US Army Corps of Engineers ®
Wilmington District

CESAW-ECP-PE **17 April 2015**

PUBLIC NOTICE
MODIFIED DESIGN

PRINCEVILLE, NORTH CAROLINA FLOOD RISK MANAGEMENT
DRAFT INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL ASSESSMENT

Comment Deadline: Within 30 days of the date of this Notice.

TO WHOM IT MAY CONCERN: In March 2014, a draft Integrated Feasibility Report and Environmental Assessment (Report/EA) that evaluated the environmental impacts of construction of a levee in the Town of Princeville, North Carolina was released by the U. S. Army Corps of Engineers (Corps) for public review. The Princeville, North Carolina draft Integrated Feasibility Report and EA proposed a plan to reduce the flooding risk to the extent practicable for the Town of Princeville.

Based on comments received on the proposed project plan, modifications to the design of the project are proposed. The most significant modification is in Segment 2 of the proposed project (Figure 1) and is the relocation of the roadside levee from the east side (Town) of US Highway 64 to the west side (Tar River) of US Highway 64. The original location of the levee on the east side of US Highway 64 avoided impacts to wetlands that existed on west side of US Highway 64. During Independent External Peer Review (IEPR) of the proposed plan, and in comments received from the NC Division of Transportation (NCDOT), it was pointed out that placement of the roadside levee on the east side of the US Highway 64 would not protect this section of road from flood inundation. As US Highway 64 is a primary hurricane evacuation route from Dare County, NC to Interstate 95, placement of the roadside levee on the River side of the road will reduce life safety risks by protecting the evacuation route. The draft feasibility report/EA stated that NCDOT had expressed this concern about levee placement, and indicated that the potential existed that the levee could be relocated from the east to the west side of the road; however, the draft report did not discuss the ~5 acres of wetland impacts associated with this relocation. All of the impacted wetlands are situated on property belonging to the State of NC, the Non-Federal Sponsor for this project.
Several other minor changes to the original design are also proposed. These changes were made based on comments received during public review of the March 2014 draft report and IEPR review. The proposed plan, as well as the proposed design modifications are described below and are summarized in Table 1.

Previous Design: As described in the draft Report/Environmental Assessment (EA) dated March 2014, the project included the addition of flap gates at ungated culverts at eight (8) locations, addressing a low spot in the existing embankment height of US Highway 64 by adding additional fill material, addressing the existing NC Highway 33 underpass, and construction of levee segments in specific portions of US Highway 258, NC-111, and Shiloh Farms Road. The plan also included interior drainage features and non-structural measures to maximize flood risk reduction. Non-Structural features include flood warning and evacuation plans, flood risk management education, and communication plans. For details on specific proposed project features, consult the draft report and EA.

Proposed Revised Design: The revised design replaces the previous design feature of flood walls and levee along the eastern (Town) side of U. S. Highway 64 with a "shoulder" levee (only), on the western (River) side of U. S. Highway 64. Flood walls will no longer be required. An overall view of the plan is shown in Figure 1.

Segment 1: The original design remains unchanged. (Figure 2)

Segment 2: The revised design omits the previously proposed construction of a 300-foot flood wall on the eastern side of Highway 64 and includes the installation of a "shoulder" levee along a low spot on the existing Highway 64 western embankment, to prevent overtopping up to the design event water surface elevation. The "shoulder" levee would be 3,450 linear feet long, with a fill volume of 61,500 cubic yards, a portion of which would occupy approximately 4.54 acres of wetlands on the River side of the existing levee. Mitigation for these wetland impacts is described in detail below. Segment 2 begins at the end of Segment 1 and runs north to the existing northern levee reach near the westbound bridge abutment of Highway 64 over the Tar River. The original design included the installation of flap gates on four (4) drainage pipes in the realigned levee. The revised design proposes flap gates at six (6) culverts within this realigned levee (Figure 3).

Segment 3: The only design change consists of removing the originally proposed stability berm, which is no longer required (Figure 4).

Segment 4: The revised design would extend Harris Hill Lane by 800 feet, to provide construction access and to also serve as a second avenue for egress to connect the eastern portion of Princeville to a hurricane evacuation route. Other Segment 4 project features remain unchanged. The original design required the adjustment of about 15 residential and 3 commercial driveways and one subdivision entrance. Modifications in this segment may potentially require elevating up to 27 driveways and Strickland Drive, to meet the new road elevations. All such work will comply with NCDOT's specifications and will meet current design standards (Figure 5).

	Previous Design	Proposed Modifications
Segment 1	Raising of the US HWY 64/ US HWY 33 interchange to 43 ft to prevent floodflows from entering the Town	No change
	Installation of flapgates at 1 triple box culvert and 1 pipe culvert	No change
Segment 2	Abandonment of the existing southern levee south of HWY 64	No change
	Realignment and extension of the southern portion of the US HWY 64 levee for 950 ft	Installation of a 3,450 linear ft shoulder levee along the western (River) side of the existing US HWY 64
	Construction of a 300 linear ft flood wall and 2,900 linear ft of new earthen levee along the eastern shoulder of US HWY 64	No flood wall required
	Installation of flapgates on 4 drainage pipes in the realigned levee	Installation of flapgates on 6 culverts
Segment 3	Addition of ~400 ft long, 16 ft wide 18 in deep stability berm at the inside toe of the existing levee	Stability berm no longer required
Segment 4	Raising of the intersection of US HWY 258 and its connection by a new levee segment to the existing northern end of the existing levee project	Extention of Harris Hill Ln by 800 ft to provide construction access and egress for an adjacent neighborhood
	Installation of 3,400 linear ft of new levee across existing farmland/pasture	No Change
	Elevating portion of NC HWY 111	No Change
	Elevating intersection NC HWY 111 and Shiloh Farm Rd	No Change
	Elevating 1,375 ft of Shiloh Farm Rd	No Change
	Elevating 15 residential and 3 commercial driveways and a sub-division entrance	Elevating 27 driveways and Strickland Drive

Table 1. Previous Design and Proposed Design Modifications

Impact Analysis for the Proposed Revised Design: The proposed project modifications will result in additional impacts to riparian wetlands adjacent to the Tar River (Figures 6 and 7). The new levee alignment along the west side of Highway 64 would impact approximately 4.54 acres of riparian wetlands adjacent to the Tar River. These are the only new impacts that would result from implementation of the proposed project modifications. Also, there would be no new impacts associated with the construction access or staging areas. With the exception of the new wetland impacts in Segment 2, the 2014 Report/EA adequately addressed all impacts associated with the project.

Proposed Mitigation for Wetland Impacts: The proposed mitigation will be based on a wetland function assessment that ensures adequate mitigation for impacts to approximately 2.50 acres of low functioning wetland area and 2.04 acres of high functioning wetland area. The proposed mitigation includes purchase of 2.50 acres of in-lieu fee mitigation credit from the NC DMS for impacts to the 2.50 acres of low quality habitat/ low functional value wetlands and purchase of 4.25 acres of in-lieu fee mitigation credit for impacts to the 2.04 acres of high quality habitat/high functional value wetland. Resource agencies support this approach and NCDMS confirmed they have lands available for purchase as mitigation in the Tar River watershed.

Commenting Information: This Public Notice is being distributed to notify all known interested persons of the proposed design changes. Comments must be submitted in writing via regular mail or e-mail within 30 days of the date of this notice. The USACE, Wilmington District will consider these comments in determining whether a Finding of No Significant Impact (FONSI) or Environmental Impact Statement (EIS) will be completed. Written comments pertinent to the proposed work should be submitted to: Ms. Teresa Bullard, USACE, Wilmington District, 69 Darlington Avenue, Wilmington, North Carolina 28403-1343. Email address: Teresa.r.bullard@usace.army.mil.

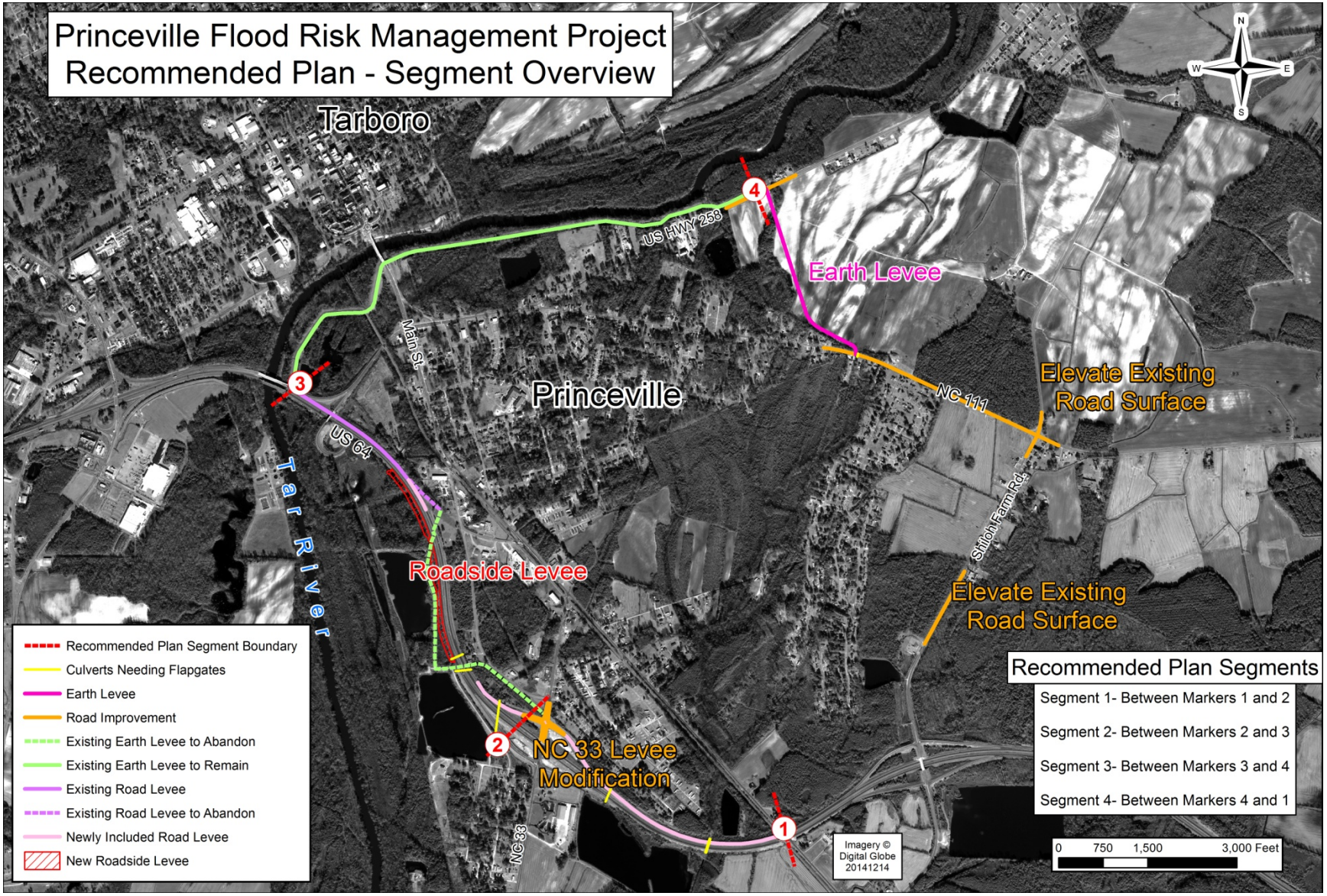

Princeville Flood Risk Management Project
Recommended Plan - Segment Overview
Tarboro
Princeville
Tar River
US HWY 258
Main St
US 64
NC 111
Shiloh Farm Rd
NC 33
Earth Levee
Elevate Existing Road Surface
Roadside Levee
NC 33 Levee Modification
Elevate Existing Road Surface
1
2
3
4
N
W
E
S
Recommended Plan Segment Boundary
Culverts Needing Flapgates
Earth Levee
Road Improvement
Existing Earth Levee to Abandon
Existing Earth Levee to Remain
Existing Road Levee
Existing Road Levee to Abandon
Newly Included Road Levee
New Roadside Levee
Recommended Plan Segments
Segment 1- Between Markers 1 and 2
Segment 2- Between Markers 2 and 3
Segment 3- Between Markers 3 and 4
Segment 4- Between Markers 4 and 1
Imagery © Digital Globe 20141214
0 750 1,500 3,000 Feet

Figure 1

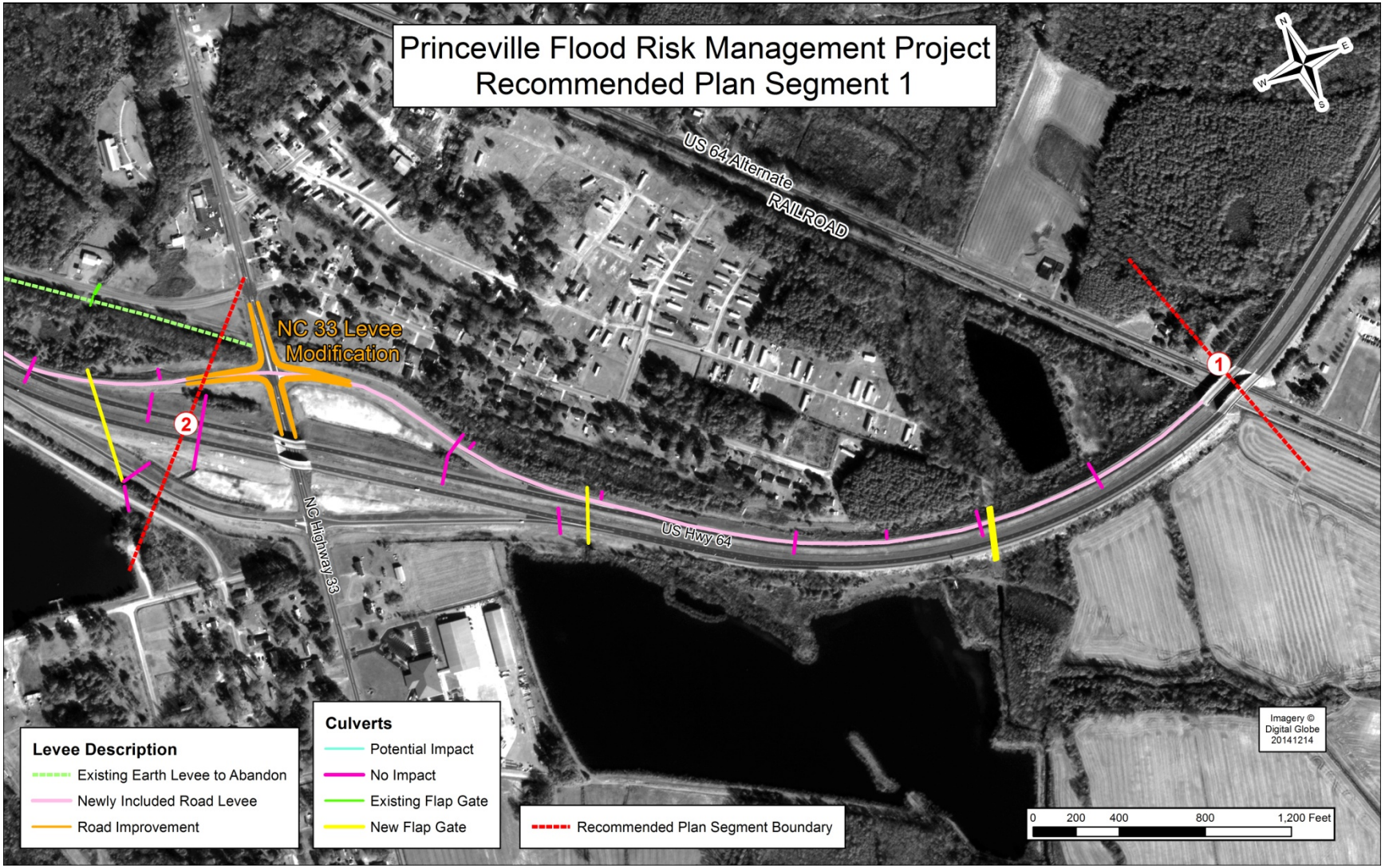

Princeville Flood Risk Management Project
Recommended Plan Segment 1
US 64 Alternate
RAILROAD
NC 33 Levee
Modification
US Hwy 64
NC Highway 33
1
2
Levee Description
Existing Earth Levee to Abandon
Newly Included Road Levee
Road Improvement
Culverts
Potential Impact
No Impact
Existing Flap Gate
New Flap Gate
Recommended Plan Segment Boundary
Imagery © Digital Globe 20141214
0 200 400 800 1,200 Feet

Figure 2

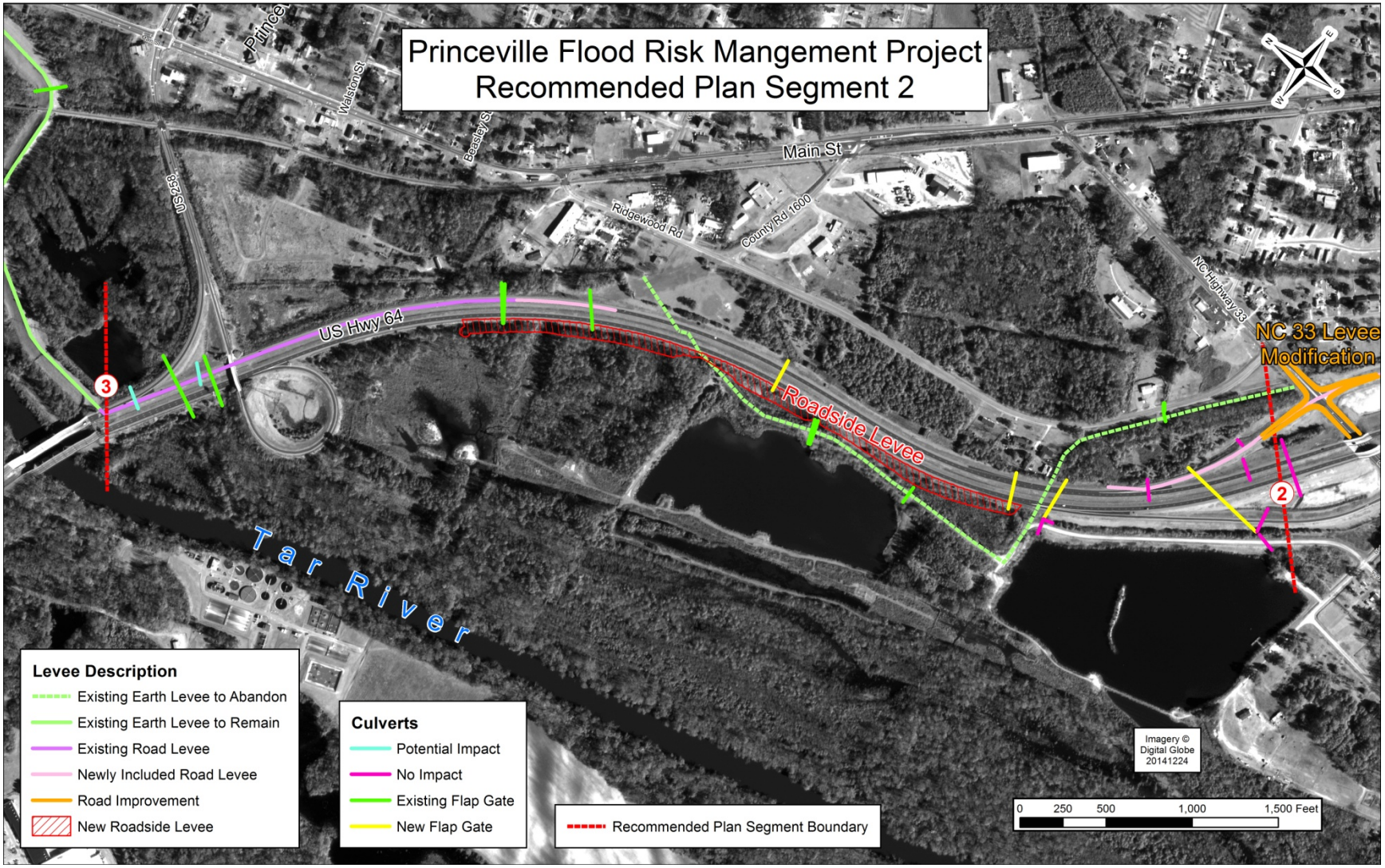

Princeville Flood Risk Mangement Project
Recommended Plan Segment 2
Prince
Walston St
Bessley St
Main St
US 258
Ridgewood Rd
County Rd 1600
NC Highway 33
US Hwy 64
NC 33 Levee Modification
Roadside Levee
3
2
Tar River
Levee Description
Existing Earth Levee to Abandon
Existing Earth Levee to Remain
Existing Road Levee
Newly Included Road Levee
Road Improvement
New Roadside Levee
Culverts
Potential Impact
No Impact
Existing Flap Gate
New Flap Gate
Recommended Plan Segment Boundary
Imagery © Digital Globe 20141224
0 250 500 1,000 1,500 Feet

Figure 3

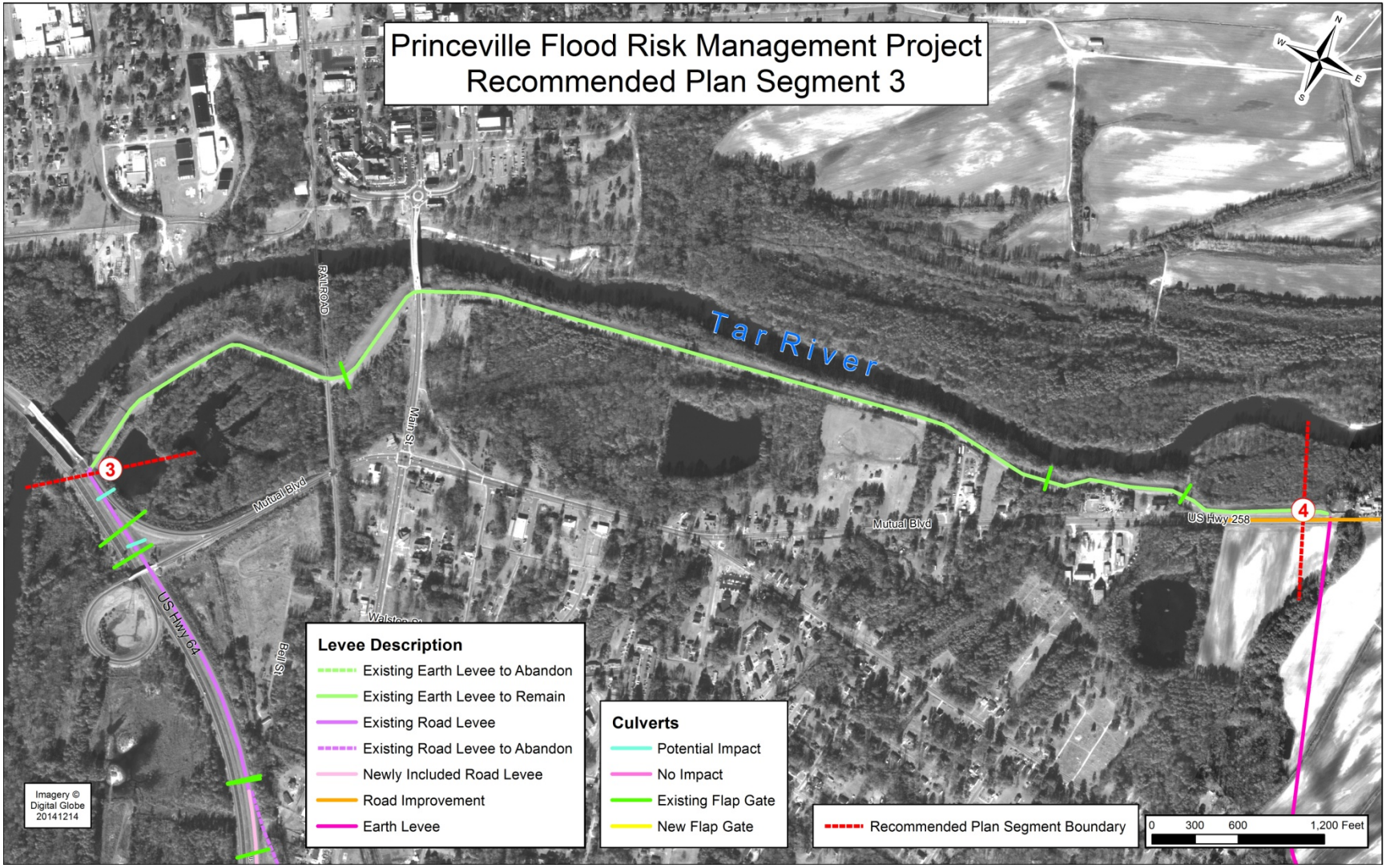

Princeville Flood Risk Management Project
Recommended Plan Segment 3
Tar River
RAILROAD
Main St
Mutual Blvd
Mutual Blvd
US Hwy 258
US Hwy 64
Bell St
3
4
N
W
E
S
Levee Description
Existing Earth Levee to Abandon
Existing Earth Levee to Remain
Existing Road Levee
Existing Road Levee to Abandon
Newly Included Road Levee
Road Improvement
Earth Levee
Culverts
Potential Impact
No Impact
Existing Flap Gate
New Flap Gate
Recommended Plan Segment Boundary
0 300 600 1,200 Feet
Imagery © Digital Globe 20141214

Figure 4

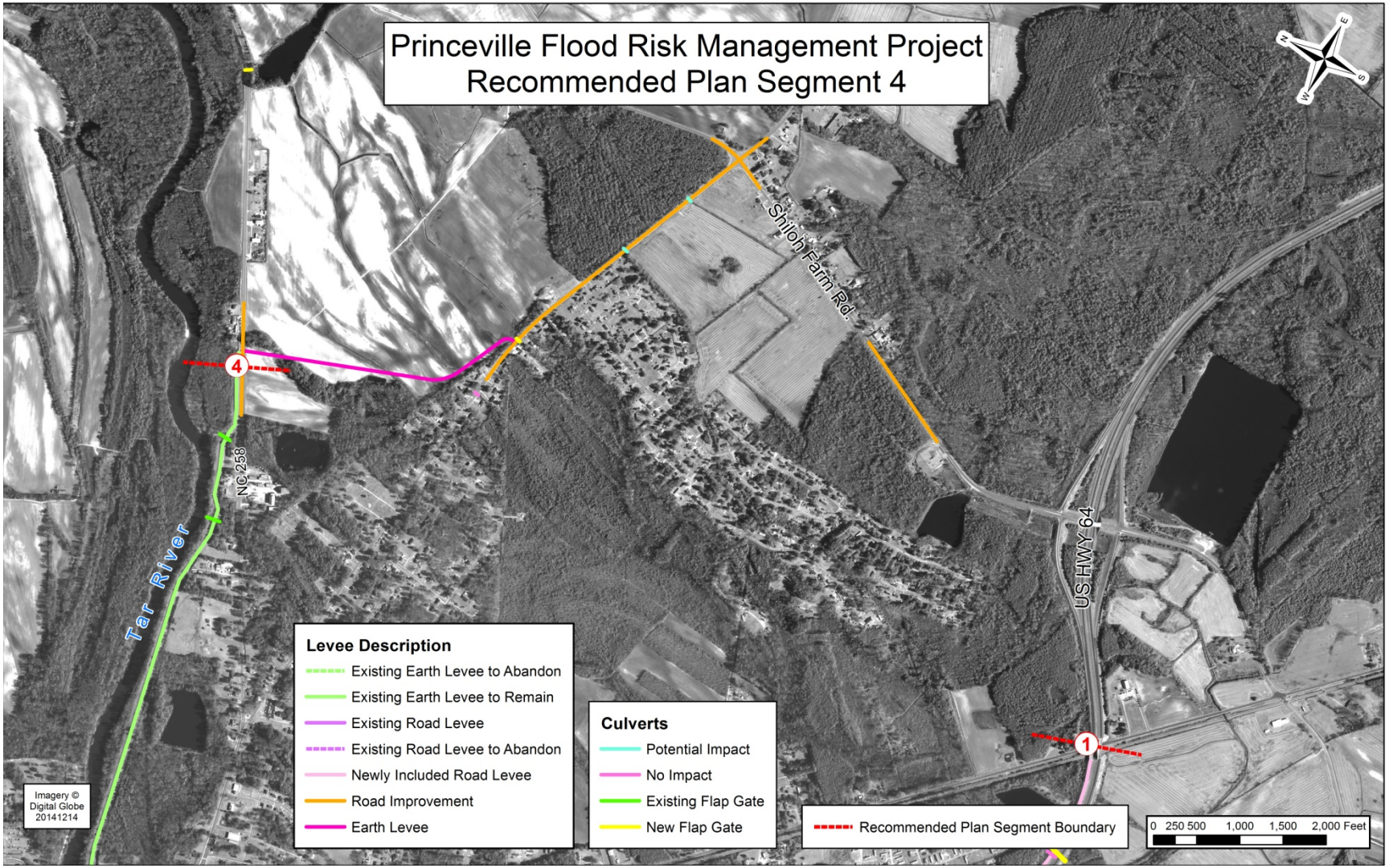
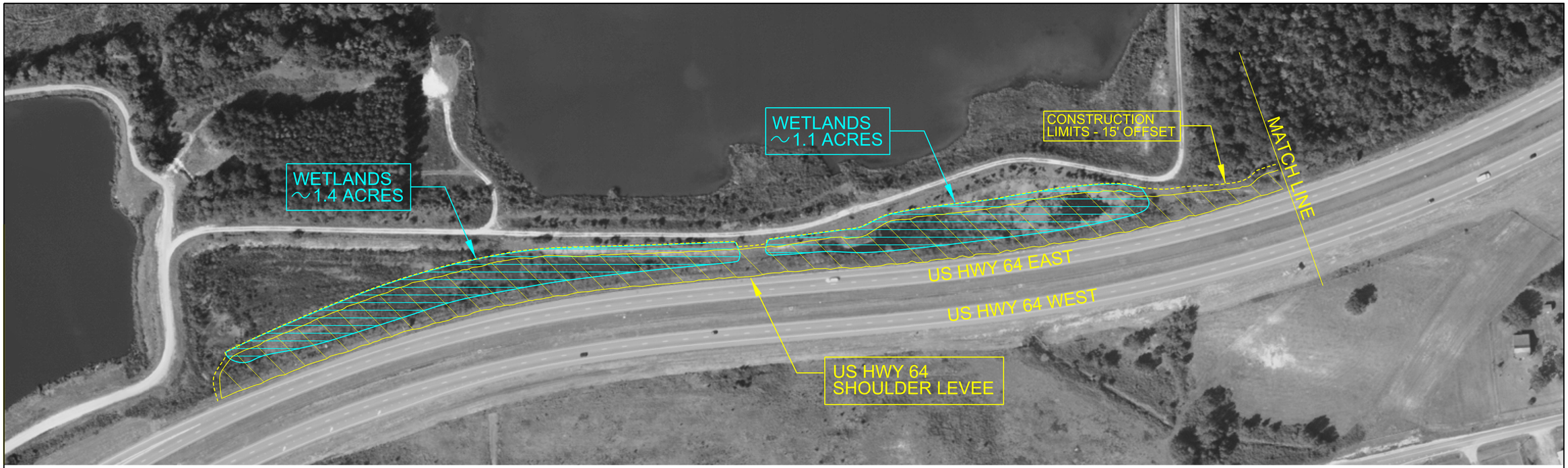
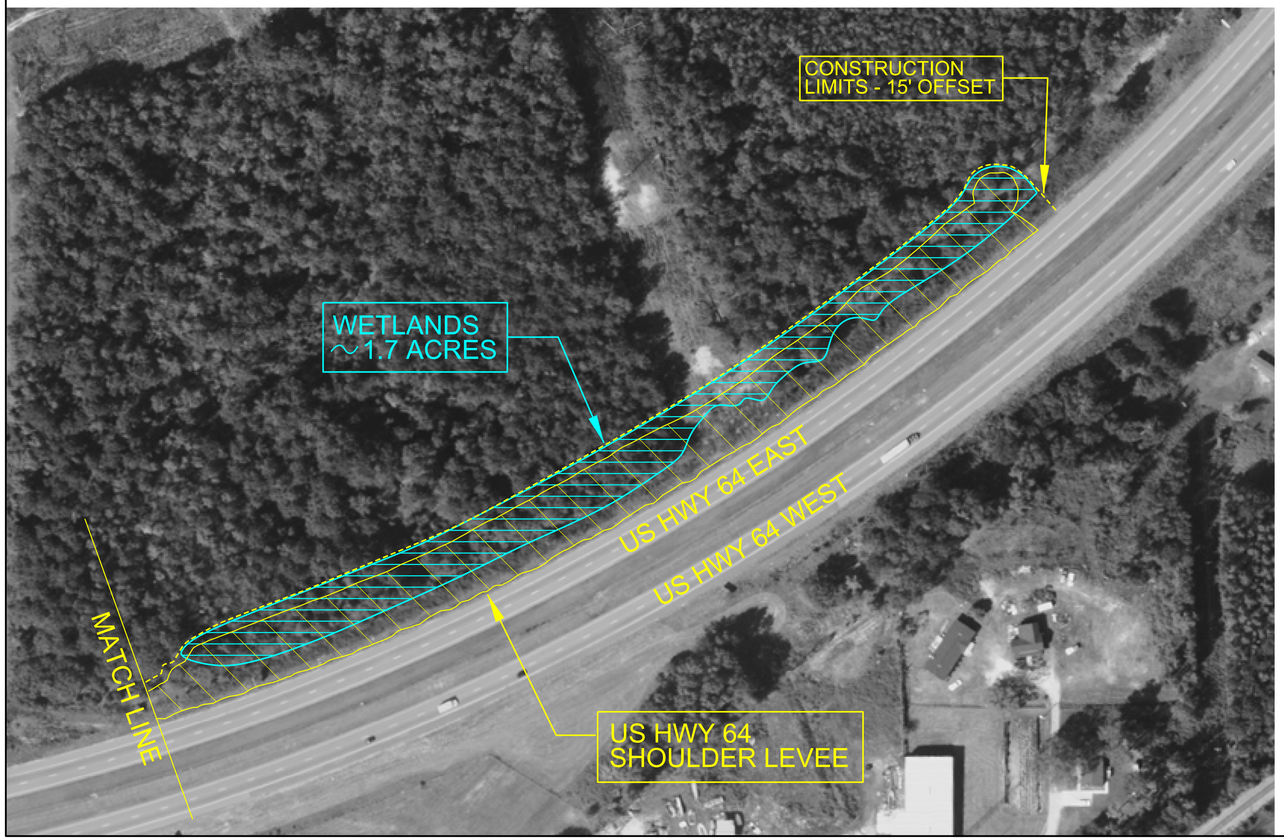

Princeville Flood Risk Management Project
Recommended Plan Segment 4
Shilon Farm Rd
US HWY 64
NC 258
Tar River
4
1
Levee Description
Existing Earth Levee to Abandon
Existing Earth Levee to Remain
Existing Road Levee
Existing Road Levee to Abandon
Newly Included Road Levee
Road Improvement
Earth Levee
Culverts
Potential Impact
No Impact
Existing Flap Gate
New Flap Gate
Recommended Plan Segment Boundary
0 250 500 1,000 1,500 2,000 Feet
Imagery © Digital Globe 20141214

Figure 5





N

200 100 0 100 200 300

SCALE IN FEET

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Wilmington District

PRINCEVILLE, NC

POTENTIAL WETLANDS IMPACTS

1 APRIL 2015

Figure 6

N

200 100 0 100 200 300

SCALE IN FEET

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Wilmington District

PRINCEVILLE, NC

POTENTIAL WETLANDS IMPACTS

1 APRIL 2015

Figure 7