## 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 Ocean and Coastal Resource Management
1362 McMillan Avenue, Suite 400
North Charleston, South Carolina 29405

REGULATORY DIVISION Refer to: SAC-2010-00642

DATE 11 March 2024

Pursuant to Section 10 and 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), 33 USC 408 (Section 408), 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 S.C. Department of Health and Environmental Control by

Mr. Will McGoldrick
SCDOT
P O Box 191
Columbia, South Carolina 29202-0191

for a permit to extend Interstate 526 / Mark Clark Expressway in waters associated with the

#### Stono River / Atlantic Intracoastal Waterway (AIWW)

with the construction of approximately 9.5 miles of new roadway from the existing endpoint of Interstate 526 (referred to as I-526) at US 17 (Savannah Highway) to the James Island Connector (SC Route 30) at Folly Road in Charleston, Charleston County South Carolina (Latitude: 32.7559°, Longitude: -80.0143°), **Johns Island, Legareville, and James Island Quad(s)**.

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** until

30 Days from the Date of this Notice,

and **SCDHEC** will receive written statements regarding the proposed work 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.

NOTE: This public notice and associated plans are available on the Corps' website at: <a href="http://www.sac.usace.army.mil/Missions/Regulatory/PublicNotices">http://www.sac.usace.army.mil/Missions/Regulatory/PublicNotices</a> .

The Federal Highway Administration (FHWA) is preparing an Environmental Impact Statement (EIS) for this project pursuant to the National Environmental Policy Act (NEPA) and in compliance with the provisions of Executive Order 13807. The Corps is serving as a cooperating agency for the preparation of the EIS, with FHWA serving in the lead agency role for NEPA and other federal consultation obligations. The draft EIS and other documents are publicly available at https://www.scdotmarkclark.com/documents.

### **Applicant's Stated Purpose**

According to the applicant, the purpose of the Mark Clark Extension project is to increase capacity of the regional transportation system, improve safety, and enhance mobility to and from the West Ashley, Johns Island, and James Island areas of the Charleston metropolitan area.

#### **Project Description**

The proposed work consists of constructing approximately 9.5 miles of new roadway from the existing endpoint of Interstate 526 (referred to as I-526 / Mark Clark Expressway) at US 17 (Savannah Highway) to the James Island Connector (SC Route 30) at Folly Road in Charleston County. The Mark Clark Extension would complete the State transportation link between the existing terminus of I-526 at US Hwy 17 and the existing terminus of the James Island Expressway at Folly Road. Completion of the Mark Clark Expressway is expected to occur in **two phases** expected to be delivered through the design-build process or an alternative project delivery method where final design plans and construction methods are determined by the contractor(s) and SCDOT.

**Phase 1** Includes all work within West Ashley and most of the work on Johns Island to inclue one crossing of the Stono River, construction of Connector A and Connector B on Johns Island, and improvements to the River Road/Maybank Highway intersection.

**Phase 2** Continues from Connector B on Johns Island, crossing the Stono River onto James Island. On James Island, Phase 2 would include a new local road network connection at Riverland Drive then tie into the James Island Expressway at Folly Road.

In detail, the proposed project would impact 38.53 acres of Waters of the US including impacts to 27.49 acres of freshwater wetlands, 0.02 acres of streams and tributaries,

and 11.02 acres of tidal / Critical Area Waters. The following table separates impacts by resource type and phase for clarity.

		Impact Area (acres)				
Feature Type	Impact Type	Phase 1	Phase 2	Combined Total		
Freshwater Wetlands	Fill	8.50	11.54	20.04		
	Clearing	6.13	1.32	7.45		
	Total	14.63	12.86	27.49		
Freshwater Non-Wetlands (Streams/Tributaries)	Culvert	0.01	0.00	0.01		
	Armor	0.01	0.00	0.01		
	Total	0.02	0.00	0.02		
Tidal/Critical Area Wetlands and Non-Wetlands (Tidal Creeks, Ditches, and Open Waters)	Fill	1.97	5.81	7.78		
	Clearing	2.10	1.14	3.24		
	Total	4.07	6.95	11.02		
	COMBINED TOTAL IMPACTS	18.72	19.81	38.53		

Figure 1: Proposed impact summary

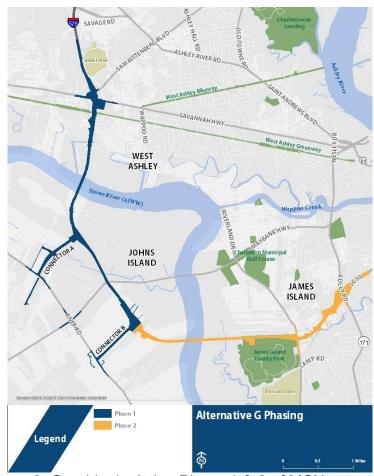


Figure 2: Graphic depicting Phase 1 & 2 of MCX extension

## **Avoidance and Minimization**

The applicant has proposed to avoidance and minimization for impacts to wetlands and/or waters of the United States with the following statement: "AVOIDANCE: The total avoidance of aquatic resources is not feasible. As part of the Preliminary Alternatives Analysis for the Project, Build Alternative alignments were initially developed to avoid wetlands within the study area to the greatest extent possible, while adhering to the preliminary design criteria. However, all 36 Build alternatives reviewed as part of the Tier 1 Preliminary Alternatives Analysis, when compared to the No-Build or No Action Alternative, had potential impacts to aquatic resources.

Even though the basic purpose of the Project is not water dependent, the results of the Tier 1 Preliminary Alternatives Analysis determined there were no feasible or practicable alternatives with no impacts to aquatic features that also meet the purpose and need of the Project.

MINIMIZATION: Permanent impacts to jurisdictional aquatic resources, including critical areas, resulting from the construction Mark Clark Extension are unavoidable. The following elements were incorporated into the current design plans to minimize the unavoidable impacts to aquatic resources. Additional minimization efforts would be evaluated as the plans are revised and finalized.

Minimization of Discharge of Fill: The 2021 SEIS estimated approximately 31.05 acres of fill impacts in wetlands and other aquatic resources, including critical areas. During the refinements to the Recommended Preferred Alternative, unavoidable fill impacts have been reduced to 27.82 acres; a net reduction of approximately 3.23 acres.

Reducing Roadway Fill: Steeper side/fill slopes (2:1 or 3:1, rather than 4:1 or 6:1) within wetland crossings would be used when feasible to minimize wetland impacts. However, 6:1 fill slopes may be necessary at wetland crossings associated with entrance/exit ramps to provide adequate visibility and safety as per relevant design standards by SCDOT, FHWA, and AASHTO.<sup>1</sup>

Maximizing Bridge Lengths: Bridging of the major tidal waterways and adjacent tidal salt marsh wetlands within the permitted limits is being proposed where economically feasible. The use of bridges reduces impacts wetlands, streams, and tidal salt marshes by maintaining mostly natural conditions. Bridges also maintain relatively unrestricted access to the surrounding environment for terrestrial wildlife and do not create barriers to fish and other aquatic animals.

The current proposed design includes 6.1 miles of bridging that would span

approximately 44 acres of jurisdictional aquatic resources that would otherwise be filled if the project was constructed on causeway. Fill impacts associated with bridges would be limited to the approaches where the elevated structures connect to at-grade roadway. The bridge locations and design concepts have been optimized to minimize fill impacts by incorporating additional bridging and maximizing bridge lengths where feasible.

To further reduce impacts, SCDOT performed preliminary hydraulic and hydrologic studies for each aquatic crossing to determine the appropriate size for proposed bridge structures. This analysis allowed the SCDOT to design bridges to span the entirety of all tidal creeks, the Stono River, and large expanses of salt marsh wetlands. Placement of piers, abutments, and vertical and horizontal clearance restrictions would be evaluated during the final design stage by the contractor(s) and SCDOT to further minimize impacts where feasible.

Construction Access Methods: SCDOT would require the contractor to avoid use of causeways on temporary fill and ensure temporary fill causeway would not be used as the sole method of construction access within the permitted limits. Use of temporary bridges, barges, mats, and other non-fill methods for construction access would minimize impacts to aquatic resources by reducing the need for the temporary discharge of fill. The contractor would be responsible for ensuring all temporary construction access methods, mats, barges, and trestles and associated piles are removed in their entirety upon completion of the bridges.

Additional Methods to Minimize Discharge of Fill Impacts:

- Prior to construction activities silt fencing would be installed along the edge of the limits of disturbance to prevent fill material from leaving the construction site.
- To reduce temporary impacts and maintain aquatic life movements during construction, tidal creeks would be temporarily crossed by a combination of trestles and platforms where feasible.
- To the maximum extent possible, project areas that are excavated adjacent to the tidal salt marsh would be graded to ensure regular tidal inundation occurs.
- Equalizer pipes/culverts would be installed where feasible in wetlands to maintain connectivity and drainage patterns.
- Any excavated earthen materials would be stored and disposed of in uplands, not side cast into adjacent wetlands, marshes, or waterways.
- Placement of riprap would be minimized where feasible.

#### Minimization of Clearing

Minimizing Construction Access Impacts: Construction access would consist of minimal clearing for the installation of elevated working platform(s), mat(s), or barge(s). Construction access is expected to be parallel to all proposed bridge structures.

To reduce impacts to tidal/critical area wetlands the removal of trees in areas along high marsh-upland transition areas would be completed without ground disturbance. Avoiding ground disturbance would allow roots and stumps to remain in place and make erosion less likely. This would also maintain seedbank integrity so that revegetation of native species can occur more efficiently post construction.

## Minimizing Impacts on Water Quality

Erosion and Sediment Control: A SWPPP would be developed by the contractor and SCDOT to minimize water quality impacts from erosion and sedimentation during active construction and post-construction. The contractor and SCDOT would comply with applicable SCDOT and FHWA standards for highway and bridge construction as well as all applicable SCDHEC standards and conditions. The contractor and SCDOT would routinely perform inspections to confirm that erosion and sediment control BMPs are in place, functional, and maintained during ground disturbing activities. BMPs that are not functioning properly or that require maintenance would be addressed and reinspected for compliance with the SWPPP.

The use of erosion and sediment control BMPs during construction would be the primary method to minimize impact to water quality during roadway construction. Exposed soils and sediments would be present during earth-work activities, increasing the potential for erosion and sedimentation impacts. SCDOT and SCDHEC guidelines for the use of erosion and sediment control BMPs would be followed to minimize sediment and erosion impacts, minimizing surface water and water quality impacts.

Examples of erosion and sediment control BMPs that would be considered during construction include:

- use of filter fabric sediment and erosion control fencing around areas of exposed soils.
- use of turbidity curtains in waters where silt fence is not feasible.
- limited clearing and grubbing of vegetation.
- stabilization of stockpiled soils.
- use of rock check dams.
- use of sediment basins.

use of diversion swales to direct stormwater runoff to sediment basins.

Stormwater Runoff: The developed SWPPP would seek to minimize water quality impacts from bridge deck runoff during active construction and post-construction. The Mark Clark Extension is being designed to meet the standards of the SCDOT Stormwater Quality Design Manual (2014) as well as SCDOT and FHWA bridge design standards.

Applicable and practicable stormwater treatment BMPs would be implemented as necessary to ensure the treatment of stormwater runoff prior to discharging to receiving waters. The proposed design includes the use of grassed shoulders and vegetated swales where feasible to aid in the removal of sediments and nutrients from stormwater runoff prior to discharge to waters in the permitted limits. Retention/detention basins would be used in certain areas to provide an even greater sediment and nutrient removal from pollutant- laden stormwater. Due to right-of-way constraints, safety considerations, and post- construction access issues, the types of post-construction structural stormwater controls are limited.

Proposed bridges would include bridge deck runoff collection over sensitive waterbodies where shellfish beds are present. The use of scuppers would be limited and would not be placed directly over surface waterbody channels when practicable. SCDOT requires projects within 1,000 feet of shellfish beds that include permanent water quality ponds and detention structures to retain the first 1.5 inches of runoff from built-upon portions in the permitted limits. Other applicable and practicable stormwater BMPs would be implemented as necessary to ensure the treatment of stormwater runoff prior to discharging to receiving waters.

Water quality ponds have been designed to avoid placement in wetlands or to minimize impacts to wetlands where feasible. In locations where there is not sufficient area to construct water quality ponds, other SCDOT and SCDHEC approved stormwater treatment and storage methods would be utilized.

If necessary, to meet the waste load allocations for TMDL watersheds, SCDOT would implement a TMDL Compliance Plan (an example is included in Appendix E). SCDOT, and the contractor, would coordinate with SCDHEC regarding any changes to waste load allocations or TMDL standards that may affect any necessary compliance plans or special conditions listed in permit authorizations.

#### Additional Methods to Minimize Water Quality Impacts:

 To the maximum extent possible, construction staging, and phasing would be managed so that only the areas in active construction are disturbed/exposed while inactive areas would be maintained with either temporary or permanent vegetation.

- Grading would be completed as soon as possible after it has begun.
- Where necessary, slopes and embankments would be stabilized with appropriate erosion and sediment control BMPs.
- Fill material, including riprap, placed within wetlands would consist of clean material free of potential sources of pollution to protect the quality of surface waters.
- All necessary measures to prevent oil, tar, trash, debris, and other pollutants from entering the adjacent waterway and/or wetland would be implemented.
- Bridge decks and conveyance systems would be designed to withstand velocities of peak discharge events.
- Direct contact of raw or live concrete in wetlands or open waters would be avoided to the greatest extent practicable until the concrete has cured."

#### **Proposed Compensatory Mitigation**

The applicant has proposed to mitigate for impacts to wetlands and/or waters of the United States with the following statement: "SCDOT proposes to provide compensatory mitigation for the unavoidable impacts to wetlands and other aquatic resources, including critical areas, caused by permanent fill and clearing impacts. SCDOT also proposes to mitigate for the secondary impact of shading caused by the proposed bridge structures over vegetated tidal salt marsh wetlands. CONCEPTUAL MITIGATION PLAN: SCDOT plans to purchase credits from USACE approved mitigation banks to compensate for unavoidable impacts to WOTUS and waters of the State, including critical areas.

MITIGATION CREDIT CALCULATIONS: SCDOT proposes to utilize the credit calculation methods outlined in the 2010 Guidelines to determine the required compensatory mitigation credit totals for unavoidable impacts to wetlands and non-wetland resources, including critical areas. Table 3-6 provides an overview of the calculated mitigation credits to offset adverse impacts to aquatic resources."

	Impact Type	Phase 1		Phase 2		Project Total				
Feature Type		Impact Area (acres)	Impact Area (Linear feet)	Proposed Mitigation Credits	Impact Area (acres)	Impact Area (Linear feet)	Proposed Mitigation Credits	Impact Area (acres)	Impact Area (Linear feet)	Proposed Mitigation Credits
Freshwater Wetlands	Fill	8.50	-	102.00	11.54	-	138.48	20.04	-	240.48
	Clearing	6.13	-	61.30	1.32	Υ	13.20	7.45	-	74.50
	Total	14.63		163.30	12.86	0.00	151.68	27.49		314.98
Freshwater Non- Wetlands (Streams/Tributaries)	Culvert	0.01	28.00	74.20	-	-	0.00	0.01	28.00	74.20
	Armor	0.01	28.00	79.80	-	-	0.00	0.01	28.00	79.80
	Total	0.02	56.00	154.00				0.02	56.00	154.00
Tidal/Critical Area Wetlands and Non- Wetlands (Tidal Creeks, Ditches, and Open Waters)	Fill	1.97	-	28.57	5.81	-	84.25	7.78	-	112.81
	Clearing	2.10	-	26.25	1.14	-	14.25	3.24	-	40.50
	Shade	7.90	-	33.18	3.21	-	13.48	11.11	-	46.66
	Total	11.97	-	88.00	10.16	-	111.98	22.13	-	199.97

Figure 3: Proposed mitigation summary

## 33 USC 408 (Section 408)

The proposed facility is within the project area of a Federal Civil Works project: **Atlantic Intracoastal Waterway.** The proposed project described in this notice would require permission pursuant to Section 14 of the Rivers and Harbors Act of 1899, 33 USC 408 (Section 408). Permission for an alteration under Section 408 may be granted when, in the judgment of the Secretary of the Army, the alteration will not be injurious to the public interest and will not impair the usefulness of the project. Decisions on proposed alterations are delegated to the District Commander unless one or more criteria requiring elevation are triggered.

Section 408 is based on factors which are outlined in Engineering Circular (EC) 1165-2-220. Review of the requests for modification will be reviewed by a Corps technical review team considering the following factors:

- 1. Impair the Usefulness of the Project Determination. The review team will determine if the proposed alteration would limit the ability of the federally authorized project to function as authorized, or would compromise or change any authorized project conditions, purposes or outputs. All appropriate technical analyses including geotechnical, structural, hydraulic and hydrologic, real estate, and operations and maintenance requirements, must be conducted and the technical adequacy of the design must be reviewed. The Charleston District is working closely with the requestor to ensure that all required technical plans, maps, drawings, and specifications necessary for these analyses are provided and complete. In order to approve a request for modification, it must be determined that the usefulness of the authorized project will not be negatively impacted.
- 2. Injurious to the Public Interest Determination. Proposed alterations will be reviewed to determine the probable impacts, including cumulative impacts, on the public interest. Evaluation of the probable impacts that the proposed alteration to the USACE project

may have on the public interest requires a careful weighing of all those factors that are relevant in each particular case. Factors that may be relevant to the public interest depend upon the type of USACE project being altered and may include, but are not limited to, such things as conservation, economic development, historic properties, cultural resources, environmental impacts, water supply, water quality, flood hazards, floodplains, residual risk, induced damages, navigation, shore erosion or accretion, and recreation. The decision whether to approve an alteration will be determined by the consideration of whether benefits are commensurate with risks. If the potential detriments are found to outweigh the potential benefits, then it may be determined that the proposed alteration is injurious to the public interest. This determination is not the same as the "contrary to the public interest determination" that is undertaken pursuant to Sections 10/404/103.

3. Legal and Policy Compliance. A determination will be made as to whether the proposal meets all legal and policy requirements. This includes the National Environmental Policy Act (NEPA) and other environmental compliance requirements, as well as USACE policy. While ensuring compliance is the responsibility of USACE, the requester is required to provide all information that the Charleston District identifies as necessary to satisfy all applicable federal laws, executive orders, regulations, policies, and ordinances.

408 Process Overview: The basic 408 process for this application is outlined in EC 1165-2-220, ¶¶ 7.h. (4). In cases in which a Section 408 permission (except for Section 408 decisions that must be made by the Division Commander, per paragraph 8.c.) and a Regulatory standard individual permit are both required for the same proposed alteration/activity, the district will conduct these evaluations in a coordinated and concurrent manner resulting in a single decision document. Note that implementing regulations and policies for the Regulatory permit require the evaluation of proposed activities and their compatibility with the purposes of a federal project. The Section 408 analysis informs the compatibility with the purposes of a federal project for Regulatory purposes. In addition, there will be a single transmittal letter to the requester that includes as attachments both the Section 408 decision letter and the Regulatory permit. The District Commander is the deciding official for the single decision document for these cases, although he or she may further delegate these combined decisions following the same requirements as in paragraph 8.d.

#### **South Carolina Department of Health and Environmental Control**

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the certifying authority, South Carolina Department of Health and Environmental Control, in accordance with provisions of Section 401 of the Clean Water Act (CWA). The CWA Section 401 Certification Rule (Certification Rule, 40 CFR 121), effective September 11, 2020, requires certification, or waiver, for any license or permit that authorizes an activity that may result in a discharge. The scope of a

CWA Section 401 Certification is limited to assuring that a discharge from a Federally licensed or permitted activity will comply with water quality requirements. The applicant is responsible for requesting certification and providing required information to the certifying authority. In accordance with Certification Rule part 121.12, the Corps will notify the U.S. Environmental Protection Agency Administrator when it has received a Department of the Army (DA) permit application and the related certification. The Administrator is responsible for determining if the discharge may affect water quality in a neighboring jurisdiction. The DA permit may not be issued pending the conclusion of the Administrator's determination of effects on neighboring jurisdictions.

The work shown on this application must also be certified as consistent with applicable provisions of the Coastal Zone Management Program (15 CFR 930) This activity may also require evaluation for compliance with the S. C. Construction in Navigable Waters Permit Program. State review, permitting and certification is conducted by the S. C. Department of Health and Environmental Control. 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.

## **Essential Fish Habitat**

This notice regards the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact 7.4 acres of estuarine substrates and emergent wetlands utilized by various life stages of species comprising the shrimp, and snapper-grouper management complexes. The District Engineer has made no determination whether the proposed action would 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). Coordination with the NMFS is being led by the FHWA as the lead agency pursuant to NEPA and Executive Order 13807. The District Engineer's final determination relative to project impacts and the need for mitigation measures will be made following the conclusion of FHWA's consultation/coordination with the NMFS.

## **Endangered Species**

Pursuant to Section 7 of the Endangered Species Act of 1973 (as amended), the District Engineer has consulted the most recently available information and <a href="https://example.com/html/mailto:nearth-nea

#### **Cultural Resources**

In accordance with Section 106 of the NHPA, the District Engineer has consulted South Carolina ArchSite (GIS), for the presence or absence of historic properties (as defined in 36 C.F.R. 800.16)(/)(1)), and has initially determined that there are historic properties present, but has made no determination whether historic properties will be affected by the proposed undertaking. Consultation with the Advisory Council on Historic Properties (ACHP) and State Historic Preservation Office (SHPO) is being led by the FHWA as the lead agency pursuant to NEPA and Executive Order 13807. The District Engineer's final determination relative to project impacts and the need for mitigation measures will be made following the conclusion of FHWA's consultation.

## **Corps' Evaluation**

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed 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 cannot undertake to adjudicate rival claims.

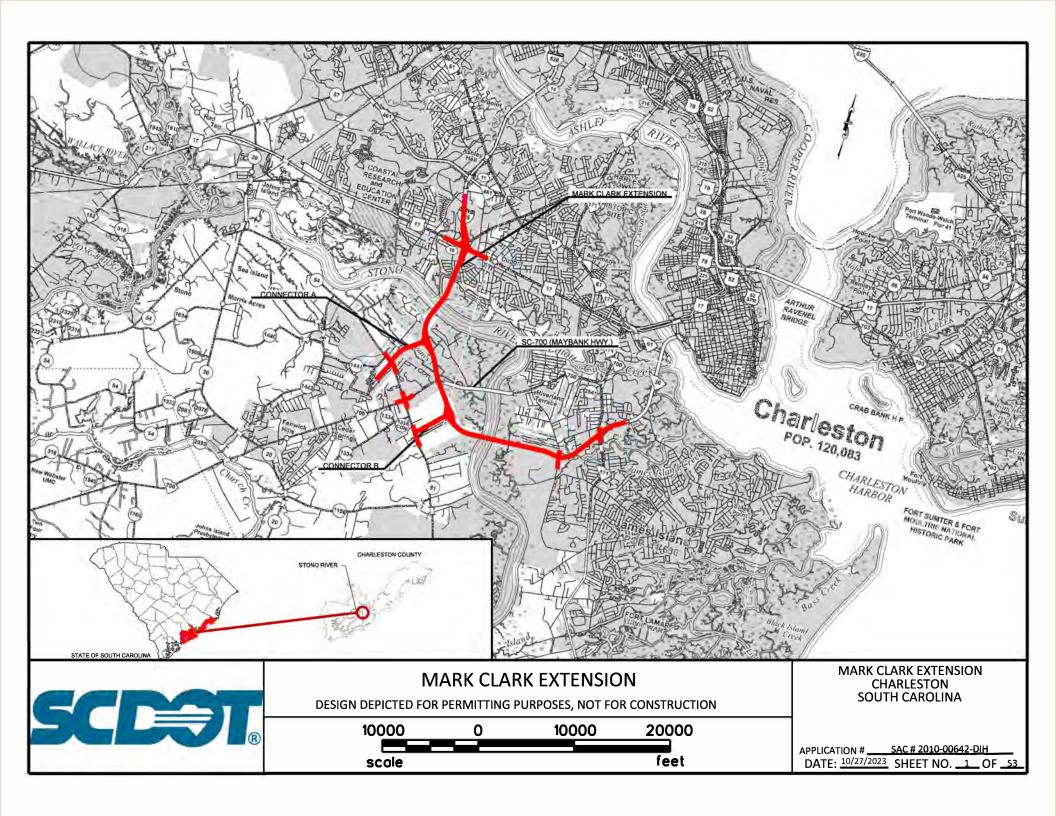
#### **Solicitation of Public Comment**

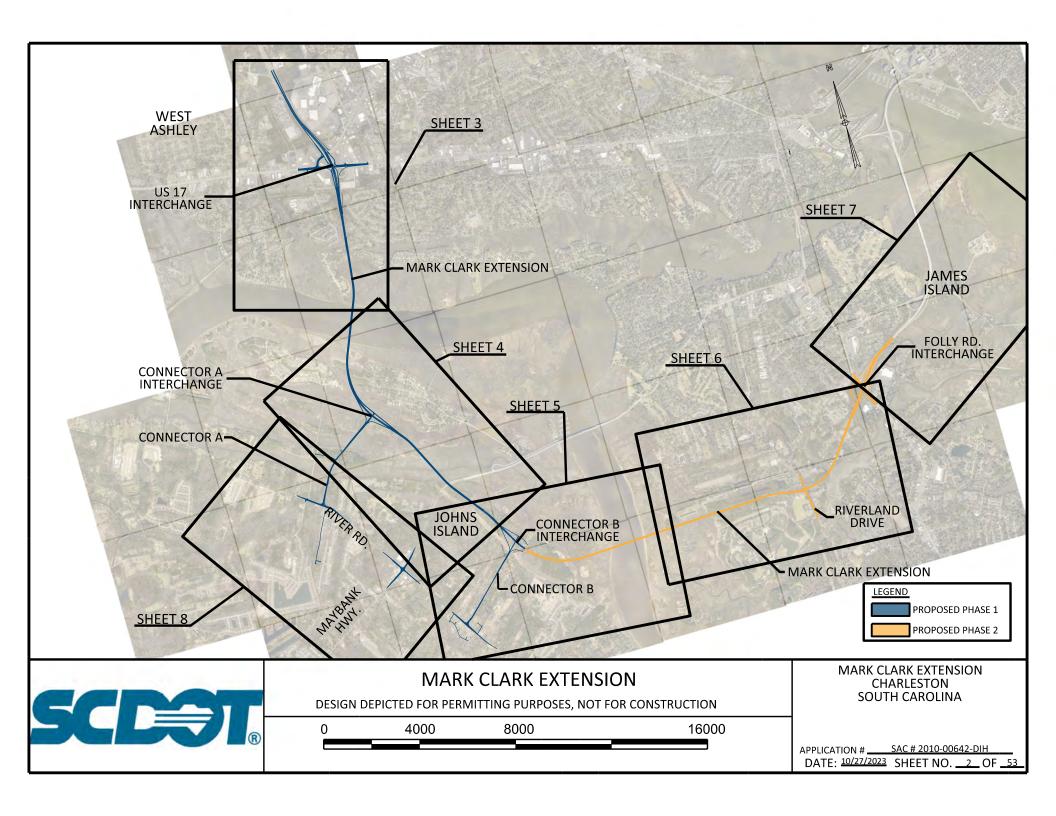
The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, 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. 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.

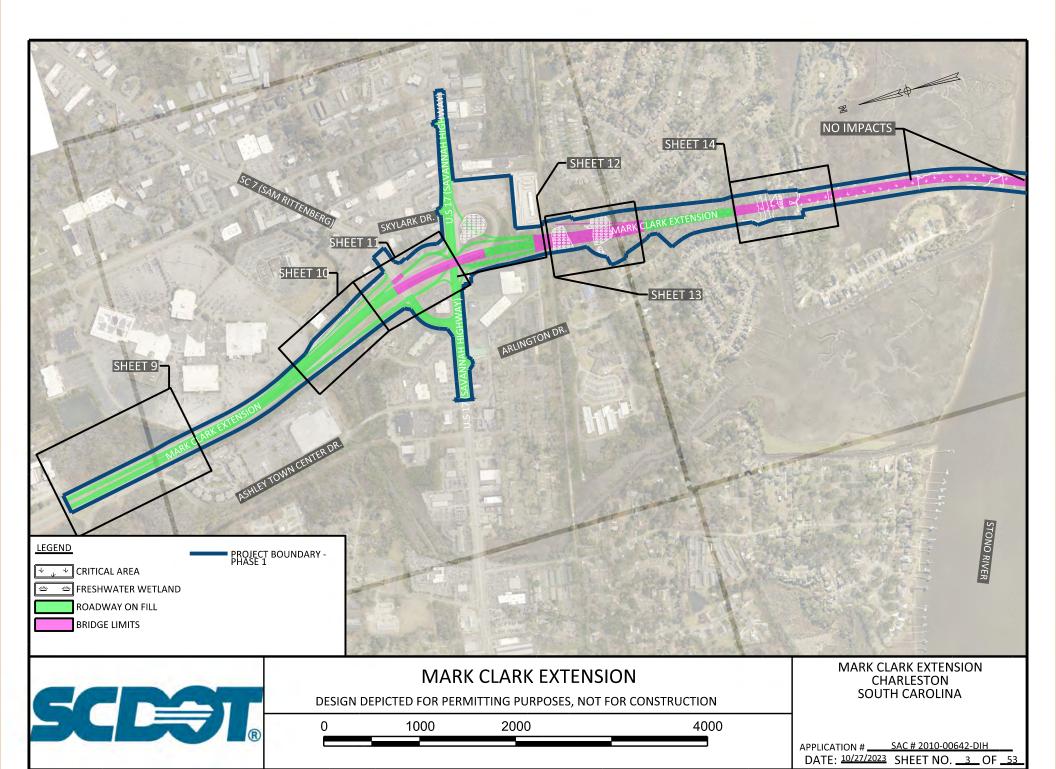
Please submit comments in writing, identifying the project of interest by public notice/file number (SAC-2010-00642), to Tony.B.hardee@usace.army.mil or the following address:

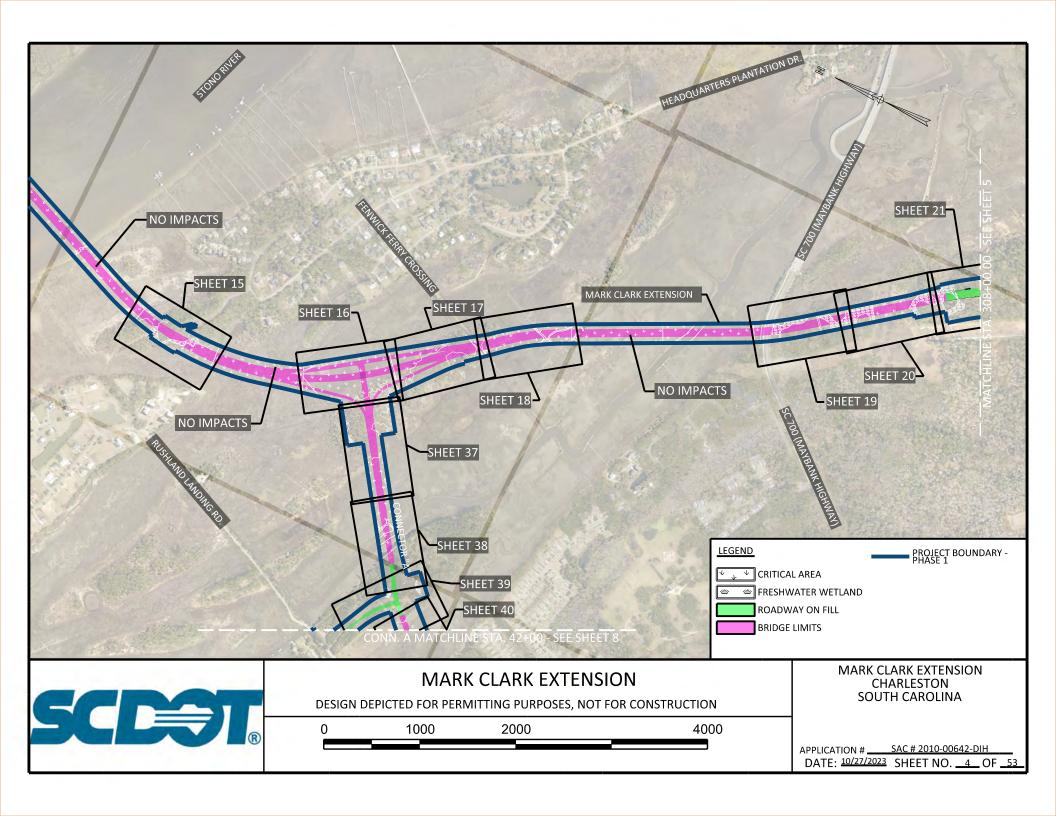
U.S. Army Corps of Engineers
ATTN: REGULATORY DIVISION
69A HAGOOD AVENUE
CHARLESTON, SOUTH CAROLINA 29403-5107

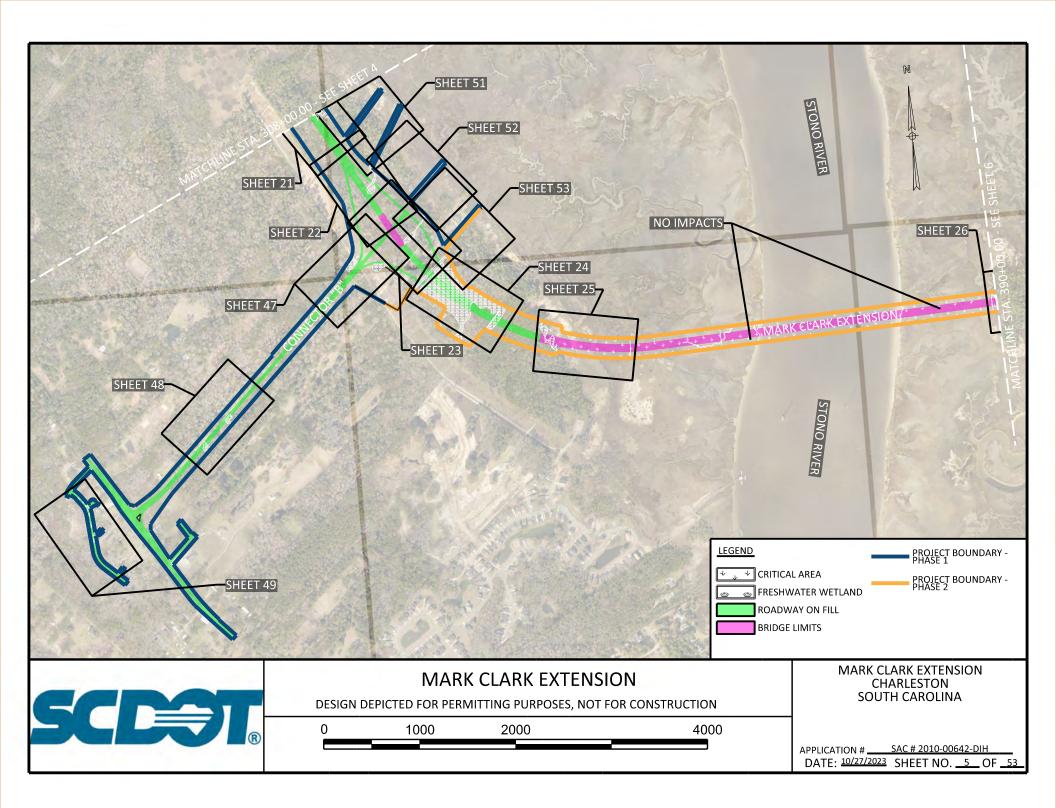
If there are any questions concerning this public notice, please contact T. Brian Hardee Project Manager, at (843) 365-0848, toll free at 1-866-329-8187, or by email at Tony.B.hardee@usace.army.mil.

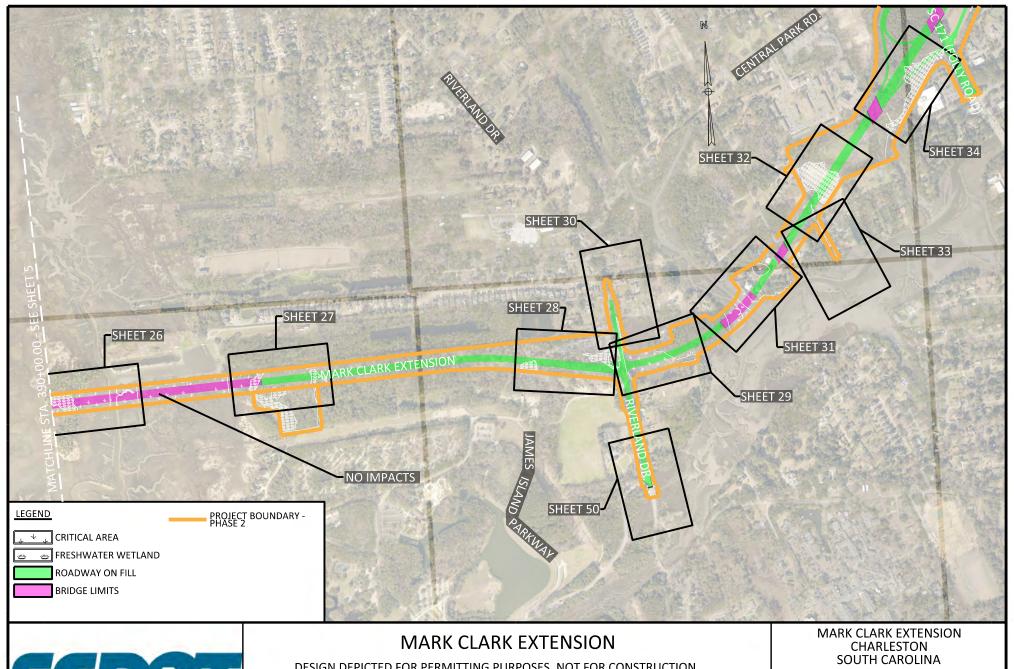












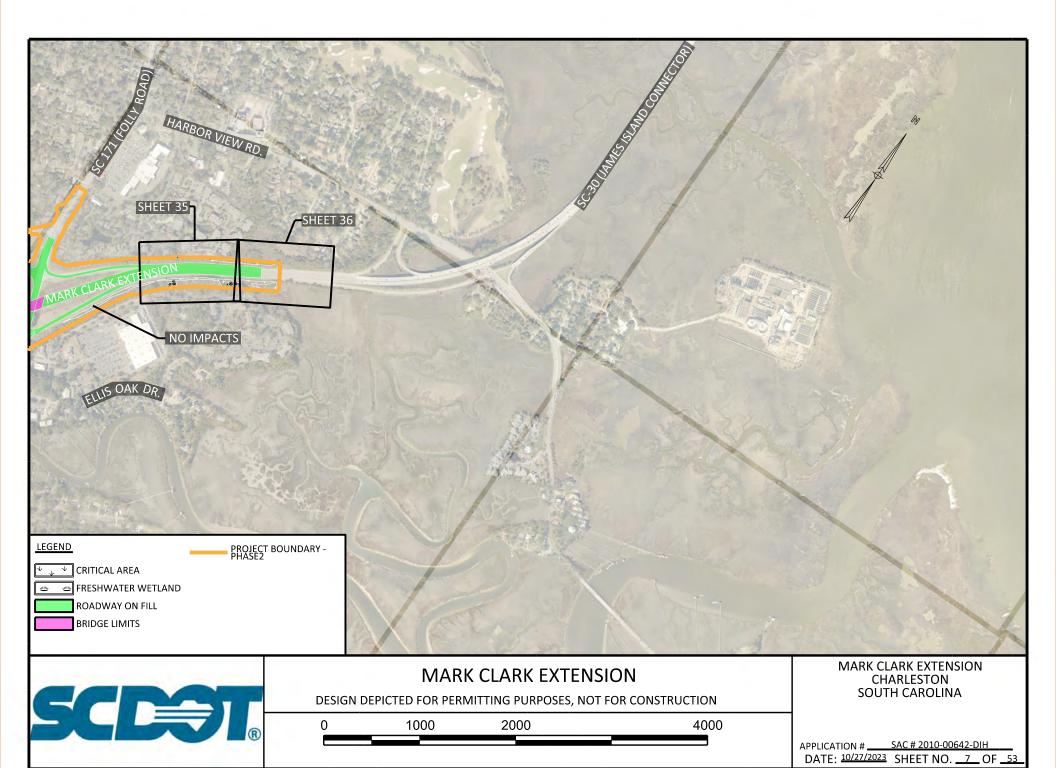


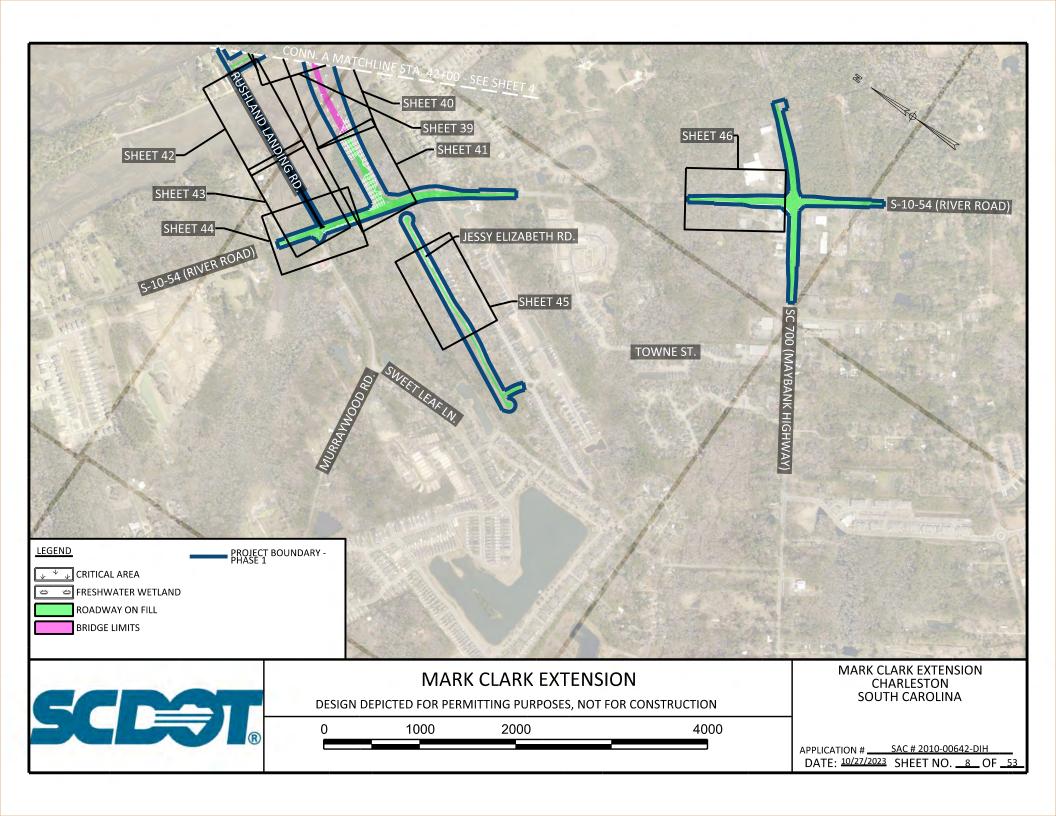
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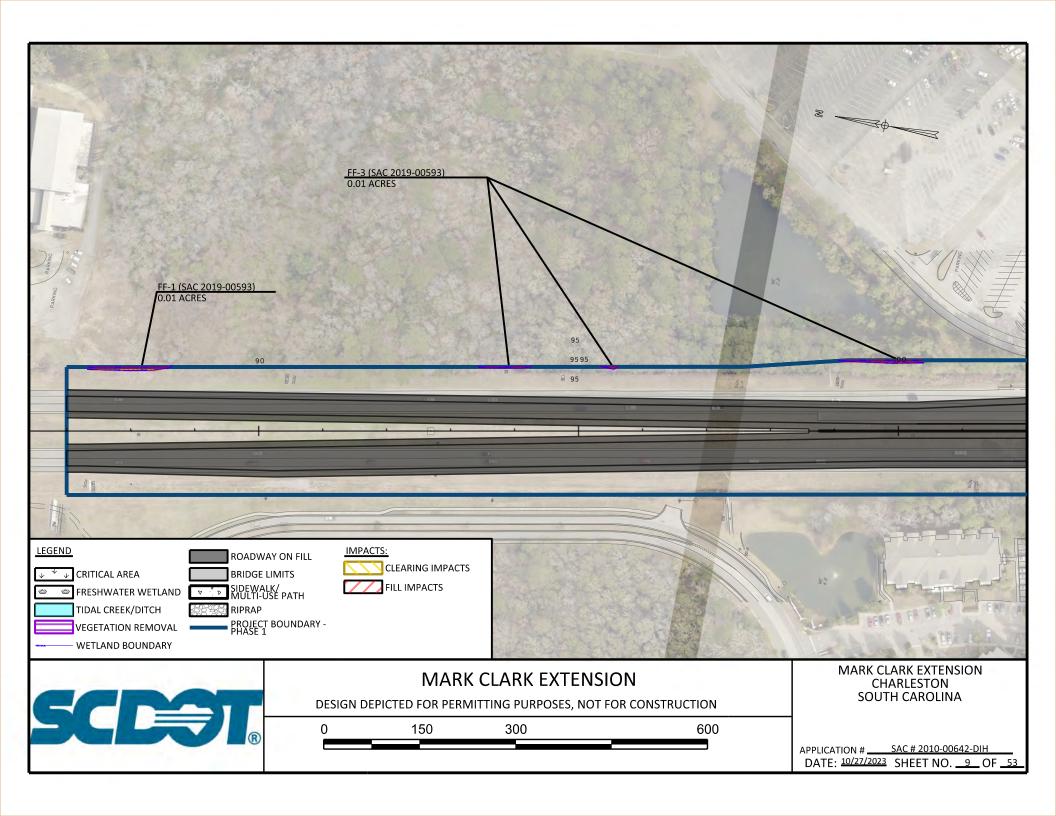
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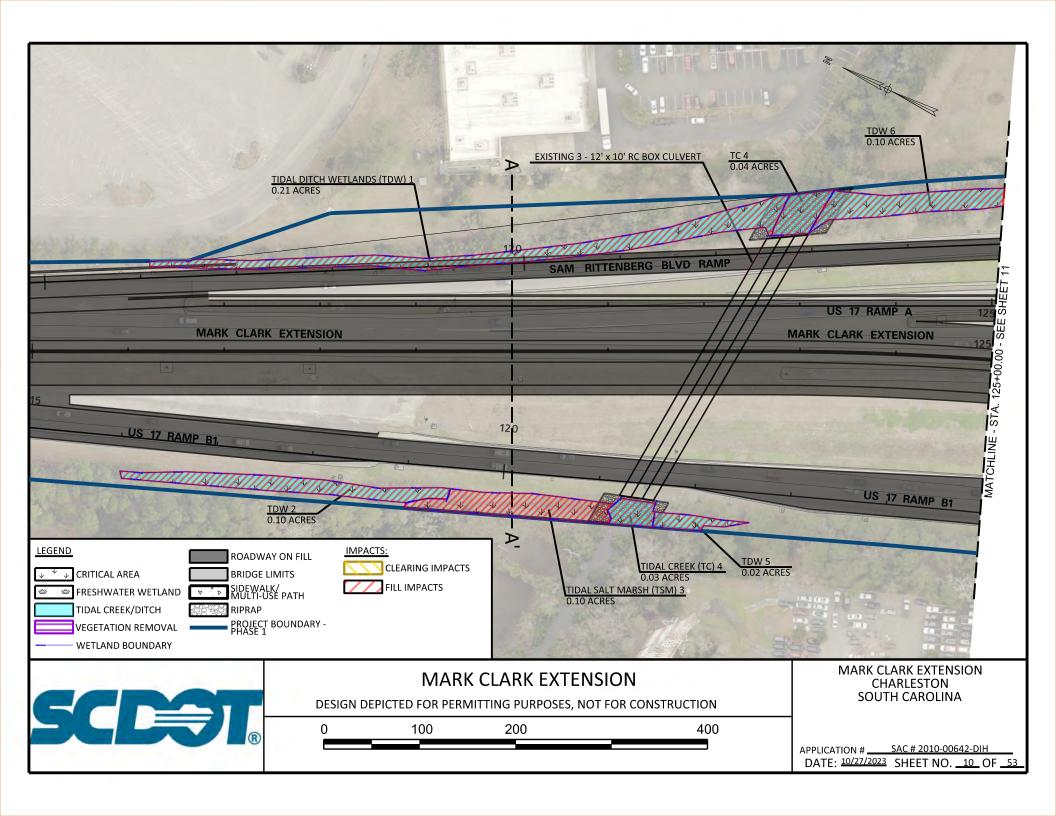
APPLICATION # SAC # 2010-00642-DIH

DATE: 10/27/2023 SHEET NO. 6 OF 53

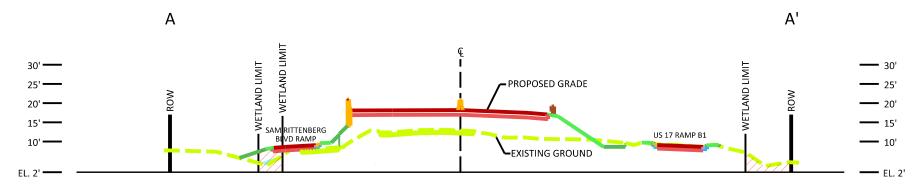




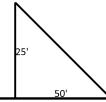




## TYPICAL WETLAND CROSS SECTION MARK CLARK EXPRESSWAY STA. 120+00.00



PERMANENT FILL
TIDAL CREEK/DITCH





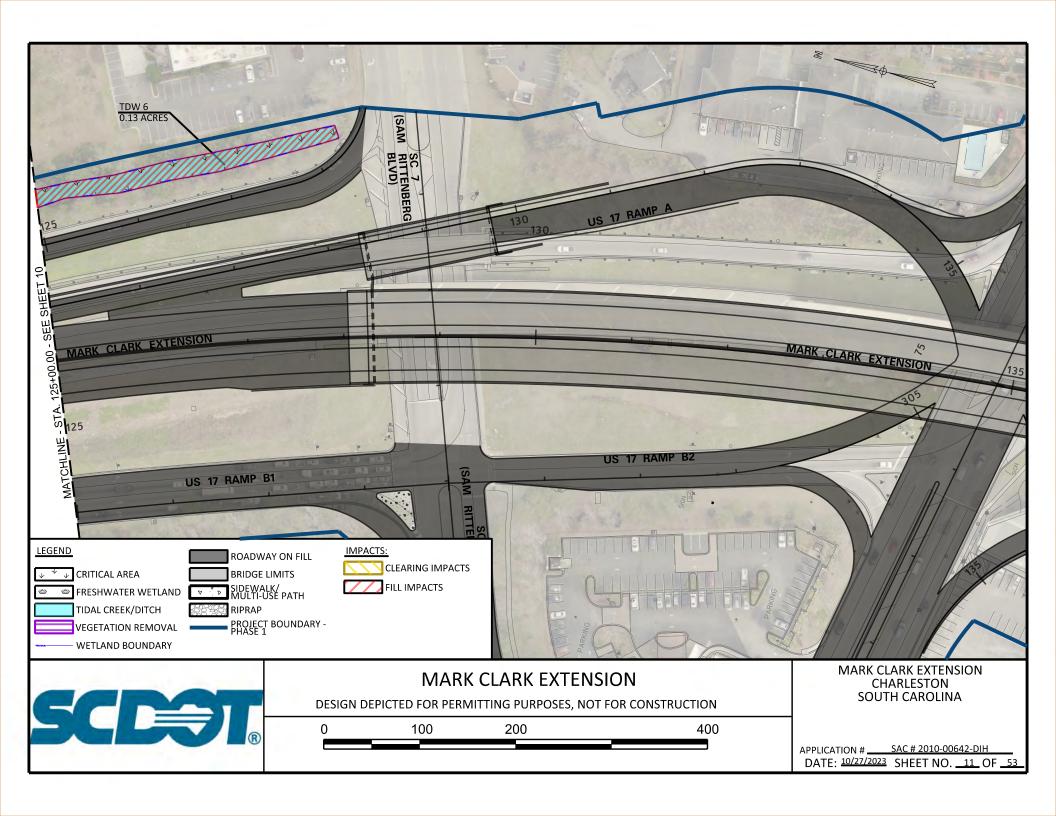
# MARK CLARK EXTENSION

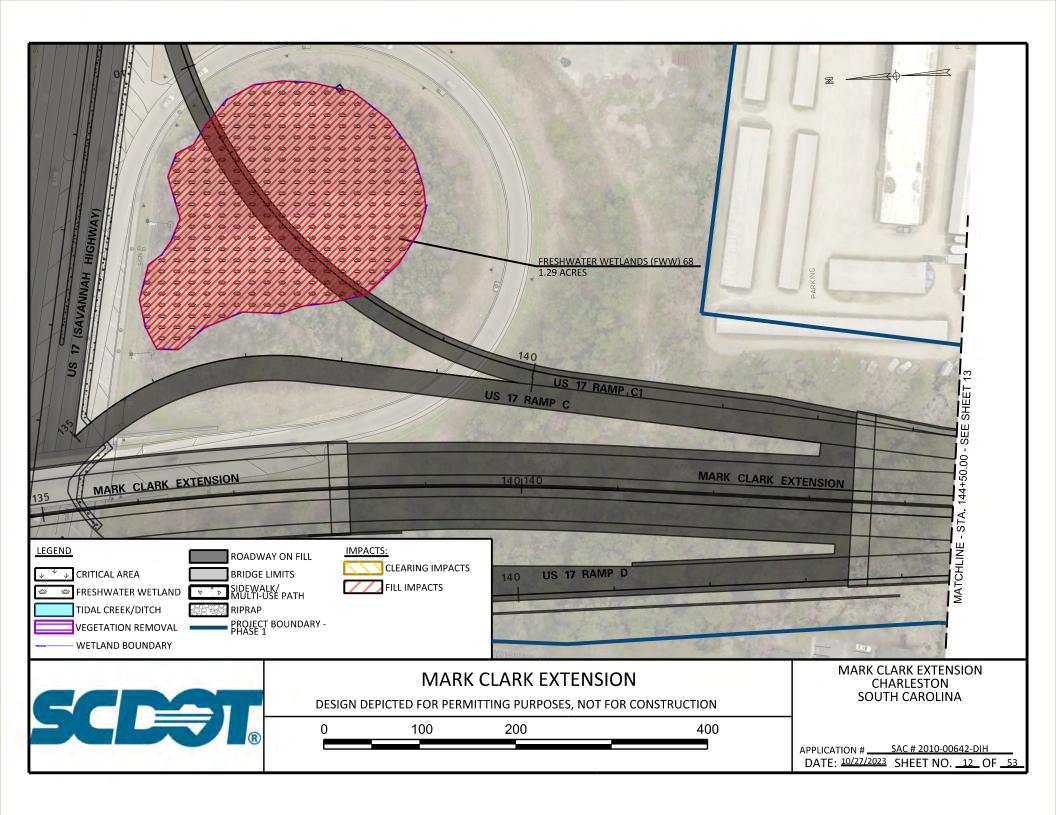
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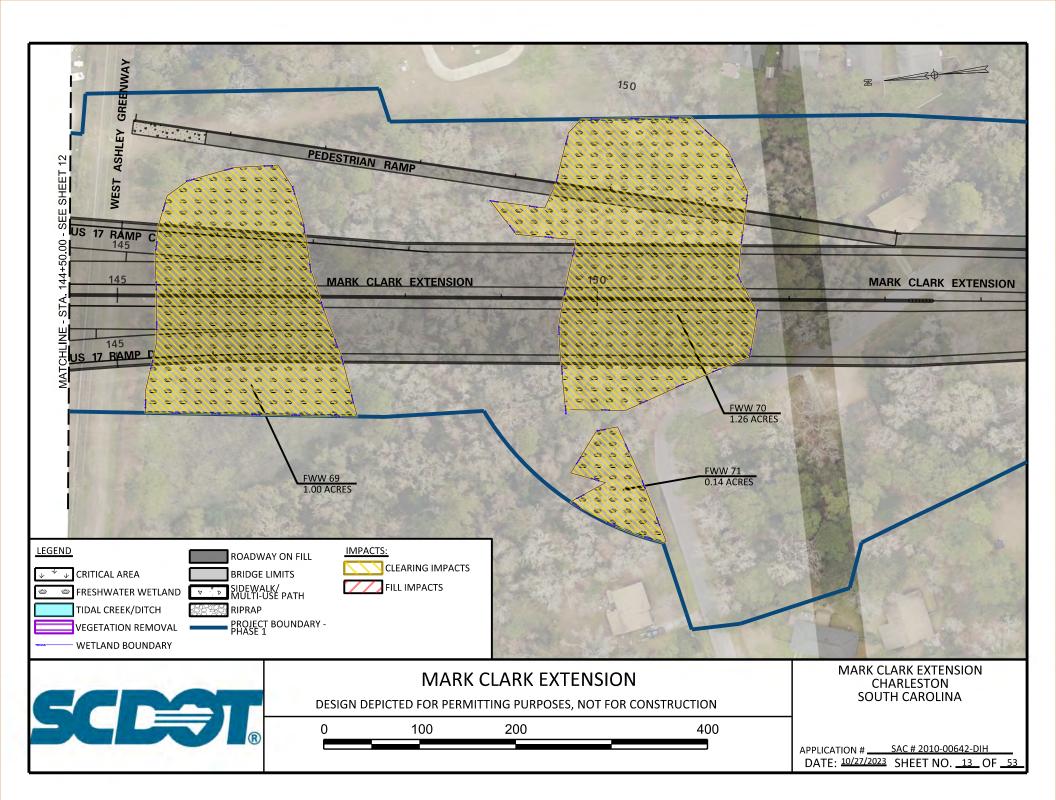
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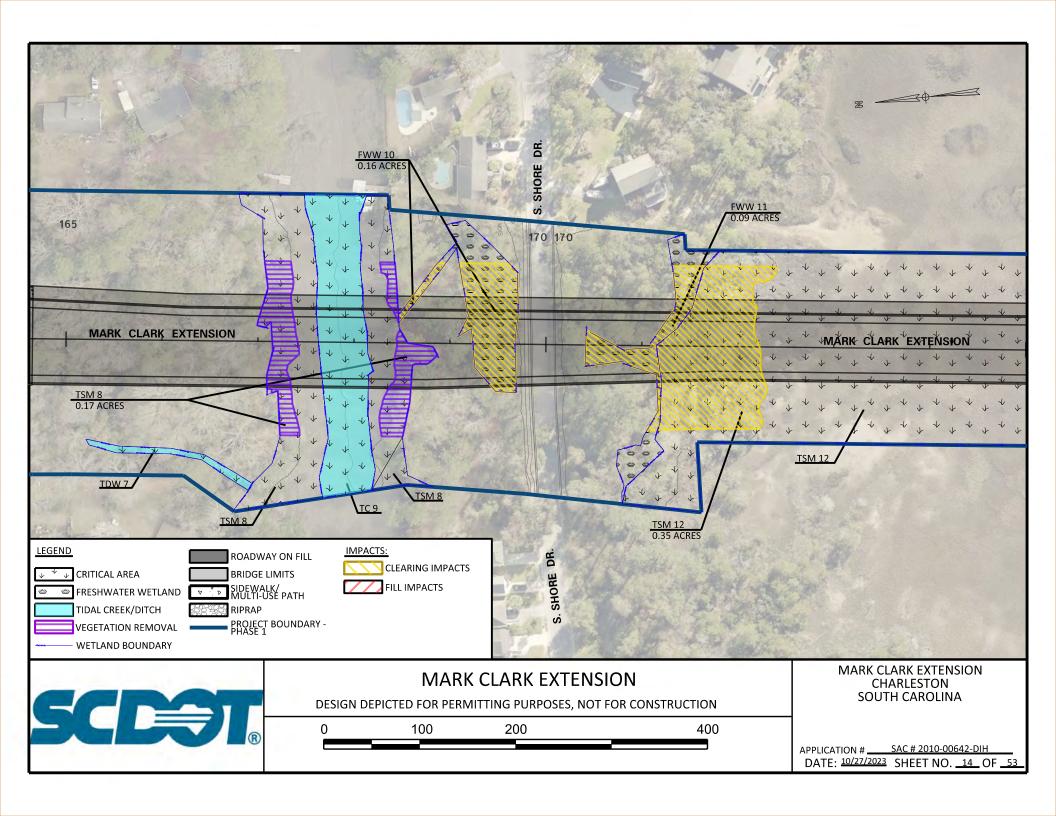
MARK CLARK EXTENSION CHARLESTON SOUTH CAROLINA

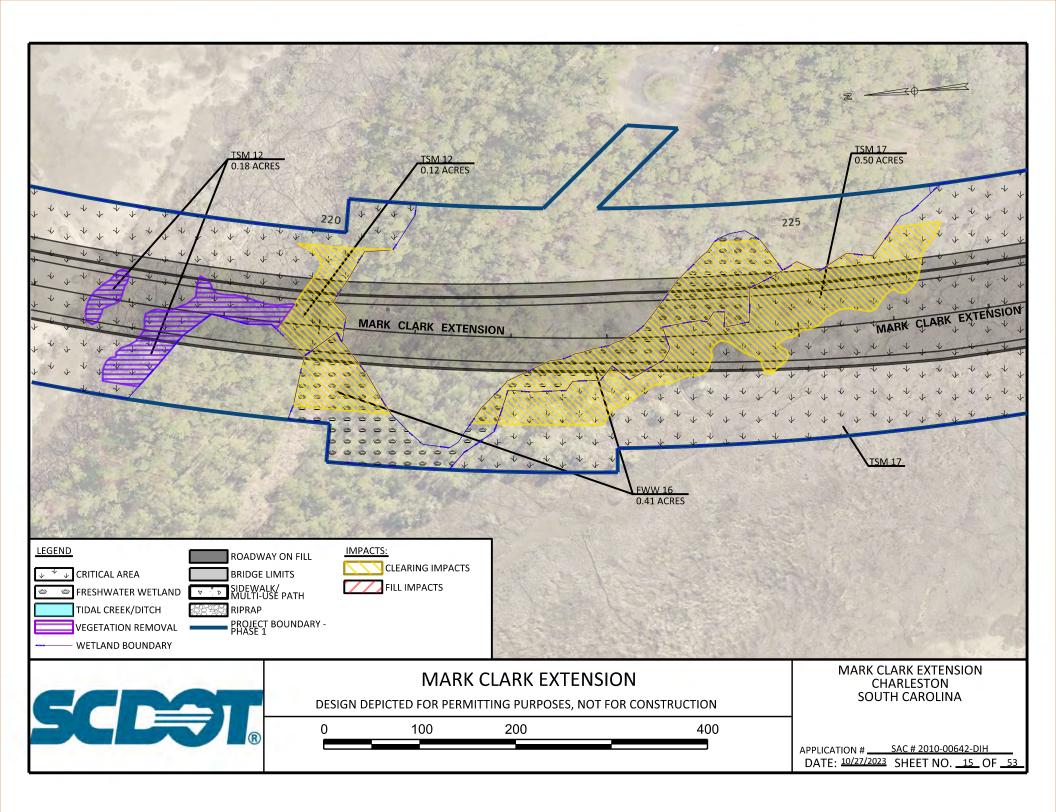
APPLICATION # <u>SAC # 2010-00642-DIH</u>
DATE: <u>10/27/2023</u> SHEET NO. <u>10A</u> OF <u>53</u>

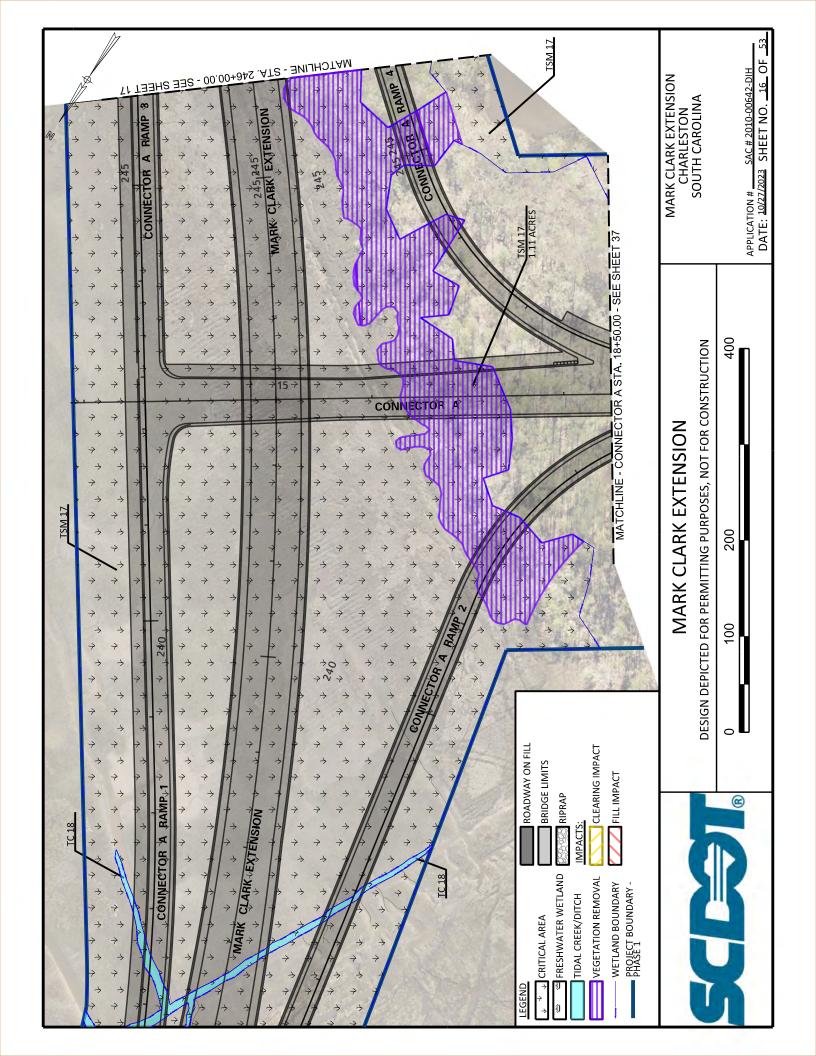


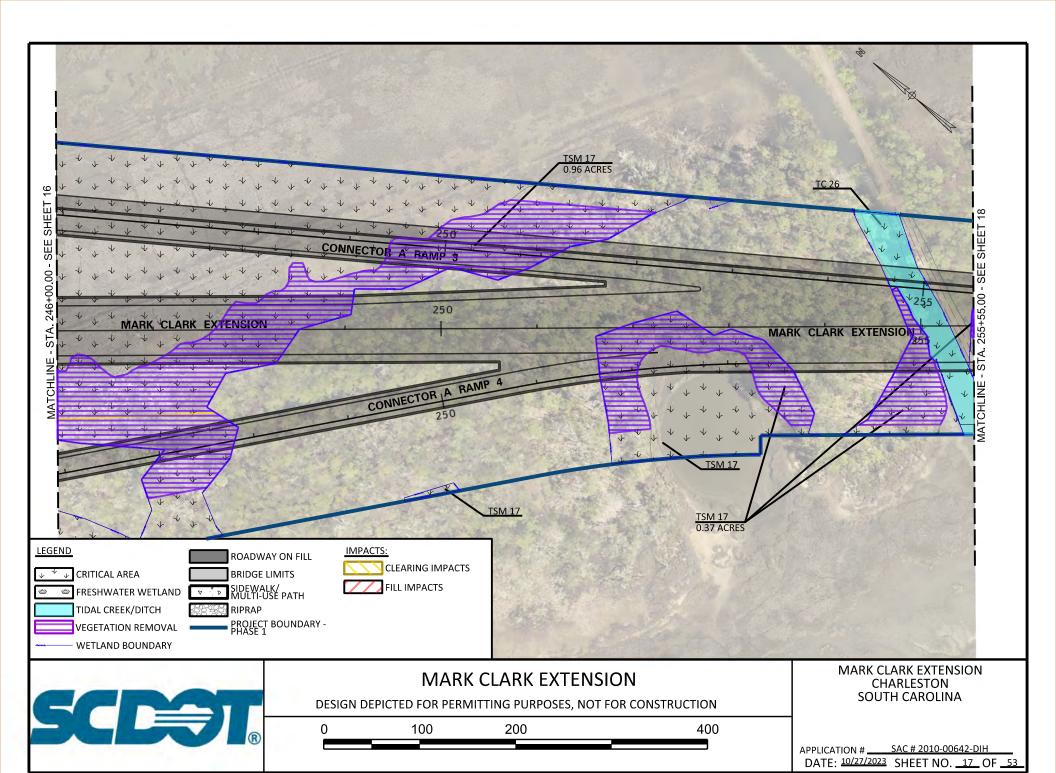


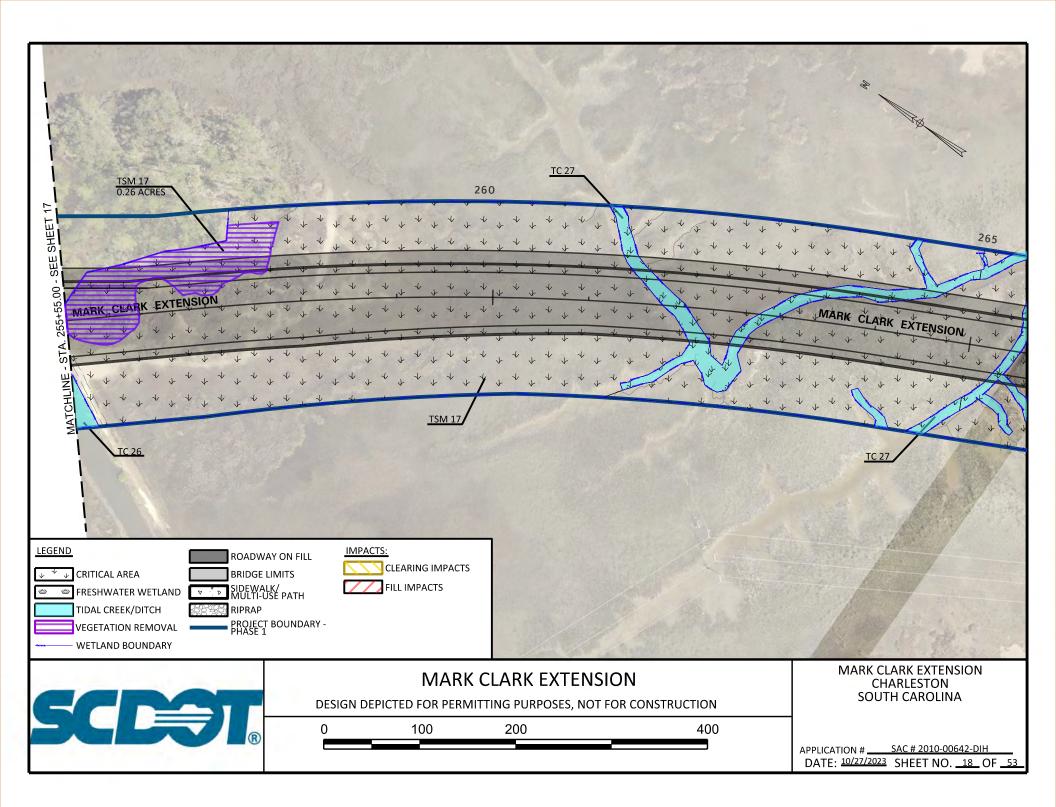


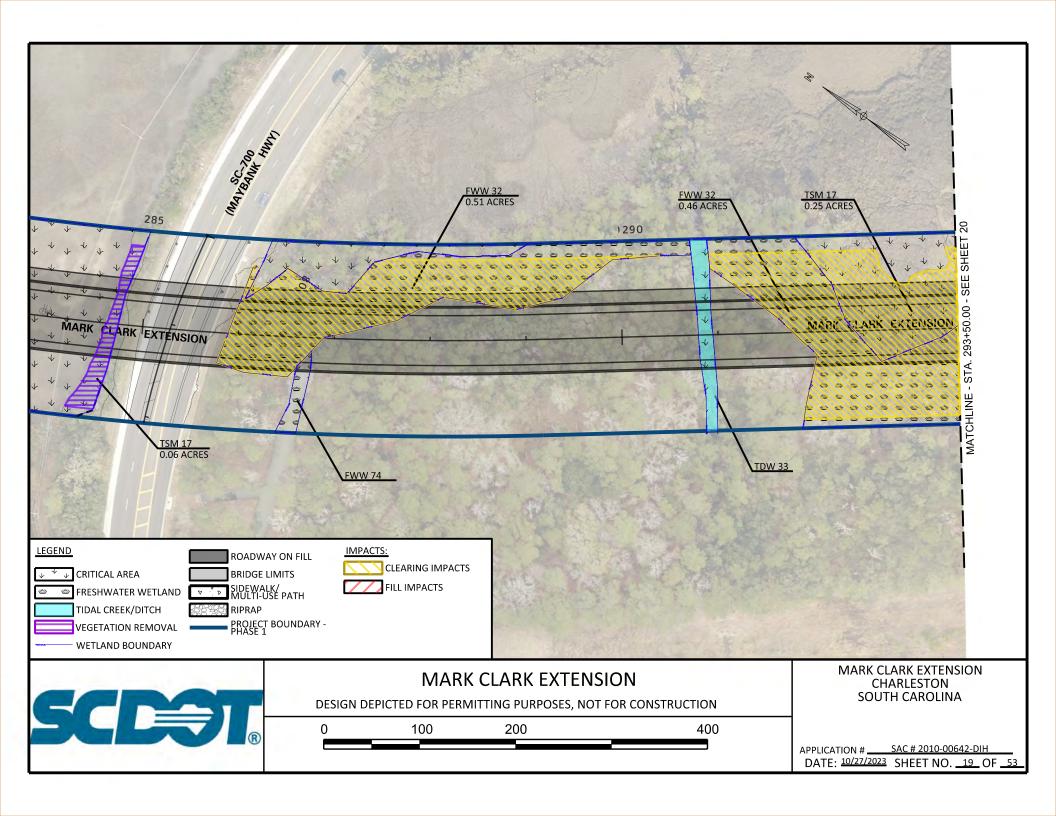


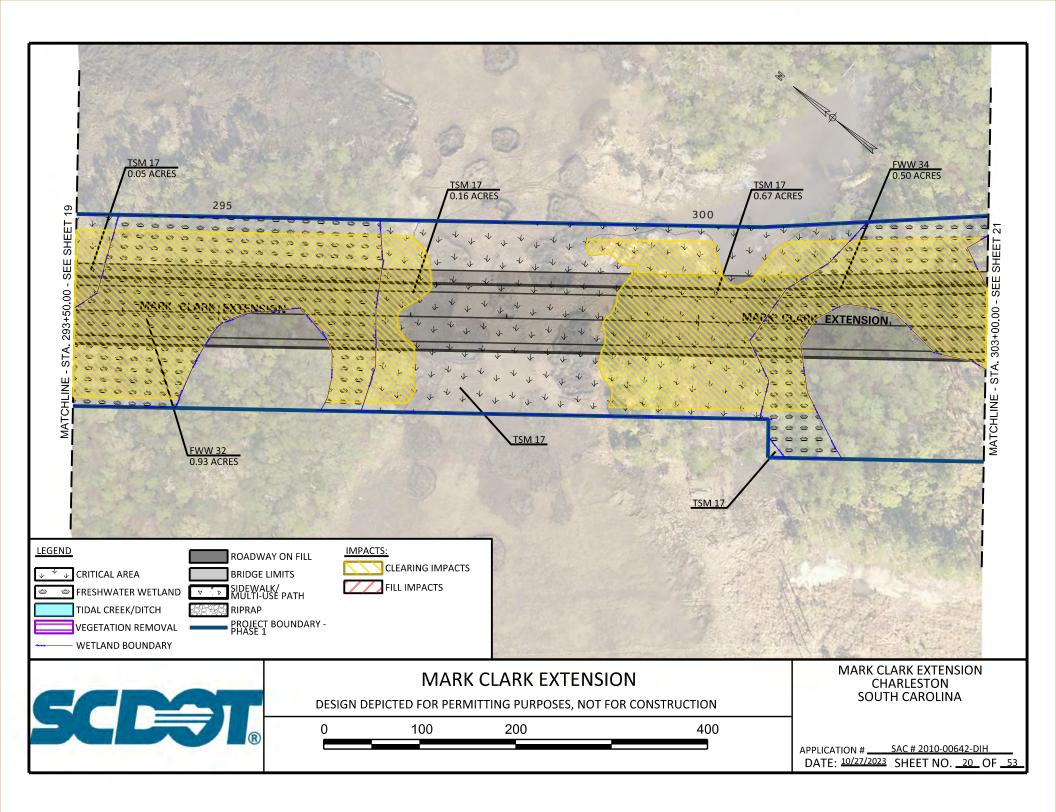


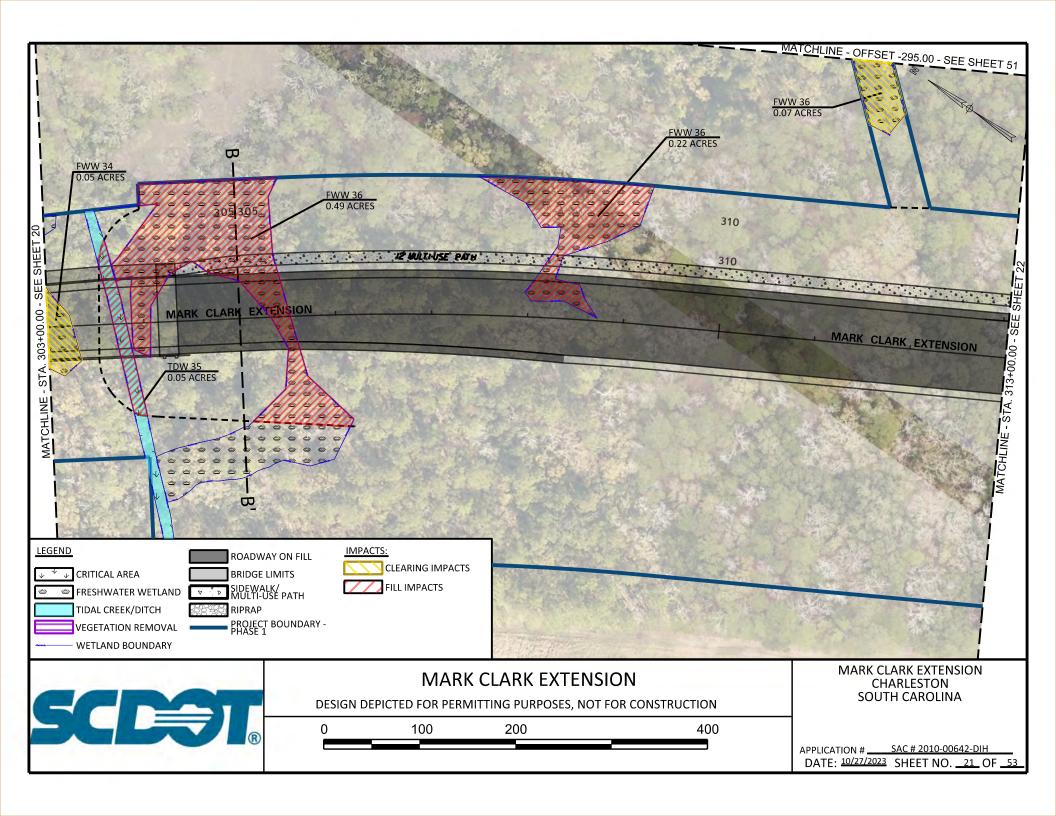


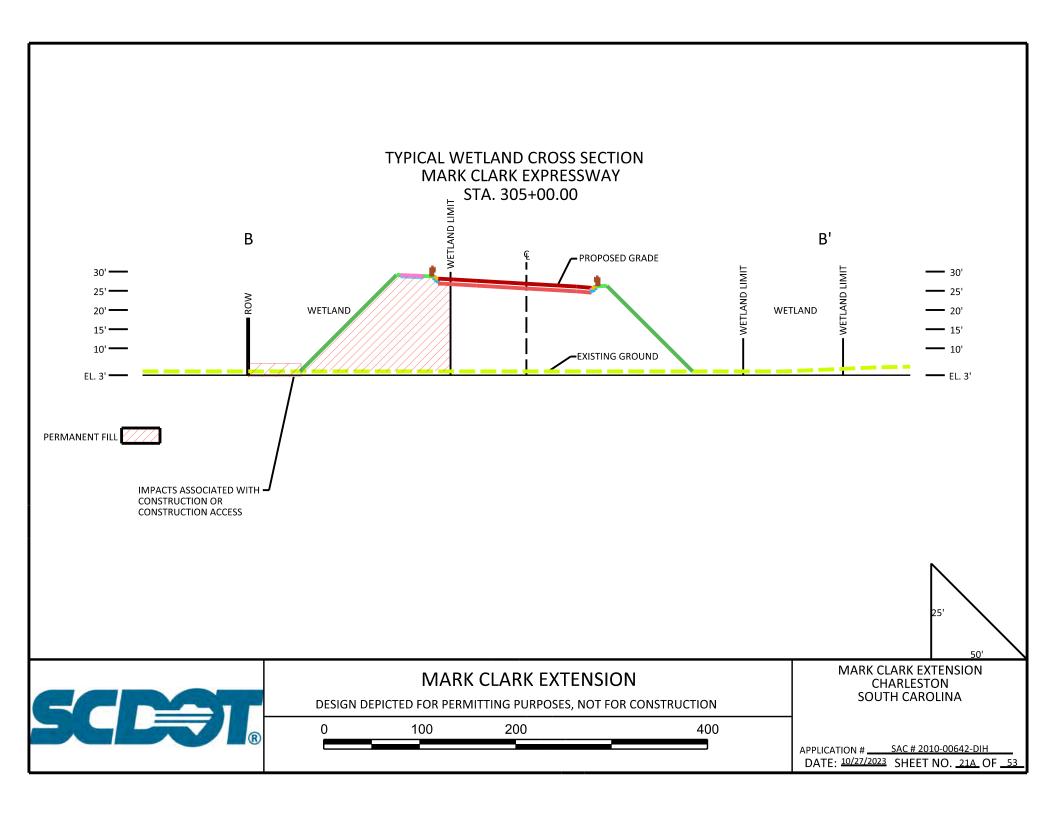


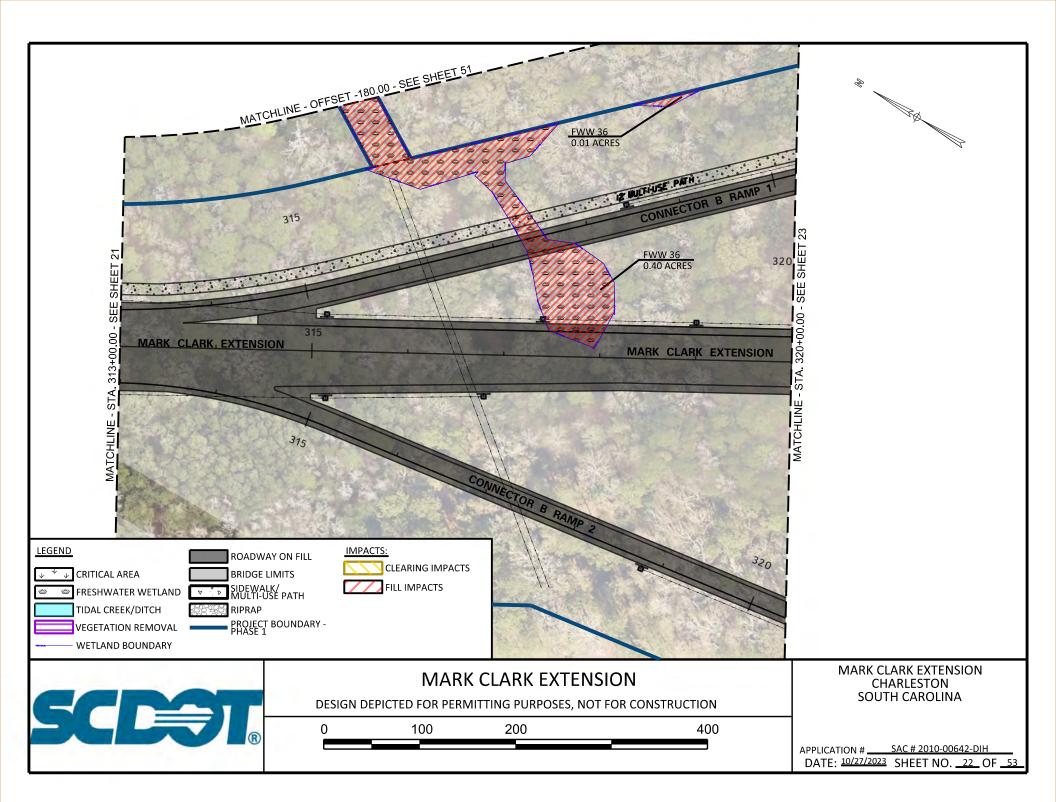


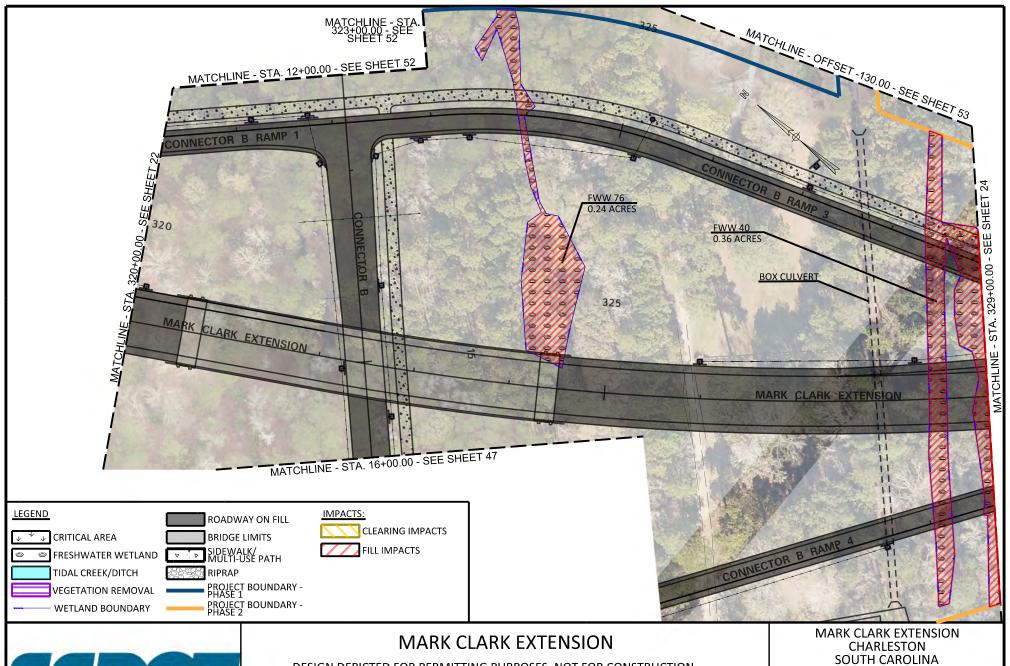












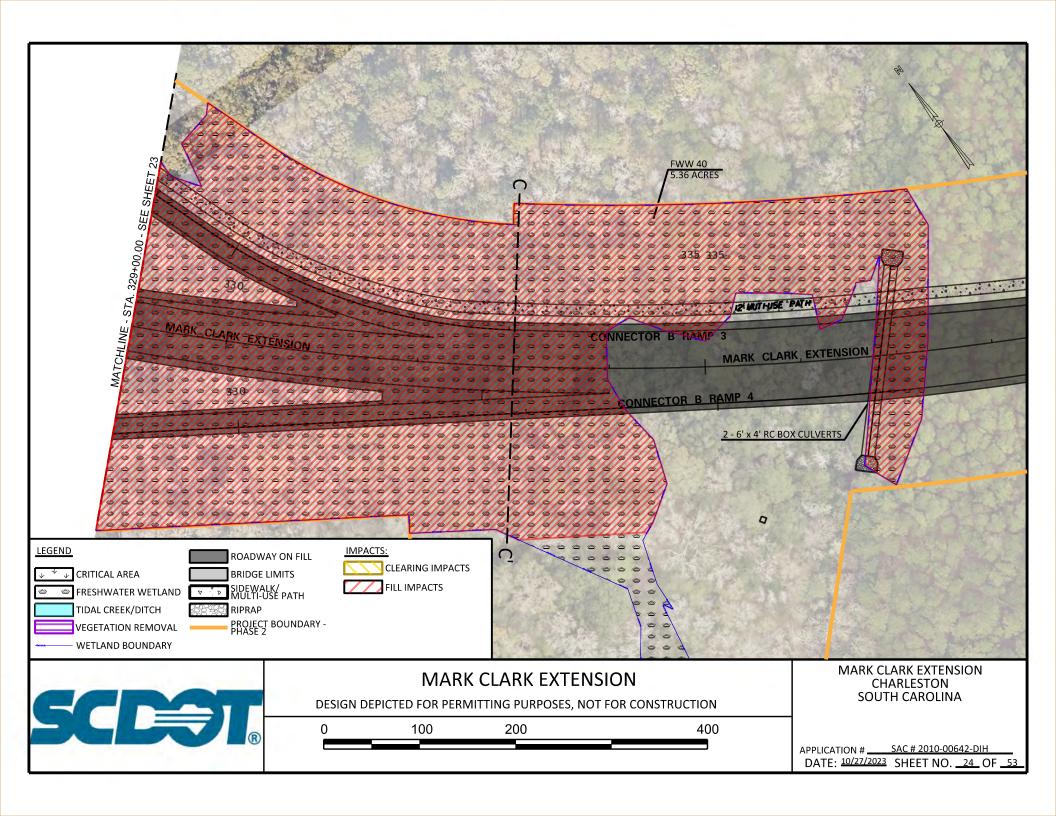


DESIGN DEPICTED FOR PERMITTING PURPOSES, NOT FOR CONSTRUCTION

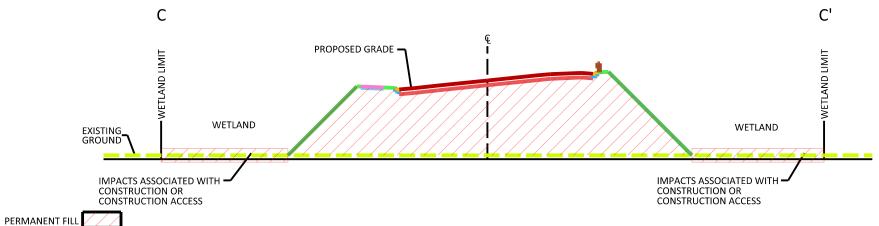
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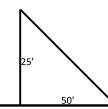
APPLICATION # <u>SAC # 2010-00642-DIH</u>

DATE: <u>10/27/2023</u> SHEET NO. <u>23</u> OF <u>53</u>











# MARK CLARK EXTENSION

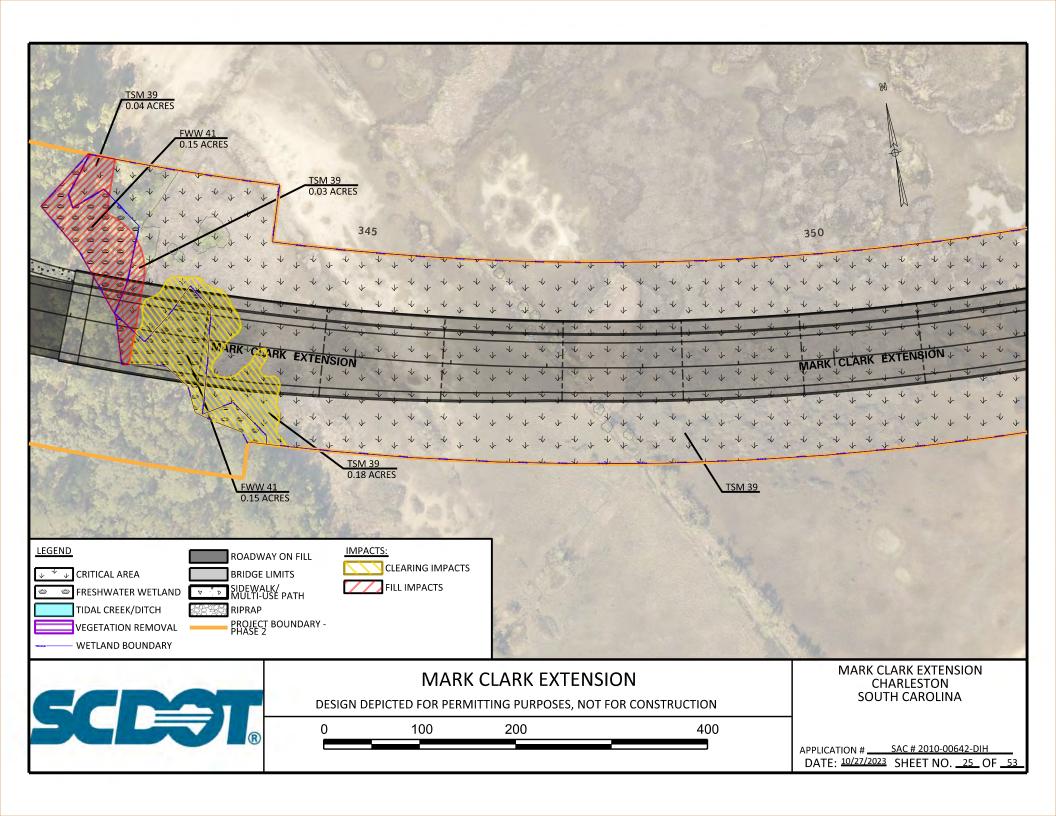
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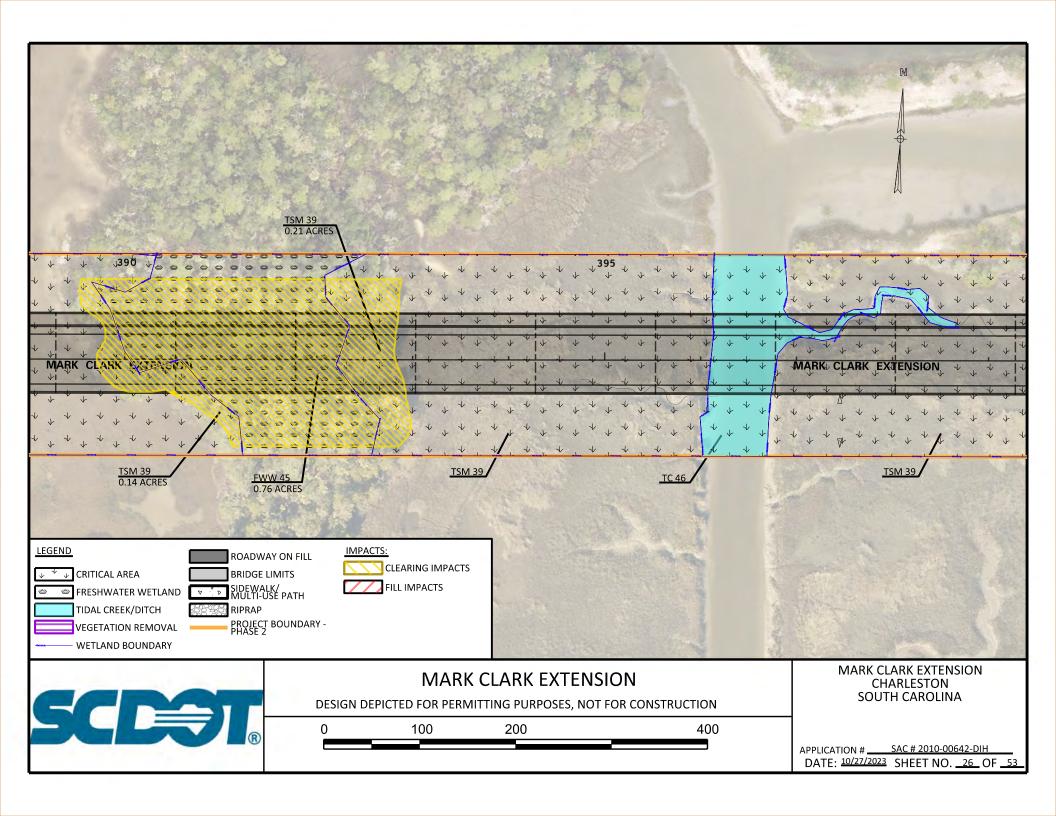
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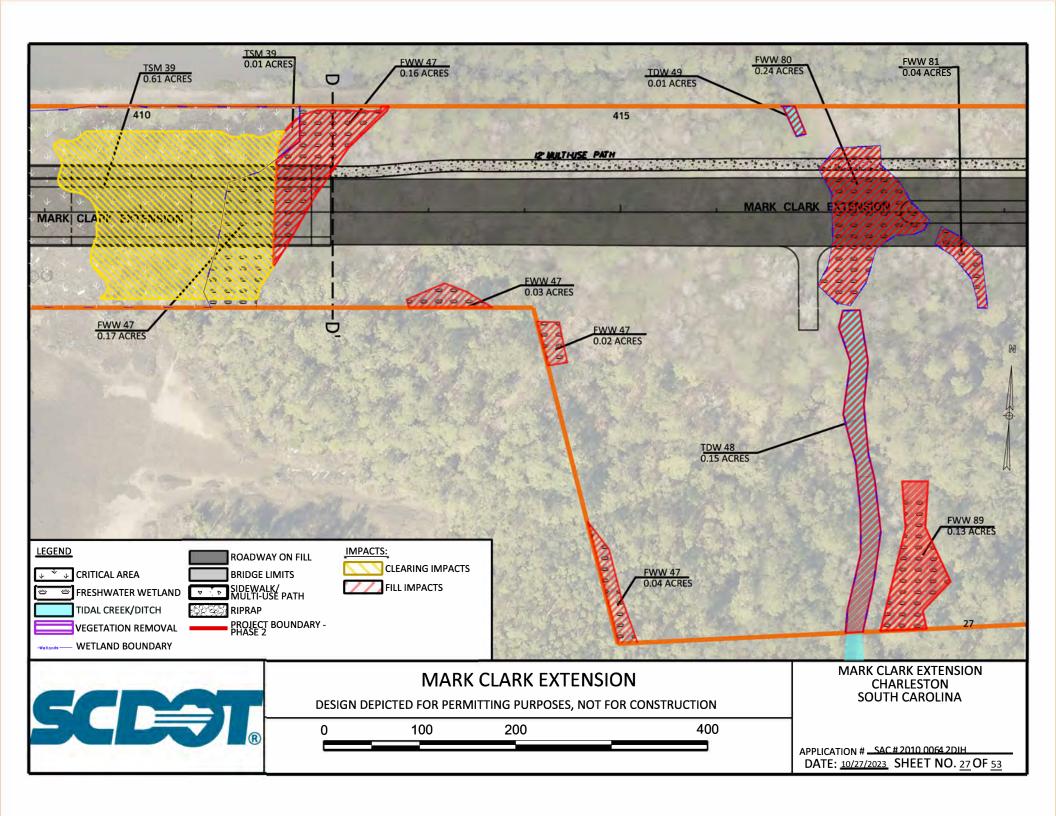
MARK CLARK EXTENSION CHARLESTON SOUTH CAROLINA

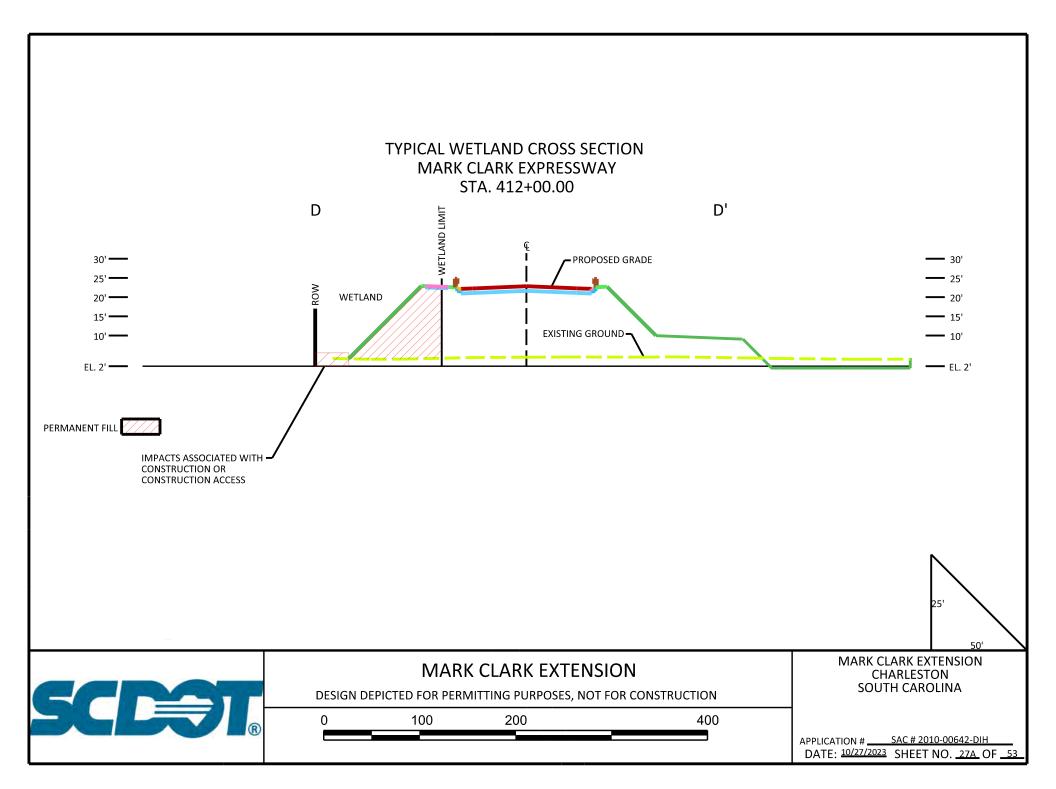
APPLICATION # SAC # 2010-00642-DIH

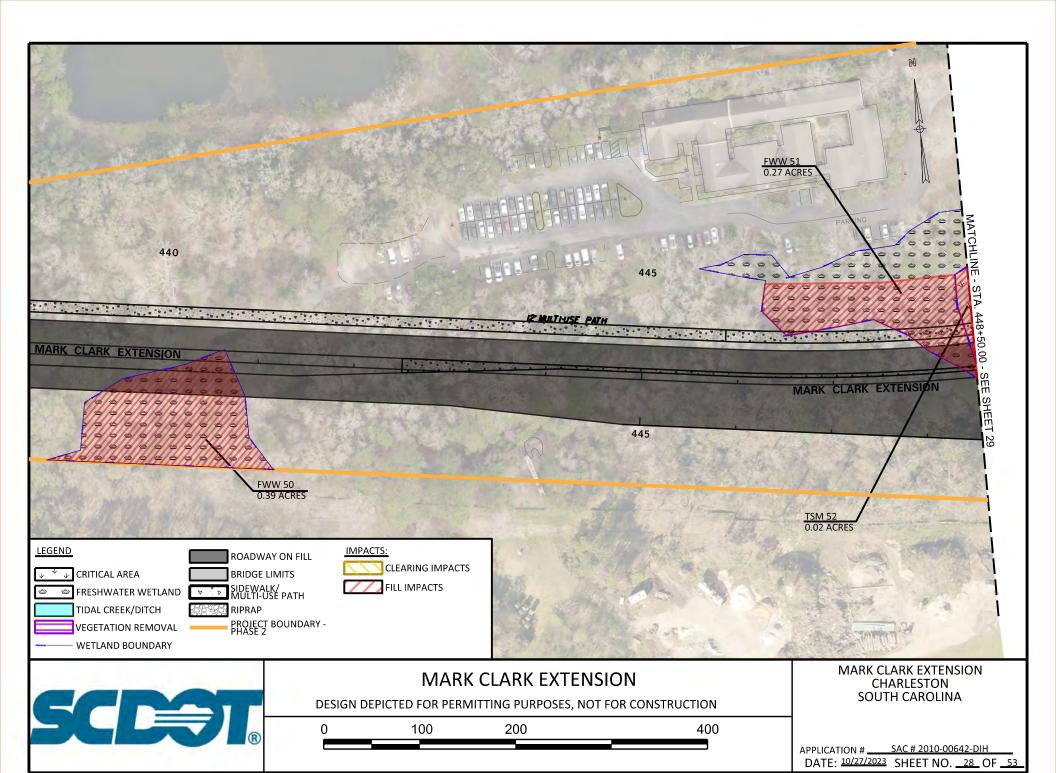
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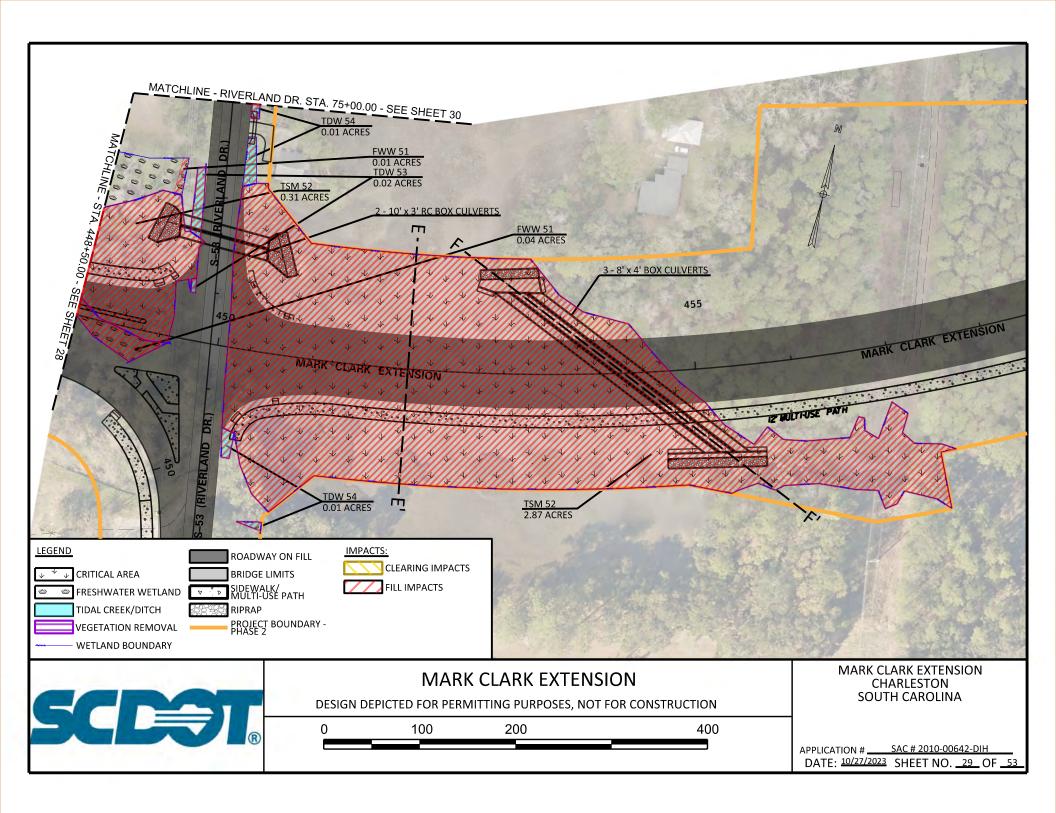


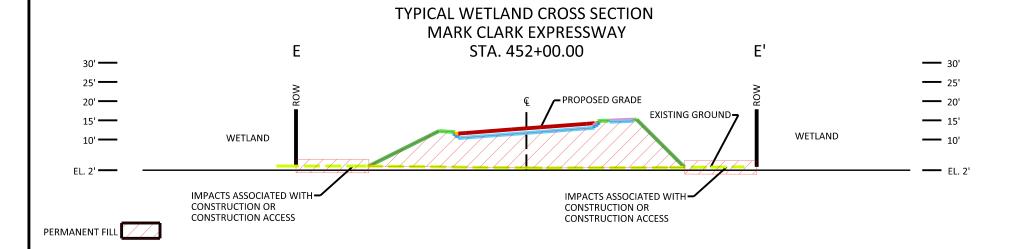


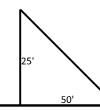












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# MARK CLARK EXTENSION

DESIGN DEPICTED FOR PERMITTING PURPOSES, NOT FOR CONSTRUCTION

) 100 200 400

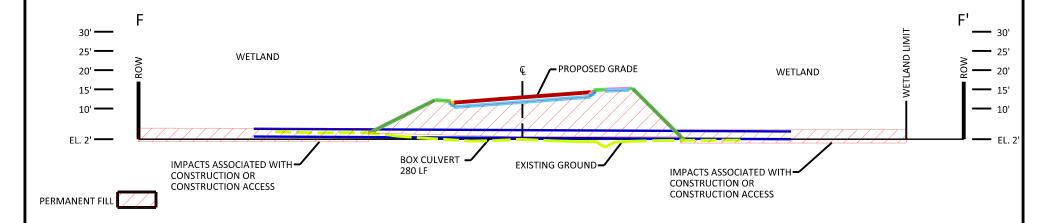
MARK CLARK EXTENSION CHARLESTON SOUTH CAROLINA

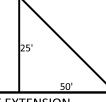
APPLICATION # SAC # 2010-00642-DIH

DATE: 10/27/2023 SHEET NO. 29A OF 53



# TYPICAL WETLAND CROSS SECTION MARK CLARK EXPRESSWAY CL CULVERT APPROX. STA. 454+00.00







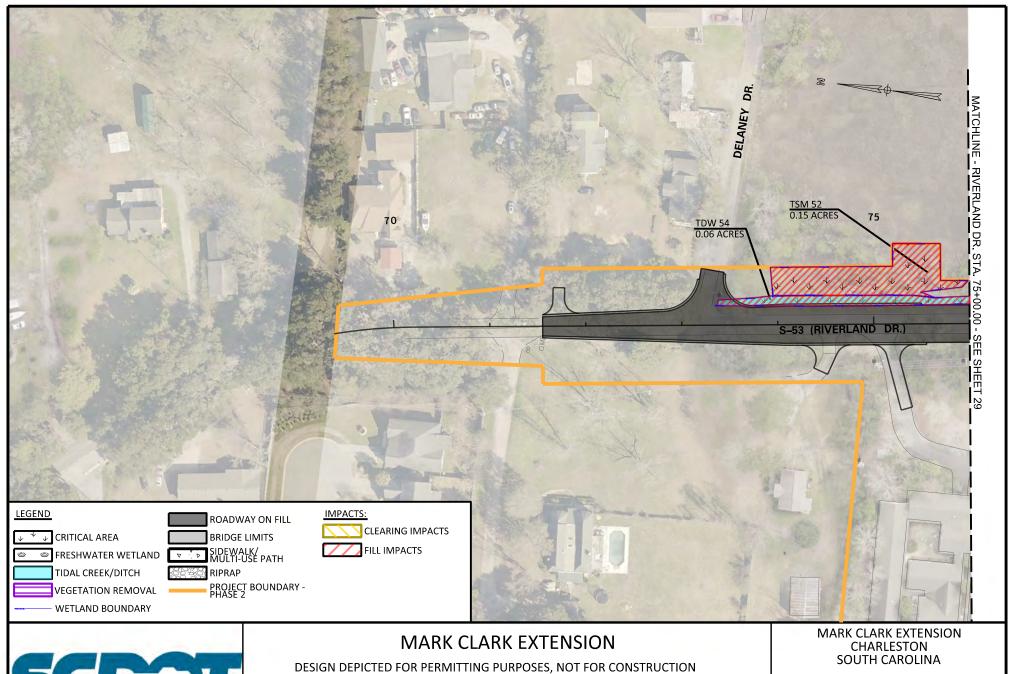
# MARK CLARK EXTENSION

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MARK CLARK EXTENSION CHARLESTON SOUTH CAROLINA

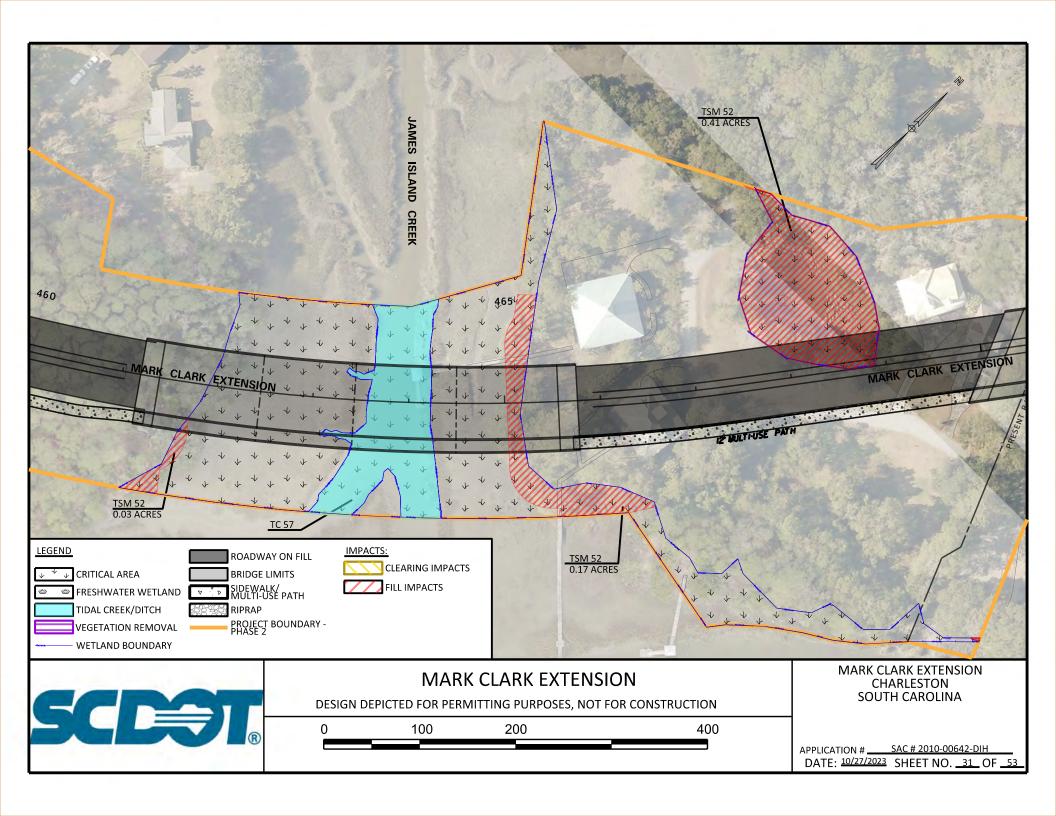
APPLICATION # SAC # 2010-00642-DIH DATE: 10/27/2023 SHEET NO. 29B OF 53

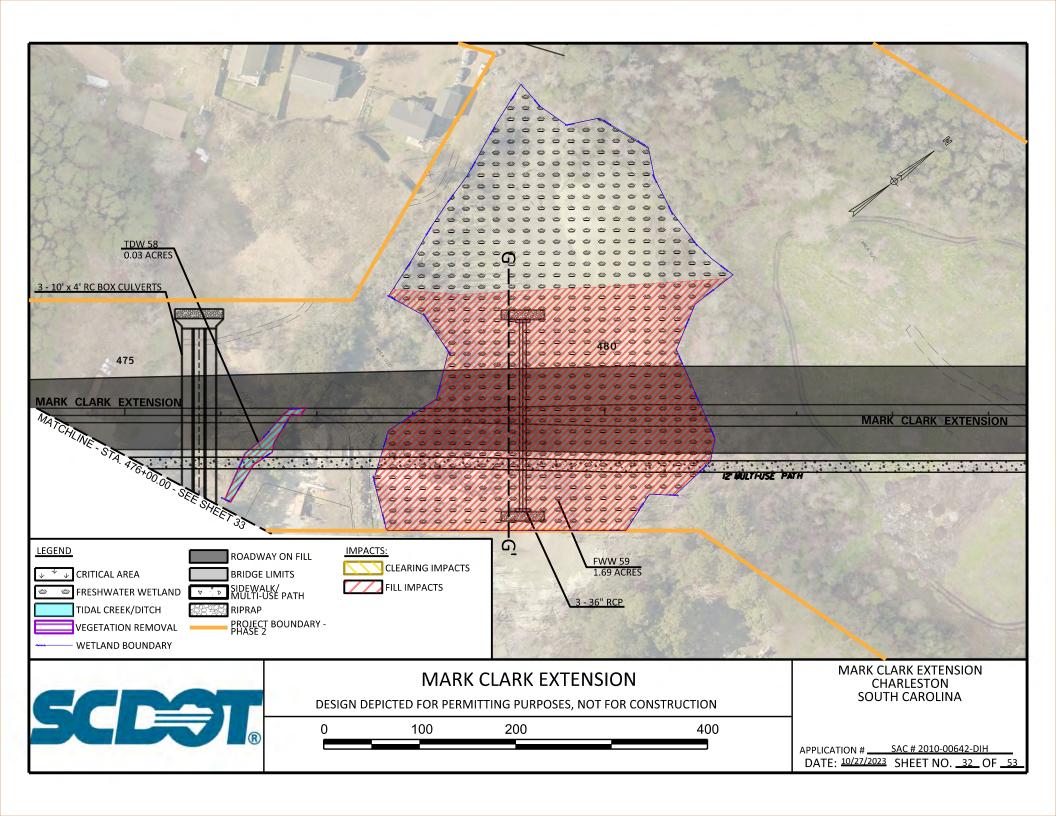




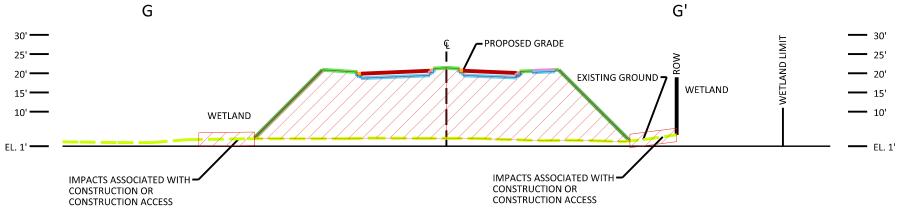
APPLICATION # SAC # 2010-00642-DIH

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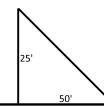














# MARK CLARK EXTENSION

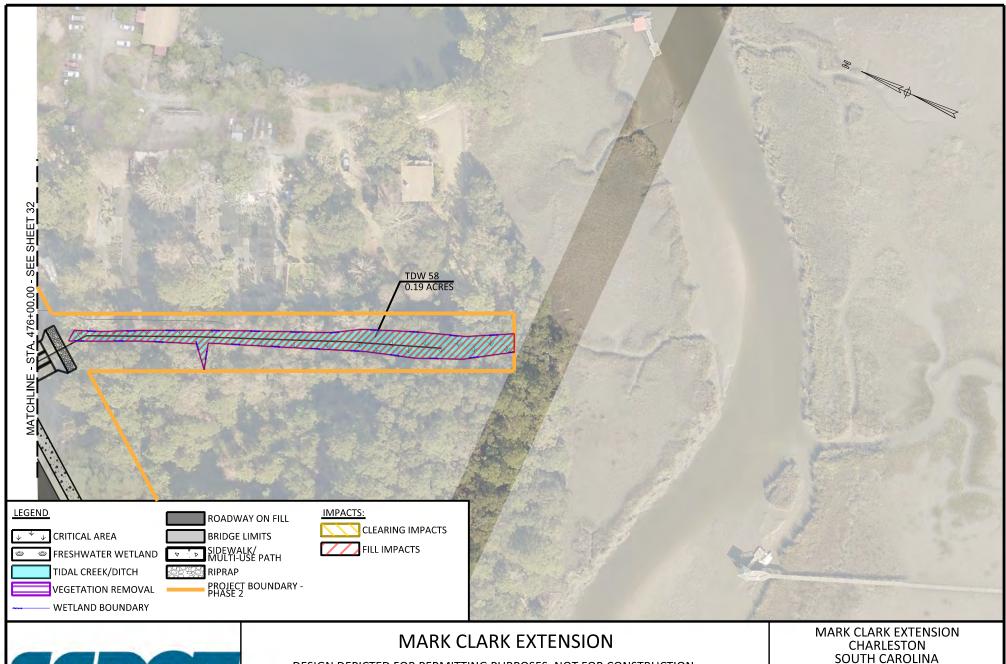
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MARK CLARK EXTENSION CHARLESTON SOUTH CAROLINA

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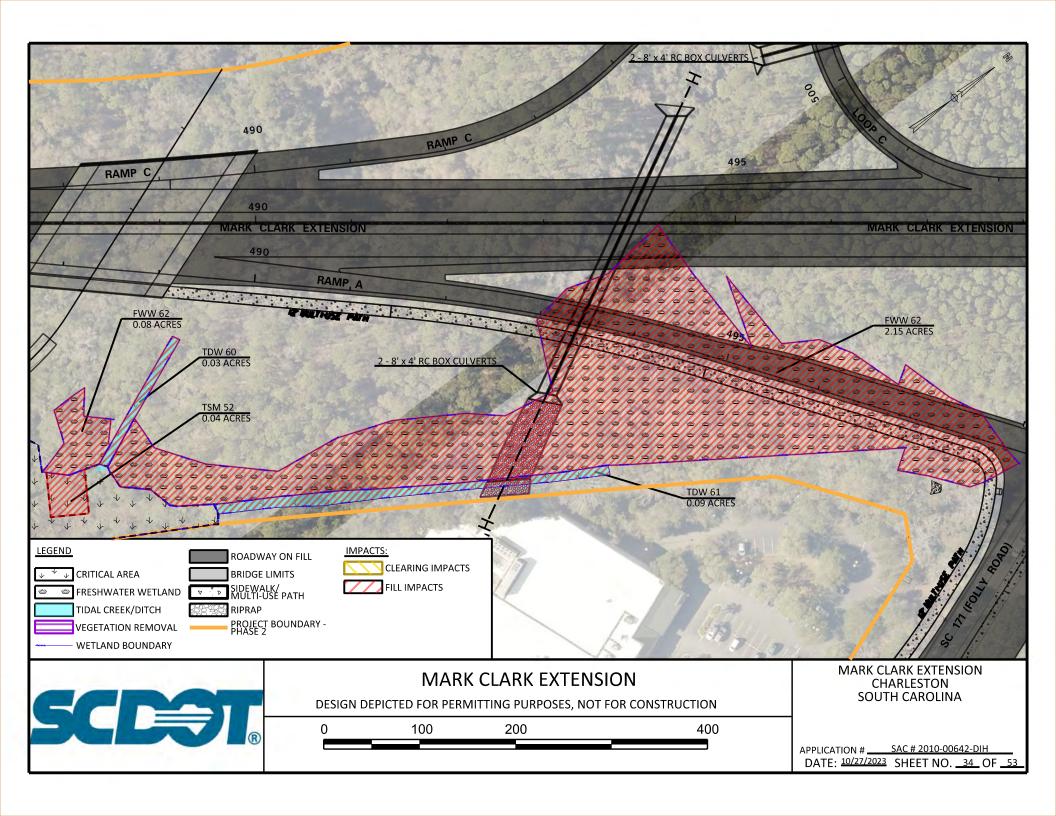


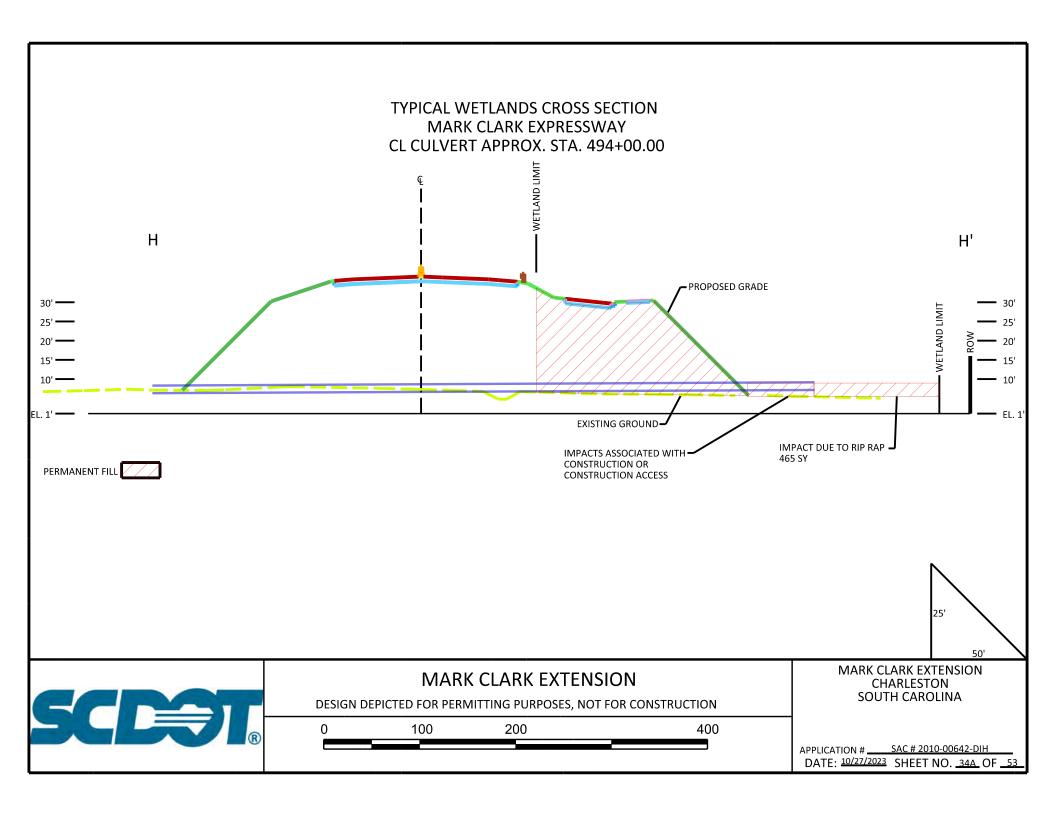
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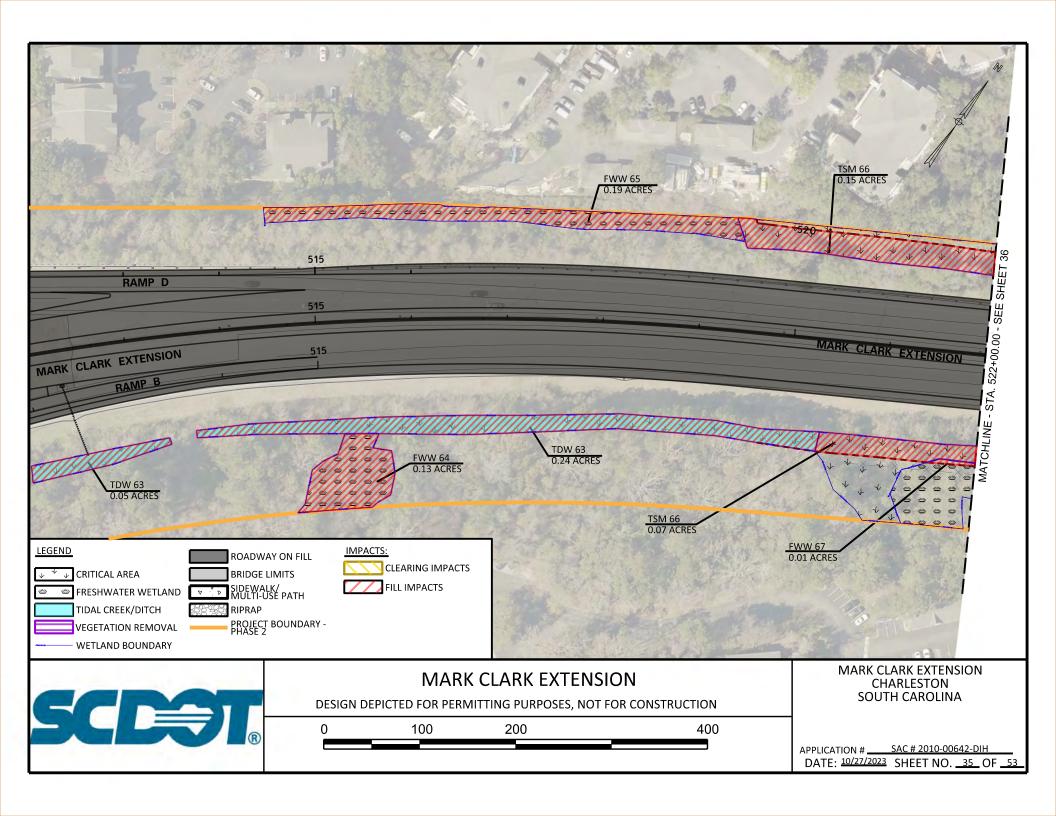
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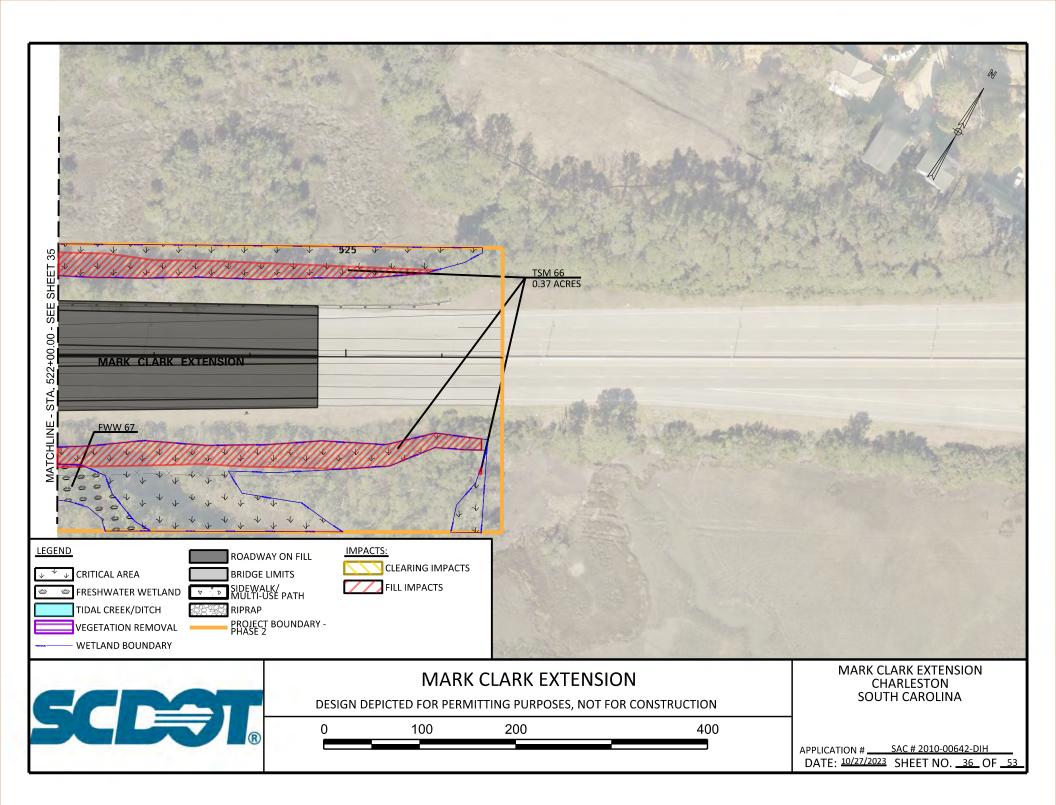
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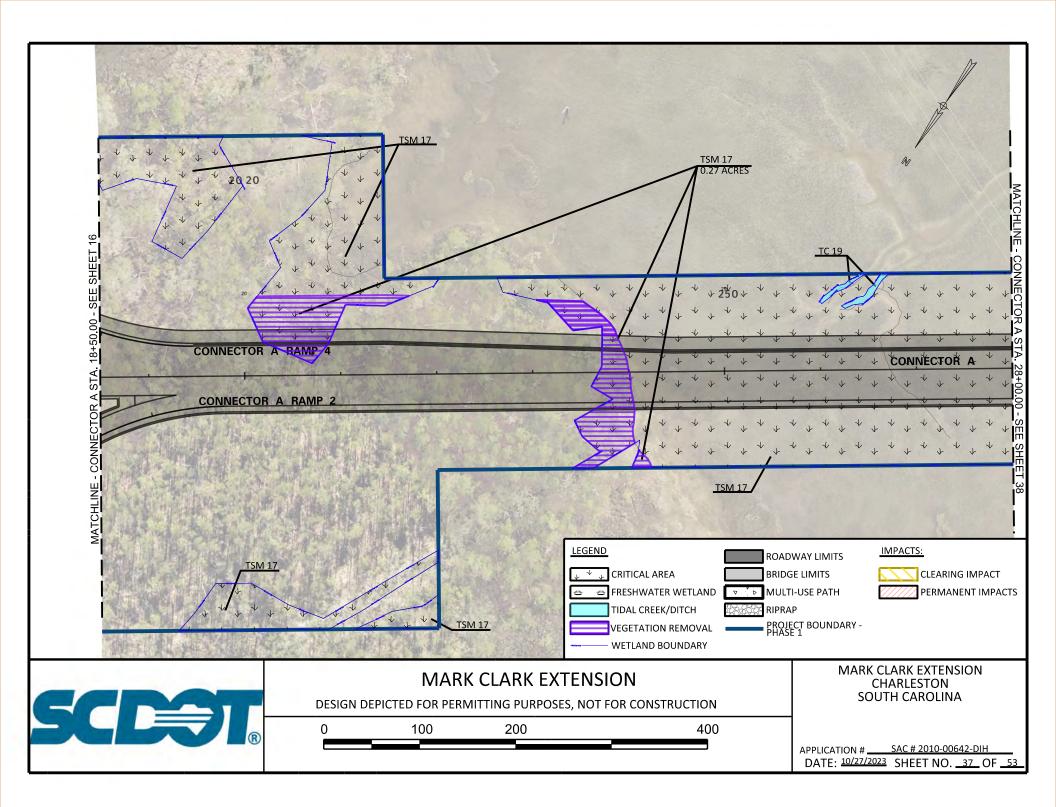
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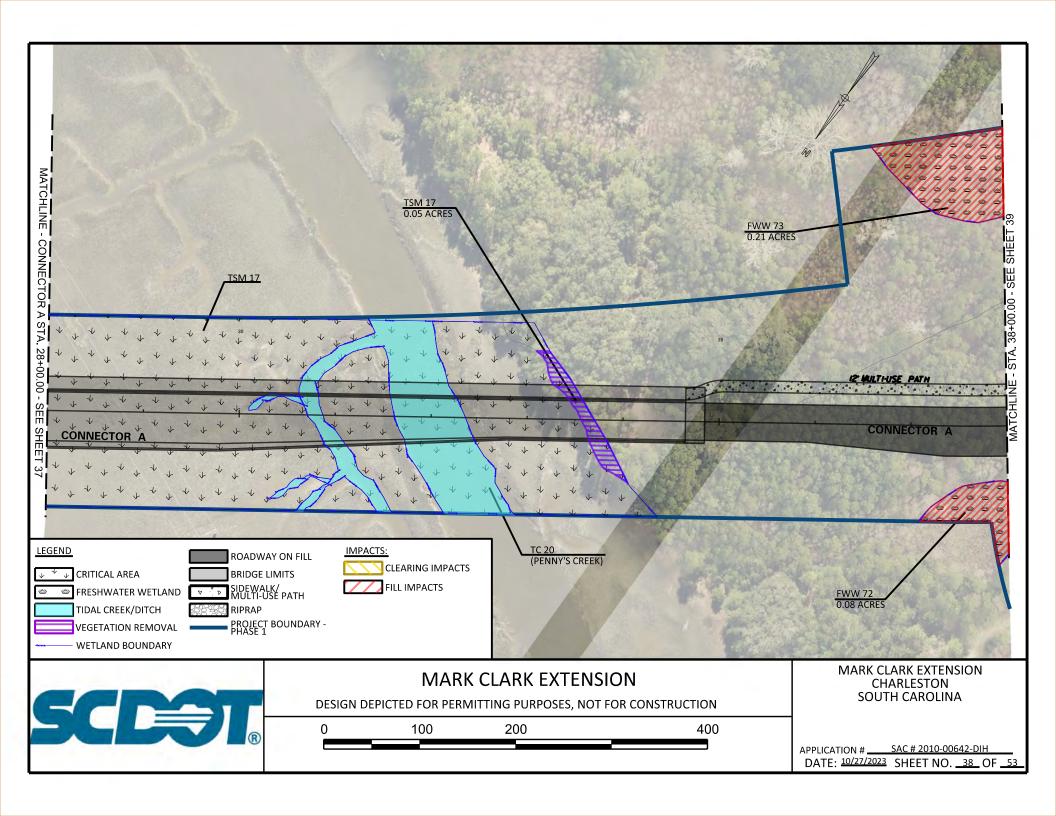


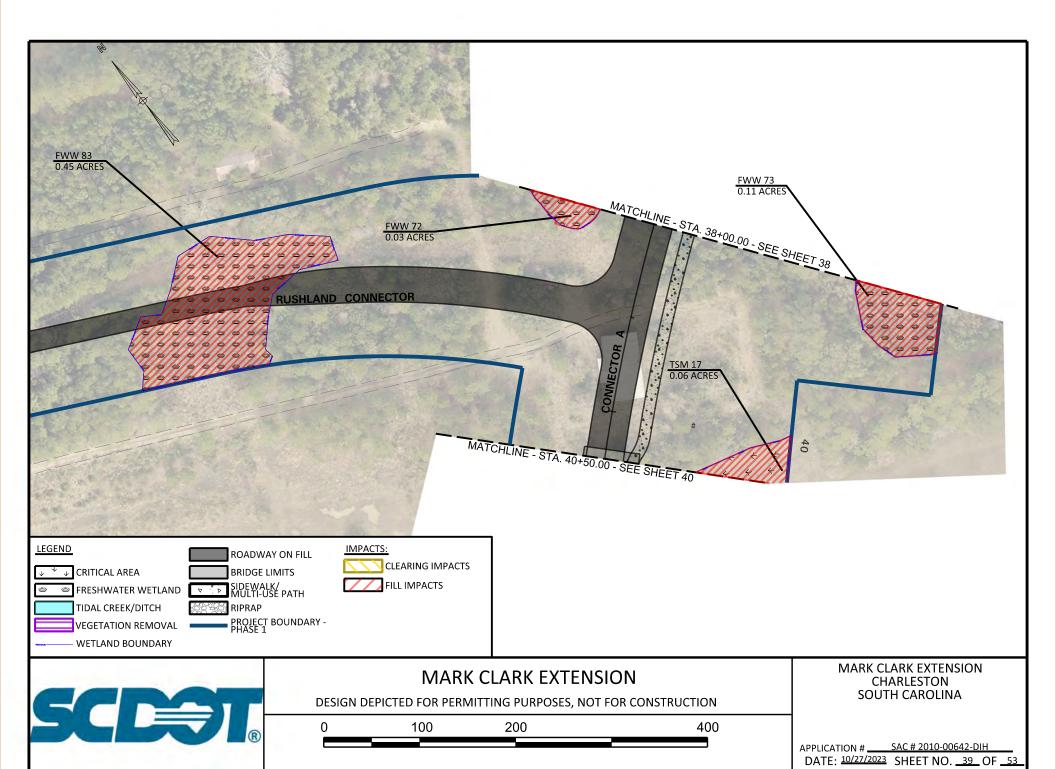


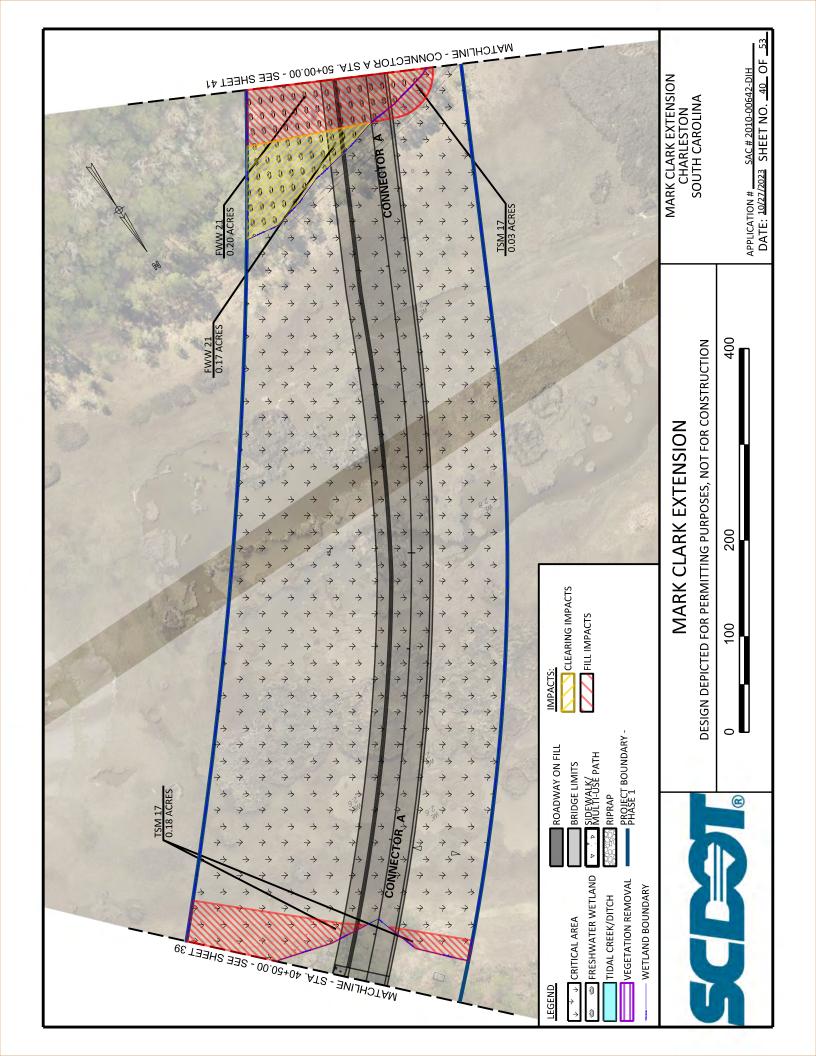


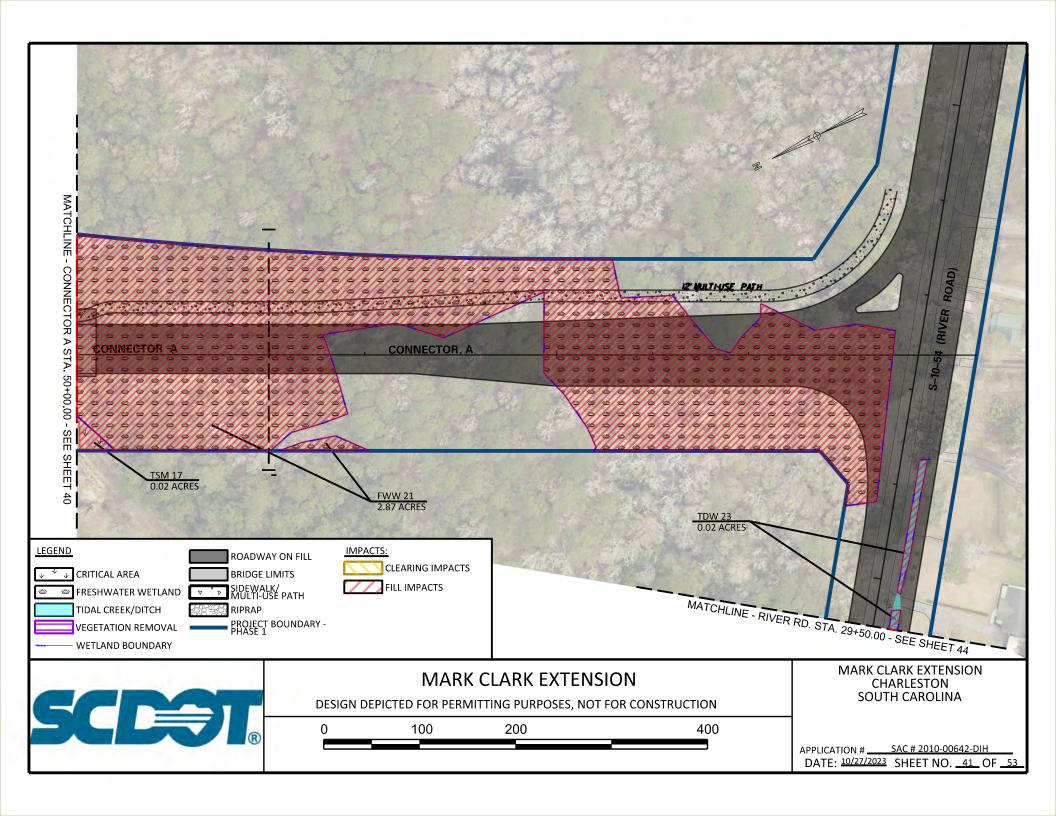


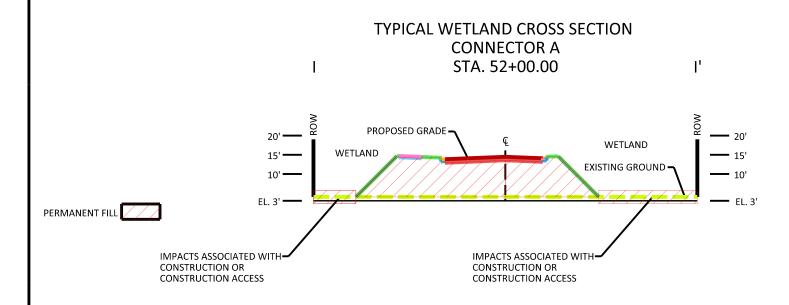


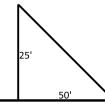














#### MARK CLARK EXTENSION

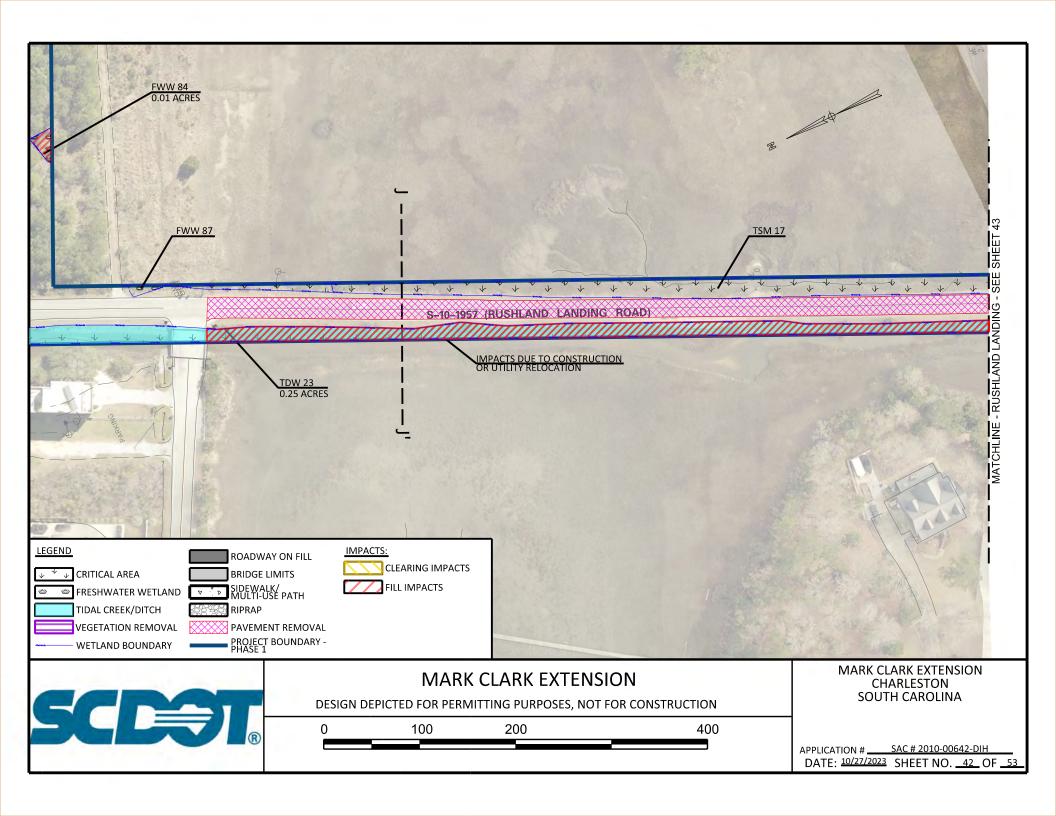
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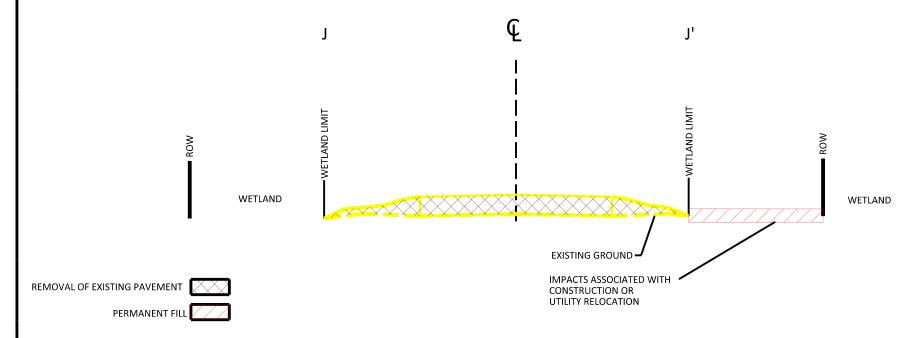
MARK CLARK EXTENSION CHARLESTON SOUTH CAROLINA

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# RUSHLAND LANDING PAVEMENT REMOVAL TYPICAL CROSS SECTION



NOTE: ELEVATIONS OF ROADWAY AND WETLANDS SURFACES ARE UNKNOWN. SECTION SHOWN FOR REMOVAL OF PAVEMENT, NOT FOR CONSTRUCTION.





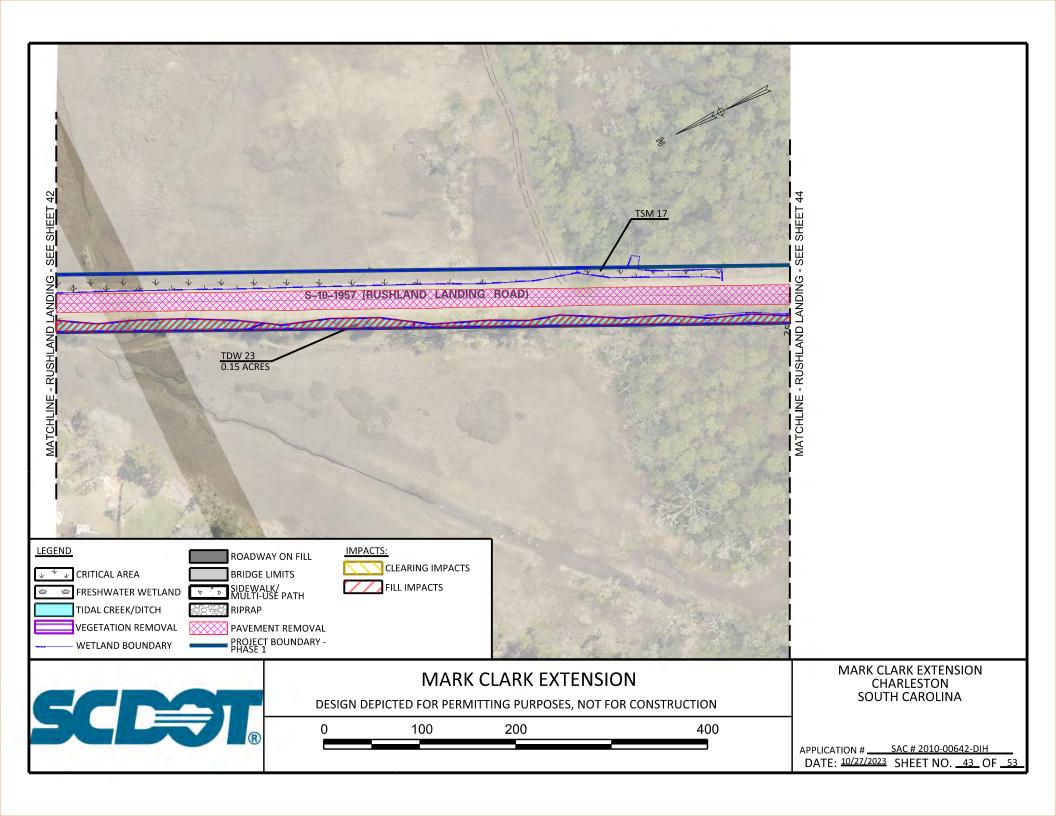
#### MARK CLARK EXTENSION

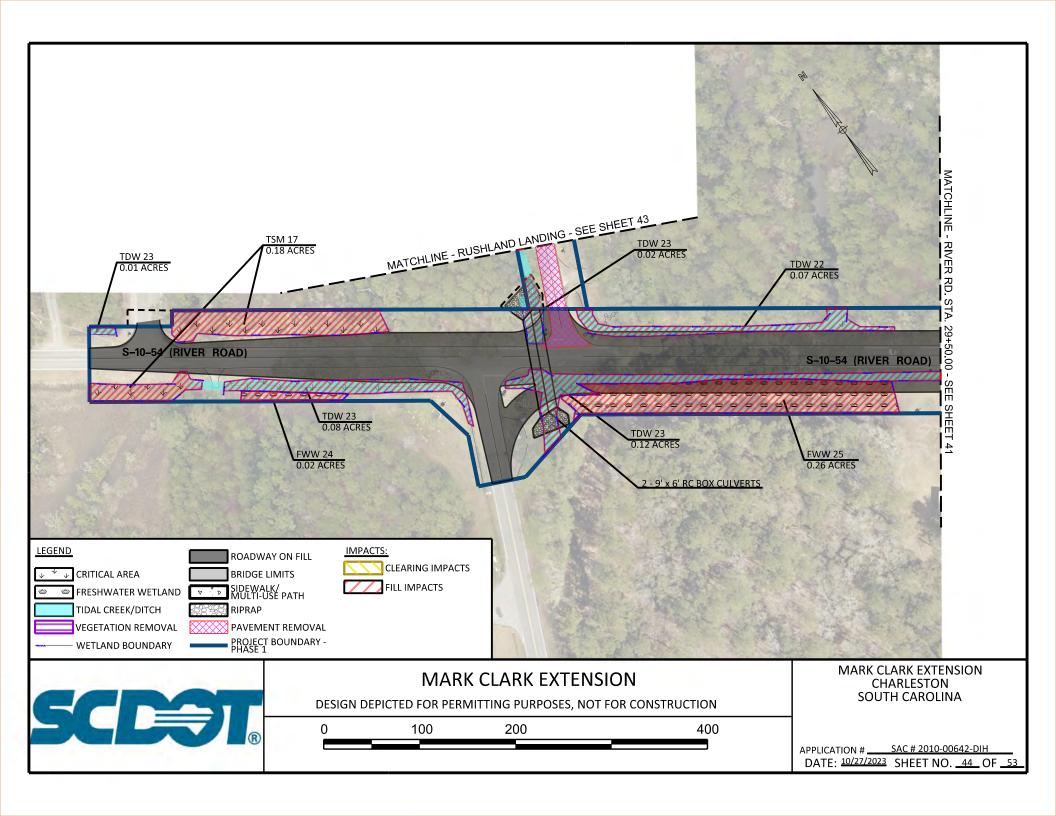
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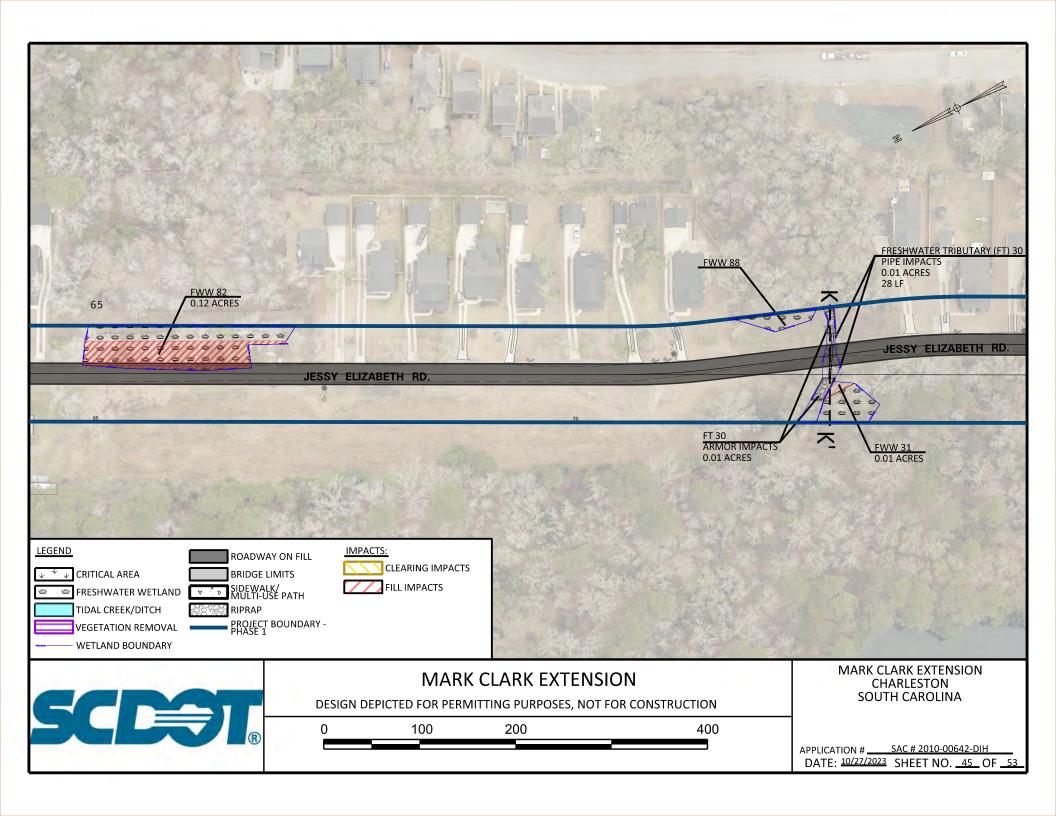
MARK CLARK EXTENSION CHARLESTON SOUTH CAROLINA

APPLICATION # SAC # 2010-00642-DIH

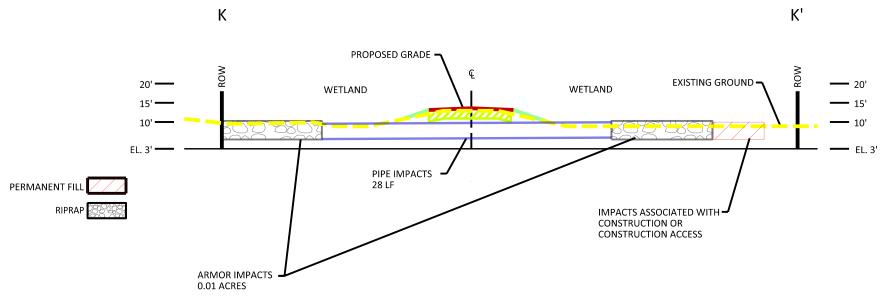
DATE: 10/27/2023 SHEET NO. 42A OF 53

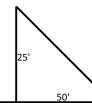






#### TYPICAL WETLAND CROSS SECTION JESSY ELIZABETH ROAD STA. 72+65.00







#### MARK CLARK EXTENSION

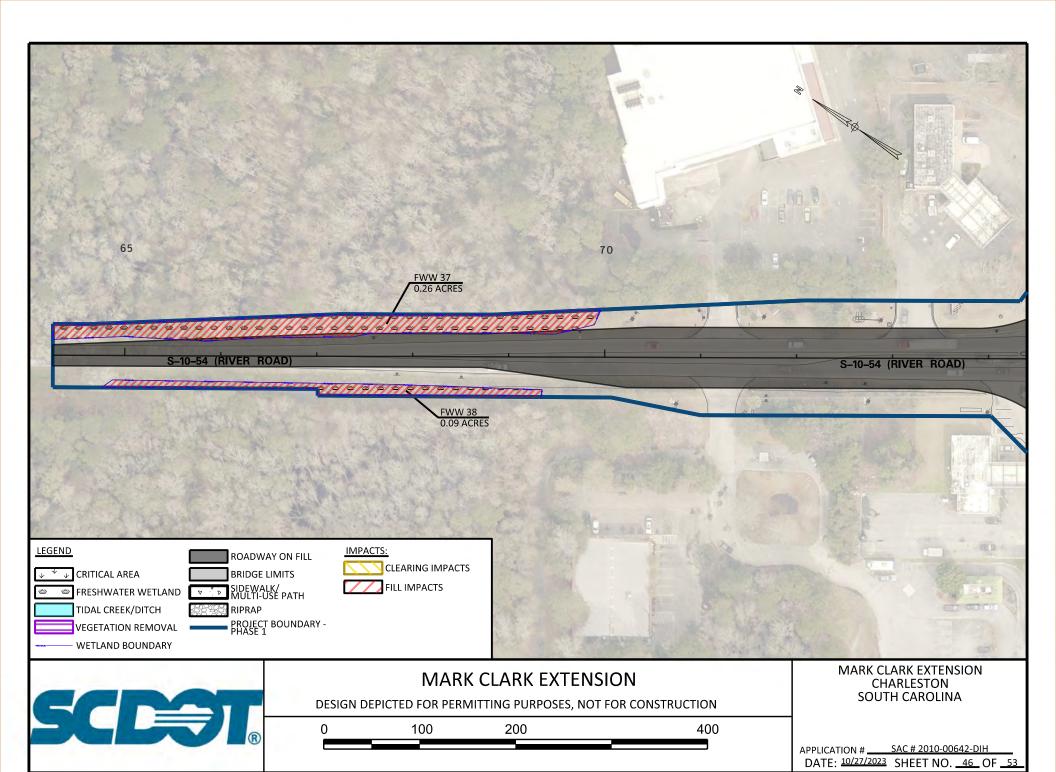
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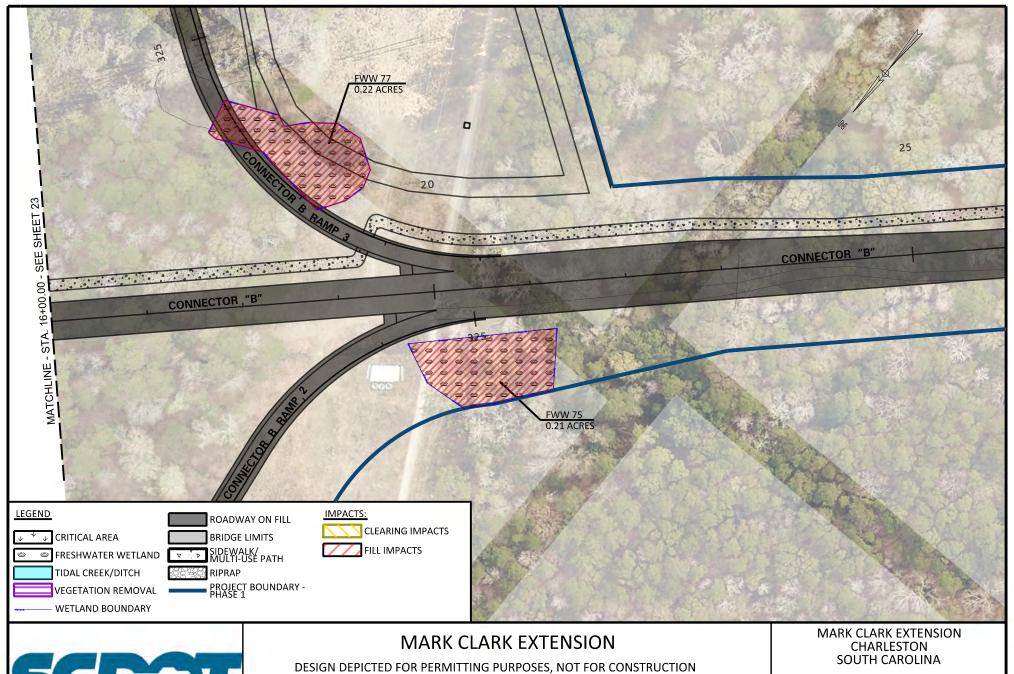
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MARK CLARK EXTENSION CHARLESTON SOUTH CAROLINA

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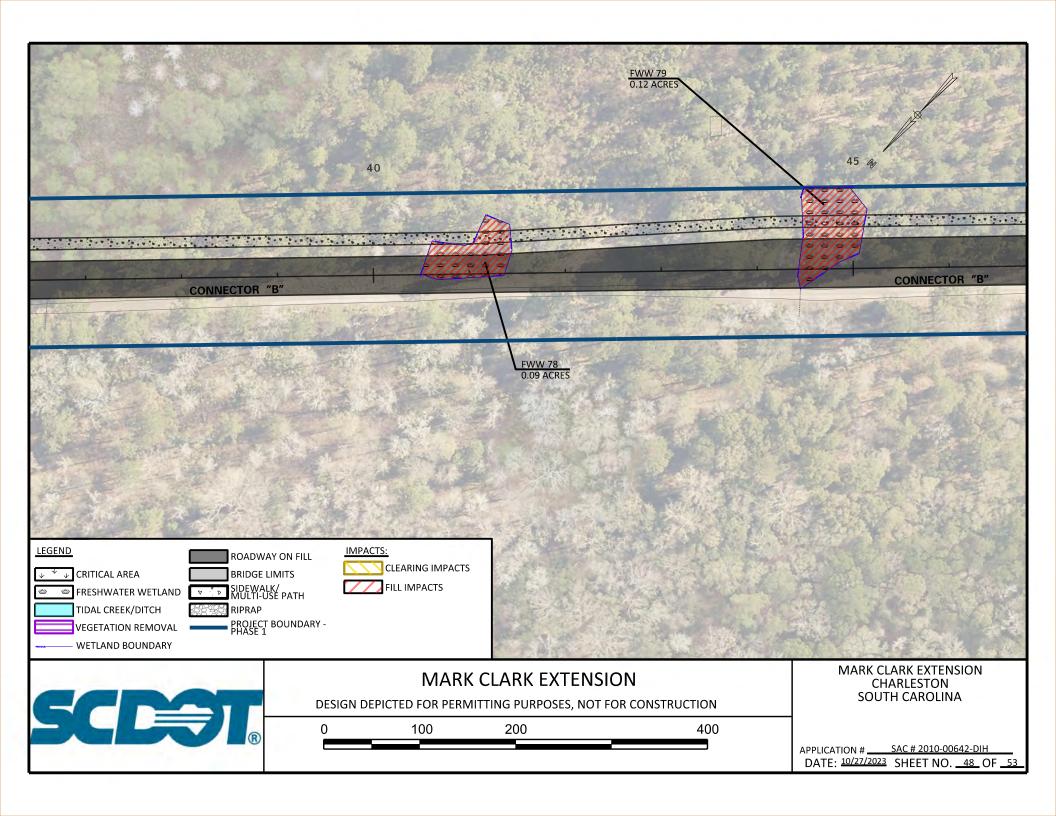


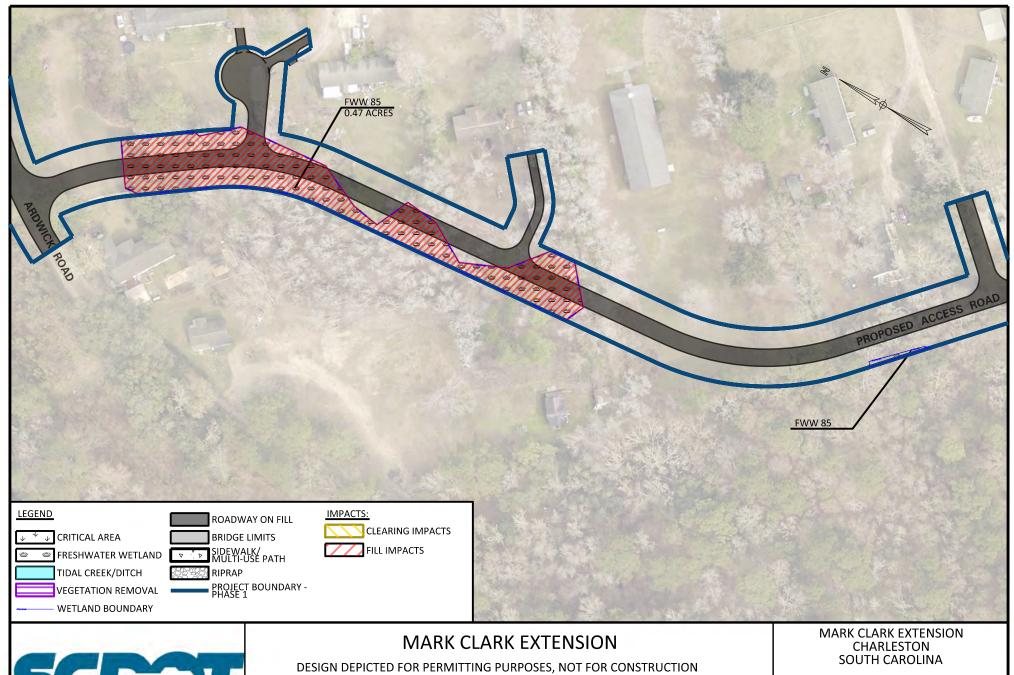




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