |
| c. Location map with named streets and NCSR numbers. | |
| d. Legend. | |
| e. North arrow. | |
| f. Scale. | |
| g. Revision number and dates. | |
| h. Identify all surface waters on the plans by delineating the normal pool elevation of impounded structures, the banks of streams and rivers, the MHW or NHW line of tidal waters, and any coastal wetlands landward of the MHW or NHW lines. | |
| • Delineate the vegetated buffer landward from the normal pool elevation of impounded structures, the banks of streams or rivers, and the MHW (or NHW) of tidal waters. | |
| i. Dimensioned property/project boundary with bearings & distances. | |
| j. Site Layout with all BUA identified and dimensioned. | |
| k. Existing contours, proposed contours, spot elevations, finished floor elevations. | |
| l. Details of roads, drainage features, collection systems, and stormwater control measures. | |
| m. Wetlands delineated, or a note on the plans that none exist. (Must be delineated by a qualified person. Provide documentation of qualifications and identify the person who made the determination on the plans. | |
| n. Existing drainage (including off-site), drainage easements, pipe sizes, runoff calculations. | |
| o. Drainage areas delineated (included in the main set of plans, not as a separate document). | |
| p. Vegetated buffers (where required). | |

9. Copy of any applicable soils report with the associated SHWT elevations (Please identify elevations in addition to depths) as well as a map of the boring locations with the existing elevations and boring logs. Include an 8.5"x11" copy of the NRCS County Soils map with the project area clearly delineated. For projects with infiltration BMPs, the report should also include the soil type, expected infiltration rate, and the method of determining the infiltration rate. (Infiltration Devices submitted to WIRO: Schedule a site visit for DEMLR to verify the SHWT prior to submittal, (910) 796-7378.)
10. A copy of the most current property deed. Deed book: _____ Page No: _____
11. For corporations and limited liability corporations (LLC): Provide documentation from the NC Secretary of State or other official documentation, which supports the titles and positions held by the persons listed in Contact Information, item 1a, 2a, and/or 3a per 15A NCAC 2H.1003(e). The corporation or LLC must be listed as an active corporation in good standing with the NC Secretary of State, otherwise the application will be returned.
<http://www.secretary.state.nc.us/Corporations/CSearch.aspx>

VII. DEED RESTRICTIONS AND PROTECTIVE COVENANTS

For all subdivisions, outparcels, and future development, the appropriate property restrictions and protective covenants are required to be recorded prior to the sale of any lot. If lot sizes vary significantly or the proposed BUA allocations vary, a table listing each lot number, lot size, and the allowable built-upon area must be provided as an attachment to the completed and notarized deed restriction form. The appropriate deed restrictions and protective covenants forms can be downloaded from http://portal.ncdenr.org/web/ln/state-stormwater-forms_docs. Download the latest versions for each submittal.

In the instances where the applicant is different than the property owner, it is the responsibility of the property owner to sign the deed restrictions and protective covenants form while the applicant is responsible for ensuring that the deed restrictions are recorded.

By the notarized signature(s) below, the permit holder(s) certify that the recorded property restrictions and protective covenants for this project, if required, shall include all the items required in the permit and listed on the forms available on the website, that the covenants will be binding on all parties and persons claiming under them, that they will run with the land, that the required covenants cannot be changed or deleted without concurrence from the NC DEMLR, and that they will be recorded prior to the sale of any lot.

VIII. CONSULTANT INFORMATION AND AUTHORIZATION

Applicant: Complete this section if you wish to designate authority to another individual and/or firm (such as a consulting engineer and/or firm) so that they may provide information on your behalf for this project (such as addressing requests for additional information).

Consulting Engineer: _____

Consulting Firm: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Phone: (_____) _____ Fax: (_____) _____

Email: _____

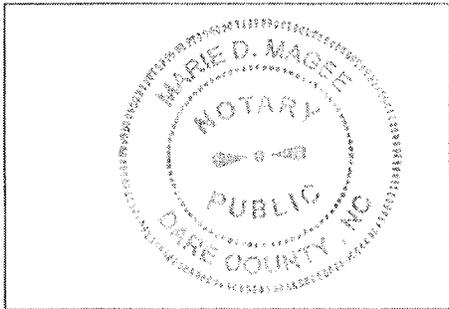
IX. PROPERTY OWNER AUTHORIZATION (if Contact Information, item 2 has been filled out, complete this section)

I, (print or type name of person listed in Contact Information, item 2a) State of NC, certify that I own the property identified in this permit application, and thus give permission to (print or type name of person listed in Contact Information, item 1a) CONCRETE MISCLENDON with (print or type name of organization listed in Contact Information, item 1a) _____ to develop the project as currently proposed. A copy of the lease agreement or pending property sales contract has been provided with the submittal, which indicates the party responsible for the operation and maintenance of the stormwater system.

As the legal property owner I acknowledge, understand, and agree by my signature below, that if my designated agent (entity listed in Contact Information, item 1) dissolves their company and/or cancels or defaults on their lease agreement, or pending sale, responsibility for compliance with the DEMLR Stormwater permit reverts back to me, the property owner. As the property owner, it is my responsibility to notify DEMLR immediately and submit a completed Name/Ownership Change Form within 30 days; otherwise I will be operating a stormwater treatment facility without a valid permit. I understand that the operation of a stormwater treatment facility without a valid permit is a violation of NC General Statute 143-215.1 and may result in appropriate enforcement action including the assessment of civil penalties of up to \$25,000 per day, pursuant to NCGS 143-215.6.

Signature: Robert H. McClelland Date: 5-9-2016

I, Marie D. Magee, a Notary Public for the State of NC, County of Dare, do hereby certify that Robert McClelland personally appeared before me this 9 day of May, 2016, and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal, Marie D. Magee



SEAL

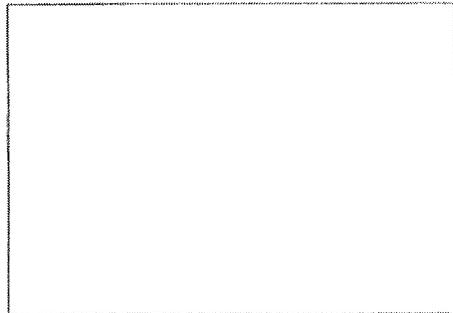
My commission expires 12/10/2018

X. APPLICANT'S CERTIFICATION

I, (print or type name of person listed in Contact Information, item 1a) _____, certify that the information included on this permit application form is, to the best of my knowledge, correct and that the project will be constructed in conformance with the approved plans, that the required deed restrictions and protective covenants will be recorded, and that the proposed project complies with the requirements of the applicable stormwater rules under 15A NCAC 2H .1000 and any other applicable state stormwater requirements.

Signature: _____ Date: _____

I, _____, a Notary Public for the State of _____, County of _____, do hereby certify that _____ personally appeared before me this ___ day of _____, _____ and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal, _____



SEAL

My commission expires _____

APPROVED *SD*
NORTH CAROLINA ENVIRONMENTAL
MANAGEMENT COMMISSION
CHARLOTTE, N.C.

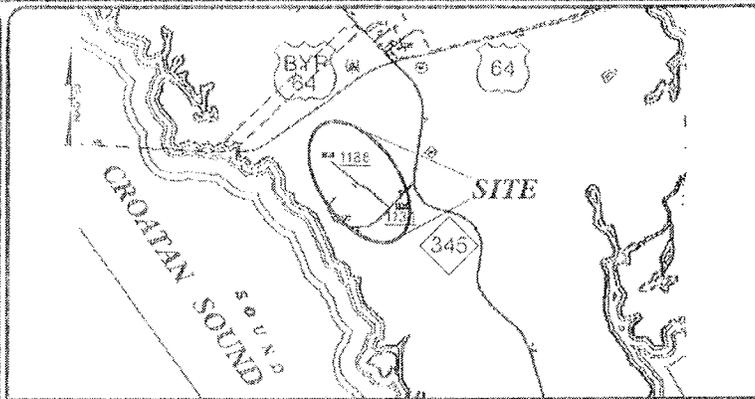
Date *May 31 2016* DEMLR

Permit No. *SW7160509*

24-EEB-2016-142
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Plot Date: 5/31/2016 11:58:55 AM

CONTRACT: DA00255

WBS ELEMENT: 44226



VICINITY MAP

STATE OF
DIVISION

DAW

LOCATION: SOI
MA

TYPE OF WORK

PROJECT LENGTH

LENGTH OF STONE WALKWAY
LENGTH OF STONE WALKWAY

TOTAL LENGTH OF STONE WALKWAY

LENGTH OF ELEVATED WOODEN WALKWAY
LENGTH OF ELEVATED WOODEN WALKWAY

TOTAL LENGTH OF ELEVATED WOODEN WALKWAY

$R = 130.00'$

REST AREA

WCR

END ELEVATED WOODEN WALKWAY STA. 20+05.30

PC Sta. 18+18.31

PT Sta. 19+55.30

TD. 20+10.82

REMOVE EXISTING PIPES

CANAL

EXISTING MITIGATION AREA

CANAL

250 sq. ft of elevated wooden walkway within mitigation area

Wetland Restoration Area 0.064 Acres (2,783 sq. ft)

BEGIN 190' ELEVATED WOODEN WALKWAY STA. 18+15.30

Total - 950 sq. ft of elevated wooden walkway

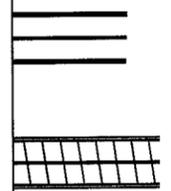
REMOVE EXISTING FILL GRADE TO ADJACENT WETLAND OR AS DIRECTED BY ENGINEER APPROX. 2,783 SQ. FT. (0.064 ACRES)

CANAL

41' 22" E

END

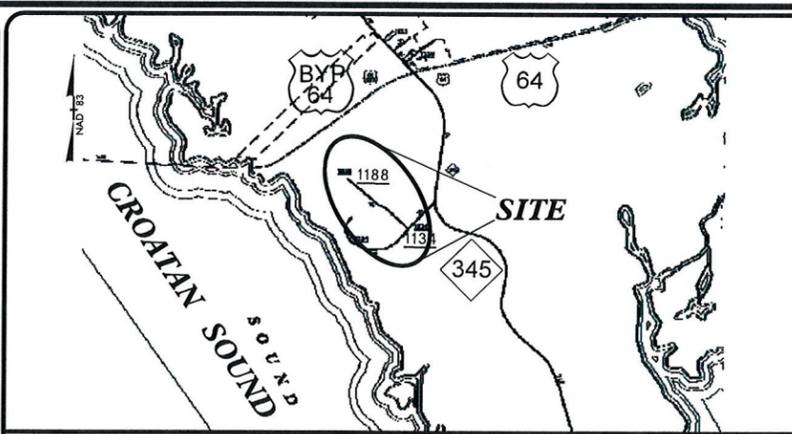
SCALE 1" = 20'



09/08/99

WBS ELEMENT: 44226

CONTRACT: DA00255



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DARE COUNTY

LOCATION: SOUTH OF US 64 REST AREA
MANTEO, ROANOKE ISLAND

TYPE OF WORK: STONE WALKWAY CONSTRUCTION &
ELEVATED WOODEN WALKWAY CONSTRUCTION

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	44226	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44226		PE, CONST	

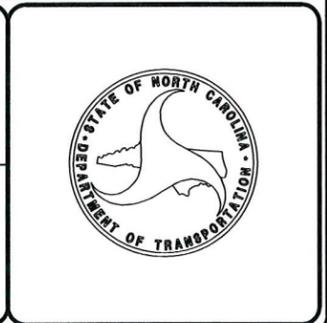


NTS

PROJECT LENGTH	
LENGTH OF STONE WALKWAY -L1-	= 593 LF
LENGTH OF STONE WALKWAY -L2-	= 821 LF
TOTAL LENGTH OF STONE WALKWAY = 1,414 LF	
LENGTH OF ELEVATED WOODEN WALKWAY -L1-	= 133 LF
LENGTH OF ELEVATED WOODEN WALKWAY -L2-	= 190 LF
TOTAL LENGTH OF ELEVATED WOODEN WALKWAY = 323 LF	

Prepared In the Office of: DIVISION OF HIGHWAYS 113 Airport Dr., Edenton, NC 27932	
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	W. B. HOBBS, PE DIVISION PROJECT MANAGER
LETTING DATE:	CHRIS SLACHTA DIVISION PROPOSALS ENGINEER

ROADWAY DESIGN ENGINEER
S. P. FENWICK, PLS

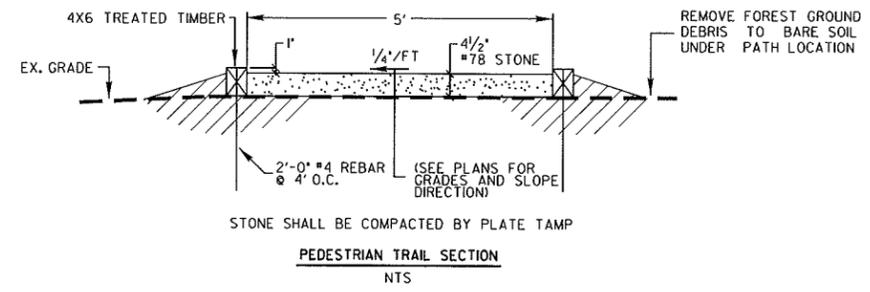
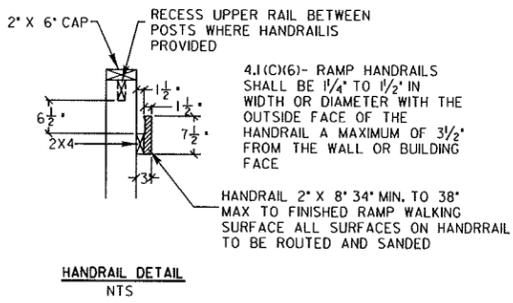
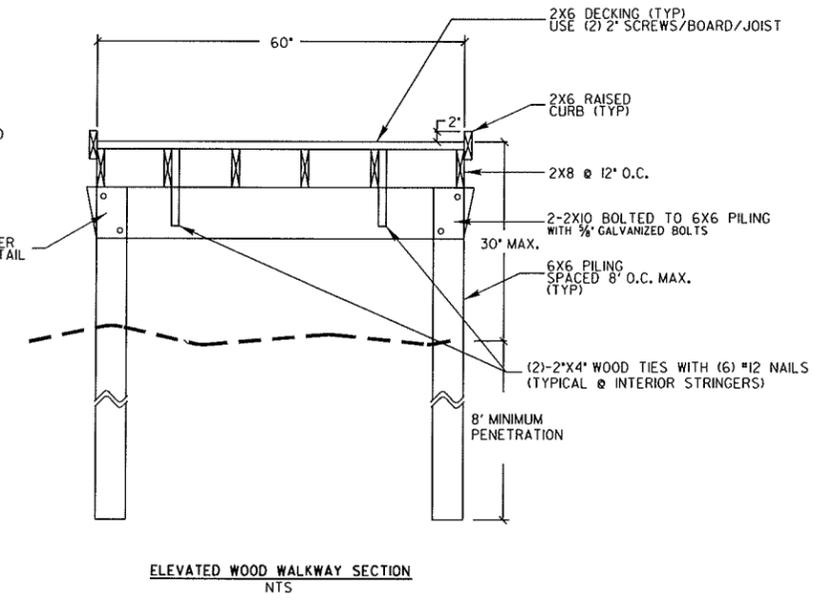
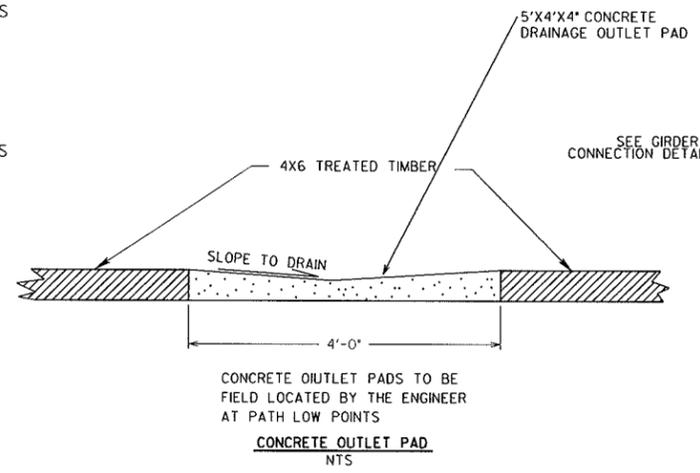


24-FEB-2016 11:21
C:\User\s\Fenwick\Desktop\Current Projects\Manteo Wellness\RWT-d01.shl.dgn
SFenwick AT DICAD265783

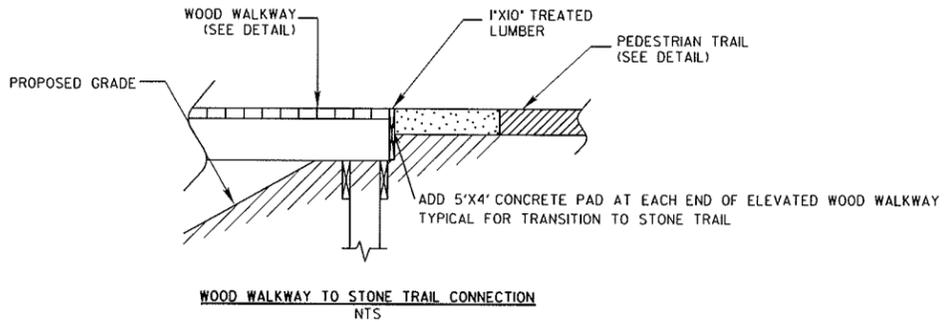
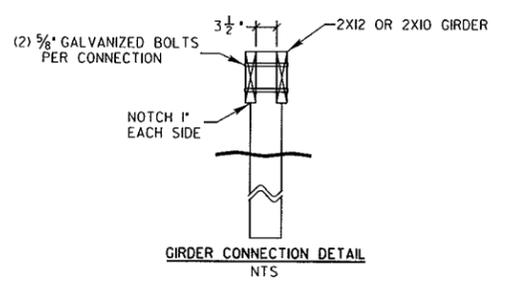
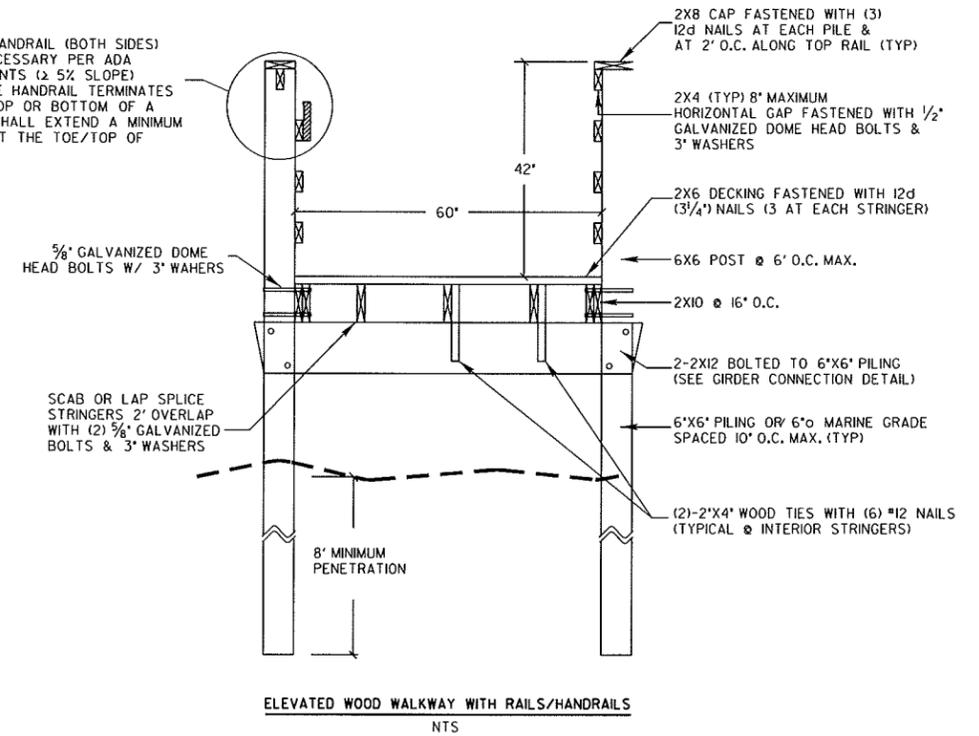
ELEVATED WOOD WALKWAY NOTES:

1. IN CASE OF DISCREPANCY IN DIMENSIONS OR DETAILS, BETWEEN MANUFACTURER AND STRUCTURAL DRAWINGS NOT AFFECTING STRENGTH, THE MANUFACTURERS PLANS SHALL GOVERN. FOR DIMENSIONS AND DETAILS NOT SHOWN, SEE MANUFACTURERS PLANS.
2. WHERE A DETAIL IS SHOWN ON STRUCTURAL DRAWINGS FOR ONE CONDITION, IT SHALL APPLY TO ALL SIMILAR OR LIKE CONDITIONS, UNLESS NOTED OR SHOWN OTHERWISE ON PLANS.
3. ALL ITEMS SHALL BE TIGHTLY ANCHORED OR ATTACHED SQUARE, PLUMB AND TRUE, OR IN OTHER PLANES AND SHAPES AS SHOWN ON THE DRAWINGS. JOINTS SHALL BE TIGHT, EVEN, AND FREE OF OFFSETS. NO FIELD ALTERING OF ANY MEMBERS WILL BE ALLOWED THAT WILL CAUSE THEM NOT TO BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, WITHOUT WRITTEN APPROVAL OF THE PROJECT ENGINEER.
4. THE DIMENSIONS SHOWN WITH A SUFFIX " " ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR BEFORE FABRICATION.
5. IF THE CONTRACTOR FINDS A DIFFERENCE BETWEEN THESE DRAWINGS AND EXISTING ELEVATIONS, OR OTHER CONDITIONS WHICH PROHIBIT EXECUTION OF THE WORK AS DIRECTED IN THESE DRAWINGS, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
6. LUMBER SHALL BE RATED (AWPA STANDARDS) AS FOLLOWS:
 - PILINGS:
SET OUTSIDE OF TIDE ZONES: UC-4C
SET IN SALT OR BRACKISH WATER AND TIDE ZONES: UC-5B
 - GIRDERS:
WITHIN SPLASH PRONE AREAS IN SALT OR BRACKISH WATER INSIDE TIDE ZONES: UC-5B
OTHER: UC-4B
 - STRINGERS/JOISTS/TIES:
GROUND CONTACT OR SPLASH ZONE: UC-4B
OTHER: UC-3B
 - DECKING AND HANDRAILS:
GROUND CONTACT OR SPLASH ZONE: UC-4B
OTHER: UC-3B

7. ALL BOLTS TO BE HOT DIP GALVANIZED, ALL FASTENERS TO BE STAINLESS STEEL OR TREATED FOR EXTERIOR EXPOSURE AND USE.



PROVIDE HANDRAIL (BOTH SIDES) WHERE NECESSARY PER ADA REQUIREMENTS (2 5% SLOPE) WHERE THE HANDRAIL TERMINATES AT THE TOP OR BOTTOM OF A RAMP, IT SHALL EXTEND A MINIMUM OF 12" PAST THE TOE/TOP OF THE RAMP.



8/17/99
27-MNH-2016-09-02
C:\Users\53f-epw\OneDrive\Projects\Mentoo Wellness\RIWT_d01_sh2.dgn
11/07/2016 10:57:33

ALIGNMENT -LI-

PI Sta 12+97.76
 $\Delta = 51^{\circ} 58' 13.4''$ (LT)
 $D = 286^{\circ} 28' 44.0''$
 $L = 18.14'$
 $T = 9.75'$
 $R = 20.00'$

PI Sta 13+66.02
 $\Delta = 26^{\circ} 55' 27.7''$ (LT)
 $D = 114^{\circ} 35' 29.6''$
 $L = 23.50'$
 $T = 11.97'$
 $R = 50.00'$

PI Sta 11+37.86
 $\Delta = 83^{\circ} 01' 13.4''$ (LT)
 $D = 114^{\circ} 35' 29.6''$
 $L = 72.45'$
 $T = 44.25'$
 $R = 50.00'$

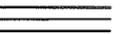
PI Sta 10+80.14
 $\Delta = 42^{\circ} 43' 16.6''$ (RT)
 $D = 286^{\circ} 28' 44.0''$
 $L = 14.91'$
 $T = 7.82'$
 $R = 20.00'$

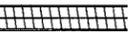
PI Sta 12+64.61
 $\Delta = 48^{\circ} 53' 03.1''$ (RT)
 $D = 286^{\circ} 28' 44.0''$
 $L = 17.06'$
 $T = 9.09'$
 $R = 20.00'$

PI Sta 11+89.07
 $\Delta = 48^{\circ} 34' 17.6''$ (RT)
 $D = 286^{\circ} 28' 44.0''$
 $L = 16.95'$
 $T = 9.02'$
 $R = 20.00'$

BEGIN ELEVATED WOODEN
 WALKWAY STA.13+22.00
 30" ABOVE CREEK NORMAL
 WATER ELEVATION

LEGEND

STONE PATH 

ELEVATED WOODEN WALKWAY 

SCALE: 1" = 20'
FULL SIZE PLANS

UNC COASTAL STUDIES INSTITUTE

10

POT Sta. 10+00.00

PC Sta. 10+72.32

PT Sta. 11+80.05
PT Sta. 11+66.05

PT Sta. 11+97.00

PC Sta. 12+55.52

PT Sta. 13+06.15

PC Sta. 13+54.05

MATCHLINE STA. 14+00.00

PT Sta. 13+77.55
SEE SHEET 5

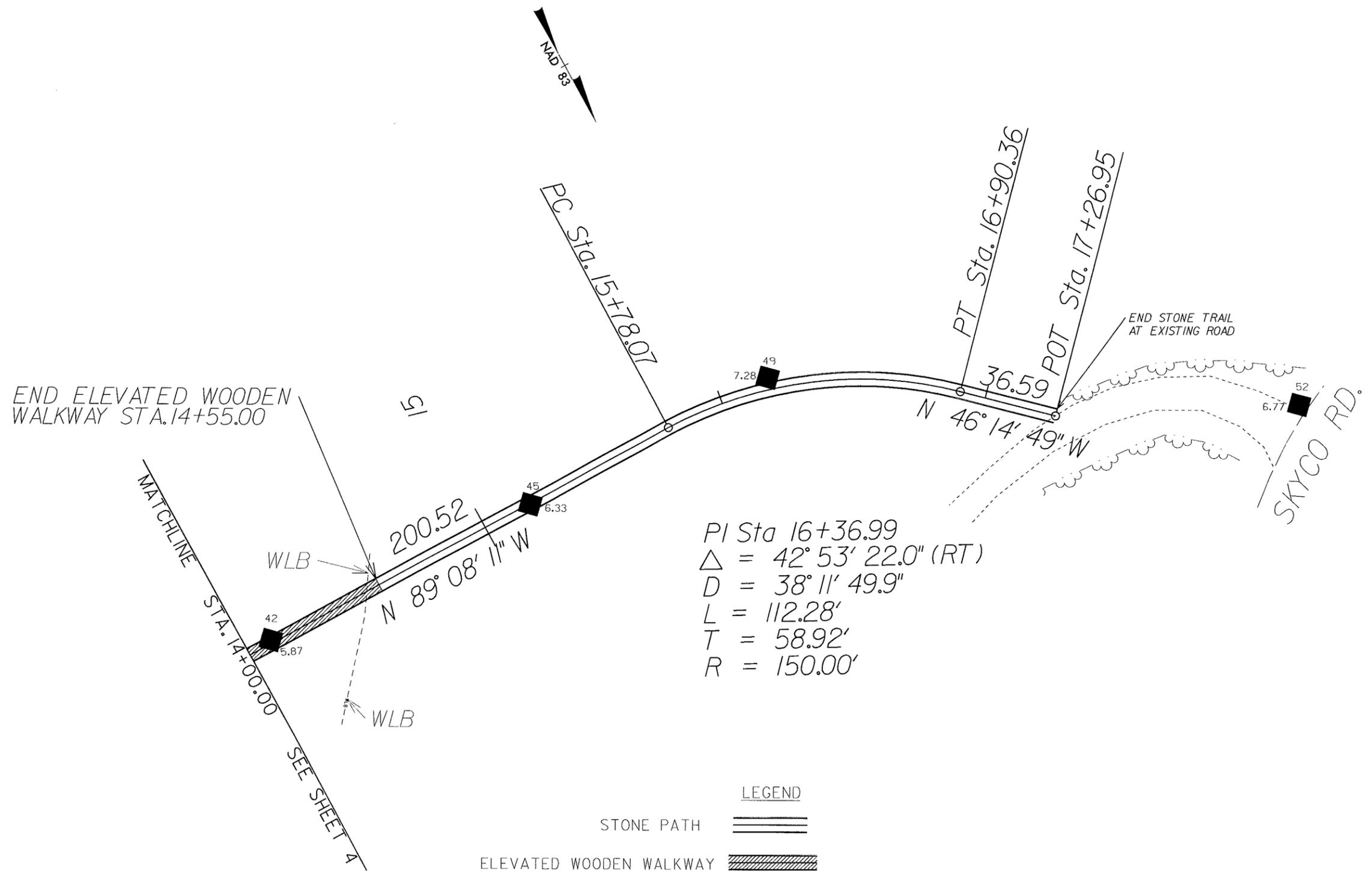
59° 07' 33" W
58.52

72.32
67° 23' 54" W
PT Sta. 10+87.23
PC Sta. 10+93.60
24° 40' 38" W
6.37
72° 18' 09" W

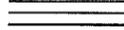
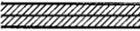
PT Sta. 12+72.59
PC Sta. 12+88.01
10° 14' 30" W
15.43
62° 12' 44" W
47.90

8/17/99
 REVISIONS
 I:\SEP-2015\15104
 C:\Users\AS-enwick\Desktop\Current Projects\Monteo Wellness\RIWT_d01_sh4.dgn
 11.71
 32

ALIGNMENT -LI-



PI Sta 16+36.99
 $\Delta = 42^\circ 53' 22.0''$ (RT)
 $D = 38^\circ 11' 49.9''$
 $L = 112.28'$
 $T = 58.92'$
 $R = 150.00'$

LEGEND
 STONE PATH 
 ELEVATED WOODEN WALKWAY 

SCALE: 1" = 20'
 FULL SIZE PLANS

REVISIONS

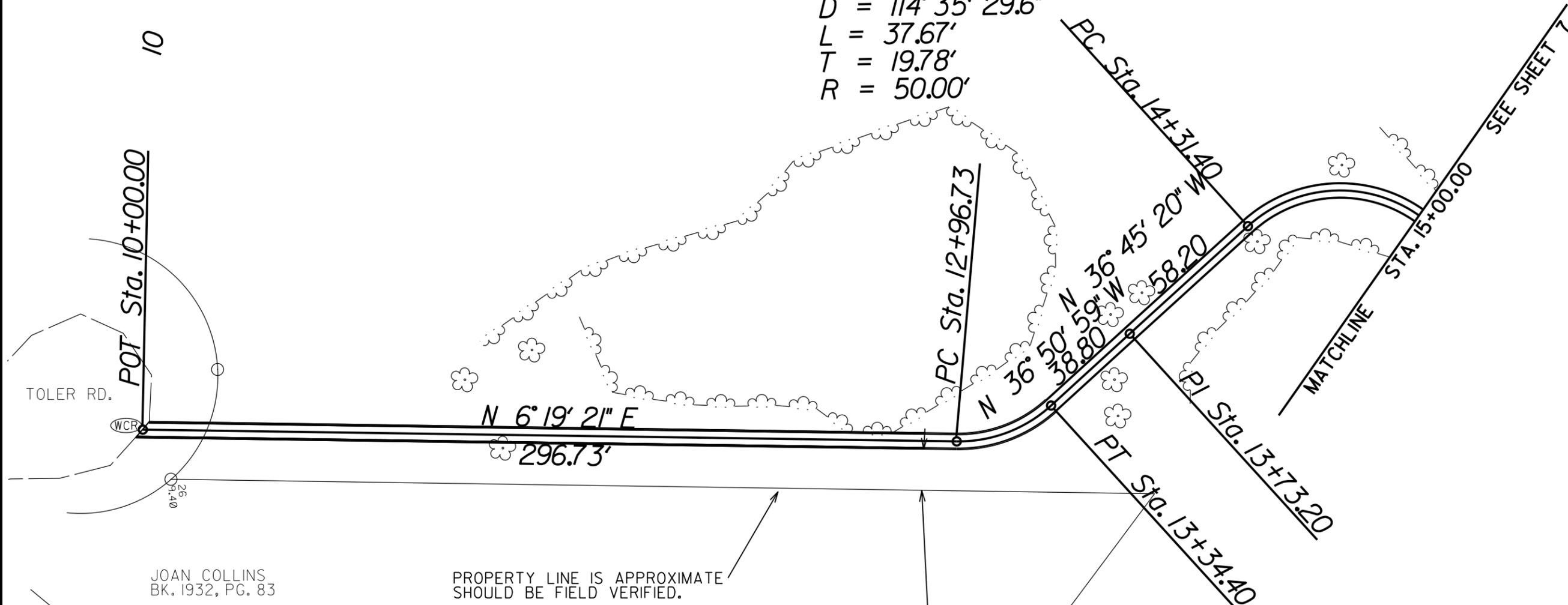
8/17/99
 I:\SEP-2015\15i09
 C:\Users\SF6\OneDrive\Documents\Projects\Monteo Wellness\RIWT_d01_sh5.dgn

ALIGNMENT -L2-



PI Sta 13+16.52
 $\Delta = 43^\circ 10' 20''$ (LT)
 $D = 114^\circ 35' 29.6''$
 $L = 37.67'$
 $T = 19.78'$
 $R = 50.00'$

8/17/99
 REVISIONS
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 C:\User\stf\work\1610\Current Projects\Manteo Wellness\RTW\d01.sh6.dgn
 11/11/2016 10:56:46 AM



JOAN COLLINS
BK. 1932, PG. 83

PROPERTY LINE IS APPROXIMATE
SHOULD BE FIELD VERIFIED.

JOAN COLLINS
BK. 1932, PG. 83

KEEP EDGE OF TRAIL AT
MINIMUM 15' OFF PROPERTY LINE

LEGEND

STONE PATH

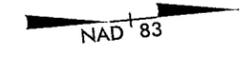
ELEVATED WOODEN WALKWAY

SCALE: 1" = 40'

PI Sta 14+79.24
 $\Delta = 87^\circ 28' 23.4''$ (RT)
 $D = 114^\circ 35' 29.6''$
 $L = 76.33'$
 $T = 47.84'$
 $R = 50.00'$

MATCHLINE
SEE SHEET 7

ALIGNMENT -L2-



PI Sta 15+72.69
 $\Delta = 27^\circ 01' 41.2''$ (LT)
 $D = 38^\circ 11' 49.9''$
 $L = 70.76'$
 $T = 36.05'$
 $R = 150.00'$

PI Sta 18+93.94
 $\Delta = 60^\circ 22' 31.8''$ (LT)
 $D = 44^\circ 04' 25.2''$
 $L = 136.99'$
 $T = 75.62'$
 $R = 130.00'$

PI Sta 14+80.33
 $\Delta = 87^\circ 28' 23.4''$ (RT)
 $D = 114^\circ 35' 29.6''$
 $L = 76.33'$
 $T = 47.84'$
 $R = 50.00'$

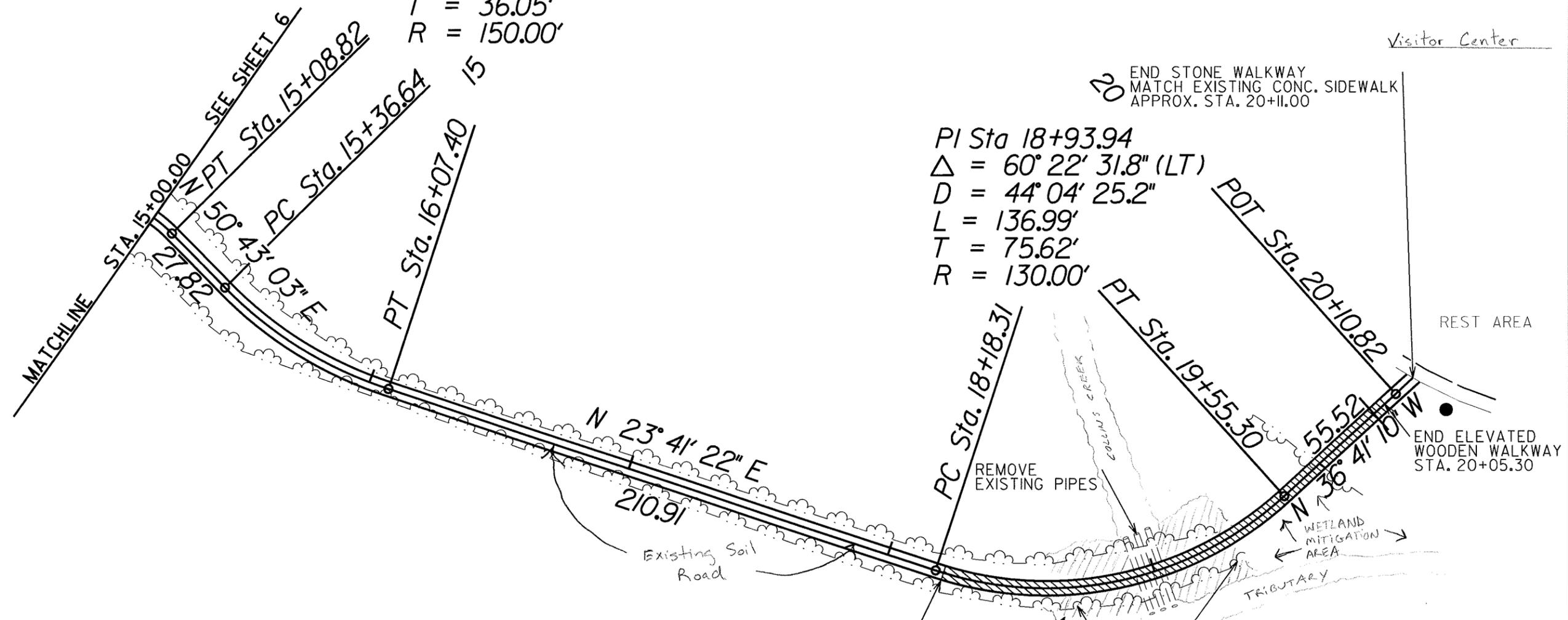
LEGEND

STONE PATH

ELEVATED WOODEN WALKWAY

SCALE: 1" = 20'

FULL SIZE PLANS

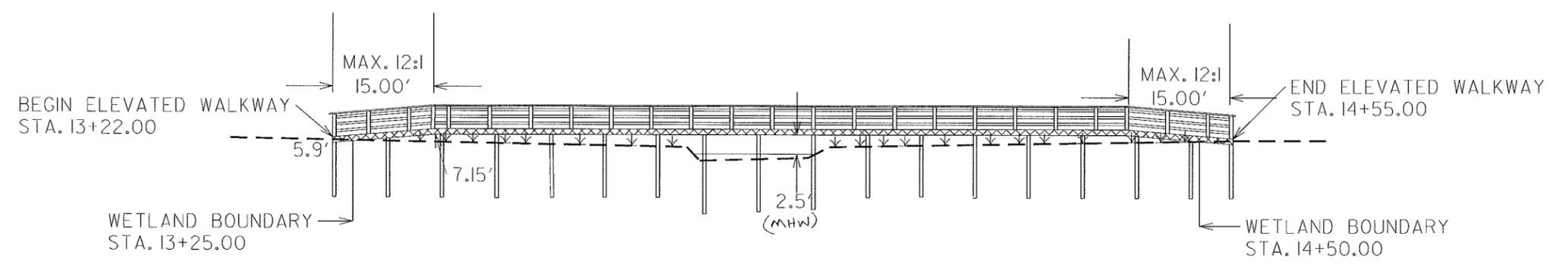


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 REVISIONS
 25 JAN 2016 11:42
 C:\Users\SP-01\OneDrive\Work\Projects\Wellness\PIWT.d01.sh7.dgn

STRUCTURE PROFILE

ALIGNMENT -LI-

1" = 20'
1/2 SIZE PLANS



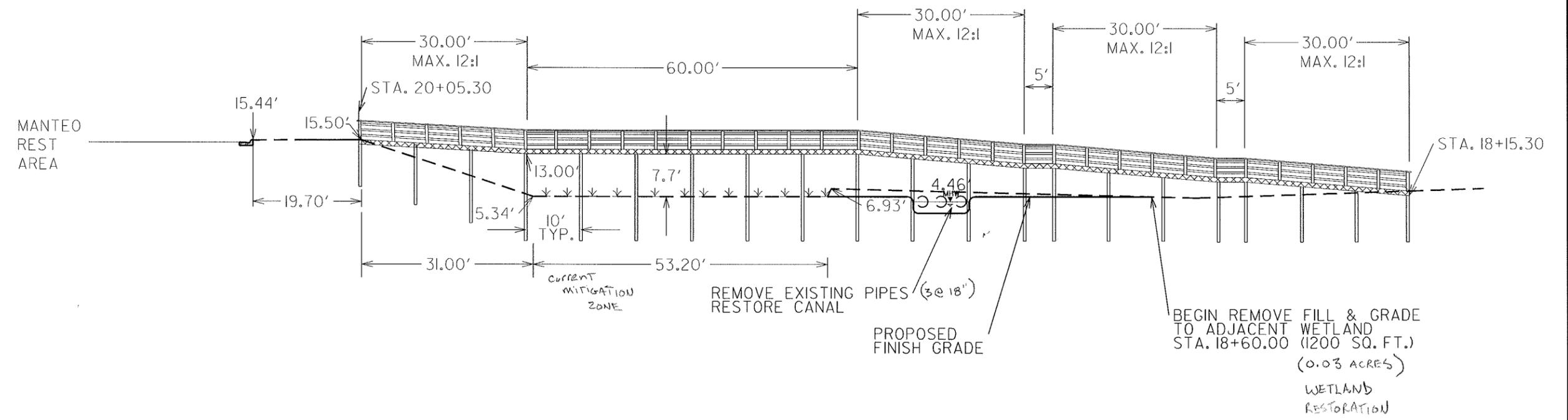
WOODEN WALKWAY PROFILE -LI-

REVISIONS

8/17/99
17 FEB 2016 11:47
C:\Users\jv5\Desktop\Projects\Mentco Wellness\44226.d01.sh8.dgn

1" = 20'
1/2 SIZE PLANS

STRUCTURE PROFILE ALIGNMENT -L2-



WOODEN WALKWAY PROFILE -L2-

HANDRAIL REQUIRED FOR FULL RUN. LEVEL REST AREAS
TO BE SPACED AT MAXIMUM 30' INTERVAL. REST AREAS
TO BE 60"X60" CLEAR MINIMUM.

REVISIONS

8/17/99

27 JAN 2016 08:00 C:\Users\jg\Desktop\44226.dwg\Current Projects\Manteo Wellness\44226.dwg\sh8.plt.dgn