

**JOINT**  
**PUBLIC NOTICE**

**CHARLESTON DISTRICT, CORPS OF ENGINEERS**

69A Hagood Avenue

Charleston, South Carolina 29403-5107

and

**THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**

Office of Environmental Quality Control

Water Quality Certification and Wetlands Programs Section

2600 Bull Street

Columbia, South Carolina 29201

REGULATORY DIVISION

April 18, 2014

Refer to: P/N #2011-968-DIM

Pursuant to Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1341), and the South Carolina Coastal Zone Management Act (48-39-10 et.seq.) an application has been submitted to the Department of the Army and the South Carolina Department of Health and Environmental Control by

**South Carolina Department of Transportation**

c/o Will McGoldrick

Post Office Box 191, 955 Park Street

Columbia, South Carolina 20202-0191

for a permit to place fill material in waters of the U.S. (including wetlands) in

**Sophia Swamp**

located along the existing Henry Brown Boulevard beginning at Red Bank Road and extending to Liberty Hall Road, in Goose Creek, Berkeley County, South Carolina (Latitude 33.00104, Longitude -80.01686).

In order to give all interested parties an opportunity to express their views

**NOTICE**

is hereby given that written statements regarding the proposed work will be received by the **Corps and SCDHEC** until

**30 DAYS FROM THE DATE OF THIS NOTICE**

from those interested in the activity and whose interests may be affected by the proposed work.

The proposed project includes widening the existing Henry Brown Boulevard from Red Bank Road (S-8-29) to Liberty Hall Road (S-8-529) and intersection improvements at Red Bank Road, Stanhope Road, and Liberty Hall Road. The proposed widening consists of a four-lane divided roadway with a 15 foot paved median and a 10 foot multi-use path. The typical section between Summit Avenue and Liberty Hall Road includes 12 foot travel lands, 10 foot paved

shoulders and a 10 foot multi-use path on the west side of the roadway. The southern portion of the proposed project between Summit Avenue and Red Bank Road will have the same width roadway but will include a curb and gutter section with the 10' multi-use path separated by the curb and a 3 foot earthen shoulder. The intersection improvements at Red Bank would include dual 300 foot in length left turn lanes at the eastbound and southbound approaches. The intersection improvements at the Stanhope Road Intersection would include a 200 foot in length right turn lane and a signalized intersection. The intersection improvements at Liberty Hall Road would include dual 300 foot in length left turn lanes added to the northbound approach, dual receiving lanes that extend to the first traffic signal at Wildberry Lane/Alder Road would be added to the west bound approach, and the east bound approach would include the addition of a channelized right turn lane.

In detail, the proposed project will impact a total of 3.362 acres of jurisdictional freshwater wetlands, which includes 1.8 acres of wetland fill, 0.922 acre of wetland clearing, and 0.64 acre of wetland excavation. Additionally the project will impact a total of 2,223 linear feet of tributaries which includes 593 feet of pipe and cover impacts, 1,458 linear feet of tributary fill, 38 linear feet of armor/rip-rap, and 134 linear feet of excavation.

Purpose: According to the applicant, the purpose of the proposed work is to increase capacity, improve traffic flow, and reduce intersection delays on Henry Brown Boulevard between Red Bank Road and Liberty Hall Road. In addition the project is expected to improve the public safety of travelers on the roadway.

Avoidance and Minimization: The applicant states that efforts to avoid and/or minimize impacts to waters of the US include:

- 2:1 roadway approach fill slopes were designed where feasible to reduce the overall width of the project impacts. In addition a curb and gutter section is proposed in order to prevent impacts to 200 linear feet of a tributary.
- Reduced median widths are proposed in efforts to decrease the overall width of the project impacts. The proposed project utilizes 15 foot medians whereas 48 foot medians are recommended for four-lane divided roadways under normal circumstances.
- Sediment and erosion control measures, consistent with the State's best management practices (BMPs), will be installed during construction.

Mitigation: For the unavoidable impacts to tributaries, SCDOT has proposed a conceptual permittee responsible mitigation plan dated March 27, 2014, for stream mitigation at Cannon Creek in Berkeley County, SC. SCDOT proposes to utilize this permittee responsible mitigation site for impacts associated with Henry Brown Boulevard and a future intersection improvement project at U.S. Highway 26, Sheep Island Parkway and Jedburg Road. The applicant has stated that the proposed mitigation plan will conform to the Corps Mitigation Rule and the current Charleston District Mitigation SOP. SCDOT expects that the proposed mitigation plan will generate 16,114 stream mitigation credits. Per the calculations provided, SCDOT expects that 12,493.2 stream credits will be needed for the proposed impacts in this public notice for Henry Brown Boulevard.

For the unavoidable impacts to jurisdictional freshwater wetlands, SCDOT proposes to debit 10.086 acres from the SCDOT approved Black River mitigation bank. This debit represents a ratio of 3:1.

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The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The work shown on this application must also be certified as consistent with applicable provisions of the South Carolina Coastal Zone Management Act (15 CFR 930). The District Engineer will not process this application to a conclusion until such certifications are received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review. Persons wishing to comment or object to State certification must submit all comments in writing to the S.C. Department of Health and Environmental Control at the above address within thirty (30) days of the date of this notice.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact approximately 3.362 acre of wetland and 2,223 linear feet of tributaries upstream of estuarine substrates and emergent wetlands utilized by various life stages of species comprising the red drum, shrimp, and snapper-grouper management complexes. Our initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

The District Engineer has consulted the most recently available information and has determined that the project will have no effect on any Federally endangered, threatened, or proposed species and will not result in the destruction or adverse modification of designated or proposed critical habitat. This public notice serves as a request to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for any additional information they may have on whether any listed or proposed endangered or threatened species or designated or proposed critical habitat may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1973 (as amended).

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), this public notice also constitutes a request to Indian Tribes to notify the District Engineer of any historic properties of religious and cultural significance to them that may be affected by the proposed undertaking.

In accordance with the NHPA, the District Engineer has also consulted the latest published version of the National Register of Historic Places for the presence or absence of registered properties, or properties listed as being eligible for inclusion therein, and this worksite is not included as a registered property or property listed as being eligible for inclusion in the Register. To insure that other cultural resources that the District Engineer is not aware of are not overlooked, this public notice also serves as a request to the State Historic Preservation Office to provide any information it may have with regard to historic and cultural resources.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state,

with particularity, the reasons for holding a public hearing.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps of Engineers cannot undertake to adjudicate rival claims.

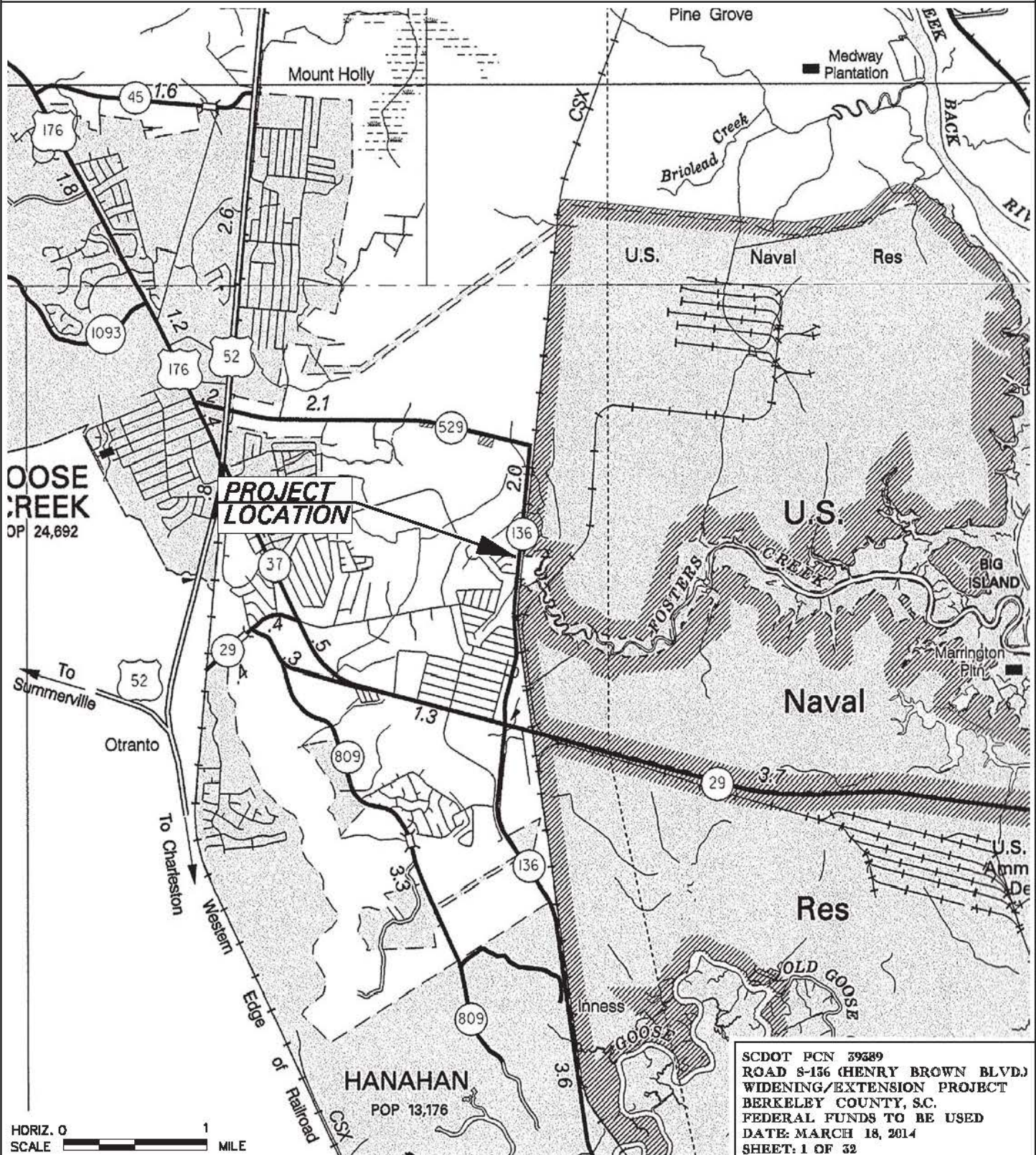
The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

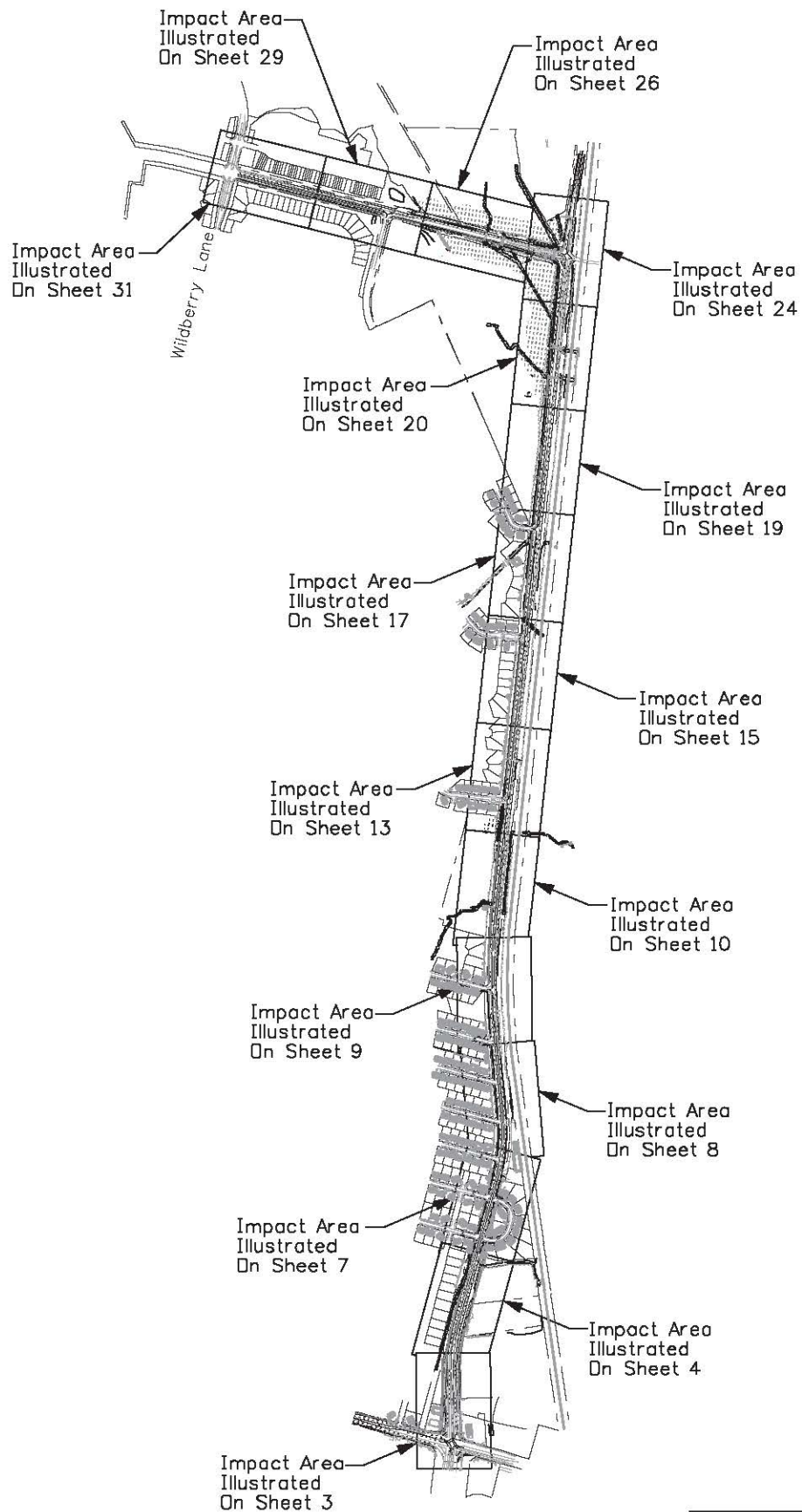
If there are any questions concerning this public notice, please contact Christopher Mims at 843-329-8044 or toll free at 1-866-329-8187.

## Berkeley County, S.C.



Latitude 32° 58' 50"

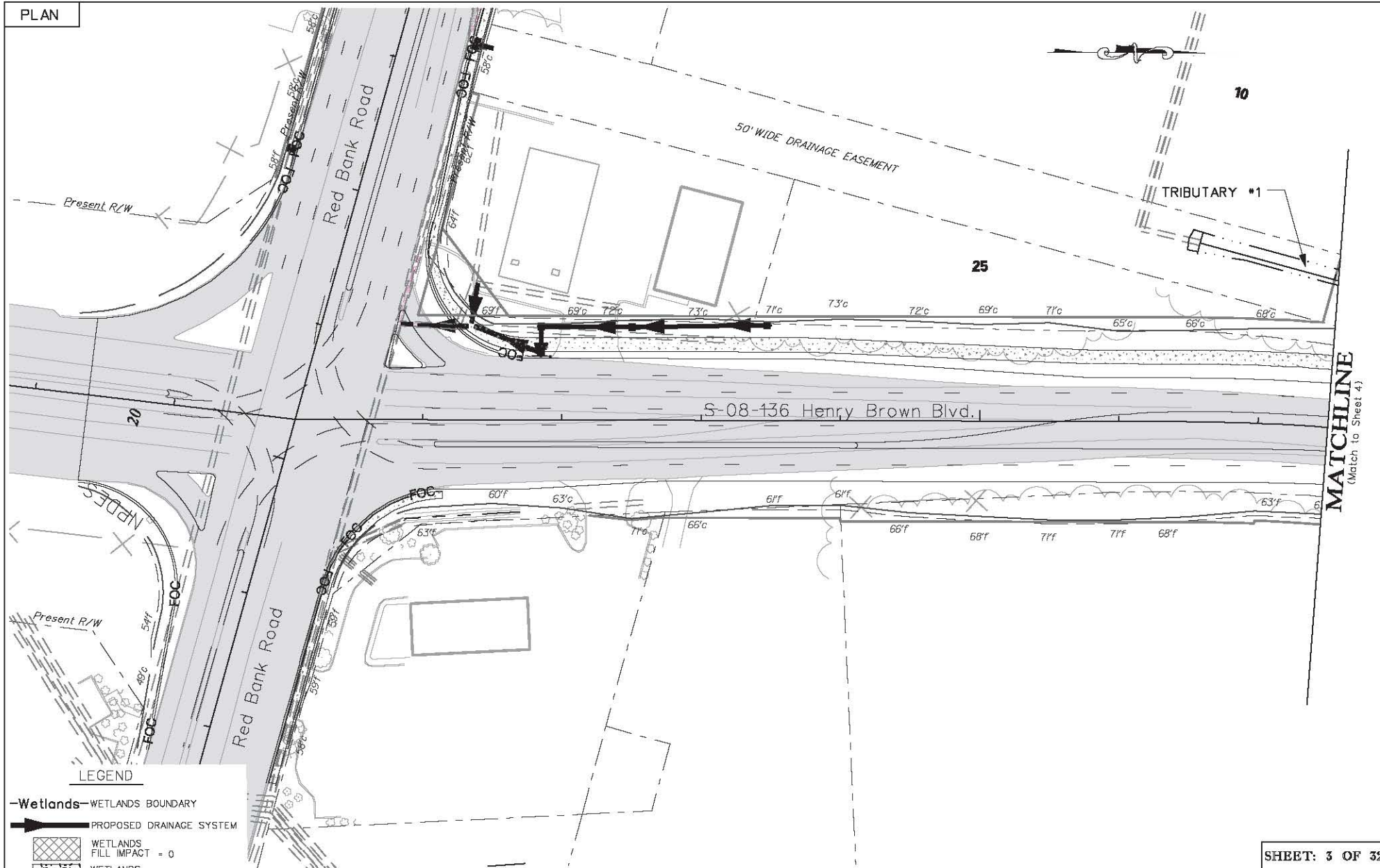
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\\scf1st\projects\10203\_01\#1-Henry Brown\Permit Drawings\PD-0\#1\_Loc-Map\_HB-(8.5x11).dgn



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SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD)  
WIDENING/EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014  
SHEET: 2 OF 32

PLAN



SHEET: 3 OF 32

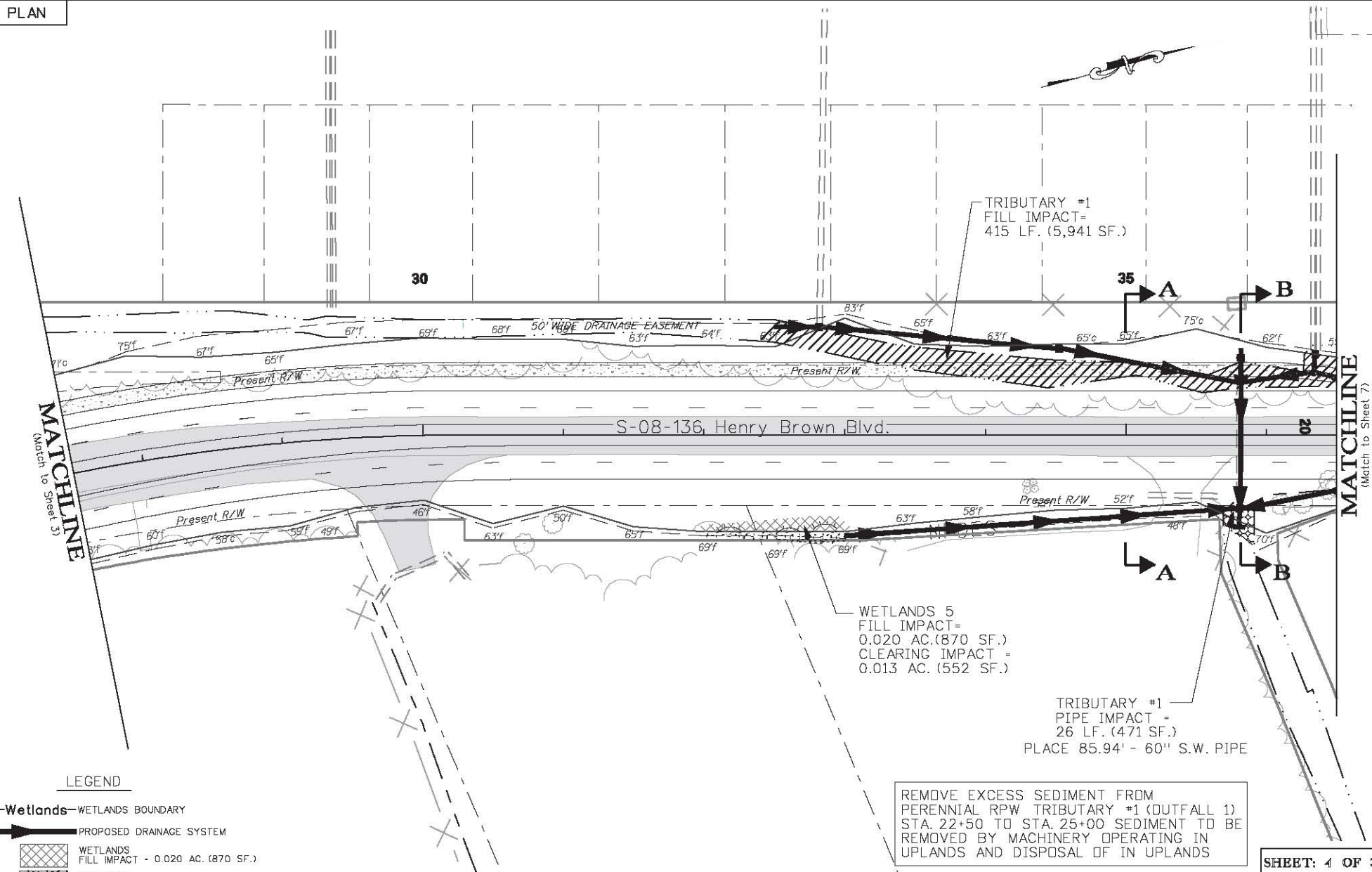
**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201



Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014



**SHEET: 4 OF 32**

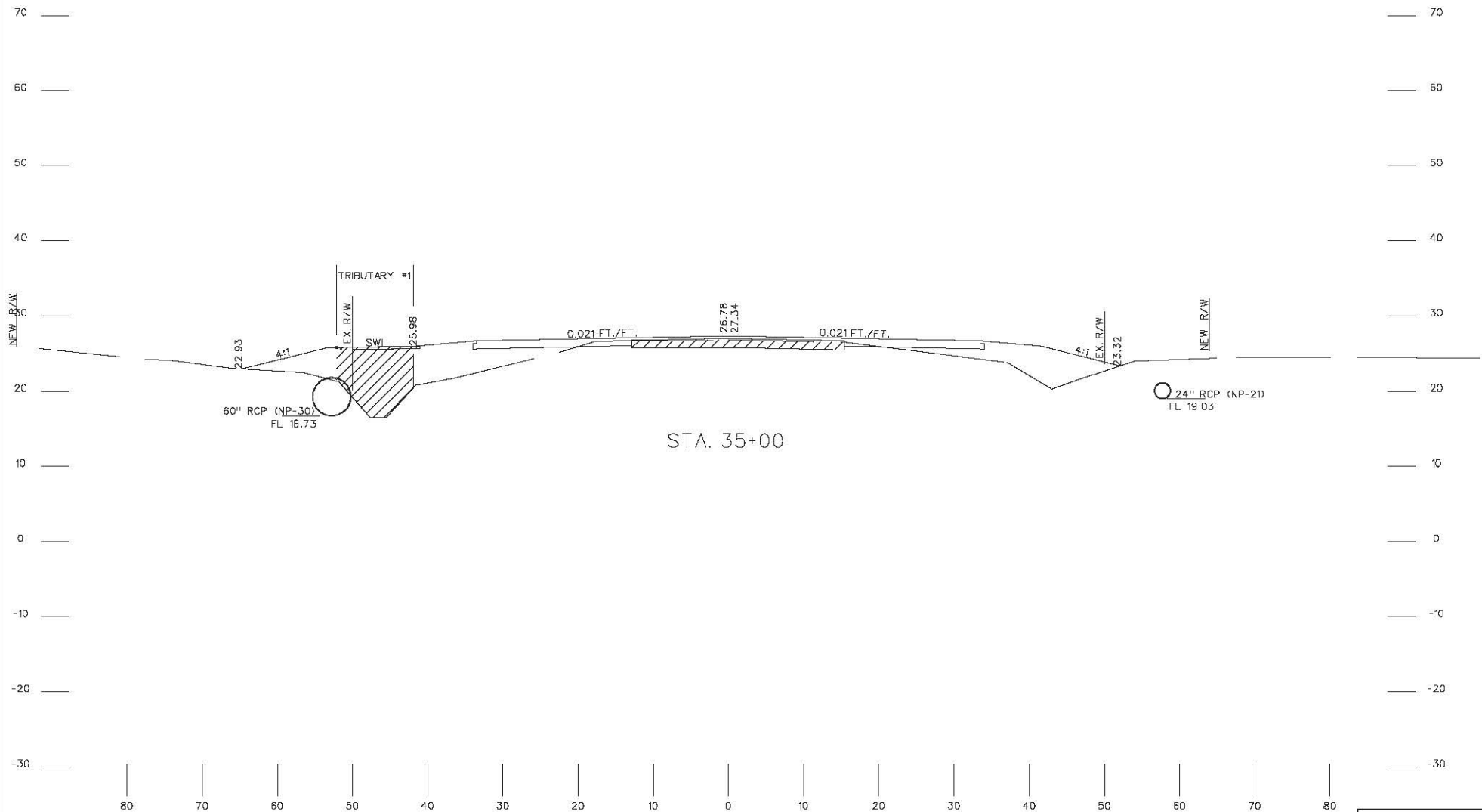
**ICA**  
**Engineering**  
501 Huger St, Columbia SC, 29201

Permit Drawing  
Plan View

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SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION A - A



SHEET: 5 OF 32

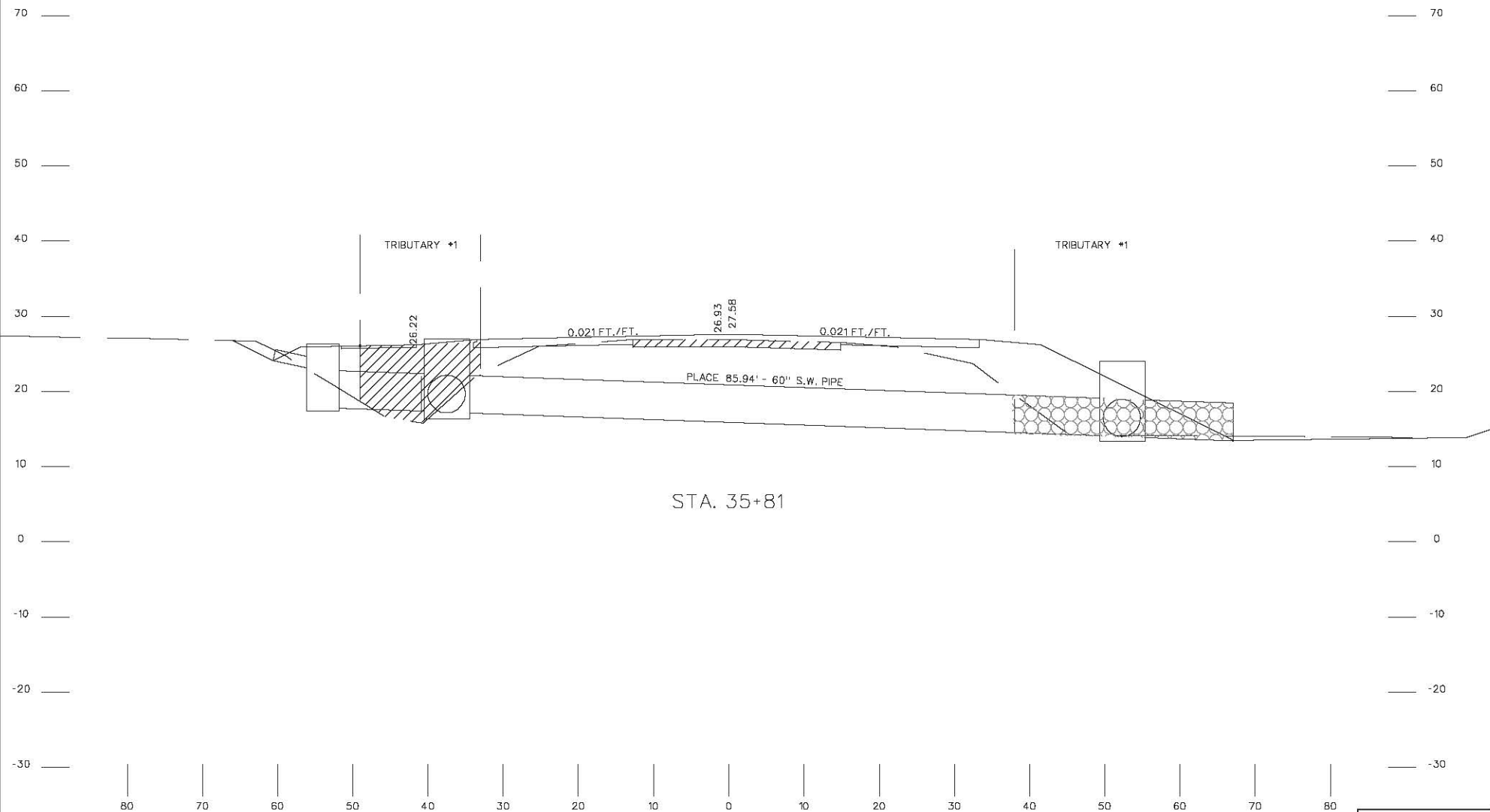
**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201

Permit Drawing  
Cross Section

VERT. 0 20  
HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION B - B



SHEET: 6 OF 32

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201

Permit Drawing  
Cross Section

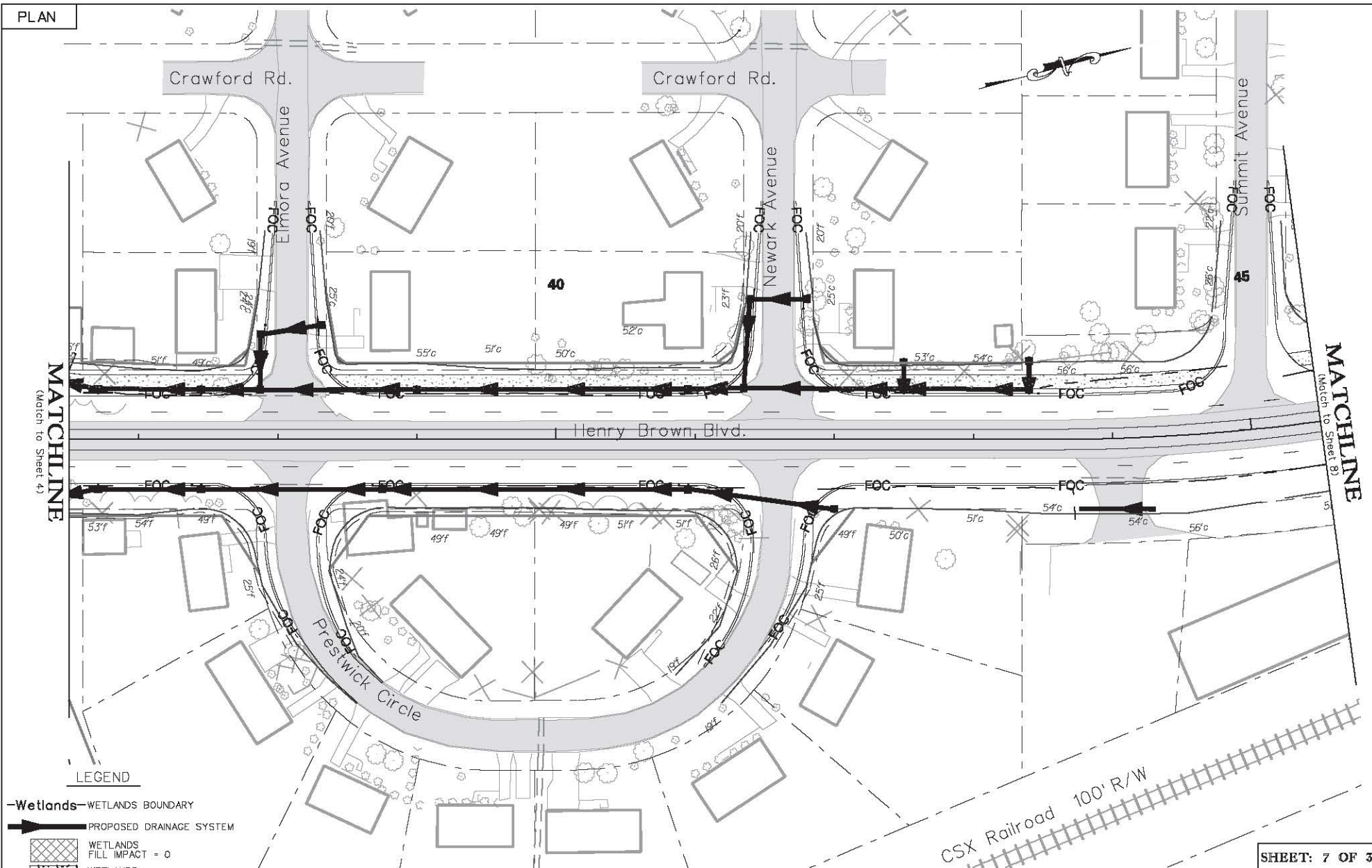
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HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

PLAN

MATCHLINE  
(Match to Sheet 4)

MATCHLINE  
(Match to Sheet 8)



- LEGEND
- Wetlands- WETLANDS BOUNDARY
  - PROPOSED DRAINAGE SYSTEM
  - WETLANDS FILL IMPACT - 0
  - WETLANDS CLEARING IMPACT - 0
  - WETLANDS EXCAVATION - 0
  - TRIBUTARY FILL IMPACT - 0
  - TRIBUTARY PIPE IMPACT - 0
  - EXISTING ROADWAY
  - RIPRAP IMPACT

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201



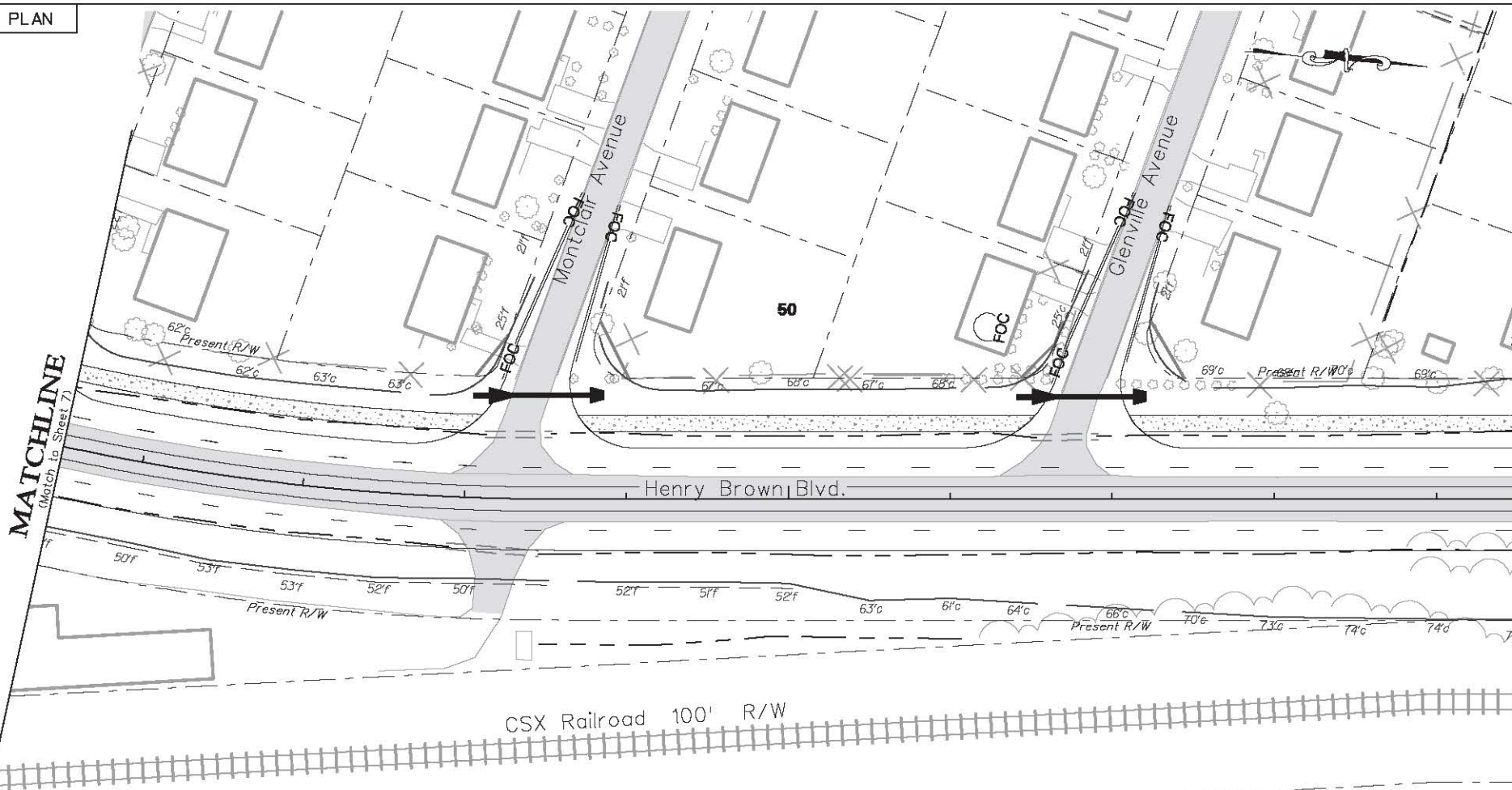
Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SHEET: 7 OF 32

PLAN



LEGEND

- Wetlands - WETLANDS BOUNDARY
- PROPOSED DRAINAGE SYSTEM
- WETLANDS FILL IMPACT - 0
- WETLANDS CLEARING IMPACT - 0
- WETLANDS EXCAVATION - 0
- TRIBUTARY FILL IMPACT - 0
- TRIBUTARY PIPE IMPACT - 0
- EXISTING ROADWAY
- RIPRAP IMPACT

SHEET: 8 OF 32

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201

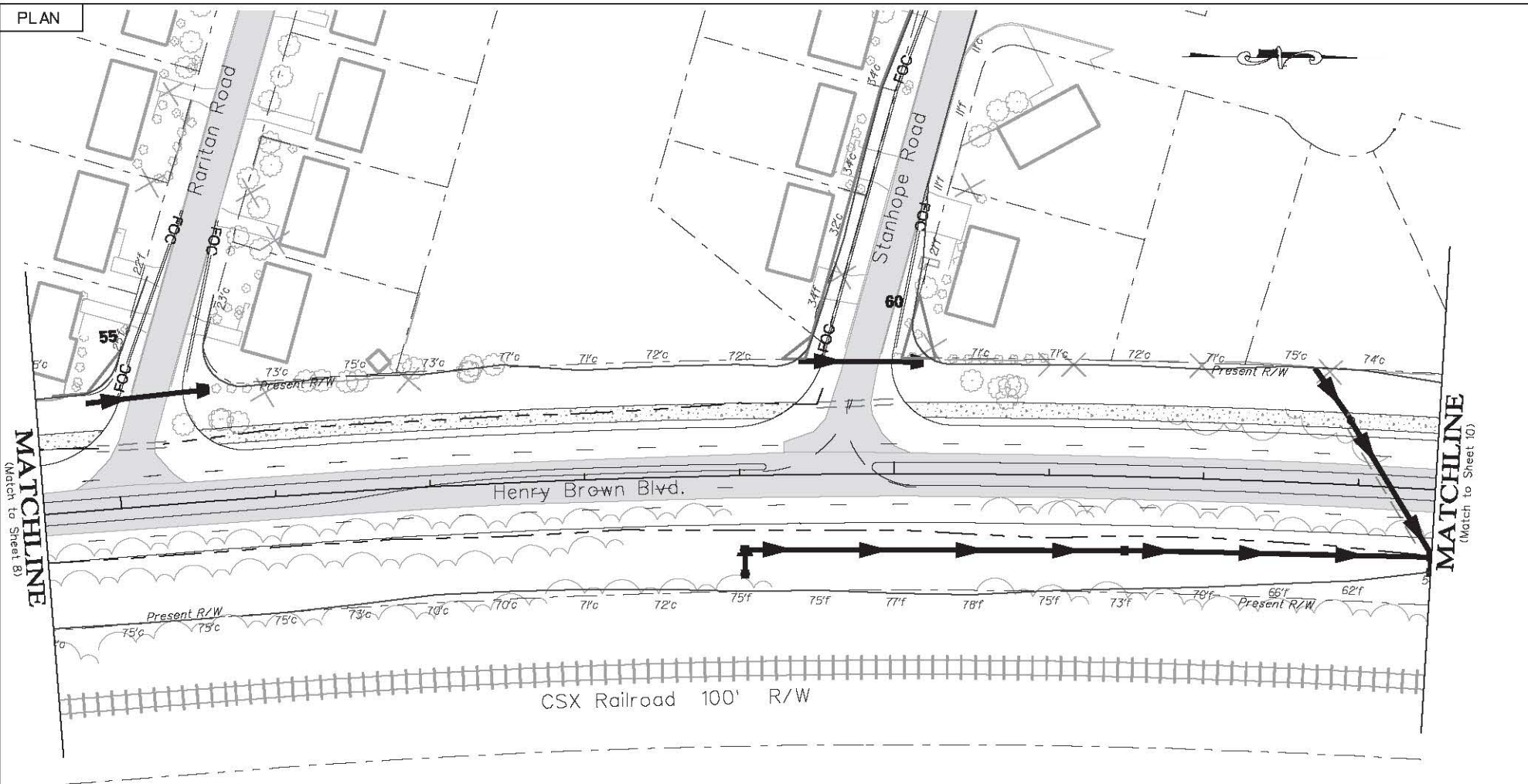


Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

PLAN



LEGEND

- Wetlands - WETLANDS BOUNDARY
- PROPOSED DRAINAGE SYSTEM
- WETLANDS FILL IMPACT - 0
- WETLANDS CLEARING IMPACT - 0
- WETLANDS EXCAVATION - 0
- TRIBUTARY FILL IMPACT - 0
- TRIBUTARY PIPE IMPACT - 0
- EXISTING ROADWAY
- RIPRAP IMPACT

SHEET: 9 OF 32

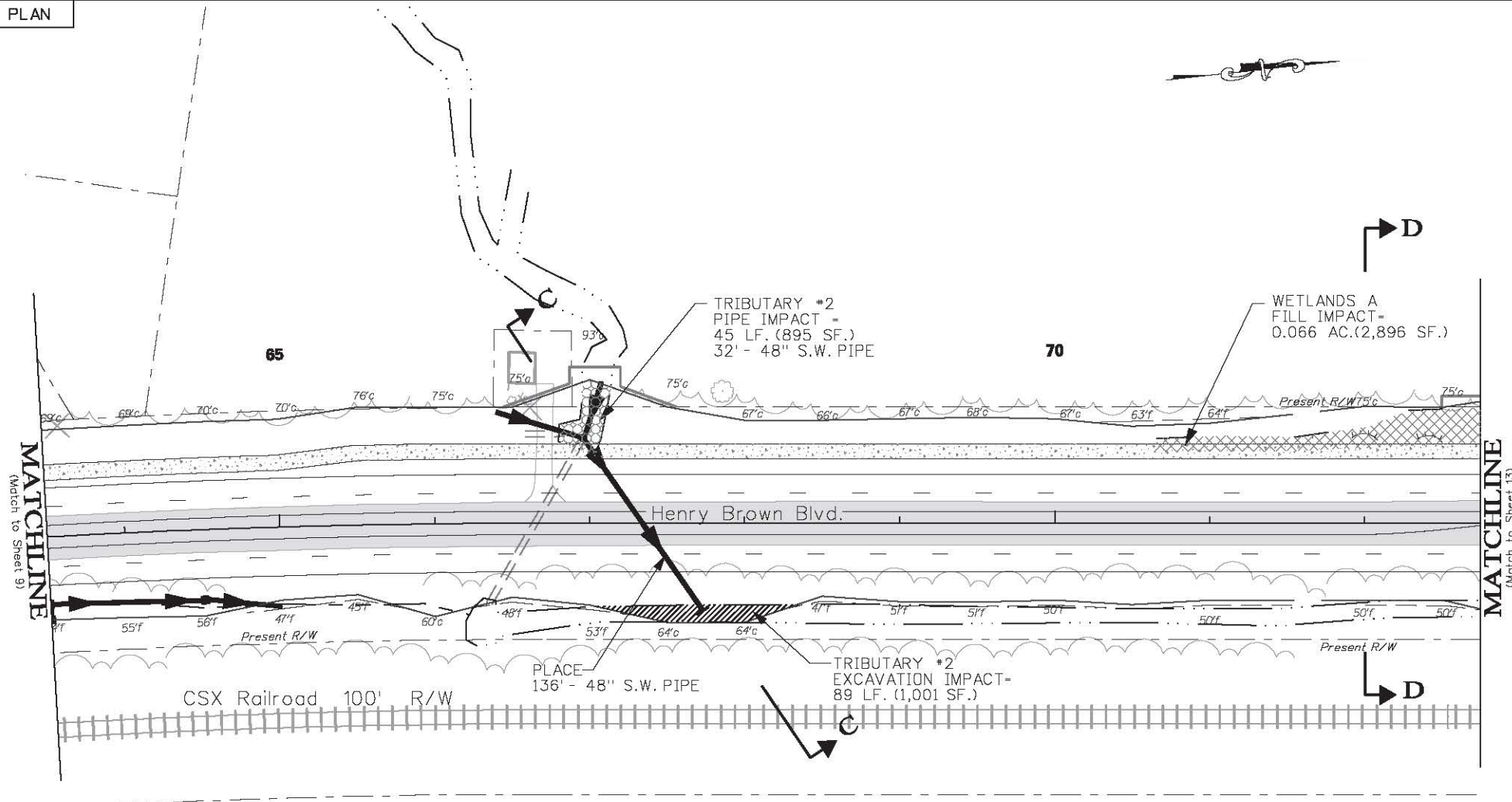
**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201



Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014



LEGEND

- Wetlands** WETLANDS BOUNDARY

PROPOSED DRAINAGE SYSTEM

WETLANDS FILL IMPACT - 0.066 AC. (2,896 SF.)

WETLANDS CLEARING IMPACT - 0

WETLANDS EXCAVATION - 0

TRIBUTARY EXCAVATION IMPACT - 89 LF. (1,001 SF.)

TRIBUTARY PIPE IMPACT = 45 LF. (895 SF.)

EXISTING ROADWAY

RIPRAP IMPACT

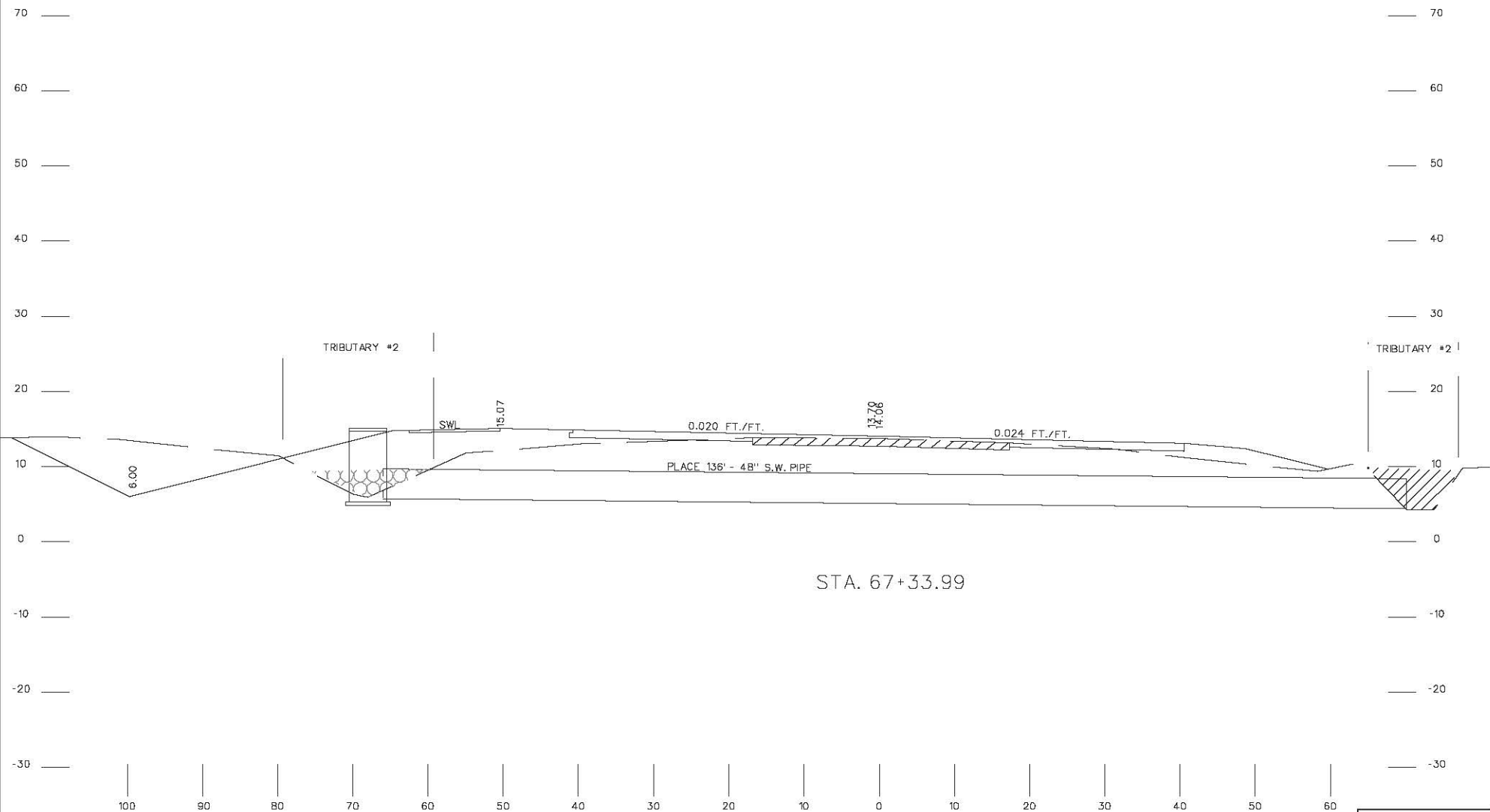
**SHEET: 10 OF 32**

Permit Drawing  
Plan View

0 50 100  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION C - C



SHEET: 11 OF 32

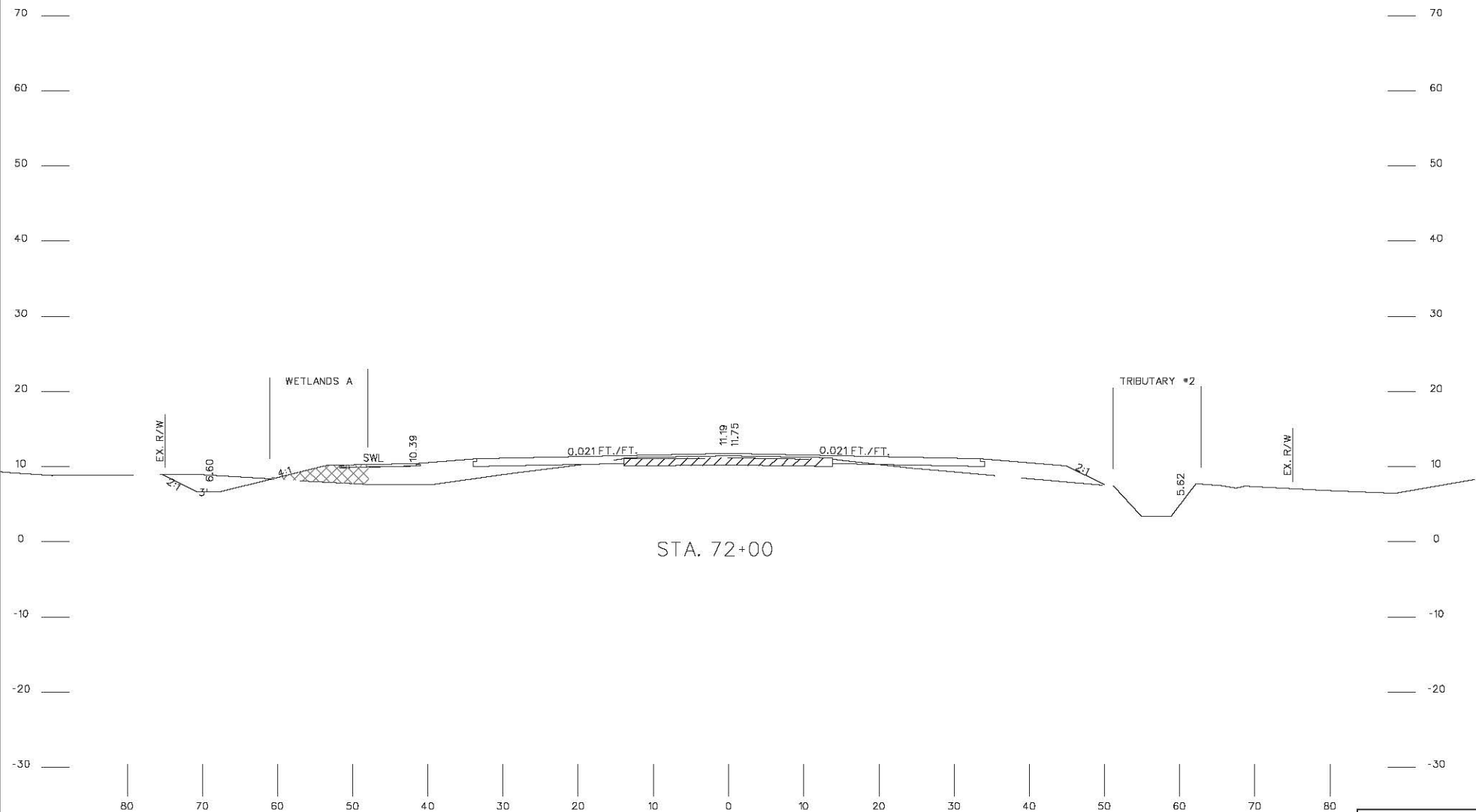


Permit Drawing  
Cross Section

VERT. 0 20  
HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION D - D



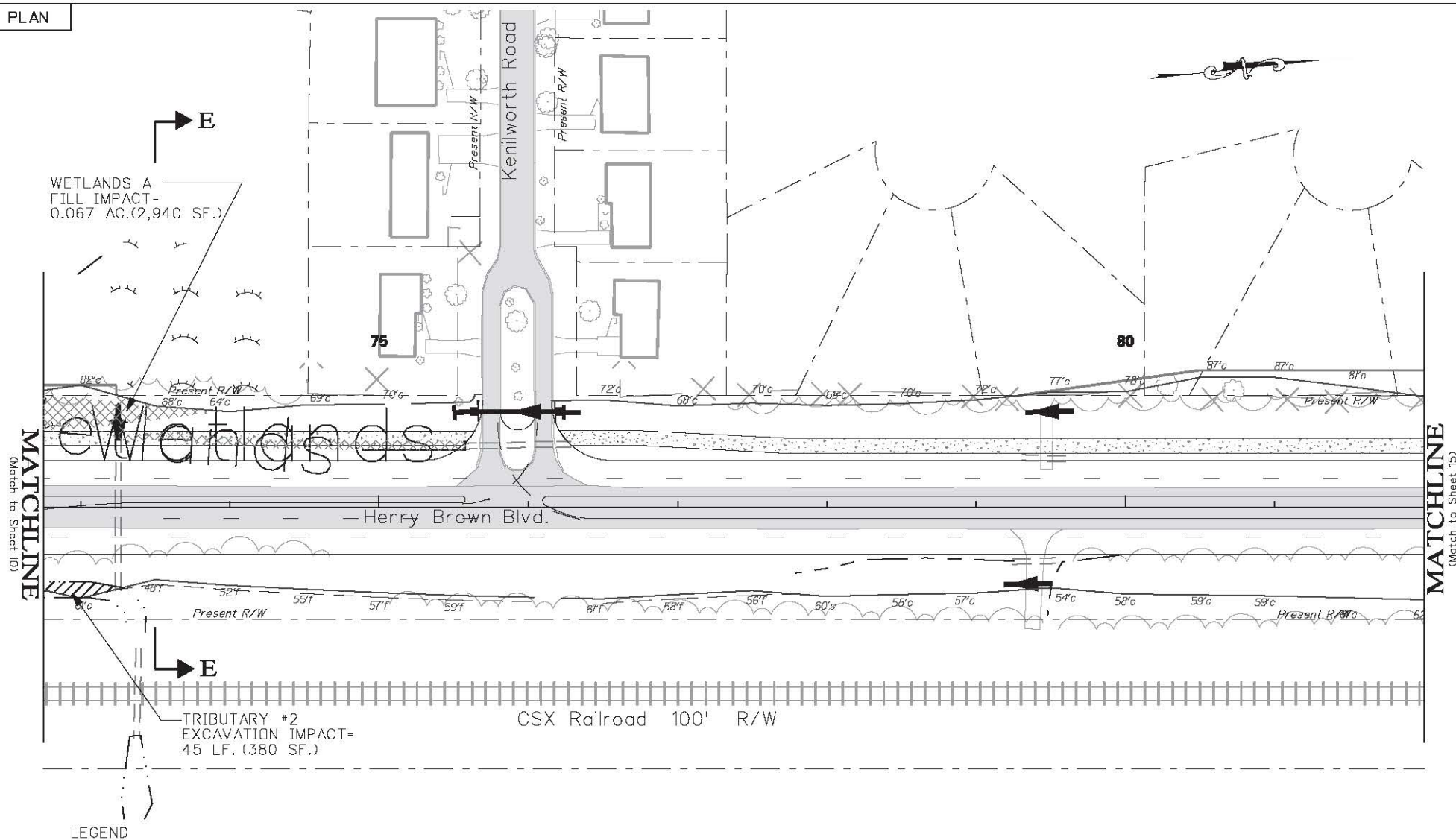
SHEET: 12 OF 32



Permit Drawing  
Cross Section

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HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014



Wetlands - WETLANDS BOUNDARY

PROPOSED DRAINAGE SYSTEM

- WETLANDS FILL IMPACT - 0.067 AC. (2,940 SF.)
- WETLANDS CLEARING IMPACT - 0
- WETLANDS EXCAVATION - 0
- TRIBUTARY EXCAVATION IMPACT - 45 LF. (380 SF.)
- TRIBUTARY PIPE IMPACT - 0
- EXISTING ROADWAY
- RIPRAP IMPACT

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201



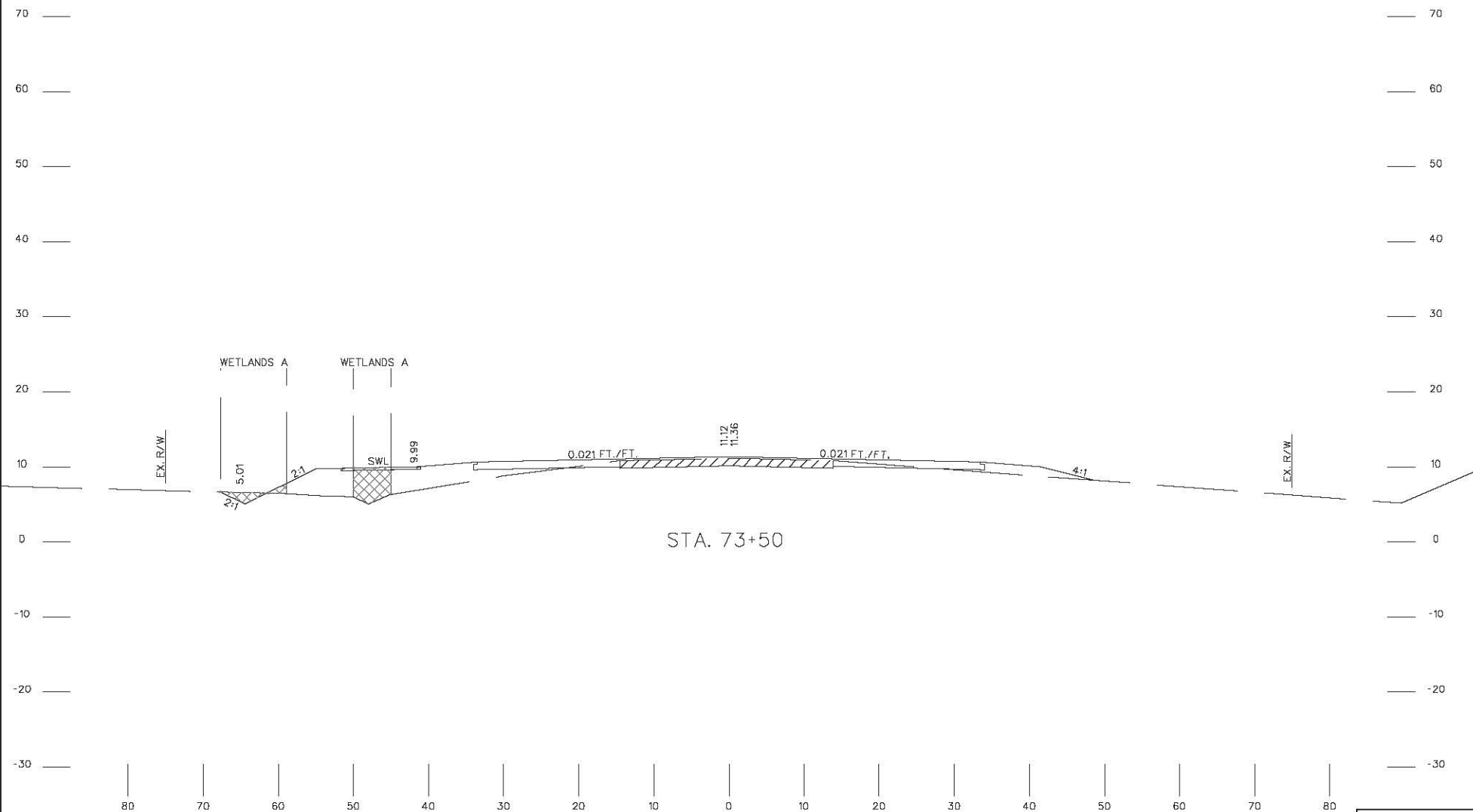
Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SHEET: 13 OF 32

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION E - E



SHEET: 14 OF 32

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201

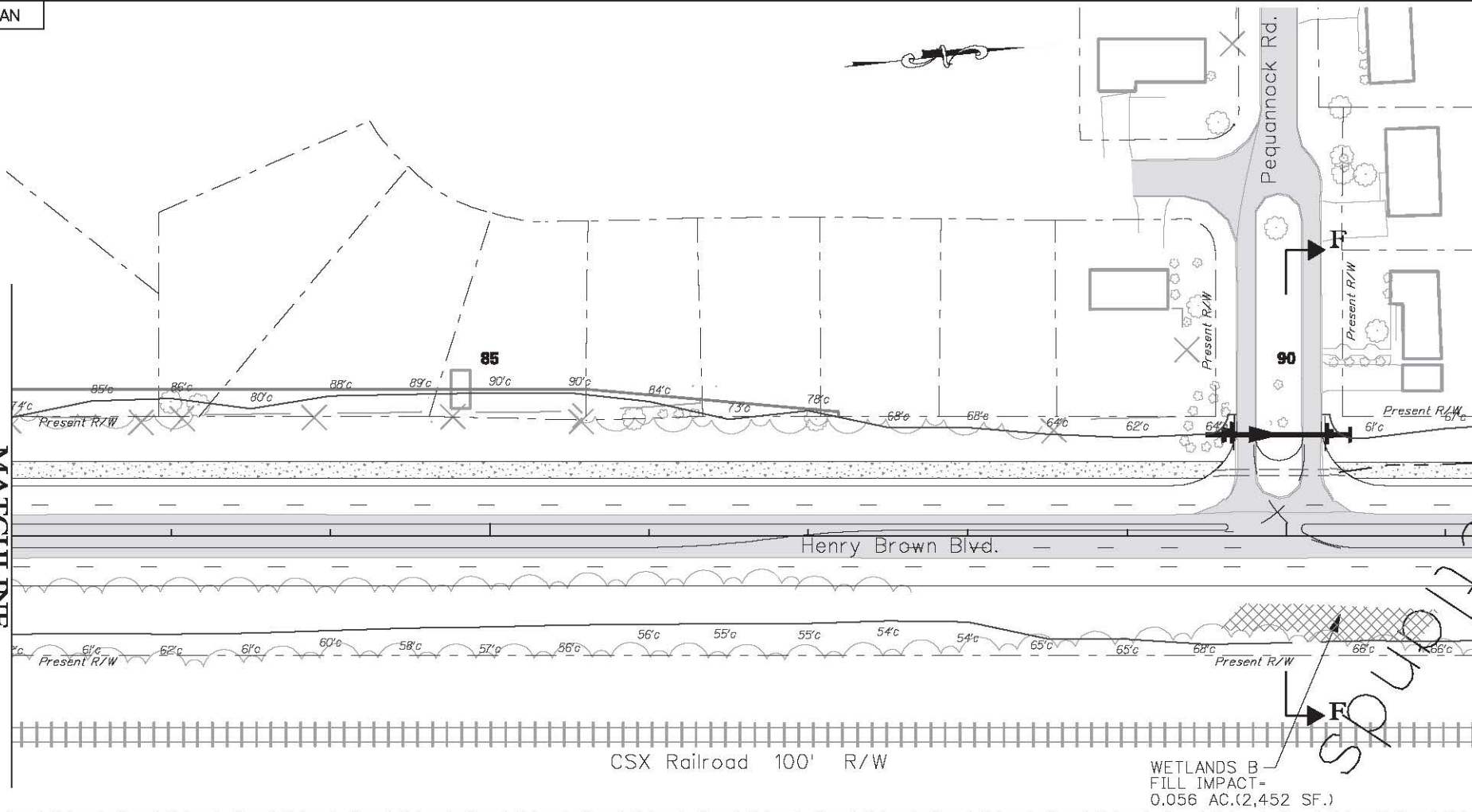
Permit Drawing  
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SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

MATCHLINE  
(Match to Sheet 13)

MATCHLINE  
(Match to Sheet 17)



LEGEND

- Wetlands - WETLANDS BOUNDARY
- PROPOSED DRAINAGE SYSTEM
- WETLANDS FILL IMPACT - 0.056 AC. (2,452 SF.)
- WETLANDS CLEARING IMPACT - 0
- WETLANDS EXCAVATION - 0
- TRIBUTARY FILL IMPACT - 0
- TRIBUTARY PIPE IMPACT - 0
- EXISTING ROADWAY
- RIPRAP IMPACT

SHEET: 15 OF 32

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201

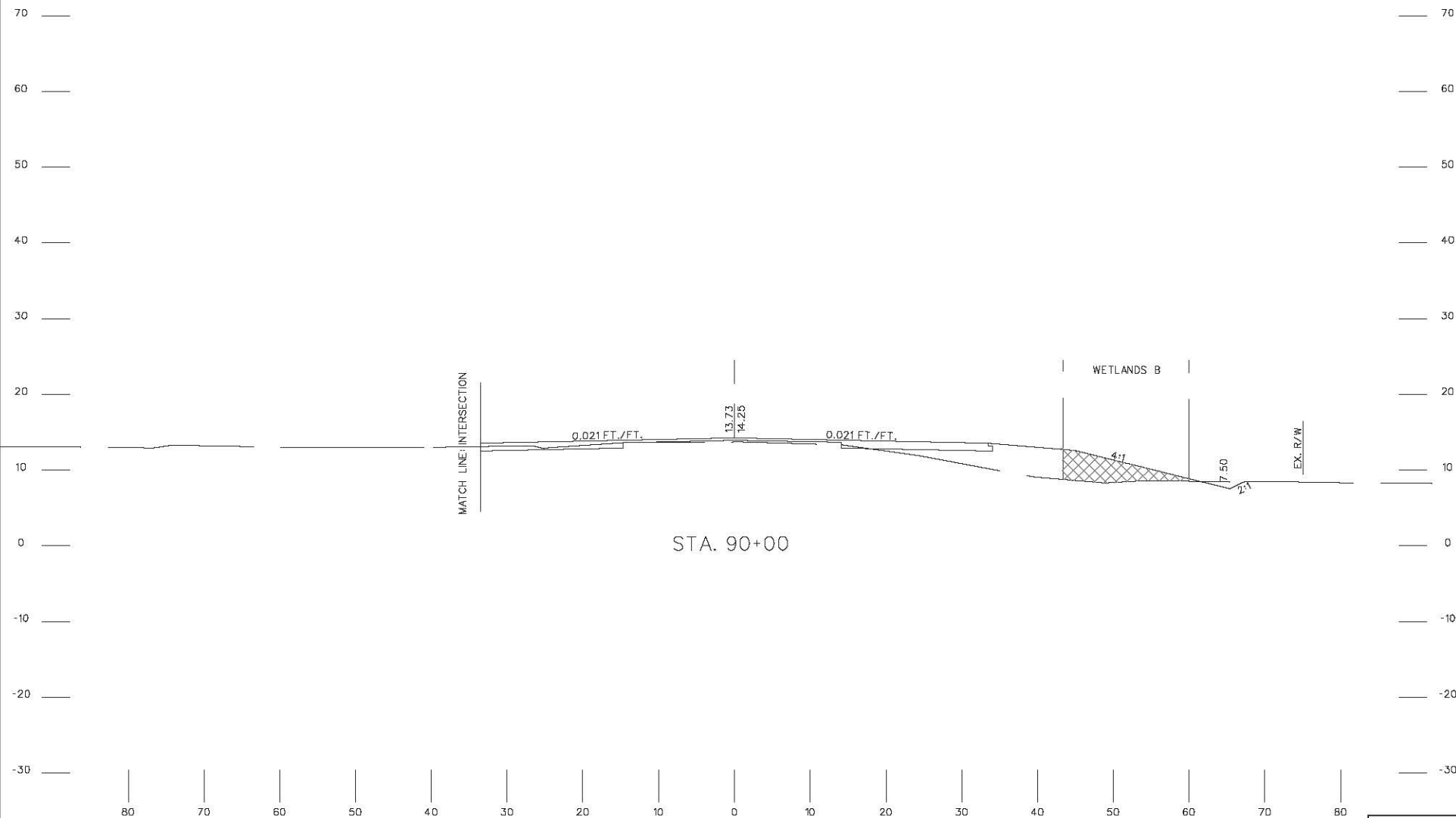


Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION F - F



SHEET: 16 OF 32



Permit Drawing  
Cross Section

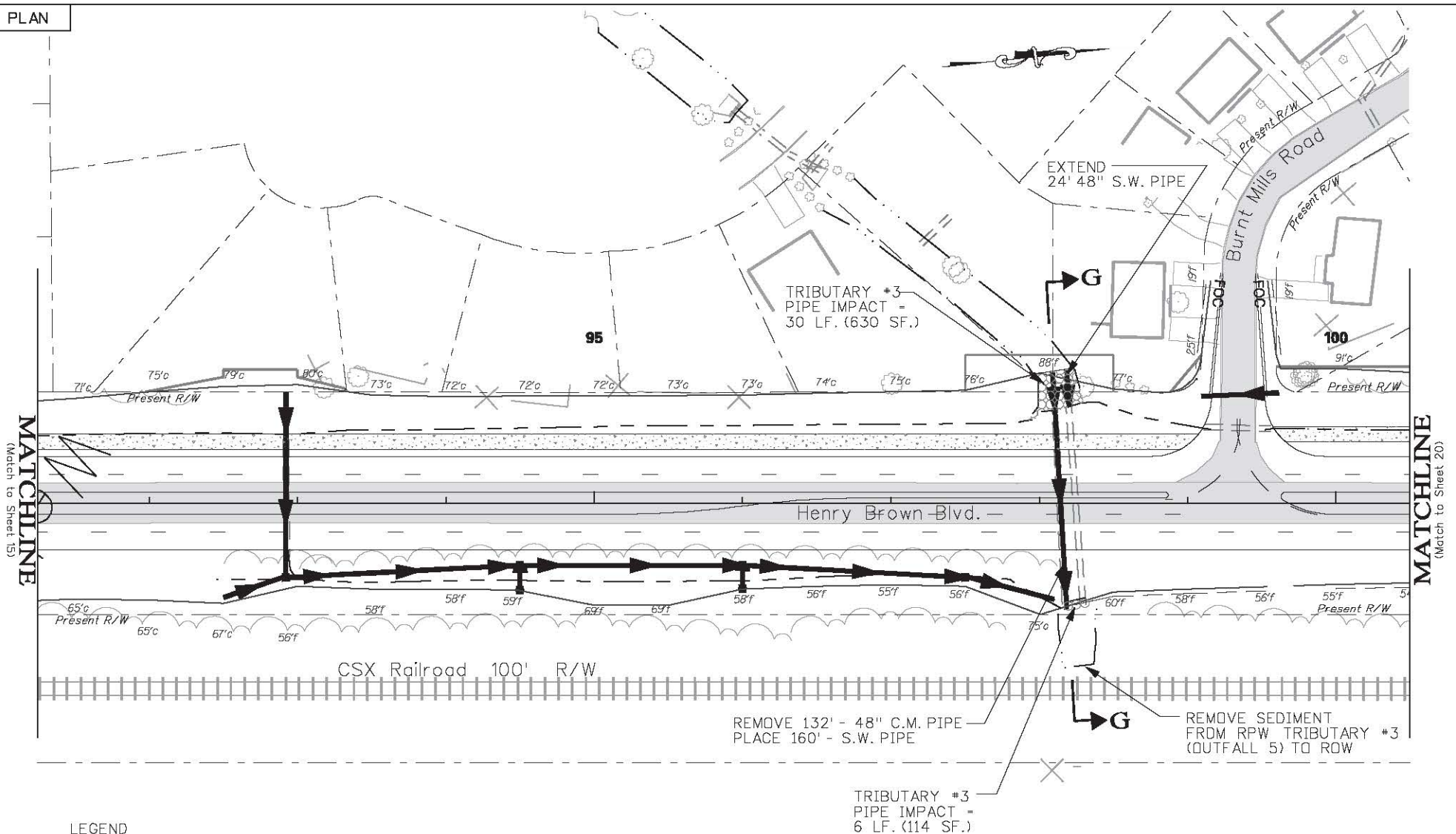
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SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

PLAN

MATCHLINE  
(Match to Sheet 15)

MATCHLINE  
(Match to Sheet 20)



# LEGEND

- Wetlands - WETLANDS BOUNDARY
- PROPOSED DRAINAGE SYSTEM
- WETLANDS FILL IMPACT - 0
- WETLANDS CLEARING IMPACT - 0
- WETLANDS EXCAVATION - 0
- TRIBUTARY FILL IMPACT - 0
- TRIBUTARY PIPE IMPACT - 36 LF. (744 SF.)
- EXISTING ROADWAY
- RIPRAP IMPACT

SHEET: 17 OF 32

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201

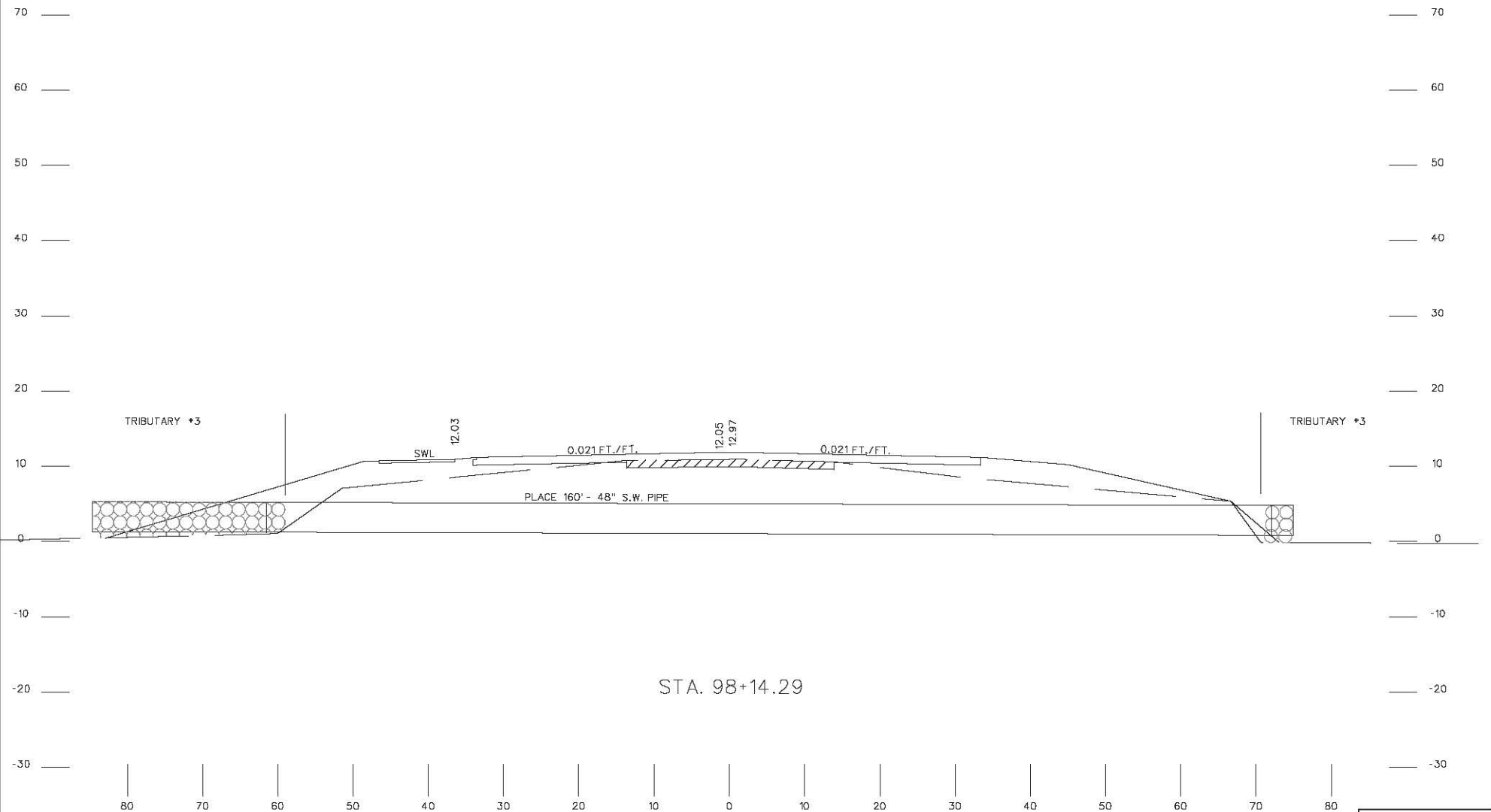


Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION G - G



SHEET: 18 OF 32



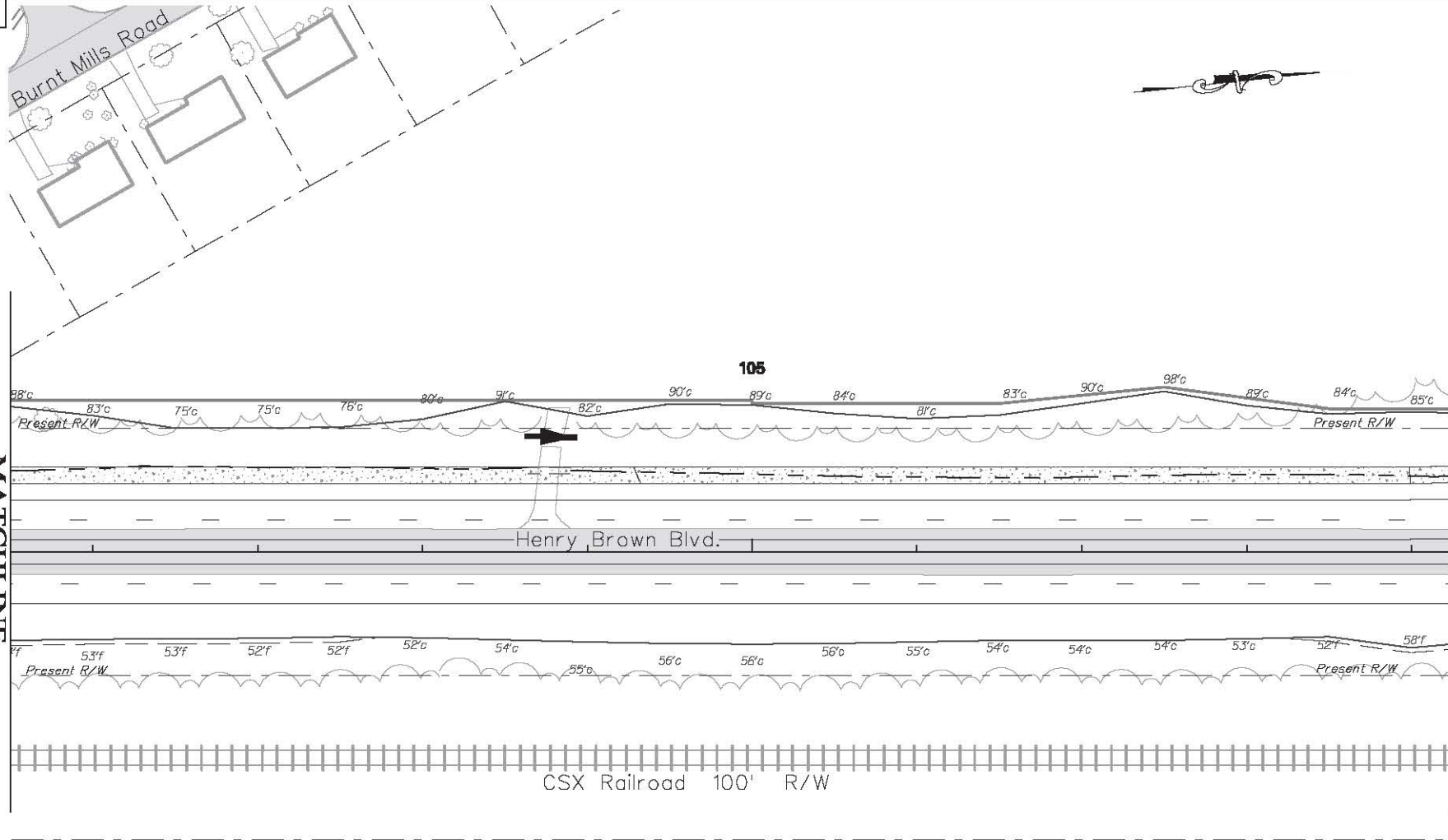
Permit Drawing  
Cross Section

VERT. 0 20  
HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

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PLAN



LEGEND

- Wetlands - WETLANDS BOUNDARY
- PROPOSED DRAINAGE SYSTEM
- WETLANDS FILL IMPACT - 0
- WETLANDS CLEARING IMPACT - 0
- WETLANDS EXCAVATION - 0
- TRIBUTARY FILL IMPACT - 0
- TRIBUTARY PIPE IMPACT - 0
- EXISTING ROADWAY
- RIPRAP IMPACT

NAVAL WEAPONS STATION

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201



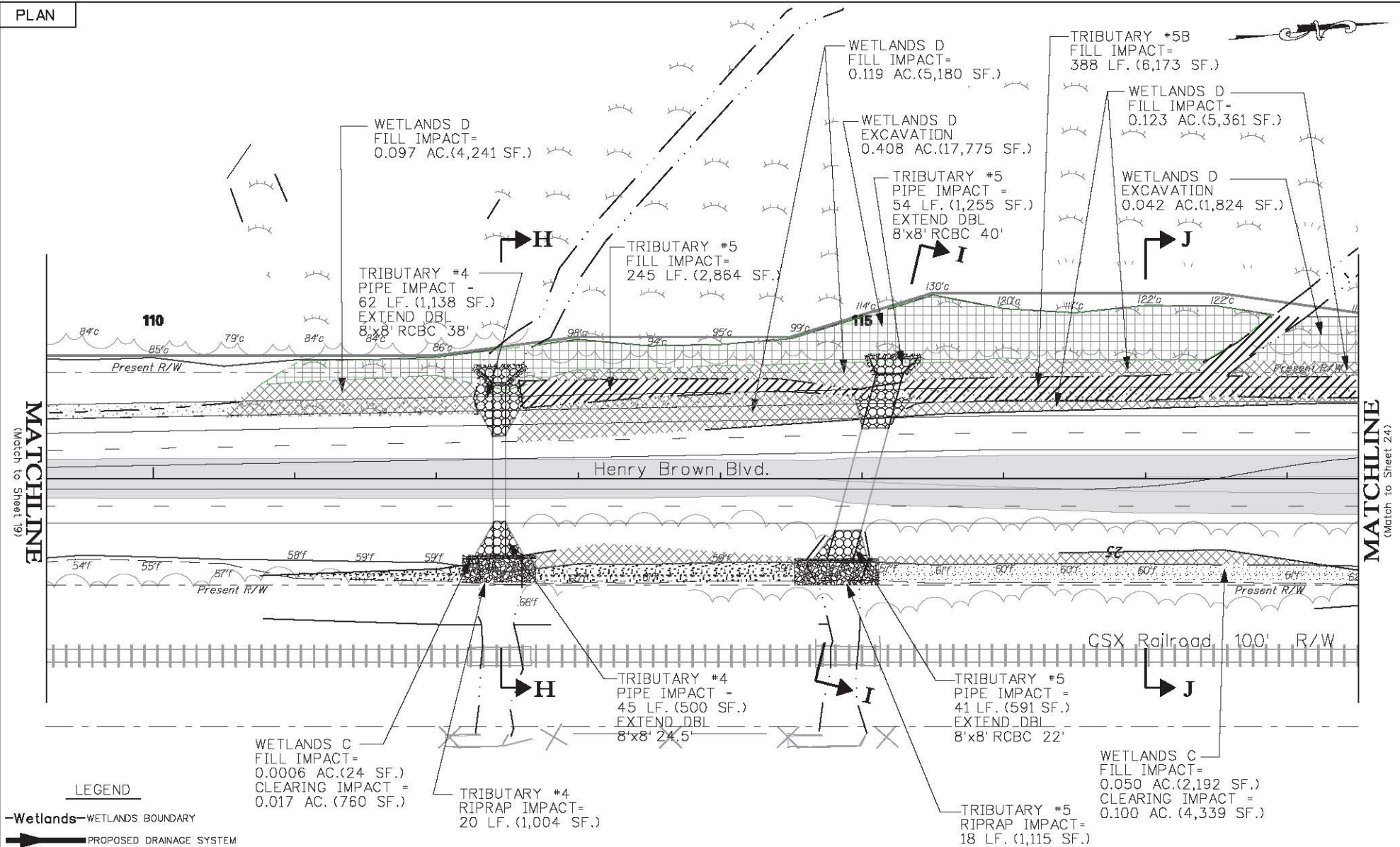
Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SHEET: 19 OF 32

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MATCHLINE  
(Match to Sheet 19)MATCHLINE  
(Match to Sheet 24)

SHEET: 20 OF 32

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201

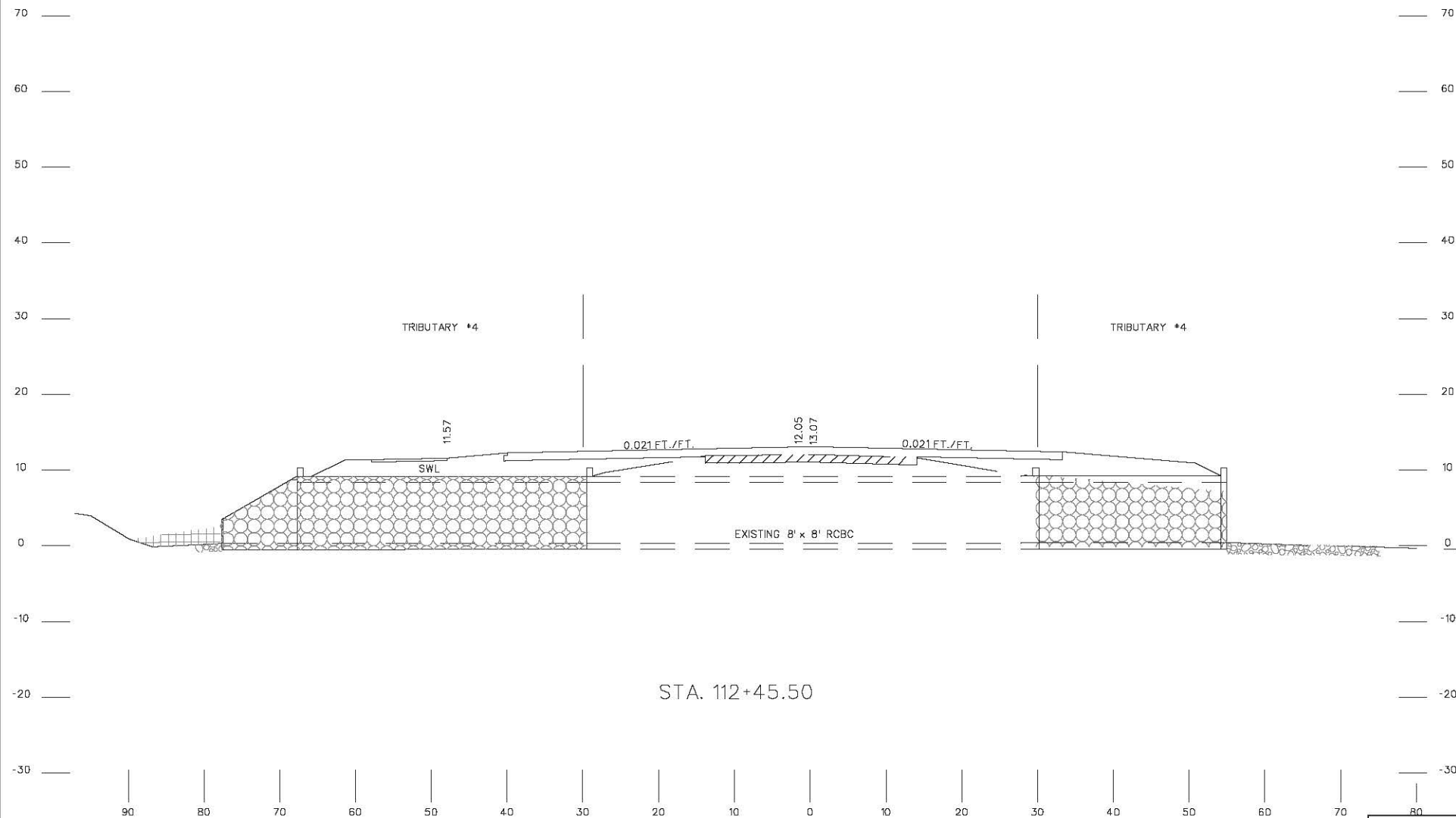


Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION H - H



SHEET: 21 OF 32

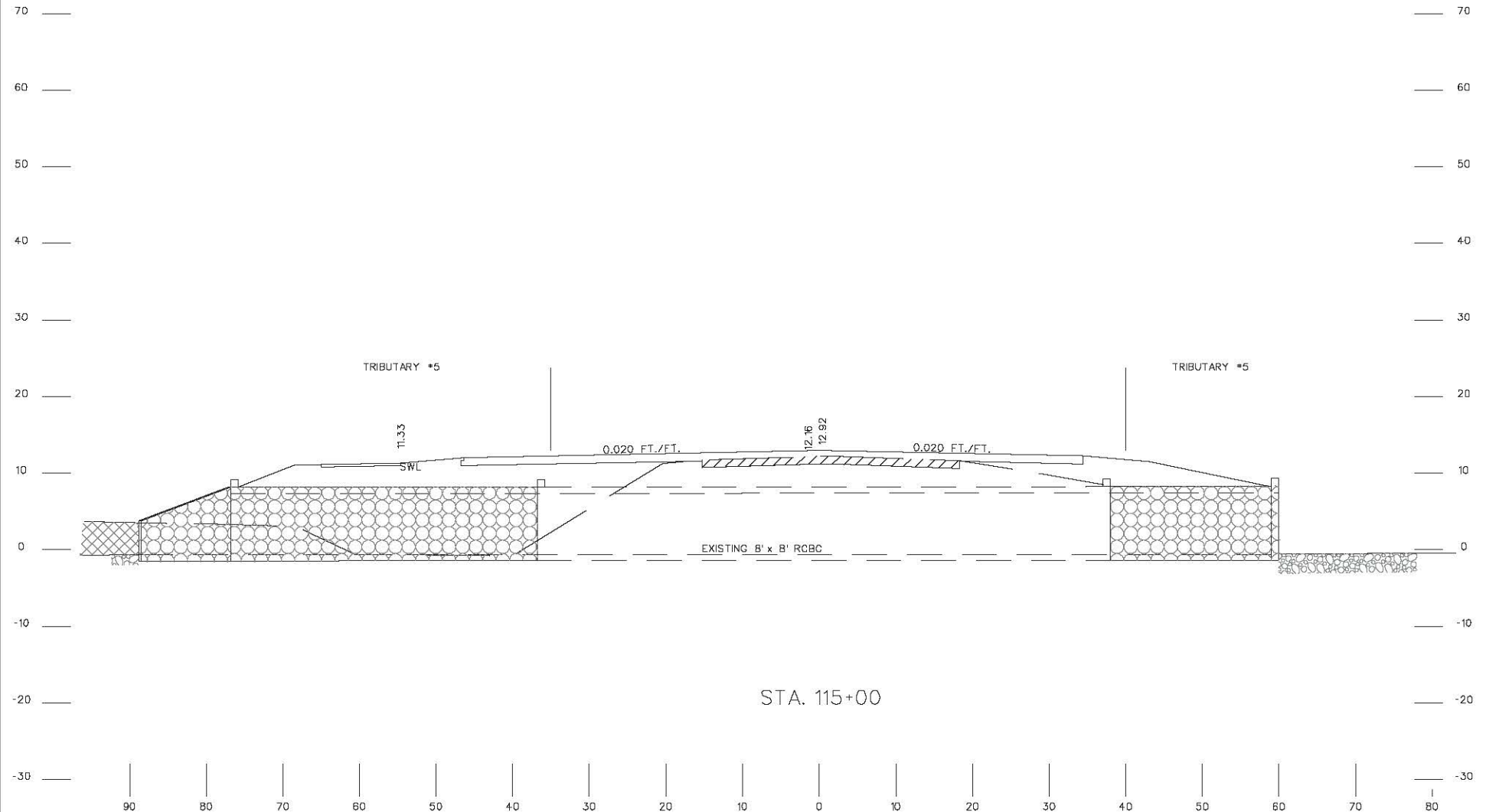


Permit Drawing  
Cross Section

VERT. 0 20  
HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION I-I



SHEET: 22 OF 32

**ICA**  
Engineering  
501 Hugger St, Columbia SC, 29201

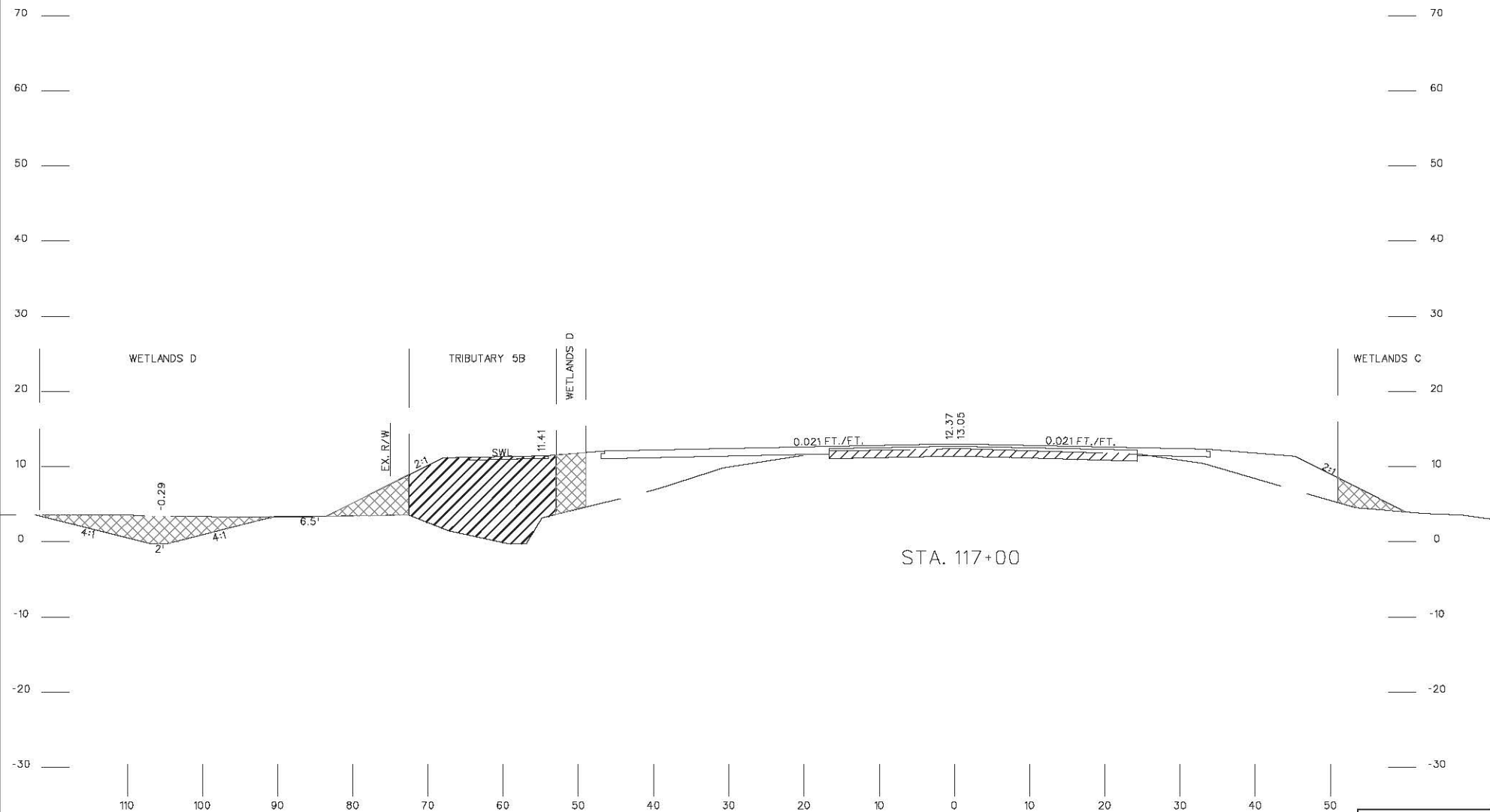
Permit Drawing  
Cross Section

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HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

JWM 6/3/18/2014 \\sc1fs1\projects\10203\_01\1\_Henry Brown\Permit Drawings\PD-22 Sect II.dgn

SECTION J - J



STA. 117+00

SHEET: 23 OF 32

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201

Permit Drawing  
Cross Section

VERT. 0 20  
HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

MATCHLINE  
(Match to Sheet 20)

MATCHLINE  
(Match to Sheet 26)

WETLANDS D  
EXCAVATION  
0.190 AC.(8,279 SF.)

WETLANDS D  
CLEARING IMPACT=  
0.149 AC.(6,504 SF.)

WETLANDS D  
FILL IMPACT=  
0.199 AC.(8,658 SF.)

TRIBUTARY #5B  
FILL IMPACT=  
410 LF.(5,024 SF.)

TRIBUTARY #5B  
PIPE IMPACT=  
46 LF.(815 SF.)  
EXTEND 6'x6'  
RCBC 35.5'

WETLANDS E  
FILL IMPACT=  
0.041 AC.(1,767 SF.)  
CLEARING IMPACT =  
0.047 AC.(2,057 SF.)

TRIBUTARY #5B  
PIPE IMPACT=  
62 LF.(1,818 SF.)  
EXTEND 6'x6'  
RCBC 43'

120

125

Henry Brown Blvd.

CSX Railroad 100' R/W

WETLANDS C  
CLEARING IMPACT =  
0.038 AC.(1,672 SF.)

LEGEND

Wetlands WETLANDS BOUNDARY

PROPOSED DRAINAGE SYSTEM

- WETLANDS FILL IMPACT - 0.240 AC.(10,425 SF.)
- WETLANDS CLEARING IMPACT - 0.234 AC.(10,233 SF.)
- WETLANDS EXCAVATION - 0.190 AC.(8,279 SF.)
- TRIBUTARY FILL IMPACT = 410 LF.(5,024 SF.)
- TRIBUTARY PIPE IMPACT = 108 LF.(2,633 SF.)
- EXISTING ROADWAY
- RIPRAP IMPACT

NAVAL WEAPONS STATION

SHEET: 24 OF 32

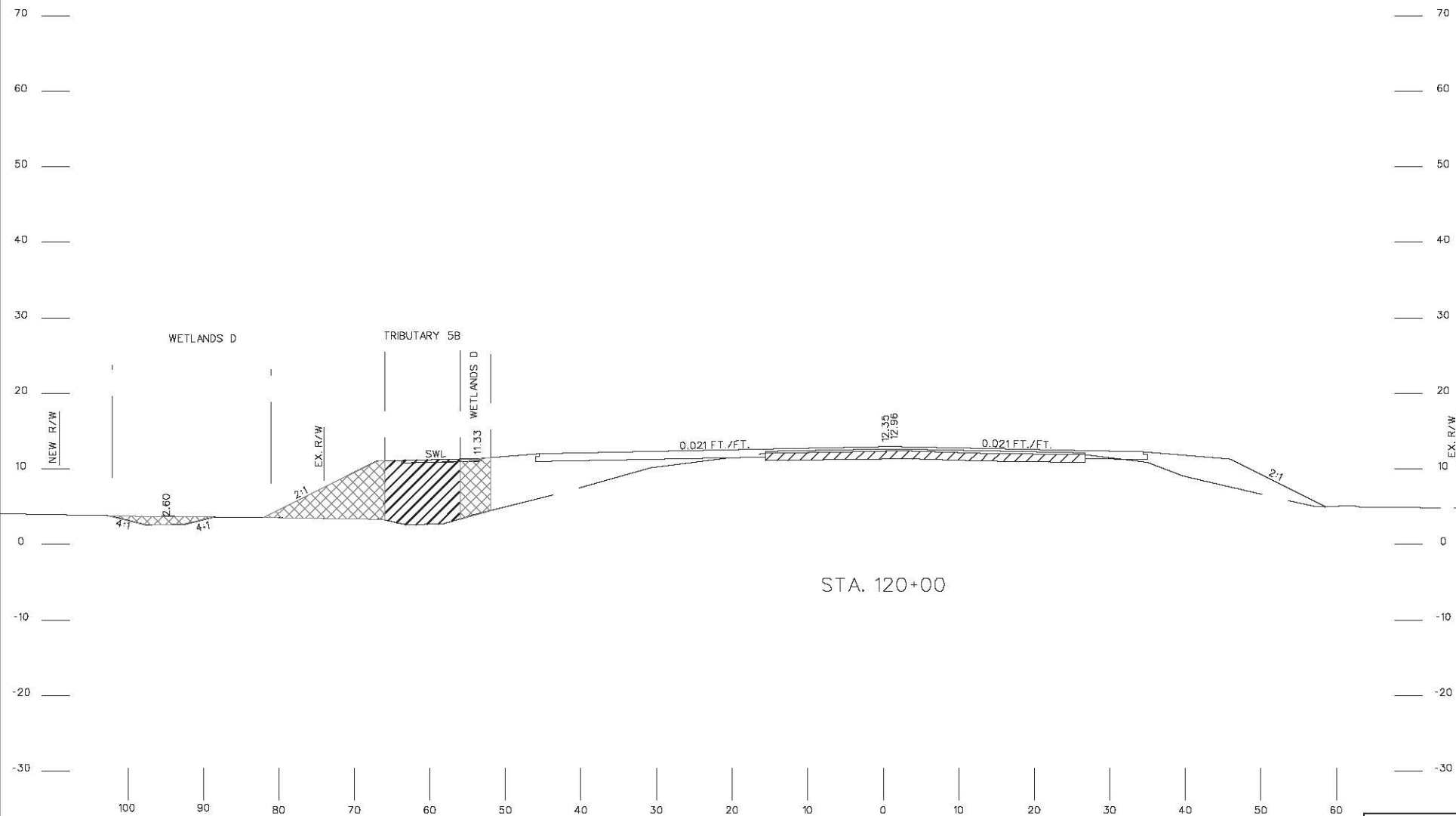
**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201



Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
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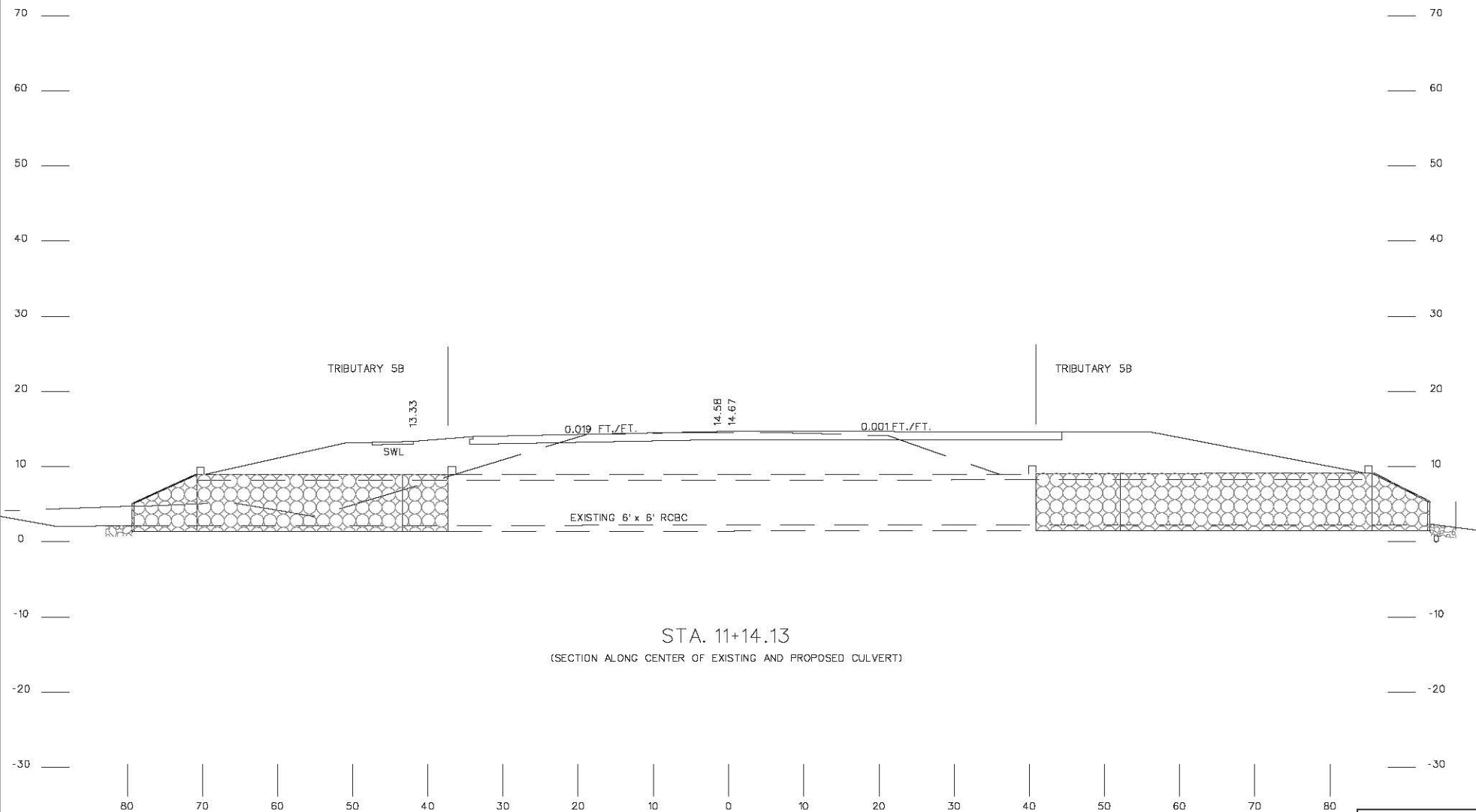
SHEET: 25 OF 32

Permit Drawing  
Cross Section

VERT. 0 20  
HORIZ. 0 20  
SCALE  FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION L - L



SHEET: 26 OF 32



Permit Drawing  
Cross Section

VERT. 0 20  
HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

MATCHLINE  
(Match to Sheet 24)MATCHLINE  
(Match to Sheet 29)

WETLANDS D  
FILL IMPACT =  
0.114 AC. (4,962 SF.)  
CLEARING IMPACT =  
0.082 AC. (3,578 SF.)

TRIBUTARY #5A  
PIPE IMPACT =  
38 LF. (410 SF.)  
EXTEND DBL  
6'x6' RCBC 25.5'

WETLANDS D  
FILL IMPACT =  
0.050 AC. (2,213 SF.)  
CLEARING IMPACT =  
0.022 AC. (941 SF.)

TRIBUTARY #5A  
PIPE IMPACT =  
55 LF. (592 SF.)  
EXTEND DBL  
6'x6' RCBC 30'

WETLANDS D  
FILL IMPACT =  
0.234 AC. (10,181 SF.)  
CLEARING IMPACT =  
0.138 AC. (6,024 SF.)

Liberty Hall Road

TRIBUTARY #5A  
PIPE IMPACT =  
45 LF. (903 SF.)  
EXTEND DBL  
6'x6' RCBC 30'

WETLANDS E  
FILL IMPACT =  
0.099 AC. (4,324 SF.)  
CLEARING IMPACT =  
0.077 AC. (3,333 SF.)

WETLANDS E  
FILL IMPACT =  
0.083 AC. (3,598 SF.)  
CLEARING IMPACT =  
0.037 AC. (1,638 SF.)








TRIBUTARY #5A  
PIPE IMPACT =  
38 LF. (540 SF.)  
EXTEND DBL  
6'x6' RCBC 29'

WETLANDS E  
FILL IMPACT =  
0.298 AC. (12,970 SF.)  
CLEARING IMPACT =  
0.157 AC. (6,848 SF.)

## LEGEND

-Wetlands- WETLANDS BOUNDARY

-Proposed Drainage System-

-  WETLANDS FILL IMPACT - 0.878 AC. (38,248 SF.)
-  WETLANDS CLEARING IMPACT - 0.513 AC. (22,362 SF.)
-  WETLANDS EXCAVATION - 0
-  TRIBUTARY FILL IMPACT - 0
-  TRIBUTARY PIPE IMPACT - 176 LF. (2,445 SF.)
-  EXISTING ROADWAY
-  RIPRAP IMPACT

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201



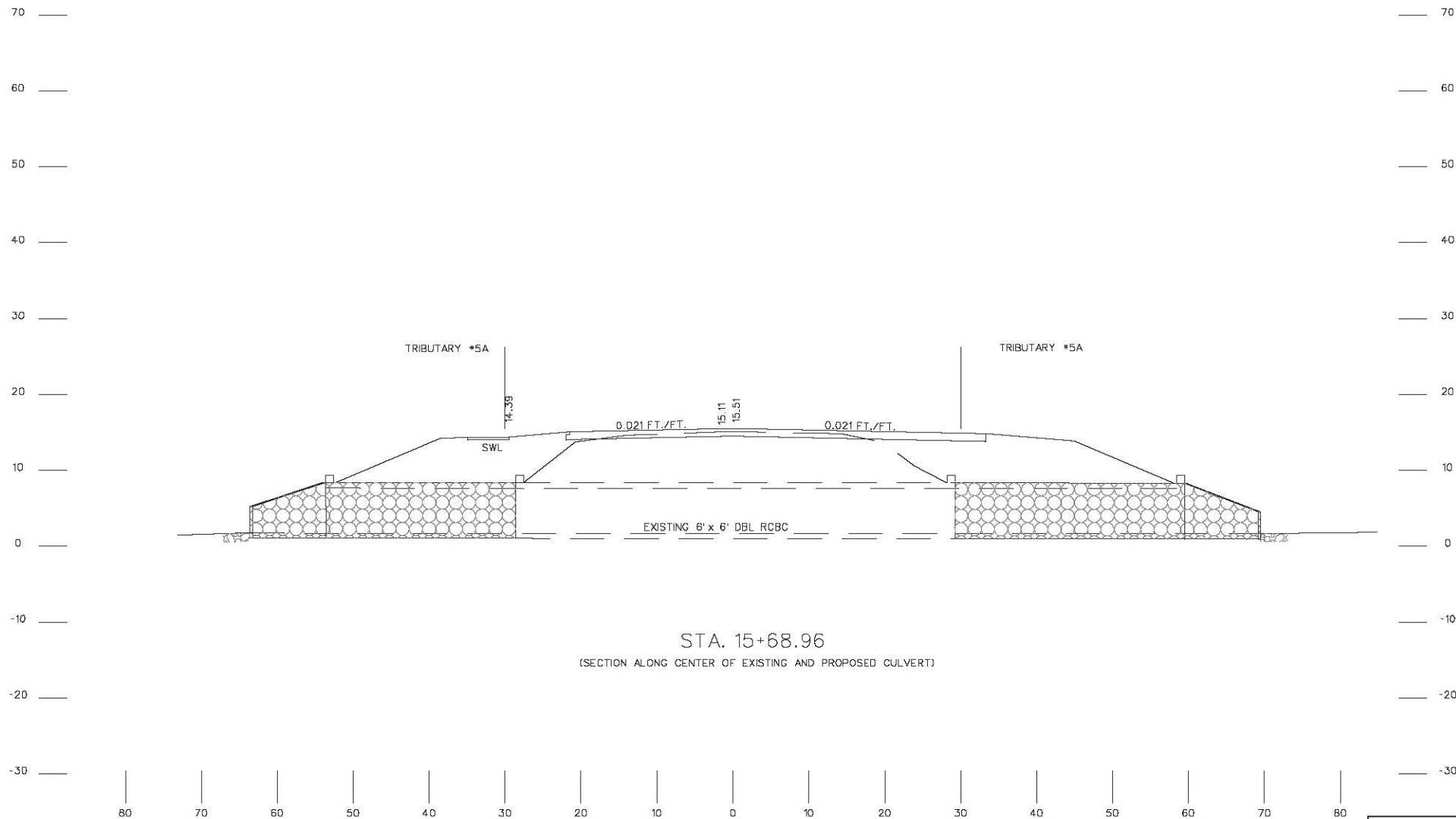
Permit Drawing  
Plan View

SCALE  FEET

SHEET: 27 OF 32

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION M - M



SHEET: 28 OF 32

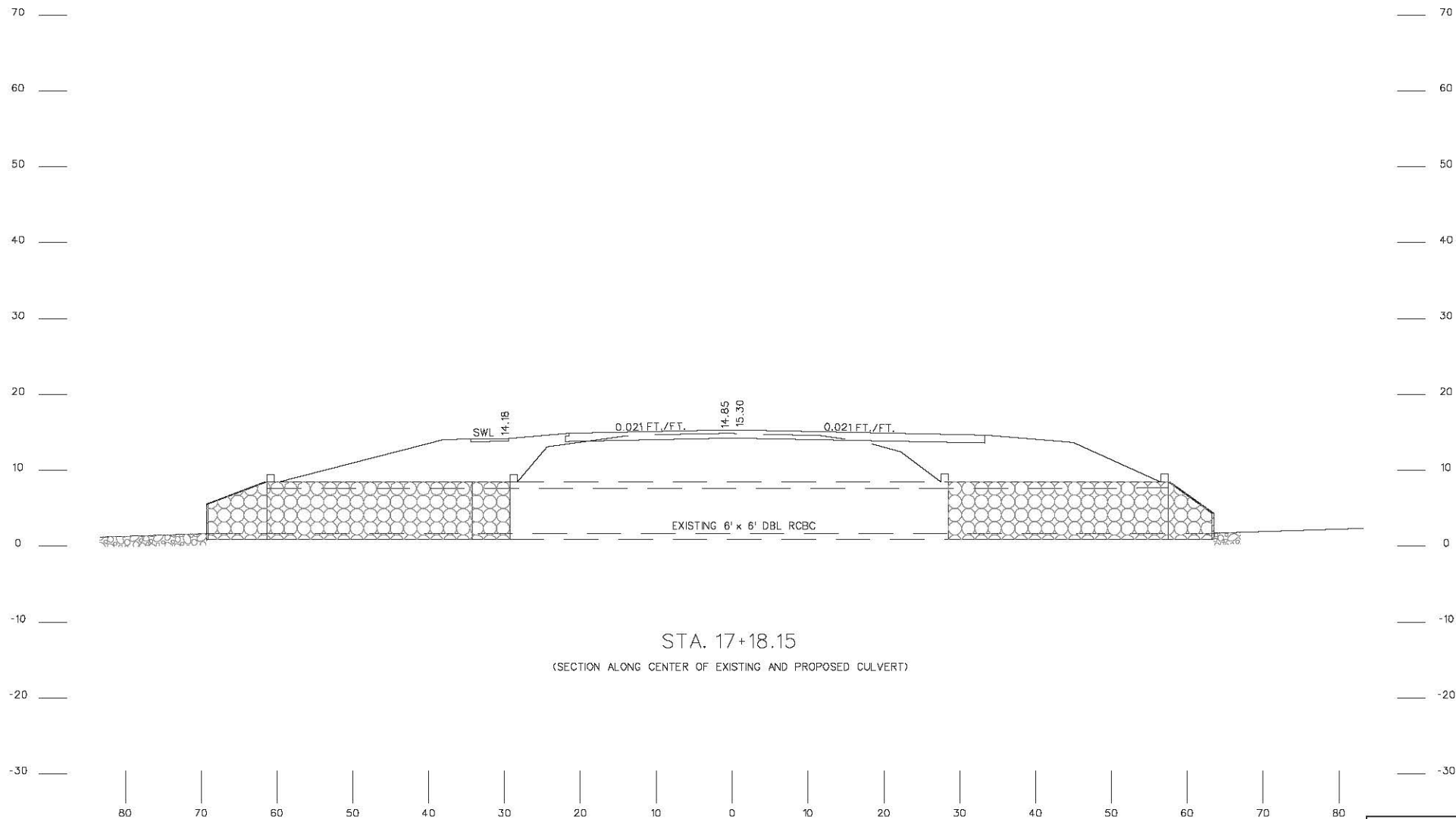
**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201

Permit Drawing  
Cross Section

VERT. 0 20  
HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
WIDENING EXTENSION PROJECT  
BERKELEY COUNTY, S.C.  
FEDERAL FUNDS TO BE USED  
DATE: MARCH 18, 2014

SECTION N - N



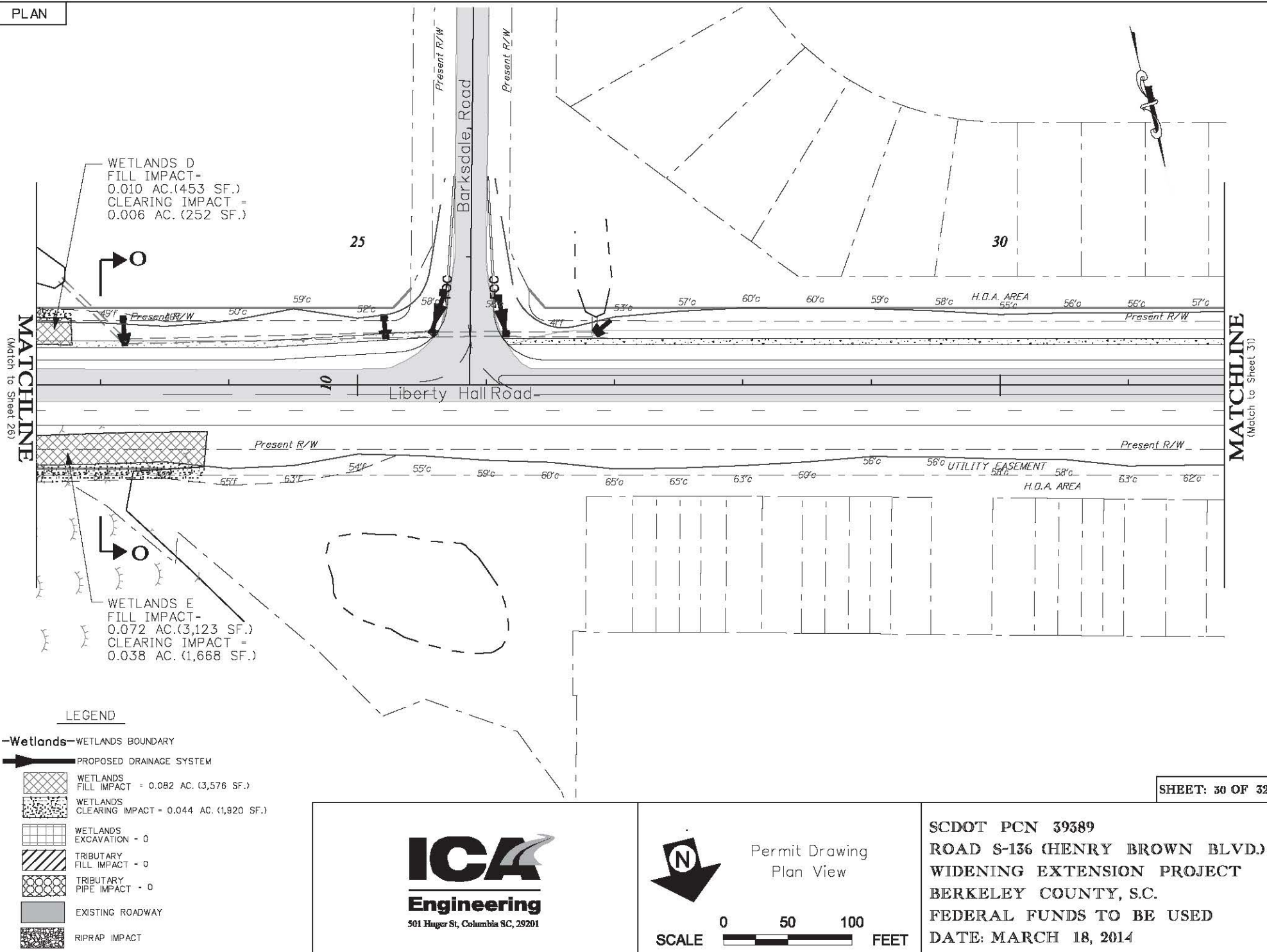
SHEET: 29 OF 32



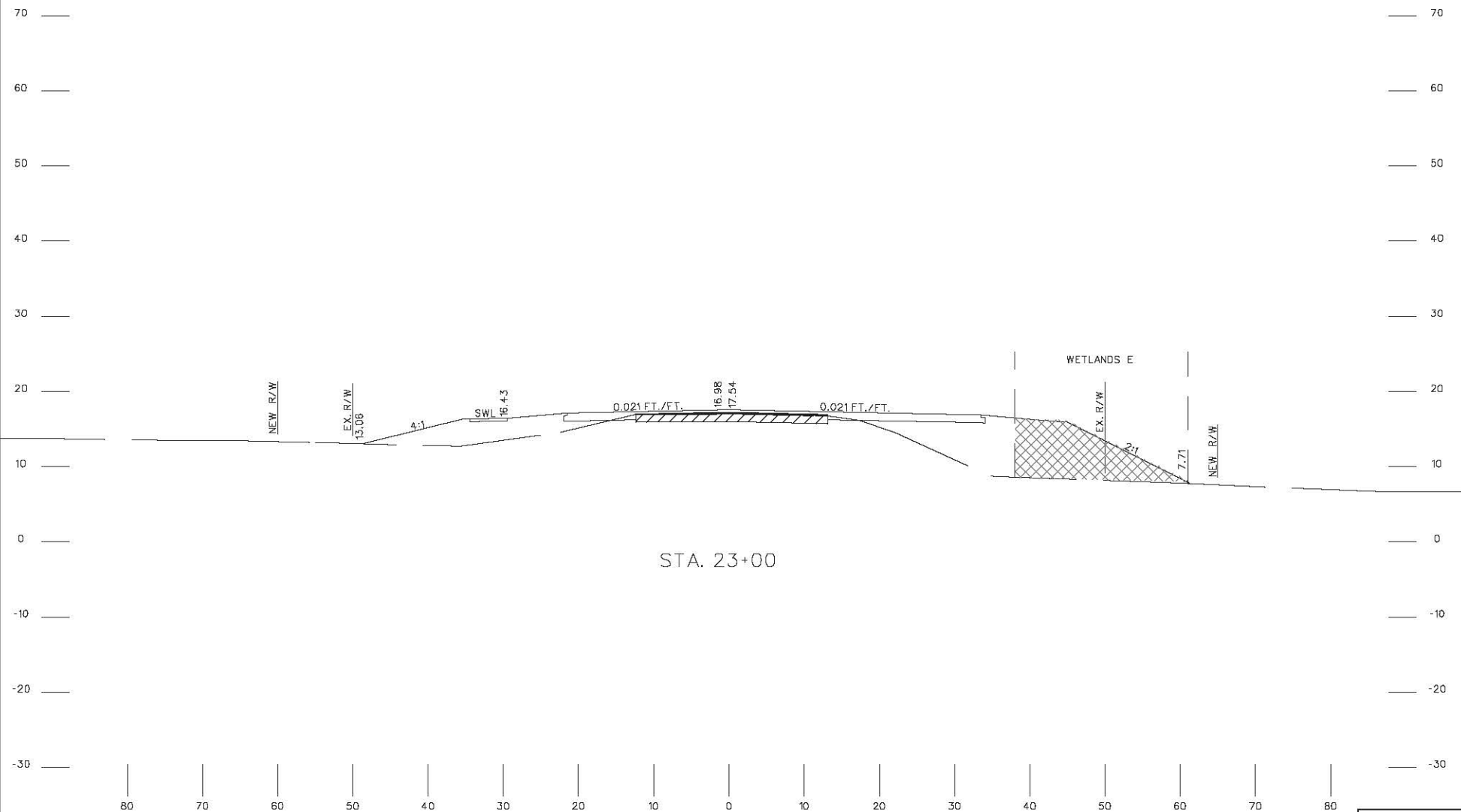
Permit Drawing  
Cross Section

VERT. 0 20  
HORIZ. 0 20  
SCALE FEET

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ROAD S-136 (HENRY BROWN BLVD.)  
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BERKELEY COUNTY, S.C.  
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SECTION 0 - 0



STA. 23+00

SHEET: 31 OF 32



Permit Drawing  
Cross Section

VERT. 0 20  
HORIZ. 0 20  
SCALE FEET

SCDOT PCN 39389  
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PLAN

MATCHLINE  
(Match to Sheet 30)

35

40

Wildberry Lane

Liberty Hall Road

Woodward Road

Brookshire Road

57'c 57'c 57'c 58'c 58'c 54'c 54'c 54'c 55'c 55'c 54' H.O.A. AREA 55'c 53'c 56'c 5'c

Present R/W

H.O.A. AREA

Present R/W

Present R/W

62'c 60'c 58'c 58'c 59'c 57'c

H.O.A. AREA

UTILITY EASEMENT

Present R/W

H.O.A. AREA

Present R/W

Present R/W

# LEGEND

- Wetlands WETLANDS BOUNDARY
- PROPOSED DRAINAGE SYSTEM
- WETLANDS FILL IMPACT
- WETLANDS CLEARING IMPACT
- WETLANDS EXCAVATION
- TRIBUTARY FILL IMPACT
- TRIBUTARY PIPE IMPACT
- EXISTING ROADWAY
- RIPRAP IMPACT

**ICA**  
Engineering  
501 Huger St, Columbia SC, 29201



Permit Drawing  
Plan View

SCALE 0 50 100 FEET

SCDOT PCN 39389  
ROAD S-136 (HENRY BROWN BLVD.)  
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SHEET: 32 OF 32