TECHNICAL PROPOSAL

I-95 over Lake Marion Bridge Replacement

Design-Build Project

Project ID P041130

Clarendon and Orangeburg Counties

Submitted to:

SCDOT

Submitted by:

UNITED TRAYLOR JOINT VENTURE

August 28, 2025

TECHNICAL PROPOSAL

I-95 over Lake Marion Bridge Replacement

NAVIGATION

For ease of reference and navigation:

Blue Bold Underlined Text

indicates links to various items in the narrative and the Appendix.

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UNITEDTRAYLOR JOINT VENTURE

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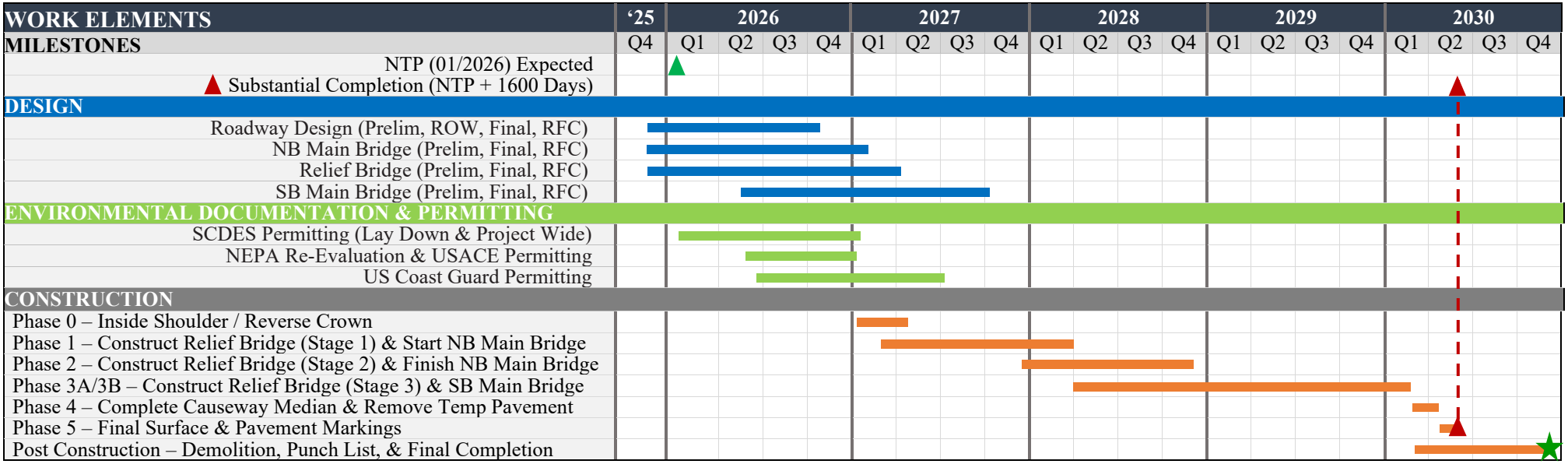
4.1.1 PROJECT DELIVERY AND APPROACH

United Infrastructure Group, and **Traylor Bros**, Joint Venture (UTJV) along with Lead Design Firm, **Infrastructure Consulting & Engineering** (ICE) have developed an approach that will deliver exceptional value to SCDOT and the traveling public through forward-thinking design and construction strategies. By exceeding RFP requirements, we create a safer, more resilient corridor that minimizes disruptions today and eliminates the need for major future construction.

Quality Credit Reference	Innovative Design	Description
QCM #21	**Proactive 3rd-Lane Construction:**	Build the future 3rd lane along the causeway now, avoiding future construction in the corridor.
QCM #14 & 15	**Minimized Traffic Disruption:**	Maintain 12-foot travel lanes with only one temporary traffic shift in each direction and limited lane closures.
QCM #18	**Efficient Bridge Construction:**	Construct NB and SB main bridges to full width in single stages under separate MOT phases.
QCM #22	**Future-Ready Infrastructure:**	Separate NB and SB main bridges to enable future widening to an eight-lane section with existing structures.
QCM#19	**Reduced Long-Term Maintenance:**	Incorporate a rooftop median widening, eliminating median drainage and grass-cutting along the causeway.

4.1.1.a. PROJECT SCHEDULE

Full CPM Schedule



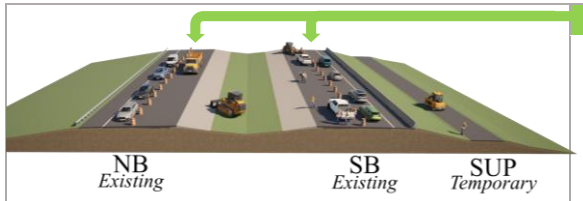
UTJV Methods to allow Reduction in the overall Construction Schedule

Table 4.1.1a highlights how the integrated construction methods streamline the overall construction schedule, enabling the UTJV Team to deliver Substantial Completion of the I-95 over Lake Marion Bridge Replacement project **within the 1,600-day contract window:**

METHOD	DESCRIPTION *Table 4.1.1a*
Advanced Geotechnical Borings (At Our Risk)	Advanced geotechnical investigations have been performed during the project pursuit, at our risk, to **progress the design prior to NTP**.
Advanced Design Work	UTJV's advanced design NTP to ICE on or about Nov. 3, 2025, enables ICE to progress preliminary road and bridge design submittal packages in **advance of project NTP**.
Phased NOI for Construction Access/Laydown	Two NOI's will be secured from SCDES disjointing the construction access and laydown yards with the actual physical construction. This allows for the establishment of laydown/staging areas and construction access outside of jurisdictional areas. This will occur prior to plans being finalized and the project-wide NOI, **reducing the construction schedule by more than a month**.
Modified Lane Closure Times	FATC 14 utilizes refined traffic data from 2024 SCDOT TA&DA to analyze hourly traffic volumes and develop updated seasonal lane closure prohibitions facilitating the placement of asphalt pavement and median access along the causeway area allowing for work to be completed without being interrupted due to restrictive nightly lane closures.
Median Access Ramp	Time consuming lane closures will be reduced by accessing the median on the north end of the project by constructing a median access ramp at the US 301 interchange between the I-95 NB and SB bridges over US 301. Stage 1 of the relief bridge and causeway median construction in Phase 1 can therefore be accomplished while **greatly reducing impacts to mainline traffic and construction duration**.
#4 Limestone for Embankment in Causeway Median	The median construction along the causeway for the future 3rd lane will utilize #4 limestone for the embankment which provides **significant benefits for schedule certainty**. The limestone reduces temporary drainage elements, facilitates drainage during phasing and construction, performs when saturated, provides long-term structural integrity, requires less effort for compaction and moisture testing, while also significantly reducing the potential for sediment loss into the lake.
Rooftop Section with Future 3rd Lane Along Causeway	Constructing the future 3rd lane along the causeway in a rooftop configuration sheds drainage to the outside shoulders and eliminates existing and future median drainage (FATC 16). This facilitates the existing 0% longitudinal grade criteria, eliminating wedging and nightly lane closures to adjust the profile along causeway, and **reducing construction duration**.
Drilled Shaft Load Tests	A minimum of two drilled shaft load tests will be performed on test shafts to verify design assumptions and to optimize the foundation design. These tests will result in a more economical design by allowing refinement of design parameters potentially decreasing shaft length or diameter without compromising performance and therefore, improving constructability and **reducing shaft construction duration**.
Increased Column Spacing	Increasing the column spacing to 31' for the SB main bridge (FATC 8) and 34' for the NB main bridge (FATC 17) eliminates 58 total drilled shafts and columns **reducing months of construction time**.
Precast Column Sections	FATC 9 utilizes precast concrete columns up to 25' tall for the main bridges and will **expedite the production of the substructure piers** by eliminating column formwork and concrete cure time.
Utilize Class 5000 and Class 5000DS Concrete	Higher strength concrete (FATC 6) minimizes the size of the substructure elements reducing concrete volumes and formwork required. It increases durability and reduces the use of mass concrete, thus **saving construction time**.
Maximum Bent Cap Concrete Pour Length	FATC 11 increases the maximum bent cap length without a construction joint from 70 to 85 feet which reduces the number of concrete pours, eliminates construction joints, improves quality, and **reduces construction time**.
Single Stage Main Bridges	FATC 16 provides a horizontal alignment that allows for both the NB and SB main bridges to be constructed in single stages in different MOT phases of construction which **reduces traffic shifts and construction time**.
Utilize non-uniform MSE Wall Strip Lengths	An initial permanent soil nail wall will be installed prior to the MSE wall creating a combination wall at the Southeast quadrant of the project (FATC 18). The soil nail wall is used to reduce the MSE wall excavation and strap length that otherwise would have undercut the existing NB mainline embankment. This reduction in excavation **reduces the wall construction duration**.

4.1.1.b. Approach for Maintaining Traffic While Avoiding and Minimizing Impacts to Travelers

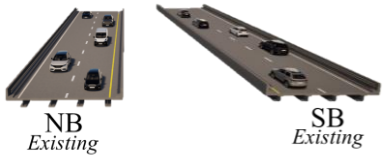
Our MOT strategy limits lane closures and uses a single temporary traffic shift in each direction, while maintaining 12-foot lanes throughout construction.

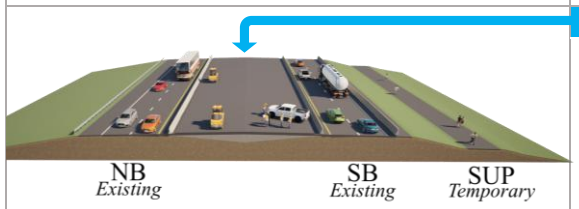


Phase 0: NB and SB Temporary Lane Closures (Causeway)

1. Remove causeway inside shoulders and replace with mainline pavement structure.
2. Mill and pave causeway to remove crown in each direction.
3. Construct temporary shared use path.

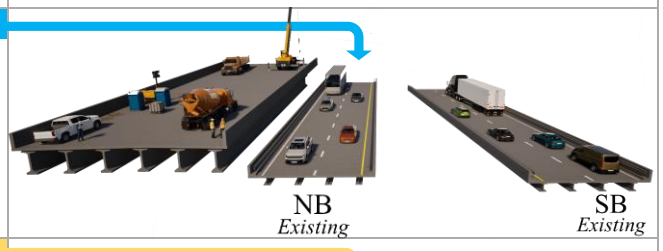
No construction on main bridge

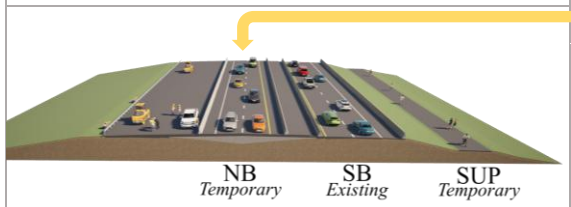




Phase 1: Median Access Ramp from US 301

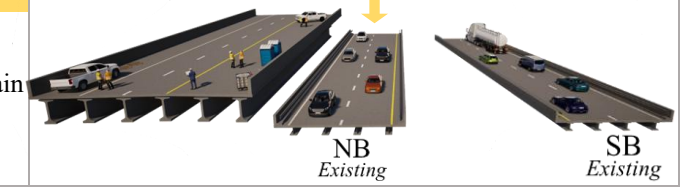
1. Construct Stage 1 of relief bridge via median access from US 301.
2. NB traffic remains on existing while new NB main bridge is being constructed toward the east away from existing.
3. Place embankment and pavement base in median along causeway and construct future 3rd lanes.
4. Pedestrians utilize temporary shared use path while proposed path and causeway armoring is constructed.





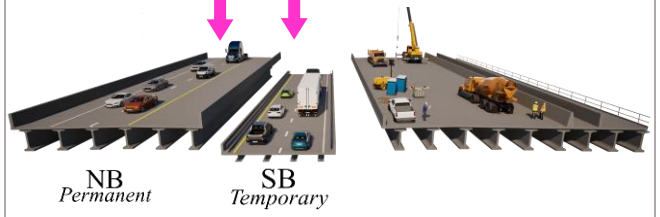
Phase 2: NB Temporary Shift

1. Shift NB traffic along the causeway and Stage 1 relief bridge to future 3rd lanes.
2. Keep NB traffic on main bridge in existing location while NB main bridge is being completed.
3. Demolish existing NB relief bridge.
4. Construct Stage 2 of relief bridge and two outer NB lanes.



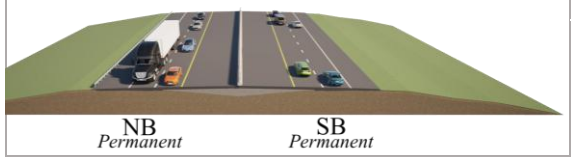
Phase 3A/B: NB Shift to Permanent & SB Temporary Shift

A1. Place NB Traffic on final configuration.
A2. Shift pedestrians to permanent SUP on causeway.
A3. Construct crossovers from SB and NB existing main bridges.
B1. Shift SB traffic on causeway and Stage 1 relief bridge to future 3rd lanes.
B2. Shift SB traffic temporarily to existing NB main bridge.
B3. Demolish existing SB main bridge and relief bridge.
B4. Construct SB main bridge and Stage 3 of relief bridge.
B5. Construct two outside SB lanes and permanent shared use path ties to new SB relief and main bridges.



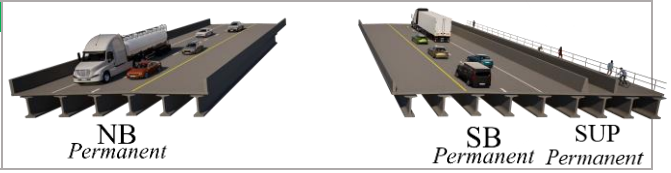
Phase 4: SB Shift to Permanent

1. Place SB traffic in its permanent position along the project corridor.
2. Remove temporary median crossovers.
3. Construct NB and SB inside shoulder at north end of main bridge and complete permanent median barrier.
4. Begin demolition of existing NB main and Old US 301 bridges.



Phase 5 and Final Completion: Final Surface and Demo

1. Apply final pavement overlay and final pavement markings.
2. Complete demolition of existing NB main bridge and Old US 301 bridges after substantial completion.
3. Remove temporary concrete barrier.

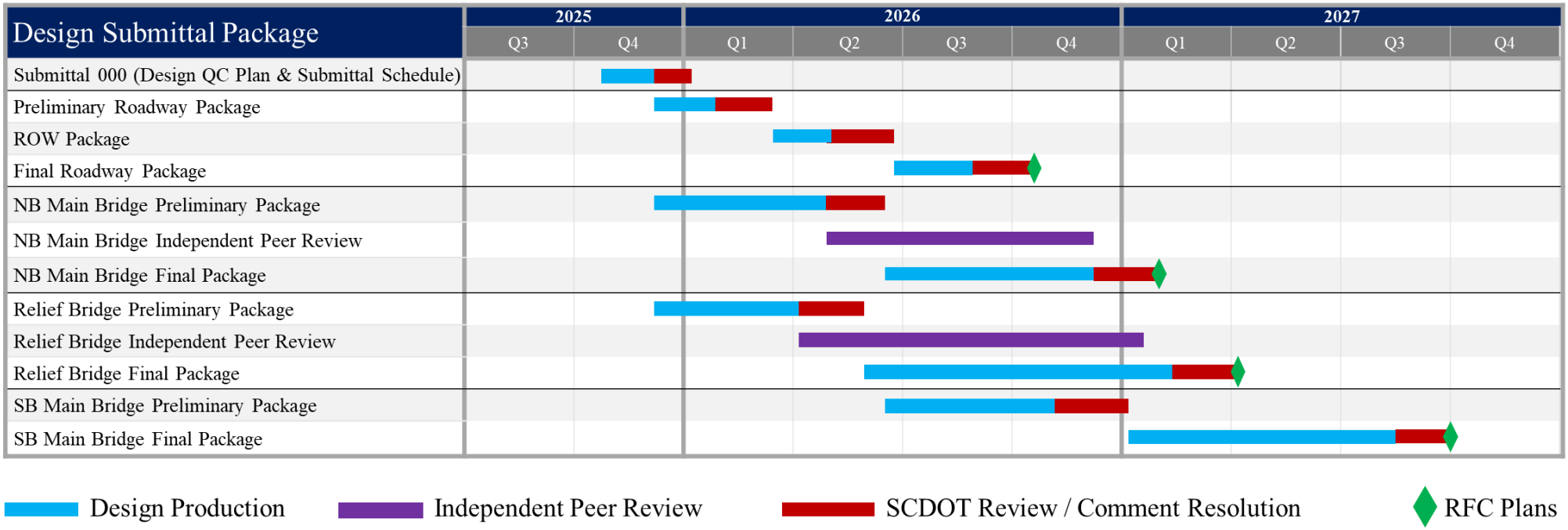


4.1.1.c. Design Submittal Process

Following the contract execution, we will submit the Submittal 000 containing the **Design Quality Control Plan (QC)** and **Design Review Submittal Schedule**, including a Gantt chart of design activities and anticipated submittal dates for SCDOT's approval. All Preliminary, ROW, Final, and RFC submittals (per RFP Exhibit 4z) will be tracked in Bluebeam Studio®, including SCDOT reviews, responses, and comment resolution.

We will submit Roadway and ROW packages for the entire project and individual bridge packages for each structure to support time-critical construction. Submittals will be uploaded to ProjectWise and limited to one package per five business days. The Project will not be segmented, reducing SCDOT's review burden. One MOT package, including the NPDES permit, will allow early start of items such as shoulder placement and reverse crown paving.

Our proven approach, successfully implemented on I-26 Widening MM85-101 and CCR Phases 1 and 2, aligns submittals with the construction CPM and standard design progression. ICE will hold biweekly Over-the-Shoulder (OTS) meetings with SCDOT to address design criteria early, with Comment Resolution Meetings as needed. Together, ICE and Davis & Floyd bring extensive experience with SCDOT's Complex Bridge Independent Peer Review (IPR) process, having been the first team to complete it on the I-26/I-95 Interchange project and our IPR Plan incorporates lessons learned from the project.



4.1.1.d. Approach to Quality Control and Understanding of the Quality Assurance Program

ICE will develop a ***Design Quality Control Plan (DQCP)*** that includes a two-tier review process. The first-tier reviews are internal, and the second-tier reviews include an Inter-disciplinary Design Review (IDR). The IDR will include Constructability Reviews and checks between disciplines and checking plans, spreadsheets, calculations, RFP compliance, and other software methods used in the development of the design and construction plans. During bridge design for the I-95 NB main bridge and the I-95 relief bridge, Davis and Floyd will be conducting an Independent Peer Review following the Approved Complex Bridge Independent Review Plan. The DQCP Process is shown in ***Figure 4.1.1.di.***

DESIGN QA REVIEW
- Design Quality Manager develops DQCP
- Schedule / submittal design QC activities
- Verify Design QC complies with submittal/ revision
- Kick-Off Meeting with QC & IDR Team
- QA audits and documentation

DESIGN QC REVIEW
- Checker: Highlights correct items with YELLOW
- Corrections and additions in RED
- Back-checker: Review comments
- Updater: Changes and notes corrections in BLUE
- Verifier: Verifies corrections are completed in GREEN
- Documented via Bluebeam®

DISCIPLINE QC REVIEW
- Design criteria validation
- RFP compliance check
- Accuracy/calculations check
- Scope validation check
- Software validation check
- SCDOT preference validation

INTER-DISCIPLINARY DESIGN REVIEW
- Eliminate plan coordination errors
- Review details, interfaces, and sub submittals
- Constructability reviews
- Document in Bluebeam®

DESIGN SUBMITTAL

Construction Quality Control and the Quality Assurance Program: Prior to the start of construction, the UTJV will develop a ***Construction Quality Control Plan (QC Plan)*** for review and approval by SCDOT. This will serve as a guide for the DB team to ensure that all standards are met, policies are followed, submittals are provided on time, and failing materials are identified and managed. Certified inspection personnel will provide expertise and technical oversight to assist in assuring quality all construction activities, and will be present on site whenever permanent work items are being incorporated into the project. ***Figure 4.1.1.dii*** below illustrates our Construction QC process in conjunction with SCDOT's role in Quality Acceptance Inspection & Testing (by CEI Firm), together with Independent Assurance (IA) personnel.

CONSTRUCTION QUALITY CONTROL PLAN
- Jointly developed by CEI (QA), UTJV (QC), and SCDOT (IA).
- Incorporates hold points, engineering judgment parameters, and document control strategies.
- Defines roles of UTJV, SCDOT, QA, and QC personnel.

QUALITY CONTROL (QC)
- Processes include quality planning, material quality prep, and workmanship.
- QC Procedures detail the process controls executed by work crews and assigned QC staff in advance of QA hold points.
- Totally independent from QA and not involved with production.

QUALITY CONTROL

QUALITY ASSURANCE

QUALITY ACCEPTANCE (QA)
- Inspection & random sampling and testing to confirm workmanship and materials.
- Confirm mix design approval and hold point compliance.
- Totally independent from QC function.
- Issues NCR, review RFIs, and renders Engineering Judgement

INDEPENDENT ASSURANCE (IA)
- Evaluates the sampling and testing personnel and testing equipment used in acceptance of materials.
- Allows for inclusion of calibration checks, split sample results, and proficiency sample results for evaluating acceptance testing equipment.

CQCP

Figure 4.1.1.dii - Construction Quality Control Process

Compliance with Standards, Testing, Laboratories, Mix Designs, and Material Certifications Process:

The QC Plan ensures compliance with SCDOT policies, timely submittals, and standards adherence. It covers minimum QC sampling and testing frequencies, and designated staff responsibilities. SCDOT-certified personnel will conduct sampling and testing at established frequencies and will inspect and test as necessary to prevent repeated discoveries of non-compliant work by QA staff. The team will use approved material sources and accredited labs including ICE's AASHTO Accredited lab located in West Columbia. Mix design submittals for hot-mix asphalt and Portland cement concrete will be prepared by certified personnel and reviewed for compliance by SCDOT personnel.

ICE AASHTO Accredited Lab

Understanding of the Quality Assurance Program, and Project Team Integration

Key QA Element	Roles and Responsibilities and Quality Approach
Construction Quality Control Plan Contractor's Responsibility	✓ Developed by UTJV and ICE for review and acceptance by SCDOT and CE&I prior to construction. ✓ Defines details of the roles and responsibilities of UTJV, SCDOT, QA (CE&I), IA, and QC personnel in project quality assurance.
Quality Control (QC) Contractor's Responsibility	✓ Conduct inspections and QC sampling and testing at frequencies defined in the QC Plan using SCDOT certified personnel and laboratories. ✓ Inspect and test as necessary prior to QA to prevent repeated discoveries of non-compliant work by QA staff. ✓ Focused on managing and planning the work processes and materials required to ensure quality in the project. ✓ Independent from QA and from other project responsibilities. ✓ QC Procedures detail the process controls executed by work crews and assigned QC staff for various work elements.
Quality Acceptance (QA) SCDOT's Responsibility	✓ Conduct inspections and acceptance sampling and testing at frequencies defined in SCDOT's Quality Acceptance Sampling and Testing Guide. ✓ Performed by SCDOT and consultant CE&I personnel. ✓ Conducts inspections and material testing to verify compliance with contract requirements and to accept materials and workmanship. ✓ Approves disposition of any failing materials before work proceeds.
Independent Assurance (IA) SCDOT's Responsibility	✓ Performs IA testing to confirm Contractor and SCDOT testing procedures and equipment are correct. ✓ Observes sampling/testing and performs split sample verification (~10% of acceptance frequency). ✓ Not used for acceptance.
QC Manager Contractor's Responsibility	✓ Manages QC staffing, inspection, and testing. ✓ Coordinates with the UTJV, SCDOT, and CE&I to ensure acceptance testing is conducted ahead of subsequent operations. ✓ Ensures all material certifications are submitted to SCDOT prior to incorporation into the work. ✓ Monitors QC effectiveness and required corrective action for repeated quality shortfalls. ✓ Incorporates lessons learned from prior and current projects for quality integration. ✓ Acts as a liaison between the contractor and designer for Requests for Information (RFIs) to ensure integration of the design intent. ✓ Develops Non-Conformance Reports (NCRs) for work that does not conform with project requirements.
Materials Certification	✓ Contractor is responsible for submitting certifications for all materials as set forth in the OMR's Material Certification Requirements list. ✓ SCDOT is responsible for preparing the final FHWA Materials Certification using Acceptance Testing.
Cost Responsibility	✓ SCDOT funds all QA activities including Acceptance, IA Testing, and final Materials Certification. ✓ Contractor bears all costs for QC inspection and testing and program management.

4.1.1.e. Unique Characteristics and Mitigating Risks

The following matrix outlines key project risks and challenges associated with the risk items identified in the RFP. The probability, cost impact and schedule impact for each risk was evaluated and ranked from 5 to 1 (severe to minimal). To determine **risk scores** (25 to 1) we multiplied the (A) probability by the greater of (B) cost impact or (C) schedule impact. The UTJV-ICE Team's targeted mitigation strategies are then applied to **reduce the probability and severity of these risks**, resulting in a **post-mitigation risk score** (25 to 1). This structured approach allows for proactive management of project uncertainties and supports informed decision-making to ensure successful project delivery.

RISK MITIGATION MATRIX

A*(B or C) (the greater) = Risk Score				PRE MITIGATION	Affected RFP Risk				POST MITIGATION	A*(B or C) (the greater) = Risk Score			
Probability (A)	Cost Impact (B)	Schedule Impact (C)	Risk Score (Before)	Unique Characteristic / Risk / Challenge and Impact >20 Severe; 19-15 Major; 14-10 Moderate; 9-5 Minor; <4 Minimal	Expedited Schedule	Schedule Certainty	Minimize Traffic Impacts	Minimize Maintenance	UTJV-ICE Team Mitigation Strategy >20 Severe; 19-15 Major; 14-10 Moderate; 9-5 Minor; <4 Minimal	Probability (A)	Cost Impact (B)	Schedule Impact (C)	Risk Score (After)
BRIDGE DESIGN / CONSTRUCTION-RELATED RISKS													
5	5	5	25	**On-Alignment Construction** | An ATC is required for any permanent alignment other than the existing alignment. Replacing the main bridges on the existing alignment requires 3-stage construction, which is not possible within the contract duration of 1600 days. Schedule certainty is a **severe** risk for an on-alignment design.	■	■	■		**Off-Alignment Construction** | FATC 16 shifts the NB and SB alignments slightly, allowing each Main Bridge to be fully constructed within one MOT phase. This reduces schedule by **22 months** compared to an on-alignment design and allows completion within the 1600-day contract time.	2	2	2	4
4	4	2	16	**Excess Relief Bridge Width and Additional Mitigation Credits** | The RFP Relief Bridge alignment creates excess width and a construction footprint larger than existing. This causes additional open water wetland impacts and requires additional mitigation credits.	■	■		■	**Reduced Bridge Width and Mitigation Credits** | FATC 16 shifts the NB and SB alignments 12'-10" toward the median along the causeway and Relief Bridge, eliminating excess bridge width and reducing open water wetland impacts and costly mitigation credits.	1	1	1	1
5	4	3	20	**Impacts to Existing Substructure Limiting Proposed Span Arrangement** | On-alignment construction may impact existing substructures, restricting proposed span arrangement and lengths. An ATC is required for any permanent alignment other than existing	■	■		■	**Span Arrangement Freedom** | Dividing the main bridge into two structures and shifting the NB alignment (FATC 16) removes existing span constraints and allows optimized spans without foundation conflicts.	1	2	2	2
3	3	4	12	**Forming and Casting Columns over Water** | Forming and casting concrete columns over water is costly and time consuming.	■	■			**Precast Concrete Columns** | FATC 9 proposes precast concrete columns up to 25 ft. in height to expedite the construction schedule. This ATC eliminates the forming and casting of a large number of columns over water, improving the construction schedule.	2	2	2	4

A*(B or C) (the greater) = Risk Score				PRE MITIGATION	Affected RFP Risk				POST MITIGATION	A*(B or C) (the greater) = Risk Score			
Probability (A)	Cost Impact (B)	Schedule Impact (C)	Risk Score (Before)	Unique Characteristic / Risk / Challenge and Impact >20 Severe; 19-15 Major; 14-10 Moderate; 9-5 Minor; <4 Minimal	Expedited Schedule	Schedule Certainty	Minimize Traffic Impacts	Minimize Maintenance	UTJV-ICE Team Mitigation Strategy >20 Severe; 19-15 Major; 14-10 Moderate; 9-5 Minor; <4 Minimal	Probability (A)	Cost Impact (B)	Schedule Impact (C)	Risk Score (After)
5	5	5	25	**Alternative C2 Alignment** | Limited Construction Access shifts east of the existing alignment and employs a single Main Bridge requiring 2-stage construction. Stage 1 is offset to the east of NB bridge; Stage 2 is within 23' (min) and 32' (max) width from SB bridge. Approx. 2,000' of low-level bridges prevent equipment and material access beneath, forcing work to occur within a narrow 23'-32' corridor too tight for barge transport and limiting conventional construction methods.	■	■	■		FATC 16 **Alignment: Unencumbered Construction Access** | FATC 16 separates I 95 NB and SB onto separate Main Bridges. The NB bridge is built in a single stage east of the existing NB bridge, away from traffic. After traffic shifts to the new NB bridge, SB traffic uses the old NB bridge, allowing the SB bridge to be demolished and rebuilt in a single stage. This alignment provides full, unobstructed access and avoids narrow construction corridors.	2	4	2	8
4	3	3	12	**Seismic Performance Uncertainty** | The performance of structures in a seismic event is uncertain with the variability of the subsurface conditions of the limestone formation.	■	■			**Advanced Borings and Seismic Modeling** | UTJV-ICE conducted land and in-water borings during procurement to reduce seismic performance uncertainty and jump-start final design upon award.	2	2	3	6
ROADWAY / MOT / UTILITIES-RELATED RISKS													
4	5	4	20	**Confined Access for Future 3rd Lane Construction** | The RFP requires additional width across Main and Relief bridges, for a future 3rd lane in each direction. The future 3rd lane is not required along the roadway between the Main and Relief bridges. Future widening on the causeway will be difficult and costly due to the minimal distance between the confining bridge structures and confined median access.	■	■	■	■	**Rooftop Typical Section With Future 3rd Lane Along Causeway** | FATC 16 proposed alignment exceeds the RFP requirements and provides the future 3rd lanes on the causeway, in addition to the bridges, for the entire Lake Marion crossing. On the causeway, I-95 will be a 6-lane "rooftop" section consisting of two travel lanes, a future 3rd lane, 12' paved outside shoulder, and 10' paved inside shoulder in each direction, separated by median barrier wall.	2	1	2	4
4	3	1	12	**Grass and Median Drainage Future Maintenance** | The grass median and drainage structures along the causeway requires current and future maintenance. This maintenance is costly and dangerous due to its continual requirement and limited access.				■	**Future Maintenance Eliminated in Rooftop Section** | Constructing future 3rd lane along causeway with a rooftop typical section directs water to outside shoulders, removing need for median drainage which eliminates grass and drainage maintenance in the median.	2	2	2	4
4	5	4	20	**Lane Closures for Grade Change and Median Drainage** | The RFP requires resurfacing of existing I-95 and changing the vertical profile from the existing 0% to a minimum 0.5%. This would result in numerous nightly lane closures to install large quantities of wedging in traffic, adding significant safety, costs, and schedule risks.	■	■	■	■	**Reduced Lane Closures by Eliminating Median Drainage and 0.5% Minimum Grade** | FATC 16's reverse crown design through the causeway sheds runoff outward, eliminating median drainage and the 0.5% grade requirement. I-95's profile stays at 0% on the causeway, avoiding wedging, lane closures, and related risks.	2	1	2	4
4	3	4	16	**Temporary Median Drainage** | The longitudinal grade along the causeway limits temporary drainage during median construction.	■	■	■	■	**#4 Limestone for Causeway Median Embankment** allows free draining of the stormwater within the median eliminating drainage concerns during phasing. Limestone performs when saturated, provides long-term structural integrity, less effort for compaction moisture testing, and reduce potential sediment loss.	2	3	1	6

A*(B or C) (the greater) = Risk Score				PRE MITIGATION	Affected RFP Risk				POST MITIGATION	A*(B or C) (the greater) = Risk Score			
Probability (A)	Cost Impact (B)	Schedule Impact (C)	Risk Score (Before)	Unique Characteristic / Risk / Challenge and Impact >20 Severe; 19-15 Major; 14-10 Moderate; 9-5 Minor; <4 Minimal	Expedited Schedule	Schedule Certainty	Minimize Traffic Impacts	Minimize Maintenance	UTJV-ICE Team Mitigation Strategy >20 Severe; 19-15 Major; 14-10 Moderate; 9-5 Minor; <4 Minimal	Probability (A)	Cost Impact (B)	Schedule Impact (C)	Risk Score (After)
5	3	5	25	**Multiple Traffic Shifts** | On alignment, three stage construction of the Main Bridges requires multiple NB and SB traffic shifts with reduced lane widths, limiting emergency access and slowing response to traffic incidents.	■	■	■		**Reduced Traffic Shifts** | FATC 16 alignment limits traffic movements to one NB shift directly onto permanent main bridge and one temporary SB shift to the existing NB bridge during demolition/construction, then to the permanent SB bridge. 12' lanes are maintained in all temporary traffic patterns, ensuring safer access for emergency response.	2	2	2	4
GEOTECHNICAL / FOUNDATIONS – RELATED RISKS													
4	4	4	16	**Drilled Shaft Performance** | The uncertainty of drilled shaft performance leads to conservative designs, adding unnecessary time and cost to the drilled shaft foundations	■	■			**Drilled Shaft Load Testing** | Early load testing of test shafts will be performed to verify shaft capacity under actual conditions. This allows optimized shaft designs, reduces risk of rework, and accelerates approval of shaft production.	1	1	1	1
3	4	2	12	**Drilled Shaft - Fluid Loss** | Although provided geotechnical data states drilling fluid loss did not occur during geotechnical data collection, it remains a risk during drilled shaft construction in limestone.	■	■			**Provide Extra Casing Length or Flow Fill Excavation** | Permanent casing can be extended or shaft excavation can be flow filled and redrilled to seal porous limestone excavated walls.	1	2	2	2
2	4	2	8	**Drilled Shaft – Running Sands** | Loose sands can flow into the excavation from uncemented pockets within the limestone.	■	■			**Provide Extra Casing Height** | Extend shaft casings sufficiently above lake surface to maintain required drilling fluid hydrostatic pressure head during tool extraction.	1	2	2	2
4	3	3	12	**Limestone Variability** | The limestone formation within the NB and SB main bridge limits varies in composition, texture, and porosity affecting the physical strength and durability of the limestone.		■			**Measuring While Drilling** | Additional borings will be drilled, above the requirements of the RFP and GDM, utilizing the measuring while drilling technology that will provide real-time data acquisition of the formation characteristics of the limestone giving designers a more complete picture of the subsurface variability.	3	3	3	9
4	4	4	16	**Underwater Obstructions** | Encountering underwater tree stumps is likely and is a risk to foundation installation and overall bridge construction including barge and equipment access to the bridge site.	■	■			**Bathymetric Survey with Ground Penetrating Radar** | UTJV has performed additional bathymetric survey, including ground penetrating radar scan below the lake bottom. This was performed along the proposed bridge alignments and anticipated barge navigational routes to locate any unknown obstructions within the construction zone.	1	1	1	1
HYDRAULIC / HYDROLOGY RELATED RISKS													
4	4	2	16	**Impacts to Chapel Branch** | Existing crosslines do not provide positive drainage as well as sedimentation accumulation has been a concern for residents along the waterfront.				■	**Reroute Deficient Crossline** | Discharges, sedimentation, and total volume of water will be reduced significantly to Chapel Branch by rerouting runoff from the existing 48" crossline to run parallel to I-95 and discharge at more optimal location near the main channel. Appropriate BMP's will be installed during construction to ensure sediment is contained on site during construction.	1	2	2	2

4.1.2 INNOVATION AND ADDED VALUE

Formal ATCS

QUALITY CREDIT MATRIX

FATC	Innovative Ideas	Description and Value Added to the Project	Innovation Types (*)
#6	Use of Class 5000 for cast-in-place concrete for substructure elements and Class 5000DS concrete for drilled shafts	✓ Use of higher strength concrete minimizes size of substructure elements, reducing concrete volume and formwork required. ✓ Durability is increased and mass concrete is reduced. ✓ Seismic performance would also be improved. ✓ Reduce schedule by one month and results in cost savings of approximately $2 million.	1, 2, 4, 5
#7	Utilize up to three layers of longitudinal reinforcement in top and/or bottom of bent caps	✓ Allows for optimization of bent cap dimensions, reducing mass concrete. ✓ Reduced cap size will result in a cost savings of approximately $250,000.	1, 2, 5
#8	Increase the maximum allowable column spacing for typical multi-column interior bents from 30 feet to 31 feet	✓ Eliminates approximately 29 drilled shafts and columns. ✓ Reduces long-term maintenance. ✓ Reduces construction schedule by three months. ✓ Reduces construction cost by approximately $6 million.	1, 2, 4, 5
#9	Utilize precast concrete columns in the short height interior bents	✓ Reduces construction schedule by two months. ✓ Results in $1 million in cost savings associated with avoiding erection and stripping formwork, placing reinforcing steel, and pouring concrete over water.	1, 2, 5
#10	Utilize a constant 2.5% cross slope for lanes and shoulders for the bridges and roadway approaches	✓ Reduce hydroplaning for the inside lanes. ✓ Improves constructability. ✓ Simplify screed stet up and deck concrete placement resulting in cost savings.	5
#11	Increase the maximum bent cap length without a construction joint from 70 to 85 feet	✓ Allows the UTJV to reduce the number of pours or potentially pour the entire cap monolithic. ✓ Reduces construction schedule by approximately one month. ✓ Reduces construction costs by approximately $150,000.	1, 2, 5
#13	Utilize reinforced slopes on the Northbound roadway embankment	✓ Eliminate impacts to ROW. ✓ Reduces impacts to environment. ✓ Reduces costs by approximately $500,000.	5
#14	Utilize refined traffic data from 2024	✓ Facilitates safer and more efficient lane closures. ✓ Improves quality of asphalt paving. ✓ Reduces construction costs by $200,000 and reduces construction schedule by one month.	1, 2, 3, 5
#15	Increase lateral displacement limits for earth retaining walls to 1.5" in Services Limit State	✓ Increases use of cantilevered retaining walls optimizes constructability. ✓ Reduces retaining wall construction time. ✓ Reduces construction savings up to $1 million.	1, 2
#16	I-95 NB and SB alignment with future 3rd lane with 12' outside paved shoulders along causeway	✓ Constructs future 3rd lane along causeway (above the requirements of the RFP) providing the future 3rd lane through the full corridor eliminating future construction between the relief and main bridges. ✓ Provides 12 ft. paved outside shoulders (above the requirements of the RFP) along the causeway. ✓ Horizontal alignment of the dual main bridges allows for widening to the inside to accommodate future 4th lanes. ✓ Rooftop roadway section along causeway sheds stormwater to outside shoulders allowing 0% longitudinal grade reducing lane closures for buildup. ✓ Median drainage and grass maintenance is reduced by the rooftop roadway section along the causeway.	1, 2, 3, 4, 5
#17	Increase maximum allowable column spacing on NB Main Bridges from 30-34"	✓ Eliminate 29 drilled shafts and bridge columns reducing construction schedule by approximately 2 months. ✓ Reduces construction costs by approximately $14 million.	1, 2, 4, 5
#18	Utilize non-uniform MSE wall strip lengths	✓ Minimizes MSE wall excavation and improves safety of the traveling public. ✓ Reduces wall construction by two months. ✓ Reduces construction costs by $1 million.	1, 2, 3, 4, 5

(*) RFP Innovation Types: (1) Expedited Schedule; (2) Schedule Certainty (3) Minimize Traffic Impacts; (4) Minimize Long-Term Maintenance Cost.
Other Innovation Type: (5) Enhance Safety or Quality

APPENDIX A.1

Conceptual Roadway Plans

UNITEDTRAYLOR
JOINT VENTURE

SEE SHEET IL1 FOR INDEX OF SHEETS

SHEET NO.	TOTAL SHEETS
1	93

South Carolina Department of Transportation

PROPOSAL PLANS
CLARENDON AND ORANGEBURG COUNTIES
PROJECT ID. P041130
I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

BRIDGE PLANS BOUND
UNDER A SEPARATE COVER

Design Reference for these plans is the:

2021

SCDOT Roadway Design Manual

Hydraulic Design Reference for these plans is the:

2009

Edition of SCDOT's "Requirements for Hydraulic Design Studies"

ENVIRONMENTAL PERMIT INFORMATION

USACE PERMIT	X YES	___ NO		
NEPA DOCUMENT	X YES	___ NO		
401 CERTIFICATION	X YES	___ NO		
OCRM CAP	___ YES	X NO		
NAVIGABLE WATERS	___ SC	X USCG	___ USACE	___ N/A

3 DAYS BEFORE DIGGING IN
SOUTH CAROLINA

CALL 811

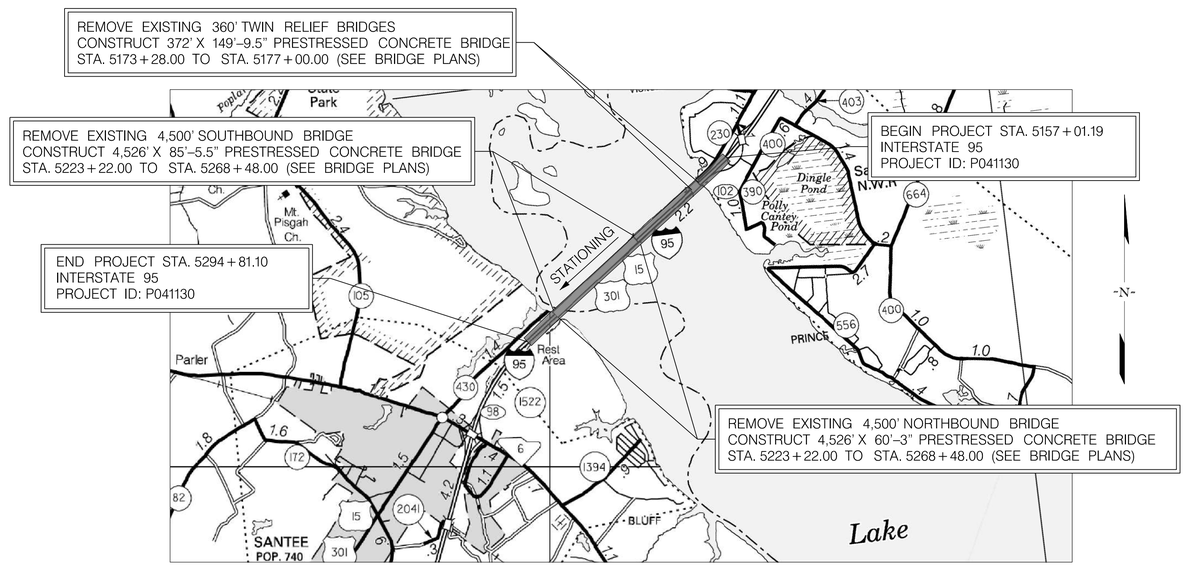
SOUTH CAROLINA 811 (SC811)
WWW.SC811.COM
ALL UTILITIES MAY NOT BE A MEMBER OF SC811

RAILROAD INVOLVEMENT?
YES / NO

APPROXIMATE LOCATION OF ROADWAY IS

BEGIN I-95
LATITUDE 33° 31' 17.95 "N
LONGITUDE 80° 25' 52.81 "W

END I-95
LATITUDE 33° 29' 46.15 "N
LONGITUDE 80° 27' 51.88 "W



CLARENDON AND ORANGEBURG COUNTIES

LAYOUT
NOT TO SCALE

= PROJECT LOCATION AREA

TRAFFIC DATA

2025 ADT 41,000

2045 ADT 55,000

TRUCKS 22 %

UNITEDTRAYLOR
JOINT VENTURE

	I-95	RAMPS	SIDE ROADS	TOTAL
NET LENGTH OF ROADWAY	1.680	0.225	0.033	1.938
NET LENGTH OF BRIDGES	0.930			0.930
NET LENGTH OF PROJECT	2.61	0.225	0.033	2.868
LENGTH OF EXCEPTIONS				
GROSS LENGTH OF PROJECT	2.610	0.225	0.033	2.868

EQUALITIES IN STATIONING
NONE

NOTE: EXCEPT AS MAY OTHERWISE BE SPECIFIED ON THE PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIALS AND WORKMANSHIP ON THIS PROJECT SHALL CONFORM TO THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2007 EDITION) AND THE STANDARD DRAWINGS FOR ROAD CONSTRUCTION IN EFFECT AT THE TIME OF THE FINAL RFP.

CONSULTING ENGINEERING FIRM

INFRASTRUCTURE
CONSULTING & ENGINEERING

ENGINEER OF RECORD

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

FOR CONSTRUCTION : _____ _____
DATE

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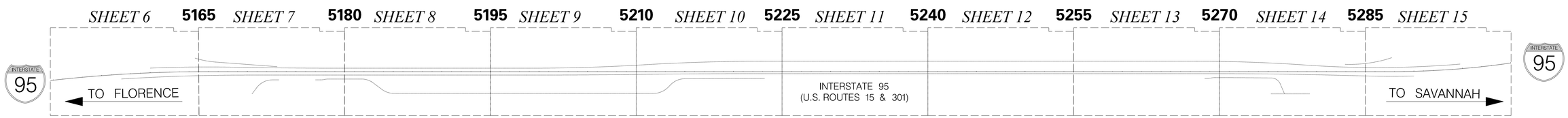
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	IL1

INDEX OF SHEETS

SHEET NO.	DESCRIPTION	SHEETS
1	TITLE SHEET	1
IL1	INDEX \ LAYOUT SHEET	1
3 – 3C	TYPICAL SECTIONS	4
5A – 5F	REFERENCE DATA SHEETS	6
6 – 20A	PLAN AND PROFILE SHEETS	28
X1 – X53	CROSS SECTION SHEETS	53
	TOTAL SHEETS	93



UNITEDTRAYLOR JOINT VENTURE

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A–5F

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 500'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
7			
6			
5			
4			
3			
2			
1			

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

INDEX /LAYOUT SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	3

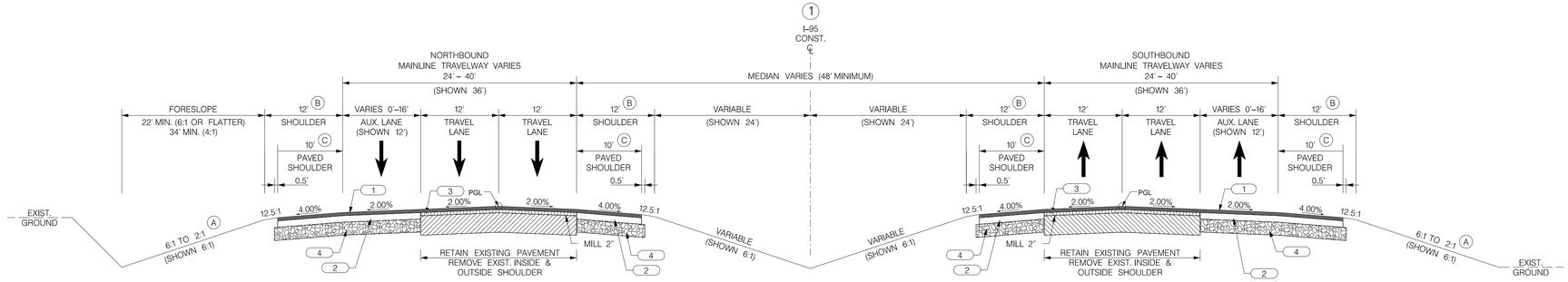
GENERAL NOTES:

(A) USE 6:1 OR FLATTER SLOPE (0'-5')
4:1 SLOPE (5'-10')
2:1 SLOPE (10' - OVER)

(B) ADD 3.75' WHERE GUARDRAIL IS ERECTED

(C) PLACE MILLED IN RUMBLE STRIPS IN ACCORDANCE WITH STD. DWGS. 401-205-01 AND 401-205-02

STATIONS ARE MEASURED FROM THE ℄ OF CONSTURCTION



USE THIS SECTION
INTERSTATE 95

STA. 5163 + 00.00 TO STA. 5172 + 41.00 NORTHBOUND
STA. 5210 + 50.35 TO STA. 5213 + 00.00 +/- NORTHBOUND
STA. 5280 + 00.00 +/- TO STA. 5294 + 81.10 NORTHBOUND
STA. 5120 + 47.07 TO STA. 5215 + 00 +/- NORTHBOUND

STA. 5157 + 01.19 TO STA. 5172 + 41.00 SOUTHBOUND
STA. 5210 + 50.35 TO STA. 5219 + 00.00 +/- SOUTHBOUND
STA. 5279 + 00.00 +/- TO STA. 5287 + 67.35 SOUTHBOUND

QUALITY ENHANCEMENT

2' EARTH SHOULDER REPLACED WITH 2' OF ADDITIONAL PAVED SHOULDER USING FULL-DEPTH PAVEMENT ALONG THE "ROOFTOP" SECTION

QUALITY ENHANCEMENT

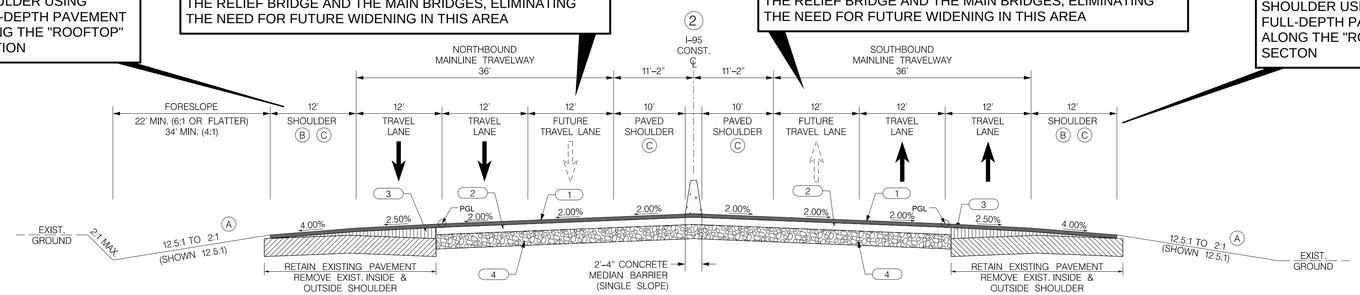
FUTURE THIRD LANE PROVIDED IN EACH DIRECTION BETWEEN THE RELIEF BRIDGE AND THE MAIN BRIDGES, ELIMINATING THE NEED FOR FUTURE WIDENING IN THIS AREA

QUALITY ENHANCEMENT

FUTURE THIRD LANE PROVIDED IN EACH DIRECTION BETWEEN THE RELIEF BRIDGE AND THE MAIN BRIDGES, ELIMINATING THE NEED FOR FUTURE WIDENING IN THIS AREA

QUALITY ENHANCEMENT

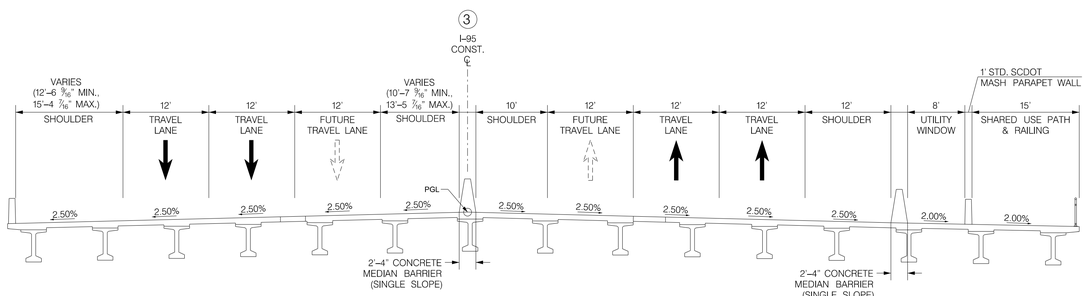
2' EARTH SHOULDER REPLACED WITH 2' OF ADDITIONAL PAVED SHOULDER USING FULL-DEPTH PAVEMENT ALONG THE "ROOFTOP" SECTON



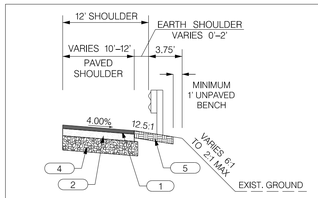
USE THIS SECTION
INTERSTATE 95

STA. 5172 + 41.00 TO STA. 5173 + 28.00 NORTHBOUND BEGIN BRIDGE
STA. 5181 + 00.00 +/- TO STA. 5198 + 96.26 +/- NORTHBOUND

STA. 5172 + 41.00 TO STA. 5173 + 28.00 SOUTHBOUND BEGIN BRIDGE
STA. 5181 + 00 +/- TO STA. 5198 + 96.21 SOUTHBOUND



USE THIS SECTION
INTERSTATE 95
STA. 5173 + 28.00 BEGIN BRIDGE TO STA. 5177 + 00.00 END BRIDGE
(SEE BRIDGE PLANS FOR FULL DETAILS)



TYPICAL GUARDRAIL SECTION FOR OUTSIDE SHOULDER

SEE PLANS FOR GUARDRAIL LOCATIONS
REFER TO SCDOT STD. DWG. 805-115-10
FOR GRADING SCHEME AT END TREATMENTS

1	STONE MASTIC ASPHALT (9.5 MM) - 200 LBS. PER S.Y.	
2	HOT MIX ASPHALT INTERMEDIATE COURSE TYPE B - 400 LBS. PER S.Y.	
3	VARIABLE HOT MIX ASPHALT FOR BUILDUP HOT MIX ASPHALT SURFACE TYPE E (LESS THAN OR EQUAL TO 1.8") HOT MIX ASHPALT INTERMEDIATE TYPE B (GREATHER THAN 1.8")	
4	HOT MIX ASPHALT BASE COURSE TYPE A - 950 LBS. PER S.Y.	
5	4" HOT MIX ASPHALT SURFACE COURSE (NON-MOWABLE STRIP)	
6	HOT MIX ASPHALT SURFACE COURSE TYPE C - 150 LBS. PER S.Y. (2 LIFTS)	
7	6" GRADED AGGREGATE BASE	
8	SHARED USE PATH CONCRETE PAVING	

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

FUNCTIONAL CLASSIFICATION	ROUTE	DESIGN SPEED MPH	FROM STA.	TO STA.
RURAL FREEWAY	I-95	75	5157 + 01.19	5294 + 81.10

PRELIMINARY
NOT FOR CONSTRUCTION

N.T.S.

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
7			
6			
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1			

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION SHEET

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

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8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I–95	3A

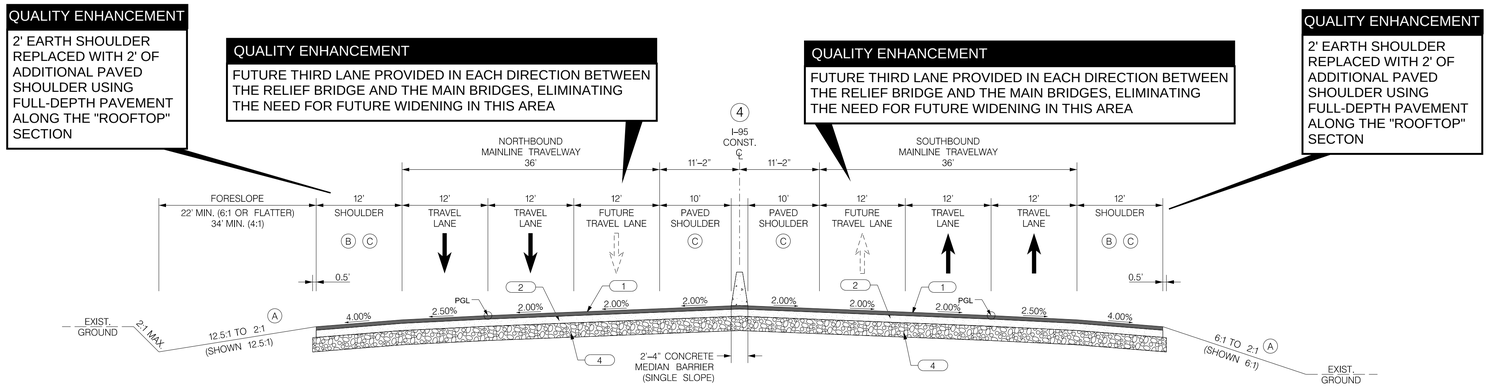
GENERAL NOTES:

(A) USE 6:1 OR FLATTER SLOPE (0'–5')
4:1 SLOPE (5'–10')
2:1 SLOPE (10' – OVER)

(B) ADD 3.75' WHERE GUARDRAIL IS ERECTED

(C) PLACE MILLED IN RUMBLE STRIPS IN ACCORDANCE WITH STD. DWGS. 401–205–01 AND 401–205–02

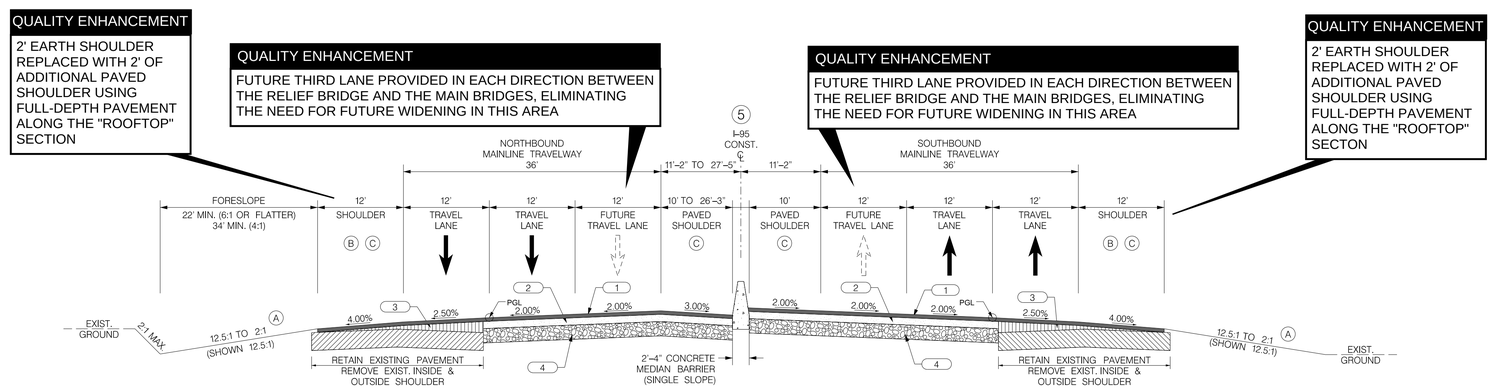
STATIONS ARE MEASURED FROM THE ℄ OF CONSTURCTION



USE THIS SECTION
INTERSTATE 95

STA. 5177 + 00.00 END BRIDGE TO STA. 5181 + 00.00 +/– NORTHBOUND

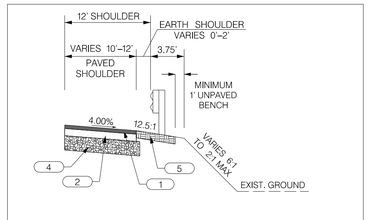
STA. 5177 + 00.00 END BRIDGE TO STA. 5181 + 00.00 +/– SOUTHBOUND



USE THIS SECTION
INTERSTATE 95

STA. 5198 + 96.26 TO STA. 5210 + 47.07 NORTHBOUND

STA. 5198 + 96.21 TO STA. 5210 + 50.35 SOUTHBOUND



TYPICAL GUARDRAIL SECTION FOR OUTSIDE SHOULDER

SEE PLANS FOR GUARDRAIL LOCATIONS
REFER TO SCDOT STD. DWG. 805–115–10
FOR GRADING SCHEME AT END TREATMENTS

1	STONE MASTIC ASPHALT (9.5 MM) – 200 LBS. PER S.Y.	
2	HOT MIX ASPHALT INTERMEDIATE COURSE TYPE B – 400 LBS. PER S.Y.	
3	VARIABLE HOT MIX ASPHALT FOR BUILDUP HOT MIX ASPHALT SURFACE TYPE E (LESS THAN OR EQUAL TO 1.8") HOT MIX ASHPALT INTERMEDIATE TYPE B (GREATHER THAN 1.8")	
4	HOT MIX ASPHALT BASE COURSE TYPE A – 950 LBS. PER S.Y.	
5	4" HOT MIX ASPHALT SURFACE COURSE (NON–MOWABLE STRIP)	
6	HOT MIX ASPHALT SURFACE COURSE TYPE C – 150 LBS. PER S.Y. (2 LIFTS)	
7	6" GRADED AGGREGATE BASE	
8	SHARED USE PATH CONCRETE PAVING	

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

FUNCTIONAL CLASSIFICATION	ROUTE	DESIGN SPEED MPH	FROM STA.	TO STA.
RURAL FREEWAY	I–95	75	5157 + 01.19	5294 + 81.10

PRELIMINARY
NOT FOR CONSTRUCTION

N.T.S.

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
7			
6			
5			
4			
3			
2			
1			

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION SHEET

I–95 OVER LAKE MARION BRIDGE REPLACEMENT

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8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I–95	3B

GENERAL NOTES:

(A) USE 6:1 OR FLATTER SLOPE (0'–5')
4:1 SLOPE (5'–10')
2:1 SLOPE (10' – OVER)

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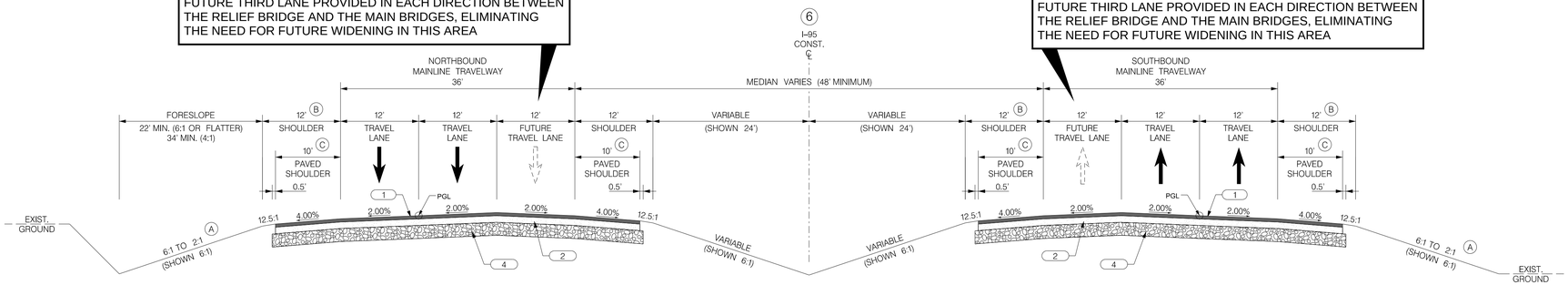
(C) PLACE MILLED IN RUMBLE STRIPS IN ACCORDANCE WITH STD. DWGS. 401–205–01 AND 401–205–02

STATIONS ARE MEASURED FROM THE ℄ OF CONSTURCTION

QUALITY ENHANCEMENT

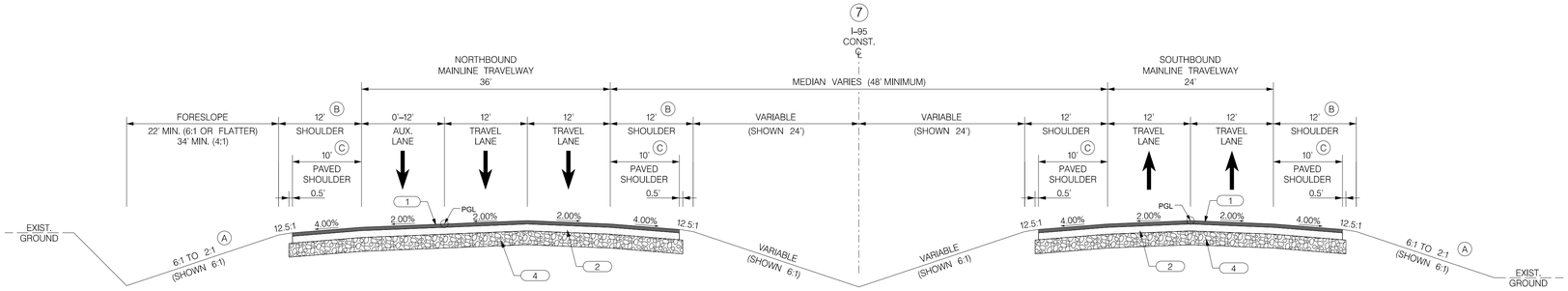
FUTURE THIRD LANE PROVIDED IN EACH DIRECTION BETWEEN THE RELIEF BRIDGE AND THE MAIN BRIDGES, ELIMINATING THE NEED FOR FUTURE WIDENING IN THIS AREA



USE THIS SECTION
INTERSTATE 95

STA. 5213 + 00.00 +/– TO STA. 5223 + 22.00 BEGIN BRIDGE NORTHBOUND

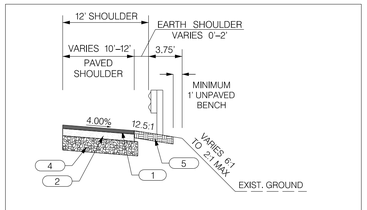
STA. 5219 + 00.00 +/– TO STA. 5223 + 22.00 BEGIN BRIDGE SOUTHBOUND



USE THIS SECTION
INTERSTATE 95

STA. 5268 + 48.00 END BRIDGE TO STA. 5280 + 00.00 +/– NORTHBOUND

STA. 5268 + 48.00 END BRIDGE TO STA. 5279 + 00.00 +/– SOUTHBOUND



TYPICAL GUARDRAIL SECTION FOR OUTSIDE SHOULDER

SEE PLANS FOR GUARDRAIL LOCATIONS
REFER TO SCDOT STD. DWG. 805–115–10
FOR GRADING SCHEME AT END TREATMENTS

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7	6" GRADED AGGREGATE BASE	
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UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

FUNCTIONAL CLASSIFICATION	ROUTE	DESIGN SPEED MPH	FROM STA.	TO STA.
RURAL FREEWAY	I–95	75	5157 + 01.19	5294 + 81.10

PRELIMINARY
NOT FOR CONSTRUCTION

N.T.S.

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
7			
6			
5			
4			
3			
2			
1			

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION SHEET

I–95 OVER LAKE MARION
BRIDGE REPLACEMENT

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8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	3C

GENERAL NOTES:

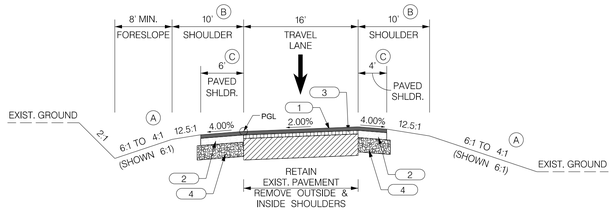
(A) USE 6:1 OR FLATTER SLOPE (0'-5')
4:1 SLOPE (5'-10')
2:1 SLOPE (10' - OVER)

(B) ADD 3.75' WHERE GUARDRAIL IS ERECTED

(C) PLACE MILLED IN RUMBLE STRIPS IN ACCORDANCE WITH STD. DWGS. 401-205-01 AND 401-205-02

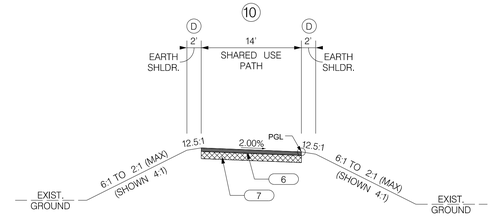
(D) 6' WHEN USING 2:1 SLOPES

8



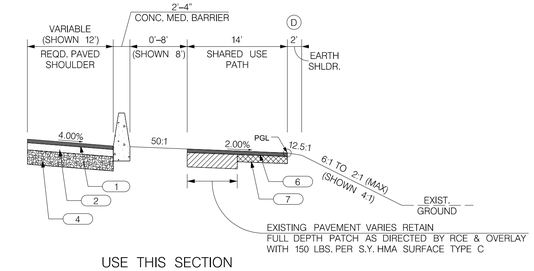
USE THIS SECTION
R-8733 STA. 5165+50.00 TO STA. 5173+51.77
R-9064 STA. 5282+94.23 TO STA. 5286+77.99

10



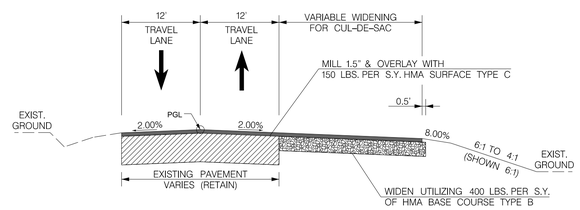
USE THIS SECTION
SUP1 STA. 5170+15.00 TO STA. 5172+50.00
SUP2 STA. 5181+74.94 TO STA. 5185+00.00 +/-
SUP2 STA. 5213+00.00 +/- TO STA. 5215+69.84
SUP3 STA. 5275+35.12 TO STA. 5276+70.77

12



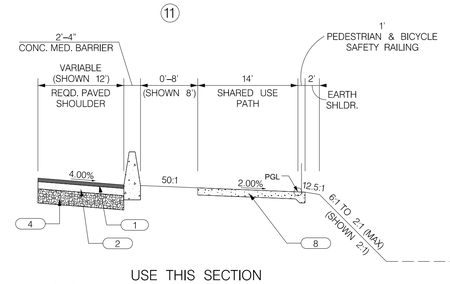
USE THIS SECTION
SUP2 STA. 5178+35.00 TO STA. 5181+74.93
SUP2 STA. 5215+69.85 TO STA. 5220+15.00
SUP3 STA. 5269+50.00 TO STA. 5275+35.12

9



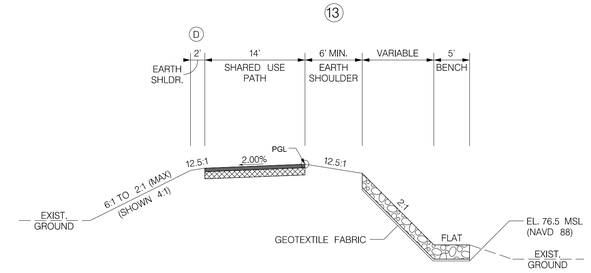
USE THIS SECTION
BASS DRIVE (S-38-430) 1006+50.00 TO 1008+25.97

11



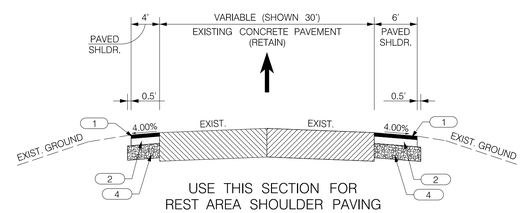
USE THIS SECTION
SUP1 STA. 5172+50.00 TO STA. 5173+28.00
SUP2 STA. 5177+00.00 TO STA. 5178+35.00
SUP2 STA. 5220+15.00 TO STA. 5223+95.10
SUP 3 STA. 5268+47.94 TO STA. 5269+50.00

13



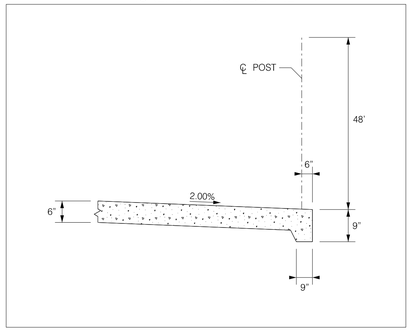
USE THIS SECTION
SUP2 STA. 5185+00.00 +/- TO STA. 5213+00.00 +/-

14



USE THIS SECTION FOR
REST AREA SHOULDER PAVING

CONCRETE SHARED USE PATH
THICKENED EDGE DETAIL



(1)	STONE MASTIC ASPHALT (9.5 MM) - 200 LBS. PER S.Y.	
(2)	HOT MIX ASPHALT INTERMEDIATE COURSE TYPE B - 400 LBS. PER S.Y.	
(3)	VARIABLE HOT MIX ASPHALT FOR BUILDUP HOT MIX ASPHALT SURFACE TYPE E (LESS THAN OR EQUAL TO 1.8") HOT MIX ASHPALT INTERMEDIATE TYPE B (GREATHER THAN 1.8")	
(4)	HOT MIX ASPHALT BASE COURSE TYPE A - 950 LBS. PER S.Y.	
(5)	4" HOT MIX ASPHALT SURFACE COURSE (NON-MOWABLE STRIP)	
(6)	HOT MIX ASPHALT SURFACE COURSE TYPE C - 150 LBS. PER S.Y. (2 LIFTS)	
(7)	6" GRADED AGGREGATE BASE	
(8)	SHARED USE PATH CONCRETE PAVING	

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

FUNCTIONAL CLASSIFICATION	ROUTE	DESIGN SPEED		
		MPH	FROM STA.	TO STA.
RURAL FREEWAY RAMP	R-8733	50	5165+50.00	5173+51.77
RURAL FREEWAY RAMP	R-9064	50	5282+94.23	5286+77.99
RURAL - LOCAL	S-430	25	1006+50.00	1008+25.97

PRELIMINARY
NOT FOR CONSTRUCTION

N.T.S.

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
7			
6			
5			
4			
3			
2			
1			

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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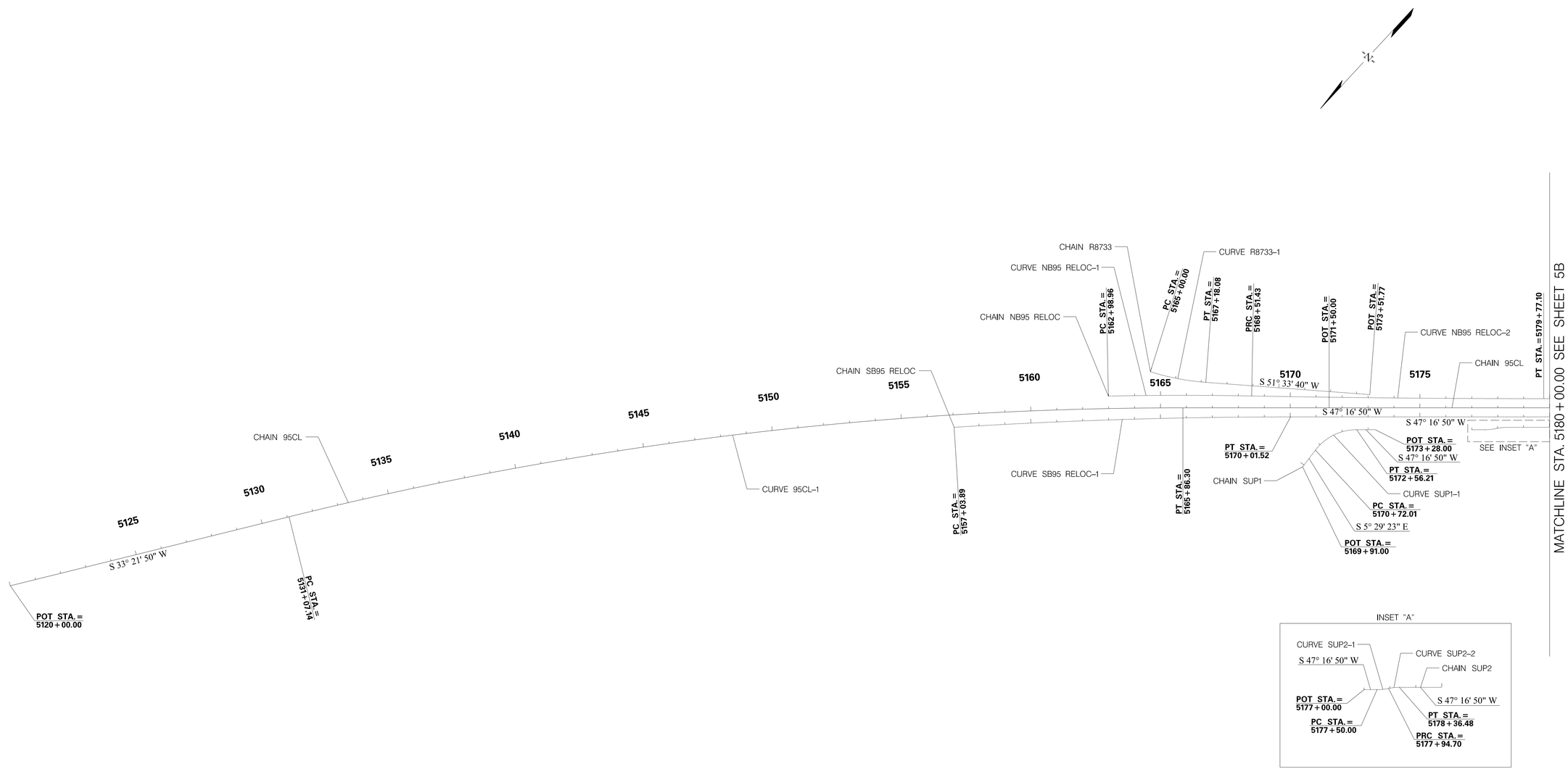
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	5A



UNITEDTRAYLOR JOINT VENTURE

0 100' 200' 400'
SCALE : 1" = 200'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 200'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
7			
6			
5			
4			
3			
2			
1			

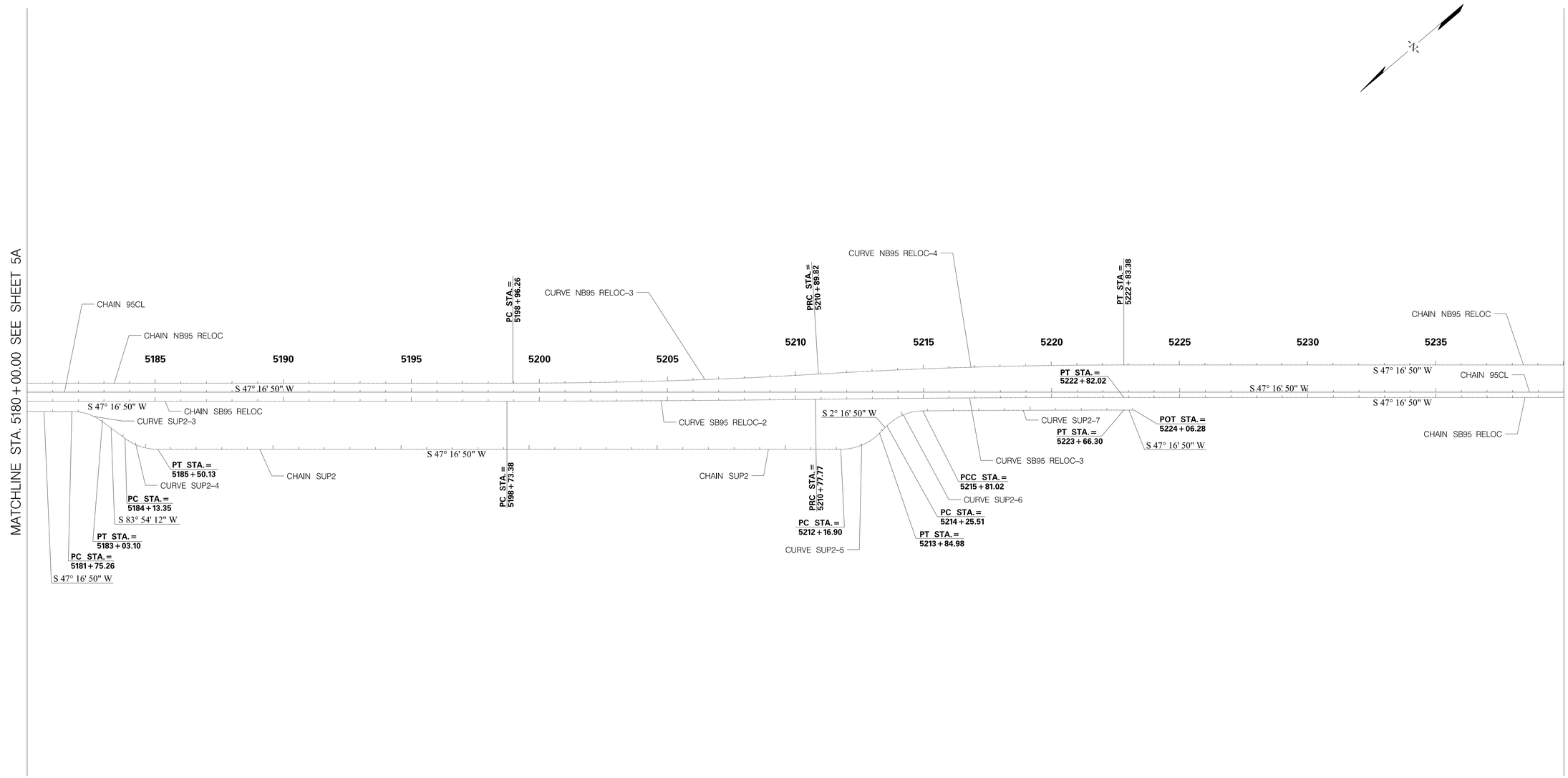
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

REFERENCE DATA SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

c:\bms\ice-eng-pw-01\d0115930\SHT_05A.dgn
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	5B



UNITEDTRAYLOR JOINT VENTURE

0 100' 200' 400'
SCALE : 1" = 200'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 200'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
7			
6			
5			
4			
3			
2			
1			

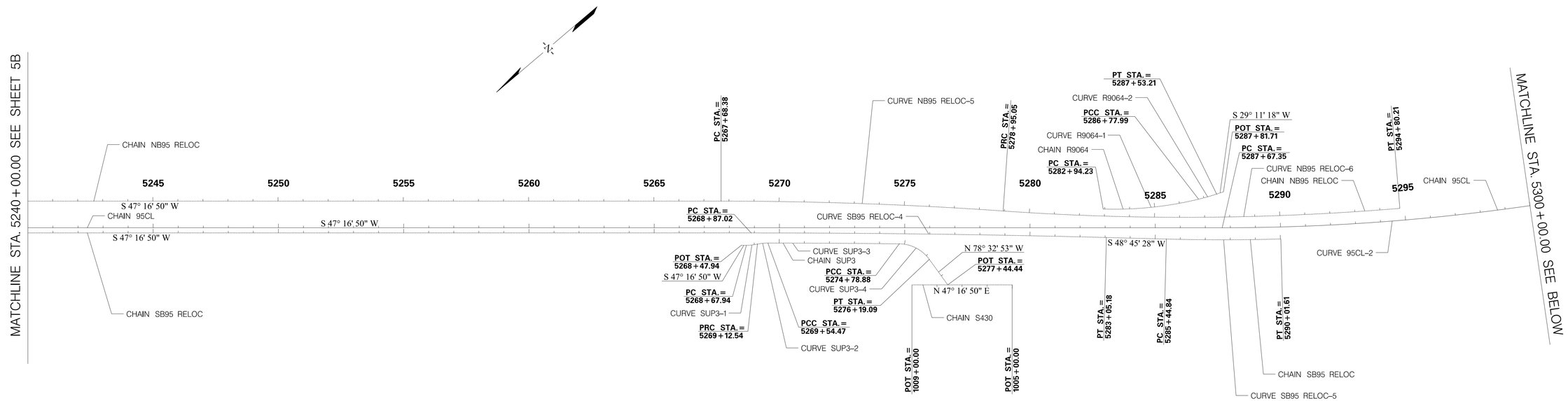
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

REFERENCE DATA SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

c:\bms\ice-eng-pw-01\d0115930\SHT_05B.dgn
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	5C



UNITEDTRAYLOR JOINT VENTURE

0 100' 200' 400'
SCALE : 1" = 200'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 200'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
7			
6			
5			
4			
3			
2			
1			

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

REFERENCE DATA SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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8/27/2025

PROPOSED DATA

NB95_RELOC

Beginning chain NB95_RELOC description
==========

Curve Data

Curve NB95_RELOC-1
P.I. Station 5165+75.23 N 614,092.5633 E 2,172,696.4911
Delta = 2° 12' 09.03" (RT)
Degree = 0° 23' 55.19"
Tangent = 276.2704
Length = 552.4728
Radius = 14,371.9500
External = 2.6551
Long Chord = 552.4387
Mid. Ord. = 2.6546
P.C. Station 5162+98.96 N 614,284.0069 E 2,172,895.6761
P.T. Station 5168+51.43 N 613,908.9161 E 2,172,490.0957
C.C. N 624,645.8741 E 2,162,936.5268
Back = S 46° 08' 07.18" W
Ahead = S 48° 20' 16.21" W
Chord Bear = S 47° 14' 11.70" W

DS = 75 MPH
eMAX = 8.0%
e = N.C.
LG-PC = 0.50%
LG-PT = 0.50%

Curve Data

Curve NB95_RELOC-2
P.I. Station 5174+14.28 N 613,534.7689 E 2,172,069.6034
Delta = 1° 03' 26.32" (LT)
Degree = 0° 05' 38.14"
Tangent = 562.8498
Length = 1,125.6676
Radius = 61,000.0000
External = 2.5967
Long Chord = 1,125.6516
Mid. Ord. = 2.5966
P.C. Station 5168+51.43 N 613,908.9161 E 2,172,490.0957
P.T. Station 5179+77.10 N 613,152.9263 E 2,171,656.0867
C.C. N 568,337.1990 E 2,213,039.0612
Back = S 48° 20' 16.21" W
Ahead = S 47° 16' 49.89" W
Chord Bear = S 47° 48' 33.05" W

DS = 75 MPH
eMAX = 8.0%
e = N.C.
LG-PC = 0.50%
LG-PT = 0.50%

Course from PT NB95_RELOC-2 to PC NB95_RELOC-3 S 47° 16' 49.89" W Dist 1,919.1593

Curve Data

Curve NB95_RELOC-3
P.I. Station 5204+93.22 N 611,445.9697 E 2,169,807.5365
Delta = 3° 25' 09.46" (LT)
Degree = 0° 17' 11.32"
Tangent = 596.9566
Length = 1,193.5588
Radius = 20,000.0000
External = 8.9069
Long Chord = 1,193.3817
Mid. Ord. = 8.9030
P.C. Station 5198+96.26 N 611,850.9506 E 2,170,246.1110
P.T. Station 5210+89.82 N 611,015.5519 E 2,169,393.8968
C.C. N 597,157.2695 E 2,183,814.2993
Back = S 47° 16' 49.89" W
Ahead = S 43° 51' 40.43" W
Chord Bear = S 45° 34' 15.16" W

DS = 75 MPH
eMAX = 8.0%
e = N.C.
LG-PC = 0.50%
LG-PT = 0.50%

Curve Data

Curve NB95_RELOC-4
P.I. Station 5216+86.78 N 610,585.1342 E 2,168,980.2572
Delta = 3° 25' 09.46" (RT)
Degree = 0° 17' 11.32"
Tangent = 596.9566
Length = 1,193.5588
Radius = 20,000.0000
External = 8.9069
Long Chord = 1,193.3817
Mid. Ord. = 8.9030
P.C. Station 5210+89.82 N 611,015.5519 E 2,169,393.8968
P.T. Station 5222+83.38 N 610,180.1532 E 2,168,541.6827
C.C. N 624,873.8343 E 2,154,973.4943
Back = S 43° 51' 40.43" W
Ahead = S 47° 16' 49.89" W
Chord Bear = S 45° 34' 15.16" W

DS = 75 MPH
eMAX = 8.0%
e = N.C.
LG-PC = 0.50%
LG-PT = 0.50%

Course from PT NB95_RELOC-4 to PC NB95_RELOC-5 S 47° 16' 49.89" W Dist 4,485.0000

Curve Data

Curve NB95_RELOC-5
P.I. Station 5273+31.95 N 606,755.1573 E 2,164,832.5804
Delta = 4° 00' 12.91" (RT)
Degree = 0° 21' 19.24"
Tangent = 563.5678
Length = 1,126.6770
Radius = 16,124.0000
External = 9.8459
Long Chord = 1,126.4478
Mid. Ord. = 9.8399
P.C. Station 5267+68.38 N 607,137.4870 E 2,165,246.6247
P.T. Station 5278+95.05 N 606,402.6687 E 2,164,392.8526
C.C. N 618,983.5327 E 2,154,307.9512
Back = S 47° 16' 49.89" W
Ahead = S 51° 17' 02.81" W
Chord Bear = S 49° 16' 56.35" W

DS = 75 MPH
eMAX = 8.0%
e = N.C.
LG-PC = 0.50%
LG-PT = 0.50%

Curve Data

Curve NB95_RELOC-6
P.I. Station 5286+89.18 N 605,905.9751 E 2,163,773.2299
Delta = 8° 45' 44.80" (LT)
Degree = 0° 33' 10.01"
Tangent = 794.1264
Length = 1,585.1560
Radius = 10,365.0000
External = 30.3769
Long Chord = 1,583.6117
Mid. Ord. = 30.2882
P.C. Station 5278+95.05 N 606,402.6687 E 2,164,392.8526
P.T. Station 5294+80.21 N 605,320.6867 E 2,163,236.5045
C.C. N 598,315.3048 E 2,170,875.7355
Back = S 51° 17' 02.81" W
Ahead = S 42° 31' 18.00" W
Chord Bear = S 46° 54' 10.40" W

DS = 75 MPH
eMAX = 8.0%
e = 2.4%
LG-PC = 0.50%
LG-PT = 0.50%

==========
Ending chain NB95_RELOC description

SB95_RELOC

Beginning chain SB95_RELOC description
==========

Curve Data

Curve SB95_RELOC-1
P.I. Station 5163+52.91 N 614,306.7416 E 2,172,801.9370
Delta = 3° 32' 25.53" (RT)
Degree = 0° 16' 22.21"
Tangent = 649.0233
Length = 1,297.6336
Radius = 21,000.0000
External = 10.0269
Long Chord = 1,297.4271
Mid. Ord. = 10.0221
P.C. Station 5157+03.89 N 614,775.6502 E 2,173,250.6641
P.T. Station 5170+01.52 N 613,866.4381 E 2,172,325.1099
C.C. N 629,294.8032 E 2,158,078.5121
Back = S 43° 44' 24.36" W
Ahead = S 47° 16' 49.89" W
Chord Bear = S 45° 30' 37.13" W

DS = 75 MPH
eMAX = 8.0%
e = N.C.
LG-PC = 0.50%
LG-PT = 0.50%

Course from PT SB95_RELOC-1 to PC SB95_RELOC-2 S 47° 16' 49.89" W Dist 2,871.8592

Curve Data

Curve SB95_RELOC-2
P.I. Station 5204+75.58 N 611,509.6025 E 2,169,772.7728
Delta = 0° 41' 23.63" (LT)
Degree = 0° 03' 26.22"
Tangent = 602.2017
Length = 1,204.3888
Radius = 100,024.0000
External = 1.8128
Long Chord = 1,204.3815
Mid. Ord. = 1.8127
P.C. Station 5198+73.38 N 611,918.1417 E 2,170,215.2008
P.T. Station 5210+77.77 N 611,095.7657 E 2,169,335.2960
C.C. N 538,432.1038 E 2,238,072.4245
Back = S 47° 16' 49.89" W
Ahead = S 46° 35' 26.26" W
Chord Bear = S 46° 56' 08.08" W

DS = 75 MPH
eMAX = 8.0%
e = N.C.
LG-PC = 0.50%
LG-PT = 0.50%

Curve Data

Curve SB95_RELOC-3
P.I. Station 5216+79.90 N 610,681.9785 E 2,168,897.8717
Delta = 0° 41' 23.63" (RT)
Degree = 0° 03' 26.24"
Tangent = 602.1294
Length = 1,204.2443
Radius = 100,012.0000
External = 1.8126
Long Chord = 1,204.2370
Mid. Ord. = 1.8125
P.C. Station 5210+77.77 N 611,095.7657 E 2,169,335.2960
P.T. Station 5222+82.02 N 610,273.4882 E 2,168,455.4969
C.C. N 683,750.7099 E 2,100,606.4141
Back = S 46° 35' 26.26" W
Ahead = S 47° 16' 49.89" W
Chord Bear = S 46° 56' 08.08" W

DS = 75 MPH
eMAX = 8.0%
e = N.C.
LG-PC = 0.50%
LG-PT = 0.50%

Course from PT SB95_RELOC-3 to PC SB95_RELOC-4 S 47° 16' 49.89" W Dist 4,605.0000

Curve Data

Curve SB95_RELOC-4
P.I. Station 5275+96.14 N 606,668.3387 E 2,164,551.2971
Delta = 1° 28' 38.49" (RT)
Degree = 0° 06' 15.03"
Tangent = 709.1207
Length = 1,418.1628
Radius = 55,000.0000
External = 4.5712
Long Chord = 1,418.1236
Mid. Ord. = 4.5708
P.C. Station 5268+87.02 N 607,149.4129 E 2,165,072.2768
P.T. Station 5283+05.18 N 606,200.8563 E 2,164,018.0876
C.C. N 647,557.0359 E 2,127,759.7587
Back = S 47° 16' 49.89" W
Ahead = S 48° 45' 28.39" W
Chord Bear = S 48° 01' 09.14" W

DS = 75 MPH
eMAX = 8.0%
e = N.C.
LG-PC = 0.50%
LG-PT = 0.50%

Course from PT SB95_RELOC-4 to PC SB95_RELOC-5 S 48° 45' 28.39" W Dist 239.6582

Curve Data

Curve SB95_RELOC-5
P.I. Station 5287+73.28 N 605,892.2648 E 2,163,666.1088
Delta = 3° 01' 42.32" (LT)
Degree = 0° 39' 46.79"
Tangent = 228.4419
Length = 456.7775
Radius = 8,641.9300
External = 3.0188
Long Chord = 456.7243
Mid. Ord. = 3.0178
P.C. Station 5285+44.84 N 606,042.8634 E 2,163,837.8812
P.T. Station 5290+01.61 N 605,732.8016 E 2,163,502.5325
C.C. N 599,544.7324 E 2,169,535.0074
Back = S 48° 45' 28.39" W
Ahead = S 45° 43' 46.06" W
Chord Bear = S 47° 14' 37.22" W

DS = 75 MPH
eMAX = 8.0%
e = 2.8%
LG-PC = 0.50%
LG-PT = 0.50%

==========
Ending chain SB95_RELOC description

R–9064 (NB REST AREA ON–RAMP)

Beginning chain R9064 description
==========

Curve Data

Curve R9064-1
P.I. Station 5284+87.27 N 605,999.4567 E 2,163,958.7532
Delta = 15° 22' 34.42" (LT)
Degree = 4° 00' 24.11"
Tangent = 193.0415
Length = 383.7631
Radius = 1,430.0000
External = 12.9709
Long Chord = 382.6125
Mid. Ord. = 12.8543
P.C. Station 5282+94.23 N 606,125.9061 E 2,164,104.6147
P.T. Station 5286+77.99 N 605,838.8574 E 2,163,851.6416
C.C. N 605,045.4030 E 2,165,041.3181
Back = S 49° 04' 39.07" W
Ahead = S 33° 42' 04.66" W
Chord Bear = S 41° 23' 21.86" W

DS = 75 MPH
eMAX = 8.0%
e = 6.4%
LG-PC = 0.50%
LG-PT = 0.50%

Curve Data

Curve R9064-2
P.I. Station 5287+15.62 N 605,807.5536 E 2,163,830.7635
Delta = 4° 30' 46.82" (LT)
Degree = 6° 00' 00.22"
Tangent = 37.6275
Length = 75.2160
Radius = 954.9200
External = 0.7410
Long Chord = 75.1966
Mid. Ord. = 0.7405
P.C. Station 5286+77.99 N 605,838.8574 E 2,163,851.6416
P.T. Station 5287+53.21 N 605,774.7040 E 2,163,812.4133
C.C. N 605,309.0074 E 2,164,646.0793
Back = S 33° 42' 04.66" W
Ahead = S 29° 11' 17.84" W
Chord Bear = S 31° 26' 41.25" W

DS = 50 MPH
eMAX = 8.0%
e = EXIST.
LG-PC = EXIST.
LG-PT = EXIST.

Course from PT R9064-2 to R9064101 S 29° 11' 17.84" W Dist 28.5020

Point R9064101 N 605,749.8211 E 2,163,798.5134 Sta 5287+81.71

==========
Ending chain R9064 description

R–8733 (EXIT 102 NB OFF–RAMP)

Beginning chain R8733 description
==========

Curve Data

Curve R8733-1
P.I. Station 5166+09.52 N 614,058.2433 E 2,172,741.3889
Delta = 13° 05' 05.18" (LT)
Degree = 5° 59' 59.99"
Tangent = 109.5162
Length = 218.0796
Radius = 954.9300
External = 6.2594
Long Chord = 217.6060
Mid. Ord. = 6.2187
P.C. Station 5165+00.00 N 614,105.1395 E 2,172,840.3563
P.T. Station 5167+18.08 N 613,990.1593 E 2,172,655.6080
C.C. N 613,242.1902 E 2,173,249.2692
Back = S 64° 38' 45.00" W
Ahead = S 51° 33' 39.82" W
Chord Bear = S 58° 06' 12.41" W

DS = 50 MPH
eMAX = 8.0%
e = 7.8%
LG-PC = 0.50%
LG-PT = 0.50%

Course from PT R8733-1 to R8733101 S 51° 33' 39.82" W Dist 633.6859

Point R8733101 N 613,596.2092 E 2,172,159.2601 Sta 5173+51.77

==========
Ending chain R8733 description

S–430 (BASS DRIVE)

Beginning chain S430 description
==========

Point S430100 N 606,594.9527 E 2,164,166.2059 Sta 1005+00.00

Course from S430100 to S430101 N 47° 16' 49.89" E Dist 400.0000

Point S430101 N 606,866.3164 E 2,164,460.0796 Sta 1009+00.00

==========
Ending chain S430 description

SHARED USE PATH (SUP1)

Beginning chain SUP1 description
==========

Point SUP100 N 613,976.6109 E 2,172,160.1788 Sta 5169+91.00

Course from SUP100 to PC SUP1-1 S 5° 29' 23.34" E Dist 81.0109

Curve Data

Curve SUP1-1
P.I. Station 5171+71.23 N 613,797.2102 E 2,172,177.4210
Delta = 52° 46' 13.23" (RT)
Degree = 28° 38' 52.40"
Tangent = 99.2164
Length = 184.2032
Radius = 200.0000
External = 23.2574
Long Chord = 177.7613
Mid. Ord. = 20.8346
P.C. Station 5170+72.01 N 613,895.9715 E 2,172,167.9291
P.T. Station 5172+56.21 N 613,729.9009 E 2,172,104.5283
C.C. N 613,876.8377 E 2,171,968.8464
Back = S 5° 29' 23.34" E
Ahead = S 47° 16' 49.89" W
Chord Bear = S 20° 53' 43.28" W

Course from PT SUP1-1 to SUP101 S 47° 16' 49.89" W Dist 71.7855

Point SUP101 N 613,681.2010 E 2,172,051.7886 Sta 5173+28.00

==========
Ending chain SUP1 description

SHARED USE PATH (SUP3)

Beginning chain SUP3 description
==========

Point SUP300 N 607,212.1332 E 2,165,067.4797 Sta 5268+47.94

Course from SUP300 to PC SUP3-1 S 47° 16' 49.89" W Dist 20.0000

Curve Data

Curve SUP3-1
P.I. Station 5268+90.32 N 607,183.3808 E 2,165,036.3423
Delta = 11° 56' 29.96" (LT)
Degree = 26° 46' 25.42"
Tangent = 22.3822
Length = 44.6021
Radius = 214.0000
External = 1.1673
Long Chord = 44.5215
Mid. Ord. = 1.1610
P.C. Station 5268+67.94 N 607,198.5650 E 2,165,052.7861
P.T. Station 5269+12.54 N 607,165.1226 E 2,165,023.3962
C.C. N 607,041.3426 E 2,165,197.9657
Back = S 47° 16' 49.89" W
Ahead = S 35° 20' 19.93" W
Chord Bear = S 41° 18' 34.91" W

Curve Data

Curve SUP3-2
P.I. Station 5269+33.58 N 607,147.9586 E 2,165,011.2259
Delta = 12° 00' 40.97" (RT)
Degree = 28° 38' 52.40"
Tangent = 21.0409
Length = 41.9276
Radius = 200.0000
External = 1.1038
Long Chord = 41.8509
Mid. Ord. = 1.0977
P.C. Station 5269+12.54 N 607,165.1226 E 2,165,023.3962
P.T. Station 5269+54.47 N 607,133.7030 E 2,164,995.7501
C.C. N 607,280.8049 E 2,164,860.2471
Back = S 35° 20' 19.93" W
Ahead = S 47° 21' 00.90" W
Chord Bear = S 41° 20' 40.41" W

Curve Data

Curve SUP3-3
P.I. Station 5272+44.80 N 606,937.0023 E 2,164,782.2120
Delta = 0° 36' 19.19" (RT)
Degree = 0° 06' 15.30"
Tangent = 290.3268
Length = 580.6483
Radius = 54,959.6665
External = 0.7668
Long Chord = 580.6456
Mid. Ord. = 0.7668
P.C. Station 5269+54.47 N 607,133.7030 E 2,164,995.7501
P.T. Station 5275+35.12 N 606,742.5685 E 2,164,566.6078
C.C. N 647,557.0362 E 2,127,759.7584
Back = S 47° 21' 00.90" W
Ahead = S 47° 57' 20.08" W
Chord Bear = S 47° 39' 10.49" W

Curve Data

Curve SUP3-4
P.I. Station 5276+00.28 N 606,698.9282 E 2,164,518.2159
Delta = 66° 10' 45.06" (RT)
Degree = 57° 17' 44.82"
Tangent = 65.1633
Length = 115.5045
Radius = 100.0000
External = 19.3577
Long Chord = 109.1899
Mid. Ord. = 16.2182
P.C. Station 5275+35.12 N 606,742.5685 E 2,164,566.6078
P.T. Station 5276+50.62 N 606,725.5724 E 2,164,458.7487
C.C. N 606,816.8311 E 2,164,499.6372
Back = S 47° 57' 20.08" W
Ahead = N 65° 51' 54.85" W
Chord Bear = S 81° 02' 42.62" W

Course from PT SUP3-4 to SUP301 N 65° 51' 54.85" W Dist 111.4722

Point SUP301 N 606,771.1516 E 2,164,357.0208 Sta 5277+62.09

==========
Ending chain SUP3 description

UNITEDTRAYLOR
JOINT VENTURE

INFRASTRUCTURE
CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

REFERENCE DATA SHEET

I–95 OVER LAKE MARION
BRIDGE REPLACEMENT

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FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	5E

PROPOSED DATA

SHARED USE PATH (SUP2)

Beginning chain SUP2 description
==========

Point SUP200 N 613,428.8327 E 2,171,778.4862 Sta 5177+00.00

Course from SUP200 to PC SUP2-1 S 47° 16' 49.89" W Dist 50.0000

Curve Data

Curve SUP2-1
P.I. Station 5177+72.43 N 613,379.6941 E 2,171,725.2715
Delta = 11° 58' 05.08" (LT)
Degree = 26° 46' 25.42"
Tangent = 22.4320
Length = 44.7008
Radius = 214.0000
External = 1.1725
Long Chord = 44.6196
Mid. Ord. = 1.1661
P.C. Station 5177+50.00 N 613,394.9122 E 2,171,741.7520
P.T. Station 5177+94.70 N 613,361.3893 E 2,171,712.3050
C.C. N 613,237.6898 E 2,171,886.9316
Back = S 47° 16' 49.89" W
Ahead = S 35° 18' 44.81" W
Chord Bear = S 41° 17' 47.35" W

Curve Data

Curve SUP2-2
P.I. Station 5178+15.67 N 613,344.2820 E 2,171,700.1868
Delta = 11° 58' 05.08" (RT)
Degree = 28° 38' 52.34"
Tangent = 20.9645
Length = 41.7765
Radius = 200.0001
External = 1.0958
Long Chord = 41.7006
Mid. Ord. = 1.0898
P.C. Station 5177+94.70 N 613,361.3893 E 2,171,712.3050
P.T. Station 5178+36.48 N 613,330.0595 E 2,171,684.7845
C.C. N 613,476.9964 E 2,171,549.1025
Back = S 35° 18' 44.81" W
Ahead = S 47° 16' 49.89" W
Chord Bear = S 41° 17' 47.35" W

Course from PT SUP2-2 to PC SUP2-3 S 47° 16' 49.89" W Dist 338.7865

Curve Data

Curve SUP2-3
P.I. Station 5182+41.45 N 613,055.3210 E 2,171,387.2562
Delta = 36° 37' 22.37" (RT)
Degree = 28° 38' 52.40"
Tangent = 66.1880
Length = 127.8380
Radius = 200.0000
External = 10.6676
Long Chord = 125.6728
Mid. Ord. = 10.1274
P.C. Station 5181+75.26 N 613,100.2235 E 2,171,435.8834
P.T. Station 5183+03.10 N 613,048.2915 E 2,171,321.4426
C.C. N 613,247.1603 E 2,171,300.2016
Back = S 47° 16' 49.89" W
Ahead = S 83° 54' 12.26" W
Chord Bear = S 65° 35' 31.08" W

Course from PT SUP2-3 to PC SUP2-4 S 83° 54' 12.26" W Dist 110.2461

Curve Data

Curve SUP2-4
P.I. Station 5184+84.17 N 613,029.0612 E 2,171,141.3993
Delta = 36° 37' 22.37" (LT)
Degree = 26° 46' 25.42"
Tangent = 70.8211
Length = 136.7866
Radius = 214.0000
External = 11.4144
Long Chord = 134.4699
Mid. Ord. = 10.8364
P.C. Station 5184+13.35 N 613,036.5828 E 2,171,211.8199
P.T. Station 5185+50.13 N 612,981.0155 E 2,171,089.3682
C.C. N 612,823.7931 E 2,171,234.5478
Back = S 83° 54' 12.26" W
Ahead = S 47° 16' 49.89" W
Chord Bear = S 65° 35' 31.08" W

Course from PT SUP2-4 to PC SUP2-5 S 47° 16' 49.89" W Dist 2,666.7656

Curve Data

Curve SUP2-5
P.I. Station 5213+05.54 N 611,111.7212 E 2,169,065.0144
Delta = 45° 00' 00.00" (LT)
Degree = 26° 46' 25.42"
Tangent = 88.6417
Length = 168.0752
Radius = 214.0000
External = 17.6319
Long Chord = 163.7885
Mid. Ord. = 16.2898
P.C. Station 5212+16.90 N 611,171.8566 E 2,169,130.1380
P.T. Station 5213+84.98 N 611,023.1497 E 2,169,061.4871
C.C. N 611,014.6342 E 2,169,275.3176
Back = S 47° 16' 49.89" W
Ahead = S 2° 16' 49.89" W
Chord Bear = S 24° 46' 49.89" W

Course from PT SUP2-5 to PC SUP2-6 S 2° 16' 49.89" W Dist 40.5368

Curve Data

Curve SUP2-6
P.I. Station 5215+07.44 N 610,900.7860 E 2,169,056.6142
Delta = 44° 32' 59.63" (RT)
Degree = 28° 38' 52.40"
Tangent = 81.9238
Length = 155.5085
Radius = 200.0000
External = 16.1285
Long Chord = 151.6206
Mid. Ord. = 14.9249
P.C. Station 5214+25.51 N 610,982.6450 E 2,169,059.8741
P.T. Station 5215+81.02 N 610,844.7370 E 2,168,996.8645
C.C. N 610,990.6034 E 2,168,860.0325
Back = S 2° 16' 49.89" W
Ahead = S 46° 49' 49.53" W
Chord Bear = S 24° 33' 19.71" W

Curve Data

Curve SUP2-7
P.I. Station 5219+73.66 N 610,576.1062 E 2,168,710.4971
Delta = 0° 27' 00.37" (RT)
Degree = 0° 03' 26.34"
Tangent = 392.6433
Length = 785.2826
Radius = 99,962.6660
External = 0.7711
Long Chord = 785.2806
Mid. Ord. = 0.7711
P.C. Station 5215+81.02 N 610,844.7370 E 2,168,996.8645
P.T. Station 5223+66.30 N 610,309.7333 E 2,168,422.0283
C.C. N 683,750.7099 E 2,100,606.4141
Back = S 46° 49' 49.53" W
Ahead = S 47° 16' 49.89" W
Chord Bear = S 47° 03' 19.71" W

Course from PT SUP2-7 to SUP201 S 47° 16' 49.89" W Dist 39.9744

Point SUP201 N 610,282.6142 E 2,168,392.6598 Sta 5224+06.28

==========
Ending chain SUP2 description

UNITEDTRAYLOR
JOINT VENTURE

INFRASTRUCTURE
CONSULTING & ENGINEERING

PRELIMINARY
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

REFERENCE DATA SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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EXISTING DATA

I–95 CL

Beginning chain 95CL description
==========

Point 95100 N 617,693.0306 E 2,175,508.6893 Sta 5120+00.00

Course from 95100 to PC 95CL-1 S 33° 21' 50.01" W Dist 1,107.1397

Curve Data

Curve 95CL-1
P.I. Station 5148+55.32 N 615,308.2804 E 2,173,938.3917
Delta = 13° 54' 59.88" (RT)
Degree = 0° 24' 00.00"
Tangent = 1,748.1831
Length = 3,479.1599
Radius = 14,323.9500
External = 106.2852
Long Chord = 3,470.6138
Mid. Ord. = 105.5024
P.C. Station 5131+07.14 N 616,768.3535 E 2,174,899.8128
P.T. Station 5165+86.30 N 614,122.2965 E 2,172,654.0295
C.C. N 624,645.8741 E 2,162,936.5268
Back = S 33° 21' 50.01" W
Ahead = S 47° 16' 49.89" W
Chord Bear = S 40° 19' 19.95" W

Course from PT 95CL-1 to 95101 S 47° 16' 49.89" W Dist 563.7004

Point 95101 N 613,739.8768 E 2,172,239.8877 Sta 5171+50.00

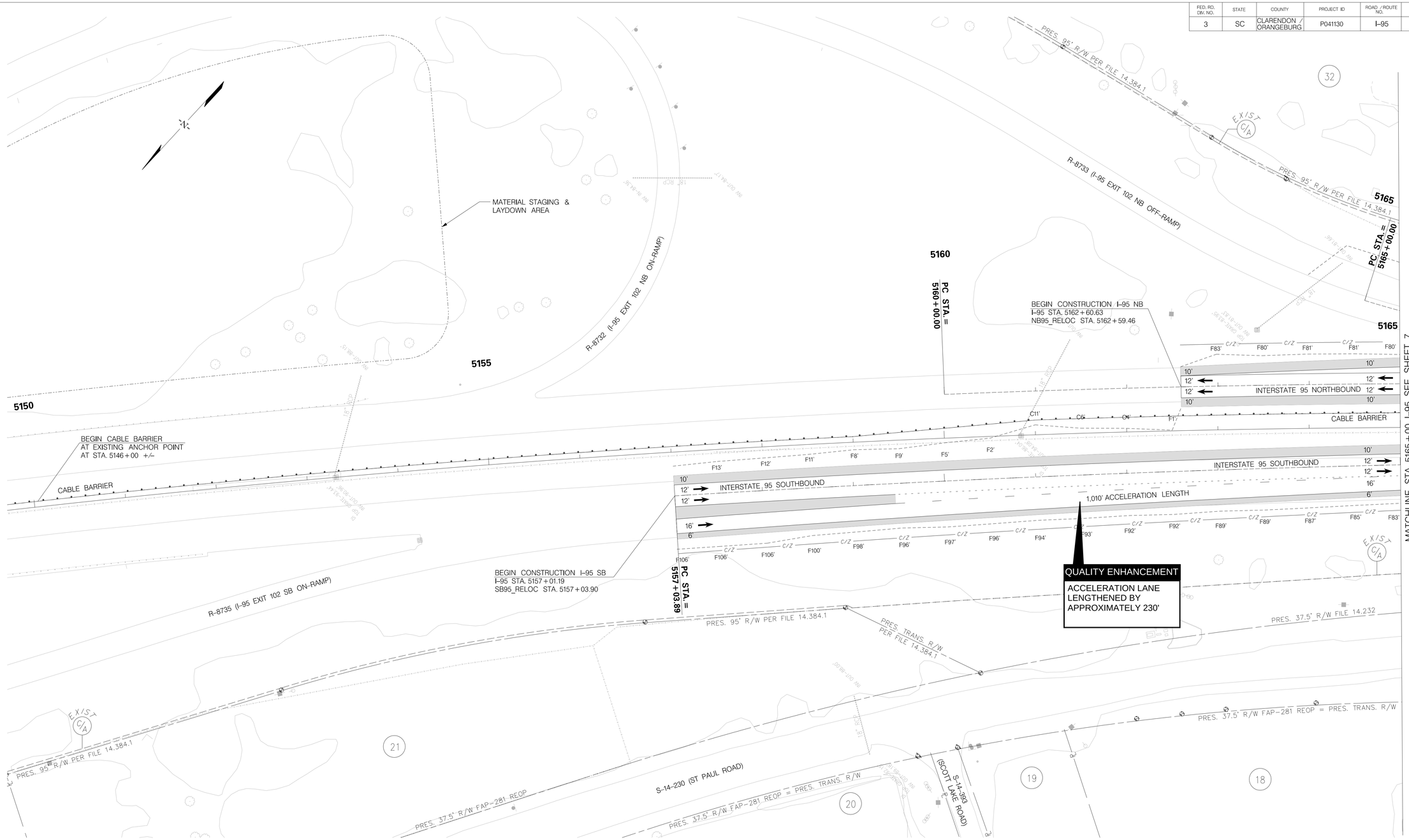
Course from 95101 to PC 95CL-2 S 47° 16' 49.89" W Dist 11,617.3522

Curve Data

Curve 95CL-2
P.I. Station 5312+07.29 N 604,203.2773 E 2,161,912.2192
Delta = 31° 42' 00.04" (LT)
Degree = 0° 40' 00.12"
Tangent = 2,439.9402
Length = 4,754.7601
Radius = 8,593.9300
External = 339.6550
Long Chord = 4,694.3472
Mid. Ord. = 326.7413
P.C. Station 5287+67.35 N 605,858.5557 E 2,163,704.8044
P.T. Station 5335+22.11 N 601,852.9952 E 2,161,256.8702
C.C. N 599,544.7324 E 2,169,535.0074
Back = S 47° 16' 49.89" W
Ahead = S 15° 34' 49.85" W
Chord Bear = S 31° 25' 49.87" W

==========
Ending chain 95CL description

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	6



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
SCALE : 1" = 50'

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A-5F

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 50'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

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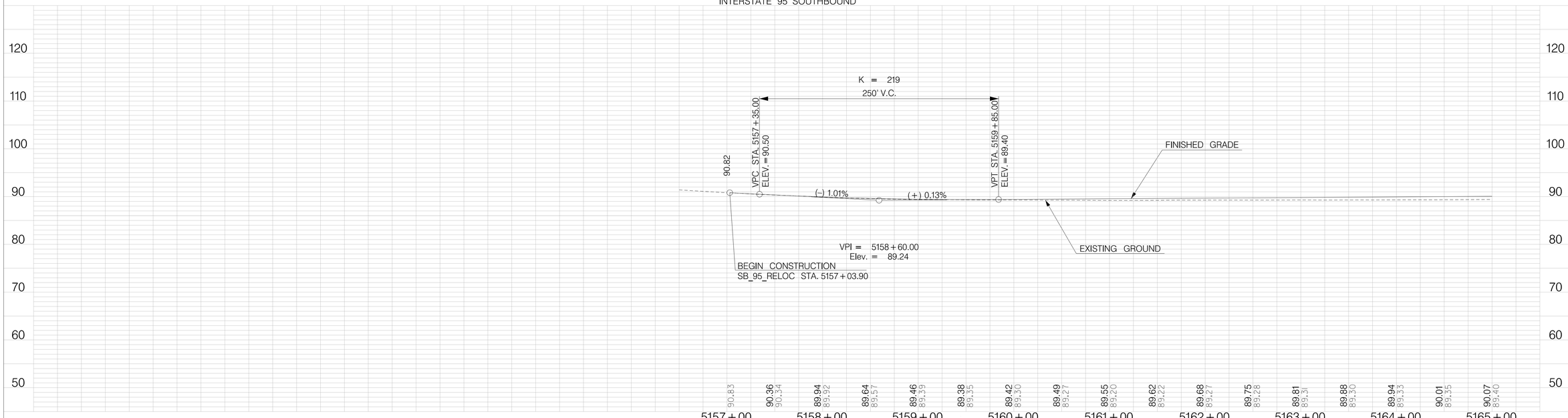
FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	6A

INTERSTATE 95 NORTHBOUND

INTERSTATE 95 SOUTHBOUND



UNITEDTRAYLOR
JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE
CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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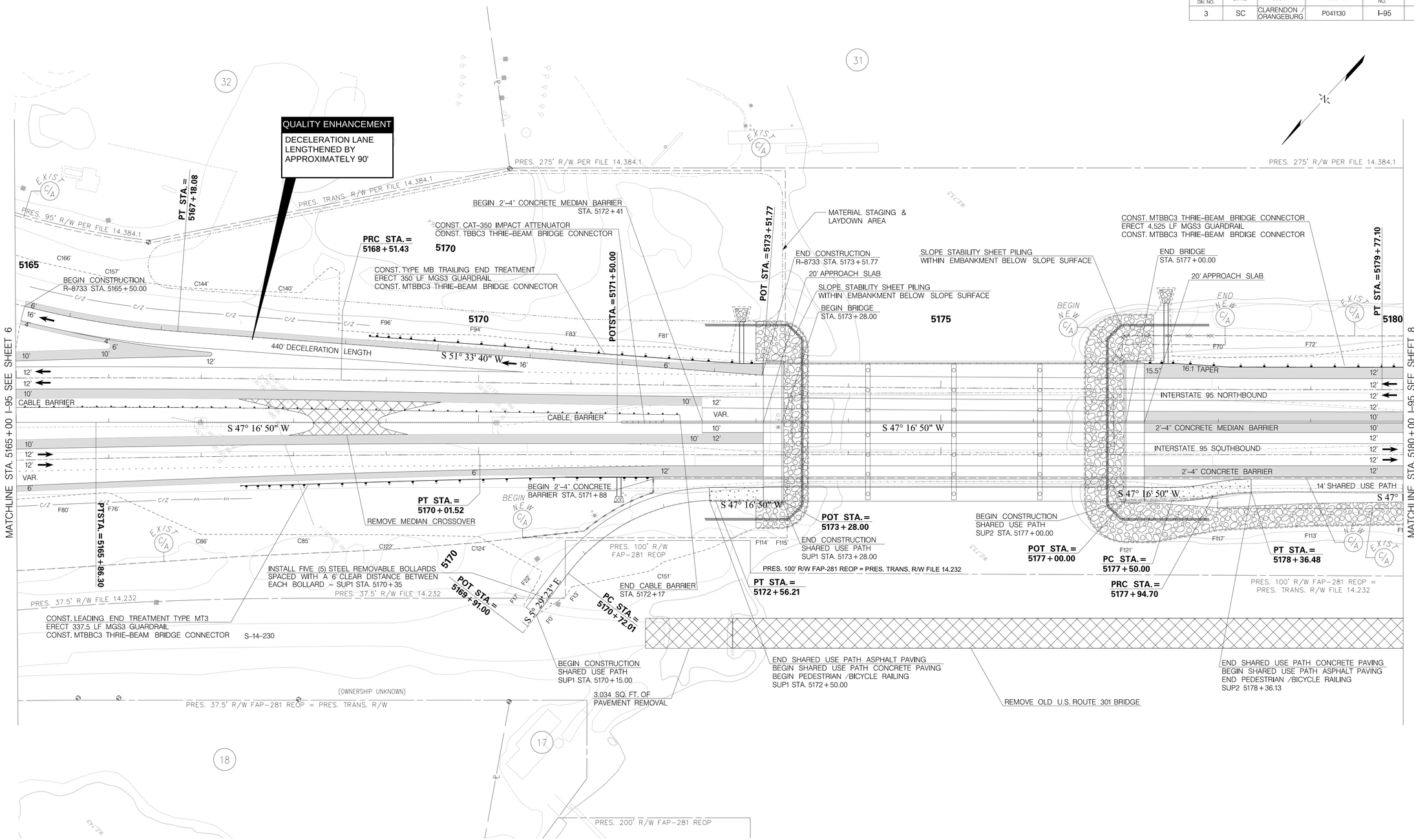
FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	7



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8/28/2025

UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
SCALE: 1" = 50'

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A-5F

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 50'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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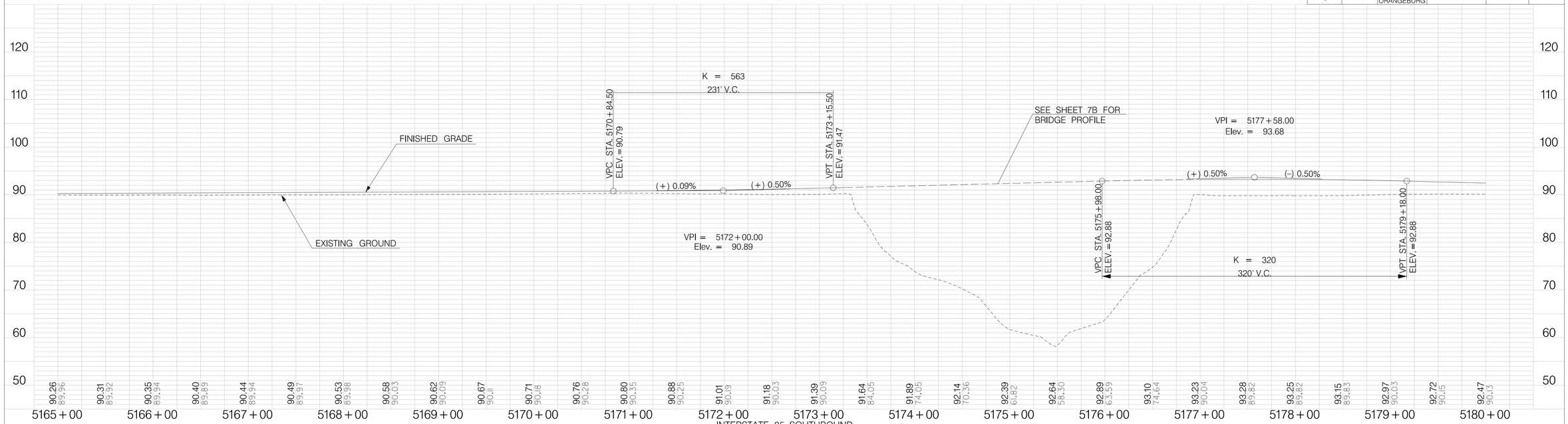
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

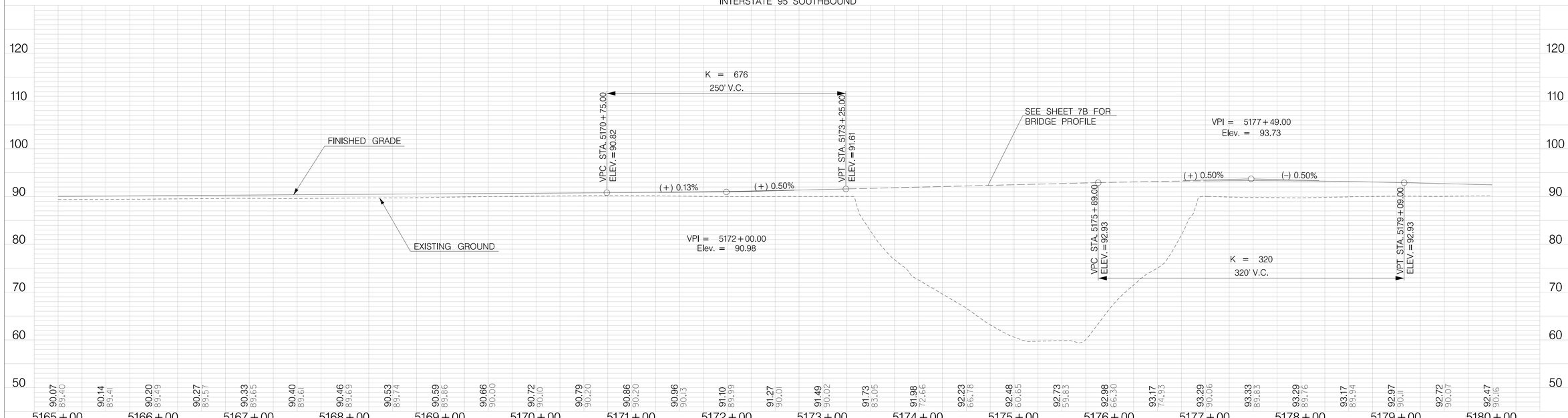
I-95 OVER LAKE MARION BRIDGE REPLACEMENT

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	7A

INTERSTATE 95 NORTHBOUND



INTERSTATE 95 SOUTHBOUND



UNITEDTRAYLOR
JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE
CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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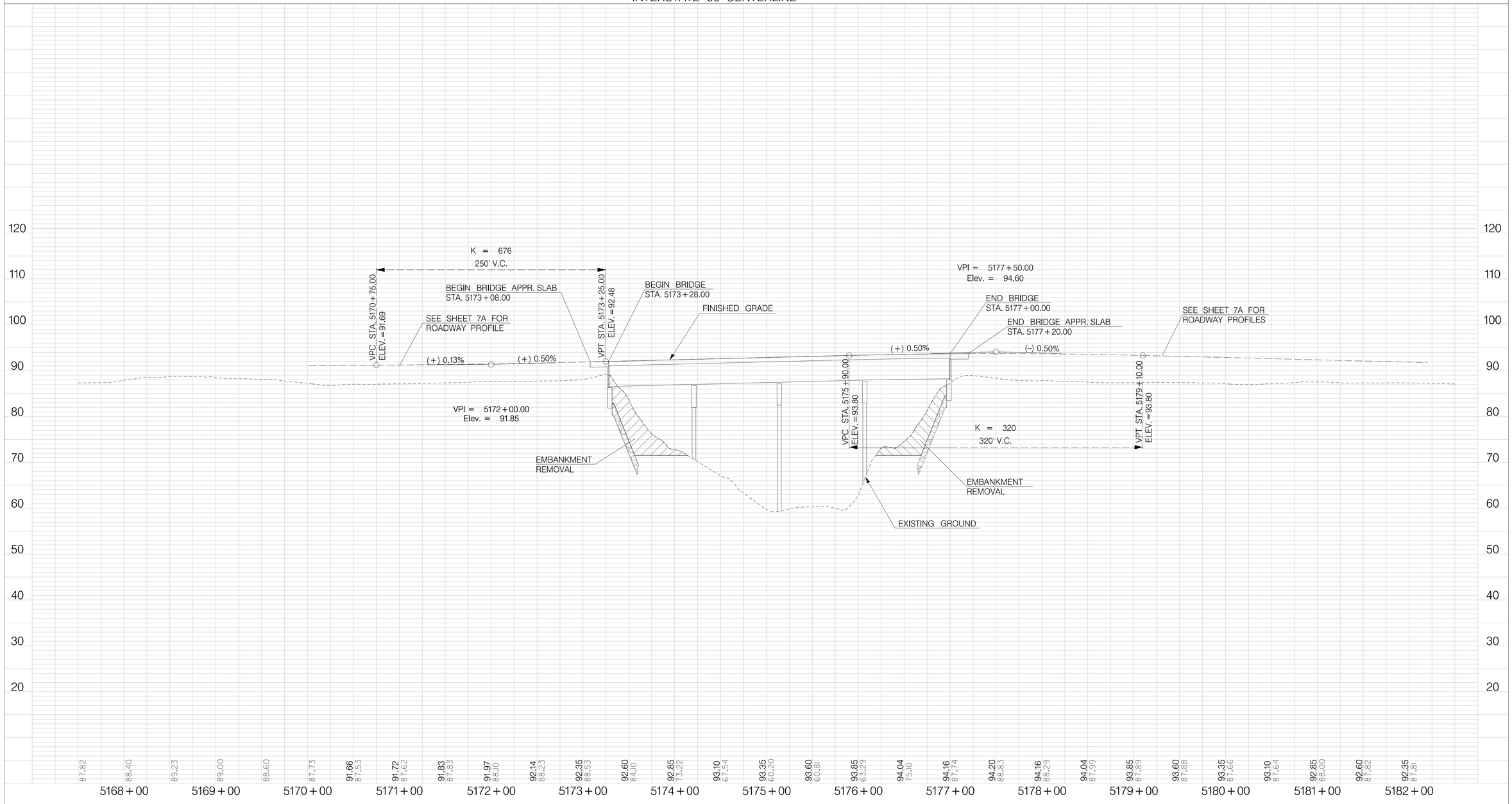
3	SC	CLARENDON ORANGEBURG	P041130	I-95	7B

INTERSTATE 95 CENTERLINE



UNITEDTRAYLOR
JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE
CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 BRIDGE REPLACEMENTS OVER LAKE MARION

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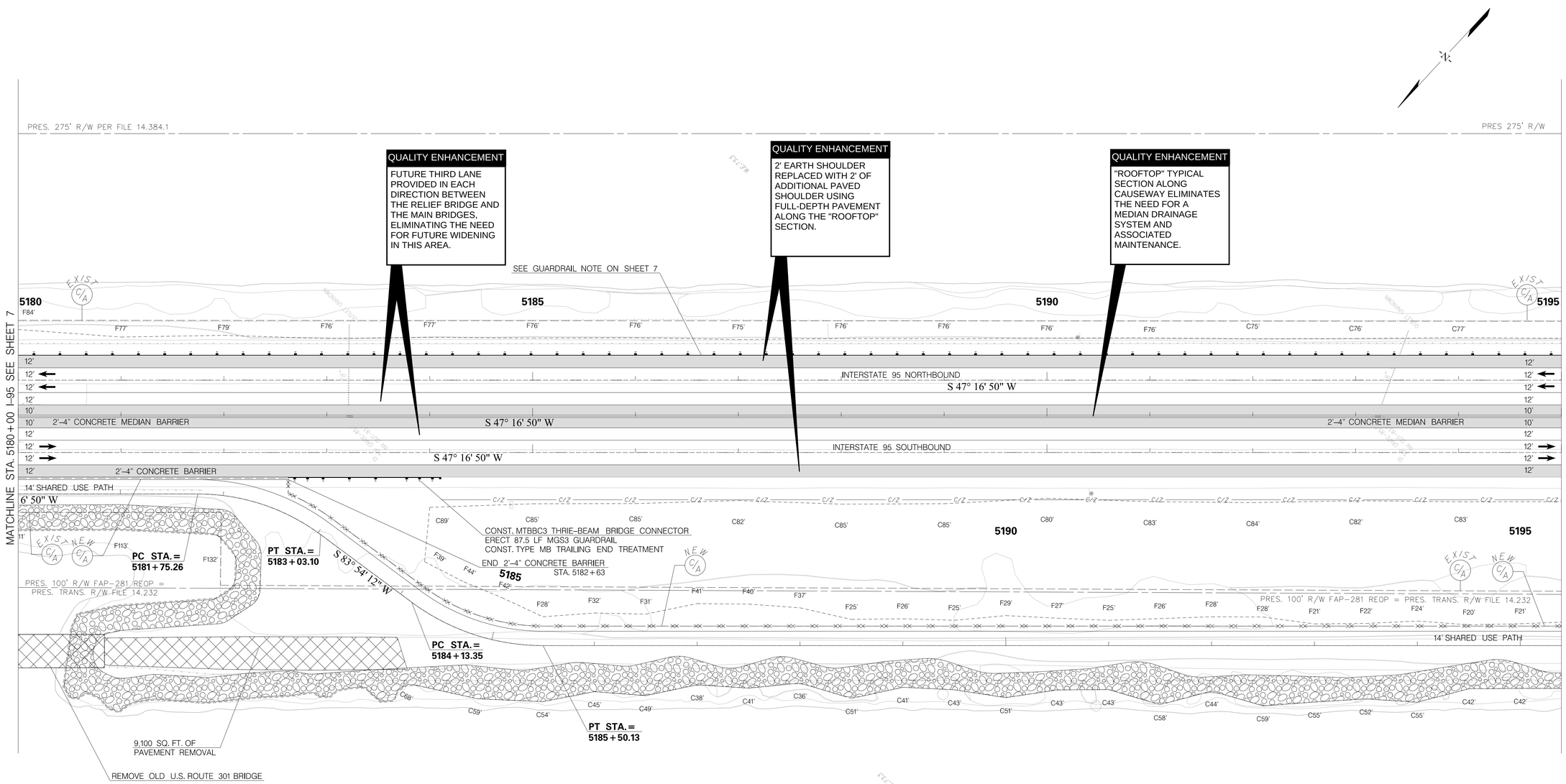
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	8



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
SCALE : 1" = 50'

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A–5F

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 50'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

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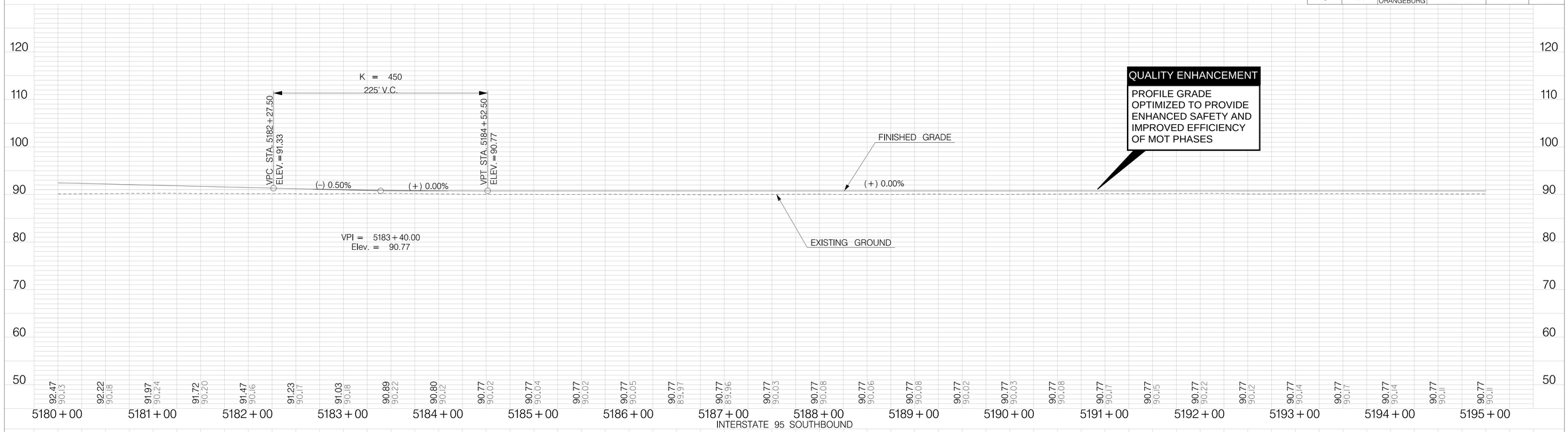
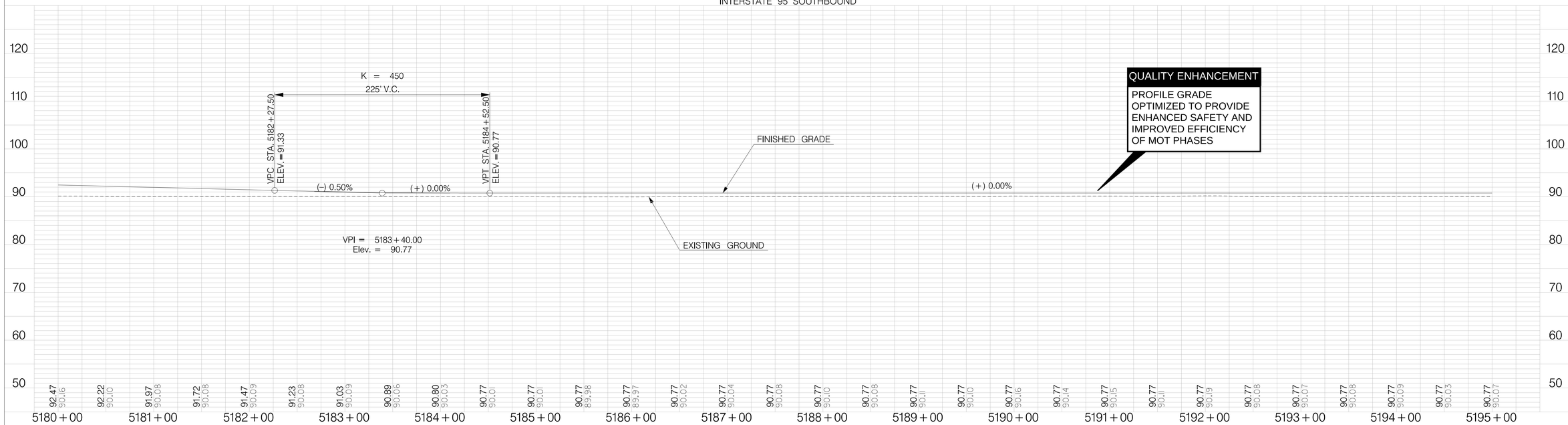
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	8A

INTERSTATE 95 NORTHBOUND



INTERSTATE 95 SOUTHBOUND



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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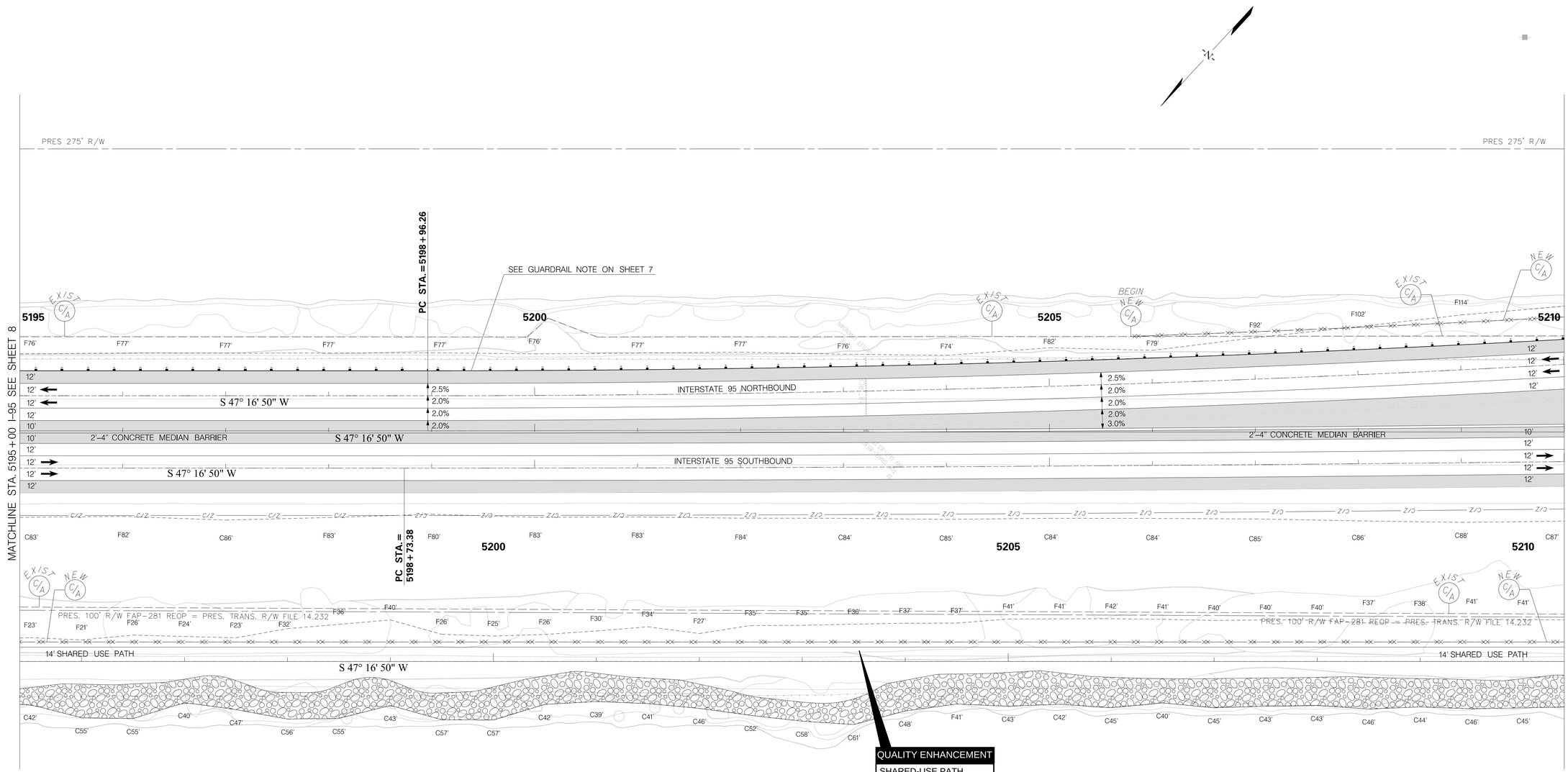
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	9



QUALITY ENHANCEMENT

SHARED-USE PATH ALIGNMENT SHIFTED TO AVOID OPEN WATER CONFLICTS WITH THE SLOPE ARMORING AND MAINTAIN A TANGENT ALIGNMENT ALONG THE CAUSEWAY

UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'

SCALE : 1" = 50'

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A–5F

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY

NOT FOR CONSTRUCTION

SCALE: 1" = 50'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

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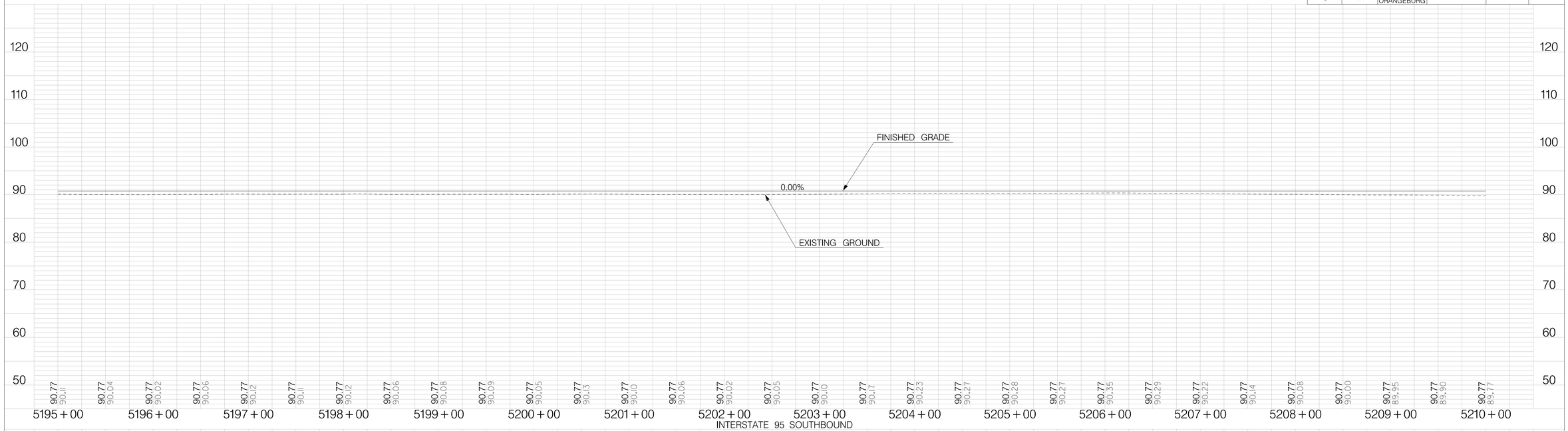
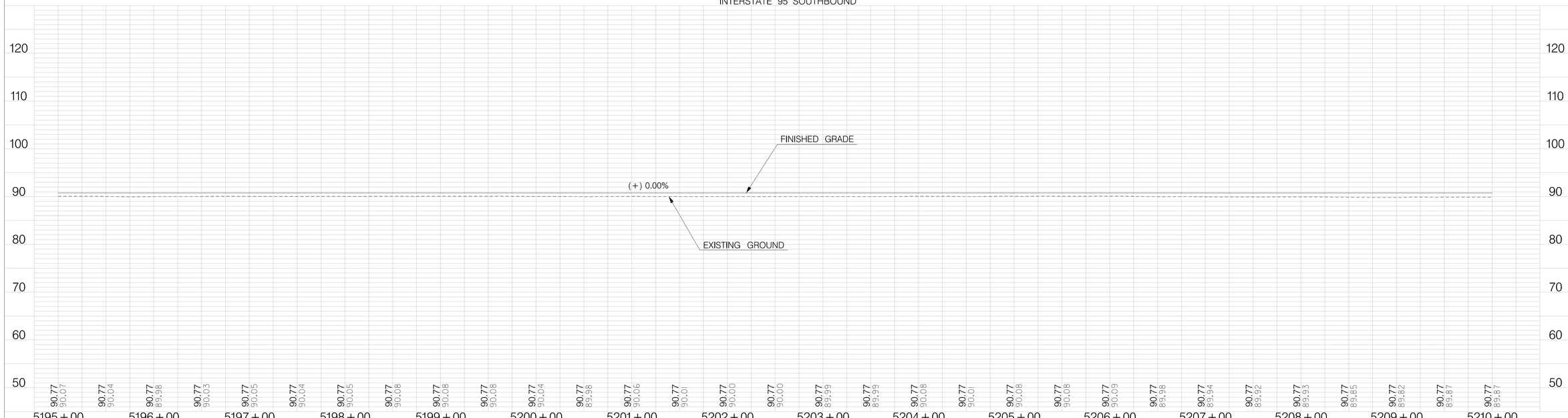
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	9A

INTERSTATE 95 NORTHBOUND



INTERSTATE 95 SOUTHBOUND



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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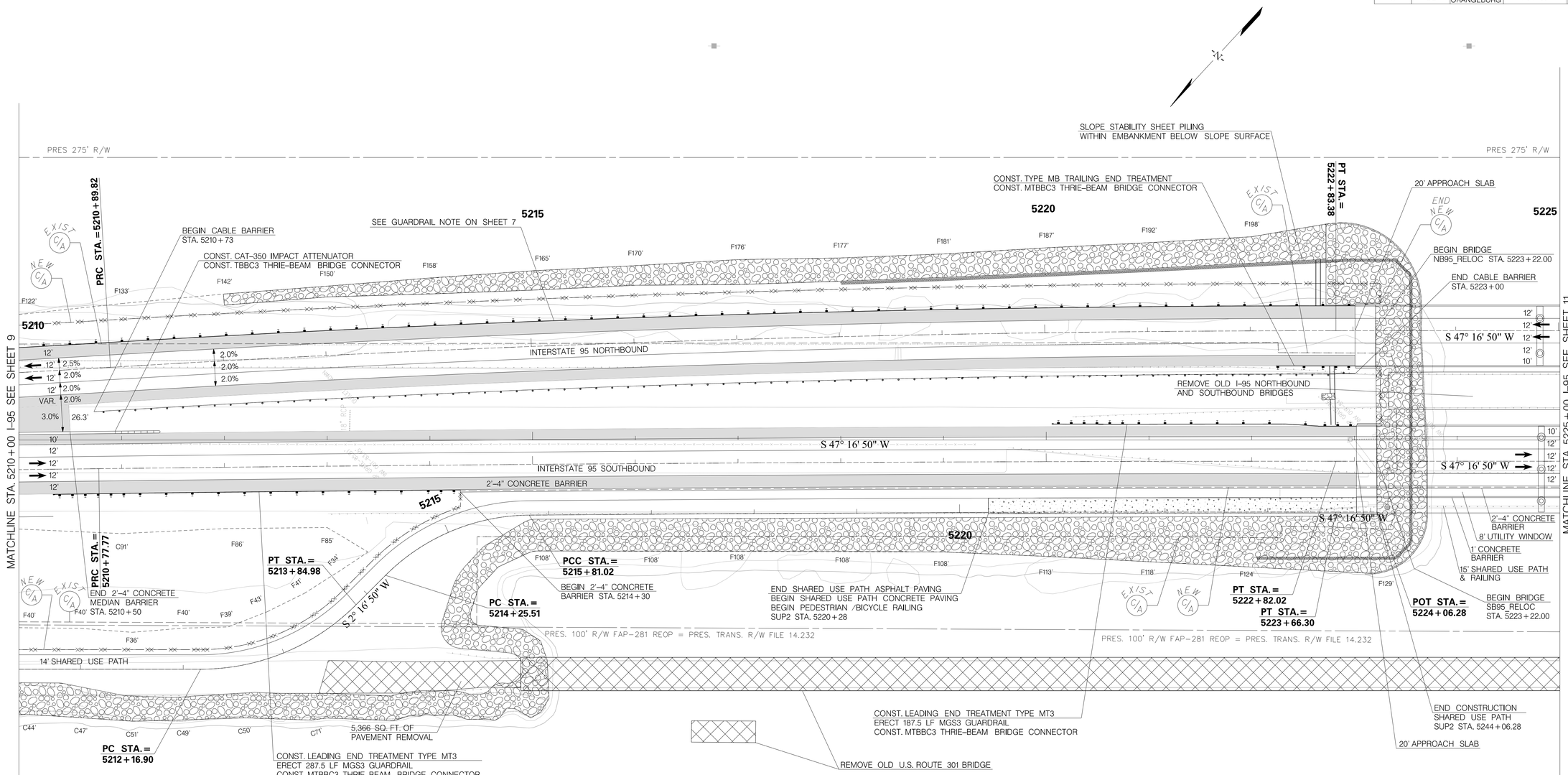
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	10



UNITEDTRAYLOR
JOINT VENTURE

0 25' 50' 100'
SCALE : 1" = 50'

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A-5F

INFRASTRUCTURE
CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 50'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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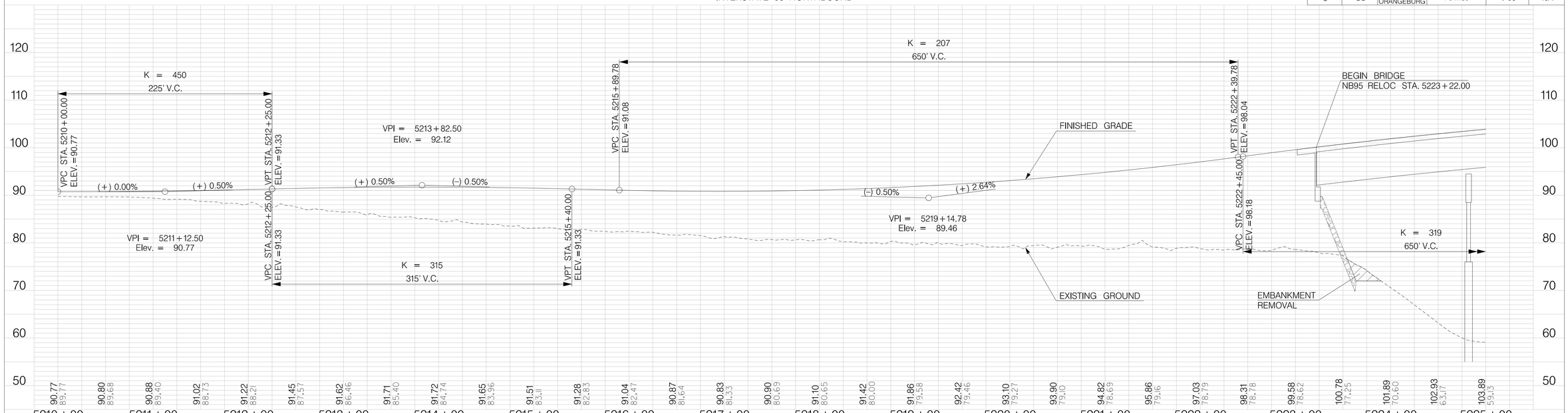
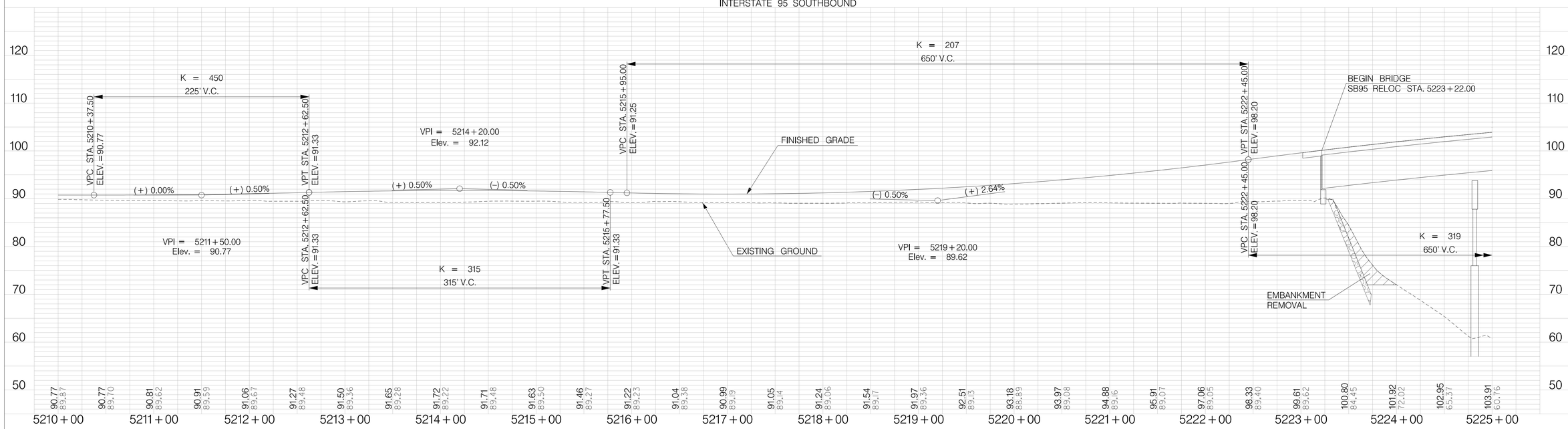
8/28/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	10A

INTERSTATE 95 NORTHBOUND



INTERSTATE 95 SOUTHBOUND



UNITEDTRAYLOR
JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE
CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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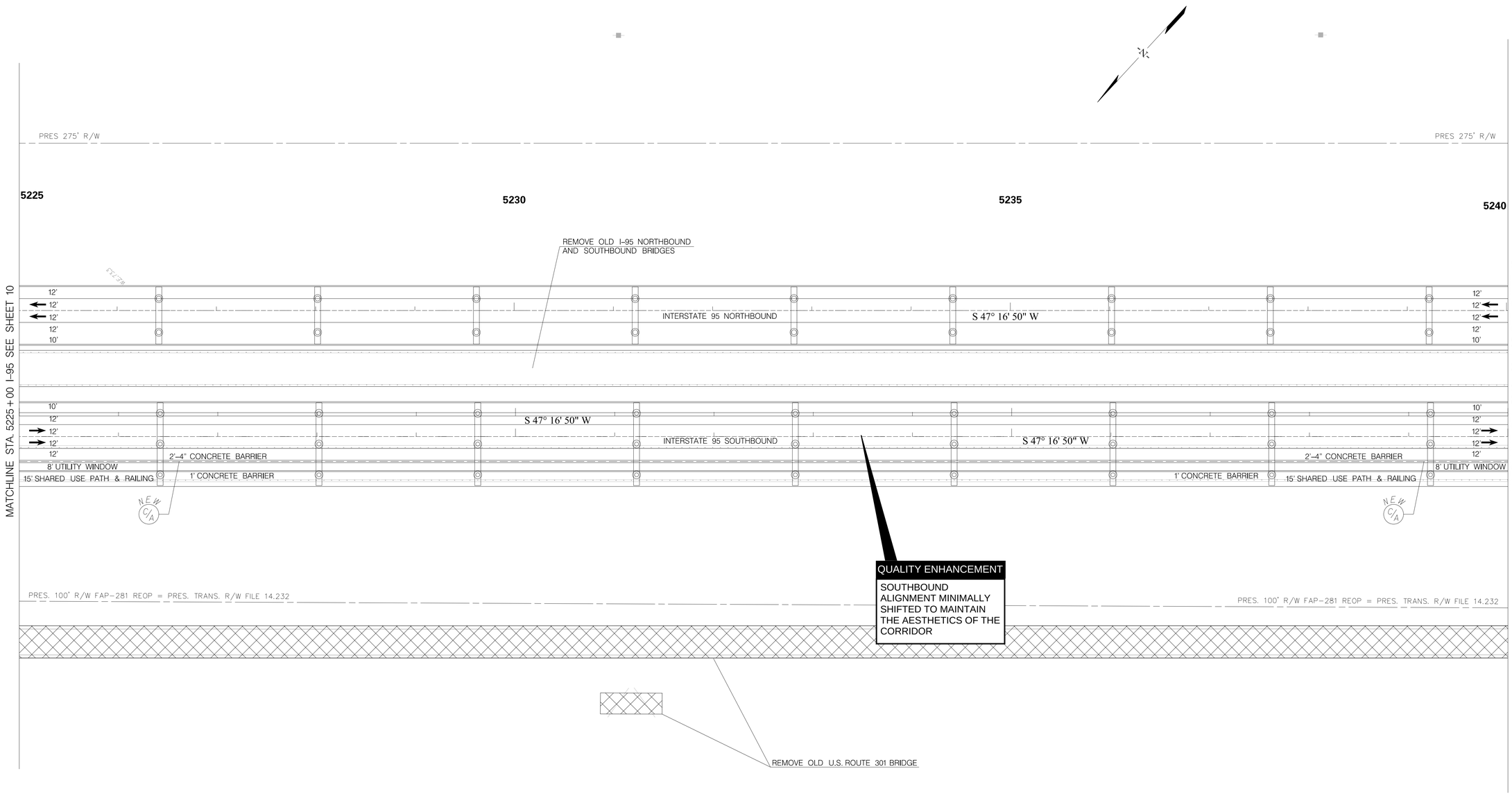
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	11



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
SCALE : 1" = 50'

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A–5F

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 50'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

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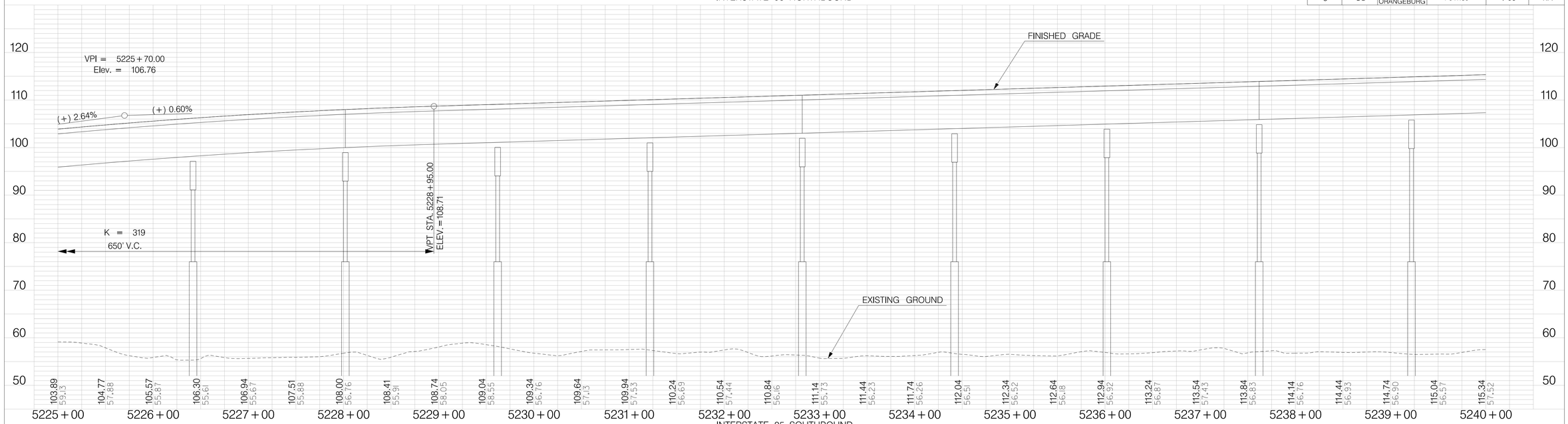
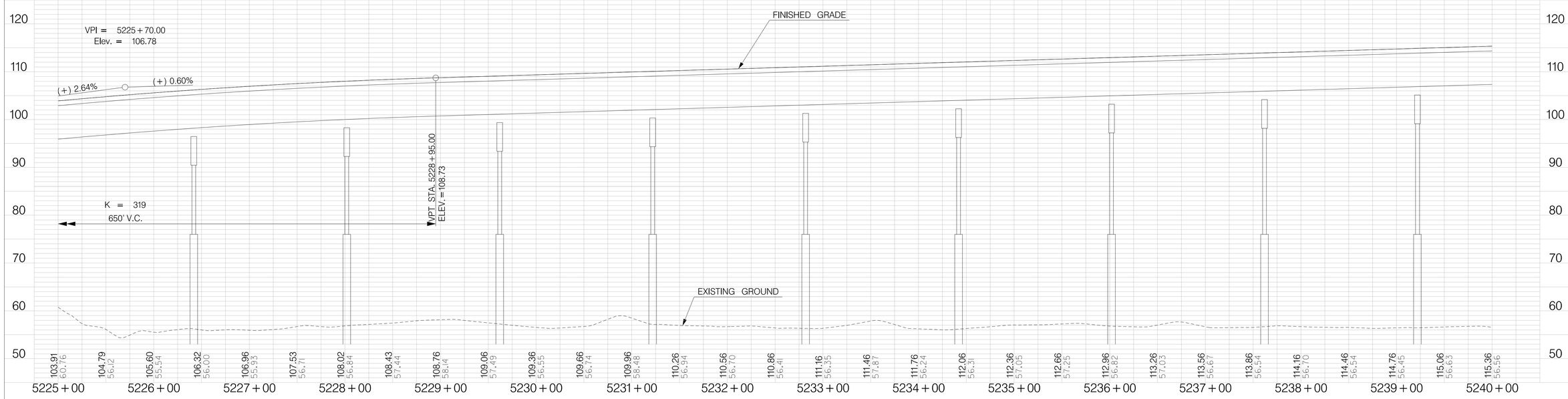
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	11A

INTERSTATE 95 NORTHBOUND



INTERSTATE 95 SOUTHBOUND



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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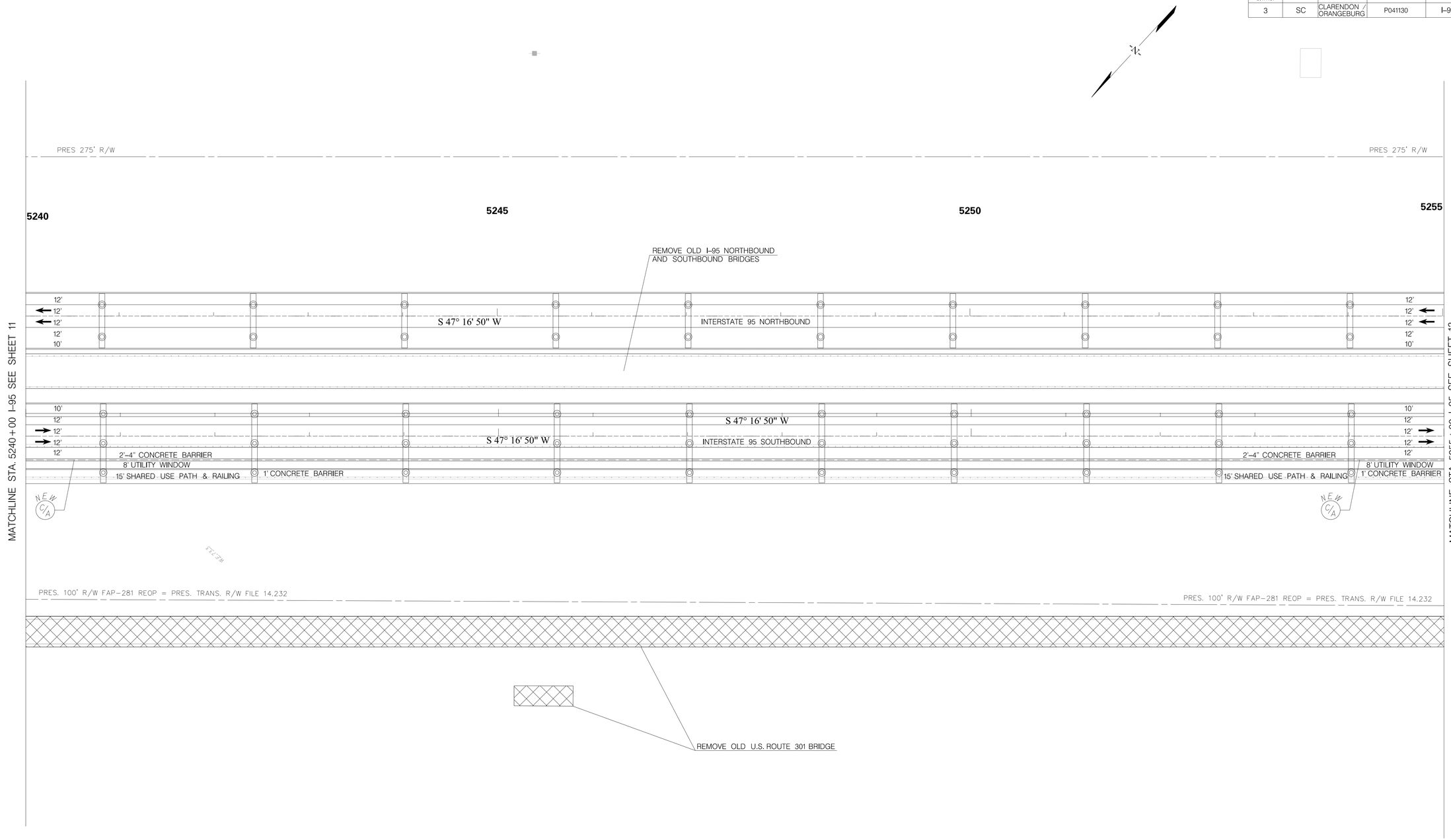
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	12



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
SCALE : 1" = 50'

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A-5F

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 50'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

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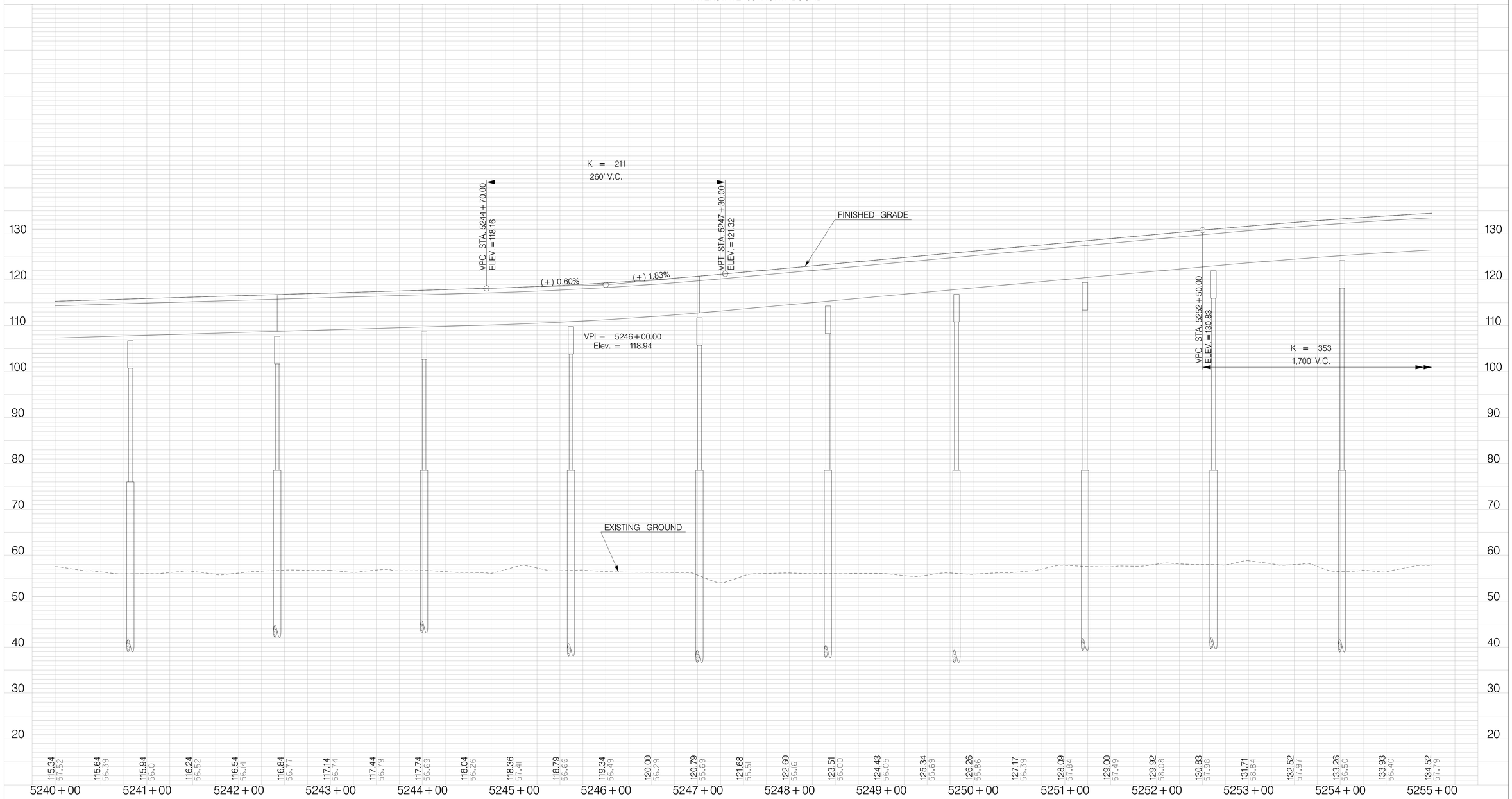
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	12A

INTERSTATE 95 NORTHBOUND



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 BRIDGE REPLACEMENTS OVER LAKE MARION

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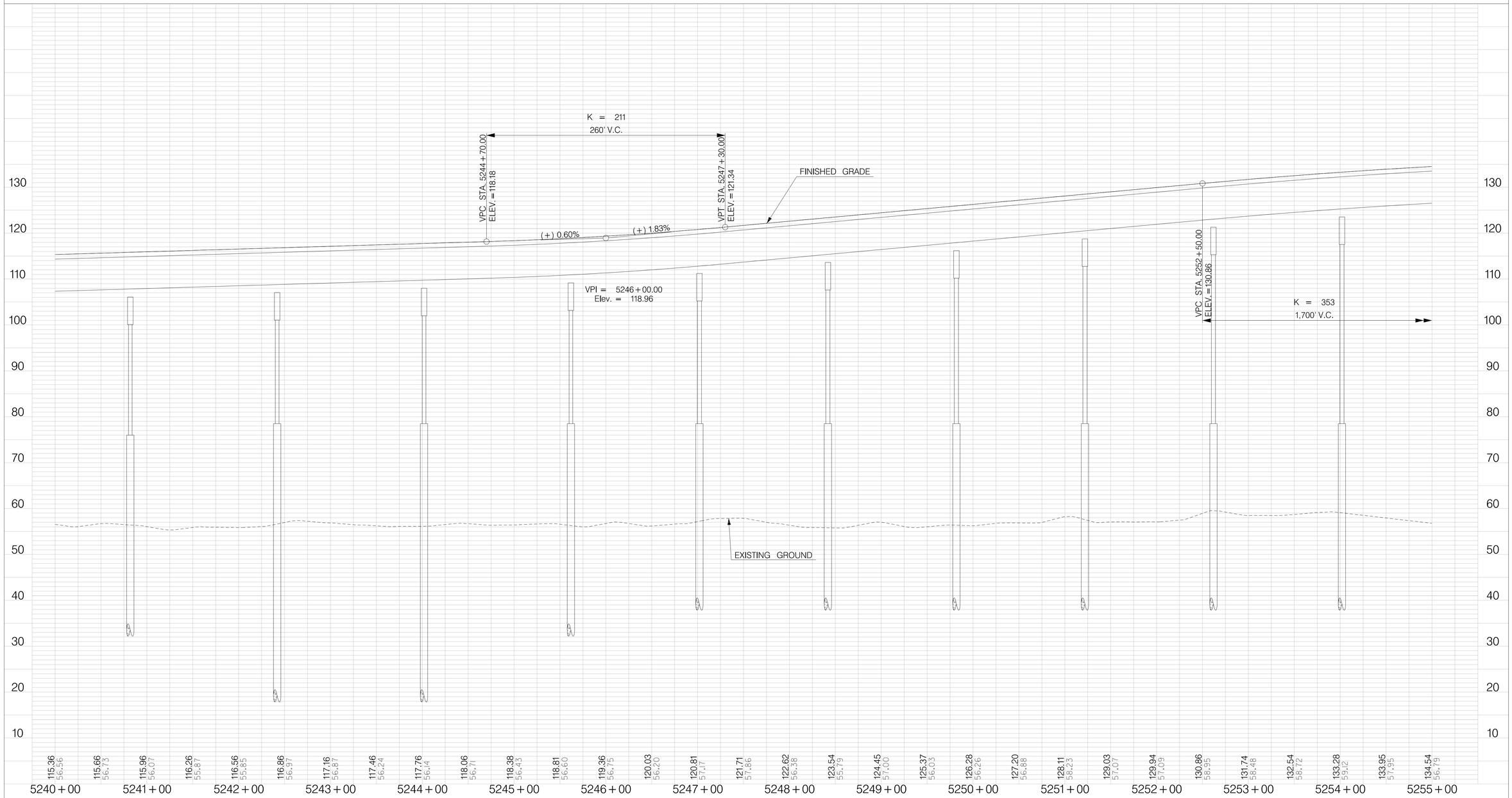
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	12B

INTERSTATE 95 SOUTHBOUND



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 BRIDGE REPLACEMENTS OVER LAKE MARION

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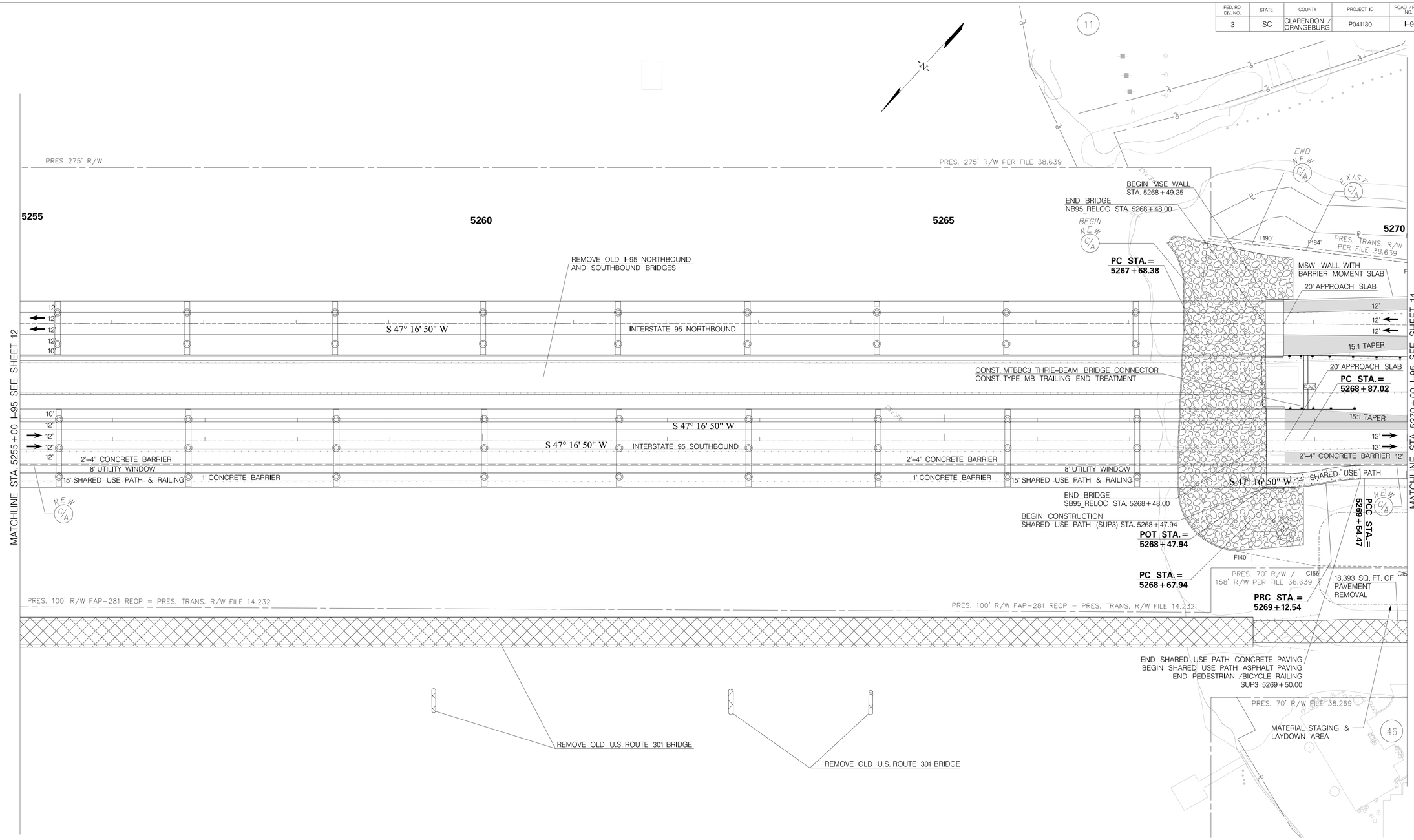
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	13



UNITEDTRAYLOR
JOINT VENTURE

0 25' 50' 100'
SCALE: 1" = 50'

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A-5F

INFRASTRUCTURE
CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 50'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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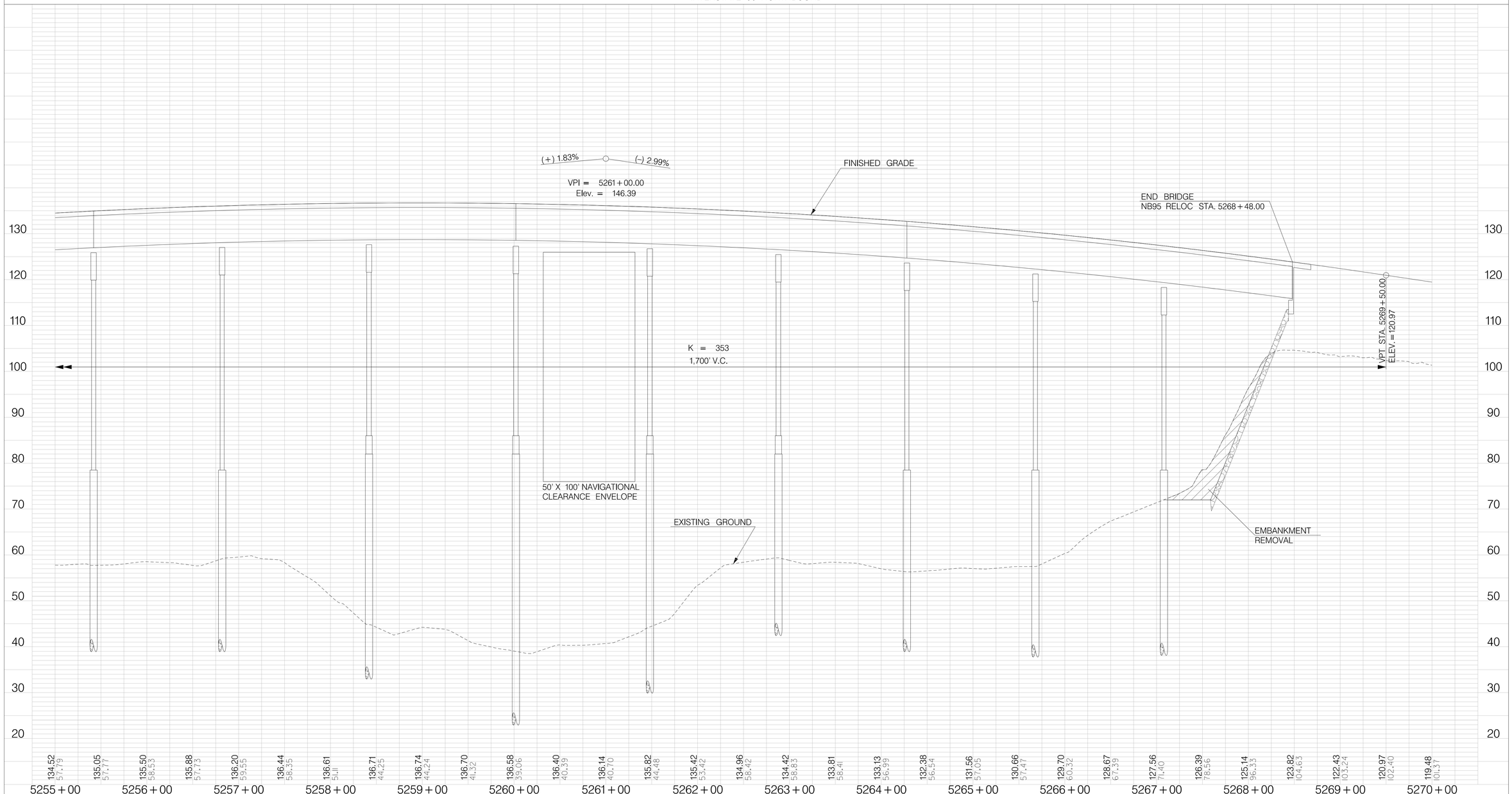
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	13A

INTERSTATE 95 NORTHBOUND



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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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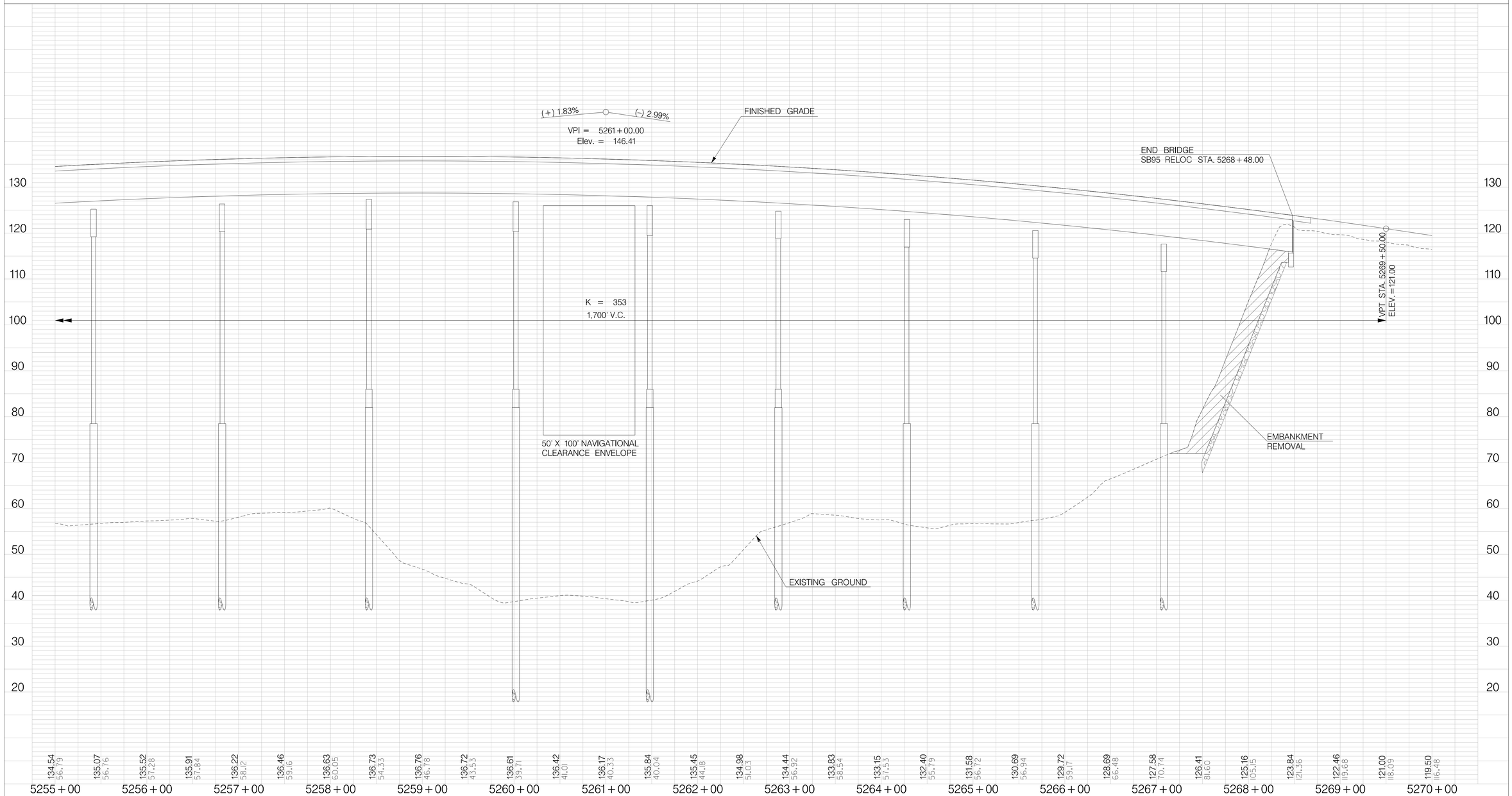
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 BRIDGE REPLACEMENTS OVER LAKE MARION

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	13B

INTERSTATE 95 SOUTHBOUND



UNITEDTRAYLOR
JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE
CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 BRIDGE REPLACEMENTS OVER LAKE MARION

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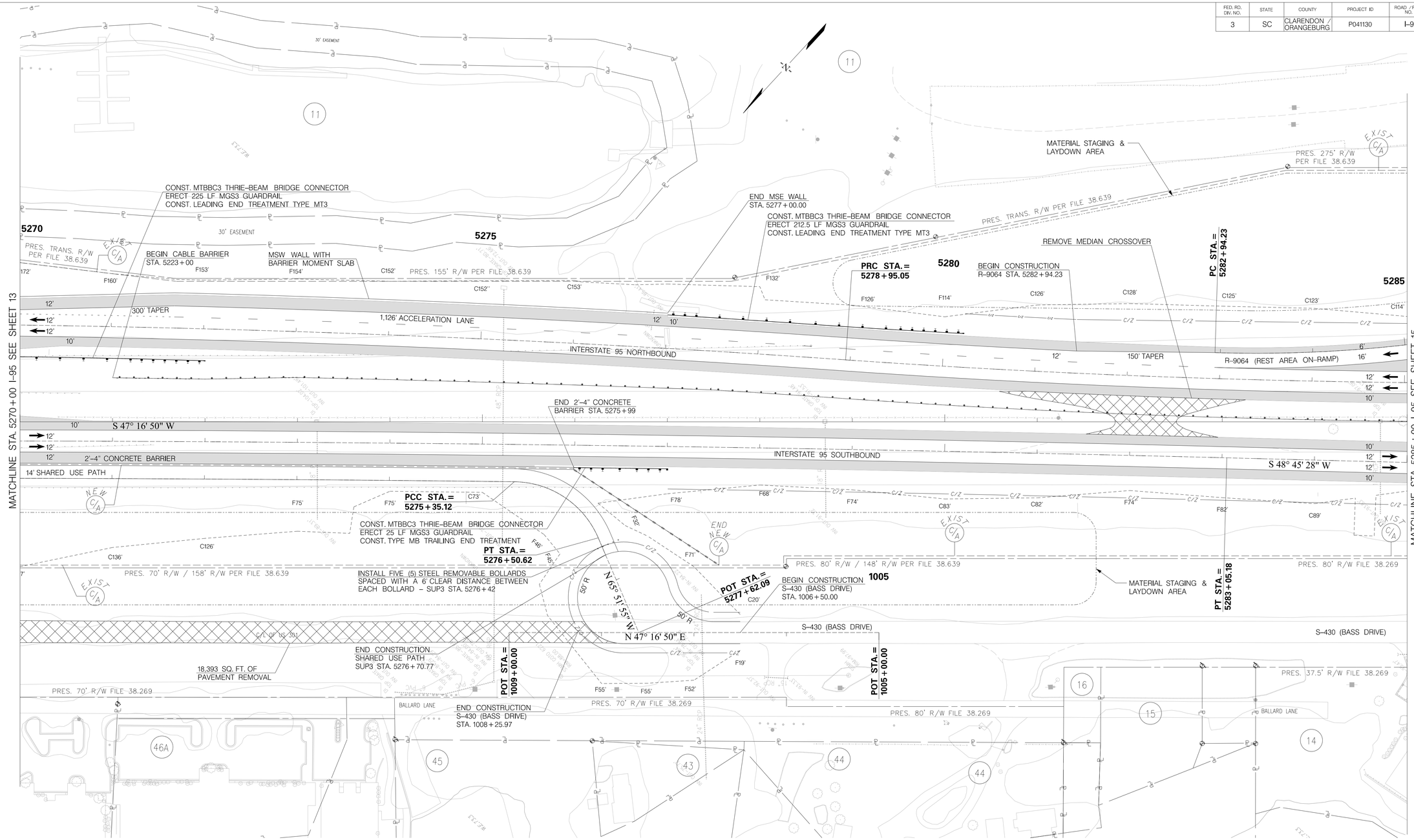
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	14



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

0 25' 50' 100'
SCALE: 1" = 50'

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A–5F

INFRASTRUCTURE
CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 50'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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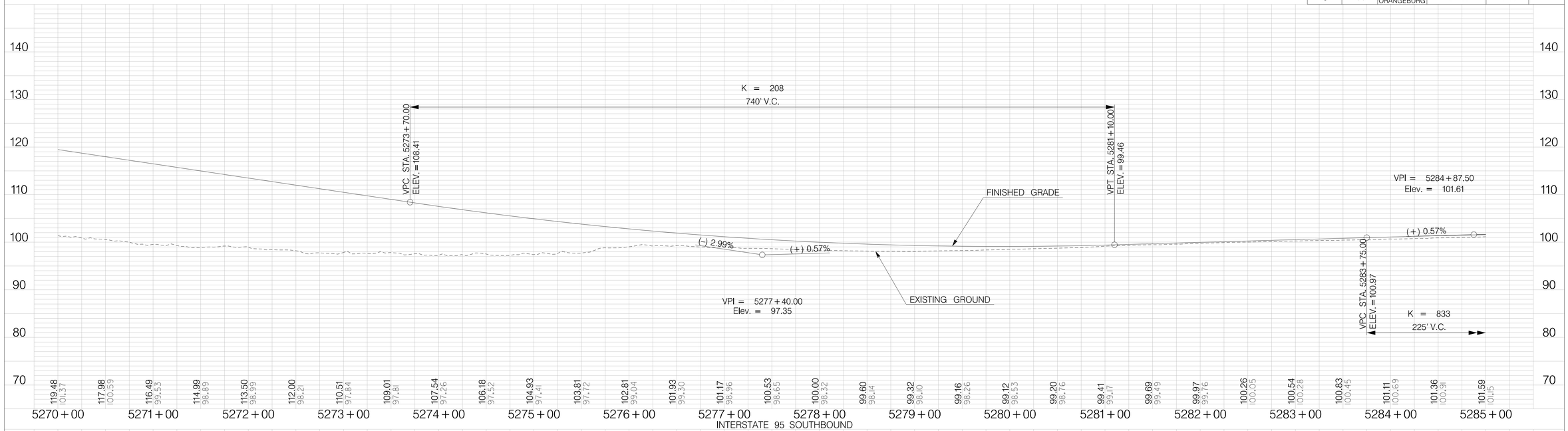
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

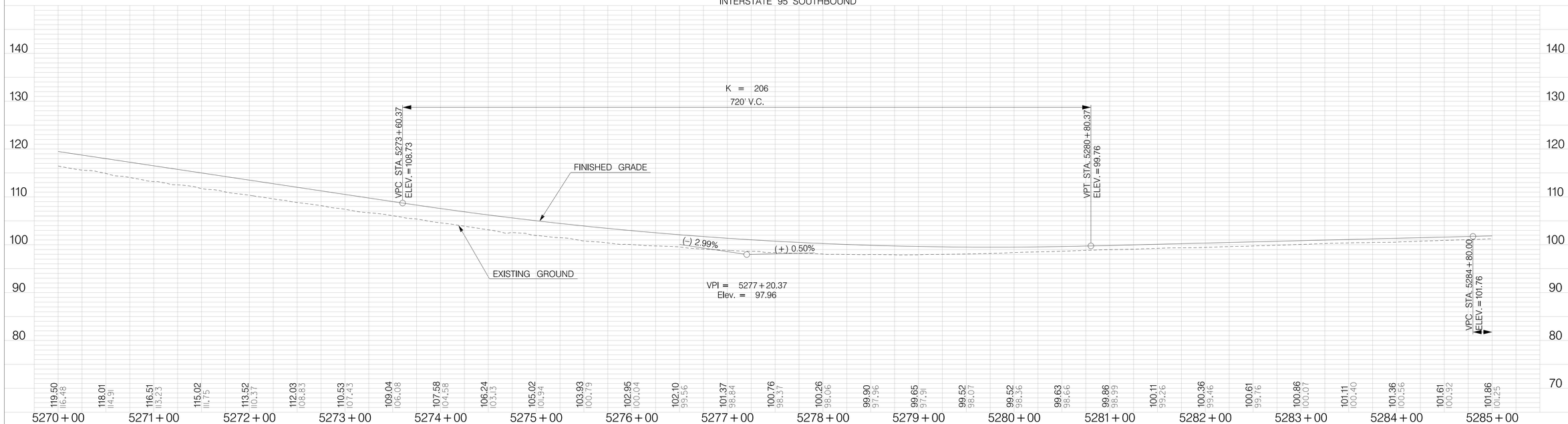
I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	14A

INTERSTATE 95 NORTHBOUND



INTERSTATE 95 SOUTHBOUND



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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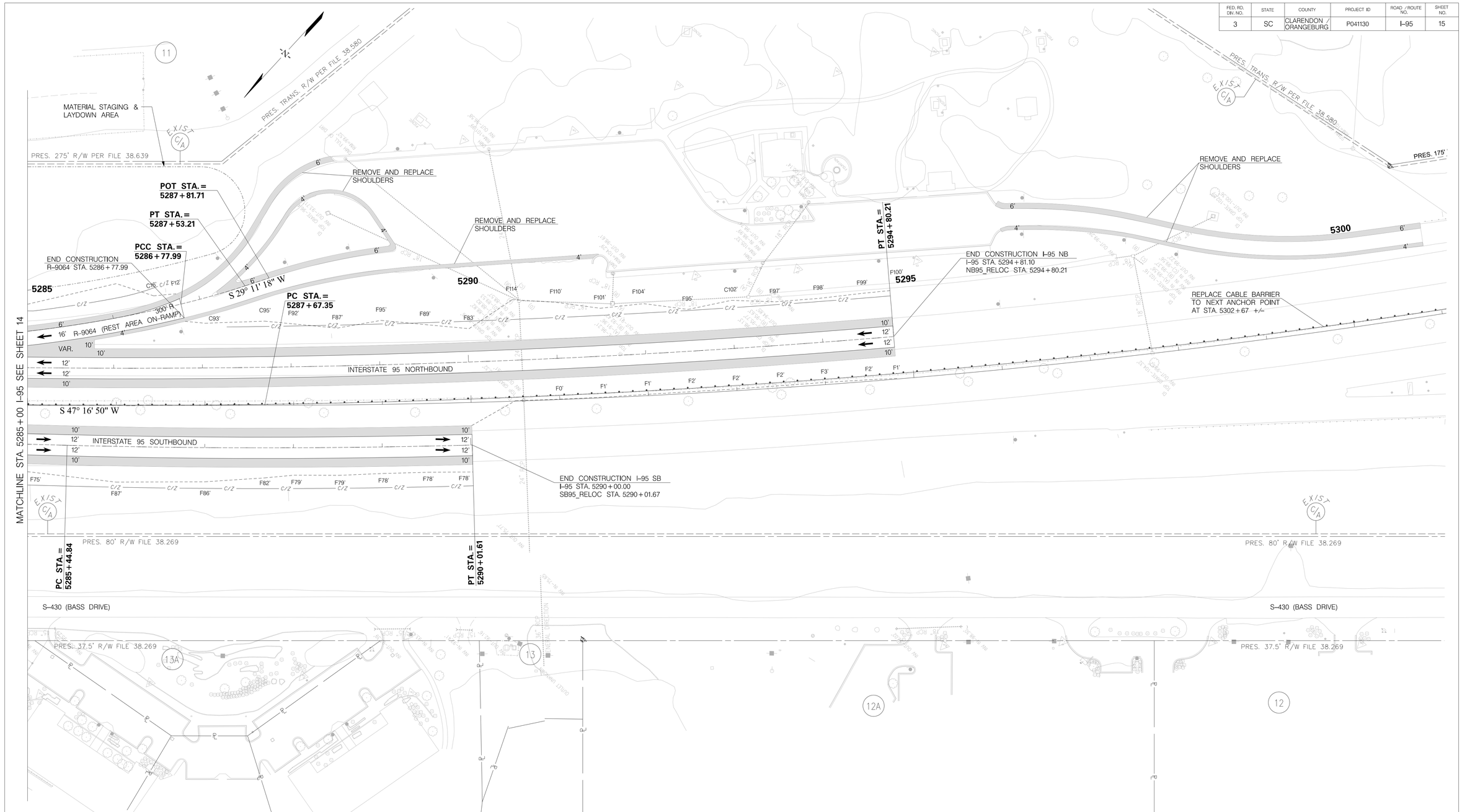
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	15



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
SCALE : 1" = 50'

ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE DATA SHEETS 5A-5F

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: 1" = 50'

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

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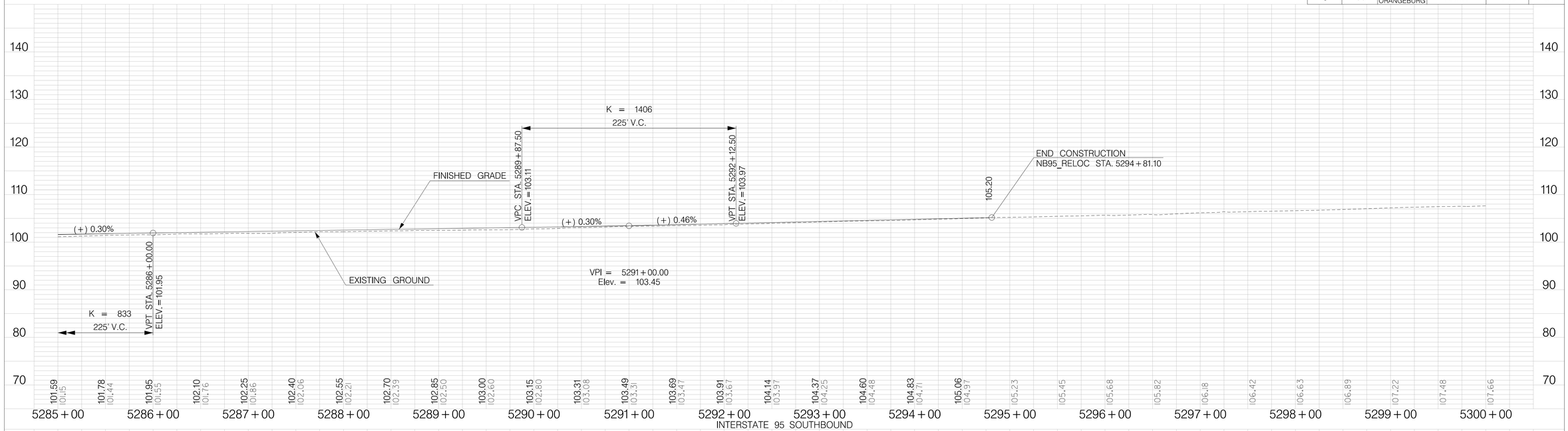
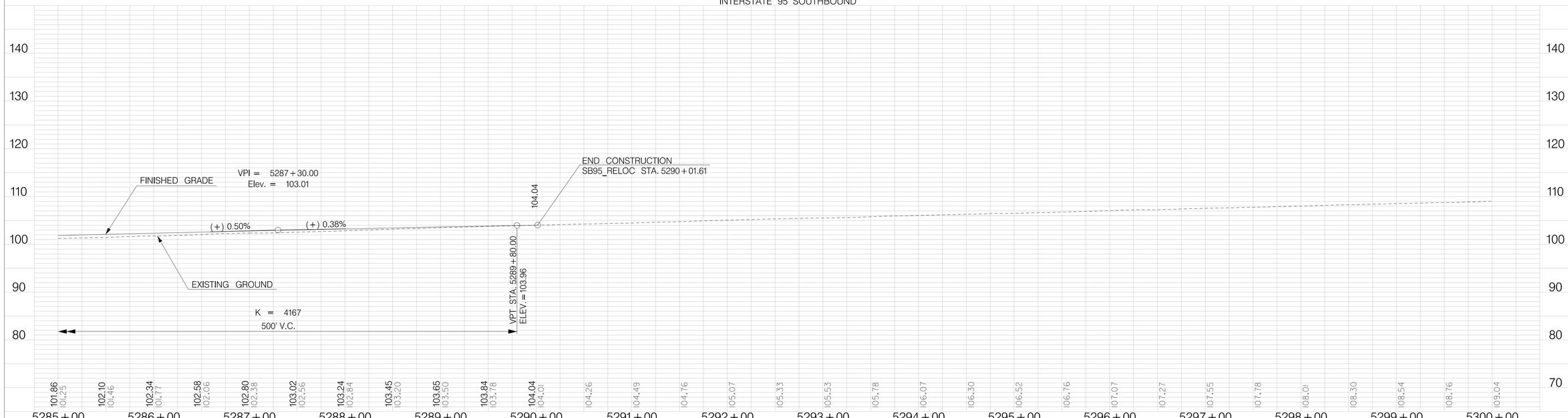
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	15A

INTERSTATE 95 NORTHBOUND



INTERSTATE 95 SOUTHBOUND



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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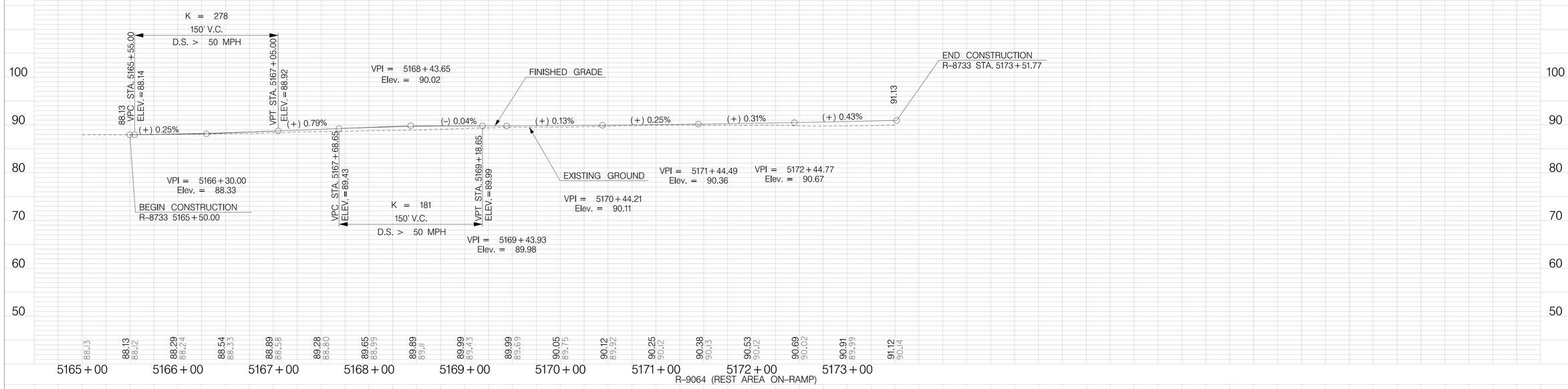
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	16A

R-8733 (EXIT 102 NB ON-RAMP)



R-9064 (REST AREA ON-RAMP)

UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	17A

BASS DRIVE (S-38-430)

UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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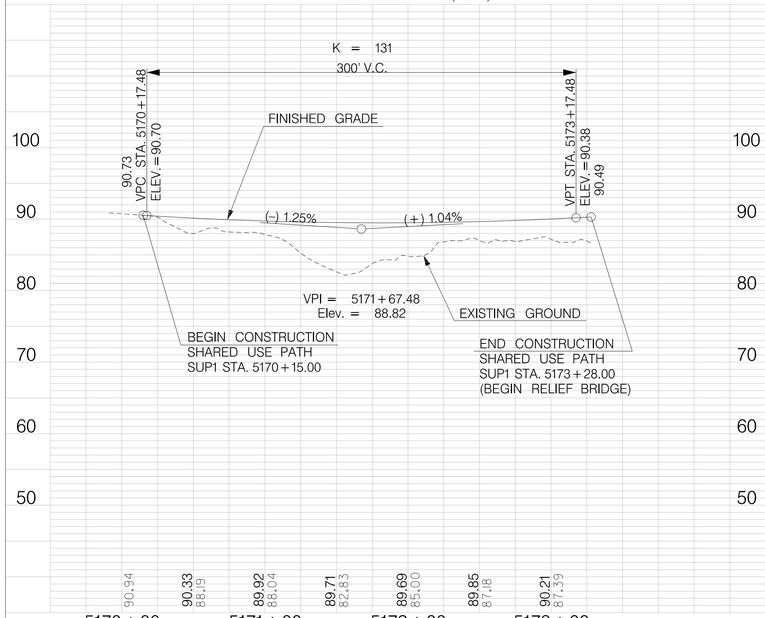
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	18A

SHARED USE PATH (SUP1)



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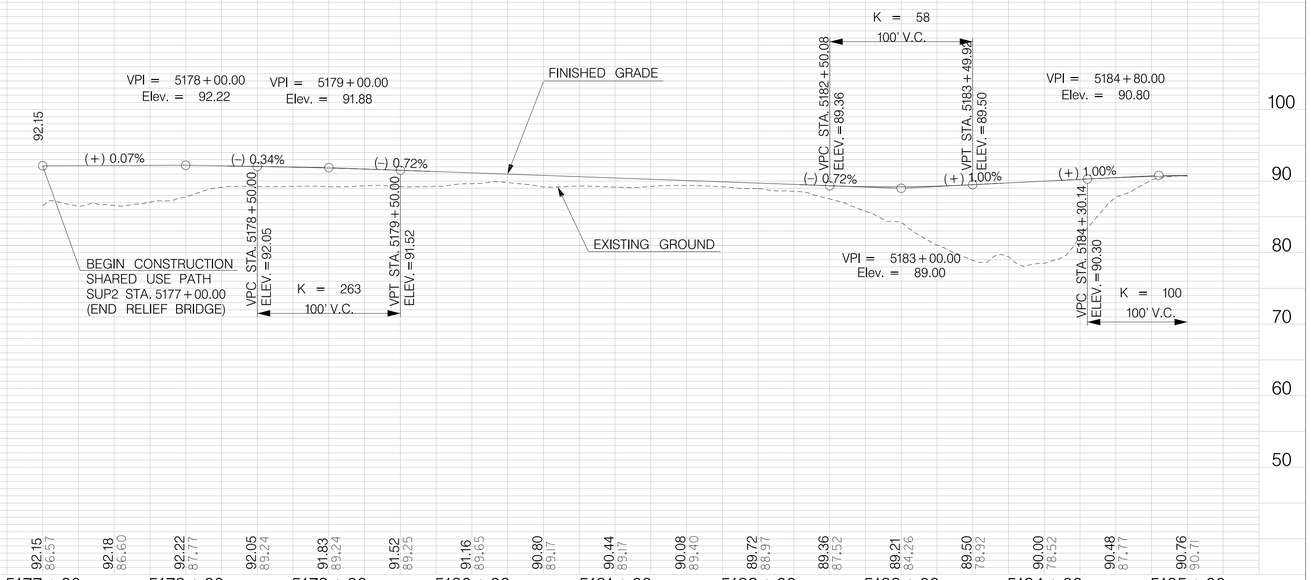

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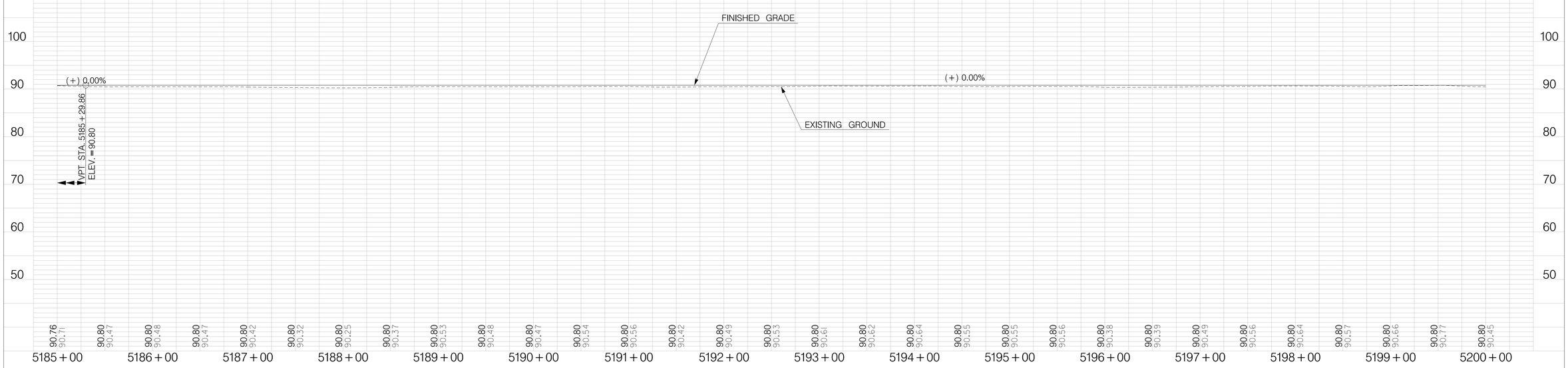

UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
6			
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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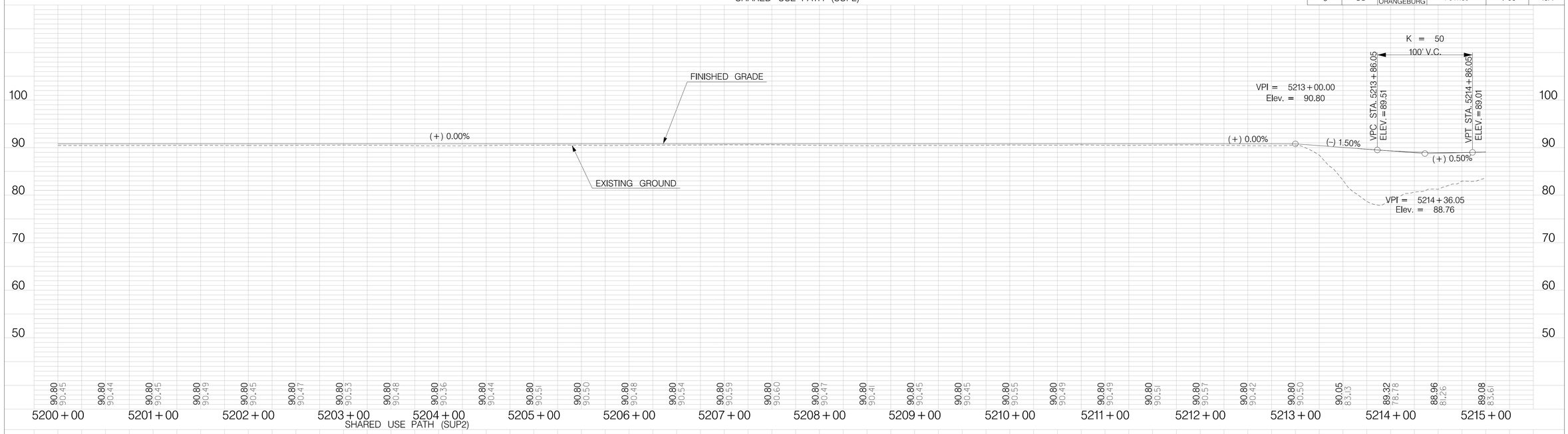
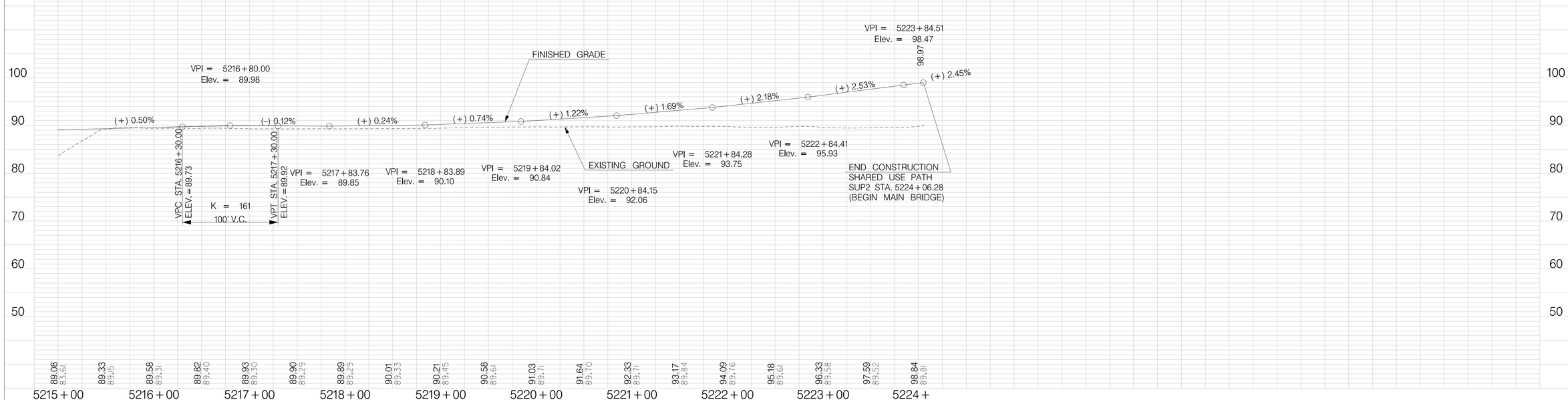
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	19A

SHARED USE PATH (SUP2)





UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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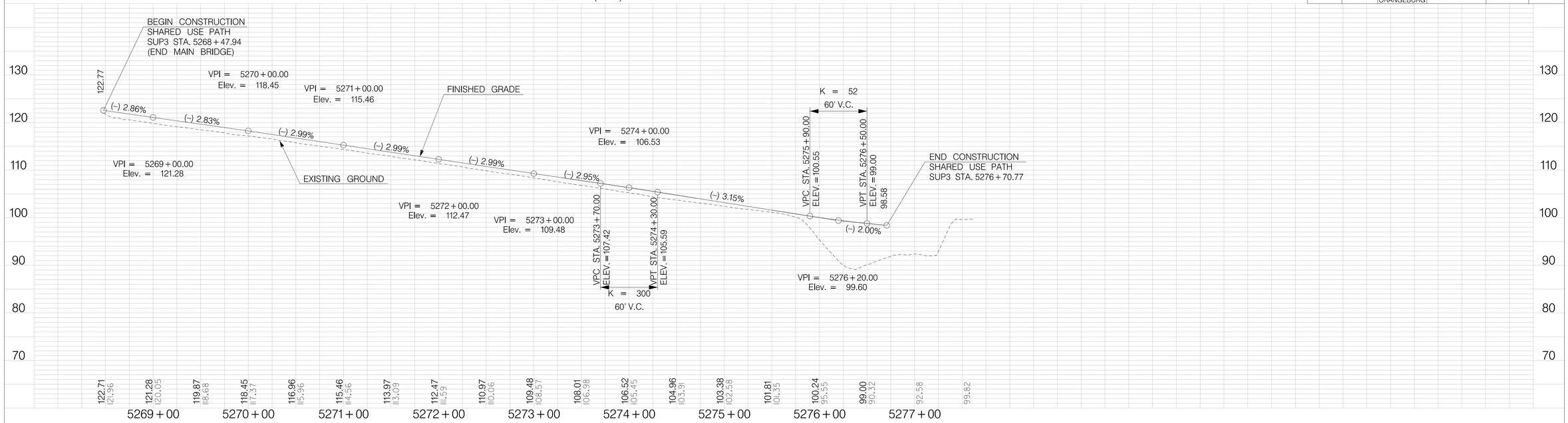
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON / ORANGEBURG	P041130	I-95	20A

SHARED USE PATH (SUP3)



UNITEDTRAYLOR JOINT VENTURE

0 25' 50' 100'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

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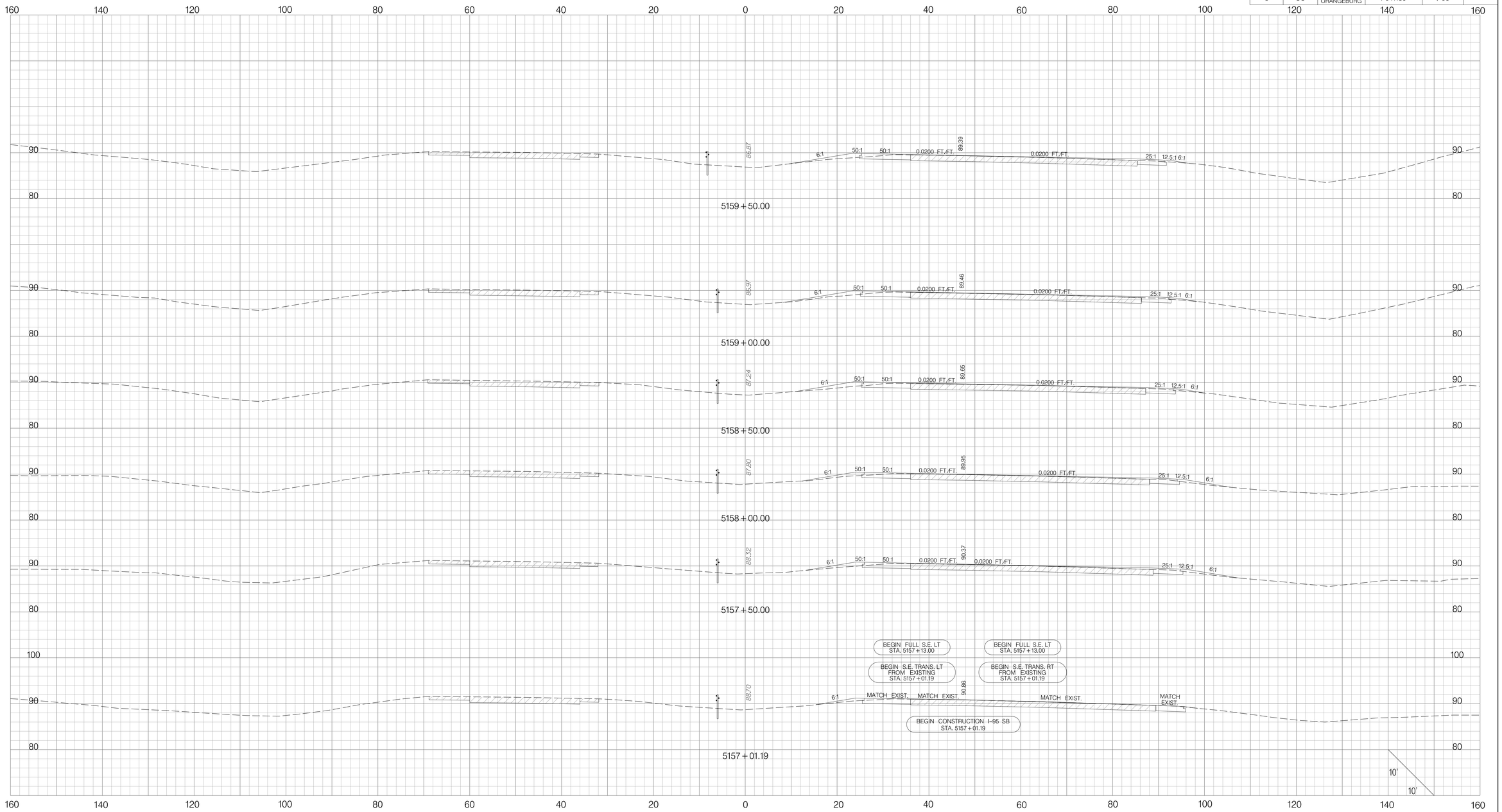
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X1

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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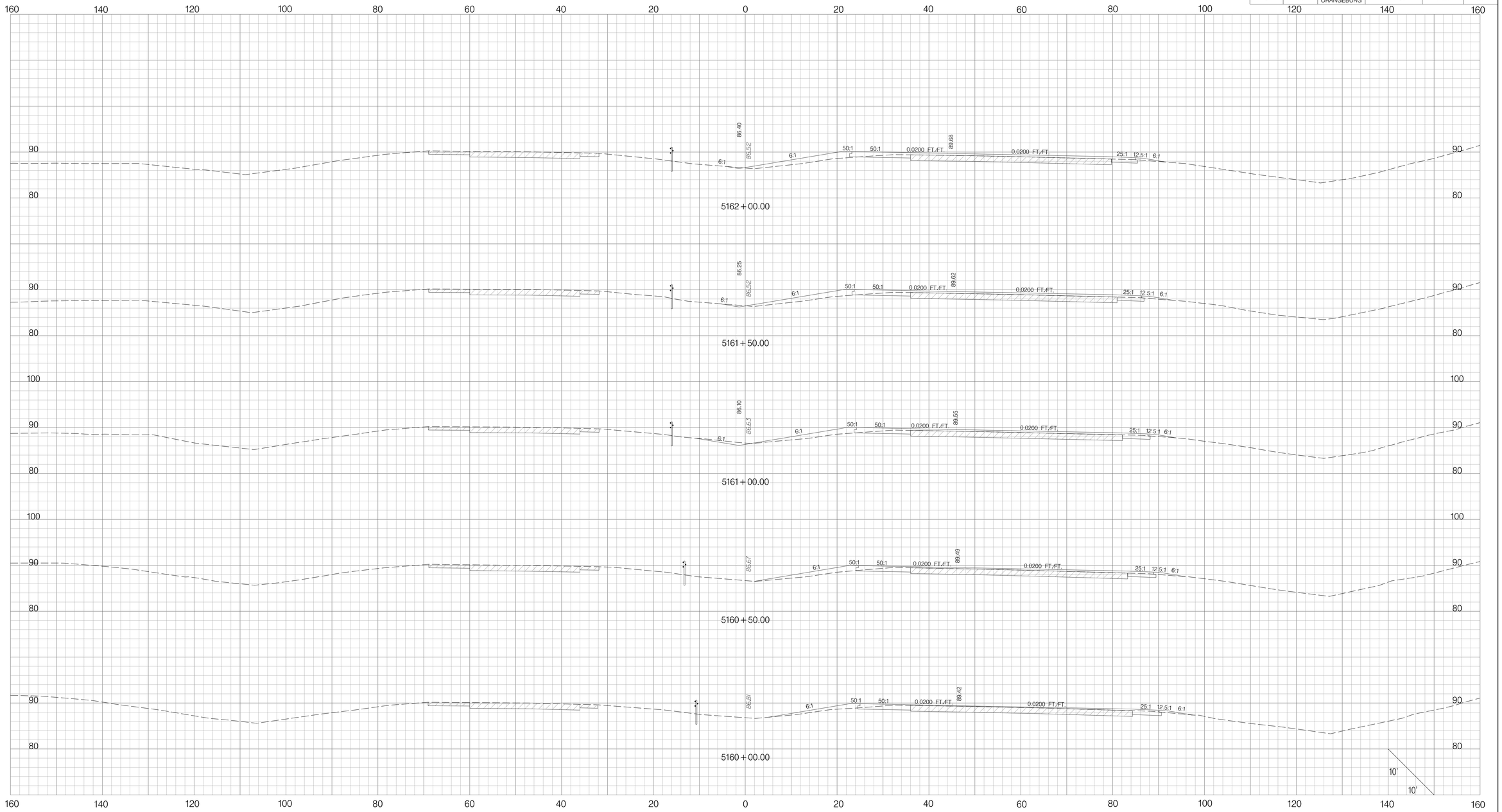
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X2

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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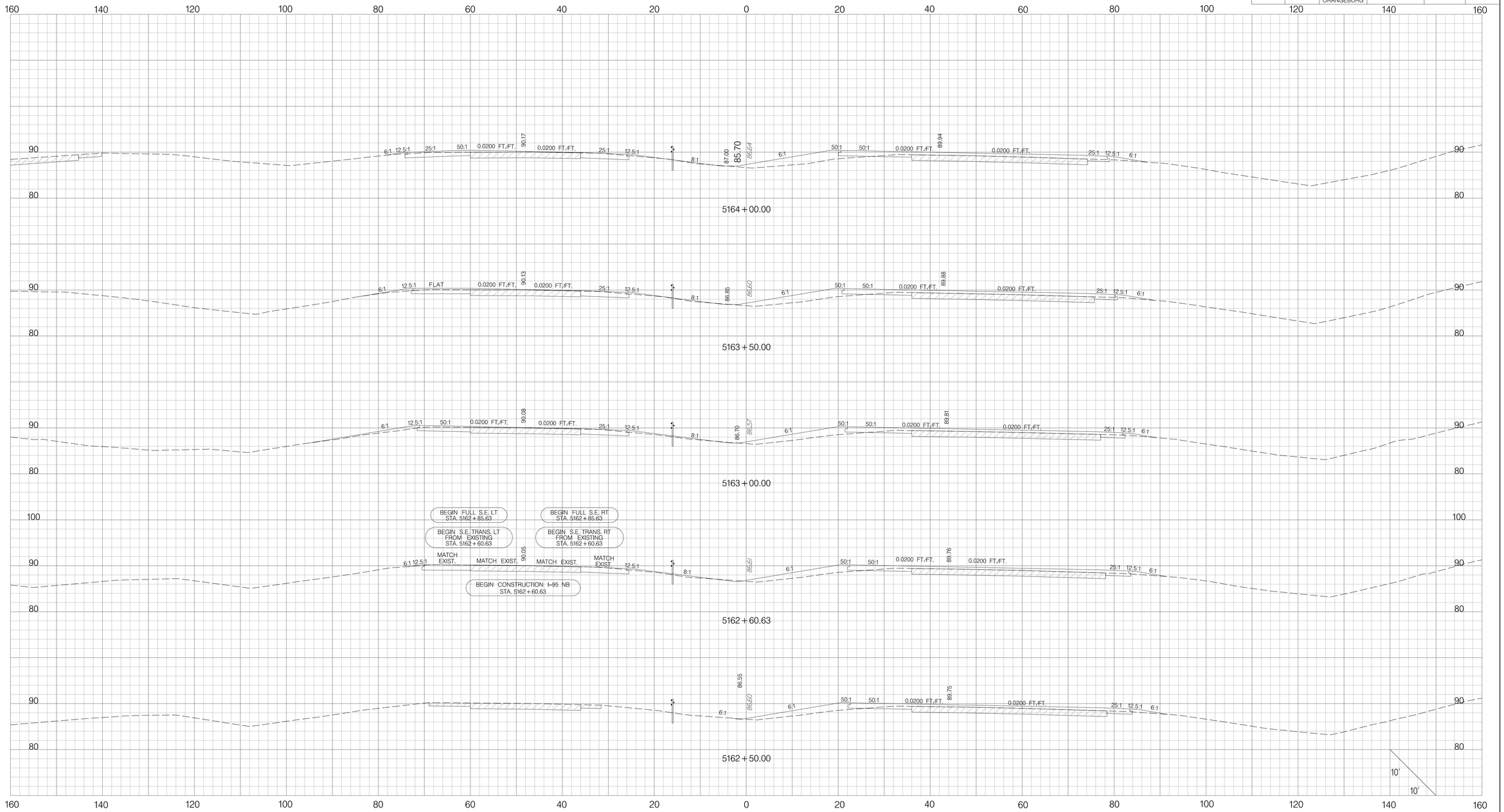
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X3

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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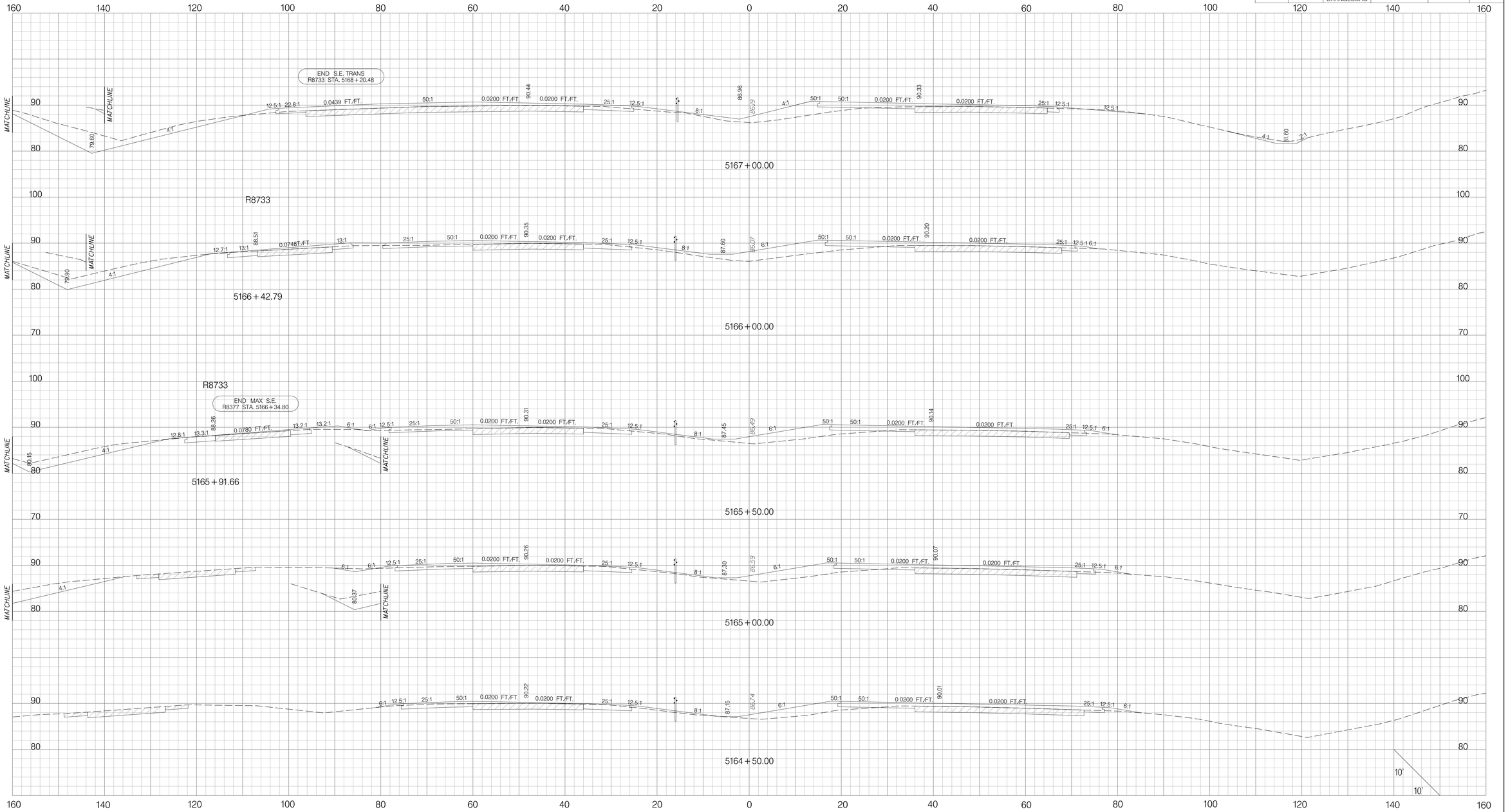
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X4

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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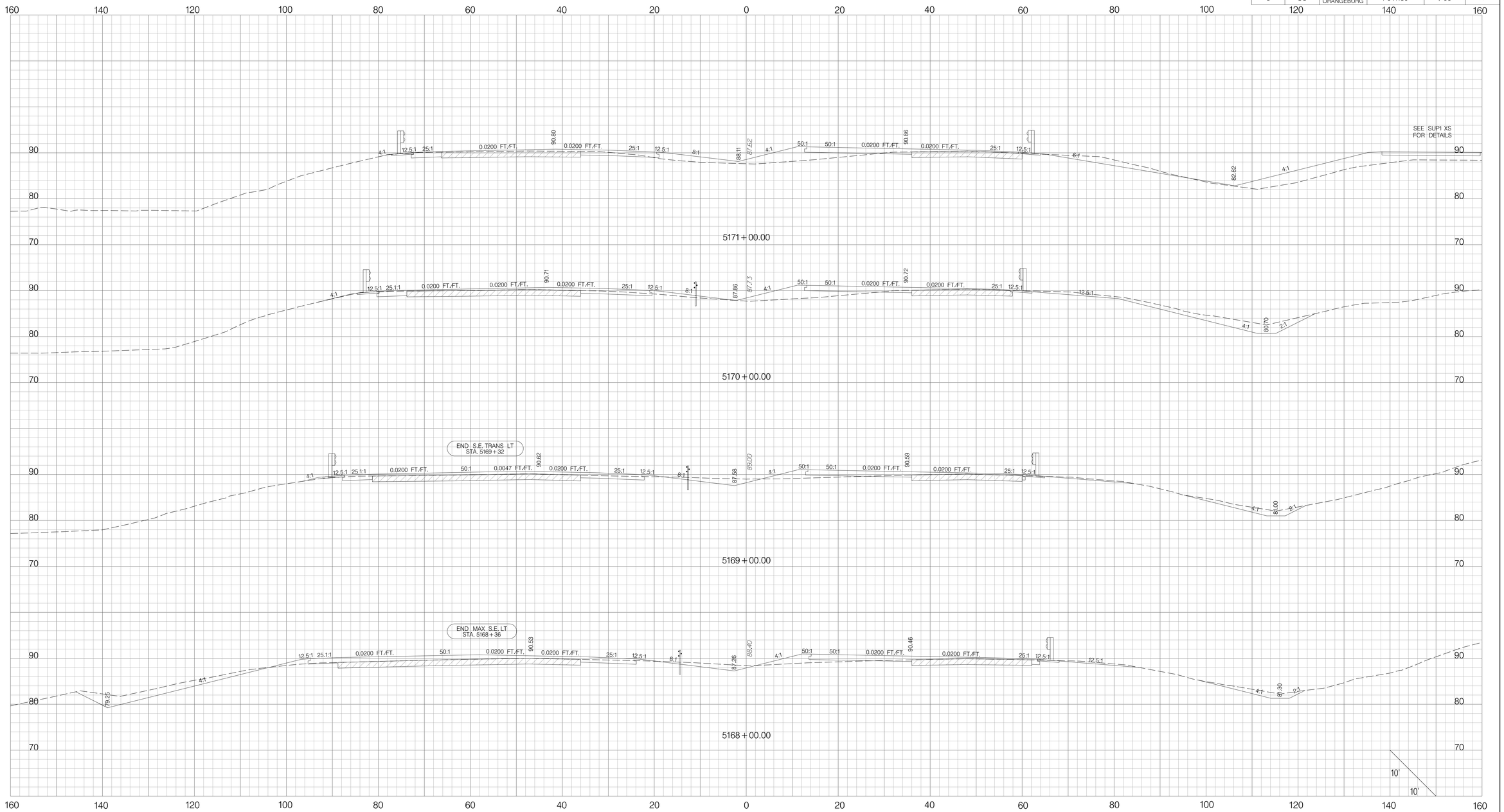
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X5

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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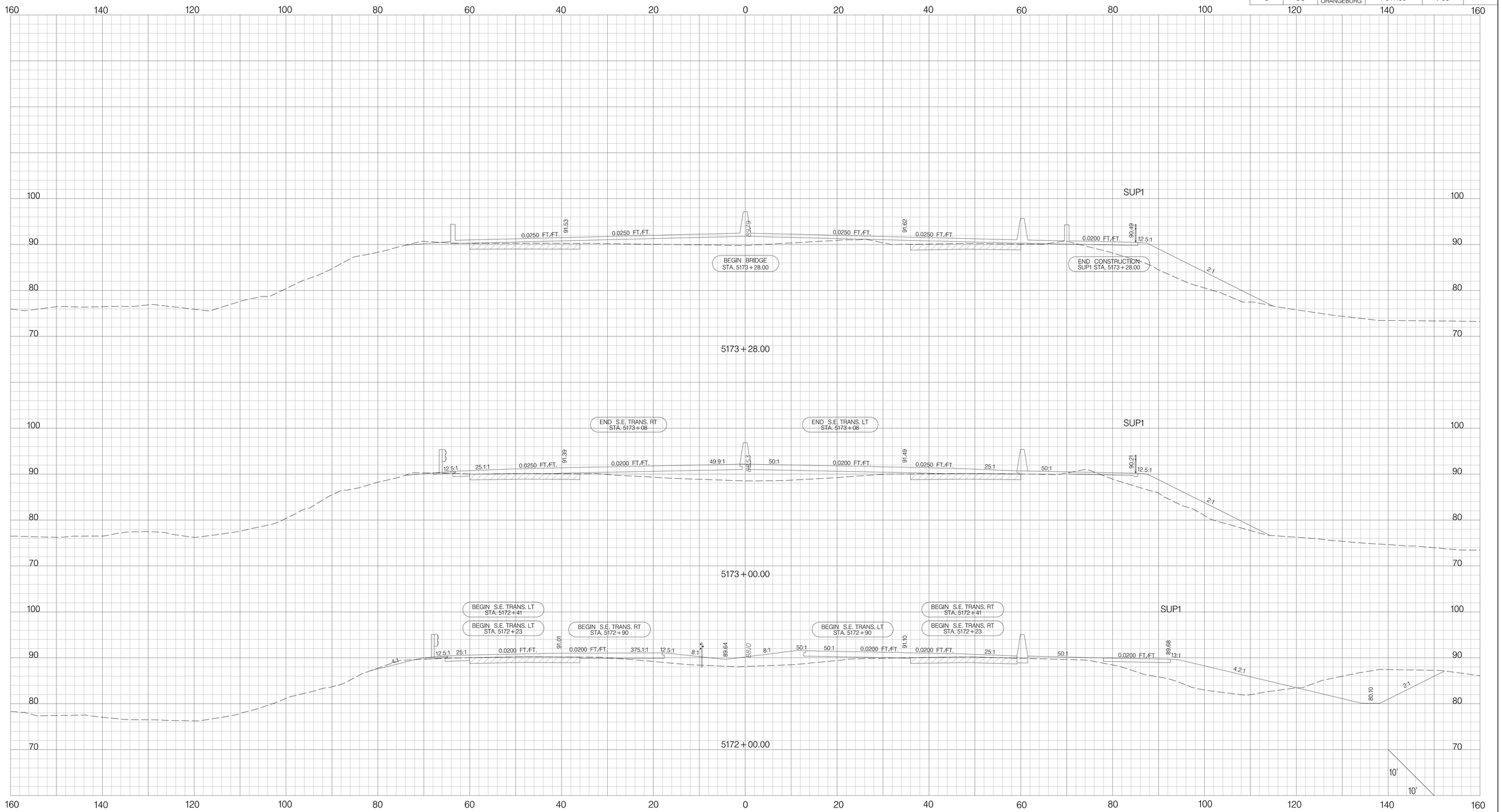
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X6

INTERSTATE 95



REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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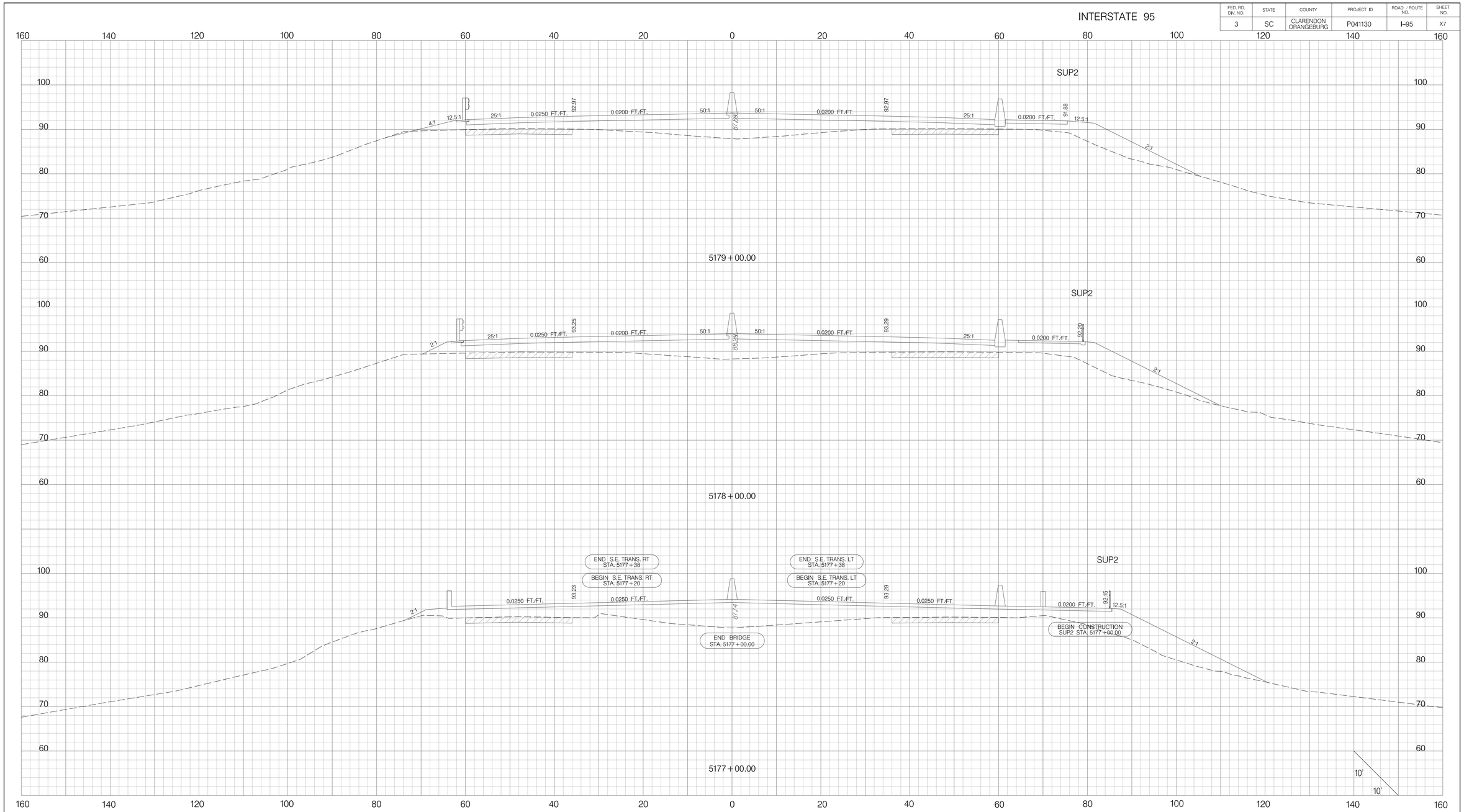
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X7



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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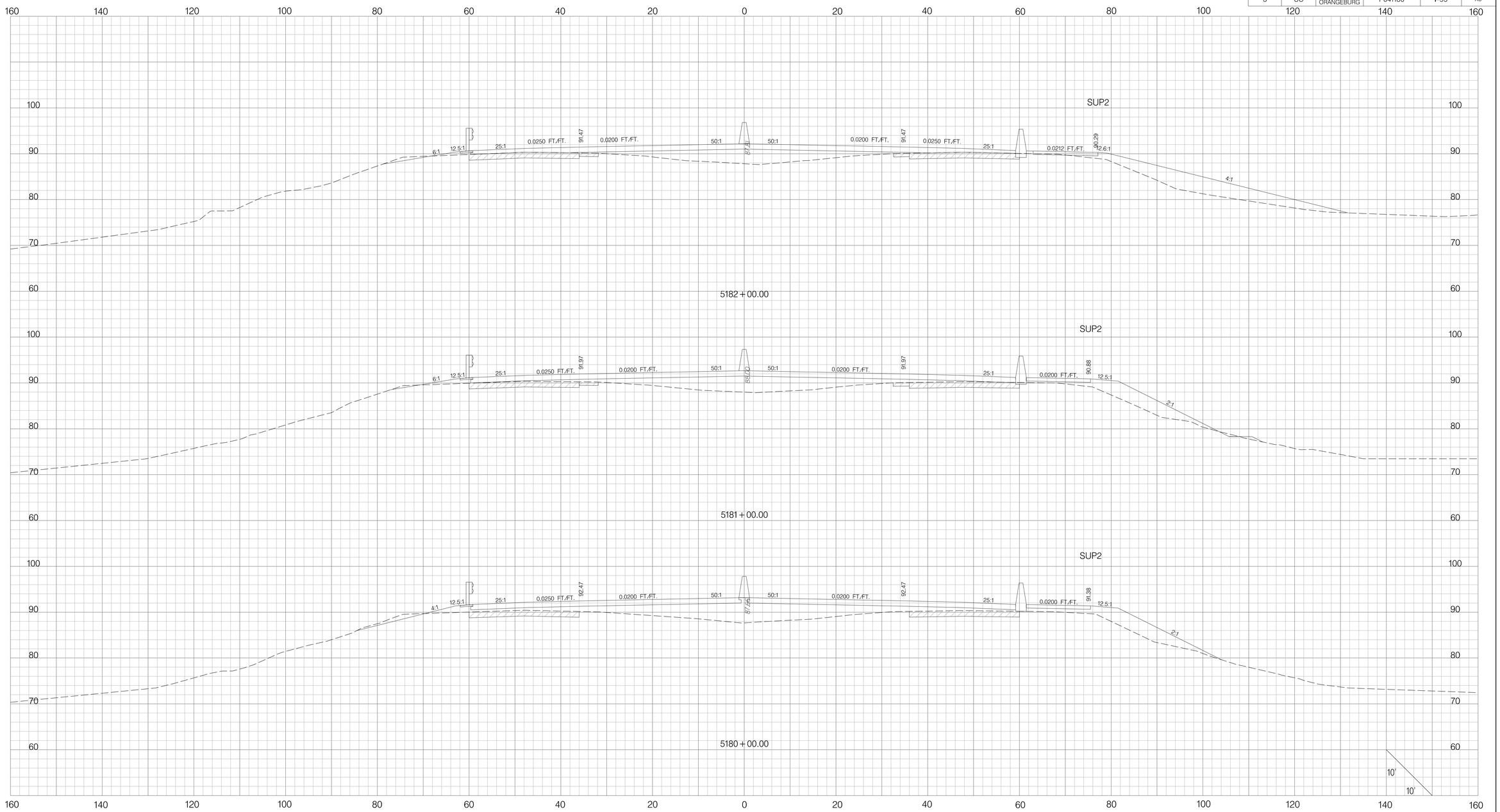
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X8

INTERSTATE 95



UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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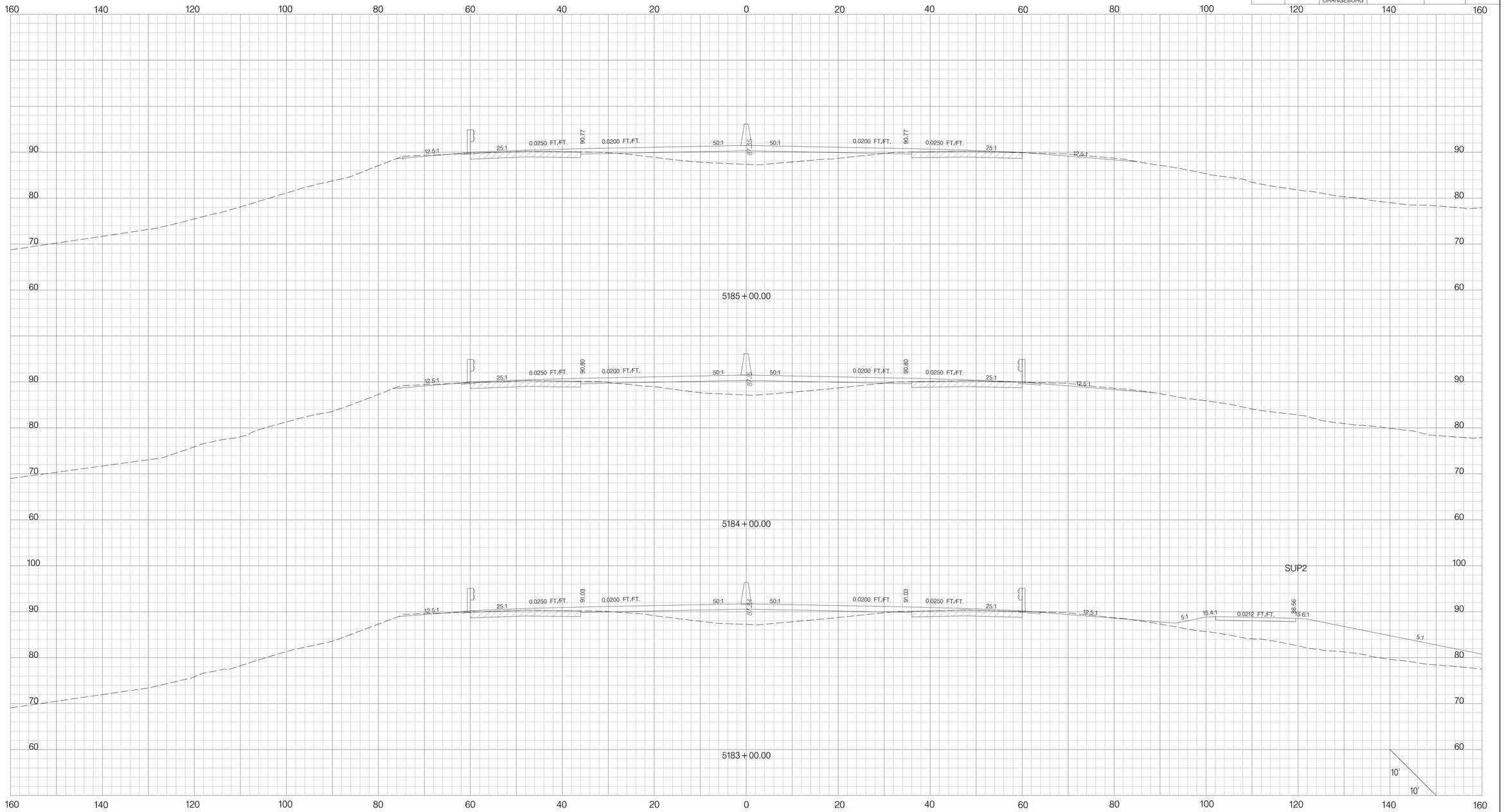
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X9

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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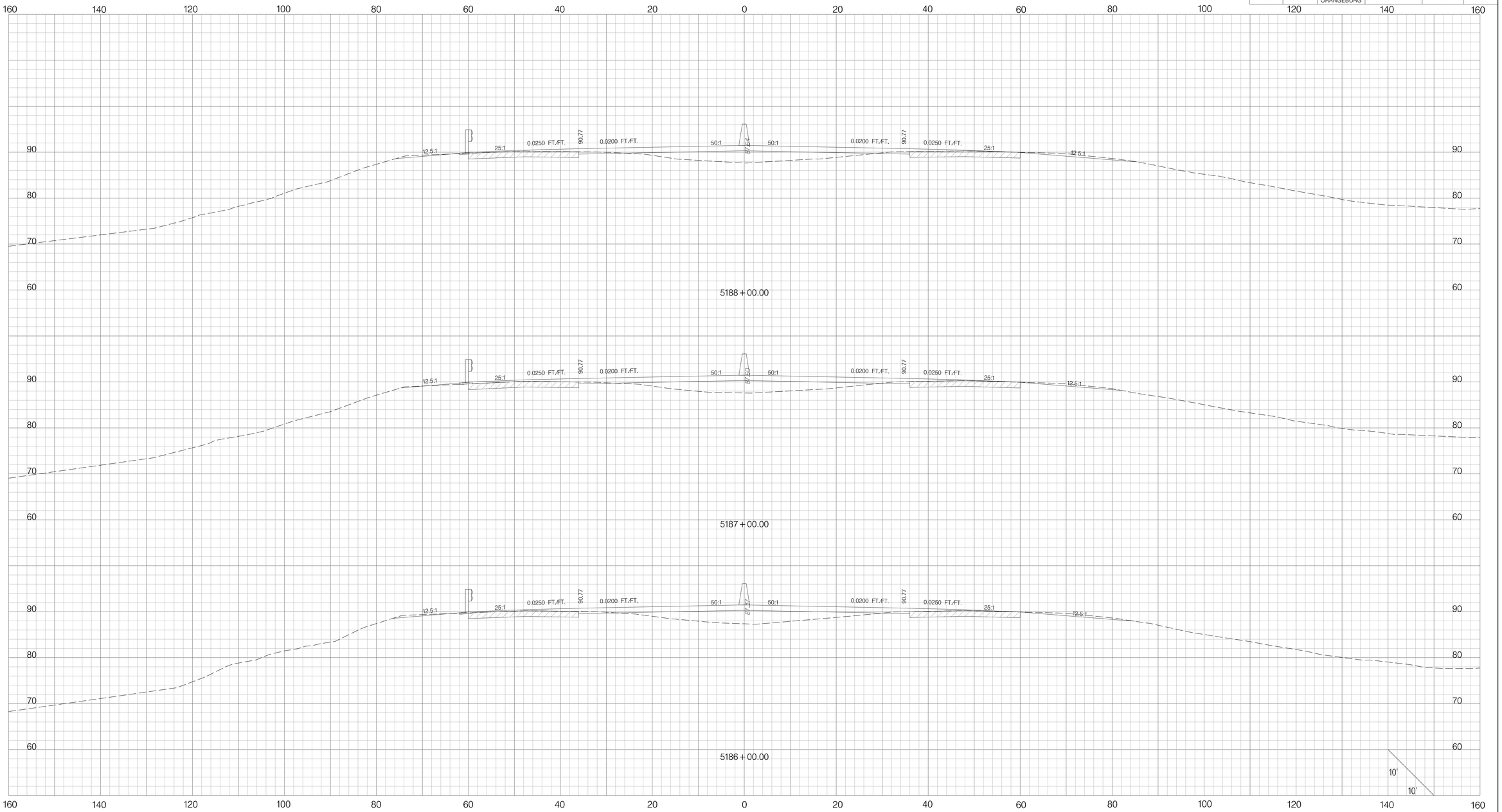
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X10

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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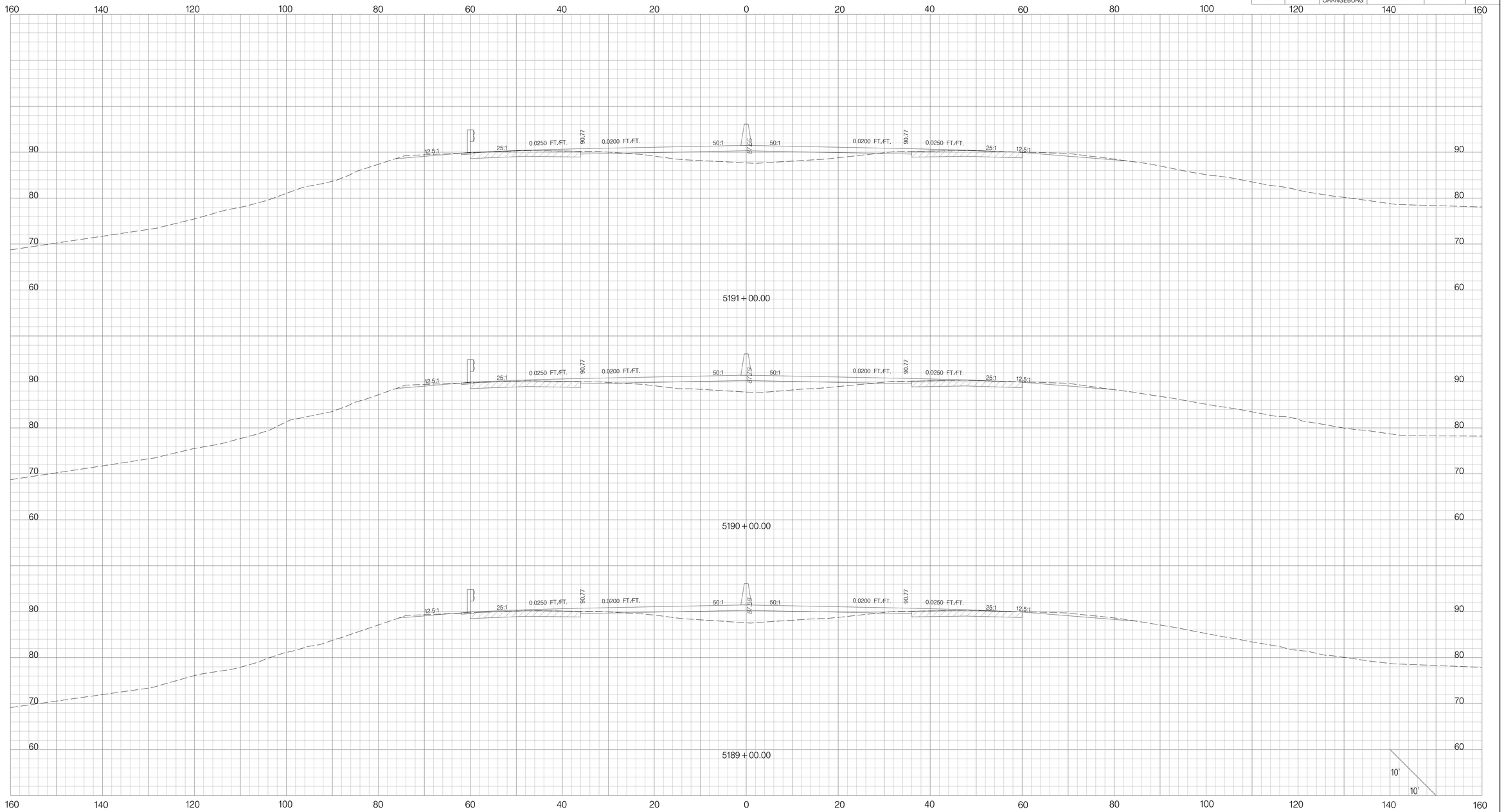
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X11

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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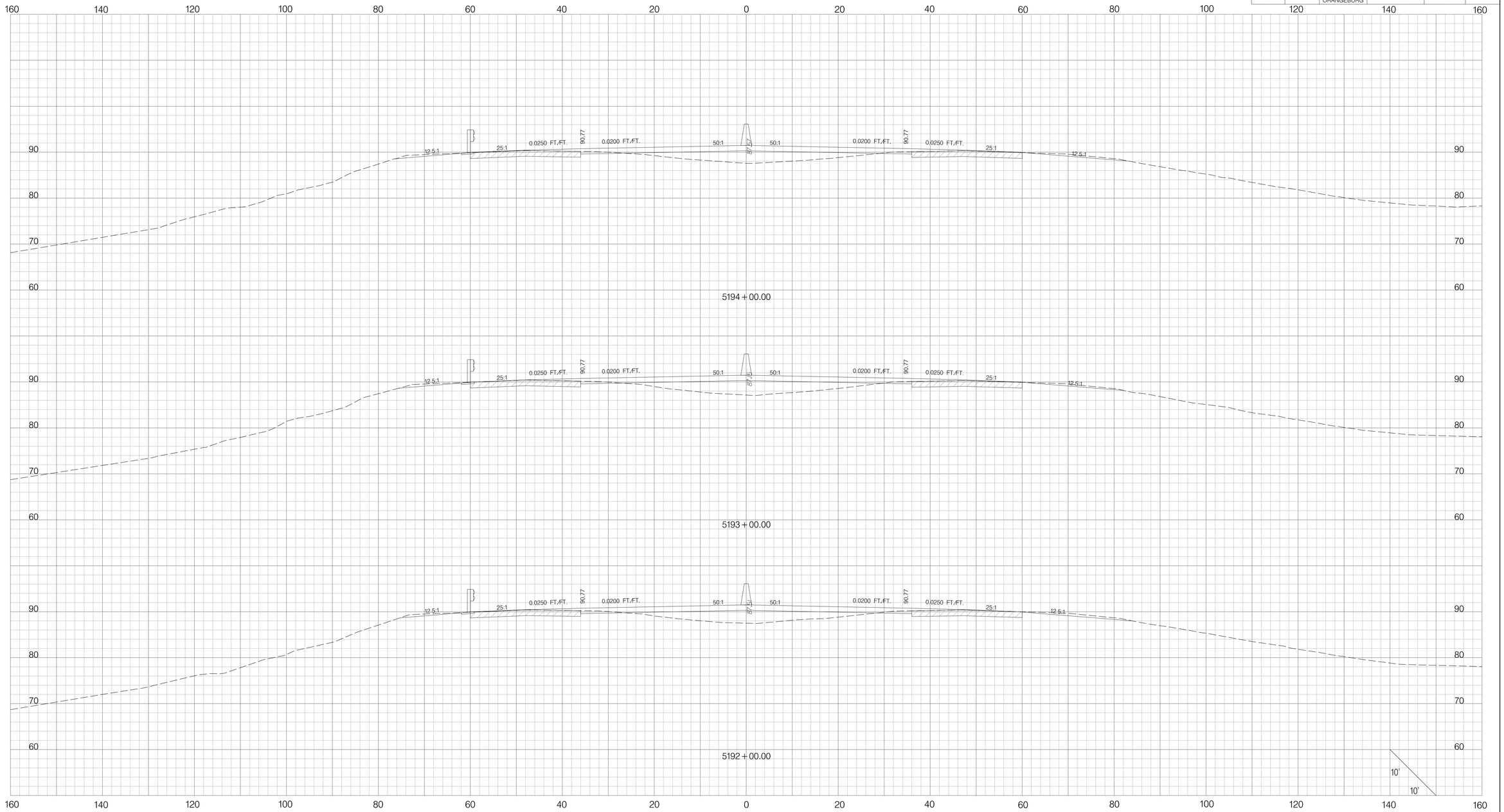
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X12

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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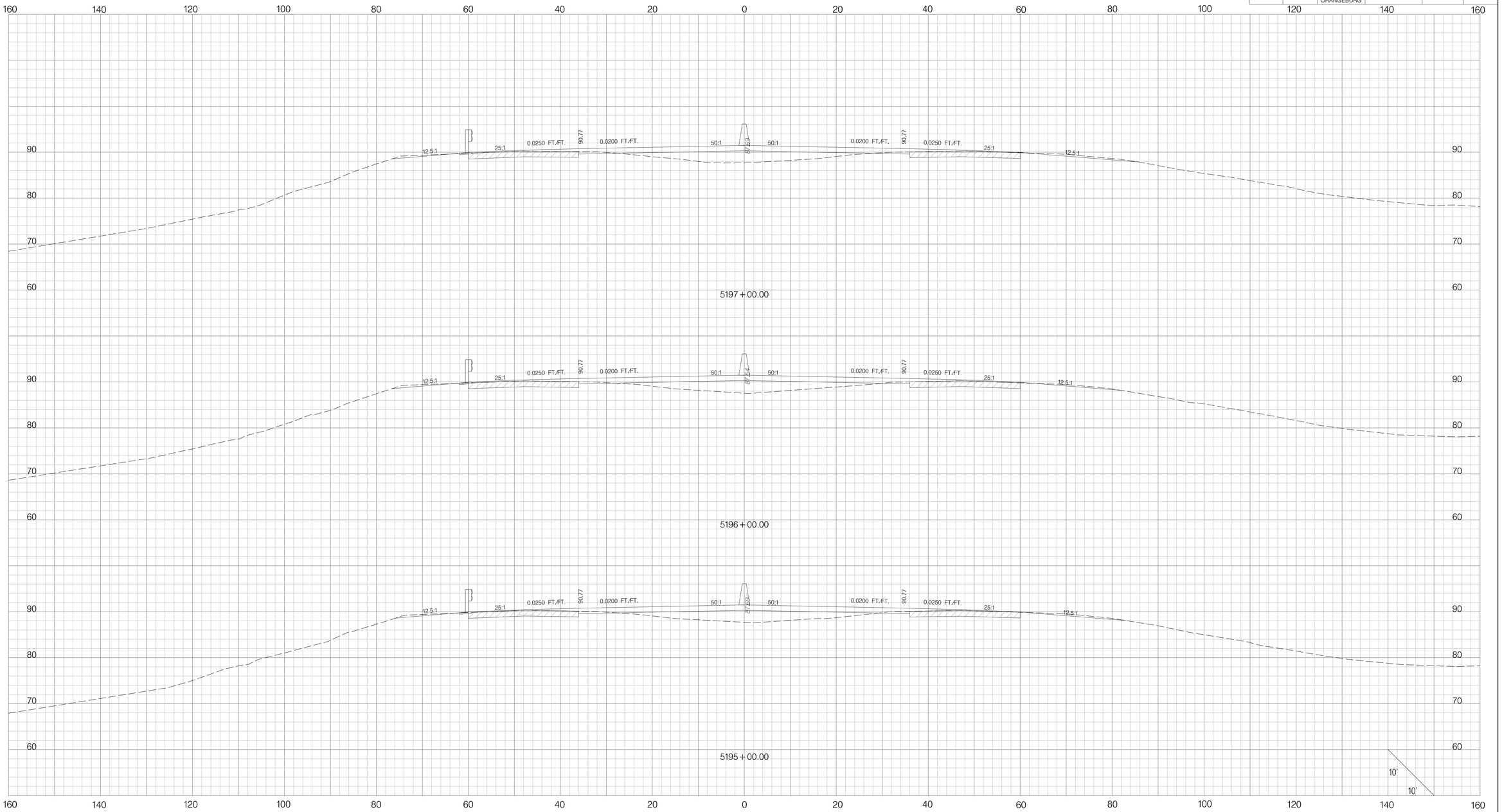
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X13

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
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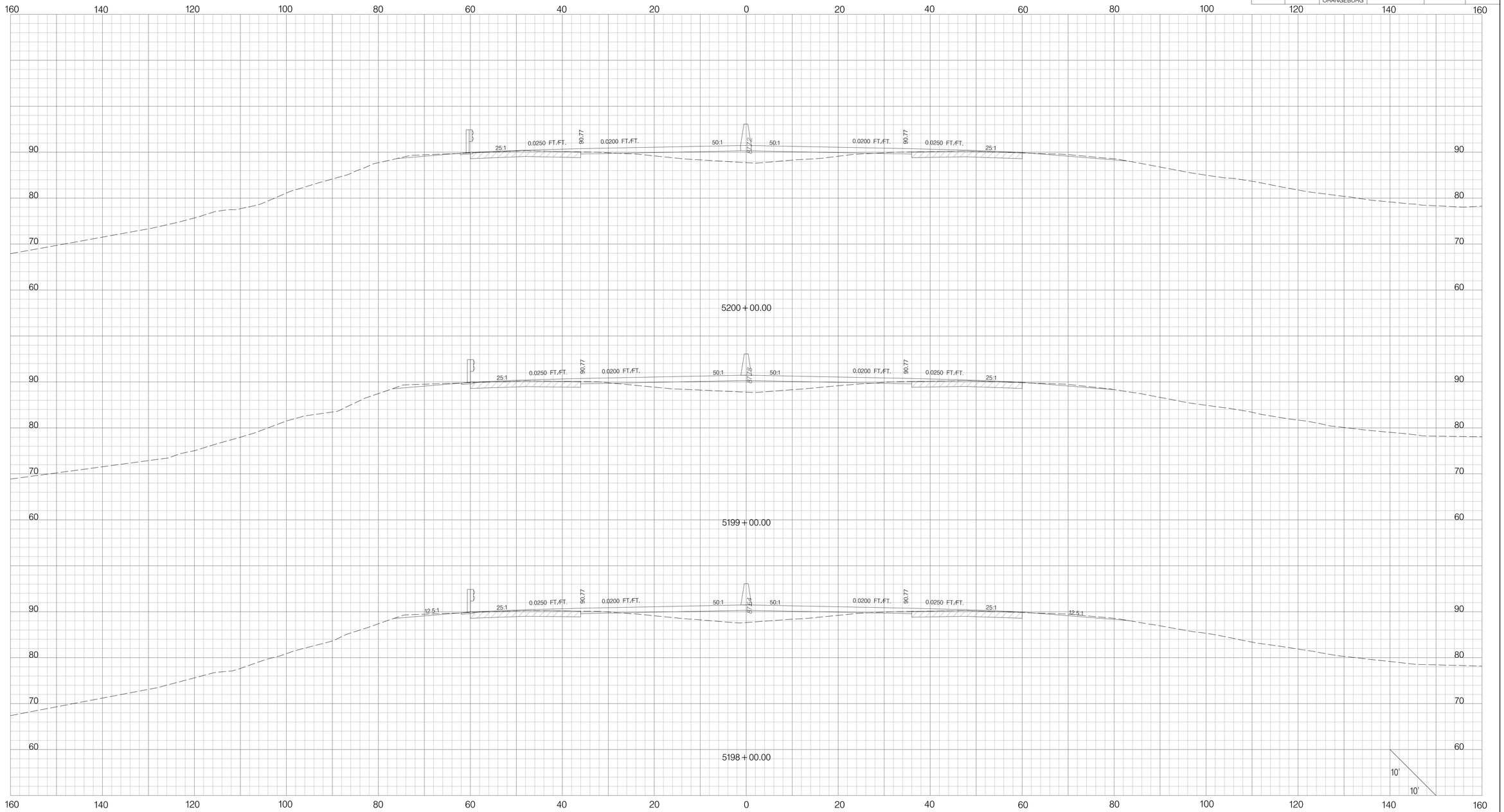
INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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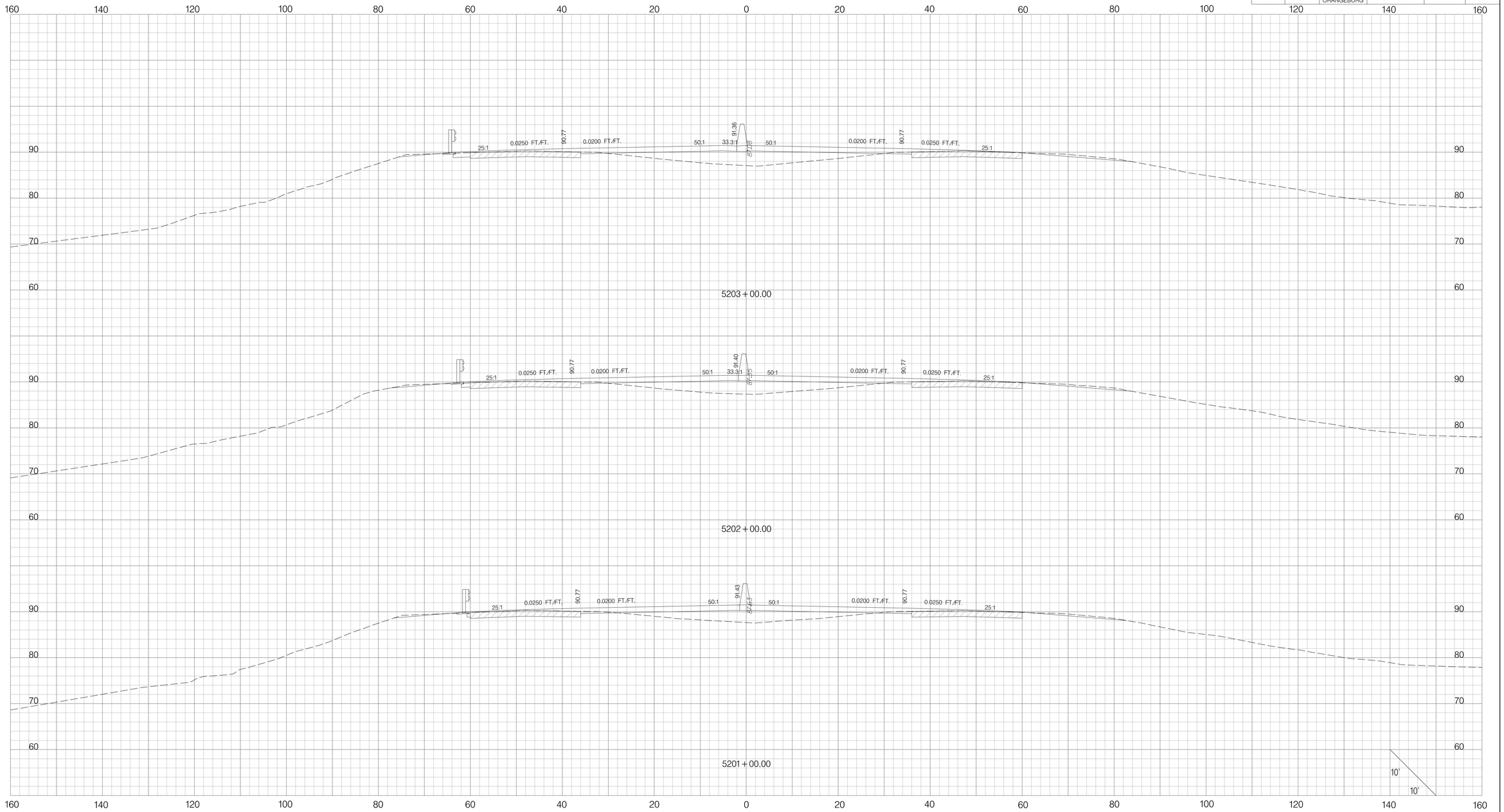
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X15

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
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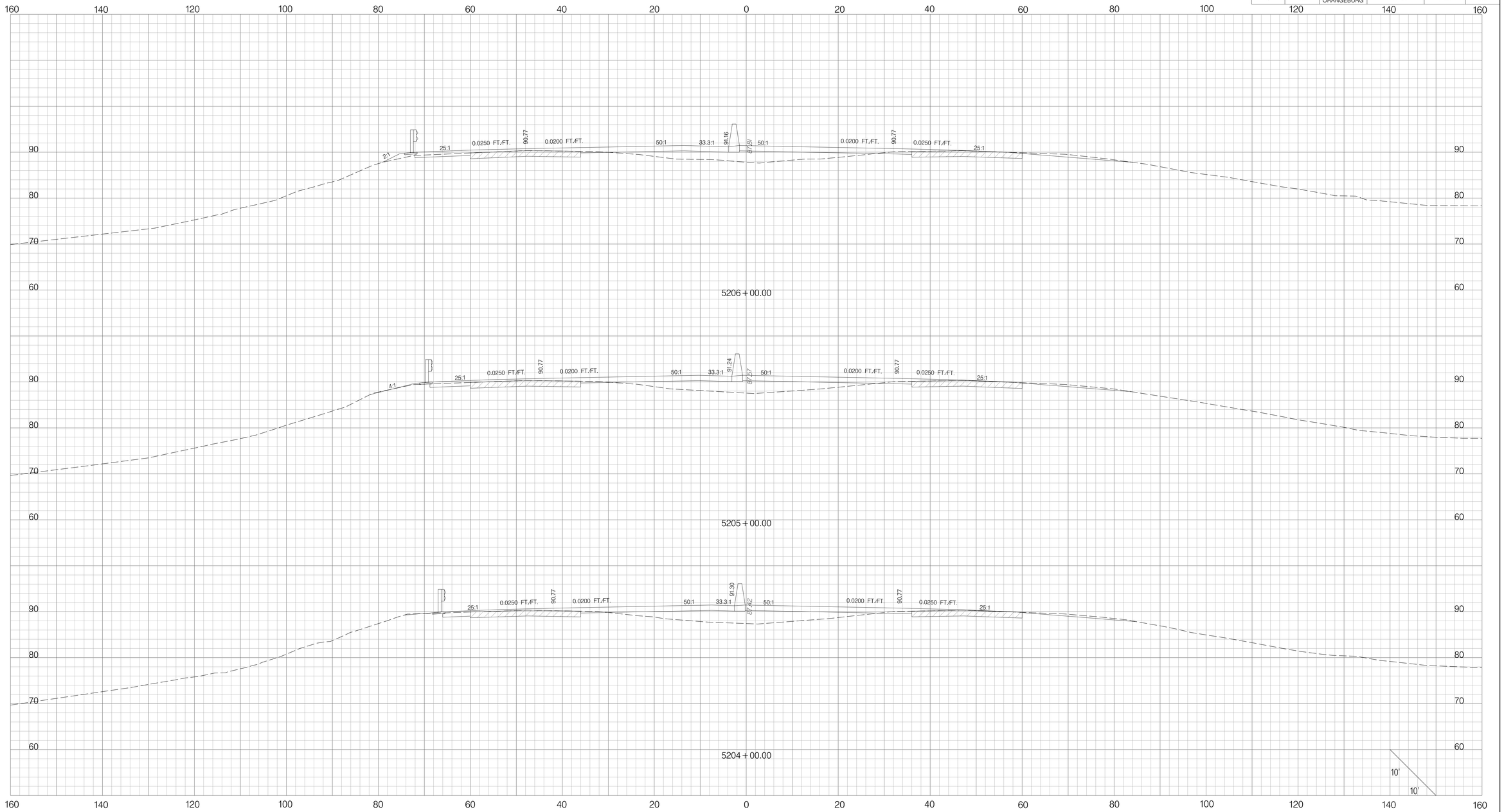
INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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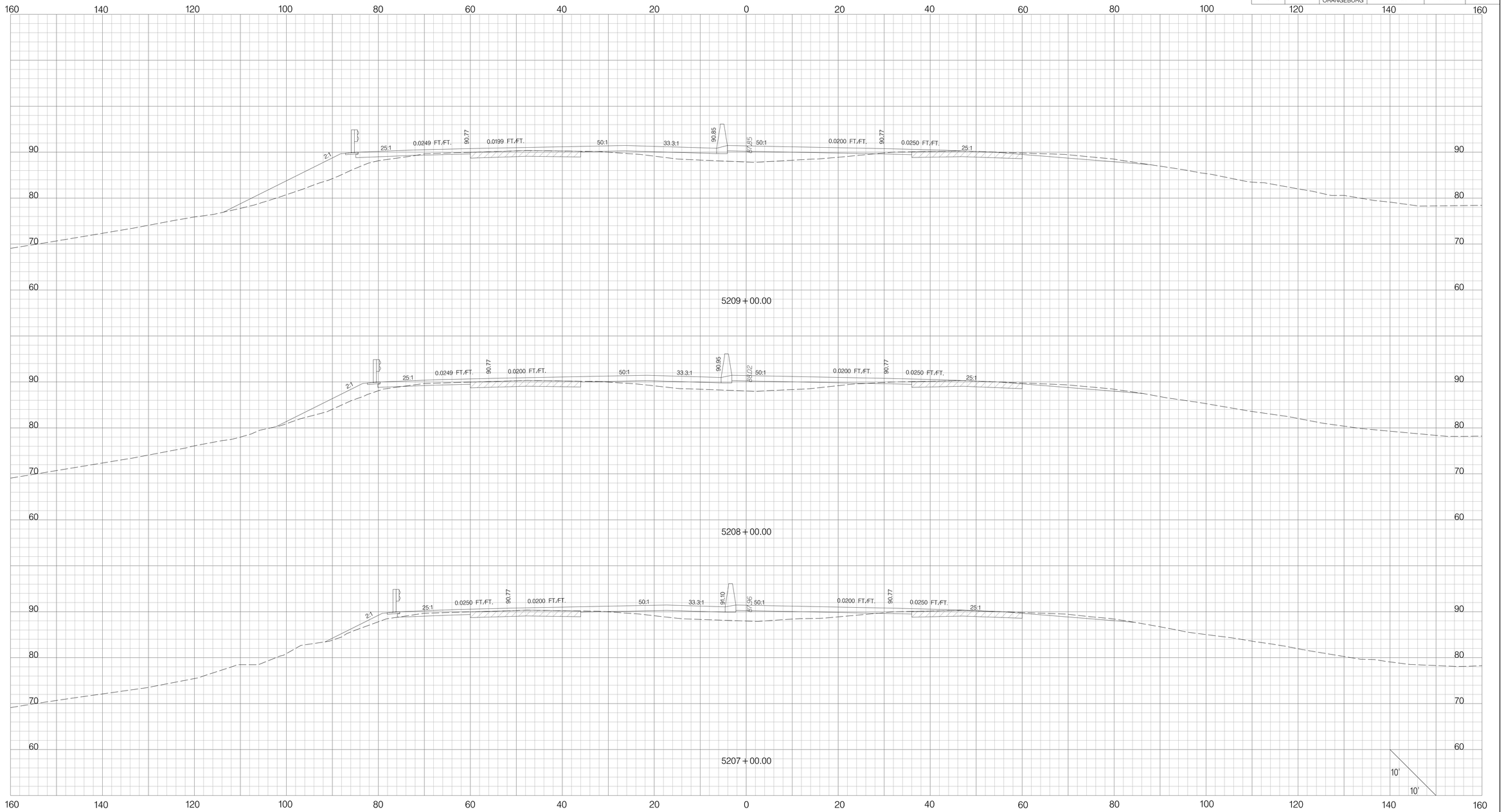
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X17

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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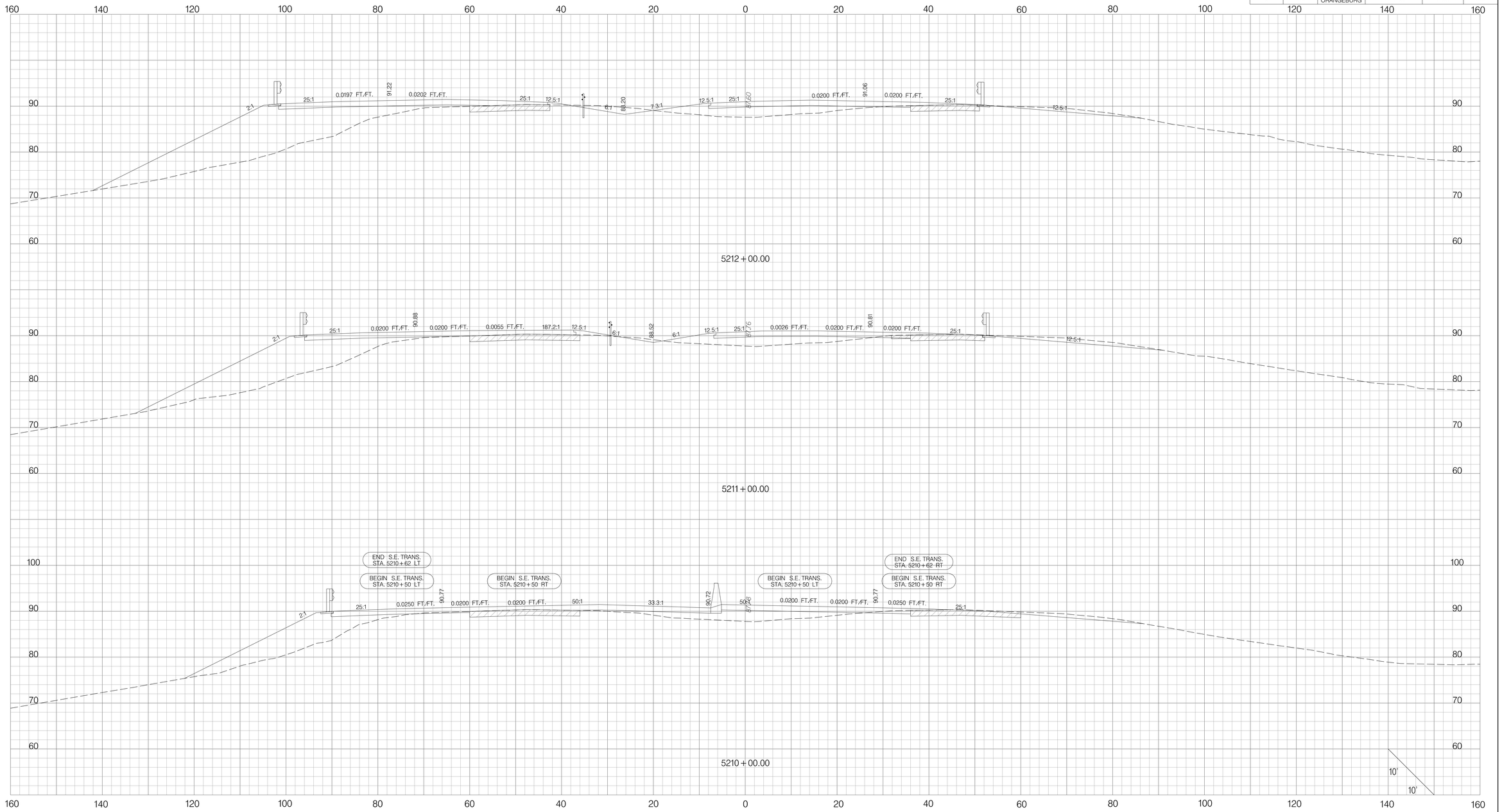
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X18

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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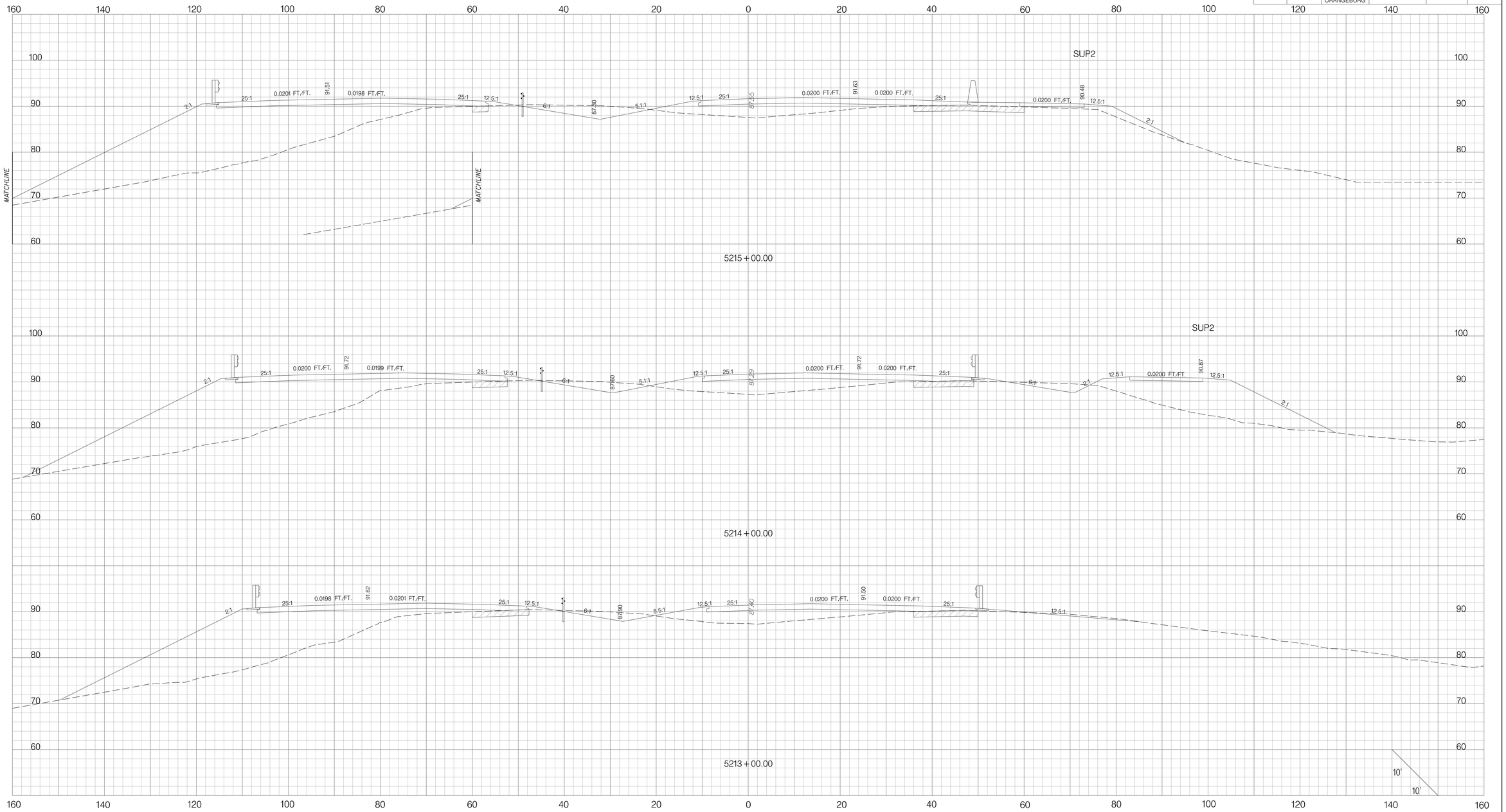
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X19

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
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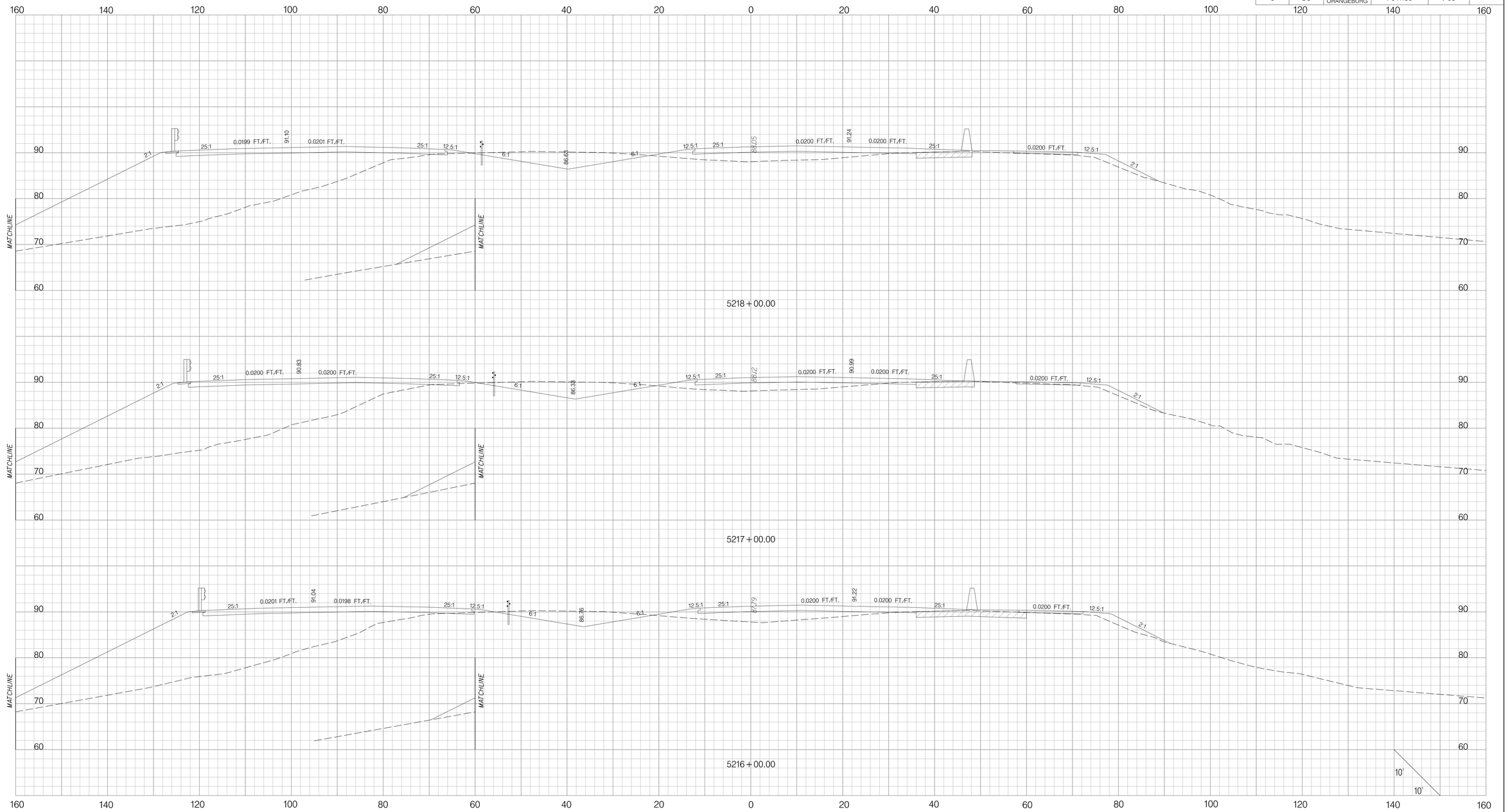
INTERSTATE 95



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UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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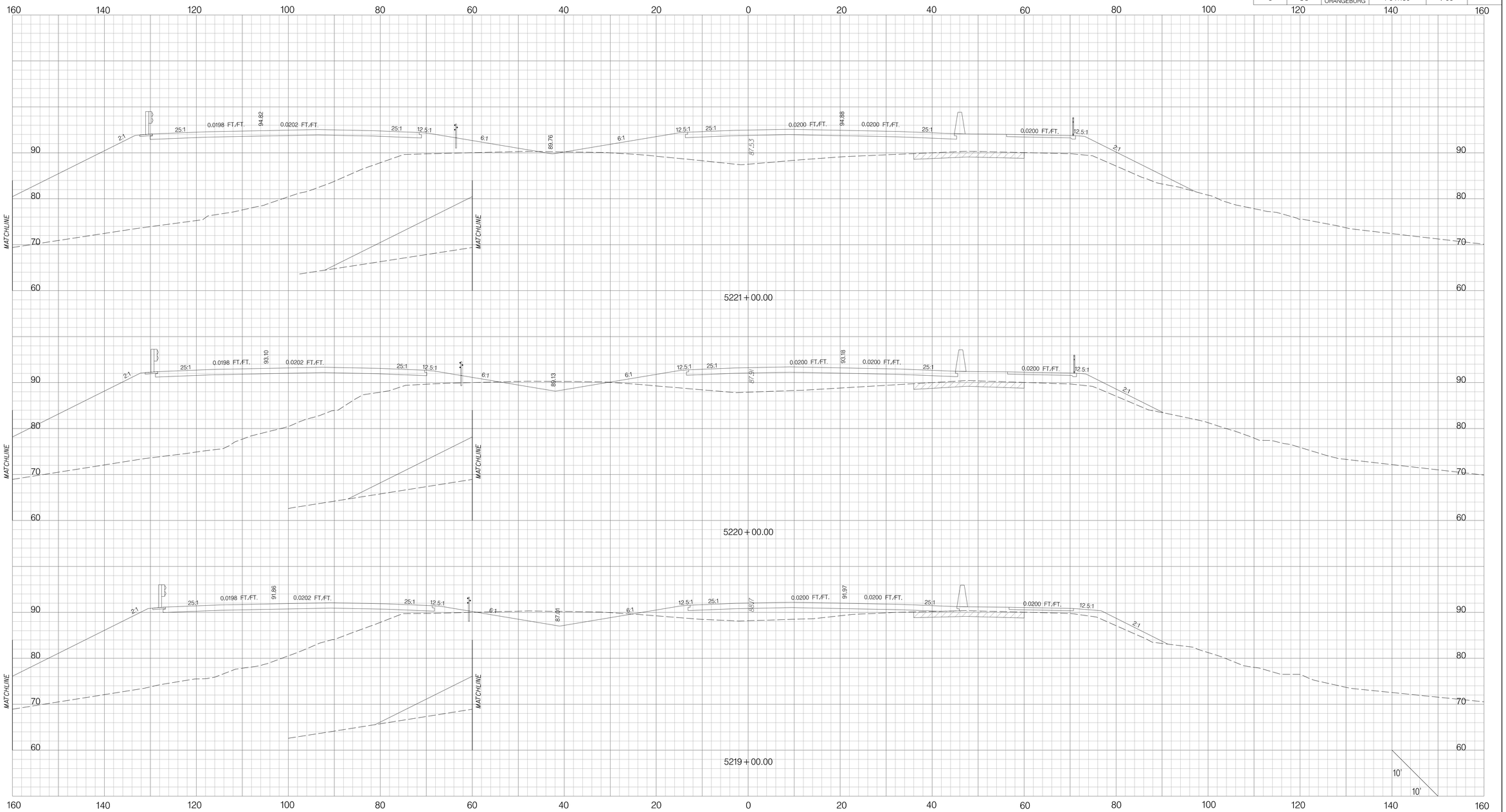
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X21

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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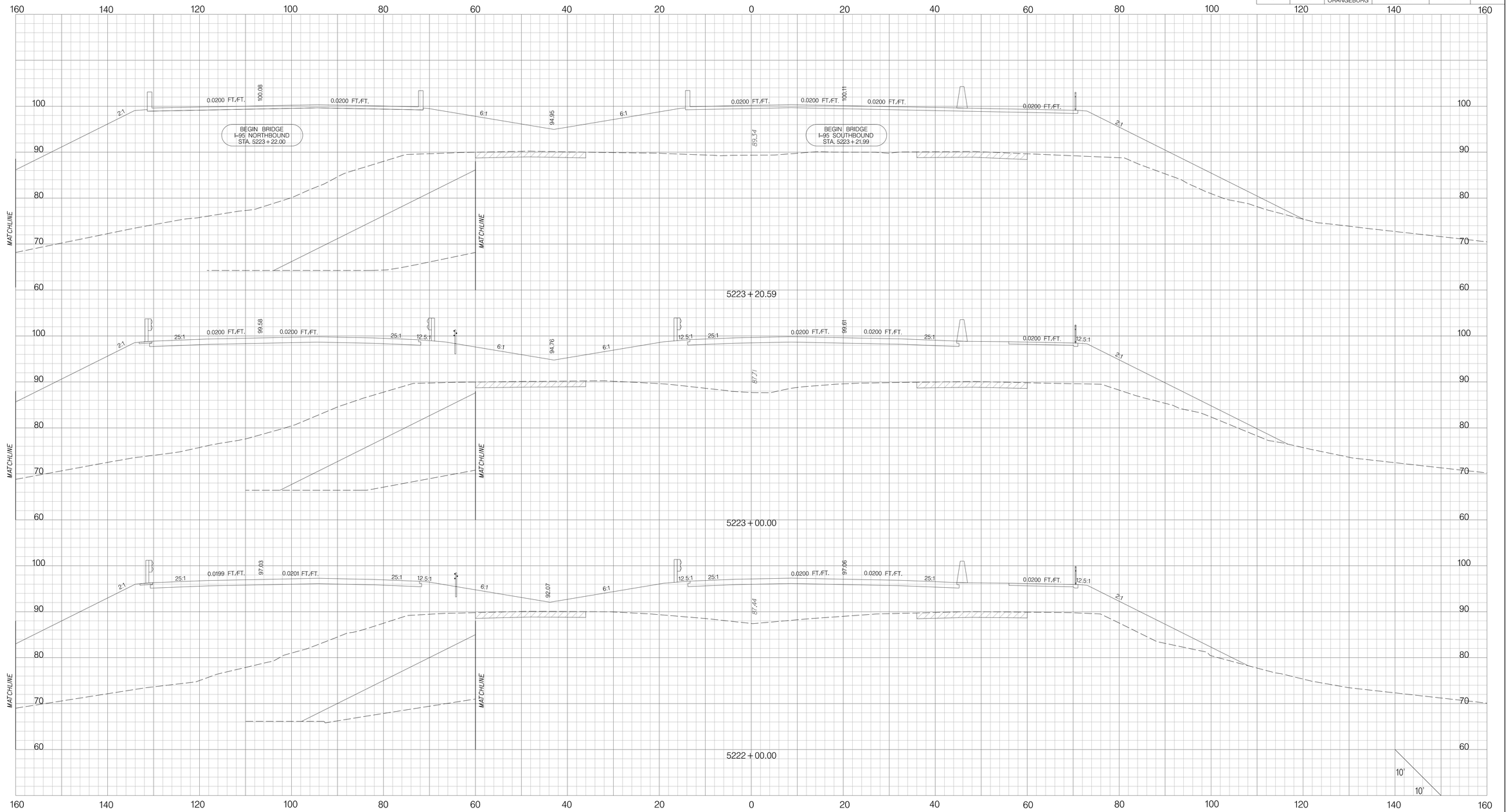
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X22

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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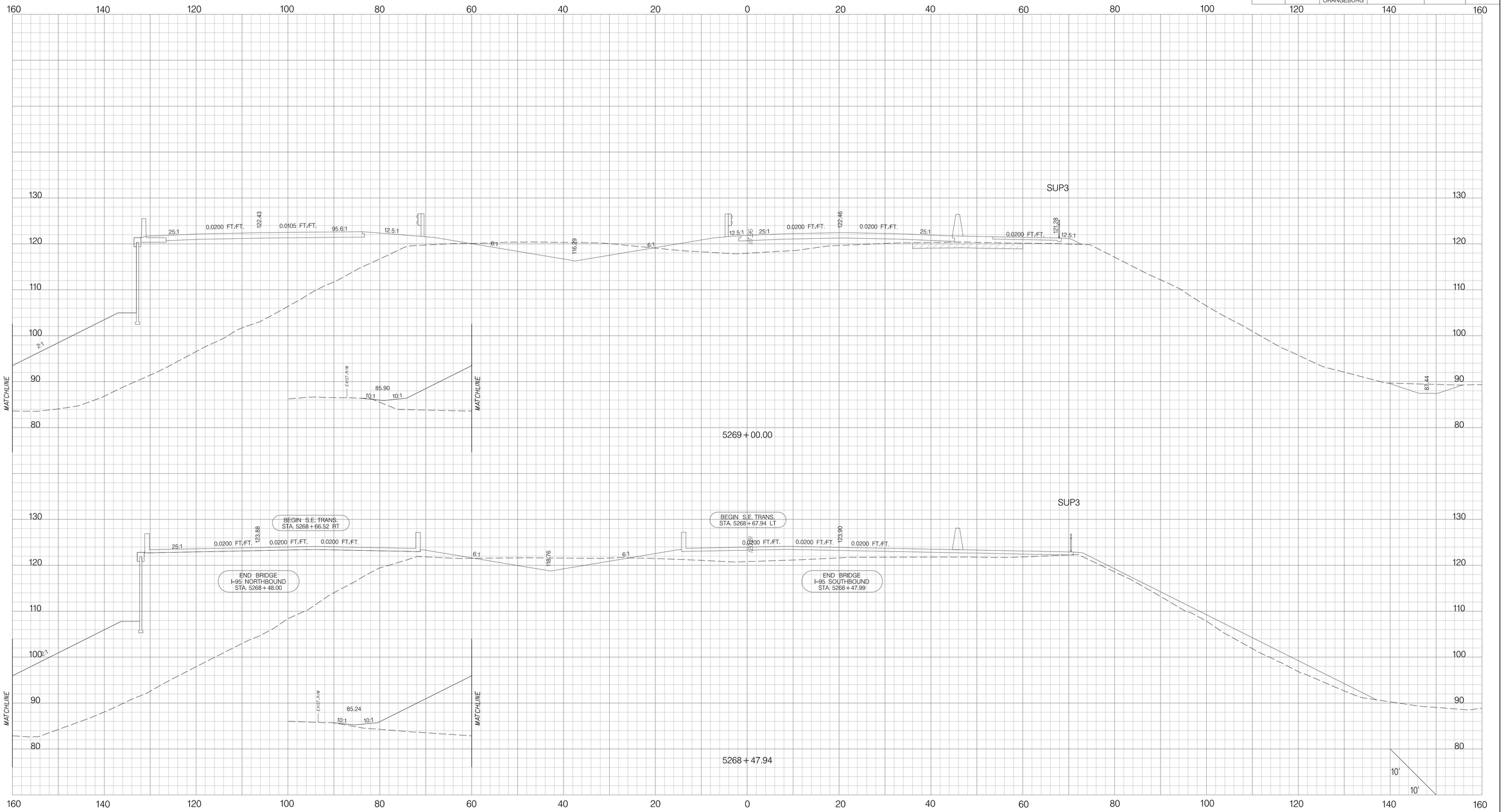
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X23

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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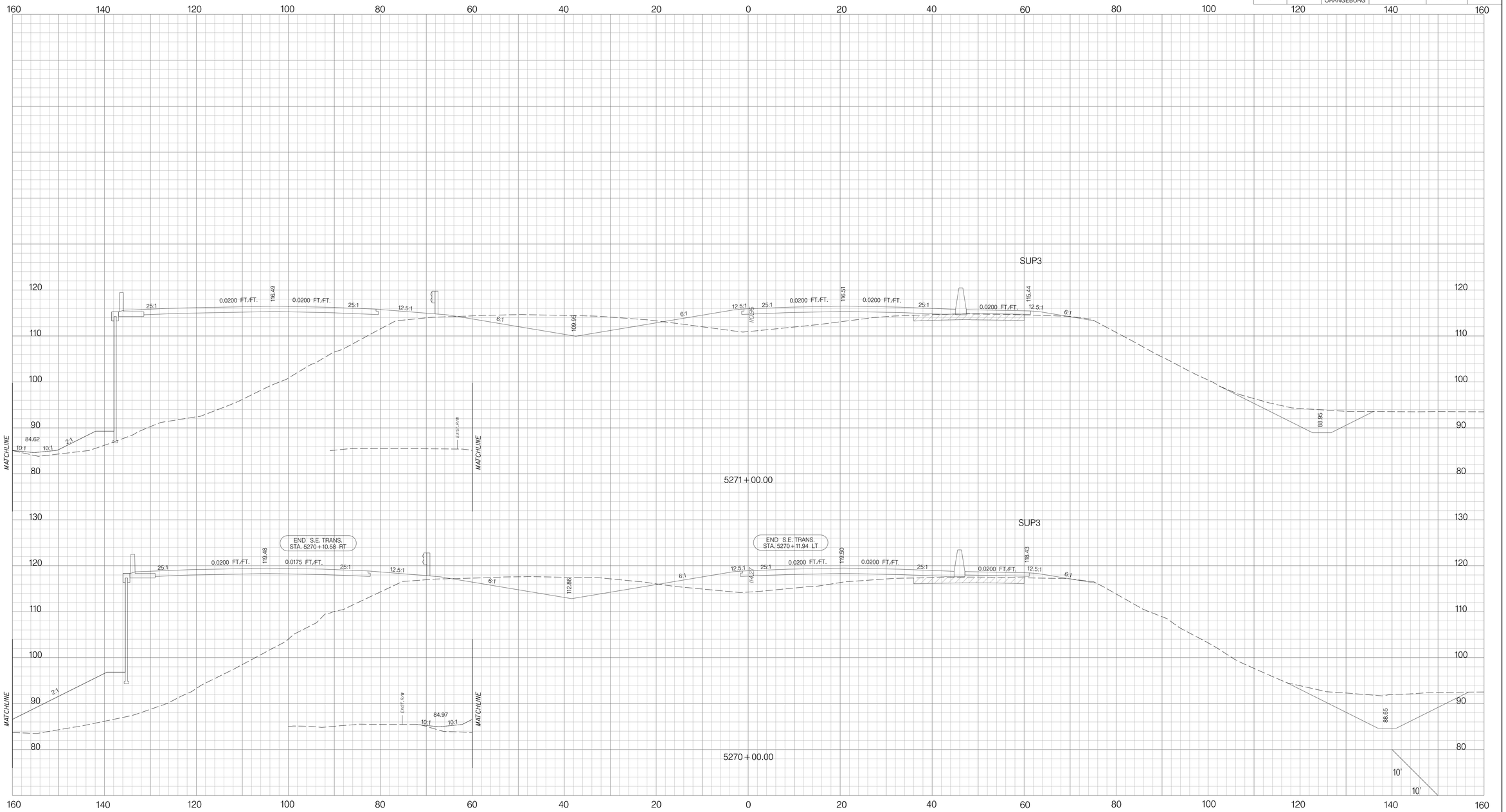
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X24

INTERSTATE 95



UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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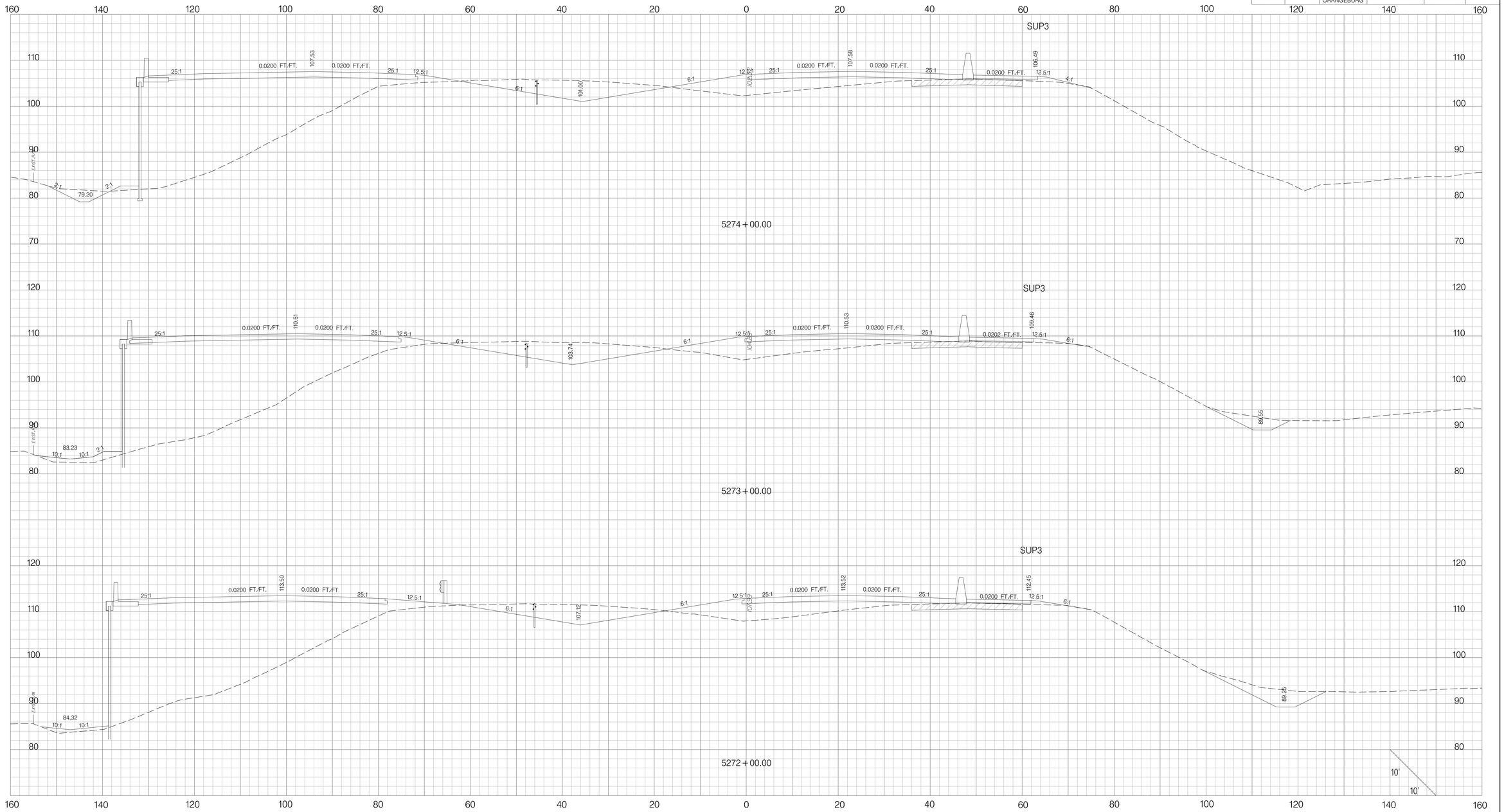
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X25

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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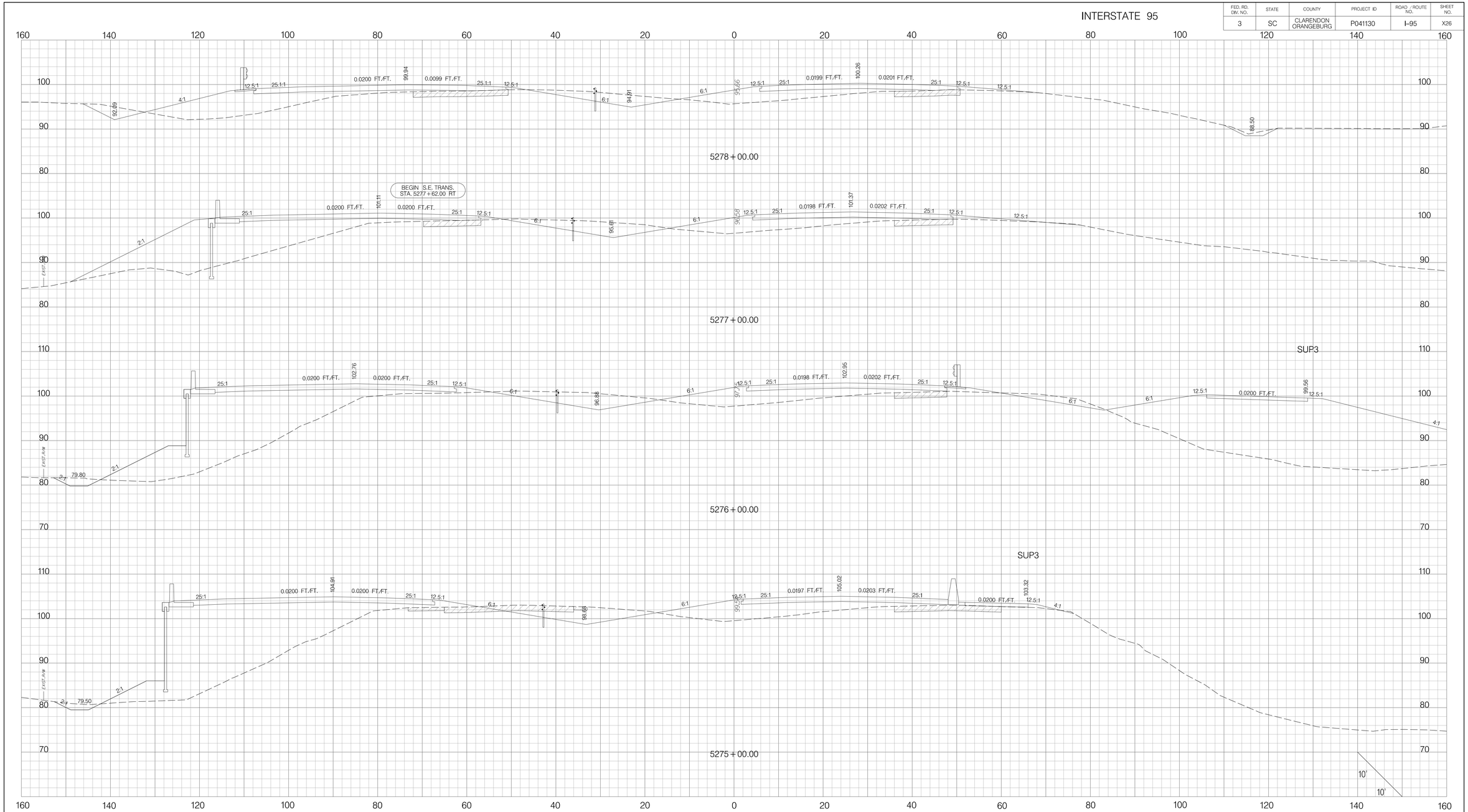
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X26



UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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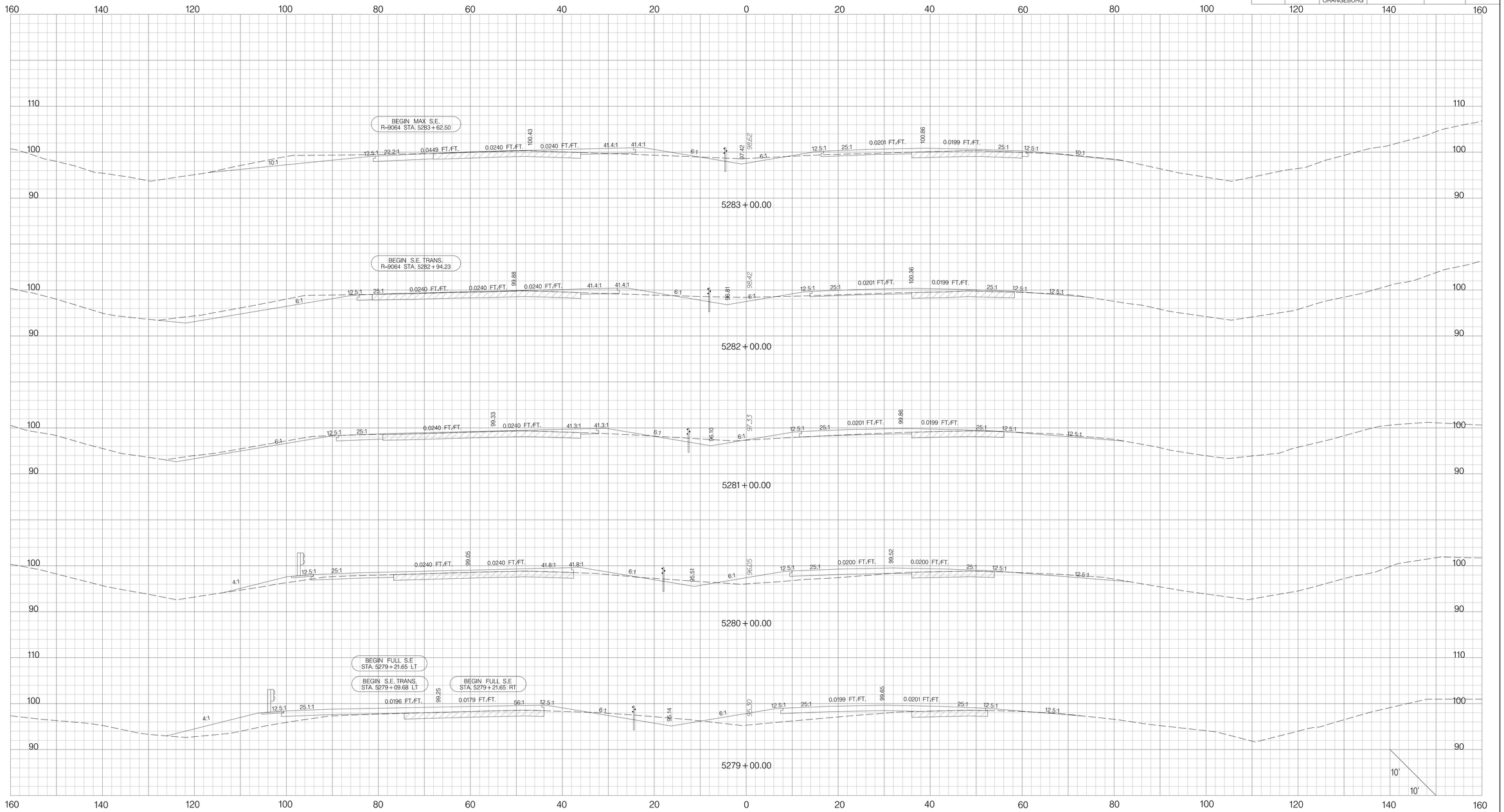
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X27

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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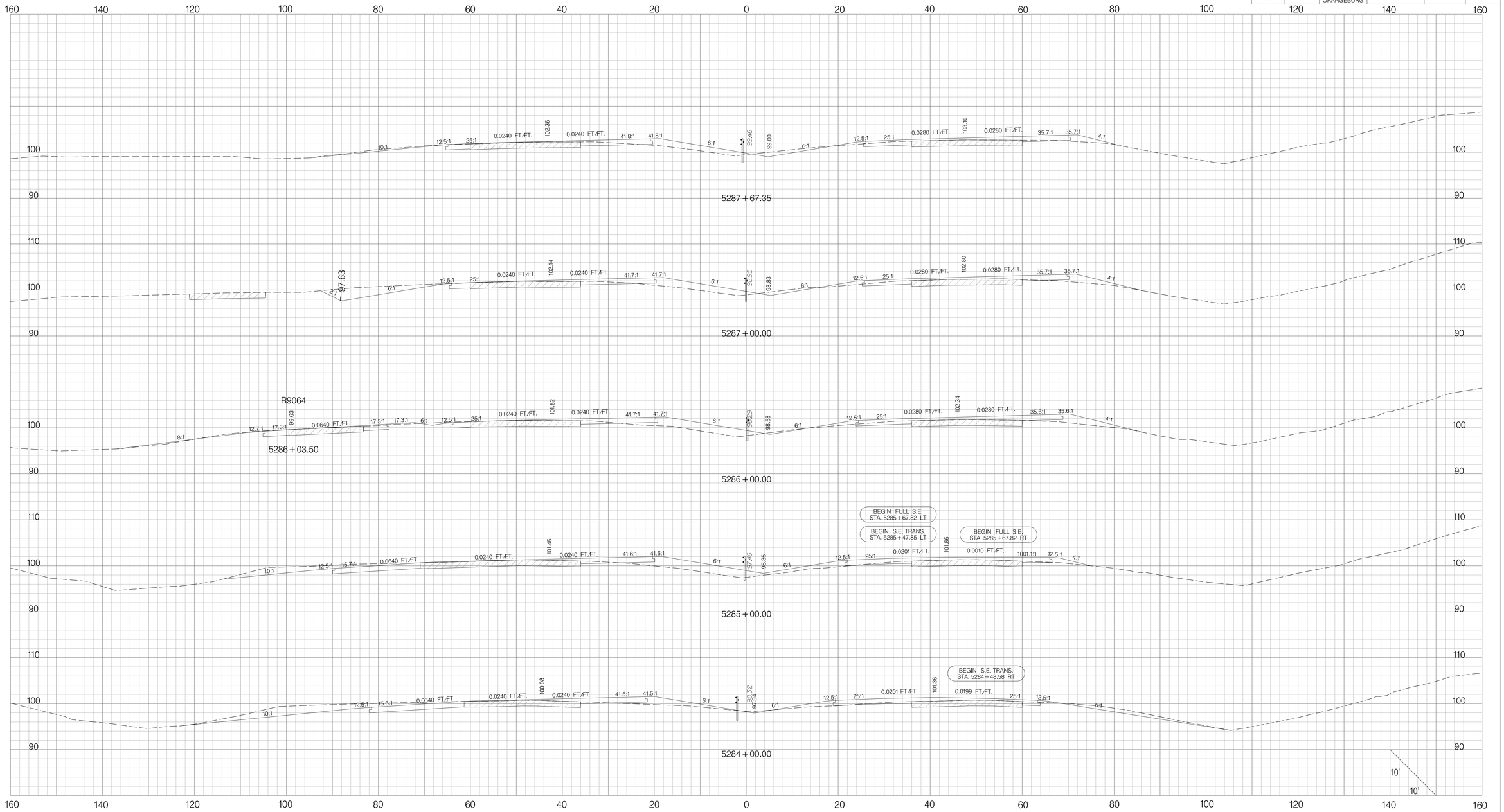
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X28

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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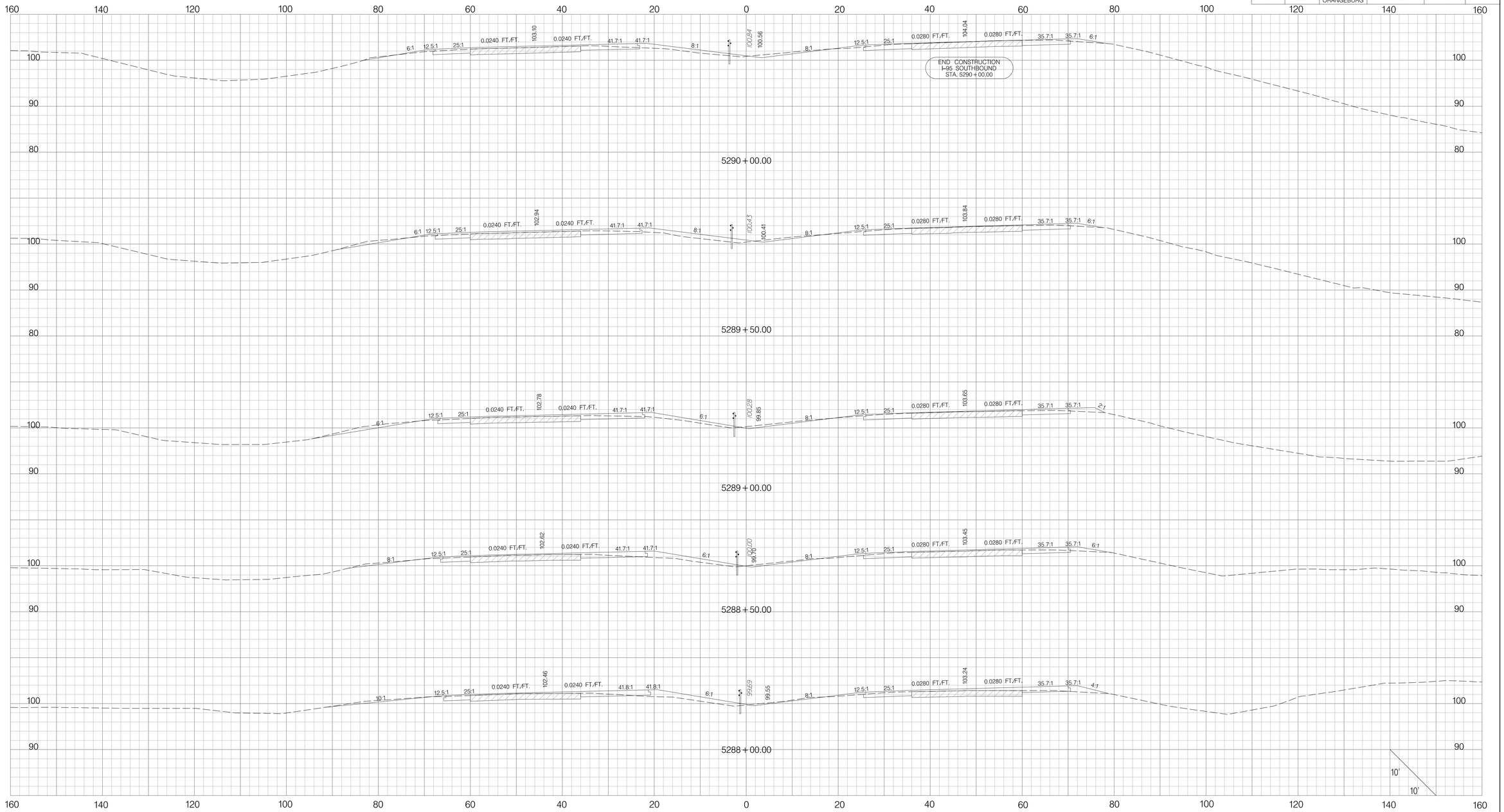
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X29

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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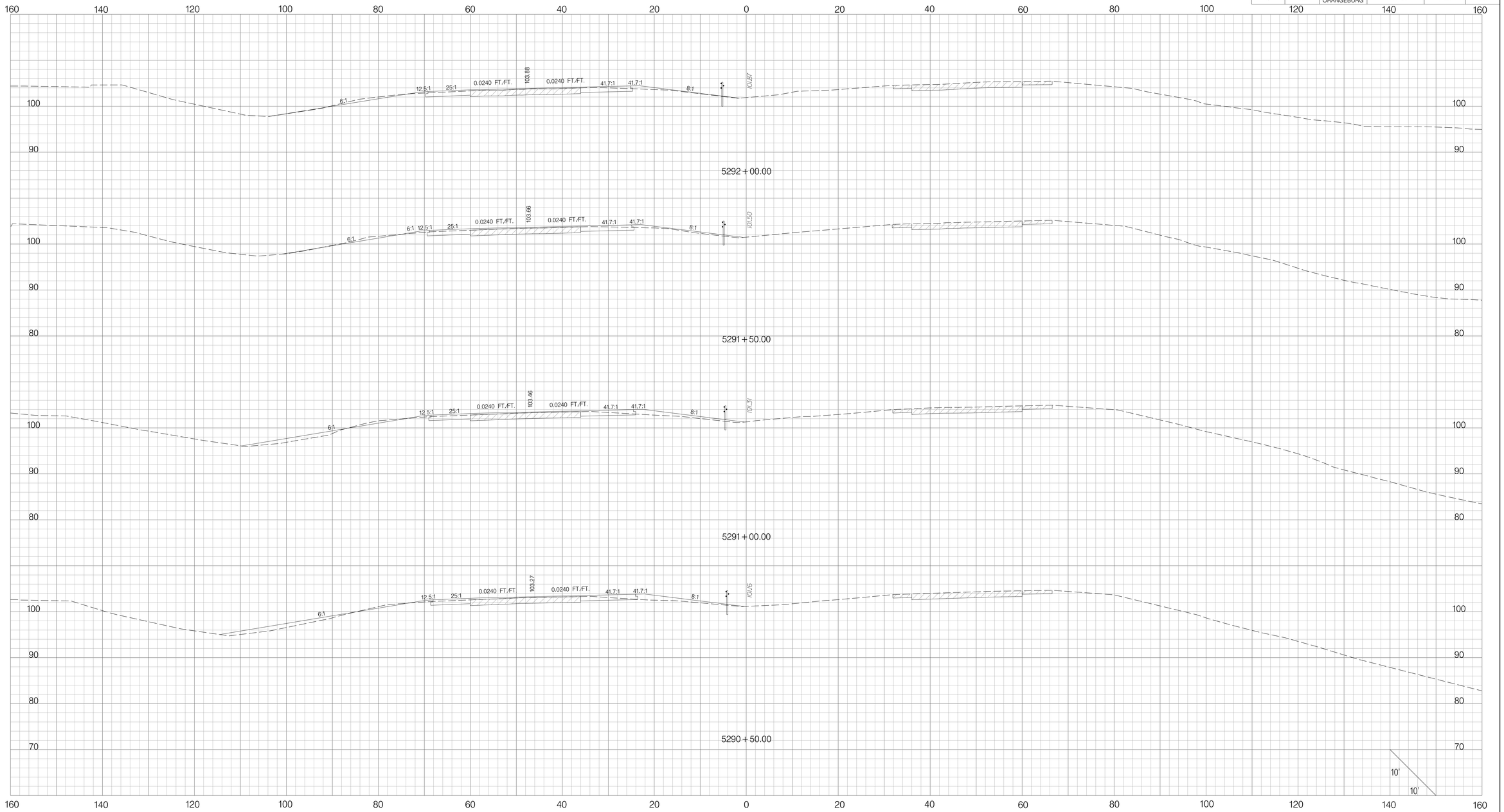
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X30

INTERSTATE 95



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8/27/2025

UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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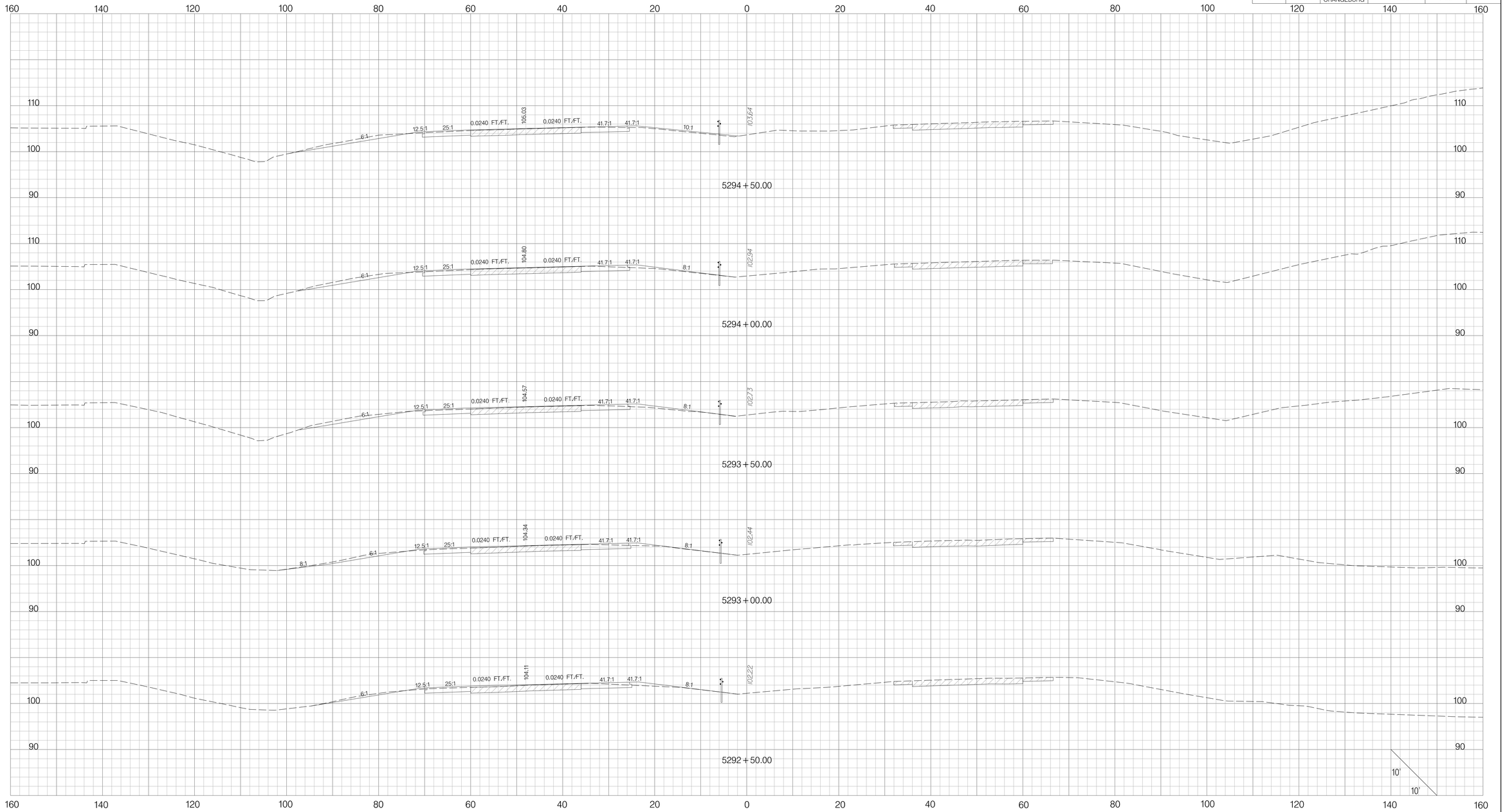
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X31

INTERSTATE 95



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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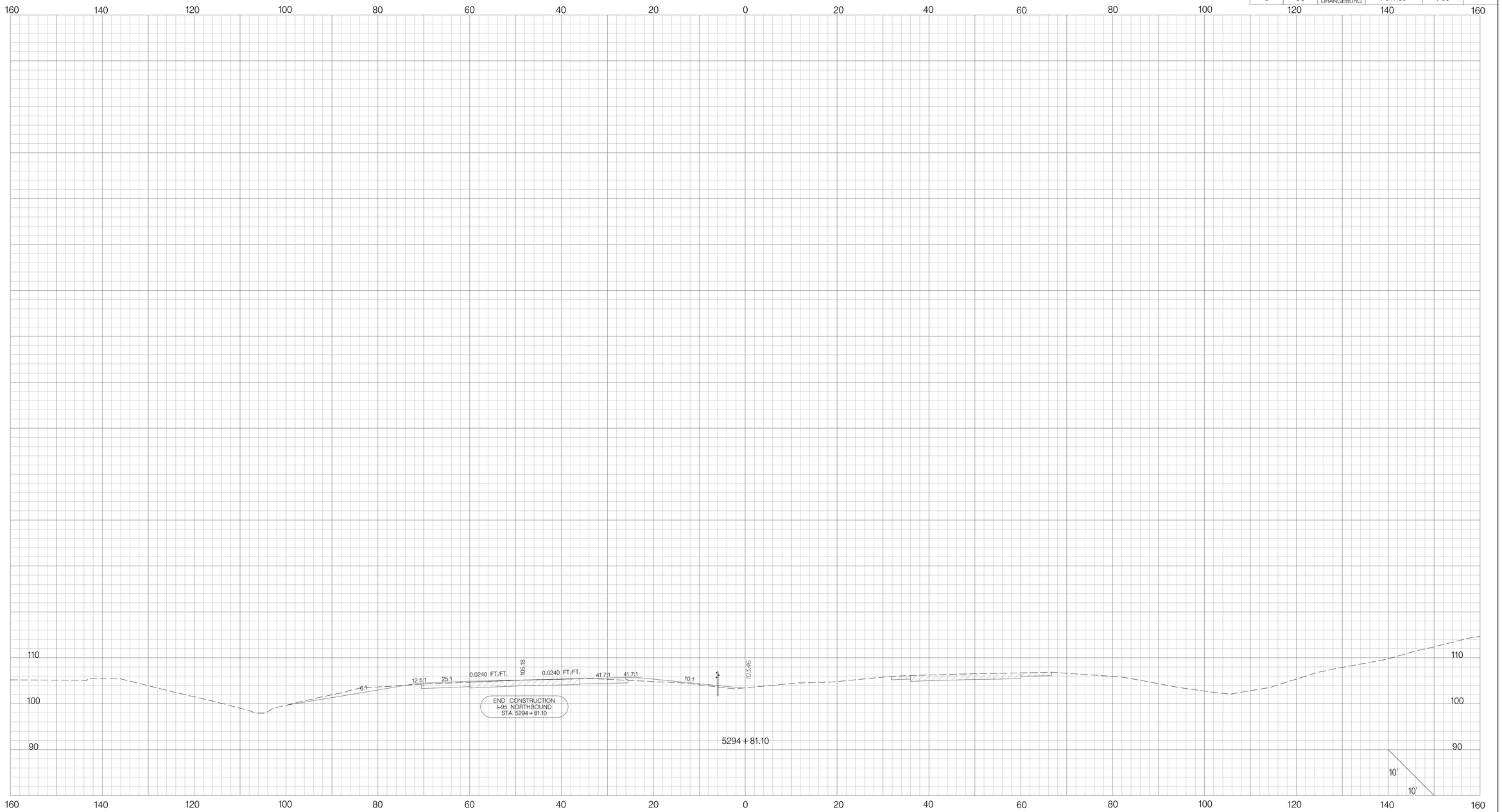
8/27/2025

INTERSTATE 95

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X32



UNITEDTRAYLOR
JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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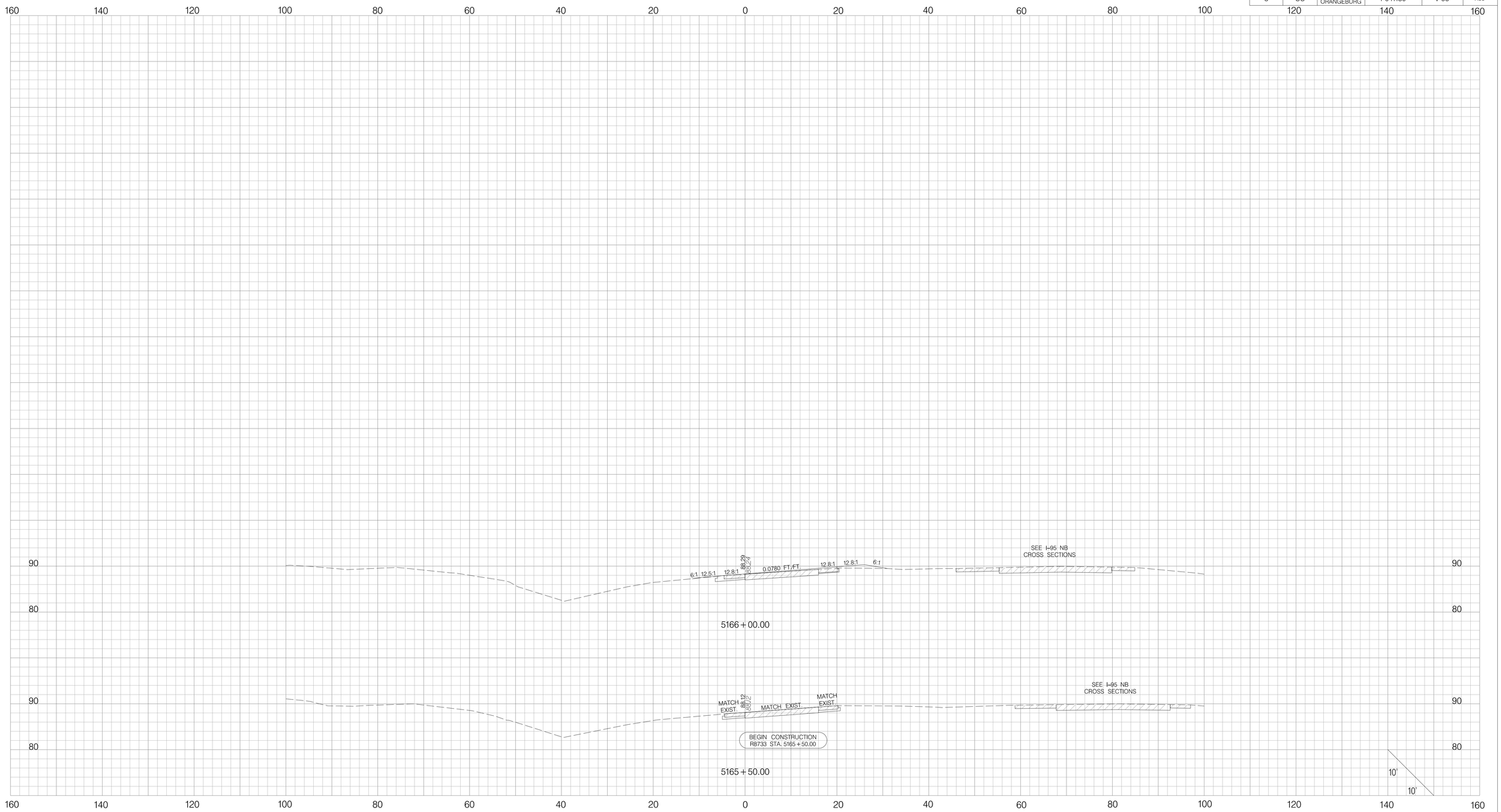
8/27/2025

R–8733 (EXIT 102 NB OFF–RAMP)

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I–95	X33



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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I–95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

R-9064 (NB REST AREA ON-RAMP)

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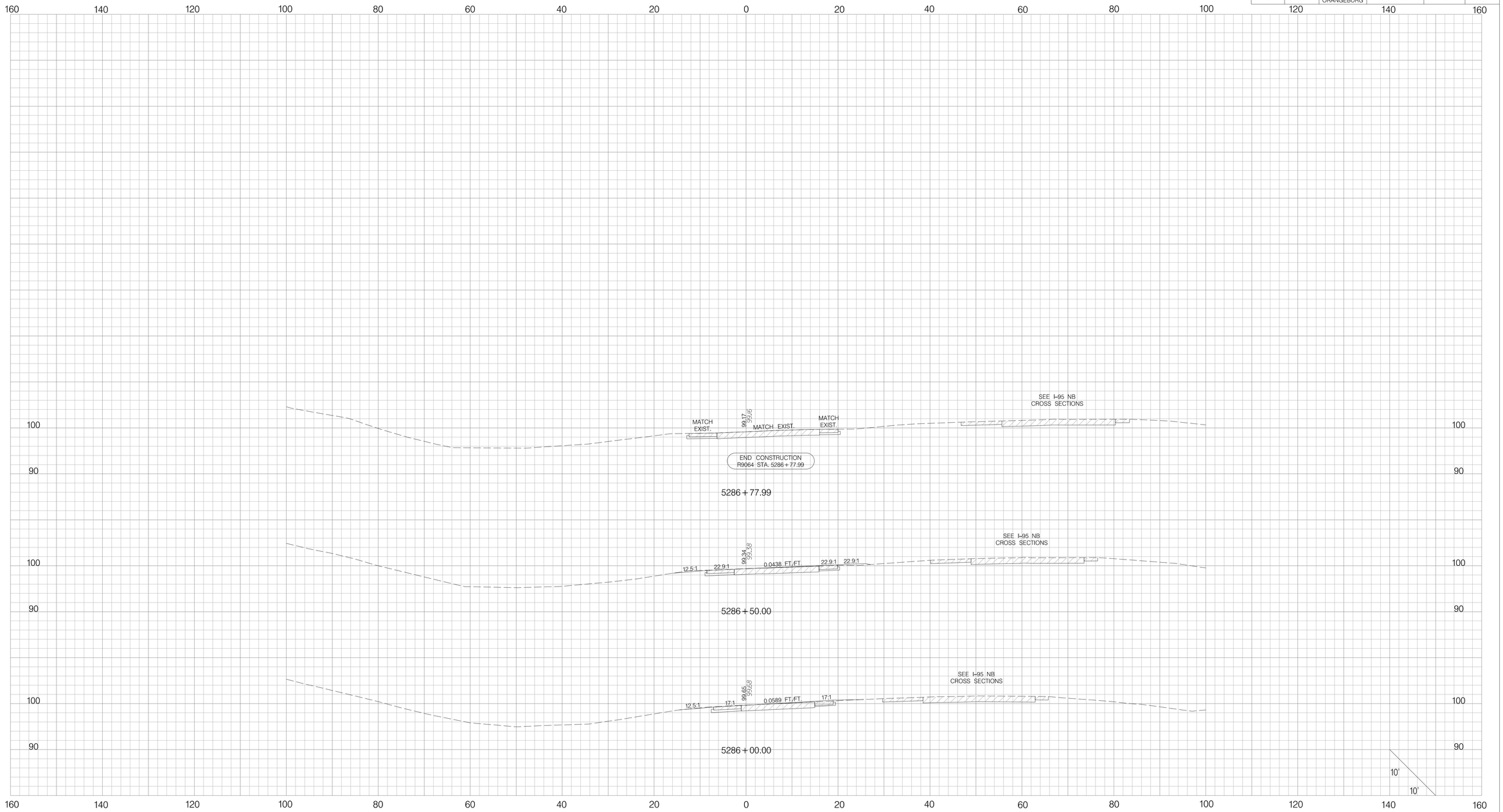
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X34



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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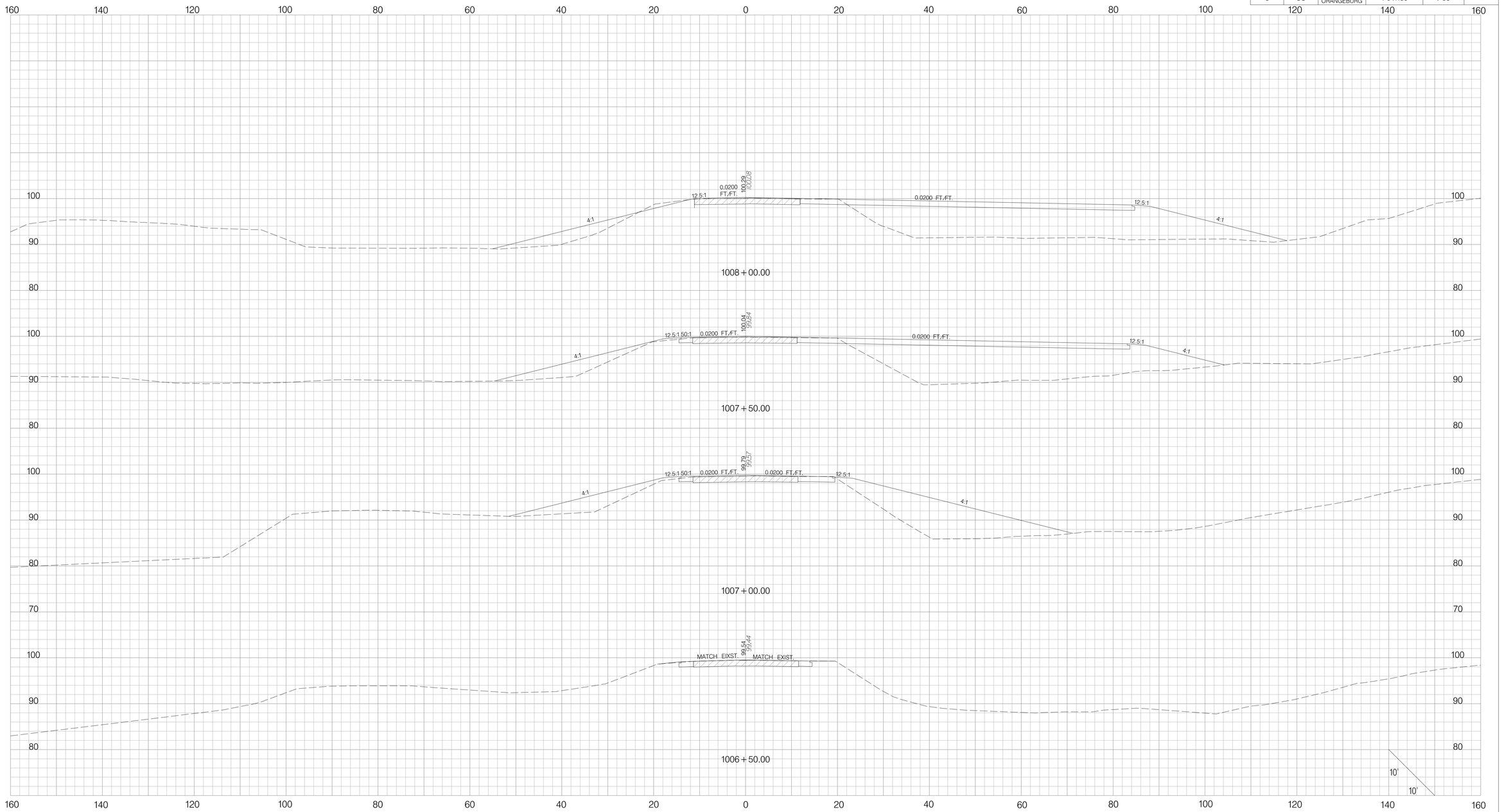
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X35

BASS DRIVE (S-430)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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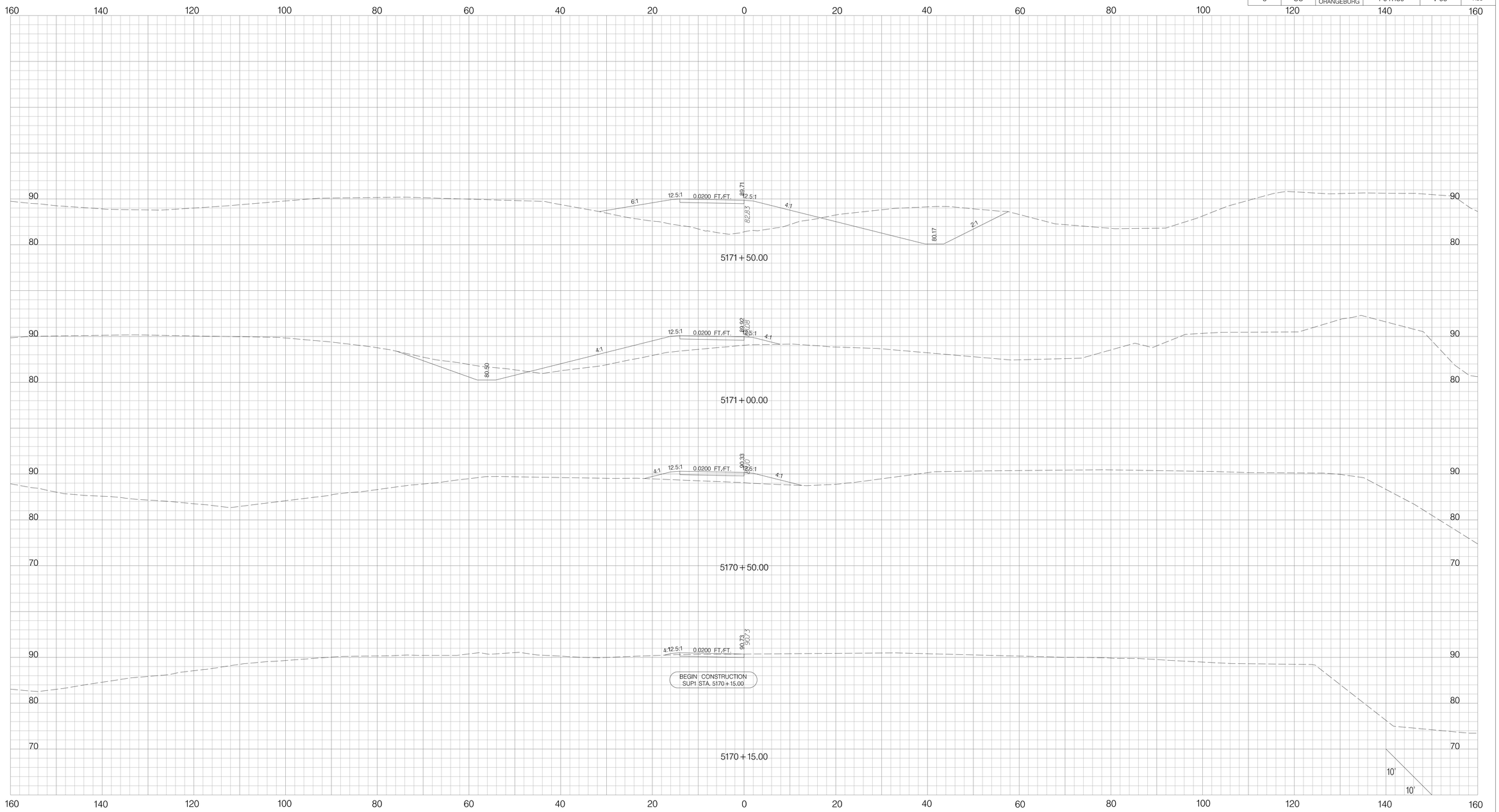
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X36

SHARED USE PATH (SUP1)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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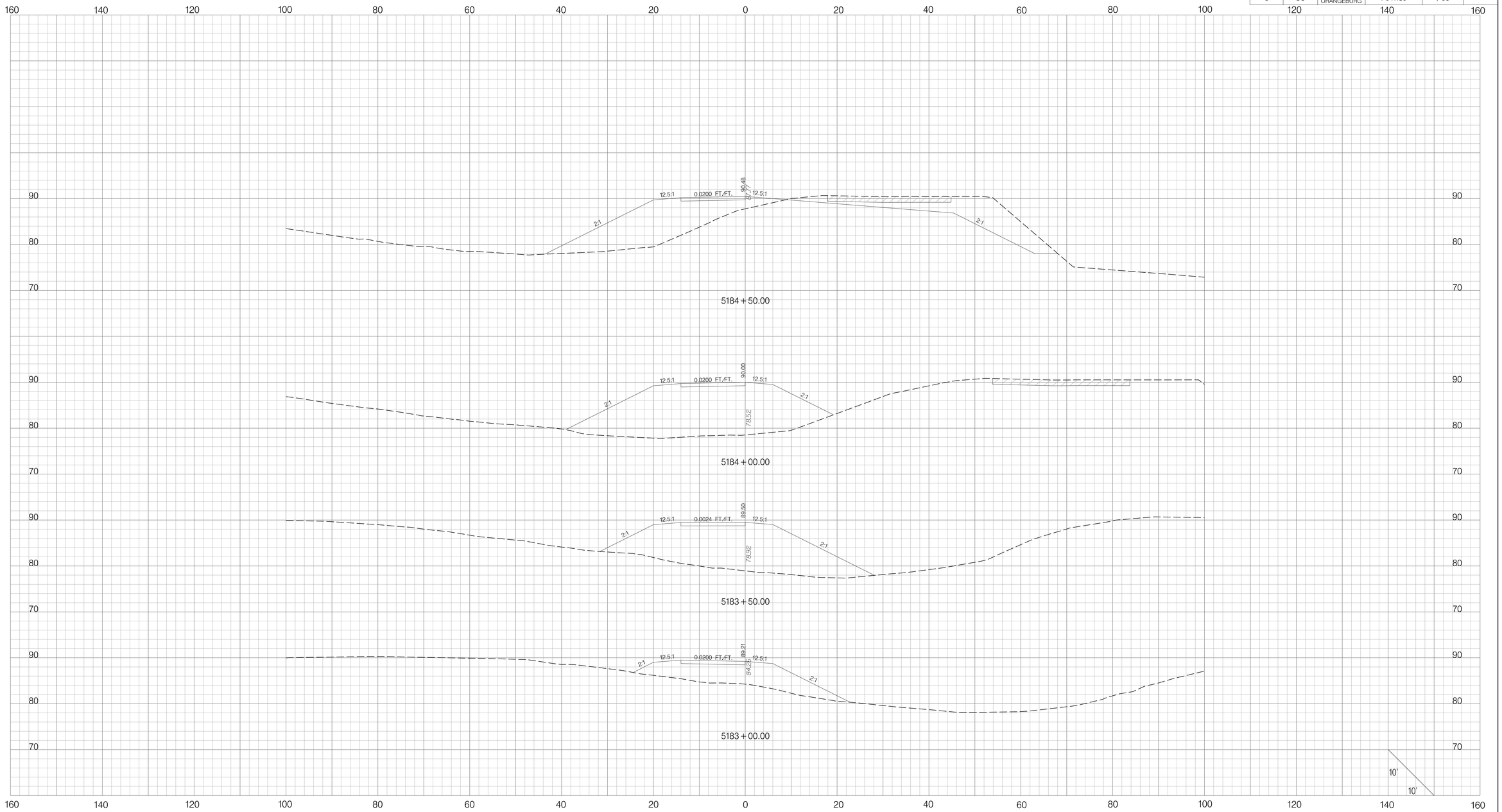
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X37

SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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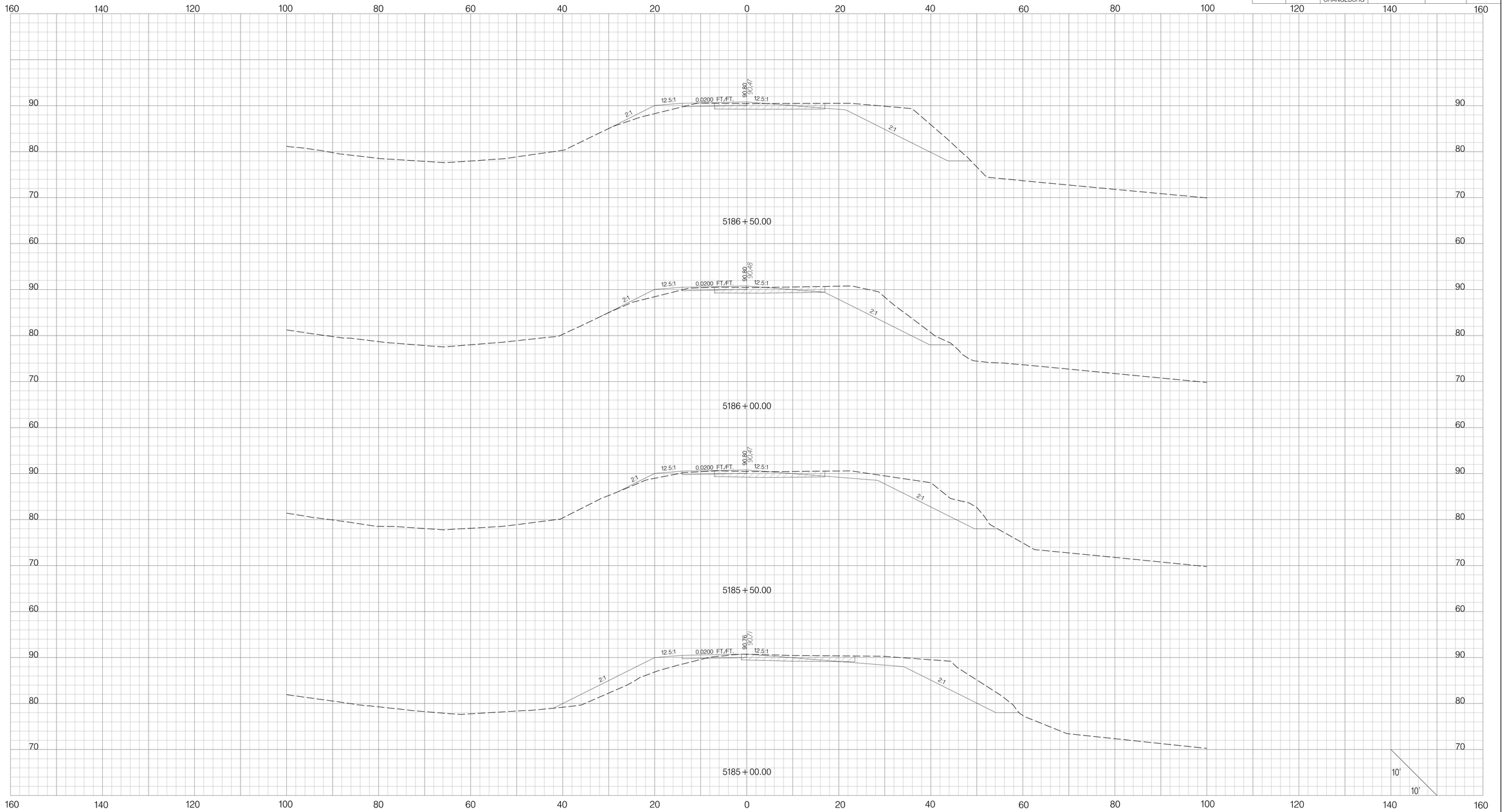
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X38

SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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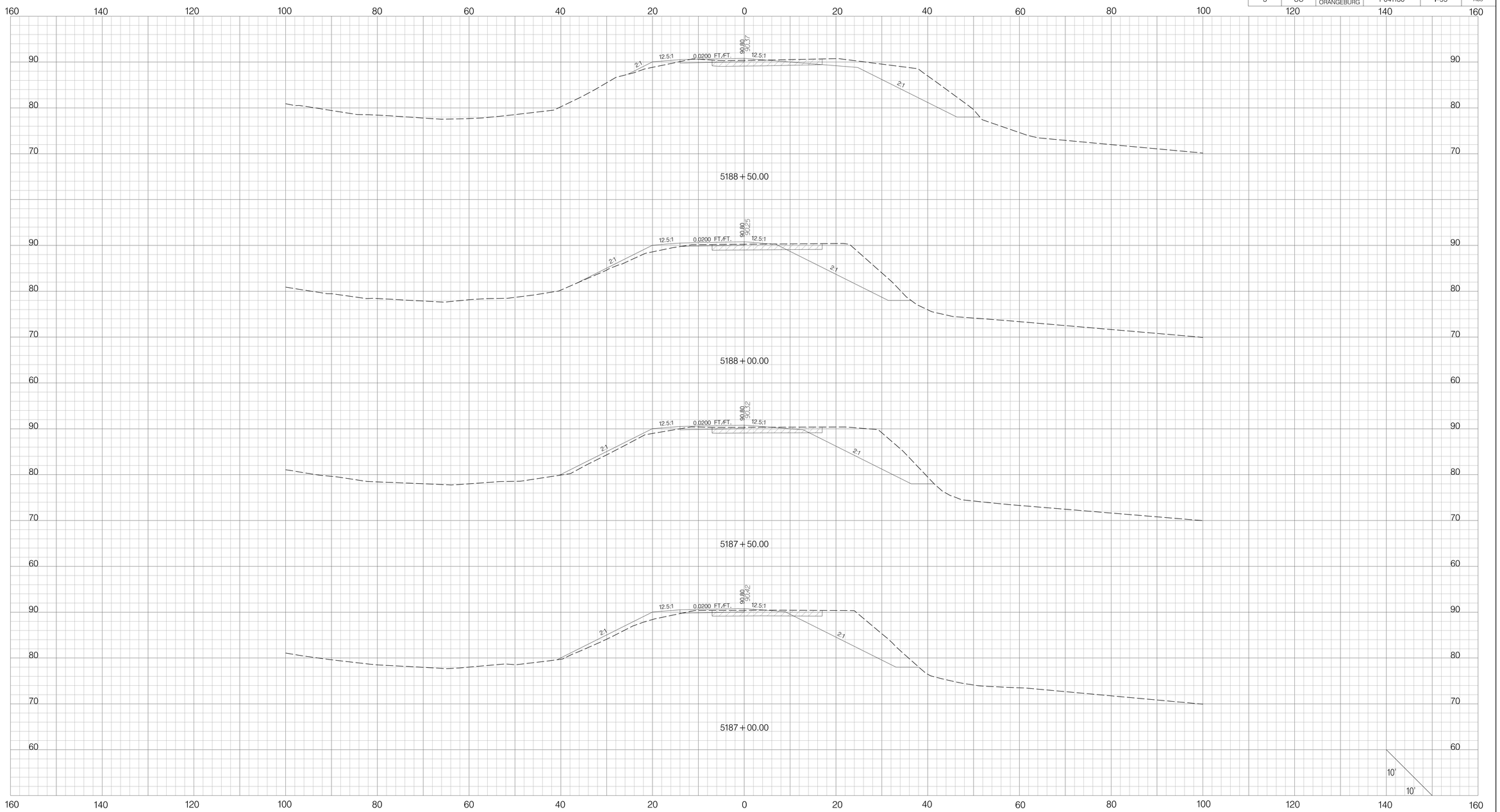
FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X39

SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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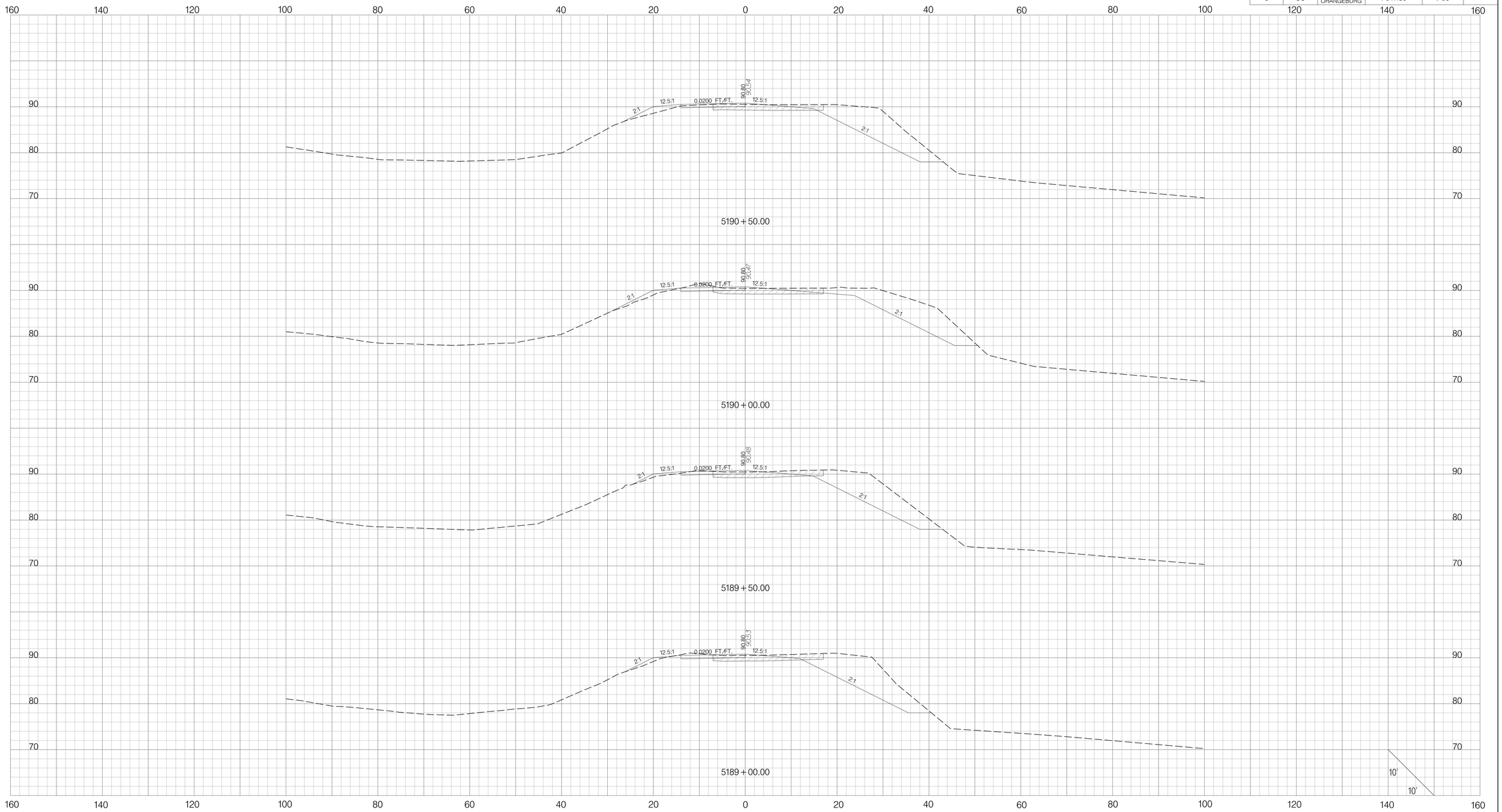
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X40

SHARED USE PATH (SUP2)



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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
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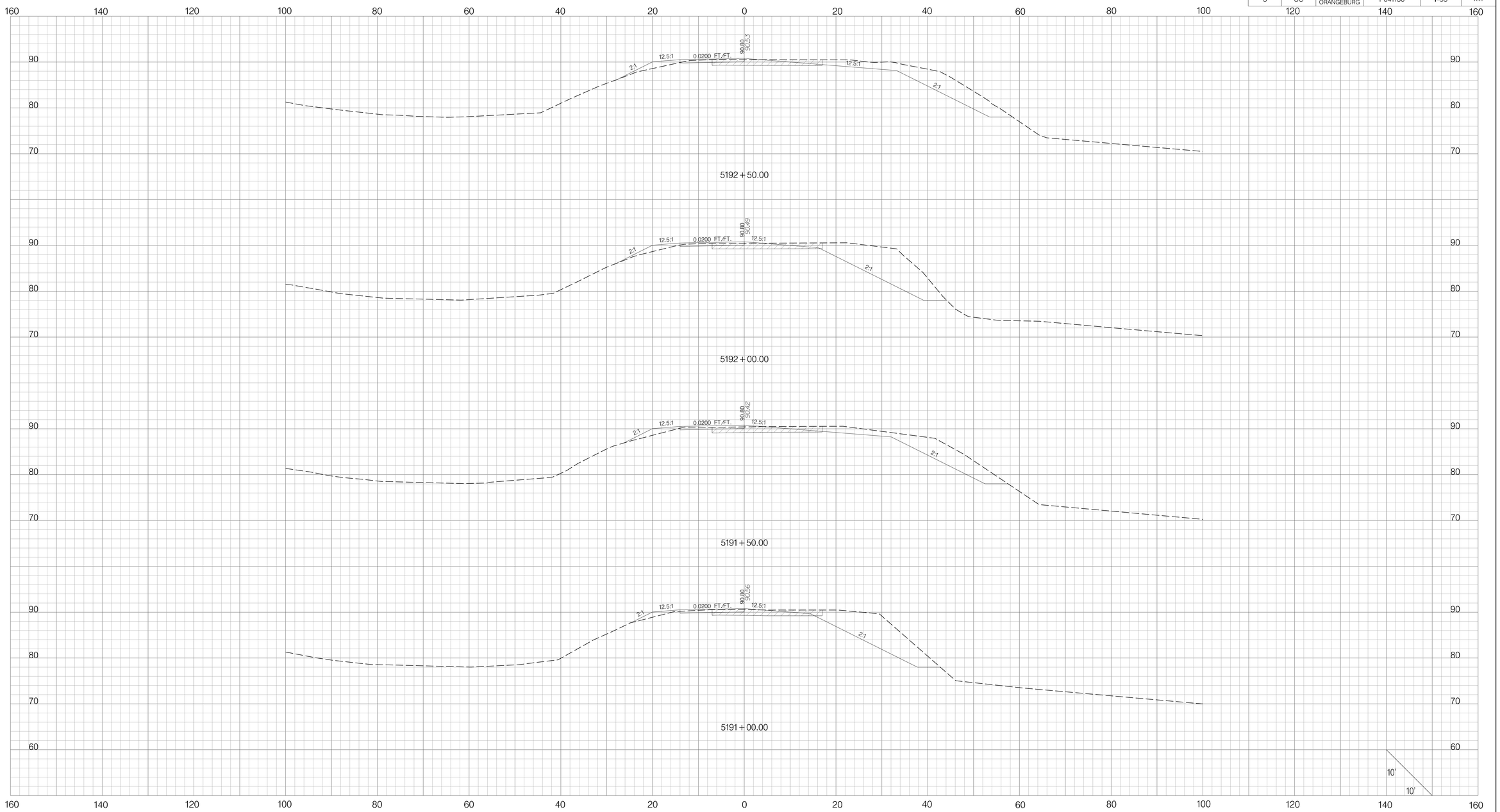
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X41

SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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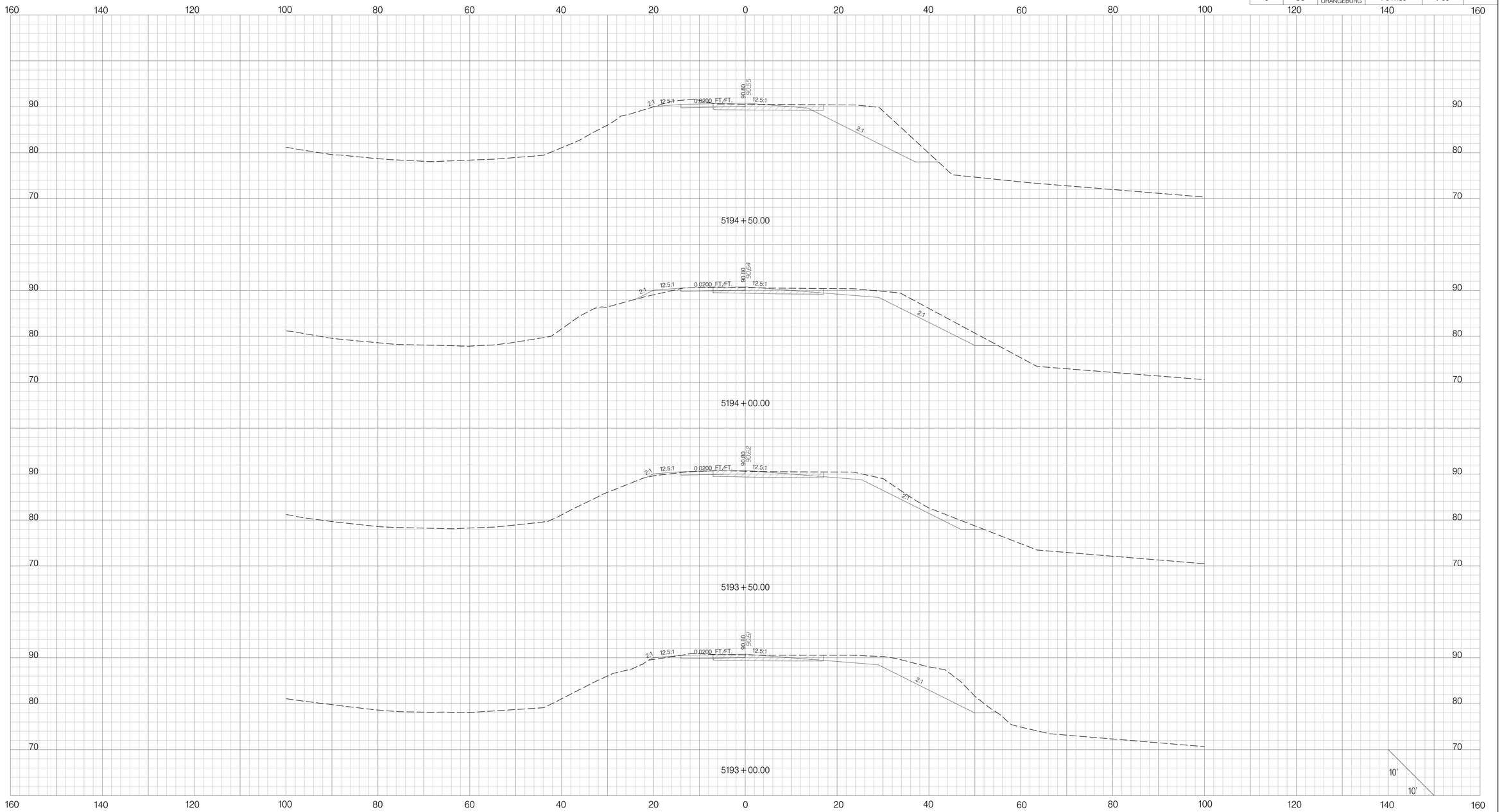
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X42

SHARED USE PATH (SUP2)



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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
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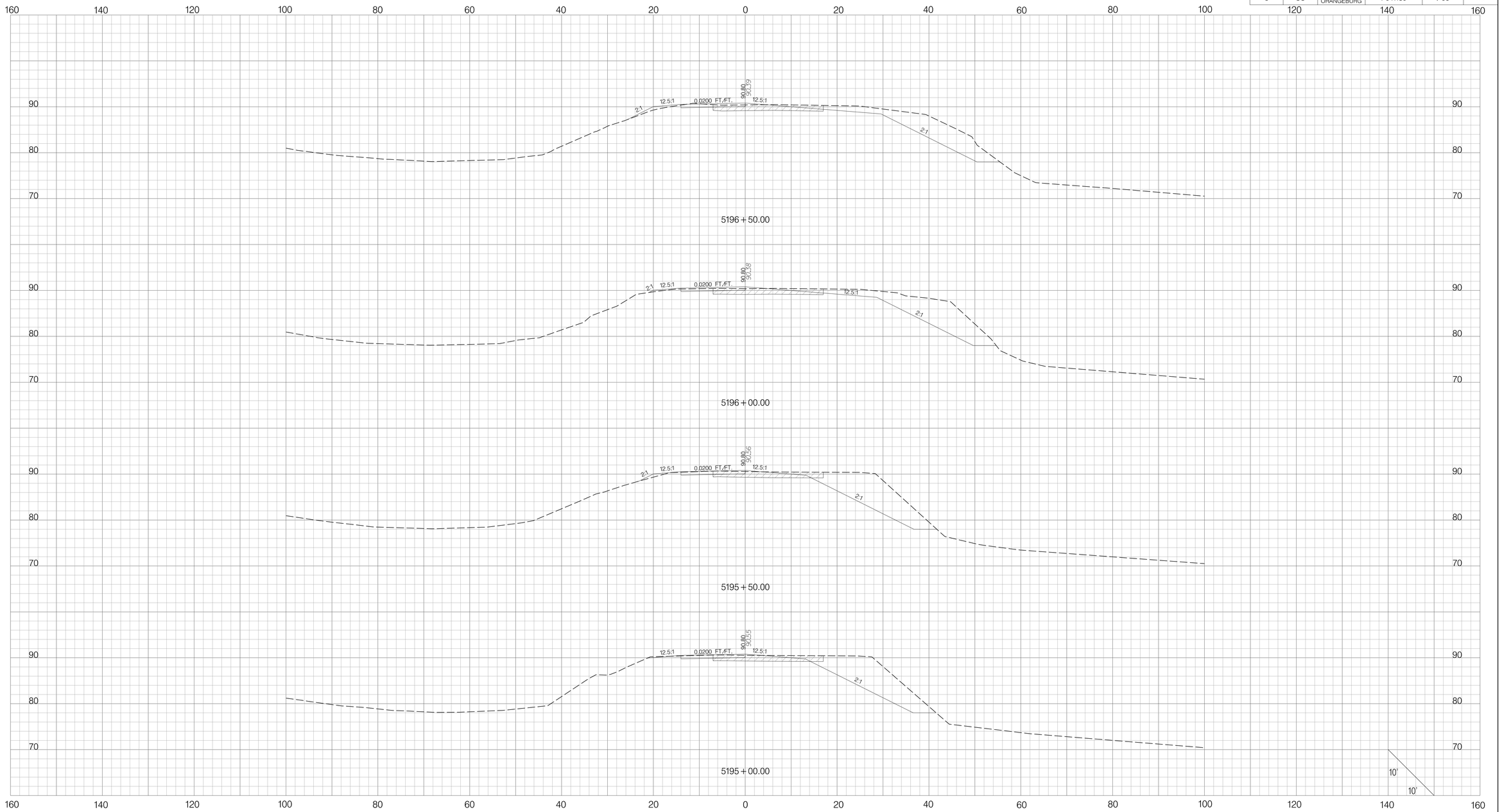
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X43

SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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4			
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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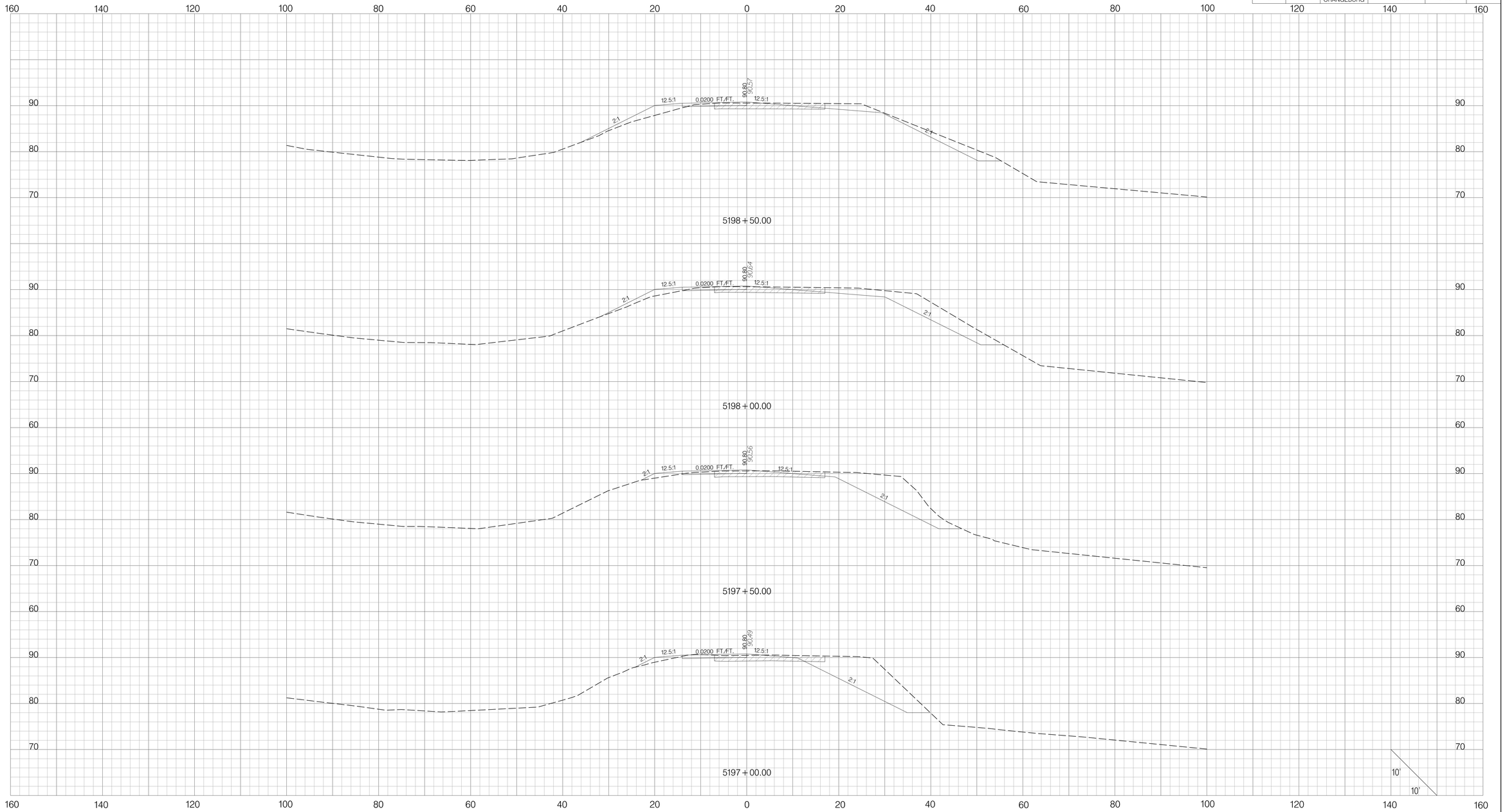
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X44

SHARED USE PATH (SUP2)



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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
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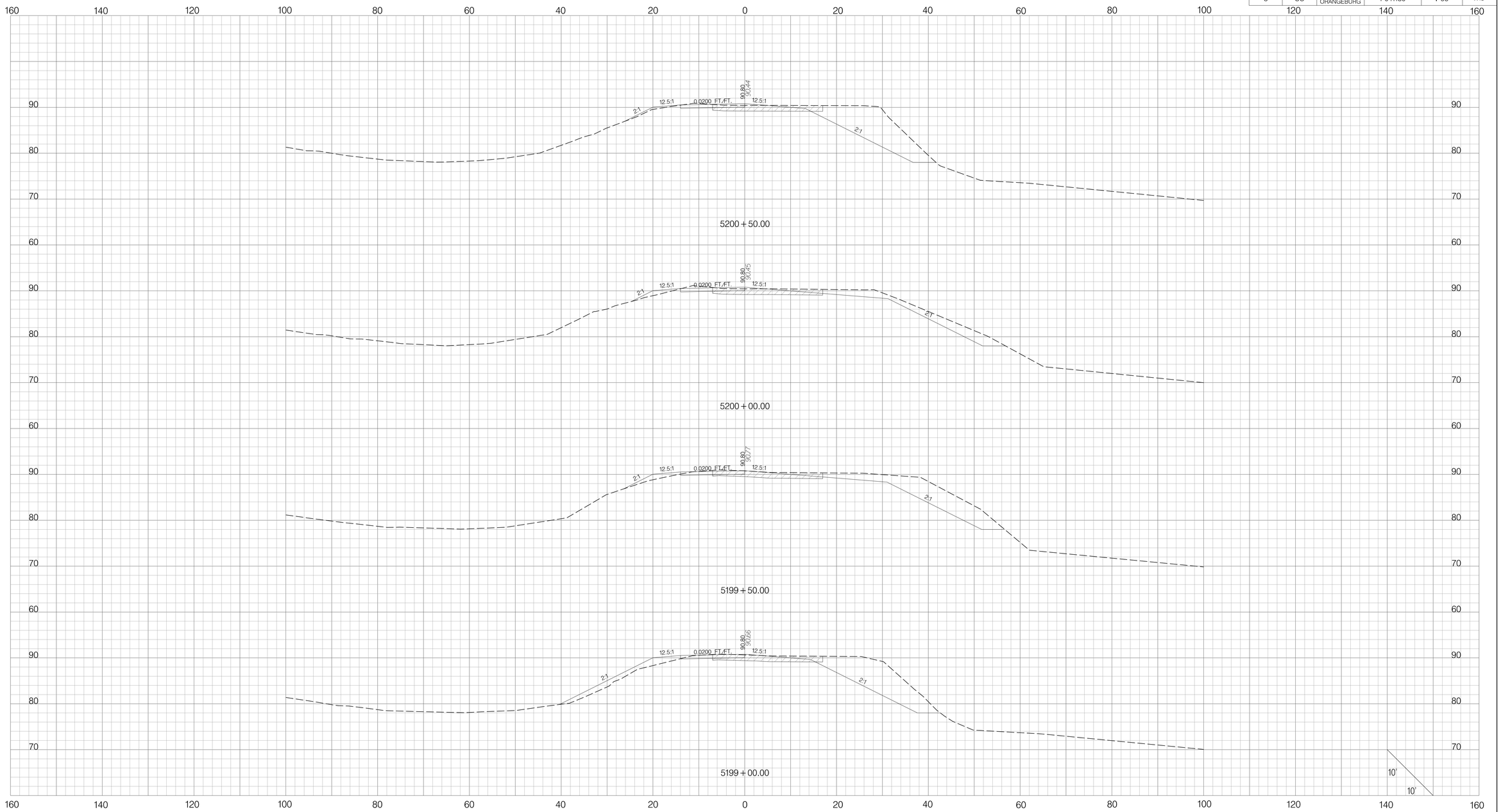
SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
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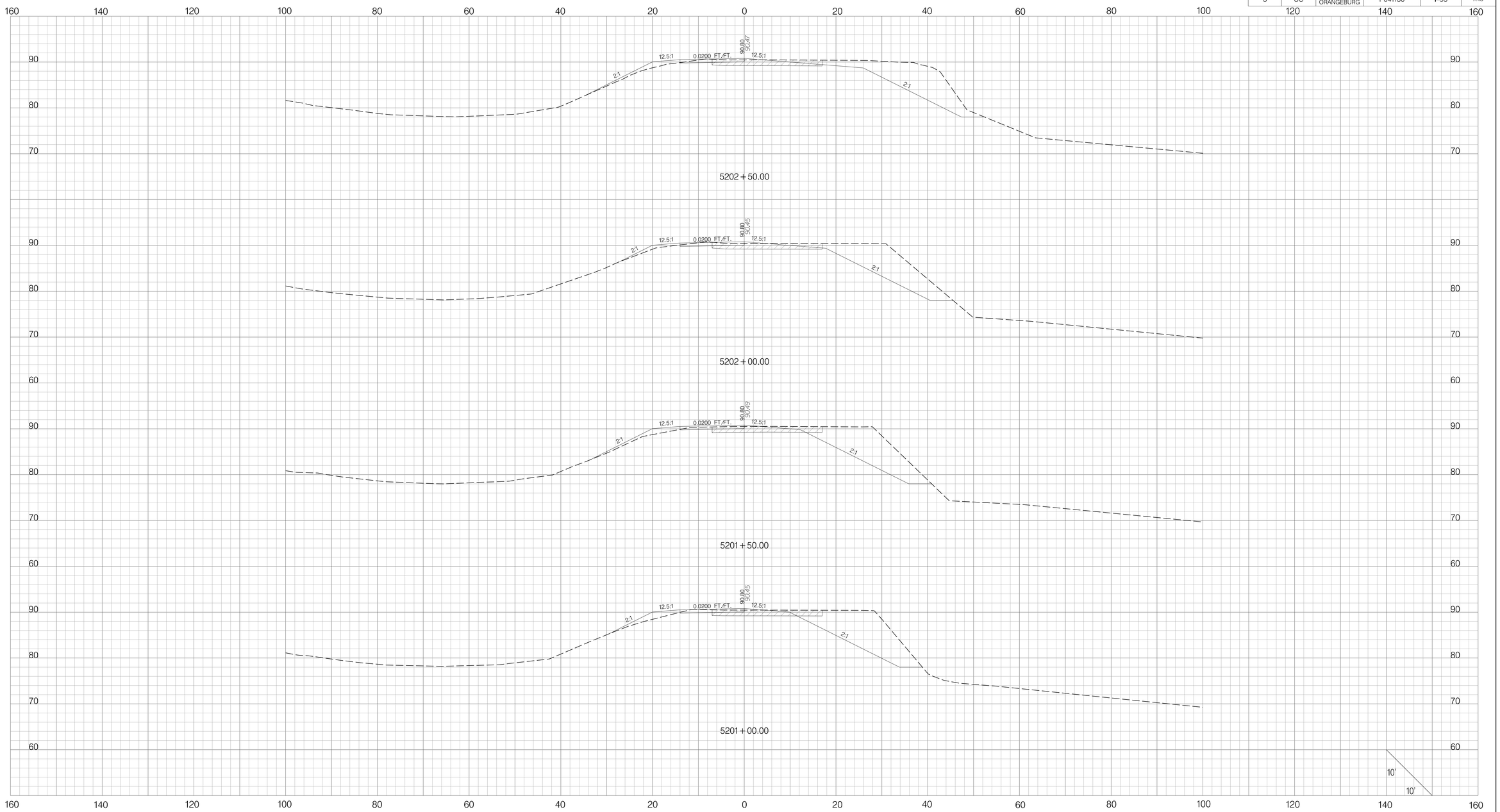

UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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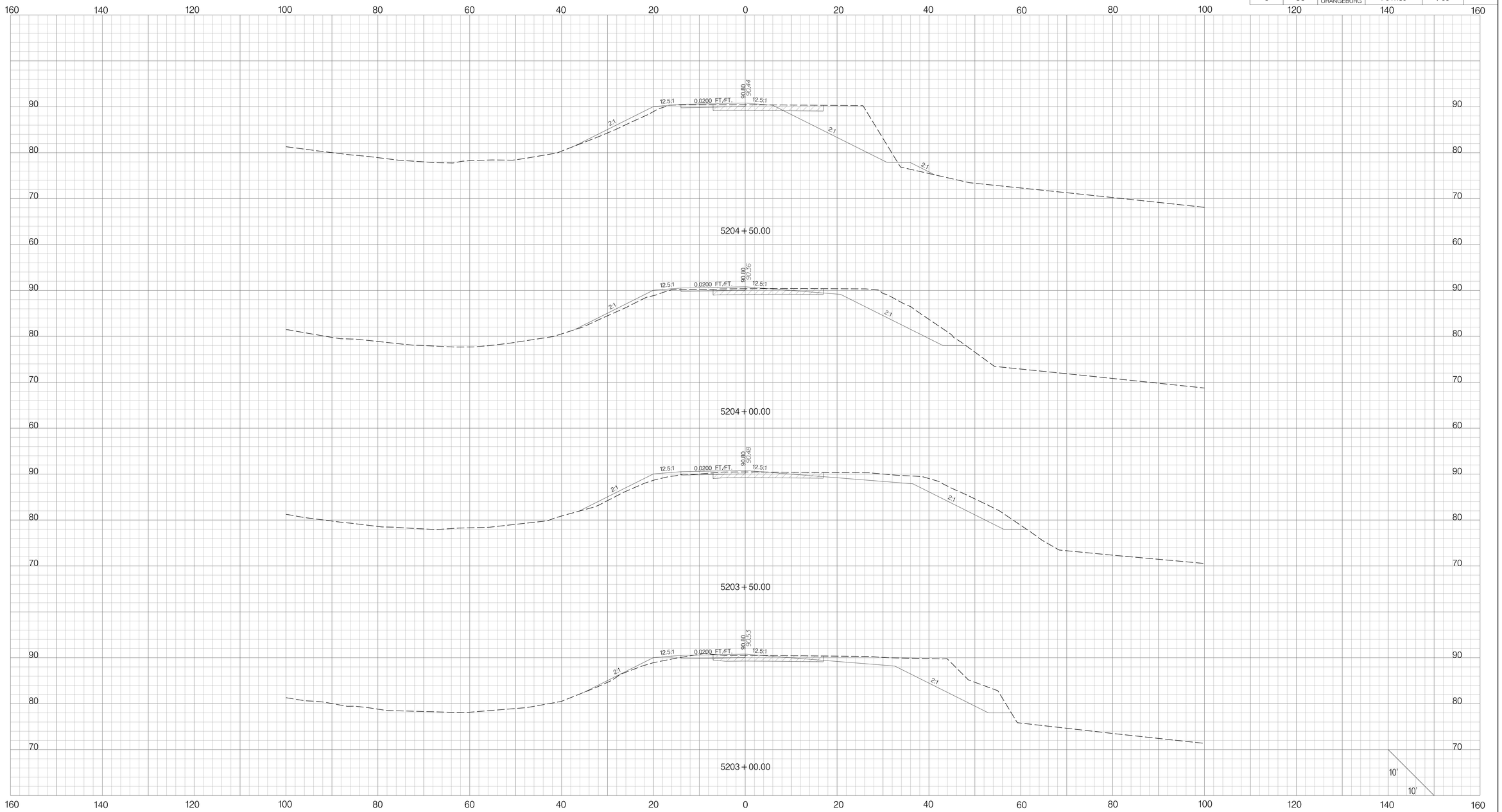
FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X47

SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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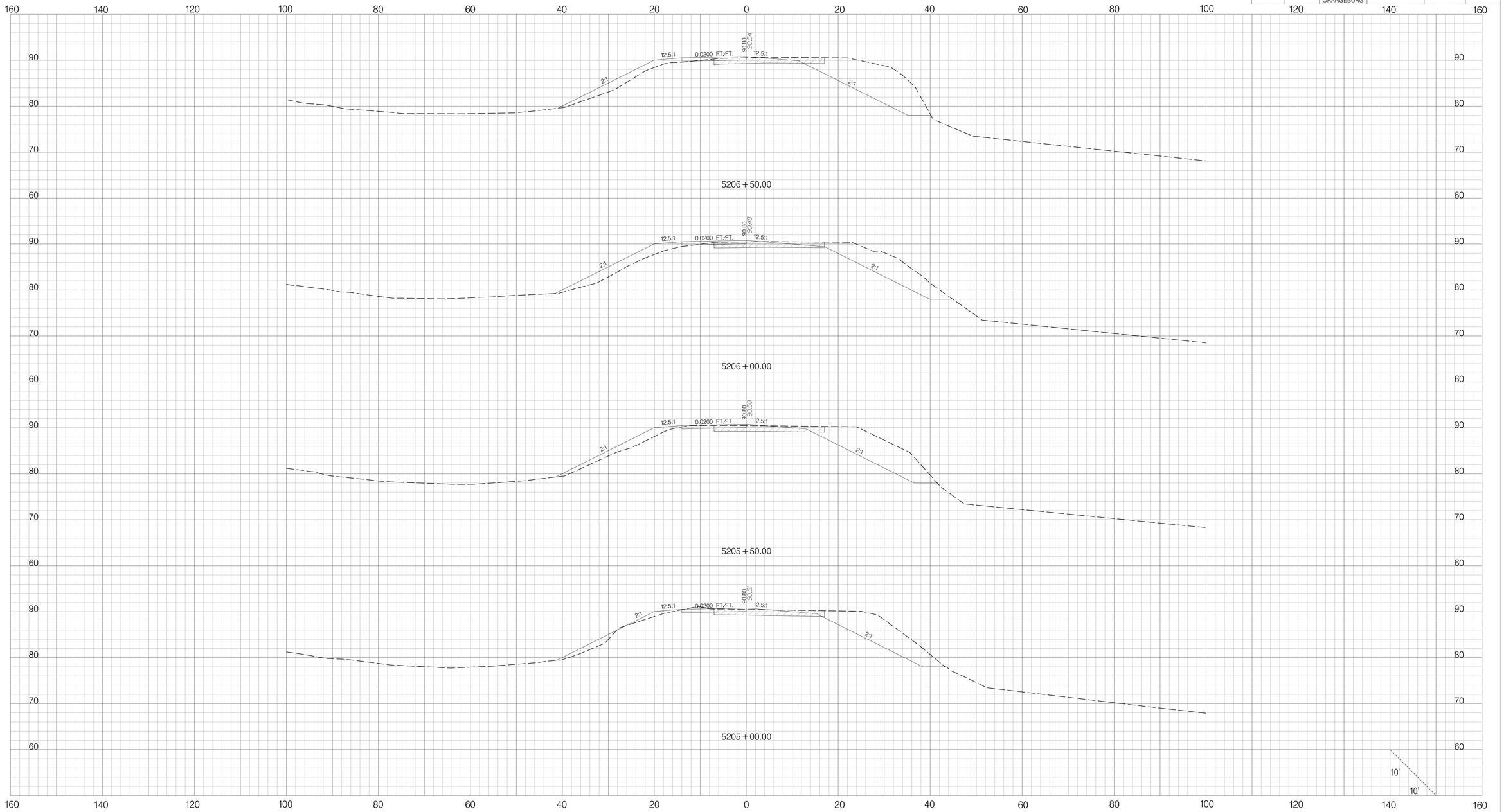
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X48

SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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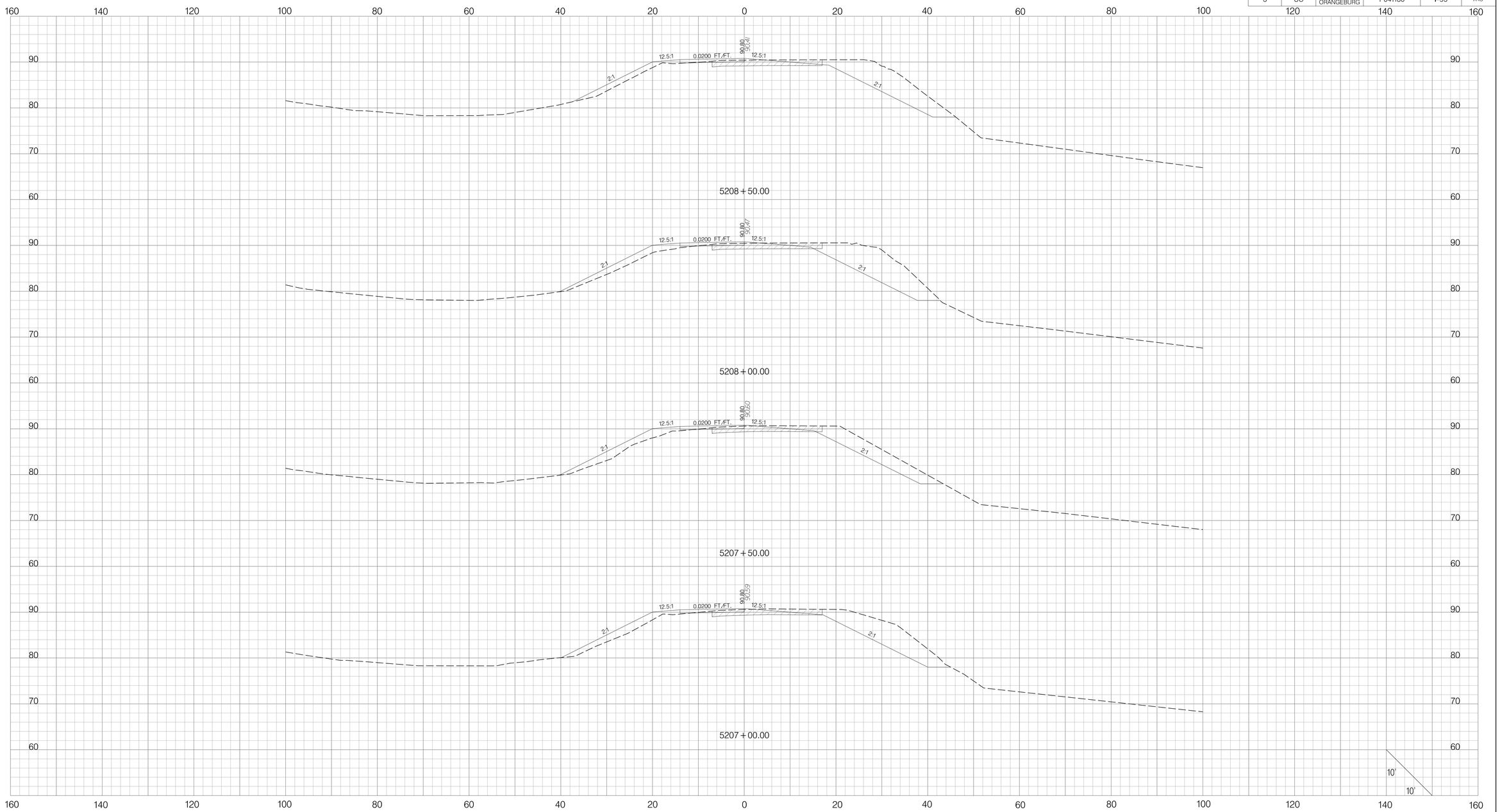
8/27/2025

FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X49

SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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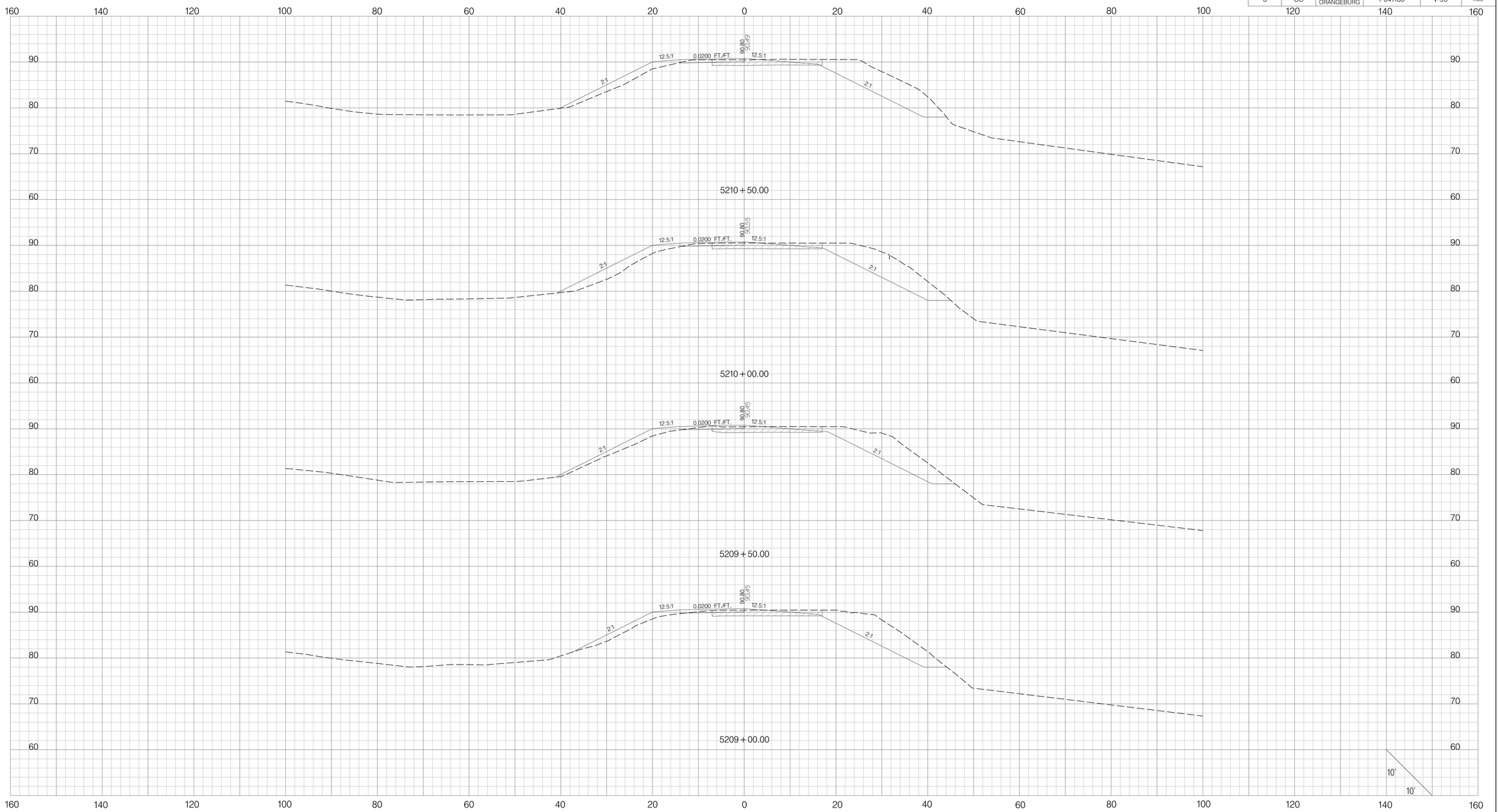
FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X50

SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

CROSS SECTION SHEET

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FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
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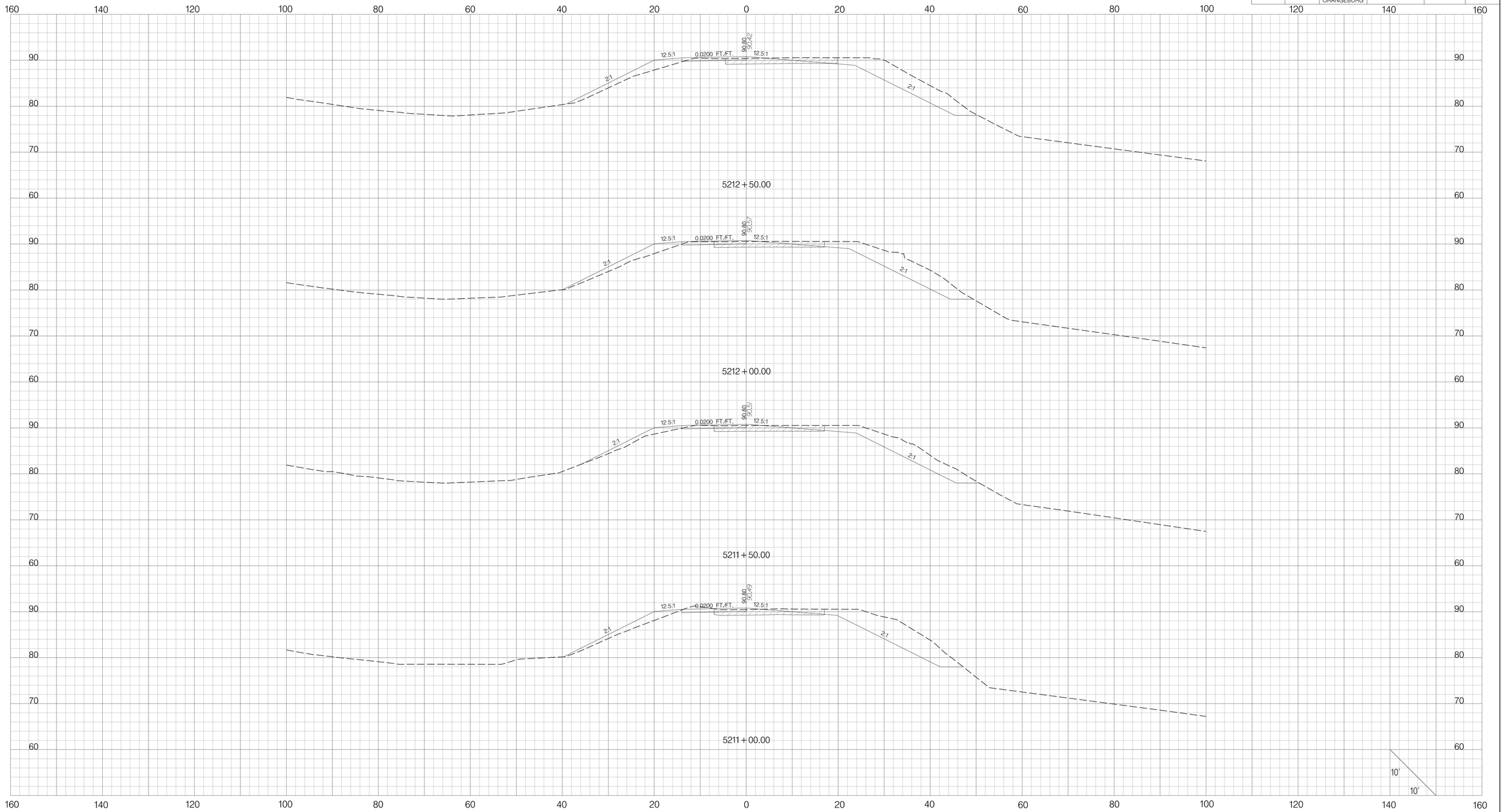
SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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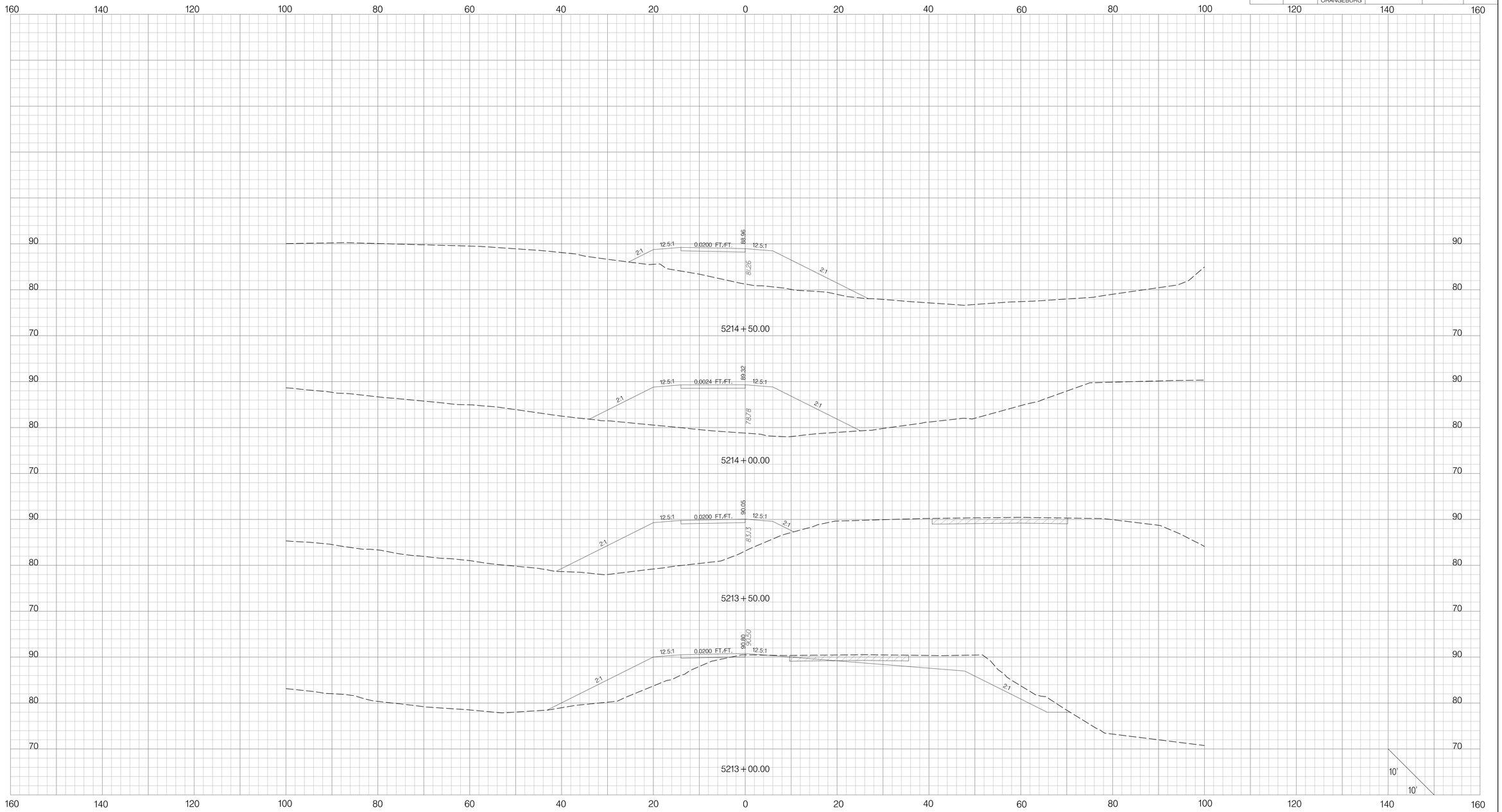
FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X52

SHARED USE PATH (SUP2)



UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

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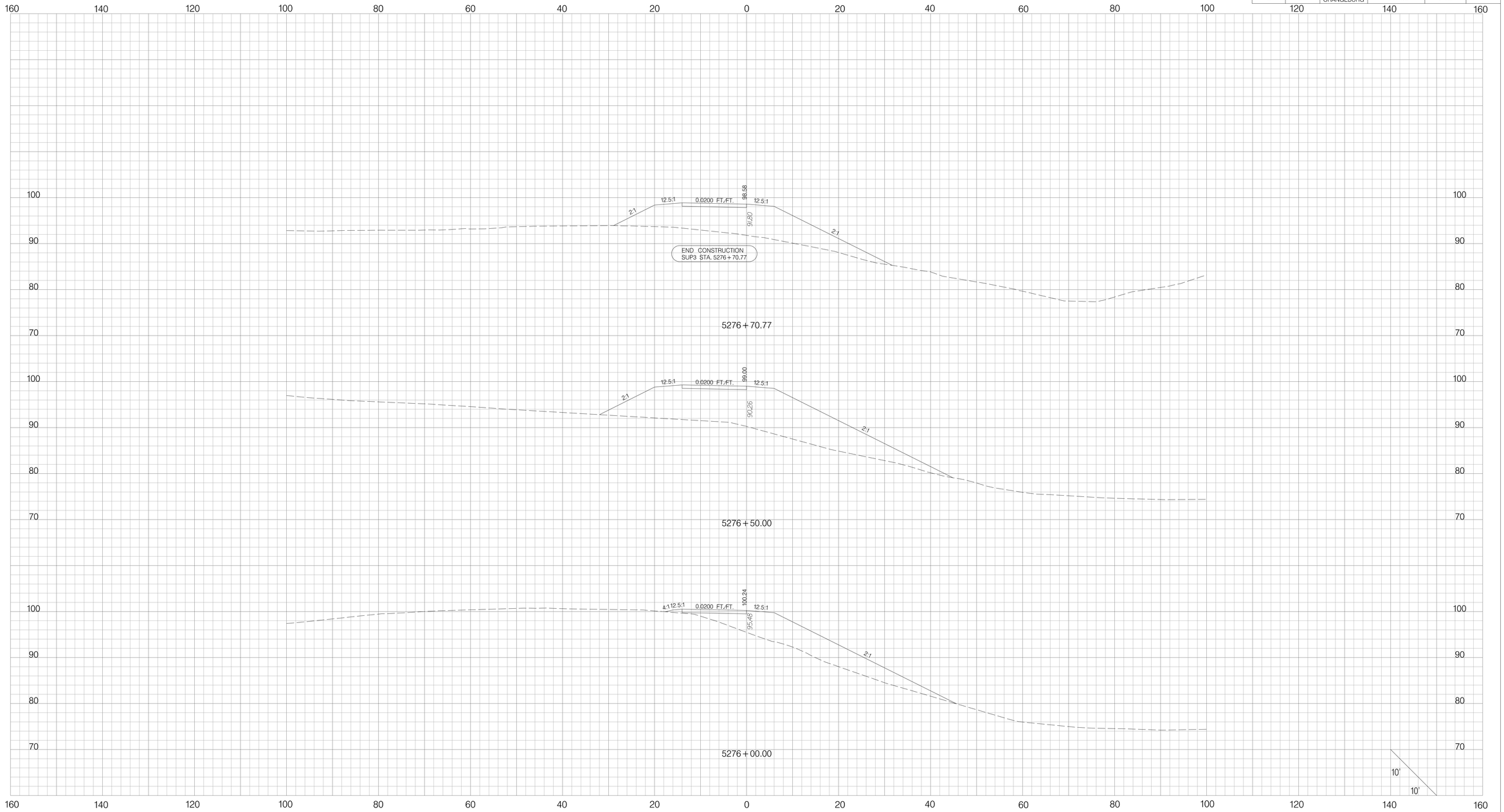
FED. RD. DIV. NO.	STATE	COUNTY	PROJECT ID	ROAD / ROUTE NO.	SHEET NO.
3	SC	CLARENDON ORANGEBURG	P041130	I-95	X53

SHARED USE PATH (SUP3)



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UNITEDTRAYLOR JOINT VENTURE

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

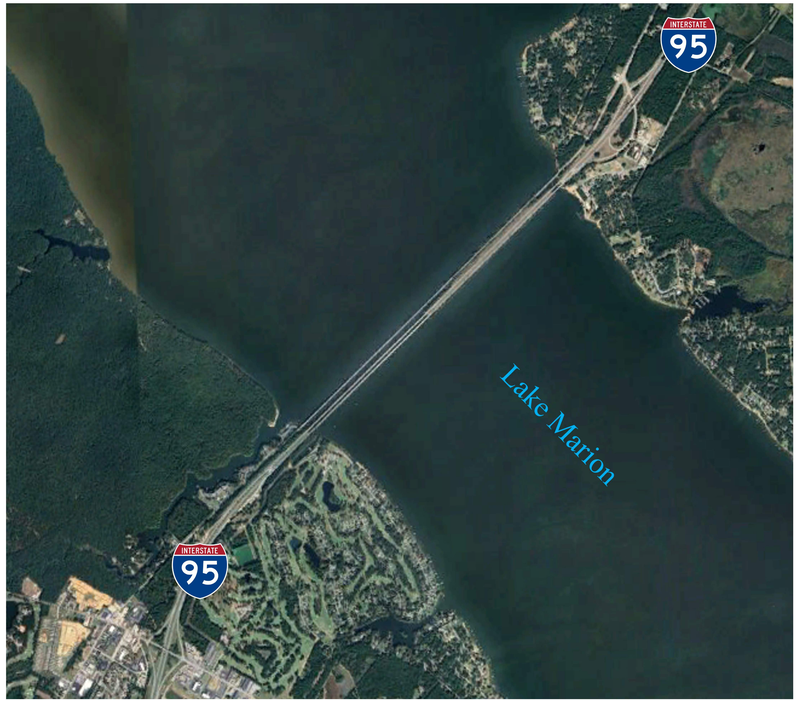
I-95 OVER LAKE MARION
BRIDGE REPLACEMENT

CROSS SECTION SHEET

APPENDIX A.2

Conceptual MOT Plans

Project Map



Other RFP Requested Data
MOT Plans

a) Plan for areas deemed critical by the design team for staging concerns: Critical areas of staging concerns have been addressed in each phase of the Conceptual MOT Plans, with our most critical staging concerns being:

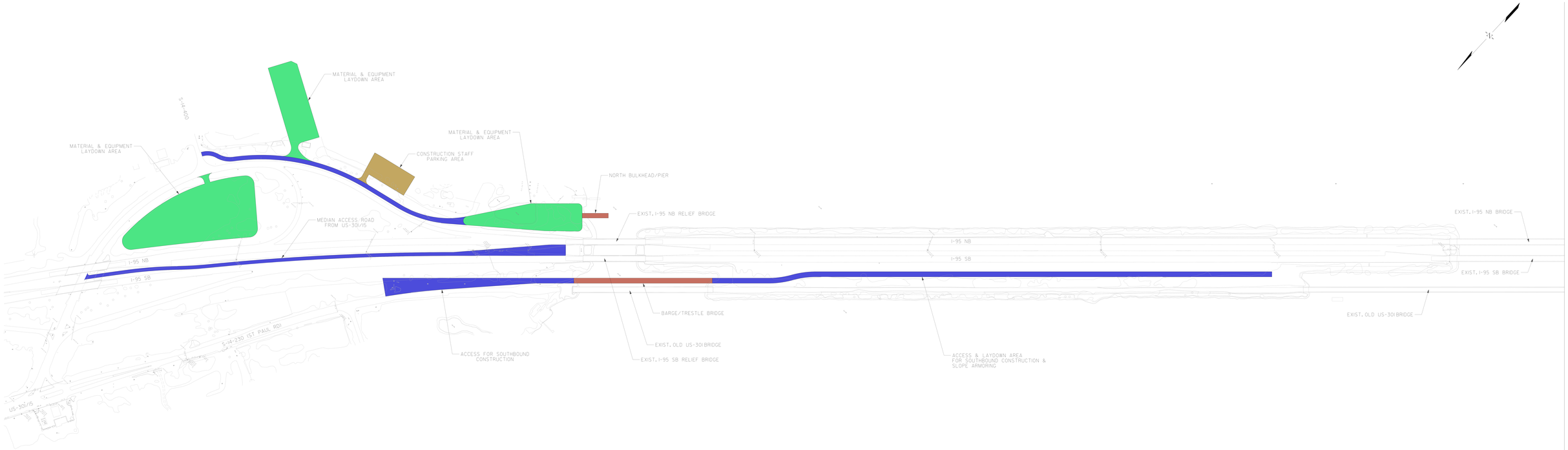
1. Median access to I-95 prior to the relief bridge
2. Construction of the relief bridge
3. Median access to I-95 along the causeway
4. Construction of the northbound and southbound main bridges
5. Construction of the shared-use path and slope armoring
6. The safety of motorists, SCDOT personnel, QA/QC staff and construction crews adjacent to the workzone are always paramount and is the **NO. 1 PRIORITY for United Traylor Joint Venture**.

Each MOT phase was designed to minimize temporary lane closures, traffic shifts, construction stages, and overall disruption to traffic flow. The single relief bridge structure requires three construction stages to fulfill the requirements of the RFP and to minimize environmental impacts. The northbound and southbound main bridges will be built to full width in single stages, outside of active traffic, under separate MOT phases. Permanent inside shoulder pavement will be constructed to provide the future third lanes between the relief and main bridges, above the requirement of the RFP, enabling only a single temporary traffic shift for both northbound and southbound lanes and minimizing temporary pavement.

b) Plan for Access to the Median Work Zone (ingress and egress): A temporary construction access road will be constructed in the median of I-95 coming from US-301/15 allowing median access before and beyond the relief bridge without the need for trucks and other construction traffic merging on or off the mainline interstate. In early phases of construction, access to the median will be performed through temporary lane closures. Additionally, locations for the median work ingress and egress will be shown on the Preliminary and Final MOT Plans on the appropriate MOT phases for I-95.

c) Plan for Maintaining Positive Drainage During MOT Phases: Temporary drainage for the MOT phases was thoroughly analyzed and includes temporary ditches, inlets, and catch basins to accommodate the MOT drainage requirements. Median embankment along the causeway will be constructed of #4 limestone which will facilitate infiltration through the stone layer through temporary perforated pipes to the existing outfalls.

d) Plan for Notifying the Traveling Public of Upcoming Stages: United Traylor will frequently communicate with the Team's Public Information Coordinator (PIC) regarding traffic conditions, alerts, delays, lane closures, or any other issues that may impact the public during construction. For major long-term impacts such as lane shifts, the PIC will inform SCDOT designated representative(s) at least 21 calendar days in advance with the exception of emergency situations, in which case SCDOT will be notified immediately. The Public Relations Team for United Traylor will develop and provide content for the Project Website that is maintained by SCDOT per the RFP, as well as Facebook Project page and Twitter account. The team will obtain post approval from SCDOT/OVF RCE and posts will be forwarded to the SCDOT Communications office for posting through SCDOT social media sites. The PIC will frequently communicate with 511 operators to keep them abreast of construction activities/schedules. Calls will be placed prior to construction activities starting, during construction (should changes occur due to early completion, weather, an incident at the site, etc.), and when the activities have been completed and traffic is no longer affected.



- ACCESS AREAS
- MATERIAL & EQUIPMENT LAYDOWN AREAS
- CONSTRUCTION STAFF PARKING AREA
- TEMPORARY STRUCTURES

0 100' 200'
SCALE 1" = 200'

SHEET TCB

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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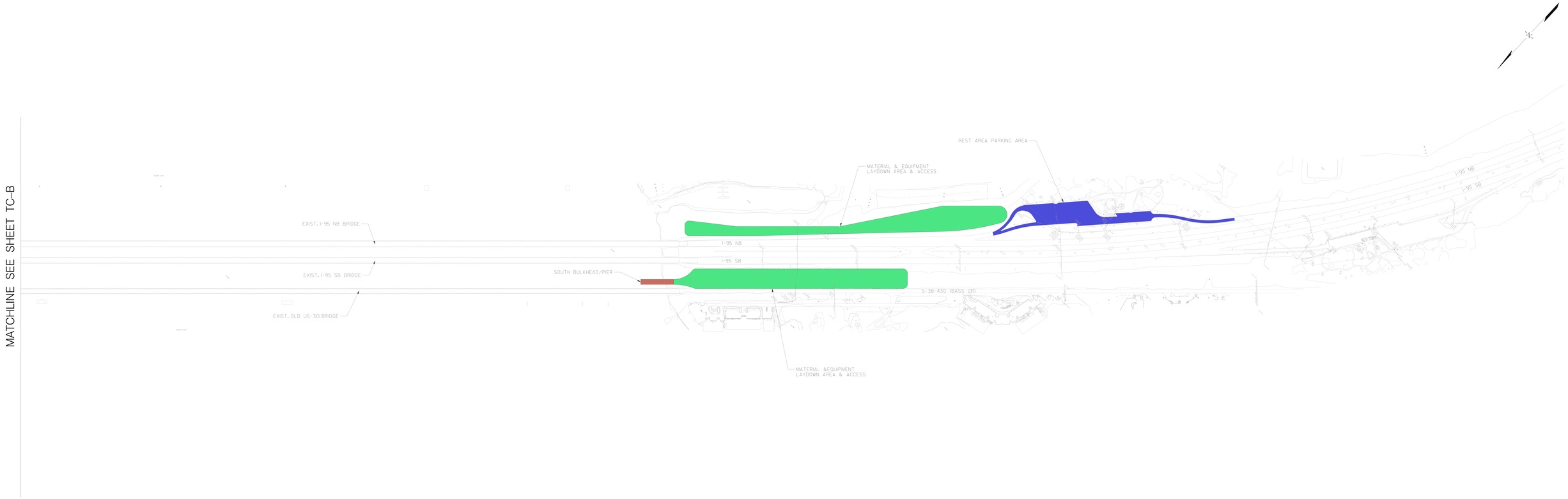
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPALCEMENT

MATERIAL/EQUIPMENT LAYDOWN & ACCESS PLAN



- ACCESS AREAS
- MATERIAL & EQUIPMENT LAYDOWN AREAS
- CONSTRUCTION STAFF PARKING AREA
- TEMPORARY STRUCTURES

0 100' 200'
SCALE 1" = 200'

SHEET TCC

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

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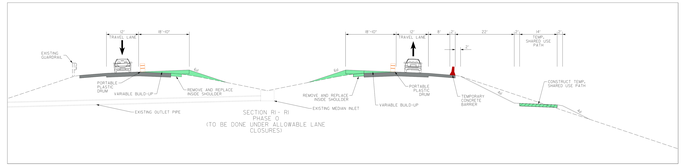
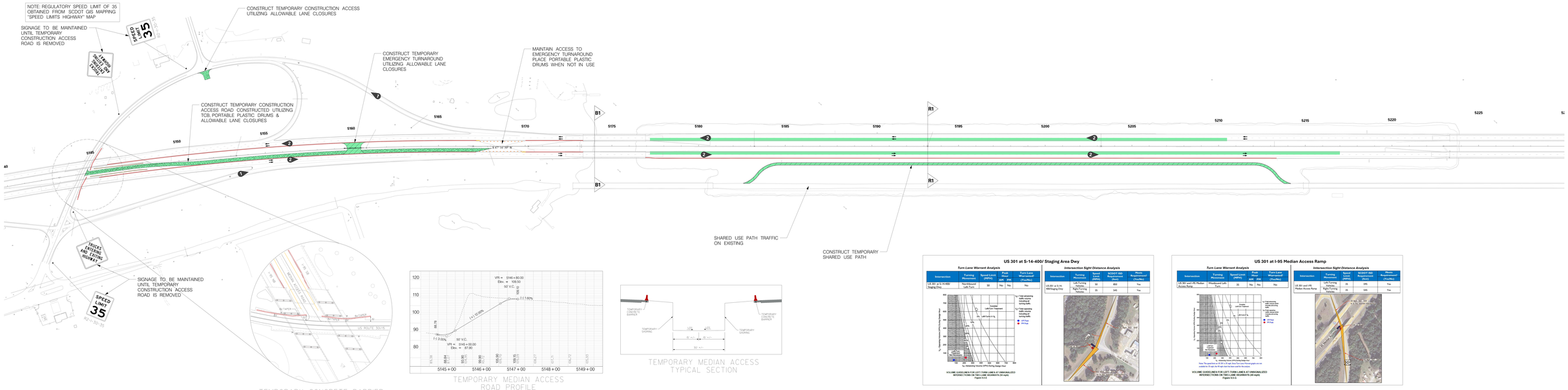
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPALCEMENT

MATERIAL/EQUIPMENT LAYDOWN & ACCESS PLAN

MOT Phase 0 Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-Temporary pavement used at emergency crossover constructed at sta. 5160+00** **-Temporary pavement used for temporary shared-use path alignment**
C. Traffic Shifts	**-No traffic shifts in this phase**
D. Construction Stages	**-Use allowable lane closures to remove and reconstruct inside shoulders and construct build-up to change the cross slope of I-95 NB from sta. 5177+55 to sta. 5210+50 and I-95 SB from sta. 5177+22 to sta. 5217+00** **-Construct temporary construction access road in the median of I-95 coming from US-301/15** **-Construct temporary emergency turnaround at sta. 5160+00** **-Construct temporary shared-use path along the causeway from sta. 5181+00 to sta. 5215+00**





TEMPORARY CONCRETE BARRIER AT BRIDGE PIERS DETAIL

TEMPORARY MEDIAN ACCESS ROAD PROFILE

TEMPORARY MEDIAN ACCESS TYPICAL SECTION

LEFT TURN LANE ANALYSIS FOR CONSTRUCTION ENTRANCE AT US-301 AND S-14-400

LEFT TURN LANE ANALYSIS FOR MEDIAN ACCESS RAMP

DURATION: 132 DAYS

PHASE 0 CONSTRUCTION
PHASE 0 TEMP CONSTRUCTION
TEMP. CONST. ACCESS ROAD CONSTRUCTION
TEMPORARY CONCRETE BARRIER
PORTABLE IMPACT ATTENUATOR
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES
PORTABLE PLASTIC DRUMS
TEMPORARY SHORING

SCALE 1" = 200'

SHEET TCO-1

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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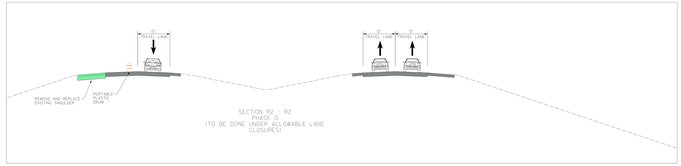
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
I-95 OVER LAKE MARION BRIDGE REPALCEMENT
PHASING / MOT PLAN PHASE 0

MOT Phase 0 Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-Temporary pavement used at emergency crossover constructed at sta. 5160+00** **-Temporary pavement used for temporary shared-use path alignment**
C. Traffic Shifts	**-No traffic shifts in this phase**
D. Construction Stages	**-Use allowable lane closures to remove and reconstruct inside shoulders and construct build-up to change the cross slope of I-95 NB from sta. 5177+55 to sta. 5210+50 and I-95 SB from sta. 5177+22 to sta. 5217+00** **-Construct temporary construction access road in the median of I-95 coming from US-301/15** **-Construct temporary emergency turnaround at sta. 5160+00** **-Construct temporary shared-use path along the causeway from sta. 5181+00 to sta. 5215+00**



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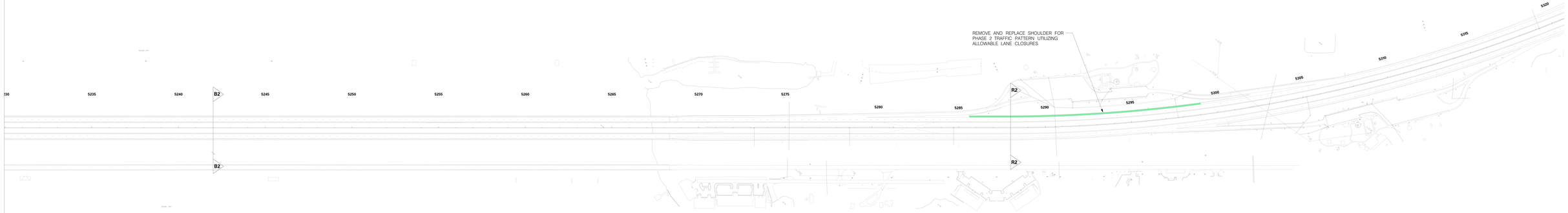

DURATION: 132 DAYS

PHASE 0 CONSTRUCTION
PHASE 0 TEMP CONSTRUCTION
TEMP. CONST. ACCESS ROAD CONSTRUCTION
TEMPORARY CONCRETE BARRIER
PORTABLE IMPACT ATTENUATOR
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES
PORTABLE PLASTIC DRUMS
TEMPORARY SHORING

0 100' 200'
SCALE 1" = 200'

SHEET TC0-2

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
I-95 OVER LAKE MARION BRIDGE REPALCEMENT
PHASING / MOT PLAN
PHASE 0

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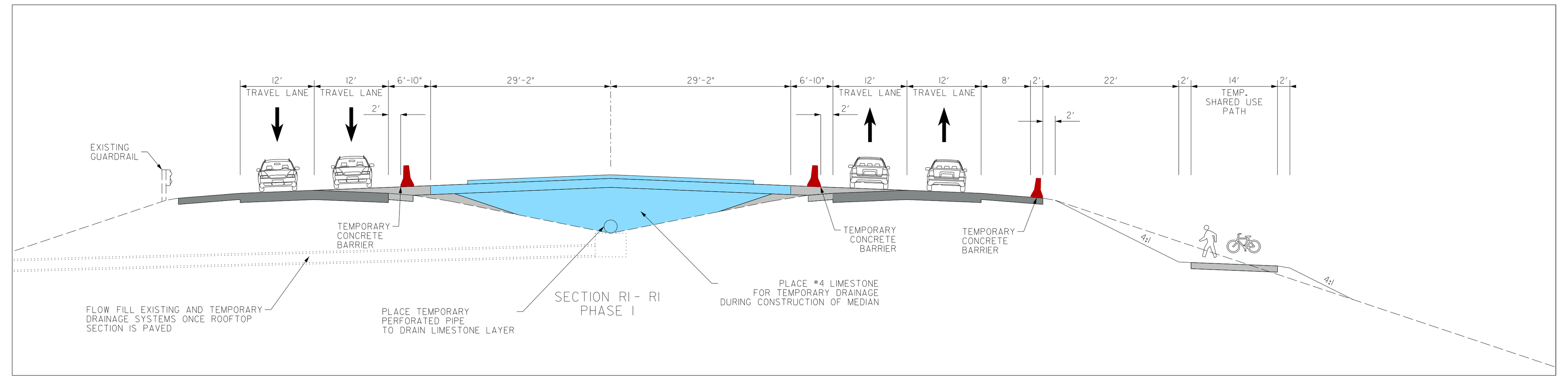
MOT Phase 1 Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	-Allowable lane closures in this phase
B. Temporary Pavement Design	-Temporary pavement constructed for crossovers used in phases 2 through 3B and for temporary emergency turnaround constructed at sta. 5301+00 -Temporary pavement used for temporary off-ramp alignment at US-301/15
C. Traffic Shifts	-Shared-use path on temporary alignment along causeway
D. Construction Stages	-Construct relief bridge stage 1 -Begin construction of the I-95 NB main bridge -Construct rooftop section in the median between sta. 5177+22 to sta. 5217+00 -Construct slope armoring and shared-use path along causeway -Construct temporary crossovers to be used in phases 2 through 3B -Construct temporary emergency turnaround at sta. 5301+00



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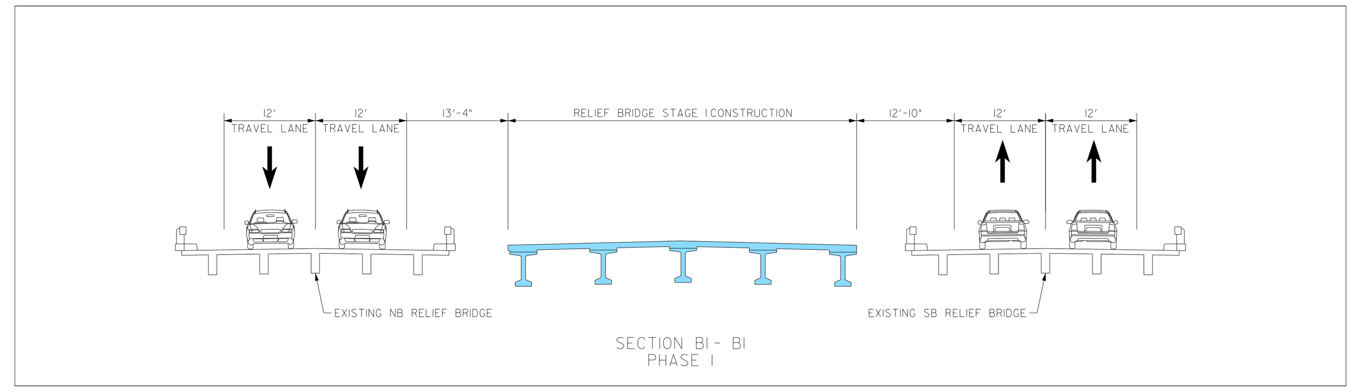


DURATION: 402 DAYS

PHASE I CONSTRUCTION	TEMPORARY CONCRETE BARRIER
PHASE I TEMP. CONSTRUCTION	PORTABLE IMPACT ATTENUATOR
PREVIOUS CONSTRUCTION	MOT TRAFFIC ARROW
TEMPORARY CONSTRUCTION	TRAFFIC DIRECTION / LANES
TEMPORARY SHORING	PORTABLE PLASTIC DRUMS

SCALE 1" = 200'

SHEET TC1-1

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

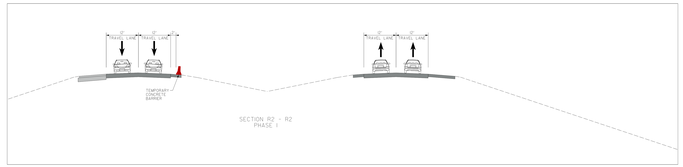
PRELIMINARY
NOT FOR CONSTRUCTION

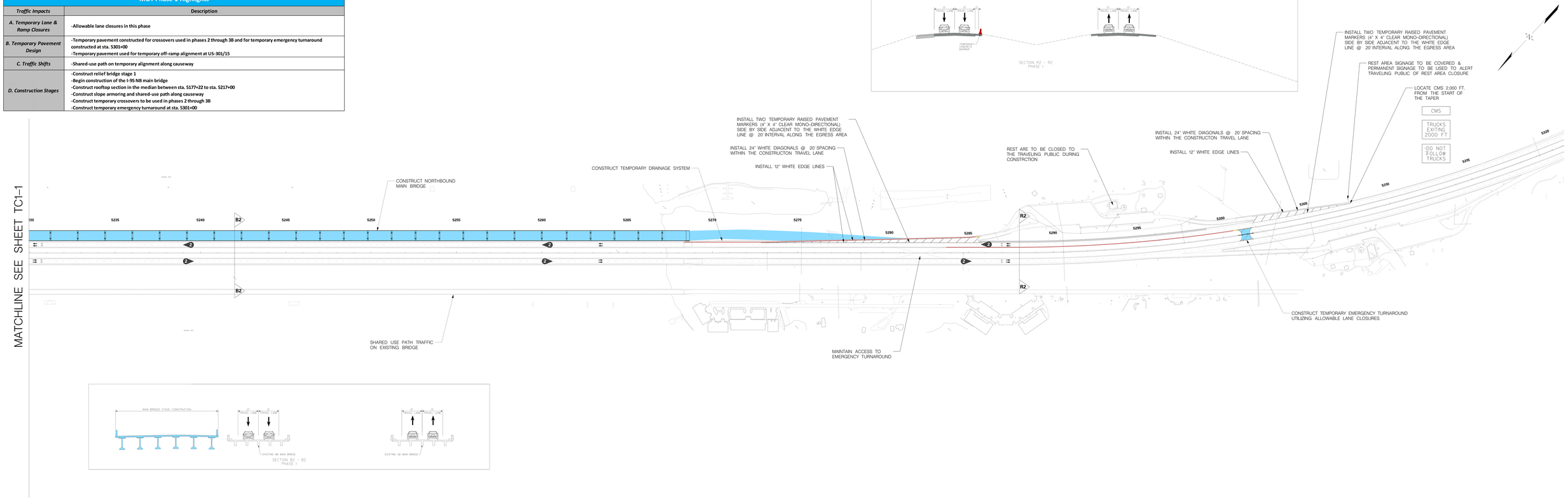
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPLACEMENT

PHASING / MOT PLAN PHASE 1

MOT Phase 1 Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-Temporary pavement constructed for crossovers used in phases 2 through 3B and for temporary emergency turnaround constructed at sta. 5301+00** **-Temporary pavement used for temporary off-ramp alignment at US-301/15**
C. Traffic Shifts	**-Shared-use path on temporary alignment along causeway**
D. Construction Stages	**-Construct relief bridge stage 1** **-Begin construction of the I-95 NB main bridge** **-Construct rooftop section in the median between sta. 5177+22 to sta. 5217+00** **-Construct slope armoring and shared-use path along causeway** **-Construct temporary crossovers to be used in phases 2 through 3B** **-Construct temporary emergency turnaround at sta. 5301+00**





DURATION: 402 DAYS

PHASE I CONSTRUCTION
PHASE I TEMP. CONSTRUCTION
PREVIOUS CONSTRUCTION
TEMPORARY CONSTRUCTION
TEMPORARY CONCRETE BARRIER
PORTABLE IMPACT ATTENUATOR
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES
TEMPORARY SHORING
PORTABLE PLASTIC DRUMS

0 100 200
SCALE 1" = 200'

SHEET TCI-2

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPALCEMENT

PHASING / MOT PLAN
PHASE I

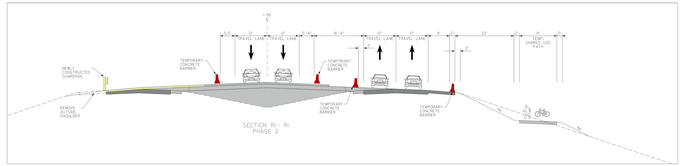
MOT Phase 2 Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-No temporary pavement constructed in this phase**
C. Traffic Shifts	**-I-95 northbound shifted 48' to the inside between sta. 5172+00 and sta. 5206+00.** **-I-95 northbound shifted 8' to the outside between sta. 5277+00 and sta. 5294+00.**
D. Construction Stages	**-Construct relief bridge stage 2** **-Construct NB lanes of I-95 between sta. 5165+00 and sta. 5210+00** **-Continue construction of I-95 NB main bridge** **-Continue construction of the slope armoring and shared-use path on the causeway**

I95_MOT_PHS2-1

P.I. = 5156+25.99
D = 10° 02' 56" (RT)
D = 0° 30' 23"
T = 994.53'
L = 1,983.96'
E = 43.63'
R = 11,312.00'
D.S. = 70 MPH
eMAX = 8%
e = RC
P.C. - LG% = 0.50%
P.T. - LG% = 0.50%

I95_MOT_PHS2-2

P.I. = 5168+97.81
D = 2° 13' 46" (LT)
D = 0° 23' 41"
T = 282.38'
L = 564.69'
E = 2.75'
R = 14512.00'
D.S. = 70 MPH
eMAX = 8%
e = NC
P.C. - LG% = N/A
P.T. - LG% = N/A

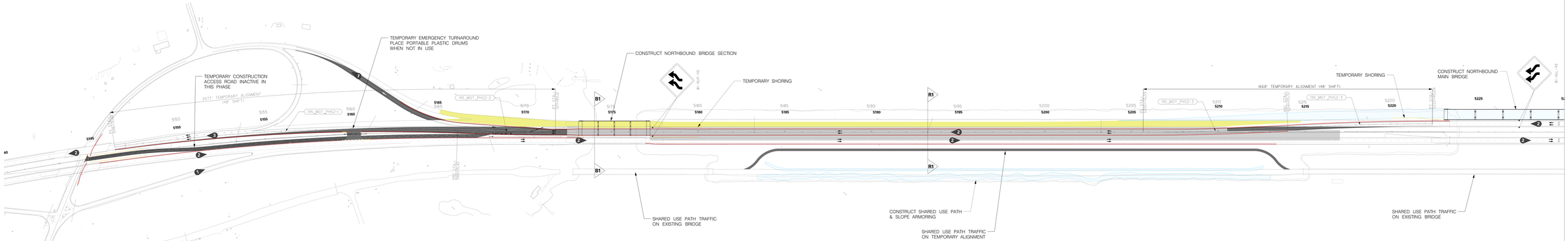


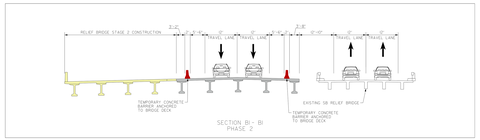
I95_MOT_PHS2-3

P.I. = 5209+88.07
D = 3°17' 44" (LT)
D = 0°23' 41"
T = 417.48'
L = 834.73'
E = 6.00'
R = 14512.00'
D.S. = 70 MPH
eMAX = 8%
e = NC
P.C. - LG% = N/A
P.T. - LG% = N/A

I95_MOT_PHS2-4

P.I. = 5218+22.79
D = 3°17' 44" (RT)
D = 0°23' 41"
T = 417.48'
L = 834.73'
E = 6.00'
R = 14512.00'
D.S. = 70 MPH
eMAX = 8%
e = NC
P.C. - LG% = N/A
P.T. - LG% = N/A





DURATION: 357 DAYS

PHASE 2 CONSTRUCTION
CONTINUED PHASE I CONSTRUCTION
PREVIOUS CONSTRUCTION
TEMPORARY CONSTRUCTION
TEMPORARY CONCRETE BARRIER
PORTABLE IMPACT ATTENUATOR
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES
TEMPORARY SHORING
PORTABLE PLASTIC DRUMS

SCALE 1" = 200'

SHEET TC2-1

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

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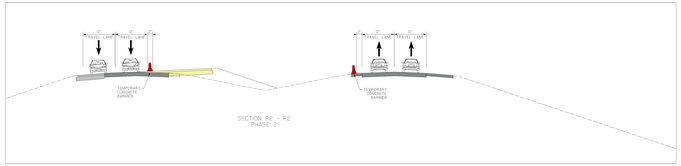
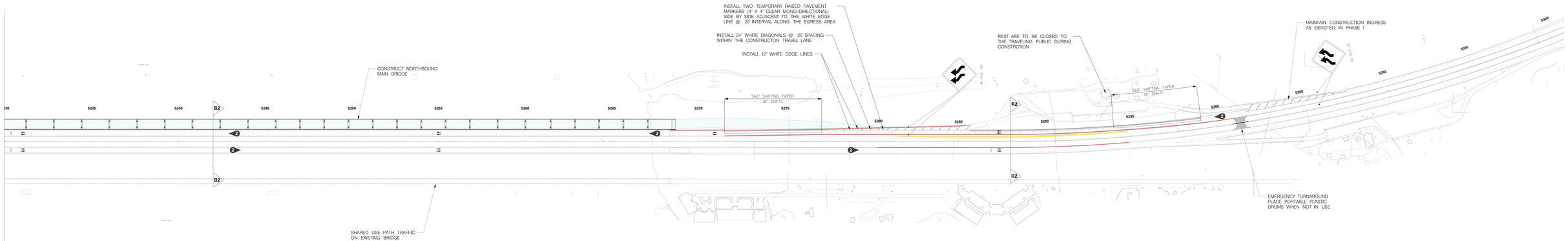
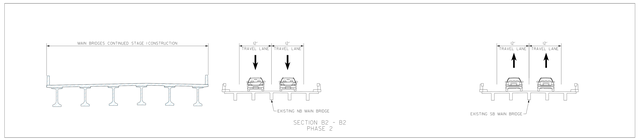
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
I-95 OVER LAKE MARION BRIDGE REPALCEMENT
PHASING / MOT PLAN PHASE 2

MOT Phase 2 Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-No temporary pavement constructed in this phase**
C. Traffic Shifts	**-I-95 northbound shifted 48' to the inside between sta. 5172+00 and sta. 5206+00.** **-I-95 northbound shifted 8' to the outside between sta. 5277+00 and sta. 5294+00.**
D. Construction Stages	**-Construct relief bridge stage 2** **-Construct NB lanes of I-95 between sta. 5165+00 and sta. 5210+00** **-Continue construction of I-95 NB main bridge** **-Continue construction of the slope armoring and shared-use path on the causeway**







DURATION: 357 DAYS

PHASE 2 CONSTRUCTION
CONTINUED PHASE 1 CONSTRUCTION
PREVIOUS CONSTRUCTION
TEMPORARY CONSTRUCTION
TEMPORARY CONCRETE BARRIER
PORTABLE IMPACT ATTENUATOR
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES
TEMPORARY SHORING
PORTABLE PLASTIC DRUMS

SCALE 1" = 200'

SHEET TC2-2

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

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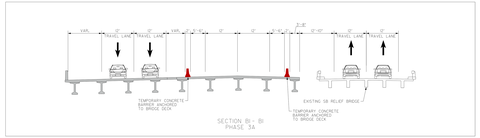
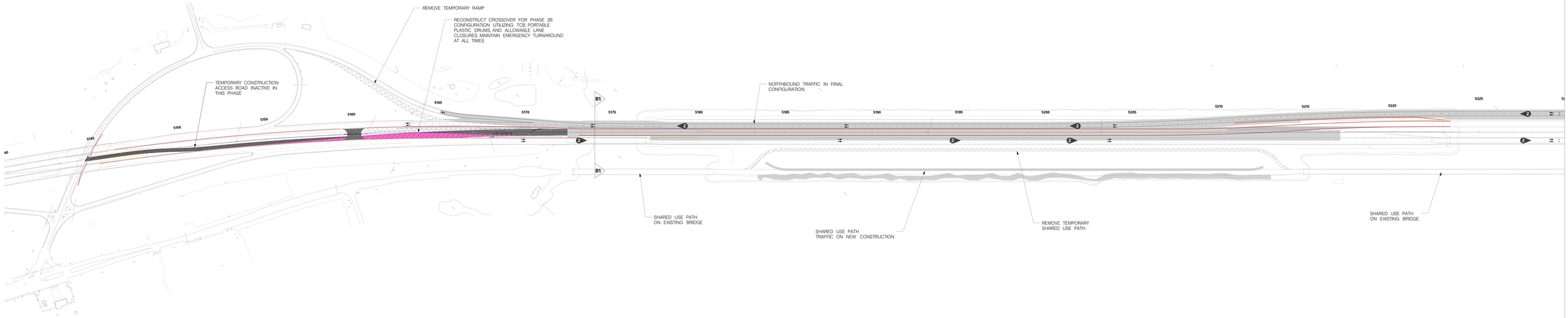
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPALCEMENT

PHASING / MOT PLAN
PHASE 2

MOT Phase 3A Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-Temporary pavement constructed for I-95 SB crossovers used in phase 3B**
C. Traffic Shifts	**-I-95 NB shifted to final configuration** **-Shared-use path shifted to new construction along causeway**
D. Construction Stages	**-Temporary crossover just prior to the relief bridge reconstructed to accommodate phase 3B traffic pattern** **-Temporary crossover constructed just past the main bridges to accommodate phase 3B traffic pattern** **-Temporary off-ramp to US-301/15 removed**





MATCHLINE SEE SHEET TC3A-2

DURATION: 288 DAYS

PHASE 3A CONSTRUCTION
PHASE 3A TEMP. CONSTRUCTION
PREVIOUS CONSTRUCTION
TEMPORARY CONSTRUCTION
TEMP. PAVEMENT REMOVAL
TEMPORARY CONCRETE BARRIER
PORTABLE IMPACT ATTENUATOR
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES
TEMPORARY SHORING
PORTABLE PLASTIC DRUMS

0 100' 200'
SCALE 1" = 200'

SHEET TC3A-1

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

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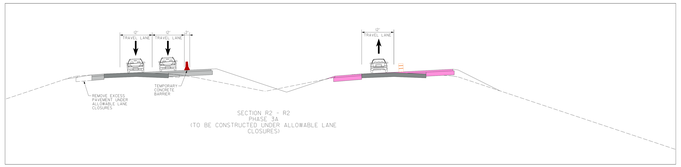
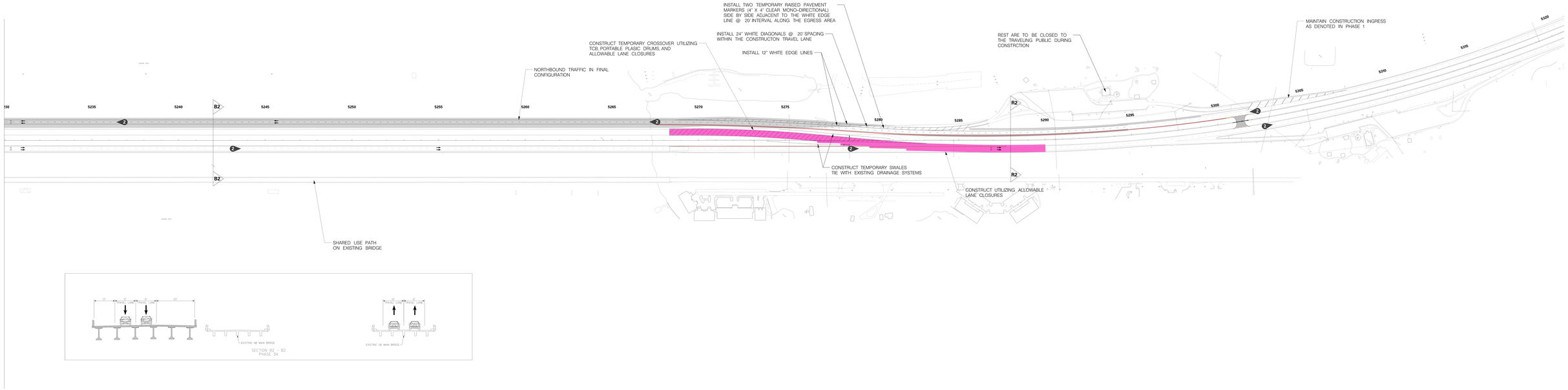
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
I-95 OVER LAKE MARION BRIDGE REPALCEMENT
PHASING / MOT PLAN PHASE 3A

MOT Phase 3A Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-Temporary pavement constructed for I-95 SB crossovers used in phase 3B**
C. Traffic Shifts	**-I-95 NB shifted to final configuration** **-Shared-use path shifted to new construction along causeway**
D. Construction Stages	**-Temporary crossover just prior to the relief bridge reconstructed to accommodate phase 3B traffic pattern** **-Temporary crossover constructed just past the main bridges to accommodate phase 3B traffic pattern** **-Temporary off-ramp to US-301/15 removed**





DURATION: 288 DAYS

PHASE 3A CONSTRUCTION
PHASE 3A TEMP. CONSTRUCTION
PREVIOUS CONSTRUCTION
TEMPORARY CONSTRUCTION
TEMP. PAVEMENT REMOVAL
TEMPORARY CONCRETE BARRIER
PORTABLE IMPACT ATTENUATOR
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES
TEMPORARY SHORING
PORTABLE PLASTIC DRUMS

0 100' 200'
SCALE 1" = 200'

SHEET TC3A-2

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

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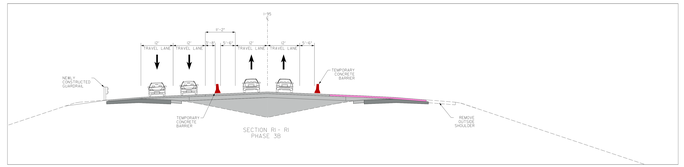
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
I-95 OVER LAKE MARION BRIDGE REPALCEMENT
PHASING / MOT PLAN
PHASE 3A

MOT Phase 3B Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-No temporary pavement placed in this phase**
C. Traffic Shifts	**-I-95 NB in final configuration** **-I-95 SB shifted 48' to the inside between sta. 5271+00 and 5206+00** **I-95 SB shifted 96' to the existing NB lanes to cross Lake Marion on the existing NB bridge**
D. Construction Stages	**-Construct relief bridge stage 3.** **-Demolish existing I-95 SB bridge and construct I-95 SB main bridge** **-Construct SB lanes from sta. 5158+00 to 5283+00.** **-Construct permanent shared-use path**

I95_MOT_PHS3-1

P.I. = 5165+20.61
D = 4°57' 23" (RT)
D = 0°-23' 41"
T = 628.04'
L = 1,255.30'
E = 13.58'
R = 14,512.00'
D.S. = 70 MPH
eMAX = 8%
e = NC
P.C. - LG% = N/A
P.T. - LG% = N/A

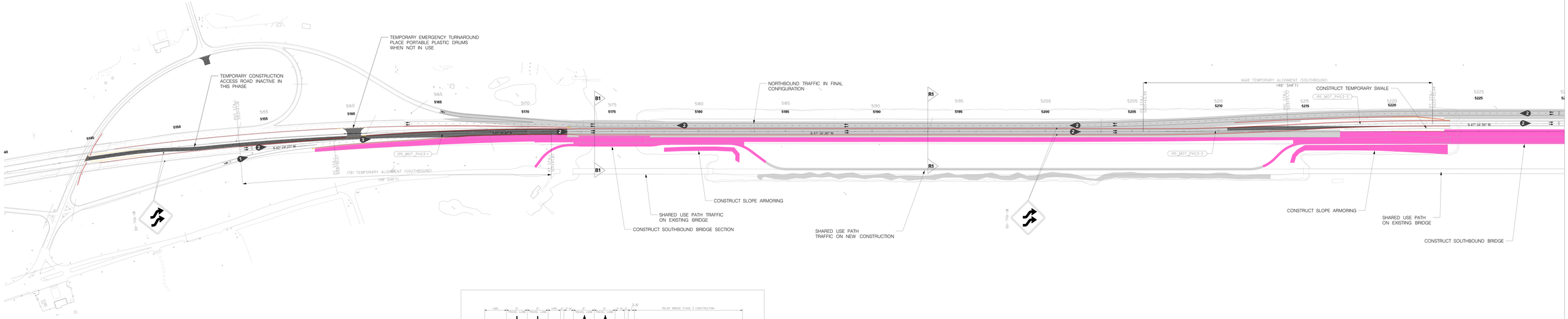


I95_MOT_PHS3-2

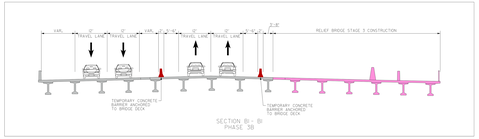
P.I. = 5209+80.47
D = 3°17' 44" (LT)
D = 0°23' 41"
T = 417.48'
L = 834.73'
E = 6.00'
R = 14512.00'
D.S. = 70 MPH
eMAX = 8%
e = NC
P.C. - LG% = N/A
P.T. - LG% = N/A

I95_MOT_PHS3-3

P.I. = 5218+15.20
D = 3°17' 44" (RT)
D = 0°23' 41"
T = 417.48'
L = 834.73'
E = 6.00'
R = 14512.00'
D.S. = 70 MPH
eMAX = 8%
e = NC
P.C. - LG% = N/A
P.T. - LG% = N/A



MATCHLINE SEE SHEET TC3B-2



DURATION: 645 DAYS

PHASE 3B CONSTRUCTION
PREVIOUS CONSTRUCTION
TEMPORARY CONSTRUCTION
TEMPORARY CONCRETE BARRIER
PORTABLE IMPACT ATTENUATOR
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES
TEMPORARY SHORING
PORTABLE PLASTIC DRUMS

SCALE 1" = 200'

SHEET TC3B-1

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
I-95 OVER LAKE MARION BRIDGE REPALCEMENT
PHASING / MOT PLAN PHASE 3B

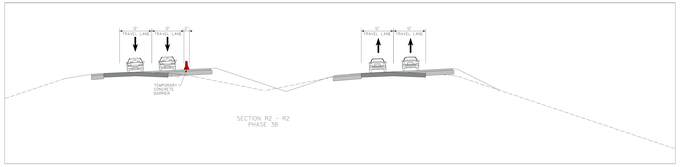
MOT Phase 3B Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-No temporary pavement placed in this phase**
C. Traffic Shifts	**-I-95 NB in final configuration** **-I-95 SB shifted 48' to the inside between sta. 5271+00 and 5206+00** **I-95 SB shifted 96' to the existing NB lanes to cross Lake Marion on the existing NB bridge**
D. Construction Stages	**-Construct relief bridge stage 3.** **-Demolish existing I-95 SB bridge and construct I-95 SB main bridge** **-Construct SB lanes from sta. 5158+00 to 5283+00.** **-Construct permanent shared-use path**

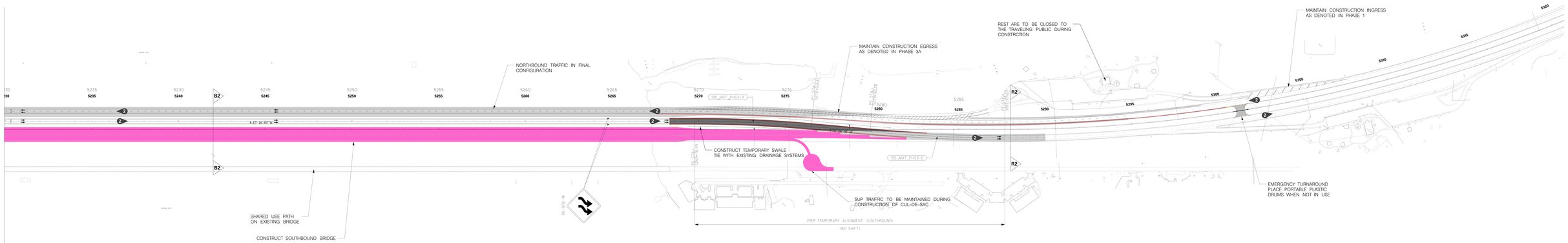
I95_MOT_PHS3-4

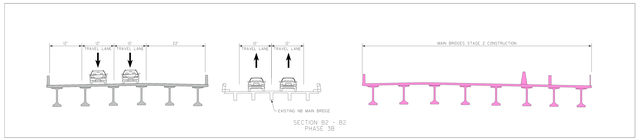
P.I. = 5273+14.56
D = 5°10' 00" (RT)
D = 0°45' 57"
T = 337.57'
L = 674.68'
E = 7.61'
R = 7482.00'
D.S. = 70 MPH
eMAX = 8%
e = 2.8%
P.C. - LGX = 0.50%
P.T. - LGX = 0.50%

I95_MOT_PHS3-5

P.I. = 5283+80.16
D = 5°10' 00" (LT)
D = 0°39' 47"
T = 389.90'
L = 779.27'
E = 8.79'
R = 8,641.93'
D.S. = 70 MPH
eMAX = 8%
e = 2.6%
P.C. - LGX = 0.50%
P.T. - LGX = 0.50%







DURATION: 645 DAYS

PHASE 3B CONSTRUCTION
PREVIOUS CONSTRUCTION
TEMPORARY CONSTRUCTION
TEMPORARY CONCRETE BARRIER
PORTABLE IMPACT ATTENUATOR
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES
TEMPORARY SHORING
PORTABLE PLASTIC DRUMS

SCALE 1" = 200'

SHEET TC3B-2

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

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NOT FOR CONSTRUCTION

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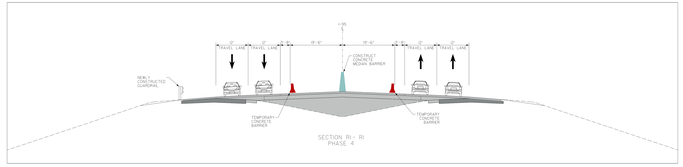
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

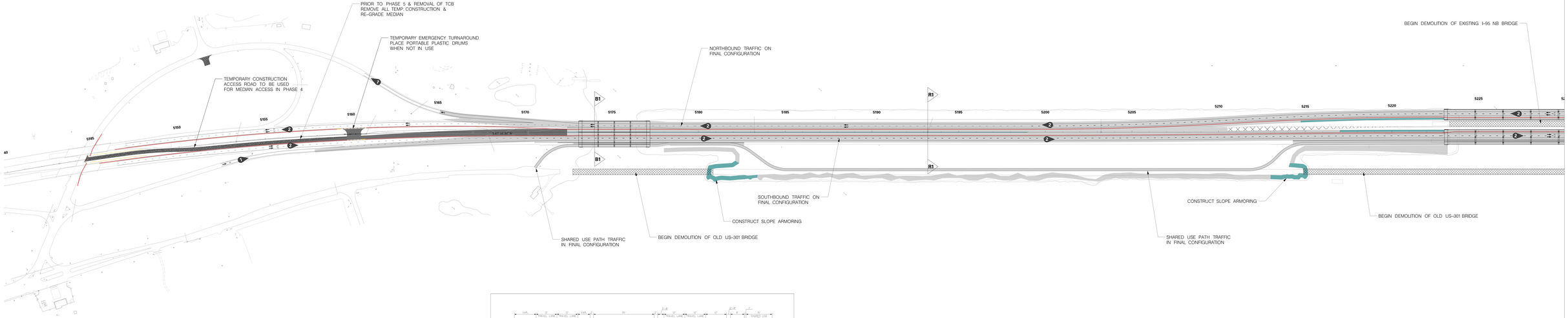
I-95 OVER LAKE MARION BRIDGE REPALCEMENT

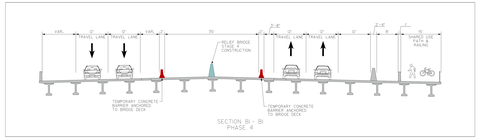
PHASING / MOT PLAN PHASE 3B

MOT Phase 4 Highlights

Traffic Impacts	Description
A. Temporary Lane & Ramp Closures	-Allowable lane closures in this phase
B. Temporary Pavement Design	-No temporary pavement placed in this phase
C. Traffic Shifts	-I-95 SB shifted to final configuration
D. Construction Stages	-Construct concrete median barrier wall along causeway. -Construct I-95 NB inside shoulder between sta. 5214+00 and sta. 5223+00 -Construct I-95 SB inside shoulder between sta. 5217+00 and sta. 5223+00 -Complete construction of causeway slope armoring -Remove all temporary pavement -Begin demolition of existing I-95 NB bridge and existing old US-301 bridges







DURATION: 47 DAYS

- PHASE 4 CONSTRUCTION
- PREVIOUS CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TEMP. PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- PORTABLE IMPACT ATTENUATOR
- MOT TRAFFIC ARROW
- TRAFFIC DIRECTION / LANES
- TEMPORARY SHORING
- PORTABLE PLASTIC DRUMS

0 100 200
SCALE 1" = 200'

SHEET TC4-1

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

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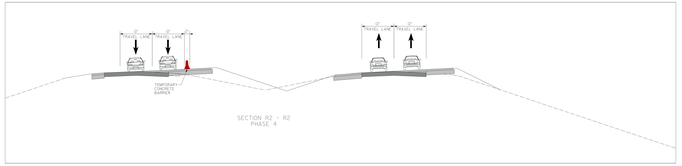
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

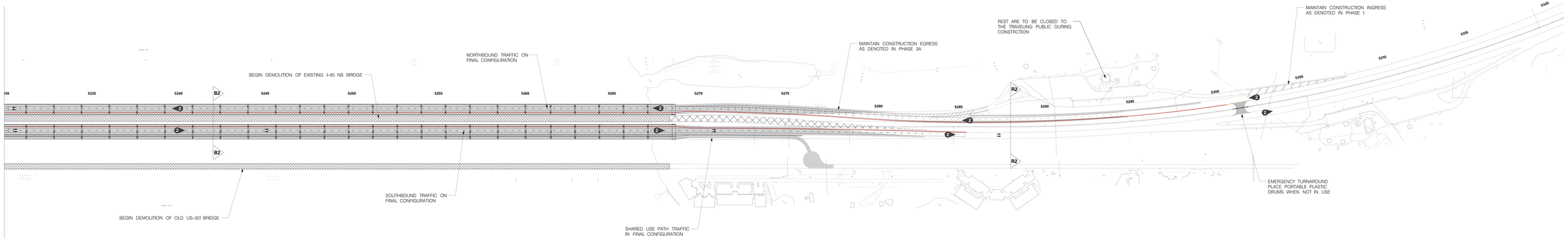
I-95 OVER LAKE MARION BRIDGE REPALCEMENT

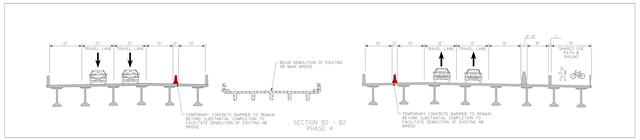
PHASING / MOT PLAN PHASE 4

MOT Phase 4 Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-No temporary pavement placed in this phase**
C. Traffic Shifts	**-I-95 SB shifted to final configuration**
D. Construction Stages	**-Construct concrete median barrier wall along causeway.** **-Construct I-95 NB inside shoulder between sta. 5214+00 and sta. 5223+00** **-Construct I-95 SB inside shoulder between sta. 5217+00 and sta. 5223+00** **-Complete construction of causeway slope armoring** **-Remove all temporary pavement** **-Begin demolition of existing I-95 NB bridge and existing old US-301 bridges**



MATCHLINE SEE SHEET TC4-1





DURATION: 47 DAYS

PHASE 4 CONSTRUCTION
PREVIOUS CONSTRUCTION
TEMPORARY CONSTRUCTION
TEMP. PAVEMENT REMOVAL
TEMPORARY CONCRETE BARRIER
PORTABLE IMPACT ATTENUATOR
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES
TEMPORARY SHORING
PORTABLE PLASTIC DRUMS

0 100 200
SCALE 1" = 200'

SHEET TC4-2

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
6			
5			
4			
3			
2			
1			
0			

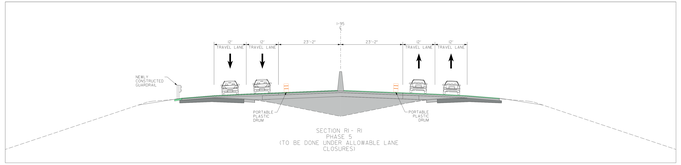
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

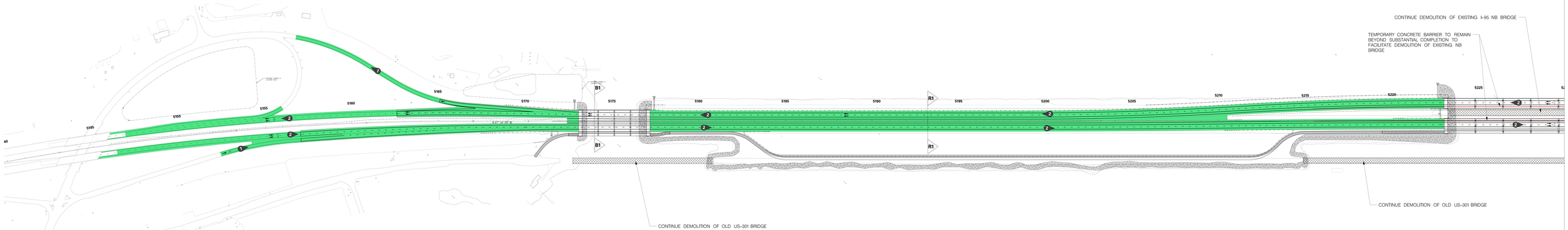
I-95 OVER LAKE MARION BRIDGE REPALCEMENT

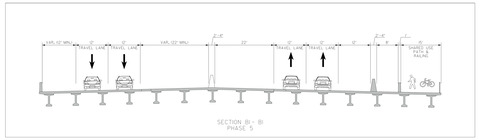
PHASING / MOT PLAN PHASE 4

2/27/2024 9:49:24 AM S:\Projects\I95_TC4-2.dgn

MOT Phase 5 Highlights	
Traffic Impacts	Description
A. Temporary Lane & Ramp Closures	-Allowable lane closures in this phase
B. Temporary Pavement Design	-No temporary pavement placed in this phase
C. Traffic Shifts	-No traffic shifts in this phase
D. Construction Stages	-Construct final pavement overlay -Remove and replace asphalt shoulders at rest area -Complete demolition of existing I-95 NB bridge and existing old US-301 bridges after substantial completion







DURATION: 45 DAYS

FINAL PAVEMENT OVERLAY
PREVIOUS CONSTRUCTION
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES

SCALE 1" = 200'

SHEET TC5-1

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
6			
5			
4			
3			
2			
1			
0			

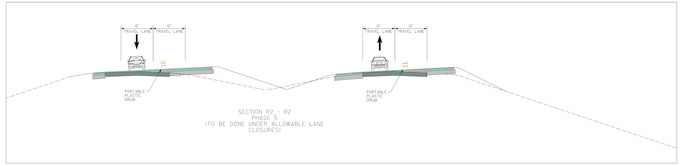
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
I-95 OVER LAKE MARION BRIDGE REPALCEMENT
PHASING / MOT PLAN
PHASE 5

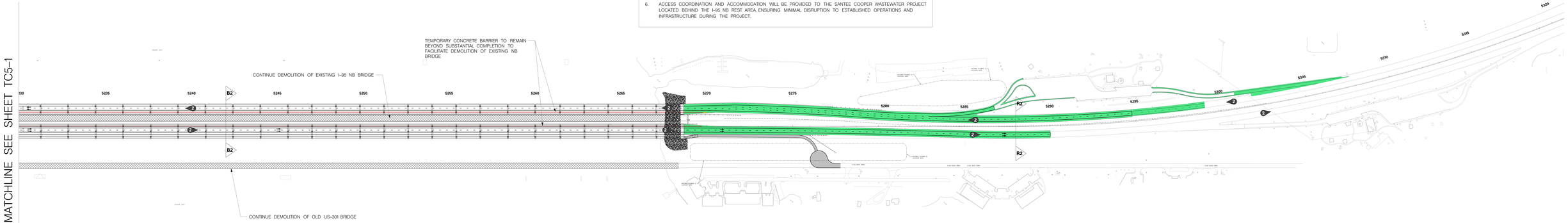
MOT Phase 5 Highlights	
Traffic Impacts	**Description**
A. Temporary Lane & Ramp Closures	**-Allowable lane closures in this phase**
B. Temporary Pavement Design	**-No temporary pavement placed in this phase**
C. Traffic Shifts	**-No traffic shifts in this phase**
D. Construction Stages	**-Construct final pavement overlay** **-Remove and replace asphalt shoulders at rest area** **-Complete demolition of existing I-95 NB bridge and existing old US-301 bridges after substantial completion**

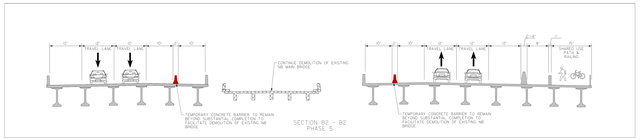
QUALITY ENHANCEMENT

MEASURES TO BE TAKEN TO MAINTAIN REST AREA DURING PROJECT:

1. PRE-CONSTRUCTION CONDITION SURVEY WILL BE PERFORMED IN COORDINATION WITH SCDOT TO DOCUMENT EXISTING SITE CONDITIONS AND ESTABLISH CLEAR EXPECTATIONS FOR FACILITY CONDITION AT THE END OF THE PROJECT.
2. A SITE SECURITY AND PROTECTION PLAN WILL BE DEVELOPED AND IMPLEMENTED TO PREVENT UNAUTHORIZED ACCESS, VANDALISM, OR DAMAGE TO THE REST AREA FACILITIES THROUGHOUT THE PROJECT.
3. EXISTING LANDSCAPING WILL BE MAINTAINED DURING THE PROJECT AND UPON COMPLETION, ALL DISTURBED AREAS WILL BE RESTORED OR IMPROVED FROM THEIR ORIGINAL CONDITION IN ACCORDANCE TO SCDOT STANDARDS.
4. ALL NECESSARY PAVEMENT CLEANING, STRIPING, AND MARKING WILL BE PERFORMED PRIOR TO TURNOVER TO ENSURE THE FACILITY MEETS FINAL ACCEPTANCE REQUIREMENTS.
5. ALL SITE APPURTENANCES WILL BE PROPERLY STORED AND PROTECTED THROUGHOUT THE PROJECT TO PREVENT DAMAGE OR LOSS, AND ALL APPURTENANCES WILL BE RESTORED TO THEIR ORIGINAL LOCATION AND CONDITION BEFORE TURNOVER.
6. ACCESS COORDINATION AND ACCOMMODATION WILL BE PROVIDED TO THE SANTEE COOPER WASTEWATER PROJECT LOCATED BEHIND THE I-95 NB REST AREA, ENSURING MINIMAL DISRUPTION TO ESTABLISHED OPERATIONS AND INFRASTRUCTURE DURING THE PROJECT.







DURATION: 45 DAYS

FINAL PAVEMENT OVERLAY
PREVIOUS CONSTRUCTION
MOT TRAFFIC ARROW
TRAFFIC DIRECTION / LANES

0 100' 200'
SCALE 1" = 200'

SHEET TC5-2

UNITED TRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
6			
5			
4			
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2			
1			
0			

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I-95 OVER LAKE MARION BRIDGE REPALCEMENT

PHASING / MOT PLAN
PHASE 5

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APPENDIX A.3
Conceptual Bridge Plans

UNITEDTRAYLOR
JOINT VENTURE

BRIDGE PLANS ID	SHEET
P041130-B01	1

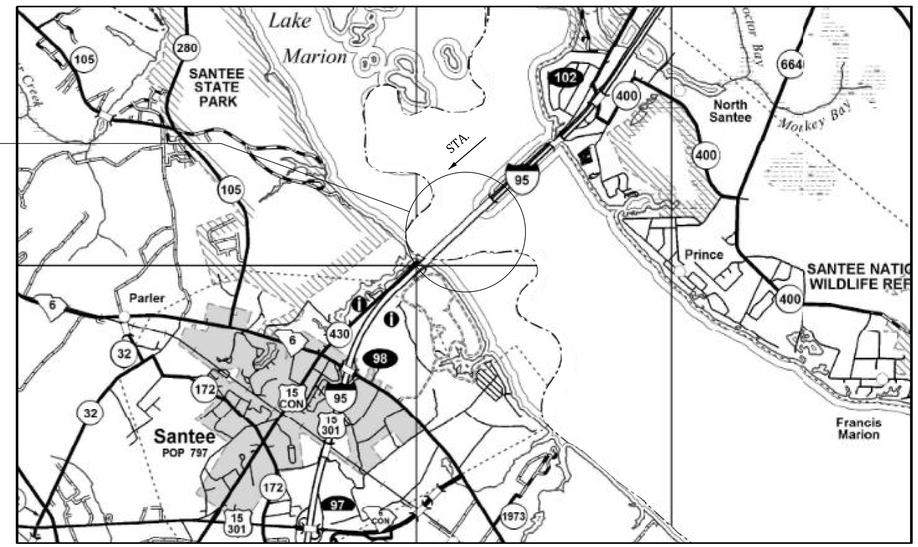
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROPOSED PLANS FOR CLARENDON & ORANGEBURG COUNTIES PROJECT ID P041130 I-95 NB MAIN BRIDGE REPLACE NB BRIDGE OVER LAKE MARION

INDEX OF SHEETS

1. TITLE SHEET
2. STAGES OF CONSTRUCTION (1)
3. STAGES OF CONSTRUCTION (2)
4. STAGES OF CONSTRUCTION (3)
5. BRIDGE PLAN AND PROFILE (1)
6. BRIDGE PLAN AND PROFILE (2)
7. BRIDGE PLAN AND PROFILE (3)
8. BRIDGE PLAN AND PROFILE (4)
9. BRIDGE PLAN AND PROFILE (5)
10. BRIDGE PLAN AND PROFILE (6)
11. BRIDGE PLAN AND PROFILE (7)
12. BRIDGE PLAN AND PROFILE (8)
13. BRIDGE PLAN AND PROFILE (9)
14. BRIDGE PLAN AND PROFILE (10)
15. TYPICAL SECTION
16. INTERIOR BENT DETAILS
17. CONSTRUCTION ACCESS (1)
18. CONSTRUCTION ACCESS (2)

SITE LOCATION



LAYOUT

-N-

APPROXIMATE LOCATION OF BRIDGE IS

LATITUDE 33°- 30' - 17" N
LONGITUDE 80°- 27' - 10" W

3 DAYS BEFORE DIGGING IN SOUTH CAROLINA
CALL 811
SOUTH CAROLINA 811 (SC811)
WWW.SC811.COM
ALL UTILITIES MAY NOT BE A MEMBER OF SC811

ASSET ID TBD

TRAFFIC DATA

2025 ADT 41,000 V.P.D.

2045 ADT 55,000 V.P.D.

TRUCKS 22 %

NET LENGTH OF ROADWAY	0.000	MILES
NET LENGTH OF BRIDGES	0.857	MILES
NET LENGTH OF PROJECT	0.857	MILES
LENGTH OF EXCEPTIONS	0.000	MILES
GROSS LENGTH OF PROJECT	0.857	MILES

UNITEDTRAYLOR JOINT VENTURE

NOTE: EXCEPT AS MAY OTHERWISE BE SPECIFIED ON THE PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIALS AND WORKMANSHIP ON THIS PROJECT SHALL CONFORM TO THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE STANDARD DRAWINGS FOR ROAD CONSTRUCTION IN EFFECT AT THE TIME OF THE RELEASE OF THE FINAL RFP.

CONSULTING ENGINEERING FIRM

INFRASTRUCTURE CONSULTING & ENGINEERING

110 MIDLANDS COURT
WEST COLUMBIA, SC 29269
Telephone: (803) 822-0333

ENGINEER OF RECORD
FOR CONSTRUCTION

CONCEPTUAL PLANS

REVIEWED	R. JAMALUDDIN	
DR.	BFS	DKY	08-25
	BY	CHK	DATE

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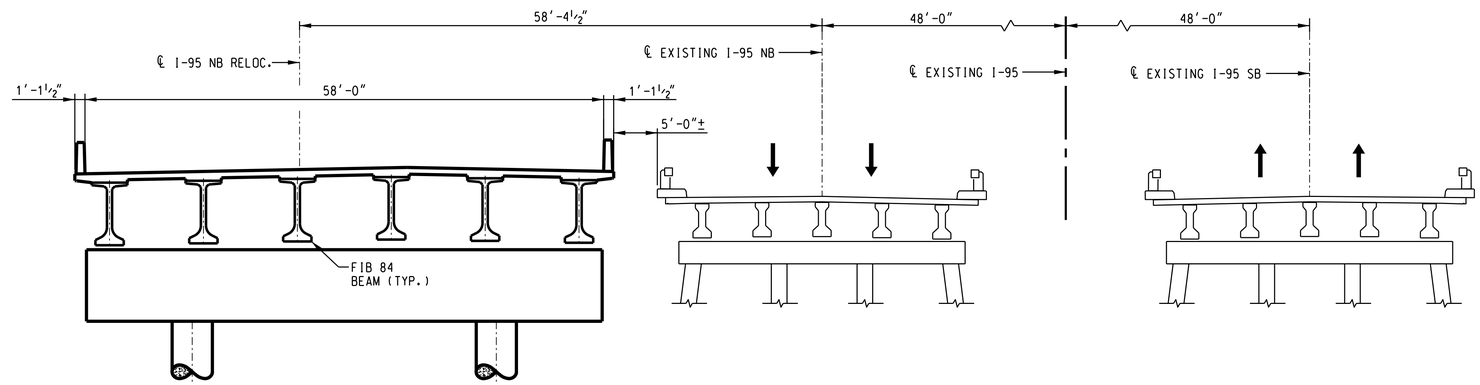
8/27/2025

DRAWING NUMBER: 700-01.TS01

BRIDGE PLANS ID	SHEET
P041130-B01	2

NOTE:

TEMPORARY LANE CONFIGURATION IS DICTATED BY ROADWAY MOT PLANS.



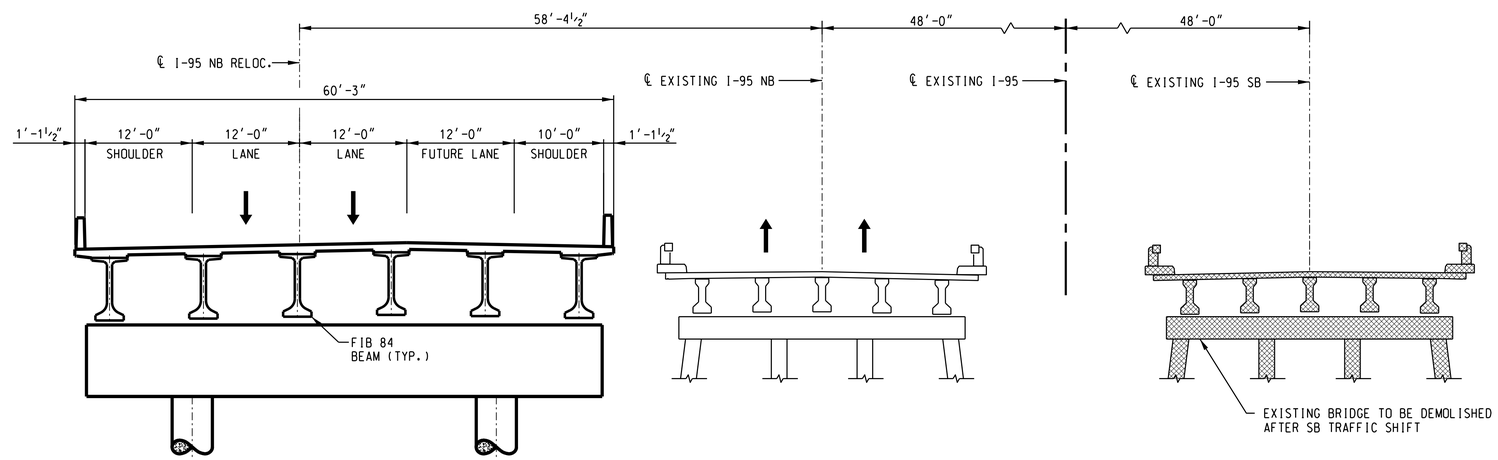
STAGE 1 CONSTRUCTION:

1. CONSTRUCT NB BRIDGE. SHIFT NB TRAFFIC TO NEW NB BRIDGE

QUALITY ENHANCEMENT

NB MAIN BRIDGE CONSTRUCTED IN SINGLE STAGE.

STAGE 1 CONSTRUCTION



STAGE 2 DEMOLITION:

1. SHIFT SB TRAFFIC TO EXISTING NB BRIDGE. DEMOLISH SB BRIDGE.

STAGE 2 DEMOLITION

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$$PRINT_PROPERTIES$$

REVIEWED	R. JAMALUDDIN	—	—
QUAN.	—	—	—
DR.	BFS	RAJ	07-25
DES.	—	—	—
	BY	CHK.	DATE

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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

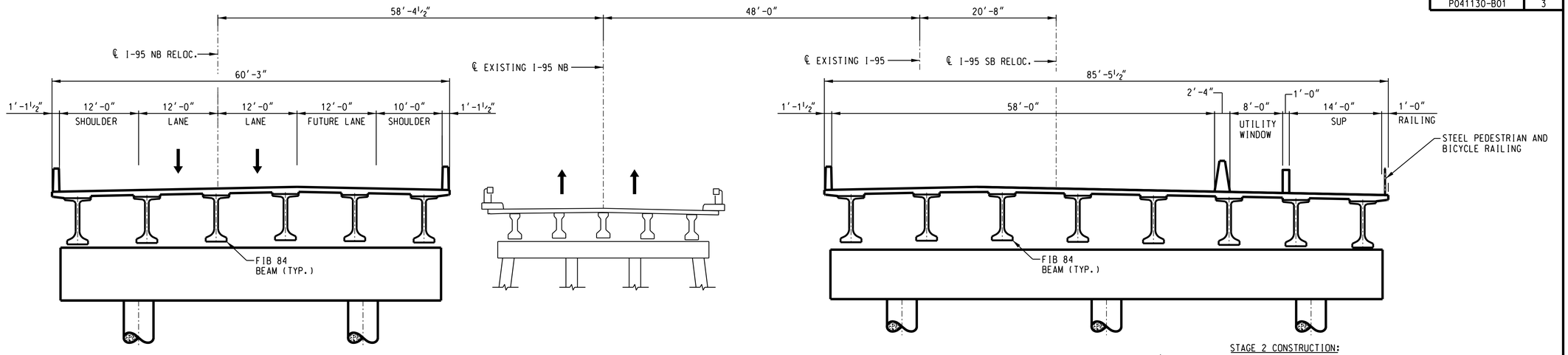
CONCEPTUAL PLANS

STAGES OF CONSTRUCTION (1)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B01	3



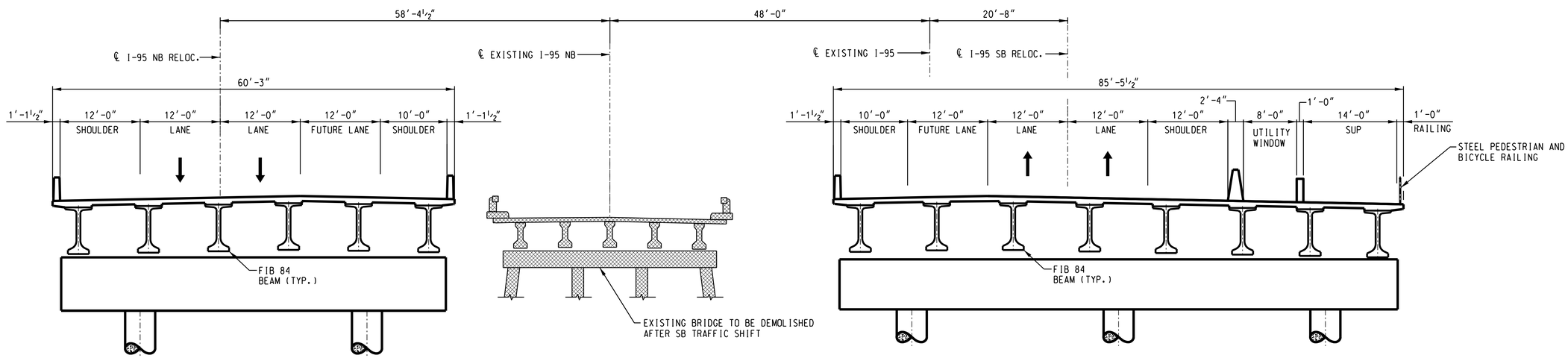
STAGE 2 CONSTRUCTION:

1. CONSTRUCT SB BRIDGE.

QUALITY ENHANCEMENT

SB MAIN BRIDGE CONSTRUCTED IN SINGLE STAGE.

STAGE 2 CONSTRUCTION



STAGE 3 DEMOLITION

STAGE 3 DEMOLITION:

1. SHIFT SB TRAFFIC TO NEW SB BRIDGE. DEMOLISH EXISTING NB BRIDGE.

NOTE:

TEMPORARY LANE CONFIGURATION IS DICTATED BY ROADWAY MOT PLANS.

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

CONCEPTUAL PLANS

STAGES OF CONSTRUCTION (2)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$$PRINT_PROPERTIES$$

REVIEWED	R. JAMALUDDIN	
QUAN.	—	—
DR.	BFS	RAJ	07-25
DES.	—	—
BY	CHK.	DATE

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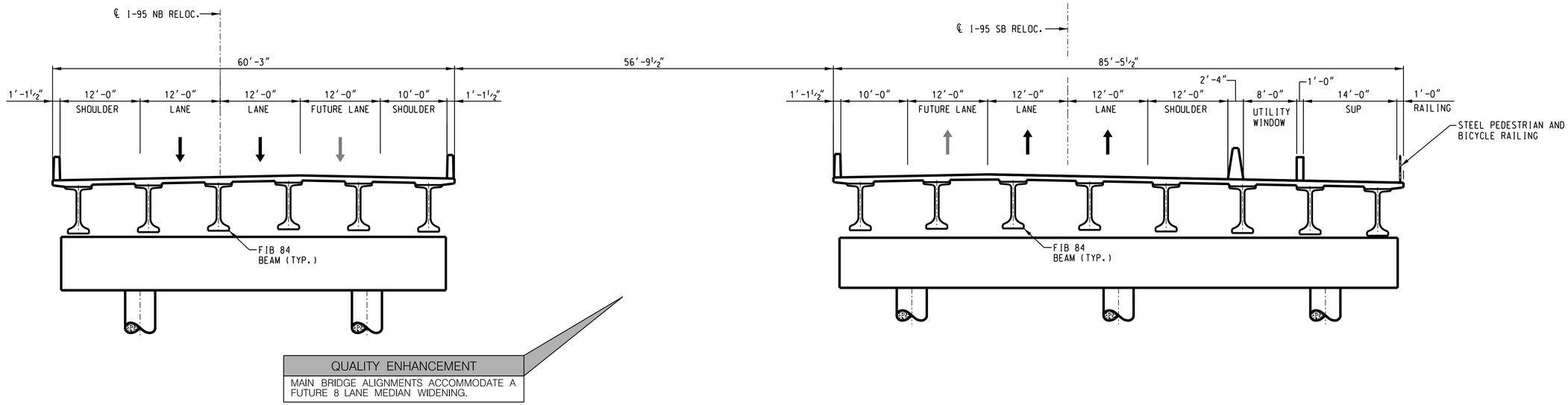
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B01	4



FINAL BRIDGE TYPICAL SECTION

NOTE:

TEMPORARY LANE CONFIGURATION IS DICTATED BY ROADWAY MOT PLANS.

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

STAGES OF CONSTRUCTION (3)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REVIEWED	R. JAMALUDDIN		
QUAN.	—	—	—
DR.	BFS	RAJ	07-25
DES.	—	—	—
	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.			
REV.			
REV.			
	BY	CHK.	DATE	DESCRIPTION OF REVISION

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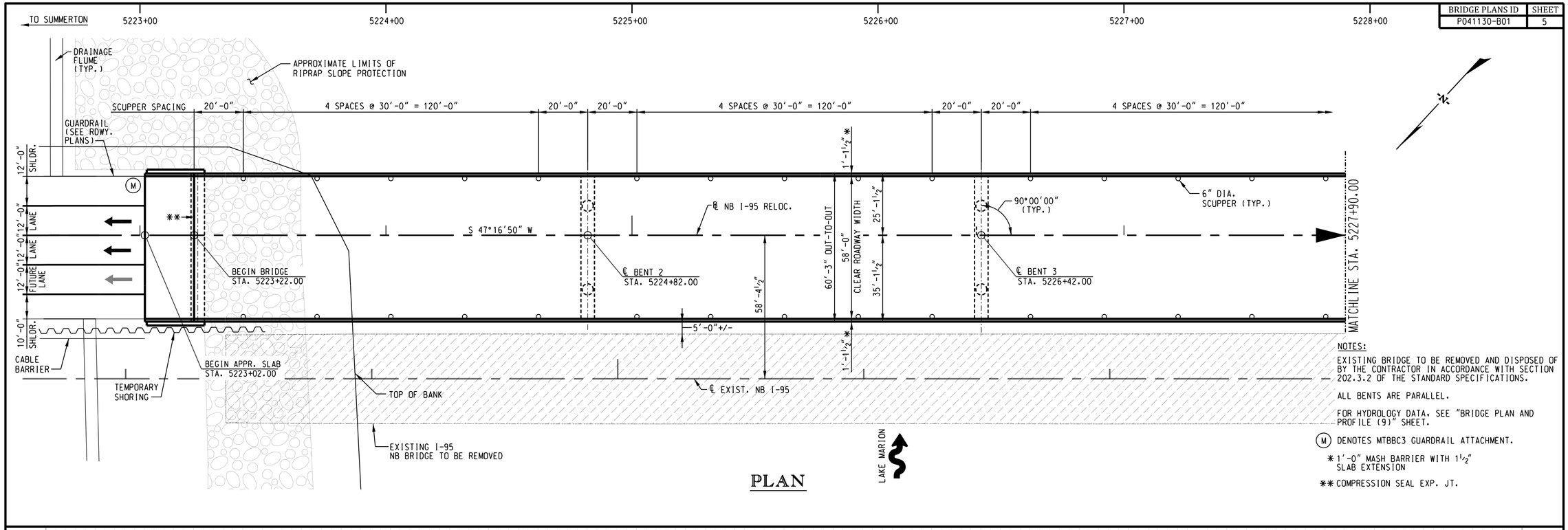
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B01	5



PLAN

NOTES:

EXISTING BRIDGE TO BE REMOVED AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 202.3.2 OF THE STANDARD SPECIFICATIONS.

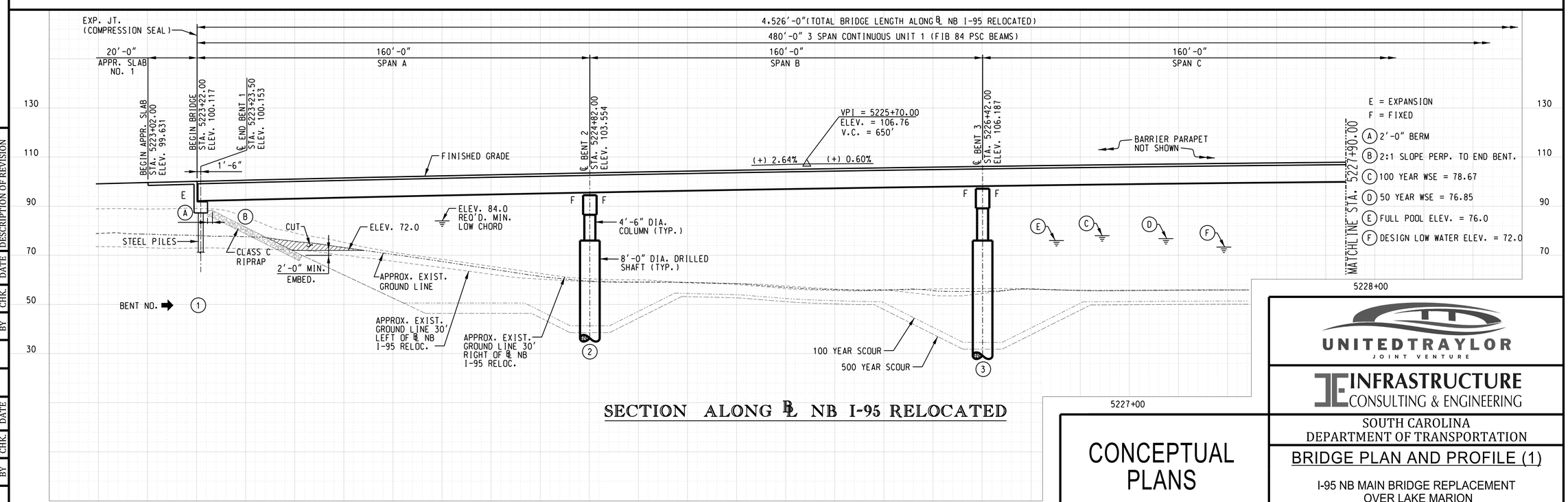
ALL BENTS ARE PARALLEL.

FOR HYDROLOGY DATA, SEE "BRIDGE PLAN AND PROFILE (9)" SHEET.

(M) DENOTES MTBBC3 GUARDRAIL ATTACHMENT.

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

** COMPRESSION SEAL EXP. JT.



SECTION ALONG ℄ NB I-95 RELOCATED

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (1)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				LATEST REVISION
REV.				PREVIOUS REVISION

$$PRINT_PROPERTIES$$

REVIEWED	R. JAMALUDDIN		
QUAN.			
DR.	RMH	RAJ	08-25
DES.			
	BY	CHK.	DATE

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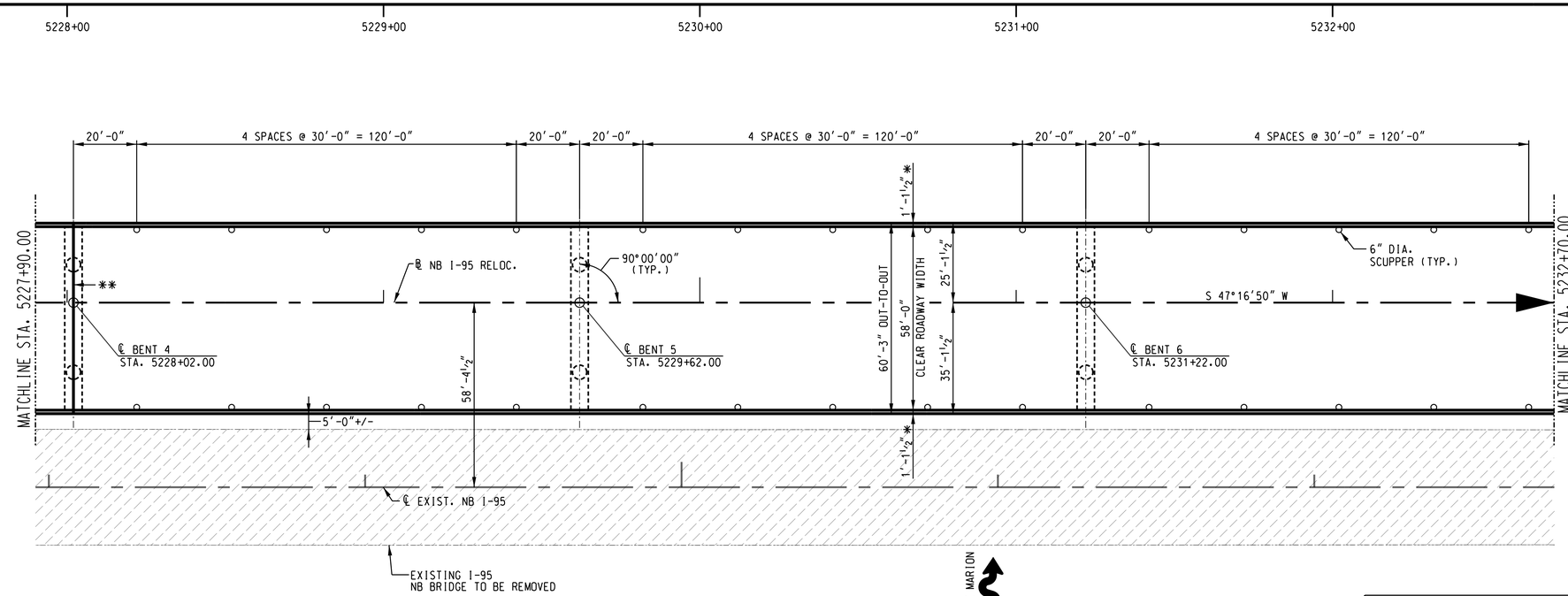
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B01	6



PLAN

NOTES:

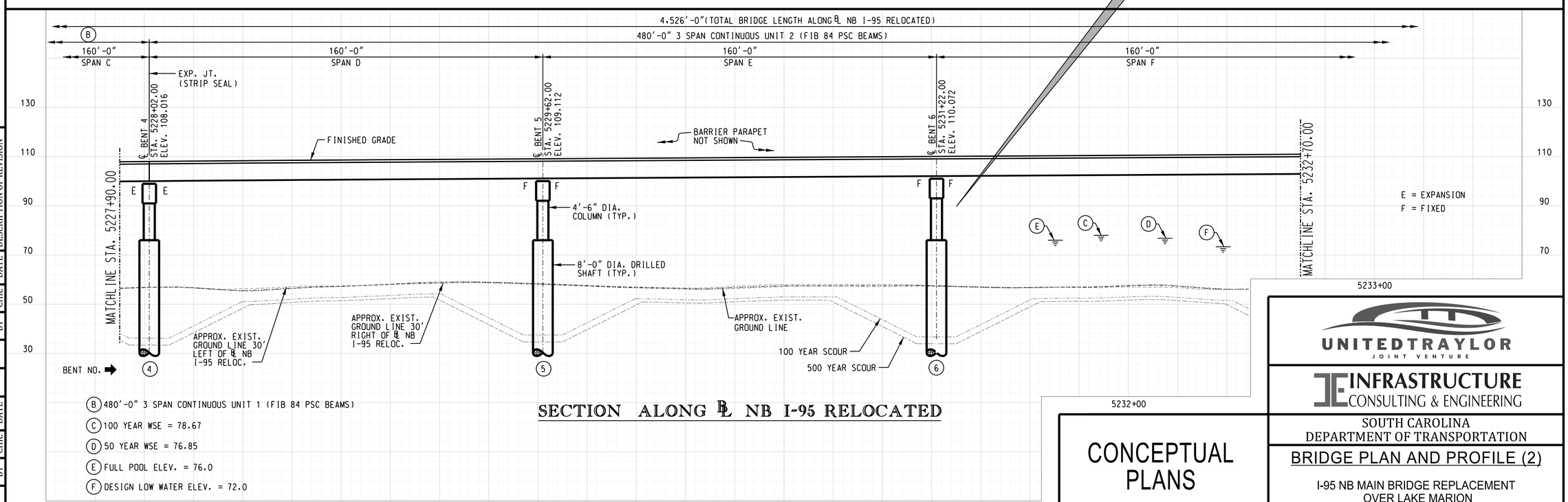
FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

** STRIP SEAL EXP. JT.

QUALITY ENHANCEMENT

USE OF PRECAST COLUMNS PER FATC 9 WILL ACCELERATE THE CONSTRUCTION SCHEDULE.



SECTION ALONG ℄ NB I-95 RELOCATED

(B) 480'-0" 3 SPAN CONTINUOUS UNIT 1 (FIB 84 PSC BEAMS)

(C) 100 YEAR WSE = 78.67

(D) 50 YEAR WSE = 76.85

(E) FULL POOL ELEV. = 76.0

(F) DESIGN LOW WATER ELEV. = 72.0

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (2)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REVIEWED R.JAMALUDDIN			
QUAN.			
DR.	RMH	RAJ	08-25
DES.	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.				
REV.				LATEST REVISION
REV.				PREVIOUS REVISION
	BY	CHK.	DATE	DESCRIPTION OF REVISION

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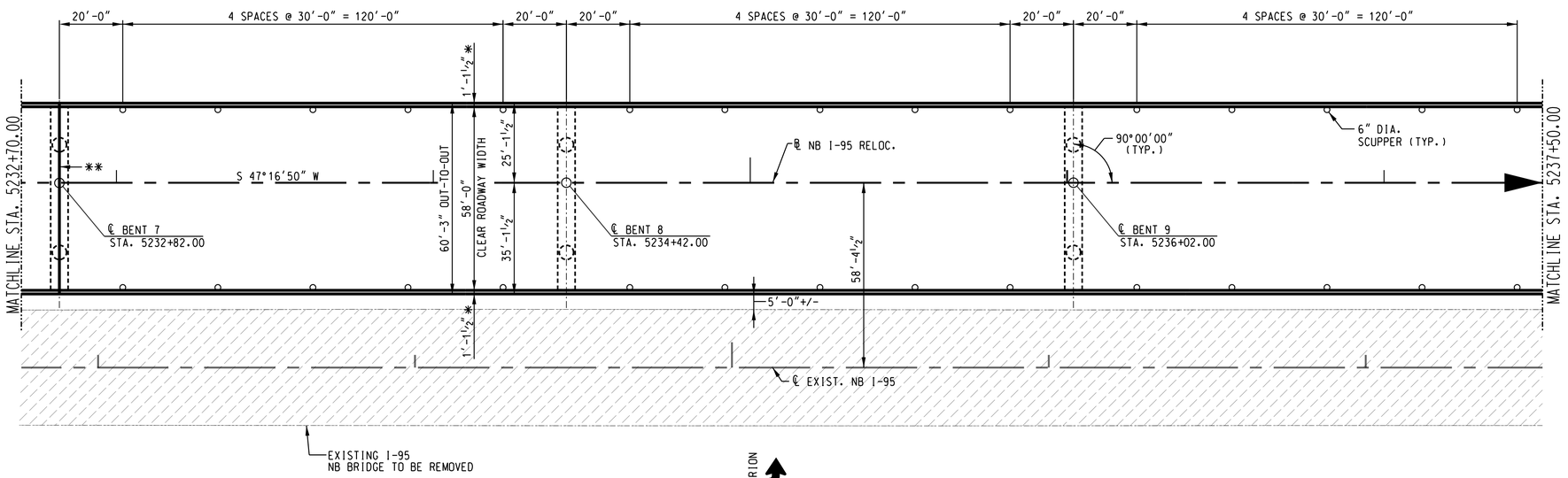
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B01	7



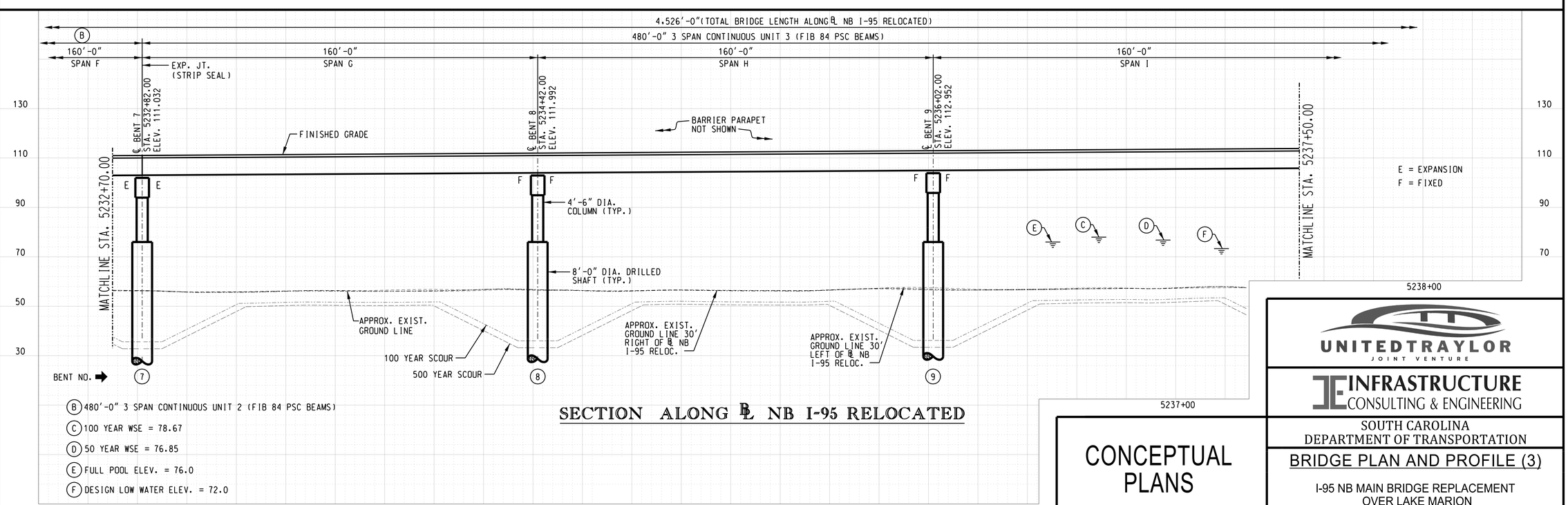
NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

** STRIP SEAL EXP. JT.

PLAN



(B) 480'-0" 3 SPAN CONTINUOUS UNIT 2 (FIB 84 PSC BEAMS)

(C) 100 YEAR WSE = 78.67

(D) 50 YEAR WSE = 76.85

(E) FULL POOL ELEV. = 76.0

(F) DESIGN LOW WATER ELEV. = 72.0

SECTION ALONG ℄ NB I-95 RELOCATED

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (3)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				LATEST REVISION
REV.				PREVIOUS REVISION

$$PRINT_PROPERTIES$$

	BY	CHK.	DATE
REVIEWED	R. JAMALUDDIN		
QUAN.			
DR.	RMH	RAJ	08-25
DES.			

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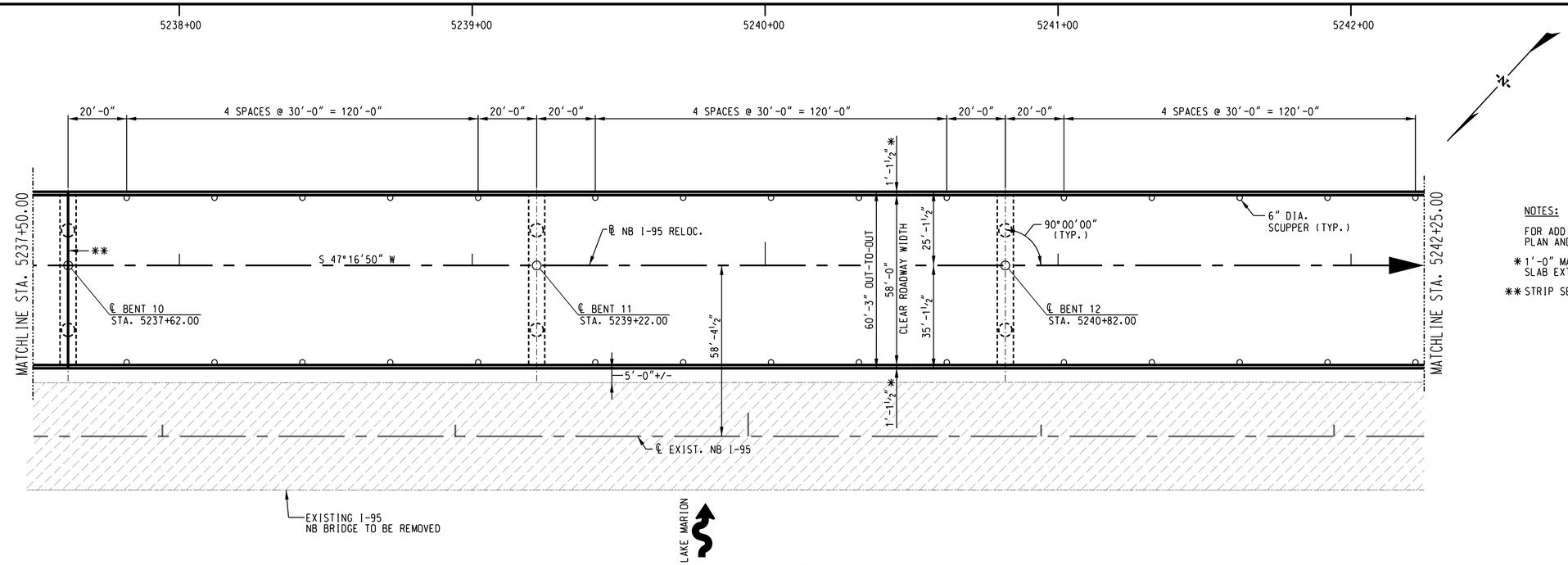
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B01	8



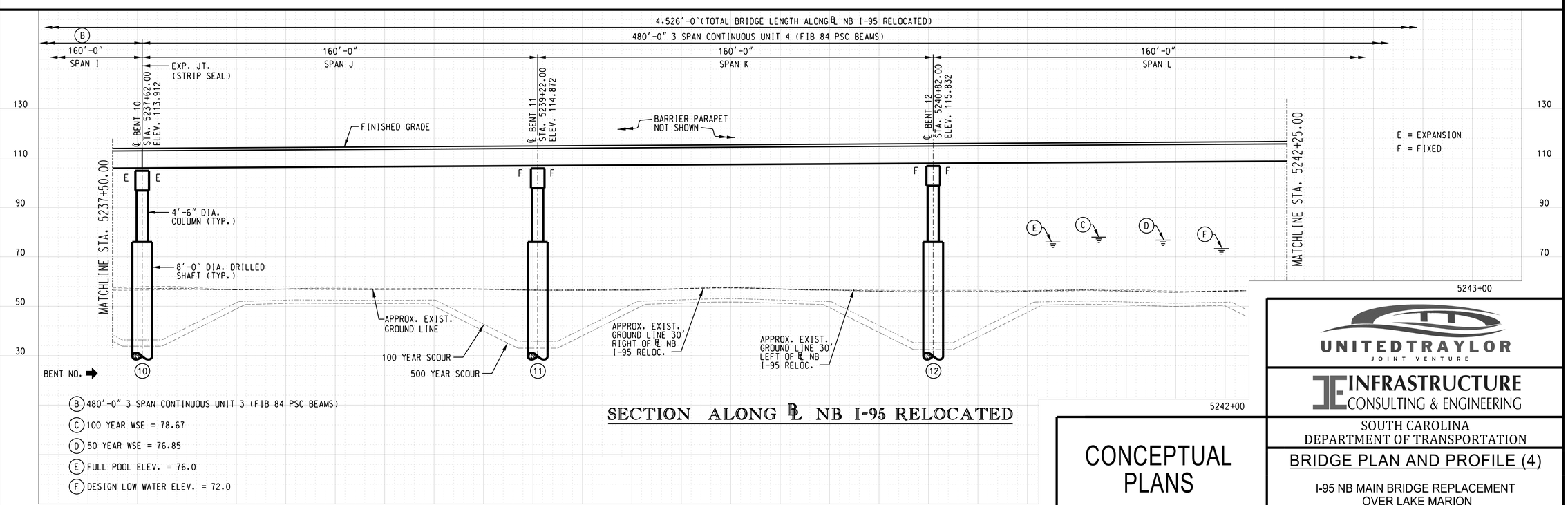
NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

** STRIP SEAL EXP. JT.

PLAN



(B) 480'-0" 3 SPAN CONTINUOUS UNIT 3 (FIB 84 PSC BEAMS)

(C) 100 YEAR WSE = 78.67

(D) 50 YEAR WSE = 76.85

(E) FULL POOL ELEV. = 76.0

(F) DESIGN LOW WATER ELEV. = 72.0

SECTION ALONG ℄ NB I-95 RELOCATED

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (4)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REVIEWED R. JAMALUDDIN			
QUAN.			
DR.	RMH	RAJ	08-25
DES.	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.				LATEST REVISION
REV.				PREVIOUS REVISION
REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION

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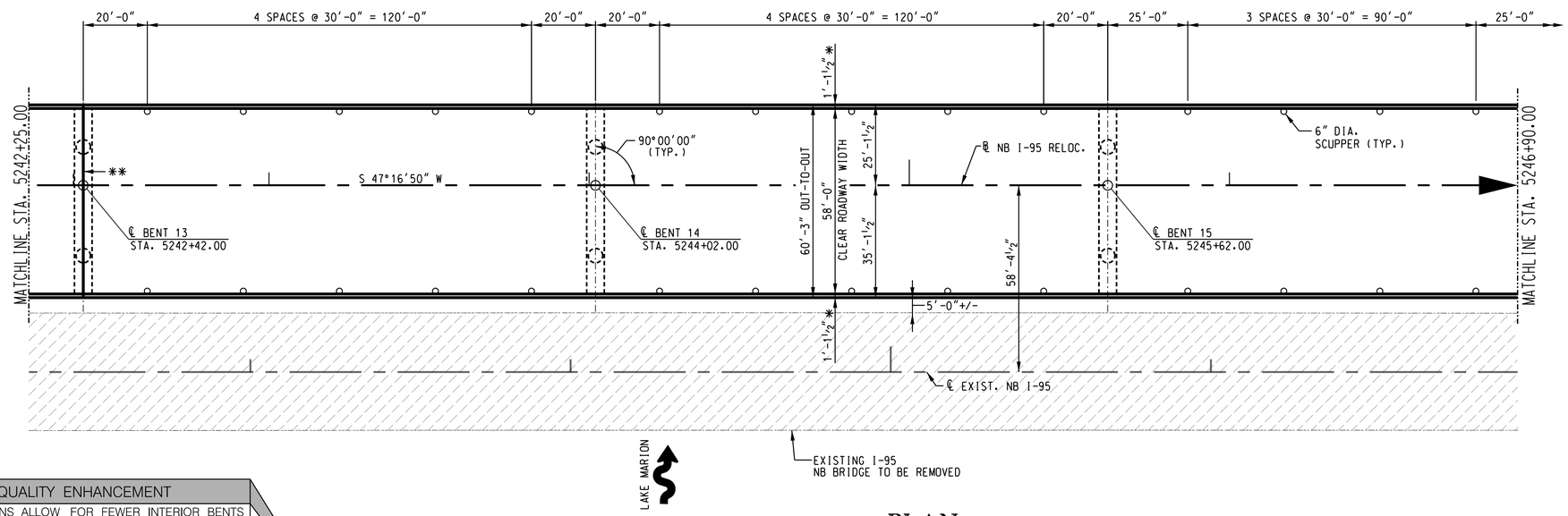
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B01	9



NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

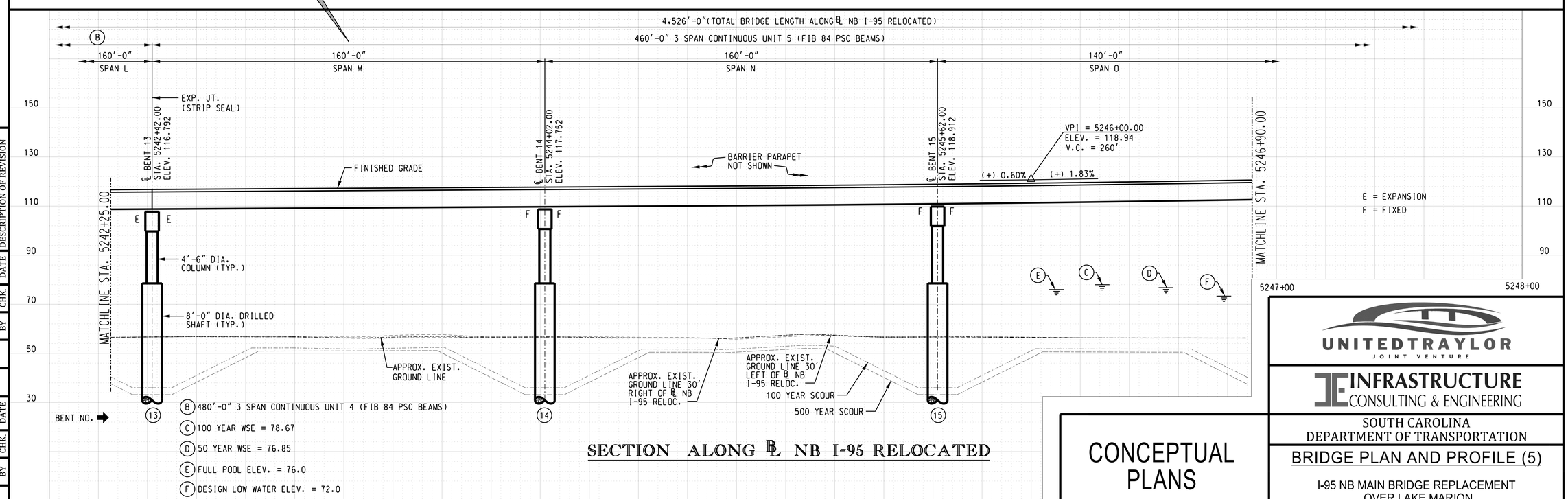
* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

** STRIP SEAL EXP. JT.

PLAN

QUALITY ENHANCEMENT

LONGER SPANS ALLOW FOR FEWER INTERIOR BENTS AND LESS FOUNDATION CONSTRUCTION TIME IN THE WATER. THIS REDUCES ENVIRONMENTAL CONCERNS AND IMPROVES HYDRAULIC FLOW.



SECTION ALONG ℄ NB I-95 RELOCATED

REV.			BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.		LATEST REVISION				
REV.		PREVIOUS REVISION				

$$PRINT_PROPERTIES$$

REVIEWED	R. JAMALUDDIN			
QUAN.				
DR.	RMH	RAJ	08-25	
DES.				
	BY	CHK.	DATE	

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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

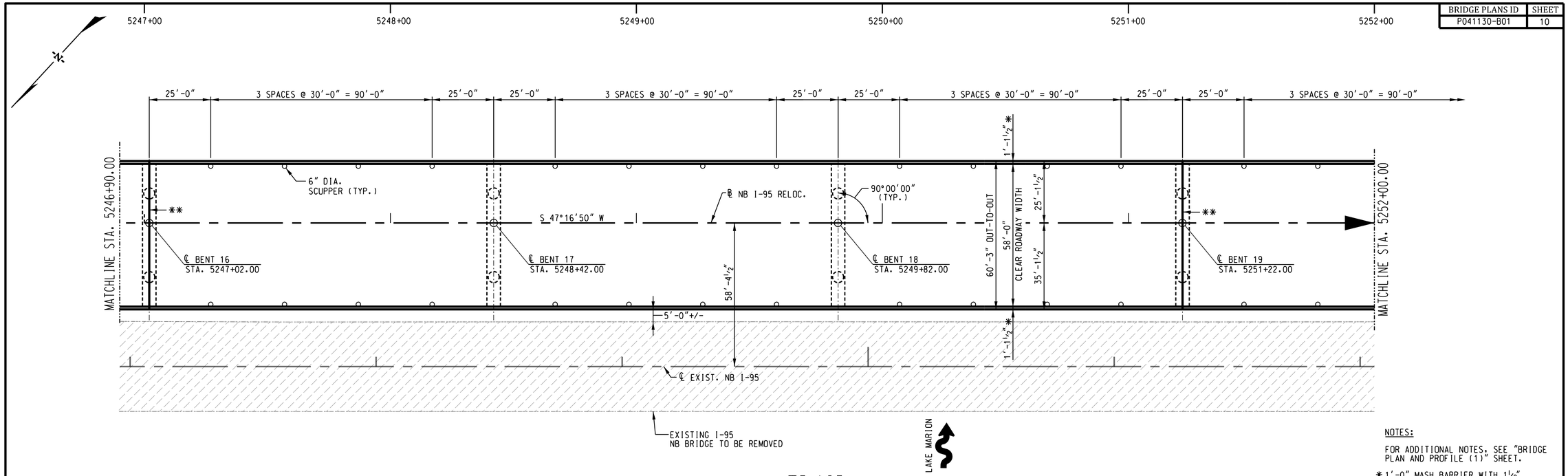
CONCEPTUAL PLANS

BRIDGE PLAN AND PROFILE (5)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B01	10



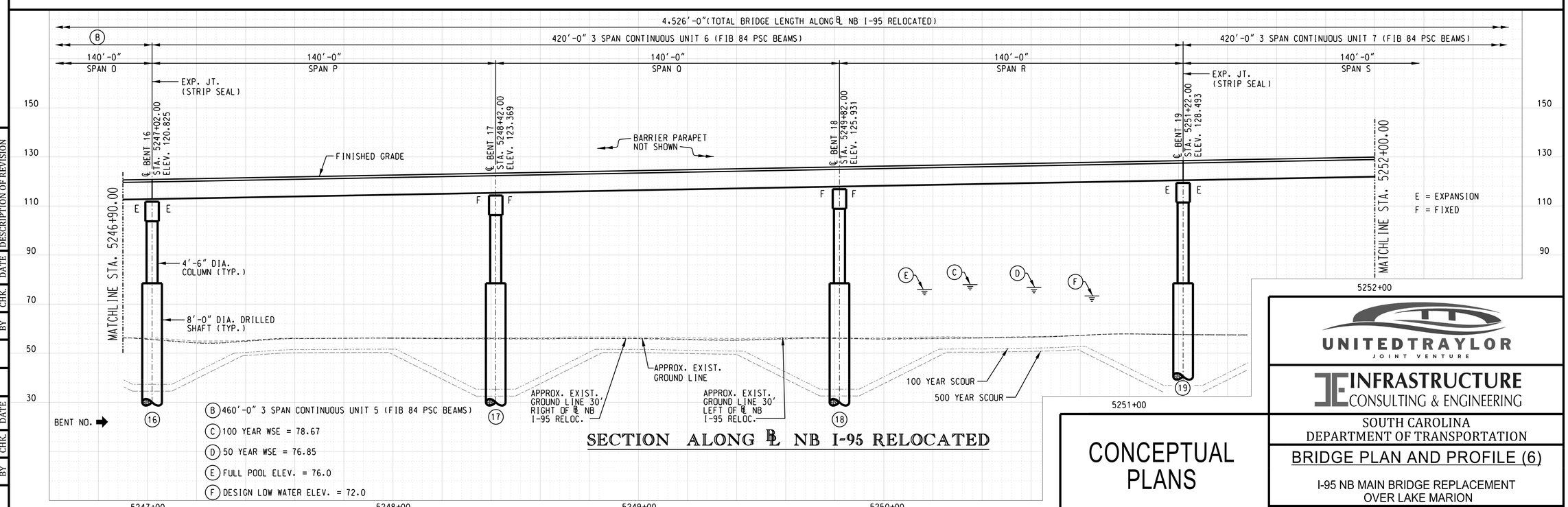
PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

** STRIP SEAL EXP. JT.



SECTION ALONG ℄ NB I-95 RELOCATED

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (6)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

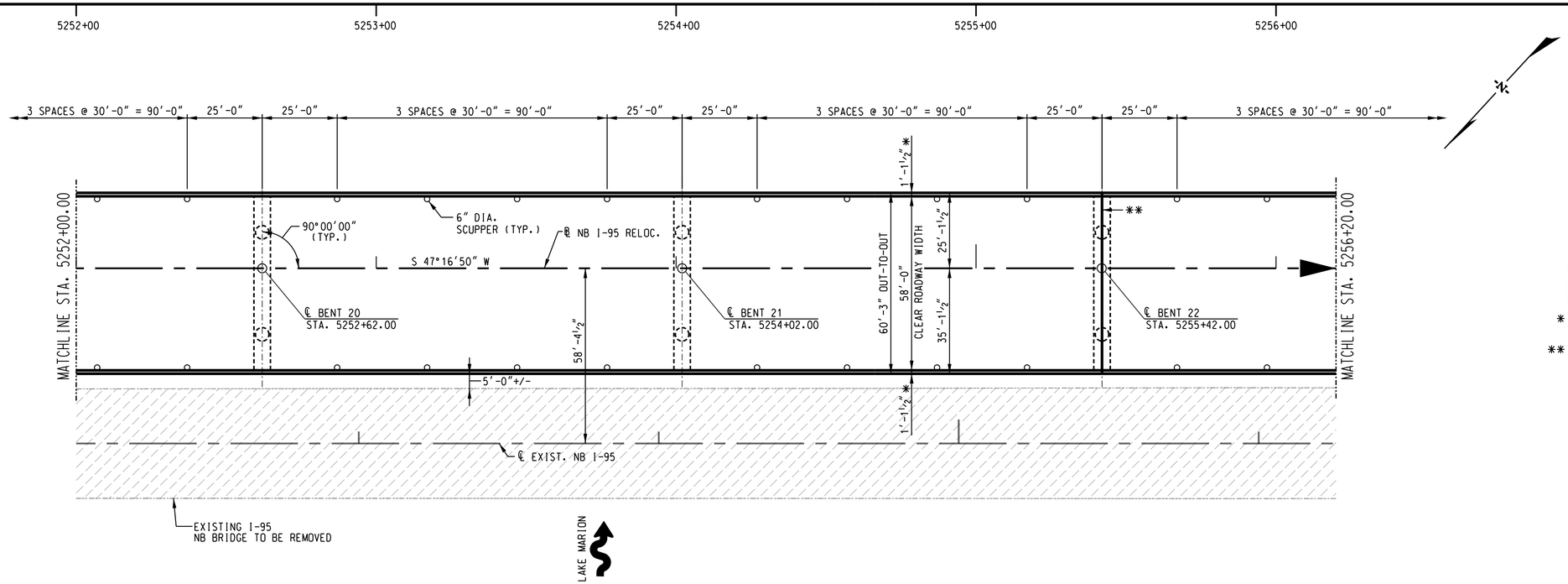
REVIEWED R. JAMALUDDIN			
QUAN.			
DR.	RMH	RAJ	08-25
DES.	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.				
REV.				LATEST REVISION
REV.				PREVIOUS REVISION
	BY	CHK.	DATE	DESCRIPTION OF REVISION

c:\bms\ice-eng-pw-01\d0139545\05-14_NB_BRIDGE_PLAN_AND_PROFILE.DGN
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B01	11



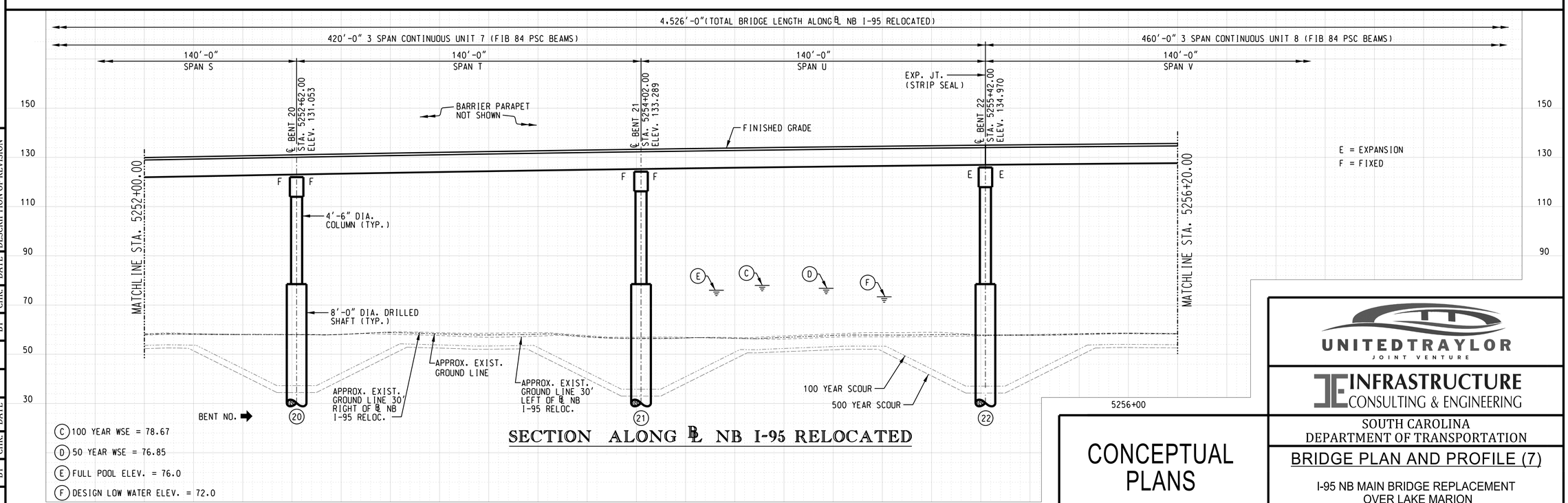
NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

** STRIP SEAL EXP. JT.

PLAN



C 100 YEAR WSE = 78.67

D 50 YEAR WSE = 76.85

E FULL POOL ELEV. = 76.0

F DESIGN LOW WATER ELEV. = 72.0

SECTION ALONG ℄ NB I-95 RELOCATED

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (7)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

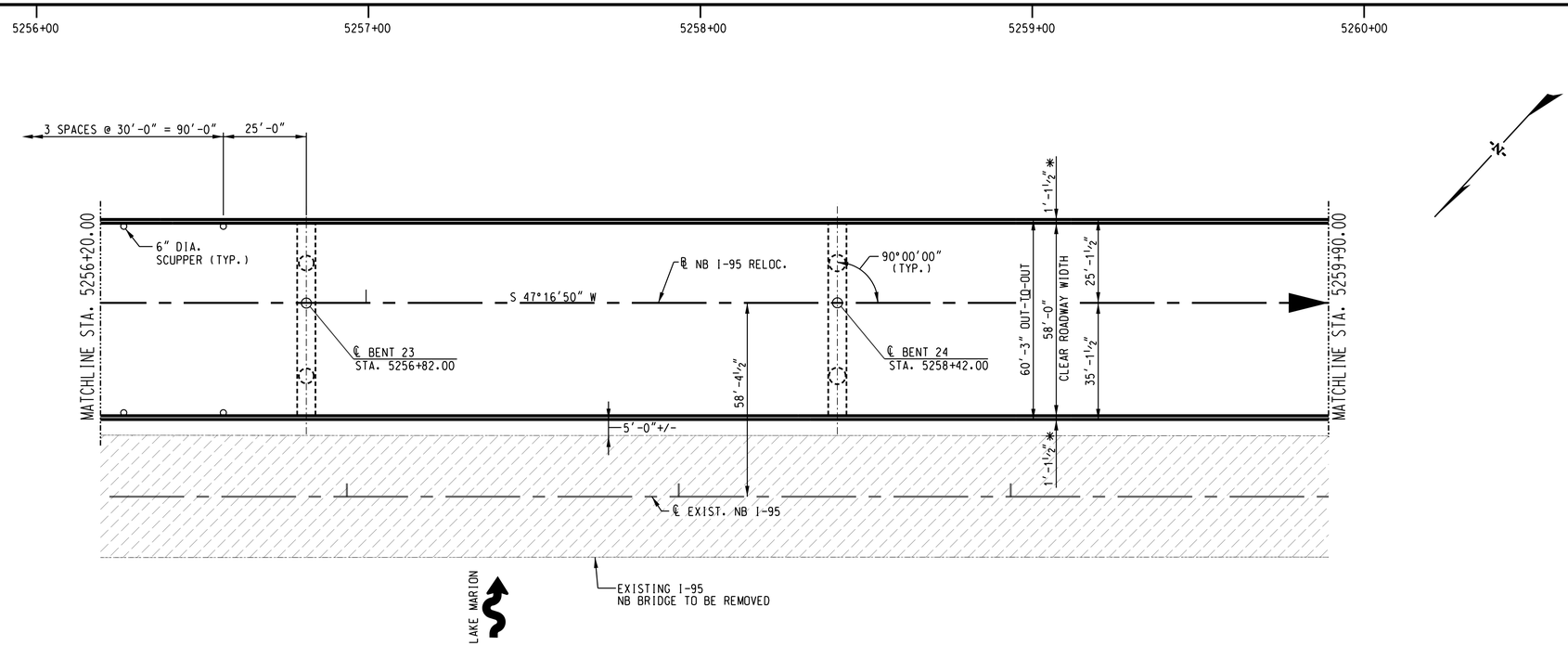
REVIEWED	R. JAMALUDDIN		
QUAN.			
DR.	RMH	RAJ	08-25
DES.			
	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.				
REV.				LATEST REVISION
REV.				PREVIOUS REVISION
	BY	CHK.	DATE	DESCRIPTION OF REVISION

c:\bms\ice-eng-pw-01\d0139545\05-14_NB_BRIDGE_PLAN_AND_PROFILE.DGN
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B01	12

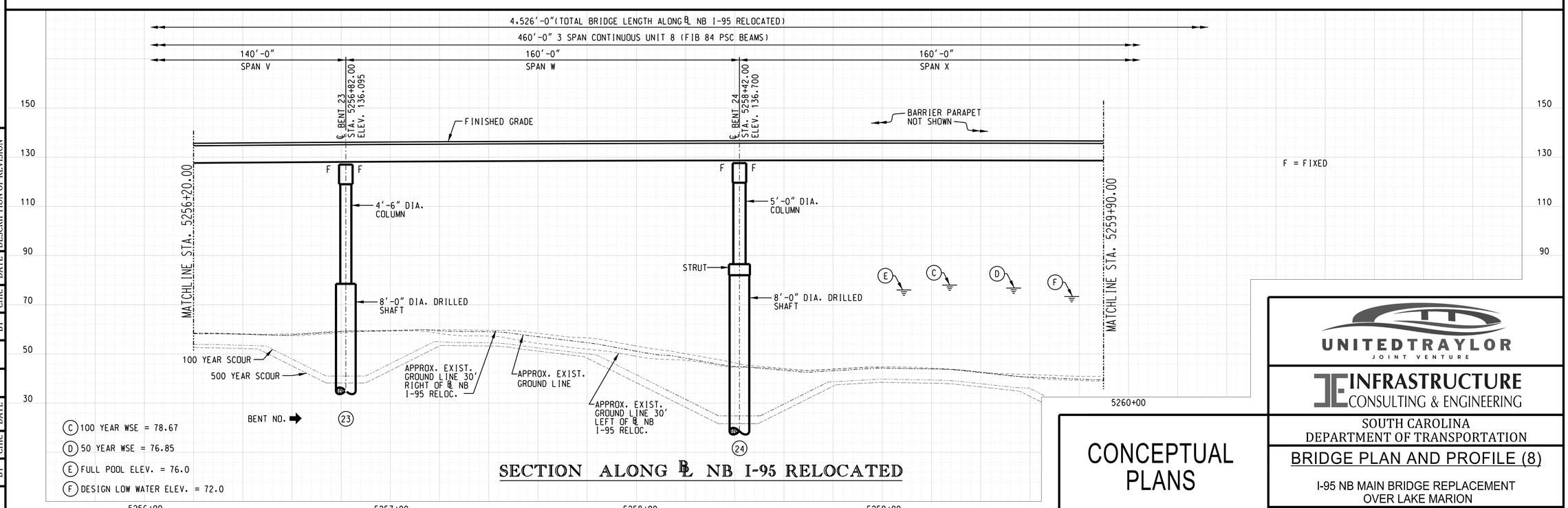


PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION



(C) 100 YEAR WSE = 78.67

(D) 50 YEAR WSE = 76.85

(E) FULL POOL ELEV. = 76.0

(F) DESIGN LOW WATER ELEV. = 72.0

SECTION ALONG ℄ NB I-95 RELOCATED

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (8)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REVIEWED	R. JAMALUDDIN		
QUAN.			
DR.	RMH	RAJ	08-25
DES.			
BY	CHK.	DATE	

$$PRINT_PROPERTIES$$

REV.				
REV.				LATEST REVISION
REV.				PREVIOUS REVISION
BY	CHK.	DATE		DESCRIPTION OF REVISION

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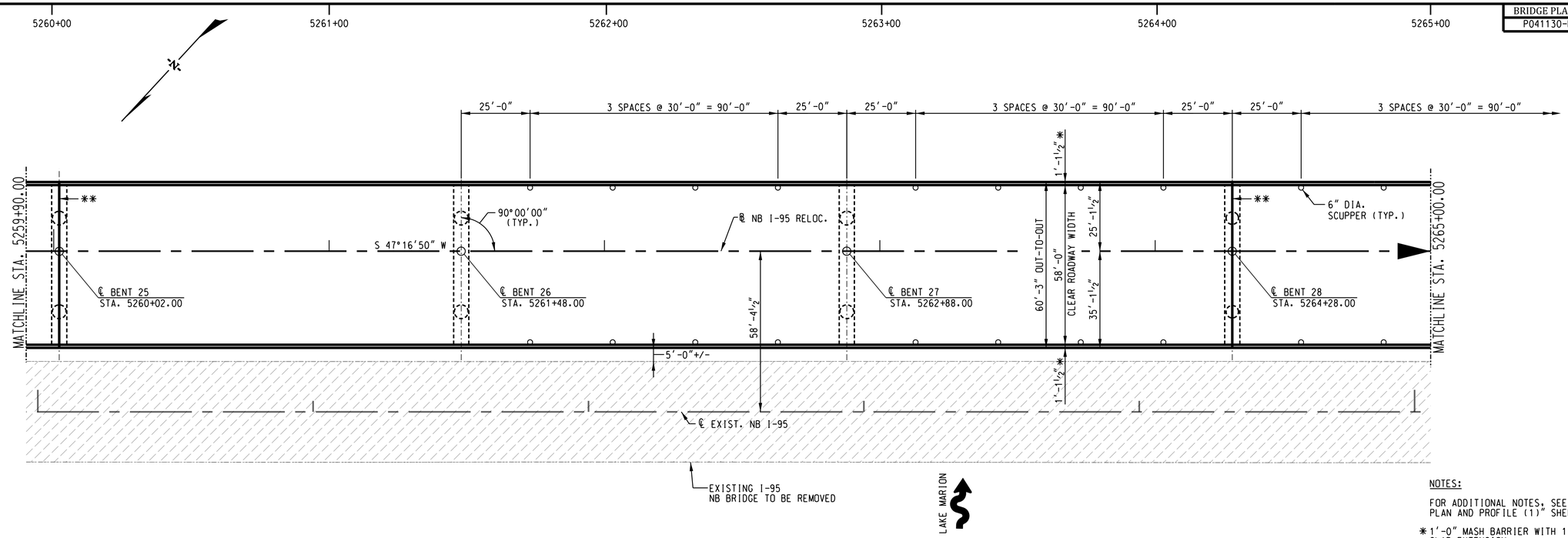
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B01	13



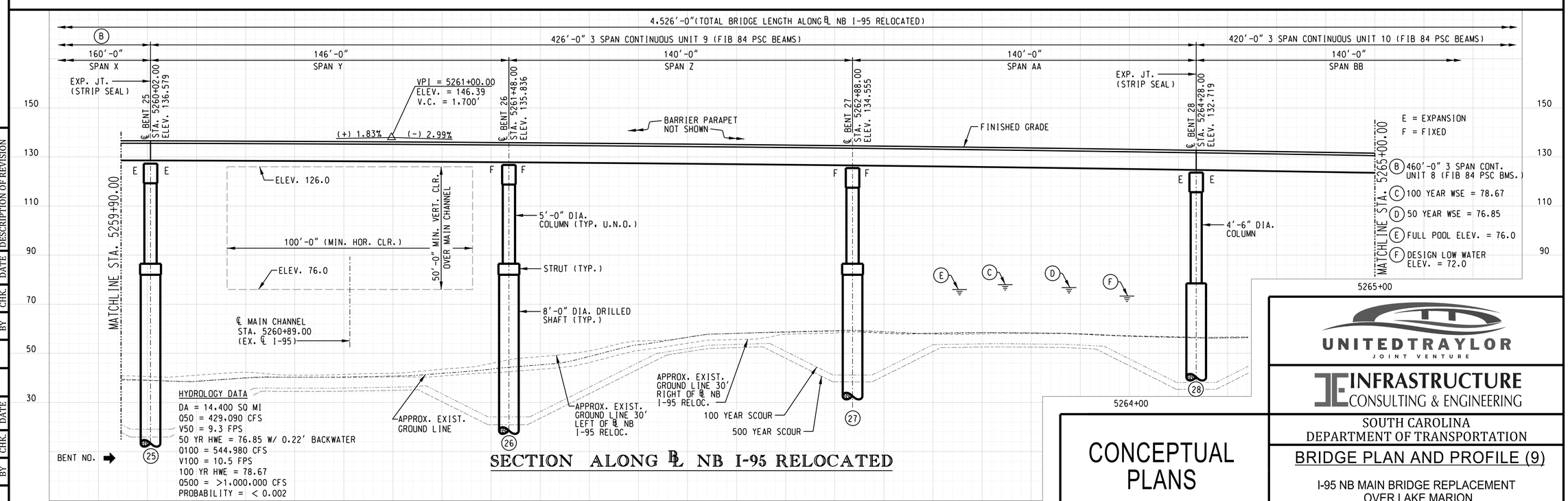
PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

** STRIP SEAL EXP. JT.



(B) 460'-0" 3 SPAN CONT. UNIT 8 (FIB 84 PSC BMS.)
(C) 100 YEAR WSE = 78.67
(D) 50 YEAR WSE = 76.85
(E) FULL POOL ELEV. = 76.0
(F) DESIGN LOW WATER ELEV. = 72.0

HYDROLOGY DATA
DA = 14,400 SQ MI
Q50 = 429,090 CFS
V50 = 9.3 FPS
50 YR HWE = 76.85 W/ 0.22' BACKWATER
Q100 = 544,980 CFS
V100 = 10.5 FPS
100 YR HWE = 78.67
Q500 = >1,000,000 CFS
PROBABILITY = < 0.002

SECTION ALONG ℄ NB I-95 RELOCATED

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (9)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REVIEWED R.JAMALUDDIN			
QUAN.			
DR.	RMH	RAJ	08-25
DES.	BY	CHK.	DATE

REV.				
REV.				LATEST REVISION
REV.				PREVIOUS REVISION
	BY	CHK.	DATE	DESCRIPTION OF REVISION

$$PRINT_PROPERTIES$$

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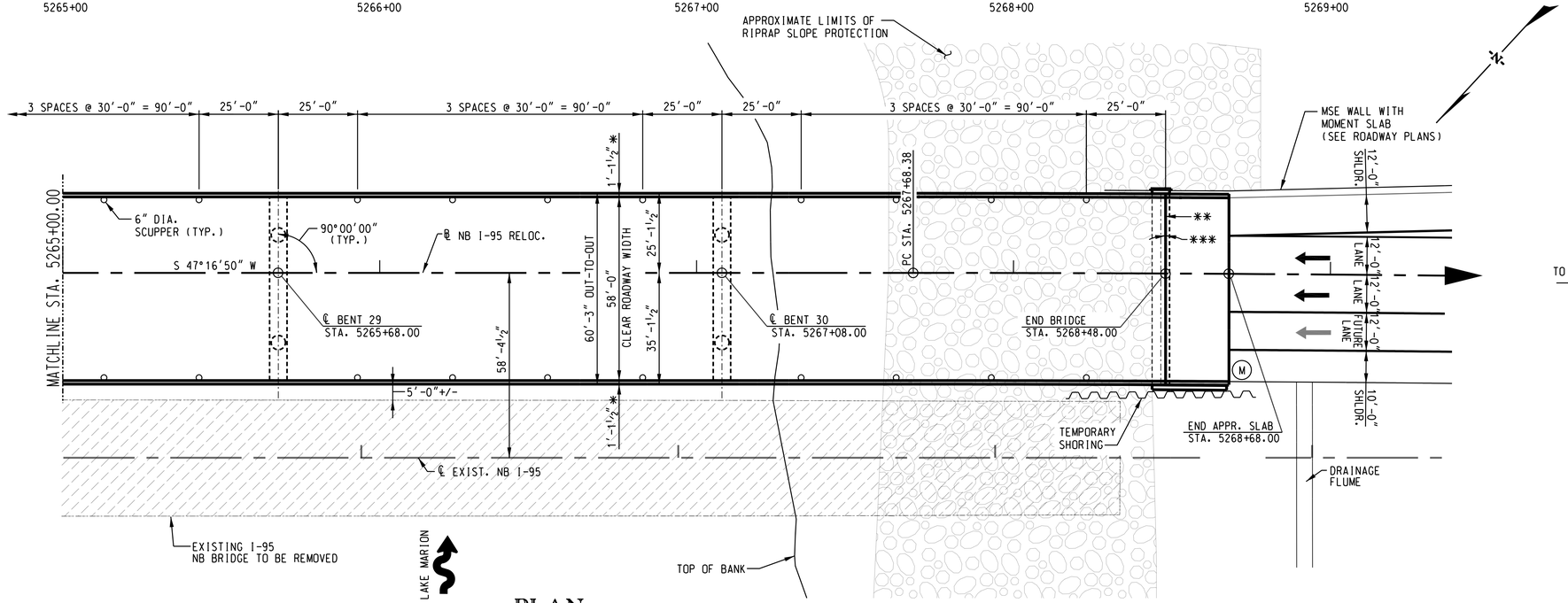
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B01	14



PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

** COMPRESSION SEAL EXP. JT.

*** 00°16'58.57" (TO TANGENT)

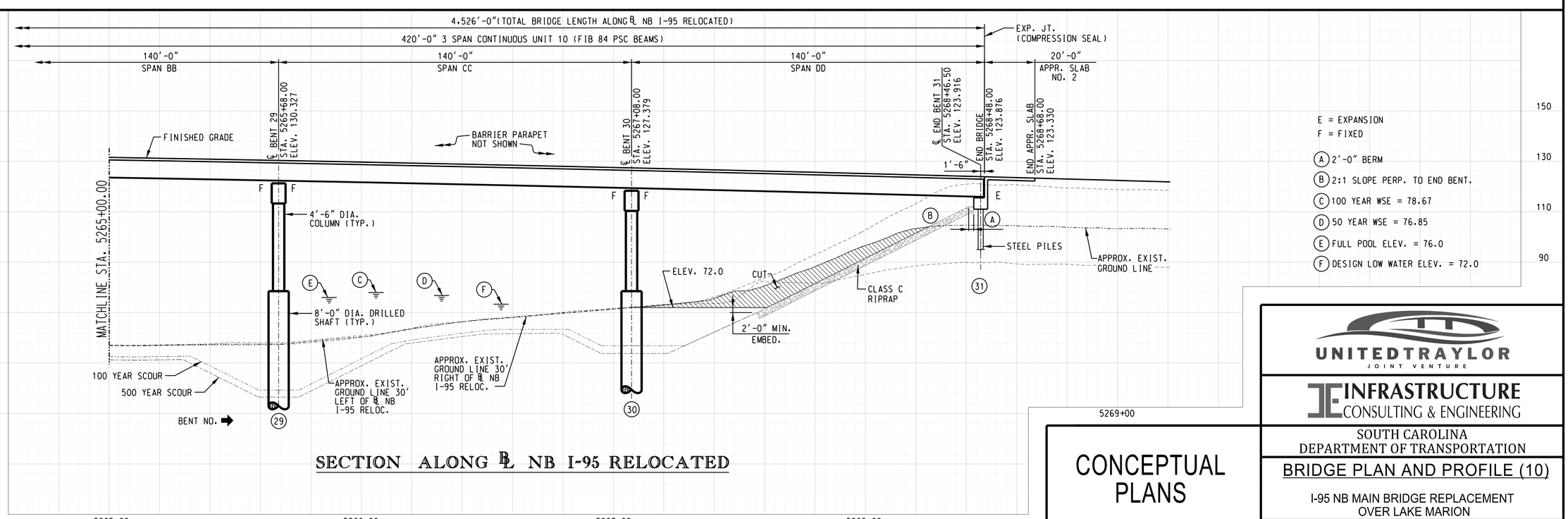
(M) DENOTES MTBBC3 GUARDRAIL ATTACHMENT.

BRIDGE END DRAINAGE ADJACENT TO BARRIER / MOMENT SLAB WILL BE ROUTED TO CLOSED DRAINAGE SYSTEM.

HORIZONTAL CURVE DATA

CURVE NB95_RELOC-5

PI STA. = 5273+31.95
Δ = 04°00'12.91" (RT)
D = 00°21'19.24"
T = 563.57'
L = 1,126.68'
E = 9.85'
R = 16,124.00'
DS = 75 mph
e(max) = 8.0%
e = N.C.



E = EXPANSION
F = FIXED

(A) 2'-0" BERM
(B) 2:1 SLOPE PERP. TO END BENT.
(C) 100 YEAR WSE = 78.67
(D) 50 YEAR WSE = 76.85
(E) FULL POOL ELEV. = 76.0
(F) DESIGN LOW WATER ELEV. = 72.0

SECTION ALONG ℄ NB I-95 RELOCATED

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (10)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				LATEST REVISION
REV.				PREVIOUS REVISION

$$PRINT_PROPERTIES$$

REVIEWED	R.JAMALUDDIN		
QUAN.			
DR.	RMH	RAJ	08-25
DES.			
	BY	CHK.	DATE

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8/27/2025

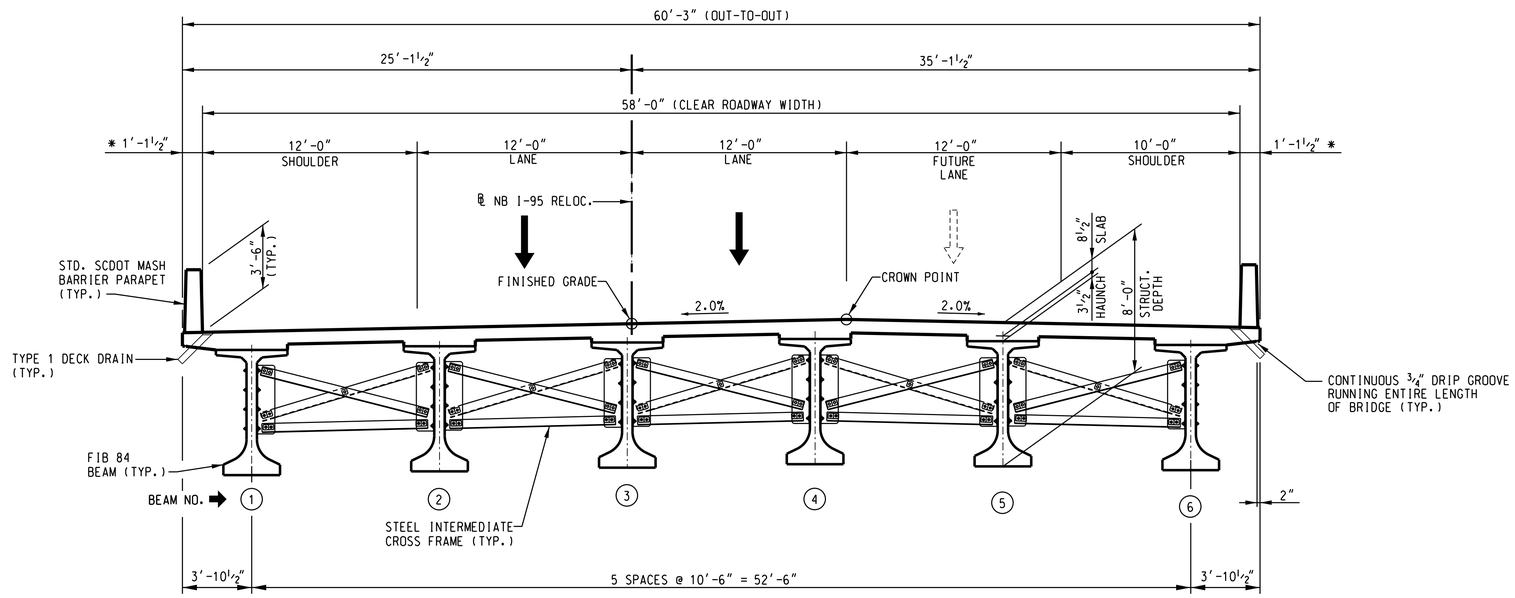
BRIDGE PLANS ID	SHEET
P041130-B01	15

NOTES:

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

FOR DECK DRAIN LOCATIONS, SEE "BRIDGE PLAN AND PROFILE" SHEETS.

QUALITY ENHANCEMENT
NO CLOSURE POUR IMPROVES RIDEABILITY.



TYPICAL SECTION

(LOOKING IN DIRECTION OF STATIONING)

QUALITY ENHANCEMENT
USE OF PRESTRESSED CONCRETE BEAMS IMPROVES LONG-TERM MAINTENANCE.

QUALITY ENHANCEMENT
CONSISTENT 2.0% CROSS SLOPE ACROSS TRAVEL LANES ALONG WITH CROWN POINT LOCATION ELIMINATES A CROSS SLOPE BREAK AND ALLOWS FOR EASIER SCREEDING OF THE BRIDGE DECK AND FUTURE MEDIAN WIDENING.

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$SPRINT_PROPERTIES$$

REVIEWED	R. JAMALUDDIN	
QUAN.	—	—
DR.	BFS	RAJ 07-25
DES.	—	—
	BY	CHK. DATE

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8/27/2025

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

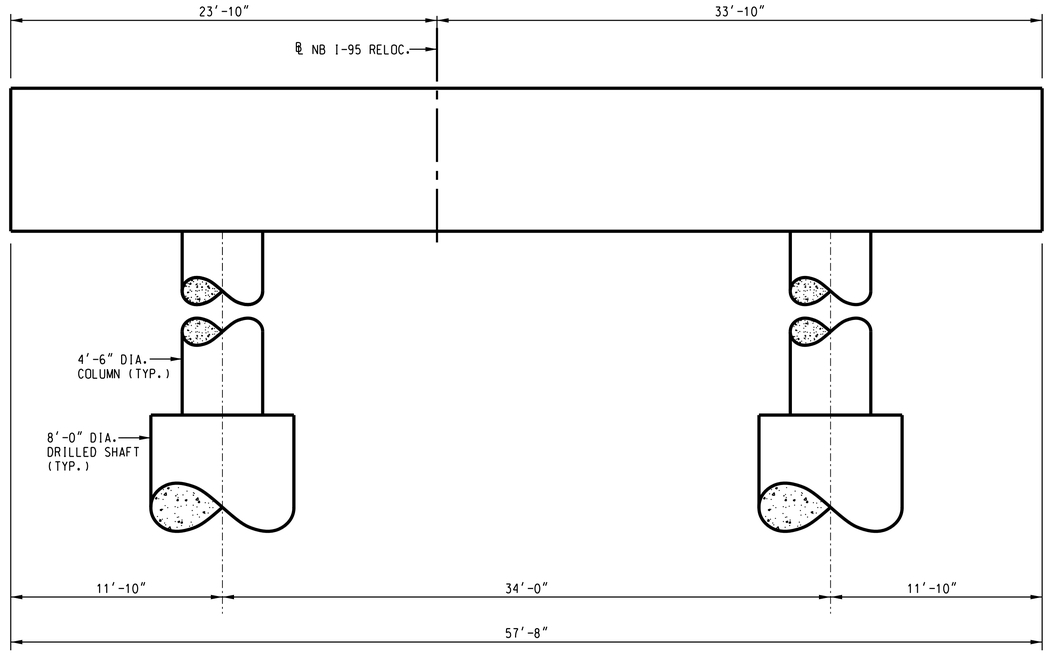
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B01	16



ELEVATION

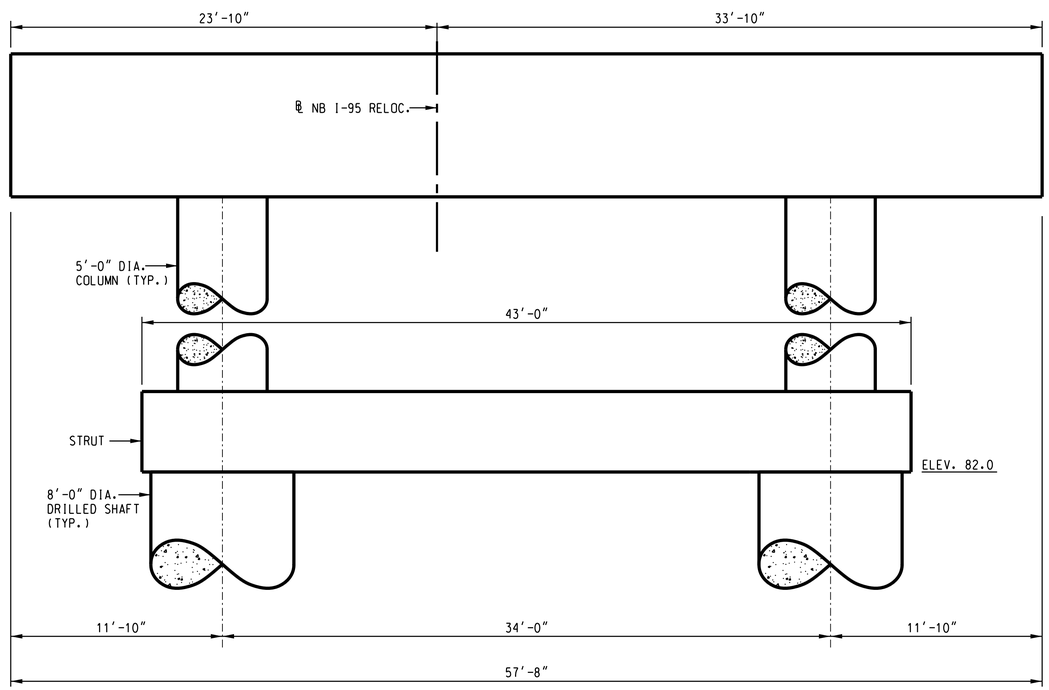
(LOOKING IN DIRECTION OF STATIONING)
(BENTS 2 THRU 23, 28 THRU 30)

NOTE:

SHEAR KEYS SHALL BE PROVIDED AT EXPANSION BENTS (NOT SHOWN FOR CLARITY).

QUALITY ENHANCEMENTS

1. USE OF INCREASED COLUMN SPACING PER FATC 17 ELIMINATES A COLUMN AND DRILLED SHAFT IMPROVING ECONOMY AND ACCELERATING CONSTRUCTION SCHEDULE.
2. INCREASED SUBSTRUCTURE CONCRETE STRENGTH (FATC 6) AND ADDITIONAL LAYERS OF REINFORCEMENT IN BENT CAPS (FATC 7) FACILITATE THE USE OF INCREASED COLUMN SPACING.



ELEVATION

(LOOKING IN DIRECTION OF STATIONING)
(BENTS 24 THRU 27)

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$$PRINT_PROPERTIES$$

REVIEWED	R. JAMALUDDIN	
QUAN.	—	—
DR.	BFS	RAJ 07-25
DES.	—	—
	BY	CHK. DATE

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8/27/2025

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

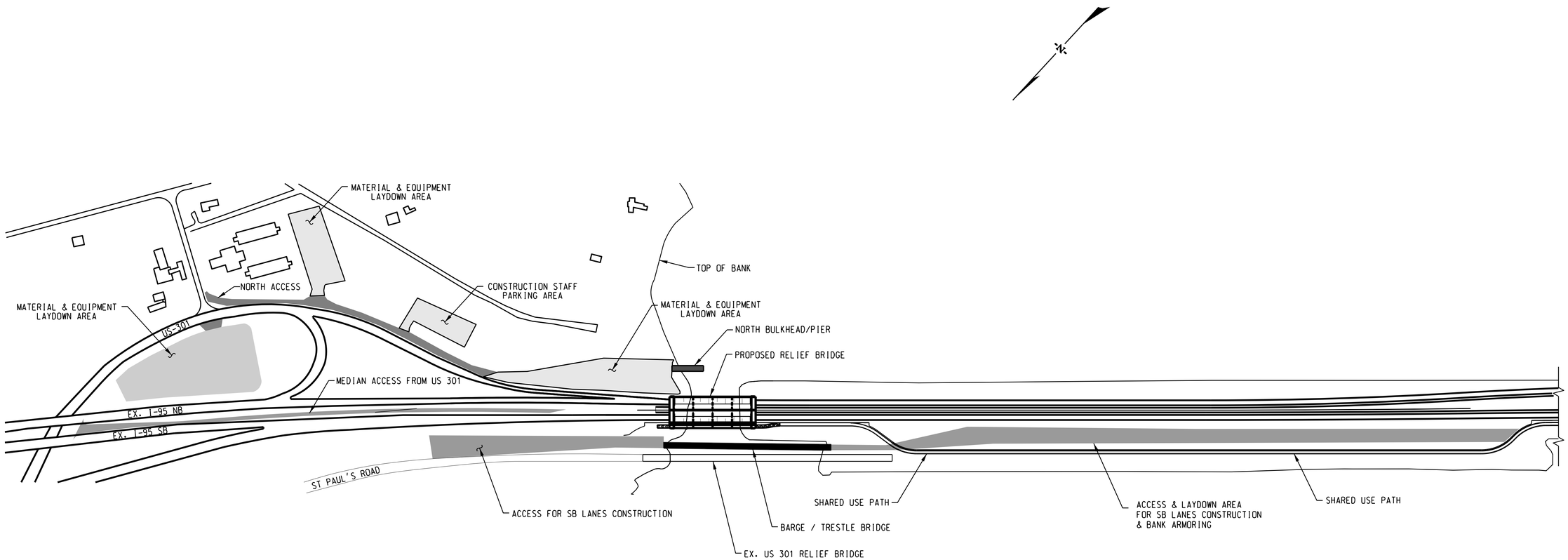
SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

INTERIOR BENT DETAILS

I-95 NB MAIN BRIDGE REPLACEMENT
OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B01	17



CONSTRUCTION ACCESS AND LAYDOWN AREA PLAN
NORTHERN ACCESS

REVIEWED	R. JAMALUDDIN	
QUAN.	—	—
DR.	BFS	RAJ
DES.	—	—
BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.			
REV.			
REV.			
BY	CHK.	DATE	DESCRIPTION OF REVISION

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8/27/2025

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

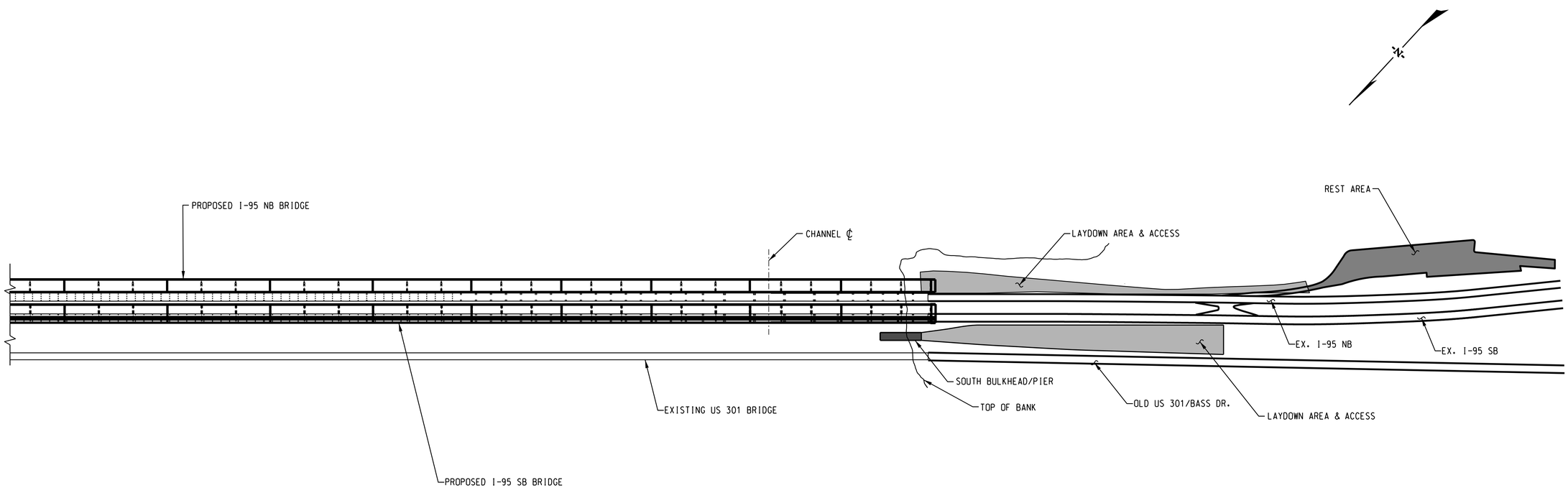
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION ACCESS (1)

I-95 NB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B01	18



CONSTRUCTION ACCESS AND LAYDOWN AREA PLAN
SOUTHERN ACCESS

REVIEWED R. JAMALUDDIN		
QUAN.	—	—
DR.	BFS	RAJ	08-25
DES.	—	—
	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.			
REV.			
REV.			
	BY	CHK.	DATE	DESCRIPTION OF REVISION

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8/27/2025

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION ACCESS (2)

I-95 NB MAIN BRIDGE REPLACEMENT
OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B02	1

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROPOSED PLANS FOR CLARENDON & ORANGEBURG COUNTIES PROJECT ID P041130 I-95 SB MAIN BRIDGE REPLACE SB BRIDGE OVER LAKE MARION

INDEX OF SHEETS

1. TITLE SHEET
2. STAGES OF CONSTRUCTION (1)
3. STAGES OF CONSTRUCTION (2)
4. STAGES OF CONSTRUCTION (3)
5. BRIDGE PLAN AND PROFILE (1)
6. BRIDGE PLAN AND PROFILE (2)
7. BRIDGE PLAN AND PROFILE (3)
8. BRIDGE PLAN AND PROFILE (4)
9. BRIDGE PLAN AND PROFILE (5)
10. BRIDGE PLAN AND PROFILE (6)
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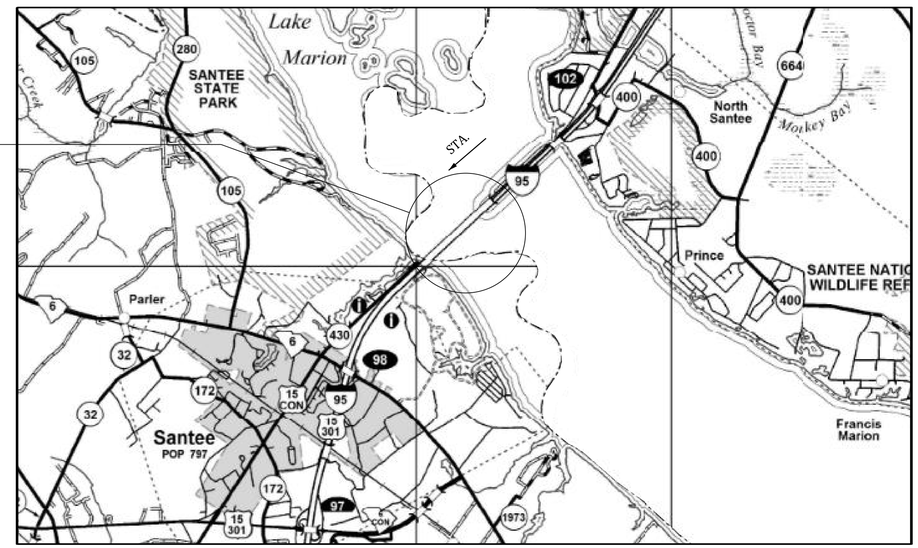
13. BRIDGE PLAN AND PROFILE (9)
14. BRIDGE PLAN AND PROFILE (10)
15. BRIDGE PLAN AND PROFILE (11)
16. TYPICAL SECTION
17. INTERIOR BENT DETAILS
18. CONSTRUCTION ACCESS (1)
19. CONSTRUCTION ACCESS (2)

SITE LOCATION



LAYOUT

-N-

APPROXIMATE LOCATION OF BRIDGE IS

LATITUDE 33°- 30' - 19" N
LONGITUDE 80°- 27' - 10" W

3 DAYS BEFORE DIGGING IN
SOUTH CAROLINA
CALL 811
SOUTH CAROLINA 811 (SC811)
WWW.SC811.COM
ALL UTILITIES MAY NOT BE A MEMBER OF SC811

ASSET ID TBD

TRAFFIC DATA

2025 ADT 41,000 V.P.D.

2045 ADT 55,000 V.P.D.

TRUCKS 22 %

NET LENGTH OF ROADWAY	0.000	MILES
NET LENGTH OF BRIDGES	0.857	MILES
NET LENGTH OF PROJECT	0.857	MILES
LENGTH OF EXCEPTIONS	0.000	MILES
GROSS LENGTH OF PROJECT	0.857	MILES

UNITEDTRAYLOR JOINT VENTURE

NOTE: EXCEPT AS MAY OTHERWISE BE SPECIFIED ON THE PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIALS AND WORKMANSHIP ON THIS PROJECT SHALL CONFORM TO THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE STANDARD DRAWINGS FOR ROAD CONSTRUCTION IN EFFECT AT THE TIME OF THE RELEASE OF THE FINAL RFP.

CONSULTING ENGINEERING FIRM

INFRASTRUCTURE CONSULTING & ENGINEERING

110 MIDLANDS COURT
WEST COLUMBIA, SC 29269
Telephone: (803) 822-0333

ENGINEER OF RECORD
FOR CONSTRUCTION

CONCEPTUAL PLANS

REVIEWED	R. JAMALUDDIN	
DR.	BFS	DKY 08-25
	BY	CHK DATE

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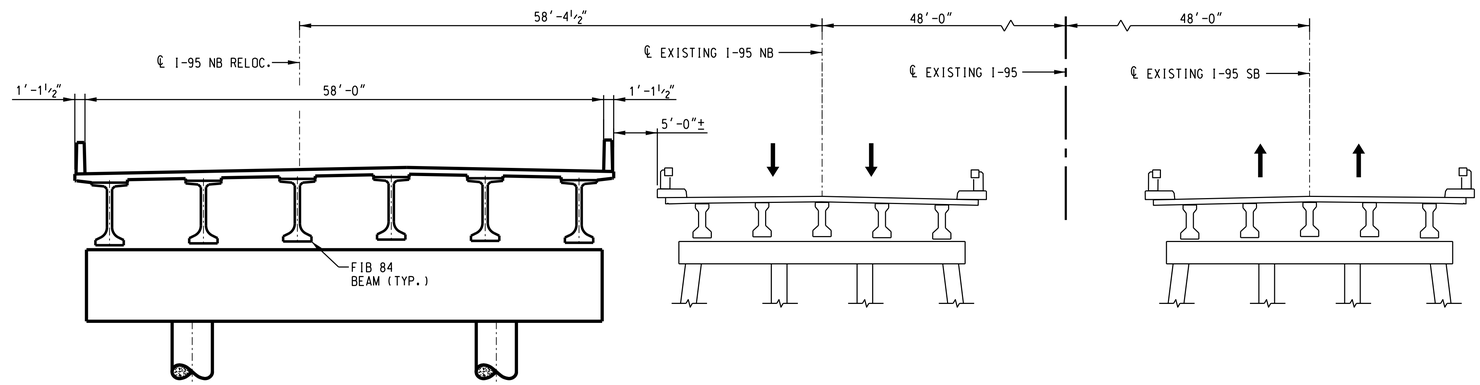
8/27/2025

DRAWING NUMBER: 700-01.TS01

BRIDGE PLANS ID	SHEET
P041130-B02	2

NOTE:

TEMPORARY LANE CONFIGURATION IS DICTATED BY ROADWAY MOT PLANS.



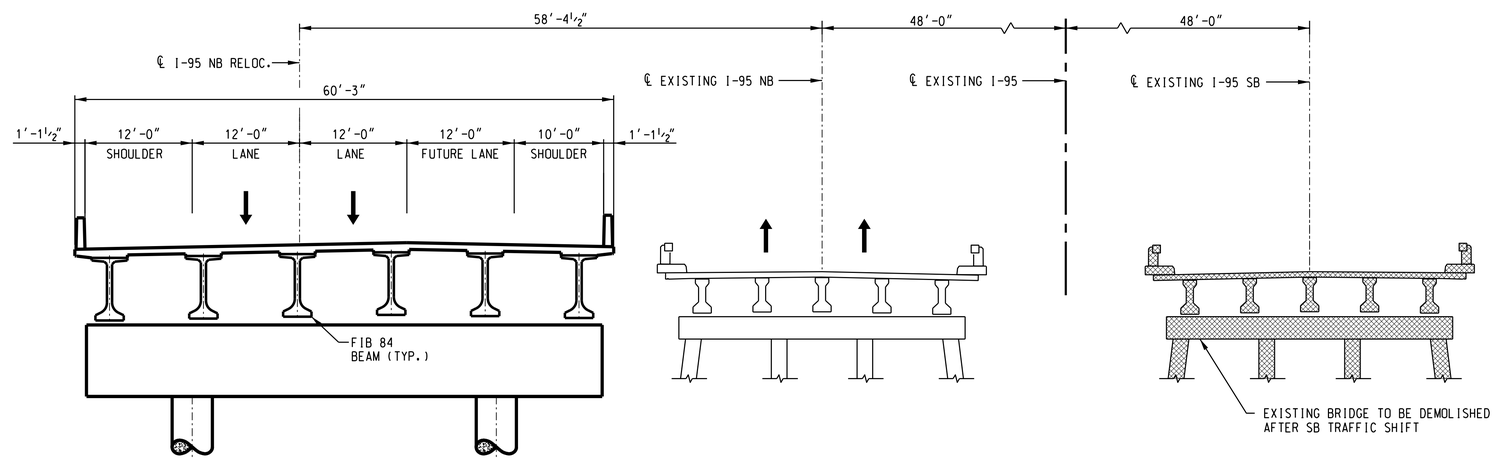
STAGE 1 CONSTRUCTION:

1. CONSTRUCT NB BRIDGE. SHIFT NB TRAFFIC TO NEW NB BRIDGE

STAGE 1 CONSTRUCTION

QUALITY ENHANCEMENT

NB MAIN BRIDGE CONSTRUCTED IN SINGLE STAGE.



STAGE 2 DEMOLITION:

1. SHIFT SB TRAFFIC TO EXISTING NB BRIDGE. DEMOLISH SB BRIDGE.

STAGE 2 DEMOLITION

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$$PRINT_PROPERTIES$$

REVIEWED	R. JAMALUDDIN	DATE
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DR.	BFS	RAJ	07-25
DES.	—	—	—
	BY	CHK.	DATE

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8/27/2025

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

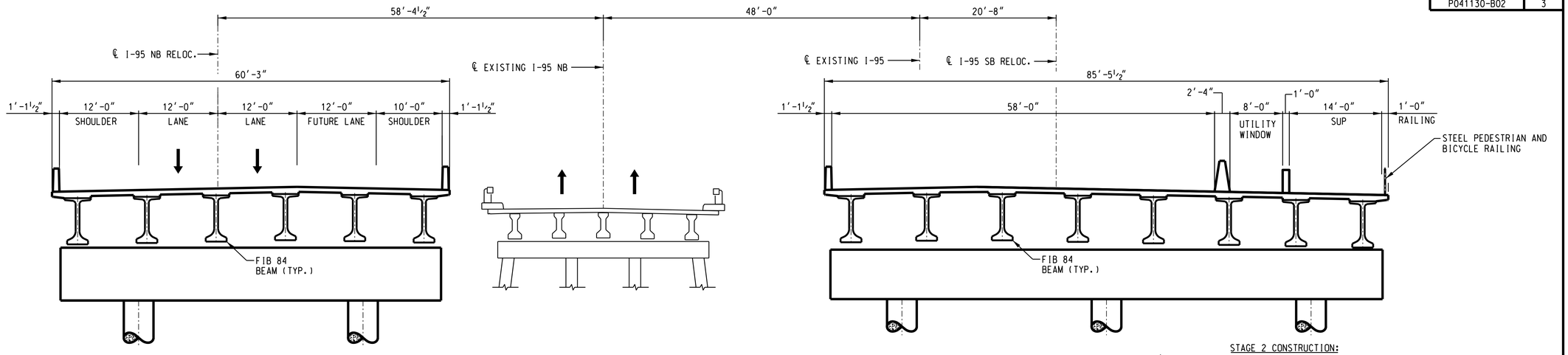
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

STAGES OF CONSTRUCTION (1)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B02	3



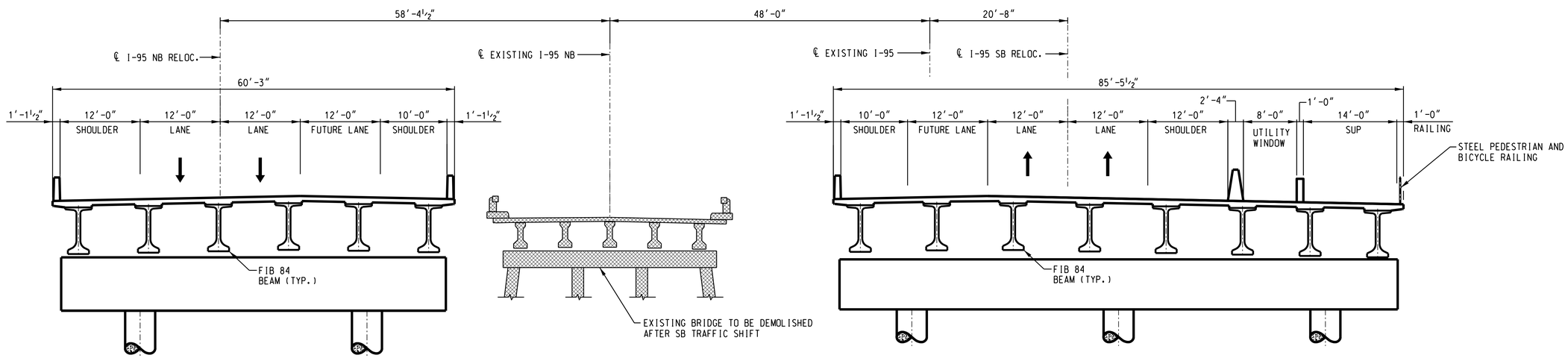
STAGE 2 CONSTRUCTION:

1. CONSTRUCT SB BRIDGE.

QUALITY ENHANCEMENT

SB MAIN BRIDGE CONSTRUCTED IN SINGLE STAGE.

STAGE 2 CONSTRUCTION



STAGE 3 DEMOLITION

STAGE 3 DEMOLITION:

1. SHIFT SB TRAFFIC TO NEW SB BRIDGE. DEMOLISH EXISTING NB BRIDGE.

NOTE:

TEMPORARY LANE CONFIGURATION IS DICTATED BY ROADWAY MOT PLANS.

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

STAGES OF CONSTRUCTION (2)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$$PRINT_PROPERTIES$$

REVIEWED	R. JAMALUDDIN	
QUAN.	—	—
DR.	BFS	RAJ	07-25
DES.	—	—	—
	BY	CHK.	DATE

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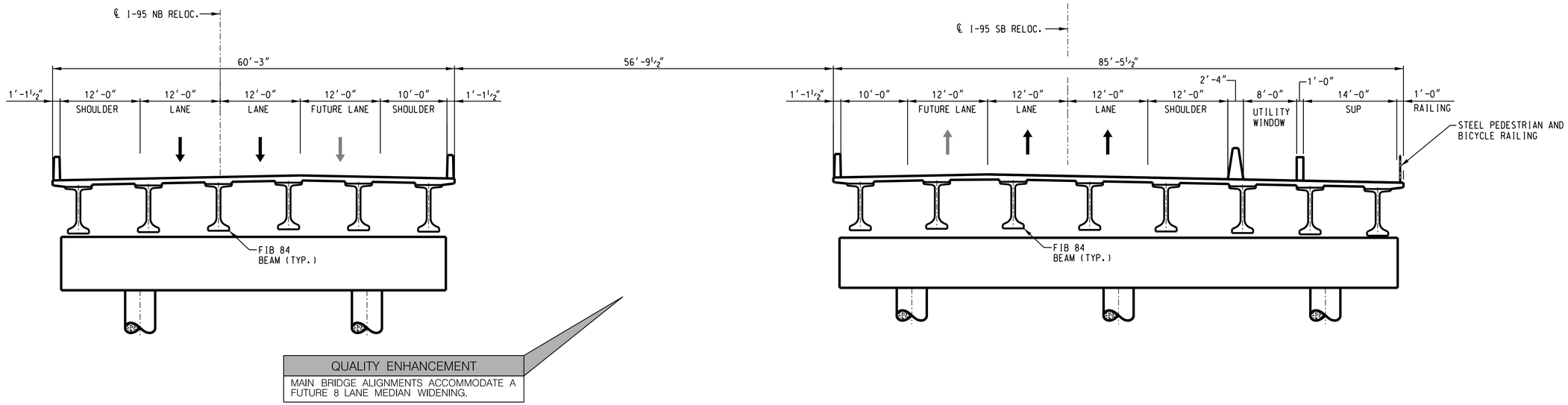
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B02	4



QUALITY ENHANCEMENT

MAIN BRIDGE ALIGNMENTS ACCOMMODATE A FUTURE 8 LANE MEDIAN WIDENING.

FINAL BRIDGE TYPICAL SECTION

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8/27/2025

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REVIEWED R. JAMALUDDIN			
QUAN.	—	—	—
DR.	BFS	RAJ	07-25
DES.	—	—	—
	BY	CHK.	DATE

REV.			
REV.			
REV.			
	BY	CHK.	DATE	DESCRIPTION OF REVISION

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

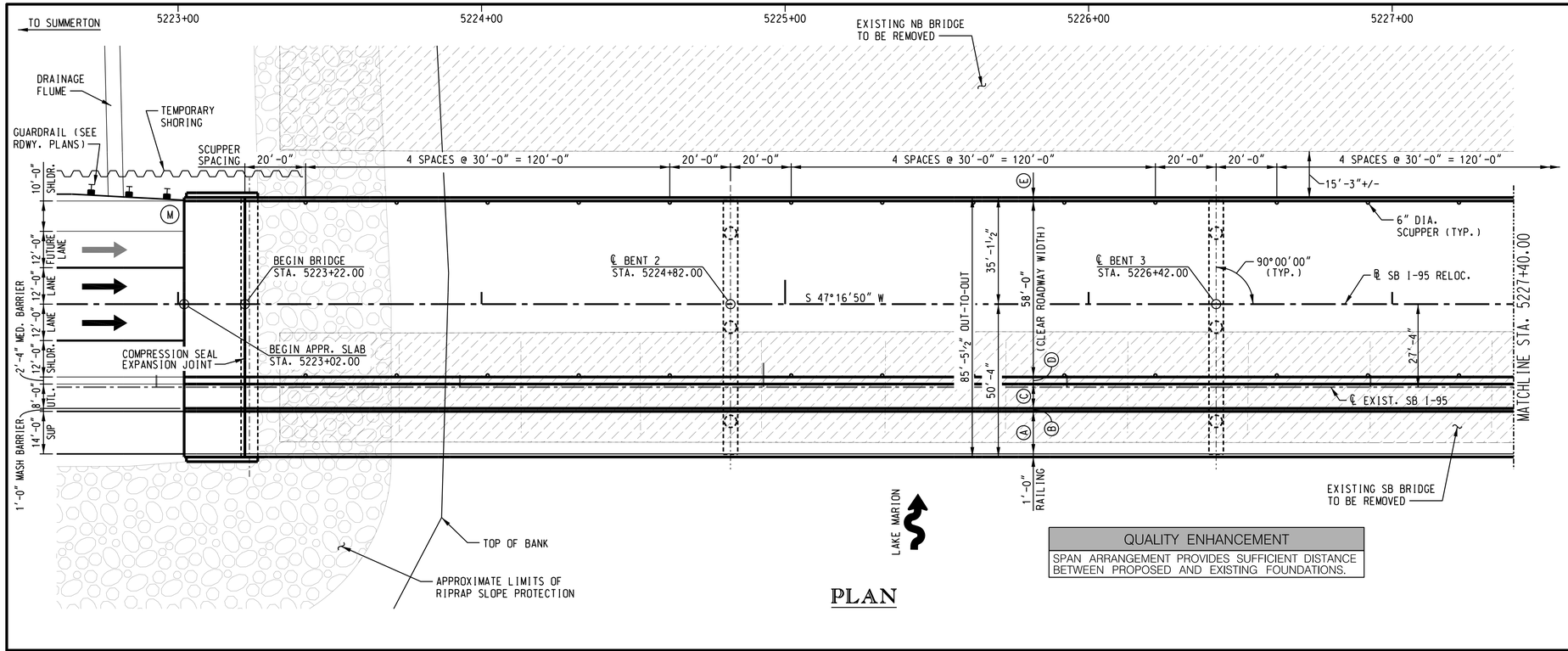
SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

STAGES OF CONSTRUCTION (3)

I-95 SB MAIN BRIDGE REPLACEMENT
OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B02	5



PLAN

QUALITY ENHANCEMENT
SPAN ARRANGEMENT PROVIDES SUFFICIENT DISTANCE BETWEEN PROPOSED AND EXISTING FOUNDATIONS.

NOTES:

EXISTING BRIDGE TO BE REMOVED AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 202.3.2 OF THE STANDARD SPECIFICATIONS.

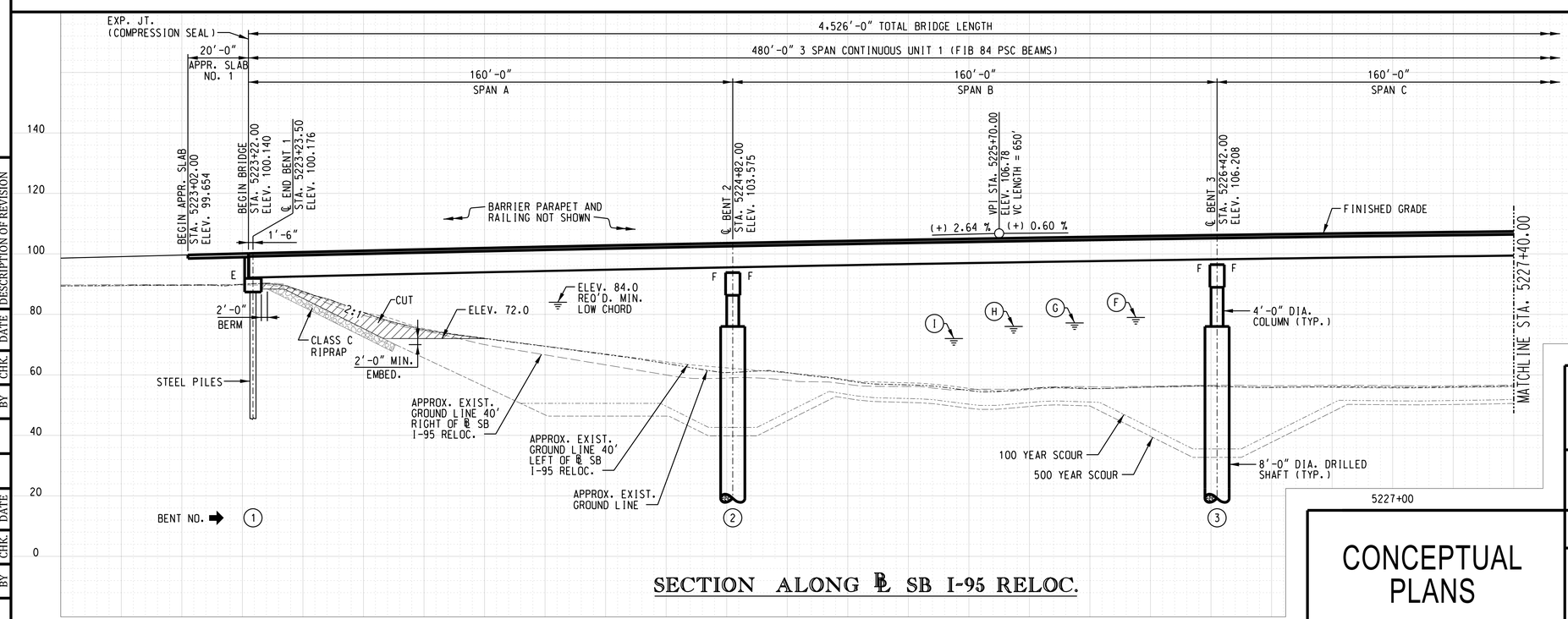
ALL BENTS ARE PARALLEL.

FOR HYDROLOGY DATA, SEE "BRIDGE PLAN AND PROFILE (9)" SHEET.

(M) DENOTES MTBBC3 GUARDRAIL ATTACHMENT.

BRIDGE END DRAINAGE ADJACENT TO UTILITY WINDOW WILL BE ROUTED TO CLOSED DRAINAGE SYSTEM.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION



SECTION ALONG ℄ SB I-95 RELOC.

E = EXPANSION
F = FIXED

(F) 100 YEAR WSE = 78.67
(G) 50 YEAR WSE = 76.85
(H) FULL POOL ELEV. = 76.0
(I) DESIGN LOW WATER ELEV. = 72.0

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (1)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				LATEST REVISION
REV.				PREVIOUS REVISION

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REVIEWED	R.JAMALUDDIN		
QUAN.			
DR.	WLH	RAJ	08-25
DES.			
	BY	CHK.	DATE

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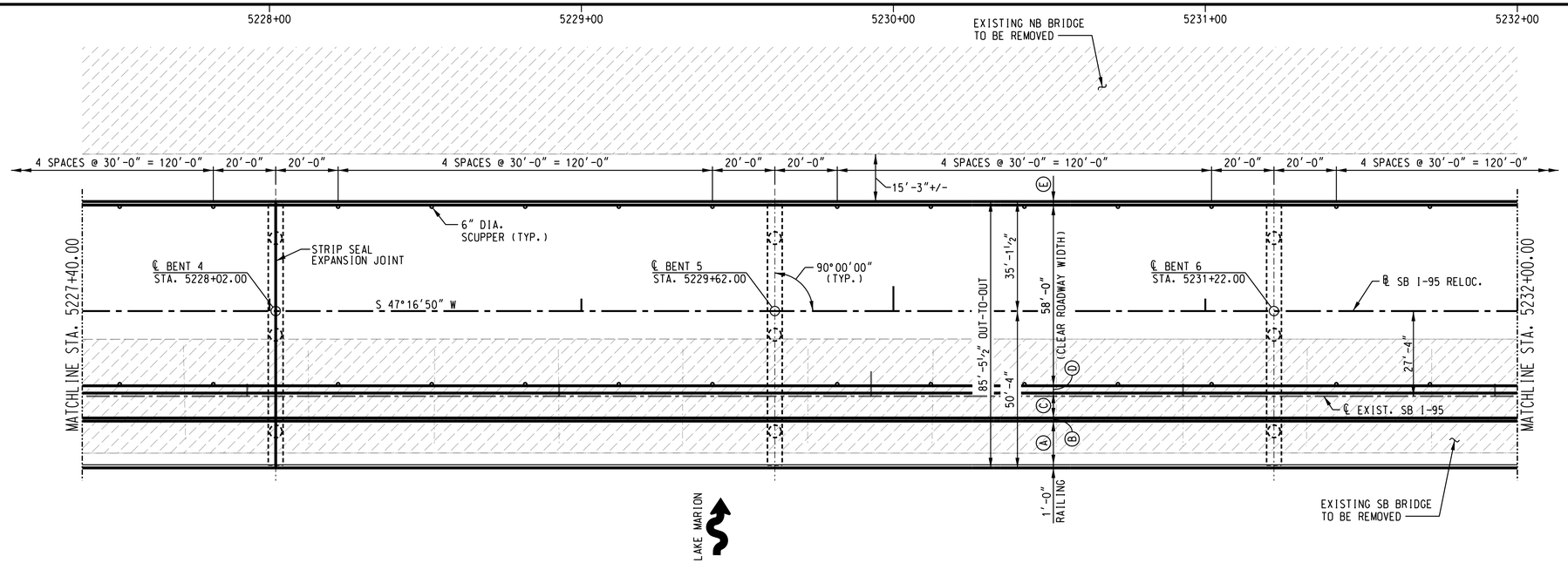
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B02	6



NOTES:

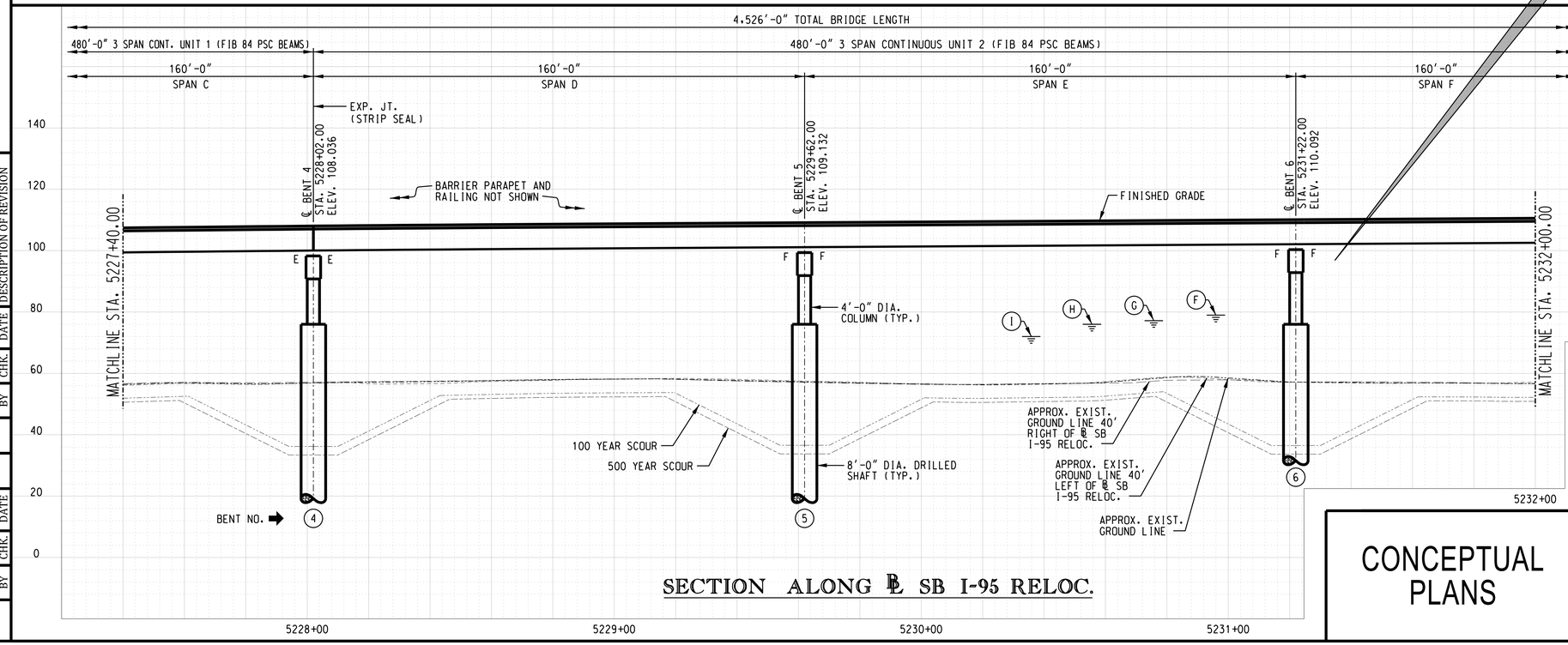
FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION

PLAN

QUALITY ENHANCEMENT

USE OF PRECAST COLUMNS PER FATC 9 WILL ACCELERATE THE CONSTRUCTION SCHEDULE.



E = EXPANSION
F = FIXED

(F) 100 YEAR WSE = 78.67
(G) 50 YEAR WSE = 76.85
(H) FULL POOL ELEV. = 76.0
(I) DESIGN LOW WATER ELEV. = 72.0

SECTION ALONG ℄ SB I-95 RELOC.

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (2)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				LATEST REVISION
REV.				PREVIOUS REVISION

$$PRINT_PROPERTIES$$

REVIEWED	R.JAMALUDDIN		
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DR.			
DES.			
	BY	CHK.	DATE

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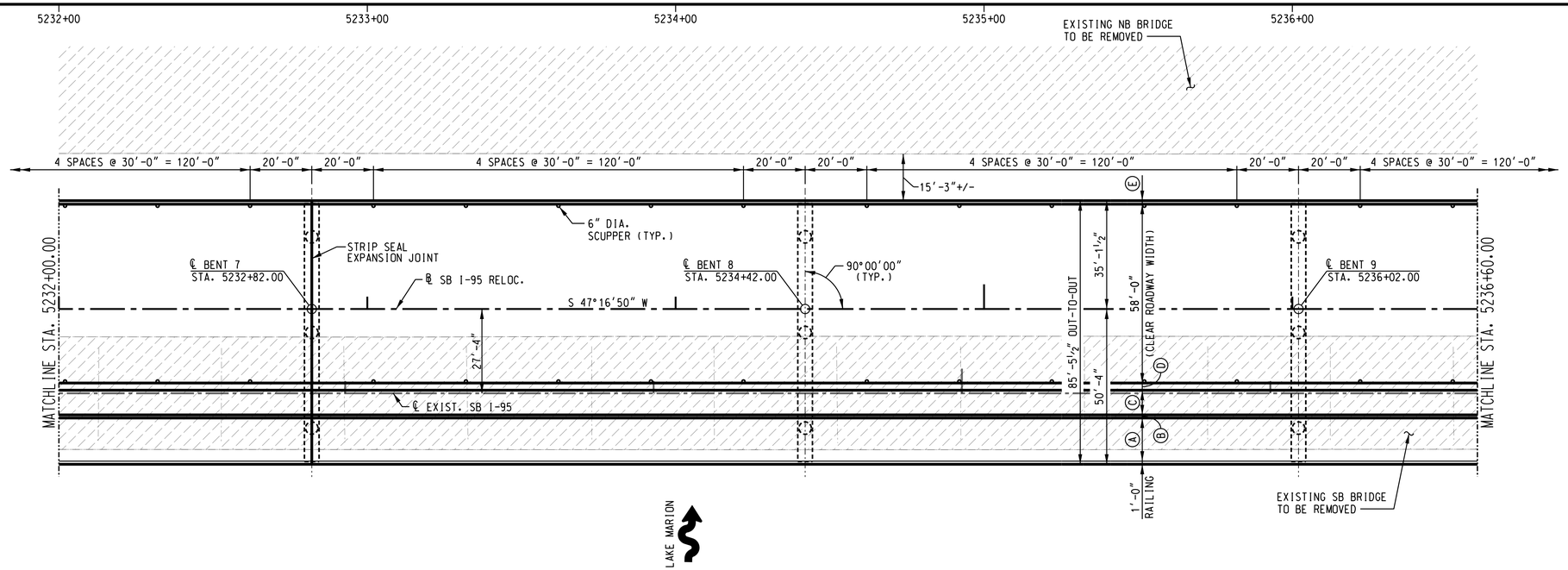
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B02	7

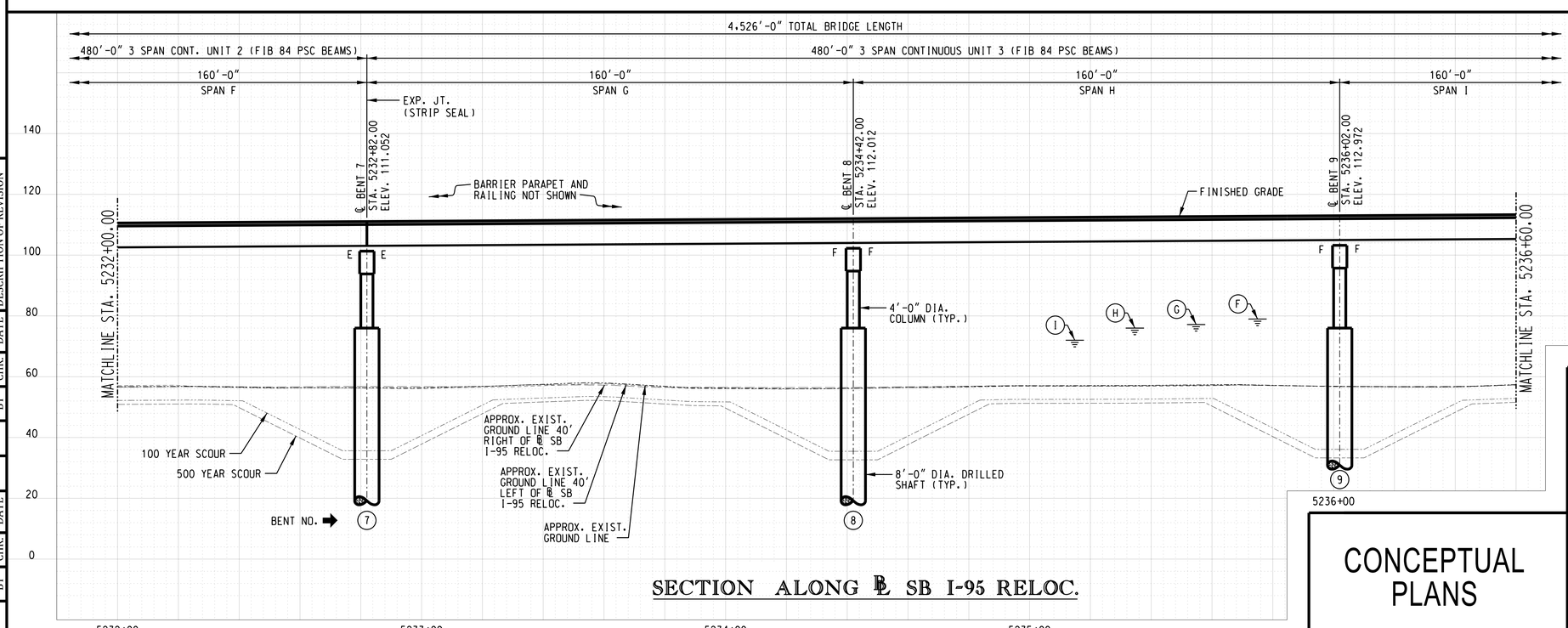


PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION



E = EXPANSION
F = FIXED

(F) 100 YEAR WSE = 78.67
(G) 50 YEAR WSE = 76.85
(H) FULL POOL ELEV. = 76.0
(I) DESIGN LOW WATER ELEV. = 72.0

SECTION ALONG ℄ SB I-95 RELOC.

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (3)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				LATEST REVISION
REV.				PREVIOUS REVISION

$$PRINT_PROPERTIES$$

REVIEWED	R.JAMALUDDIN		
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DR.			
DES.			

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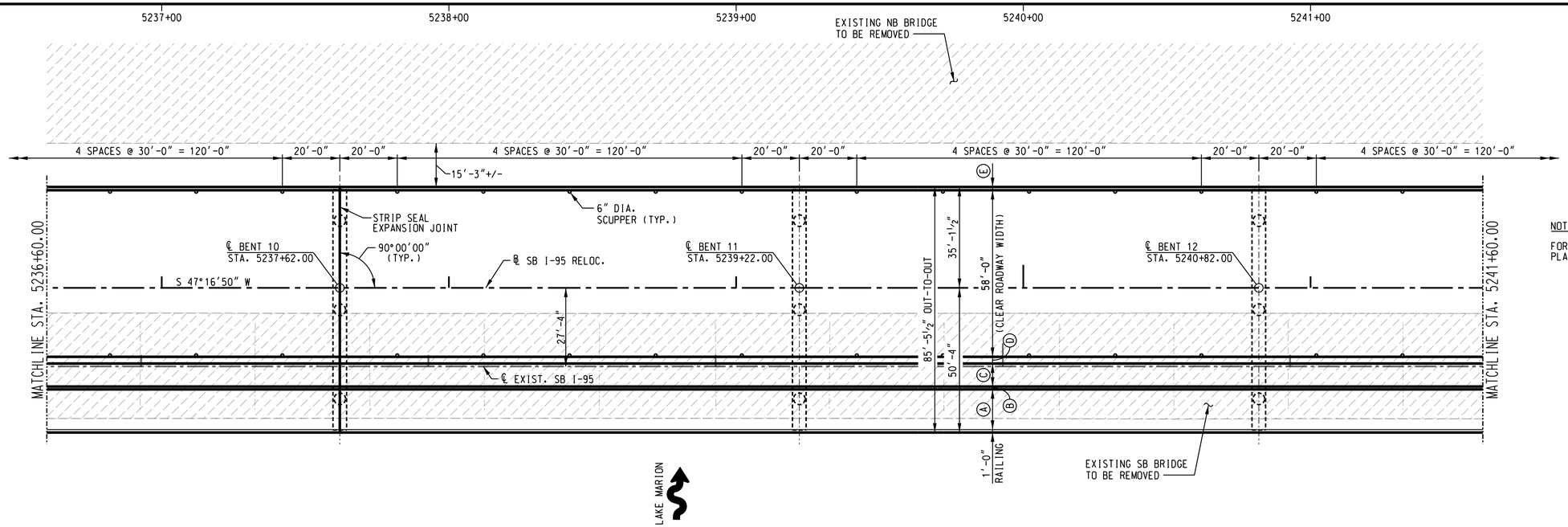
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B02	8

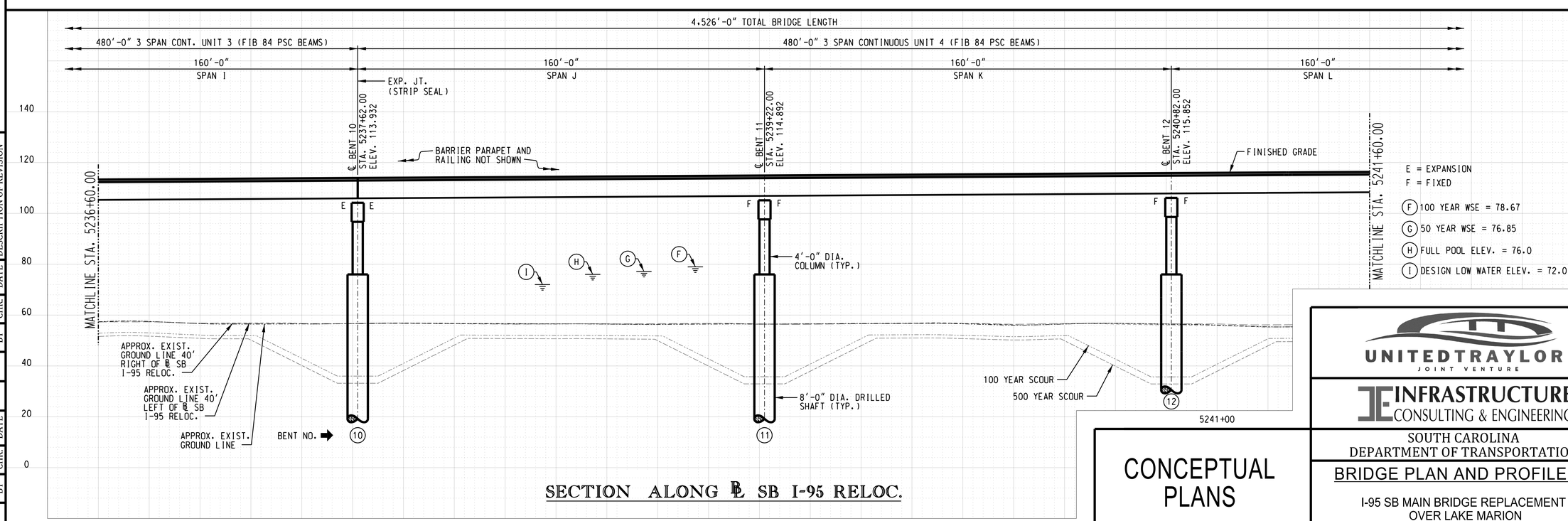


PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION



SECTION ALONG ℄ SB I-95 RELOC.

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (4)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REVIEWED	R.JAMALUDDIN		
QUAN.			
DR.	WLH	RAJ	08-25
DES.			
	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.			
REV.			
REV.			
	BY	CHK.	DATE

LATEST REVISION
PREVIOUS REVISION
DESCRIPTION OF REVISION

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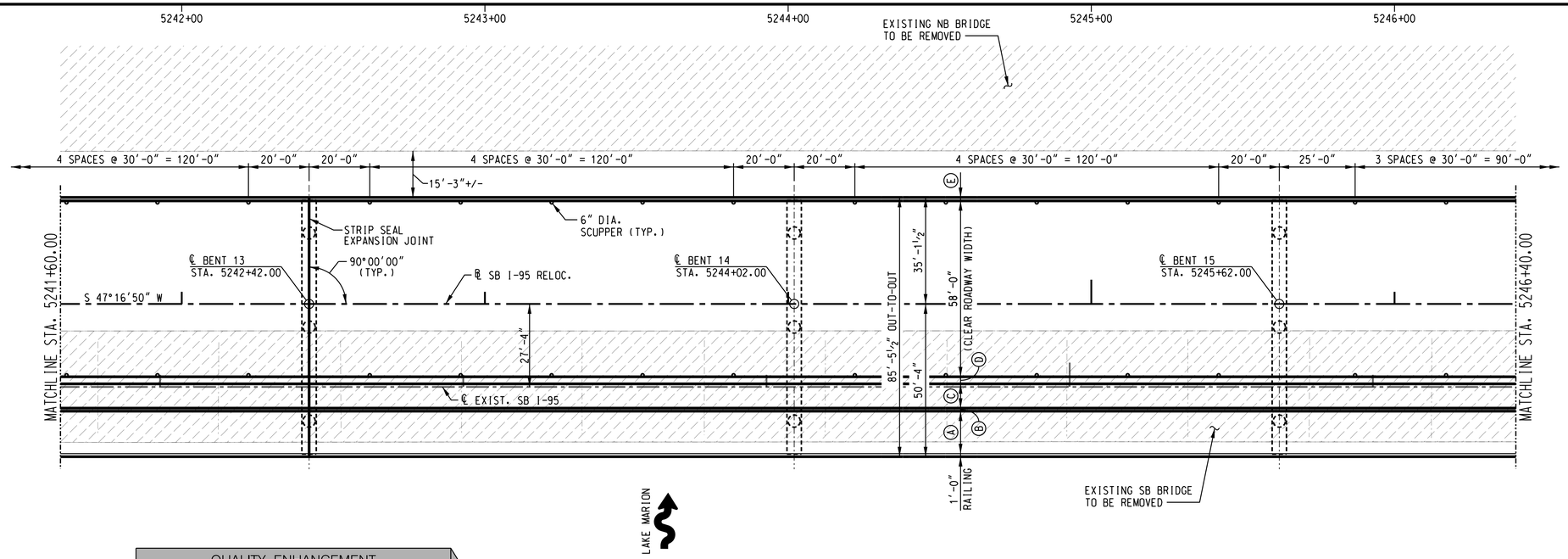
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B02	9



NOTES:

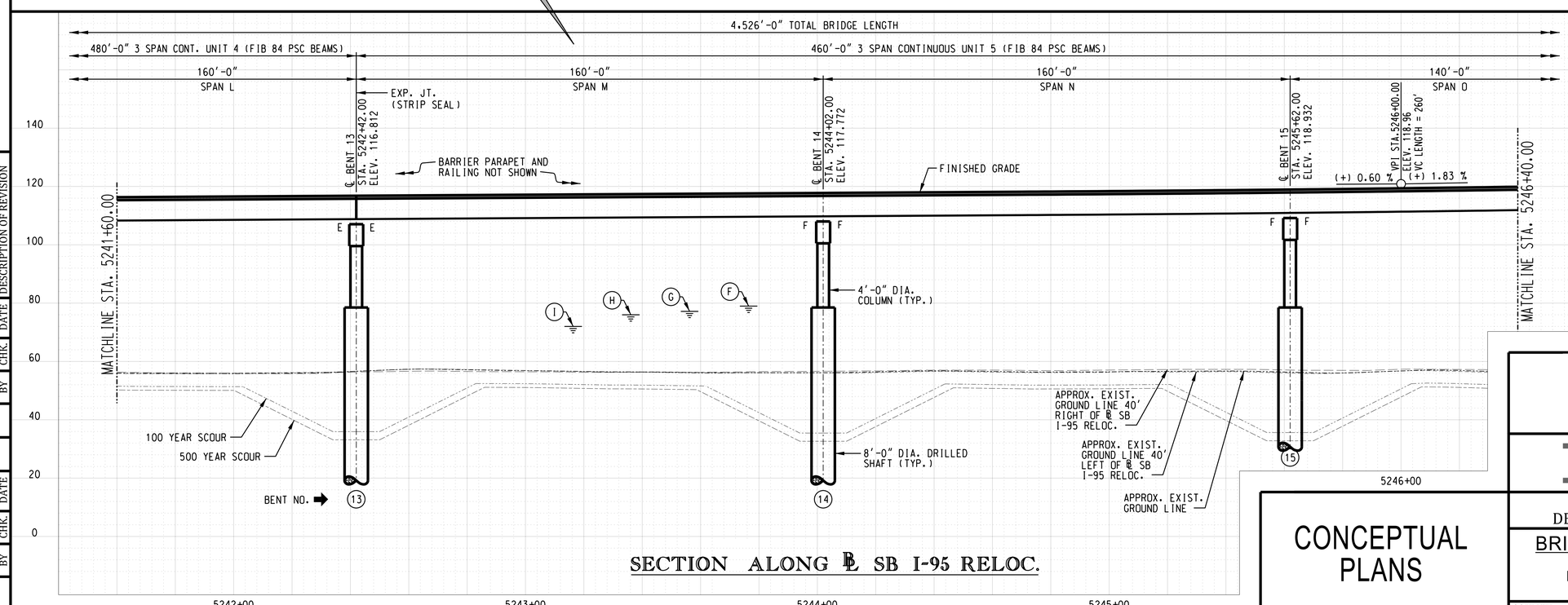
FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

Ⓐ 14'-0" SHARED USE PATH
Ⓑ 1'-0" MASH BARRIER PARAPET
Ⓒ 8'-0" UTILITY WINDOW
Ⓓ 2'-4" MEDIAN BARRIER
Ⓔ 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION

PLAN

QUALITY ENHANCEMENT

LONGER SPANS ALLOW FOR FEWER INTERIOR BENTS AND LESS FOUNDATION CONSTRUCTION TIME IN THE WATER. THIS REDUCES ENVIRONMENTAL CONCERNS AND IMPROVES HYDRAULIC FLOW.



E = EXPANSION
F = FIXED

Ⓕ 100 YEAR WSE = 78.67
Ⓖ 50 YEAR WSE = 76.85
Ⓗ FULL POOL ELEV. = 76.0
Ⓘ DESIGN LOW WATER ELEV. = 72.0

SECTION ALONG ℄ SB I-95 RELOC.

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				LATEST REVISION
REV.				PREVIOUS REVISION

$$PRINT_PROPERTIES$$

REVIEWED	R. JAMALUDDIN		
QUAN.	WLH	RAJ	08-25
DR.			
DES.			
	BY	CHK.	DATE

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8/27/2025

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

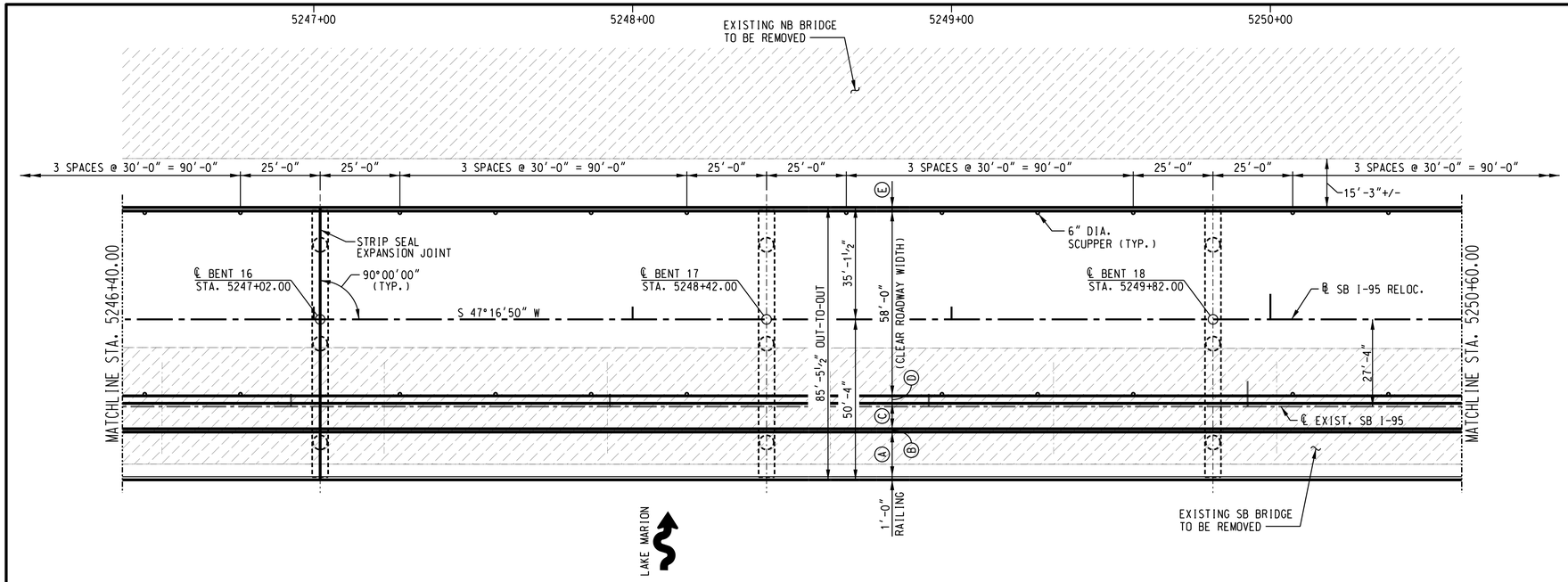
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (5)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B02	10

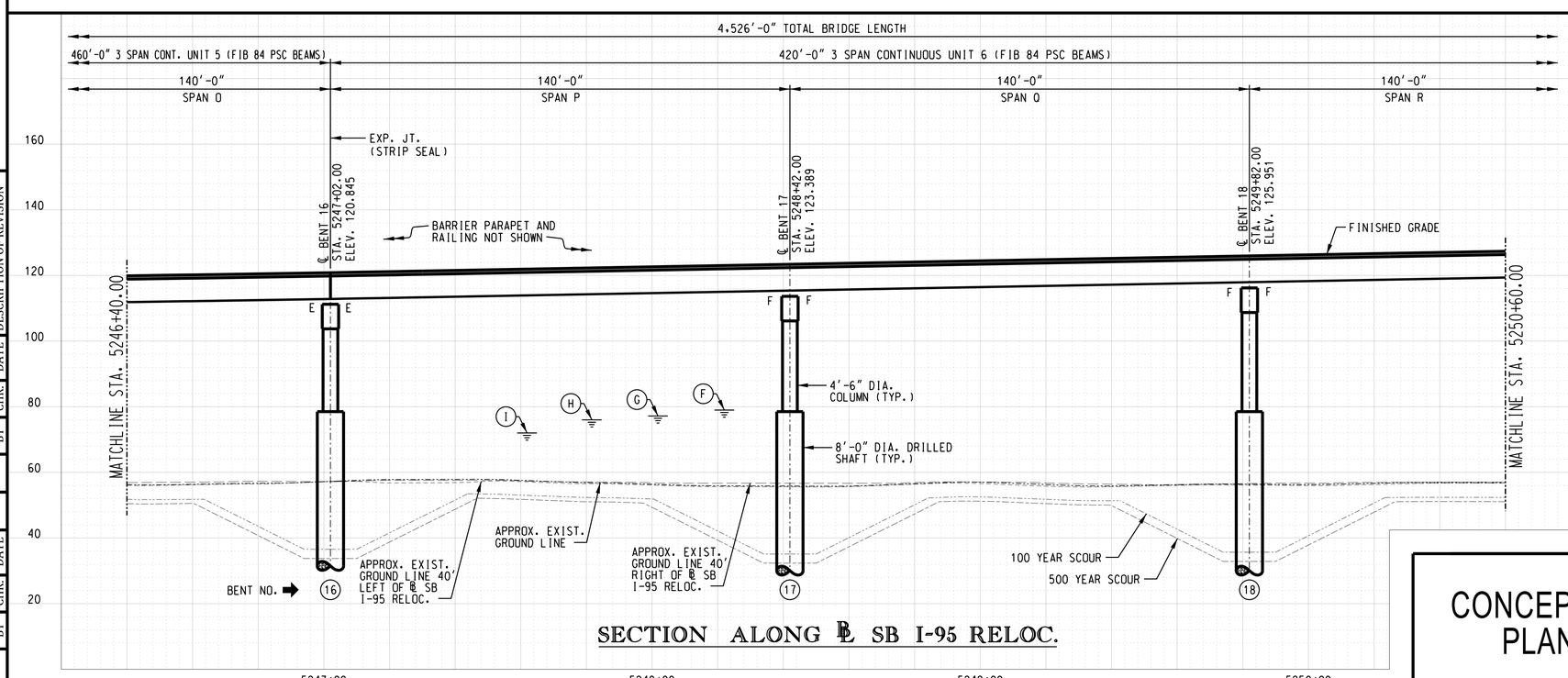


PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION



SECTION ALONG ℄ SB I-95 RELOC.

E = EXPANSION
F = FIXED

(F) 100 YEAR WSE = 78.67
(G) 50 YEAR WSE = 76.85
(H) FULL POOL ELEV. = 76.0
(I) DESIGN LOW WATER ELEV. = 72.0

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (6)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				LATEST REVISION
REV.				PREVIOUS REVISION

$$PRINT_PROPERTIES$$

REVIEWED	R.JAMALUDDIN		
QUAN.			
DR.	WLH	RAJ	08-25
DES.			
	BY	CHK.	DATE

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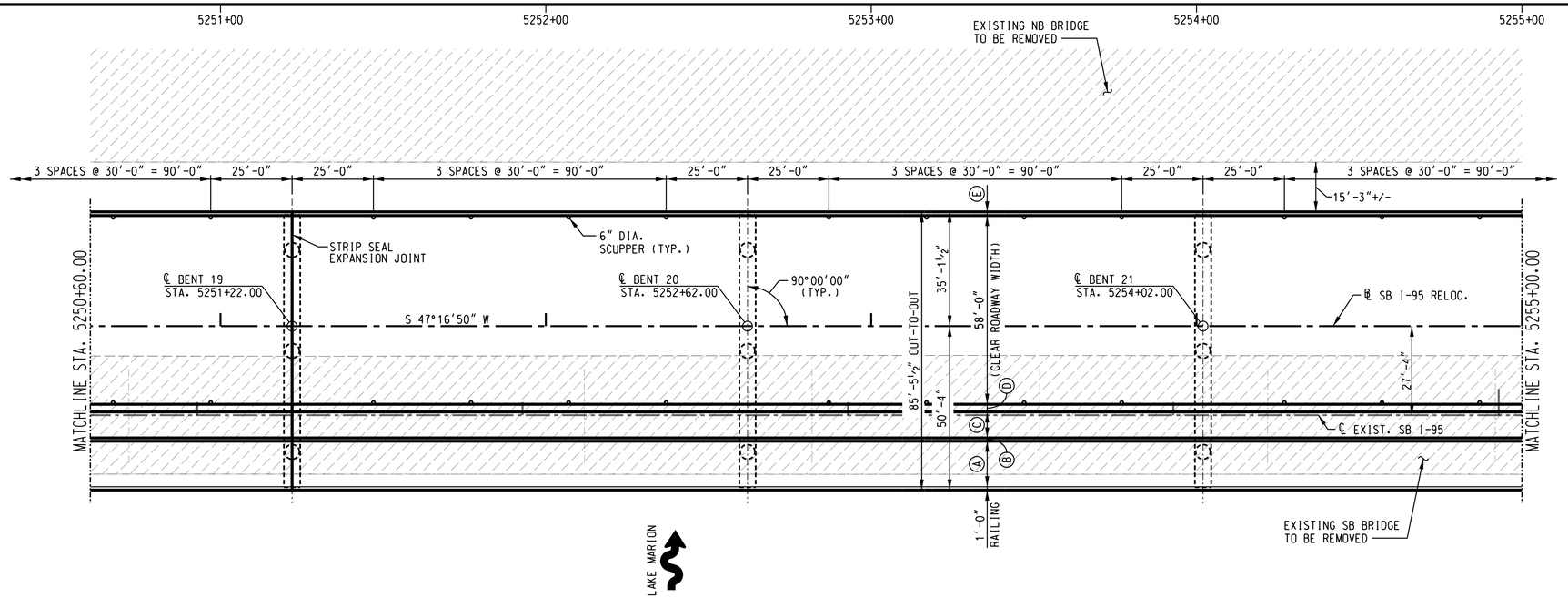
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B02	11

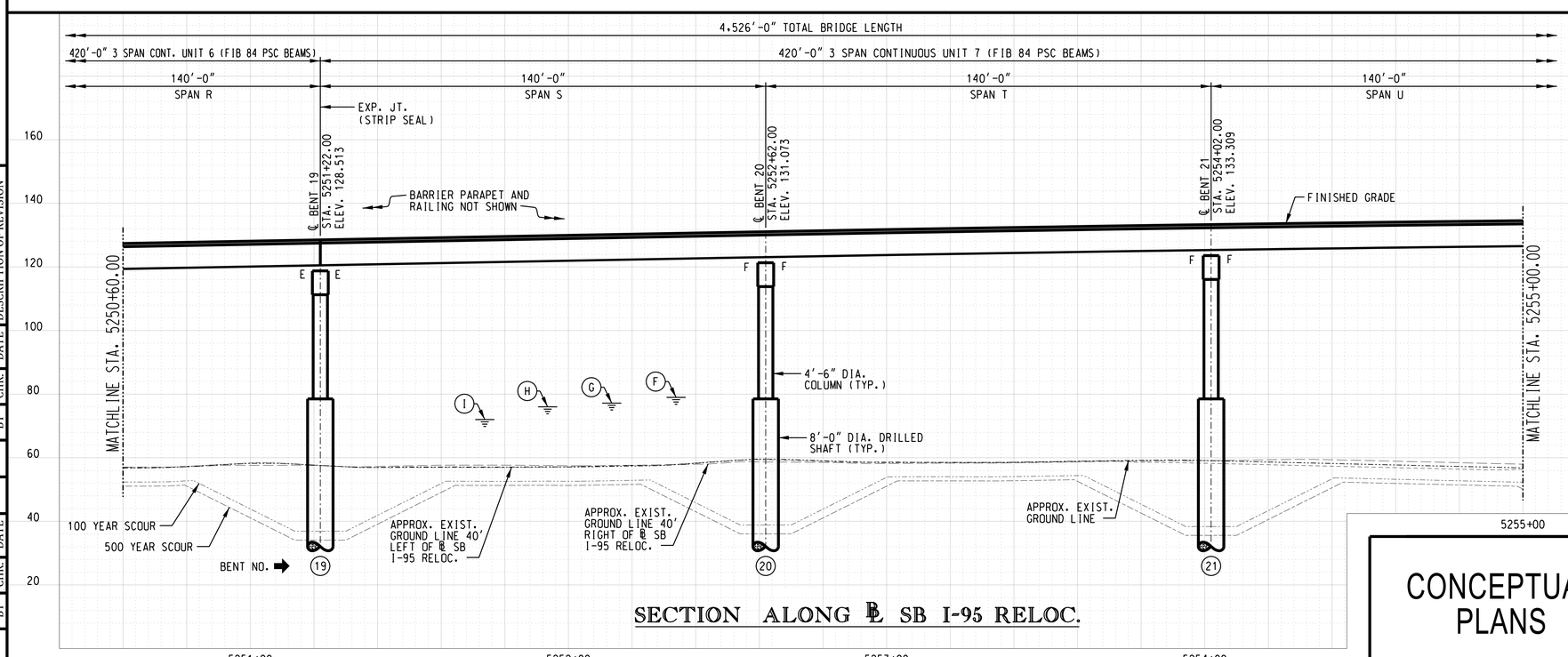


PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION



SECTION ALONG ℄ SB I-95 RELOC.

E = EXPANSION
F = FIXED

(F) 100 YEAR WSE = 78.67
(G) 50 YEAR WSE = 76.85
(H) FULL POOL ELEV. = 76.0
(I) DESIGN LOW WATER ELEV. = 72.0

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (7)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REVIEWED	R.JAMALUDDIN		
QUAN.			
DR.	WLH	RAJ	08-25
DES.			
	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.			
REV.		LATEST REVISION	
REV.		PREVIOUS REVISION	
	BY	CHK.	DATE	DESCRIPTION OF REVISION

c:\bms\ice-eng-pw-01\d013946\05-I5_SB_BRIDGE_PLAN_AND_PROFILE.DGN
8/27/2025

BRIDGE PLANS ID	SHEET
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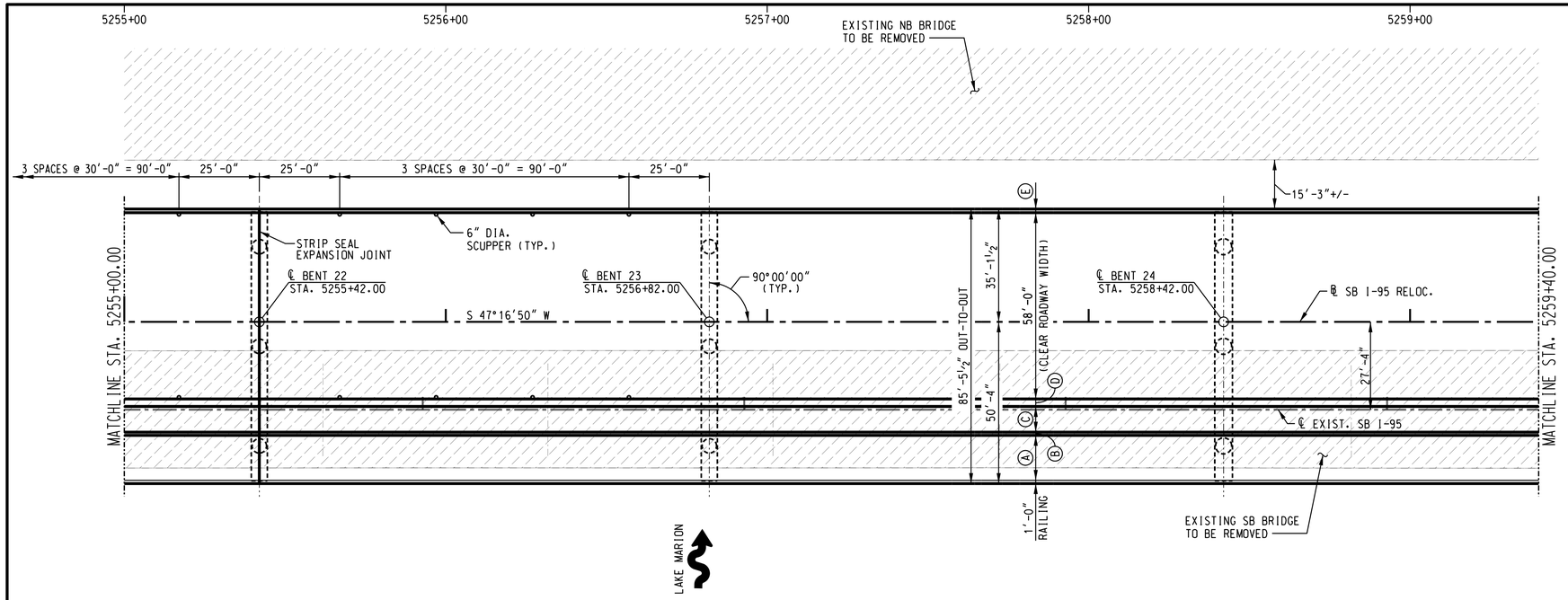
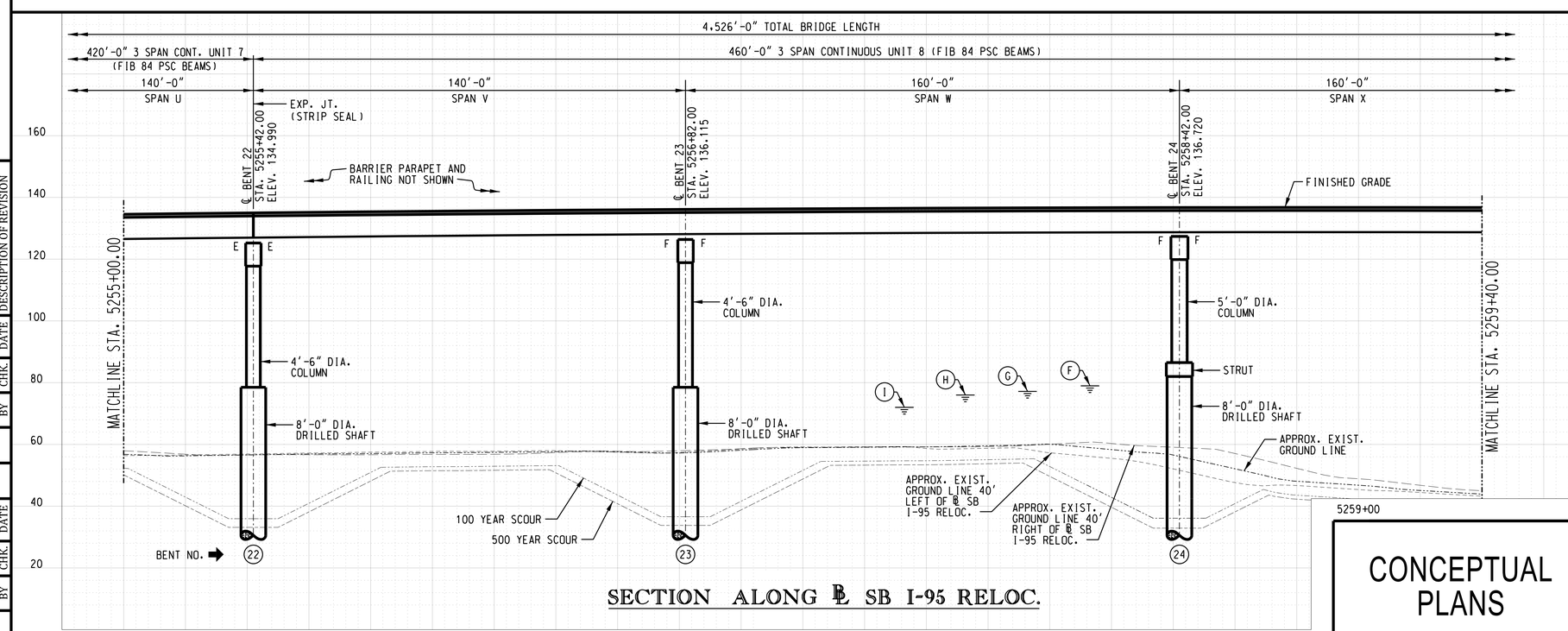


PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION



SECTION ALONG ℄ SB I-95 RELOC.

E = EXPANSION
F = FIXED

(F) 100 YEAR WSE = 78.67
(G) 50 YEAR WSE = 76.85
(H) FULL POOL ELEV. = 76.0
(I) DESIGN LOW WATER ELEV. = 72.0

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (8)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

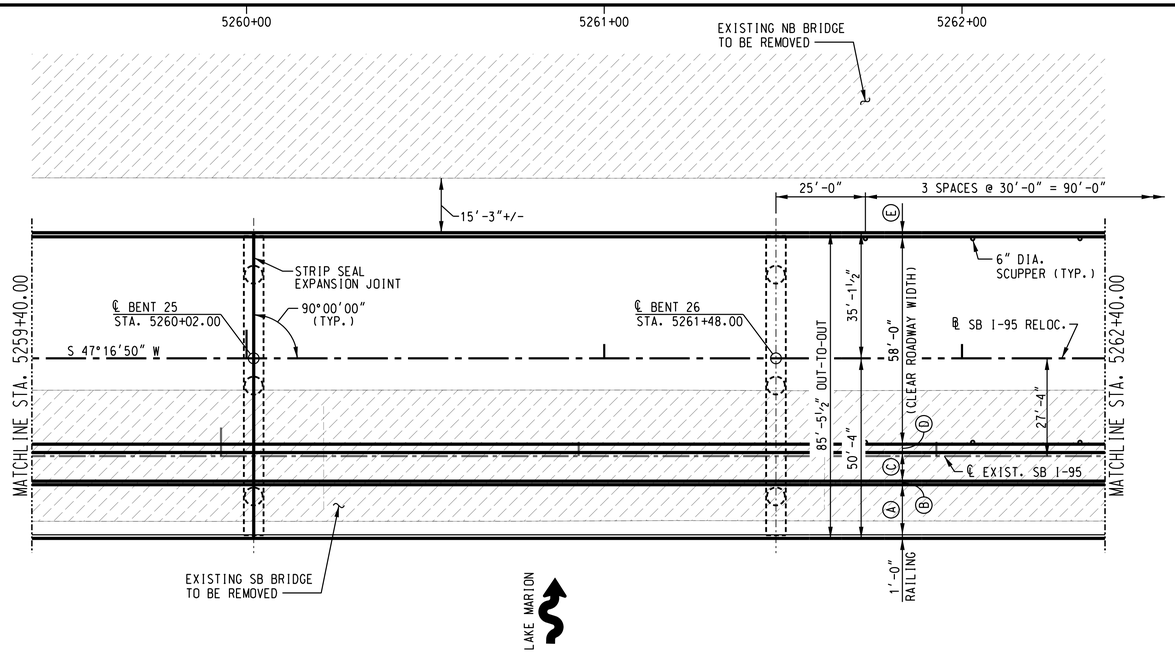
REVIEWED R. JAMALUDDIN			
QUAN.			
DR.	WLH	RAJ	08-25
DES.	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.				LATEST REVISION
REV.				PREVIOUS REVISION
REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION

c:\bms\ice-eng-pw-01\d0139546\05-15_SB_BRIDGE_PLAN_AND_PROFILE.DGN
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B02	13

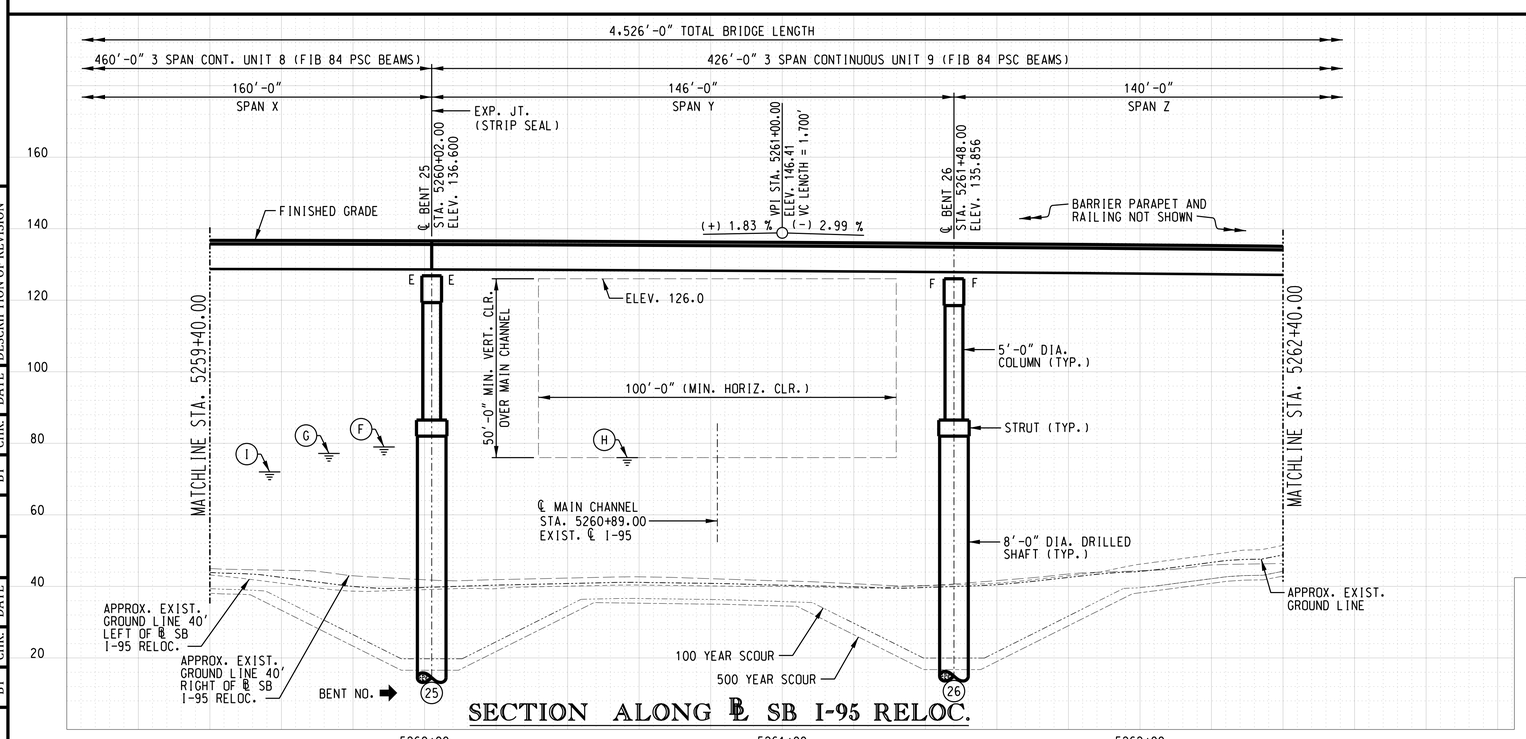


PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION



SECTION ALONG ℄ SB I-95 RELOC.

E = EXPANSION
F = FIXED

(F) 100 YEAR WSE = 78.67
(G) 50 YEAR WSE = 76.85
(H) FULL POOL ELEV. = 76.0
(I) DESIGN LOW WATER ELEV. = 72.0

HYDROLOGY DATA

DA = 14,400 SQ MI
Q50 = 429,090 CFS
V50 = 9.3 FPS
50 YR HWE = 76.85 W/ 0.22' BACKWATER
Q100 = 544,980 CFS
V100 = 10.5 FPS
100 YR HWE = 78.67
Q500 = >1,000,000 CFS
PROBABILITY = < 0.002

$$PRINT_PROPERTIES$$			
REV.			
REV.			
REV.			
	LATEST REVISION		
	PREVIOUS REVISION		
BY	CHK.	DATE	DESCRIPTION OF REVISION

REVIEWED R.JAMALUDDIN		
QUAN.		
DR. WLH	RAJ	08-25
DES.		
BY	CHK.	DATE

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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

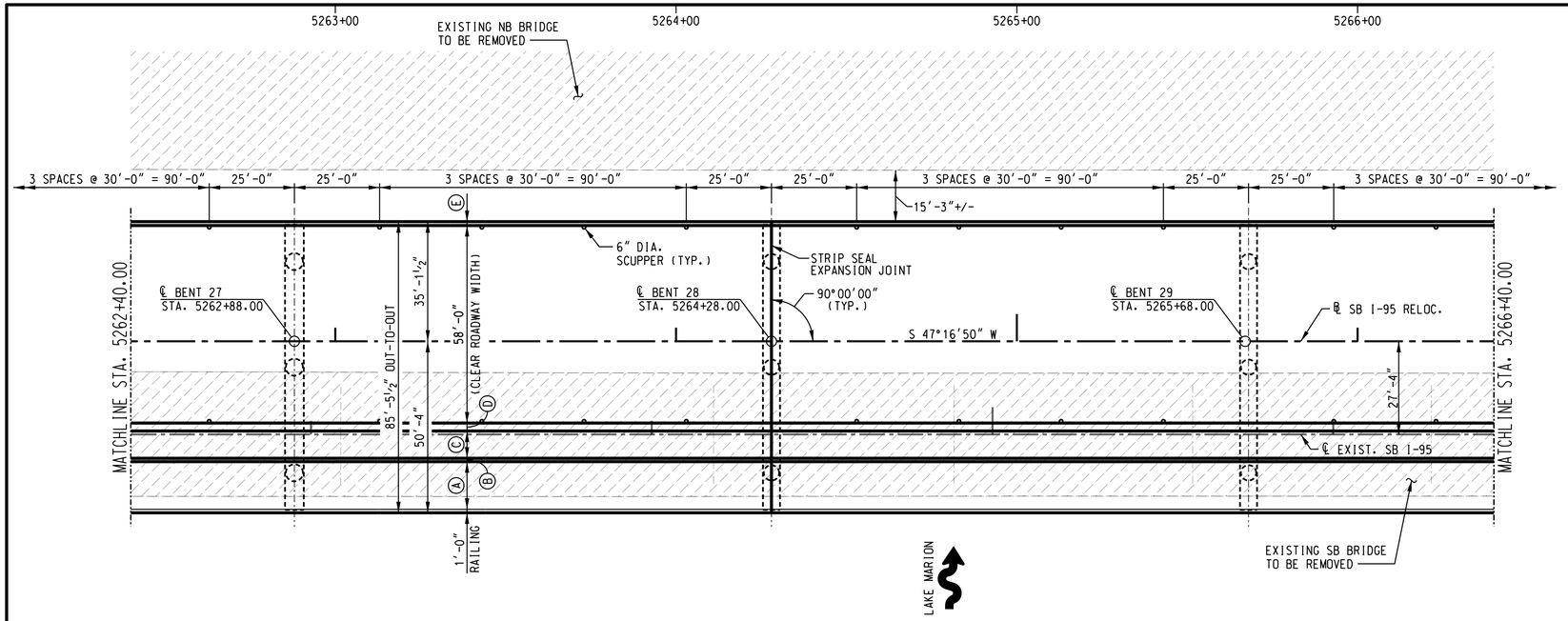
BRIDGE PLAN AND PROFILE (9)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

CONCEPTUAL PLANS

BRIDGE PLANS ID	SHEET
P041130-B02	14

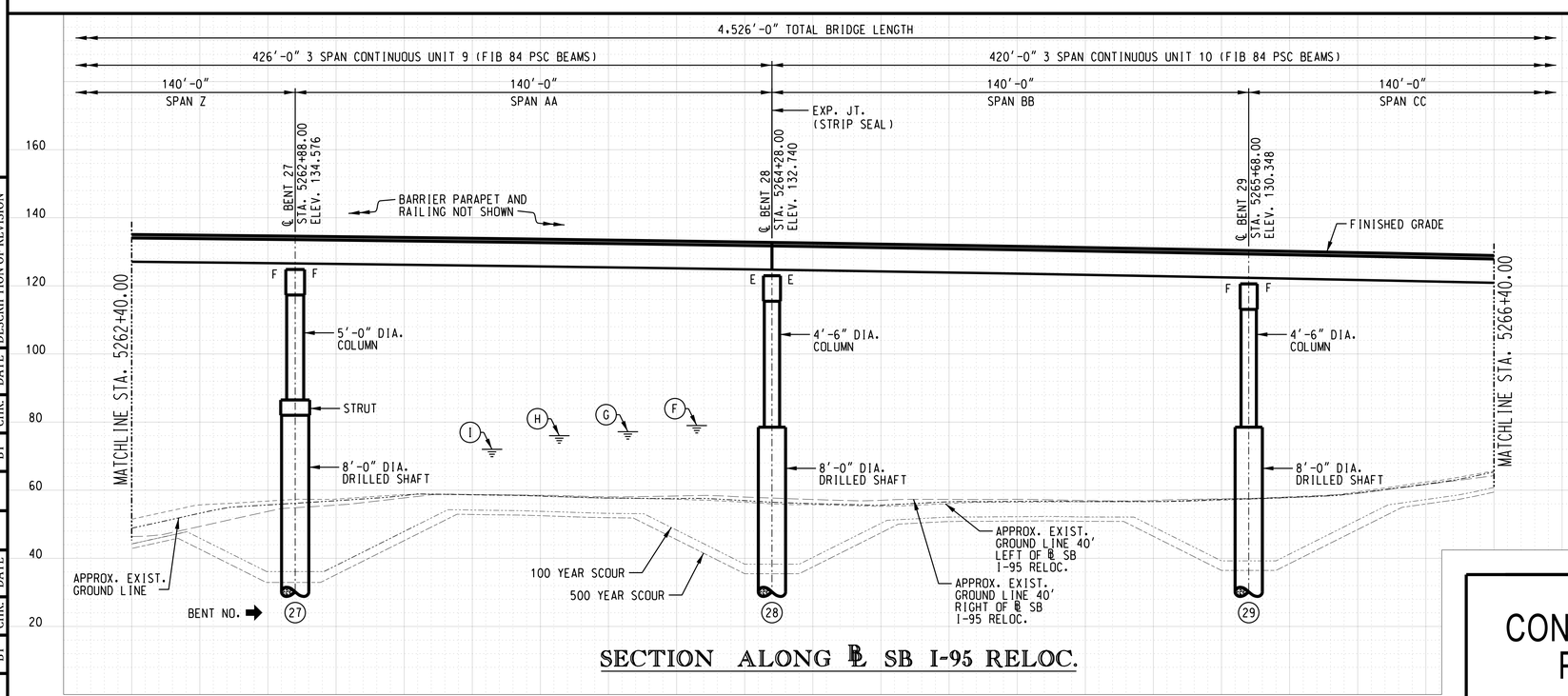


PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION



SECTION ALONG ℄ SB I-95 RELOC.

E = EXPANSION
F = FIXED

(F) 100 YEAR WSE = 78.67
(G) 50 YEAR WSE = 76.85
(H) FULL POOL ELEV. = 76.0
(I) DESIGN LOW WATER ELEV. = 72.0

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (10)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.		LATEST REVISION
REV.		PREVIOUS REVISION
REV.	BY	CHK. DATE DESCRIPTION OF REVISION

$$PRINT_PROPERTIES$$

REVIEWED R.JAMALUDDIN		
QUAN.		
DR.	WLH	RAJ 08-25
DES.	BY	CHK. DATE

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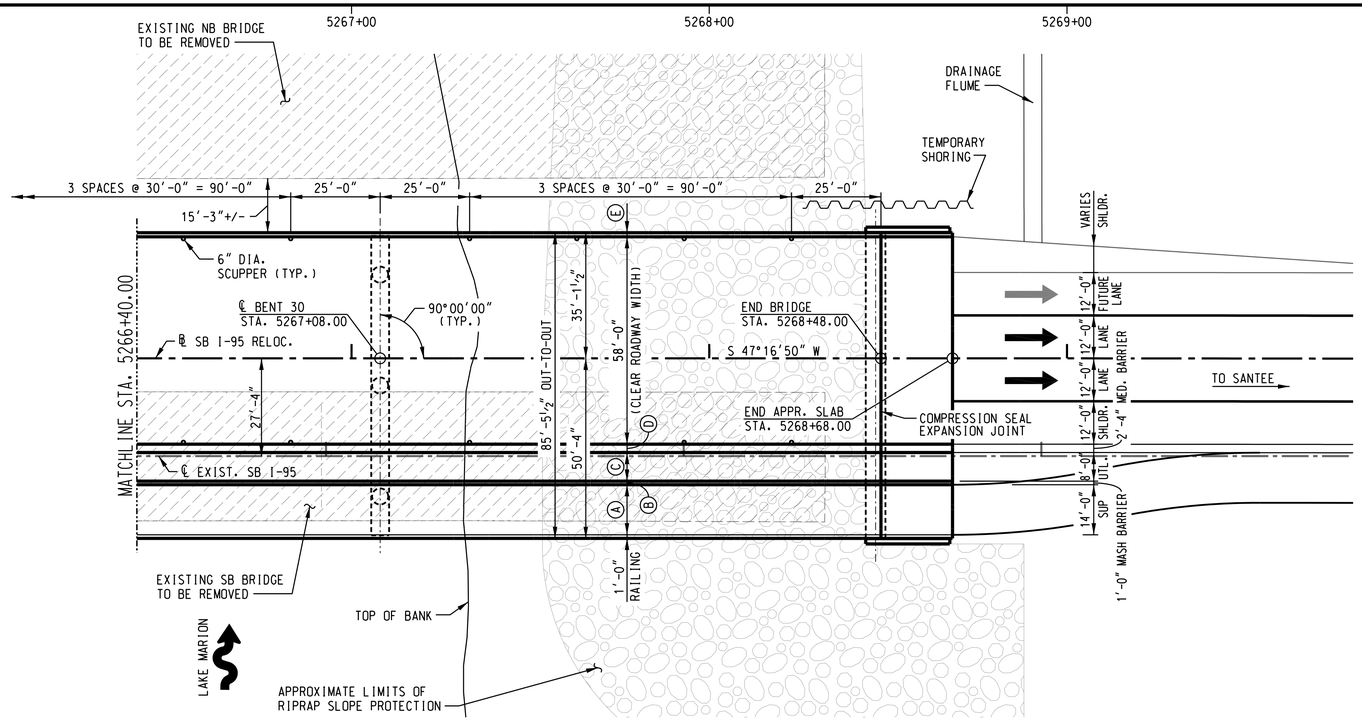
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B02	15



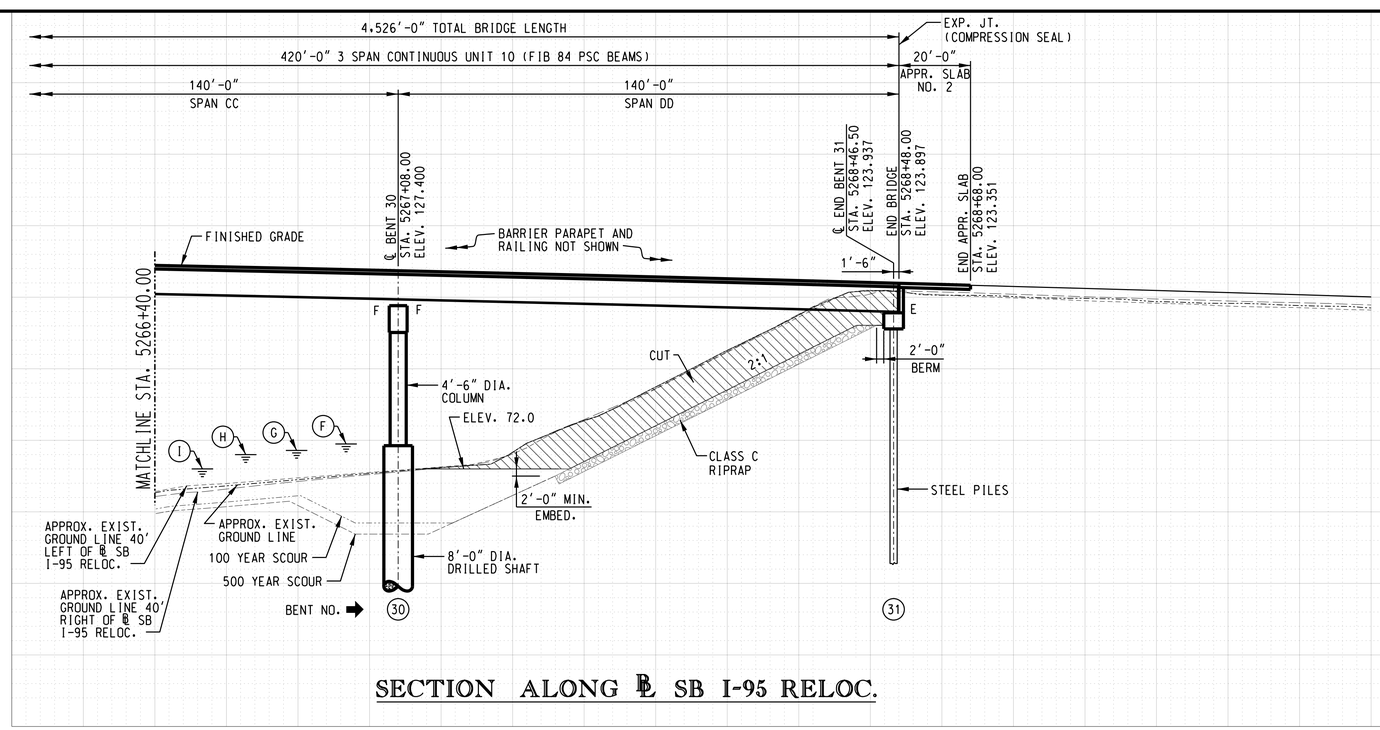
PLAN

NOTES:

FOR ADDITIONAL NOTES, SEE "BRIDGE PLAN AND PROFILE (1)" SHEET.

BRIDGE END DRAINAGE ADJACENT TO UTILITY WINDOW WILL BE ROUTED TO CLOSED DRAINAGE SYSTEM.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION



SECTION ALONG ℄ SB I-95 RELOC.

E = EXPANSION
F = FIXED

(F) 100 YEAR WSE = 78.67
(G) 50 YEAR WSE = 76.85
(H) FULL POOL ELEV. = 76.0
(I) DESIGN LOW WATER ELEV. = 72.0

5267+00 5268+00 5269+00

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE (11)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REVIEWED R. JAMALUDDIN			
QUAN.			
DR.	WLH	RAJ	08-25
DES.			
	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.				
REV.				LATEST REVISION
REV.				PREVIOUS REVISION
	BY	CHK.	DATE	DESCRIPTION OF REVISION

c:\bms\ice-eng-pw-01\d0139546\05-15_SB_BRIDGE_PLAN_AND_PROFILE.DGN
8/27/2025

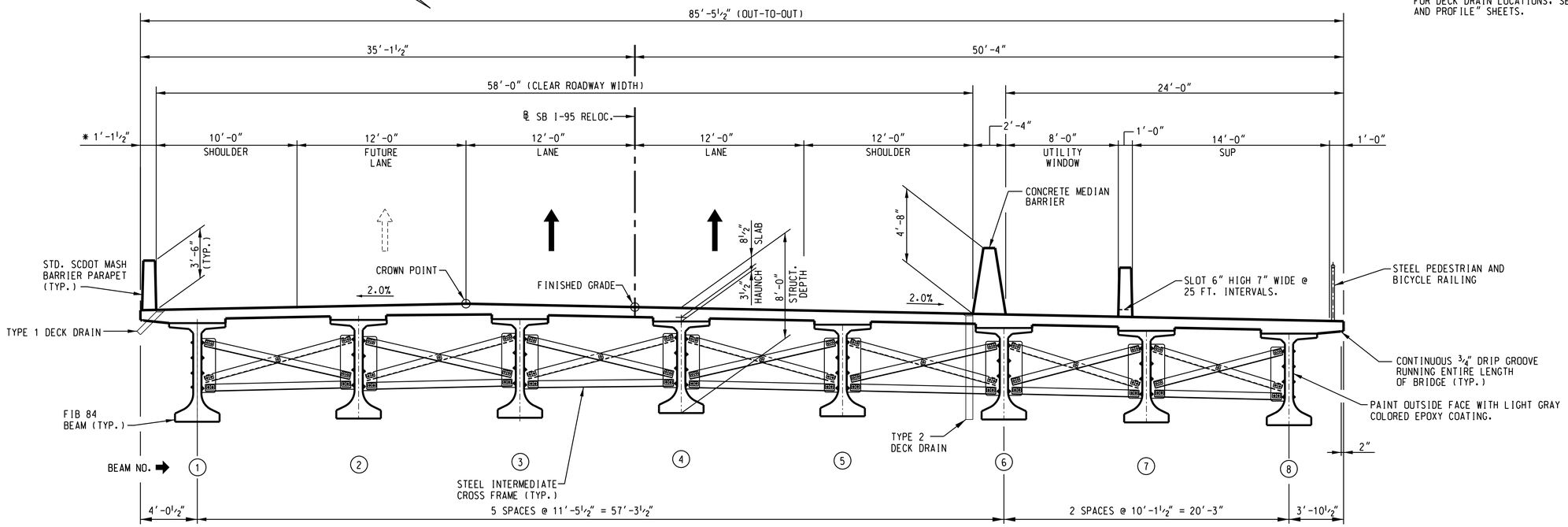
BRIDGE PLANS ID	SHEET
P041130-B02	16

QUALITY ENHANCEMENT
NO CLOSURE POUR IMPROVES RIDEABILITY.

NOTES:

* 1'-0" MASH BARRIER WITH 1½" SLAB EXTENSION

FOR DECK DRAIN LOCATIONS, SEE "BRIDGE PLAN AND PROFILE" SHEETS.



QUALITY ENHANCEMENT
USE OF PRESTRESSED CONCRETE BEAMS IMPROVES LONG-TERM MAINTENANCE.

TYPICAL SECTION

(LOOKING IN DIRECTION OF STATIONING)

QUALITY ENHANCEMENT
CONSISTENT 2.0% CROSS SLOPE ACROSS TRAVEL LANES, UTILITY WINDOW AND SHARED USE PATH ALONG WITH CROWN POINT LOCATION ELIMINATES A CROSS SLOPE BREAK AND ALLOWS FOR EASIER SCREEDING OF THE BRIDGE DECK AND FUTURE MEDIAN WIDENING.

REVIEWED	R. JAMALUDDIN	
QUAN.	—	—
DR.	BFS	RAJ 07-25
DES.	—	—
	BY	CHK. DATE

$$PRINT_PROPERTIES$$

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

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8/27/2025

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

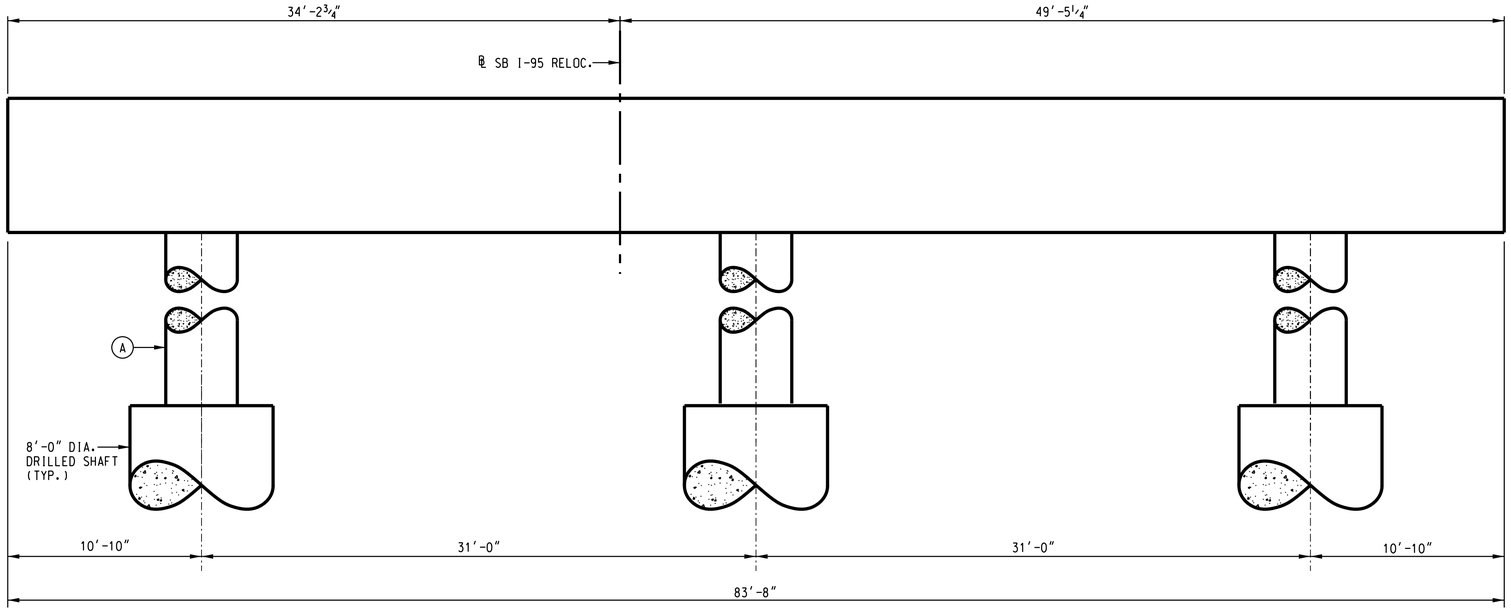
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B02	17



ELEVATION

(LOOKING IN DIRECTION OF STATIONING)
(BENTS 2 THRU 23, 28 THRU 30)

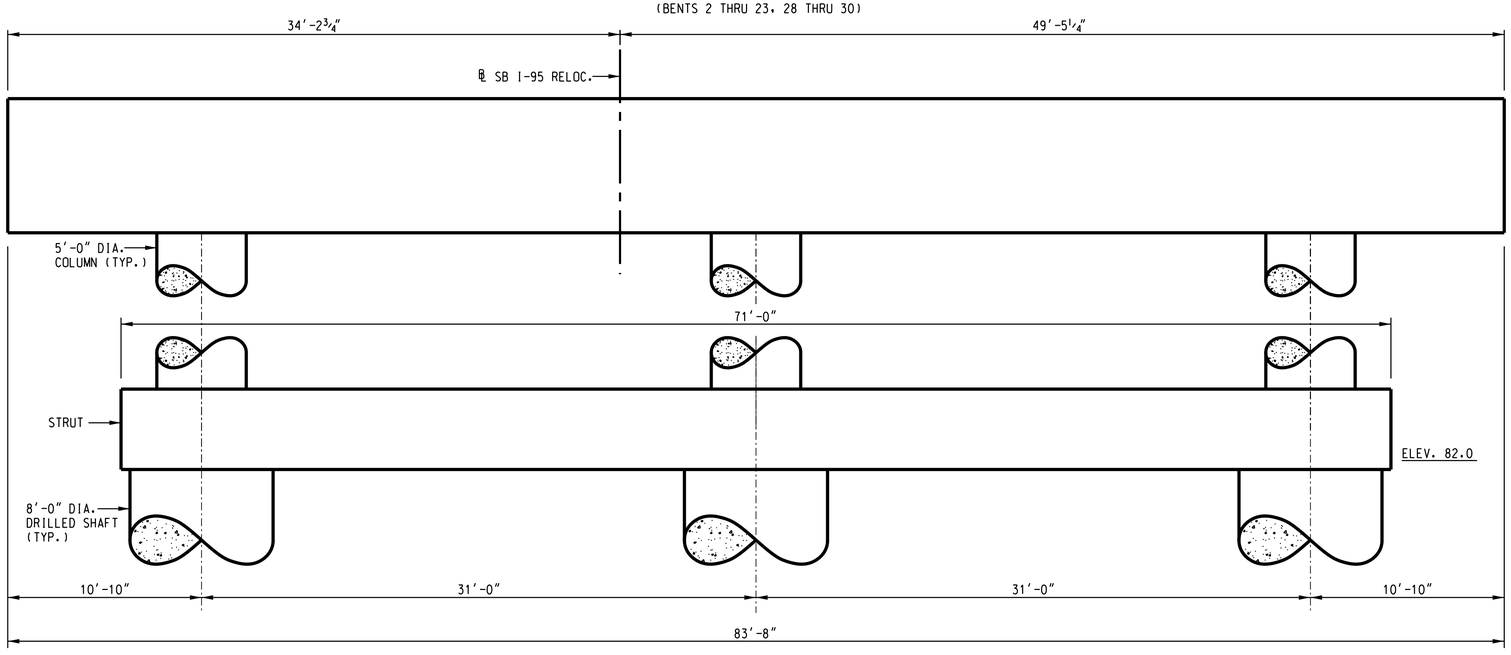
NOTE:

SHEAR KEYS SHALL BE PROVIDED AT EXPANSION BENTS (NOT SHOWN FOR CLARITY).

(A) BENTS 2 THRU 15 = 4'-0" DIA. COLUMN
BENTS 16 THRU 23 & 28 THRU 30 = 4'-6" DIA. COLUMN

QUALITY ENHANCEMENTS

1. USE OF INCREASED COLUMN SPACING PER FATC 8 ELIMINATES A COLUMN AND DRILLED SHAFT IMPROVING ECONOMY AND ACCELERATING CONSTRUCTION SCHEDULE.
2. INCREASED SUBSTRUCTURE CONCRETE STRENGTH (FATC 6) AND ADDITIONAL LAYERS OF REINFORCEMENT IN BENT CAPS (FATC 7) FACILITATE THE USE OF INCREASED COLUMN SPACING.
3. FATC 11 ALLOWS ALL BENT CAPS TO BE POURED WITHOUT A CONSTRUCTION JOINT REDUCING CONSTRUCTION SCHEDULE.



ELEVATION

(LOOKING IN DIRECTION OF STATIONING)
(BENTS 24 THRU 27)

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

INTERIOR BENT DETAILS

I-95 SB MAIN BRIDGE REPLACEMENT
OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$$PRINT_PROPERTIES$$

REVIEWED	R. JAMALUDDIN	DATE
QUAN.	—	—
DR.	BFS	RAJ 07-25
DES.	—	—

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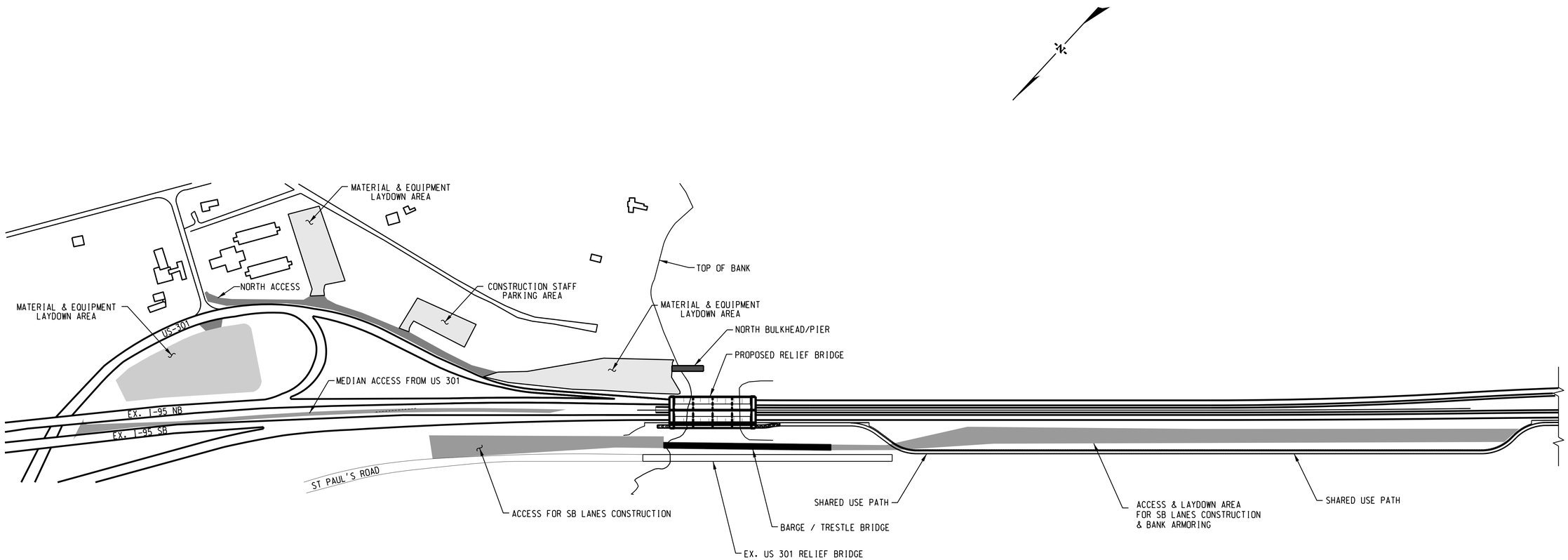
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B02	18



CONSTRUCTION ACCESS AND LAYDOWN AREA PLAN
NORTHERN ACCESS

REVIEWED	R. JAMALUDDIN	
QUAN.	—	—
DR.	BFS	RAJ	08-25
DES.	—	—	—
	BY	CHK.	DATE

$$PRINT_PROPERTIES$$

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

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8/27/2025

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

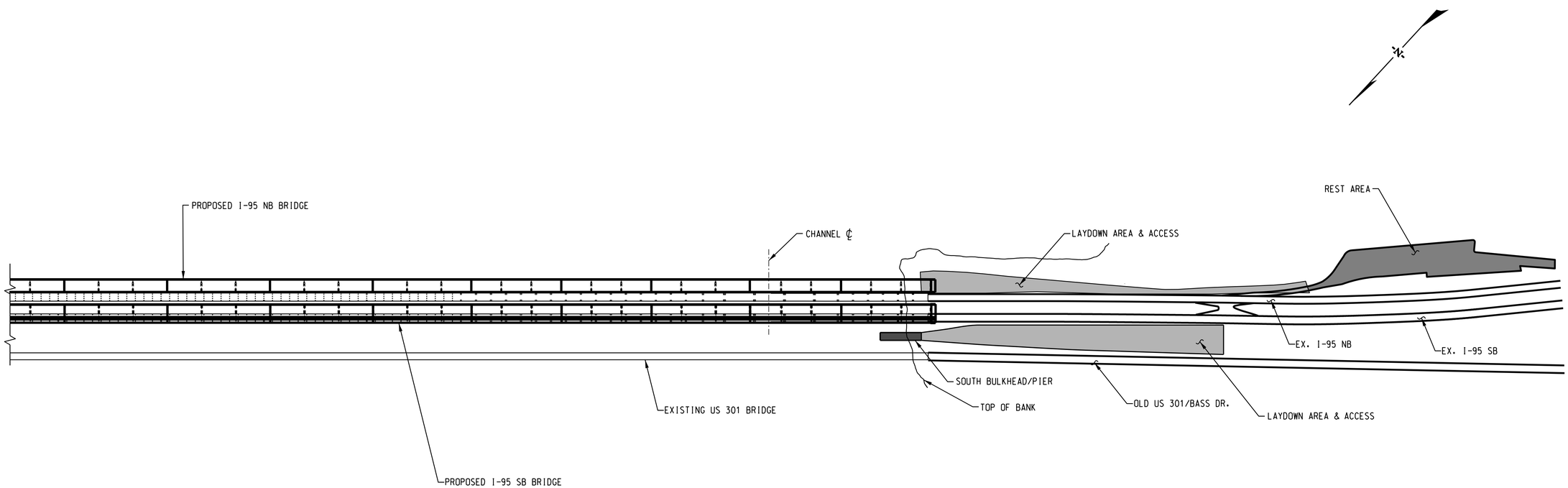
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION ACCESS (1)

I-95 SB MAIN BRIDGE REPLACEMENT OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B02	19



CONSTRUCTION ACCESS AND LAYDOWN AREA PLAN
SOUTHERN ACCESS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION ACCESS (2)

I-95 SB MAIN BRIDGE REPLACEMENT
OVER LAKE MARION

COUNTY: CLARENDON & ORANGEBURG | ROUTE: I-95

CONCEPTUAL PLANS

$$PRINT_PROPERTIES$$

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

REVIEWED R. JAMALUDDIN

QUAN.			
DR.	BFS	RAJ	08-25
DES.			
	BY	CHK.	DATE

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8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B03	1

INDEX OF SHEETS

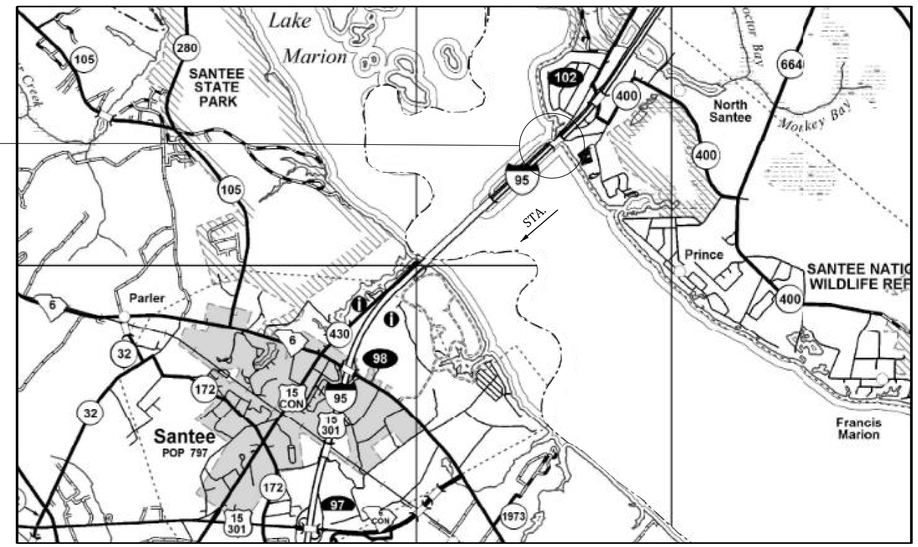
1. TITLE SHEET
2. STAGES OF CONSTRUCTION (1)
3. STAGES OF CONSTRUCTION (2)
4. STAGES OF CONSTRUCTION (3)
5. BRIDGE PLAN AND PROFILE
6. TYPICAL SECTION
7. CONSTRUCTION ACCESS

SCDOT

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROPOSED PLANS FOR CLARENDON COUNTY PROJECT ID P041130 I-95 RELIEF BRIDGE REPLACE NB AND SB BRIDGES OVER LAKE MARION

SITE LOCATION



LAYOUT

-N-

APPROXIMATE LOCATION OF BRIDGE IS

LATITUDE 33°- 31' - 06" N

LONGITUDE 80°- 26' - 09" W

3 DAYS BEFORE DIGGING IN
SOUTH CAROLINA
CALL 811
SOUTH CAROLINA 811 (SC811)
WWW.SC811.COM
ALL UTILITIES MAY NOT BE A MEMBER OF SC811

ASSET ID TBD

TRAFFIC DATA

2025 ADT 41,000 V.P.D.

2045 ADT 55,000 V.P.D.

TRUCKS 22 %

UNITEDTRAYLOR
JOINT VENTURE

NET LENGTH OF ROADWAY	0.000	MILES
NET LENGTH OF BRIDGES	0.070	MILES
NET LENGTH OF PROJECT	0.070	MILES
LENGTH OF EXCEPTIONS	0.000	MILES
GROSS LENGTH OF PROJECT	0.070	MILES

NOTE: EXCEPT AS MAY OTHERWISE BE SPECIFIED ON THE PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIALS AND WORKMANSHIP ON THIS PROJECT SHALL CONFORM TO THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE STANDARD DRAWINGS FOR ROAD CONSTRUCTION IN EFFECT AT THE TIME OF THE RELEASE OF THE FINAL RFP.

CONSULTING ENGINEERING FIRM

INFRASTRUCTURE CONSULTING & ENGINEERING

110 MIDLANDS COURT
WEST COLUMBIA, SC 29269
Telephone: (803) 822-0333

ENGINEER OF RECORD
FOR CONSTRUCTION

CONCEPTUAL PLANS

REVIEWED		
DR.	BFS	RAJ
	BY	DKY
		CHK.
		07-25
		DATE

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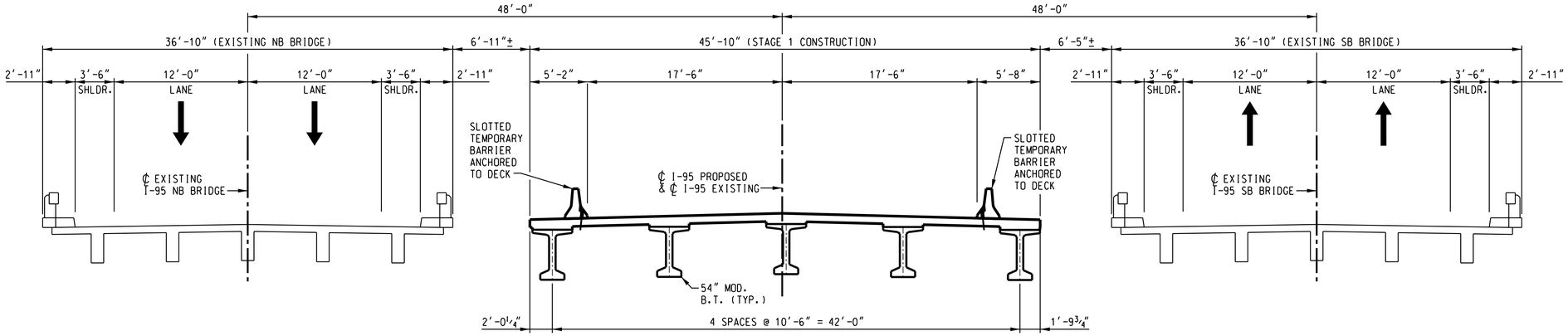
8/27/2025

DRAWING NUMBER: 700-01.TS01

BRIDGE PLANS ID	SHEET
P041130-B03	2



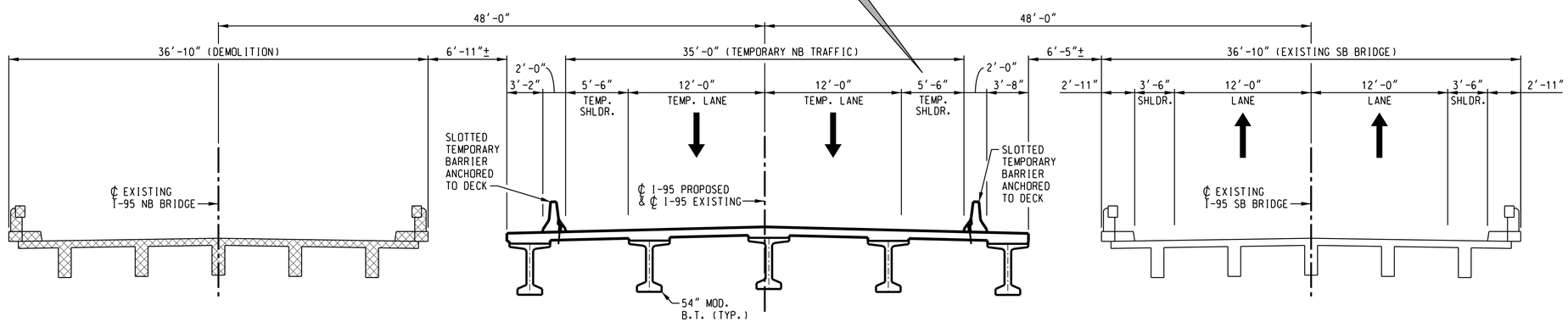
NOTES:

TEMPORARY LANE CONFIGURATION IS DICTATED BY ROADWAY MOT PLANS.

STAGE 1 CONSTRUCTION

QUALITY ENHANCEMENT

TEMPORARY SHOULDER WIDTHS ON PROPOSED BRIDGE IN ALL STAGES OF CONSTRUCTION ARE WIDER THAN EXISTING BRIDGE SHOULDER WIDTHS.



STAGE 1 DEMOLITION

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$SPRINT_PROPERTIES$$

REVIEWED	D. YODER	
QUAN.	—	—
DR.	WLH	DKY
DES.	—	—
BY	CHK.	DATE
		07-25

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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

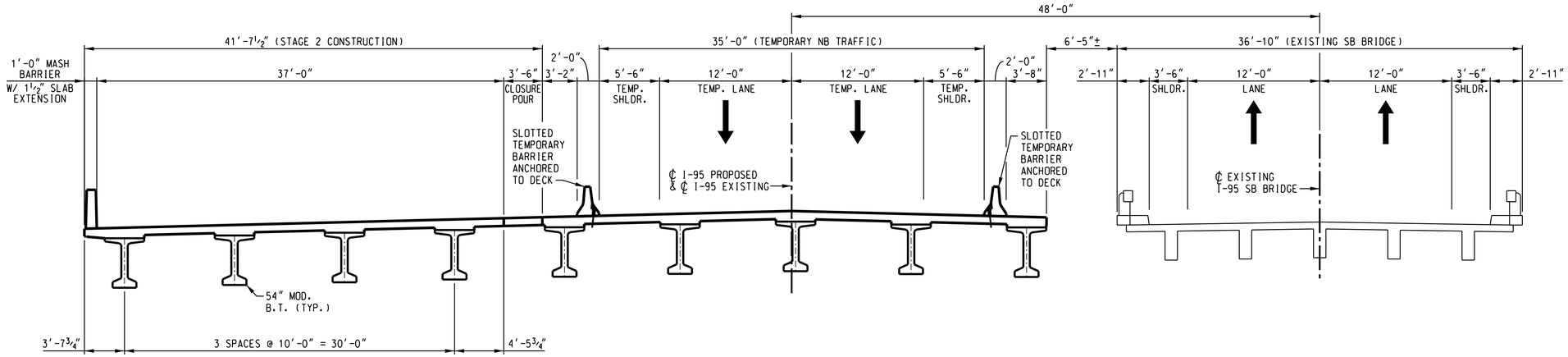
CONCEPTUAL PLANS

STAGES OF CONSTRUCTION (1)

I-95 RELIEF BRIDGE
REPLACE NB AND SB BRIDGES OVER LAKE MARION

COUNTY: CLARENDON | ROUTE: I-95

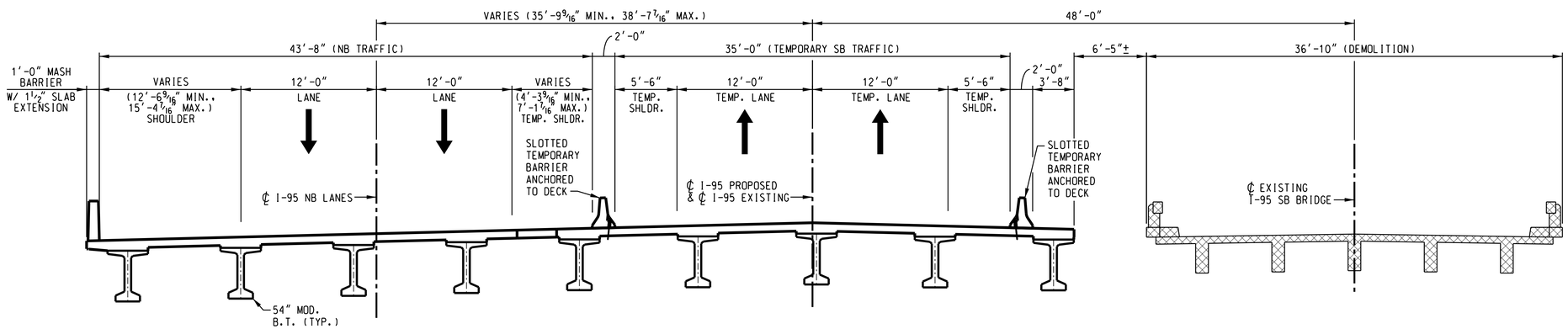
BRIDGE PLANS ID	SHEET
P041130-B03	3



NOTES:

TEMPORARY LANE CONFIGURATION IS DICTATED BY ROADWAY MOT PLANS.

STAGE 2 CONSTRUCTION



STAGE 2 DEMOLITION

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$SPRINT_PROPERTIES$$

REVIEWED	D. YODER	
QUAN.	—	—
DR.	WLH	DKY
DES.	—	—
	BY	CHK.

07-25

DATE

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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

CONCEPTUAL PLANS

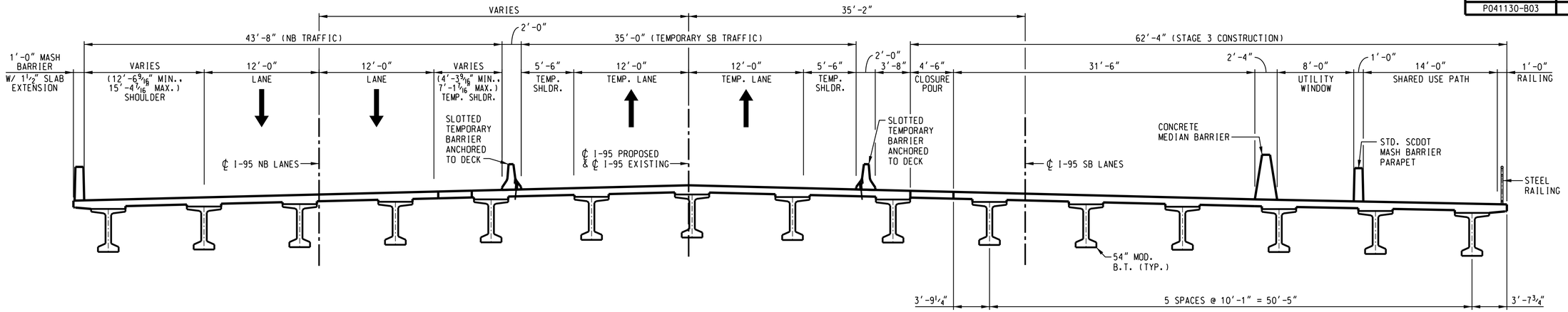
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

STAGES OF CONSTRUCTION (2)

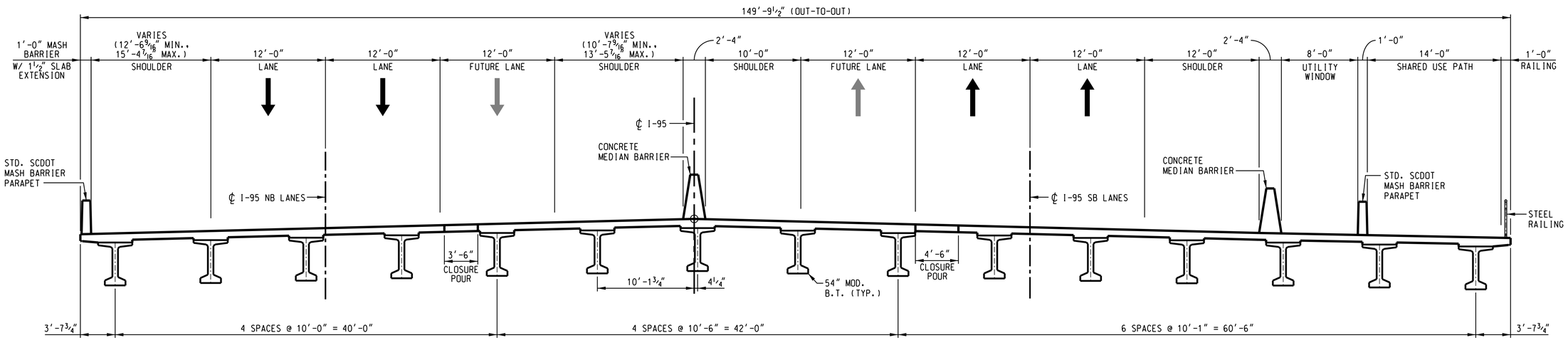
I-95 RELIEF BRIDGE
REPLACE NB AND SB BRIDGES OVER LAKE MARION

COUNTY: CLARENDON | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B03	4



STAGE 3 CONSTRUCTION



FINAL BRIDGE TYPICAL SECTION

REV.	REV.	REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION

$$PRINT_PROPERTIES$$

REVIEWED	D. YODER	—	—
QUAN.	—	—	—
DR.	WLH	DKY	07-25
DES.	—	—	—
	BY	CHK.	DATE

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8/27/2025

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

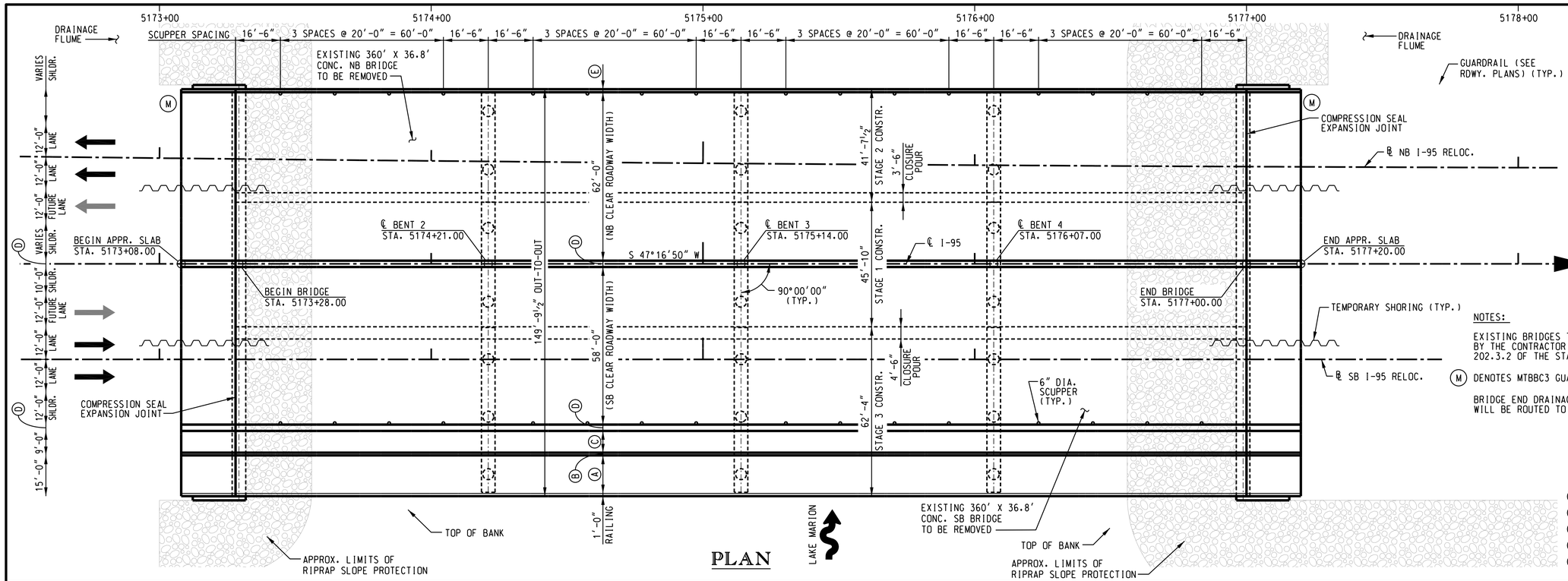
CONCEPTUAL PLANS

STAGES OF CONSTRUCTION (3)

I-95 RELIEF BRIDGE
REPLACE NB AND SB BRIDGES OVER LAKE MARION

COUNTY: CLARENDON | ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B03	5



PLAN

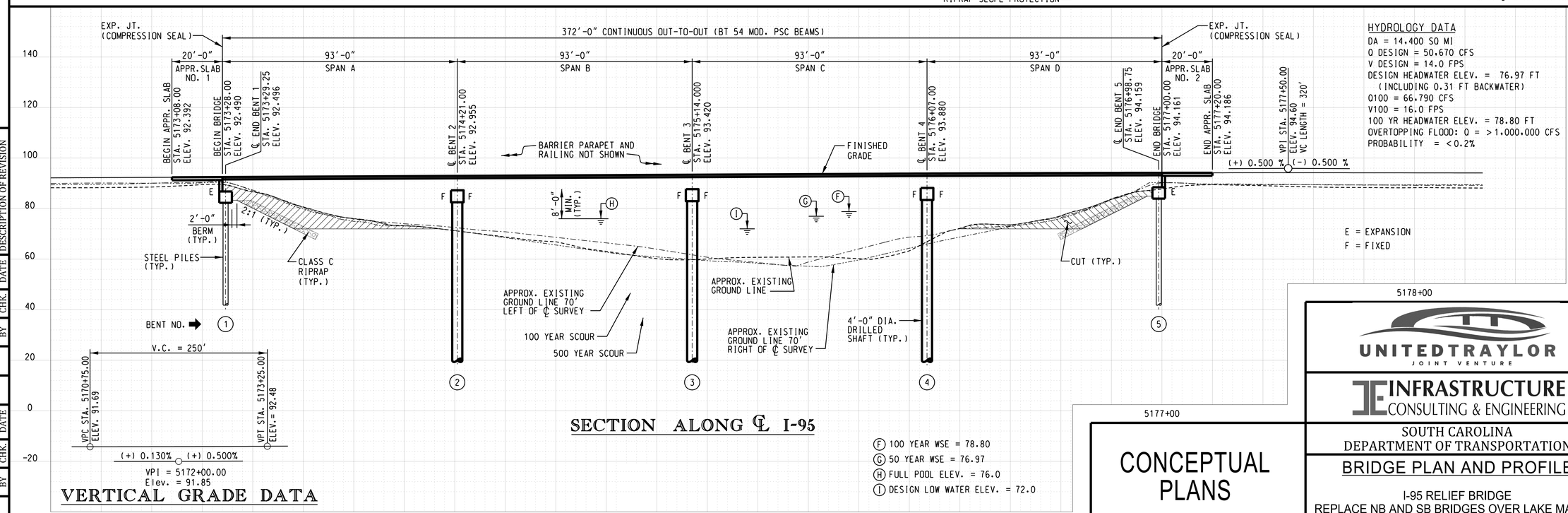
NOTES:

EXISTING BRIDGES TO BE REMOVED AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 202.3.2 OF THE STANDARD SPECIFICATIONS.

(M) DENOTES MTBBC3 GUARDRAIL ATTACHMENT.

BRIDGE END DRAINAGE ADJACENT TO UTILITY WINDOW WILL BE ROUTED TO CLOSED DRAINAGE SYSTEM.

(A) 14'-0" SHARED USE PATH
(B) 1'-0" MASH BARRIER PARAPET
(C) 8'-0" UTILITY WINDOW
(D) 2'-4" MEDIAN BARRIER
(E) 1'-0" MASH BARRIER PARAPET W/ 1½" SLAB EXTENSION



HYDROLOGY DATA
DA = 14.400 SQ MI
Q DESIGN = 50.670 CFS
V DESIGN = 14.0 FPS
DESIGN HEADWATER ELEV. = 76.97 FT
(INCLUDING 0.31 FT BACKWATER)
Q100 = 66.790 CFS
V100 = 16.0 FPS
100 YR HEADWATER ELEV. = 78.80 FT
OVERTOPPING FLOOD: Q = >1.000.000 CFS
PROBABILITY = <0.2%

E = EXPANSION
F = FIXED

SECTION ALONG ℄ I-95

VERTICAL GRADE DATA

(F) 100 YEAR WSE = 78.80
(G) 50 YEAR WSE = 76.97
(H) FULL POOL ELEV. = 76.0
(I) DESIGN LOW WATER ELEV. = 72.0

REV.	REV.	REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
						LATEST REVISION
						PREVIOUS REVISION

$$PRINT_PROPERTIES$$

REVIEWED	D. YODER		
QUAN.	—	—	—
DR.	WLH	DKY	07-25
DES.	—	—	—
	BY	CHK.	DATE

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8/27/2025

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

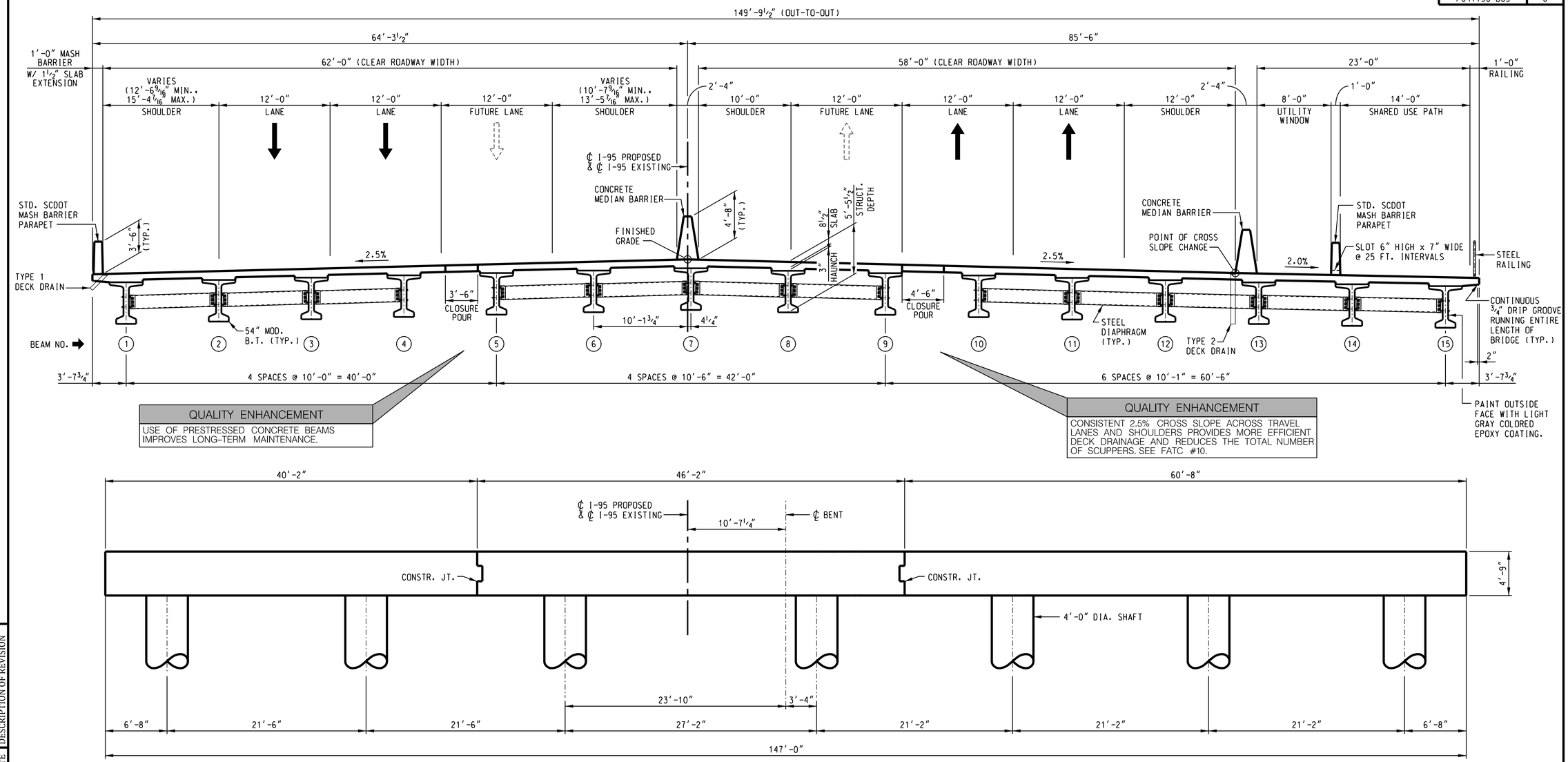
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN AND PROFILE

I-95 RELIEF BRIDGE
REPLACE NB AND SB BRIDGES OVER LAKE MARION

COUNTY: CLARENDON ROUTE: I-95

BRIDGE PLANS ID	SHEET
P041130-B03	6



TYPICAL SECTION

(LOOKING IN DIRECTION OF STATIONING)

NOTES:

FOR DECK DRAIN LOCATIONS, SEE "BRIDGE PLAN AND PROFILE" SHEET.

SHEAR KEYS SHALL BE PROVIDED AT END BENTS (NOT SHOWN FOR CLARITY).

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

I-95 RELIEF BRIDGE
REPLACE NB AND SB BRIDGES OVER LAKE MARION

COUNTY: CLARENDON | ROUTE: I-95

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$$PRINT_PROPERTIES$$

REVIEWED	D. YODER		
QUAN.	—	—	
DR.	WLH	DKY	07-25
DES.	—	—	
	BY	CHK.	DATE

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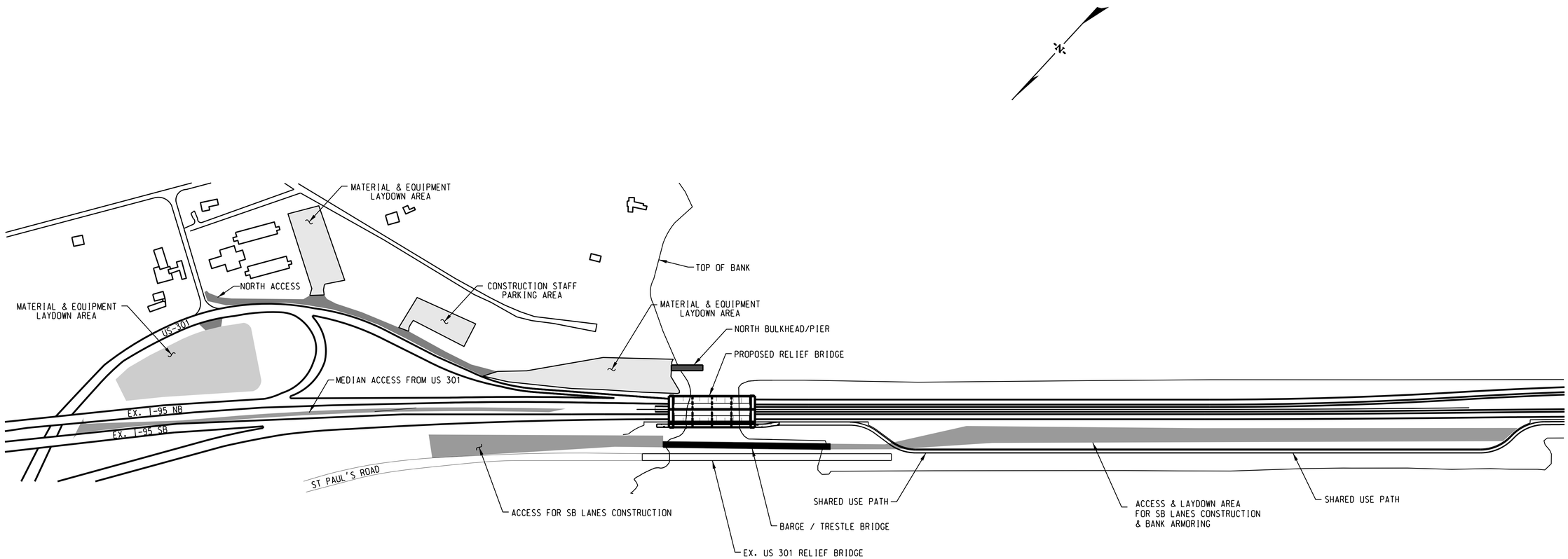
8/27/2025

BRIDGE PLANS ID	SHEET
P041130-B03	7



CONSTRUCTION ACCESS AND LAYDOWN AREA PLAN
NORTHERN ACCESS

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

$$PRINT_PROPERTIES$$

REVIEWED	D. YODER	
QUAN.	—	—
DR.	WLH	DKY
DES.	—	—
BY	CHK.	DATE

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8/27/2025

CONCEPTUAL PLANS

UNITEDTRAYLOR JOINT VENTURE

INFRASTRUCTURE CONSULTING & ENGINEERING

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION ACCESS

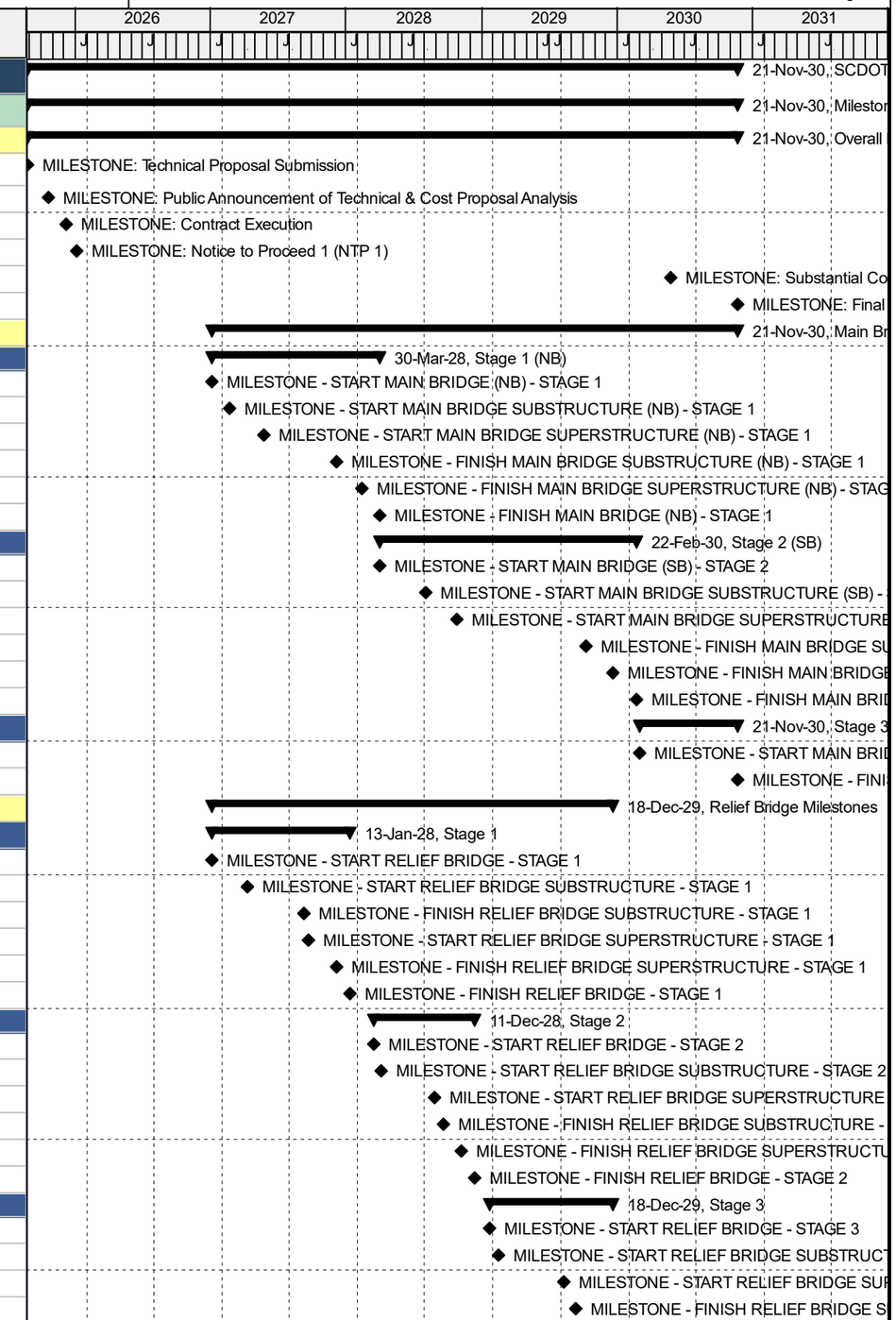
I-95 RELIEF BRIDGE
REPLACE NB AND SB BRIDGES OVER LAKE MARION

COUNTY: CLARENDON | ROUTE: I-95

APPENDIX A.4
CPM Schedule

UNITEDTRAYLOR
JOINT VENTURE

Activity ID	Activity Name	Original Duration	Start	Finish
SCDOT I-95 Bridge Replacement Over Lake Marion - Technical Proposal Schedule - Final		1366	28-Aug-25	21-Nov-30
Milestones		1912	28-Aug-25	21-Nov-30
Overall Project Milestones		1912	28-Aug-25	21-Nov-30
MS1010	MILESTONE: Technical Proposal Submission	0	28-Aug-25	
MS1020	MILESTONE: Public Announcement of Technical & Cost Proposal Analysis	0	23-Oct-25	
MS1030	MILESTONE: Contract Execution	0	07-Dec-25	
MS1040	MILESTONE: Notice to Proceed 1 (NTP 1)	0	06-Jan-26	
MS1050	MILESTONE: Substantial Completion (NTP 1 + 1,600 CD: REQ 5/25/2030)	0		25-May-30
MS1060	MILESTONE: Final Completion (S.C. + 180 CD: REQ 11/21/2030)	0		21-Nov-30
Main Bridge Milestones		1418	04-Jan-27	21-Nov-30
Stage 1 (NB)		452	04-Jan-27	30-Mar-28
SM-MBP1-1	MILESTONE - START MAIN BRIDGE (NB) - STAGE 1	0	04-Jan-27	
SM-MBP1-2	MILESTONE - START MAIN BRIDGE SUBSTRUCTURE (NB) - STAGE 1	0	23-Feb-27	
SM-MBP1-3	MILESTONE - START MAIN BRIDGE SUPERSTRUCTURE (NB) - STAGE 1	0	26-May-27	
FM-MBP1-1	MILESTONE - FINISH MAIN BRIDGE SUBSTRUCTURE (NB) - STAGE 1	0		07-Dec-27
FM-MBP1-2	MILESTONE - FINISH MAIN BRIDGE SUPERSTRUCTURE (NB) - STAGE 1	0		14-Feb-28
FM-MBP1-3	MILESTONE - FINISH MAIN BRIDGE (NB) - STAGE 1	0		30-Mar-28
Stage 2 (SB)		693	31-Mar-28	22-Feb-30
SM-MBP2-1	MILESTONE - START MAIN BRIDGE (SB) - STAGE 2	0	31-Mar-28	
SM-MBP2-2	MILESTONE - START MAIN BRIDGE SUBSTRUCTURE (SB) - STAGE 2	0	01-Aug-28	
SM-MBP2-3	MILESTONE - START MAIN BRIDGE SUPERSTRUCTURE (SB) - STAGE 2	0	25-Oct-28	
FM-MBP2-1	MILESTONE - FINISH MAIN BRIDGE SUBSTRUCTURE (SB) - STAGE 2	0		10-Oct-29
FM-MBP2-2	MILESTONE - FINISH MAIN BRIDGE SUPERSTRUCTURE (SB) - STAGE 2	0		21-Dec-29
FM-MBP2-3	MILESTONE - FINISH MAIN BRIDGE (SB) - STAGE 2	0		22-Feb-30
Stage 3		266	01-Mar-30	21-Nov-30
SM-MBP3	MILESTONE - START MAIN BRIDGE (NB DEMO - AFTER S.C.) - STAGE 3	0	01-Mar-30	
FM-MBP3	MILESTONE - FINISH MAIN BRIDGE (NB DEMO - AFTER S.C.) - STAGE 3	0		21-Nov-30
Relief Bridge Milestones		1080	04-Jan-27	18-Dec-29
Stage 1		375	04-Jan-27	13-Jan-28
SM-RBP1-1	MILESTONE - START RELIEF BRIDGE - STAGE 1	0	04-Jan-27	
SM-RBP1-2	MILESTONE - START RELIEF BRIDGE SUBSTRUCTURE - STAGE 1	0	10-Apr-27	
FM-RBP1-1	MILESTONE - FINISH RELIEF BRIDGE SUBSTRUCTURE - STAGE 1	0		10-Sep-27
SM-RBP1-3	MILESTONE - START RELIEF BRIDGE SUPERSTRUCTURE - STAGE 1	0	21-Sep-27	
FM-RBP1-2	MILESTONE - FINISH RELIEF BRIDGE SUPERSTRUCTURE - STAGE 1	0		06-Dec-27
FM-RBP1-3	MILESTONE - FINISH RELIEF BRIDGE - STAGE 1	0		13-Jan-28
Stage 2		273	14-Mar-28	11-Dec-28
SM-RBP2-1	MILESTONE - START RELIEF BRIDGE - STAGE 2	0	14-Mar-28	
SM-RBP2-2	MILESTONE - START RELIEF BRIDGE SUBSTRUCTURE - STAGE 2	0	06-Apr-28	
SM-RBP2-3	MILESTONE - START RELIEF BRIDGE SUPERSTRUCTURE - STAGE 2	0	26-Aug-28	
FM-RBP2-1	MILESTONE - FINISH RELIEF BRIDGE SUBSTRUCTURE - STAGE 2	0		18-Sep-28
FM-RBP2-2	MILESTONE - FINISH RELIEF BRIDGE SUPERSTRUCTURE - STAGE 2	0		06-Nov-28
FM-RBP2-3	MILESTONE - FINISH RELIEF BRIDGE - STAGE 2	0		11-Dec-28
Stage 3		330	23-Jan-29	18-Dec-29
SM-RBP3-1	MILESTONE - START RELIEF BRIDGE - STAGE 3	0	23-Jan-29	
SM-RBP3-2	MILESTONE - START RELIEF BRIDGE SUBSTRUCTURE - STAGE 3	0	15-Feb-29	
SM-RBP3-3	MILESTONE - START RELIEF BRIDGE SUPERSTRUCTURE - STAGE 3	0	09-Aug-29	
FM-RB3-1	MILESTONE - FINISH RELIEF BRIDGE SUBSTRUCTURE - STAGE 3	0		10-Sep-29



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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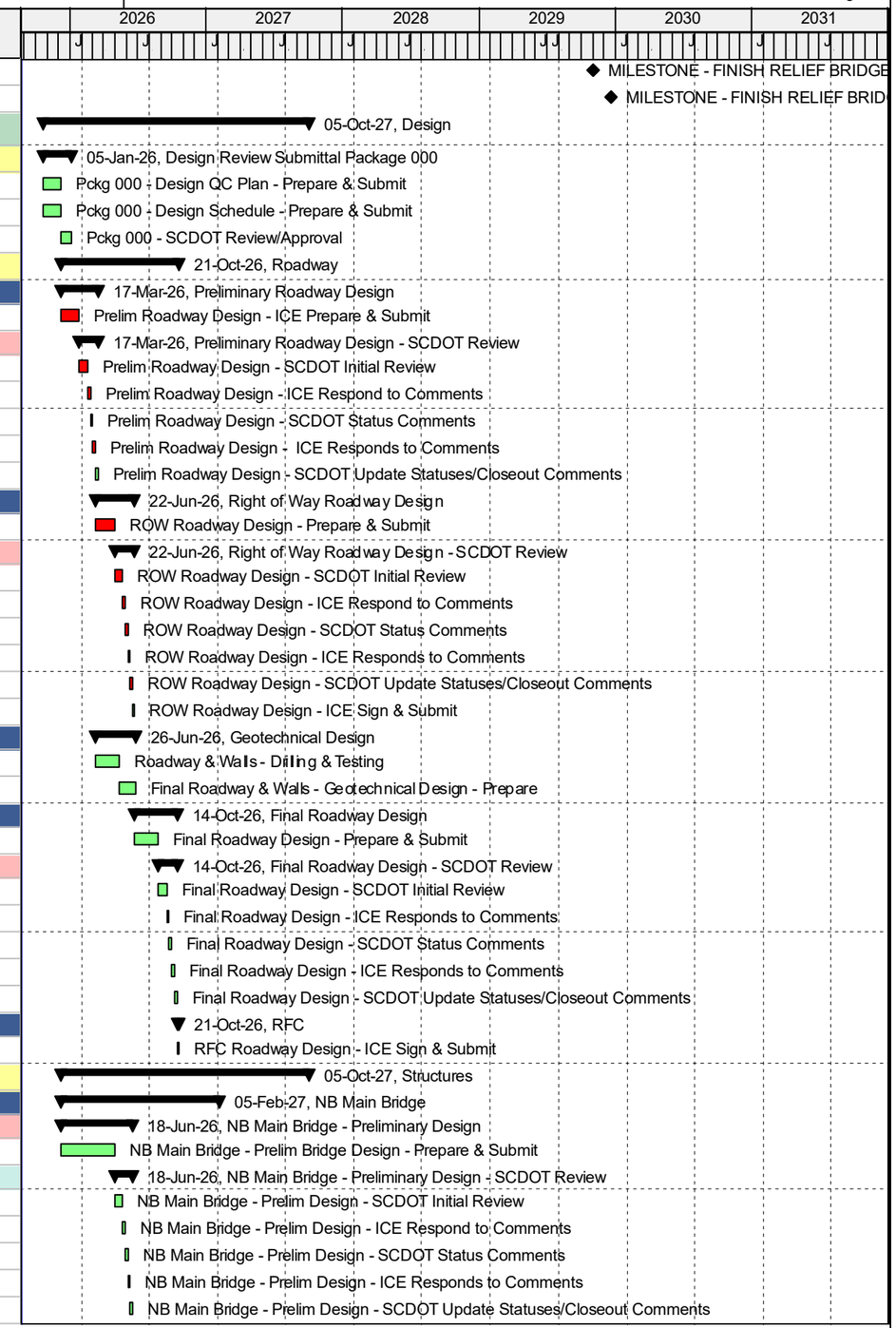
Activity ID	Activity Name	Original Duration	Start	Finish
FM-RBP3-2	MILESTONE - FINISH RELIEF BRIDGE SUPERSTRUCTURE - STAGE 3	0		02-Nov-29
FM-RBP3-3	MILESTONE - FINISH RELIEF BRIDGE - STAGE 3	0		18-Dec-29
Design		509	23-Oct-25	05-Oct-27
Design Review Submittal Package 000		45	23-Oct-25	05-Jan-26
A1060	Pckg 000 - Design QC Plan - Prepare & Submit	30	23-Oct-25	08-Dec-25
A1070	Pckg 000 - Design Schedule - Prepare & Submit	30	23-Oct-25	08-Dec-25
A1080	Pckg 000 - SCDOT Review/Approval	15	09-Dec-25	05-Jan-26
Roadway		217	08-Dec-25	21-Oct-26
Preliminary Roadway Design		65	08-Dec-25	17-Mar-26
A1110	Prelim Roadway Design - ICE Prepare & Submit	30	08-Dec-25	26-Jan-26
Preliminary Roadway Design - SCDOT Review		35	27-Jan-26	17-Mar-26
A1120	Prelim Roadway Design - SCDOT Initial Review	15	27-Jan-26	17-Feb-26
A1130	Prelim Roadway Design - ICE Respond to Comments	5	18-Feb-26	24-Feb-26
A1140	Prelim Roadway Design - SCDOT Status Comments	5	25-Feb-26	03-Mar-26
A1150	Prelim Roadway Design - ICE Responds to Comments	5	04-Mar-26	10-Mar-26
A1160	Prelim Roadway Design - SCDOT Update Statuses/Closeout Comments	5	11-Mar-26	17-Mar-26
Right of Way Roadway Design		72	11-Mar-26	22-Jun-26
A1170	ROW Roadway Design - Prepare & Submit	35	11-Mar-26	29-Apr-26
Right of Way Roadway Design -SCDOT Review		37	30-Apr-26	22-Jun-26
A1180	ROW Roadway Design - SCDOT Initial Review	15	30-Apr-26	20-May-26
A1190	ROW Roadway Design - ICE Respond to Comments	5	21-May-26	28-May-26
A1200	ROW Roadway Design - SCDOT Status Comments	5	29-May-26	04-Jun-26
A1210	ROW Roadway Design - ICE Responds to Comments	5	05-Jun-26	11-Jun-26
A1220	ROW Roadway Design - SCDOT Update Statuses/Closeout Comments	5	12-Jun-26	18-Jun-26
A1230	ROW Roadway Design - ICE Sign & Submit	2	19-Jun-26	22-Jun-26
Geotechnical Design		75	12-Mar-26	26-Jun-26
A1105	Roadway & Walls - Drilling & Testing	45	12-Mar-26	14-May-26
A1107	Final Roadway & Walls - Geotechnical Design - Prepare	30	15-May-26	26-Jun-26
Final Roadway Design		80	23-Jun-26	14-Oct-26
A1240	Final Roadway Design - Prepare & Submit	45	23-Jun-26	25-Aug-26
Final Roadway Design - SCDOT Review		35	26-Aug-26	14-Oct-26
A1250	Final Roadway Design - SCDOT Initial Review	15	26-Aug-26	16-Sep-26
A1260	Final Roadway Design - ICE Responds to Comments	5	17-Sep-26	23-Sep-26
A1270	Final Roadway Design - SCDOT Status Comments	5	24-Sep-26	30-Sep-26
A1280	Final Roadway Design - ICE Responds to Comments	5	01-Oct-26	07-Oct-26
A1290	Final Roadway Design - SCDOT Update Statuses/Closeout Comments	5	08-Oct-26	14-Oct-26
RFC		5	15-Oct-26	21-Oct-26
A1300	RFC Roadway Design - ICE Sign & Submit	5	15-Oct-26	21-Oct-26
Structures		453	08-Dec-25	05-Oct-27
NB Main Bridge		286	08-Dec-25	05-Feb-27
NB Main Bridge - Preliminary Design		130	08-Dec-25	18-Jun-26
A1390	NB Main Bridge - Prelim Bridge Design - Prepare & Submit	95	08-Dec-25	29-Apr-26
NB Main Bridge - Preliminary Design - SCDOT Review		35	30-Apr-26	18-Jun-26
A1400	NB Main Bridge - Prelim Design - SCDOT Initial Review	15	30-Apr-26	20-May-26
A1410	NB Main Bridge - Prelim Design - ICE Respond to Comments	5	21-May-26	28-May-26
A1420	NB Main Bridge - Prelim Design - SCDOT Status Comments	5	29-May-26	04-Jun-26
A1430	NB Main Bridge - Prelim Design - ICE Responds to Comments	5	05-Jun-26	11-Jun-26
A1440	NB Main Bridge - Prelim Design - SCDOT Update Statuses/Closeout Comments	5	12-Jun-26	18-Jun-26



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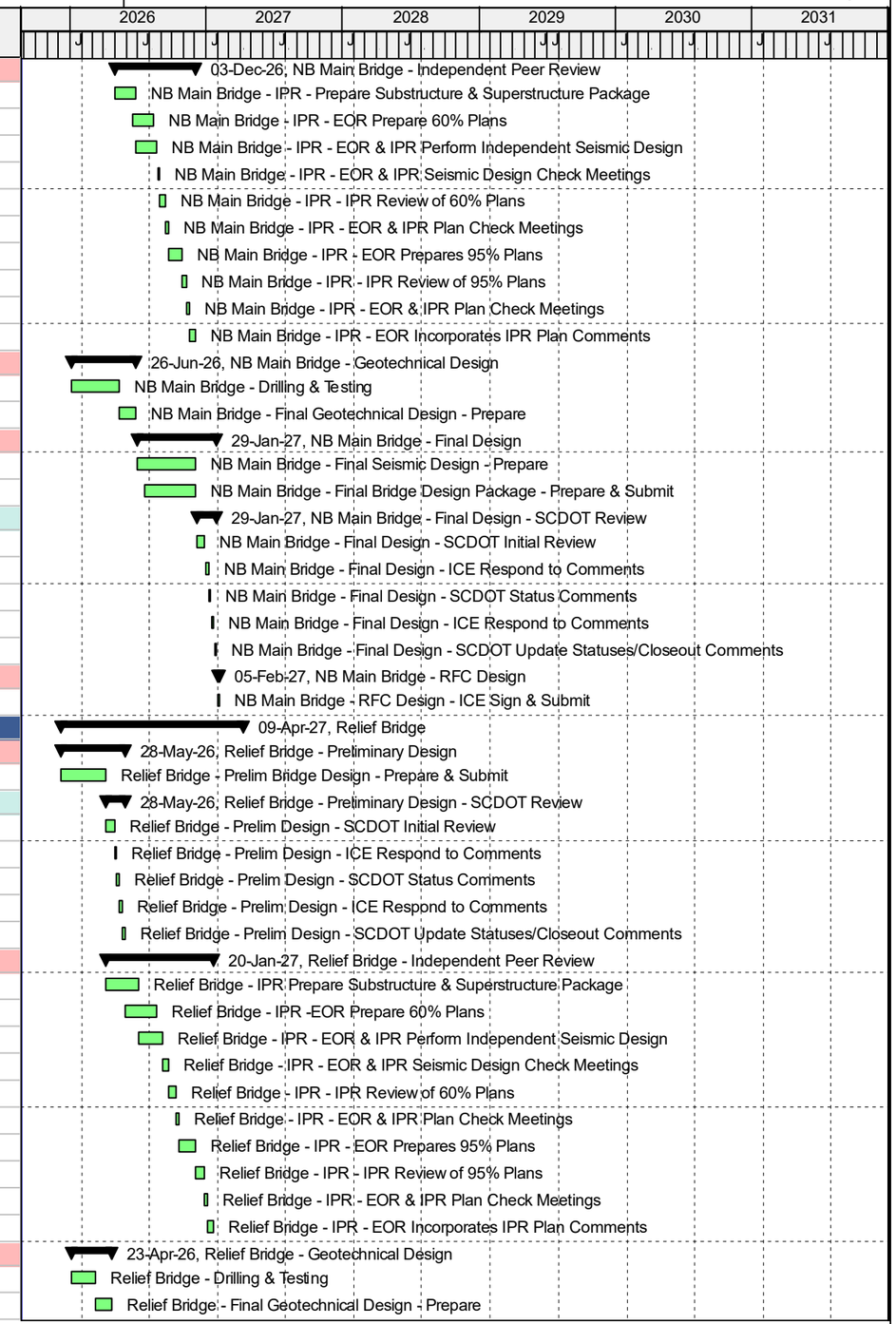
Activity ID	Activity Name	Original Duration	Start	Finish
NB Main Bridge - Independent Peer Review		150	30-Apr-26	03-Dec-26
A2810	NB Main Bridge - IPR - Prepare Substructure & Superstructure Package	40	30-Apr-26	25-Jun-26
A2820	NB Main Bridge - IPR - EOR Prepare 60% Plans	40	19-Jun-26	14-Aug-26
A2830	NB Main Bridge - IPR - EOR & IPR Perform Independent Seismic Design	40	26-Jun-26	21-Aug-26
A2840	NB Main Bridge - IPR - EOR & IPR Seismic Design Check Meetings	5	24-Aug-26	28-Aug-26
A2850	NB Main Bridge - IPR - IPR Review of 60% Plans	10	31-Aug-26	14-Sep-26
A2860	NB Main Bridge - IPR - EOR & IPR Plan Check Meetings	5	15-Sep-26	21-Sep-26
A2870	NB Main Bridge - IPR - EOR Prepares 95% Plans	25	22-Sep-26	26-Oct-26
A2880	NB Main Bridge - IPR - IPR Review of 95% Plans	10	27-Oct-26	09-Nov-26
A2890	NB Main Bridge - IPR - EOR & IPR Plan Check Meetings	5	10-Nov-26	17-Nov-26
A2900	NB Main Bridge - IPR - EOR Incorporates IPR Plan Comments	10	18-Nov-26	03-Dec-26
NB Main Bridge - Geotechnical Design		120	06-Jan-26	26-Jun-26
A1385	NB Main Bridge - Drilling & Testing	90	06-Jan-26	14-May-26
A1395	NB Main Bridge - Final Geotechnical Design - Prepare	30	15-May-26	26-Jun-26
NB Main Bridge - Final Design		145	29-Jun-26	29-Jan-27
A2720	NB Main Bridge - Final Seismic Design - Prepare	110	29-Jun-26	04-Dec-26
A1570	NB Main Bridge - Final Bridge Design Package - Prepare & Submit	95	21-Jul-26	04-Dec-26
NB Main Bridge - Final Design - SCDOT Review		35	07-Dec-26	29-Jan-27
A1580	NB Main Bridge - Final Design - SCDOT Initial Review	15	07-Dec-26	29-Dec-26
A1590	NB Main Bridge - Final Design - ICE Respond to Comments	5	30-Dec-26	07-Jan-27
A1600	NB Main Bridge - Final Design - SCDOT Status Comments	5	08-Jan-27	14-Jan-27
A1610	NB Main Bridge - Final Design - ICE Respond to Comments	5	15-Jan-27	22-Jan-27
A1620	NB Main Bridge - Final Design - SCDOT Update Statuses/Closeout Comments	5	25-Jan-27	29-Jan-27
NB Main Bridge - RFC Design		5	01-Feb-27	05-Feb-27
A1630	NB Main Bridge - RFC Design - ICE Sign & Submit	5	01-Feb-27	05-Feb-27
Relief Bridge		329	08-Dec-25	09-Apr-27
Relief Bridge - Preliminary Design		115	08-Dec-25	28-May-26
A1900	Relief Bridge - Prelim Bridge Design - Prepare & Submit	80	08-Dec-25	08-Apr-26
Relief Bridge - Preliminary Design - SCDOT Review		35	09-Apr-26	28-May-26
A1920	Relief Bridge - Prelim Design - SCDOT Initial Review	15	09-Apr-26	29-Apr-26
A1930	Relief Bridge - Prelim Design - ICE Respond to Comments	5	30-Apr-26	06-May-26
A1940	Relief Bridge - Prelim Design - SCDOT Status Comments	5	07-May-26	13-May-26
A1950	Relief Bridge - Prelim Design - ICE Respond to Comments	5	14-May-26	20-May-26
A1960	Relief Bridge - Prelim Design - SCDOT Update Statuses/Closeout Comments	5	21-May-26	28-May-26
Relief Bridge - Independent Peer Review		194	09-Apr-26	20-Jan-27
A1970	Relief Bridge - IPR Prepare Substructure & Superstructure Package	60	09-Apr-26	02-Jul-26
A1980	Relief Bridge - IPR -EOR Prepare 60% Plans	60	29-May-26	21-Aug-26
A1990	Relief Bridge - IPR - EOR & IPR Perform Independent Seismic Design	45	06-Jul-26	04-Sep-26
A2000	Relief Bridge - IPR - EOR & IPR Seismic Design Check Meetings	10	08-Sep-26	21-Sep-26
A2010	Relief Bridge - IPR - IPR Review of 60% Plans	15	22-Sep-26	12-Oct-26
A2020	Relief Bridge - IPR - EOR & IPR Plan Check Meetings	5	13-Oct-26	19-Oct-26
A2030	Relief Bridge - IPR - EOR Prepares 95% Plans	30	20-Oct-26	03-Dec-26
A2040	Relief Bridge - IPR - IPR Review of 95% Plans	15	04-Dec-26	28-Dec-26
A2050	Relief Bridge - IPR - EOR & IPR Plan Check Meetings	4	29-Dec-26	05-Jan-27
A2060	Relief Bridge - IPR - EOR Incorporates IPR Plan Comments	10	06-Jan-27	20-Jan-27
Relief Bridge - Geotechnical Design		75	06-Jan-26	23-Apr-26
A1895	Relief Bridge - Drilling & Testing	45	06-Jan-26	11-Mar-26
A1910	Relief Bridge - Final Geotechnical Design - Prepare	30	12-Mar-26	23-Apr-26



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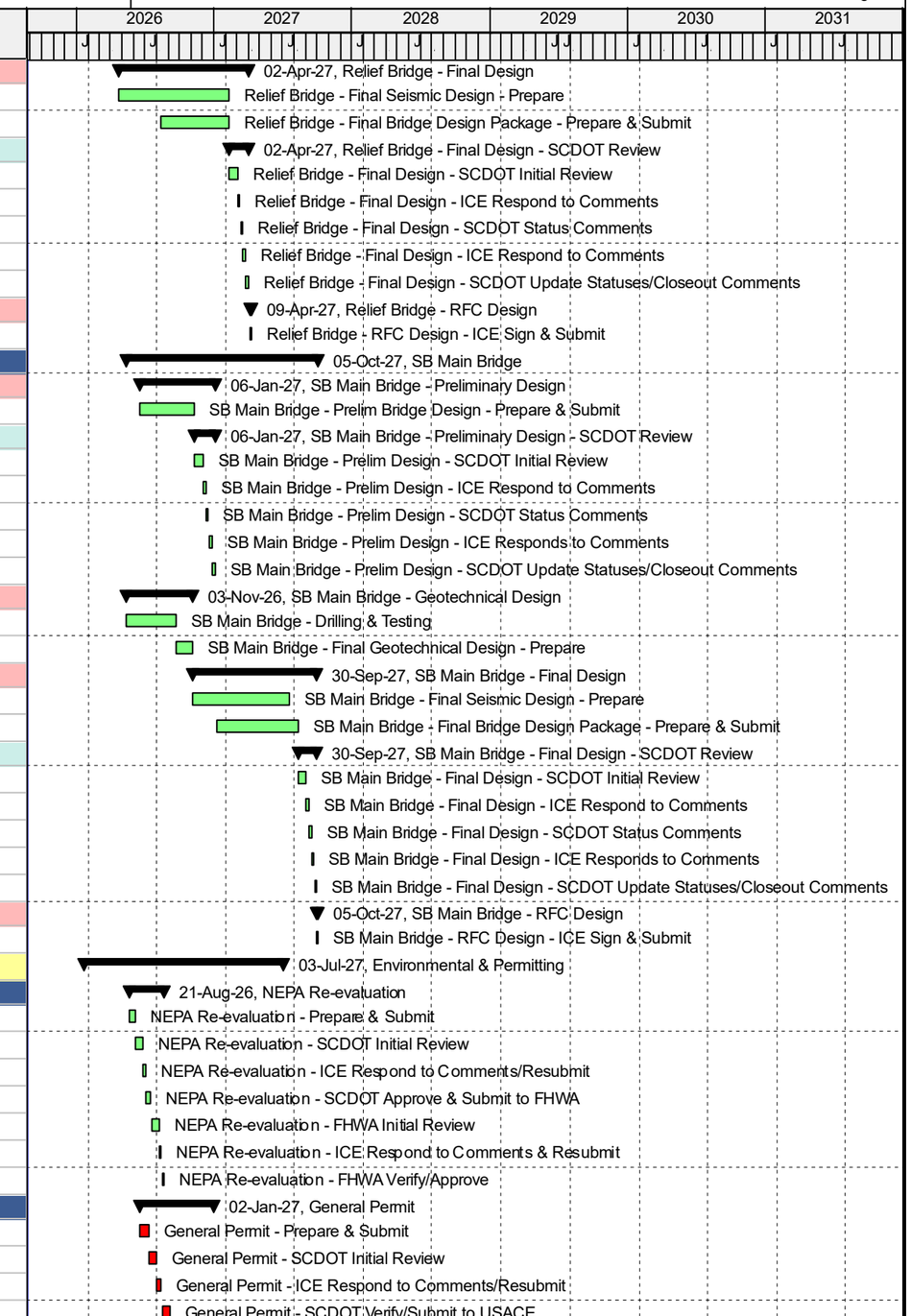
Activity ID	Activity Name	Original Duration	Start	Finish
Relief Bridge - Final Design		233	24-Apr-26	02-Apr-27
A2780	Relief Bridge - Final Seismic Design - Prepare	198	24-Apr-26	10-Feb-27
A2070	Relief Bridge - Final Bridge Design Package - Prepare & Submit	120	14-Aug-26	10-Feb-27
Relief Bridge - Final Design - SCDOT Review		35	11-Feb-27	02-Apr-27
A2080	Relief Bridge - Final Design - SCDOT Initial Review	15	11-Feb-27	04-Mar-27
A2090	Relief Bridge - Final Design - ICE Respond to Comments	5	05-Mar-27	11-Mar-27
A2100	Relief Bridge - Final Design - SCDOT Status Comments	5	12-Mar-27	18-Mar-27
A2110	Relief Bridge - Final Design - ICE Respond to Comments	5	19-Mar-27	25-Mar-27
A2120	Relief Bridge - Final Design - SCDOT Update Statuses/Closeout Comments	5	26-Mar-27	02-Apr-27
Relief Bridge - RFC Design		5	05-Apr-27	09-Apr-27
A2130	Relief Bridge - RFC Design - ICE Sign & Submit	5	05-Apr-27	09-Apr-27
SB Main Bridge		347	15-May-26	05-Oct-27
SB Main Bridge - Preliminary Design		135	19-Jun-26	06-Jan-27
A1640	SB Main Bridge - Prelim Bridge Design - Prepare & Submit	100	19-Jun-26	09-Nov-26
SB Main Bridge - Preliminary Design - SCDOT Review		35	10-Nov-26	06-Jan-27
A1660	SB Main Bridge - Prelim Design - SCDOT Initial Review	15	10-Nov-26	03-Dec-26
A1670	SB Main Bridge - Prelim Design - ICE Respond to Comments	5	04-Dec-26	10-Dec-26
A1680	SB Main Bridge - Prelim Design - SCDOT Status Comments	5	11-Dec-26	17-Dec-26
A1690	SB Main Bridge - Prelim Design - ICE Responds to Comments	5	18-Dec-26	28-Dec-26
A1700	SB Main Bridge - Prelim Design - SCDOT Update Statuses/Closeout Comments	5	29-Dec-26	06-Jan-27
SB Main Bridge - Geotechnical Design		120	15-May-26	03-Nov-26
A1635	SB Main Bridge - Drilling & Testing	90	15-May-26	22-Sep-26
A1650	SB Main Bridge - Final Geotechnical Design - Prepare	30	23-Sep-26	03-Nov-26
SB Main Bridge - Final Design		224	04-Nov-26	30-Sep-27
A2750	SB Main Bridge - Final Seismic Design - Prepare	174	04-Nov-26	21-Jul-27
A1830	SB Main Bridge - Final Bridge Design Package - Prepare & Submit	150	07-Jan-27	11-Aug-27
SB Main Bridge - Final Design - SCDOT Review		35	12-Aug-27	30-Sep-27
A1840	SB Main Bridge - Final Design - SCDOT Initial Review	15	12-Aug-27	01-Sep-27
A1850	SB Main Bridge - Final Design - ICE Respond to Comments	5	02-Sep-27	09-Sep-27
A1860	SB Main Bridge - Final Design - SCDOT Status Comments	5	10-Sep-27	16-Sep-27
A1870	SB Main Bridge - Final Design - ICE Responds to Comments	5	17-Sep-27	23-Sep-27
A1880	SB Main Bridge - Final Design - SCDOT Update Statuses/Closeout Comments	5	24-Sep-27	30-Sep-27
SB Main Bridge - RFC Design		3	01-Oct-27	05-Oct-27
A1890	SB Main Bridge - RFC Design - ICE Sign & Submit	3	01-Oct-27	05-Oct-27
Environmental & Permitting		378	21-Jan-26	03-Jul-27
NEPA Re-evaluation		65	21-May-26	21-Aug-26
A2140	NEPA Re-evaluation - Prepare & Submit	10	21-May-26	04-Jun-26
A2150	NEPA Re-evaluation - SCDOT Initial Review	15	05-Jun-26	25-Jun-26
A2160	NEPA Re-evaluation - ICE Respond to Comments/Resubmit	5	26-Jun-26	02-Jul-26
A2170	NEPA Re-evaluation - SCDOT Approve & Submit to FHWA	10	06-Jul-26	17-Jul-26
A2180	NEPA Re-evaluation - FHWA Initial Review	15	20-Jul-26	07-Aug-26
A2190	NEPA Re-evaluation - ICE Respond to Comments & Resubmit	5	10-Aug-26	14-Aug-26
A2200	NEPA Re-evaluation - FHWA Verify/Approve	5	17-Aug-26	21-Aug-26
General Permit		141	19-Jun-26	02-Jan-27
A2210	General Permit - Prepare & Submit	15	19-Jun-26	10-Jul-26
A2220	General Permit - SCDOT Initial Review	15	13-Jul-26	31-Jul-26
A2230	General Permit - ICE Respond to Comments/Resubmit	10	03-Aug-26	14-Aug-26
A2240	General Permit - SCDOT Verify/Submit to USACE	15	17-Aug-26	04-Sep-26



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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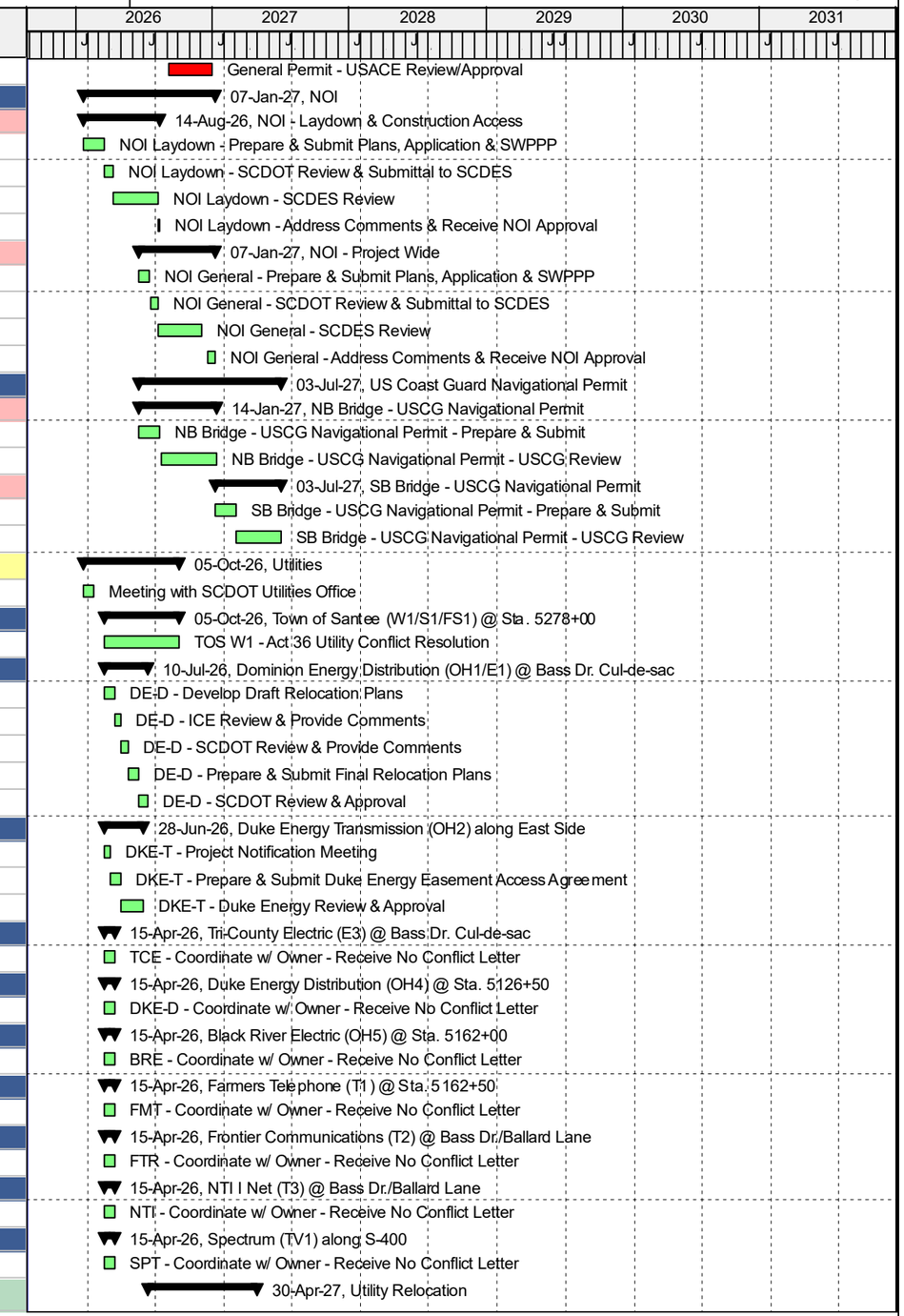
Activity ID	Activity Name	Original Duration	Start	Finish
A2250	General Permit - USACE Review/Approval	120	05-Sep-26	02-Jan-27
NOI		252	21-Jan-26	07-Jan-27
NOI - Laydown & Construction Access		148	21-Jan-26	14-Aug-26
A2990	NOI Laydown - Prepare & Submit Plans, Application & SWPPP	40	21-Jan-26	18-Mar-26
A3000	NOI Laydown - SCDOT Review & Submittal to SCDES	15	19-Mar-26	09-Apr-26
A3010	NOI Laydown - SCDES Review	120	10-Apr-26	07-Aug-26
A3020	NOI Laydown - Address Comments & Receive NOI Approval	5	10-Aug-26	14-Aug-26
NOI - Project Wide		145	19-Jun-26	07-Jan-27
A1330	NOI General - Prepare & Submit Plans, Application & SWPPP	20	19-Jun-26	17-Jul-26
A1340	NOI General - SCDOT Review & Submittal to SCDES	15	20-Jul-26	07-Aug-26
A1350	NOI General - SCDES Review	120	08-Aug-26	05-Dec-26
A1360	NOI General - Address Comments & Receive NOI Approval	10	21-Dec-26	07-Jan-27
US Coast Guard Navigational Permit		271	19-Jun-26	03-Jul-27
NB Bridge - USCG Navigational Permit		150	19-Jun-26	14-Jan-27
A2910	NB Bridge - USCG Navigational Permit - Prepare & Submit	40	19-Jun-26	14-Aug-26
A2920	NB Bridge - USCG Navigational Permit - USCG Review	150	18-Aug-26	14-Jan-27
SB Bridge - USCG Navigational Permit		127	07-Jan-27	03-Jul-27
A2930	SB Bridge - USCG Navigational Permit - Prepare & Submit	40	07-Jan-27	05-Mar-27
A2940	SB Bridge - USCG Navigational Permit - USCG Review	120	06-Mar-27	03-Jul-27
Utilities		184	21-Jan-26	05-Oct-26
A2380	Meeting with SCDOT Utilities Office	30	21-Jan-26	19-Feb-26
Town of Santee (W1/S1/FS1) @ Sta. 5278+00		140	18-Mar-26	05-Oct-26
A2950	TOS W1 - Act 36 Utility Conflict Resolution	140	18-Mar-26	05-Oct-26
Dominion Energy Distribution (OH1/E1) @ Bass Dr. Cul-de-sac		80	18-Mar-26	10-Jul-26
A2290	DE-D - Develop Draft Relocation Plans	20	18-Mar-26	15-Apr-26
A2295	DE-D - ICE Review & Provide Comments	10	16-Apr-26	29-Apr-26
A2300	DE-D - SCDOT Review & Provide Comments	15	30-Apr-26	20-May-26
A2310	DE-D - Prepare & Submit Final Relocation Plans	20	21-May-26	18-Jun-26
A2320	DE-D - SCDOT Review & Approval	15	19-Jun-26	10-Jul-26
Duke Energy Transmission (OH2) along East Side		73	18-Mar-26	28-Jun-26
A2390	DKE-T - Project Notification Meeting	10	18-Mar-26	01-Apr-26
A2400	DKE-T - Prepare & Submit Duke Energy Easement Access Agreement	20	02-Apr-26	29-Apr-26
A2405	DKE-T - Duke Energy Review & Approval	60	30-Apr-26	28-Jun-26
Tri-County Electric (E3) @ Bass Dr. Cul-de-sac		20	18-Mar-26	15-Apr-26
A2430	TCE - Coordinate w/ Owner - Receive No Conflict Letter	20	18-Mar-26	15-Apr-26
Duke Energy Distribution (OH4) @ Sta. 5126+50		20	18-Mar-26	15-Apr-26
A2440	DKE-D - Coordinate w/ Owner - Receive No Conflict Letter	20	18-Mar-26	15-Apr-26
Black River Electric (OH5) @ Sta. 5162+00		20	18-Mar-26	15-Apr-26
A2450	BRE - Coordinate w/ Owner - Receive No Conflict Letter	20	18-Mar-26	15-Apr-26
Farmers Telephone (T1) @ Sta. 5162+50		20	18-Mar-26	15-Apr-26
A2670	FMT - Coordinate w/ Owner - Receive No Conflict Letter	20	18-Mar-26	15-Apr-26
Frontier Communications (T2) @ Bass Dr./Ballard Lane		20	18-Mar-26	15-Apr-26
A2680	FTR - Coordinate w/ Owner - Receive No Conflict Letter	20	18-Mar-26	15-Apr-26
NTI I Net (T3) @ Bass Dr./Ballard Lane		20	18-Mar-26	15-Apr-26
A2690	NTI - Coordinate w/ Owner - Receive No Conflict Letter	20	18-Mar-26	15-Apr-26
Spectrum (TV1) along S-400		20	18-Mar-26	15-Apr-26
A2700	SPT - Coordinate w/ Owner - Receive No Conflict Letter	20	18-Mar-26	15-Apr-26
Utility Relocation		210	13-Jul-26	30-Apr-27



Remaining Level of Effort | Remaining Work | Milestone
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TASK filter: All Activities

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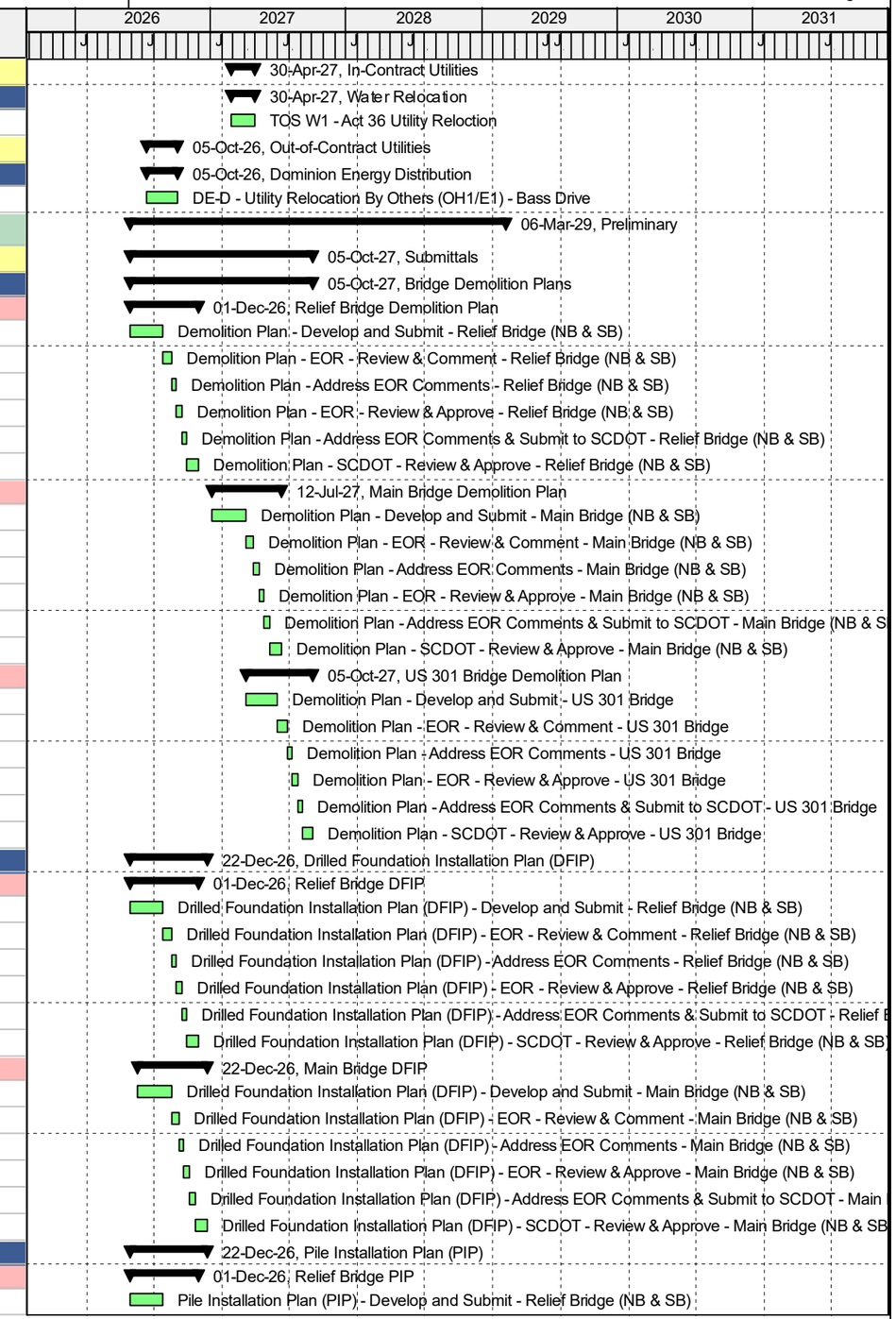
Activity ID	Activity Name	Original Duration	Start	Finish
In-Contract Utilities		40	25-Feb-27	30-Apr-27
Water Relocation		40	25-Feb-27	30-Apr-27
WR10000	TOS W1 - Act 36 Utility Reloction	40	25-Feb-27	30-Apr-27
Out-of-Contract Utilities		60	13-Jul-26	05-Oct-26
Dominion Energy Distribution		60	13-Jul-26	05-Oct-26
A3030	DE-D - Utility Relocation By Others (OH1/E1) - Bass Drive	60	13-Jul-26	05-Oct-26
Preliminary		661	28-May-26	06-Mar-29
Submittals		328	28-May-26	05-Oct-27
Bridge Demolition Plans		328	28-May-26	05-Oct-27
Relief Bridge Demolition Plan		125	28-May-26	01-Dec-26
S1000	Demolition Plan - Develop and Submit - Relief Bridge (NB & SB)	60	28-May-26	25-Aug-26
S1010	Demolition Plan - EOR - Review & Comment - Relief Bridge (NB & SB)	15	25-Aug-26	16-Sep-26
S1020	Demolition Plan - Address EOR Comments - Relief Bridge (NB & SB)	10	16-Sep-26	30-Sep-26
S1030	Demolition Plan - EOR - Review & Approve - Relief Bridge (NB & SB)	10	30-Sep-26	14-Oct-26
S1040	Demolition Plan - Address EOR Comments & Submit to SCDOT - Relief Bridge (NB & SB)	10	14-Oct-26	28-Oct-26
S1050	Demolition Plan - SCDOT - Review & Approve - Relief Bridge (NB & SB)	20	28-Oct-26	01-Dec-26
Main Bridge Demolition Plan		125	06-Jan-27	12-Jul-27
S1060	Demolition Plan - Develop and Submit - Main Bridge (NB & SB)	60	06-Jan-27	06-Apr-27
S1070	Demolition Plan - EOR - Review & Comment - Main Bridge (NB & SB)	15	06-Apr-27	27-Apr-27
S1080	Demolition Plan - Address EOR Comments - Main Bridge (NB & SB)	10	27-Apr-27	11-May-27
S1090	Demolition Plan - EOR - Review & Approve - Main Bridge (NB & SB)	10	11-May-27	25-May-27
S1100	Demolition Plan - Address EOR Comments & Submit to SCDOT - Main Bridge (NB & SB)	10	25-May-27	09-Jun-27
S1110	Demolition Plan - SCDOT - Review & Approve - Main Bridge (NB & SB)	20	09-Jun-27	12-Jul-27
US 301 Bridge Demolition Plan		125	06-Apr-27	05-Oct-27
S1120	Demolition Plan - Develop and Submit - US 301 Bridge	60	06-Apr-27	30-Jun-27
S1130	Demolition Plan - EOR - Review & Comment - US 301 Bridge	15	30-Jun-27	26-Jul-27
S1140	Demolition Plan - Address EOR Comments - US 301 Bridge	10	26-Jul-27	09-Aug-27
S1150	Demolition Plan - EOR - Review & Approve - US 301 Bridge	10	09-Aug-27	23-Aug-27
S1160	Demolition Plan - Address EOR Comments & Submit to SCDOT - US 301 Bridge	10	23-Aug-27	07-Sep-27
S1170	Demolition Plan - SCDOT - Review & Approve - US 301 Bridge	20	07-Sep-27	05-Oct-27
Drilled Foundation Installation Plan (DFIP)		140	28-May-26	22-Dec-26
Relief Bridge DFIP		125	28-May-26	01-Dec-26
S1180	Drilled Foundation Installation Plan (DFIP) - Develop and Submit - Relief Bridge (NB & SB)	60	28-May-26	25-Aug-26
S1190	Drilled Foundation Installation Plan (DFIP) - EOR - Review & Comment - Relief Bridge (NB & SB)	15	25-Aug-26	16-Sep-26
S1200	Drilled Foundation Installation Plan (DFIP) - Address EOR Comments - Relief Bridge (NB & SB)	10	16-Sep-26	30-Sep-26
S1210	Drilled Foundation Installation Plan (DFIP) - EOR - Review & Approve - Relief Bridge (NB & SB)	10	30-Sep-26	14-Oct-26
S1220	Drilled Foundation Installation Plan (DFIP) - Address EOR Comments & Submit to SCDOT - Relief Bridge	10	14-Oct-26	28-Oct-26
S1230	Drilled Foundation Installation Plan (DFIP) - SCDOT - Review & Approve - Relief Bridge (NB & SB)	20	28-Oct-26	01-Dec-26
Main Bridge DFIP		125	18-Jun-26	22-Dec-26
S1240	Drilled Foundation Installation Plan (DFIP) - Develop and Submit - Main Bridge (NB & SB)	60	18-Jun-26	16-Sep-26
S1250	Drilled Foundation Installation Plan (DFIP) - EOR - Review & Comment - Main Bridge (NB & SB)	15	16-Sep-26	07-Oct-26
S1260	Drilled Foundation Installation Plan (DFIP) - Address EOR Comments - Main Bridge (NB & SB)	10	07-Oct-26	21-Oct-26
S1270	Drilled Foundation Installation Plan (DFIP) - EOR - Review & Approve - Main Bridge (NB & SB)	10	21-Oct-26	04-Nov-26
S1280	Drilled Foundation Installation Plan (DFIP) - Address EOR Comments & Submit to SCDOT - Main Bridge	10	04-Nov-26	19-Nov-26
S1290	Drilled Foundation Installation Plan (DFIP) - SCDOT - Review & Approve - Main Bridge (NB & SB)	20	19-Nov-26	22-Dec-26
Pile Installation Plan (PIP)		140	28-May-26	22-Dec-26
Relief Bridge PIP		125	28-May-26	01-Dec-26
S1300	Pile Installation Plan (PIP) - Develop and Submit - Relief Bridge (NB & SB)	60	28-May-26	25-Aug-26



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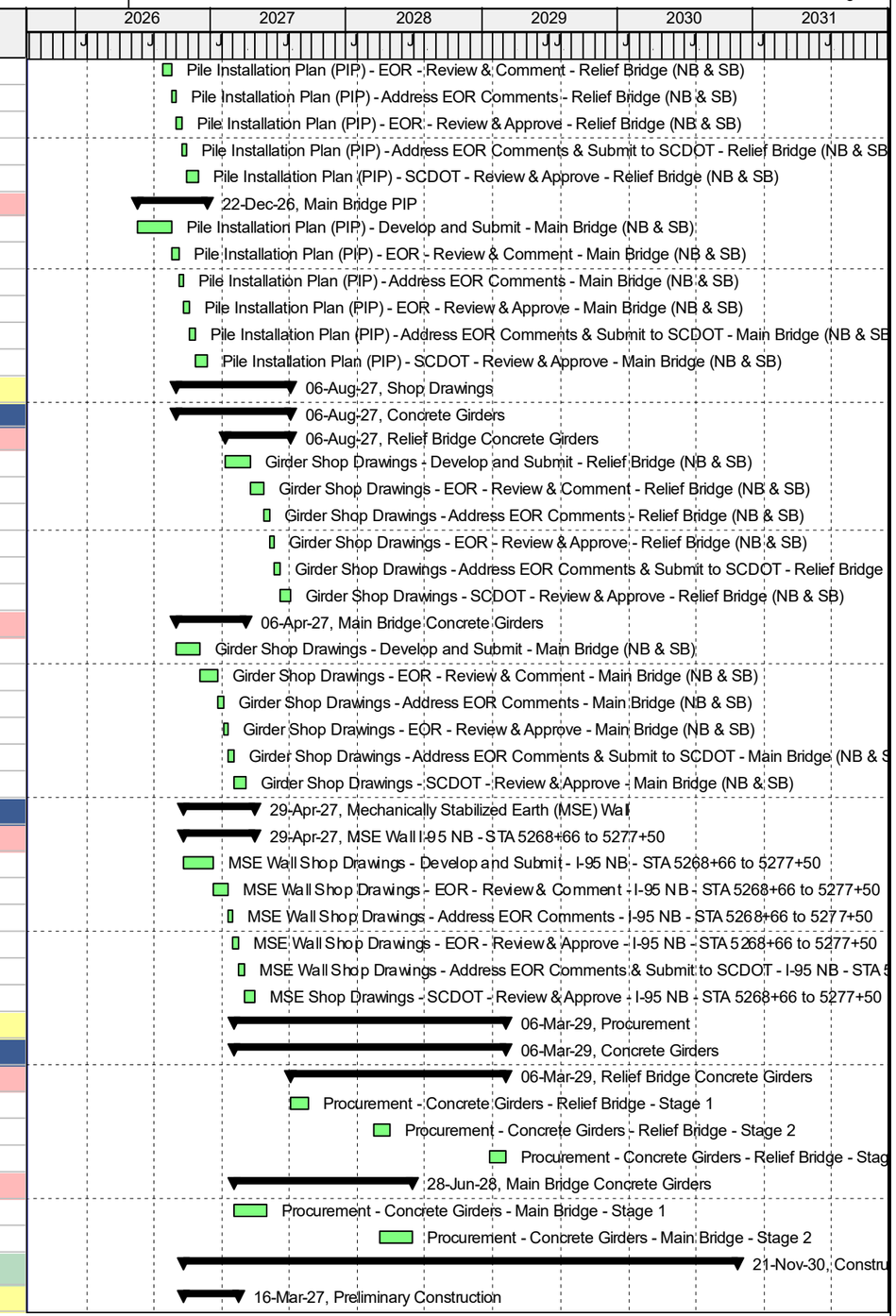
Activity ID	Activity Name	Original Duration	Start	Finish
S1310	Pile Installation Plan (PIP) - EOR - Review & Comment - Relief Bridge (NB & SB)	15	25-Aug-26	16-Sep-26
S1320	Pile Installation Plan (PIP) - Address EOR Comments - Relief Bridge (NB & SB)	10	16-Sep-26	30-Sep-26
S1330	Pile Installation Plan (PIP) - EOR - Review & Approve - Relief Bridge (NB & SB)	10	30-Sep-26	14-Oct-26
S1340	Pile Installation Plan (PIP) - Address EOR Comments & Submit to SCDOT - Relief Bridge (NB & SB)	10	14-Oct-26	28-Oct-26
S1350	Pile Installation Plan (PIP) - SCDOT - Review & Approve - Relief Bridge (NB & SB)	20	28-Oct-26	01-Dec-26
Main Bridge PIP		125	18-Jun-26	22-Dec-26
S1360	Pile Installation Plan (PIP) - Develop and Submit - Main Bridge (NB & SB)	60	18-Jun-26	16-Sep-26
S1370	Pile Installation Plan (PIP) - EOR - Review & Comment - Main Bridge (NB & SB)	15	16-Sep-26	07-Oct-26
S1380	Pile Installation Plan (PIP) - Address EOR Comments - Main Bridge (NB & SB)	10	07-Oct-26	21-Oct-26
S1390	Pile Installation Plan (PIP) - EOR - Review & Approve - Main Bridge (NB & SB)	10	21-Oct-26	04-Nov-26
S1400	Pile Installation Plan (PIP) - Address EOR Comments & Submit to SCDOT - Main Bridge (NB & SB)	10	04-Nov-26	19-Nov-26
S1410	Pile Installation Plan (PIP) - SCDOT - Review & Approve - Main Bridge (NB & SB)	20	19-Nov-26	22-Dec-26
Shop Drawings		204	28-Sep-26	06-Aug-27
Concrete Girders		204	28-Sep-26	06-Aug-27
Relief Bridge Concrete Girders		120	10-Feb-27	06-Aug-27
S1420	Girder Shop Drawings - Develop and Submit - Relief Bridge (NB & SB)	45	10-Feb-27	19-Apr-27
S1430	Girder Shop Drawings - EOR - Review & Comment - Relief Bridge (NB & SB)	25	19-Apr-27	24-May-27
S1440	Girder Shop Drawings - Address EOR Comments - Relief Bridge (NB & SB)	10	24-May-27	08-Jun-27
S1450	Girder Shop Drawings - EOR - Review & Approve - Relief Bridge (NB & SB)	10	08-Jun-27	22-Jun-27
S1460	Girder Shop Drawings - Address EOR Comments & Submit to SCDOT - Relief Bridge (NB & SB)	10	22-Jun-27	09-Jul-27
S1470	Girder Shop Drawings - SCDOT - Review & Approve - Relief Bridge (NB & SB)	20	09-Jul-27	06-Aug-27
Main Bridge Concrete Girders		120	28-Sep-26	06-Apr-27
S1480	Girder Shop Drawings - Develop and Submit - Main Bridge (NB & SB)	45	28-Sep-26	04-Dec-26
S1490	Girder Shop Drawings - EOR - Review & Comment - Main Bridge (NB & SB)	25	04-Dec-26	21-Jan-27
S1500	Girder Shop Drawings - Address EOR Comments - Main Bridge (NB & SB)	10	21-Jan-27	04-Feb-27
S1510	Girder Shop Drawings - EOR - Review & Approve - Main Bridge (NB & SB)	10	04-Feb-27	19-Feb-27
S1520	Girder Shop Drawings - Address EOR Comments & Submit to SCDOT - Main Bridge (NB & SB)	10	19-Feb-27	05-Mar-27
S1530	Girder Shop Drawings - SCDOT - Review & Approve - Main Bridge (NB & SB)	20	05-Mar-27	06-Apr-27
Mechanically Stabilized Earth (MSE) Wall		120	21-Oct-26	29-Apr-27
MSE Wall I-95 NB - STA 5268+66 to 5277+50		120	21-Oct-26	29-Apr-27
S1540	MSE Wall Shop Drawings - Develop and Submit - I-95 NB - STA 5268+66 to 5277+50	45	21-Oct-26	08-Jan-27
S1550	MSE Wall Shop Drawings - EOR - Review & Comment - I-95 NB - STA 5268+66 to 5277+50	25	08-Jan-27	16-Feb-27
S1560	MSE Wall Shop Drawings - Address EOR Comments - I-95 NB - STA 5268+66 to 5277+50	10	16-Feb-27	02-Mar-27
S1570	MSE Wall Shop Drawings - EOR - Review & Approve - I-95 NB - STA 5268+66 to 5277+50	10	02-Mar-27	16-Mar-27
S1580	MSE Wall Shop Drawings - Address EOR Comments & Submit to SCDOT - I-95 NB - STA 5268+66 to 52	10	16-Mar-27	01-Apr-27
S1590	MSE Shop Drawings - SCDOT - Review & Approve - I-95 NB - STA 5268+66 to 5277+50	20	01-Apr-27	29-Apr-27
Procurement		478	05-Mar-27	06-Mar-29
Concrete Girders		478	05-Mar-27	06-Mar-29
Relief Bridge Concrete Girders		374	06-Aug-27	06-Mar-29
S1600	Procurement - Concrete Girders - Relief Bridge - Stage 1	30	06-Aug-27	20-Sep-27
S1610	Procurement - Concrete Girders - Relief Bridge - Stage 2	30	14-Mar-28	27-Apr-28
S1620	Procurement - Concrete Girders - Relief Bridge - Stage 3	30	23-Jan-29	06-Mar-29
Main Bridge Concrete Girders		318	05-Mar-27	28-Jun-28
S1630	Procurement - Concrete Girders - Main Bridge - Stage 1	60	05-Mar-27	02-Jun-27
S1640	Procurement - Concrete Girders - Main Bridge - Stage 2	60	31-Mar-28	28-Jun-28
Construction		1066	21-Oct-26	21-Nov-30
Preliminary Construction		80	21-Oct-26	16-Mar-27



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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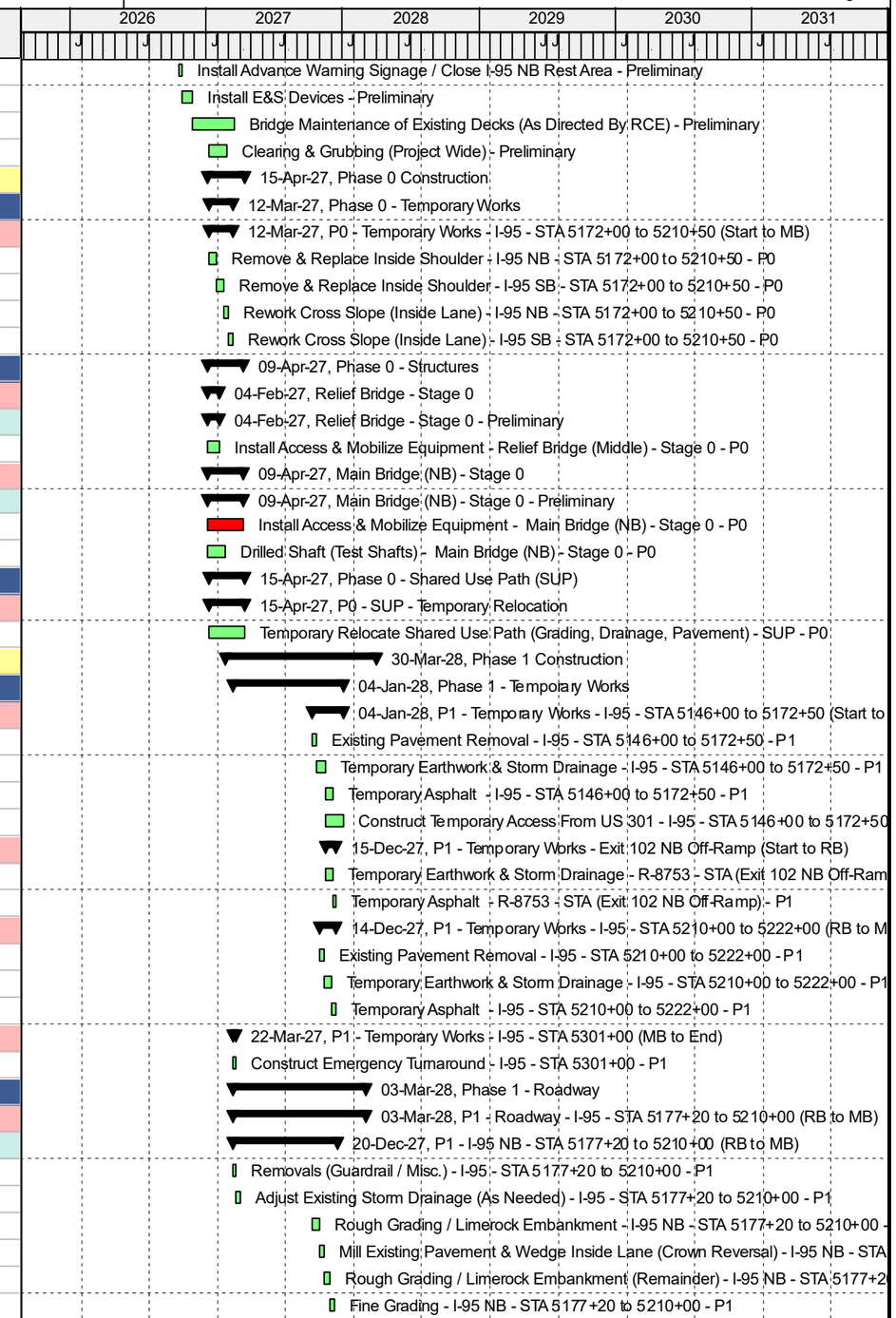
Activity ID	Activity Name	Original Duration	Start	Finish
PC10000	Install Advance Warning Signage / Close I-95 NB Rest Area - Preliminary	5	21-Oct-26	29-Oct-26
PC10010	Install E&S Devices - Preliminary	15	29-Oct-26	24-Nov-26
PC10030	Bridge Maintenance of Existing Decks (As Directed By RCE) - Preliminary	60	24-Nov-26	16-Mar-27
PC10020	Clearing & Grubbing (Project Wide) - Preliminary	30	07-Jan-27	25-Feb-27
Phase 0 Construction		74	04-Jan-27	15-Apr-27
Phase 0 - Temporary Works		40	07-Jan-27	12-Mar-27
P0 - Temporary Works - I-95 - STA 5172+00 to 5210+50 (Start to MB)		40	07-Jan-27	12-Mar-27
C00000	Remove & Replace Inside Shoulder - I-95 NB - STA 5172+00 to 5210+50 - P0	12	07-Jan-27	27-Jan-27
C00010	Remove & Replace Inside Shoulder - I-95 SB - STA 5172+00 to 5210+50 - P0	12	27-Jan-27	16-Feb-27
C00020	Rework Cross Slope (Inside Lane) - I-95 NB - STA 5172+00 to 5210+50 - P0	8	16-Feb-27	01-Mar-27
C00030	Rework Cross Slope (Inside Lane) - I-95 SB - STA 5172+00 to 5210+50 - P0	8	01-Mar-27	12-Mar-27
Phase 0 - Structures		60	04-Jan-27	09-Apr-27
Relief Bridge - Stage 0		20	04-Jan-27	04-Feb-27
Relief Bridge - Stage 0 - Preliminary		20	04-Jan-27	04-Feb-27
RBP10000	Install Access & Mobilize Equipment - Relief Bridge (Middle) - Stage 0 - P0	20	04-Jan-27	04-Feb-27
Main Bridge (NB) - Stage 0		60	04-Jan-27	09-Apr-27
Main Bridge (NB) - Stage 0 - Preliminary		60	04-Jan-27	09-Apr-27
MBP10000	Install Access & Mobilize Equipment - Main Bridge (NB) - Stage 0 - P0	60	04-Jan-27	09-Apr-27
MBP10005	Drilled Shaft (Test Shafts) - Main Bridge (NB) - Stage 0 - P0	30	04-Jan-27	22-Feb-27
Phase 0 - Shared Use Path (SUP)		60	07-Jan-27	15-Apr-27
P0 - SUP - Temporary Relocation		60	07-Jan-27	15-Apr-27
C10490	Temporary Relocate Shared Use Path (Grading, Drainage, Pavement) - SUP - P0	60	07-Jan-27	15-Apr-27
Phase 1 Construction		288	23-Feb-27	30-Mar-28
Phase 1 - Temporary Works		174	12-Mar-27	04-Jan-28
P1 - Temporary Works - I-95 - STA 5146+00 to 5172+50 (Start to RB)		42	12-Oct-27	04-Jan-28
C10000	Existing Pavement Removal - I-95 - STA 5146+00 to 5172+50 - P1	7	12-Oct-27	22-Oct-27
C10010	Temporary Earthwork & Storm Drainage - I-95 - STA 5146+00 to 5172+50 - P1	15	22-Oct-27	18-Nov-27
C10020	Temporary Asphalt - I-95 - STA 5146+00 to 5172+50 - P1	10	18-Nov-27	07-Dec-27
C50080	Construct Temporary Access From US 301 - I-95 - STA 5146+00 to 5172+50 - P1	20	18-Nov-27	04-Jan-28
P1 - Temporary Works - Exit 102 NB Off-Ramp (Start to RB)		15	18-Nov-27	15-Dec-27
C10030	Temporary Earthwork & Storm Drainage - R-8753 - STA (Exit 102 NB Off-Ramp) - P1	10	18-Nov-27	07-Dec-27
C10040	Temporary Asphalt - R-8753 - STA (Exit 102 NB Off-Ramp) - P1	5	07-Dec-27	15-Dec-27
P1 - Temporary Works - I-95 - STA 5210+00 to 5222+00 (RB to MB)		24	01-Nov-27	14-Dec-27
C10050	Existing Pavement Removal - I-95 - STA 5210+00 to 5222+00 - P1	7	01-Nov-27	12-Nov-27
C10060	Temporary Earthwork & Storm Drainage - I-95 - STA 5210+00 to 5222+00 - P1	10	12-Nov-27	02-Dec-27
C10070	Temporary Asphalt - I-95 - STA 5210+00 to 5222+00 - P1	7	02-Dec-27	14-Dec-27
P1 - Temporary Works - I-95 - STA 5301+00 (MB to End)		5	12-Mar-27	22-Mar-27
C10080	Construct Emergency Turnaround - I-95 - STA 5301+00 - P1	5	12-Mar-27	22-Mar-27
Phase 1 - Roadway		211	12-Mar-27	03-Mar-28
P1 - Roadway - I-95 - STA 5177+20 to 5210+00 (RB to MB)		211	12-Mar-27	03-Mar-28
P1 - I-95 NB - STA 5177+20 to 5210+00 (RB to MB)		172	12-Mar-27	20-Dec-27
C10090	Removals (Guardrail / Misc.) - I-95 - STA 5177+20 to 5210+00 - P1	5	12-Mar-27	22-Mar-27
C10100	Adjust Existing Storm Drainage (As Needed) - I-95 - STA 5177+20 to 5210+00 - P1	6	22-Mar-27	01-Apr-27
C10120	Rough Grading / Limerock Embankment - I-95 NB - STA 5177+20 to 5210+00 - P1	12	12-Oct-27	01-Nov-27
C10130	Mill Existing Pavement & Wedge Inside Lane (Crown Reversal) - I-95 NB - STA 5177+20 to 5210+00 - P1	7	01-Nov-27	12-Nov-27
C10140	Rough Grading / Limerock Embankment (Remainder) - I-95 NB - STA 5177+20 to 5210+00 - P1	8	12-Nov-27	30-Nov-27
C10150	Fine Grading - I-95 NB - STA 5177+20 to 5210+00 - P1	7	30-Nov-27	10-Dec-27



Remaining Level of Effort | Remaining Work | Milestone
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TASK filter: All Activities

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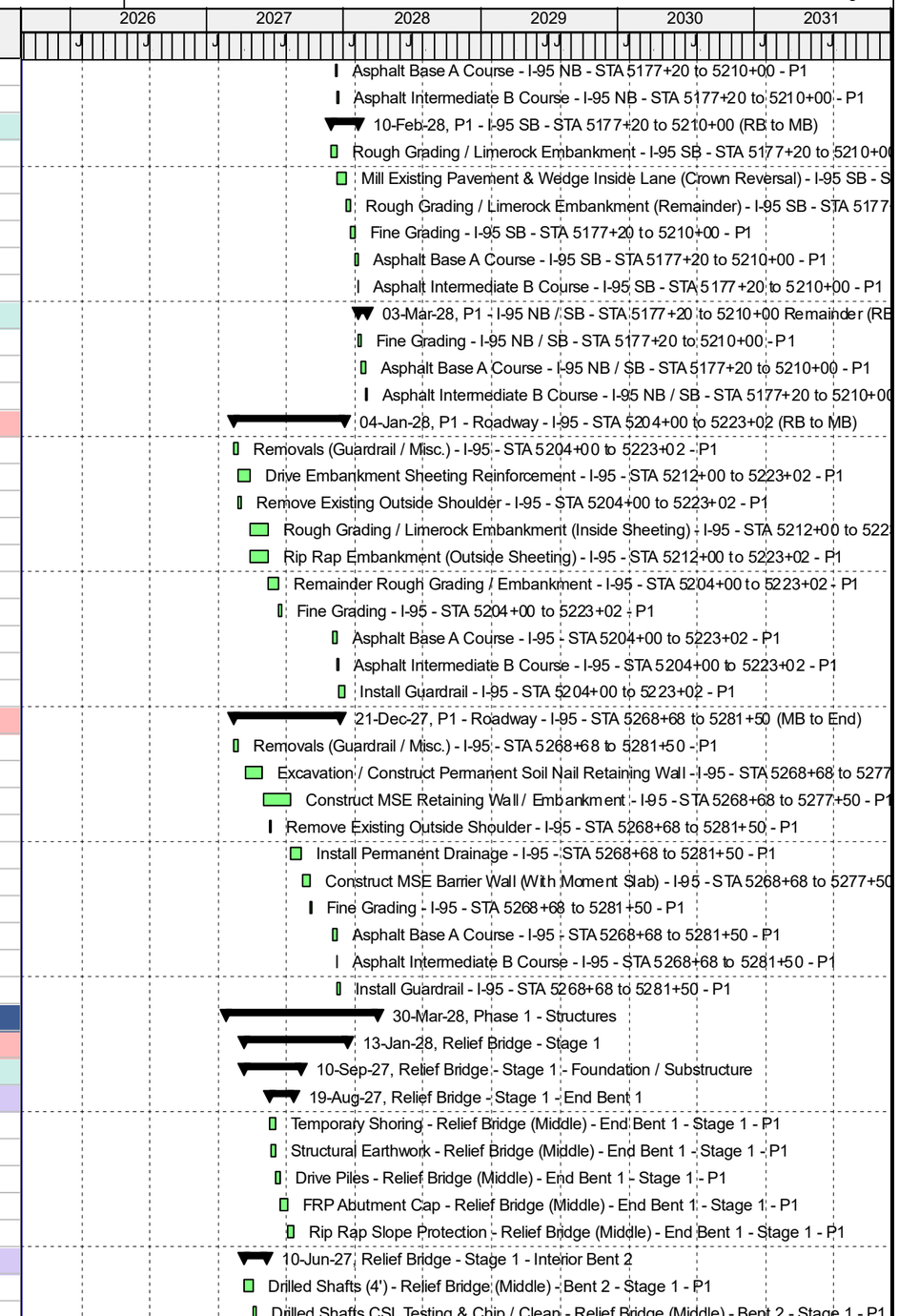
Activity ID	Activity Name	Original Duration	Start	Finish
C10160	Asphalt Base A Course - I-95 NB - STA 5177+20 to 5210+00 - P1	4	10-Dec-27	16-Dec-27
C10170	Asphalt Intermediate B Course - I-95 NB - STA 5177+20 to 5210+00 - P1	2	16-Dec-27	20-Dec-27
P1 - I-95 SB - STA 5177+20 to 5210+00 (RB to MB)		38	30-Nov-27	10-Feb-28
C10190	Rough Grading / Limerock Embankment - I-95 SB - STA 5177+20 to 5210+00 - P1	10	30-Nov-27	15-Dec-27
C10200	Mill Existing Pavement & Wedge Inside Lane (Crown Reversal) - I-95 SB - STA 5177+20 to 5210+00 - P1	7	15-Dec-27	07-Jan-28
C10210	Rough Grading / Limerock Embankment (Remainder) - I-95 SB - STA 5177+20 to 5210+00 - P1	8	07-Jan-28	21-Jan-28
C10220	Fine Grading - I-95 SB - STA 5177+20 to 5210+00 - P1	7	21-Jan-28	01-Feb-28
C10230	Asphalt Base A Course - I-95 SB - STA 5177+20 to 5210+00 - P1	4	01-Feb-28	08-Feb-28
C10240	Asphalt Intermediate B Course - I-95 SB - STA 5177+20 to 5210+00 - P1	2	08-Feb-28	10-Feb-28
P1 - I-95 NB / SB - STA 5177+20 to 5210+00 Remainder (RB to MB)		14	10-Feb-28	03-Mar-28
C10260	Fine Grading - I-95 NB / SB - STA 5177+20 to 5210+00 - P1	5	10-Feb-28	18-Feb-28
C10270	Asphalt Base A Course - I-95 NB / SB - STA 5177+20 to 5210+00 - P1	6	18-Feb-28	29-Feb-28
C10280	Asphalt Intermediate B Course - I-95 NB / SB - STA 5177+20 to 5210+00 - P1	3	29-Feb-28	03-Mar-28
P1 - Roadway - I-95 - STA 5204+00 to 5223+02 (RB to MB)		174	12-Mar-27	04-Jan-28
C10290	Removals (Guardrail / Misc.) - I-95 - STA 5204+00 to 5223+02 - P1	7	12-Mar-27	24-Mar-27
C10310	Drive Embankment Sheeting Reinforcement - I-95 - STA 5212+00 to 5223+02 - P1	20	24-Mar-27	27-Apr-27
C10300	Remove Existing Outside Shoulder - I-95 - STA 5204+00 to 5223+02 - P1	5	24-Mar-27	02-Apr-27
C10320	Rough Grading / Limerock Embankment (Inside Sheeting) - I-95 - STA 5212+00 to 5223+02 - P1	30	27-Apr-27	14-Jun-27
C10330	Rip Rap Embankment (Outside Sheeting) - I-95 - STA 5212+00 to 5223+02 - P1	30	27-Apr-27	14-Jun-27
C10340	Remainder Rough Grading / Embankment - I-95 - STA 5204+00 to 5223+02 - P1	15	14-Jun-27	12-Jul-27
C10350	Fine Grading - I-95 - STA 5204+00 to 5223+02 - P1	5	12-Jul-27	19-Jul-27
C10360	Asphalt Base A Course - I-95 - STA 5204+00 to 5223+02 - P1	6	03-Dec-27	14-Dec-27
C10370	Asphalt Intermediate B Course - I-95 - STA 5204+00 to 5223+02 - P1	3	14-Dec-27	17-Dec-27
C10380	Install Guardrail - I-95 - STA 5204+00 to 5223+02 - P1	3	17-Dec-27	04-Jan-28
P1 - Roadway - I-95 - STA 5268+68 to 5281+50 (MB to End)		173	12-Mar-27	21-Dec-27
C10390	Removals (Guardrail / Misc.) - I-95 - STA 5268+68 to 5281+50 - P1	7	12-Mar-27	24-Mar-27
C10400	Excavation / Construct Permanent Soil Nail Retaining Wall - I-95 - STA 5268+68 to 5277+50 - P1	30	14-Apr-27	28-May-27
C10410	Construct MSE Retaining Wall / Embankment - I-95 - STA 5268+68 to 5277+50 - P1	45	01-Jun-27	12-Aug-27
C10420	Remove Existing Outside Shoulder - I-95 - STA 5268+68 to 5281+50 - P1	5	17-Jun-27	23-Jun-27
C10430	Install Permanent Drainage - I-95 - STA 5268+68 to 5281+50 - P1	18	13-Aug-27	10-Sep-27
C10440	Construct MSE Barrier Wall (With Moment Slab) - I-95 - STA 5268+68 to 5277+50 - P1	15	13-Sep-27	04-Oct-27
C10450	Fine Grading - I-95 - STA 5268+68 to 5281+50 - P1	4	05-Oct-27	08-Oct-27
C10460	Asphalt Base A Course - I-95 - STA 5268+68 to 5281+50 - P1	5	03-Dec-27	13-Dec-27
C10470	Asphalt Intermediate B Course - I-95 - STA 5268+68 to 5281+50 - P1	2	13-Dec-27	15-Dec-27
C10480	Install Guardrail - I-95 - STA 5268+68 to 5281+50 - P1	4	15-Dec-27	21-Dec-27
Phase 1 - Structures		288	23-Feb-27	30-Mar-28
Relief Bridge - Stage 1		199	09-Apr-27	13-Jan-28
Relief Bridge - Stage 1 - Foundation / Substructure		110	09-Apr-27	10-Sep-27
Relief Bridge - Stage 1 - End Bent 1		39	18-Jun-27	19-Aug-27
RB10000	Temporary Shoring - Relief Bridge (Middle) - End Bent 1 - Stage 1 - P1	10	18-Jun-27	02-Jul-27
RB10010	Structural Earthwork - Relief Bridge (Middle) - End Bent 1 - Stage 1 - P1	7	23-Jun-27	02-Jul-27
RB10020	Drive Piles - Relief Bridge (Middle) - End Bent 1 - Stage 1 - P1	7	02-Jul-27	15-Jul-27
RB10030	FRP Abutment Cap - Relief Bridge (Middle) - End Bent 1 - Stage 1 - P1	12	15-Jul-27	03-Aug-27
RB10040	Rip Rap Slope Protection - Relief Bridge (Middle) - End Bent 1 - Stage 1 - P1	10	03-Aug-27	19-Aug-27
Relief Bridge - Stage 1 - Interior Bent 2		44	09-Apr-27	10-Jun-27
RB10050	Drilled Shafts (4') - Relief Bridge (Middle) - Bent 2 - Stage 1 - P1	15	09-Apr-27	03-May-27
RB10060	Drilled Shafts CSL Testing & Chip / Clean - Relief Bridge (Middle) - Bent 2 - Stage 1 - P1	5	03-May-27	11-May-27



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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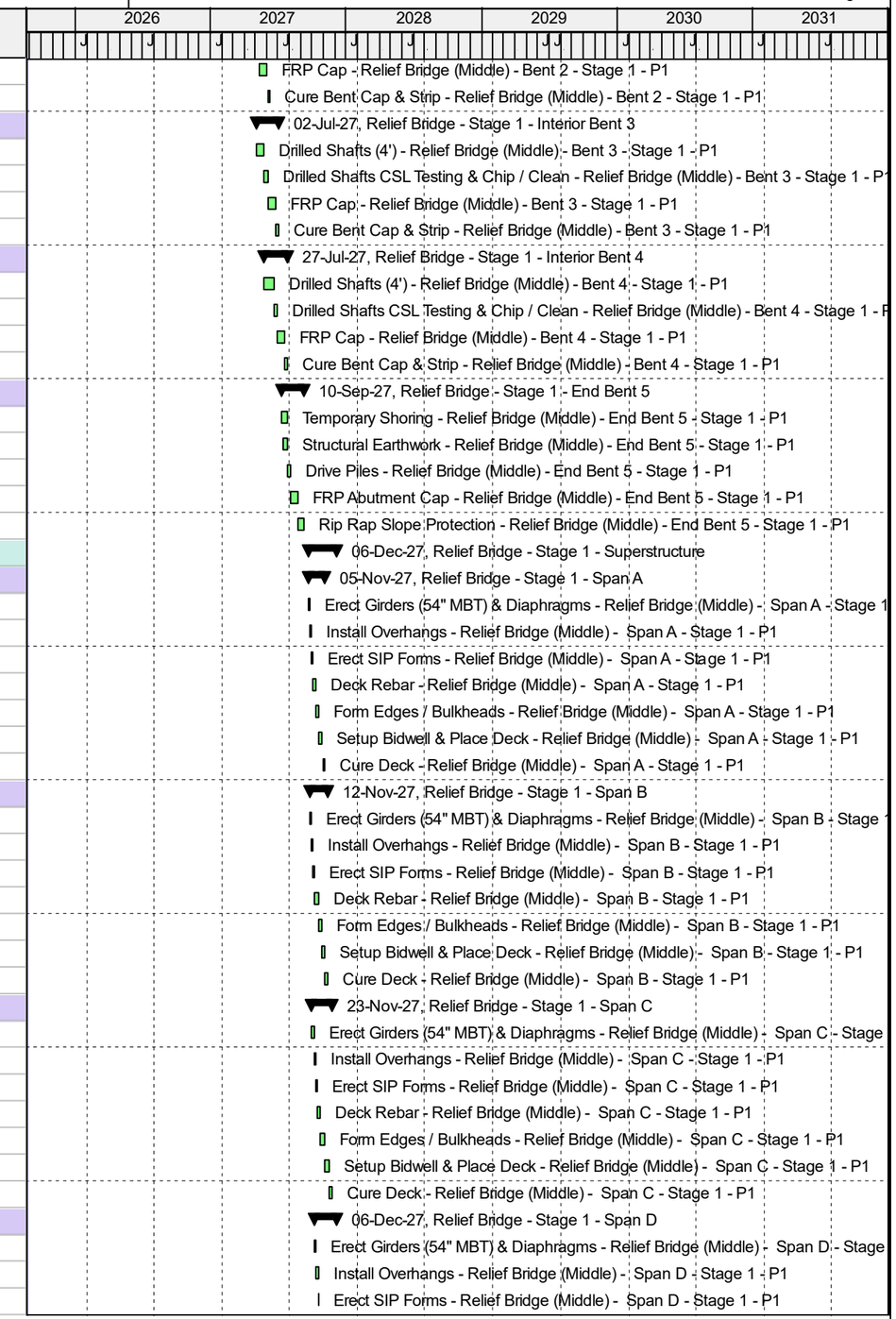
Activity ID	Activity Name	Original Duration	Start	Finish
RB10080	FRP Cap - Relief Bridge (Middle) - Bent 2 - Stage 1 - P1	14	11-May-27	03-Jun-27
RB10090	Cure Bent Cap & Strip - Relief Bridge (Middle) - Bent 2 - Stage 1 - P1	7	04-Jun-27	10-Jun-27
Relief Bridge - Stage 1 - Interior Bent 3		44	03-May-27	02-Jul-27
RB10100	Drilled Shafts (4') - Relief Bridge (Middle) - Bent 3 - Stage 1 - P1	15	03-May-27	26-May-27
RB10110	Drilled Shafts CSL Testing & Chip / Clean - Relief Bridge (Middle) - Bent 3 - Stage 1 - P1	5	26-May-27	04-Jun-27
RB10130	FRP Cap - Relief Bridge (Middle) - Bent 3 - Stage 1 - P1	14	04-Jun-27	25-Jun-27
RB10140	Cure Bent Cap & Strip - Relief Bridge (Middle) - Bent 3 - Stage 1 - P1	7	26-Jun-27	02-Jul-27
Relief Bridge - Stage 1 - Interior Bent 4		44	26-May-27	27-Jul-27
RB10150	Drilled Shafts (4') - Relief Bridge (Middle) - Bent 4 - Stage 1 - P1	15	26-May-27	21-Jun-27
RB10160	Drilled Shafts CSL Testing & Chip / Clean - Relief Bridge (Middle) - Bent 4 - Stage 1 - P1	5	21-Jun-27	28-Jun-27
RB10180	FRP Cap - Relief Bridge (Middle) - Bent 4 - Stage 1 - P1	14	28-Jun-27	20-Jul-27
RB10190	Cure Bent Cap & Strip - Relief Bridge (Middle) - Bent 4 - Stage 1 - P1	7	21-Jul-27	27-Jul-27
Relief Bridge - Stage 1 - End Bent 5		39	12-Jul-27	10-Sep-27
RB10200	Temporary Shoring - Relief Bridge (Middle) - End Bent 5 - Stage 1 - P1	10	12-Jul-27	27-Jul-27
RB10210	Structural Earthwork - Relief Bridge (Middle) - End Bent 5 - Stage 1 - P1	7	15-Jul-27	27-Jul-27
RB10220	Drive Piles - Relief Bridge (Middle) - End Bent 5 - Stage 1 - P1	7	27-Jul-27	06-Aug-27
RB10230	FRP Abutment Cap - Relief Bridge (Middle) - End Bent 5 - Stage 1 - P1	12	06-Aug-27	25-Aug-27
RB10240	Rip Rap Slope Protection - Relief Bridge (Middle) - End Bent 5 - Stage 1 - P1	10	25-Aug-27	10-Sep-27
Relief Bridge - Stage 1 - Superstructure		55	20-Sep-27	06-Dec-27
Relief Bridge - Stage 1 - Span A		34	20-Sep-27	05-Nov-27
RB10250	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (Middle) - Span A - Stage 1 - P1	4	20-Sep-27	24-Sep-27
RB10260	Install Overhangs - Relief Bridge (Middle) - Span A - Stage 1 - P1	3	24-Sep-27	29-Sep-27
RB10270	Erect SIP Forms - Relief Bridge (Middle) - Span A - Stage 1 - P1	3	29-Sep-27	04-Oct-27
RB10280	Deck Rebar - Relief Bridge (Middle) - Span A - Stage 1 - P1	6	04-Oct-27	12-Oct-27
RB10290	Form Edges / Bulkheads - Relief Bridge (Middle) - Span A - Stage 1 - P1	6	12-Oct-27	21-Oct-27
RB10300	Setup Bidwell & Place Deck - Relief Bridge (Middle) - Span A - Stage 1 - P1	5	21-Oct-27	29-Oct-27
RB10310	Cure Deck - Relief Bridge (Middle) - Span A - Stage 1 - P1	7	30-Oct-27	05-Nov-27
Relief Bridge - Stage 1 - Span B		35	24-Sep-27	12-Nov-27
RB10320	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (Middle) - Span B - Stage 1 - P1	4	24-Sep-27	30-Sep-27
RB10330	Install Overhangs - Relief Bridge (Middle) - Span B - Stage 1 - P1	3	30-Sep-27	05-Oct-27
RB10340	Erect SIP Forms - Relief Bridge (Middle) - Span B - Stage 1 - P1	3	05-Oct-27	08-Oct-27
RB10350	Deck Rebar - Relief Bridge (Middle) - Span B - Stage 1 - P1	6	08-Oct-27	19-Oct-27
RB10360	Form Edges / Bulkheads - Relief Bridge (Middle) - Span B - Stage 1 - P1	6	19-Oct-27	28-Oct-27
RB10370	Setup Bidwell & Place Deck - Relief Bridge (Middle) - Span B - Stage 1 - P1	5	29-Oct-27	05-Nov-27
RB10380	Cure Deck - Relief Bridge (Middle) - Span B - Stage 1 - P1	7	06-Nov-27	12-Nov-27
Relief Bridge - Stage 1 - Span C		38	30-Sep-27	23-Nov-27
RB10390	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (Middle) - Span C - Stage 1 - P1	4	30-Sep-27	06-Oct-27
RB10400	Install Overhangs - Relief Bridge (Middle) - Span C - Stage 1 - P1	3	06-Oct-27	11-Oct-27
RB10410	Erect SIP Forms - Relief Bridge (Middle) - Span C - Stage 1 - P1	3	11-Oct-27	15-Oct-27
RB10420	Deck Rebar - Relief Bridge (Middle) - Span C - Stage 1 - P1	6	15-Oct-27	25-Oct-27
RB10430	Form Edges / Bulkheads - Relief Bridge (Middle) - Span C - Stage 1 - P1	6	25-Oct-27	03-Nov-27
RB10440	Setup Bidwell & Place Deck - Relief Bridge (Middle) - Span C - Stage 1 - P1	5	05-Nov-27	16-Nov-27
RB10450	Cure Deck - Relief Bridge (Middle) - Span C - Stage 1 - P1	7	17-Nov-27	23-Nov-27
Relief Bridge - Stage 1 - Span D		43	06-Oct-27	06-Dec-27
RB10460	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (Middle) - Span D - Stage 1 - P1	4	06-Oct-27	12-Oct-27
RB10470	Install Overhangs - Relief Bridge (Middle) - Span D - Stage 1 - P1	3	12-Oct-27	18-Oct-27
RB10480	Erect SIP Forms - Relief Bridge (Middle) - Span D - Stage 1 - P1	3	18-Oct-27	21-Oct-27



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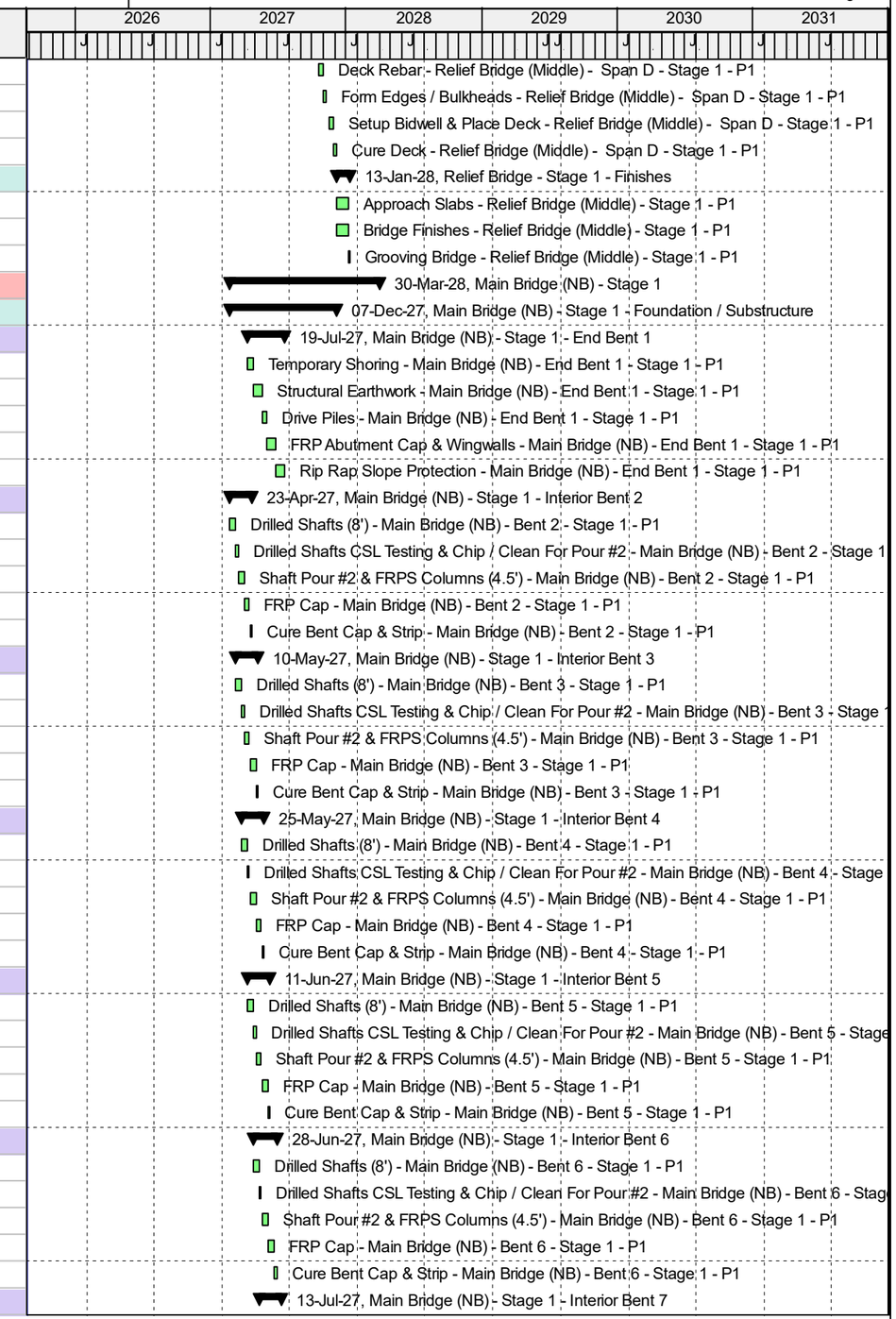
Activity ID	Activity Name	Original Duration	Start	Finish
RB10490	Deck Rebar - Relief Bridge (Middle) - Span D - Stage 1 - P1	6	21-Oct-27	01-Nov-27
RB10500	Form Edges / Bulkheads - Relief Bridge (Middle) - Span D - Stage 1 - P1	6	01-Nov-27	09-Nov-27
RB10510	Setup Bidwell & Place Deck - Relief Bridge (Middle) - Span D - Stage 1 - P1	5	16-Nov-27	29-Nov-27
RB10520	Cure Deck - Relief Bridge (Middle) - Span D - Stage 1 - P1	7	30-Nov-27	06-Dec-27
Relief Bridge - Stage 1 - Finishes		17	06-Dec-27	13-Jan-28
RBF10000	Approach Slabs - Relief Bridge (Middle) - Stage 1 - P1	12	06-Dec-27	06-Jan-28
RBF10010	Bridge Finishes - Relief Bridge (Middle) - Stage 1 - P1	12	06-Dec-27	06-Jan-28
RBF10020	Grooving Bridge - Relief Bridge (Middle) - Stage 1 - P1	5	06-Jan-28	13-Jan-28
Main Bridge (NB) - Stage 1		288	23-Feb-27	30-Mar-28
Main Bridge (NB) - Stage 1 - Foundation / Substructure		206	23-Feb-27	07-Dec-27
Main Bridge (NB) - Stage 1 - End Bent 1		63	12-Apr-27	19-Jul-27
MB10000	Temporary Shoring - Main Bridge (NB) - End Bent 1 - Stage 1 - P1	10	12-Apr-27	26-Apr-27
MB10010	Structural Earthwork - Main Bridge (NB) - End Bent 1 - Stage 1 - P1	15	27-Apr-27	20-May-27
MB10020	Drive Piles - Main Bridge (NB) - End Bent 1 - Stage 1 - P1	7	20-May-27	01-Jun-27
MB10030	FRP Abutment Cap & Wingwalls - Main Bridge (NB) - End Bent 1 - Stage 1 - P1	15	01-Jun-27	24-Jun-27
MB10040	Rip Rap Slope Protection - Main Bridge (NB) - End Bent 1 - Stage 1 - P1	15	24-Jun-27	19-Jul-27
Main Bridge (NB) - Stage 1 - Interior Bent 2		44	23-Feb-27	23-Apr-27
MB10050	Drilled Shafts (8') - Main Bridge (NB) - Bent 2 - Stage 1 - P1	10	23-Feb-27	09-Mar-27
MB10060	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 2 - Stage 1 - P1	5	10-Mar-27	16-Mar-27
MB10070	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 2 - Stage 1 - P1	10	18-Mar-27	01-Apr-27
MB10080	FRP Cap - Main Bridge (NB) - Bent 2 - Stage 1 - P1	10	02-Apr-27	16-Apr-27
MB10090	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 2 - Stage 1 - P1	7	17-Apr-27	23-Apr-27
Main Bridge (NB) - Stage 1 - Interior Bent 3		44	10-Mar-27	10-May-27
MB10100	Drilled Shafts (8') - Main Bridge (NB) - Bent 3 - Stage 1 - P1	10	10-Mar-27	24-Mar-27
MB10110	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 3 - Stage 1 - P1	5	25-Mar-27	01-Apr-27
MB10120	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 3 - Stage 1 - P1	10	02-Apr-27	16-Apr-27
MB10130	FRP Cap - Main Bridge (NB) - Bent 3 - Stage 1 - P1	10	19-Apr-27	03-May-27
MB10140	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 3 - Stage 1 - P1	7	04-May-27	10-May-27
Main Bridge (NB) - Stage 1 - Interior Bent 4		44	25-Mar-27	25-May-27
MB10150	Drilled Shafts (8') - Main Bridge (NB) - Bent 4 - Stage 1 - P1	10	25-Mar-27	09-Apr-27
MB10160	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 4 - Stage 1 - P1	5	12-Apr-27	16-Apr-27
MB10170	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 4 - Stage 1 - P1	10	19-Apr-27	03-May-27
MB10180	FRP Cap - Main Bridge (NB) - Bent 4 - Stage 1 - P1	10	04-May-27	18-May-27
MB10190	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 4 - Stage 1 - P1	7	19-May-27	25-May-27
Main Bridge (NB) - Stage 1 - Interior Bent 5		45	12-Apr-27	11-Jun-27
MB10200	Drilled Shafts (8') - Main Bridge (NB) - Bent 5 - Stage 1 - P1	10	12-Apr-27	26-Apr-27
MB10210	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 5 - Stage 1 - P1	5	27-Apr-27	03-May-27
MB10220	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 5 - Stage 1 - P1	10	04-May-27	18-May-27
MB10230	FRP Cap - Main Bridge (NB) - Bent 5 - Stage 1 - P1	10	20-May-27	04-Jun-27
MB10240	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 5 - Stage 1 - P1	7	05-Jun-27	11-Jun-27
Main Bridge (NB) - Stage 1 - Interior Bent 6		45	27-Apr-27	28-Jun-27
MB10250	Drilled Shafts (8') - Main Bridge (NB) - Bent 6 - Stage 1 - P1	10	27-Apr-27	11-May-27
MB10260	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 6 - Stage 1 - P1	5	12-May-27	18-May-27
MB10270	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 6 - Stage 1 - P1	10	20-May-27	04-Jun-27
MB10280	FRP Cap - Main Bridge (NB) - Bent 6 - Stage 1 - P1	10	07-Jun-27	21-Jun-27
MB10290	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 6 - Stage 1 - P1	7	22-Jun-27	28-Jun-27
Main Bridge (NB) - Stage 1 - Interior Bent 7		45	12-May-27	13-Jul-27



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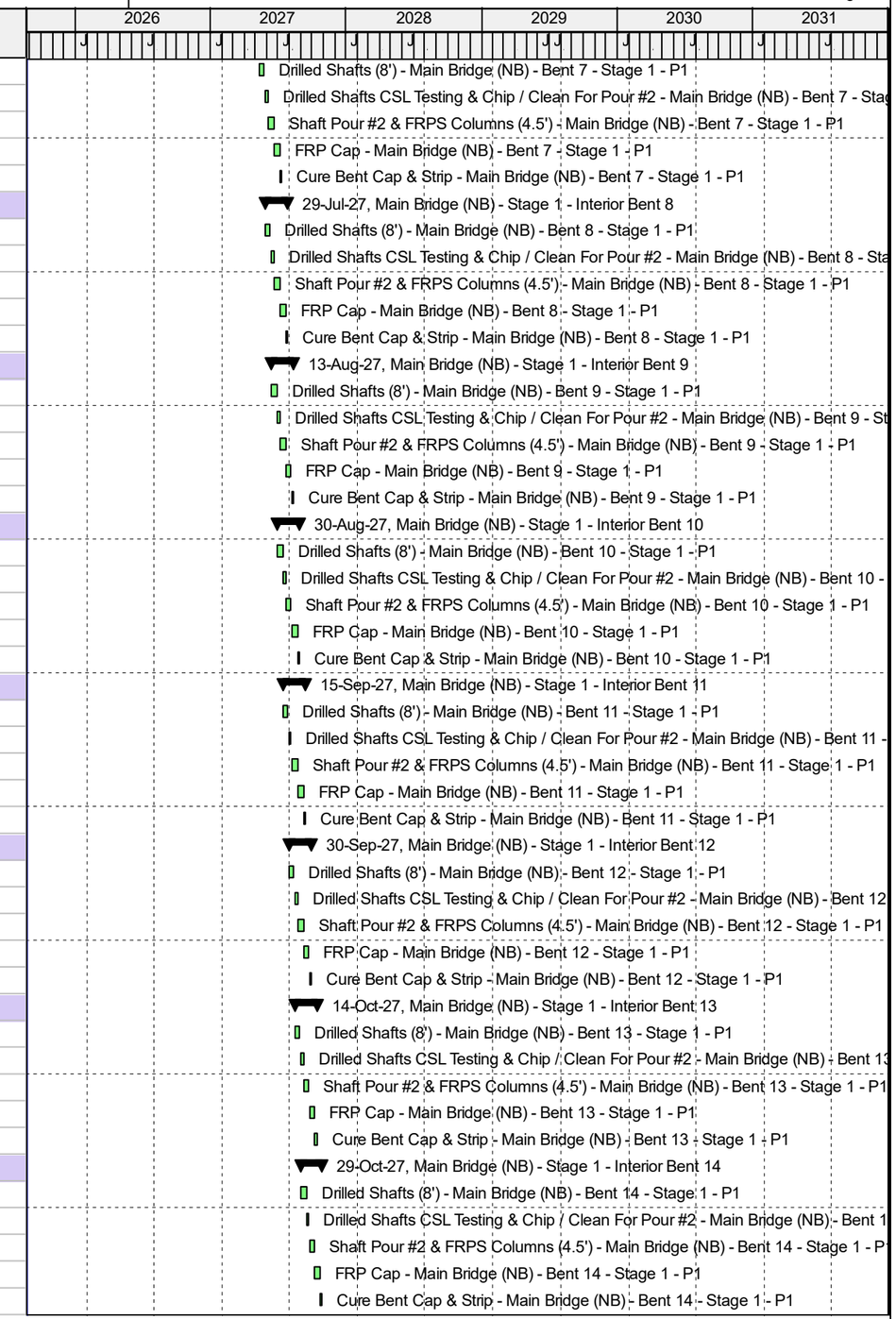
Activity ID	Activity Name	Original Duration	Start	Finish
MB10300	Drilled Shafts (8') - Main Bridge (NB) - Bent 7 - Stage 1 - P1	10	12-May-27	26-May-27
MB10310	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 7 - Stage 1 - P1	5	27-May-27	04-Jun-27
MB10320	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 7 - Stage 1 - P1	10	07-Jun-27	21-Jun-27
MB10330	FRP Cap - Main Bridge (NB) - Bent 7 - Stage 1 - P1	10	22-Jun-27	06-Jul-27
MB10340	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 7 - Stage 1 - P1	7	07-Jul-27	13-Jul-27
Main Bridge (NB) - Stage 1 - Interior Bent 8		46	27-May-27	29-Jul-27
MB10350	Drilled Shafts (8') - Main Bridge (NB) - Bent 8 - Stage 1 - P1	10	27-May-27	11-Jun-27
MB10360	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 8 - Stage 1 - P1	5	14-Jun-27	21-Jun-27
MB10370	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 8 - Stage 1 - P1	10	22-Jun-27	06-Jul-27
MB10380	FRP Cap - Main Bridge (NB) - Bent 8 - Stage 1 - P1	10	08-Jul-27	22-Jul-27
MB10390	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 8 - Stage 1 - P1	7	23-Jul-27	29-Jul-27
Main Bridge (NB) - Stage 1 - Interior Bent 9		45	14-Jun-27	13-Aug-27
MB10400	Drilled Shafts (8') - Main Bridge (NB) - Bent 9 - Stage 1 - P1	10	14-Jun-27	28-Jun-27
MB10410	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 9 - Stage 1 - P1	5	29-Jun-27	06-Jul-27
MB10420	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 9 - Stage 1 - P1	10	08-Jul-27	22-Jul-27
MB10430	FRP Cap - Main Bridge (NB) - Bent 9 - Stage 1 - P1	10	23-Jul-27	06-Aug-27
MB10440	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 9 - Stage 1 - P1	7	07-Aug-27	13-Aug-27
Main Bridge (NB) - Stage 1 - Interior Bent 10		45	29-Jun-27	30-Aug-27
MB10450	Drilled Shafts (8') - Main Bridge (NB) - Bent 10 - Stage 1 - P1	10	29-Jun-27	14-Jul-27
MB10460	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 10 - Stage 1 - P1	5	15-Jul-27	22-Jul-27
MB10470	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 10 - Stage 1 - P1	10	23-Jul-27	06-Aug-27
MB10480	FRP Cap - Main Bridge (NB) - Bent 10 - Stage 1 - P1	10	09-Aug-27	23-Aug-27
MB10490	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 10 - Stage 1 - P1	7	24-Aug-27	30-Aug-27
Main Bridge (NB) - Stage 1 - Interior Bent 11		45	15-Jul-27	15-Sep-27
MB10500	Drilled Shafts (8') - Main Bridge (NB) - Bent 11 - Stage 1 - P1	10	15-Jul-27	29-Jul-27
MB10510	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 11 - Stage 1 - P1	5	30-Jul-27	06-Aug-27
MB10520	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 11 - Stage 1 - P1	10	09-Aug-27	23-Aug-27
MB10530	FRP Cap - Main Bridge (NB) - Bent 11 - Stage 1 - P1	10	24-Aug-27	08-Sep-27
MB10540	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 11 - Stage 1 - P1	7	09-Sep-27	15-Sep-27
Main Bridge (NB) - Stage 1 - Interior Bent 12		45	30-Jul-27	30-Sep-27
MB10550	Drilled Shafts (8') - Main Bridge (NB) - Bent 12 - Stage 1 - P1	10	30-Jul-27	13-Aug-27
MB10560	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 12 - Stage 1 - P1	5	16-Aug-27	23-Aug-27
MB10570	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 12 - Stage 1 - P1	10	24-Aug-27	08-Sep-27
MB10580	FRP Cap - Main Bridge (NB) - Bent 12 - Stage 1 - P1	10	09-Sep-27	23-Sep-27
MB10590	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 12 - Stage 1 - P1	7	24-Sep-27	30-Sep-27
Main Bridge (NB) - Stage 1 - Interior Bent 13		44	16-Aug-27	14-Oct-27
MB10600	Drilled Shafts (8') - Main Bridge (NB) - Bent 13 - Stage 1 - P1	10	16-Aug-27	30-Aug-27
MB10610	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 13 - Stage 1 - P1	5	31-Aug-27	08-Sep-27
MB10620	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 13 - Stage 1 - P1	10	09-Sep-27	23-Sep-27
MB10630	FRP Cap - Main Bridge (NB) - Bent 13 - Stage 1 - P1	10	24-Sep-27	07-Oct-27
MB10640	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 13 - Stage 1 - P1	7	08-Oct-27	14-Oct-27
Main Bridge (NB) - Stage 1 - Interior Bent 14		44	31-Aug-27	29-Oct-27
MB10650	Drilled Shafts (8') - Main Bridge (NB) - Bent 14 - Stage 1 - P1	10	31-Aug-27	16-Sep-27
MB10660	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 14 - Stage 1 - P1	5	17-Sep-27	23-Sep-27
MB10670	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 14 - Stage 1 - P1	10	24-Sep-27	07-Oct-27
MB10680	FRP Cap - Main Bridge (NB) - Bent 14 - Stage 1 - P1	10	08-Oct-27	22-Oct-27
MB10690	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 14 - Stage 1 - P1	7	23-Oct-27	29-Oct-27



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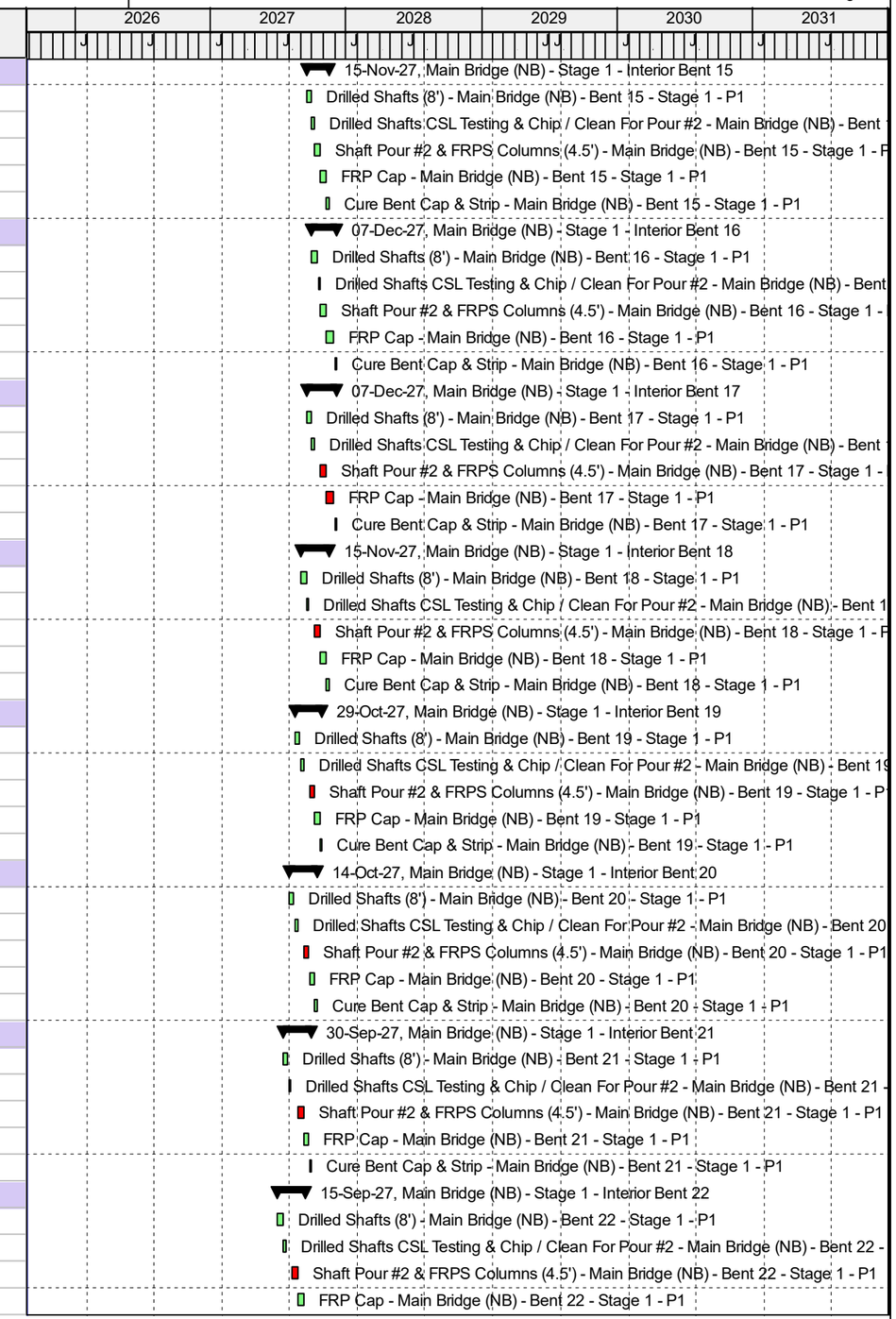
Activity ID	Activity Name	Original Duration	Start	Finish
Main Bridge (NB) - Stage 1 - Interior Bent 15		42	17-Sep-27	15-Nov-27
MB10700	Drilled Shafts (8') - Main Bridge (NB) - Bent 15 - Stage 1 - P1	10	17-Sep-27	30-Sep-27
MB10710	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 15 - Stage 1 - P1	5	01-Oct-27	07-Oct-27
MB10720	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 15 - Stage 1 - P1	10	08-Oct-27	22-Oct-27
MB10730	FRP Cap - Main Bridge (NB) - Bent 15 - Stage 1 - P1	10	25-Oct-27	08-Nov-27
MB10740	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 15 - Stage 1 - P1	7	09-Nov-27	15-Nov-27
Main Bridge (NB) - Stage 1 - Interior Bent 16		48	01-Oct-27	07-Dec-27
MB10750	Drilled Shafts (8') - Main Bridge (NB) - Bent 16 - Stage 1 - P1	10	01-Oct-27	15-Oct-27
MB10760	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 16 - Stage 1 - P1	5	18-Oct-27	22-Oct-27
MB10770	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 16 - Stage 1 - P1	10	25-Oct-27	08-Nov-27
MB10780	FRP Cap - Main Bridge (NB) - Bent 16 - Stage 1 - P1	10	09-Nov-27	30-Nov-27
MB10790	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 16 - Stage 1 - P1	7	01-Dec-27	07-Dec-27
Main Bridge (NB) - Stage 1 - Interior Bent 17		58	17-Sep-27	07-Dec-27
MB10800	Drilled Shafts (8') - Main Bridge (NB) - Bent 17 - Stage 1 - P1	10	17-Sep-27	30-Sep-27
MB10810	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 17 - Stage 1 - P1	5	01-Oct-27	07-Oct-27
MB10820	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 17 - Stage 1 - P1	10	25-Oct-27	08-Nov-27
MB10830	FRP Cap - Main Bridge (NB) - Bent 17 - Stage 1 - P1	10	09-Nov-27	30-Nov-27
MB10840	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 17 - Stage 1 - P1	7	01-Dec-27	07-Dec-27
Main Bridge (NB) - Stage 1 - Interior Bent 18		55	31-Aug-27	15-Nov-27
MB10850	Drilled Shafts (8') - Main Bridge (NB) - Bent 18 - Stage 1 - P1	10	31-Aug-27	16-Sep-27
MB10860	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 18 - Stage 1 - P1	5	17-Sep-27	23-Sep-27
MB10870	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 18 - Stage 1 - P1	10	08-Oct-27	22-Oct-27
MB10880	FRP Cap - Main Bridge (NB) - Bent 18 - Stage 1 - P1	10	25-Oct-27	08-Nov-27
MB10890	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 18 - Stage 1 - P1	7	09-Nov-27	15-Nov-27
Main Bridge (NB) - Stage 1 - Interior Bent 19		55	16-Aug-27	29-Oct-27
MB10900	Drilled Shafts (8') - Main Bridge (NB) - Bent 19 - Stage 1 - P1	10	16-Aug-27	30-Aug-27
MB10910	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 19 - Stage 1 - P1	5	31-Aug-27	08-Sep-27
MB10920	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 19 - Stage 1 - P1	10	24-Sep-27	07-Oct-27
MB10930	FRP Cap - Main Bridge (NB) - Bent 19 - Stage 1 - P1	10	08-Oct-27	22-Oct-27
MB10940	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 19 - Stage 1 - P1	7	23-Oct-27	29-Oct-27
Main Bridge (NB) - Stage 1 - Interior Bent 20		55	30-Jul-27	14-Oct-27
MB10950	Drilled Shafts (8') - Main Bridge (NB) - Bent 20 - Stage 1 - P1	10	30-Jul-27	13-Aug-27
MB10960	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 20 - Stage 1 - P1	5	16-Aug-27	23-Aug-27
MB10970	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 20 - Stage 1 - P1	10	09-Sep-27	23-Sep-27
MB10980	FRP Cap - Main Bridge (NB) - Bent 20 - Stage 1 - P1	10	24-Sep-27	07-Oct-27
MB10990	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 20 - Stage 1 - P1	7	08-Oct-27	14-Oct-27
Main Bridge (NB) - Stage 1 - Interior Bent 21		56	15-Jul-27	30-Sep-27
MB11000	Drilled Shafts (8') - Main Bridge (NB) - Bent 21 - Stage 1 - P1	10	15-Jul-27	29-Jul-27
MB11010	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 21 - Stage 1 - P1	5	30-Jul-27	06-Aug-27
MB11020	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 21 - Stage 1 - P1	10	24-Aug-27	08-Sep-27
MB11030	FRP Cap - Main Bridge (NB) - Bent 21 - Stage 1 - P1	10	09-Sep-27	23-Sep-27
MB11040	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 21 - Stage 1 - P1	7	24-Sep-27	30-Sep-27
Main Bridge (NB) - Stage 1 - Interior Bent 22		57	29-Jun-27	15-Sep-27
MB11050	Drilled Shafts (8') - Main Bridge (NB) - Bent 22 - Stage 1 - P1	10	29-Jun-27	14-Jul-27
MB11060	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 22 - Stage 1 - P1	5	15-Jul-27	22-Jul-27
MB11070	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 22 - Stage 1 - P1	10	09-Aug-27	23-Aug-27
MB11080	FRP Cap - Main Bridge (NB) - Bent 22 - Stage 1 - P1	10	24-Aug-27	08-Sep-27



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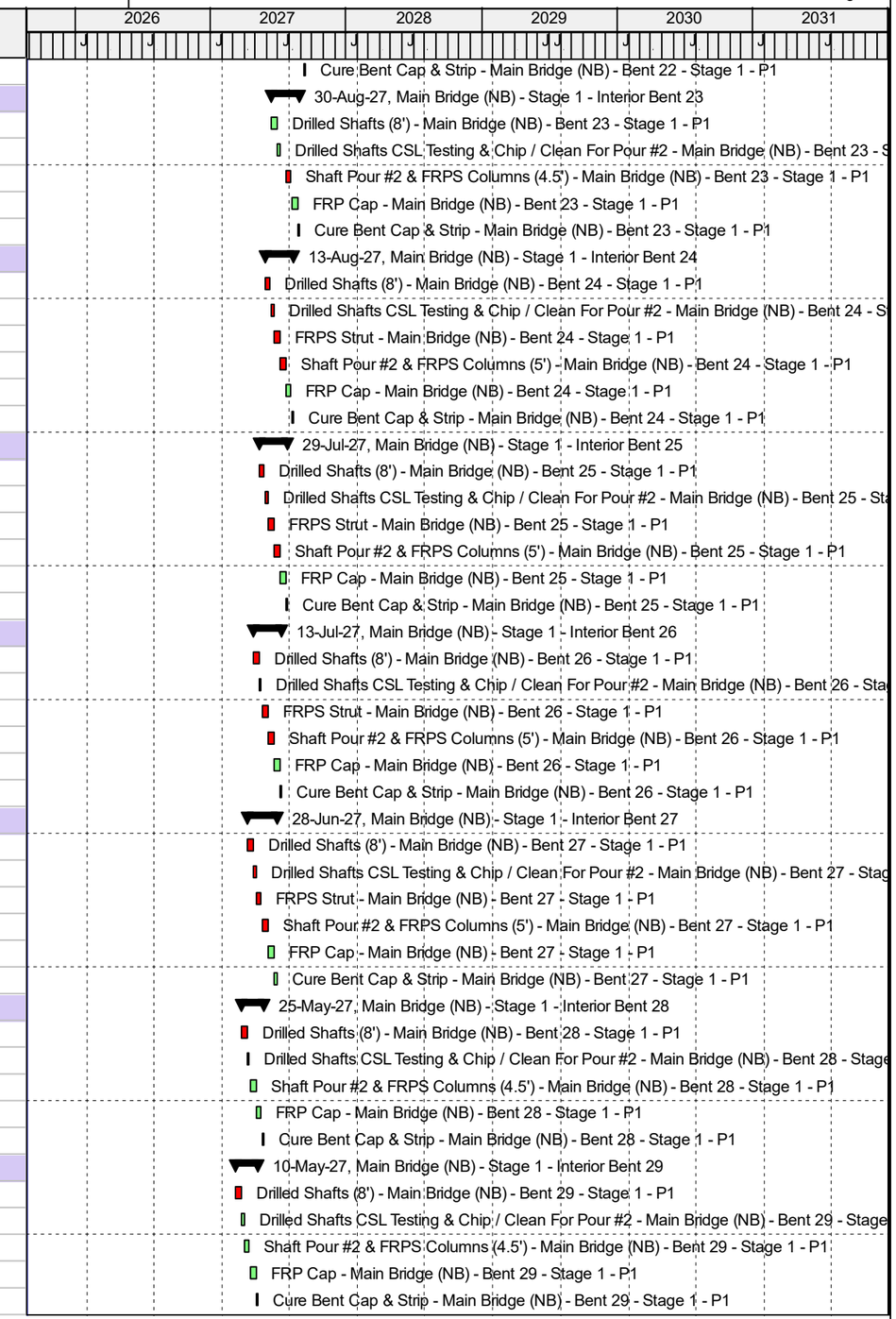
Activity ID	Activity Name	Original Duration	Start	Finish
MB11090	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 22 - Stage 1 - P1	7	09-Sep-27	15-Sep-27
Main Bridge (NB) - Stage 1 - Interior Bent 23		56	14-Jun-27	30-Aug-27
MB11100	Drilled Shafts (8') - Main Bridge (NB) - Bent 23 - Stage 1 - P1	10	14-Jun-27	28-Jun-27
MB11110	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 23 - Stage 1 - P1	5	29-Jun-27	06-Jul-27
MB11120	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 23 - Stage 1 - P1	10	23-Jul-27	06-Aug-27
MB11130	FRP Cap - Main Bridge (NB) - Bent 23 - Stage 1 - P1	10	09-Aug-27	23-Aug-27
MB11140	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 23 - Stage 1 - P1	7	24-Aug-27	30-Aug-27
Main Bridge (NB) - Stage 1 - Interior Bent 24		57	27-May-27	13-Aug-27
MB11150	Drilled Shafts (8') - Main Bridge (NB) - Bent 24 - Stage 1 - P1	10	27-May-27	11-Jun-27
MB11160	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 24 - Stage 1 - P1	5	14-Jun-27	21-Jun-27
MB11165	FRPS Strut - Main Bridge (NB) - Bent 24 - Stage 1 - P1	10	22-Jun-27	06-Jul-27
MB11170	Shaft Pour #2 & FRPS Columns (5') - Main Bridge (NB) - Bent 24 - Stage 1 - P1	10	08-Jul-27	22-Jul-27
MB11180	FRP Cap - Main Bridge (NB) - Bent 24 - Stage 1 - P1	10	23-Jul-27	06-Aug-27
MB11190	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 24 - Stage 1 - P1	7	07-Aug-27	13-Aug-27
Main Bridge (NB) - Stage 1 - Interior Bent 25		57	12-May-27	29-Jul-27
MB11200	Drilled Shafts (8') - Main Bridge (NB) - Bent 25 - Stage 1 - P1	10	12-May-27	26-May-27
MB11210	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 25 - Stage 1 - P1	5	27-May-27	04-Jun-27
MB11215	FRPS Strut - Main Bridge (NB) - Bent 25 - Stage 1 - P1	10	07-Jun-27	21-Jun-27
MB11220	Shaft Pour #2 & FRPS Columns (5') - Main Bridge (NB) - Bent 25 - Stage 1 - P1	10	22-Jun-27	06-Jul-27
MB11230	FRP Cap - Main Bridge (NB) - Bent 25 - Stage 1 - P1	10	08-Jul-27	22-Jul-27
MB11240	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 25 - Stage 1 - P1	7	23-Jul-27	29-Jul-27
Main Bridge (NB) - Stage 1 - Interior Bent 26		56	27-Apr-27	13-Jul-27
MB11250	Drilled Shafts (8') - Main Bridge (NB) - Bent 26 - Stage 1 - P1	10	27-Apr-27	11-May-27
MB11260	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 26 - Stage 1 - P1	5	12-May-27	18-May-27
MB11265	FRPS Strut - Main Bridge (NB) - Bent 26 - Stage 1 - P1	10	20-May-27	04-Jun-27
MB11270	Shaft Pour #2 & FRPS Columns (5') - Main Bridge (NB) - Bent 26 - Stage 1 - P1	10	07-Jun-27	21-Jun-27
MB11280	FRP Cap - Main Bridge (NB) - Bent 26 - Stage 1 - P1	10	22-Jun-27	06-Jul-27
MB11290	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 26 - Stage 1 - P1	7	07-Jul-27	13-Jul-27
Main Bridge (NB) - Stage 1 - Interior Bent 27		56	12-Apr-27	28-Jun-27
MB11300	Drilled Shafts (8') - Main Bridge (NB) - Bent 27 - Stage 1 - P1	10	12-Apr-27	26-Apr-27
MB11310	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 27 - Stage 1 - P1	5	27-Apr-27	03-May-27
MB11315	FRPS Strut - Main Bridge (NB) - Bent 27 - Stage 1 - P1	10	04-May-27	18-May-27
MB11320	Shaft Pour #2 & FRPS Columns (5') - Main Bridge (NB) - Bent 27 - Stage 1 - P1	10	20-May-27	04-Jun-27
MB11330	FRP Cap - Main Bridge (NB) - Bent 27 - Stage 1 - P1	10	07-Jun-27	21-Jun-27
MB11340	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 27 - Stage 1 - P1	7	22-Jun-27	28-Jun-27
Main Bridge (NB) - Stage 1 - Interior Bent 28		44	25-Mar-27	25-May-27
MB11350	Drilled Shafts (8') - Main Bridge (NB) - Bent 28 - Stage 1 - P1	10	25-Mar-27	09-Apr-27
MB11360	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 28 - Stage 1 - P1	5	12-Apr-27	16-Apr-27
MB11370	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 28 - Stage 1 - P1	10	19-Apr-27	03-May-27
MB11380	FRP Cap - Main Bridge (NB) - Bent 28 - Stage 1 - P1	10	04-May-27	18-May-27
MB11390	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 28 - Stage 1 - P1	7	19-May-27	25-May-27
Main Bridge (NB) - Stage 1 - Interior Bent 29		44	10-Mar-27	10-May-27
MB11400	Drilled Shafts (8') - Main Bridge (NB) - Bent 29 - Stage 1 - P1	10	10-Mar-27	24-Mar-27
MB11410	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 29 - Stage 1 - P1	5	25-Mar-27	01-Apr-27
MB11420	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 29 - Stage 1 - P1	10	02-Apr-27	16-Apr-27
MB11430	FRP Cap - Main Bridge (NB) - Bent 29 - Stage 1 - P1	10	19-Apr-27	03-May-27
MB11440	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 29 - Stage 1 - P1	7	04-May-27	10-May-27



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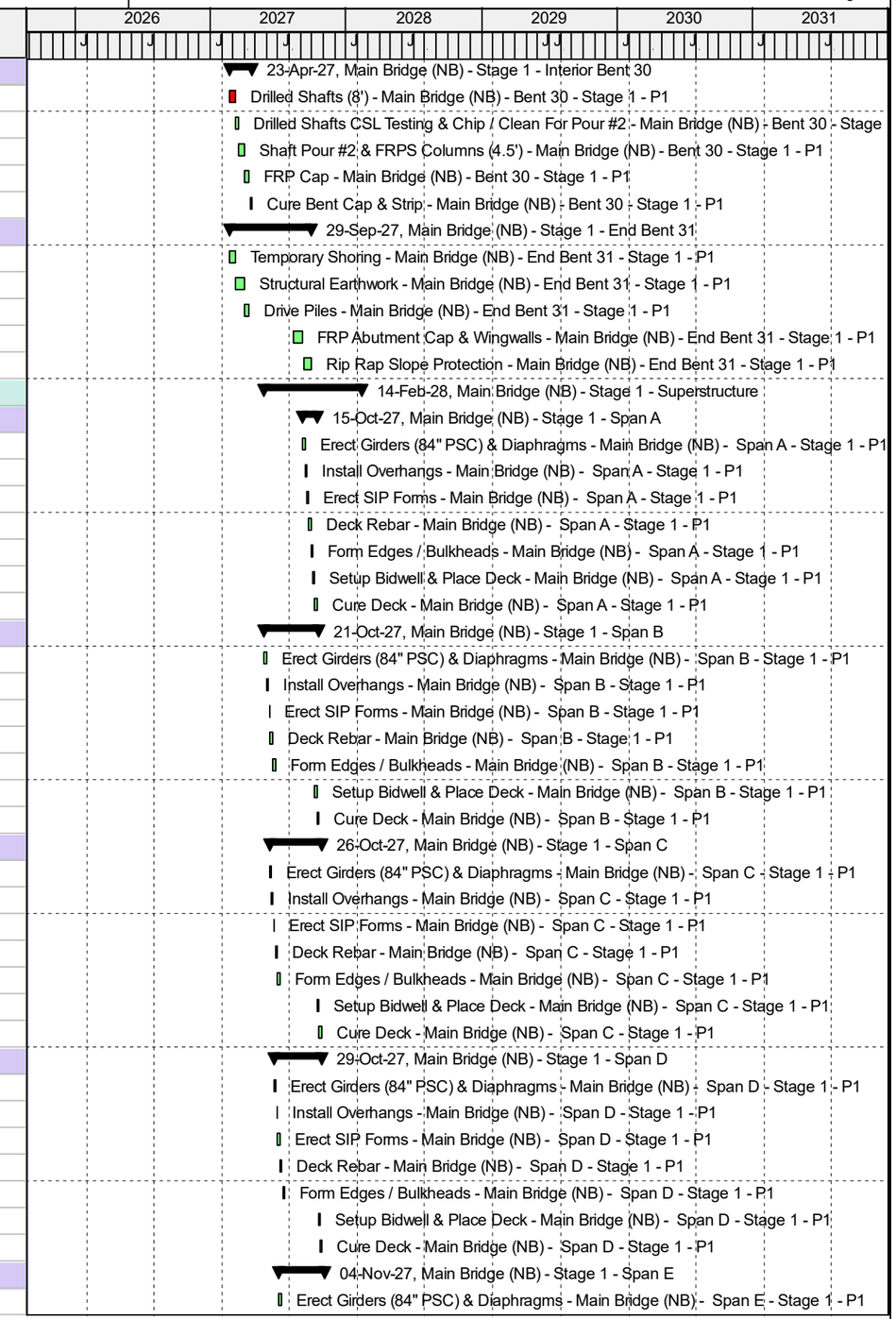
Activity ID	Activity Name	Original Duration	Start	Finish
Main Bridge (NB) - Stage 1 - Interior Bent 30		44	23-Feb-27	23-Apr-27
MB11450	Drilled Shafts (8') - Main Bridge (NB) - Bent 30 - Stage 1 - P1	10	23-Feb-27	09-Mar-27
MB11460	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (NB) - Bent 30 - Stage 1 - P1	5	10-Mar-27	16-Mar-27
MB11470	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (NB) - Bent 30 - Stage 1 - P1	10	18-Mar-27	01-Apr-27
MB11480	FRP Cap - Main Bridge (NB) - Bent 30 - Stage 1 - P1	10	02-Apr-27	16-Apr-27
MB11490	Cure Bent Cap & Strip - Main Bridge (NB) - Bent 30 - Stage 1 - P1	7	17-Apr-27	23-Apr-27
Main Bridge (NB) - Stage 1 - End Bent 31		139	23-Feb-27	29-Sep-27
MB11500	Temporary Shoring - Main Bridge (NB) - End Bent 31 - Stage 1 - P1	10	23-Feb-27	09-Mar-27
MB11510	Structural Earthwork - Main Bridge (NB) - End Bent 31 - Stage 1 - P1	15	10-Mar-27	01-Apr-27
MB11520	Drive Piles - Main Bridge (NB) - End Bent 31 - Stage 1 - P1	7	02-Apr-27	13-Apr-27
MB11530	FRP Abutment Cap & Wingwalls - Main Bridge (NB) - End Bent 31 - Stage 1 - P1	15	13-Aug-27	07-Sep-27
MB11540	Rip Rap Slope Protection - Main Bridge (NB) - End Bent 31 - Stage 1 - P1	15	08-Sep-27	29-Sep-27
Main Bridge (NB) - Stage 1 - Superstructure		189	26-May-27	14-Feb-28
Main Bridge (NB) - Stage 1 - Span A		28	07-Sep-27	15-Oct-27
MB11550	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span A - Stage 1 - P1	4	07-Sep-27	13-Sep-27
MB11560	Install Overhangs - Main Bridge (NB) - Span A - Stage 1 - P1	3	13-Sep-27	17-Sep-27
MB11570	Erect SIP Forms - Main Bridge (NB) - Span A - Stage 1 - P1	3	17-Sep-27	22-Sep-27
MB11580	Deck Rebar - Main Bridge (NB) - Span A - Stage 1 - P1	4	22-Sep-27	28-Sep-27
MB11590	Form Edges / Bulkheads - Main Bridge (NB) - Span A - Stage 1 - P1	5	28-Sep-27	05-Oct-27
MB11600	Setup Bidwell & Place Deck - Main Bridge (NB) - Span A - Stage 1 - P1	3	05-Oct-27	08-Oct-27
MB11610	Cure Deck - Main Bridge (NB) - Span A - Stage 1 - P1	7	09-Oct-27	15-Oct-27
Main Bridge (NB) - Stage 1 - Span B		107	26-May-27	21-Oct-27
MB11620	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span B - Stage 1 - P1	4	26-May-27	03-Jun-27
MB11630	Install Overhangs - Main Bridge (NB) - Span B - Stage 1 - P1	3	03-Jun-27	07-Jun-27
MB11640	Erect SIP Forms - Main Bridge (NB) - Span B - Stage 1 - P1	3	08-Jun-27	10-Jun-27
MB11650	Deck Rebar - Main Bridge (NB) - Span B - Stage 1 - P1	4	11-Jun-27	17-Jun-27
MB11660	Form Edges / Bulkheads - Main Bridge (NB) - Span B - Stage 1 - P1	5	18-Jun-27	24-Jun-27
MB11670	Setup Bidwell & Place Deck - Main Bridge (NB) - Span B - Stage 1 - P1	3	08-Oct-27	14-Oct-27
MB11680	Cure Deck - Main Bridge (NB) - Span B - Stage 1 - P1	7	15-Oct-27	21-Oct-27
Main Bridge (NB) - Stage 1 - Span C		100	09-Jun-27	26-Oct-27
MB11690	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span C - Stage 1 - P1	4	09-Jun-27	14-Jun-27
MB11700	Install Overhangs - Main Bridge (NB) - Span C - Stage 1 - P1	3	15-Jun-27	18-Jun-27
MB11710	Erect SIP Forms - Main Bridge (NB) - Span C - Stage 1 - P1	3	21-Jun-27	23-Jun-27
MB11720	Deck Rebar - Main Bridge (NB) - Span C - Stage 1 - P1	4	24-Jun-27	29-Jun-27
MB11730	Form Edges / Bulkheads - Main Bridge (NB) - Span C - Stage 1 - P1	5	30-Jun-27	08-Jul-27
MB11740	Setup Bidwell & Place Deck - Main Bridge (NB) - Span C - Stage 1 - P1	3	14-Oct-27	19-Oct-27
MB11750	Cure Deck - Main Bridge (NB) - Span C - Stage 1 - P1	7	20-Oct-27	26-Oct-27
Main Bridge (NB) - Stage 1 - Span D		94	22-Jun-27	29-Oct-27
MB11760	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span D - Stage 1 - P1	4	22-Jun-27	25-Jun-27
MB11770	Install Overhangs - Main Bridge (NB) - Span D - Stage 1 - P1	3	28-Jun-27	30-Jun-27
MB11780	Erect SIP Forms - Main Bridge (NB) - Span D - Stage 1 - P1	3	01-Jul-27	06-Jul-27
MB11790	Deck Rebar - Main Bridge (NB) - Span D - Stage 1 - P1	4	08-Jul-27	13-Jul-27
MB11800	Form Edges / Bulkheads - Main Bridge (NB) - Span D - Stage 1 - P1	5	14-Jul-27	20-Jul-27
MB11810	Setup Bidwell & Place Deck - Main Bridge (NB) - Span D - Stage 1 - P1	3	19-Oct-27	22-Oct-27
MB11820	Cure Deck - Main Bridge (NB) - Span D - Stage 1 - P1	7	23-Oct-27	29-Oct-27
Main Bridge (NB) - Stage 1 - Span E		89	02-Jul-27	04-Nov-27
MB11830	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span E - Stage 1 - P1	4	02-Jul-27	12-Jul-27



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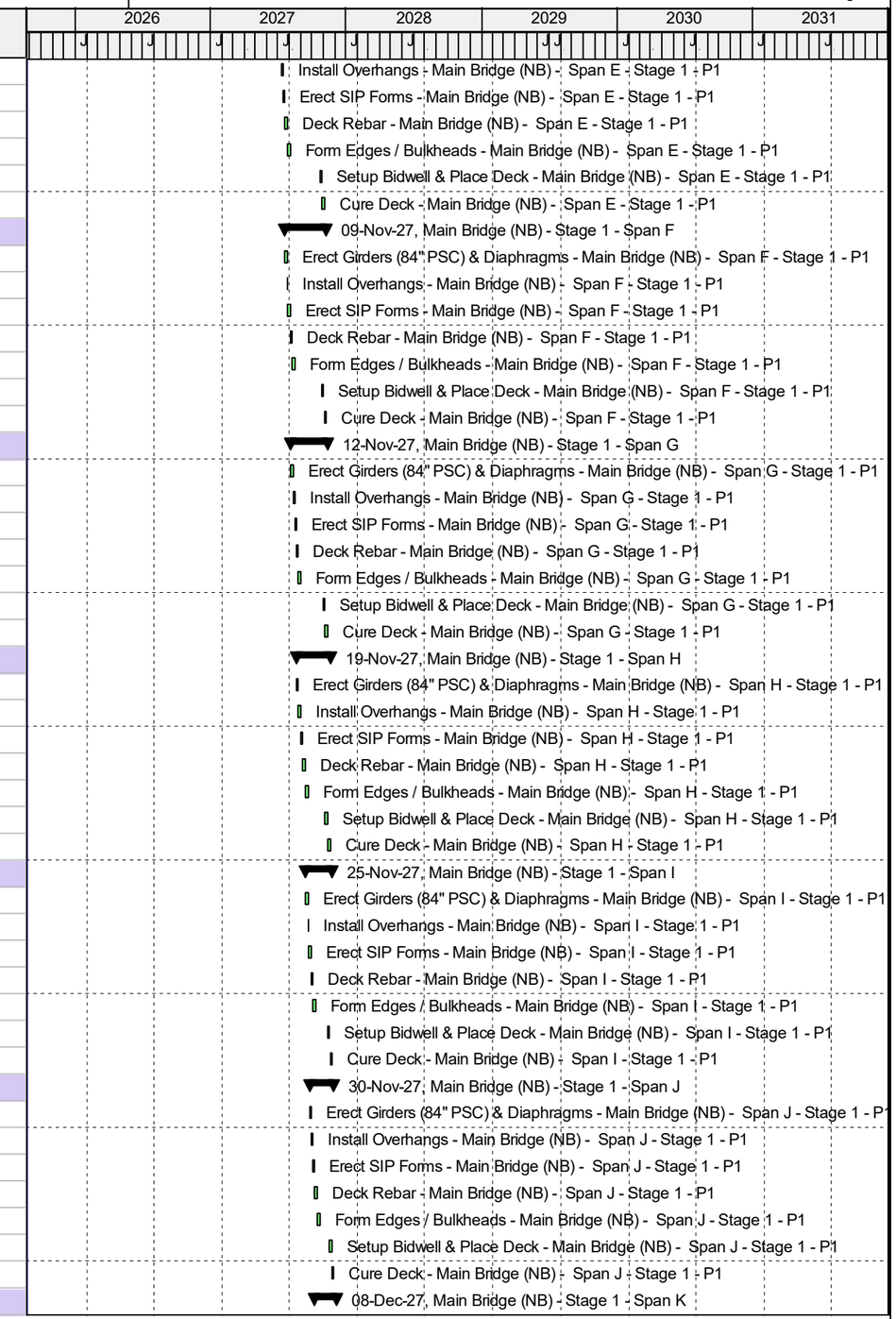
Activity ID	Activity Name	Original Duration	Start	Finish
MB11840	Install Overhangs - Main Bridge (NB) - Span E - Stage 1 - P1	3	12-Jul-27	15-Jul-27
MB11850	Erect SIP Forms - Main Bridge (NB) - Span E - Stage 1 - P1	3	15-Jul-27	20-Jul-27
MB11860	Deck Rebar - Main Bridge (NB) - Span E - Stage 1 - P1	4	20-Jul-27	27-Jul-27
MB11870	Form Edges / Bulkheads - Main Bridge (NB) - Span E - Stage 1 - P1	5	27-Jul-27	03-Aug-27
MB11880	Setup Bidwell & Place Deck - Main Bridge (NB) - Span E - Stage 1 - P1	3	22-Oct-27	28-Oct-27
MB11890	Cure Deck - Main Bridge (NB) - Span E - Stage 1 - P1	7	29-Oct-27	04-Nov-27
Main Bridge (NB) - Stage 1 - Span F		81	19-Jul-27	09-Nov-27
MB11900	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span F - Stage 1 - P1	4	19-Jul-27	26-Jul-27
MB11910	Install Overhangs - Main Bridge (NB) - Span F - Stage 1 - P1	3	26-Jul-27	29-Jul-27
MB11920	Erect SIP Forms - Main Bridge (NB) - Span F - Stage 1 - P1	3	29-Jul-27	03-Aug-27
MB11930	Deck Rebar - Main Bridge (NB) - Span F - Stage 1 - P1	4	03-Aug-27	10-Aug-27
MB11940	Form Edges / Bulkheads - Main Bridge (NB) - Span F - Stage 1 - P1	5	10-Aug-27	17-Aug-27
MB11950	Setup Bidwell & Place Deck - Main Bridge (NB) - Span F - Stage 1 - P1	3	28-Oct-27	02-Nov-27
MB11960	Cure Deck - Main Bridge (NB) - Span F - Stage 1 - P1	7	03-Nov-27	09-Nov-27
Main Bridge (NB) - Stage 1 - Span G		71	05-Aug-27	12-Nov-27
MB11970	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span G - Stage 1 - P1	4	05-Aug-27	11-Aug-27
MB11980	Install Overhangs - Main Bridge (NB) - Span G - Stage 1 - P1	3	11-Aug-27	16-Aug-27
MB11990	Erect SIP Forms - Main Bridge (NB) - Span G - Stage 1 - P1	3	16-Aug-27	20-Aug-27
MB12000	Deck Rebar - Main Bridge (NB) - Span G - Stage 1 - P1	4	20-Aug-27	26-Aug-27
MB12010	Form Edges / Bulkheads - Main Bridge (NB) - Span G - Stage 1 - P1	5	26-Aug-27	03-Sep-27
MB12020	Setup Bidwell & Place Deck - Main Bridge (NB) - Span G - Stage 1 - P1	3	02-Nov-27	05-Nov-27
MB12030	Cure Deck - Main Bridge (NB) - Span G - Stage 1 - P1	7	06-Nov-27	12-Nov-27
Main Bridge (NB) - Stage 1 - Span H		65	20-Aug-27	19-Nov-27
MB12040	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span H - Stage 1 - P1	4	20-Aug-27	26-Aug-27
MB12050	Install Overhangs - Main Bridge (NB) - Span H - Stage 1 - P1	3	26-Aug-27	31-Aug-27
MB12060	Erect SIP Forms - Main Bridge (NB) - Span H - Stage 1 - P1	3	31-Aug-27	07-Sep-27
MB12070	Deck Rebar - Main Bridge (NB) - Span H - Stage 1 - P1	4	07-Sep-27	13-Sep-27
MB12080	Form Edges / Bulkheads - Main Bridge (NB) - Span H - Stage 1 - P1	5	13-Sep-27	21-Sep-27
MB12090	Setup Bidwell & Place Deck - Main Bridge (NB) - Span H - Stage 1 - P1	3	05-Nov-27	12-Nov-27
MB12100	Cure Deck - Main Bridge (NB) - Span H - Stage 1 - P1	7	13-Nov-27	19-Nov-27
Main Bridge (NB) - Stage 1 - Span I		53	13-Sep-27	25-Nov-27
MB12110	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span I - Stage 1 - P1	4	13-Sep-27	20-Sep-27
MB12120	Install Overhangs - Main Bridge (NB) - Span I - Stage 1 - P1	3	20-Sep-27	23-Sep-27
MB12130	Erect SIP Forms - Main Bridge (NB) - Span I - Stage 1 - P1	3	23-Sep-27	28-Sep-27
MB12140	Deck Rebar - Main Bridge (NB) - Span I - Stage 1 - P1	4	28-Sep-27	04-Oct-27
MB12150	Form Edges / Bulkheads - Main Bridge (NB) - Span I - Stage 1 - P1	5	04-Oct-27	11-Oct-27
MB12160	Setup Bidwell & Place Deck - Main Bridge (NB) - Span I - Stage 1 - P1	3	12-Nov-27	18-Nov-27
MB12170	Cure Deck - Main Bridge (NB) - Span I - Stage 1 - P1	7	19-Nov-27	25-Nov-27
Main Bridge (NB) - Stage 1 - Span J		47	24-Sep-27	30-Nov-27
MB12180	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span J - Stage 1 - P1	4	24-Sep-27	30-Sep-27
MB12190	Install Overhangs - Main Bridge (NB) - Span J - Stage 1 - P1	3	30-Sep-27	05-Oct-27
MB12200	Erect SIP Forms - Main Bridge (NB) - Span J - Stage 1 - P1	3	05-Oct-27	08-Oct-27
MB12210	Deck Rebar - Main Bridge (NB) - Span J - Stage 1 - P1	4	08-Oct-27	15-Oct-27
MB12220	Form Edges / Bulkheads - Main Bridge (NB) - Span J - Stage 1 - P1	5	15-Oct-27	22-Oct-27
MB12230	Setup Bidwell & Place Deck - Main Bridge (NB) - Span J - Stage 1 - P1	3	18-Nov-27	23-Nov-27
MB12240	Cure Deck - Main Bridge (NB) - Span J - Stage 1 - P1	7	24-Nov-27	30-Nov-27
Main Bridge (NB) - Stage 1 - Span K		45	06-Oct-27	08-Dec-27



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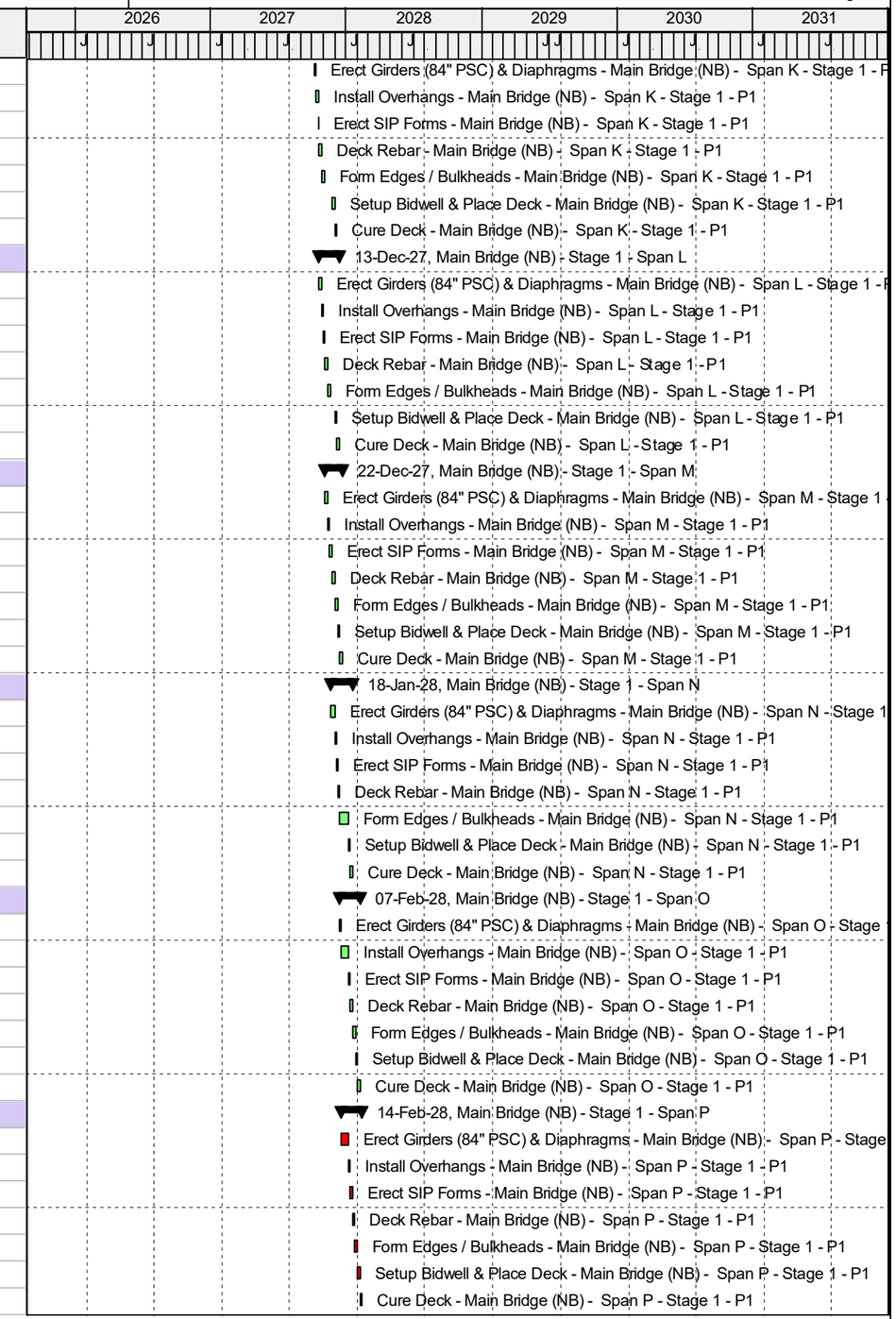
Activity ID	Activity Name	Original Duration	Start	Finish
MB12250	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span K - Stage 1 - P1	4	06-Oct-27	12-Oct-27
MB12260	Install Overhangs - Main Bridge (NB) - Span K - Stage 1 - P1	3	12-Oct-27	18-Oct-27
MB12270	Erect SIP Forms - Main Bridge (NB) - Span K - Stage 1 - P1	3	18-Oct-27	21-Oct-27
MB12280	Deck Rebar - Main Bridge (NB) - Span K - Stage 1 - P1	4	21-Oct-27	28-Oct-27
MB12290	Form Edges / Bulkheads - Main Bridge (NB) - Span K - Stage 1 - P1	5	28-Oct-27	04-Nov-27
MB12300	Setup Bidwell & Place Deck - Main Bridge (NB) - Span K - Stage 1 - P1	3	23-Nov-27	01-Dec-27
MB12310	Cure Deck - Main Bridge (NB) - Span K - Stage 1 - P1	7	02-Dec-27	08-Dec-27
Main Bridge (NB) - Stage 1 - Span L		38	20-Oct-27	13-Dec-27
MB12320	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span L - Stage 1 - P1	4	20-Oct-27	26-Oct-27
MB12330	Install Overhangs - Main Bridge (NB) - Span L - Stage 1 - P1	3	26-Oct-27	01-Nov-27
MB12340	Erect SIP Forms - Main Bridge (NB) - Span L - Stage 1 - P1	3	01-Nov-27	04-Nov-27
MB12350	Deck Rebar - Main Bridge (NB) - Span L - Stage 1 - P1	4	04-Nov-27	12-Nov-27
MB12360	Form Edges / Bulkheads - Main Bridge (NB) - Span L - Stage 1 - P1	5	12-Nov-27	22-Nov-27
MB12370	Setup Bidwell & Place Deck - Main Bridge (NB) - Span L - Stage 1 - P1	3	01-Dec-27	06-Dec-27
MB12380	Cure Deck - Main Bridge (NB) - Span L - Stage 1 - P1	7	07-Dec-27	13-Dec-27
Main Bridge (NB) - Stage 1 - Span M		34	04-Nov-27	22-Dec-27
MB12390	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span M - Stage 1 - P1	4	04-Nov-27	12-Nov-27
MB12400	Install Overhangs - Main Bridge (NB) - Span M - Stage 1 - P1	3	12-Nov-27	18-Nov-27
MB12410	Erect SIP Forms - Main Bridge (NB) - Span M - Stage 1 - P1	3	18-Nov-27	23-Nov-27
MB12420	Deck Rebar - Main Bridge (NB) - Span M - Stage 1 - P1	4	23-Nov-27	02-Dec-27
MB12430	Form Edges / Bulkheads - Main Bridge (NB) - Span M - Stage 1 - P1	5	02-Dec-27	10-Dec-27
MB12440	Setup Bidwell & Place Deck - Main Bridge (NB) - Span M - Stage 1 - P1	3	10-Dec-27	15-Dec-27
MB12450	Cure Deck - Main Bridge (NB) - Span M - Stage 1 - P1	7	16-Dec-27	22-Dec-27
Main Bridge (NB) - Stage 1 - Span N		41	22-Nov-27	18-Jan-28
MB12460	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span N - Stage 1 - P1	4	22-Nov-27	01-Dec-27
MB12470	Install Overhangs - Main Bridge (NB) - Span N - Stage 1 - P1	3	01-Dec-27	06-Dec-27
MB12480	Erect SIP Forms - Main Bridge (NB) - Span N - Stage 1 - P1	3	06-Dec-27	10-Dec-27
MB12490	Deck Rebar - Main Bridge (NB) - Span N - Stage 1 - P1	4	10-Dec-27	16-Dec-27
MB12500	Form Edges / Bulkheads - Main Bridge (NB) - Span N - Stage 1 - P1	5	16-Dec-27	06-Jan-28
MB12510	Setup Bidwell & Place Deck - Main Bridge (NB) - Span N - Stage 1 - P1	3	06-Jan-28	11-Jan-28
MB12520	Cure Deck - Main Bridge (NB) - Span N - Stage 1 - P1	7	12-Jan-28	18-Jan-28
Main Bridge (NB) - Stage 1 - Span O		39	14-Dec-27	07-Feb-28
MB12530	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span O - Stage 1 - P1	4	14-Dec-27	20-Dec-27
MB12540	Install Overhangs - Main Bridge (NB) - Span O - Stage 1 - P1	3	20-Dec-27	06-Jan-28
MB12550	Erect SIP Forms - Main Bridge (NB) - Span O - Stage 1 - P1	3	06-Jan-28	11-Jan-28
MB12560	Deck Rebar - Main Bridge (NB) - Span O - Stage 1 - P1	4	11-Jan-28	18-Jan-28
MB12570	Form Edges / Bulkheads - Main Bridge (NB) - Span O - Stage 1 - P1	5	18-Jan-28	26-Jan-28
MB12580	Setup Bidwell & Place Deck - Main Bridge (NB) - Span O - Stage 1 - P1	3	26-Jan-28	31-Jan-28
MB12590	Cure Deck - Main Bridge (NB) - Span O - Stage 1 - P1	7	01-Feb-28	07-Feb-28
Main Bridge (NB) - Stage 1 - Span P		40	20-Dec-27	14-Feb-28
MB12600	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span P - Stage 1 - P1	4	20-Dec-27	07-Jan-28
MB12610	Install Overhangs - Main Bridge (NB) - Span P - Stage 1 - P1	3	07-Jan-28	12-Jan-28
MB12620	Erect SIP Forms - Main Bridge (NB) - Span P - Stage 1 - P1	3	12-Jan-28	18-Jan-28
MB12630	Deck Rebar - Main Bridge (NB) - Span P - Stage 1 - P1	4	18-Jan-28	25-Jan-28
MB12640	Form Edges / Bulkheads - Main Bridge (NB) - Span P - Stage 1 - P1	5	25-Jan-28	01-Feb-28
MB12650	Setup Bidwell & Place Deck - Main Bridge (NB) - Span P - Stage 1 - P1	3	01-Feb-28	07-Feb-28
MB12660	Cure Deck - Main Bridge (NB) - Span P - Stage 1 - P1	7	08-Feb-28	14-Feb-28



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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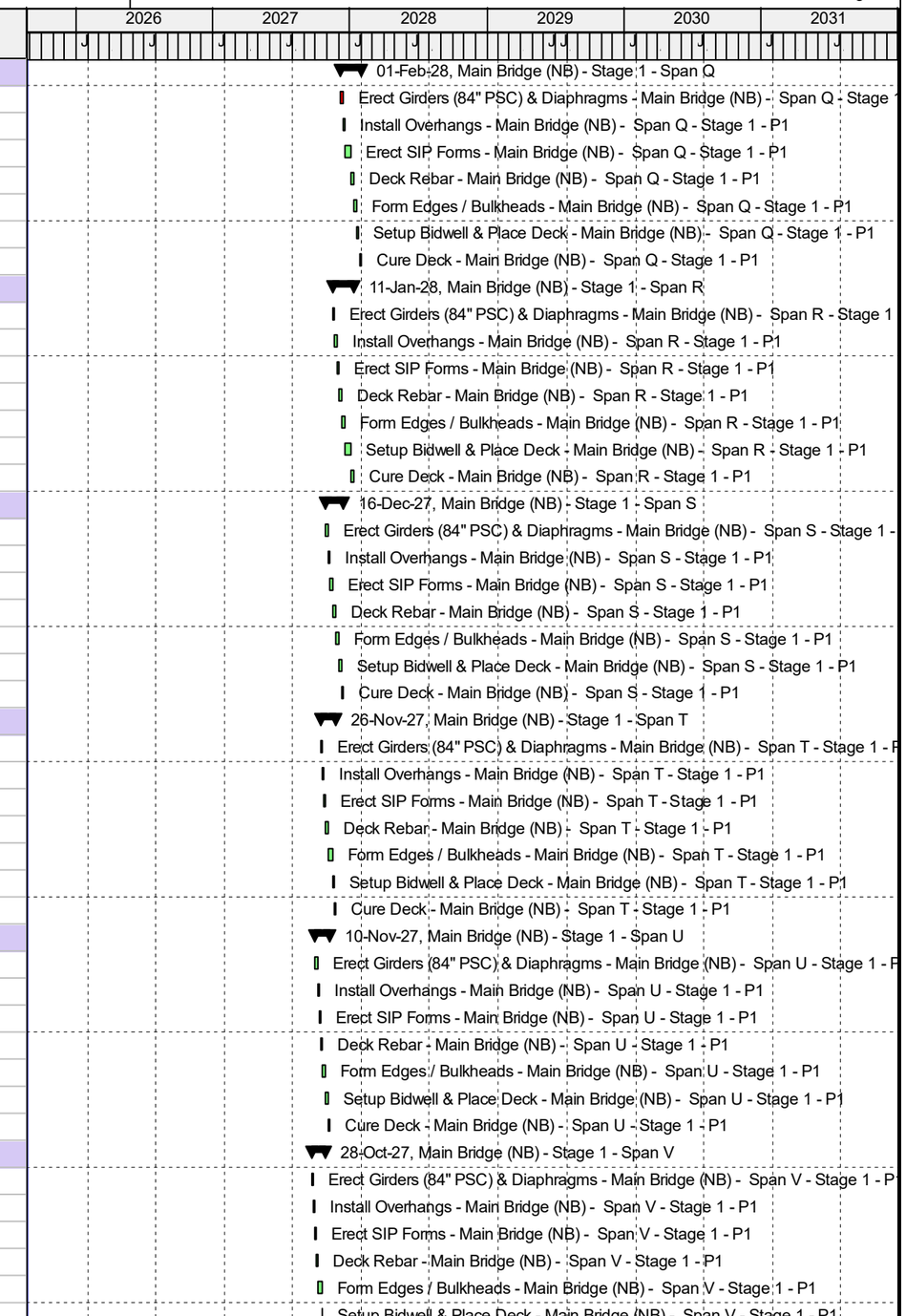
Activity ID	Activity Name	Original Duration	Start	Finish
Main Bridge (NB) - Stage 1 - Span Q		40	07-Dec-27	01-Feb-28
MB12670	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span Q - Stage 1 - P1	4	07-Dec-27	14-Dec-27
MB12680	Install Overhangs - Main Bridge (NB) - Span Q - Stage 1 - P1	3	14-Dec-27	17-Dec-27
MB12690	Erect SIP Forms - Main Bridge (NB) - Span Q - Stage 1 - P1	3	17-Dec-27	04-Jan-28
MB12700	Deck Rebar - Main Bridge (NB) - Span Q - Stage 1 - P1	4	04-Jan-28	11-Jan-28
MB12710	Form Edges / Bulkheads - Main Bridge (NB) - Span Q - Stage 1 - P1	5	11-Jan-28	20-Jan-28
MB12720	Setup Bidwell & Place Deck - Main Bridge (NB) - Span Q - Stage 1 - P1	3	20-Jan-28	25-Jan-28
MB12730	Cure Deck - Main Bridge (NB) - Span Q - Stage 1 - P1	7	26-Jan-28	01-Feb-28
Main Bridge (NB) - Stage 1 - Span R		41	15-Nov-27	11-Jan-28
MB12740	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span R - Stage 1 - P1	4	15-Nov-27	22-Nov-27
MB12750	Install Overhangs - Main Bridge (NB) - Span R - Stage 1 - P1	3	22-Nov-27	30-Nov-27
MB12760	Erect SIP Forms - Main Bridge (NB) - Span R - Stage 1 - P1	3	30-Nov-27	03-Dec-27
MB12770	Deck Rebar - Main Bridge (NB) - Span R - Stage 1 - P1	4	03-Dec-27	10-Dec-27
MB12780	Form Edges / Bulkheads - Main Bridge (NB) - Span R - Stage 1 - P1	5	10-Dec-27	17-Dec-27
MB12790	Setup Bidwell & Place Deck - Main Bridge (NB) - Span R - Stage 1 - P1	3	17-Dec-27	04-Jan-28
MB12800	Cure Deck - Main Bridge (NB) - Span R - Stage 1 - P1	7	05-Jan-28	11-Jan-28
Main Bridge (NB) - Stage 1 - Span S		34	29-Oct-27	16-Dec-27
MB12810	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span S - Stage 1 - P1	4	29-Oct-27	04-Nov-27
MB12820	Install Overhangs - Main Bridge (NB) - Span S - Stage 1 - P1	3	04-Nov-27	09-Nov-27
MB12830	Erect SIP Forms - Main Bridge (NB) - Span S - Stage 1 - P1	3	09-Nov-27	16-Nov-27
MB12840	Deck Rebar - Main Bridge (NB) - Span S - Stage 1 - P1	4	16-Nov-27	23-Nov-27
MB12850	Form Edges / Bulkheads - Main Bridge (NB) - Span S - Stage 1 - P1	5	23-Nov-27	03-Dec-27
MB12860	Setup Bidwell & Place Deck - Main Bridge (NB) - Span S - Stage 1 - P1	3	03-Dec-27	09-Dec-27
MB12870	Cure Deck - Main Bridge (NB) - Span S - Stage 1 - P1	7	10-Dec-27	16-Dec-27
Main Bridge (NB) - Stage 1 - Span T		31	14-Oct-27	26-Nov-27
MB12880	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span T - Stage 1 - P1	4	14-Oct-27	20-Oct-27
MB12890	Install Overhangs - Main Bridge (NB) - Span T - Stage 1 - P1	3	20-Oct-27	25-Oct-27
MB12900	Erect SIP Forms - Main Bridge (NB) - Span T - Stage 1 - P1	3	25-Oct-27	29-Oct-27
MB12910	Deck Rebar - Main Bridge (NB) - Span T - Stage 1 - P1	4	29-Oct-27	04-Nov-27
MB12920	Form Edges / Bulkheads - Main Bridge (NB) - Span T - Stage 1 - P1	5	04-Nov-27	15-Nov-27
MB12930	Setup Bidwell & Place Deck - Main Bridge (NB) - Span T - Stage 1 - P1	3	15-Nov-27	19-Nov-27
MB12940	Cure Deck - Main Bridge (NB) - Span T - Stage 1 - P1	7	20-Nov-27	26-Nov-27
Main Bridge (NB) - Stage 1 - Span U		29	30-Sep-27	10-Nov-27
MB12950	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span U - Stage 1 - P1	4	30-Sep-27	06-Oct-27
MB12960	Install Overhangs - Main Bridge (NB) - Span U - Stage 1 - P1	3	06-Oct-27	11-Oct-27
MB12970	Erect SIP Forms - Main Bridge (NB) - Span U - Stage 1 - P1	3	11-Oct-27	15-Oct-27
MB12980	Deck Rebar - Main Bridge (NB) - Span U - Stage 1 - P1	4	15-Oct-27	21-Oct-27
MB12990	Form Edges / Bulkheads - Main Bridge (NB) - Span U - Stage 1 - P1	5	21-Oct-27	29-Oct-27
MB13000	Setup Bidwell & Place Deck - Main Bridge (NB) - Span U - Stage 1 - P1	3	29-Oct-27	03-Nov-27
MB13010	Cure Deck - Main Bridge (NB) - Span U - Stage 1 - P1	7	04-Nov-27	10-Nov-27
Main Bridge (NB) - Stage 1 - Span V		28	20-Sep-27	28-Oct-27
MB13020	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span V - Stage 1 - P1	4	20-Sep-27	24-Sep-27
MB13030	Install Overhangs - Main Bridge (NB) - Span V - Stage 1 - P1	3	24-Sep-27	29-Sep-27
MB13040	Erect SIP Forms - Main Bridge (NB) - Span V - Stage 1 - P1	3	29-Sep-27	04-Oct-27
MB13050	Deck Rebar - Main Bridge (NB) - Span V - Stage 1 - P1	4	04-Oct-27	08-Oct-27
MB13060	Form Edges / Bulkheads - Main Bridge (NB) - Span V - Stage 1 - P1	5	08-Oct-27	18-Oct-27
MB13070	Setup Bidwell & Place Deck - Main Bridge (NB) - Span V - Stage 1 - P1	3	18-Oct-27	21-Oct-27



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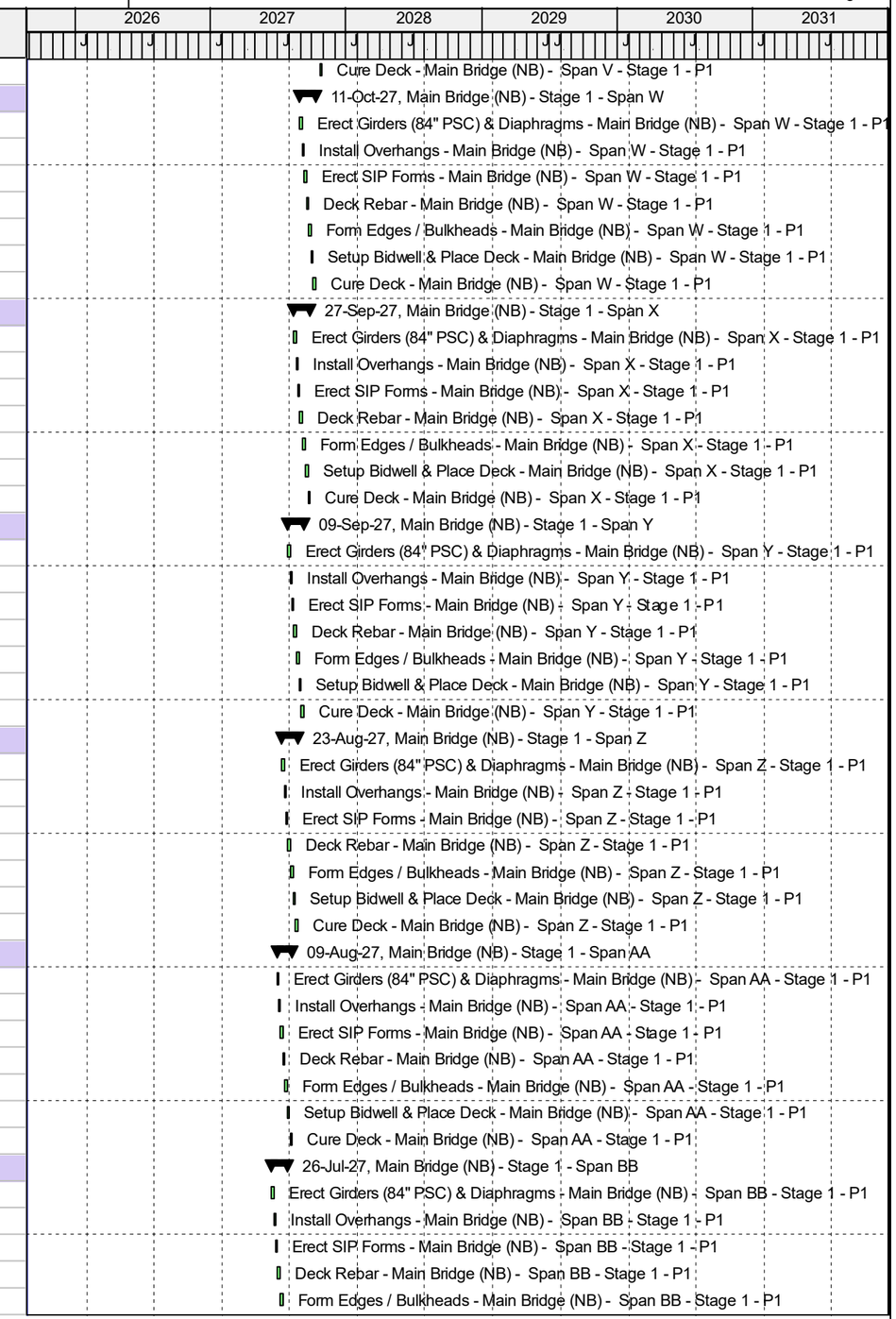
Activity ID	Activity Name	Original Duration	Start	Finish
MB13080	Cure Deck - Main Bridge (NB) - Span V - Stage 1 - P1	7	22-Oct-27	28-Oct-27
Main Bridge (NB) - Stage 1 - Span W		30	30-Aug-27	11-Oct-27
MB13090	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span W - Stage 1 - P1	4	30-Aug-27	07-Sep-27
MB13100	Install Overhangs - Main Bridge (NB) - Span W - Stage 1 - P1	3	07-Sep-27	10-Sep-27
MB13110	Erect SIP Forms - Main Bridge (NB) - Span W - Stage 1 - P1	3	10-Sep-27	16-Sep-27
MB13120	Deck Rebar - Main Bridge (NB) - Span W - Stage 1 - P1	4	16-Sep-27	22-Sep-27
MB13130	Form Edges / Bulkheads - Main Bridge (NB) - Span W - Stage 1 - P1	5	22-Sep-27	29-Sep-27
MB13140	Setup Bidwell & Place Deck - Main Bridge (NB) - Span W - Stage 1 - P1	3	29-Sep-27	04-Oct-27
MB13150	Cure Deck - Main Bridge (NB) - Span W - Stage 1 - P1	7	05-Oct-27	11-Oct-27
Main Bridge (NB) - Stage 1 - Span X		31	13-Aug-27	27-Sep-27
MB13160	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span X - Stage 1 - P1	4	13-Aug-27	20-Aug-27
MB13170	Install Overhangs - Main Bridge (NB) - Span X - Stage 1 - P1	3	20-Aug-27	25-Aug-27
MB13180	Erect SIP Forms - Main Bridge (NB) - Span X - Stage 1 - P1	3	25-Aug-27	30-Aug-27
MB13190	Deck Rebar - Main Bridge (NB) - Span X - Stage 1 - P1	4	30-Aug-27	07-Sep-27
MB13200	Form Edges / Bulkheads - Main Bridge (NB) - Span X - Stage 1 - P1	5	07-Sep-27	14-Sep-27
MB13210	Setup Bidwell & Place Deck - Main Bridge (NB) - Span X - Stage 1 - P1	3	14-Sep-27	20-Sep-27
MB13220	Cure Deck - Main Bridge (NB) - Span X - Stage 1 - P1	7	21-Sep-27	27-Sep-27
Main Bridge (NB) - Stage 1 - Span Y		30	29-Jul-27	09-Sep-27
MB13230	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span Y - Stage 1 - P1	4	29-Jul-27	05-Aug-27
MB13240	Install Overhangs - Main Bridge (NB) - Span Y - Stage 1 - P1	3	05-Aug-27	10-Aug-27
MB13250	Erect SIP Forms - Main Bridge (NB) - Span Y - Stage 1 - P1	3	10-Aug-27	13-Aug-27
MB13260	Deck Rebar - Main Bridge (NB) - Span Y - Stage 1 - P1	4	13-Aug-27	20-Aug-27
MB13270	Form Edges / Bulkheads - Main Bridge (NB) - Span Y - Stage 1 - P1	5	20-Aug-27	27-Aug-27
MB13280	Setup Bidwell & Place Deck - Main Bridge (NB) - Span Y - Stage 1 - P1	3	27-Aug-27	02-Sep-27
MB13290	Cure Deck - Main Bridge (NB) - Span Y - Stage 1 - P1	7	03-Sep-27	09-Sep-27
Main Bridge (NB) - Stage 1 - Span Z		29	13-Jul-27	23-Aug-27
MB13300	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span Z - Stage 1 - P1	4	13-Jul-27	19-Jul-27
MB13310	Install Overhangs - Main Bridge (NB) - Span Z - Stage 1 - P1	3	19-Jul-27	23-Jul-27
MB13320	Erect SIP Forms - Main Bridge (NB) - Span Z - Stage 1 - P1	3	23-Jul-27	28-Jul-27
MB13330	Deck Rebar - Main Bridge (NB) - Span Z - Stage 1 - P1	4	28-Jul-27	03-Aug-27
MB13340	Form Edges / Bulkheads - Main Bridge (NB) - Span Z - Stage 1 - P1	5	03-Aug-27	11-Aug-27
MB13350	Setup Bidwell & Place Deck - Main Bridge (NB) - Span Z - Stage 1 - P1	3	11-Aug-27	16-Aug-27
MB13360	Cure Deck - Main Bridge (NB) - Span Z - Stage 1 - P1	7	17-Aug-27	23-Aug-27
Main Bridge (NB) - Stage 1 - Span AA		30	28-Jun-27	09-Aug-27
MB13370	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span AA - Stage 1 - P1	4	28-Jun-27	02-Jul-27
MB13380	Install Overhangs - Main Bridge (NB) - Span AA - Stage 1 - P1	3	02-Jul-27	09-Jul-27
MB13390	Erect SIP Forms - Main Bridge (NB) - Span AA - Stage 1 - P1	3	09-Jul-27	14-Jul-27
MB13400	Deck Rebar - Main Bridge (NB) - Span AA - Stage 1 - P1	4	14-Jul-27	20-Jul-27
MB13410	Form Edges / Bulkheads - Main Bridge (NB) - Span AA - Stage 1 - P1	5	20-Jul-27	28-Jul-27
MB13420	Setup Bidwell & Place Deck - Main Bridge (NB) - Span AA - Stage 1 - P1	3	28-Jul-27	02-Aug-27
MB13430	Cure Deck - Main Bridge (NB) - Span AA - Stage 1 - P1	7	03-Aug-27	09-Aug-27
Main Bridge (NB) - Stage 1 - Span BB		30	15-Jun-27	26-Jul-27
MB13440	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span BB - Stage 1 - P1	4	15-Jun-27	21-Jun-27
MB13450	Install Overhangs - Main Bridge (NB) - Span BB - Stage 1 - P1	3	22-Jun-27	24-Jun-27
MB13460	Erect SIP Forms - Main Bridge (NB) - Span BB - Stage 1 - P1	3	25-Jun-27	29-Jun-27
MB13470	Deck Rebar - Main Bridge (NB) - Span BB - Stage 1 - P1	4	30-Jun-27	06-Jul-27
MB13480	Form Edges / Bulkheads - Main Bridge (NB) - Span BB - Stage 1 - P1	5	08-Jul-27	14-Jul-27



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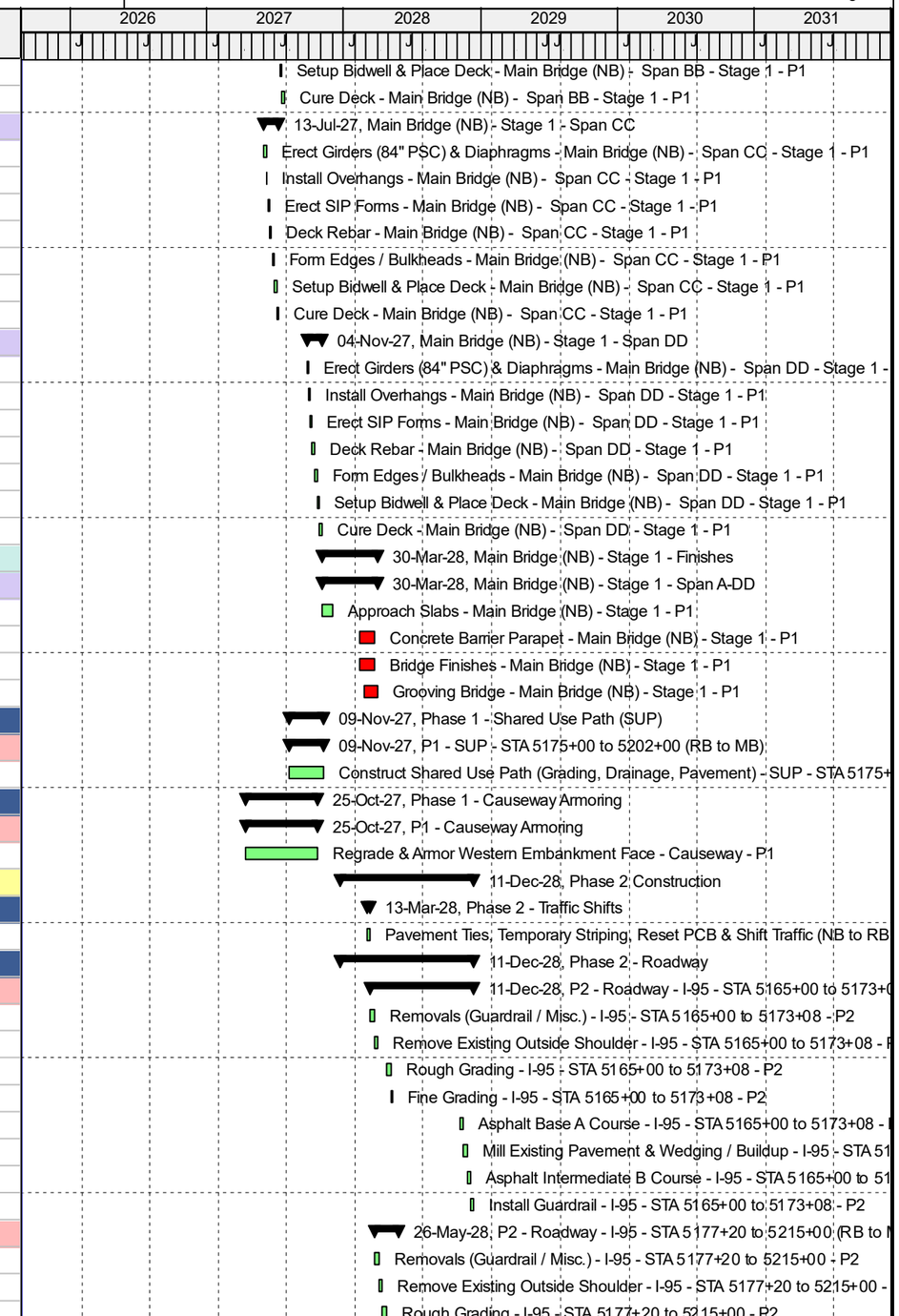
Activity ID	Activity Name	Original Duration	Start	Finish
MB13490	Setup Bidwell & Place Deck - Main Bridge (NB) - Span BB - Stage 1 - P1	3	15-Jul-27	19-Jul-27
MB13500	Cure Deck - Main Bridge (NB) - Span BB - Stage 1 - P1	7	20-Jul-27	26-Jul-27
Main Bridge (NB) - Stage 1 - Span CC		29	03-Jun-27	13-Jul-27
MB13510	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span CC - Stage 1 - P1	4	03-Jun-27	08-Jun-27
MB13520	Install Overhangs - Main Bridge (NB) - Span CC - Stage 1 - P1	3	09-Jun-27	11-Jun-27
MB13530	Erect SIP Forms - Main Bridge (NB) - Span CC - Stage 1 - P1	3	14-Jun-27	17-Jun-27
MB13540	Deck Rebar - Main Bridge (NB) - Span CC - Stage 1 - P1	4	18-Jun-27	23-Jun-27
MB13550	Form Edges / Bulkheads - Main Bridge (NB) - Span CC - Stage 1 - P1	5	24-Jun-27	30-Jun-27
MB13560	Setup Bidwell & Place Deck - Main Bridge (NB) - Span CC - Stage 1 - P1	3	01-Jul-27	06-Jul-27
MB13570	Cure Deck - Main Bridge (NB) - Span CC - Stage 1 - P1	7	07-Jul-27	13-Jul-27
Main Bridge (NB) - Stage 1 - Span DD		29	24-Sep-27	04-Nov-27
MB13580	Erect Girders (84" PSC) & Diaphragms - Main Bridge (NB) - Span DD - Stage 1 - P1	4	24-Sep-27	30-Sep-27
MB13590	Install Overhangs - Main Bridge (NB) - Span DD - Stage 1 - P1	3	30-Sep-27	05-Oct-27
MB13600	Erect SIP Forms - Main Bridge (NB) - Span DD - Stage 1 - P1	3	05-Oct-27	08-Oct-27
MB13610	Deck Rebar - Main Bridge (NB) - Span DD - Stage 1 - P1	4	08-Oct-27	15-Oct-27
MB13620	Form Edges / Bulkheads - Main Bridge (NB) - Span DD - Stage 1 - P1	5	15-Oct-27	22-Oct-27
MB13630	Setup Bidwell & Place Deck - Main Bridge (NB) - Span DD - Stage 1 - P1	3	22-Oct-27	28-Oct-27
MB13640	Cure Deck - Main Bridge (NB) - Span DD - Stage 1 - P1	7	29-Oct-27	04-Nov-27
Main Bridge (NB) - Stage 1 - Finishes		81	04-Nov-27	30-Mar-28
Main Bridge (NB) - Stage 1 - Span A-DD		81	04-Nov-27	30-Mar-28
MBF10000	Approach Slabs - Main Bridge (NB) - Stage 1 - P1	15	04-Nov-27	03-Dec-27
MBF10010	Concrete Barrier Parapet - Main Bridge (NB) - Stage 1 - P1	24	14-Feb-28	23-Mar-28
MBF10020	Bridge Finishes - Main Bridge (NB) - Stage 1 - P1	24	14-Feb-28	23-Mar-28
MBF10030	Grooving Bridge - Main Bridge (NB) - Stage 1 - P1	24	23-Feb-28	30-Mar-28
Phase 1 - Shared Use Path (SUP)		60	09-Aug-27	09-Nov-27
P1 - SUP - STA 5175+00 to 5202+00 (RB to MB)		60	09-Aug-27	09-Nov-27
C10510	Construct Shared Use Path (Grading, Drainage, Pavement) - SUP - STA 5175+00 to 5202+00 - P1	60	09-Aug-27	09-Nov-27
Phase 1 - Causeway Armoring		120	15-Apr-27	25-Oct-27
P1 - Causeway Armoring		120	15-Apr-27	25-Oct-27
C10500	Regrade & Armor Western Embankment Face - Causeway - P1	120	15-Apr-27	25-Oct-27
Phase 2 Construction		254	21-Dec-27	11-Dec-28
Phase 2 - Traffic Shifts		5	03-Mar-28	13-Mar-28
TS10000	Pavement Ties, Temporary Striping, Reset PCB & Shift Traffic (NB to RB Stage 1)	5	03-Mar-28	13-Mar-28
Phase 2 - Roadway		210	21-Dec-27	11-Dec-28
P2 - Roadway - I-95 - STA 5165+00 to 5173+08 (Start to RB)		167	13-Mar-28	11-Dec-28
C20000	Removals (Guardrail / Misc.) - I-95 - STA 5165+00 to 5173+08 - P2	7	13-Mar-28	23-Mar-28
C20010	Remove Existing Outside Shoulder - I-95 - STA 5165+00 to 5173+08 - P2	5	23-Mar-28	30-Mar-28
C20020	Rough Grading - I-95 - STA 5165+00 to 5173+08 - P2	7	26-Apr-28	05-May-28
C20030	Fine Grading - I-95 - STA 5165+00 to 5173+08 - P2	4	05-May-28	12-May-28
C20040	Asphalt Base A Course - I-95 - STA 5165+00 to 5173+08 - P2	5	06-Nov-28	16-Nov-28
C20050	Mill Existing Pavement & Wedging / Buildup - I-95 - STA 5165+00 to 5173+08 - P2	5	16-Nov-28	28-Nov-28
C20060	Asphalt Intermediate B Course - I-95 - STA 5165+00 to 5173+08 - P2	4	28-Nov-28	04-Dec-28
C20070	Install Guardrail - I-95 - STA 5165+00 to 5173+08 - P2	5	04-Dec-28	11-Dec-28
P2 - Roadway - I-95 - STA 5177+20 to 5215+00 (RB to MB)		39	23-Mar-28	26-May-28
C20080	Removals (Guardrail / Misc.) - I-95 - STA 5177+20 to 5215+00 - P2	7	23-Mar-28	03-Apr-28
C20090	Remove Existing Outside Shoulder - I-95 - STA 5177+20 to 5215+00 - P2	5	03-Apr-28	11-Apr-28
C20100	Rough Grading - I-95 - STA 5177+20 to 5215+00 - P2	7	11-Apr-28	26-Apr-28



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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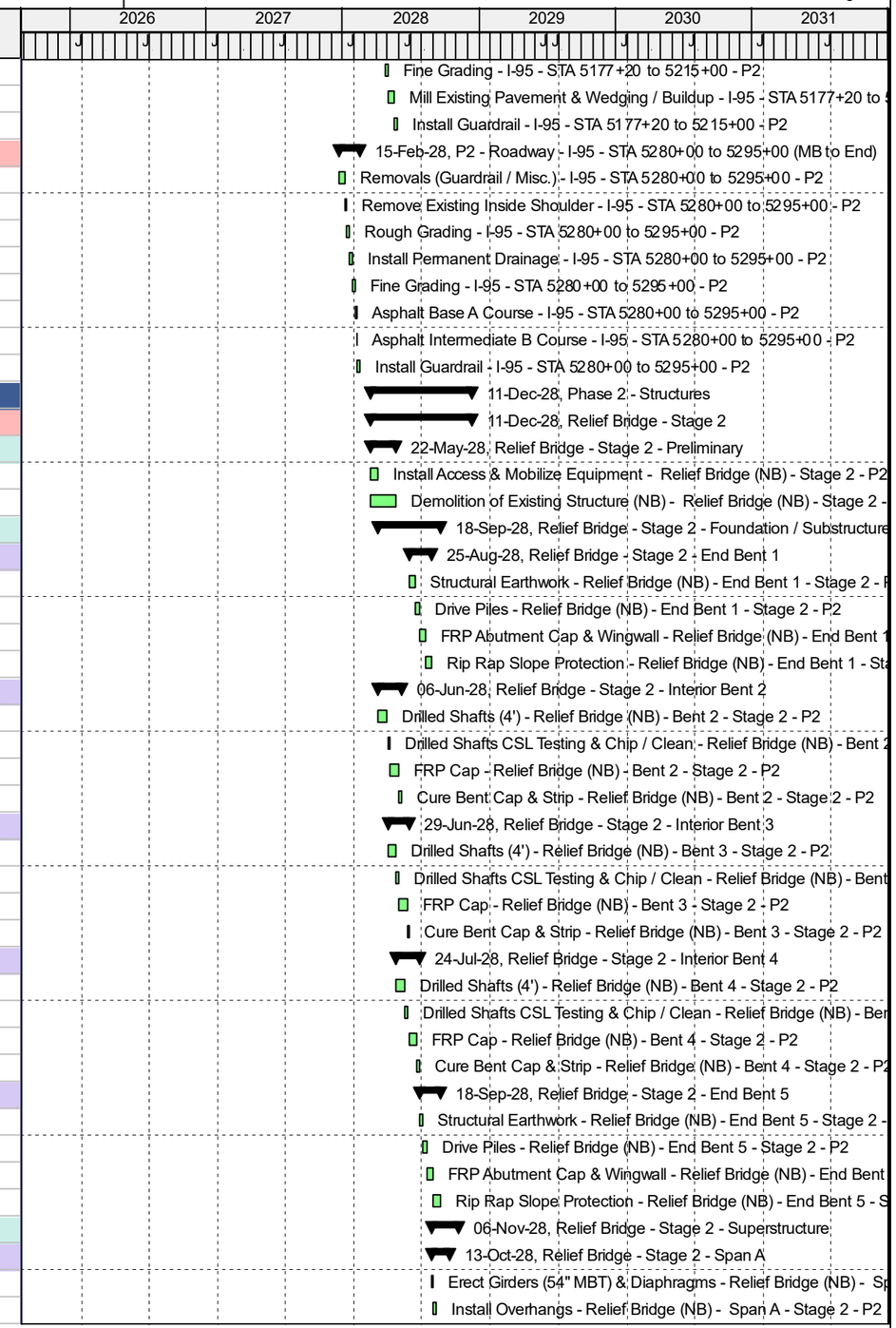
Activity ID	Activity Name	Original Duration	Start	Finish
C20110	Fine Grading - I-95 - STA 5177+20 to 5215+00 - P2	5	26-Apr-28	03-May-28
C20120	Mill Existing Pavement & Wedging / Buildup - I-95 - STA 5177+20 to 5215+00 - P2	10	03-May-28	18-May-28
C20130	Install Guardrail - I-95 - STA 5177+20 to 5215+00 - P2	5	18-May-28	26-May-28
P2 - Roadway - I-95 - STA 5280+00 to 5295+00 (MB to End)		27	21-Dec-27	15-Feb-28
C20140	Removals (Guardrail / Misc.) - I-95 - STA 5280+00 to 5295+00 - P2	2	21-Dec-27	06-Jan-28
C20150	Remove Existing Inside Shoulder - I-95 - STA 5280+00 to 5295+00 - P2	3	06-Jan-28	11-Jan-28
C20160	Rough Grading - I-95 - STA 5280+00 to 5295+00 - P2	5	11-Jan-28	20-Jan-28
C20170	Install Permanent Drainage - I-95 - STA 5280+00 to 5295+00 - P2	6	20-Jan-28	28-Jan-28
C20180	Fine Grading - I-95 - STA 5280+00 to 5295+00 - P2	3	28-Jan-28	03-Feb-28
C20190	Asphalt Base A Course - I-95 - STA 5280+00 to 5295+00 - P2	3	03-Feb-28	08-Feb-28
C20200	Asphalt Intermediate B Course - I-95 - STA 5280+00 to 5295+00 - P2	2	08-Feb-28	10-Feb-28
C20210	Install Guardrail - I-95 - STA 5280+00 to 5295+00 - P2	3	10-Feb-28	15-Feb-28
Phase 2 - Structures		195	14-Mar-28	11-Dec-28
Relief Bridge - Stage 2		195	14-Mar-28	11-Dec-28
Relief Bridge - Stage 2 - Preliminary		45	14-Mar-28	22-May-28
RBP20000	Install Access & Mobilize Equipment - Relief Bridge (NB) - Stage 2 - P2	15	14-Mar-28	04-Apr-28
RBP20010	Demolition of Existing Structure (NB) - Relief Bridge (NB) - Stage 2 - P2	45	14-Mar-28	22-May-28
Relief Bridge - Stage 2 - Foundation / Substructure		118	06-Apr-28	18-Sep-28
Relief Bridge - Stage 2 - End Bent 1		36	29-Jun-28	25-Aug-28
RB20000	Structural Earthwork - Relief Bridge (NB) - End Bent 1 - Stage 2 - P2	7	29-Jun-28	12-Jul-28
RB20010	Drive Piles - Relief Bridge (NB) - End Bent 1 - Stage 2 - P2	7	12-Jul-28	24-Jul-28
RB20020	FRP Abutment Cap & Wingwall - Relief Bridge (NB) - End Bent 1 - Stage 2 - P2	12	24-Jul-28	10-Aug-28
RB20030	Rip Rap Slope Protection - Relief Bridge (NB) - End Bent 1 - Stage 2 - P2	10	10-Aug-28	25-Aug-28
Relief Bridge - Stage 2 - Interior Bent 2		44	06-Apr-28	06-Jun-28
RB20040	Drilled Shafts (4') - Relief Bridge (NB) - Bent 2 - Stage 2 - P2	15	06-Apr-28	28-Apr-28
RB20050	Drilled Shafts CSL Testing & Chip / Clean - Relief Bridge (NB) - Bent 2 - Stage 2 - P2	5	01-May-28	05-May-28
RB20070	FRP Cap - Relief Bridge (NB) - Bent 2 - Stage 2 - P2	14	08-May-28	30-May-28
RB20080	Cure Bent Cap & Strip - Relief Bridge (NB) - Bent 2 - Stage 2 - P2	7	31-May-28	06-Jun-28
Relief Bridge - Stage 2 - Interior Bent 3		44	01-May-28	29-Jun-28
RB20090	Drilled Shafts (4') - Relief Bridge (NB) - Bent 3 - Stage 2 - P2	15	01-May-28	22-May-28
RB20100	Drilled Shafts CSL Testing & Chip / Clean - Relief Bridge (NB) - Bent 3 - Stage 2 - P2	5	23-May-28	31-May-28
RB20120	FRP Cap - Relief Bridge (NB) - Bent 3 - Stage 2 - P2	14	01-Jun-28	22-Jun-28
RB20130	Cure Bent Cap & Strip - Relief Bridge (NB) - Bent 3 - Stage 2 - P2	7	23-Jun-28	29-Jun-28
Relief Bridge - Stage 2 - Interior Bent 4		45	23-May-28	24-Jul-28
RB20140	Drilled Shafts (4') - Relief Bridge (NB) - Bent 4 - Stage 2 - P2	15	23-May-28	15-Jun-28
RB20150	Drilled Shafts CSL Testing & Chip / Clean - Relief Bridge (NB) - Bent 4 - Stage 2 - P2	5	16-Jun-28	23-Jun-28
RB20170	FRP Cap - Relief Bridge (NB) - Bent 4 - Stage 2 - P2	14	26-Jun-28	17-Jul-28
RB20180	Cure Bent Cap & Strip - Relief Bridge (NB) - Bent 4 - Stage 2 - P2	7	18-Jul-28	24-Jul-28
Relief Bridge - Stage 2 - End Bent 5		36	24-Jul-28	18-Sep-28
RB20190	Structural Earthwork - Relief Bridge (NB) - End Bent 5 - Stage 2 - P2	7	24-Jul-28	03-Aug-28
RB20200	Drive Piles - Relief Bridge (NB) - End Bent 5 - Stage 2 - P2	7	03-Aug-28	14-Aug-28
RB20210	FRP Abutment Cap & Wingwall - Relief Bridge (NB) - End Bent 5 - Stage 2 - P2	12	14-Aug-28	31-Aug-28
RB20220	Rip Rap Slope Protection - Relief Bridge (NB) - End Bent 5 - Stage 2 - P2	10	31-Aug-28	18-Sep-28
Relief Bridge - Stage 2 - Superstructure		51	25-Aug-28	06-Nov-28
Relief Bridge - Stage 2 - Span A		35	25-Aug-28	13-Oct-28
RB20230	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (NB) - Span A - Stage 2 - P2	4	25-Aug-28	31-Aug-28
RB20240	Install Overhangs - Relief Bridge (NB) - Span A - Stage 2 - P2	3	31-Aug-28	07-Sep-28



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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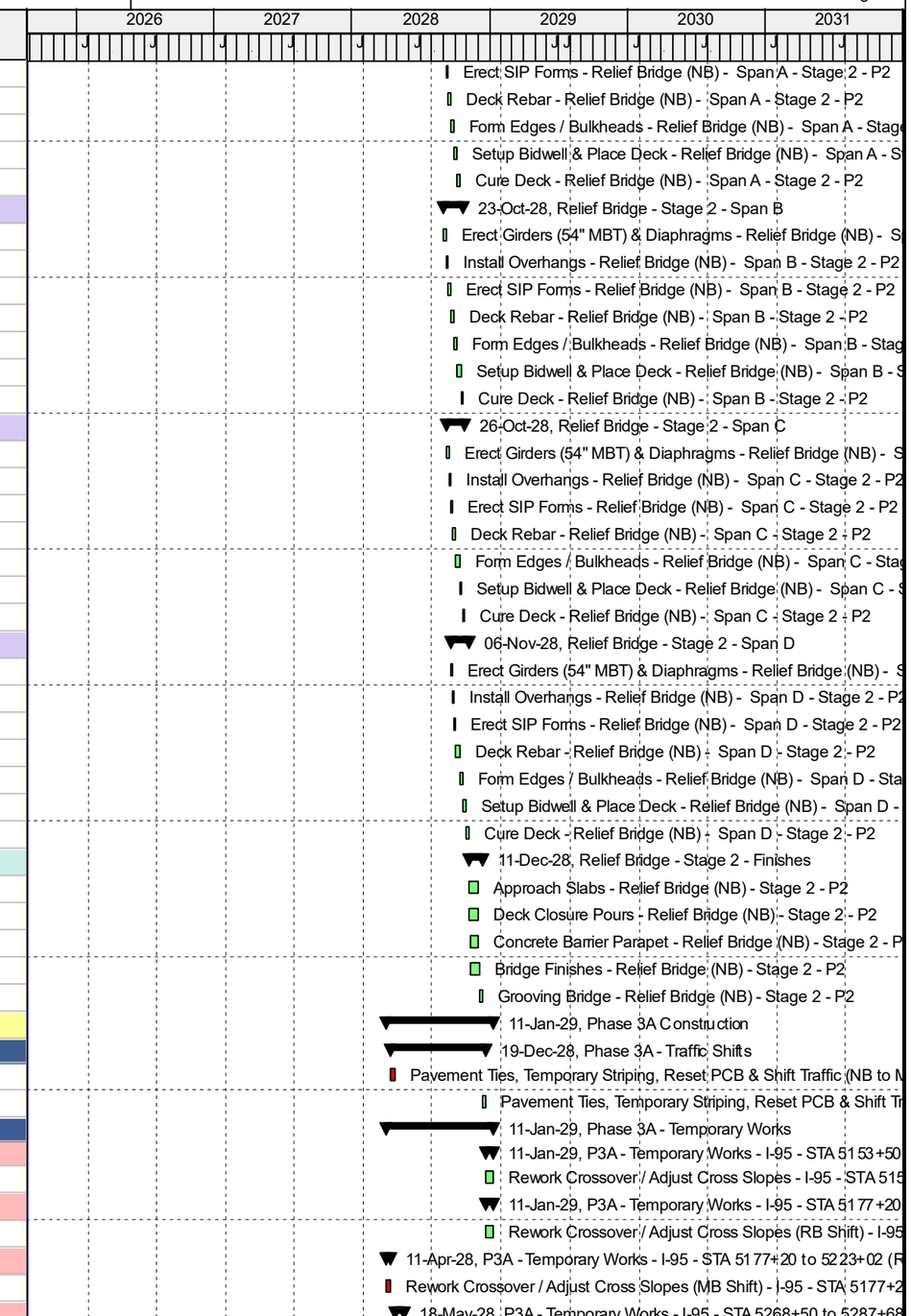
Activity ID	Activity Name	Original Duration	Start	Finish
RB20250	Erect SIP Forms - Relief Bridge (NB) - Span A - Stage 2 - P2	3	07-Sep-28	12-Sep-28
RB20260	Deck Rebar - Relief Bridge (NB) - Span A - Stage 2 - P2	6	12-Sep-28	21-Sep-28
RB20270	Form Edges / Bulkheads - Relief Bridge (NB) - Span A - Stage 2 - P2	6	21-Sep-28	29-Sep-28
RB20280	Setup Bidwell & Place Deck - Relief Bridge (NB) - Span A - Stage 2 - P2	5	29-Sep-28	06-Oct-28
RB20290	Cure Deck - Relief Bridge (NB) - Span A - Stage 2 - P2	7	07-Oct-28	13-Oct-28
Relief Bridge - Stage 2 - Span B		37	31-Aug-28	23-Oct-28
RB20300	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (NB) - Span B - Stage 2 - P2	4	31-Aug-28	08-Sep-28
RB20310	Install Overhangs - Relief Bridge (NB) - Span B - Stage 2 - P2	3	08-Sep-28	13-Sep-28
RB20320	Erect SIP Forms - Relief Bridge (NB) - Span B - Stage 2 - P2	3	13-Sep-28	18-Sep-28
RB20330	Deck Rebar - Relief Bridge (NB) - Span B - Stage 2 - P2	6	18-Sep-28	27-Sep-28
RB20340	Form Edges / Bulkheads - Relief Bridge (NB) - Span B - Stage 2 - P2	6	27-Sep-28	05-Oct-28
RB20350	Setup Bidwell & Place Deck - Relief Bridge (NB) - Span B - Stage 2 - P2	5	06-Oct-28	16-Oct-28
RB20360	Cure Deck - Relief Bridge (NB) - Span B - Stage 2 - P2	7	17-Oct-28	23-Oct-28
Relief Bridge - Stage 2 - Span C		34	08-Sep-28	26-Oct-28
RB20370	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (NB) - Span C - Stage 2 - P2	4	08-Sep-28	14-Sep-28
RB20380	Install Overhangs - Relief Bridge (NB) - Span C - Stage 2 - P2	3	14-Sep-28	19-Sep-28
RB20390	Erect SIP Forms - Relief Bridge (NB) - Span C - Stage 2 - P2	3	19-Sep-28	25-Sep-28
RB20400	Deck Rebar - Relief Bridge (NB) - Span C - Stage 2 - P2	6	25-Sep-28	03-Oct-28
RB20410	Form Edges / Bulkheads - Relief Bridge (NB) - Span C - Stage 2 - P2	6	03-Oct-28	12-Oct-28
RB20420	Setup Bidwell & Place Deck - Relief Bridge (NB) - Span C - Stage 2 - P2	5	12-Oct-28	19-Oct-28
RB20430	Cure Deck - Relief Bridge (NB) - Span C - Stage 2 - P2	7	20-Oct-28	26-Oct-28
Relief Bridge - Stage 2 - Span D		35	18-Sep-28	06-Nov-28
RB20440	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (NB) - Span D - Stage 2 - P2	4	18-Sep-28	25-Sep-28
RB20450	Install Overhangs - Relief Bridge (NB) - Span D - Stage 2 - P2	3	25-Sep-28	28-Sep-28
RB20460	Erect SIP Forms - Relief Bridge (NB) - Span D - Stage 2 - P2	3	28-Sep-28	03-Oct-28
RB20470	Deck Rebar - Relief Bridge (NB) - Span D - Stage 2 - P2	6	03-Oct-28	12-Oct-28
RB20480	Form Edges / Bulkheads - Relief Bridge (NB) - Span D - Stage 2 - P2	6	12-Oct-28	20-Oct-28
RB20490	Setup Bidwell & Place Deck - Relief Bridge (NB) - Span D - Stage 2 - P2	5	20-Oct-28	30-Oct-28
RB20500	Cure Deck - Relief Bridge (NB) - Span D - Stage 2 - P2	7	31-Oct-28	06-Nov-28
Relief Bridge - Stage 2 - Finishes		19	06-Nov-28	11-Dec-28
RBF20010	Approach Slabs - Relief Bridge (NB) - Stage 2 - P2	12	06-Nov-28	30-Nov-28
RBF20000	Deck Closure Pours - Relief Bridge (NB) - Stage 2 - P2	12	06-Nov-28	30-Nov-28
RBF20020	Concrete Barrier Parapet - Relief Bridge (NB) - Stage 2 - P2	10	09-Nov-28	30-Nov-28
RBF20030	Bridge Finishes - Relief Bridge (NB) - Stage 2 - P2	12	09-Nov-28	04-Dec-28
RBF20040	Grooving Bridge - Relief Bridge (NB) - Stage 2 - P2	5	04-Dec-28	11-Dec-28
Phase 3A Construction		167	30-Mar-28	11-Jan-29
Phase 3A - Traffic Shifts		153	11-Apr-28	19-Dec-28
TS10015	Pavement Ties, Temporary Striping, Reset PCB & Shift Traffic (NB to MB Stage 1)	5	11-Apr-28	24-Apr-28
TS10010	Pavement Ties, Temporary Striping, Reset PCB & Shift Traffic (NB to RB Stage 2)	5	11-Dec-28	19-Dec-28
Phase 3A - Temporary Works		167	30-Mar-28	11-Jan-29
P3A - Temporary Works - I-95 - STA 5153+50 to 5172+50 (Start to RB)		7	19-Dec-28	11-Jan-29
C30000	Rework Crossover / Adjust Cross Slopes - I-95 - STA 5153+50 to 5172+50 - P3A	7	19-Dec-28	11-Jan-29
P3A - Temporary Works - I-95 - STA 5177+20 to 5223+02 (RB to MB) - RB Shift		7	19-Dec-28	11-Jan-29
C30005	Rework Crossover / Adjust Cross Slopes (RB Shift) - I-95 - STA 5177+20 to 5223+02 - P3A	7	19-Dec-28	11-Jan-29
P3A - Temporary Works - I-95 - STA 5177+20 to 5223+02 (RB to MB) - MB Shift		7	30-Mar-28	11-Apr-28
C35005	Rework Crossover / Adjust Cross Slopes (MB Shift) - I-95 - STA 5177+20 to 5223+02 - P3B	7	30-Mar-28	11-Apr-28
P3A - Temporary Works - I-95 - STA 5268+50 to 5287+68 (MB to End)		17	24-Apr-28	18-May-28



Remaining Level of Effort | Remaining Work | Milestone
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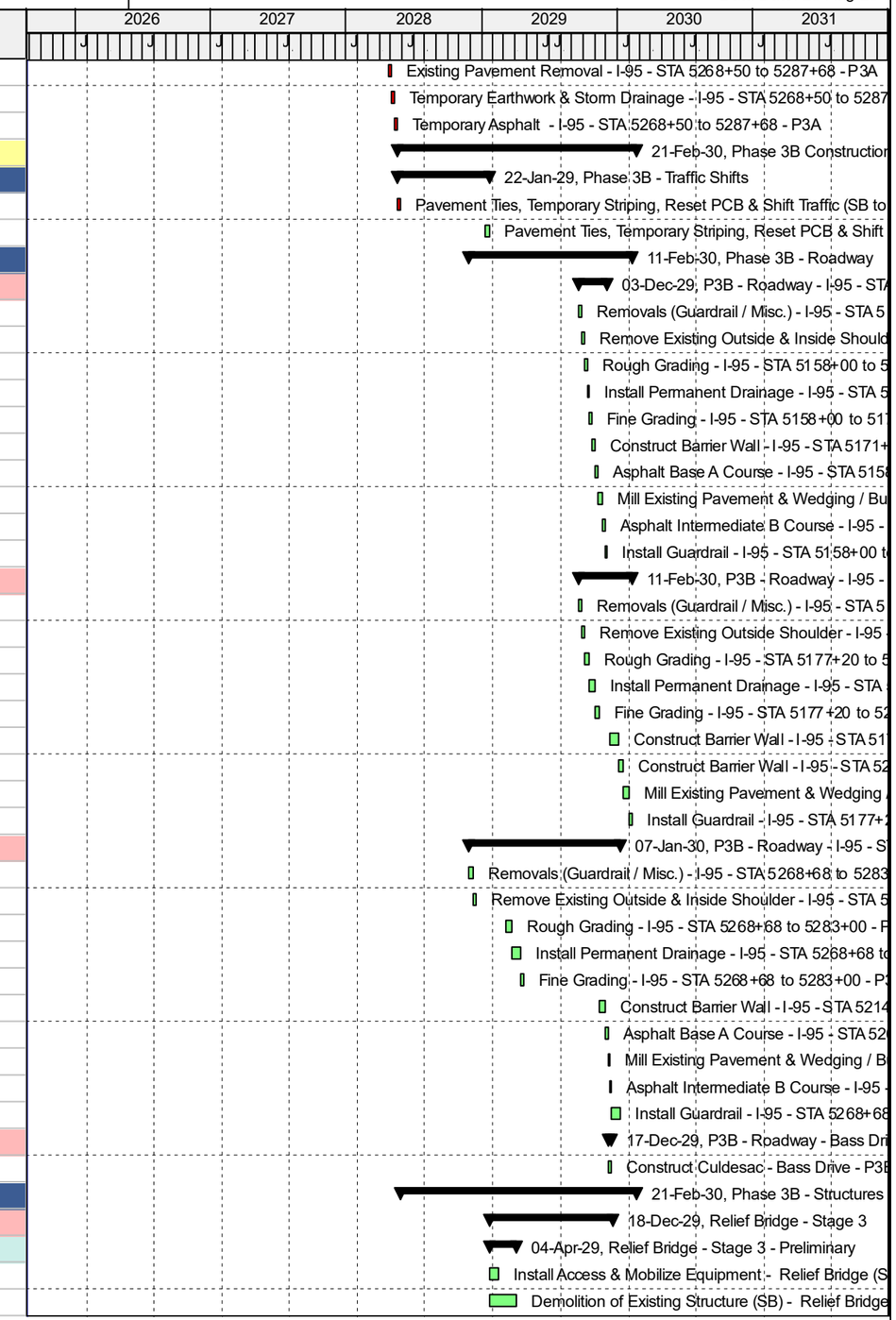
Activity ID	Activity Name	Original Duration	Start	Finish
C30010	Existing Pavement Removal - I-95 - STA 5268+50 to 5287+68 - P3A	5	24-Apr-28	01-May-28
C30020	Temporary Earthwork & Storm Drainage - I-95 - STA 5268+50 to 5287+68 - P3A	7	01-May-28	11-May-28
C30030	Temporary Asphalt - I-95 - STA 5268+50 to 5287+68 - P3A	5	11-May-28	18-May-28
Phase 3B Construction		460	18-May-28	21-Feb-30
Phase 3B - Traffic Shifts		143	18-May-28	22-Jan-29
TS10035	Pavement Ties, Temporary Striping, Reset PCB & Shift Traffic (SB to Exist MB (NB))	5	18-May-28	26-May-28
TS10020	Pavement Ties, Temporary Striping, Reset PCB & Shift Traffic (SB to RB Stage 1)	5	11-Jan-29	22-Jan-29
Phase 3B - Roadway		252	28-Nov-28	11-Feb-30
P3B - Roadway - I-95 - STA 5158+00 to 5173+08 (Start to RB)		46	17-Sep-29	03-Dec-29
C35000	Removals (Guardrail / Misc.) - I-95 - STA 5158+00 to 5173+08 - P3B	7	17-Sep-29	27-Sep-29
C35010	Remove Existing Outside & Inside Shoulder - I-95 - STA 5158+00 to 5173+08 - P3B	5	27-Sep-29	04-Oct-29
C35020	Rough Grading - I-95 - STA 5158+00 to 5173+08 - P3B	5	04-Oct-29	12-Oct-29
C35030	Install Permanent Drainage - I-95 - STA 5158+00 to 5173+08 - P3B	4	12-Oct-29	18-Oct-29
C35040	Fine Grading - I-95 - STA 5158+00 to 5173+08 - P3B	3	18-Oct-29	23-Oct-29
C35050	Construct Barrier Wall - I-95 - STA 5171+88 to 5173+08 - P3B	7	23-Oct-29	02-Nov-29
C35060	Asphalt Base A Course - I-95 - STA 5158+00 to 5173+08 - P3B	4	02-Nov-29	09-Nov-29
C35070	Mill Existing Pavement & Wedging / Buildup - I-95 - STA 5158+00 to 5173+08 - P3B	5	09-Nov-29	20-Nov-29
C35080	Asphalt Intermediate B Course - I-95 - STA 5158+00 to 5173+08 - P3B	3	20-Nov-29	28-Nov-29
C35090	Install Guardrail - I-95 - STA 5158+00 to 5173+08 - P3B	3	28-Nov-29	03-Dec-29
P3B - Roadway - I-95 - STA 5177+20 to 5223+02 (RB to MB)		80	17-Sep-29	11-Feb-30
C35100	Removals (Guardrail / Misc.) - I-95 - STA 5177+20 to 5223+02 - P3B	6	17-Sep-29	26-Sep-29
C35110	Remove Existing Outside Shoulder - I-95 - STA 5177+20 to 5223+02 - P3B	5	26-Sep-29	03-Oct-29
C35120	Rough Grading - I-95 - STA 5177+20 to 5223+02 - P3B	7	03-Oct-29	15-Oct-29
C35130	Install Permanent Drainage - I-95 - STA 5177+20 to 5223+02 - P3B	12	15-Oct-29	01-Nov-29
C35140	Fine Grading - I-95 - STA 5177+20 to 5223+02 - P3B	7	01-Nov-29	15-Nov-29
C35150	Construct Barrier Wall - I-95 - STA 5177+20 to 5182+63 - P3B	7	11-Dec-29	04-Jan-30
C35160	Construct Barrier Wall - I-95 - STA 5214+30 to 5223+02 - P3B	7	04-Jan-30	15-Jan-30
C35170	Mill Existing Pavement & Wedging / Buildup - I-95 - STA 5177+20 to 5223+02 - P3B	10	15-Jan-30	01-Feb-30
C35180	Install Guardrail - I-95 - STA 5177+20 to 5223+02 - P3B	5	01-Feb-30	11-Feb-30
P3B - Roadway - I-95 - STA 5268+68 to 5283+00 (MB to End)		231	28-Nov-28	07-Jan-30
C35190	Removals (Guardrail / Misc.) - I-95 - STA 5268+68 to 5283+00 - P3B	7	28-Nov-28	07-Dec-28
C35200	Remove Existing Outside & Inside Shoulder - I-95 - STA 5268+68 to 5283+00 - P3B	5	07-Dec-28	15-Dec-28
C35210	Rough Grading - I-95 - STA 5268+68 to 5283+00 - P3B	12	05-Mar-29	23-Mar-29
C35220	Install Permanent Drainage - I-95 - STA 5268+68 to 5283+00 - P3B	12	23-Mar-29	16-Apr-29
C35230	Fine Grading - I-95 - STA 5268+68 to 5283+00 - P3B	5	16-Apr-29	23-Apr-29
C35240	Construct Barrier Wall - I-95 - STA 5214+30 to 5275+99 - P3B	7	16-Nov-29	29-Nov-29
C35250	Asphalt Base A Course - I-95 - STA 5268+68 to 5283+00 - P3B	4	30-Nov-29	06-Dec-29
C35260	Mill Existing Pavement & Wedging / Buildup - I-95 - STA 5268+68 to 5283+00 - P3B	3	07-Dec-29	11-Dec-29
C35270	Asphalt Intermediate B Course - I-95 - STA 5268+68 to 5283+00 - P3B	3	12-Dec-29	14-Dec-29
C35280	Install Guardrail - I-95 - STA 5268+68 to 5283+00 - P3B	5	17-Dec-29	07-Jan-30
P3B - Roadway - Bass Drive Culdesac (MB to End)		7	07-Dec-29	17-Dec-29
C35290	Construct Culdesac - Bass Drive - P3B	7	07-Dec-29	17-Dec-29
Phase 3B - Structures		454	26-May-28	21-Feb-30
Relief Bridge - Stage 3		236	23-Jan-29	18-Dec-29
Relief Bridge - Stage 3 - Preliminary		45	23-Jan-29	04-Apr-29
RBP30000	Install Access & Mobilize Equipment - Relief Bridge (SB) - Stage 3 - P3B	15	23-Jan-29	14-Feb-29
RBP30010	Demolition of Existing Structure (SB) - Relief Bridge (SB) - Stage 3 - P3B	45	23-Jan-29	04-Apr-29



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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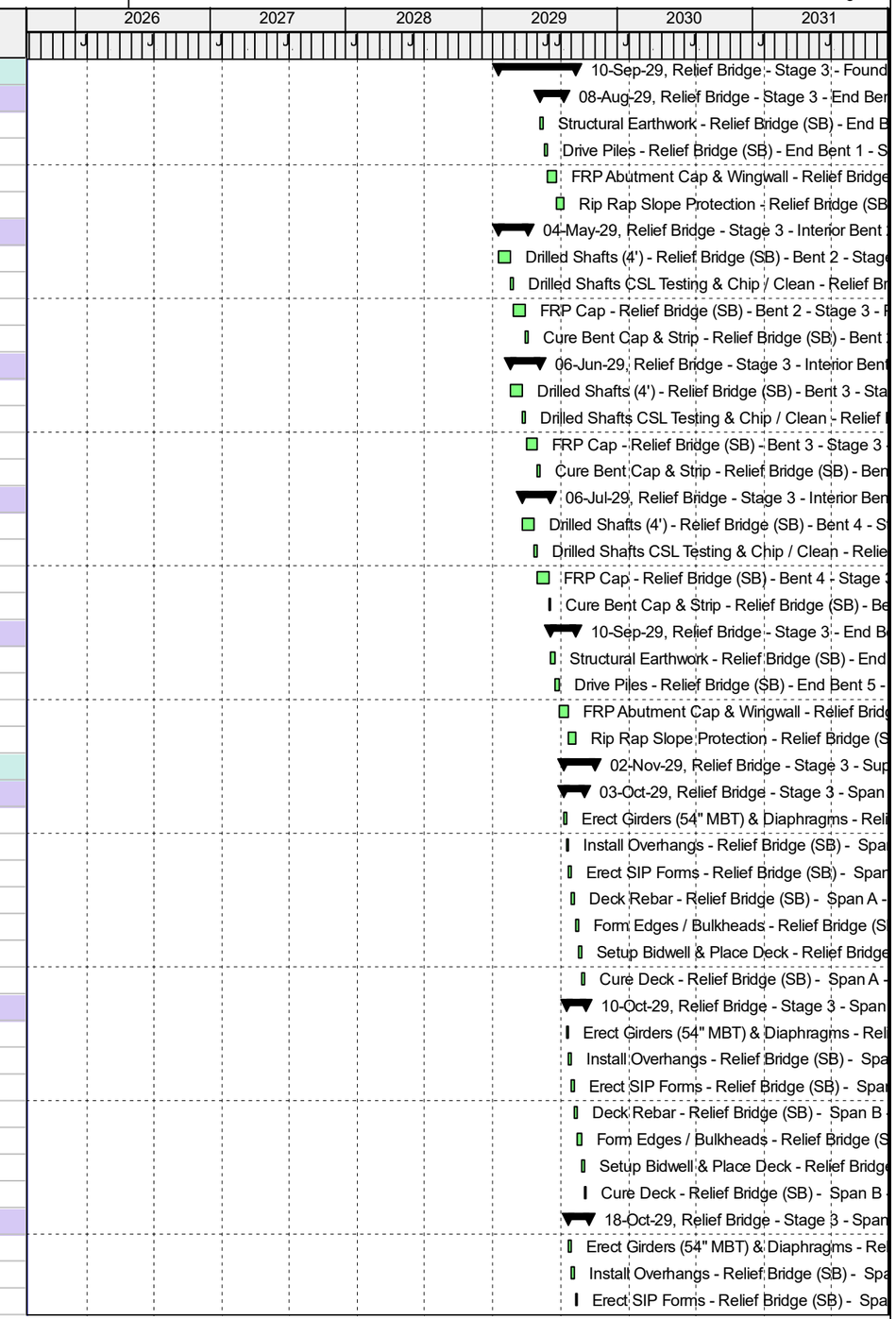
Activity ID	Activity Name	Original Duration	Start	Finish
Relief Bridge - Stage 3 - Foundation / Substructure		148	15-Feb-29	10-Sep-29
Relief Bridge - Stage 3 - End Bent 1		41	07-Jun-29	08-Aug-29
RB30000	Structural Earthwork - Relief Bridge (SB) - End Bent 1 - Stage 3 - P3B	7	07-Jun-29	15-Jun-29
RB30010	Drive Piles - Relief Bridge (SB) - End Bent 1 - Stage 3 - P3B	8	18-Jun-29	28-Jun-29
RB30020	FRP Abutment Cap & Wingwall - Relief Bridge (SB) - End Bent 1 - Stage 3 - P3B	14	29-Jun-29	20-Jul-29
RB30030	Rip Rap Slope Protection - Relief Bridge (SB) - End Bent 1 - Stage 3 - P3B	12	23-Jul-29	08-Aug-29
Relief Bridge - Stage 3 - Interior Bent 2		57	15-Feb-29	04-May-29
RB30040	Drilled Shafts (4') - Relief Bridge (SB) - Bent 2 - Stage 3 - P3B	20	15-Feb-29	19-Mar-29
RB30050	Drilled Shafts CSL Testing & Chip / Clean - Relief Bridge (SB) - Bent 2 - Stage 3 - P3B	5	20-Mar-29	27-Mar-29
RB30070	FRP Cap - Relief Bridge (SB) - Bent 2 - Stage 3 - P3B	20	28-Mar-29	27-Apr-29
RB30080	Cure Bent Cap & Strip - Relief Bridge (SB) - Bent 2 - Stage 3 - P3B	7	28-Apr-29	04-May-29
Relief Bridge - Stage 3 - Interior Bent 3		57	20-Mar-29	06-Jun-29
RB30090	Drilled Shafts (4') - Relief Bridge (SB) - Bent 3 - Stage 3 - P3B	20	20-Mar-29	19-Apr-29
RB30100	Drilled Shafts CSL Testing & Chip / Clean - Relief Bridge (SB) - Bent 3 - Stage 3 - P3B	5	20-Apr-29	27-Apr-29
RB30120	FRP Cap - Relief Bridge (SB) - Bent 3 - Stage 3 - P3B	20	30-Apr-29	30-May-29
RB30130	Cure Bent Cap & Strip - Relief Bridge (SB) - Bent 3 - Stage 3 - P3B	7	31-May-29	06-Jun-29
Relief Bridge - Stage 3 - Interior Bent 4		56	20-Apr-29	06-Jul-29
RB30140	Drilled Shafts (4') - Relief Bridge (SB) - Bent 4 - Stage 3 - P3B	20	20-Apr-29	21-May-29
RB30150	Drilled Shafts CSL Testing & Chip / Clean - Relief Bridge (SB) - Bent 4 - Stage 3 - P3B	5	22-May-29	30-May-29
RB30170	FRP Cap - Relief Bridge (SB) - Bent 4 - Stage 3 - P3B	20	31-May-29	29-Jun-29
RB30180	Cure Bent Cap & Strip - Relief Bridge (SB) - Bent 4 - Stage 3 - P3B	7	30-Jun-29	06-Jul-29
Relief Bridge - Stage 3 - End Bent 5		41	06-Jul-29	10-Sep-29
RB30190	Structural Earthwork - Relief Bridge (SB) - End Bent 5 - Stage 3 - P3B	7	06-Jul-29	17-Jul-29
RB30200	Drive Piles - Relief Bridge (SB) - End Bent 5 - Stage 3 - P3B	8	17-Jul-29	30-Jul-29
RB30210	FRP Abutment Cap & Wingwall - Relief Bridge (SB) - End Bent 5 - Stage 3 - P3B	14	30-Jul-29	21-Aug-29
RB30220	Rip Rap Slope Protection - Relief Bridge (SB) - End Bent 5 - Stage 3 - P3B	12	21-Aug-29	10-Sep-29
Relief Bridge - Stage 3 - Superstructure		62	09-Aug-29	02-Nov-29
Relief Bridge - Stage 3 - Span A		40	09-Aug-29	03-Oct-29
RB30230	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (SB) - Span A - Stage 3 - P3B	5	09-Aug-29	16-Aug-29
RB30240	Install Overhangs - Relief Bridge (SB) - Span A - Stage 3 - P3B	4	17-Aug-29	22-Aug-29
RB30250	Erect SIP Forms - Relief Bridge (SB) - Span A - Stage 3 - P3B	4	23-Aug-29	28-Aug-29
RB30260	Deck Rebar - Relief Bridge (SB) - Span A - Stage 3 - P3B	6	29-Aug-29	07-Sep-29
RB30270	Form Edges / Bulkheads - Relief Bridge (SB) - Span A - Stage 3 - P3B	7	10-Sep-29	18-Sep-29
RB30280	Setup Bidwell & Place Deck - Relief Bridge (SB) - Span A - Stage 3 - P3B	5	20-Sep-29	26-Sep-29
RB30290	Cure Deck - Relief Bridge (SB) - Span A - Stage 3 - P3B	7	27-Sep-29	03-Oct-29
Relief Bridge - Stage 3 - Span B		39	17-Aug-29	10-Oct-29
RB30300	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (SB) - Span B - Stage 3 - P3B	5	17-Aug-29	23-Aug-29
RB30310	Install Overhangs - Relief Bridge (SB) - Span B - Stage 3 - P3B	4	24-Aug-29	29-Aug-29
RB30320	Erect SIP Forms - Relief Bridge (SB) - Span B - Stage 3 - P3B	4	30-Aug-29	06-Sep-29
RB30330	Deck Rebar - Relief Bridge (SB) - Span B - Stage 3 - P3B	6	07-Sep-29	14-Sep-29
RB30340	Form Edges / Bulkheads - Relief Bridge (SB) - Span B - Stage 3 - P3B	7	17-Sep-29	26-Sep-29
RB30350	Setup Bidwell & Place Deck - Relief Bridge (SB) - Span B - Stage 3 - P3B	5	27-Sep-29	03-Oct-29
RB30360	Cure Deck - Relief Bridge (SB) - Span B - Stage 3 - P3B	7	04-Oct-29	10-Oct-29
Relief Bridge - Stage 3 - Span C		40	24-Aug-29	18-Oct-29
RB30370	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (SB) - Span C - Stage 3 - P3B	5	24-Aug-29	30-Aug-29
RB30380	Install Overhangs - Relief Bridge (SB) - Span C - Stage 3 - P3B	4	31-Aug-29	07-Sep-29
RB30390	Erect SIP Forms - Relief Bridge (SB) - Span C - Stage 3 - P3B	4	10-Sep-29	13-Sep-29



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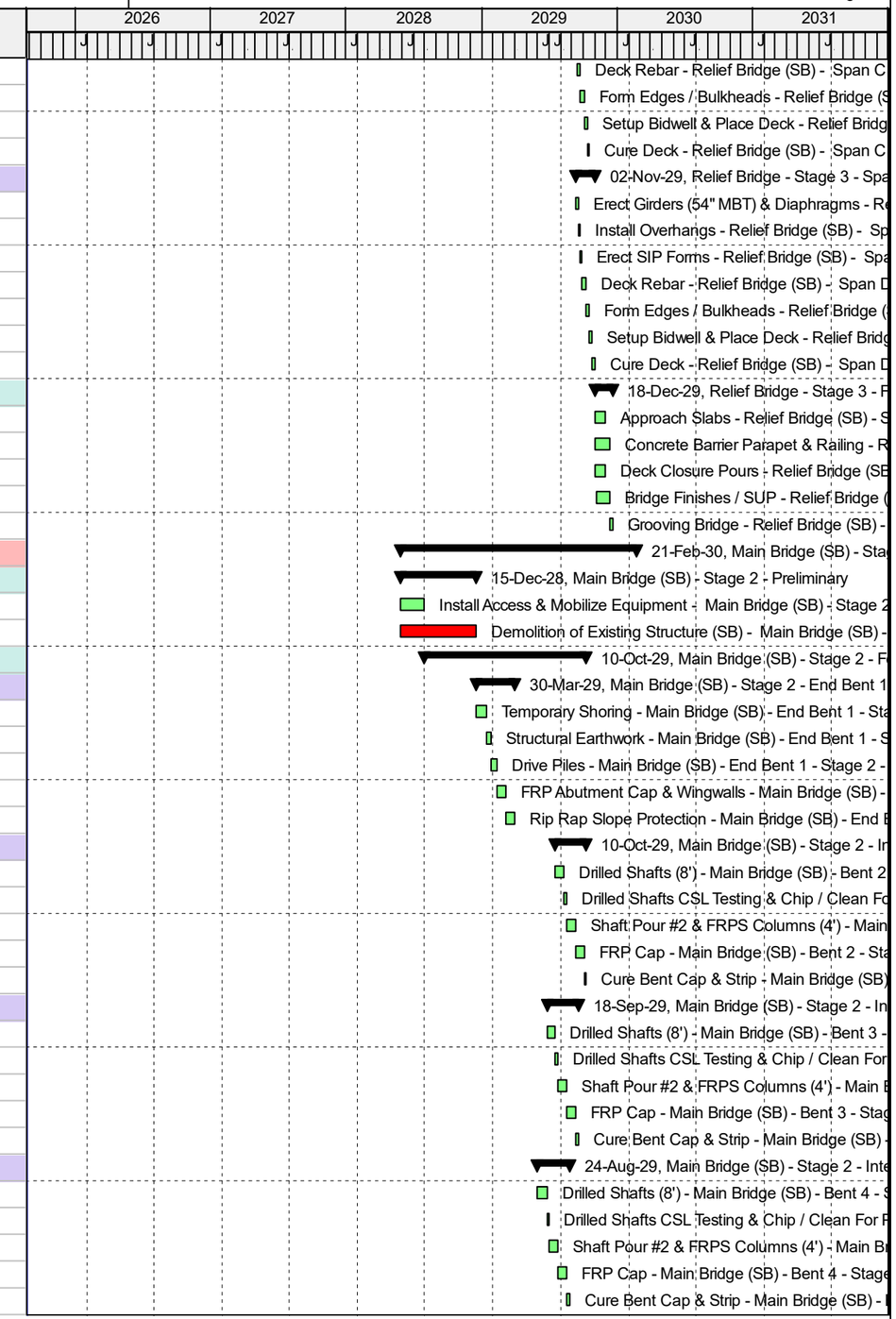
Activity ID	Activity Name	Original Duration	Start	Finish
RB30400	Deck Rebar - Relief Bridge (SB) - Span C - Stage 3 - P3B	6	14-Sep-29	24-Sep-29
RB30410	Form Edges / Bulkheads - Relief Bridge (SB) - Span C - Stage 3 - P3B	7	25-Sep-29	03-Oct-29
RB30420	Setup Bidwell & Place Deck - Relief Bridge (SB) - Span C - Stage 3 - P3B	5	04-Oct-29	11-Oct-29
RB30430	Cure Deck - Relief Bridge (SB) - Span C - Stage 3 - P3B	7	12-Oct-29	18-Oct-29
Relief Bridge - Stage 3 - Span D		39	10-Sep-29	02-Nov-29
RB30440	Erect Girders (54" MBT) & Diaphragms - Relief Bridge (SB) - Span D - Stage 3 - P3B	5	10-Sep-29	17-Sep-29
RB30450	Install Overhangs - Relief Bridge (SB) - Span D - Stage 3 - P3B	4	17-Sep-29	24-Sep-29
RB30460	Erect SIP Forms - Relief Bridge (SB) - Span D - Stage 3 - P3B	4	24-Sep-29	28-Sep-29
RB30470	Deck Rebar - Relief Bridge (SB) - Span D - Stage 3 - P3B	6	28-Sep-29	08-Oct-29
RB30480	Form Edges / Bulkheads - Relief Bridge (SB) - Span D - Stage 3 - P3B	7	08-Oct-29	18-Oct-29
RB30490	Setup Bidwell & Place Deck - Relief Bridge (SB) - Span D - Stage 3 - P3B	5	18-Oct-29	26-Oct-29
RB30500	Cure Deck - Relief Bridge (SB) - Span D - Stage 3 - P3B	7	27-Oct-29	02-Nov-29
Relief Bridge - Stage 3 - Finishes		25	02-Nov-29	18-Dec-29
RBF30010	Approach Slabs - Relief Bridge (SB) - Stage 3 - P3B	12	02-Nov-29	28-Nov-29
RBF30020	Concrete Barrier Parapet & Railing - Relief Bridge (SB) - Stage 3 - P3B	20	02-Nov-29	11-Dec-29
RBF30000	Deck Closure Pours - Relief Bridge (SB) - Stage 3 - P3B	12	02-Nov-29	28-Nov-29
RBF30030	Bridge Finishes / SUP - Relief Bridge (SB) - Stage 3 - P3B	18	06-Nov-29	11-Dec-29
RBF30040	Grooving Bridge - Relief Bridge (SB) - Stage 3 - P3B	5	11-Dec-29	18-Dec-29
Main Bridge (SB) - Stage 2		454	26-May-28	21-Feb-30
Main Bridge (SB) - Stage 2 - Preliminary		125	26-May-28	15-Dec-28
MBP20000	Install Access & Mobilize Equipment - Main Bridge (SB) - Stage 2 - P3B	40	26-May-28	31-Jul-28
MBP20010	Demolition of Existing Structure (SB) - Main Bridge (SB) - Stage 2 - P3B	125	26-May-28	15-Dec-28
Main Bridge (SB) - Stage 2 - Foundation / Substructure		312	31-Jul-28	10-Oct-29
Main Bridge (SB) - Stage 2 - End Bent 1		57	15-Dec-28	30-Mar-29
MB20000	Temporary Shoring - Main Bridge (SB) - End Bent 1 - Stage 2 - P3B	10	15-Dec-28	12-Jan-29
MB20005	Structural Earthwork - Main Bridge (SB) - End Bent 1 - Stage 2 - P3B	7	12-Jan-29	25-Jan-29
MB20010	Drive Piles - Main Bridge (SB) - End Bent 1 - Stage 2 - P3B	9	25-Jan-29	09-Feb-29
MB20020	FRP Abutment Cap & Wingwalls - Main Bridge (SB) - End Bent 1 - Stage 2 - P3B	16	09-Feb-29	08-Mar-29
MB20030	Rip Rap Slope Protection - Main Bridge (SB) - End Bent 1 - Stage 2 - P3B	15	08-Mar-29	30-Mar-29
Main Bridge (SB) - Stage 2 - Interior Bent 2		61	17-Jul-29	10-Oct-29
MB20040	Drilled Shafts (8') - Main Bridge (SB) - Bent 2 - Stage 2 - P3B	15	17-Jul-29	09-Aug-29
MB20050	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 2 - Stage 2 - P3B	5	09-Aug-29	17-Aug-29
MB20060	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 2 - Stage 2 - P3B	15	17-Aug-29	11-Sep-29
MB20070	FRP Cap - Main Bridge (SB) - Bent 2 - Stage 2 - P3B	15	11-Sep-29	03-Oct-29
MB20080	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 2 - Stage 2 - P3B	7	04-Oct-29	10-Oct-29
Main Bridge (SB) - Stage 2 - Interior Bent 3		61	25-Jun-29	18-Sep-29
MB20090	Drilled Shafts (8') - Main Bridge (SB) - Bent 3 - Stage 2 - P3B	15	25-Jun-29	17-Jul-29
MB20100	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 3 - Stage 2 - P3B	5	17-Jul-29	25-Jul-29
MB20110	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 3 - Stage 2 - P3B	15	25-Jul-29	17-Aug-29
MB20120	FRP Cap - Main Bridge (SB) - Bent 3 - Stage 2 - P3B	15	17-Aug-29	11-Sep-29
MB20130	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 3 - Stage 2 - P3B	7	12-Sep-29	18-Sep-29
Main Bridge (SB) - Stage 2 - Interior Bent 4		61	31-May-29	24-Aug-29
MB20140	Drilled Shafts (8') - Main Bridge (SB) - Bent 4 - Stage 2 - P3B	15	31-May-29	25-Jun-29
MB20150	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 4 - Stage 2 - P3B	5	25-Jun-29	02-Jul-29
MB20160	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 4 - Stage 2 - P3B	15	02-Jul-29	25-Jul-29
MB20170	FRP Cap - Main Bridge (SB) - Bent 4 - Stage 2 - P3B	15	25-Jul-29	17-Aug-29
MB20180	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 4 - Stage 2 - P3B	7	18-Aug-29	24-Aug-29



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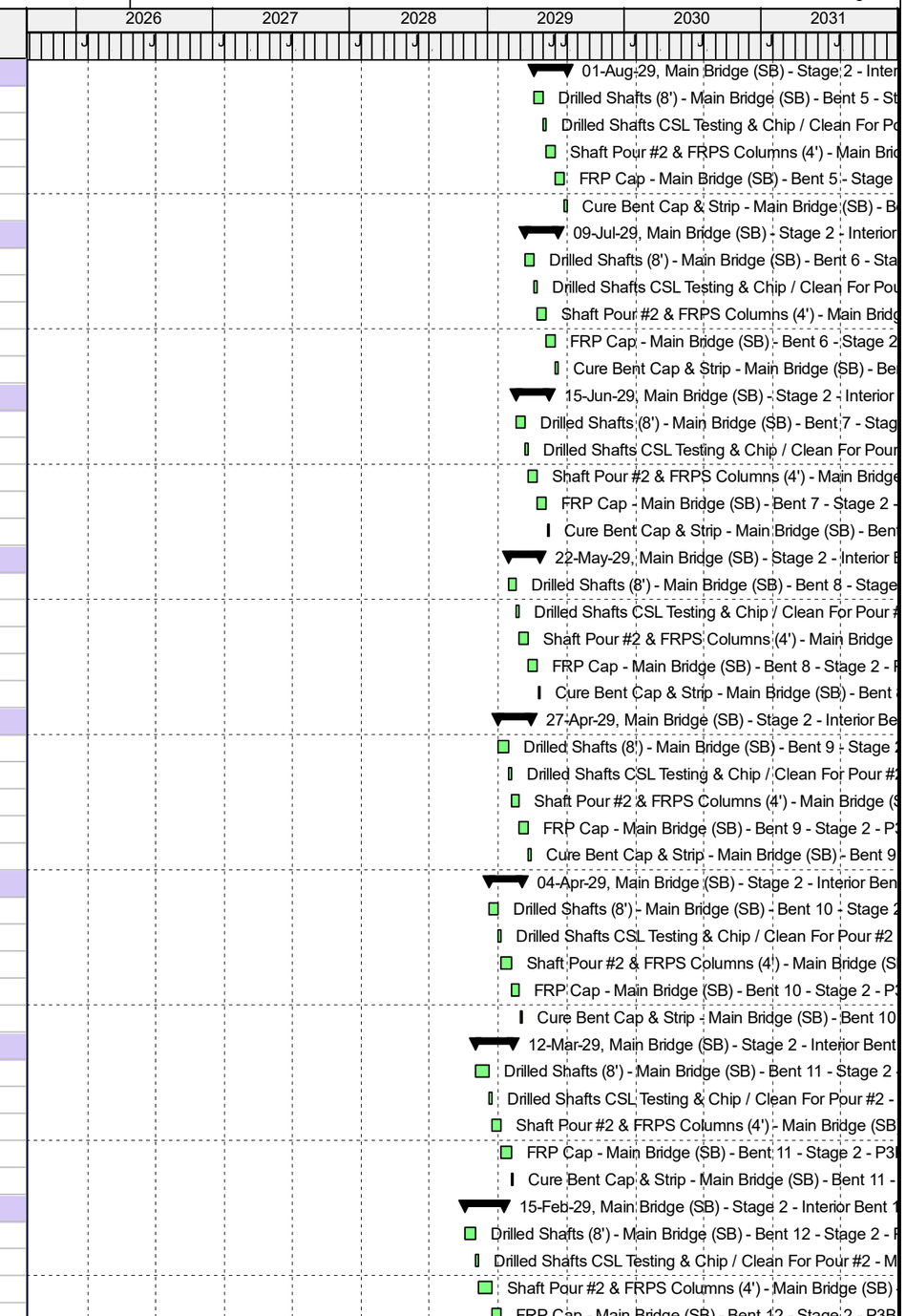
Activity ID	Activity Name	Original Duration	Start	Finish
Main Bridge (SB) - Stage 2 - Interior Bent 5		62	07-May-29	01-Aug-29
MB20190	Drilled Shafts (8') - Main Bridge (SB) - Bent 5 - Stage 2 - P3B	15	07-May-29	31-May-29
MB20200	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 5 - Stage 2 - P3B	5	31-May-29	08-Jun-29
MB20210	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 5 - Stage 2 - P3B	15	08-Jun-29	02-Jul-29
MB20220	FRP Cap - Main Bridge (SB) - Bent 5 - Stage 2 - P3B	15	02-Jul-29	25-Jul-29
MB20230	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 5 - Stage 2 - P3B	7	26-Jul-29	01-Aug-29
Main Bridge (SB) - Stage 2 - Interior Bent 6		61	13-Apr-29	09-Jul-29
MB20240	Drilled Shafts (8') - Main Bridge (SB) - Bent 6 - Stage 2 - P3B	15	13-Apr-29	07-May-29
MB20250	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 6 - Stage 2 - P3B	5	07-May-29	15-May-29
MB20260	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 6 - Stage 2 - P3B	15	15-May-29	08-Jun-29
MB20270	FRP Cap - Main Bridge (SB) - Bent 6 - Stage 2 - P3B	15	08-Jun-29	02-Jul-29
MB20280	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 6 - Stage 2 - P3B	7	03-Jul-29	09-Jul-29
Main Bridge (SB) - Stage 2 - Interior Bent 7		63	20-Mar-29	15-Jun-29
MB20290	Drilled Shafts (8') - Main Bridge (SB) - Bent 7 - Stage 2 - P3B	15	20-Mar-29	13-Apr-29
MB20300	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 7 - Stage 2 - P3B	5	13-Apr-29	20-Apr-29
MB20310	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 7 - Stage 2 - P3B	15	20-Apr-29	15-May-29
MB20320	FRP Cap - Main Bridge (SB) - Bent 7 - Stage 2 - P3B	15	15-May-29	08-Jun-29
MB20330	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 7 - Stage 2 - P3B	7	09-Jun-29	15-Jun-29
Main Bridge (SB) - Stage 2 - Interior Bent 8		61	26-Feb-29	22-May-29
MB20340	Drilled Shafts (8') - Main Bridge (SB) - Bent 8 - Stage 2 - P3B	15	26-Feb-29	20-Mar-29
MB20350	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 8 - Stage 2 - P3B	5	20-Mar-29	28-Mar-29
MB20360	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 8 - Stage 2 - P3B	15	28-Mar-29	20-Apr-29
MB20370	FRP Cap - Main Bridge (SB) - Bent 8 - Stage 2 - P3B	15	20-Apr-29	15-May-29
MB20380	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 8 - Stage 2 - P3B	7	16-May-29	22-May-29
Main Bridge (SB) - Stage 2 - Interior Bent 9		63	30-Jan-29	27-Apr-29
MB20390	Drilled Shafts (8') - Main Bridge (SB) - Bent 9 - Stage 2 - P3B	15	30-Jan-29	26-Feb-29
MB20400	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 9 - Stage 2 - P3B	5	26-Feb-29	05-Mar-29
MB20410	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 9 - Stage 2 - P3B	15	05-Mar-29	28-Mar-29
MB20420	FRP Cap - Main Bridge (SB) - Bent 9 - Stage 2 - P3B	15	28-Mar-29	20-Apr-29
MB20430	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 9 - Stage 2 - P3B	7	21-Apr-29	27-Apr-29
Main Bridge (SB) - Stage 2 - Interior Bent 10		63	05-Jan-29	04-Apr-29
MB20440	Drilled Shafts (8') - Main Bridge (SB) - Bent 10 - Stage 2 - P3B	15	05-Jan-29	30-Jan-29
MB20450	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 10 - Stage 2 - P3B	5	30-Jan-29	08-Feb-29
MB20460	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 10 - Stage 2 - P3B	15	08-Feb-29	05-Mar-29
MB20470	FRP Cap - Main Bridge (SB) - Bent 10 - Stage 2 - P3B	15	05-Mar-29	28-Mar-29
MB20480	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 10 - Stage 2 - P3B	7	29-Mar-29	04-Apr-29
Main Bridge (SB) - Stage 2 - Interior Bent 11		72	30-Nov-28	12-Mar-29
MB20490	Drilled Shafts (8') - Main Bridge (SB) - Bent 11 - Stage 2 - P3B	15	30-Nov-28	05-Jan-29
MB20500	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 11 - Stage 2 - P3B	5	05-Jan-29	12-Jan-29
MB20510	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 11 - Stage 2 - P3B	15	12-Jan-29	08-Feb-29
MB20520	FRP Cap - Main Bridge (SB) - Bent 11 - Stage 2 - P3B	15	08-Feb-29	05-Mar-29
MB20530	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 11 - Stage 2 - P3B	7	06-Mar-29	12-Mar-29
Main Bridge (SB) - Stage 2 - Interior Bent 12		76	01-Nov-28	15-Feb-29
MB20540	Drilled Shafts (8') - Main Bridge (SB) - Bent 12 - Stage 2 - P3B	15	01-Nov-28	30-Nov-28
MB20550	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 12 - Stage 2 - P3B	5	30-Nov-28	07-Dec-28
MB20560	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 12 - Stage 2 - P3B	15	07-Dec-28	12-Jan-29
MB20570	FRP Cap - Main Bridge (SB) - Bent 12 - Stage 2 - P3B	15	12-Jan-29	08-Feb-29



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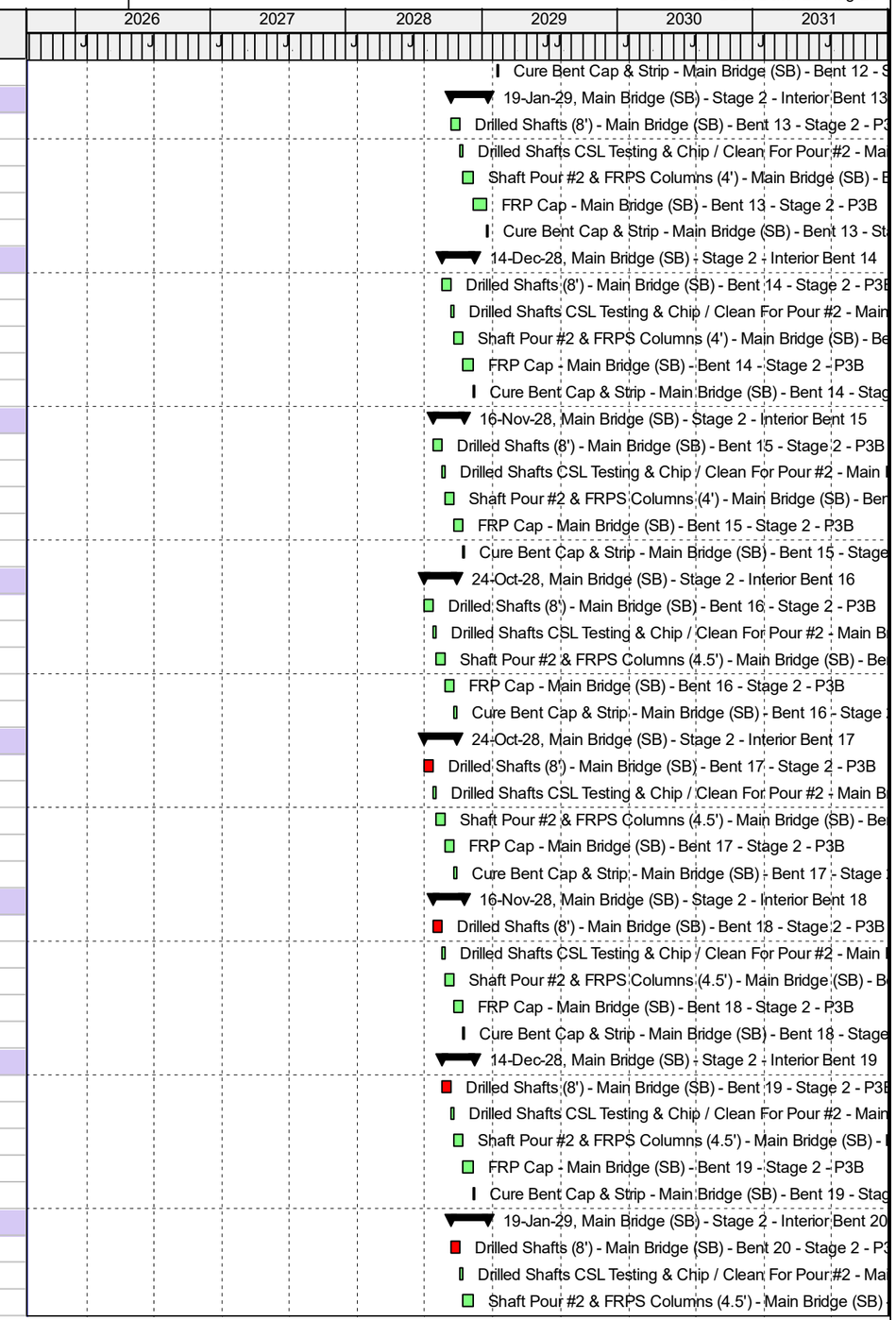
Activity ID	Activity Name	Original Duration	Start	Finish
MB20580	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 12 - Stage 2 - P3B	7	09-Feb-29	15-Feb-29
Main Bridge (SB) - Stage 2 - Interior Bent 13		74	09-Oct-28	19-Jan-29
MB20590	Drilled Shafts (8') - Main Bridge (SB) - Bent 13 - Stage 2 - P3B	15	09-Oct-28	01-Nov-28
MB20600	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 13 - Stage 2 - P3B	5	01-Nov-28	09-Nov-28
MB20610	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 13 - Stage 2 - P3B	15	09-Nov-28	07-Dec-28
MB20620	FRP Cap - Main Bridge (SB) - Bent 13 - Stage 2 - P3B	15	07-Dec-28	12-Jan-29
MB20630	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 13 - Stage 2 - P3B	7	13-Jan-29	19-Jan-29
Main Bridge (SB) - Stage 2 - Interior Bent 14		64	15-Sep-28	14-Dec-28
MB20640	Drilled Shafts (8') - Main Bridge (SB) - Bent 14 - Stage 2 - P3B	15	15-Sep-28	09-Oct-28
MB20650	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 14 - Stage 2 - P3B	5	09-Oct-28	17-Oct-28
MB20660	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 14 - Stage 2 - P3B	15	17-Oct-28	09-Nov-28
MB20670	FRP Cap - Main Bridge (SB) - Bent 14 - Stage 2 - P3B	15	09-Nov-28	07-Dec-28
MB20680	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 14 - Stage 2 - P3B	7	08-Dec-28	14-Dec-28
Main Bridge (SB) - Stage 2 - Interior Bent 15		61	23-Aug-28	16-Nov-28
MB20690	Drilled Shafts (8') - Main Bridge (SB) - Bent 15 - Stage 2 - P3B	15	23-Aug-28	15-Sep-28
MB20700	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 15 - Stage 2 - P3B	5	15-Sep-28	25-Sep-28
MB20710	Shaft Pour #2 & FRPS Columns (4') - Main Bridge (SB) - Bent 15 - Stage 2 - P3B	15	25-Sep-28	17-Oct-28
MB20720	FRP Cap - Main Bridge (SB) - Bent 15 - Stage 2 - P3B	15	17-Oct-28	09-Nov-28
MB20730	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 15 - Stage 2 - P3B	7	10-Nov-28	16-Nov-28
Main Bridge (SB) - Stage 2 - Interior Bent 16		61	31-Jul-28	24-Oct-28
MB20740	Drilled Shafts (8') - Main Bridge (SB) - Bent 16 - Stage 2 - P3B	15	31-Jul-28	23-Aug-28
MB20750	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 16 - Stage 2 - P3B	5	23-Aug-28	30-Aug-28
MB20760	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 16 - Stage 2 - P3B	15	30-Aug-28	25-Sep-28
MB20770	FRP Cap - Main Bridge (SB) - Bent 16 - Stage 2 - P3B	15	25-Sep-28	17-Oct-28
MB20780	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 16 - Stage 2 - P3B	7	18-Oct-28	24-Oct-28
Main Bridge (SB) - Stage 2 - Interior Bent 17		61	31-Jul-28	24-Oct-28
MB20790	Drilled Shafts (8') - Main Bridge (SB) - Bent 17 - Stage 2 - P3B	15	31-Jul-28	23-Aug-28
MB20800	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 17 - Stage 2 - P3B	5	23-Aug-28	30-Aug-28
MB20810	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 17 - Stage 2 - P3B	15	30-Aug-28	25-Sep-28
MB20820	FRP Cap - Main Bridge (SB) - Bent 17 - Stage 2 - P3B	15	25-Sep-28	17-Oct-28
MB20830	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 17 - Stage 2 - P3B	7	18-Oct-28	24-Oct-28
Main Bridge (SB) - Stage 2 - Interior Bent 18		61	23-Aug-28	16-Nov-28
MB20840	Drilled Shafts (8') - Main Bridge (SB) - Bent 18 - Stage 2 - P3B	15	23-Aug-28	15-Sep-28
MB20850	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 18 - Stage 2 - P3B	5	15-Sep-28	25-Sep-28
MB20860	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 18 - Stage 2 - P3B	15	25-Sep-28	17-Oct-28
MB20870	FRP Cap - Main Bridge (SB) - Bent 18 - Stage 2 - P3B	15	17-Oct-28	09-Nov-28
MB20880	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 18 - Stage 2 - P3B	7	10-Nov-28	16-Nov-28
Main Bridge (SB) - Stage 2 - Interior Bent 19		64	15-Sep-28	14-Dec-28
MB20890	Drilled Shafts (8') - Main Bridge (SB) - Bent 19 - Stage 2 - P3B	15	15-Sep-28	09-Oct-28
MB20900	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 19 - Stage 2 - P3B	5	09-Oct-28	17-Oct-28
MB20910	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 19 - Stage 2 - P3B	15	17-Oct-28	09-Nov-28
MB20920	FRP Cap - Main Bridge (SB) - Bent 19 - Stage 2 - P3B	15	09-Nov-28	07-Dec-28
MB20930	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 19 - Stage 2 - P3B	7	08-Dec-28	14-Dec-28
Main Bridge (SB) - Stage 2 - Interior Bent 20		74	09-Oct-28	19-Jan-29
MB20940	Drilled Shafts (8') - Main Bridge (SB) - Bent 20 - Stage 2 - P3B	15	09-Oct-28	01-Nov-28
MB20950	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 20 - Stage 2 - P3B	5	01-Nov-28	09-Nov-28
MB20960	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 20 - Stage 2 - P3B	15	09-Nov-28	07-Dec-28



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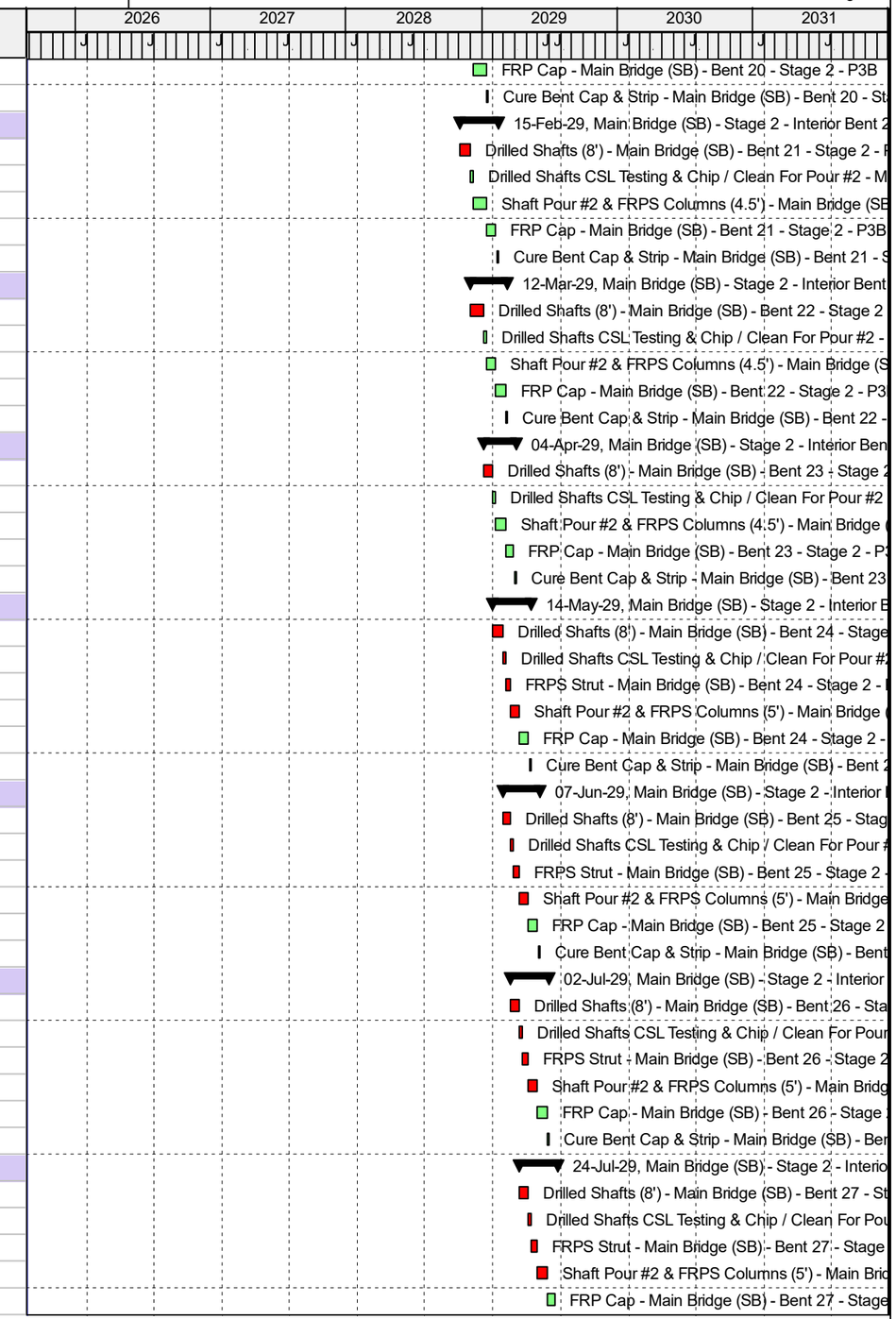
Activity ID	Activity Name	Original Duration	Start	Finish
MB20970	FRP Cap - Main Bridge (SB) - Bent 20 - Stage 2 - P3B	15	07-Dec-28	12-Jan-29
MB20980	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 20 - Stage 2 - P3B	7	13-Jan-29	19-Jan-29
Main Bridge (SB) - Stage 2 - Interior Bent 21		76	01-Nov-28	15-Feb-29
MB20990	Drilled Shafts (8') - Main Bridge (SB) - Bent 21 - Stage 2 - P3B	15	01-Nov-28	30-Nov-28
MB21000	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 21 - Stage 2 - P3B	5	30-Nov-28	07-Dec-28
MB21010	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 21 - Stage 2 - P3B	15	07-Dec-28	12-Jan-29
MB21020	FRP Cap - Main Bridge (SB) - Bent 21 - Stage 2 - P3B	15	12-Jan-29	08-Feb-29
MB21030	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 21 - Stage 2 - P3B	7	09-Feb-29	15-Feb-29
Main Bridge (SB) - Stage 2 - Interior Bent 22		72	30-Nov-28	12-Mar-29
MB21040	Drilled Shafts (8') - Main Bridge (SB) - Bent 22 - Stage 2 - P3B	15	30-Nov-28	05-Jan-29
MB21050	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 22 - Stage 2 - P3B	5	05-Jan-29	12-Jan-29
MB21060	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 22 - Stage 2 - P3B	15	12-Jan-29	08-Feb-29
MB21070	FRP Cap - Main Bridge (SB) - Bent 22 - Stage 2 - P3B	15	08-Feb-29	05-Mar-29
MB21080	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 22 - Stage 2 - P3B	7	06-Mar-29	12-Mar-29
Main Bridge (SB) - Stage 2 - Interior Bent 23		63	05-Jan-29	04-Apr-29
MB21090	Drilled Shafts (8') - Main Bridge (SB) - Bent 23 - Stage 2 - P3B	15	05-Jan-29	30-Jan-29
MB21100	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 23 - Stage 2 - P3B	5	30-Jan-29	08-Feb-29
MB21110	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 23 - Stage 2 - P3B	15	08-Feb-29	05-Mar-29
MB21120	FRP Cap - Main Bridge (SB) - Bent 23 - Stage 2 - P3B	15	05-Mar-29	28-Mar-29
MB21130	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 23 - Stage 2 - P3B	7	29-Mar-29	04-Apr-29
Main Bridge (SB) - Stage 2 - Interior Bent 24		74	30-Jan-29	14-May-29
MB21140	Drilled Shafts (8') - Main Bridge (SB) - Bent 24 - Stage 2 - P3B	15	30-Jan-29	26-Feb-29
MB21150	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 24 - Stage 2 - P3B	5	26-Feb-29	05-Mar-29
MB21155	FRPS Strut - Main Bridge (SB) - Bent 24 - Stage 2 - P3B	10	05-Mar-29	20-Mar-29
MB21160	Shaft Pour #2 & FRPS Columns (5') - Main Bridge (SB) - Bent 24 - Stage 2 - P3B	15	20-Mar-29	13-Apr-29
MB21170	FRP Cap - Main Bridge (SB) - Bent 24 - Stage 2 - P3B	15	13-Apr-29	07-May-29
MB21180	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 24 - Stage 2 - P3B	7	08-May-29	14-May-29
Main Bridge (SB) - Stage 2 - Interior Bent 25		73	26-Feb-29	07-Jun-29
MB21190	Drilled Shafts (8') - Main Bridge (SB) - Bent 25 - Stage 2 - P3B	15	26-Feb-29	20-Mar-29
MB21200	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 25 - Stage 2 - P3B	5	20-Mar-29	28-Mar-29
MB21205	FRPS Strut - Main Bridge (SB) - Bent 25 - Stage 2 - P3B	10	28-Mar-29	13-Apr-29
MB21210	Shaft Pour #2 & FRPS Columns (5') - Main Bridge (SB) - Bent 25 - Stage 2 - P3B	15	13-Apr-29	07-May-29
MB21220	FRP Cap - Main Bridge (SB) - Bent 25 - Stage 2 - P3B	15	07-May-29	31-May-29
MB21230	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 25 - Stage 2 - P3B	7	01-Jun-29	07-Jun-29
Main Bridge (SB) - Stage 2 - Interior Bent 26		74	20-Mar-29	02-Jul-29
MB21240	Drilled Shafts (8') - Main Bridge (SB) - Bent 26 - Stage 2 - P3B	15	20-Mar-29	13-Apr-29
MB21250	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 26 - Stage 2 - P3B	5	13-Apr-29	20-Apr-29
MB21255	FRPS Strut - Main Bridge (SB) - Bent 26 - Stage 2 - P3B	10	20-Apr-29	07-May-29
MB21260	Shaft Pour #2 & FRPS Columns (5') - Main Bridge (SB) - Bent 26 - Stage 2 - P3B	15	07-May-29	31-May-29
MB21270	FRP Cap - Main Bridge (SB) - Bent 26 - Stage 2 - P3B	15	31-May-29	25-Jun-29
MB21280	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 26 - Stage 2 - P3B	7	26-Jun-29	02-Jul-29
Main Bridge (SB) - Stage 2 - Interior Bent 27		72	13-Apr-29	24-Jul-29
MB21290	Drilled Shafts (8') - Main Bridge (SB) - Bent 27 - Stage 2 - P3B	15	13-Apr-29	07-May-29
MB21300	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 27 - Stage 2 - P3B	5	07-May-29	15-May-29
MB21305	FRPS Strut - Main Bridge (SB) - Bent 27 - Stage 2 - P3B	10	15-May-29	31-May-29
MB21310	Shaft Pour #2 & FRPS Columns (5') - Main Bridge (SB) - Bent 27 - Stage 2 - P3B	15	31-May-29	25-Jun-29
MB21320	FRP Cap - Main Bridge (SB) - Bent 27 - Stage 2 - P3B	15	25-Jun-29	17-Jul-29



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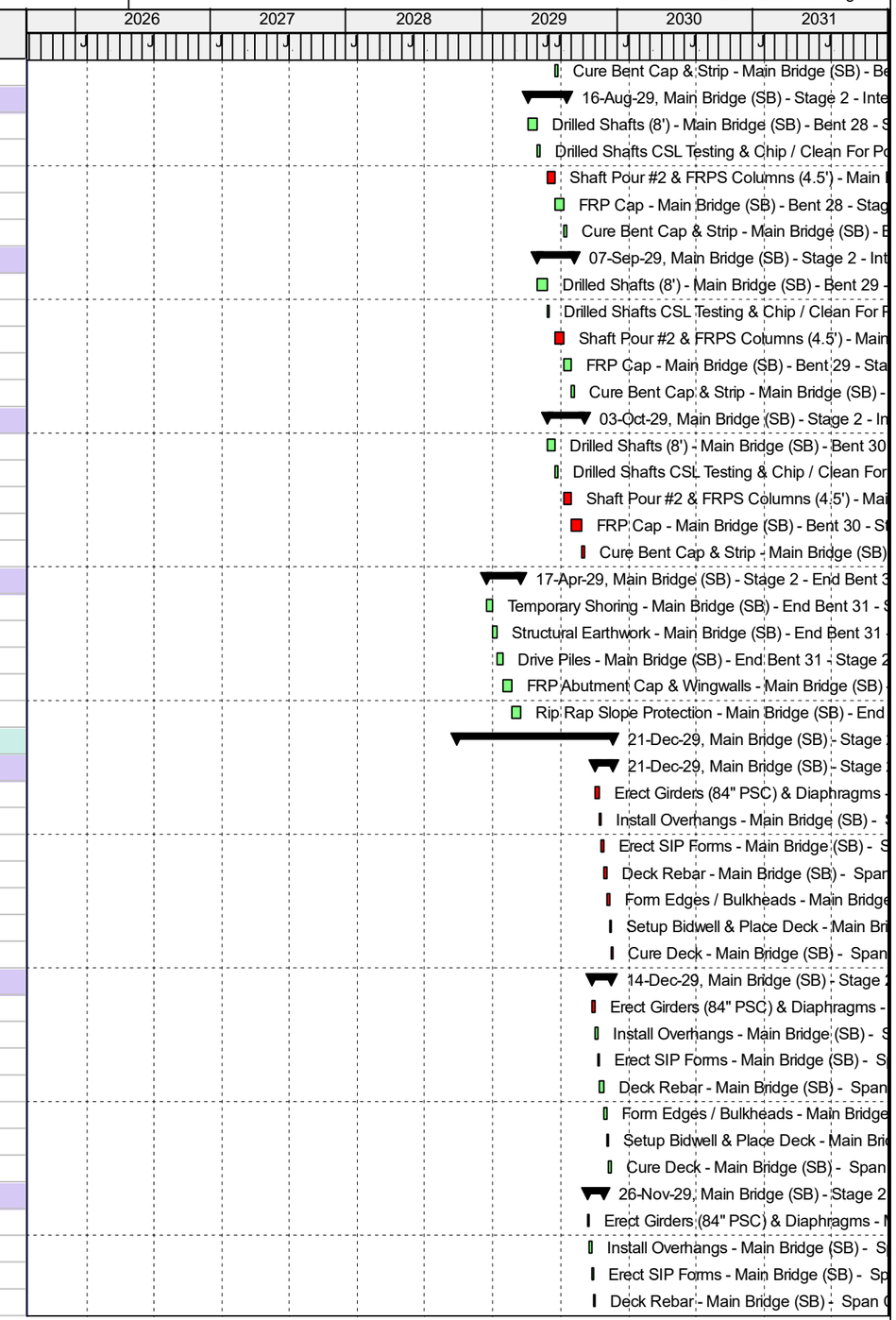
Activity ID	Activity Name	Original Duration	Start	Finish
MB21330	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 27 - Stage 2 - P3B	7	18-Jul-29	24-Jul-29
Main Bridge (SB) - Stage 2 - Interior Bent 28		73	07-May-29	16-Aug-29
MB21340	Drilled Shafts (8') - Main Bridge (SB) - Bent 28 - Stage 2 - P3B	15	07-May-29	31-May-29
MB21350	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 28 - Stage 2 - P3B	5	31-May-29	08-Jun-29
MB21360	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 28 - Stage 2 - P3B	15	25-Jun-29	17-Jul-29
MB21370	FRP Cap - Main Bridge (SB) - Bent 28 - Stage 2 - P3B	15	17-Jul-29	09-Aug-29
MB21380	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 28 - Stage 2 - P3B	7	10-Aug-29	16-Aug-29
Main Bridge (SB) - Stage 2 - Interior Bent 29		71	31-May-29	07-Sep-29
MB21390	Drilled Shafts (8') - Main Bridge (SB) - Bent 29 - Stage 2 - P3B	15	31-May-29	25-Jun-29
MB21400	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 29 - Stage 2 - P3B	5	25-Jun-29	02-Jul-29
MB21410	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 29 - Stage 2 - P3B	15	17-Jul-29	09-Aug-29
MB21420	FRP Cap - Main Bridge (SB) - Bent 29 - Stage 2 - P3B	15	09-Aug-29	31-Aug-29
MB21430	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 29 - Stage 2 - P3B	7	01-Sep-29	07-Sep-29
Main Bridge (SB) - Stage 2 - Interior Bent 30		72	25-Jun-29	03-Oct-29
MB21440	Drilled Shafts (8') - Main Bridge (SB) - Bent 30 - Stage 2 - P3B	15	25-Jun-29	17-Jul-29
MB21450	Drilled Shafts CSL Testing & Chip / Clean For Pour #2 - Main Bridge (SB) - Bent 30 - Stage 2 - P3B	5	17-Jul-29	25-Jul-29
MB21460	Shaft Pour #2 & FRPS Columns (4.5') - Main Bridge (SB) - Bent 30 - Stage 2 - P3B	15	09-Aug-29	31-Aug-29
MB21470	FRP Cap - Main Bridge (SB) - Bent 30 - Stage 2 - P3B	15	31-Aug-29	26-Sep-29
MB21480	Cure Bent Cap & Strip - Main Bridge (SB) - Bent 30 - Stage 2 - P3B	7	27-Sep-29	03-Oct-29
Main Bridge (SB) - Stage 2 - End Bent 31		57	12-Jan-29	17-Apr-29
MB21490	Temporary Shoring - Main Bridge (SB) - End Bent 31 - Stage 2 - P3B	10	12-Jan-29	30-Jan-29
MB21495	Structural Earthwork - Main Bridge (SB) - End Bent 31 - Stage 2 - P3B	7	30-Jan-29	12-Feb-29
MB21500	Drive Piles - Main Bridge (SB) - End Bent 31 - Stage 2 - P3B	9	12-Feb-29	27-Feb-29
MB21510	FRP Abutment Cap & Wingwalls - Main Bridge (SB) - End Bent 31 - Stage 2 - P3B	16	27-Feb-29	23-Mar-29
MB21520	Rip Rap Slope Protection - Main Bridge (SB) - End Bent 31 - Stage 2 - P3B	15	23-Mar-29	17-Apr-29
Main Bridge (SB) - Stage 2 - Superstructure		303	24-Oct-28	21-Dec-29
Main Bridge (SB) - Stage 2 - Span A		35	02-Nov-29	21-Dec-29
MB21530	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span A - Stage 2 - P3B	5	02-Nov-29	13-Nov-29
MB21540	Install Overhangs - Main Bridge (SB) - Span A - Stage 2 - P3B	3	13-Nov-29	19-Nov-29
MB21550	Erect SIP Forms - Main Bridge (SB) - Span A - Stage 2 - P3B	3	19-Nov-29	27-Nov-29
MB21560	Deck Rebar - Main Bridge (SB) - Span A - Stage 2 - P3B	4	27-Nov-29	03-Dec-29
MB21570	Form Edges / Bulkheads - Main Bridge (SB) - Span A - Stage 2 - P3B	5	03-Dec-29	11-Dec-29
MB21580	Setup Bidwell & Place Deck - Main Bridge (SB) - Span A - Stage 2 - P3B	3	11-Dec-29	14-Dec-29
MB21590	Cure Deck - Main Bridge (SB) - Span A - Stage 2 - P3B	7	15-Dec-29	21-Dec-29
Main Bridge (SB) - Stage 2 - Span B		35	26-Oct-29	14-Dec-29
MB21600	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span B - Stage 2 - P3B	5	26-Oct-29	02-Nov-29
MB21610	Install Overhangs - Main Bridge (SB) - Span B - Stage 2 - P3B	3	02-Nov-29	08-Nov-29
MB21620	Erect SIP Forms - Main Bridge (SB) - Span B - Stage 2 - P3B	3	08-Nov-29	15-Nov-29
MB21630	Deck Rebar - Main Bridge (SB) - Span B - Stage 2 - P3B	4	15-Nov-29	26-Nov-29
MB21640	Form Edges / Bulkheads - Main Bridge (SB) - Span B - Stage 2 - P3B	5	26-Nov-29	03-Dec-29
MB21650	Setup Bidwell & Place Deck - Main Bridge (SB) - Span B - Stage 2 - P3B	3	03-Dec-29	07-Dec-29
MB21660	Cure Deck - Main Bridge (SB) - Span B - Stage 2 - P3B	7	08-Dec-29	14-Dec-29
Main Bridge (SB) - Stage 2 - Span C		32	11-Oct-29	26-Nov-29
MB21670	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span C - Stage 2 - P3B	5	11-Oct-29	18-Oct-29
MB21680	Install Overhangs - Main Bridge (SB) - Span C - Stage 2 - P3B	3	18-Oct-29	23-Oct-29
MB21690	Erect SIP Forms - Main Bridge (SB) - Span C - Stage 2 - P3B	3	23-Oct-29	29-Oct-29
MB21700	Deck Rebar - Main Bridge (SB) - Span C - Stage 2 - P3B	4	29-Oct-29	02-Nov-29



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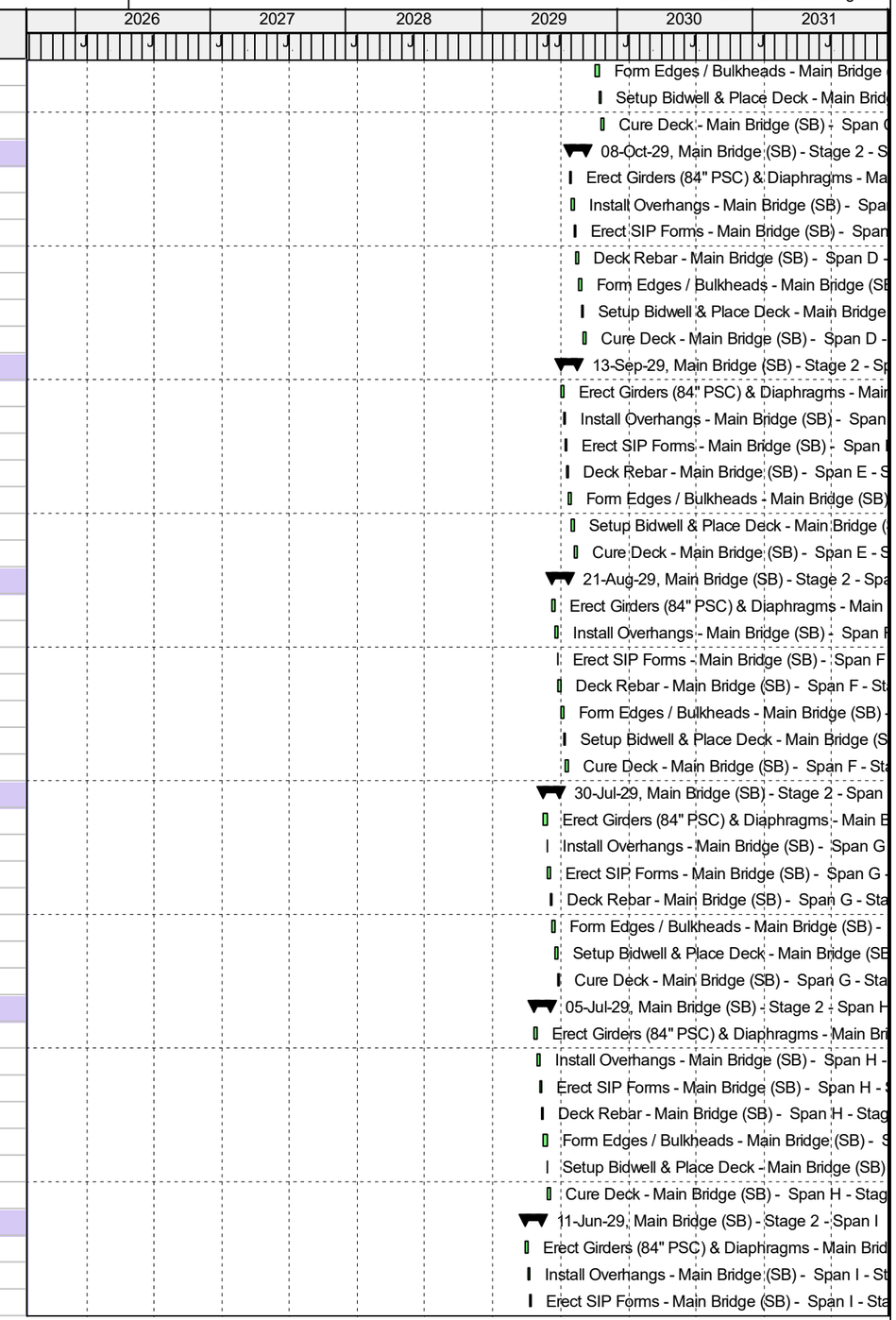
Activity ID	Activity Name	Original Duration	Start	Finish
MB21710	Form Edges / Bulkheads - Main Bridge (SB) - Span C - Stage 2 - P3B	5	02-Nov-29	13-Nov-29
MB21720	Setup Bidwell & Place Deck - Main Bridge (SB) - Span C - Stage 2 - P3B	3	13-Nov-29	19-Nov-29
MB21730	Cure Deck - Main Bridge (SB) - Span C - Stage 2 - P3B	7	20-Nov-29	26-Nov-29
Main Bridge (SB) - Stage 2 - Span D		31	24-Aug-29	08-Oct-29
MB21740	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span D - Stage 2 - P3B	5	24-Aug-29	31-Aug-29
MB21750	Install Overhangs - Main Bridge (SB) - Span D - Stage 2 - P3B	3	31-Aug-29	07-Sep-29
MB21760	Erect SIP Forms - Main Bridge (SB) - Span D - Stage 2 - P3B	3	07-Sep-29	12-Sep-29
MB21770	Deck Rebar - Main Bridge (SB) - Span D - Stage 2 - P3B	4	12-Sep-29	18-Sep-29
MB21780	Form Edges / Bulkheads - Main Bridge (SB) - Span D - Stage 2 - P3B	5	18-Sep-29	26-Sep-29
MB21790	Setup Bidwell & Place Deck - Main Bridge (SB) - Span D - Stage 2 - P3B	3	26-Sep-29	01-Oct-29
MB21800	Cure Deck - Main Bridge (SB) - Span D - Stage 2 - P3B	7	02-Oct-29	08-Oct-29
Main Bridge (SB) - Stage 2 - Span E		31	02-Aug-29	13-Sep-29
MB21810	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span E - Stage 2 - P3B	5	02-Aug-29	08-Aug-29
MB21820	Install Overhangs - Main Bridge (SB) - Span E - Stage 2 - P3B	3	09-Aug-29	13-Aug-29
MB21830	Erect SIP Forms - Main Bridge (SB) - Span E - Stage 2 - P3B	3	14-Aug-29	17-Aug-29
MB21840	Deck Rebar - Main Bridge (SB) - Span E - Stage 2 - P3B	4	20-Aug-29	23-Aug-29
MB21850	Form Edges / Bulkheads - Main Bridge (SB) - Span E - Stage 2 - P3B	5	24-Aug-29	30-Aug-29
MB21860	Setup Bidwell & Place Deck - Main Bridge (SB) - Span E - Stage 2 - P3B	3	31-Aug-29	06-Sep-29
MB21870	Cure Deck - Main Bridge (SB) - Span E - Stage 2 - P3B	7	07-Sep-29	13-Sep-29
Main Bridge (SB) - Stage 2 - Span F		30	10-Jul-29	21-Aug-29
MB21880	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span F - Stage 2 - P3B	5	10-Jul-29	17-Jul-29
MB21890	Install Overhangs - Main Bridge (SB) - Span F - Stage 2 - P3B	3	17-Jul-29	23-Jul-29
MB21900	Erect SIP Forms - Main Bridge (SB) - Span F - Stage 2 - P3B	3	23-Jul-29	26-Jul-29
MB21910	Deck Rebar - Main Bridge (SB) - Span F - Stage 2 - P3B	4	26-Jul-29	02-Aug-29
MB21920	Form Edges / Bulkheads - Main Bridge (SB) - Span F - Stage 2 - P3B	5	02-Aug-29	09-Aug-29
MB21930	Setup Bidwell & Place Deck - Main Bridge (SB) - Span F - Stage 2 - P3B	3	09-Aug-29	14-Aug-29
MB21940	Cure Deck - Main Bridge (SB) - Span F - Stage 2 - P3B	7	15-Aug-29	21-Aug-29
Main Bridge (SB) - Stage 2 - Span G		31	15-Jun-29	30-Jul-29
MB21950	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span G - Stage 2 - P3B	5	15-Jun-29	25-Jun-29
MB21960	Install Overhangs - Main Bridge (SB) - Span G - Stage 2 - P3B	3	25-Jun-29	28-Jun-29
MB21970	Erect SIP Forms - Main Bridge (SB) - Span G - Stage 2 - P3B	3	28-Jun-29	03-Jul-29
MB21980	Deck Rebar - Main Bridge (SB) - Span G - Stage 2 - P3B	4	03-Jul-29	10-Jul-29
MB21990	Form Edges / Bulkheads - Main Bridge (SB) - Span G - Stage 2 - P3B	5	10-Jul-29	17-Jul-29
MB22000	Setup Bidwell & Place Deck - Main Bridge (SB) - Span G - Stage 2 - P3B	3	17-Jul-29	23-Jul-29
MB22010	Cure Deck - Main Bridge (SB) - Span G - Stage 2 - P3B	7	24-Jul-29	30-Jul-29
Main Bridge (SB) - Stage 2 - Span H		32	22-May-29	05-Jul-29
MB22020	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span H - Stage 2 - P3B	5	22-May-29	31-May-29
MB22030	Install Overhangs - Main Bridge (SB) - Span H - Stage 2 - P3B	3	31-May-29	05-Jun-29
MB22040	Erect SIP Forms - Main Bridge (SB) - Span H - Stage 2 - P3B	3	05-Jun-29	11-Jun-29
MB22050	Deck Rebar - Main Bridge (SB) - Span H - Stage 2 - P3B	4	11-Jun-29	15-Jun-29
MB22060	Form Edges / Bulkheads - Main Bridge (SB) - Span H - Stage 2 - P3B	5	15-Jun-29	25-Jun-29
MB22070	Setup Bidwell & Place Deck - Main Bridge (SB) - Span H - Stage 2 - P3B	3	25-Jun-29	28-Jun-29
MB22080	Cure Deck - Main Bridge (SB) - Span H - Stage 2 - P3B	7	29-Jun-29	05-Jul-29
Main Bridge (SB) - Stage 2 - Span I		31	27-Apr-29	11-Jun-29
MB22090	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span I - Stage 2 - P3B	5	27-Apr-29	04-May-29
MB22100	Install Overhangs - Main Bridge (SB) - Span I - Stage 2 - P3B	3	04-May-29	10-May-29
MB22110	Erect SIP Forms - Main Bridge (SB) - Span I - Stage 2 - P3B	3	10-May-29	15-May-29



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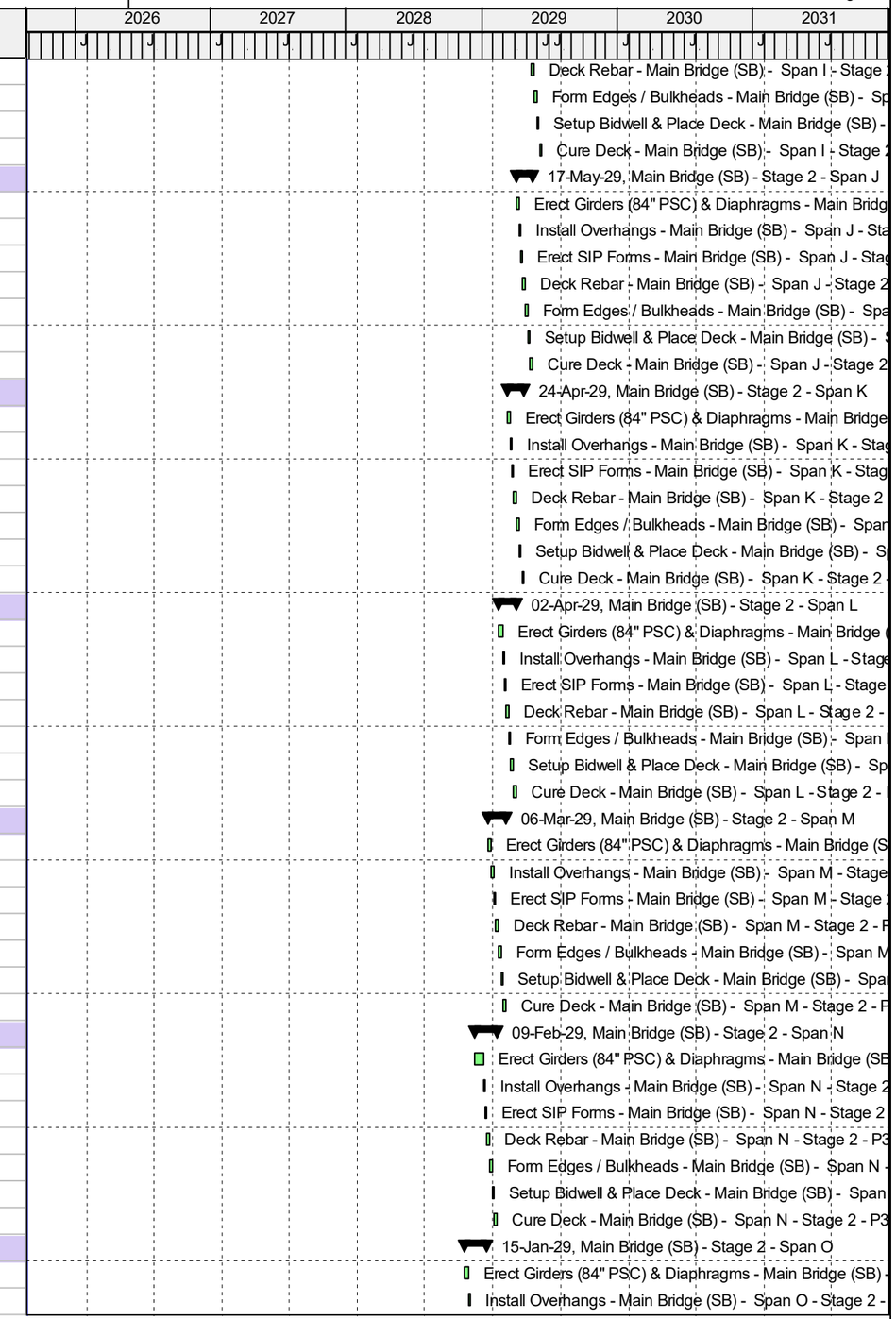
Activity ID	Activity Name	Original Duration	Start	Finish
MB22120	Deck Rebar - Main Bridge (SB) - Span I - Stage 2 - P3B	4	15-May-29	21-May-29
MB22130	Form Edges / Bulkheads - Main Bridge (SB) - Span I - Stage 2 - P3B	5	21-May-29	30-May-29
MB22140	Setup Bidwell & Place Deck - Main Bridge (SB) - Span I - Stage 2 - P3B	3	30-May-29	04-Jun-29
MB22150	Cure Deck - Main Bridge (SB) - Span I - Stage 2 - P3B	7	05-Jun-29	11-Jun-29
Main Bridge (SB) - Stage 2 - Span J		31	04-Apr-29	17-May-29
MB22160	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span J - Stage 2 - P3B	5	04-Apr-29	12-Apr-29
MB22170	Install Overhangs - Main Bridge (SB) - Span J - Stage 2 - P3B	3	12-Apr-29	17-Apr-29
MB22180	Erect SIP Forms - Main Bridge (SB) - Span J - Stage 2 - P3B	3	17-Apr-29	20-Apr-29
MB22190	Deck Rebar - Main Bridge (SB) - Span J - Stage 2 - P3B	4	20-Apr-29	27-Apr-29
MB22200	Form Edges / Bulkheads - Main Bridge (SB) - Span J - Stage 2 - P3B	5	27-Apr-29	04-May-29
MB22210	Setup Bidwell & Place Deck - Main Bridge (SB) - Span J - Stage 2 - P3B	3	04-May-29	10-May-29
MB22220	Cure Deck - Main Bridge (SB) - Span J - Stage 2 - P3B	7	11-May-29	17-May-29
Main Bridge (SB) - Stage 2 - Span K		31	12-Mar-29	24-Apr-29
MB22230	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span K - Stage 2 - P3B	5	12-Mar-29	19-Mar-29
MB22240	Install Overhangs - Main Bridge (SB) - Span K - Stage 2 - P3B	3	19-Mar-29	23-Mar-29
MB22250	Erect SIP Forms - Main Bridge (SB) - Span K - Stage 2 - P3B	3	23-Mar-29	28-Mar-29
MB22260	Deck Rebar - Main Bridge (SB) - Span K - Stage 2 - P3B	4	28-Mar-29	04-Apr-29
MB22270	Form Edges / Bulkheads - Main Bridge (SB) - Span K - Stage 2 - P3B	5	04-Apr-29	12-Apr-29
MB22280	Setup Bidwell & Place Deck - Main Bridge (SB) - Span K - Stage 2 - P3B	3	12-Apr-29	17-Apr-29
MB22290	Cure Deck - Main Bridge (SB) - Span K - Stage 2 - P3B	7	18-Apr-29	24-Apr-29
Main Bridge (SB) - Stage 2 - Span L		32	15-Feb-29	02-Apr-29
MB22300	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span L - Stage 2 - P3B	5	15-Feb-29	26-Feb-29
MB22310	Install Overhangs - Main Bridge (SB) - Span L - Stage 2 - P3B	3	26-Feb-29	01-Mar-29
MB22320	Erect SIP Forms - Main Bridge (SB) - Span L - Stage 2 - P3B	3	01-Mar-29	06-Mar-29
MB22330	Deck Rebar - Main Bridge (SB) - Span L - Stage 2 - P3B	4	06-Mar-29	13-Mar-29
MB22340	Form Edges / Bulkheads - Main Bridge (SB) - Span L - Stage 2 - P3B	5	13-Mar-29	20-Mar-29
MB22350	Setup Bidwell & Place Deck - Main Bridge (SB) - Span L - Stage 2 - P3B	3	20-Mar-29	26-Mar-29
MB22360	Cure Deck - Main Bridge (SB) - Span L - Stage 2 - P3B	7	27-Mar-29	02-Apr-29
Main Bridge (SB) - Stage 2 - Span M		32	19-Jan-29	06-Mar-29
MB22370	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span M - Stage 2 - P3B	5	19-Jan-29	26-Jan-29
MB22380	Install Overhangs - Main Bridge (SB) - Span M - Stage 2 - P3B	3	26-Jan-29	01-Feb-29
MB22390	Erect SIP Forms - Main Bridge (SB) - Span M - Stage 2 - P3B	3	01-Feb-29	06-Feb-29
MB22400	Deck Rebar - Main Bridge (SB) - Span M - Stage 2 - P3B	4	06-Feb-29	13-Feb-29
MB22410	Form Edges / Bulkheads - Main Bridge (SB) - Span M - Stage 2 - P3B	5	13-Feb-29	22-Feb-29
MB22420	Setup Bidwell & Place Deck - Main Bridge (SB) - Span M - Stage 2 - P3B	3	22-Feb-29	27-Feb-29
MB22430	Cure Deck - Main Bridge (SB) - Span M - Stage 2 - P3B	7	28-Feb-29	06-Mar-29
Main Bridge (SB) - Stage 2 - Span N		41	14-Dec-28	09-Feb-29
MB22440	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span N - Stage 2 - P3B	5	14-Dec-28	04-Jan-29
MB22450	Install Overhangs - Main Bridge (SB) - Span N - Stage 2 - P3B	3	04-Jan-29	09-Jan-29
MB22460	Erect SIP Forms - Main Bridge (SB) - Span N - Stage 2 - P3B	3	09-Jan-29	12-Jan-29
MB22470	Deck Rebar - Main Bridge (SB) - Span N - Stage 2 - P3B	4	12-Jan-29	22-Jan-29
MB22480	Form Edges / Bulkheads - Main Bridge (SB) - Span N - Stage 2 - P3B	5	22-Jan-29	29-Jan-29
MB22490	Setup Bidwell & Place Deck - Main Bridge (SB) - Span N - Stage 2 - P3B	3	29-Jan-29	02-Feb-29
MB22500	Cure Deck - Main Bridge (SB) - Span N - Stage 2 - P3B	7	03-Feb-29	09-Feb-29
Main Bridge (SB) - Stage 2 - Span O		42	16-Nov-28	15-Jan-29
MB22510	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span O - Stage 2 - P3B	5	16-Nov-28	28-Nov-28
MB22520	Install Overhangs - Main Bridge (SB) - Span O - Stage 2 - P3B	3	28-Nov-28	01-Dec-28



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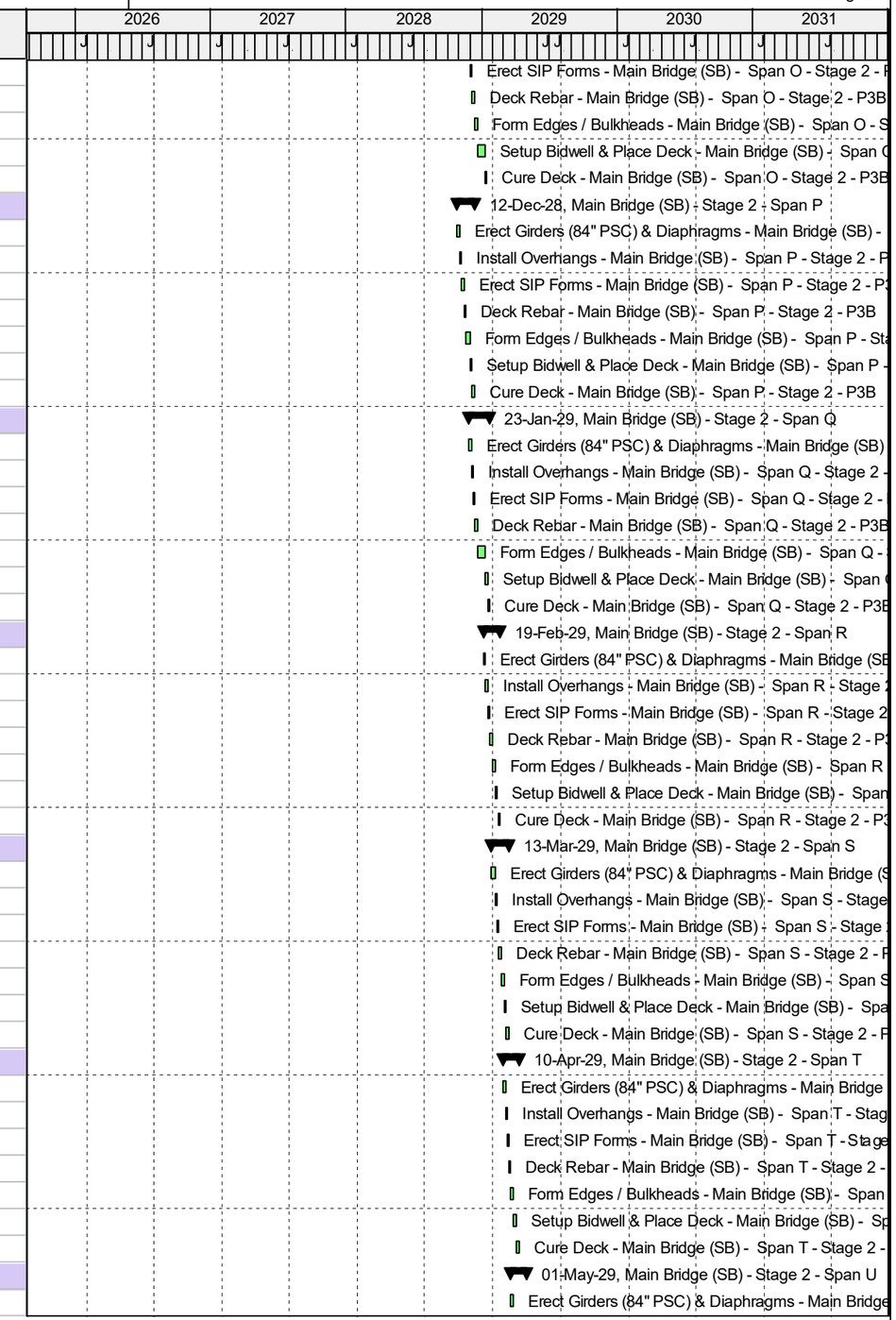
Activity ID	Activity Name	Original Duration	Start	Finish
MB22530	Erect SIP Forms - Main Bridge (SB) - Span O - Stage 2 - P3B	3	01-Dec-28	06-Dec-28
MB22540	Deck Rebar - Main Bridge (SB) - Span O - Stage 2 - P3B	4	06-Dec-28	12-Dec-28
MB22550	Form Edges / Bulkheads - Main Bridge (SB) - Span O - Stage 2 - P3B	5	12-Dec-28	21-Dec-28
MB22560	Setup Bidwell & Place Deck - Main Bridge (SB) - Span O - Stage 2 - P3B	3	21-Dec-28	08-Jan-29
MB22570	Cure Deck - Main Bridge (SB) - Span O - Stage 2 - P3B	7	09-Jan-29	15-Jan-29
Main Bridge (SB) - Stage 2 - Span P		35	24-Oct-28	12-Dec-28
MB22580	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span P - Stage 2 - P3B	5	24-Oct-28	01-Nov-28
MB22590	Install Overhangs - Main Bridge (SB) - Span P - Stage 2 - P3B	3	01-Nov-28	06-Nov-28
MB22600	Erect SIP Forms - Main Bridge (SB) - Span P - Stage 2 - P3B	3	06-Nov-28	13-Nov-28
MB22610	Deck Rebar - Main Bridge (SB) - Span P - Stage 2 - P3B	4	13-Nov-28	20-Nov-28
MB22620	Form Edges / Bulkheads - Main Bridge (SB) - Span P - Stage 2 - P3B	5	20-Nov-28	30-Nov-28
MB22630	Setup Bidwell & Place Deck - Main Bridge (SB) - Span P - Stage 2 - P3B	3	30-Nov-28	05-Dec-28
MB22640	Cure Deck - Main Bridge (SB) - Span P - Stage 2 - P3B	7	06-Dec-28	12-Dec-28
Main Bridge (SB) - Stage 2 - Span Q		40	28-Nov-28	23-Jan-29
MB22650	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span Q - Stage 2 - P3B	5	28-Nov-28	05-Dec-28
MB22660	Install Overhangs - Main Bridge (SB) - Span Q - Stage 2 - P3B	3	05-Dec-28	08-Dec-28
MB22670	Erect SIP Forms - Main Bridge (SB) - Span Q - Stage 2 - P3B	3	08-Dec-28	14-Dec-28
MB22680	Deck Rebar - Main Bridge (SB) - Span Q - Stage 2 - P3B	4	14-Dec-28	21-Dec-28
MB22690	Form Edges / Bulkheads - Main Bridge (SB) - Span Q - Stage 2 - P3B	5	21-Dec-28	10-Jan-29
MB22700	Setup Bidwell & Place Deck - Main Bridge (SB) - Span Q - Stage 2 - P3B	3	10-Jan-29	16-Jan-29
MB22710	Cure Deck - Main Bridge (SB) - Span Q - Stage 2 - P3B	7	17-Jan-29	23-Jan-29
Main Bridge (SB) - Stage 2 - Span R		32	04-Jan-29	19-Feb-29
MB22720	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span R - Stage 2 - P3B	5	04-Jan-29	11-Jan-29
MB22730	Install Overhangs - Main Bridge (SB) - Span R - Stage 2 - P3B	3	11-Jan-29	18-Jan-29
MB22740	Erect SIP Forms - Main Bridge (SB) - Span R - Stage 2 - P3B	3	18-Jan-29	23-Jan-29
MB22750	Deck Rebar - Main Bridge (SB) - Span R - Stage 2 - P3B	4	23-Jan-29	29-Jan-29
MB22760	Form Edges / Bulkheads - Main Bridge (SB) - Span R - Stage 2 - P3B	5	29-Jan-29	06-Feb-29
MB22770	Setup Bidwell & Place Deck - Main Bridge (SB) - Span R - Stage 2 - P3B	3	06-Feb-29	12-Feb-29
MB22780	Cure Deck - Main Bridge (SB) - Span R - Stage 2 - P3B	7	13-Feb-29	19-Feb-29
Main Bridge (SB) - Stage 2 - Span S		32	26-Jan-29	13-Mar-29
MB22790	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span S - Stage 2 - P3B	5	26-Jan-29	05-Feb-29
MB22800	Install Overhangs - Main Bridge (SB) - Span S - Stage 2 - P3B	3	05-Feb-29	09-Feb-29
MB22810	Erect SIP Forms - Main Bridge (SB) - Span S - Stage 2 - P3B	3	09-Feb-29	14-Feb-29
MB22820	Deck Rebar - Main Bridge (SB) - Span S - Stage 2 - P3B	4	14-Feb-29	22-Feb-29
MB22830	Form Edges / Bulkheads - Main Bridge (SB) - Span S - Stage 2 - P3B	5	22-Feb-29	01-Mar-29
MB22840	Setup Bidwell & Place Deck - Main Bridge (SB) - Span S - Stage 2 - P3B	3	01-Mar-29	06-Mar-29
MB22850	Cure Deck - Main Bridge (SB) - Span S - Stage 2 - P3B	7	07-Mar-29	13-Mar-29
Main Bridge (SB) - Stage 2 - Span T		31	26-Feb-29	10-Apr-29
MB22860	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span T - Stage 2 - P3B	5	26-Feb-29	05-Mar-29
MB22870	Install Overhangs - Main Bridge (SB) - Span T - Stage 2 - P3B	3	05-Mar-29	09-Mar-29
MB22880	Erect SIP Forms - Main Bridge (SB) - Span T - Stage 2 - P3B	3	09-Mar-29	14-Mar-29
MB22890	Deck Rebar - Main Bridge (SB) - Span T - Stage 2 - P3B	4	14-Mar-29	20-Mar-29
MB22900	Form Edges / Bulkheads - Main Bridge (SB) - Span T - Stage 2 - P3B	5	20-Mar-29	28-Mar-29
MB22910	Setup Bidwell & Place Deck - Main Bridge (SB) - Span T - Stage 2 - P3B	3	28-Mar-29	03-Apr-29
MB22920	Cure Deck - Main Bridge (SB) - Span T - Stage 2 - P3B	7	04-Apr-29	10-Apr-29
Main Bridge (SB) - Stage 2 - Span U		31	19-Mar-29	01-May-29
MB22930	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span U - Stage 2 - P3B	5	19-Mar-29	27-Mar-29



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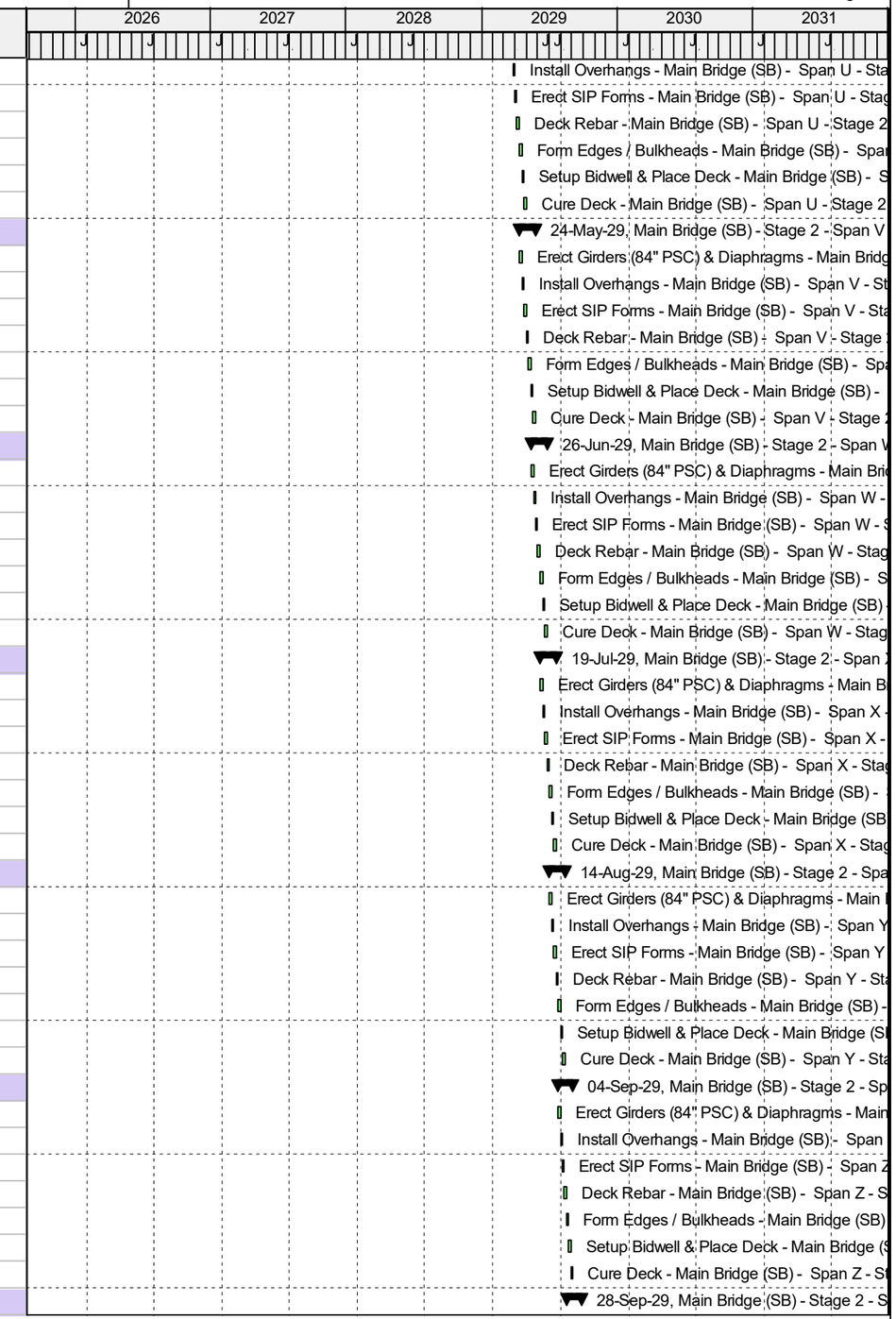
Activity ID	Activity Name	Original Duration	Start	Finish
MB22940	Install Overhangs - Main Bridge (SB) - Span U - Stage 2 - P3B	3	27-Mar-29	30-Mar-29
MB22950	Erect SIP Forms - Main Bridge (SB) - Span U - Stage 2 - P3B	3	30-Mar-29	05-Apr-29
MB22960	Deck Rebar - Main Bridge (SB) - Span U - Stage 2 - P3B	4	05-Apr-29	12-Apr-29
MB22970	Form Edges / Bulkheads - Main Bridge (SB) - Span U - Stage 2 - P3B	5	12-Apr-29	19-Apr-29
MB22980	Setup Bidwell & Place Deck - Main Bridge (SB) - Span U - Stage 2 - P3B	3	19-Apr-29	24-Apr-29
MB22990	Cure Deck - Main Bridge (SB) - Span U - Stage 2 - P3B	7	25-Apr-29	01-May-29
Main Bridge (SB) - Stage 2 - Span V		30	12-Apr-29	24-May-29
MB23000	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span V - Stage 2 - P3B	5	12-Apr-29	19-Apr-29
MB23010	Install Overhangs - Main Bridge (SB) - Span V - Stage 2 - P3B	3	19-Apr-29	24-Apr-29
MB23020	Erect SIP Forms - Main Bridge (SB) - Span V - Stage 2 - P3B	3	24-Apr-29	30-Apr-29
MB23030	Deck Rebar - Main Bridge (SB) - Span V - Stage 2 - P3B	4	30-Apr-29	04-May-29
MB23040	Form Edges / Bulkheads - Main Bridge (SB) - Span V - Stage 2 - P3B	5	04-May-29	14-May-29
MB23050	Setup Bidwell & Place Deck - Main Bridge (SB) - Span V - Stage 2 - P3B	3	14-May-29	17-May-29
MB23060	Cure Deck - Main Bridge (SB) - Span V - Stage 2 - P3B	7	18-May-29	24-May-29
Main Bridge (SB) - Stage 2 - Span W		31	14-May-29	26-Jun-29
MB23070	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span W - Stage 2 - P3B	5	14-May-29	21-May-29
MB23080	Install Overhangs - Main Bridge (SB) - Span W - Stage 2 - P3B	3	21-May-29	25-May-29
MB23090	Erect SIP Forms - Main Bridge (SB) - Span W - Stage 2 - P3B	3	25-May-29	31-May-29
MB23100	Deck Rebar - Main Bridge (SB) - Span W - Stage 2 - P3B	4	31-May-29	07-Jun-29
MB23110	Form Edges / Bulkheads - Main Bridge (SB) - Span W - Stage 2 - P3B	5	07-Jun-29	14-Jun-29
MB23120	Setup Bidwell & Place Deck - Main Bridge (SB) - Span W - Stage 2 - P3B	3	14-Jun-29	19-Jun-29
MB23130	Cure Deck - Main Bridge (SB) - Span W - Stage 2 - P3B	7	20-Jun-29	26-Jun-29
Main Bridge (SB) - Stage 2 - Span X		30	07-Jun-29	19-Jul-29
MB23140	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span X - Stage 2 - P3B	5	07-Jun-29	14-Jun-29
MB23150	Install Overhangs - Main Bridge (SB) - Span X - Stage 2 - P3B	3	14-Jun-29	19-Jun-29
MB23160	Erect SIP Forms - Main Bridge (SB) - Span X - Stage 2 - P3B	3	19-Jun-29	25-Jun-29
MB23170	Deck Rebar - Main Bridge (SB) - Span X - Stage 2 - P3B	4	25-Jun-29	29-Jun-29
MB23180	Form Edges / Bulkheads - Main Bridge (SB) - Span X - Stage 2 - P3B	5	29-Jun-29	09-Jul-29
MB23190	Setup Bidwell & Place Deck - Main Bridge (SB) - Span X - Stage 2 - P3B	3	09-Jul-29	12-Jul-29
MB23200	Cure Deck - Main Bridge (SB) - Span X - Stage 2 - P3B	7	13-Jul-29	19-Jul-29
Main Bridge (SB) - Stage 2 - Span Y		31	02-Jul-29	14-Aug-29
MB23210	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span Y - Stage 2 - P3B	5	02-Jul-29	10-Jul-29
MB23220	Install Overhangs - Main Bridge (SB) - Span Y - Stage 2 - P3B	3	10-Jul-29	13-Jul-29
MB23230	Erect SIP Forms - Main Bridge (SB) - Span Y - Stage 2 - P3B	3	13-Jul-29	19-Jul-29
MB23240	Deck Rebar - Main Bridge (SB) - Span Y - Stage 2 - P3B	4	19-Jul-29	25-Jul-29
MB23250	Form Edges / Bulkheads - Main Bridge (SB) - Span Y - Stage 2 - P3B	5	25-Jul-29	02-Aug-29
MB23260	Setup Bidwell & Place Deck - Main Bridge (SB) - Span Y - Stage 2 - P3B	3	02-Aug-29	07-Aug-29
MB23270	Cure Deck - Main Bridge (SB) - Span Y - Stage 2 - P3B	7	08-Aug-29	14-Aug-29
Main Bridge (SB) - Stage 2 - Span Z		30	24-Jul-29	04-Sep-29
MB23280	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span Z - Stage 2 - P3B	5	24-Jul-29	31-Jul-29
MB23290	Install Overhangs - Main Bridge (SB) - Span Z - Stage 2 - P3B	3	31-Jul-29	06-Aug-29
MB23300	Erect SIP Forms - Main Bridge (SB) - Span Z - Stage 2 - P3B	3	06-Aug-29	09-Aug-29
MB23310	Deck Rebar - Main Bridge (SB) - Span Z - Stage 2 - P3B	4	09-Aug-29	16-Aug-29
MB23320	Form Edges / Bulkheads - Main Bridge (SB) - Span Z - Stage 2 - P3B	5	16-Aug-29	23-Aug-29
MB23330	Setup Bidwell & Place Deck - Main Bridge (SB) - Span Z - Stage 2 - P3B	3	23-Aug-29	28-Aug-29
MB23340	Cure Deck - Main Bridge (SB) - Span Z - Stage 2 - P3B	7	29-Aug-29	04-Sep-29
Main Bridge (SB) - Stage 2 - Span AA		31	16-Aug-29	28-Sep-29



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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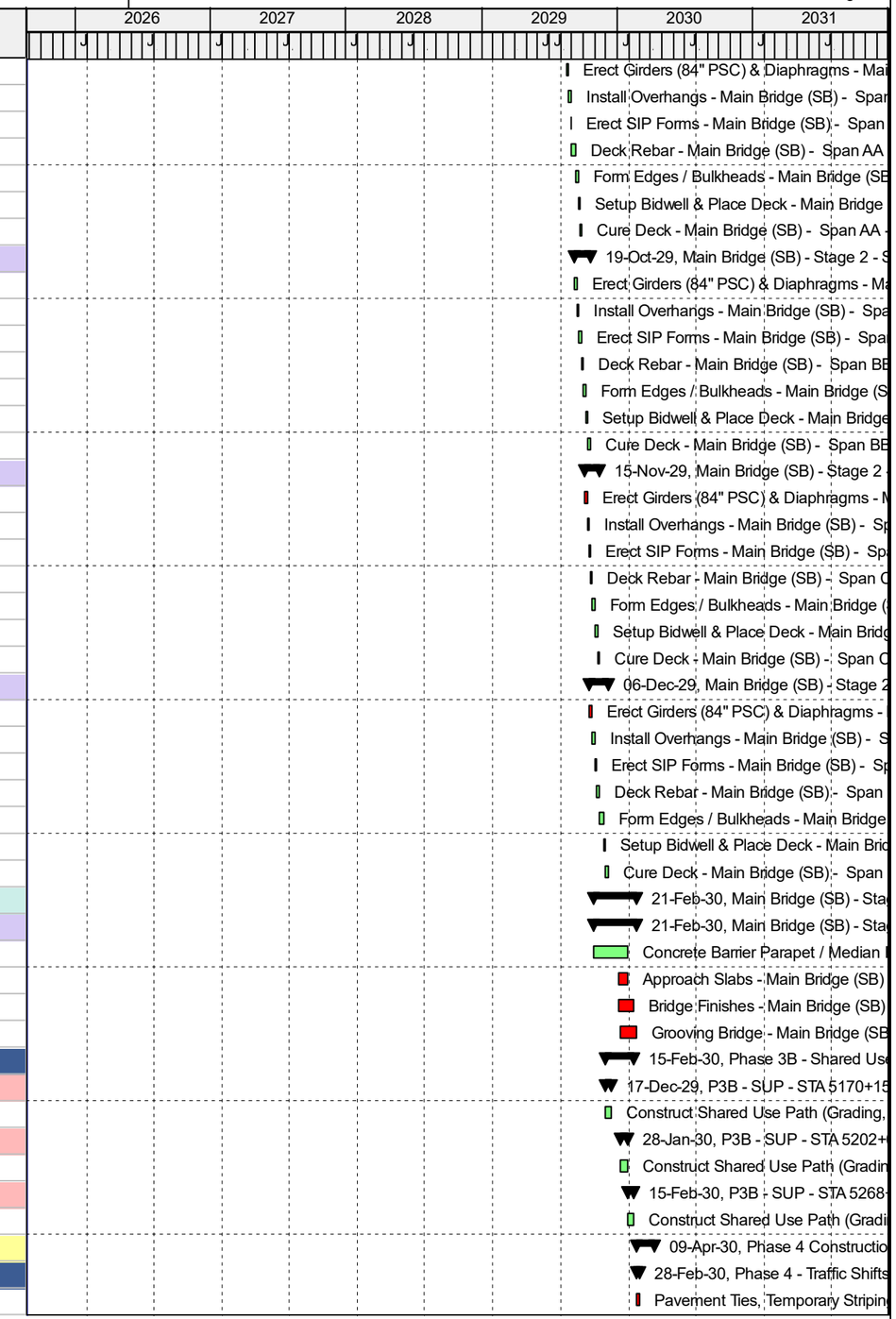
Activity ID	Activity Name	Original Duration	Start	Finish
MB23350	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span AA - Stage 2 - P3B	5	16-Aug-29	23-Aug-29
MB23360	Install Overhangs - Main Bridge (SB) - Span AA - Stage 2 - P3B	3	23-Aug-29	28-Aug-29
MB23370	Erect SIP Forms - Main Bridge (SB) - Span AA - Stage 2 - P3B	3	28-Aug-29	31-Aug-29
MB23380	Deck Rebar - Main Bridge (SB) - Span AA - Stage 2 - P3B	4	31-Aug-29	10-Sep-29
MB23390	Form Edges / Bulkheads - Main Bridge (SB) - Span AA - Stage 2 - P3B	5	10-Sep-29	17-Sep-29
MB23400	Setup Bidwell & Place Deck - Main Bridge (SB) - Span AA - Stage 2 - P3B	3	17-Sep-29	21-Sep-29
MB23410	Cure Deck - Main Bridge (SB) - Span AA - Stage 2 - P3B	7	22-Sep-29	28-Sep-29
Main Bridge (SB) - Stage 2 - Span BB		30	07-Sep-29	19-Oct-29
MB23420	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span BB - Stage 2 - P3B	5	07-Sep-29	14-Sep-29
MB23430	Install Overhangs - Main Bridge (SB) - Span BB - Stage 2 - P3B	3	14-Sep-29	20-Sep-29
MB23440	Erect SIP Forms - Main Bridge (SB) - Span BB - Stage 2 - P3B	3	20-Sep-29	25-Sep-29
MB23450	Deck Rebar - Main Bridge (SB) - Span BB - Stage 2 - P3B	4	25-Sep-29	01-Oct-29
MB23460	Form Edges / Bulkheads - Main Bridge (SB) - Span BB - Stage 2 - P3B	5	01-Oct-29	08-Oct-29
MB23470	Setup Bidwell & Place Deck - Main Bridge (SB) - Span BB - Stage 2 - P3B	3	08-Oct-29	12-Oct-29
MB23480	Cure Deck - Main Bridge (SB) - Span BB - Stage 2 - P3B	7	13-Oct-29	19-Oct-29
Main Bridge (SB) - Stage 2 - Span CC		31	03-Oct-29	15-Nov-29
MB23490	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span CC - Stage 2 - P3B	5	03-Oct-29	11-Oct-29
MB23500	Install Overhangs - Main Bridge (SB) - Span CC - Stage 2 - P3B	3	11-Oct-29	16-Oct-29
MB23510	Erect SIP Forms - Main Bridge (SB) - Span CC - Stage 2 - P3B	3	16-Oct-29	19-Oct-29
MB23520	Deck Rebar - Main Bridge (SB) - Span CC - Stage 2 - P3B	4	19-Oct-29	26-Oct-29
MB23530	Form Edges / Bulkheads - Main Bridge (SB) - Span CC - Stage 2 - P3B	5	26-Oct-29	02-Nov-29
MB23540	Setup Bidwell & Place Deck - Main Bridge (SB) - Span CC - Stage 2 - P3B	3	02-Nov-29	08-Nov-29
MB23550	Cure Deck - Main Bridge (SB) - Span CC - Stage 2 - P3B	7	09-Nov-29	15-Nov-29
Main Bridge (SB) - Stage 2 - Span DD		35	18-Oct-29	06-Dec-29
MB23560	Erect Girders (84" PSC) & Diaphragms - Main Bridge (SB) - Span DD - Stage 2 - P3B	5	18-Oct-29	26-Oct-29
MB23570	Install Overhangs - Main Bridge (SB) - Span DD - Stage 2 - P3B	3	26-Oct-29	31-Oct-29
MB23580	Erect SIP Forms - Main Bridge (SB) - Span DD - Stage 2 - P3B	3	31-Oct-29	05-Nov-29
MB23590	Deck Rebar - Main Bridge (SB) - Span DD - Stage 2 - P3B	4	05-Nov-29	13-Nov-29
MB23600	Form Edges / Bulkheads - Main Bridge (SB) - Span DD - Stage 2 - P3B	5	13-Nov-29	26-Nov-29
MB23610	Setup Bidwell & Place Deck - Main Bridge (SB) - Span DD - Stage 2 - P3B	3	26-Nov-29	29-Nov-29
MB23620	Cure Deck - Main Bridge (SB) - Span DD - Stage 2 - P3B	7	30-Nov-29	06-Dec-29
Main Bridge (SB) - Stage 2 - Finishes		59	30-Oct-29	21-Feb-30
Main Bridge (SB) - Stage 2 - Span A-DD		59	30-Oct-29	21-Feb-30
MBF10050	Concrete Barrier Parapet / Median Barrier - Main Bridge (SB) - Stage 2 - P3B	45	30-Oct-29	28-Jan-30
MBF10040	Approach Slabs - Main Bridge (SB) - Stage 2 - P3B	15	04-Jan-30	28-Jan-30
MBF10060	Bridge Finishes - Main Bridge (SB) - Stage 2 - P3B	24	04-Jan-30	12-Feb-30
MBF10070	Grooving Bridge - Main Bridge (SB) - Stage 2 - P3B	24	11-Jan-30	21-Feb-30
Phase 3B - Shared Use Path (SUP)		41	28-Nov-29	15-Feb-30
P3B - SUP - STA 5170+15 to 5175+00 (Start to RB)		12	28-Nov-29	17-Dec-29
C35300	Construct Shared Use Path (Grading, Drainage, Pavement) - SUP - STA 5170+15 to 5175+00 - P3B	12	28-Nov-29	17-Dec-29
P3B - SUP - STA 5202+00 to 5213+78 (RB to MB)		12	09-Jan-30	28-Jan-30
C35310	Construct Shared Use Path (Grading, Drainage, Pavement) - SUP - STA 5202+00 to 5213+78 - P3B	12	09-Jan-30	28-Jan-30
P3B - SUP - STA 5268+48 to 5276+71 (MB to End)		12	29-Jan-30	15-Feb-30
C35320	Construct Shared Use Path (Grading, Drainage, Pavement) - SUP - STA 5268+48 to 5276+71 - P3B	12	29-Jan-30	15-Feb-30
Phase 4 Construction		30	22-Feb-30	09-Apr-30
Phase 4 - Traffic Shifts		5	22-Feb-30	28-Feb-30
TS10030	Pavement Ties, Temporary Striping, Reset PCB & Shift Traffic (SB to RB Stage 3 & MB Stage 2)	5	22-Feb-30	28-Feb-30



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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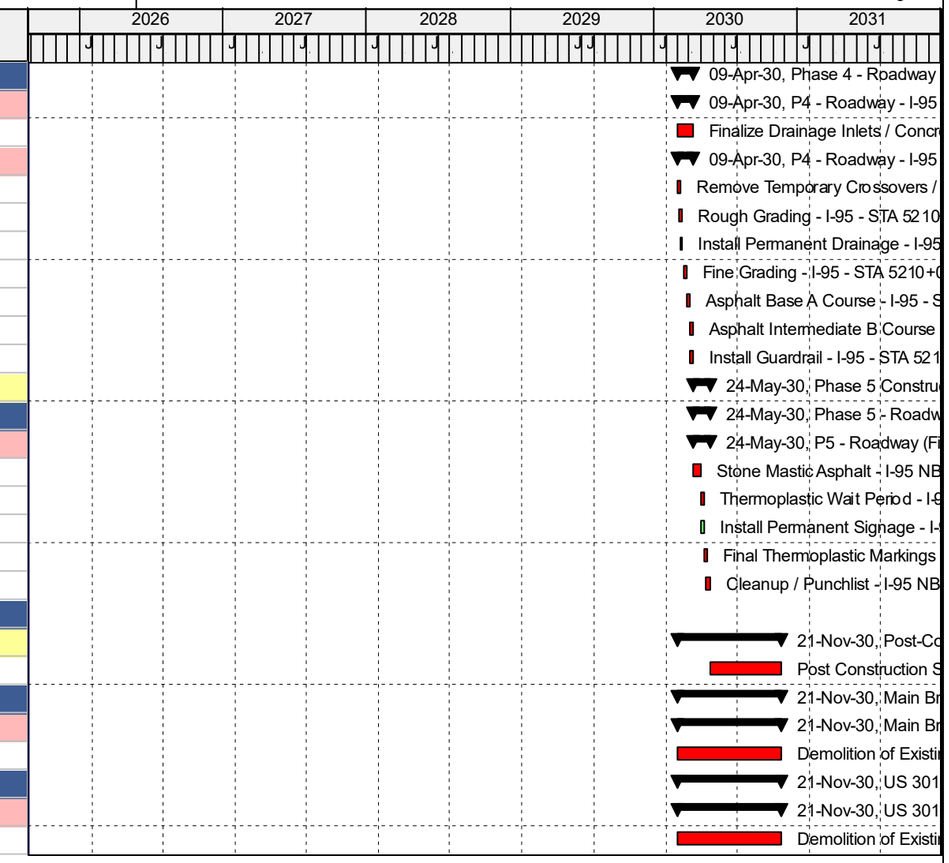
Activity ID	Activity Name	Original Duration	Start	Finish
Phase 4 - Roadway		25	01-Mar-30	09-Apr-30
P4 - Roadway - I-95 - STA 5172+41 to 5210+50 (RB to MB)		25	01-Mar-30	09-Apr-30
C40000	Finalize Drainage Inlets / Concrete Median Barrier - I-95 - STA 5172+41 to 5210+50 - P4	25	01-Mar-30	09-Apr-30
P4 - Roadway - I-95 - STA 5210+00 to 5223+02 (RB to MB)		25	01-Mar-30	09-Apr-30
C40010	Remove Temporary Crossovers / Temporary Pavement - I-95 - STA 5210+00 to 5223+02 - P4	5	01-Mar-30	08-Mar-30
C40020	Rough Grading - I-95 - STA 5210+00 to 5223+02 - P4	6	05-Mar-30	13-Mar-30
C40030	Install Permanent Drainage - I-95 - STA 5210+00 to 5223+02 - P4	5	11-Mar-30	15-Mar-30
C40040	Fine Grading - I-95 - STA 5210+00 to 5223+02 - P4	6	18-Mar-30	26-Mar-30
C40050	Asphalt Base A Course - I-95 - STA 5210+00 to 5223+02 - P4	5	27-Mar-30	02-Apr-30
C40060	Asphalt Intermediate B Course - I-95 - STA 5210+00 to 5223+02 - P4	4	04-Apr-30	09-Apr-30
C40070	Install Guardrail - I-95 - STA 5210+00 to 5223+02 - P4	3	05-Apr-30	09-Apr-30
Phase 5 Construction (Final)		33	10-Apr-30	24-May-30
Phase 5 - Roadway (Final)		33	10-Apr-30	24-May-30
P5 - Roadway (Final) - I-95 NB/SB - STA 5157+00 to 5295+00 (Start to End)		33	10-Apr-30	24-May-30
C50000	Stone Mastic Asphalt - I-95 NB/SB - STA 5157+00 to 5295+00 - P5	12	10-Apr-30	30-Apr-30
C50010	Thermoplastic Wait Period - I-95 NB/SB - STA 5157+00 to 5295+00 - P5	5	01-May-30	07-May-30
C50020	Install Permanent Signage - I-95 NB/SB - STA 5157+00 to 5295+00 - P5	7	01-May-30	09-May-30
C50030	Final Thermoplastic Markings - I-95 NB/SB - STA 5157+00 to 5295+00 - P5	8	08-May-30	17-May-30
C50040	Cleanup / Punchlist - I-95 NB/SB - STA 5157+00 to 5295+00 - P5	10	13-May-30	24-May-30
Phase 5 - Structures (Final)		0		
Post-Construction		266	01-Mar-30	21-Nov-30
PC1000	Post Construction Submittals / Closeout - Prepare & Submit	181	25-May-30	21-Nov-30
Main Bridge - Post-Construction		266	01-Mar-30	21-Nov-30
Main Bridge - Post-Construction		266	01-Mar-30	21-Nov-30
MBP30010	Demolition of Existing Structure (NB) - Main Bridge - Stage 3 - P4	266	01-Mar-30	21-Nov-30
US 301 Bridge Demolition - Post-Construction		266	01-Mar-30	21-Nov-30
US 301 Bridge Demolition - Post-Construction		266	01-Mar-30	21-Nov-30
US301B10000	Demolition of Existing Structures - US 301 Bridges - P4	266	01-Mar-30	21-Nov-30



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

TASK filter: All Activities

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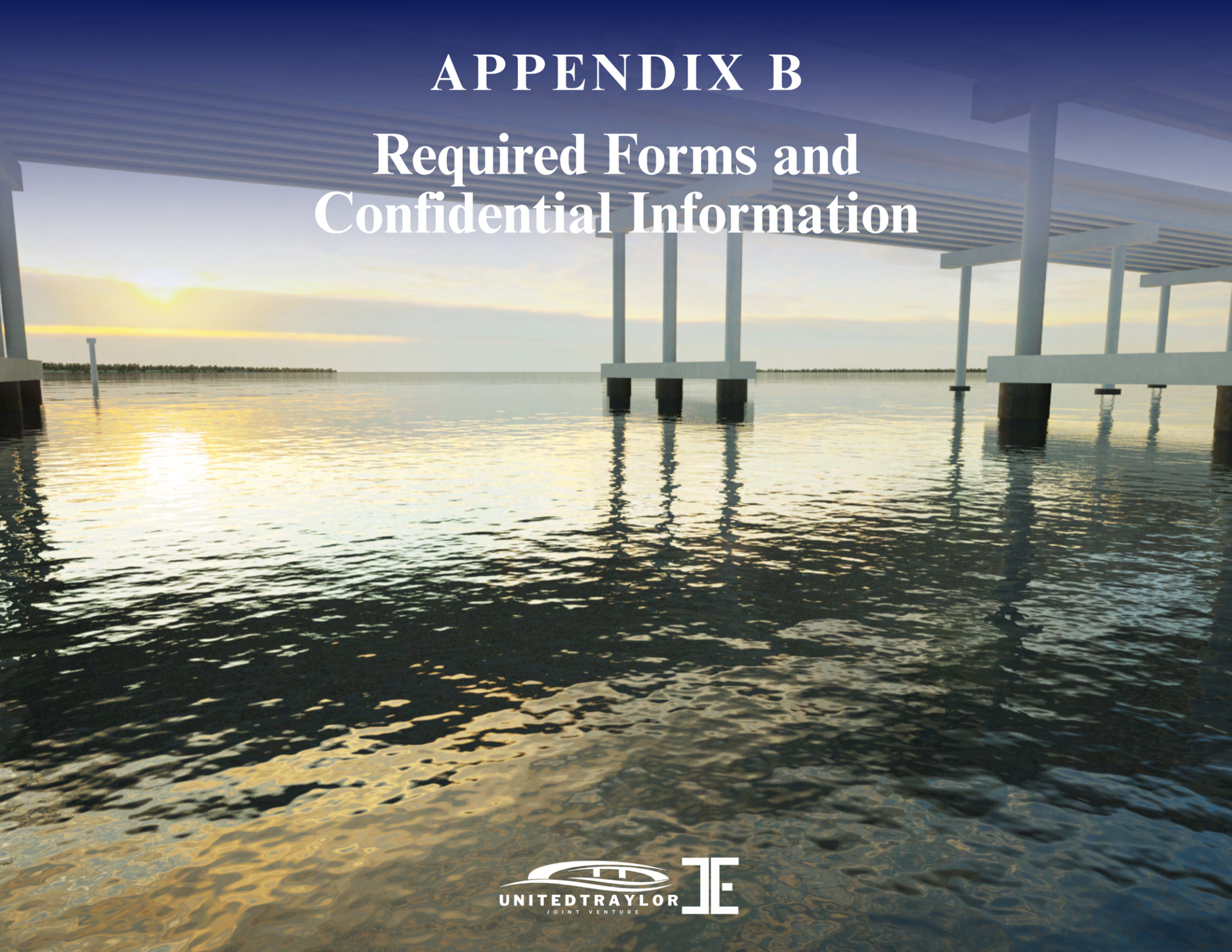
APPENDIX B

Required Forms and Confidential Information



12. STIPEND ACKNOWLEDGEMENT FORM

Stipend Acknowledgement Form

I-95 over Lake Marion Bridge Replacement County

Proposer: United-Traylor, JV

ADDRESS: 5562 Pendergrass Boulevard, Great Falls, SC 29055

The undersigned Proposer, hereby:

☐ Waives the stipend for this Project.

☒ Accepts the stipend for this Project.

By accepting the stipend for this Project, Proposer agrees:

1) to execute and include the Stipend Agreement in Article XIII of the RFP with its RFP response;

2) to submit an invoice with FEIN number for the stipend amount to the SCDOT POC after SCDOT's posting of the Notice of Award on SCDOT's Design-Build Website.;

3) to transfer all rights to its Work Product used to develop the Proposal as of the date of this acknowledgement. "Work Product" " means all submittals, including ATCs, ideas, innovations, solutions, methods, processes, design concepts, materials, electronic files, marked up drawings, cross sections, quantity lists and intellectual property, made by Proposer during the RFP process, including the Proposal, exchange of information during the pre-Proposal and post-Proposal period.

SCDOT will pay the stipend to each eligible unsuccessful Proposer, who has signed a Stipend Agreement, within ninety (90) days after execution of the Contract or the decision to not award a contract.

08/25/2025
Date

David Michael Grey
Proposer

David Michael Grey
Print Name

13. STIPEND AGREEMENT

STIPEND AGREEMENT
Project ID: P041130
I-95 over Lake Marion Bridge Replacement
County

THIS STIPEND AGREEMENT (the "Agreement") is made and entered into as of the ___ day of _____, 20_, by and between the SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION (hereinafter "SCDOT"), and _____ ("Proposer"), with reference to the following facts:

SCDOT issued a Request for Proposal ("RFP") for design and construction of the above-referenced Design-Build Project ("Project"), pursuant to procurement authority granted in Section 57-5-1625 of the S.C. Code of Laws, 1976, as amended. The RFP provided for payment of stipends as provided herein. Capitalized terms used, but not defined, have the meanings ascribed in the RFP.

NOW, THEREFORE, Proposer hereby agrees as follows:

1. Work Product.

1.1 Proposer shall prepare and submit a responsible and responsive Technical Proposal and Cost Proposal that conforms in all material respects to the requirements and provisions of the RFP, as determined by SCDOT, and are timely received by SCDOT in accordance with the RFP Milestone Schedule.

1.2 By signing this Stipend Agreement, Proposer agrees to transfer full and complete ownership to SCDOT of all Work Product. The Work Product (as defined below) shall become the property of SCDOT without restriction or limitation on its use, without further compensation or consideration, and can be used in connection with this Project or any future projects by SCDOT. Neither Proposer nor any of its team members shall copyright any of the material developed under this Agreement.

1.3 The term "Work Product" shall mean the Proposal and all material, electronic files, marked up drawings, cross sections, quantity lists, submittals, alternative technical concepts (ATC), ideas, innovations, solutions, methods, processes, design concepts, Trade Secrets or confidential information, and intellectual property, made by or produced for Proposer in the development and submission of the Technical and Cost Proposal, including exchanges of information during the pre-Proposal and post-Proposal period.

2. Compensation and Payment.

2.1 A stipend to Proposer for the Work Product described herein shall be ~~$850,000.00~~ $1,000,000.00 and is payable to Proposer that was determined to be responsible and (1) submitted a responsive Technical Proposal and responsive Cost Proposal to the RFP which is not selected for award of this Project, or (2) was awarded the Contract but the Contract was terminated by SCDOT for convenience after the Submittal of Proposal Due Date (See Final RFP Milestone schedule) but prior to the Notice to Proceed #1. Responsibility of Proposers and responsiveness of the Technical Proposal and Cost Proposal will be determined by SCDOT as a condition of payment.

2.2 SCDOT will pay the stipend to Proposer as follows, subject (as applicable) to the following conditions:

(a) Proposer has submitted this signed Stipend Agreement, unchanged with its response to the RFP.

(b) After posting of the Notice of Award on SCDOT's Design-Build Website, Proposer has submitted to SCDOT an invoice, with FEIN Number, for the Stipend amount.

(c) After execution of the Contract or the decision not to award a contract, SCDOT will pay the invoice for the stipend amount to the unsuccessful Proposer meeting the criteria of Section 2.1 within 90 calendar days of receipt of the invoice from Proposer.

(d) If the procurement is suspended or cancelled prior to the Proposal Due Date (see FINAL RFP Milestone schedule), no stipend will be paid to Proposer.

(e) After the submittal of Proposals, but prior to award, if the procurement is cancelled, all Proposers that provide a responsive Technical Proposal and Cost Proposal to the final RFP and submitted a signed Stipend Agreement with their RFP shall receive the stipend

(f) In the event of a Best and Final Offer, only one stipend will be paid to each Proposer that executed a Stipend Agreement and met the other criteria and conditions herein.

(g) No stipends will be paid for submitting RFQ responses.

(h) No stipends will be paid to a Proposer who withdraws at any time from this procurement.

2.3 Acceptance by the Proposer of payment of the stipend amount from SCDOT shall constitute a waiver by Proposer of any and all right, equitable or otherwise, to bring any claim in connection with this procurement, procurement process, award of the Contract, or cancellation of this procurement.

2.4 The Proposer awarded the contract shall be not eligible to receive a stipend.

2.5 If Proposer elects to waive payment of the stipend, SCDOT will not use the ideas or information contained in that Proposer's Proposal for this Project. However, the Proposer's Proposal will be subject to the South Carolina Freedom of Information Act.

3. Indemnities.

3.1 Subject to the limitations contained in Section 3.2, Proposer shall indemnify, protect and hold harmless SCDOT and its directors, officers, employees and contractors from, and Proposer shall defend at its own expense, all claims, costs, expenses, liabilities, demands, or suits at law or equity arising, in whole or in part, from the negligence or willful misconduct of Proposer or any of its agents, officers, employees, representatives or subcontractors or breach of any of Proposer's obligations under this Agreement.

3.2 This indemnity shall not apply with respect to any claims, demands or suits arising from use of the Work Product by SCDOT.

4. Compliance With Laws.

4.1 Proposer shall comply with all federal, state, and local laws, ordinances, rules, and regulations applicable to the work performed or paid for under this Agreement and covenants and agrees that it and its employees shall be bound by the standards of conduct provided in applicable laws, ordinances, rules, and regulations as they relate to work performed under this Agreement. Proposer agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed pursuant to this Agreement.

4.2 The Proposer agrees (a) not to discriminate in any manner against an employee or applicant for employment because of race, color, religion, creed, age, sex, marital status, national origin, ancestry or disability of a qualified individual with a disability; (b) to include a provision similar to that contained in subsection (a) in any subcontract; and (c) to post and to cause subcontractors to post in conspicuous places available to employees and applicants for employment, notices setting forth the substance of this clause.

5. Assignment.

Proposer shall not assign this Agreement without SCDOT's prior written consent. Any assignment of this Agreement without such consent shall be null and void.

6. Miscellaneous.

6.1 Proposer and SCDOT agree that Proposer, its team members, and their respective employees are not agents of SCDOT as a result of this Agreement.

6.2 This Agreement, together with the RFP, as amended from time to time, the provisions of which are incorporated herein by reference, embodies the entire agreement of the parties. There are no promises, terms, conditions, or obligations other than those contained herein or in the RFP, and this Agreement shall supersede all previous communications, representation, or agreements, either oral or written, between the parties hereto.

6.3 It is understood and agreed by the parties hereto that if any part, term, or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the State of South Carolina, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provisions to be invalid.

6.4 This Agreement shall be governed by and construed in accordance with the laws of the State of South Carolina.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

SOUTH CAROLINA DEPARTMENT
OF TRANSPORATION

Witness:

_____

By: _____
Jae Mattox
Preconstruction Alternative Delivery Engineer

Recommended:

_____
Tyler Clark

Proposer
United-Traylor, JV David Michael Grey

11. EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

(COMPLETE THIS SECTION FOR FEDERAL PROJECTS ONLY)
EQUAL EMPLOYMENT OPPORTUNITY PERFORMANCE

Select the Certification that applies to the PROPOSER:

Certification (1) [x] or Certification (2) [ ]

Select the appropriate responses in the applicable Certification:

Certification (1): Pursuant to 41 C.F.R. §60-1.7(b)(1), Previous Equal Employment Opportunity Performance Certification, as the Prospective Prime Contractor, I HEREBY CERTIFY THAT I:

(a) **(HAVE / HAVE NOT)** developed and filed an Affirmative Action Program pursuant to 41C.F.R. §60-2 and/or 60-4;

(b) **(HAVE / HAVE NOT)** participated in a previous contract or subcontract subject to the equal opportunity clause;

(c) **(HAVE / HAVE NOT)** filed with the Joint Reporting Committee, the Director of Office of Federal Contract Compliance, or the Equal Employment Opportunity Commission, all reports due under the applicable filing requirements,

OR

Certification (2): I, HEREBY CERTIFY that as the Prospective Prime Contractor submitting this Proposal, **(CLAIM / DO NOT CLAIM)** exemption from the submission of the Standard Form 100 (EEO-1) due to the fact that it employs a total of less than fifty (50) employees under C.F.R. §60-1.7, or qualifies for an exempted status under 41 C.F.R. §60-1.5.

I FURTHER CERTIFY that the above Certification will be made part of any Subcontract Agreement, or other agreement involved with this project.

Executed on 8/25, 20 25 .

Signed: _____
(Officer/PROPOSER)

Title: President / CEO

Company: Infrastructure Consulting & Engineering, LLC

Address: 110 Midlands Court, West Columbia, SC 29169

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by PROPOSERS only in connection with contracts which are subject to the equal opportunity clause. Contracts that are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally, only contracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by Executive Orders or their implementing regulations.

Proposers, Primary Members, or proposed Subcontractors (any tier) and Consultants who have participated in a previous contract subject to the Executive Orders and have not filed the required reports shall note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

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(c) **(HAVE / HAVE NOT)** filed with the Joint Reporting Committee, the Director of Office of Federal Contract Compliance, or the Equal Employment Opportunity Commission, all reports due under the applicable filing requirements,

OR

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I FURTHER CERTIFY that the above Certification will be made part of any Subcontract Agreement, or other agreement involved with this project.

Executed on 8/25, 20 25 .

Signed: _____
(Officer/PROPOSER)

Title: Vice President

Company: Traylor Bros, Inc.

Address: 835 N. Congress Ave. Evansville, IN 47715

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by PROPOSERS only in connection with contracts which are subject to the equal opportunity clause. Contracts that are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally, only contracts of $10,000 or under are exempt.)

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(a) **(HAVE / HAVE NOT)** developed and filed an Affirmative Action Program pursuant to 41C.F.R. §60-2 and/or 60-4;

(b) **(HAVE / HAVE NOT)** participated in a previous contract or subcontract subject to the equal opportunity clause;

(c) **(HAVE / HAVE NOT)** filed with the Joint Reporting Committee, the Director of Office of Federal Contract Compliance, or the Equal Employment Opportunity Commission, all reports due under the applicable filing requirements,

OR

Certification (2): I, HEREBY CERTIFY that as the Prospective Prime Contractor submitting this Proposal, **(CLAIM / DO NOT CLAIM)** exemption from the submission of the Standard Form 100 (EEO-1) due to the fact that it employs a total of less than fifty (50) employees under C.F.R. §60-1.7, or qualifies for an exempted status under 41 C.F.R. §60-1.5.

I FURTHER CERTIFY that the above Certification will be made part of any Subcontract Agreement, or other agreement involved with this project.

Executed on 8/25, 20 25 .

Signed: David Michael Grey
(Officer/PROPOSER)

Title: EVP & Chief Business Officer

Company: United Infrastructure Group, Inc.

Address: 5562 Pendergrass Boulevard, Great Falls, SC 29055

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by PROPOSERS only in connection with contracts which are subject to the equal opportunity clause. Contracts that are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally, only contracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by Executive Orders or their implementing regulations.

Proposers, Primary Members, or proposed Subcontractors (any tier) and Consultants who have participated in a previous contract subject to the Executive Orders and have not filed the required reports shall note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

10. NON-COLLUSION CERTIFICATION

NON-COLLUSION CERTIFICATION

Project ID: P041130

IN ACCORDANCE WITH THE PROVISIONS OF S.C. CODE ANN. §§ 39-3-10 ET.SEQ., 39-5-10 ET. SEQ., 15 U.S.C. §45; 23 C.F.R. §635.112(F); AND 28 U.S.C. §1746, I HEREBY ACKNOWLEDGE THAT I AM AN OFFICER OF THE PROPOSER FIRM AND, UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES AND SOUTH CAROLINA, DECLARE, BY MY CERTIFICATION BELOW, THAT THE FOLLOWING IS TRUE AND CORRECT, AND FURTHER, THAT THIS JOINT-VENTURE, FIRM, PARTNERSHIP, ASSOCIATION OR CORPORATION, OR ANY OTHER LEGAL ENTITY HAS NOT, EITHER DIRECTLY OR INDIRECTLY, ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THE SUBMISSION OF A BID PROPOSAL ON THE ABOVE REFERENCED PROJECT.

BY CHECKING THIS BOX ☑ , I CERTIFY THAT I HAVE READ, UNDERSTAND, ACCEPT, AND ACKNOWLEDGE ALL OF THE ABOVE STATEMENTS.

Executed on 08/25/2025
(Date)

Signed: David Michael Grey
(Officer/Proposer)

EVP & Chief Business Officer
(Title)

5562 Pendergrass Boulevard
(Address)

Great Falls, SC 29055

South Carolina
Department of Transportation

NOTICE OF RECEIPT

I-95 over Lake Marion
Design-Build – Project ID P041130
Clarendon and Orangeburg Counties

Addendum 1

The information in this addendum shall be made part of the contract documents. PROPOSERS are instructed to incorporate the information into the previously provided RFP documents.

PROPOSERS are required to sign this document and enclose it with their Technical Proposal. Receipt of this signed document by The South Carolina Department of Transportation serves as confirmation that the PROPOSER has received and incorporated this Addendum into the contract documents.

Confirmation Statement:

I, the PROPOSER confirm that I have received this addendum package and have incorporated the information provided in the addendum into the contract documents.

David Michael Grey
PROPOSER's Signature

June 5, 2025
Date

David Michael Grey
Printed Name

For: United-Traylor Joint Venture
Design-Build Team Name

Post Office Box 191
Columbia, South Carolina 29202-0191

Phone: (803) 737-2314
TTY: (803) 737-3870

AN EQUAL OPPORTUNITY
AFFIRMATIVE ACTION EMPLOYER

South Carolina
Department of Transportation

NOTICE OF RECEIPT

I-95 over Lake Marion Bridge Replacement
Design-Build – Project ID P041130
Clarendon and Orangeburg Counties

Addendum 2

The information in this addendum shall be made part of the contract documents. PROPOSERS are instructed to incorporate the information into the previously provided RFP documents.

PROPOSERS are required to sign this document and enclose it with their Technical Proposal. Receipt of this signed document by The South Carolina Department of Transportation serves as confirmation that the PROPOSER has received and incorporated this Addendum into the contract documents.

Confirmation Statement:

I, the PROPOSER confirm that I have received this addendum package and have incorporated the information provided in the addendum into the contract documents.

David Michael Grey

PROPOSER's Signature

June 12, 2025

Date

David Michael Grey

Printed Name

For: United-Traylor Joint Venture

Design-Build Team Name

South Carolina
Department of Transportation

NOTICE OF RECEIPT

I-95 over Lake Marion Bridge Replacement
Design-Build – Project ID P041130
Clarendon and Orangeburg Counties

Addendum 3

The information in this addendum shall be made part of the contract documents. PROPOSERS are instructed to incorporate the information into the previously provided RFP documents.

PROPOSERS are required to sign this document and enclose it with their Technical Proposal. Receipt of this signed document by The South Carolina Department of Transportation serves as confirmation that the PROPOSER has received and incorporated this Addendum into the contract documents.

Confirmation Statement:

I, the PROPOSER confirm that I have received this addendum package and have incorporated the information provided in the addendum into the contract documents.

David Michael Grey

PROPOSER's Signature

June 16, 2025

Date

David Michael Grey

Printed Name

For: United-Traylor Joint Venture

Design-Build Team Name

South Carolina
Department of Transportation

NOTICE OF RECEIPT

I-95 over Lake Marion Bridge Replacement
Design-Build – Project ID P041130
Clarendon and Orangeburg Counties

Addendum 4

The information in this addendum shall be made part of the contract documents. PROPOSERS are instructed to incorporate the information into the previously provided RFP documents.

PROPOSERS are required to sign this document and enclose it with their Technical Proposal. Receipt of this signed document by The South Carolina Department of Transportation serves as confirmation that the PROPOSER has received and incorporated this Addendum into the contract documents.

Confirmation Statement:

I, the PROPOSER confirm that I have received this addendum package and have incorporated the information provided in the addendum into the contract documents.

David Michael Grey

PROPOSER's Signature

June 27, 2025

Date

David Michael Grey

Printed Name

For: United-Traylor Joint Venture

Design-Build Team Name

South Carolina
Department of Transportation

NOTICE OF RECEIPT

I-95 over Lake Marion Bridge Replacement
Design-Build – Project ID P041130
Clarendon and Orangeburg Counties

Addendum 5

The information in this addendum shall be made part of the contract documents. PROPOSERS are instructed to incorporate the information into the previously provided RFP documents.

PROPOSERS are required to sign this document and enclose it with their Technical Proposal. Receipt of this signed document by The South Carolina Department of Transportation serves as confirmation that the PROPOSER has received and incorporated this Addendum into the contract documents.

Confirmation Statement:

I, the PROPOSER confirm that I have received this addendum package and have incorporated the information provided in the addendum into the contract documents.

David Michael Grey
PROPOSER's Signature

July 24, 2025
Date

David Michael Grey
Printed Name

For: United-Traylor Joint Venture
Design-Build Team Name

South Carolina
Department of Transportation

NOTICE OF RECEIPT

I-95 over Lake Marion Bridge Replacement
Design-Build – Project ID P041130
Clarendon and Orangeburg Counties

Addendum 6

The information in this addendum shall be made part of the contract documents. PROPOSERS are instructed to incorporate the information into the previously provided RFP documents.

PROPOSERS are required to sign this document and enclose it with their Technical Proposal. Receipt of this signed document by The South Carolina Department of Transportation serves as confirmation that the PROPOSER has received and incorporated this Addendum into the contract documents.

Confirmation Statement:

I, the PROPOSER confirm that I have received this addendum package and have incorporated the information provided in the addendum into the contract documents.

David Michael Grey
PROPOSER's Signature

08/07/2025
Date

David Michael Grey
Printed Name

For: United-Traylor Joint Venture
Design-Build Team Name

Key Individuals At-A-Glance

KEY INDIVIDUALS	EXPERIENCE ON MAJOR DESIGN-BUILD PROJECT ELEMENTS			
	BRIDGE OVER MARINE ENVIRONMENT	INTERSTATE BRIDGE	VESSEL COLLISION	INTERSTATE MAINTENANCE OF TRAFFIC
W. Johnson	■	■	■	■
C. Nations	■	■	■	■
R. Jamaluddin	■	■	■	■
J. Goings	■	■	■	■

SCDOT

SCDOT RCE & CEI Firm

Executive Management
UIG
Traylor
ICE

Safety
UTJV

PROJECT MANAGER
William Jack Johnson, III UIG

NO CHANGES SINCE SOQ PHASE

Design Quality Review Team
ICE

Public / Media / Community Relations
ICE

Assistant Project Manager
UTJV

DESIGN TEAM

LEAD DESIGN ENGINEER
Cameron Garland Nations, PE, DBIA ICE

STRUCTURAL ENGINEER
Rafi Ahmad Jamaluddin, PE ICE

Structural Support
Structural/Seismic Engineers ICE

Traffic Engineering Team
Traffic Analysis ICE
Transportation Management Plan ICE
MOT (Highway/Marine) Plans ICE
Signing & Marking Plans ICE/JBC

Geotechnical Engineering
ICE

Geotechnical Support
Geotechnical Exploration STE
Drilling Support and Lab Testing SCI
Drilled Shaft Load Testing GRL

Design Disciplines and Supplemental Support
Roadway Engineers ICE/JBC
Hydraulic Engineers ICE
Pre-Design Survey ICE
Pavement Engineers ICE

PRECONSTRUCTION / DB COORDINATOR
UTJV

Complex Bridge Independent Peer Reviews
D&F

Utility Team Manager
ICE

Utility Coordination/Relocation
Pre-Construction Utility Coordination ICE
Construction Utility Coordination UTJV

Wet and Dry Utility Design
24" Waterline H&S
Telecom BCC

DB Support Team
Enviro Mgr/Permit Coordinator ICE
HAZMAT Studies ARM
SUE CSS
Navigational Lighting WIS
Landscape Architect ICE
ROW Acquisition RND
As-Built Plans ICE
Cross Slope Verification ICE/CSS

CONSTRUCTION TEAM

Construction Manager
Jeremy Blake Goings UIG

Superintendents (Bridge Structures)
UTJV

Superintendents (Roadway/Utilities)
UTJV

Superintendents (Foundations)
UTJV

MOT Supervisor
UTJV

Field Engineering UTJV
Project Engineering
Subcontract Management

CPM Scheduling
UTJV

Field Survey & Layout
UTJV

Project Administration UTJV
Procurement / HR / Acct.
DBE/EEO Compliance

Erosion Control Supervisor
UTJV

Subcontractors *Potential DBE
- Drilled Shafts
- SIP Forms*
- Reinforcing Steel*
- Barrier Wall*
- Hauling*
- Deck Grooving
- Signage/Pavement Marking*
- Navigational Lighting
- Electrical
- Seeding/Grassing*
- Erosion Control*
- Asphalt Paving
- Concrete Paving/Patching

Self Performance (UTJV)
- Project Management
- Field Engineering
- Construction Surveying
- Structures / Walls
- MOT
- Earthwork
- Drainage
- Base / Subbase (Aggregate / Cement)
- Erosion Control Maintenance
- Bridge Demolition

QUALITY TEAM

QC Manager
ICE

Environmental Compliance Inspection
ICE

Materials Management
ICE

As-Built Surveys
ICE

AASHTO Testing Lab
ICE / SCI

QC Inspection Personnel
ICE

LEGEND
UIG – United Infrastructure Group, Inc.
TBI – Traylor Bros., Inc.
UTJV – United Traylor Joint Venture
ICE – Infrastructure Consulting & Engineering, LLC
CSS – Construction Support Services, LLC (DBE)
RND – RND Consultants, Inc. – (DBE)
JBC - J Bragg Consulting – (DBE)
WIS – Wi-Skies, LLC
ARM – ARM Environmental Services, Inc.
H&S – Hazen & Sawyer
BEC – Byers Engineering Company
SCI – Soil Consultants, Inc. (DBE)
STE – SubTerra Exploration, LLC
D&F - Davis & Floyd, Inc.
GRL – GRL Engineers, Inc.

Key Individuals — Interstate Bridge Exp.
Direct Report ———— Close Coord. - - - - -

UNITED INFRASTRUCTURE GROUP

Affidavit

On behalf of United Infrastructure Group, Inc. the undersigned states that the Key Individuals identified in the original Organizational Chart submitted with the SOQ for the I-95 over Lake Marion Bridge Replacement Design-Build Project, will be available, barring any unforeseen circumstances, at the earliest of the times and durations identified in the RFQ and RFP, until expiration of the Warranty period, or such earlier date as the Contract is terminated or SCDOT releases, in writing, such Key Individual from this requirement.

Signed this 17th day of July 2025

Key Individual:

William Jack Johnson, III Project Manager
United Infrastructure Group, Inc.

Direct Employer:

James E. Triplett, President / CEO
United Infrastructure Group, Inc.

SWORN AND SUBSCRIBED before me this 17th day of July 20 25.

My commission expires:
October 9, 2033

Notary Public seal

LYNDA D. MONROE NOTARY PUBLIC EXP. 10/09/2033 SOUTH CAROLINA

Affidavit

On behalf of Infrastructure Consulting & Engineering, LLC the undersigned states that the Key Individuals identified in the original Organizational Chart submitted with the SOQ for the I-95 over Lake Marion Bridge Replacement Design-Build Project, will be available, barring any unforeseen circumstances, at the earliest of the times and durations identified in the RFQ and RFP, until expiration of the Warranty period, or such earlier date as the Contract is terminated or SCDOT releases, in writing, such Key Individual from this requirement.

Signed this 17th day of July 2025

Key Individual:

Cameron Nations, PE, DBIA Lead Design Engineer
Infrastructure Consulting & Engineering, LLC

Direct Employer:

Elham Farzam, President / CEO
Infrastructure Consulting & Engineering, LLC

Co-signed Project Manager

William Johnson, III., Project Manager
United Infrastructure Group, Inc.

SWORN AND SUBSCRIBED before me this 17th day of July 20 25.

My commission expires:
October 9, 2033

Notary Public seal

LYNDA D. MONROE
NOTARY PUBLIC
SOUTH CAROLINA
EXP. 10/09/2033

Affidavit

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Signed this 17th day of July 2025

Key Individual:

Rafi Jamaluddin, PE Structural Engineer
Infrastructure Consulting & Engineering, LLC

Direct Employer:

Elham Farzam, President / CEO
Infrastructure Consulting & Engineering, LLC

Co-signed Project Manager

William Johnson, III., Project Manager
United Infrastructure Group, Inc.

SWORN AND SUBSCRIBED before me this 17th day of July 20 25.

My commission expires:
October 9, 2033

Notary Public seal

LYNDA D. MONROE
NOTARY PUBLIC
SOUTH CAROLINA
EXP. 10/09/2033

UNITED INFRASTRUCTURE GROUP

Affidavit

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Signed this 17th day of July 2025

Key Individual:

Jeremy Goings

Jeremy Blake Goings, Construction Manager
United Infrastructure Group, Inc.

Direct Employer:

James E. Triplett

James E. Triplett, President / CEO
United Infrastructure Group, Inc.

Co-signed Project Manager

William Johnson, III., Project Manager
United Infrastructure Group, Inc.

SWORN AND SUBSCRIBED before me this 17th day of July 20 25.

My commission expires:
October 9, 2033

Lynda D. Monroe

Notary Public seal

LYNDA D. MONROE NOTARY PUBLIC EXP. 10/09/2033 SOUTH CAROLINA

G. Confidential and Proprietary Information

There are no elements of the UTJV's technical proposal that are considered confidential or proprietary.

South Carolina Department of Transportation

Columbia, South Carolina

South Carolina Department

Of

Transportation

Prime Contractor

Prequalification Certificate

This Certifies that your company has complied with the rules and regulations of the Department and the State of South Carolina, and subject to the rules and regulations for a prime contractor, is declared eligible to submit a bid and be awarded any construction contract issued by the Department, subject to obtaining proper bonds and insurance acceptable to the Department and complying with all other statutory and contract requirements.

All BIDS SUBMITTED TO THE DEPARTMENT MUST BE IN THE NAME AS SHOWN BELOW.

VENDOR NAME

UNITED INFRASTRUCTURE GROUP, INC.

Vendor ID:	**1UN002**
Date Issued:	**November 18, 2024**
Expiration Date:	**December 31, 2025**

Approved By: _____

Prequalification and Contracts Coordinator

South Carolina Department of Transportation

Columbia, South Carolina

South Carolina Department

Of

Transportation

Prime Contractor

Prequalification Certificate

This Certifies that your company has complied with the rules and regulations of the Department and the State of South Carolina, and subject to the rules and regulations for a prime contractor, is declared eligible to submit a bid and be awarded any construction contract issued by the Department, subject to obtaining proper bonds and insurance acceptable to the Department and complying with all other statutory and contract requirements.

All BIDS SUBMITTED TO THE DEPARTMENT MUST BE IN THE NAME AS SHOWN BELOW.

VENDOR NAME

TRAYLOR BROS., INC.

Vendor ID:	**1TR007**
Date Issued:	**October 18, 2024**
Expiration Date:	**October 31, 2025**

Approved By: _____

Prequalification and Contracts Coordinator

South Carolina Department of Transportation

Columbia, South Carolina

South Carolina Department

Of

Transportation

Prime Contractor

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All BIDS SUBMITTED TO THE DEPARTMENT MUST BE IN THE NAME AS SHOWN BELOW.

VENDOR NAME

UNITED-TRAYLOR JOINT VENTURE

Vendor ID:	**1TR068**
Date Issued:	**June 4, 2025**
Expiration Date:	**October 31, 2026**

Approved By: _____

Prequalification and Contracts Coordinator

JOINT VENTURE AGREEMENT

Summary Table[1]		Location
Effective Date	November 1, 2024	1
Joint Venture	United-Traylor, Joint Venture	1
Traylor	Traylor Bros., Inc.	1
Address, Phone, Email	835 N. Congress Ave., Evansville, IN	1
Representative	Craig Cuppernell	1
Alternate	C. John Meagher	1
Partner	United Infrastructure Group	1
Address, Phone, Email	5562 Pendergrass Blvd., Great Falls, SC 704-201-8935	1
Representative	Rett Triplett	1
Alternate	Jim Triplett	1
Client	South Carolina Department of Transportation	1
Project	I-95 Bridge Replacement over Lake Marion	1
Work	Construction of I-95 Bridge over Lake Marion	1
Participation Percentages		3
Traylor Percentage	50	3
Partner Percentage	50	3
Managing Party	United Infrastructure Group	5
Management Fee	TBD	6
Corporate Insurance Program Fee	0.34%	7
G&A Fee	5.15%	7
Equipment Buy/Sell Fee	4.0%	7
Multiplier	TBD	Exh. E

THIS JOINT VENTURE AGREEMENT (the "Agreement") is entered into as of the Effective Date between Traylor and Partner. Each party may be referred to herein as a "Party" and together they may be referred to as the "Parties."

WITNESSETH:

WHEREAS, the Client has advertised for bids for the construction of the Project; and

WHEREAS, the Parties have agreed to form the Joint Venture to submit a joint bid for and, if possible, to obtain the Contract with the Client for the performance of the Work; and

WHEREAS, the Parties desire to enter into this Agreement in order to fix and define among themselves their respective responsibilities, interests, and liabilities in connection with the submission of a joint bid and the performance of the Contract in the event it is awarded to the Joint Venture.

[1] Note: Capitalized terms from the left column are used throughout this Agreement as such terms are defined in the right column.

NOW, THEREFORE, in consideration of the mutual promises and agreements herein set forth, the Parties hereby agree to constitute themselves as joint venturers for the purpose of submitting a joint bid to the Client for the performance of the Contract, and for the further purpose of performing and completing the Contract in the event it is awarded to the Joint Venture, and the Parties hereby agree that such bid, if filed, and the Contract, if awarded to the Joint Venture, will be performed and completed by the Joint Venture in accordance with the following terms and conditions:

1.0. Scope of Agreement

1.1. This Agreement will extend only to the submission of a joint bid and the performance of the Contract, including all additions thereto and modifications thereof, and will have no other purpose.

1.2. Nothing contained in this Agreement will create or be interpreted or construed so as to create any permanent relationship between the Parties or limit their respective rights to carry on their individual businesses for their own benefit, including other work for the Client.

2.0. Contract Bid and Award

2.1. The joint bid, if filed, and the Contract, if awarded to the Joint Venture, will be bid and entered into in the name of the Joint Venture. The obligations of the Parties under the joint bid and Contract will be joint and several.

2.2. The Contract, if awarded to the Joint Venture, will be carried out and performed by the Joint Venture and all money, equipment, materials, supplies, and other property acquired by the Joint Venture in connection with the performance of the Contract will be held in the name of the Joint Venture.

2.3. The Parties intend that the joint bid will be satisfactory and acceptable to each of them. If the Parties are unable to agree upon a joint bid, a joint bid will not be filed, the Joint Venture will terminate, and neither Party will have any liability to the other; provided, however, if a Party declines to bid on the Project (whether in its present form or as re-bid in substantially similar form), such Party will have no interest in the Project, nor bid on it alone or with others.

2.4. Unless otherwise agreed, each Party will individually bear all costs it may incur in preparing the joint bid and securing the award of the Contract and no reimbursement of any such bid and pre-award costs will be made to any Party by any other Party or by the Joint Venture, except that expenses incurred for outside consultants retained by any of the Parties upon the mutual agreement of the Parties will be shared by each Party in accordance with its Participation Percentage.

2.5. This Agreement will terminate in the event award of the Contract is not made to the Joint Venture.

3.0. Participation Percentages

3.1. Except as otherwise provided in Sections 5, 6, and 9 hereof, interests of the Parties in any profits and their respective shares in any losses and/or liabilities that may result from the filing of a joint bid and/or the performance of the Contract, and their interests in all property and equipment acquired and all money received in connection with the Joint Venture's performance of the Contract will be in accordance with the Participation Percentages.

3.2. The Parties agree that in the event any losses arise out of or result from the submission of the joint bid and/or the performance of the Contract, each Party will assume and pay the share of such losses equal to its Participation Percentage.

3.3. If for any reason a Party sustains any liabilities or is required to pay any losses arising out of or directly connected with the submission of the joint bid and/or the performance of the Contract, or the execution of any surety bonds or indemnity agreements in connection therewith, that are in excess of its Participation Percentage, each other Party will promptly reimburse such Party the amount of the losses paid and/or liabilities assumed by such Party that are in excess of such Party's Participation Percentage, so that each Party will then have paid its proportionate share of such losses to the full extent of its Participation Percentage. No Party's reimbursement obligation under this Section will obligate that Party to incur more than its Participation Percentage share of such loss or liability.

3.4. To further assure the intent of this Section 3, each Party agrees to defend and indemnify each other Party against, and to hold each other Party harmless from, any and all losses of the Joint Venture that are in excess of such other Party's Participation Percentage; provided, however, that the provisions of this Section will be limited to losses that are directly connected with, or arise out of the submission of the joint bid and/or the performance of the Contract or the execution of any bonds or indemnity agreements in connection therewith, and will not relate to or include any incidental, indirect, or consequential losses that may be sustained or suffered by a Party. No Party's defense, indemnification, or hold harmless obligations under this Section will obligate that Party to incur more than its Participation Percentage share of such loss or liability.

3.5. The Parties will from time to time execute such bonds and indemnity agreements, including applications therefor, and other documents that may be necessary in connection with the submission of the joint bid for and the performance of the Contract. The Parties will seek to limit the liability of each Party under any agreements to indemnify a surety company or surety companies to the percentage of the total liability assumed by the Parties under such indemnity agreements that is equal to the Party's Participation Percentage, if such limitation can be obtained and on terms that are mutually acceptable to the Parties.

3.6. Setoff. Each of the Parties ("Exercising Parties") and the Joint Venture, acting on behalf of the Exercising Parties, will have the absolute right to set off any and all distributions of profits and/or Joint Venture assets or returns of "Working Capital" (as defined in Section 6.1), due any other Party ("Other Party") pursuant to this Agreement or any other agreement involving any or all of the Exercising Parties or any of their affiliates or subsidiaries and the Other Party or any of its affiliates or subsidiaries ("Other Agreements"), against all amounts due to the Exercising Parties or any of their affiliates or subsidiaries by the Other Party or any of its affiliates or subsidiaries pursuant to this Agreement or any Other Agreement (including amounts representing a loan as described in Section 6.2.2).

3.7. Recoupment. Each of the Parties ("Recouping Parties") and the Joint Venture, acting on behalf of the Recouping Parties, will have the absolute right to recoup any and all amounts due from a "Defaulting Party" (as defined in Section 6.2) pursuant to this Agreement or any Other Agreement involving any or all of the Recouping Parties or any of their affiliates or subsidiaries and the Defaulting Party or any of its affiliates or subsidiaries against all amounts due the Defaulting Party pursuant to this Agreement or any Other Agreement involving any or all of the Recouping Parties or any of their affiliates or subsidiaries and the Defaulting Party or any of its affiliates or subsidiaries.

4.0. Policy Committee

4.1. The management of the Joint Venture will be conducted pursuant to policy established by the Parties acting through the Policy Committee which is hereby established.

4.2. Each Party has designated its Representative and Alternate to serve on the Policy Committee.

4.3. Each Party may, at any time, substitute a different designee in place of its Representative or Alternate by serving written notice to each other Party. Each Party's Representative or Alternate is hereby granted and will possess authority to act for such Party on all matters of interest to it with respect to its participation in the Joint Venture.

4.4. The Policy Committee will determine the policy for the management of the Joint Venture by majority vote. Decisions will be taken by resolution with each Representative (or Alternate) having a vote equal to the applicable Party's Proportionate Share. The Parties intend that all decisions of the Policy Committee should be unanimous, if possible. In case the Parties fail to reach a unanimous decision, the matter in question will be decided by majority vote; provided, however, such issue may, at the election of any Party hereto, be referred to the Chief Executive Officer level of each of the Parties for resolution. Matters not resolved at the Chief Executive Officer level may be referred to dispute resolution as set forth in Section 11.

4.5. The powers of the Policy Committee will include, but not be limited to, the following:

(a) To determine and act upon the various matters, expressly or impliedly contained in other sections of this Agreement, which require decision by the Policy Committee.

(b) To determine and act upon any other matters of joint interest to, or requiring prompt action by, the Joint Venture.

(c) To determine use rates for equipment owned by any of the Parties and made available for use on the Project, where such rates were not agreed at bid time. Any equipment owned by third parties will be invoiced to the Joint Venture at actual rental costs. The Joint Venture and the Parties will comply with the Equipment Policies set forth in **Exhibit A** hereto.

(d) To determine insurance reserves and reserves for other potential liabilities that may result from or arise out of the Project work.

(e) To consider all claims and disputes of any kind above a certain dollar size (to be determined by the Policy Committee) between the Joint Venture and the Client, subcontractors, or other parties, and to authorize negotiation, arbitration, litigation, and/or any other process for their resolution and to authorize the settlement thereof.

(f) The sale of Joint Venture assets above a certain dollar size (to be determined by the Policy Committee), including the terms of sale and agent therefore, if any.

(g) To determine crisis management protocol, adopt a crisis management plan, and identify a Joint Venture spokesperson and crisis management team.

4.6. The Policy Committee will not have the power to:

(a) Borrow money in the name of the Joint Venture.

(b) Invest Joint Venture funds in anything but approved interest-bearing instruments.

(c) Make any capital expenditure outside of the Joint Venture.

4.7. Notwithstanding any other provisions to the contrary herein, insurance coverages and limits will be subject to approval of the Parties consistent with the Insurance Program set forth in **Exhibit B** hereto.

4.8. The Policy Committee will generally perform its duties at a meeting at which the Representatives (or Alternates) are present, but where circumstances warrant, telephone or video conference communication is authorized. It is anticipated the Policy Committee will meet quarterly on the jobsite and at the request of either Party.

4.9. The salaries and expenses of each Representative or Alternate will be borne by the Party such individual has been designated to represent, and will not be an expense to the Joint Venture.

5.0. Delegation of Authority, Management of Joint Venture, and Fees

5.1. Management of Joint Venture. The Managing Party will recommend to the Policy Committee a candidate to serve as the Project Manager. The Managing Party will provide to the Policy Committee the candidate's résumé, including the candidate's education, employment history, professional references, prior relevant projects in which the candidate served in a similar role, licenses, certifications, and further qualifications, as well as any other pertinent information requested by the Policy Committee to make an informed decision regarding the fitness of the candidate to serve as the Project Manager. The Policy Committee's approval of the candidate must be unanimous. The Project Manager will be delegated the responsibility for the practical

execution and carrying out of the Work and will have such specific powers as the Managing Party may, from time to time, delegate. In the event a candidate is not unanimously approved by the Policy Committee, the Managing Party will offer a new candidate for consideration in the same manner until one is unanimously approved by the Policy Committee. The Policy Committee may remove a previously appointed Project Manager by a majority vote. In the event such a removal takes place, the selection process described in this provision will begin anew.

5.2. Delegation of Authority. The Managing Party acting through the Project Manager will, unless otherwise directed in writing by action of the Policy Committee or unless reserved to the Policy Committee in Sections 4.5 (a) and (c) through (f), have authority to conduct all business and other operations of the Joint Venture necessary for performance of the Contract, including, but not limited to, execution of agreements with the Client and others and submittal and certification of all claims by the Joint Venture and the Parties and their suppliers and subcontractors pursuant to the Disputes Clause of the Contract. Except for the gross or willful negligence of the Managing Party, each Party agrees to defend, indemnify, and hold harmless the Managing Party and Project Manager for all costs, losses, and liabilities incurred or caused by reason of actions of Managing Party or Project Manager including attorney's fees and other costs of defense. This defense, indemnification, and hold harmless obligation will only be for losses in excess of the Managing Party's Participation Percentage. Notice will be given to the Parties when purchases in excess of $150,000 are made for items not in the bid. Additionally, the Managing Party, acting through an appropriate representative of its Equipment Division (e.g., Equipment Manager, Assistant Equipment Manager, or Equipment Coordinator) is authorized to sign equipment purchase documents on behalf of the Joint Venture once appropriate requests are made via a process approved by the Policy Committee (e.g., properly executed equipment requisition forms).

5.3. Fee Structure.

(a) Fee Components.

Category	Amount	Description
Management Fee	Percentage of Project recognized revenue	This fee will be paid to the Managing Party as compensation for the added expenses incurred by the Managing Party in performing its duties, such as accounting services and payroll processing services, consistent with the Division of Services set forth in **Exhibit C** hereto and will be considered an expense of the Joint Venture. The Management Fee will be charged by the Managing Party and paid by the Joint Venture on a monthly basis unless otherwise agreed by the Policy Committee. The Management Fee will be included as a cost in the agreed estimate.
Corporate Insurance Program Fee	Percentage of Project recognized revenue	This fee will be paid to the Parties in accordance with each Party's Participation Percentage as compensation for corporate insurance premiums separately maintained by each Party that may sit excess of project-specific insurance policies set

		forth in Exhibit B hereto or insure the respective interests of the Parties in the event the Joint Venture does not maintain coverage and will be considered an expense of the Joint Venture. The Corporate Insurance Program Fee will be charged by the Parties and paid by the Joint Venture on a monthly basis unless otherwise agreed by the Policy Committee. The Corporate Insurance Program Fee will be included as a cost in the agreed estimate.
General & Administrative Fee ("G&A Fee")	Percentage of Project recognized revenue	After paying the Management Fee and the Corporate Insurance Program Fee, the G&A Fee will be accrued and, if the conditions set forth in Section 5.3(b) are met, may be distributed by the Joint Venture on a monthly basis, in accordance with one of the options set forth in Section 5.3(c), as determined by the Policy Committee.
Equipment Buy/Sell Fee	Percentage of gross Joint Venture equipment purchases	This fee will be paid to the Parties in accordance with each Party's Participation Percentage as compensation for the time spent to acquire and dispose of equipment utilized by the Project and will be considered an expense of the Joint Venture. The Equipment Buy/Sell Fee will be charged by the Parties and paid by the Joint Venture with a method agreed upon by the Policy Committee. The Equipment Buy/Sell Fee will be included as a cost in the agreed estimate.

(b) Fee Conditions. Other than the Management Fee, which will begin to accrue upon commencement of the Project and will be paid in accordance with Section 5.3(a), the G&A Fee is subject to the following conditions: (1) unanimous consent of the Policy Committee, (2) the Joint Venture's most current updated cost estimate projecting sufficient available funds, and (3) achievement of the Disbursement Threshold, as defined below. Subject to these conditions, the Joint Venture will accrue the G&A Fee, as provided below. The Parties agree that the G&A Fee will be applicable to all Project work and for the entire duration of the Project. In all cases the G&A Fee will be an expense to the Joint Venture, and accrued on its books and records monthly as a debt of the Joint Venture owed to the Parties and, if not paid, will remain a debt of the Joint Venture; provided, however, that in no event will the G&A Fee begin to be accrued or owed to the Parties until the Project has reached ten percent (10%) of budgeted direct labor (the "Disbursement Threshold"). Subject to the Disbursement Threshold and the other conditions set forth in this Section 5.3(b), accrual and distribution of the G&A fee will be handled as set forth in Section 5.3(c).

(c) G&A Fee Options

(i) If the Policy Committee determines, upon evaluation of upcoming cash needs, the Joint Venture has sufficient cash to pay the G&A Fee due for a particular month, the Joint Venture may pay each Party its respective share of the G&A Fee which will be calculated per each Party's Participation Percentage.

(ii) If the Policy Committee determines the Joint Venture has insufficient cash to pay the entire G&A Fee due for a particular month, the Policy Committee will determine which of the following three options will be utilized:

a. The Parties contribute additional cash to the Joint Venture sufficient to reimburse the Parties for their respective share of the G&A Fee;

b. The Parties contribute the G&A Fee for that month to the Joint Venture in lieu of receiving cash, resulting in the increase of the capital accounts of each Party by the amount equal to their respective share of G&A Fee; or

c. The G&A Fee remains unpaid for the month and accrues as an obligation of the Joint Venture with the understanding the Joint Venture will pay any unpaid G&A Fee by no later than the end of each calendar year even if to do so the Parties are required to contribute additional cash to the Joint Venture.

5.4. The authority of the Managing Party hereunder stated as generally or specifically granted will only be limited, restricted, or revoked by written directive and action of the Policy Committee.

5.5. No Party or individual will have authority to act for or bind the other Party, except in connection with the performance and administration of the Contract, and then only pursuant to authority delegated according to the provisions of this Article 5.

5.6. For federal tax purposes, the Tax Manager of the Managing Party will be deemed the "Partnership Representative." The Managing Party's responsibilities in this regard are further detailed in **Exhibit D, Tax Matters**. Each Party will be allowed sufficient time to review the Joint Venture's annual Federal and State Partnership Returns prior to filing and will be provided with all financial records and returns necessary for it to prepare its own tax returns. The Partnership Representative's authority is limited such that it may not bind any other Party to an audit, administrative adjustment, settlement agreement, petition for review of a final administrative adjustment, waiver or alteration of any potential defense, or any change in the Joint Venture's returns as filed that will affect the Parties' tax liabilities without approval by each Party.

5.7. Each Party will have the right to have representation on the jobsite staff. The Parties anticipate that the Joint Venture will be integrated with each Party having jobsite staff at a level approximately equal to its Participation Percentage.

6.0. Working Capital Requirements

6.1. The Managing Party, unless otherwise directed in writing by the Policy Committee, will determine the amount of capital required to carry out and perform the Contract and pay for any losses or liabilities resulting therefrom, said amount herein referred to as "Working Capital." Upon such determination, each Party will contribute the percentage of such Working Capital that is equal to its Participation Percentage whenever requested to do so by the Policy Committee. Such contribution will be made within ten (10) calendar days after written request therefor.

6.2. If a Party fails to promptly contribute its share of Working Capital in the amounts and by the date set by the Policy Committee ("Event of Default"), such Party will be considered to be in default of this Agreement ("Defaulting Party") and the non-defaulting Party may select from the following three options, or any combination thereof, as set forth in Sections 6.2.1, 6.2.2 and 6.2.3:

6.2.1 Standard Default Option

(a) Upon the occurrence of an Event of Default, the non-defaulting Party may pay the Defaulting Party's share of Working Capital. In that event, the Participation Percentage of the Parties will be recalculated so that each Party's Participation Percentage will be equal to the percentage its actual contributions to Working Capital bears to the total contributions made by the Parties.

(b) A Defaulting Party's share in Joint Venture losses, and its obligation to pay in Working Capital, will in all events remain the same as its original Participation Percentage and nothing contained in this Agreement nor any events hereafter occurring will under any circumstances reduce a Defaulting Party's share in such losses or obligation to pay in Working Capital; provided, however, that if the "buyout" option set forth in Section 6.2.3 is exercised, the Defaulting Party's share in Joint Venture losses will be eliminated.

(c) The Defaulting Party will pay default interest with respect to its uncontributed share of Working Capital at the rate per year of prime interest as reported in the Wall Street Journal ("Prime Lending Rate") + 1% (but not exceeding the maximum allowed by applicable law).

(d) Default interest payments will be payable to the Joint Venture for the account of the non-defaulting Party, will be compounded daily and will accrue until such time as all contributions of Working Capital and default interest have been paid.

(e) Any unpaid share of the Working Capital, including all interest above described, will be deducted from any distributions due the Defaulting Party and, if upon final settlement of the Joint Venture accounts, such amounts due the Defaulting Party are insufficient, the Defaulting Party

will, on written demand of the non-defaulting Party, pay such insufficient amount to the Joint Venture for the account of the non-defaulting Party.

(f) Any distributions of contributed capital, Joint Venture assets and/or profits otherwise distributable to the Defaulting Party will first be applied to the payment of the default interest due the non-defaulting Party, then to the payment of the Defaulting Party's uncontributed share of the Working Capital to the account of the non-defaulting Party who made excess contributions before any distributions of contributed capital, Joint Venture assets and/or profits are made to the Defaulting Party. Regardless, the Defaulting Party will only be entitled to a reduced share of profits, if any, based on a re-calculated Participation Percentage reduced by the amount the Defaulting Party failed to contribute.

(g) The Defaulting Party will have no right, title or interest in any Joint Venture contributed capital, assets and/or profits until such time as all contributions to Working Capital and any default interest due thereon have been paid to the Joint Venture for distribution to the non-defaulting Party.

(h) The Defaulting Party will have no representative on the Policy Committee and will have no right to participate in the affairs of the Joint Venture until either (i) all of the defaulted Working Capital contributions and default interest have been paid to the Joint Venture, or (ii) distributions to the non-defaulting Party have included repayment of all of the excess contributions and payment of all default interest. The representative of the non-defaulting Party on the Policy Committee will be entitled to vote the Defaulting Party's votes in proportion to their respective share of total Working Capital actually furnished. If the Defaulting Party's representative is reinstated to the Policy Committee pursuant to the terms of this Section, the Defaulting Party will be entitled to no greater share of votes than is equal to its share of Joint Venture profits as modified herein pursuant to this Section 6.

(i) The provisions of Sections 6 and 11 notwithstanding, the failure of a Party to contribute its share of Working Capital within the time set by the Policy Committee is a material breach of this Agreement. Such uncontributed capital contributions and all default interest accrued thereon are due and payable on the first day following the payment of excess contributions by the other Party and each and every day thereafter until all uncontributed Working Capital and all default interest due thereon have been paid in full. The Party making contributions in excess of its Participation Percentage as a result of the other Party's default may bring suit in a court of competent jurisdiction in the name of the Joint Venture or in its own name against

the Defaulting Party for payment of the Defaulting Party's share of said Working Capital and any default interest due thereon and will, in addition, be entitled to recover reasonable attorney fees and such other relief that may be granted by the court.

6.2.2 Loan Option

The non-defaulting Party may, at its sole option, pay the Defaulting Party's deficiency and treat such payment as a demand loan made by the non-defaulting Party to the Defaulting Party. Such loan will be immediately repayable by the Defaulting Party without notice and will bear interest at a rate per annum equal to six (6%) percent above the Prime Lending Rate, determined on a day-to-day basis. Such loan will be and is hereby declared to be secured by a paramount lien and charge on the interest of the Defaulting Party in the Joint Venture and the Defaulting Party will and does hereby assign to the non-defaulting Party its right to any payments from the Joint Venture as further security for such loan. Partial payments in respect of such demand loan will be applied firstly to accrued interest and secondly to reduction of principal. If this option is selected, the Defaulting Party's conduct that would otherwise be deemed a default will not be treated as a default per se and Defaulting Party will retain its voting rights and participation rights in the Joint Venture.

6.2.3 Buyout Option

The non-defaulting Party may, upon mutual agreement with the Defaulting Party, elect the following remedy:

(a) The Defaulting Party will cease to have any interest in or rights with respect of the Joint Venture, the Contract, and this Agreement, other than the rights provided for by Section 6.2.3(b) and the obligations provided for by Section 6.2.3(c) hereof. This Agreement will continue to govern the business and affairs of the Joint Venture and the remaining Party's rights, obligations, and powers as to the Joint Venture.

(b) Within sixty (60) days from the date of written notice by the Policy Committee of the election of the remedy of this Section 6.2.3, the Policy Committee will prepare a detailed cost report as of the date of the Event of Default. The cost report will be used to determine the job profit/(loss) earned or incurred at the date of the Event of Default. The purchase price will be the Defaulting party's Participation Percentage in such earned profit, if any, adjusted to reflect any unpaid amounts owed by the Defaulting Party to the other Party or to the Joint Venture. In all cases where an Event of Default occurs prior to submission of the bid, the purchase price of the Defaulting Party's interest will be zero dollars ($0.00). In no event will any payment be made for anticipated or unearned profits of the Joint Venture.

(c) The Defaulting Party will be charged with, and will remain liable for, any and all losses that may be suffered by the Joint Venture, or any

additions or supplements thereto or modifications thereof, to the full extent of the Defaulting Party's Participation Percentage, Working Capital loans, and any interest due to the non-defaulting Parties to the full extent of the provisions set forth in Section 6.2.1 above. Such liability will cease, however, upon purchase of the Defaulting Party's interest as provided in this Section 6.2.3.

6.3. In addition to the cash capital contributions that are required under Section 6.1 above, the Parties agree that equipment or plant that is furnished by a Party to the Joint Venture for use on the Project may be treated as a capital contribution to the Joint Venture, and not as a lease or sale. The Parties may agree, prior to bid, on a specific list of equipment to be furnished to the Joint Venture by any of the Parties and on the capital value of such contribution, which capital value will be binding on the Parties. Other equipment may be contributed to the Joint Venture by a Party, but only where the Policy Committee unanimously agrees that the particular piece of equipment is needed on the Project and on the capital value of such contribution, and where the Party possessing the equipment agrees that it is available for use by the Joint Venture. Such equipment capital contributions will not affect the Parties' respective Percentages of Participation, their respective obligations for losses of the Joint Venture, or their respective entitlement to any profits pursuant to Sections 3, 5, 6, and 9. The distributions received by the contributing Party from the Joint Venture for the equipment will be a return of capital. Contributed equipment will remain on the Project until it is no longer needed for the work, as determined by the Managing Party and approved by the Policy Committee, including in the event of any bankruptcy by the contributing Party. When contributed equipment is no longer needed on the Project, the contributing Party will have the option to have such equipment distributed to such contributing Party, per Section 10.4, provided such contributing Party is not in default.

7.0. Joint Venture Bank Accounts

7.1. All contributions of Working Capital made by the Parties and all other funds received by the Joint Venture in connection with the performance of said Contract will be deposited in an account or accounts in the name of the Joint Venture in such bank or banks as selected by the Managing Party, unless otherwise directed in writing by the Policy Committee, which will be separate from any bank accounts maintained by any Party.

7.2. Withdrawals of such funds may be made in such form and by such persons as the Managing Party selects, unless otherwise directed in writing by the Policy Committee. All persons authorized to draw against the funds of the Joint Venture will be bonded in such company or companies and in such amounts as the Parties may mutually determine.

7.3. Any delegation of authority under this Section will be as provided in Section 5.0.

8.0 Accounting and Auditing

8.1. Separate books of account will be kept by the Managing Party of the transactions of the Joint Venture. A Party may inspect such books at any reasonable time.

8.2. If requested by any Party, the annual financial statements will be audited at Joint Venture expense by an independent certified public accountant, provided the Project is at least 30% completed, as measured by Project cost. Copies of the audit reports will be furnished to each Party.

8.3. If requested by any Party, the financial statements upon completion of the Contract will be audited at Joint Venture expense by an independent certified public accountant. Copies of the audit report will be furnished to each Party.

8.4. At quarterly intervals, the Managing Party will provide each other Party a complete package of financial statements of the Joint Venture's accounts and financial activities. The Managing Party will also provide to each other Party monthly job cost and labor productivity reports the Managing Party normally prepares for one of its own jobs.

9.0. Bankruptcy of a Party

9.1. In the event an action is filed by or against a Party in bankruptcy or insolvency proceedings (which Party is referred to herein as the "Insolvent Party"), and such action is not dismissed within 30 days, or the trustee or debtor-in-possession does not affirm this Agreement, cure any default hereunder by such Party, compensate each other Party for any loss resulting from such default, and provide adequate assurance of future performance under this Agreement, all within a reasonable time, then such Insolvent Party thereupon will cease to have any say or voice in the management of the Joint Venture and the Contract and Sections 9.2 and 9.3 will apply.

9.2. In the event the Managing Party is the Insolvent Party, another Party will act as Managing Party, unless otherwise agreed, and such Party will thereafter be reimbursed in the manner provided in Section 5.3.

9.3. The Insolvent Party will be entitled to share in the profits, if any, of the Joint Venture only up to the date of the default, as to be determined and paid following the completion of the Project. The profits as of the date of default will be determined by the Policy Committee which will prepare a detailed cost report as of the date of default. The cost report will be used to determine the job profit/(loss) earned or incurred at the date of default. The Insolvent Party will not be entitled to any share of job profit generated after the date of default. The Insolvent Party's share in job profit as of the date of default, if any, will be adjusted to reflect any unpaid amounts owed by the Insolvent Party to each other Party or to the Joint Venture. The Insolvent Party will remain liable for its share of any losses of the Joint Venture as provided in this Agreement. In no event will any repayment of Working Capital contributions be made until completion of the Project, unless the Parties unanimously decide otherwise. In the event the share of any losses chargeable to the Insolvent Party exceeds its share of Working Capital, such Insolvent Party or its successor, receiver, trustee, or other legal representative thereof will pay the amount of such excess to the Joint Venture upon demand.

10.0. Distribution of Assets

10.1. The Parties may determine, upon their unanimous approval, from time to time during this Agreement that some of the joint assets held and acquired by the Joint Venture may be divided among or paid to the Parties, as the case may be, in accordance with their respective

Participation Percentage and Section 6.2.1. It is, however, understood and agreed that for federal and state income tax purposes, gain or loss will be reported under the percentage-of-completion method of accounting and no distribution of cash in excess of the Parties' tax basis in the Joint Venture will be made during the life of the Contract and this Agreement.

10.2. Upon the completion of the Contract, the remaining assets of the Joint Venture and the profits or losses accrued in the performance of the Contract will be divided in accordance with the Parties' respective Participation Percentage.

10.3. When final disposition and distribution of all assets and/or liabilities has been made, this Agreement will terminate; provided, however, if claims of any nature or legal action of any type are brought against the Joint Venture or any of the Parties at any time after the distribution of said assets and/or liabilities by any party or parties, including the Client and subcontractors at any level, who are not signatory to this Agreement or a surety of or affiliated with a Party and such claims and/or legal action relate to or arise out of this Agreement, the performance of the Contract and/or the work product thereof, this Agreement will be considered to have remained in full force and effect and the rights and obligations of the Parties hereto with respect to the resolution of such matters will be determined by this Agreement, the passage of time notwithstanding.

10.4. The Parties will, prior to the sale or distribution of any equipment or other assets, mutually agree upon the valuation and method of distribution of the equipment or assets involved. If a Party has sold or contributed such equipment to the Joint Venture, that Party will have a first option to reacquire it at the agreed asking price.

11.0. Dispute Resolution

11.1. In the event of any dispute whatsoever between the Parties, they will exhaust every effort to settle or dispose of the same.

11.2. Any dispute, controversy, or claim arising out of or relating to this Agreement, the Project, the Contract, or the breach thereof, not adjusted or disposed of by mutual agreement between the Parties, will be submitted to private and confidential mediation in the major metropolitan area closest to the Project location. Mediator selection will be by unanimous agreement from a list submitted by the Parties. If the Parties are not agreed unanimously on a Mediator within ten (10) days of the demand for mediation, then the Managing Party will promptly request the American Arbitration Association to select the Mediator. Such mediation will be pursued to resolution of the dispute or certification by the Mediator of failure to resolve through mediation. If the dispute has not been resolved within thirty (30) days of the demand for mediation, any Party may commence the arbitration under Section 11.3, but the commencement of arbitration will not obligate the Mediator to certify the mediation as unsuccessful, and the mediation will continue as called for herein. Also, each Party's attendees at the mediation will include one senior corporate official having the title "Vice President" or higher, and who is not on the Policy Committee.

11.3. In the event of a failure to resolve the matter through mediation, the dispute will be settled by arbitration in the major metropolitan area closest to the Project location under the rules of the American Arbitration Association, and judgment upon the award rendered by the

arbitrator(s) may be entered in any court having jurisdiction thereof, and the arbitration decision will be final and binding on the Joint Venture and on the Parties. The selection of the arbitrator(s) will be by unanimous agreement of the Parties. If the Parties are not agreed unanimously on the arbitrator(s) within fifteen (15) days of the demand for arbitration, the rules of the American Arbitration Association will be implemented to select such arbitrator(s). All arbitrators so nominated and chosen will be subject to disqualification by the American Arbitration Association for potential conflict-of-interest or bias, upon a challenge by any Party. Said arbitration proceedings will be filed in the Regional office of the American Arbitration Association nearest to the Project.

11.4. Should any dispute between the Parties affect or threaten the orderly or timely progress of the work, the Parties will proceed diligently with the work as directed by the Managing Party in writing, whose decision with respect to matters affecting the prosecution or performance of the work will be final and binding unless the other Party provides written notice of its objections within twenty (20) days after receipt of Managing Party's written directive. In no event will any dispute be permitted to delay the progress of the work and an aggrieved Party will proceed in accordance with the directive of the Managing Party, even in the event of filing written objections and until final resolution of any such dispute.

12.0. Miscellaneous Provisions

12.1. The principal office of the Joint Venture will be located at the Project site or as otherwise determined by the Policy Committee.

12.2. This Agreement will be governed and construed pursuant to the laws of the State of where the Project is located.

12.3. Partnering is a collaborative process for cooperation and communication meant to achieve effective and efficient Contract performance and completion of the Project within budget, on schedule, safely, and with requisite quality in accordance with the Contract. While partnering is not a substitute for formal dispute resolution, it provides a venue to solve a dispute between the Client and the Joint Venture, at a lower cost to the involved parties. The Parties will endeavor to implement partnering with the Client, if the Contract is awarded to the Joint Venture, in the event a partnering provision is not already included in such Contract. In the event partnering is implemented, the requisite parties will enter into a partnering agreement in which the particulars of the process will be agreed upon.

12.4. If any part, term, or provision of this Agreement is determined by a court of competent jurisdiction to be unlawful or unenforceable, the validity and enforceability of the remaining portions or provisions will not be affected thereby.

12.5. Each Party, through its execution of this Agreement, hereby individually certifies and attests to each other Party and to any third parties having an interest in the Project, that neither it nor any members, affiliates, or employees of its company has participated in any antitrust activities or any other illegal anticompetitive activity with respect to the bidding and/or the obtaining of the Contract for which purpose this Joint Venture is being formed.

12.6. This Agreement constitutes the entire agreement between the Parties related to the subject matter hereof and is subject to no other oral or written proposals, agreements, or understandings whatsoever, and can only be supplemented or amended by a written document subscribed by the Parties. This Agreement may be executed in two or more counterparts, each of which will be deemed an original but all of which together will constitute one and the same Agreement. The counterparts of this Agreement and all ancillary documents may be executed and delivered by facsimile or other electronic signature by any of the Parties and the recipient may rely on the receipt of such document so executed and delivered by facsimile or other electronic means as if the original had been received.

12.7. This Agreement is binding upon the heirs, court-appointed representatives, assigns, and successors of the Parties. The interests and rights of a Party in the Contract and as a member of this Joint Venture, will not be transferable or assignable without written consent of each other Party, except a Party may assign its share in any money to be received by it from the Joint Venture for the purpose of obtaining a loan or loans from any bank or other lending agency. Any such assignment, pledge, hypothecation, or other collateralization of the proceeds or receivables of a Party will be subordinate to any claims, offsets, adjustments, and/or repayment of uncontributed Working Capital and/or default interest to the non-assigning Party.

12.8. The Joint Venture, through the Parties, will incur home office overhead and general and administrative expenses in connection with and chargeable to the performance of the Contract. However, to simplify and avoid unnecessary accounting, the Parties agree that none of the Parties will bill the Joint Venture for any home office overhead or general and administrative expenses of the Parties or for time that may be expended in connection with the Work by any of the officers or supervisory employees of the Parties not on the actual payroll of the Joint Venture or assigned to the Project, excepting only (1) as set forth in Section 5.3; (2) charges that are agreed to prior to bid time where allowances for such charges are provided for in the agreed estimate; and (3) as may subsequently be agreed upon by the Parties. Notwithstanding the preceding parts of this Section, the Joint Venture will include amounts for the Parties' overhead and general administrative expenses in the submittal of any change orders or modifications to the Contract.

12.9. The Parties agree to assign to the Project those of its personnel which the Parties' joint proposal to the Client indicates will be assigned to the Project, except for substitutions agreed by the Parties and, where required, by the Client. In addition, the Parties may assign other of their employees to the Project as are mutually agreed by the Parties. The Managing Party will be responsible to supply or obtain all other personnel. Salaried employees and non-union labor who are employed by any of the Parties and assigned to this Project may stay on the payroll of the Party assigning such persons, and the Joint Venture will reimburse that Party for the actual cost of such persons while assigned to the Joint Venture, as set forth in **Exhibit E, Seconded Salaried Staff Reimbursement by Joint Venture**. Employees, whether of the Joint Venture or of a Party, assigned to the Project will be eligible for bonuses paid on the Project, as approved by the Policy Committee. All other Project labor, including all other jobsite indirect labor, will be hired and paid directly by the Joint Venture.

12.10. Insurance coverages for the Joint Venture will be provided via policies separate from the policies maintained individually by any of the Parties, and said separate policies will be purchased specifically by and for the Joint Venture, and the cost will be charged to the Joint

Venture (independent of the Corporate Insurance Program Fee); provided, however, Employment Practices Liability coverage maintained by the Managing Party will also cover the Joint Venture and the Joint Venture will reimburse the Managing Party for the direct cost of such coverage on a per-employee basis. The Policy Committee will determine the types and amounts of insurance for the Joint Venture. Notwithstanding anything to the contrary contained herein, in relation to employee bodily injury claims, the Joint Venture will either: 1) maintain insurance coverage (and be responsible for any deductible or self-insured retention related thereto) for all claims, losses, cost, demands, suits, and causes of action and every other claim or litigation (including all costs thereof and attorney's fees) of every kind and character which may be brought against any Party and/or the Joint Venture by any employee of any Party arising as a result of performing services on the Project on behalf of the Joint Venture (a "Worker Injury Claim") whether or not actually placed on the Joint Venture payroll; or 2) be responsible, in the event of a Worker Injury Claim, for any self-insured retention or deductible under any worker's compensation insurance policy covering each respective Party's employees assigned to the Project, but not placed on the Joint Venture payroll or insurance program. The Joint Venture will waive and require its insurers to waive subrogation against each Party for such liability assumed by the Joint Venture.

12.11. If a Party to this Agreement is a subsidiary of another entity, or is wholly or substantially owned by another entity, the senior-most corporate parent or ownership entity will furnish to each other Party guarantee of that Party's obligations hereunder. In addition, in the event any Party undertakes performance of a contract, including the Contract undertaken by the Joint Venture, under conditions where performance and/or payment bonds required in connection with any such contract(s) cannot be procured from sureties furnishing the same upon the sole credit of the Party, but only with the aid or personal indemnity of an officer(s) and/or shareholder(s) and/or general partner(s) and/or limited partner(s) and/or parent or related corporation of the Party, or by the giving of other indemnity, the Party agrees that to the extent such indemnification as aforesaid will be furnished to any such surety the same in like amount will be extended to the Joint Venture and to each other Party. This requirement may be waived or reduced, but only with the advance written consent of each other Party hereto.

12.12. Financial Statements of the Parties. Each Party ("Providing Party") will provide each other Party ("Receiving Party") with the Providing Party's financial statements and the consolidated financial statements of the Providing Party's parent company, if any, ordinarily on an annual basis. Annual financial statements must be audited, provided within 90 days of the fiscal year end of the entity, and contain a balance sheet and related footnotes. Notwithstanding the foregoing, in relation to Traylor's parent company, Traylor Construction Group, Inc., annual parent company financial statements may be reviewed in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants if, in all material respects, they represent the audited financial statements of its subsidiaries. Where a Providing Party provides a parent guarantee and the Providing Party does not prepare its own financial statements in the normal course of business, the Providing Party will provide the financial statements of its parental guarantor. Each Party will immediately notify each other Party of any material adverse change in its financial position and/or the financial position of its parental guarantor from the financial position indicated in the financial statements most recently furnished to any other Party. For purposes of this provision, "material adverse change" means a decrease in equity in the Providing Party or its parental guarantor of twenty-five percent (25%) or more. In the event of such material adverse change, any Party

("Requesting Party") may request that the Party which has experienced the material adverse change ("Responding Party") provide interim financial statements. The Responding Party will fulfill such request within thirty (30) days.

12.13. Non-Solicitation. During the period of this Agreement, and solely in relation to a Party's employees assigned to the Project, each Party agrees not to solicit any such employee to terminate his or her employment with the other Party. This paragraph will in no way be construed to restrict, limit, or encumber the rights of any employee granted by law. Any general solicitation of employees not specifically targeted to another Party's employees will not be deemed a violation of this paragraph. The Parties believe the foregoing ancillary agreement is reasonably necessary to their collaboration and legitimate joint venture arrangement and business objectives under this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized officers or agents as of the Effective Date.

TRAYLOR

By: C. John Meagher
C. John Meagher (Nov 1, 2024 05:37 PDT)

Name: C. John Meagher

Title: Vice President

PARTNER

By: D. Michael Grey

Name: D. Michael Grey

Title: EVP & Chief Business Officer

EXHIBIT A
EQUIPMENT POLICIES

It is the intent of the Parties that each Party provides equipment to the Joint Venture from their normal fleet at below market rates typically in approximation to each Party's Participation Percentage. The Parties each agree to supply equipment on the Project at the rental rates set forth on an Equipment Rate Schedule to be agreed upon by the Policy Committee. Further, in the event equipment-related services (e.g., acquisition, fabrication, repair, servicing, etc.) will be provided by a Party to the Joint Venture, such services will be provided at the rates on an Equipment Service Schedule to be agreed upon by the Policy Committee and which will be updated on an annual basis. This Exhibit establishes the basis for such rates and sets the basic outline for how equipment will be handled between the Joint Venture and the Parties.

1. **Transportation and Storage** – All freight costs to and from the Project location are the responsibility of the Joint Venture. Costs to load and unload equipment in the owning Party's yard are borne by the owning Party. Costs to unload and load out equipment at the Project location are borne by the Joint Venture. This includes such items as assembling and disassembling cranes for shipment. Specialty work such as securing equipment and materials on barges for ocean transit or on rail cars for rail transit, loading or unloading double stacked barges, and the adding/removal of securing/fastening equipment on barges will be to the account of the Joint Venture. Demobilization will be to the owning Party's nearest yard. If equipment is demobilized to an owning Party's project site, no freight costs will be borne by the Joint Venture as these costs will be charged to the receiving project's mobilization account.

2. **Rental Rates –** Equipment Rental Base Rates will be shown on the Equipment Rate Schedule. Any rates not shown must be agreed upon by the Policy Committee. Standard monthly rental rates are based on single-shift operation (approximately 176 hours per month). If the Project designates a second or third shift, a 50%-uplift on monthly rental rates will be applied to equipment used for each additional shift. Permanently mounted cranes on barges will be charged as a lump sum and subject to uplifts for additional shift work, while other barges are exempt from uplifts. Rates are effective for the entire project. Rental rates are portal-to-portal unless otherwise agreed by the owning Party. Projects that consistently work single shifts (average over 6 months) but utilize certain pieces of equipment over 176 hours per month, based on hour meter readings or telematics data, may be charged the uplifted rate.

3. **Standby Rates** – Standby rates will be charged at the same rate as the standard rates described above unless agreed upon in advance prior to equipment being placed on standby.

4. **Condition on Arrival** – All equipment is to arrive work ready. Complete and thorough equipment arrival reports must be completed on all equipment prior to putting it to work. Equipment requiring excessive repairs to enable it to work efficiently will be paid by the sending Party. However, in no case will the sending Party be responsible for any costs other than the labor and materials to repair the equipment.

5. **Major Repairs –** Major component repair costs due to normal wear and tear are included in the monthly rental rates. The major components are defined as engines, transmissions, differentials, final drives, torque converters, and gear boxes. Crane undercarriages under normal conditions and properly maintained will be considered as major components. The crane draw works (i.e., swing systems, vertical travel shafts, chain cases, deck gears) will be dealt with on a case-by-case basis. Hydraulic pumps, hydraulic motors, and wire rope sheaves are the responsibility of the Joint Venture. Under normal circumstances, the Joint Venture is not liable for major component repair. However, damage caused as a result of negligence by the Joint Venture, or by a hazard of the Project work, is the liability of the Joint Venture.

6. **Crane Wire Rope and Blocks –** Cranes will be provided with boom cable only; any other wire rope is the responsibility of the Joint Venture. A standard block and ball will be provided, however any lagging, special blocks, or sheaves (such as fleeting sheaves) are the responsibility of the Joint Venture.

7. **Maintenance –** The Joint Venture is responsible for proper equipment maintenance and inspection. Day-to-day maintenance includes but is not limited to, material and labor for fluid changes, tires, track wear, wear part replacement, hose repair, and small component repairs such as injectors, turbos, cylinders, fuel pumps, hydraulic pump & motors, and wire rope sheaves. Maintenance and inspection also includes corrosion prevention, touch up painting, and cleaning or power washing. The Parties expect that, with proper maintenance, adverse working environments do not materially decrease the effective depreciable life of equipment. Projects in corrosive (saltwater) environments are responsible for performing additional maintenance such as paint touch up and additional cleaning of components to account for additional wear and tear due to the conditions. Joint Venture failure to maintain equipment such that the environment does not impact the life of the equipment will result in equipment repair back charges by the owning Party to the Joint Venture.

8. **Tires and Tracks** – The Joint Venture is liable for all tire wear and excessive track wear incurred during the course of construction (tracks on the percentage of wear and tires by the 32nd). All commissioned equipment will be measured for wear by the Joint Venture prior to use on the Project and tracked throughout the course of the Project. The owning Party will invoice the Joint Venture for these costs. Such costs exclude normal track wear on crawler cranes. The Joint Venture is responsible for all sudden-death tires unless such occurrence results from tire manufacturer defects. The owning Party's Corporate Equipment personnel will file warranty items according to the original tire purchase agreement.

9. **Marine Equipment –** Normal wear and tear includes scuffing and abrasion of the exterior coating of marine equipment and the attendant rusting of the unprotected steel, moderate distortions to the hull plate (which do not deform the internal framing including bracing and bulkheads), the insetting and distortion to rub rails (which do not fracture or render the rub rails incapable of performing their function), scarring of wood fendering, and nominal abrading of the deck hardware (bitts, kevels, etc.). Abnormal wear and tear/damage includes distortions to the hull which affect internal structural members or bulkheads, fracturing of the hull which can allow cargo residue or water to enter the barge, fracturing/tearing away/major distortion to any deck hardware (including manhole covers, manhole gaskets, and securing devices). The Joint Venture is liable for any deterioration or contamination to the interior of a barge resulting from a failure to keep it properly sealed. The Joint Venture is responsible for the additional cost of maintenance resulting from a corrosive (saltwater) environment which includes but is not limited to zinc (anodes) replacement, painting and repainting of deck hardware, paint touch up, and additional cleaning required for components affected by salt water, brine, etc. If ballasting of compartments is needed, then only potable water is to be used and the compartments must be pumped and mopped dry by the Joint Venture before completing the charter. Both on- and off-charter surveys are required on all marine equipment. Costs of the surveys will be paid by the Joint Venture.

10. **Fuel Oil and Lube –** All fuel, oils, and other lubricants will be paid for directly by the Joint Venture.

11. **Buy/Sell** – Projects often require specialty equipment not available for rent or purchase from a Party's permanent fleet to execute unique construction tasks. All equipment purchased by the Joint Venture will be sold as determined by the Policy Committee. The sale price of the equipment must be approved by the Policy Committee.

12. **Crane Inspections –** Federal and State laws require annual equipment inspections for cranes and aerial lifts. The Joint Venture is responsible for conducting annual inspections for applicable equipment in use.

13. **Crane/Barge Movement** – Qualified Project personnel must notify the owning Party's Equipment Division in advance regarding the planned movement of cranes from land to barge, barge to land, or barge to barge. All crane assembly and disassembly will be supervised by a certified Assembly / Disassembly (A/D) director as per standards.

14. **Equipment Insurance –** The Joint Venture will provide insurance coverage for the equipment. Insurance will remain in effect portal to portal or until equipment is returned to the owning Party's yard and possession. Equipment rates do not include costs for insurance or any deductibles.

15. **Marine Equipment Insurance** – The Joint Venture will provide Marine Insurance to include Hull, P & I, EPG, Jones Act, Excess Marine. Policy quotes must be reviewed by the owning Party's Equipment Division prior to binding. Equipment rates do not include costs for insurance or any deductibles.

16. **Accident Investigations** – Qualified Project personnel (project superintendent, equipment superintendent, project safety supervisor/coordinator, and/or other competent persons on the job) must conduct any accident investigations. The investigation may significantly impact both future safety policy and project profitability; accordingly, the investigating team must conduct the investigation with the utmost diligence and care. Qualified Project personnel will immediately investigate all accidents resulting in substantial (over $2,000) damage or personal injury. A thorough investigation is necessary in order to: 1) determine the conditions and circumstances contributing to the accident such that similar accidents may be prevented in the future; and 2) gather the facts associated with the accident such that the Joint Venture may best position itself in the event of legal action.

17. **Equipment Tax** – The Joint Venture is responsible for all sales and/or use tax and all property tax on equipment rentals and buy/sell equipment.

18. **End of Term Transfer** – Prior to equipment transfer at the end of the rental term, the Joint Venture will perform the following tasks:
    a. Steam clean equipment, clean operator cab, etc.;
    b. Service equipment as necessary: 8 hr, 250 hr, 500 hr, 1000 hr;
    c. Complete all necessary repairs: the equipment must be in a working and properly maintained condition;
    d. Forward as appropriate the equipment "Maintenance Packet" (parts book, service manual, operator manual, equipment card, etc.). Keep the Maintenance Packet with the machine if the machine is marked available, and forward it to the receiving job if the machine is scheduled for transfer.
    e. The sender will ship all attachments and/or accessory items with the machine and will note each item on the transaction notice (boom, block, ball, jib, ripper, blade, bucket, forks, etc.).

19. **Equipment Records and Procedures** – The Joint Venture is responsible for following all documentation, recording, policies and procedures as determined by the owning Party's Equipment Division.

20. **Equipment-Related Plans –** The Joint Venture, through the Policy Committee, will develop the following project-specific plans, as appropriate to the location and type of project: (a) Mooring Location Plan (to identify and specify appropriate mooring locations); (b) Mooring Maintenance Plan (to ensure secure mooring of barges and other vessels); (c) Vessel Discharge Plan (to ensure compliance with EPA Vessel General Permit and other government agency vessel discharge requirements); and (d) Hurricane Plan (to mitigate associated risk in hurricane-prone project locations). The Policy Committee will submit each such plan to the Managing Party's Equipment Division for review and comment.

21. **Termination Right** – Notwithstanding anything to the contrary, all rentals or leases of property, plant, and equipment (rolling stock equipment or other) to the Joint Venture by any Party or an affiliate of any Party, may be terminated by either the Joint Venture (lessee), or the Party or affiliate of such Party (lessor), in whole or in part, upon 30 days' notice without penalty.

EXHIBIT B
INSURANCE PROGRAM

1. Workers' Compensation in accordance with statutory requirements and Employer's Liability insurance with limits of not less than $1,000,000 for each accident. The "loss limit" (deductible) under such policy will not exceed $500,000 each accident. USL&H endorsement, where appropriate.

2. Commercial General Liability insurance with reinstated annual limits not less than $1,000,000 each occurrence / $2,000,000 general aggregate. The deductible under such policy will not exceed $250,000 each occurrence.

3. Automobile Liability insurance on any automobile with not less than a $1,000,000 combined single limit for any one accident.

4. Excess Liability insurance with not less than a limit of $25,000,000 for each occurrence and aggregate, following form of the underlying policies. Excess coverage is to be provided by the Joint Venture's insurance program and will be excess of the primary Commercial General Liability, Employer's Liability and Automobile Liability policies referenced above. Where applicable, such Excess Liability insurance will also be excess over the Marine Excess policy referenced in paragraph 8, below.

5. Contractor's Equipment insurance covering all owned, rented and leased equipment. The deductible will not exceed $100,000 each claim.

6. If agreed, "All-Risk/Replacement Cost" Builders' Risk insurance covering loss or damage to the Project. Such policy will be in an amount as agreed to by the Parties with optional earthquake/flood coverage.

7. As appropriate, Ocean Cargo and/or Hull & Machinery insurance covering permanent materials or barges involved in ocean going shipments.

8. As appropriate, when marine work is encountered, Hull, P & I, Water Pollution, and a Marine Excess ($50,000,000 Limit) policy will be provided by the Joint Venture. In such circumstances, the Excess Liability policy referenced in paragraph 4, above, will be excess over the foregoing Marine Excess policy.

9. Any other such insurance as required by contract or as agreed to by the Parties (e.g., Contractors Pollution Legal Liability, Contractors E&O, Railroad Protective, etc.).

10. Commercial General Liability and Excess Liability coverage in the name of the Joint Venture will include an extension of products and completed operations coverage for such period beyond final acceptance of the work as is required by contract with the Client.

11. Deductibles and/or self-insured retentions, if any, under the policies referenced in paragraphs 1, 2, 3, 5, 6, 7 and 8, above, arranged in the name of the Joint Venture will be borne by the Joint Venture.

12. Any self-insured retention or deductible under any Workers' Compensation, General Liability or Automobile Liability policies covering each respective Party's employees assigned to the project, but not placed on a Joint Venture payroll or Insurance Program, will be borne by the Joint Venture and will become a cost to the Joint Venture.

    The above insurance coverage will include the Joint Venture as the named insured. The Joint Venture, the individual Parties, and the employees of the Joint Venture are named as primary, noncontributing additional insureds including products & completed operations, excluding Workers' Compensation and Employers Liability, by policy endorsement. Waiver of Subrogation applies to each Party and to the Joint Venture by individual policy as allowed by law and is provided by policy endorsement.

UNITED TRAYLOR JOINT VENTURE

EXHIBIT C
DIVISION OF SERVICES

DESCRIPTION	PARTY COST NON-REIMBURSABLE FROM JOINT VENTURE	COVERED BY MANAGEMENT FEE	JOINT VENTURE COST
1. Salaries and Burdens			
i) Pre- Bid/Proposal			
☐ All pre-Bid/Proposal salaries and burdens	X		
Third Party Costs			X
ii) Pre-Award			
☐ Managing Party's salaries and burdens	X		
Third Party Costs			X
iii) Post-Award			
☐ Managing Party's Head Office Executives		X	
☐ Project Manager			X
☐ On-site head office operations personnel requested by Project Manager			X
☐ Managing Party's Head Office Equipment Manager		X	
☐ JV's Equipment Manager			X
☐ JV's Purchasing Agent			X
☐ Managing Party's Head Office Labor Relations Manager		X	
☐ Managing Party's Head Office Administration Manager		X	
☐ Managing Party's Head Office Human Resources		X	
☐ JV's Personnel Department			X
☐ Managing Party's Head Office Safety Personnel		X	
☐ JV's Safety Personnel			X

DESCRIPTION	PARTY COST NON-REIMBURSABLE FROM JOINT VENTURE	COVERED BY MANAGEMENT FEE	JOINT VENTURE COST
▯ Managing Party's Head Office Information Systems that is fixed in nature (costs that are not incremental or directly attributable to Project)		X	
▯ JV's Information Systems Personnel, including third parties as requested by the Project Manager			X
▯ All staff hired or assigned to Joint Venture and located on-site or in the Head Office for training or prior to site office set up			X
▯ Managing Party's Head Office Accounting and IT Personnel when business system is in Head Office and the Head Office is performing Joint Venture accounting and payroll functions		X	
▯ Managing Party's or Partner's Head Office Personnel when performing a specific project assignment at the request of the Project Manager			X
▯ Statutory burdens	Allocated in accordance with Exhibit E		
▯ Site allowances	Allocated in accordance with Exhibit E		
▯ Vehicle/car allowances	Allocated in accordance with Exhibit E		
2. Travel and Accommodation (including room and board)	Allocated in accordance with Exhibit E. Only exception is when one of the above is required to travel for selection of equipment or to review a procedure used elsewhere that has application for the project. When this is done at the request of the Project Manager, the travel and accommodations are a Joint Venture cost.		
3. Personnel Placement Fees			X in accordance with Exhibit E
4. Moving Expenses, including any expenses associated with making an employee whole due to relocation expenses being subject to taxable income			X in accordance with Exhibit E

DESCRIPTION	PARTY COST NON-REIMBURSABLE FROM JOINT VENTURE	COVERED BY MANAGEMENT FEE	JOINT VENTURE COST
5. Information Technology			
i) Hardware			
☐ In Head Office that is fixed in nature (costs that are not incremental or directly attributable to Project)		X	
☐ On-site\ directly attributable to Project			X
☐ Third party modifications to either Head Office or on-site equipment necessitated by project requirements			X
ii) Software			
☐ In Head Office that is fixed in nature (costs that are not incremental or directly attributable to Project)		X	
☐ On-site/incremental or Managing Party's software that is variable in nature/associated directly with the Project (costs that would go away or be reduced when the Project is complete) including software needs specific to personnel working on behalf of Project (e.g., Microsoft licensing)			X
☐ Modifications to either Head Office or on-site software necessitated by project requirements including in-house programming expense.			X
☐ Project Management Software charge in the amount of .05% of revenue paid to the Managing Party (in line with industry providers, e.g., Prolog)			X
iii) Communications (including modem line, gateway and third-party hook-up expense)			X

DESCRIPTION	PARTY COST NON-REIMBURSABLE FROM JOINT VENTURE	COVERED BY MANAGEMENT FEE	JOINT VENTURE COST
☐ When using all or part of Head Office business system		X	
☐ When business system is on-site			X
☐ Other communication requirements of Joint Venture (i.e., third party support modems, etc.)			X
iv) Training			
☐ Managing Party's home office personnel who provide training and support		X	
☐ Third party Project training and support and expenses			X
6. Estimating Expenses			
☐ Pre-Award	X		
☐ Post-Award/On site			X
7. Engineering and Design Expenses			
☐ Pre-Award (In House)	X		
☐ Third Party			X
☐ Post-Award including Managing Party's in-house Head Office engineering expense assigned to Project (subject to JV approval).			X
8. Project Controls			
☐ On Site			X
9. Scheduling Expenses			
☐ Pre-Award	X		
☐ Post-Award			X
10. Licensing and Registration Fees			
☐ Pre-Award	X		
☐ Post-Award			X

DESCRIPTION	PARTY COST NON-REIMBURSABLE FROM JOINT VENTURE	COVERED BY MANAGEMENT FEE	JOINT VENTURE COST
11. Legal Expenses			
In House Counsel – General advice		X	
Significant claims, complaints, and legal issues including 3rd party legal expenses (Subject to JV approval).			X
12. Insurance and Bonding			X
13. Payroll and Related Services (this does not include the direct payroll expense, only the cost of generating the payroll)			
▯ Salaried personnel (If on site)	X		
▯ Hourly and salaried personnel on JV payroll		X	
▯ Unemployment third party services directly attributable to the Project			X
14. Accounting Services (If on site)			X
15. Other Miscellaneous			
i) Supplies shipped to job from inventory			X
ii) Joint Venture stationery, business cards, checks, etc.			X
iii) Courier expenses			
▯ Originating on job site or from third parties to job site			X
▯ Originating in Managing Party's Head Office		X	
iv) Long distance			
▯ Originating on job site			X
▯ Originating in Managing Party's Head Office		X	
v) Bank charges			
▯ Joint Venture bank accounts			X

DESCRIPTION	PARTY COST NON-REIMBURSABLE FROM JOINT VENTURE	COVERED BY MANAGEMENT FEE	JOINT VENTURE COST
vi) Office space			
▯ Pre-Award (Use of existing facilities)	X		
▯ Managing Party's head office		X	
▯ Project related third party landlord or trailer expenses			X
vii) Copying charges			
▯ Managing Party head office copy charges		X	
▯ Third party Project copy charges			X
▯ On-site copy charges			X
viii) Job Personnel (on site) cell phones, iPads, and related service charges			X
viv) Tax returns and related services from external parties specific to Project			X

EXHIBIT C (CONTINUED)

INFORMATION TECHNOLOGY SERVICES OF MANAGING PARTY'S HEAD OFFICE

The foregoing Table outlines the services to be provided by the Managing Party in return for the Management Fee. This narrative is intended to provide details on the nature and scope of those services.

Salaries & Burdens

Pre-Award:

After formal notification by the Client of its intent to award the Project to the Joint Venture, all salaries and burdens of the Managing Party's personnel who may be involved in negotiations with the Client will be covered by the Management Fee. The only exception to this would be if the Policy Committee determined it was in the Joint Venture's interest to establish the Project team and begin detailed project planning. In that event, and with approval of the Policy Committee, the costs would be a Joint Venture cost.

Post-Award:

Head Office executives of the Managing Party will, in general, offer support and assistance to the Project Manager and staff regarding the due performance of the Project and the Contract subject to the superior authority of the Policy Committee. More specifically their involvement will include, but is not limited to the following:

a) Providing preliminary advice on technical and construction matters as well as on contractual issues prior to obtaining legal advice,

b) Providing advice on union or labor issues, and

c) Monitoring the performance of the Project Manager to ensure any critical contractual or financial issues are communicated to the Policy Committee without delay.

The Head Office Equipment Manager will provide advice, support, and assistance to the Joint Venture Equipment Manager on the following:

a) Selection and acquisition of plant, equipment, and tools,

b) Establishment of a preventative maintenance program (including record keeping and costing) for all plant, equipment, and tools,

c) Negotiation with plant and equipment suppliers on warranty issues, and

d) Other matters relating to management of Joint Venture plant and equipment.

The Head Office Purchasing Agent will provide advice, support, and assistance to the Joint Venture Purchasing Agent on the following:

a) Selection of subcontractors and suppliers,

b) Negotiating and preparing purchase orders and subcontract agreements,

c) Establishment of a program to track and monitor minority suppliers and subcontractors to ensure compliance with the Contract, and

d) Other matters relating to management of suppliers and subcontracts.

Head Office Labor Relations Personnel will provide advice, support, and assistance to the Joint Venture Labor Relations Personnel on the following:

a) Discussions and negotiations with the various trade unions at Project start-up,

b) Negotiations and settlement of labor disputes which may arise during the course of the Project and,

c) Other matters relating to labor relations.

The Head Office Administration Manager will provide advice, support, and assistance to the Joint Venture Administration Manager on the following:

a) Establishment and operation of the business system for all Project accounting functions (payroll, accounts payable, banking, tax accounts, receivables),

b) Ensuring all payroll, taxation, and accounting practices are in compliance with statutory requirements,

c) Ensuring that Bonds and Guarantees are released at the earliest possible time for the benefit of the Joint Venture,

d) Establishment and operation of banking facilities in the name of the Joint Venture as approved by the Policy Committee,

e) Obtaining and maintaining all required insurance coverage as approved by the Policy Committee, as well as handling insurance claims,

f) Controlling the investment of surplus funds as approved by the Policy Committee,

g) Ensuring that all project records are maintained and retained to comply with any statutory requirements,

h) Selecting and coordinating with an external auditor as and when requested by the Policy Committee and,

i) Other matters relating to the administration of the Contract and the business of the Joint Venture.

The Head Office Safety Personnel will provide support and assistance to the Joint Venture Safety Personnel on the following:

a) Preparation of the Project Safety and Loss Control Program,

b) Monitoring safety and loss control performance to ensure compliance with Contract or statutory requirements and,

c) Other matters relating to safety and loss control.

The Head Office Information Systems Personnel will provide advice, support, and assistance to the Joint Venture Information Systems Personnel on the following:

a) To determine the system requirements, selection of hardware and software to operate the system and installation of the system,

b) Troubleshooting system problems, and

c) Other matters relating to selection, installation, and operation of information systems.

UNITEDTRAYLOR
JOINT VENTURE

EXHIBIT D
TAX MATTERS

1. The Partnership Representative will be subject to the following provisions:

   a. The Partnership Representative will keep the Parties reasonably informed of any material tax issues regarding the Joint Venture and will give the Parties timely notice of, and will furnish appropriate information to the Parties regarding, all significant audit and litigation events, including, but not limited to, the commencement of any examination or other action by a taxing authority, closing conference with the examining agent, proposed adjustments, rights of appeal, and requirements for filing a protest.

   b. If the Joint Venture is the subject of a tax audit, investigation, or other proceeding, including administrative settlement and judicial review ("Tax Proceeding"), by any federal, state, local, or foreign taxing authority, the Partnership Representative will be authorized to act for the Joint Venture, provided, however, the Partnership Representative will not have the right to (A) settle or compromise any matter raised by such taxing authority, or (B) extend the period of limitations, without the approval of the Policy Committee, subject to such specific direction or limitations imposed by the Policy Committee.

   c. The Parties will be provided written notice by the Partnership Representative and given an opportunity to participate in a non-binding manner in all Tax Proceedings, provided, however, if a tax settlement would have a disproportionate adverse impact on a Party, such Party will be given a reasonable period of time to approve the proposed settlement, which approval will not be unreasonably withheld, conditioned, or delayed.

   d. The Partnership Representative will use commercially reasonable efforts to minimize or eliminate any "imputed underpayment," as discussed in the Internal Revenue Code of 1986, as amended, or any corresponding provision of succeeding law ("Code"). Additionally, the Partnership Representative will use commercially reasonable efforts to minimize the tax, interest, and penalty impact of any IRS adjustments.

   e. All expenses incurred in connection with any Tax Proceeding will be borne by the Joint Venture, subject to reimbursement in the reasonable discretion of the Policy Committee to ensure that each Party bears its allocable share of such expenses.

2. Each individual, partnership, corporation, trust, limited liability company, or other entity (for purposes of this Exhibit D, called a "Person") that holds or controls an interest as a Party on behalf of, or for the benefit of, another Person or Persons (for purposes of this section 2, called a "Pass-Thru Party"), or which Pass-Thru Party is beneficially owned (directly or indirectly) by another Person or Persons, will, within thirty (30) days following receipt from the Partnership Representative of any notice, demand, request for information, or similar document, convey such notice or other document in writing to all holders of the beneficial interests in the Joint Venture holding such interests through such Pass-Thru Party.

3. If the Joint Venture incurs or is required to pay any liability for any taxes, interest, penalties, other additions to tax, or any related costs and expenses (including reasonable accounting and attorney's fees) of any kind or nature that may be sustained or suffered by the Joint Venture or the Parties, (including any costs incurred in connection with a Tax Proceeding) for any taxable year ("Joint Venture Tax Liability"):

   a. for purposes of the taxable year to which the Joint Venture Tax Liability relates ("Reviewed Year"), the Policy Committee may cause any Party to the Joint Venture during the Reviewed Year ("Reviewed Year Party") to pay its allocable share of such Joint Venture Tax Liability, as reasonably determined by the Policy Committee, and each such Party hereby agrees to pay that amount to the Joint Venture and such amount will not be treated as a Working Capital contribution for purposes of any provision of this Agreement that affects distributions to Parties;

b. any amount not paid by a Reviewed Year Party at the time reasonably requested by the Partnership Representative will accrue interest at the rate set by the Policy Committee (not to exceed the maximum rate permitted by law), compounded quarterly, until paid, and that Party will also be liable to the Joint Venture for any damages resulting from a delay in making such payment beyond the date such payment is reasonably requested by the Partnership Representative, and for this purpose the fact that the Joint Venture could have paid this amount with other funds will not be taken into account in determining such damages;

c. without reduction in a Reviewed Year Party's obligation under section 3.a. and 3.b., any amount paid by the Joint Venture that is attributable to a Reviewed Year Party, as reasonably determined by the Policy Committee, and that is not paid by that Party pursuant to sections 3.a. or 3.b. may be treated (A) as a distribution to (and will reduce amounts otherwise distributable to) that Party, or (B) in such other manner as reasonably determined by the Policy Committee; and

d. each Party hereby agrees to indemnify and hold harmless the Joint Venture and each other Party from and against any Joint Venture Tax Liability or other liability for taxes with respect to income attributable to, or distributions or other payments to, such Party.

4. Notwithstanding any other provisions of this Agreement, the obligations of each Reviewed Year Member under this Exhibit D: (i) will survive indefinitely with respect to any taxes withheld or paid by the Joint Venture that relate to the period during which such Person was actually a Party, regardless of whether such taxes are assessed, withheld or otherwise paid during such period, (ii) may be enforced by legal process or any other lawful means, including, without limitation, by offsetting any unpaid obligations against amounts otherwise distributable to the Party, and (iii) will survive the transfer by that Party of its interest and the winding-up, dissolution, liquidation, and termination of the Joint Venture.

5. The Parties will cooperate as reasonably requested by the Partnership Representative in connection with any Tax Proceeding or the reduction or satisfaction of any Joint Venture Tax Liability and will promptly provide upon the Partnership Representative's request therefor, such information as the Partnership Representative may reasonably request.

6. The Parties covenant and agree that the Policy Committee may amend this Agreement in order to reflect the effect of any applicable income tax regulations, including temporary regulations, promulgated under the Code, as such regulations may be amended from time to time (including corresponding provisions of succeeding regulations) or other guidance promulgated with respect to a Partnership Representative.

7. References to a Reviewed Year Party in this Exhibit D include those Persons who or which are permitted assigns of Reviewed Year Parties.

8. The Managing Party will be responsible to appoint a properly qualified Tax Manager and to provide information to the Parties demonstrating the Tax Manager is properly qualified to act in such capacity.

9. The Parties agree the Partnership Representative will not elect out of the centralized partnership audit regime established by the Bipartisan Budget Act of 2015.

EXHIBIT E
SECONDED SALARIED STAFF REIMBURSEMENT BY JOINT VENTURE

Salaried Staff from the Parties will be reimbursed by the Joint Venture at the Multiplier times actual base wages (includes all pay adjustments including but not limited to base pay for cost of living, vacation, and sick time for salaried staff; also includes overtime wages for salaried non-exempt staff). The following table identifies the components of salaried fringe costs that are included in the Multiplier and identifies what is to be directly paid by the Joint Venture.

Included in Multiplier:	**Direct Cost to Joint Venture:**
Payroll taxes & insurance (FICA, Medicare, FUTA, SUTA)	Vehicle or vehicle allowance
401k benefits	Mobilization cost to the Project, including any expenses associated with making an employee whole due to relocation expenses being taxed as income
Health, life, and disability benefits	Temporary living costs, if applicable
Non-Joint Venture retention programs	Computer, mobile device, or cell phone (or associated allowance) and related services
	Training directly attributable to Joint Venture
	Personnel placement fees and sign-on bonuses
	Individual tax return for ex-pats if the Project is outside U.S.

Quality Credit Matrix

I-95 over Lake Marion Bridge Replacement
Clarendon and Orangeburg Counties

Number	FATC #	Description	Added Value/Benefits	Type of Innovation (*)	Cost / Schedule Impacts (Savings/Reductions in GREEN, Additional Cost/Delays in RED)	Self-imposed Assurance
2.A/B - Expedited Schedule / Schedule Certainty						
1	N/A	Advanced Geotechnical Borings (At Our Risk)	Advanced geotechnical investigations have been performed during the project pursuit to enable a more refined seismic analysis pre-bid and final investigations will begin, at our risk, before NTP.	Type (1) Expedited Schedule Type (2) Schedule Certainty	Cost Impacts: $500,000 Schedule Impacts: 1 Month	Included in the Technical & Cost Proposal
2	N/A	Advanced Design Work (At Our Risk)	UTJV's advanced design NTP to ICE on or about Nov. 3, 2025 enables ICE to prepare preliminary road and bridge design submittal packages and perform supplemental surveying.	Type (1) Expedited Schedule Type (2) Schedule Certainty	Cost Impacts: N/A Schedule Impacts: 1 Month	Included in the Technical & Cost Proposal
3	N/A	Phased NOI for Construction Access/Laydown	Two NOI's will be secured from SCDES disjointing the construction access and laydown yards with the actual physical construction. This allows for barges, cranes, and other construction equipment to be assembled and launched prior to plans being finalized and the construction NOI being obtained reducing weeks of the construction schedule.	Type (1) Expedited Schedule Type (2) Schedule Certainty	Cost Impacts: N/A Schedule Impacts: 2 Months	Included in the Technical & Cost Proposal
4	14	Modified Lane Closure Times	Utilized refined traffic data from 2024 SCDOT TA&DA to analyze hourly traffic volumes and develop updated seasonal lane closure prohibitions facilitating the placement of asphalt pavement and median access along the causeway area allowing for work to be completed without being interrupted due to restrictive nightly lane closures.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (3) Minimize Traffic Impacts Type (5) Quality and Safety Enhancements	Cost Impacts: $200,000 Schedule Impacts: 1 Month	Included in the Technical & Cost Proposal
5	N/A	#4 Limestone for Embankment in Causeway Median	The median construction along the causeway for the future 3rd lane will utilize #4 limestone for the embankment which provides significant benefits for schedule certainty. The limestone reduces temporary drainage elements, facilitates drainage during phasing and construction, performs when saturated, provides long-term structural integrity, requires less effort for compaction and moisture testing, while also significantly reducing the potential for sediment loss into the lake.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: $500,000 Schedule Impacts: 1 Month	Included in the Technical & Cost Proposal
6	N/A	Accounted for Long Lead Items in CPM Schedule	By incorporating long lead items such as concrete girders and MSE wall components in the CPM (shop drawing production/review and fabrication), the schedule now better reflects actual timelines and constraints and helps align procurement with our overall construction strategy.	Type (2) Schedule Certainty	Cost Impacts: N/A Schedule Impacts: Schedule Certainty	Included in the Technical & Cost Proposal
7	N/A	Drilled Shaft Load Tests	Drilled shaft load tests will be performed on test shafts to verify design assumptions and to optimize the foundation design. These tests will result in a more economical design by allowing for refinement in design parameters, potentially decreasing shaft length or diameter without compromising performance and therefore, reducing construction schedule.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (5) Quality and Safety Enhancements	Cost Impacts: $20 Million Schedule Impacts: 3 Months	Included in the Technical & Cost Proposal
8	8 & 17	Increased Column Spacing	Increasing the maximum allowable column spacing allows substructure design optimization eliminating a combined total of 58 drilled shafts and columns from the main bridges. The reduction of drilled shafts and columns reduces environmental impacts, improves safety for the construction personnel, reduces cost and schedule, allows for schedule certainty, and decreases the amount of substructure elements to be maintained.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: $6 Million (FATC 8) and $14 Million (FATC 17) Schedule Impacts: 3 Months (FATC 8) and 2 Months (FATC 17)	Included in the Technical & Cost Proposal
9	9	Precast Column Sections	Precast concrete columns can be utilized in bents with column heights of 25 feet or less reducing the amount of concrete forming and casting over water. This provides a safer work environment, increases construction efficiency, enhances the quality of the elements, saves construction costs, and reduces schedule.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (5) Quality and Safety Enhancements	Cost Impacts: $1 Million Schedule Impacts: 2 Months	Included in the Technical & Cost Proposal
10	11	Maximum Bent Cap Concrete Pour Length	FATC 11 increases the maximum bent cap length without a construction joint from 70 to 85 feet which reduces the number of concrete pours, eliminates construction joints, improves quality, and reduces construction time.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (5) Quality and Safety Enhancements	Cost Impacts: $150,000 Schedule Impacts: 1 Month	Included in the Technical & Cost Proposal
11	N/A	Eliminate Closure Pours on Main Bridges	Eliminating closure pours on main bridges provides a higher-quality deck, ensures schedule certainty due to the reduced number of pours, and reduces maintenance over its 100-year service life.	Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: N/A Schedule Impacts: N/A	Included in the Technical & Cost Proposal
12	18	Utilize non-uniform MSE Wall Strip lengths	A initial permanent soil nail wall will be installed prior to the MSE wall creating a combination wall at the Southeast quadrant of the project. The soil nail wall is used to reduce the MSE wall excavation and strap length that otherwise would have undercut the existing NB mainline embankment. This reduction in excavation reduces the wall construction duration.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (3) Minimize Traffic Impacts Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: $1 Million Schedule Impacts: 2 Months	Included in the Technical & Cost Proposal

Quality Credit Matrix

I-95 over Lake Marion Bridge Replacement
Clarendon and Orangeburg Counties

Number	FATC #	Description	Added Value/Benefits	Type of Innovation (*)	Cost / Schedule Impacts (Savings/Reductions in GREEN, Additional Cost/Delays in RED)	Self-imposed Assurance
2.C - Minimizing impacts to Traffic						
13	16	Future 3rd Lane Reduces Lane Closures	UTJV commits to constructing the future NB and SB future 3rd lanes along the causeway. Once constructed, the future 3rd lanes will be used to maintain existing traffic reducing the need for temporary lane closures. This also provides for safer future maintenance, cleaning, and sweeping access between the two bridges without having to enter traffic.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (3) Minimize Traffic Impacts Type (5) Quality and Safety Enhancements	Cost Impacts: Current $1 Million; Future $15 Million Schedule Impacts: N/A	Included in the Technical & Cost Proposal
14	16	FATC 16 Horizontal Alignment Minimizes Traffic Shifts	The NB and SB traffic will each be temporarily shifted a maximum of one time during the construction duration.	Type (2) Schedule Certainty Type (3) Minimize Traffic Impacts Type (5) Quality and Safety Enhancements	Cost Impacts: N/A Schedule Impacts: N/A	Included in the Technical & Cost Proposal
15	N/A	12 ft. Lanes Maintained Throughout Construction	Full 12 ft. lanes will be maintained throughout all construction stages.	Type (3) Minimize Traffic Impacts Type (5) Quality and Safety Enhancements	Cost Impacts: Some Added Cost Schedule Impacts: N/A	Included in the Technical & Cost Proposal
16	N/A	Median Access From US 301 Interchange	Lane closures will be reduced by accessing the median on the north end of the project by constructing a median access ramp at the US 301 interchange between the I-95 NB and SB bridges over US 301. Stage 1 of the relief bridge and causeway median construction in Phase 1 can therefore be accomplished without major impacts to mainline traffic with reduced construction duration.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (3) Minimize Traffic Impacts Type (5) Quality and Safety Enhancements	Cost Impacts: $50,000 Schedule Impacts: 1 Month	Included in the Technical & Cost Proposal
17	16	Rooftop Causeway Section Sheds Drainage to Outside Shoulders Eliminating 0.5% Longitudinal Grade Build-up	Constructing the future 3rd lane along the causeway in a rooftop configuration sheds drainage to the outside shoulders and eliminates existing and future median drainage. This allows for the removal of the 0.5% longitudinal grade criteria along causeway and the nightly lane closures required for the asphalt grade build-up.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (3) Minimize Traffic Impacts Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: $2 Million Schedule Impacts: 2 Months	Included in the Technical & Cost Proposal
18	16	Single Stage Construction for Main Bridges	FATC 16 provides a horizontal alignment that allows for both the NB and SB main bridges to be constructed in single stages in different MOT phases of construction which reduces traffic shifts and construction time.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (3) Minimize Traffic Impacts Type (5) Quality and Safety Enhancements	Cost Impacts: N/A Schedule Impacts: Schedule Certainty	Included in the Technical & Cost Proposal
2.D - Minimize Maintenance Costs						
19	16	Causeway Drainage Structures and Grass Maintenance Eliminated	Construction of the Rooftop roadway section along the causeway eliminates median drainage structures and associated maintenance by shedding drainage to the outside median. Additionally, median grass maintenance along the causeway is eliminated with the construction of the future 3rd lane.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: $1 Million Schedule Impacts: 2 Months	Included in the Technical & Cost Proposal
20	N/A	Long-term Bridge Maintenance Reduction	The incorporation of prestressed concrete girders for all bridge superstructures in the project reduces SCDOT's burden of long-term structural steel bridge maintenance.	Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: Over a 20 year maintenance cycle, steel bridges cost at least $5,000/year above concrete bridges resulting in a maintenance savings of at least **$100,000.** Schedule Impacts: N/A	Included in the Technical & Cost Proposal
2.E. - Project Approach, Means & Methods, Other Items						
21	16	Future 3rd Lane Construction Along Causeway	The RFP requires the future 3rd lane to be incorporated on the new bridge structures but not along the causeway between the relief and main bridges. UTJV commits to constructing the future NB and SB 3rd lanes along the causeway in this project eliminating the requirement of future construction through the corridor.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (3) Minimize Traffic Impacts Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: Current $1 Million; Future $15 Million Schedule Impacts: N/A	Included in the Technical & Cost Proposal
22	16	Horizontal Alignment Accommodates Future 8-lane Widening of Main Bridges	The proposed horizontal alignment separates the main bridges into two structures with approximately 57 feet clearance between the structures. Unlike a single bridge, dual structures enables the main bridges to be widened in the future to the inside accommodating an 8-lane section.	Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: Future Significant $ Schedule Impacts: N/A	Included in the Technical & Cost Proposal
23	N/A	Extend acceleration/deceleration lanes on the North Santee side to/from US-301	Longer acceleration and deceleration lanes provide improved safety, enhance traffic flow, and will better support future growth.	Type (3) Minimize Traffic Impacts Type (5) Quality and Safety Enhancements	Cost Impacts: N/A Schedule Impacts: N/A	Included in the Technical & Cost Proposal
24	N/A	No Temporary Pavement Markings on Main Bridges	Both NB and SB main bridges will be constructed full width in a single stage in different MOT Phases. Once constructed, NB and SB traffic will be shifted to their final position without any temporary pavement markings on the main bridges.	Type (5) Quality and Safety Enhancements	Cost Impacts: N/A Schedule Impacts: N/A	Included in the Technical & Cost Proposal

Quality Credit Matrix

I-95 over Lake Marion Bridge Replacement
Clarendon and Orangeburg Counties

Number	FATC #	Description	Added Value/Benefits	Type of Innovation (*)	Cost / Schedule Impacts (Savings/Reductions in GREEN, Additional Cost/Delays in RED)	Self-imposed Assurance
25	16	12 ft. Outside Shoulders Along Causeway	The RFP requires 10 ft. outside shoulders to be maintained along the causeway. UTJV commits to constructing full 12 ft. outside shoulders along the causeway providing a constant outside shoulder width across and between the relief and main bridges.	Type (5) Quality and Safety Enhancements	Cost Impacts: N/A Schedule Impacts: N/A	Included in the Technical & Cost Proposal
26	6	Increased Substructure Concrete Strength	Utilizing Class 5000 concrete for substructure bents and columns and Class 5000DS concrete for drilled shafts minimizes the size of the substructure elements, reduces concrete volume and formwork, increases durability, improves seismic performance, and reduces mass concrete applicability.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: $1 Million Schedule Impacts: 1 Month	Included in the Technical & Cost Proposal
27	7	Additional Layer of Rebar in Top and Bottom of Bent Caps	Adding a third layer of reinforcement in the top and bottom of bent caps allows optimization of bent cap dimensions, reducing mass concrete.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (5) Quality and Safety Enhancements	Cost Impacts: $250,000 Schedule Impacts: N/A	Included in the Technical & Cost Proposal
28	10	2.5% Cross Slope on Bridges	The relief bridge will be a single structure crowned at the median barrier in a rooftop configuration that accommodates two existing lanes and a future 3rd lane in each direction. A 2.5% cross slope will be used for the shoulders and travel lanes on the relief bridge to improve constructability and surface runoff and reduce the risk of hydroplaning.	Type (5) Quality and Safety Enhancements	Cost Impacts: N/A Schedule Impacts: N/A	Included in the Technical & Cost Proposal
29	11	Increased Bent Cap Pour Length	Cost, schedule, and quality benefits are realized when construction joints are eliminated by Increasing the bent cap pour length from 70 feet to 85 feet.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (5) Quality and Safety Enhancements	Cost Impacts: $150,000 Schedule Impacts: 1 Month	Included in the Technical & Cost Proposal
30	N/A	Replace SCDOT Logo Signs	The RFP requires logo signs to be maintained during construction and replaced if damaged. The Logo signs always suffer some damage or deterioration during removal and storage, so UTJV commits to replacing all logo signs within the project no matter the condition.	Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: Minimal Schedule Impacts: N/A	Included in the Technical & Cost Proposal
31	16	Minimization of Permanent Environmental Impacts	The I-95 NB and SB alignments were relocated 12'-10" toward the median along the causeway and over the relief bridge. This allowed the relief bridge to be constructed with a reduced width and therefore, reduced the permanent environmental impacts compared to the RFP alignment. The environmental project impacts are approximately 1.5 acres and requires approximately 1/2 of the mitigation credits allowed through the RFP.	Type (5) Quality and Safety Enhancements	Cost Impacts: $280,000 Schedule Impacts: N/A	Included in the Technical & Cost Proposal
32	N/A	I-95 NB Rest Area Maintenance / Enhancements	A pre-construction condition survey of the I-95 NB rest area will be performed in coordination with SCDOT to document existing site conditions and establish clear expectations for facility condition at end of the project. g condition of the rest area prior to closing. A site security and protection plan will be developed and implemented to prevent unauthorized access, vandalism, or damage to the rest are facilities throughout duration of construction. Existing landscaping will be maintained during construction and upon project completion, all disturbed areas will be restored to their original or improved condition in accordance to SCDOT standards. All necessary pavement cleaning, striping, and markings will be performed prior to hand-back to ensure the facility meets final acceptance requirements. All site appurtenances will be properly stored and protected throughout the project to prevent damage or loss and all appurtenances will be restored to their original location and condition before turnover. Access coordination and accommodation will be provided to the Santee Cooper Wastewater Project located behind the I-95 NB rest area, ensuring minimal disruption to established operations and infrastructure.	Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: Minimal Schedule Impacts: N/A	Included in the Technical & Cost Proposal
33	N/A	Install Permanent Speed Limit Signs on US 301	Permanent speed limit signs will be installed along US 301 between the NB I-95 exit ramp (Exit 102) and St. Paul Road.	Type (4) Minimize Longterm Maintenance Cost Type (5) Quality and Safety Enhancements	Cost Impacts: Minimal Schedule Impacts: N/A	Included in the Technical & Cost Proposal
34	N/A	Bathymetric survey	Conducting a bathymetric survey along the project corridor identifies subsurface elements (e.g., tree stumps) that could impact proposed foundations and provides critical data along primary construction navigational pathways to protect equipment and barges.	Type (2) Schedule Certainty Type (5) Quality and Safety Enhancements	Cost Impacts: Minimal Schedule Impacts: Schedule Certainty	Included in the Technical & Cost Proposal
35	N/A	Available, Highly Skilled, SCDOT Experienced Construction Staff	UIG has been building upon its SCDOT experienced, skilled labor pool since 2015 to ensure local resources remain local. With the completion of the I-26 (85-101), CCR Phase 1, and CCR Phase 2 projects in early 2025, UIG will have ample management and craft personnel available to dedicate to this project.	Type (1) Expedited Schedule Type (2) Schedule Certainty Type (5) Quality and Safety Enhancements	Cost Impacts: N/A Schedule Impacts: Significant	Included in the Technical & Cost Proposal

APPENDIX C

Approved Formal ATCs

South Carolina
Department of Transportation

ALTERNATIVE TECHNICAL CONCEPTS

I-95 over Lake Marion - Project ID P041130 - Clarendon and Orangeburg Counties

Final ATCs - Initial Submittal

Date Received: **4/23/2025** Date Reponse Sent: May 7,2025

United-Traylor JV			SCDOT	
ATC No.	Primary Discipline	Concept	Response	Justification
P041130-UN-TRA-FATC-1-2	Roadway	Alignment Option 1	Need Info	Add deviation to RFP 4b Section 2.1.5 - For the relief bridge "maintain the two existing thru-lanes in each direction at their current horizontal location, in the final bridge configuration". HSM analysis: verify that no proposed horizontal design elements have worse safety performance than the existing conditions. Verify there are no broken back cuves on the northbound alignment.
P041130-UN-TRA-FATC-2-2	Roadway	Alignment Option 2	Need Info	Add deviation to RFP 4b Section 2.1.5 - For the relief bridge "maintain the two existing thru-lanes in each direction at their current horizontal location, in the final bridge configuration". HSM analysis: verify that no proposed horizontal design elements have worse safety performance than the existing conditions.
P041130-UN-TRA-FATC-3-2	Roadway	Alignment Option 3	Need Info	Add deviation to RFP 4b Section 2.1.5 - For the relief bridge "maintain the two existing thru-lanes in each direction at their current horizontal location, in the final bridge configuration". HSM analysis: verify that no proposed horizontal design elements have worse safety performance than the existing conditions.
P041130-UN-TRA-FATC-4-2	Roadway	Alignment Option 4	Need Info	Add deviation to RFP 4b Section 2.1.5 - For the relief bridge "maintain the two existing thru-lanes in each direction at their current horizontal location, in the final bridge configuration". HSM analysis: verify that no proposed horizontal design elements have worse safety performance than the existing conditions.
P041130-UN-TRA-FATC-5-2	Structures	Precast Pier Caps	Need Info	Description - The cap ends at closure pours also need to have the 1" deep corrugated surface profile. History - Is the NCDOT example project supposed to say US 17 Wilmington Bypass? Attachment 2: The dimensions and text are blurry. What ultimate coupler type will be used, that will handle installation of both ends of the short, large longitudinal drop-in bars within the voids and closure pours? Typical Section depicts single bridge configuration only. Clarify whether the intent is to use precast cap segments (prior to closure pours) in any staging scenario to support superstructure loads?
P041130-UN-TRA-FATC-6-2	Structures	Increased Substructure Concrete Strength	Approved	
P041130-UN-TRA-FATC-7-2	Structures	Additional Layer of Rebar in Top and Bottom of Bent Caps	Approved	
P041130-UN-TRA-FATC-8-2	Structures	Increased Maximum Column Spacing	Approved	
P041130-UN-TRA-FATC-9-2	Structures	Precast Column Sections	Need Info	Ensure precast column surface at interface with cast-in-place concrete will be intentionally roughened. Will there be some over-pour of the second shaft/column lift to ensure sound concrete at the top of drilled shaft / casing elevation? Consider a minimum height of column closure pour to ensure compatibility with column concrete mix design or will it always be poured with cap concrete?
P041130-UN-TRA-FATC-10-2	Structures	2.5% Cross Slope on Bridges	Approved	
P041130-UN-TRA-FATC-11-2	Structures	Increased Bent Cap Pour Length	Approved	
P041130-UN-TRA-FATC-12-2	PM	Sheet Pile Wall Coating	Need Info	Clarify usage/location. For a wall at the south end of the project facing Santee Cooper Country Club, this concept is not favorable.
P041130-UN-TRA-FATC-13-2	Geotechnical	Steepened Slopes	Need Info	Better define locations for use. Not favorable for use at end bents to shorten bridges or just for reducing borrow quantities.
P041130-UN-TRA-FATC-14-2	Traffic	Modified Lane Closure Times	Need Info	Methodology averages weekday (Mon-Thu) hourly traffic volumes together instead of taking each day of week as a separate day, i.e. average all Mondays, all Tuesdays, and so on. The method in the ATC reduces the apparent volume in some of the higher peak hours. Additionally no mitigation for potential queues is provided, even though a higher (1300vphpl) threshold is being requested. Methodology should be modified to support request for a waiver.
P041130-UN-TRA-FATC-15-2	Geotechnical	Deformation Tolerances on Cantilever Retaining Walls	Approved	

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Formal ATCs - Final Determination (Prior to Addendum)

Date Received: 5/20/2025 **Date Reponse Sent: 6/11/2025**

United-Traylor JV			SCDOT	
ATC No.	Primary Discipline	Concept	Response	Justification
1-5	Roadway	Alignment Option 1	Addendum	SCDOT offers no objection to this ATC. However, we intend to issue an addendum that will provide additional clarifications regarding alignment criteria.
2-5	Roadway	Alignment Option 2	Not Approved	Per Exhibit 3 of the RFP: "This design-build project consists of all work necessary to remove the existing Lake Marion bridges and to design and construct new bridges as close to the existing roadway alignment as is practical." This ATC proposes to shift the alignment further away from the existing centerline than any of the alternatives investigated and found to be practical. Based on the collective engineering judgement of SCDOT, the design is considered to be of a lower quality as compared to alternatives investigated during NEPA process due to the significant offset and associated curves created on the Interstate mainline. While the quantitative analysis shows a reduction in crashes in comparison to the existing conditions, this comparison is not a full indication of the overall design impact to the safety and operation of the roadway. Distinct and visible curves can create operational and safety challenges even when designed to proper standards. These curves have a human behavioral component with more significant negative outcomes than tangent sections. When used, curves should be gradual and sweeping where possible to mitigate these outcomes.
3-5	Roadway	Alignment Option 3	Addendum	SCDOT offers no objection to this ATC. However, we intend to issue an addendum that will provide additional clarifications regarding alignment criteria.
4-5	Roadway	Alignment Option 4	Addendum	SCDOT is favorable to the design elements presented for the relief bridge alignment in this ATC, however, due to the direct association with ATC 2 modifications to the ATC language and associations may be warranted.
5-3	Structures	Precast Pier Caps	Approved	
9-3	Structures	Precast Column Sections	Approved	
12-3	Structures	Sheet Pile Wall Coating	Not Approved	Not equal or better in appearance.
13-3	Geotechnical	Steepened Slopes	Approved	
14-3	Traffic	Modified Lane Closure Times	Approved	This request will still require an approved waiver of ED 32 which incorporates the WZ ITS to include queue detection and queue warning per our requirements.

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ALTERNATIVE TECHNICAL CONCEPTS
I-95 over Lake Marion - Project ID P041130 - Clarendon and Orangeburg Counties

Horizontal Alignment Formal ATCs - Initial Determination

Date Received: 6/26/2025 **Date Reponse Sent: 6/30/2025**

United-Traylor JV			SCDOT	
ATC No.	Primary Discipline	Concept	Response	Justification
16-2	DM	Modification of approved ATC 1 (shift of SB closer to existing C/L)	Approved	

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ALTERNATIVE TECHNICAL CONCEPTS
I-95 over Lake Marion - Project ID P041130 - Clarendon and Orangeburg Counties

Additional Formal ATCs - Final Determination

Date Received: 7/3/2025 **Date Reponse Sent: 7/09/2025**

United-Traylor JV			SCDOT	
ATC No.	Primary Discipline	Concept	Response	Justification
17-2	Structures	Increase maximum allowable column spacing (30 to 34').	Approved	
18-2	Geotechnical	Non-uniform MSE wall strip lengths w/ permanent soil nail for lower MSE portions.	Approved	

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 6 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Description (required):

Exhibit 4b, Section 2.1.8 of the RFP specifies the use of Class 4000 concrete in all cast-in-place concrete bridge components, with the following exception: utilize Class 4000DS concrete in drilled shafts and drilled piles. This ATC proposes to utilize Class 5000 concrete for cast-in-place concrete for substructure elements (bent caps & columns) and Class 5000DS concrete for drilled shafts. A special provision will be developed for the Class 5000DS concrete mix. In addition, all service life design requirements will be satisfied per Exhibit 4b, Section 2.1.4 of the RFP, and Standard Specification Section 702.3.3.6 will be followed as appropriate.

Usage:

This ATC could be used at any of the bridge sites within the project.

Deviations (required):

This ATC deviates from the requirements of Exhibit 4b, Section 2.1.8 of the RFP which requires all cast-in-place concrete and drilled shafts to utilize Class 4000 and Class 4000DS concrete respectively.

Justification:

The use of higher strength concrete would minimize the size of substructure elements, thus reducing the concrete volume and formwork required. Durability would be increased and mass concrete could potentially be avoided. Seismic performance would also be improved.

Schedule:

Use of this ATC will reduce the quantity of substructure concrete and subsequently reduce the construction schedule by up to 2 months.

Impacts:

No negative impacts are expected as a result of this ATC.

History:

The use of higher strength (5 ksi) concrete for substructure elements is fairly common practice in the industry. A recent SCDOT project utilizing higher strength concrete in substructure elements is US 21 over Harbor River in Beaufort County. A copy of the note from the General Notes sheet from that project is included in Attachment 1.

Risks:

Higher strength concrete mixes with high cement content are more likely to result in thermal cracking issues. The mix designs will be formulated to reduce risks associated with thermal cracking.

Costs (required):

Use of this ATC will reduce the concrete necessary to construct the substructure units and result in a cost savings of approximately $2 million.

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 6 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Quality:

Quality of the substructure elements will be improved due to the increased durability provided by the higher strength concrete.

Operations & Maintenance:

Operations and maintenance will be unaffected.

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Attachment 1 – FATC 6

Increased Substructure Concrete Strength

General Description:

- Exhibit 4b Section 2.1.8 requires all cast-in-place concrete to be Class 4000 and drilled shaft concrete to be Class 4000DS
- This ATC proposes the use of Class 5000 concrete for cast-in-place concrete for substructure elements (Class 5000DS for drilled shafts)
- Mix design and placement will follow Section 702.3.3.6 of the Standard Specifications. A special provision will be developed for the Class 5000DS concrete mix.

Advantages:

- Higher compressive strength and modulus of elasticity
- Minimizes size of substructure elements, reducing concrete and formwork quantities and potentially avoiding mass concrete
- Increased durability
- Better seismic performance

CONCRETE

Construct all superstructure cast-in-place concrete bridge components with Class 4000 concrete.

Construct all substructure cast-in-place concrete bridge components with Class 5000 concrete and drilled shafts with Class 5000DS concrete.

Note from US 21 over Harbor River Plans

Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 7 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Description (required):

The UTJV Team proposes to allow up to three (3) layers of longitudinal reinforcement in the top and/or bottom of bent caps for bridges on the project.

An additional layer of reinforcement will allow optimization of bent cap dimensions, potentially eliminating mass concrete. Since the RFP allows a maximum column spacing of 30', additional reinforcement in the cap may be necessary to satisfy demands while maintaining reasonable cap dimensions.

Usage:

The proposed ATC may be utilized for any bent cap on the project. The requirements of AASHTO LRFD Section 5.10.3.1.3 which states "the bars in the upper layers shall be placed directly above those in the bottom layer, and the clear distance between layers shall not be less than 1 inch or the nominal diameter of the bars" will be followed.

Deviations (required):

Section 20.1.6.1 of SCDOT's Bridge Design Manual limits the number of layers of longitudinal reinforcement in both the top and bottom of bent caps to two (2).

Justification:

Allowing an additional (third) layer of reinforcement in the top and/or bottom of bent caps will allow optimization of bent cap dimensions, potentially eliminating mass concrete. Since the RFP allows a maximum column spacing of 30', additional reinforcement in the cap may be necessary to satisfy demands while maintaining reasonable cap dimensions.

Schedule:

Use of this ATC will facilitate efficient bent cap design and is complimentary to the ATC for slightly increased column spacing. In conjunction with that ATC, there is significant schedule savings.

Impacts:

No negative impacts are expected as a result of this ATC.

History:

NCDOT and GDOT are examples of neighboring states that do not restrict the number of layers of primary reinforcement in bent caps.

Risks:

There are no risks associated with the proposed ATC. Maintaining AASHTO LRFD rebar clearances will ensure proper concrete consolidation is achieved.

Costs (required):

Use of this ATC will facilitate efficient bent cap design and is complimentary to the ATC for slightly increased column spacing. In conjunction with that ATC, there is cost savings of several million dollars. This ATC has a standalone advantage of reduced cap size which will result in a cost savings of approximately $250,000.

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 7 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Quality:

There will be no reduction in quality due to the proposed ATC.

Operations & Maintenance:

Operations and maintenance will be unaffected.

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Attachment 1 – FATC 7

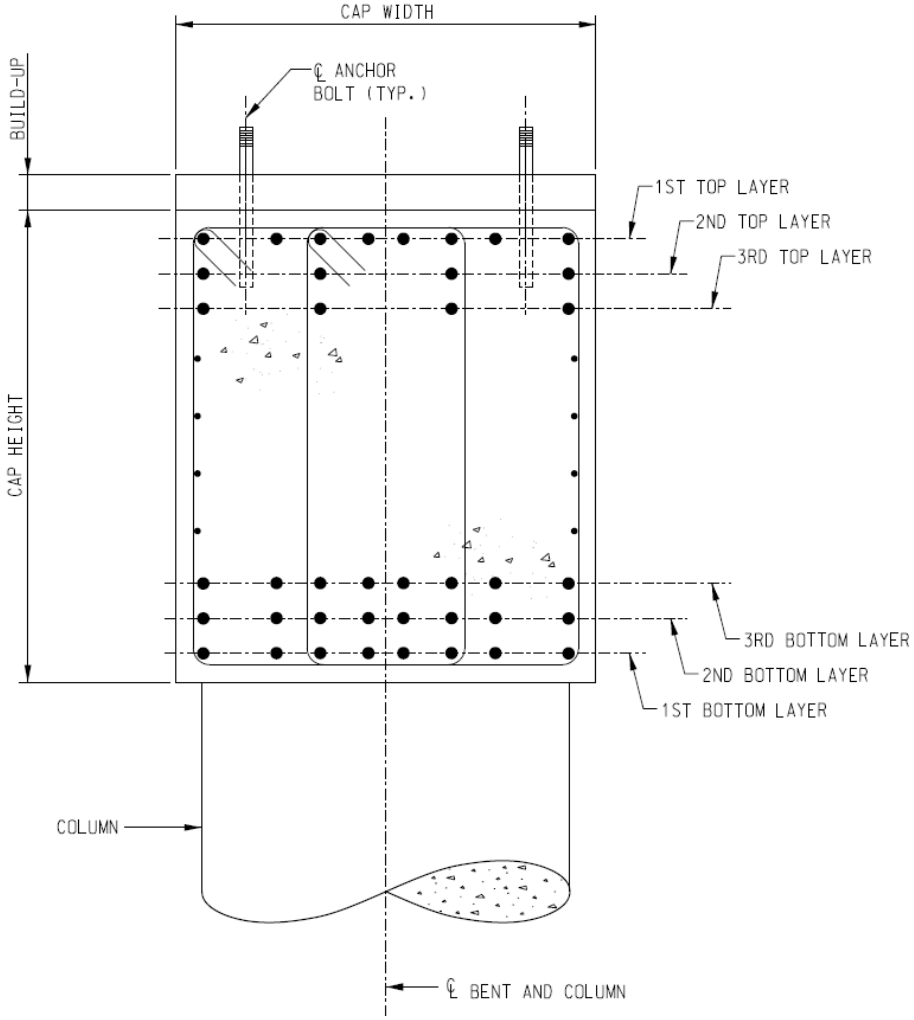
Additional Layer of Rebar in Top & Bottom of Bent Caps

General Description:

- A third layer of longitudinal reinforcement in the top and/or bottom of bridge bent caps is proposed.
- SCDOT's BDM currently limits the number of layers of reinforcement in the top and bottom of bent caps to two.
- AASHTO requirements will be satisfied (i.e. bars will be placed directly above each other and clear distance between layers will not be less than 1" or the nominal diameter of the bars).

Advantages:

- Minimizes size of bent caps, reducing concrete volume and formwork quantities.
- Allows cap dimensions to remain reasonable for the RFP max column spacing of 30 feet.
- Could potentially eliminate mass concrete.



Typical Section of Bent Cap with Additional (Third) Layer of Rebar in Top & Bottom

South Carolina Department of Transportation

Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 8 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Description (required):

The UTJV Team proposes to increase the maximum allowable column spacing for typical multi-column interior bents from 30 feet to 31 feet as shown in the attached sketches. All service life design requirements in Exhibit 4b, Section 2.1.4 of the RFP will be satisfied. Additionally, the bent cap cantilever requirements of the RFP will be met.

Usage:

The proposed ATC may be utilized for any interior bents on the project. Bent cap overhangs will comply with the requirements of the RFP (i.e. less than or equal to 35% of the average column spacing).

Deviations (required):

This ATC deviates from the requirements of the RFP Exhibit 4b - Section 2.1.21 which states that the following applies to multi-column interior bents:

- The column spacing shall not exceed 30 feet center to center of columns.

Justification:

Bent caps can easily be designed for column spacings that slightly exceed the 30 foot limitation. In most cases where this ATC would be utilized, a column can be eliminated if a spacing slightly larger than 30 feet is allowed. Attachment 1 illustrates this for both FATC alignment alternatives 1, 2, 3 & 4.

Schedule:

Use of this ATC will eliminate approximately 25 drilled shafts and columns and reduce the construction schedule by approximately 3 months.

Impacts:

No negative impacts are expected as a result of this ATC.

History:

Column spacings in excess of 30 feet have been used in other states. GDOT's BDM, for example, recommends using a 2 column bent for any caps 60 feet in length or less with overhangs that are 20% of the cap length. A typical 60 foot long bent cap in Georgia, therefore, could utilize a column spacing of 36 feet. SR 18 over Long Cane Creek utilized 37 feet.

Risks:

There are no risks associated with the proposed ATC. Bent caps will be designed to resist all applicable loading scenarios for the column spacing requested.

Costs (required):

Use of this ATC will eliminate approximately 25 drilled shafts and columns and reduce the construction cost by approximately $6 million.

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Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 8 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Quality:

There will be no reduction in quality due to the proposed ATC.

Operations & Maintenance:

Operations will be unaffected. Maintenance will be improved by reducing the number of columns and associated substructure elements that may require future maintenance.

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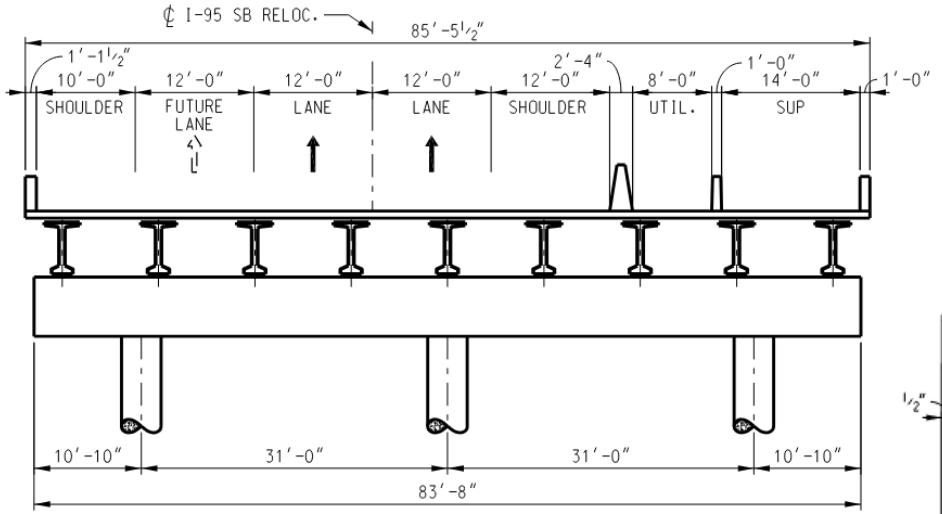
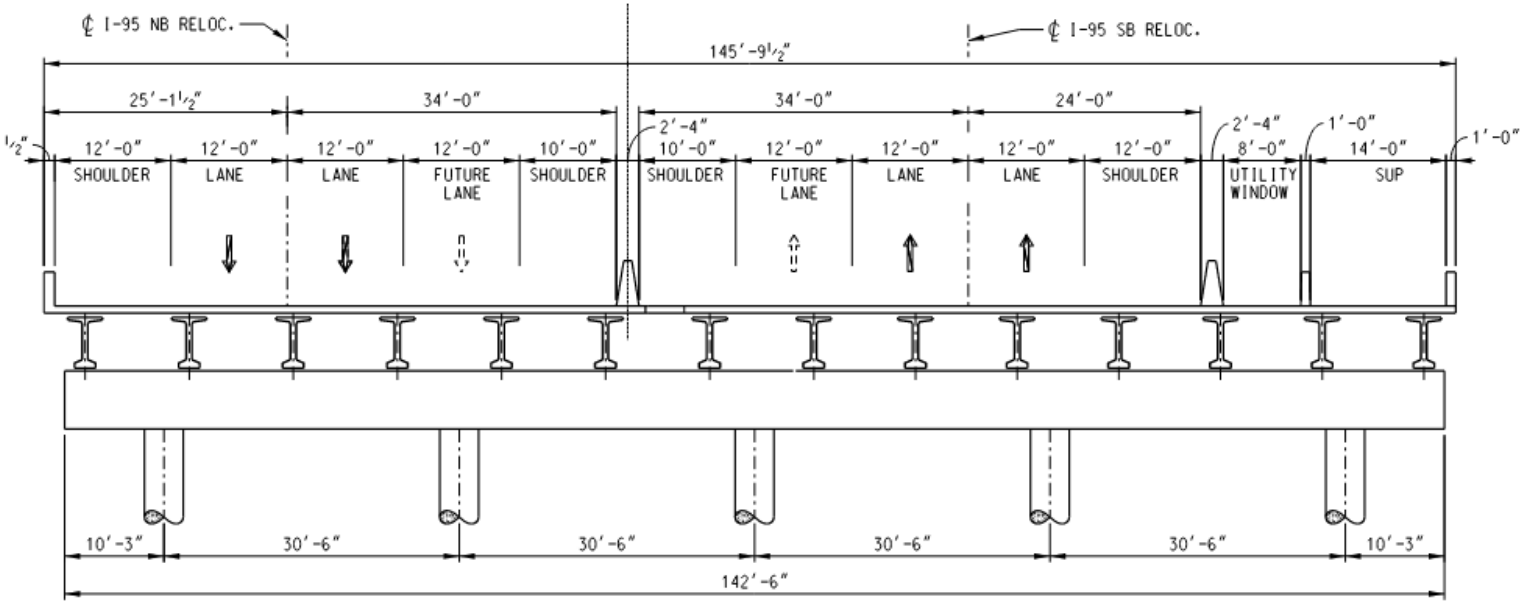
Attachment 1 – FATC 8

Increase Maximum Column Spacing



Proposed Column Spacing – FATC Alignment
FATC 1 & 3



Proposed Column Spacing – FATC Alignment
FATC 2 & 4

Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 9 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 5/20/25

Description (required):

The UTJV proposes to use precast concrete columns in the short height interior bents in the bridge. These columns will be cast in a prefabrication yard and transported to site, either by truck or by barge. Each unit will have adequate rebar protruding from both ends which will be cast with the drilled shaft and the piercap as shown in the attached sketch. The column will be suspended over the over-sized drilled shaft, centered and leveled and held in place as shown in the attached schematic of the column support system. Concrete for the second lift of the drilled shaft will be poured through the annular space between column and shaft. The bottom of precast column will be made slightly convex to prevent air entrapment and roughened to provide good bond with shaft concrete. The precast columns will have a maximum height of 25 ft. Bent columns taller than this height will be cast-in-place. Columns shorter than 25 ft will be all precast and will have their longitudinal reinforcement protruding into the piercap.

Usage:

The precast columns will be used in a majority of the interior bents of the Main Bridge.

Deviations (required):

RFP Exhibit 4b Clause 2.1.21 Substructures states:
"Design Interior Multi-column Bents using cast-in-place reinforced concrete bent caps and columns supported on cast-in-place reinforced concrete drilled shafts."
This ATC deviates from the above clause and requests that permission be granted to use precast concrete columns in multi-column bents.

Justification:

The bridges on this project have a large number of interior bents that will be constructed over water. Forming and casting the columns over water will be both time consuming and expensive. Use of this ATC will greatly speed up the construction schedule and could result in cost savings.

Schedule:

Use of this ATC will cut many months from the construction schedule.

Impacts:

No adverse impacts are expected.

History:

Our design firm successfully value-engineered use of precast bents for the I-59/20 CBD Bridge Replacement Project in Jefferson County, Alabama for Johnson Brothers. Use of precast elements saved the contractor seven months of construction time. There are also numerous other examples of precast columns that have been constructed all over the US.

Risks:

No risks to the project are expected.

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 9 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:**

Costs (required):

The use of this ATC will result in cost savings associated with avoidance of erection and stripping of formwork, handling and placement of reinforcing steel and pouring of concrete over water. This will be offset to some extent by the fabrication, transfer and erection of the precast elements. An estimated cost savings of $ 1M are expected with the use of this FATC. Other major benefits will be a substantial savings in construction schedule, accelerated construction of substructure elements and reduction of concrete placements over water.

Quality:

As the columns will be produced in a prefabrication facility, they will be cast in a more controlled environment and so will have improved quality.

Operations & Maintenance:

No effect on operations and maintenance is expected.

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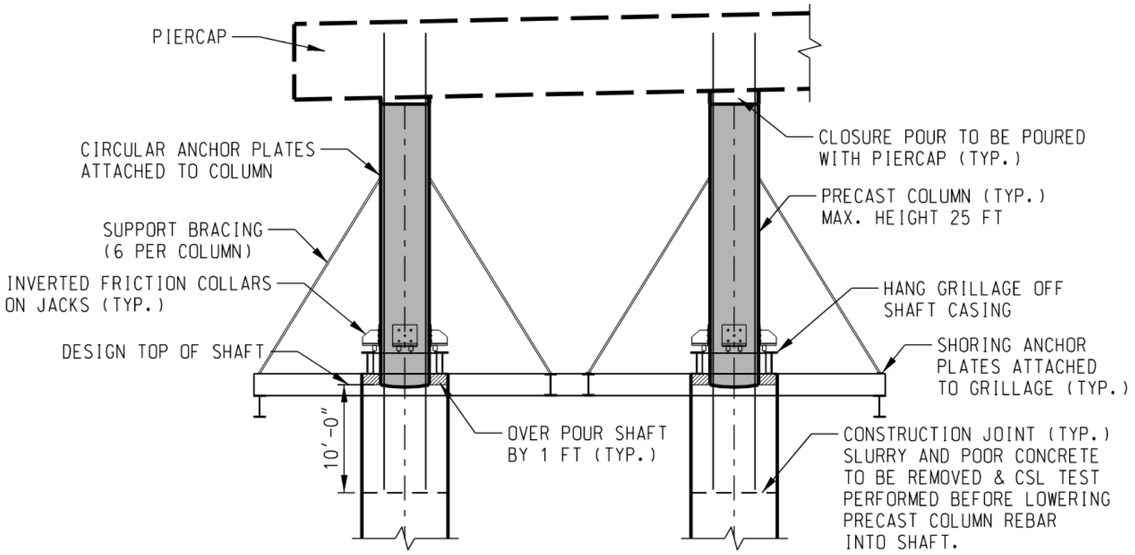
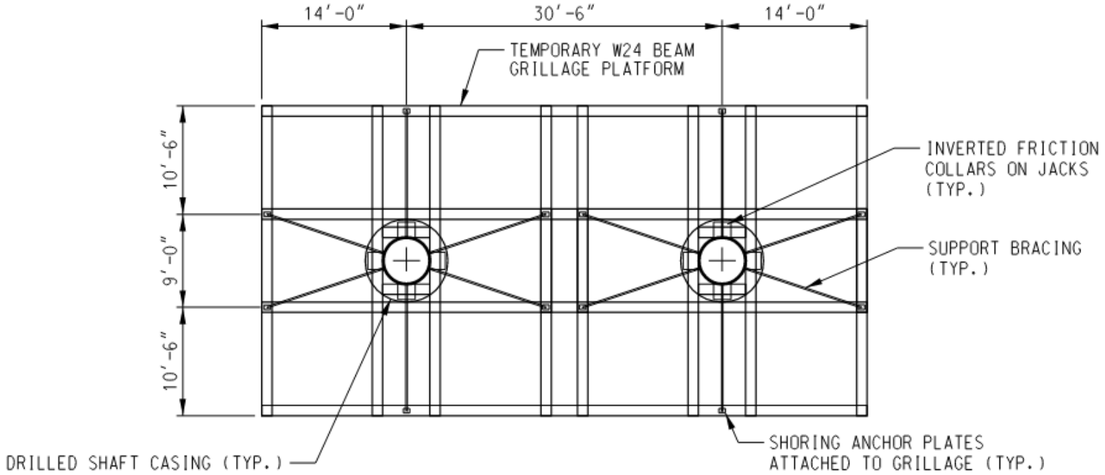
Attachment 1 - FATC 9

ALL SKETCHES ARE CONCEPTUAL AND SUBJECT TO MODIFICATION IN FINAL DESIGN



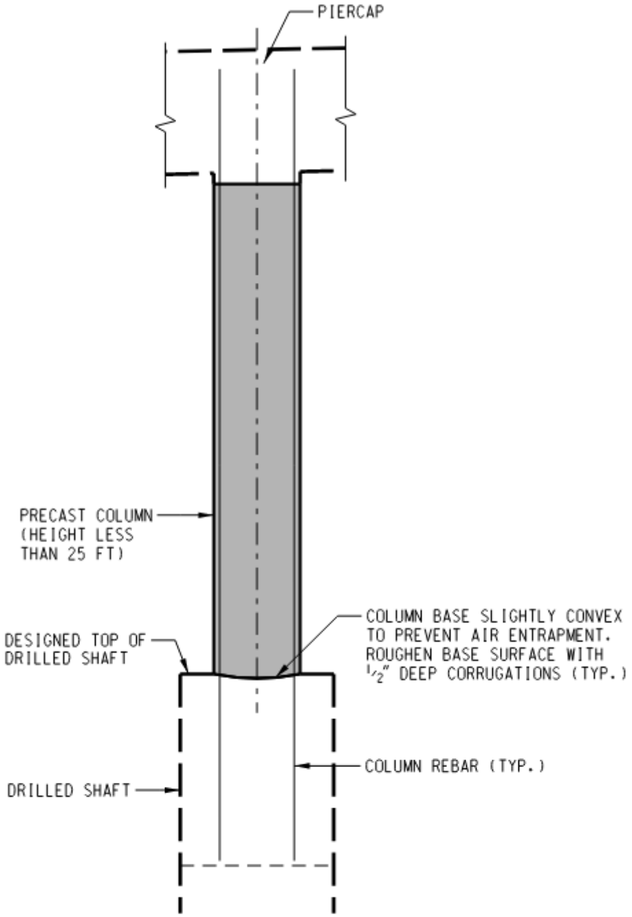
ELEVATION OF SUPPORT SYSTEM



PLAN OF SUPPORT SYSTEM

PRECAST COLUMNS

1. MAXIMUM HEIGHT OF PRECAST COLUMN WILL BE 25 FEET.
2. COLUMNS EXCEEDING 25 FEET IN HEIGHT WILL BE CAST-IN-PLACE.
3. PRECAST COLUMNS WILL HAVE REBAR EXTENDING FROM THE BOTTOM THAT WILL BE CAST TOGETHER WITH THE SECOND LIFT OF THE DRILLED SHAFT. THIS LIFT MAY BE OVER-POURED TO ENSURE SOUND CONCRETE AT TOP OF SHAFT
4. THE BASE OF THE COLUMN WILL BE MADE CONVEX TO PREVENT AIR ENTRAPMENT. IT WILL BE ARTIFICIALLY ROUGHENED TO CREATE GOOD BOND WITH SHAFT CONCRETE.
5. PRECAST COLUMN BARS WILL EXTEND UPWARD TO MESH WITH CAP REBAR.
6. A 6" MAXIMUM HEIGHT OF CLOSURE POUR WILL BE PROVIDED AT THE TOP OF THE PRECAST COLUMN. THIS CLOSURE POUR WILL BE CAST WITH THE PIER CAP.



PRECAST COLUMNS

(MAX. HEIGHT 25 FT.)

Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 10 **Priority:** Med **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Description (required):

This ATC proposes to utilize a constant 2.5% cross slope for lanes and shoulders for the bridges and roadway approaches on the project. A 2.0% cross slope will be used for the utility window and shared-use path on the bridge per the RFP. See Attachment 1 for the typical sections for each alternative. This approach will simplify the construction of the bridges and roadway by not requiring a break from 2.0% to 2.5% cross slope for the outside lanes. The risk of hydroplaning will also be reduced.

Usage:

This ATC would utilize a constant 2.5% cross slope for the lanes and shoulders and 2.0% for the utility window and shared-use path per the RFP.

Deviations (required):

From SCDOT RDM 7.2.3.3: "Cross slopes of 2.0 percent are permitted for up to two lanes plus one half the width of a flush median. Pavement beyond the second lane should have a cross slope of 2.50 percent". This section would use a constant 2.5% slope for all lanes except 2.0% will be used for the utility window and shared-use path.

Justification:

Use of this ATC would create a constant cross slope to reduce hydroplaning for the inside lanes as well as improve the constructibility. It's typical for roadway sections with greater than 2 lanes to slope the outside lanes at 2.5% cross slope to aid in surface runoff and reduce the risk of hydroplaning.

Schedule:

Use of this ATC will simplify screed setup and deck concrete placement, resulting in a marginal schedule savings.

Impacts:

No negative impacts are expected as a result of this ATC.

History:

Increased cross slopes on long waterway bridges have been used routinely in the past by SCDOT, FDOT, NCDOT and GDOT for improved water removal from the bridge and reduction in the need for closed drainage systems. This concept has also been recently used on the Harbor River Bridge Replacement and the I-26 Widening Projects.

Risks:

No additional risks are anticipated. In fact, hydroplaning risk will be reduced for the two inside lanes with the increase in cross slope from 2.0 to 2.5%.

Costs (required):

Use of this ATC will simplify screed setup and deck concrete placement, resulting in a marginal cost savings.

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 10 **Priority:** Med **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Quality:

Incorporation of this ATC will improve the quality of the finished project.

Operations & Maintenance:

The incorporation of this ATC will improve operations by reducing the risk of hydroplaning with the increased cross slope for the inside two lanes.

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Attachment 1 – FATC 10

2.5% Cross Slope

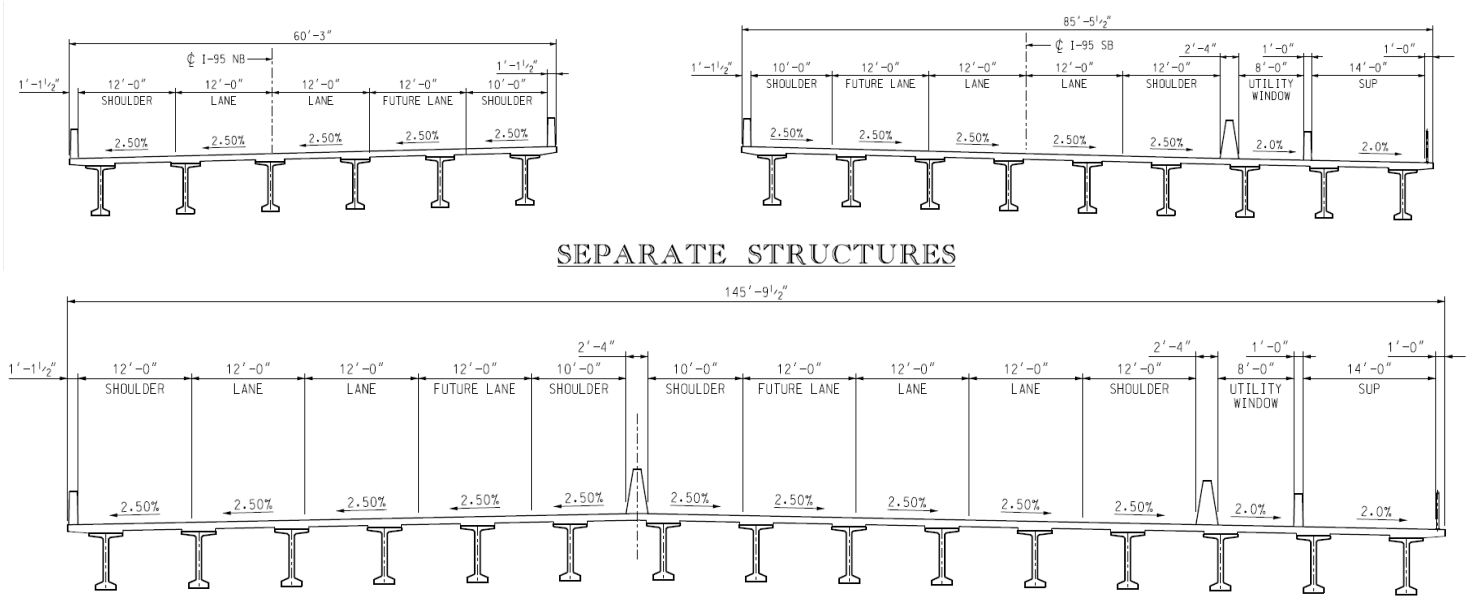
General Description:

- SCDOT RDM 7.2.3.3 states that cross slopes of 2.0 percent are permitted for up to two lanes plus one half the width of flush median. Pavement beyond the second lane should have a cross slope of 2.50 percent.
- This ATC proposes to utilize a constant 2.5% cross slope for lanes and shoulders on the project. A 2.0% cross slope will be used for the utility window and shared-use path per the RFP.

Advantages:

- Less grade breaks in which improves constructability
- Reduces the risk of hydroplaning

Bridge typical sections shown, Roadway typical sections similar.



South Carolina Department of Transportation

Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 11 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Description (required):

The UTJV Team proposes to increase the maximum bent cap length without a construction joint from 70 to 85 feet. All handling and placing requirements in Section 702.3.3 of the Standard Specifications will be met.

Usage:

The proposed ATC may be utilized for any bent cap on the project that is 85 feet or less in length. The additional requirements of SCDOT BDM 20.1.4 specifying the location of the construction joint between supporting elements will be followed.

Deviations (required):

Section 20.1.4 of SCDOT's Bridge Design Manual limits the bent cap length to 70 feet without a construction joint.

Justification:

The increase in bent cap length without a construction joint will allow the Contractor to reduce the number of pours or potentially pour the entire cap monolithic. The time savings is very beneficial to the project since approximately 3 to 4 days is required between subsequent pours.

Schedule:

Use of this ATC will eliminate multiple bent cap header forms and small cap pours, resulting in a schedule savings of approximately 1.5 months.

Impacts:

No negative impacts are expected as a result of this ATC.

History:

Past project experience includes single pour caps measuring 105' and 120' (I-77/SC 160 project - SCDOT), 98' (Howard Frankland Bridge in Tampa, FL - FDOT), and 80' (Portal North Bridge in Newark, NJ - Amtrak and NJ Transit). NCDOT allows up to 90 feet without a construction joint.

Risks:

Initial set could occur prior to placing subsequent lifts for longer pours. Mix design and pour sequence will be adjusted to mitigate this risk. All concrete mix designs and curing requirements per the contract documents will be satisfied.

Costs (required):

Use of this ATC will eliminate multiple bent cap header forms and small cap pours, resulting in a construction cost savings of approximately $150,000.

Quality:

Removing a construction joint and/or pouring bent caps monolithic will improve quality.

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 11 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Operations & Maintenance:

Operations and maintenance will be unaffected.

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Attachment 1 – FATC 11

Increased Bent Cap Pour Length

General Description:

- SCDOT BDM requires a construction joint in bent caps that exceed 70 feet in length.
- This ATC proposes to increase the maximum length from 70 feet to 85 feet. This would save the contractor the time required for pouring adjacent concrete per the construction joint detail on the "General Notes" sheet.
- NCDOT allows up to 90 feet without a construction joint.
- Handling and placing requirements in Section 702.3.3 of the Standard Specifications will be met.

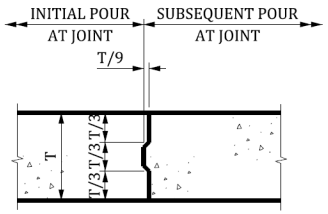
20.1.4 Construction Joints

In general, use a construction joint where the cap length exceeds 70 ft. Locate this construction joint near the middle of the cap at the one-quarter point between supporting elements.

Note from SCDOT BDM

Advantages:

- Minimizes formwork quantities to build a bulkhead and reduces the time to construct bent caps.
- Better for monolithic concrete pour.



KEYED CONSTRUCTION JOINT DETAIL

BEFORE MAKING SUBSEQUENT POUR, WAIT EITHER A MINIMUM OF 96 HOURS AFTER PLACEMENT OF THE INITIAL POUR OR UNTIL THE INITIAL POUR CONCRETE HAS ATTAINED A MINIMUM OF 75% OF THE SPECIFIED 28-DAY COMPRESSIVE STRENGTH AS VERIFIED BY TESTING EXTRA CYLINDERS.

Note from "General Notes"

Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 13 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 5/20/25

Description (required):

Reinforced fill slopes, or Reinforced Soil Slopes (RSS), are fill slopes constructed using reinforcement (typically geogrid) within the embankment to maintain slope stability. Rip-rap underlain by geotextile fabric will be added to the face to prevent sloughing or raveling. Minimum soil shear strength requirements may also be set to ensure the embankment meets design assumptions. RSS may be constructed to achieve slopes of 1.5H:1V or steeper.

Usage:

Reinforced slopes or RSS may be used for roadway embankments where ROW or environmental impacts may be reduced or eliminated at the following location:
Roadway Embankment Approx. STA 5274+00 to 5277+00 LT (Northbound embankment)

Deviations (required):

RFP Exhibit 4a, Section 2.7 and Exhibit 4f, Section 2.2 both prohibit the use of slopes steeper than 2H:1V.

Justification:

Eliminates impacts to ROW.

Schedule:

The use of this proposed ATC will not adversely impact the project schedule.

Impacts:

There are no additional impacts to humans and/or natural environment. Steepened slopes may reduce or eliminate environmental impacts.

History:

ICE provided steepened slope detailing for slopes between 1.25H:1V and 1.8H:1V for CCR Phase 1 and I-26 MM85-101 projects.

Risks:

The use of this ATC has no inherent risks to SCDOT or any Third Parties. Steepened slopes are stable solutions when investigated and installed correctly.

Costs (required):

Construction of reinforced embankments or RSS includes additional cost for slope reinforcement and potential increased cost of select borrow materials, however it is anticipated to have cost savings of approximately $500,000 due to potentially removing MSE wall(s) and/or reducing wall length. Additionally, steepened slopes may minimize ROW, stream, or wetland impacts.

Quality:

Reinforced Soil Slopes will be constructed in accordance with SCDOT SC-M-206-1 (1/25) Reinforced Soil Slopes Supplemental Technical Specification but faced with rip-rap.

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Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 13 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:**

Operations & Maintenance:

Steepened slopes may require alternative maintenance and management depending on the final slope configuration.

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Attachment 1 - FATC 13

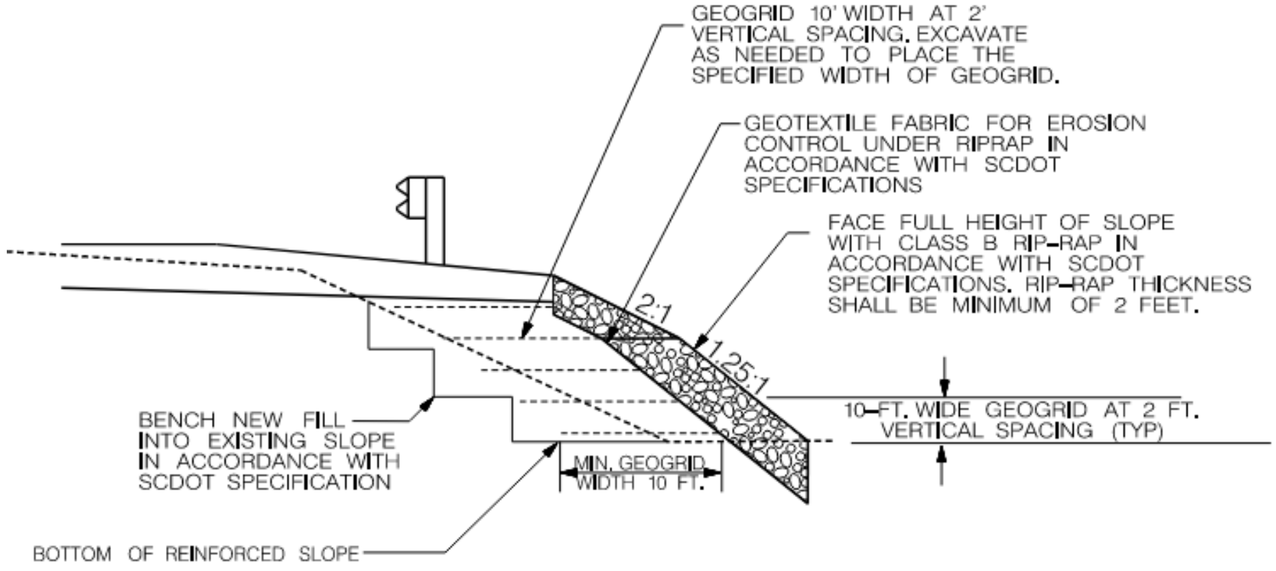
Reinforced Fill Slopes Steeper than 2:1

General Description:

- The use of Reinforced Fill Slopes, or Reinforced Soil Slopes (RSS), is proposed for bridge and roadway embankments. RSS include reinforcement within the embankment to achieve stability.
- Can be constructed to achieve slopes of 1.5:1 or steeper
- Rip-rap underlain by geotextile facing will be placed at the face to prevent sloughing off and raveling
- Minimum borrow shear strength requirements may be set

Advantages:

- Minimizes ROW, stream, or wetland impacts



CCR Phase 1 Steepened Slope Detail

Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 14 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 5/20/25

Description (required):

This ATC proposes to use refined traffic data from 2024 SCDOT TA&DA to analyze hourly traffic volumes and develop updated seasonal lane closure prohibitions based on the 1300 VPH (Vehicles Per Hour) limit.

Usage:

The refined daytime lane closure prohibitions would be use for the duration of the project.

Deviations (required):

RFP Exhibit 4d - Part 2 - Section 2.2.2 - Hourly Single Lane Closure Prohibitions (I-95 NB & SB).

This ATC would modify the 1200 VPH single lane closure maximum traffic to 1300 VPH for limited durations as discussed in the attached memo. Traffic volumes have been analyzed by both day of week and weekly averages during the requested period.

This ATC would eliminate the Northbound and Southbound daytime lane closure prohibitions on Mondays, Tuesdays, and Wednesdays from the third week of August through the last week of September, excluding the week of Labor Day.

Additional adjustments may be made using the same methodology after further analysis is completed.

Justification:

Traffic Data supports the change to daytime lane closure prohibitions during seasonal low traffic times.

Schedule:

Use of this ATC will facilitate the placement of asphalt pavement and median access along the causeway area in a much safer and efficient manner. Access in this area is very challenging and paving of the median area, for temporary MOT or permanent alignments, will require extended work periods to maintain proper drainage and shoulders. This ATC will improve construction schedule during time-critical activities.

Impacts:

This ATC will help to improve the quality of asphalt paving while reducing the construction duration.

To reduce the potential impact on traffic, media notifications will be provided in advance of extended lane closures. Additionally, WZITS will be implemented to monitor and provide alerts of queues. Media notices and WZITS for extended lane closures will be detailed in the Traffic Management Plan (TMP).

History:

Modifications to daytime lane closure prohibitions have been allowed on many SCDOT projects when justified by traffic data.

Risks:

There are no risk associated with this ATC.

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 14 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 5/20/25

Costs (required):

Use of this ATC will improve asphalt paving efficiency and reduce lane closure setup/removal along the causeway area, resulting in a cost savings of approximately $200,000.

Quality:

Extended work periods will allow for work to be completed without being interrupted due to restrictive nightly lane closures.

Operations & Maintenance:

Extended daytime lane closures may allow for fewer asphalt joints, which should result in reduced maintenance cost in the future.

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Technical Memorandum

To: Project Manager, SCDOT

From: United Traylor JV/Infrastructure Consulting & Engineering, LLC

Date: May 20th, 2025

Subject: Traffic Data Summary in support of FATC 14 – Modified Lane Closure Timing Restrictions

Project: I-95 over Lake Marion - Bridge Replacement

Purpose and Need

This technical memorandum presents the traffic data evaluation process and the findings of the evaluation conducted in support of the Formal Alternative Technical Concept (FATC) #14 submitted as part of the project on I-95 over Lake Marion – Bridge Replacement. The ATC proposes two key modifications to the lane closure criteria:

- Increase the maximum traffic volume permitted through a single lane closure from 1,200 vehicles per hour (VPH) to 1,300 VPH.
- Remove daytime lane closure restrictions on Mondays, Tuesdays, and Wednesdays from the third week of August through the last week of September, excluding Labor Day week.

By enabling closures at volumes up to 1,300 VPH:

- Construction productivity will increase, especially for time-sensitive operations such as asphalt milling and paving.
- Nighttime interruptions will be reduced, allowing for better quality control in paving and reduced risk of cold joints or compromised mat density.
- Cost and schedule efficiencies can be achieved, minimizing prolonged MOT setup and demobilization costs.

The intent of this evaluation is to determine whether the proposed adjustments are justifiable based on observed traffic volumes during the specified period. This ATC poses no added risk to operations or safety and will ultimately contribute to a higher quality product with fewer long-term maintenance needs due to improved paving continuity.

Based on the review of continuous hourly traffic data, SCDOT is requested to:

- Approve the proposed increase in single-lane closure threshold from 1,200 VPH to 1,300 VPH.
- Allow northbound and southbound daytime lane closures on Mondays, Tuesdays, and Wednesdays from the third week of August through the last week of September, excluding Labor Day week.

This request reflects a balance between construction flexibility and acceptable impacts on traffic operations and user delay.

Data Source

Traffic data used in this analysis was collected from SCDOT Continuous Count Station 0088, located at the I-95 segment between SC 6 (Old Number Six Highway) and the US 15 ramp. Specifically, this site is located on the north end of the I-95 bridge over Lake Marion.

The data includes average hourly traffic volumes from Monday to Wednesday, spanning the period from August 19 to October 02, 2024. The primary focus was on identifying hourly periods where traffic volumes exceeded 1,200 VPH and evaluating how often those volumes approached or surpassed the proposed 1,300 VPH threshold.

Data Analysis

The monthly average daily traffic volume graph from the SCDOT Traffic Analysis and Data Application (TADA) Site Dashboard indicated that the months of August, September and October registered ADTs lower than the rest of the months in the year 2024. This was noted to be a general trend in the past three (3) years as can be seen in **Exhibit 1**. The months of January and February ADTs are also at similar levels to the month of September.

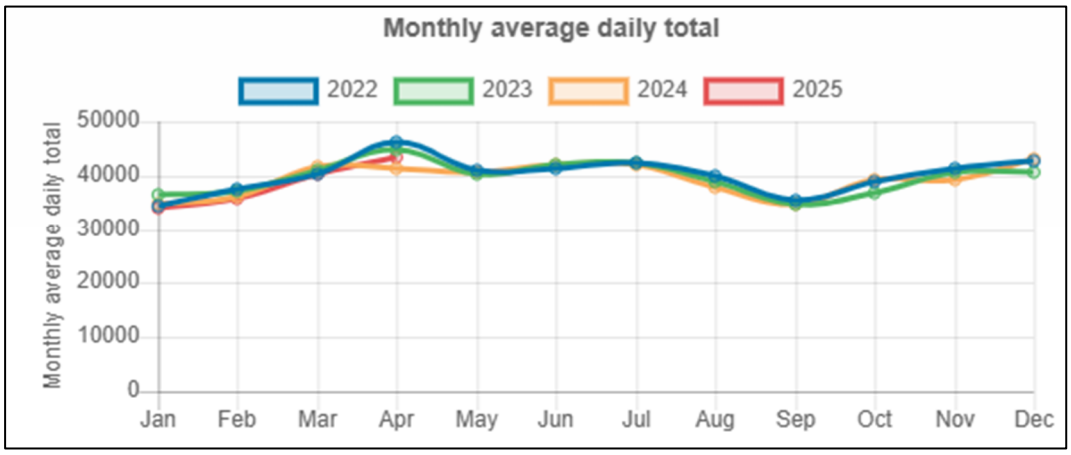

Exhibit 1 – 2022-2024 Monthly ADT Volumes

Weekly Hourly Volume Comparison (August 19, 2024 – October 02, 2024)

This section provides detailed bar charts for each week between August 19th, 2024, and October 2nd, 2024, presenting the average hourly volumes from Monday to Wednesday. The weekend (Friday to Sunday) traffic volumes were also reviewed. It was observed that the weekend volumes were higher than the Monday through Wednesday volumes.

Each chart compares the hourly traffic volumes in both the northbound and southbound directions. The horizontal reference lines at 1,200 and 1,300 vehicles per hour (VPH) indicate the current lane closure threshold as per SCDOT's Engineering Directive (ED)-32 and the proposed ATC limit, respectively. These visuals assist in assessing whether the proposed revisions are justified based on observed traffic patterns.

Exhibits 2 through 8 below illustrate the hourly vehicle volumes in both directions for seven weeks from August 19th, 2024, to October 2nd, 2024. Midday hours between 11:00 AM and 5:00 PM typically exhibit the highest traffic volumes for this location.

The data suggests that while northbound volumes occasionally exceed the 1,200 or 1,300 VPH thresholds, such instances are infrequent and generally short in duration during the six (6) weeks from August 19th, 2024 (Monday) to September 25th, 2024 (Wednesday). However, the traffic volumes in the following week from September 30th, 2024, to October 2nd, 2024, indicated that the number of hours exceeding the thresholds increased.

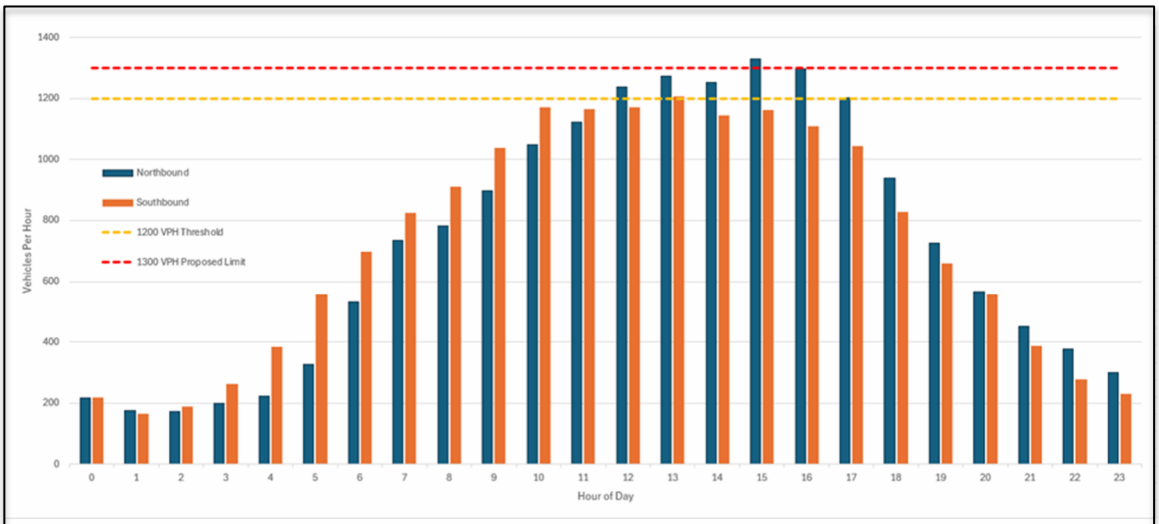

Exhibit 2 - Week of August 19-21, 2024

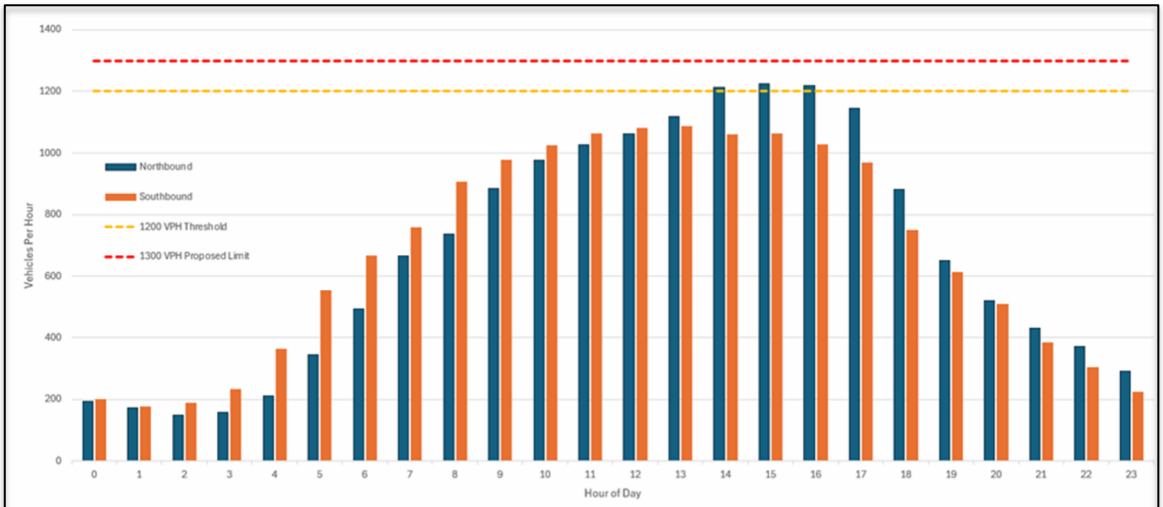

Exhibit 3 – Week of August 26-28, 2024

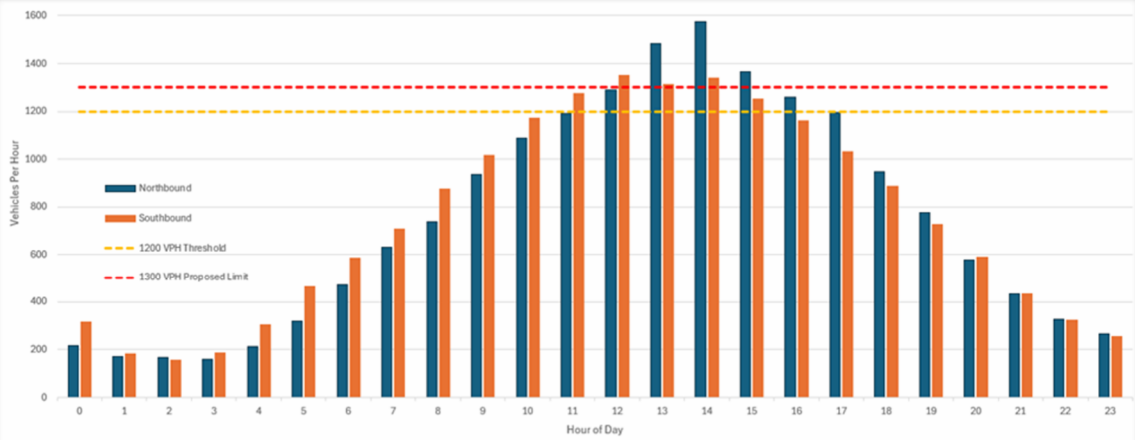

Exhibit 4 – Week of September 02-04, 2024

(Labor Day Week) – No Daytime Lane Closure Modifications Proposed

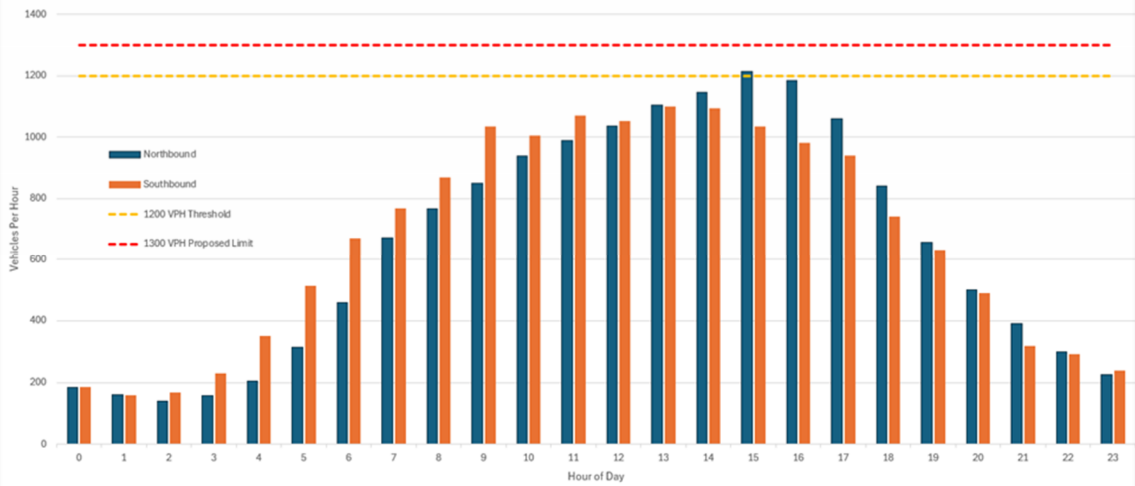

Exhibit 5 - Week of September 09-11, 2024

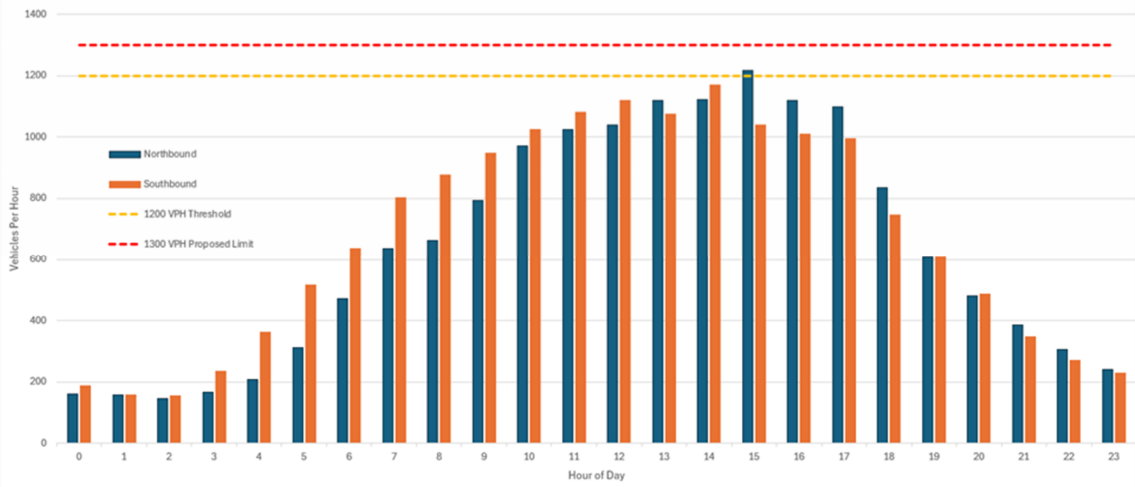

Exhibit 6 - Week of September 16-18, 2024

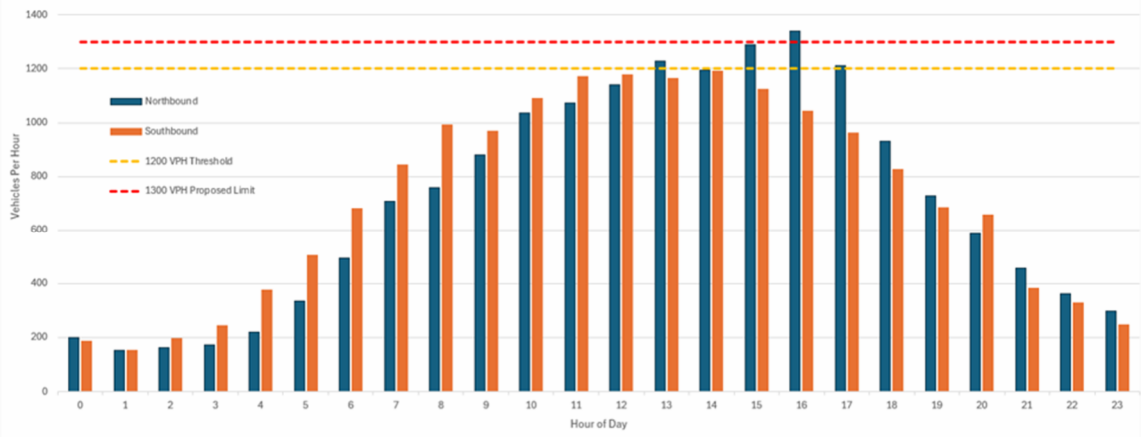

Exhibit 7 – Week of September 23-25, 2024

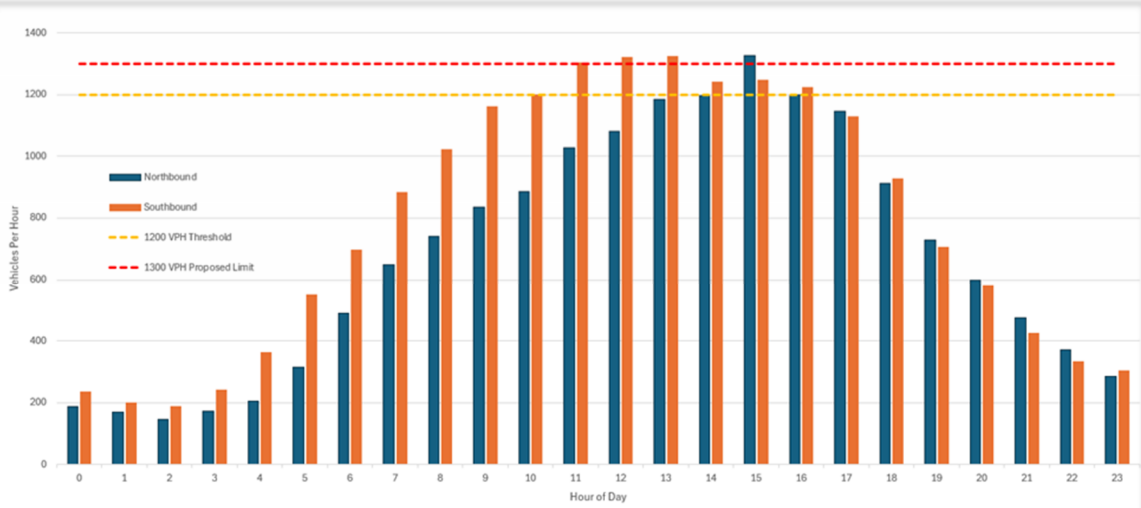

Exhibit 8 – Week of September 30 - October 02, 2024

The following table summarizes the number of hours exceeding 1200 VPH and 1300 VPH for each week in the northbound and southbound directions. A summary of bi-directional traffic volumes by day of the week, along with weekly averages (Monday – Wednesday), is provided in Appendix A.

Exhibit 9 –Summary of Hours Exceeding the ADT of 1200 VPH and 1300 VPH

Week	Northbound		Southbound	
	1200 -1300 (VPH)	Above 1300 (VPH)	1200 -1300 (VPH)	Above 1300 (VPH)
August 19-21	5	1	1	0
August 26-28	3	0	0	0
September 2-4*	2	3	2	3
September 9-11	1	0	0	0
September 16-18	1	0	0	0
September 23-25	3	1	0	0
Sep 30 – Oct 2	0	1	3	3
*Labor Day Week – No Daytime Lane Closure Modifications Proposed				

Additional Volume Profile Comparison

This comparative line graph illustrates traffic volume variability for the 12 PM to 3 PM period across selected dates, emphasizing general compliance with proposed limits. Although some days show exceedances above 1,300 VPH, the overall trend demonstrates that most traffic volumes remain below this proposed threshold, particularly in the earlier weeks of the study period.

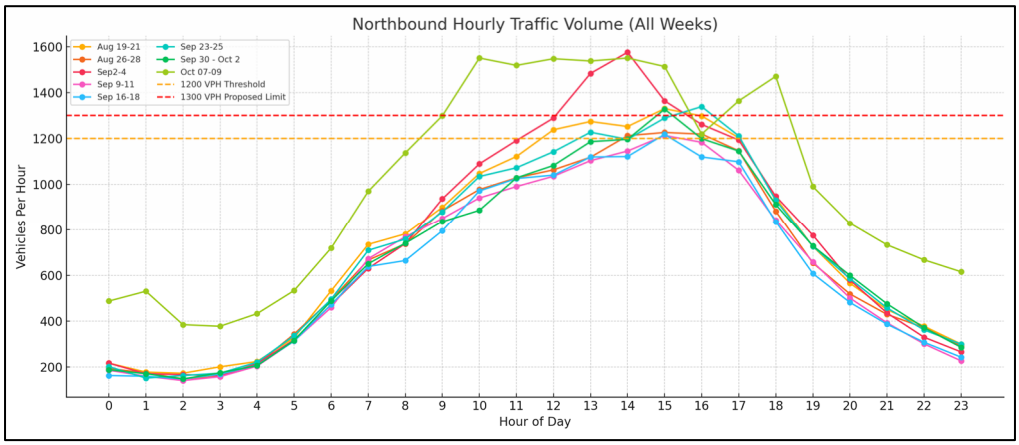

Exhibit 10 - Weekly Hourly Northbound Traffic Volumes

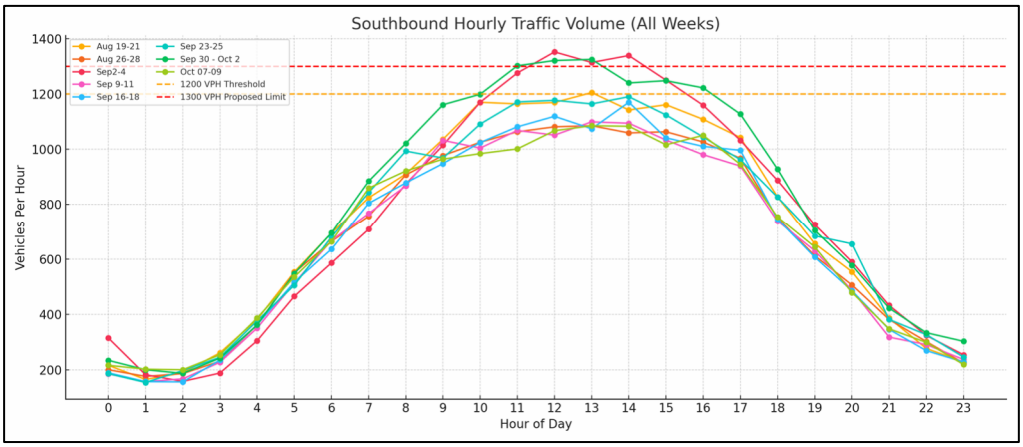

Exhibit 11 - Weekly Hourly Southbound Traffic Volumes

Findings

A. Single Lane Closure Capacity Analysis

An analysis of hourly traffic volumes revealed that while traffic volumes exceed 1,200 VPH during midday periods, exceedances of 1,300 VPH are infrequent. The peak traffic hours, typically occurring between 11:00 AM and 5:00 PM, account for nearly all the high-volume periods.

As depicted, while volumes begin to exceed 1,200 VPH around 11:00 AM and remain elevated until approximately 5:00 PM, most values fall between 1,100 and 1,250 VPH. The 1,300 VPH threshold is only approached in isolated hours, indicating that adjusting the single-lane closure limit to 1,300 VPH would accommodate operational needs without major adverse impacts to traffic flow.

B. Southbound Lane Closure Timing

A review of average hourly data from Monday to Wednesday in the six-week evaluation window shows that traffic volumes during the critical 11 AM–5 PM period were mostly below 1,300 VPH. While there were occasional spikes exceeding 1,300 VPH, such instances were limited in frequency and magnitude.

C. Northbound Lane Closure Timing

During this six-week period, the majority of northbound hourly volumes remained below 1,300 vehicles per hour (VPH). Midday peak hours (typically from 11:00 AM to 5:00 PM) saw the highest traffic activity, but exceedances above the 1,300 VPH threshold were limited and brief, often confined to just one or two hourly intervals on any given day. These peak volumes generally ranged from 1,250 to 1,370 VPH, occurring intermittently rather than consistently.

Importantly, most Monday through Wednesday data points showed volumes within the 1,100–1,250 VPH range, with no evidence of sustained congestion. This pattern held true even during busier weeks in late September. Overall, the data suggests that northbound traffic volumes from mid-August to late September are well-aligned with the proposed 1,300 VPH threshold.

D. September Data Trends:

When isolating the data from September 1 through September 30, the traffic trends are even more favorable to the proposed modification. During this period, northbound hourly volumes consistently remained below 1,300 VPH, with only a few isolated hourly peaks exceeding the threshold. Most volumes were less than 1200, particularly on Mondays, Tuesdays, and Wednesdays. The September dataset demonstrates strong justification for eliminating closure restrictions during this specific month, as the traffic demand consistently stayed within the capacity of a single open lane.

A notable exception occurred near Labor Day; therefore, maintaining daytime restrictions during Labor Day week is a reasonable compromise to address potential congestion.

Conclusion

The proposed Alternative Technical Concept (ATC) to raise the single-lane closure threshold from 1,200 to 1,300 vehicles per hour (VPH) is strongly supported by a combination of recent traffic volume data.

A detailed evaluation of hourly traffic data from SCDOT Continuous Count Station 0088 for the period between August 19 and October 02, 2024, indicates that:

- Most hourly volumes remain below 1,300 VPH, even during midday peak periods.
- Exceedances of 1,300 VPH are infrequent and short in duration, typically occurring for one or two hours per day on high-volume weekdays.
- Southbound traffic volumes during the requested period (Monday - Wednesday) generally remained well within the 1,200–1,300 VPH range.
- Northbound traffic shows similar trends, with hourly volumes rarely exceeding the 1,300 VPH mark during the September period covered by this ATC.

This data-driven approach, using refined 2024 hourly volumes from SCDOT TADA, provides an accurate and seasonally adjusted picture of traffic flow. The request aligns with seasonal low traffic conditions, when lane closures can be accommodated with minimal impact to motorists.

Further, SCDOT's flexibility provisions have historically permitted adjustments to lane closure restrictions when supported by traffic data.

This FATC poses no added risk to operations or safety and will ultimately contribute to a higher quality product with fewer long-term maintenance needs due to improved paving continuity.
Based on the review of continuous hourly traffic data, SCDOT is requested to:

- Approve the proposed increase in single-lane closure threshold from 1,200 VPH to 1,300 VPH.
- Allow northbound and southbound daytime lane closures on Mondays, Tuesdays, and Wednesdays, from the third week of August through the last week of September, except for the week of Labor Day.

This request reflects a balance between construction flexibility and acceptable impacts on traffic operations and user delay.

FATC 14

TRAFFIC DATA REVIEW TO SUPPORT

MODIFIED LANE CLOSURE TIMES

SUMMARY OF BI-DIRECTIONAL TRAFFIC VOLUMES

AT

SCDOT CONTINUOUS COUNT STATION 0088
SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)

(NORTH END OF I-95 BRIDGE OVER LAKE MARION)

SUMMARY BY DAY OF THE WEEK
AUGUST 19, 2024 - OCTOBER 02, 2024

MONDAY SUMMARY

TUESDAY SUMMARY

WEDNESDAY SUMMARY

SITE 0088 - I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)

Monday Summary - August 19, 2024 to October 02, 2024

19-Aug		26-Aug		2-Sep		9-Sep		16-Sep		23-Sep		30-Sep		Total		Average	
Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
248	198	193	225	237	538	168	205	135	211	174	171	168	233	918	1010	184	202
193	139	169	159	158	218	137	161	143	173	113	147	143	202	755	779	151	156
186	229	121	180	171	177	127	164	130	181	141	181	130	183	705	935	141	187
180	239	145	253	168	143	136	233	149	228	148	230	163	223	758	1183	152	237
211	368	205	399	201	186	192	381	189	428	221	378	186	401	1018	1954	204	391
330	504	345	574	282	258	322	554	293	542	349	519	301	608	1639	2693	328	539
529	671	489	709	406	367	437	725	435	662	495	694	448	747	2385	3461	477	692
756	794	656	775	543	523	603	818	582	798	725	828	607	936	3322	4013	664	803
775	891	744	937	790	717	776	894	659	862	700	996	708	1094	3654	4580	731	916
879	987	963	1069	1069	1062	886	1034	759	1007	829	967	811	1206	4316	5064	863	1013
1000	996	1074	1080	1305	1469	979	1050	920	1026	1015	1087	872	1260	4988	5239	998	1048
1061	1115	1122	1176	1510	1622	1030	1151	994	1128	1094	1314	1024	1391	5301	5884	1060	1177
1234	1179	1081	1206	1578	1665	1022	1065	1034	1113	1082	1187	1162	1443	5453	5750	1091	1150
1184	1132	1077	1093	1985	1626	1135	1146	1099	1146	1208	1171	1141	1375	5703	5688	1141	1138
1143	1155	1205	1081	2249	1645	1164	1071	1075	1082	1159	1141	1198	1245	5746	5530	1149	1106
1263	1058	1223	1010	1619	1560	1226	1005	1240	988	1236	1083	1400	1205	6188	5144	1238	1029
1168	1119	1217	979	1349	1435	1174	932	1138	891	1140	1049	1202	1188	5837	4970	1167	994
1164	1017	1210	973	1206	1279	1064	869	1038	992	1119	988	1075	1206	5595	4839	1119	968
905	766	899	691	1001	1034	840	709	810	681	846	787	879	978	4300	3634	860	727
735	658	686	554	897	915	615	619	572	560	692	561	840	677	3300	2952	660	590
523	553	471	456	625	687	494	424	465	433	525	442	658	551	2478	2308	496	462
430	356	432	330	449	472	387	284	402	314	406	332	493	447	2057	1616	411	323
339	293	347	254	359	390	323	310	304	231	328	268	381	299	1641	1356	328	271
269	249	302	209	270	263	235	219	223	213	226	192	301	242	1255	1082	251	216

Legend:

	1200-1300
	1300-1350
	1350-1400
	1400 <

LABOR DAY WEEK - NO DAILY LANE CLOSURE MODIFICATION PROPOSED.

NOT REQUESTING THIS DAY IN PROPOSAL.

SITE 0088 - I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)

Tuesday Summary - August 19, 2024 to October 02, 2024

20-Aug		27-Aug		3-Sep		10-Sep		17-Sep		24-Sep		1-Oct		Total		Average	
Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
248	198	182	182	195	179	204	177	158	186	210	171	207	233	1002	914	200	183
193	139	168	157	157	161	176	155	164	164	156	146	161	194	857	761	171	152
186	229	171	197	157	146	144	156	147	149	151	171	143	200	799	902	160	180
180	239	151	207	162	203	166	220	202	229	146	242	191	238	845	1137	169	227
211	368	227	330	218	373	197	332	222	343	204	377	204	354	1061	1750	212	350
330	504	357	512	355	596	304	484	318	478	288	503	340	534	1597	2481	319	496
529	671	505	655	514	687	499	637	485	607	481	634	505	661	2499	3204	500	641
756	794	662	755	653	817	712	751	644	828	700	791	683	872	3474	3919	695	784
775	891	738	863	734	950	772	855	662	886	790	945	756	973	3737	4440	747	888
879	987	776	890	856	956	854	971	789	941	874	875	826	1098	4172	4664	834	933
1000	996	855	1001	984	984	906	918	1031	1031	970	1067	879	1172	4762	5013	952	1003
1061	1115	957	1006	1087	1090	937	1030	979	1077	939	996	1077	1270	4873	5224	975	1045
1234	1179	1024	974	1240	1222	992	1013	1065	1128	1105	1116	1107	1296	5420	5410	1084	1082
1184	1132	1096	1093	1239	1132	1032	1117	1116	1087	1099	1141	1219	1337	5527	5570	1105	1114
1143	1155	1207	1055	1278	1128	1069	1045	1132	1155	1076	1212	1125	1177	5627	5622	1125	1124
1263	1058	1142	1031	1246	1044	1163	986	1171	1017	1020	1161	1292	1271	5759	5253	1152	1051
1168	1119	1155	1004	1277	1009	1111	935	1112	1046	1431	950	1229	1206	5977	5054	1195	1011
1164	1017	1104	912	1192	943	1038	990	1023	1003	1130	819	1203	1069	5459	4741	1092	948
905	766	858	734	974	768	854	713	836	775	922	748	928	878	4375	3736	875	747
735	658	631	616	733	589	678	606	609	648	644	758	690	748	3297	3286	659	657
523	553	489	470	568	516	483	483	488	515	515	913	559	584	2498	2934	500	587
430	356	421	384	435	386	393	326	342	334	414	398	453	364	2000	1798	400	360
339	293	405	279	296	286	272	281	320	271	308	347	366	309	1644	1471	329	294
269	249	285	236	298	268	228	239	242	206	271	299	253	347	1295	1229	259	246

Legend:

	1200-1300
	1300-1350
	1350-1400
	1400 <

LABOR DAY WEEK - NO DAILY LANE CLOSURE MODIFICATION PROPOSED.

NOT REQUESTING THIS DAY IN PROPOSAL.

SITE 0088 - I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)

Wednesday Summary - August 19, 2024 to October 02, 2024

21-Aug		28-Aug		4-Sep		11-Sep		18-Sep		25-Sep		2-Oct		Total		Average	
Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
202	181	286	194	216	230	182	173	191	170	218	218	185	237	1079	936	216	187
175	143	256	212	197	169	162	155	171	135	183	169	206	202	947	814	189	163
184	159	240	180	170	151	150	180	164	138	195	240	166	178	933	897	187	179
218	260	272	231	152	220	169	228	153	249	221	263	167	264	1033	1231	207	246
231	353	296	357	222	355	221	339	210	317	235	375	224	332	1193	1741	239	348
333	522	442	568	316	543	315	499	326	531	372	495	305	502	1788	2615	358	523
531	651	614	632	493	707	441	640	496	640	509	714	511	679	2591	3277	518	655
702	750	848	742	692	786	700	732	687	785	702	909	662	844	3639	3918	728	784
782	861	860	921	690	957	756	850	672	885	785	1038	757	995	3855	4555	771	911
907	979	1020	973	883	1022	811	1092	837	898	935	1061	870	1180	4510	5003	902	1001
1044	1290	1088	993	979	1057	936	1043	961	1017	1117	1119	906	1163	5146	5462	1029	1092
1110	1132	1088	1006	977	1116	1003	1023	1103	1038	1184	1202	982	1245	5488	5401	1098	1080
1200	1090	1202	1065	1049	1167	1091	1074	1021	1118	1239	1228	977	1224	5753	5575	1151	1115
1242	1200	1216	1071	1228	1183	1141	1034	1142	988	1375	1180	1197	1261	6116	5473	1223	1095
1248	1194	1234	1041	1200	1245	1203	1165	1156	1272	1353	1217	1265	1298	6194	5889	1239	1178
1381	1155	1284	1150	1226	1144	1251	1108	1243	1119	1612	1130	1292	1268	6771	5662	1354	1132
1349	1128	1264	1094	1157	1032	1264	1073	1107	1094	1446	1133	1167	1271	6430	5522	1286	1104
1223	1092	1254	1017	1180	873	1080	957	1233	995	1384	1077	1156	1105	6174	5138	1235	1028
935	932	1074	825	867	860	833	794	859	782	1022	942	926	928	4723	4275	945	855
734	688	792	670	696	673	680	670	639	616	842	736	655	691	3687	3380	737	676
611	585	694	593	544	571	524	557	490	510	716	613	580	601	3035	2858	607	572
466	449	584	434	422	441	396	344	413	390	549	415	479	458	2408	2032	482	406
364	226	464	373	332	298	306	283	297	304	446	364	367	395	1877	1550	375	310
244	178	388	228	227	232	216	252	260	264	401	247	299	321	1509	1169	302	234

Legend:

	1200-1300
	1300-1350
	1350-1400
	1400 <

LABOR DAY WEEK - NO DAILY LANE CLOSURE MODIFICATION PROPOSED.

NOT REQUESTING THIS DAY IN PROPOSAL.

AVERAGE DAILY TRAFFIC FROM MONDAY TO WEDNESDAY

BETWEEN

AUGUST 19, 2024, AND OCTOBER 02, 2024

SITE 0088 - I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)
August 19, 2024 (Monday) - August 21, 2024 (Wednesday)

Time	North Outside	North Inside	Northbound	South Inside	South Outside	Southbound	Total
12:00 AM	149	67	216	56	160	216	432
1:00 AM	132	45	177	41	124	165	342
2:00 AM	119	53	172	49	140	189	361
3:00 AM	137	63	200	79	182	261	461
4:00 AM	163	60	223	130	252	382	605
5:00 AM	222	105	327	214	340	554	881
6:00 AM	316	216	532	281	414	695	1227
7:00 AM	406	329	735	336	488	824	1559
8:00 AM	465	316	781	380	530	910	1691
9:00 AM	503	396	899	447	589	1036	1935
10:00 AM	545	502	1047	551	619	1170	2217
11:00 AM	576	545	1121	529	635	1164	2285
12:00 PM	604	634	1238	559	610	1169	2407
1:00 PM	619	655	1274	556	649	1205	2479
2:00 PM	622	630	1252	546	596	1142	2394
3:00 PM	660	670	1330	545	616	1161	2491
4:00 PM	650	648	1298	510	598	1108	2406
5:00 PM	621	582	1203	458	584	1042	2245
6:00 PM	539	401	940	346	481	827	1767
7:00 PM	438	288	726	243	414	657	1383
8:00 PM	354	211	565	200	355	555	1120
9:00 PM	278	172	450	124	263	387	837
10:00 PM	233	144	377	75	202	277	654
11:00 PM	198	101	299	57	171	228	527

Northbound Summary	1200-1300	5
	1300-1350	1
	1350-1400	0
	1400+	0

Southbound Summary	1200-1300	1
	1300-1350	0
	1350-1400	0
	1400+	0

SITE 0088 - I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)
August 26, 2024 (Monday) - August 28, 2024 (Wednesday)

Time	North Outside	North Inside	Northbound	South Inside	South Outside	Southbound	Total
12:00 AM	137	56	193	51	149	200	393
1:00 AM	119	54	173	38	138	176	349
2:00 AM	112	36	148	46	140	186	334
3:00 AM	115	43	158	67	164	231	389
4:00 AM	147	63	210	121	241	362	572
5:00 AM	226	117	343	205	346	551	894
6:00 AM	317	176	493	258	407	665	1158
7:00 AM	412	254	666	283	474	757	1423
8:00 AM	431	306	737	372	535	907	1644
9:00 AM	498	386	884	396	581	977	1861
10:00 AM	532	445	977	425	600	1025	2002
11:00 AM	546	482	1028	465	598	1063	2091
12:00 PM	569	494	1063	473	608	1081	2144
1:00 PM	581	537	1118	474	611	1085	2203
2:00 PM	619	593	1212	466	593	1059	2271
3:00 PM	625	601	1226	481	582	1063	2289
4:00 PM	619	600	1219	452	574	1026	2245
5:00 PM	614	532	1146	406	561	967	2113
6:00 PM	517	365	882	295	455	750	1632
7:00 PM	400	253	653	230	383	613	1266
8:00 PM	314	204	518	183	324	507	1025
9:00 PM	281	148	429	129	253	382	811
10:00 PM	242	129	371	89	213	302	673
11:00 PM	199	92	291	53	171	224	515

Northbound Summary	1200-1300	3
	1300-1350	0
	1350-1400	0
	1400+	0

Southbound Summary	1200-1300	0
	1300-1350	0
	1350-1400	0
	1400+	0

This week includes Labor Day. No Modifications to the Closure Restrictions are requested.

SITE 0088 - I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)

September 2, 2024 (Monday) -September 4, 2024 (wednesday)

Time	North Outside	North Inside	Northbound	South Inside	South Outside	Southbound	Total
12:00 AM	148	68	216	98	217	315	531
1:00 AM	120	50	170	52	130	182	352
2:00 AM	120	46	166	39	119	158	324
3:00 AM	116	45	161	47	141	188	349
4:00 AM	149	65	214	96	209	305	519
5:00 AM	210	108	318	170	296	466	784
6:00 AM	300	171	471	216	371	587	1058
7:00 AM	391	239	630	256	453	709	1339
8:00 AM	430	308	738	350	524	874	1612
9:00 AM	511	425	936	438	576	1014	1950
10:00 AM	571	518	1089	531	639	1170	2259
11:00 AM	600	591	1191	614	662	1276	2467
12:00 PM	636	653	1289	661	691	1352	2641
1:00 PM	686	798	1484	649	665	1314	2798
2:00 PM	710	866	1576	653	686	1339	2915
3:00 PM	664	700	1364	601	649	1250	2614
4:00 PM	640	621	1261	537	622	1159	2420
5:00 PM	617	576	1193	445	587	1032	2225
6:00 PM	528	419	947	371	516	887	1834
7:00 PM	441	334	775	308	418	726	1501
8:00 PM	352	227	579	223	368	591	1170
9:00 PM	286	149	435	158	275	433	868
10:00 PM	219	110	329	102	222	324	653
11:00 PM	182	83	265	72	182	254	519

Northbound Summary	1200-1300	2
	1300-1350	0
	1350-1400	1
	1400+	2

Southbound Summary	1200-1300	2
	1300-1350	2
	1350-1400	1
	1400+	0

SITE 0088 - I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)
September 9, 2024 (Monday) -September 11, 2024 (Wednesday)

Time	North Outside	North Inside	Northbound	South Inside	South Outside	Southbound	Total
12:00 AM	132	53	185	42	143	185	370
1:00 AM	117	42	159	36	121	157	316
2:00 AM	104	36	140	38	129	167	307
3:00 AM	117	40	157	57	170	227	384
4:00 AM	156	47	203	121	230	351	554
5:00 AM	221	92	313	188	325	513	826
6:00 AM	299	160	459	260	408	668	1127
7:00 AM	414	258	672	302	465	767	1439
8:00 AM	460	308	768	346	521	867	1635
9:00 AM	479	371	850	442	590	1032	1882
10:00 AM	524	416	940	416	588	1004	1944
11:00 AM	524	466	990	466	602	1068	2058
12:00 PM	566	469	1035	453	598	1051	2086
1:00 PM	580	523	1103	487	612	1099	2202
2:00 PM	595	550	1145	495	599	1094	2239
3:00 PM	634	579	1213	450	583	1033	2246
4:00 PM	616	567	1183	414	566	980	2163
5:00 PM	577	484	1061	386	553	939	2000
6:00 PM	496	346	842	288	451	739	1581
7:00 PM	405	253	658	234	397	631	1289
8:00 PM	326	174	500	156	332	488	988
9:00 PM	271	121	392	91	227	318	710
10:00 PM	207	93	300	83	208	291	591
11:00 PM	162	64	226	64	173	237	463

Northbound Summary		
	1200-1300	1
	1300-1350	0
	1350-1400	0
	1400+	0

Southbound Summary		
	1200-1300	0
	1300-1350	0
	1350-1400	0
	1400+	0

SITE 0088 - I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)
September 16, 2024 (Monday) -September 18, 2024 (Wednesday)

Time	North Outside	North Inside	Northbound	South Inside	South Outside	Southbound	Total
12:00 AM	120	42	162	47	142	189	351
1:00 AM	115	44	159	32	125	157	316
2:00 AM	108	39	147	37	119	156	303
3:00 AM	125	43	168	61	174	235	403
4:00 AM	153	54	207	123	240	363	570
5:00 AM	219	93	312	204	313	517	829
6:00 AM	317	155	472	250	387	637	1109
7:00 AM	403	235	638	321	483	804	1442
8:00 AM	393	271	664	369	509	878	1542
9:00 AM	465	330	795	393	555	948	1743
10:00 AM	541	430	971	437	587	1024	1995
11:00 AM	555	470	1025	475	606	1081	2106
12:00 PM	570	470	1040	499	620	1119	2159
1:00 PM	583	536	1119	472	602	1074	2193
2:00 PM	590	531	1121	536	634	1170	2291
3:00 PM	644	574	1218	453	588	1041	2259
4:00 PM	612	507	1119	439	571	1010	2129
5:00 PM	600	498	1098	427	569	996	2094
6:00 PM	489	346	835	281	465	746	1581
7:00 PM	348	259	607	221	387	608	1215
8:00 PM	320	161	481	162	324	486	967
9:00 PM	255	131	386	104	242	346	732
10:00 PM	215	92	307	75	194	269	576
11:00 PM	177	65	242	57	171	228	470

Northbound Summary	1200-1300	1
	1300-1350	0
	1350-1400	0
	1400+	0

Southbound Summary	1200-1300	0
	1300-1350	0
	1350-1400	0
	1400+	0

SITE 0088 - I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)
September 23, 2024 (Monday) -September 25, 2024 (Wednesday)

Time	North Outside	North Inside	Northbound	South Inside	South Outside	Southbound	Total
12:00 AM	142	59	201	44	142	186	387
1:00 AM	105	46	151	37	117	154	305
2:00 AM	107	55	162	49	148	197	359
3:00 AM	129	43	172	65	180	245	417
4:00 AM	159	61	220	128	249	377	597
5:00 AM	237	99	336	202	304	506	842
6:00 AM	321	174	495	267	414	681	1176
7:00 AM	420	289	709	318	525	843	1552
8:00 AM	460	298	758	419	574	993	1751
9:00 AM	513	366	879	418	550	968	1847
10:00 AM	555	479	1034	487	604	1091	2125
11:00 AM	577	495	1072	530	641	1171	2243
12:00 PM	585	557	1142	547	630	1177	2319
1:00 PM	617	610	1227	517	647	1164	2391
2:00 PM	595	601	1196	544	646	1190	2386
3:00 PM	663	626	1289	514	610	1124	2413
4:00 PM	662	677	1339	469	575	1044	2383
5:00 PM	626	585	1211	418	544	962	2173
6:00 PM	522	408	930	340	486	826	1756
7:00 PM	430	296	726	259	426	685	1411
8:00 PM	359	226	585	259	397	656	1241
9:00 PM	298	159	457	109	273	382	839
10:00 PM	236	125	361	84	243	327	688
11:00 PM	205	94	299	59	187	246	545

Northbound Summary	1200-1300	3
	1300-1350	1
	1350-1400	0
	1400+	0

Southbound Summary	1200-1300	0
	1300-1350	0
	1350-1400	0
	1400+	0

Week after lane closure modification period. No modifications requested for this week.

SITE 0088 - I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP)

September 30, 2024 (Monday) -October 2, 2024 (Wednesday)

Time	North Outside	North Inside	Northbound	South Inside	South Outside	Southbound	Total
12:00 AM	133	54	187	62	172	234	421
1:00 AM	122	48	170	53	147	200	370
2:00 AM	111	36	147	46	141	187	334
3:00 AM	131	43	174	61	181	242	416
4:00 AM	159	46	205	130	232	362	567
5:00 AM	216	99	315	219	329	548	863
6:00 AM	313	175	488	275	421	696	1184
7:00 AM	395	255	650	349	535	884	1534
8:00 AM	443	297	740	435	586	1021	1761
9:00 AM	499	337	836	505	656	1161	1997
10:00 AM	491	395	886	547	652	1199	2085
11:00 AM	479	549	1028	644	658	1302	2330
12:00 PM	568	514	1082	642	679	1321	2403
1:00 PM	569	617	1186	635	690	1325	2511
2:00 PM	632	564	1196	610	630	1240	2436
3:00 PM	661	667	1328	573	675	1248	2576
4:00 PM	604	595	1199	553	669	1222	2421
5:00 PM	630	515	1145	499	628	1127	2272
6:00 PM	521	390	911	389	539	928	1839
7:00 PM	428	300	728	271	434	705	1433
8:00 PM	374	225	599	217	361	578	1177
9:00 PM	301	174	475	135	288	423	898
10:00 PM	257	114	371	97	237	334	705
11:00 PM	192	93	285	89	214	303	588

Northbound Summary	1200-1300	0
	1300-1350	1
	1350-1400	0
	1400+	0

Southbound Summary	1200-1300	3
	1300-1350	3
	1350-1400	0
	1400+	0

South Carolina Department of Transportation

Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 15 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Description (required):

Increase lateral displacement limits for earth retaining walls to 1.5 inches in the Service Limit State. This will allow an increased use of cantilevered retaining walls. Increasing the use of cantilevered retaining walls will help optimize constructibility related to maintaining traffic by minimizing excavations for traditional fill earth retaining walls.

Usage:

Locations where retaining walls are used to avoid impacts to Lake Marion and private properties.

Deviations (required):

SCDOT GDM Table 10-16
Service Limit State RL-01
Limits maximum lateral displacement at the top of the wall to 0.05Hwall where H wall is entered in feet per footnote 6 and the resulting permissible displacement is in inches. For a typical 15-ft tall ERS, this limits the service deflection to 0.75 inches.

Justification:

Allows shoring and excavations required to install traditional fill retaining walls to be minimized in favor of expanded use of cantilevered retaining walls.

Schedule:

Use of this ATC will allow more efficient implementation of cantilever retaining walls and reduce retaining wall construction time, resulting in a schedule savings.

Impacts:

Minimizes impacts to traveling public by reducing shoring and excavation operations associated with traditional fill retaining walls.

History:

No explicit deflection performance limits are present in AASHTO. It is recommended that bridge abutment walls are limited to 1.5 inches in the AASHTO commentary. FDOT limits wall deflections to the following: 1.5 inches if the supported roadway is not being resurfaced and 3 inches if being resurfaced after wall deflects. NCDOT limits to 3 inches.

Risks:

No collapse risks as the walls will be designed to strength and seismic limit states and the roadway will be paved after the walls deflect during construction.

Costs (required):

Use of this ATC will optimize implementation of cantilever retaining walls, resulting in a reduction in temporary shoring and subsequent cost savings up to $1 million.

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 15 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 4/23/25

Quality:

No reduction in quality as the walls will be designed to strength and seismic limit states and the roadway will be paved after the walls deflect during construction.

Operations & Maintenance:

Improved operations and maintenance as proposed will allow increase use of cantilevered retaining walls which minimizes buried retaining wall elements such as MSE wall strips, deadman anchors, or ground anchors.

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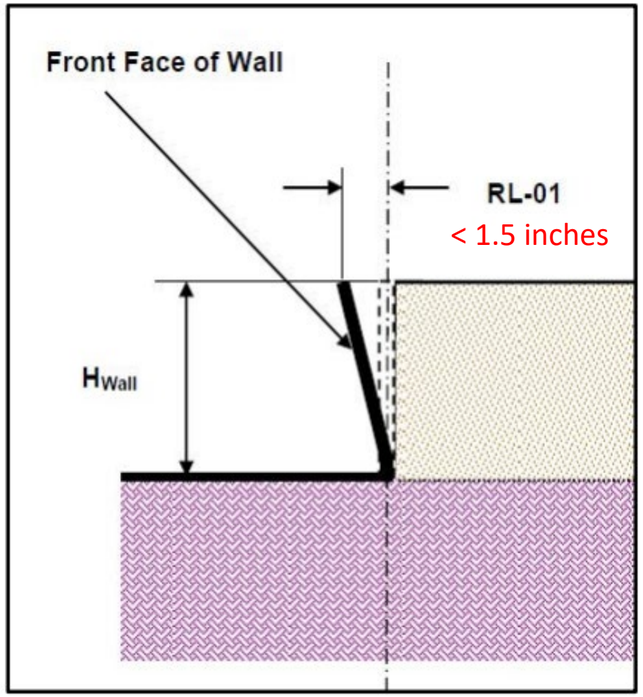
Attachment 1 - FATC 15

General Description:

- SCDOT GDM Table 10-16 limits wall lateral displacements to 0.05H. This equates to 0.75 inches for a typical 15-ft tall cantilevered retaining wall.
- This ATC proposes to increase lateral service limit state displacement, RL-01, to 1.5 inches to facilitate increased use of cantilevered retaining walls



Structures Design Guidelines — Topic No. 625-020-018
3 - Substructure and Retaining, Noise and Perimeter Walls — January 2025

3.13.3 Permanent and Critical Temporary Sheet Pile Walls

A. Determine the required depth of sheet pile embedment (**D**) using the procedure outlined in ***LRFD*** 11.8.4 and described in detail in ***LRFD*** C11.8.4.1 with load factors of 1.0 and the appropriate resistance factor from ***LRFD*** 11.6.3.7.

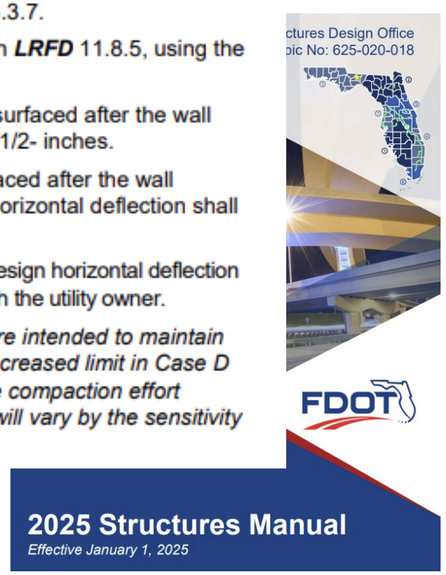
B. Determine the required sheet pile section in accordance with ***LRFD*** 11.8.5, using the normal load and resistance factors for each load case.

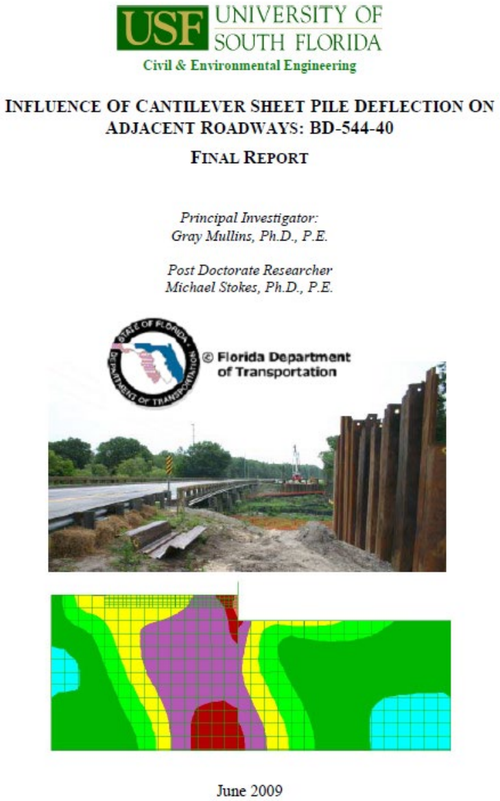
C. When the supported paved roadway will not be paved or resurfaced after the wall deflects, the design horizontal deflection shall not exceed 1 1/2- inches.

D. When the supported paved roadway will be paved or resurfaced after the wall deflects, or the supported roadway is unpaved, the design horizontal deflection shall not exceed 3-inches.

E. When the wall maintains the structural integrity of a utility, the design horizontal deflection shall be established on a case-by-case basis in cooperation with the utility owner.

Commentary - The above deflection limits for Cases C and D are intended to maintain confinement of the subsoils supporting the roadway. The increased limit in Case D above assumes the lost confinement will be restored by the compaction effort exerted during resurfacing. The deflection limit for Case E will vary by the sensitivity of the utility and its location in the supported embankment.





Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 16 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 6/26/25

Description (required):

1. Dual Main Bridges:
This ATC proposes to shift the existing I-95 NB and SB alignments and placing them on separate main bridges. The I-95 NB main bridge alignment will be located approximately 59' to the outside of the existing I-95 NB bridge alignment and the I-95 SB main bridge alignment will be located approximately 27' to the inside of the existing I-95 SB bridge alignment. The main bridges will be constructed full width with normal crown in two Maintenance of Traffic (MOT) phases as shown in the attached layout entitled Exhibit A.

2. Relief Bridge:
The confines of this project restricts the ability to construct the relief bridge outside of the existing dual bridge footprint and therefore, this ATC constructs the single relief bridge in three stages. Over the relief bridge, both I-95 NB and SB proposed alignments are shifted 12'-10" toward the existing I-95 centerline as shown in the attached layout entitled Exhibit A. Stage 1 of the relief bridge will be constructed between the existing NB and SB relief bridges followed by Stage 2 which demolishes the existing and constructs the proposed NB lanes. The bridge will be completed by demolishing the existing and constructing the proposed SB lanes in Stage 3.

3. 6-lane Rooftop Typical with Continuous Future Lane:
Just prior to the relief bridge, the NB and SB alignments will transition to a 6-lane "rooftop" section consisting of two travel lanes, a future third lane, 12' paved outside shoulder, and 10' paved inside shoulder in each direction separated by a median barrier wall. The two inside lanes will utilize a 2.0% cross slope and the outside lane will have a 2.5% cross slope, crowned at the I-95 centerline. The rooftop section will continue along the causeway to the point where the NB and SB alignments diverge and transition to the main bridges. This "rooftop" section exceeds the requirements of the RFP and adds significant value to the project. Along the rooftop section, including the relief bridge, the NB and SB alignments will be shifted approximately 12'-10" inward toward the I-95 centerline.

4. Outside Shoulders:
The RFP will be exceeded by constructing a full 12 ft. paved outside shoulder along the causeway between the main and relief bridges.

5. Shared Use Path Alignment:
The shared use path will transition from the bridges to the existing path causeway and aligned to enable the causeway embankment armoring to be constructed from the causeway without impacting the open water wetlands.

Usage:

This ATC will be utilized throughout the project corridor to construct the I-95 Northbound and Southbound replacement main bridges and relief bridge over Lake Marion and the mainline interstate between the bridges.

Deviations (required):

1. RFP 3.8 b - This ATC modifies the permanent horizontal alignment of I-95.

2. RFP Exhibit 3 - This ATC deviates from the horizontal alignment provided in Attachment B labeled "I95_AltnernativeC2_Reference Data".

3. RFP Exhibit 3 - This ATC utilizes dual bridges over the Main crossing and and a single bridge for the Relief crossing.

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Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 16 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 6/26/25

4. RFP Exhibit 4a Section 2.4 - This ATC provides a varying median width that transitions from the separated NB and SB main bridges to the "rooftop" section along the causeway with median barrier, 10 ft. paved inside shoulders, and 12 ft. paved outside shoulders.

5. RFP Exhibit 4a Section 2.5 - This ATC deviates from the base line alignment found in Attachment B labeled "I95_AltnernativeC2_Reference Data".

6. RFP Exhibit 4a Section 2.6 - This ATC uses a vertical grade of 0.0% along the roadway causeway portion of the corridor by exceeding RFP requirements and constructing the future 3rd NB and SB lanes in a "rooftop" configuration, providing continuous, non-transitioning crowned cross-slope drainage through the rooftop section and eliminating median drainage concerns.

7. RFP Exhibit 4a Section 2.8 - This ATC provides lanes sloping from the centerline to the outside in each direction, "rooftop" roadway typical section, along the causeway between the bridges and slopes the inside shoulders away from the median barrier along the traveled way. This allows the future 3rd lane to be constructed along the causeway.

8. RFP Exhibit 4a Section 2.13 – This ATC shifts the shared-use path the minimum distance from the existing abandoned US301 alignment to accommodate the armored embankment detail, without causing additional environmental impacts or inhibiting shared-use path users.

9. RFP Exhibit 4b Section 2.1.5 - This ATC shifts the I-95 NB and SB existing thru-lanes over the relief bridge from their current horizontal locations to allow for the construction of the 3rd future lane along the causeway.

10. RFP Exhibit 4b Section 2.1.21 - "Bridge abutment retaining walls are not allowed on this project." This ATC utilizes a retaining wall parallel to the northbound alignment at the main bridge end bent and approach at approximate Sta. 5268 +00 to 5278+00. This wall will extend down the endbent spill through slope to ensure the embankment remains within existing right-of-way.

Justification:

1. Conventional Construction:
The baseline alignment provided in RFP Attachment B entitled "I95_AltnernativeC2_Reference Data" requires the Stage 2 construction of the main bridge to be built in close proximity to the existing SB main bridge. This close proximity provides inadequate access and clearance for conventional construction using cranes on barges. Therefore, this ATC separates the main bridge into dual structures constructed in two phases of MOT that allows the existing SB main bridge to be demolished prior to the proposed SB main bridge being constructed. This provides sufficient construction access and clearance enabling both NB and SB proposed main bridges to be constructed conventionally without the use of specialized equipment such as gantry cranes. The alignment and phases of construction for the dual main bridge structures are shown in Exhibit A.

2. Longterm Sustainability and Maintenance:
This ATC provides longterm sustainability by constructing future 3rd Northbound and Southbound lanes between the relief and main bridges along the causeway eliminating the need for future 3rd lane widening. Along the causeway, a rooftop typical section with the future 3rd NB and SB lanes will be constructed with a minimum 0% longitudinal grade to

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eliminate median drainage and longterm maintenance. Longterm sustainability is also obtained by constructing dual main bridges that allows the ability for inside widening for a future 4th lane in each direction. This capability cannot be achieved with a single structure due to the utility window and shared used path placed along the SB lanes. The dual bridges will be constructed full width in separate MOT phases eliminating longitudinal joints and closure pours on the main bridge which are prone to spalling, reducing future maintenance.

3. Median Drainage Elimination:
The horizontal alignment is designed for normal crown throughout the rooftop section allowing runoff to shed to the outside, therefore eliminating the need for a 0.5% minimum vertical grade. Therefore, with the exception of the transition from the rooftop section to the main bridges, this ATC keeps the longitudinal grade over the causeway at 0% minimum with drainage discharging to the outside shoulders. Special ditches will be used along the outside of southbound lanes and in the small median area between the rooftop section and the beginning of the main bridges.

4. Safety:
a) The Federal Highway Administration's (FHWA) Interactive Highway Safety Design Model (IHSDM) was employed to conduct a quantitative safety performance evaluation for the I-95 corridor over Lake Marion proposed geometric configuration. The analysis of the existing alignment incorporated variable shoulder widths observed throughout the corridor, with station limits matching the termini of the proposed improvement project. Since the IHSDM input data for the SCDOT "I95_AltnernativeC2_Reference Data" base alignment included in the RFP Attachment B was not provided at the time of this ATC submission, the proposed geometric configuration and stationing was modeled as shown in Exhibit B. Additionally, we used 2029 traffic volumes growing at a factor of 2% for a 10 year period (2029 - 2039) for the safety analysis.
b) The proposed geometric configuration analyzed in the IHSDM evaluation maintained the stationing in accordance with the existing I-95 alignment to ensure consistency in referencing and to facilitate verification of horizontal alignment geometry. The proposed configuration accounted for geometric modifications, including realignment and shoulder enhancements that deviates from the "I95_AltnernativeC2_Reference Data" base alignment. Specifically, our FATC includes 12-foot paved outside shoulders and 10-foot paved inside shoulders modeled across the causeway and bridge structures. This 12-foot paved shoulder along the causeway exceeds the baseline requirements outlined in the RFP, offering improved lateral clearance and recovery zones, thereby enhancing overall corridor safety. It is imperative to note that during the 2029-2039 analysis period, the inside shoulder is actually 22 ft. (12 ft. future lane and the 10 ft. paved shoulder) along the causeway and bridges. However, our model only includes the 10 ft. inside lane without the inclusion of the future lane width. Inclusion of the extra 12 ft. lane would only decrease the predicted crash rates further.
c) The IHSDM analyses for the proposed geometric configuration is shown in Exhibit B, Attachment A and SCDOT's "I95_AltnernativeC2_Reference Data" base alignment is shown in Exhibit B, Attachment B. The comparison between the predicted crash analysis results are shown in Exhibit B, Table 1 and indicate a reduction in expected crash frequency and severity under the proposed design relative to the "I95_AltnernativeC2_Reference Data" base alignment. This reduction is evident both at the corridor level and within discrete horizontal alignment segments, demonstrating the safety benefits of the proposed geometric and operational improvements.

Schedule:

The "I95_AlternativeC2_Reference Data" base alignment has a difficult challenge of constructing the main bridge in two stages. This is due to the close proximity and inadequate access between the existing SB Main bridge and Stage 2 of the Alternative C2 Main bridge. There is a difficulty in navigating barges with cranes between the two structures thus

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requiring the use of specialized construction equipment such as gantry cranes. However, for the purpose of comparison, this ATC is deemed to have a construction schedule similar to Alternative C2, if the difficult challenge noted could be resolved and Alternative C2 could be constructed in 2 stages. A 1,600 day completion schedule is now more feasible when compared with all the limitations that Alternative C2 poses.

Impacts:

1. Environmental:
The alignment shift in both the Northbound and Southbound alignments at the main bridge will result in less than 3 acres of impact to open water wetlands.

2. Right-of-Way:
No additional right-of-way is anticipated.

3. Safety:
a) As demonstrated in Exhibit B safety analysis, the proposed geometric configuration crash predictions are less than the existing and Alternative C2 alignments.

b) The deceleration lane for the northbound US-301 exit ramp will be lengthened by approximately 90', and the acceleration lane for the southbound US-301 entrance ramp will be lengthened by approximately 230'.

History:

In the recent years, 2 long bridges were constructed in stages including A) Harry W. Nice Memorial Bridge on US 301 in Newburg, Maryland, and B) Howard Frankland Bridge on I-275 in Tampa, Florida. Both of these bridges were built using an offset alignment enabling the traffic to remain on alignment during construction.

Risks:

1. Traffic Impact/Safety Risk:
Traffic impact risks are significantly reduced by constructing the dual main bridges full width in two MOT phases away from traffic. A crowned cross-slope "rooftop" typical section paired with a minimum 0% longitudinal grade along the causeway reduces the risk of hydroplaning and is recommended for runoff in the AASHTO Greenbook in Chapter 4 Section 4.2.2 page 4-5.

2. Schedule Certainty Risk:
The proposed alignment and the construction of the dual main bridges in two MOT phases with proper access and separation between the proposed and existing bridges will provide schedule certainty.

3. Cost Risk:
Adequate separation between the proposed and existing bridges will provide the opportunity for conventional construction and delivery of materials with the use of barges and cranes , thereby eliminating costly utilization of specialized equipment such as overhead gantry cranes. and delivery of material in a traditional manner.

Costs (required):

The "I95_AlternateC2_Reference Data" base line alignment cannot be economically constructed due to the inadequate construction access between the existing Southbound main bridge and Stage 2 of the C2 alignment main bridge. This

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 16 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 6/26/25

ATC proposed alignment and phasing of construction of the bridges over Lake Marion and the associated roadway approach work provides a cost competitive project without the use of specialized equipment, difficult construction access issues, and additional cost and extra contingency to be included for schedule uncertainty, as compared to the Alternative C2 alignment.

Quality:

1. Future 3rd Lane:
This ATC goes above the requirements of the RFP by constructing the future Northbound and Southbound 3rd lanes and median barrier along the causeway between the relief and main bridges adding significant value to SCDOT.

2. Drainage:
Drainage along the corridor will be improved by eliminating median drainage by the use of a "rooftop" typical section.

3. Safety Enhancement:
The use of 0% longitudinal slope through the rooftop section will provide the greatest reduction in hydroplaning risk by minimizing the flow path across the travel lanes.

4. Future 8 Lane for Main Bridges:
The alignment provides for sufficient space between the dual NB and SB main bridges to accommodate the construction of the future 8 lane section.

5. Outside Paved Shoulder:
A full 12 ft. paved outside shoulder is provided through the causeway increasing the overall safety of the project and further accommodates emergency responders in case of accidents in the corridor.

6. Full Width Bridge Construction (Main Bridges):
The dual SB and NB main bridges will be constructed full width eliminating any longitudinal construction joints in the superstructure.

7. Prestressed Concrete Beams:
Prestressed concrete beams eliminates future maintenance for painting steel bridges.

8. Bridge Deck Joints and Bearing Pads:
All bridge deck joints and bearings will be conventional without the use of specialized finger joints or isolation bearings.

9. Minimized Substructure Elements:
Long spans are utilized to minimize substructure elements.

Operations & Maintenance:

1. No Longitudinal Joints on Dual Main Bridges:
Long term maintenance will be reduced by the elimination of bridge closure pours on the main bridge which are prone to spalling and can have rideability concerns.

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Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 16 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 6/26/25

2. Future 3rd Lane:
The future 3rd Northbound and Southbound lanes will be constructed between the bridges along the causeway eliminating the need for future widening on the bridges and causeway.

3. Median Drainage:
A rooftop typical section section with the future 3rd NB and SB lanes will be constructed with a minimum 0% longitudinal grade with a constant cross-slope to eliminate median drainage.

4. Normal Crown:
The dual main bridges will be constructed with normal crown reducing the amount of water flowing across traffic lanes.

5. Use of Prestressed Concrete Beams:
The use of prestressed concrete beams eliminates the painting cycles required for steel beams.

6. Use of Conventional Elastomeric Expansion Joints and Bearings:
The conventional elastomeric deck joints and bearing pads are less costly to maintain and replace.

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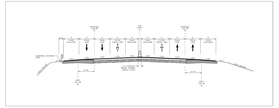
FATC 16 – EXHIBIT A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TECHNICAL MEMORANDUM

Date: June 24, 2025

To: Mr. Tyler Clark
Office of Alternative Delivery - SCDOT
955 Park Street, Columbia, SC 29201

From: United Traylor JV/Infrastructure Consulting & Engineering, LLC

Subject: IHSDM Safety Analysis – FATC 16

Project: I-95 over Lake Marion - Bridge Replacement
Clarendon and Orangeburg Counties, South Carolina
SCDOT Project ID: 0041130

Dear Mr. Clark,

Infrastructure Consulting and Engineering, LLC (ICE), along with United Traylor Joint Venture, has developed the Formal Alternative Technical Concept (FATC 16), based on several factors including design innovation, constructability, reduction in ROW and environmental impacts, and cost effectiveness.

The purpose of this technical memorandum is to present the results of the predictive crash analysis conducted for I-95 bridges over Lake Marion for FATC 16 and how they compare with those of the existing conditions, as well as SCDOT's Alternative C2. The existing structures are in a tangent section of freeway alignment; the following analysis looks at horizontal alignment changes created by FATC 16 developed by our team within the construction limits. IHSDM software was used to study the effects of introducing horizontal curves in this section of I-95. Table 1 compares FATC 16 to Alternative C2. As is evident, FATC 16 shows improved metrics over Alternative C2.

Table 1: FATC 16 vs Alternative C2

I-95 over Lake Marion – Bridge Replacement Predicted Crashes 2029-2039		
Predicted Freeway Crashes Summary	**Alternative C2**	**FATC 16**
Total Crashes	222.11	200.52
Fatal and Injury Crashes	71.89	62.89
Property Damage Crashes	150.22	137.63
Fatal and Injury (FI) Crashes %	32%	31%
Property Damage only (PDO) Crashes %	68%	69%
Predicted Crash Rate (crashes/mi/yr)	7.3959	6.9865
FI Crash Rate (crashes/mi/yr)	2.3940	2.1913
Property Damage Only (PDO) Crash Rate (crashes/mi/yr)	5.0019	4.7952
Travel Crash Rate (crashes/million veh-mi)	0.40	0.38
Travel FI Crash Rate (crashes/million veh-mi)	0.13	0.12
Travel PDO Crash Rate (crashes/million veh-mi)	0.27	0.26

Table 2: Existing Conditions vs FATC 16

I-95 over Lake Marion – Bridge Replacement Predicted Crashes 2029-2039		
Predicted Freeway Crashes Summary	**Existing Conditions**	**FATC 16**
Total Crashes	233.99	200.52
Fatal and Injury Crashes	79.89	62.89
Property Damage Crashes	154.10	137.63
Fatal and Injury (FI) Crashes %	34%	31%
Property Damage only (PDO) Crashes %	66%	69%
Predicted Crash Rate (crashes/mi/yr)	8.1528	6.9865
FI Crash Rate (crashes/mi/yr)	2.7835	2.1913
Property Damage Only (PDO) Crash Rate (crashes/mi/yr)	5.3693	4.7952
Travel Crash Rate (crashes/million veh-mi)	0.45	0.38
Travel FI Crash Rate (crashes/million veh-mi)	0.15	0.12
Travel PDO Crash Rate (crashes/million veh-mi)	0.29	0.26

Please note that a section of I-95 2.61 miles long has been evaluated and compared.

Table 3: Existing Conditions vs Alternative C2 (provided by SCDOT)

I-95 over Lake Marion – Bridge Replacement Predicted Crashes 2029-2039		
Predicted Freeway Crashes Summary	**Existing Conditions**	**Alternative C2**
Total Crashes	259.62	222.11
Fatal and Injury Crashes	91.58	71.89
Property Damage Crashes	168.03	150.22
Fatal and Injury (FI) Crashes %	35%	32%
Property Damage only (PDO) Crashes %	65%	68%
Predicted Crash Rate (crashes/mi/yr)	8.6440	7.3959
FI Crash Rate (crashes/mi/yr)	3.0492	2.3940
Property Damage Only (PDO) Crash Rate (crashes/mi/yr)	5.5948	5.0019
Travel Crash Rate (crashes/million veh-mi)	0.47	0.40
Travel FI Crash Rate (crashes/million veh-mi)	0.17	0.13
Travel PDO Crash Rate (crashes/million veh-mi)	0.30	0.27

Please note that a section of I-95 2.73 miles long has been evaluated and compared by Transystems.

Attachment A of this memo includes the IHSDM Program Outputs comparing FATC 16 to the existing conditions, while **Attachment B** of this memo includes the IHSDM Program Outputs comparing SCDOT's Alternative C2 to their existing conditions, as provided by SCDOT and conducted by Transystems.

Respectfully Submitted,

Mohan P. Atluri, P.E., PTOE, RSP1

Attachment A

IHSDM Highway Safety Manual Analysis Program Outputs

1. Existing I-95
2. FATC 16 NB
3. FATC 16 SB

I-95 over Lake Marion Predicted Crashes 2029-2039		
Predicted Freeway Crashes Summary	**Existing I-95**	**FATC 16**
Total Crashes	233.99	200.52
Fatal and Injury Crashes	79.89	62.89
Property Damage Crashes	154.10	137.63
Fatal and Injury (FI) Crashes %	34%	32%
Property Damage only (PDO) Crashes %	66%	69%
Predicted Crash Rate (crashes/mi/yr)	8.1528	6.9865
FI Crash Rate (crashes/mi/yr)	2.7835	2.1913
Property Damage Only (PDO) Crash Rate (crashes/mi/yr)	5.3693	4.7952
Travel Crash Rate (crashes/million veh-mi)	0.45	0.38
Travel FI Crash Rate (crashes/million veh-mi)	0.15	0.12
Travel PDO Crash Rate (crashes/million veh-mi)	0.29	0.26

FATC 16 Start Location	5157+03.89
FATC 16 End Location	5294+80.21
Length of analysis	2.6092 mi

Interactive Highway Safety Design Model

Crash Prediction Evaluation Report

I-95 Existing Conditions (2029-2039)

June 20, 2025

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Report Overview

Report Generated: Jun 20, 2025 2:25 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 12:16 PM)

Evaluation Date: Fri Jun 20 09:35:54 EDT 2025
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: divya.pappu
Organization Name:
Phone:
E-Mail:

Project Title: I-95 over Lake Marion FATC 1_mod
Project Comment: Created Fri Jun 20 08:32:29 EDT 2025
Project Unit System: U.S. Customary

Highway Title: I-95 existing for FATC 1_mod
Highway Comment: Created Fri Jun 20 08:32:53 EDT 2025
Highway Version: 1

Evaluation Title: I-95 existing for FATC 1_mod
Evaluation Comment: Created Fri Jun 20 09:35:06 EDT 2025

Minimum Location: 5157+03.890
Maximum Location: 5294+80.210

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2029
Last Year of Analysis: 2039
Empirical-Bayes Analysis: None
First Year of Observed Crashes:
Last Year of Observed Crashes:

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- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Section 1 Evaluation

Section: Section 1
Evaluation Start Location: 5157+03.890
Evaluation End Location: 5294+80.210
Functional Class: Freeway
Type of Alignment: Divided, Multilane
Model Category: Freeway Segment
Calibration Factor: FI_MV=1.0; FI_SV=1.0; PDO_MV=1.0; PDO_SV=1.0;

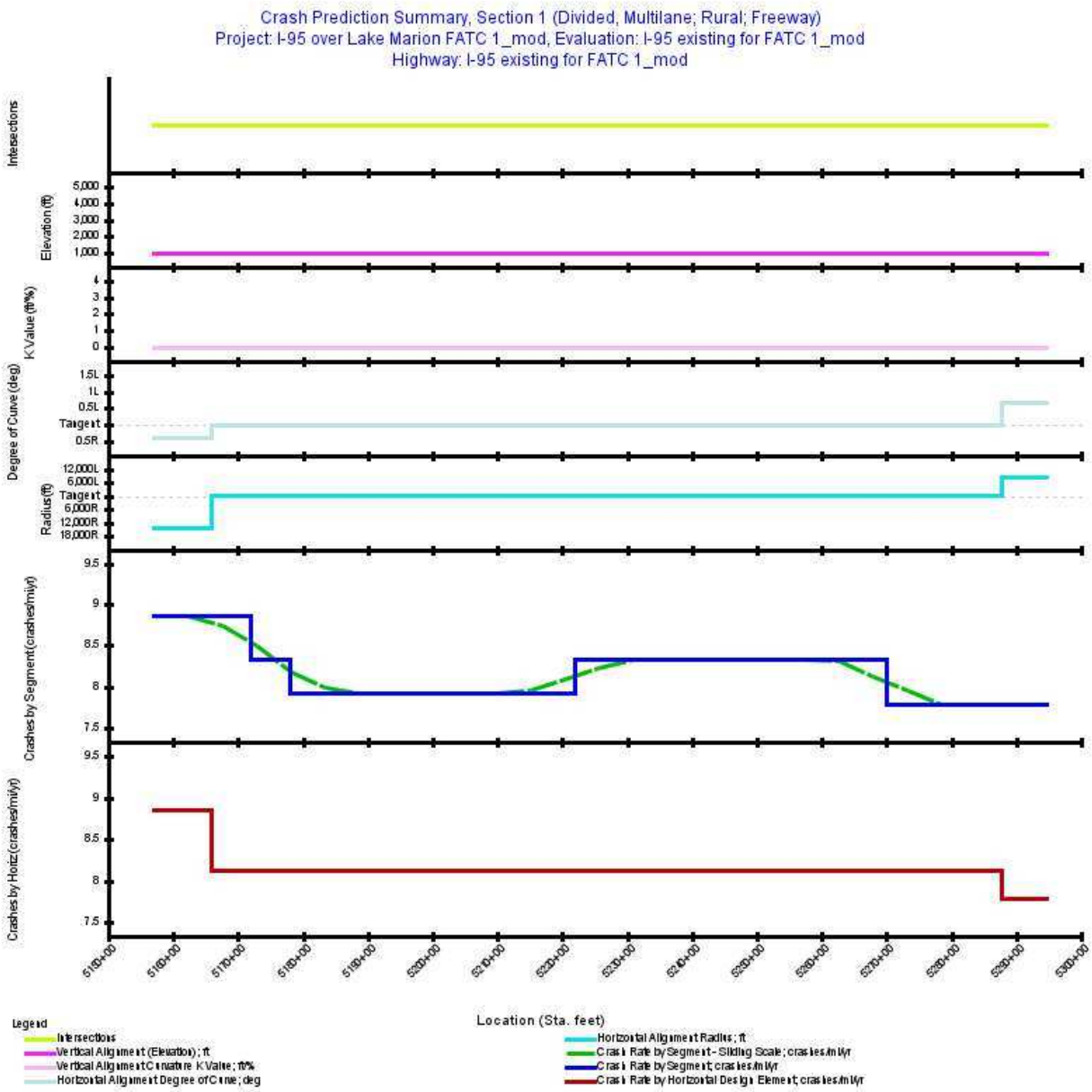

Figure 1. Crash Prediction Summary (Section 1)

Table 1. Evaluation Freeway - Homogeneous Segments (Section 1)

Seg. No.	Type	Area Type	Start Location (Sta. ft)	End Location (Sta. ft)	Length (ft)	Length (mi)	AADT	Median Width (ft)	Type	Effective Median Width (ft)
1	Four-lane Freeway	Rural	5157+03.890	5172+00.890	1,497.00	0.2835	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	68.00
2	Four-lane Freeway	Rural	5172+00.890	5178+00.890	600.00	0.1136	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	68.00
3	Four-lane Freeway	Rural	5178+00.890	5222+00.890	4,400.00	0.8333	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	68.00
4	Four-lane Freeway	Rural	5222+00.890	5270+00.890	4,800.00	0.9091	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	68.00
5	Four-lane Freeway	Rural	5270+00.890	5294+80.210	2,479.32	0.4696	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	68.00

Table 2. Predicted Freeway Crash Rates and Frequencies Summary (Section 1)

First Year of Analysis	**2029**
Last Year of Analysis	**2039**
Effective Length (mi)	**2.6092**
Average Future Road AADT (vpd)	**50,160**
Predicted Crashes	
Total Crashes	**233.99**
Fatal and Injury Crashes	**79.89**
Property-Damage-Only Crashes	**154.10**
Percent of Total Predicted Crashes	
Percent Fatal and Injury Crashes (%)	**34**
Percent Property-Damage-Only Crashes (%)	**66**
Predicted Crash Rate	
Crash Rate (crashes/mi/yr)	**8.1528**
FI Crash Rate (crashes/mi/yr)	**2.7835**
PDO Crash Rate (crashes/mi/yr)	**5.3693**
Predicted Travel Crash Rate	
Total Travel (million veh-mi)	**525.46**
Travel Crash Rate (crashes/million veh-mi)	**0.45**
Travel FI Crash Rate (crashes/million veh-mi)	**0.15**
Travel PDO Crash Rate (crashes/million veh-mi)	**0.29**

Note: *Effective Length* is the *segment length* minus the length of the *speed change lanes* if present.
Note: *Total Travel and Crash Rates/Million Vehicle Miles* for *Speed Change Lanes* reflect AADTs that are **half of the Freeway Segment AADTs** based on the assumption of 50/50 directional distribution.

Table 3. Predicted Crash Frequencies and Rates by Freeway Segment/Intersection (Section 1)

Segment Number/Intersection Name/Cross Road	Start Location (Sta. ft)	End Location (Sta. ft)	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	5157+03.890	5172+00.890	0.2835	27.595	2.5087	0.8404	1.6683	8.8482	0.48
2	5172+00.890	5178+00.890	0.1136	10.404	0.9458	0.3436	0.6022	8.3231	0.46
3	5178+00.890	5222+00.890	0.8333	72.577	6.5979	2.1817	4.4162	7.9175	0.43
4	5222+00.890	5270+00.890	0.9091	83.236	7.5669	2.7493	4.8177	8.3236	0.46
5	5270+00.890	5294+80.210	0.4696	40.179	3.6526	1.1475	2.5051	7.7787	0.42
Total			2.6092	233.991	21.2719	7.2625	14.0094	8.1528	0.45

Note: *Effective Length* is the *segment length* minus the length of the *speed change lanes* if present. This may create Freeway segments with zero effective length and zero crashes.

Table 4. Predicted Crash Frequencies and Rates by Horizontal Design Element (Section 1)

Title	Start Location (Sta. ft)	End Location (Sta. ft)	Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
Simple Curve 1	5157+03.890	5165+86.300	0.1671	16.266	1.4787	0.4954	0.9834	8.8482	0.48
Tangent	5165+86.300	5287+67.350	2.3070	206.173	18.7430	6.4372	12.3058	8.1243	0.44
Simple Curve 2	5287+67.350	5294+80.210	0.1350	11.552	1.0502	0.3299	0.7203	7.7787	0.42

Table 5. Predicted Crash Frequencies by Year (Section 1)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2029	19.07	6.66	34.928	12.41	65.072
2030	19.50	6.78	34.770	12.72	65.230
2031	19.94	6.90	34.614	13.04	65.386
2032	20.38	7.02	34.461	13.35	65.539
2033	20.81	7.14	34.310	13.67	65.690
2034	21.26	7.26	34.161	13.99	65.839
2035	21.70	7.38	34.014	14.32	65.986
2036	22.15	7.50	33.870	14.65	66.130
2037	22.60	7.62	33.728	14.98	66.272
2038	23.06	7.74	33.587	15.31	66.413
2039	23.52	7.87	33.449	15.65	66.551
Total	233.99	79.89	34.141	154.10	65.859
Average	21.27	7.26	34.141	14.01	65.859

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Predicted Crash Severity by Freeway Segment (Section 1)

Seg. No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.4062	0.9720	3.8082	4.0578	18.3512
2	0.1160	0.2710	1.4642	1.9284	6.6243
3	0.9817	2.3014	9.6307	11.0849	48.5781
4	0.9282	2.1673	11.7147	15.4316	52.9943
5	0.5349	1.2667	5.1325	5.6889	27.5560
Total	2.9670	6.9784	31.7502	38.1915	154.1038

Table 7. Predicted Freeway Crash Type Distribution (Section 1)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.55	0.2	6.26	2.7	6.81	2.9
Highway Segment	Collision with Fixed Object	31.06	13.3	60.20	25.7	91.26	39.0
Highway Segment	Collision with Other Object	1.70	0.7	12.04	5.1	13.74	5.9
Highway Segment	Other Single-vehicle Collision	20.16	8.6	15.61	6.7	35.76	15.3
Highway Segment	Collision with Parked Vehicle	1.31	0.6	2.22	0.9	3.53	1.5
Highway Segment	Total Single Vehicle Crashes	54.77	23.4	96.33	41.2	151.10	64.6
Highway Segment	Right-Angle Collision	1.41	0.6	1.73	0.7	3.14	1.3
Highway Segment	Head-on Collision	0.45	0.2	0.23	0.1	0.68	0.3
Highway Segment	Other Multi-vehicle Collision	1.48	0.6	4.51	1.9	5.99	2.6
Highway Segment	Rear-end Collision	15.82	6.8	29.35	12.5	45.17	19.3
Highway Segment	Sideswipe, Same Direction Collision	5.95	2.5	21.95	9.4	27.91	11.9
Highway Segment	Total Multiple Vehicle Crashes	25.11	10.7	57.78	24.7	82.89	35.4
Highway Segment	Total Highway Segment Crashes	79.89	34.1	154.10	65.9	233.99	100.0
	Total Crashes	79.89	34.1	154.10	65.9	233.99	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Interactive Highway Safety Design Model

Crash Prediction Evaluation Report

FATC 16 NB (2029-2039)

June 20, 2025

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Table Predicted Freeway Crash Rates and Frequencies Summary (Section 1) 6
Table Predicted Crash Frequencies and Rates by Freeway Segment/Intersection (Section 1) 7
Table Predicted Crash Frequencies and Rates by Horizontal Design Element (Section 1) 7
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Table Predicted Crash Severity by Freeway Segment (Section 1) 8
Table Predicted Freeway Crash Type Distribution (Section 1) 9

List of Figures

Figure Crash Prediction Summary (Section 1) 4

Report Overview

Report Generated: Jun 20, 2025 2:26 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 12:16 PM)

Evaluation Date: Fri Jun 20 09:39:10 EDT 2025
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: divya.pappu
Organization Name:
Phone:
E-Mail:

Project Title: I-95 over Lake Marion FATC 1_mod
Project Comment: Created Fri Jun 20 08:32:29 EDT 2025
Project Unit System: U.S. Customary

Highway Title: I-95 FATC 1_mod NB
Highway Comment: Created Fri Jun 20 08:38:09 EDT 2025
Highway Version: 1

Evaluation Title: I-95 FATC 1_mod NB
Evaluation Comment: Created Fri Jun 20 09:38:27 EDT 2025

Minimum Location: 5157+03.890
Maximum Location: 5294+80.210

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2029
Last Year of Analysis: 2039
Empirical-Bayes Analysis: None
First Year of Observed Crashes:
Last Year of Observed Crashes:

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The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Section 1 Evaluation

Section: Section 1
Evaluation Start Location: 5157+03.890
Evaluation End Location: 5294+80.210
Functional Class: Freeway
Type of Alignment: Divided, Multilane
Model Category: Freeway Segment
Calibration Factor: FI_MV=1.0; FI_SV=1.0; PDO_MV=1.0; PDO_SV=1.0;

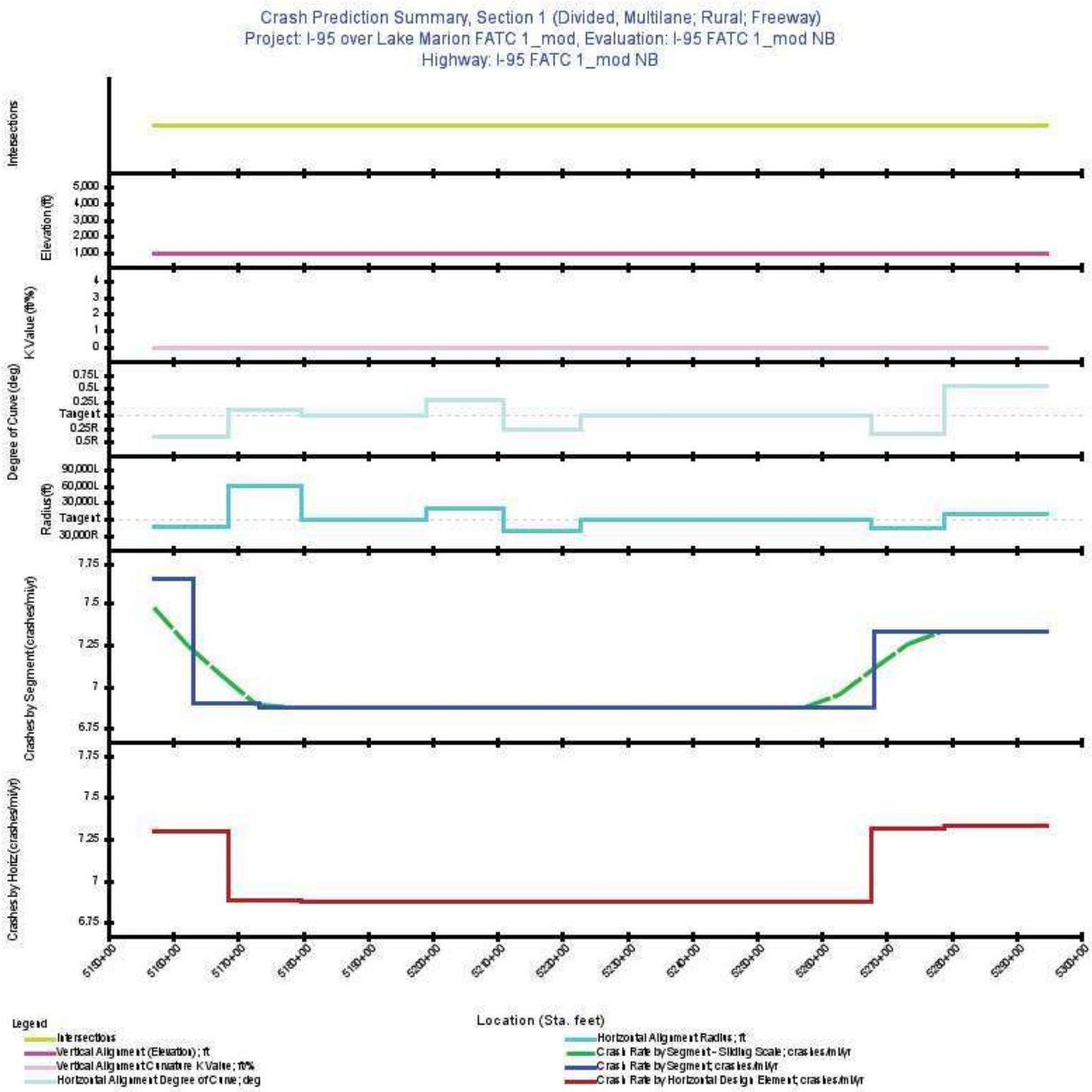

Figure 1. Crash Prediction Summary (Section 1)

Table 1. Evaluation Freeway - Homogeneous Segments (Section 1)

Seg. No.	Type	Area Type	Start Location (Sta. ft)	End Location (Sta. ft)	Length (ft)	Length (mi)	AADT	Median Width (ft)	Type	Effective Median Width (ft)
1	Four-lane Freeway	Rural	5157+03.890	5162+99.890	596.00	0.1129	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	74.00
2	Four-lane Freeway	Rural	5162+99.890	5173+28.890	1,029.00	0.1949	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	80.00
3	Four-lane Freeway	Rural	5173+28.890	5268+00.890	9,472.00	1.7939	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	80.00
4	Four-lane Freeway	Rural	5268+00.890	5294+80.210	2,679.32	0.5074	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	80.00

Table 2. Predicted Freeway Crash Rates and Frequencies Summary (Section 1)

First Year of Analysis	**2029**
Last Year of Analysis	**2039**
Effective Length (mi)	**2.6092**
Average Future Road AADT (vpd)	**50,160**
Predicted Crashes	
Total Crashes	**200.82**
Fatal and Injury Crashes	**63.31**
Property-Damage-Only Crashes	**137.50**
Percent of Total Predicted Crashes	
Percent Fatal and Injury Crashes (%)	**32**
Percent Property-Damage-Only Crashes (%)	**68**
Predicted Crash Rate	
Crash Rate (crashes/mi/yr)	**6.9969**
FI Crash Rate (crashes/mi/yr)	**2.2060**
PDO Crash Rate (crashes/mi/yr)	**4.7909**
Predicted Travel Crash Rate	
Total Travel (million veh-mi)	**525.46**
Travel Crash Rate (crashes/million veh-mi)	**0.38**
Travel FI Crash Rate (crashes/million veh-mi)	**0.12**
Travel PDO Crash Rate (crashes/million veh-mi)	**0.26**

Note: *Effective Length* is the *segment length* minus the length of the *speed change lanes* if present.
Note: *Total Travel and Crash Rates/Million Vehicle Miles* for *Speed Change Lanes* reflect AADTs that are **half of the Freeway Segment AADTs** based on the assumption of 50/50 directional distribution.

Table 3. Predicted Crash Frequencies and Rates by Freeway Segment/Intersection (Section 1)

Segment Number/Intersection Name/Cross Road	Start Location (Sta. ft)	End Location (Sta. ft)	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	5157+03.890	5162+99.890	0.1129	9.511	0.8646	0.2886	0.5761	7.6599	0.42
2	5162+99.890	5173+28.890	0.1949	14.791	1.3447	0.4455	0.8992	6.8998	0.38
3	5173+28.890	5268+00.890	1.7939	135.596	12.3270	3.7849	8.5421	6.8714	0.38
4	5268+00.890	5294+80.210	0.5074	40.917	3.7198	1.2369	2.4828	7.3303	0.40
Total			2.6092	200.816	18.2560	5.7559	12.5001	6.9969	0.38

Note: *Effective Length* is the *segment length* minus the length of the *speed change lanes* if present. This may create Freeway segments with zero effective length and zero crashes.

Table 4. Predicted Crash Frequencies and Rates by Horizontal Design Element (Section 1)

Title	Start Location (Sta. ft)	End Location (Sta. ft)	Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
Simple Curve 1	5157+03.890	5168+51.430	0.2173	17.439	1.5854	0.5274	1.0580	7.2946	0.40
Simple Curve 2	5168+51.430	5179+77.100	0.2132	16.143	1.4675	0.4657	1.0018	6.8835	0.38
Tangent	5179+77.100	5198+96.260	0.3635	27.474	2.4976	0.7669	1.7307	6.8714	0.38
Simple Curve 3	5198+96.260	5210+89.820	0.2261	17.086	1.5533	0.4769	1.0764	6.8714	0.38
Simple Curve 4	5210+89.820	5222+83.380	0.2261	17.086	1.5533	0.4769	1.0764	6.8714	0.38
Tangent	5222+83.380	5267+68.380	0.8494	64.205	5.8368	1.7921	4.0447	6.8714	0.38
Simple Curve 5	5267+68.380	5278+95.050	0.2134	17.175	1.5614	0.5181	1.0432	7.3171	0.40
Simple Curve 6	5278+95.050	5294+80.210	0.3002	24.208	2.2007	0.7318	1.4689	7.3303	0.40

Table 5. Predicted Crash Frequencies by Year (Section 1)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2029	16.32	5.26	32.228	11.06	67.772
2030	16.70	5.36	32.087	11.34	67.913
2031	17.08	5.46	31.949	11.62	68.051
2032	17.47	5.56	31.813	11.91	68.187
2033	17.85	5.66	31.679	12.20	68.321
2034	18.24	5.75	31.547	12.49	68.453
2035	18.63	5.85	31.417	12.78	68.583
2036	19.03	5.95	31.289	13.07	68.711
2037	19.43	6.05	31.163	13.37	68.838
2038	19.83	6.15	31.038	13.67	68.962
2039	20.23	6.25	30.915	13.98	69.085
Total	200.82	63.31	31.529	137.50	68.471
Average	18.26	5.76	31.529	12.50	68.471

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Predicted Crash Severity by Freeway Segment (Section 1)

Seg. No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.1464	0.3555	1.3299	1.3427	6.3366
2	0.2260	0.5488	2.0530	2.0728	9.8910
3	1.7720	4.2016	16.9554	18.7044	93.9631
4	0.6276	1.5236	5.7001	5.7551	27.3109
Total	2.7720	6.6294	26.0384	27.8750	137.5016

Table 7. Predicted Freeway Crash Type Distribution (Section 1)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.41	0.2	5.50	2.7	5.91	2.9
Highway Segment	Collision with Fixed Object	23.02	11.5	52.88	26.3	75.90	37.8
Highway Segment	Collision with Other Object	1.26	0.6	10.58	5.3	11.84	5.9
Highway Segment	Other Single-vehicle Collision	14.94	7.4	13.71	6.8	28.65	14.3
Highway Segment	Collision with Parked Vehicle	0.97	0.5	1.95	1.0	2.92	1.5
Highway Segment	Total Single Vehicle Crashes	40.60	20.2	84.61	42.1	125.21	62.4
Highway Segment	Right-Angle Collision	1.27	0.6	1.59	0.8	2.86	1.4
Highway Segment	Head-on Collision	0.41	0.2	0.21	0.1	0.62	0.3
Highway Segment	Other Multi-vehicle Collision	1.34	0.7	4.12	2.1	5.47	2.7
Highway Segment	Rear-end Collision	14.31	7.1	26.87	13.4	41.18	20.5
Highway Segment	Sideswipe, Same Direction Collision	5.38	2.7	20.10	10.0	25.48	12.7
Highway Segment	Total Multiple Vehicle Crashes	22.72	11.3	52.89	26.3	75.61	37.6
Highway Segment	Total Highway Segment Crashes	63.31	31.5	137.50	68.5	200.82	100.0
	Total Crashes	63.31	31.5	137.50	68.5	200.82	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Interactive Highway Safety Design Model

Crash Prediction Evaluation Report

FATC 16 SB (2029-2039)

June 20, 2025

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Report Overview

Report Generated: Jun 20, 2025 2:27 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 12:16 PM)

Evaluation Date: Fri Jun 20 13:46:41 EDT 2025
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: divya.pappu
Organization Name:
Phone:
E-Mail:

Project Title: I-95 over Lake Marion FATC 1_mod
Project Comment: Created Fri Jun 20 08:32:29 EDT 2025
Project Unit System: U.S. Customary

Highway Title: I-95 FATC 1_mod SB
Highway Comment: Copied from I-95 FATC 1_mod NB (v1)
Highway Version: 1

Evaluation Title: I-95 FATC 1_mod SB
Evaluation Comment: Created Fri Jun 20 13:46:22 EDT 2025

Minimum Location: 5157+03.890
Maximum Location: 5294+80.210

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2029
Last Year of Analysis: 2039
Empirical-Bayes Analysis: None
First Year of Observed Crashes:
Last Year of Observed Crashes:

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

Since the publication of the Highway Safety Manual - First Edition (HSM-1), in 2010 by the American Association of State Highway and Transportation Officials (AASHTO), multiple research efforts have been undertaken through the National Cooperative Highway Research Program (NCHRP) to develop safety performance models for road segment and intersection facility types that were not initially reflected in the HSM-1, in order to expand the breadth and depth of the HSM in the future.

The IHSDM Crash Prediction Module (CPM) is intended as a faithful implementation of HSM Part C predictive methods. As NCHRP projects to develop new predictive methods for the HSM are completed, FHWA works to incorporate the new methods into IHSDM, sometimes in advance of publication in the HSM. The following new crash predictive methods have been accepted by NCHRP project panels and incorporated into IHSDM, while pending AASHTO's approval for incorporation into a future edition of the HSM:

- Roundabouts: completed in 2018 under NCHRP Project 17-70, the new methods will provide improved outcomes for the safety analysis of roundabouts.
- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Section 1 Evaluation

Section: Section 1
Evaluation Start Location: 5157+03.890
Evaluation End Location: 5294+80.210
Functional Class: Freeway
Type of Alignment: Divided, Multilane
Model Category: Freeway Segment
Calibration Factor: FI_MV=1.0; FI_SV=1.0; PDO_MV=1.0; PDO_SV=1.0;

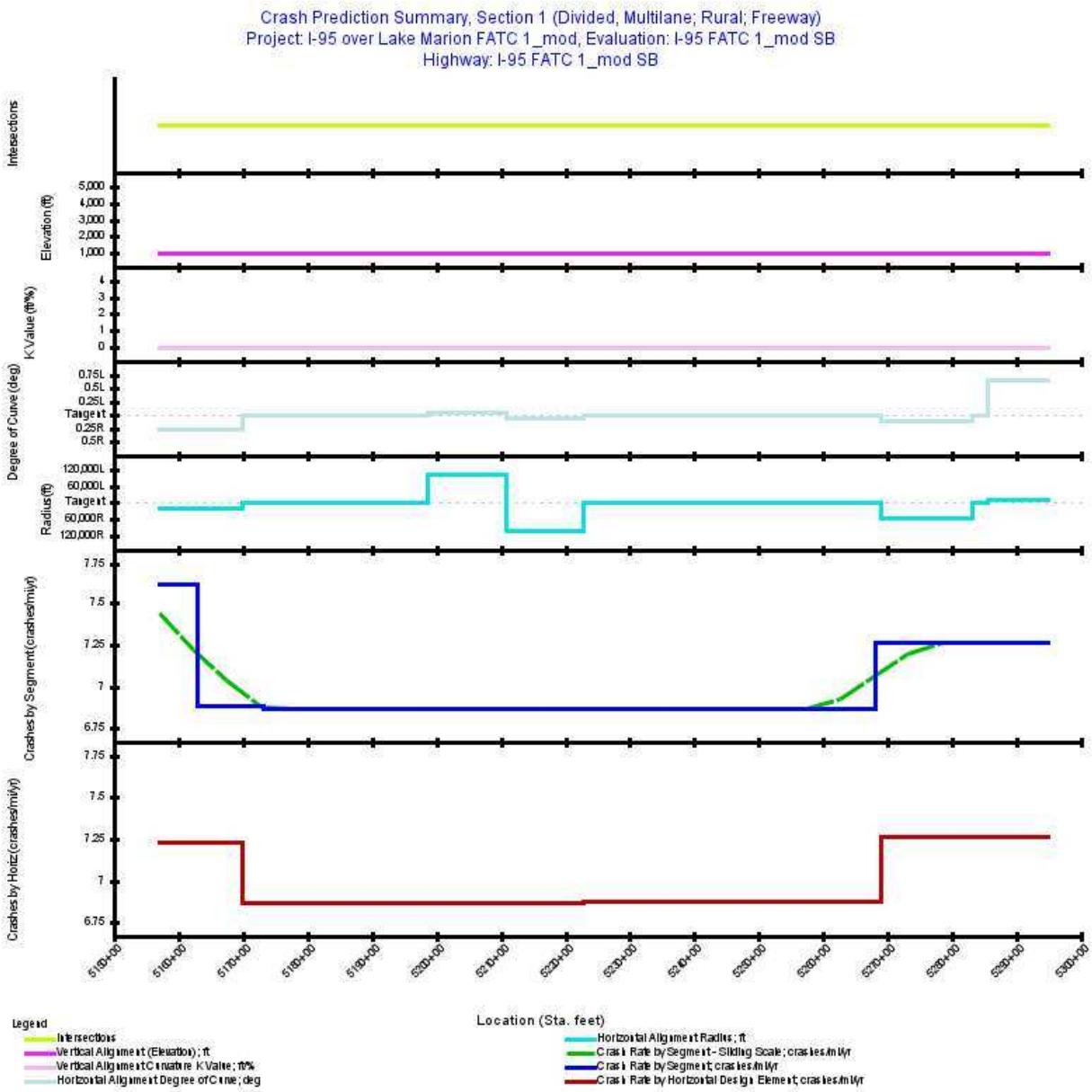

Figure 1. Crash Prediction Summary (Section 1)

Table 1. Evaluation Freeway - Homogeneous Segments (Section 1)

Seg. No.	Type	Area Type	Start Location (Sta. ft)	End Location (Sta. ft)	Length (ft)	Length (mi)	AADT	Median Width (ft)	Type	Effective Median Width (ft)
1	Four-lane Freeway	Rural	5157+03.890	5162+99.890	596.00	0.1129	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	74.00
2	Four-lane Freeway	Rural	5162+99.890	5173+28.890	1,029.00	0.1949	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	80.00
3	Four-lane Freeway	Rural	5173+28.890	5268+00.890	9,472.00	1.7939	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	80.00
4	Four-lane Freeway	Rural	5268+00.890	5294+80.210	2,679.32	0.5074	2029: 45,600; 2030: 46,512; 2031: 47,424; 2032: 48,336; 2033: 49,248; 2034: 50,160; 2035: 51,072; 2036: 51,984; 2037: 52,896; 2038: 53,808; 2039: 54,720	60.00	Non-Traversable Median	80.00

Table 2. Predicted Freeway Crash Rates and Frequencies Summary (Section 1)

First Year of Analysis	**2029**
Last Year of Analysis	**2039**
Effective Length (mi)	**2.6092**
Average Future Road AADT (vpd)	**50,160**
Predicted Crashes	
Total Crashes	**200.22**
Fatal and Injury Crashes	**62.47**
Property-Damage-Only Crashes	**137.75**
Percent of Total Predicted Crashes	
Percent Fatal and Injury Crashes (%)	**31**
Percent Property-Damage-Only Crashes (%)	**69**
Predicted Crash Rate	
Crash Rate (crashes/mi/yr)	**6.9760**
FI Crash Rate (crashes/mi/yr)	**2.1765**
PDO Crash Rate (crashes/mi/yr)	**4.7995**
Predicted Travel Crash Rate	
Total Travel (million veh-mi)	**525.46**
Travel Crash Rate (crashes/million veh-mi)	**0.38**
Travel FI Crash Rate (crashes/million veh-mi)	**0.12**
Travel PDO Crash Rate (crashes/million veh-mi)	**0.26**

Note: *Effective Length* is the *segment length* minus the length of the *speed change lanes* if present.
Note: *Total Travel and Crash Rates/Million Vehicle Miles* for *Speed Change Lanes* reflect AADTs that are **half of the Freeway Segment AADTs** based on the assumption of 50/50 directional distribution.

Table 3. Predicted Crash Frequencies and Rates by Freeway Segment/Intersection (Section 1)

Segment Number/Intersection Name/Cross Road	Start Location (Sta. ft)	End Location (Sta. ft)	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	5157+03.890	5162+99.890	0.1129	9.469	0.8608	0.2873	0.5736	7.6262	0.42
2	5162+99.890	5173+28.890	0.1949	14.759	1.3418	0.4293	0.9125	6.8849	0.38
3	5173+28.890	5268+00.890	1.7939	135.435	12.3122	3.7492	8.5631	6.8632	0.38
4	5268+00.890	5294+80.210	0.5074	40.552	3.6865	1.2130	2.4735	7.2649	0.40
Total			2.6092	200.215	18.2014	5.6788	12.5226	6.9760	0.38

Note: *Effective Length* is the *segment length* minus the length of the *speed change lanes* if present. This may create Freeway segments with zero effective length and zero crashes.

Table 4. Predicted Crash Frequencies and Rates by Horizontal Design Element (Section 1)

Title	Start Location (Sta. ft)	End Location (Sta. ft)	Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
Simple Curve 1	5157+03.890	5170+01.520	0.2458	19.533	1.7757	0.5800	1.1957	7.2254	0.40
Tangent	5170+01.520	5198+73.380	0.5439	41.078	3.7343	1.1437	2.5906	6.8657	0.38
Simple Curve 2	5198+73.380	5210+77.770	0.2281	17.221	1.5655	0.4767	1.0888	6.8632	0.38
Simple Curve 3	5210+77.770	5222+82.020	0.2281	17.219	1.5654	0.4767	1.0887	6.8632	0.38
Tangent	5222+82.020	5268+87.020	0.8722	65.916	5.9924	1.8276	4.1648	6.8708	0.38
Simple Curve 4	5268+87.020	5283+05.180	0.2686	21.464	1.9513	0.6421	1.3092	7.2649	0.40
Tangent	5283+05.180	5285+44.840	0.0454	3.627	0.3298	0.1085	0.2213	7.2649	0.40
Simple Curve 5	5285+44.840	5294+80.210	0.1772	14.157	1.2870	0.4235	0.8635	7.2649	0.40

Table 5. Predicted Crash Frequencies by Year (Section 1)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2029	16.27	5.19	31.884	11.08	68.116
2030	16.65	5.29	31.747	11.36	68.253
2031	17.03	5.38	31.611	11.65	68.389
2032	17.41	5.48	31.478	11.93	68.522
2033	17.80	5.58	31.347	12.22	68.653
2034	18.19	5.68	31.218	12.51	68.782
2035	18.58	5.78	31.090	12.80	68.910
2036	18.97	5.88	30.965	13.10	69.035
2037	19.37	5.97	30.841	13.40	69.159
2038	19.77	6.07	30.719	13.70	69.281
2039	20.17	6.17	30.599	14.00	69.401
Total	200.22	62.47	31.200	137.75	68.800
Average	18.20	5.68	31.200	12.52	68.800

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Predicted Crash Severity by Freeway Segment (Section 1)

Seg. No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.1458	0.3539	1.3239	1.3366	6.3091
2	0.2098	0.5038	1.9531	2.0558	10.0370
3	1.7405	4.1169	16.7435	18.6398	94.1940
4	0.6068	1.4668	5.5629	5.7068	27.2087
Total	2.7029	6.4413	25.5834	27.7390	137.7488

Table 7. Predicted Freeway Crash Type Distribution (Section 1)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.40	0.2	5.52	2.8	5.92	3.0
Highway Segment	Collision with Fixed Object	22.55	11.3	53.08	26.5	75.62	37.8
Highway Segment	Collision with Other Object	1.23	0.6	10.62	5.3	11.85	5.9
Highway Segment	Other Single-vehicle Collision	14.63	7.3	13.76	6.9	28.39	14.2
Highway Segment	Collision with Parked Vehicle	0.95	0.5	1.95	1.0	2.91	1.5
Highway Segment	Total Single Vehicle Crashes	39.76	19.9	84.92	42.4	124.69	62.3
Highway Segment	Right-Angle Collision	1.27	0.6	1.58	0.8	2.86	1.4
Highway Segment	Head-on Collision	0.41	0.2	0.21	0.1	0.62	0.3
Highway Segment	Other Multi-vehicle Collision	1.34	0.7	4.12	2.1	5.46	2.7
Highway Segment	Rear-end Collision	14.30	7.1	26.84	13.4	41.14	20.5
Highway Segment	Sideswipe, Same Direction Collision	5.38	2.7	20.07	10.0	25.45	12.7
Highway Segment	Total Multiple Vehicle Crashes	22.70	11.3	52.83	26.4	75.53	37.7
Highway Segment	Total Highway Segment Crashes	62.47	31.2	137.75	68.8	200.22	100.0
	Total Crashes	62.47	31.2	137.75	68.8	200.22	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Attachment B

IHSDM Highway Safety Manual Analysis Program Outputs

(Provided by SCDOT; conducted by Transystems)

1. Existing I-95
2. Alternative C2

I-95 over Lake Marion Predicted Crashes 2029-2039: Transystems		
Predicted Freeway Crashes Summary	**Existing I-95**	**Alternative C2**
Total Crashes	259.62	222.11
Fatal and Injury Crashes	91.58	71.89
Property Damage Crashes	168.03	150.22
Fatal and Injury (FI) Crashes %	35%	32%
Property Damage only (PDO) Crashes %	65%	68%
Predicted Crash Rate (crashes/mi/yr)	8.6440	7.3959
FI Crash Rate (crashes/mi/yr)	3.0492	2.3940
Property Damage Only (PDO) Crash Rate (crashes/mi/yr)	5.5948	5.0019
Travel Crash Rate (crashes/million veh-mi)	0.47	0.40
Travel FI Crash Rate (crashes/million veh-mi)	0.17	0.13
Travel PDO Crash Rate (crashes/million veh-mi)	0.30	0.27

C2 Start Location	5165+86.30
C2 End Location	5310+10.00
Length of analysis	2.7301 mi

1859 Summerville Ave.
Suite 600
Charleston, SC 29405
Tel 843 266 9300

www.transystems.com

February 14, 2025

Mr. Brad Reynolds
SCDOT
Alternative Delivery Program Manager
955 Park Street
Columbia, SC 29201

Re: IHSDM Highway Safety Manual Analysis
I-95 Bridge Replacements over Lake Marion
Clarendon and Orangeburg Counties, South Carolina
SCDOT Project ID: 0041130

Dear Mr. Reynolds,

Our team has completed predictive analysis of horizontal alignment change to the I-95 over Lake Marrion bridge replacement project. The existing structures are in a tangent section of freeway alignment, the following analysis looks at horizontal alignment changes created by Alternative C2 as presented in the project information package. FHA IHSDM software was used to study the effects of introducing horizontal curves in this section of interstate and on the main channel bridge span. Attached to this memo are the results of the IHSDM analysis which are summarized below.

I-95 over Lake Marion Predicted Crashes 2029-2039		
Predicted Freeway Crash Rates Summary	**Existing I-95**	**Relocated I-95 (Alternative C2)**
Total Crashes	259.62	222.11
Fatal and Injury Crashes	91.58	71.89
Property Damage Crashes	168.03	150.22
Fatal and Injury (FI) Crash %	35	32
Property Damage Only (PDO) Crash %	65	68
Predicted Crash Rate (crashes/mi/yr)	8.644	7.3959
FI Crash Rate (crashes/mi/yr)	3.0492	2.394
PDO Crash Rate (crashes/mi/yr)	5.5948	5.0019
Travel Crash Rate (crashes/million veh-mi)	0.47	0.4
Travel FI Crash Rate (crashes/million veh-mi)	0.17	0.13
Travel PDO Crash Rate (crashes/million veh-mi)	0.3	0.27

Respectfully,

Walker S. Roberts, PE

Existing I-95 over Lake Marion
IHSDM Highway Safety Manual Analysis
Program Output

Interactive Highway Safety Design Model

Crash Prediction Evaluation Report

May 27, 2025

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Report Overview

Report Generated: May 27, 2025 10:52 AM
Report Template: System: Multi-Page, 508 Compliant [System] (mlcpm4, Jan 13, 2025 3:59 PM)

Evaluation Date: Mon Feb 17 01:30:28 EST 2025
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: wsroberts
Organization Name: TranSystems

E-Mail: wsroberts@transystems.com

Project Title: I-95 over Lake Marion Safety Analysis
Project Comment: Created using wizard
Project Unit System: U.S. Customary

Highway Title: Alignment E_C2_95_MED
Highway Comment: Imported from E_C2_95_MED.xml
Highway Version: 1

Evaluation Title: Existing I-95 over Lake Marion (E_C2_95_MED) Crash Prediction Evaluation Report
Evaluation Comment: Created Fri Feb 14 14:28:25 EST 2025

Minimum Location: 5165+86.300
Maximum Location: 5310+10.000(1)

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2029
Last Year of Analysis: 2039
Empirical-Bayes Analysis: None
First Year of Observed Crashes:
Last Year of Observed Crashes:

Disclaimer Regarding Crash Prediction Method

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- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
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However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Section 1 Evaluation

Section: Section 1
Evaluation Start Location: 5165+86.300
Evaluation End Location: 5310+10.000(1)
Functional Class: Freeway
Type of Alignment: Divided, Multilane
Model Category: Freeway Segment
Calibration Factor: FI_MV=1.0; FI_SV=1.0; PDO_MV=1.0; PDO_SV=1.0;

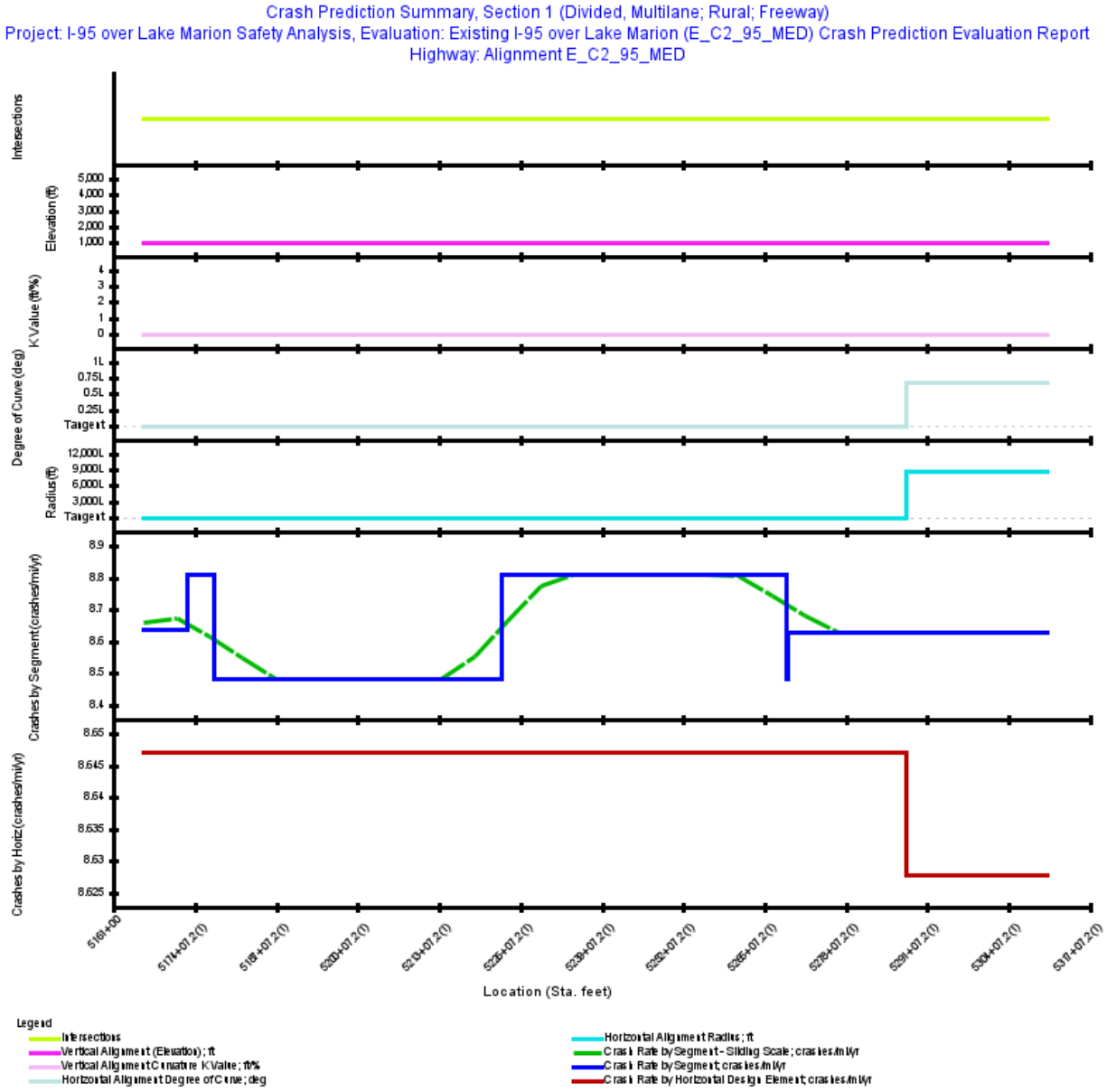

Figure 1. Crash Prediction Summary (Section 1)

Table 1. Evaluation Freeway - Homogeneous Segments (Section 1)

Seg. No.	Type	Area Type	Start Location (Sta. ft)	End Location (Sta. ft)	Length (ft)	Length (mi)	AADT	Median Width (ft)	Type	Effective Median Width (ft)
1	Four-lane Freeway	Rural	5165+86.300	5172+85.500(1)	692.00	0.1311	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00
2	Four-lane Freeway	Rural	5172+85.500(1)	5177+20.500(1)	435.00	0.0824	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00
3	Four-lane Freeway	Rural	5177+20.500(1)	5177+35.500(1)	15.00	0.0028	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00
4	Four-lane Freeway	Rural	5177+35.500(1)	5223+12.500(1)	4,577.00	0.8669	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00
5	Four-lane Freeway	Rural	5223+12.500(1)	5223+20.500(1)	8.00	0.0015	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00
6	Four-lane Freeway	Rural	5223+20.500(1)	5268+50.500(1)	4,530.00	0.8580	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00
7	Four-lane Freeway	Rural	5268+50.500(1)	5268+70.500(1)	20.00	0.0038	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00
8	Four-lane Freeway	Rural	5268+70.500(1)	5310+10.000(1)	4,139.50	0.7840	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00

Table 2. Predicted Freeway Crash Rates and Frequencies Summary (Section 1)

First Year of Analysis	**2029**
Last Year of Analysis	**2039**
Effective Length (mi)	**2.7304**
Average Future Road AADT (vpd)	**50,445**
Predicted Crashes	
Total Crashes	**259.62**
Fatal and Injury Crashes	**91.58**
Property-Damage-Only Crashes	**168.03**
Percent of Total Predicted Crashes	
Percent Fatal and Injury Crashes (%)	**35**
Percent Property-Damage-Only Crashes (%)	**65**
Predicted Crash Rate	
Crash Rate (crashes/mi/yr)	**8.6440**
FI Crash Rate (crashes/mi/yr)	**3.0492**
PDO Crash Rate (crashes/mi/yr)	**5.5948**
Predicted Travel Crash Rate	
Total Travel (million veh-mi)	**553.00**
Travel Crash Rate (crashes/million veh-mi)	**0.47**
Travel FI Crash Rate (crashes/million veh-mi)	**0.17**
Travel PDO Crash Rate (crashes/million veh-mi)	**0.30**

Note: *Effective Length* is the *segment length* minus the length of the *speed change lanes* if present.
Note: *Total Travel and Crash Rates/Million Vehicle Miles* for *Speed Change Lanes* reflect AADTs that are **half of the Freeway Segment AADTs** based on the assumption of 50/50 directional distribution.

Table 3. Predicted Crash Frequencies and Rates by Freeway Segment/Intersection (Section 1)

Segment Number/Intersection Name/Cross Road	Start Location (Sta. ft)	End Location (Sta. ft)	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	5165+86.300	5172+85.500(1)	0.1311	12.454	1.1322	0.4077	0.7245	8.6389	0.47
2	5172+85.500(1)	5177+20.500(1)	0.0824	7.984	0.7259	0.2704	0.4554	8.8105	0.48
3	5177+20.500(1)	5177+35.500(1)	0.0028	0.265	0.0241	0.0084	0.0157	8.4797	0.46
4	5177+35.500(1)	5223+12.500(1)	0.8669	80.858	7.3507	2.5588	4.7919	8.4797	0.46
5	5223+12.500(1)	5223+20.500(1)	0.0015	0.147	0.0133	0.0050	0.0084	8.8105	0.48
6	5223+20.500(1)	5268+50.500(1)	0.8580	83.149	7.5590	2.8164	4.7427	8.8105	0.48
7	5268+50.500(1)	5268+70.500(1)	0.0038	0.353	0.0321	0.0112	0.0209	8.4797	0.46
8	5268+70.500(1)	5310+10.000(1)	0.7840	74.405	6.7641	2.2476	4.5165	8.6277	0.47
Total			2.7304	259.616	23.6014	8.3255	15.2759	8.6440	0.47

Note: *Effective Length* is the *segment length* minus the length of the *speed change lanes* if present. This may create Freeway segments with zero effective length and zero crashes.

Table 4. Predicted Crash Frequencies and Rates by Horizontal Design Element (Section 1)

Title	Start Location (Sta. ft)	End Location (Sta. ft)	Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
Tangent	5165+86.300	5287+74.552(1)	2.3070	219.435	19.9486	7.1117	12.8369	8.6469	0.47
Simple Curve 1	5287+74.552(1)	5310+10.000(1)	0.4234	40.181	3.6528	1.2138	2.4390	8.6277	0.47

Table 5. Predicted Crash Frequencies by Year (Section 1)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2029	21.04	7.61	36.157	13.43	63.843
2030	21.51	7.74	35.990	13.77	64.010
2031	22.00	7.88	35.823	14.12	64.177
2032	22.49	8.02	35.655	14.47	64.345
2033	23.00	8.16	35.486	14.84	64.514
2034	23.53	8.31	35.317	15.22	64.683
2035	24.07	8.46	35.147	15.61	64.853
2036	24.62	8.61	34.976	16.01	65.024
2037	25.19	8.77	34.805	16.42	65.195
2038	25.78	8.93	34.633	16.85	65.367
2039	26.38	9.09	34.461	17.29	65.539
Total	259.62	91.58	35.275	168.03	64.725
Average	23.60	8.33	35.275	15.28	64.725

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Predicted Crash Severity by Freeway Segment (Section 1)

Seg. No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.1377	0.3214	1.7373	2.2886	7.9693
2	0.0913	0.2132	1.1524	1.5180	5.0096
3	0.0028	0.0066	0.0357	0.0471	0.1727
4	0.8639	2.0171	10.9031	14.3629	52.7105
5	0.0017	0.0039	0.0212	0.0279	0.0921
6	0.9508	2.2201	12.0005	15.8085	52.1693
7	0.0038	0.0088	0.0476	0.0628	0.2303
8	0.8147	1.9386	9.8639	12.1065	49.6812
Total	2.8666	6.7297	35.7619	46.2224	168.0351

Table 7. Predicted Freeway Crash Type Distribution (Section 1)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.64	0.2	6.80	2.6	7.44	2.9
Highway Segment	Collision with Fixed Object	36.33	14.0	65.39	25.2	101.72	39.2
Highway Segment	Collision with Other Object	1.99	0.8	13.08	5.0	15.06	5.8
Highway Segment	Other Single-vehicle Collision	23.58	9.1	16.95	6.5	40.53	15.6
Highway Segment	Collision with Parked Vehicle	1.54	0.6	2.41	0.9	3.94	1.5
Highway Segment	Total Single Vehicle Crashes	64.08	24.7	104.62	40.3	168.70	65.0
Highway Segment	Right-Angle Collision	1.54	0.6	1.90	0.7	3.44	1.3
Highway Segment	Head-on Collision	0.49	0.2	0.25	0.1	0.75	0.3
Highway Segment	Other Multi-vehicle Collision	1.62	0.6	4.95	1.9	6.57	2.5
Highway Segment	Rear-end Collision	17.33	6.7	32.21	12.4	49.54	19.1
Highway Segment	Sideswipe, Same Direction Collision	6.52	2.5	24.10	9.3	30.61	11.8
Highway Segment	Total Multiple Vehicle Crashes	27.50	10.6	63.41	24.4	90.92	35.0
Highway Segment	Total Highway Segment Crashes	91.58	35.3	168.03	64.7	259.62	100.0
	Total Crashes	91.58	35.3	168.03	64.7	259.62	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Alternative C2 I-95 over Lake Marion
IHSDM Highway Safety Manual Analysis
Program Output

Interactive Highway Safety Design Model

Crash Prediction Evaluation Report

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Figure Crash Prediction Summary (Section 1) 4

Report Overview

Report Generated: May 27, 2025 10:42 AM
Report Template: System: Multi-Page, 508 Compliant [System] (mlcpm4, Jan 13, 2025 3:59 PM)

Evaluation Date: Mon Feb 17 00:32:34 EST 2025
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: wsroberts
Organization Name: TranSystems

E-Mail: wsroberts@transystems.com

Project Title: I-95 over Lake Marion Safety Analysis
Project Comment: Created using wizard
Project Unit System: U.S. Customary

Highway Title: Alignment P_C2_95_MED
Highway Comment: Imported from P_C2_95_MED.xml
Highway Version: 1

Evaluation Title: Alternative C2 I-95 over Lake Marion (P_C2_95_MED) Crash Prediction Evaluation Report
Evaluation Comment: Created Mon Feb 17 00:29:45 EST 2025

Minimum Location: 5165+86.300
Maximum Location: 5310+10.000(2)

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2029
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Empirical-Bayes Analysis: None
First Year of Observed Crashes:
Last Year of Observed Crashes:

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However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Section 1 Evaluation

Section: Section 1
Evaluation Start Location: 5165+86.300
Evaluation End Location: 5310+10.000(2)
Functional Class: Freeway
Type of Alignment: Divided, Multilane
Model Category: Freeway Segment
Calibration Factor: FI_MV=1.0; FI_SV=1.0; PDO_MV=1.0; PDO_SV=1.0;

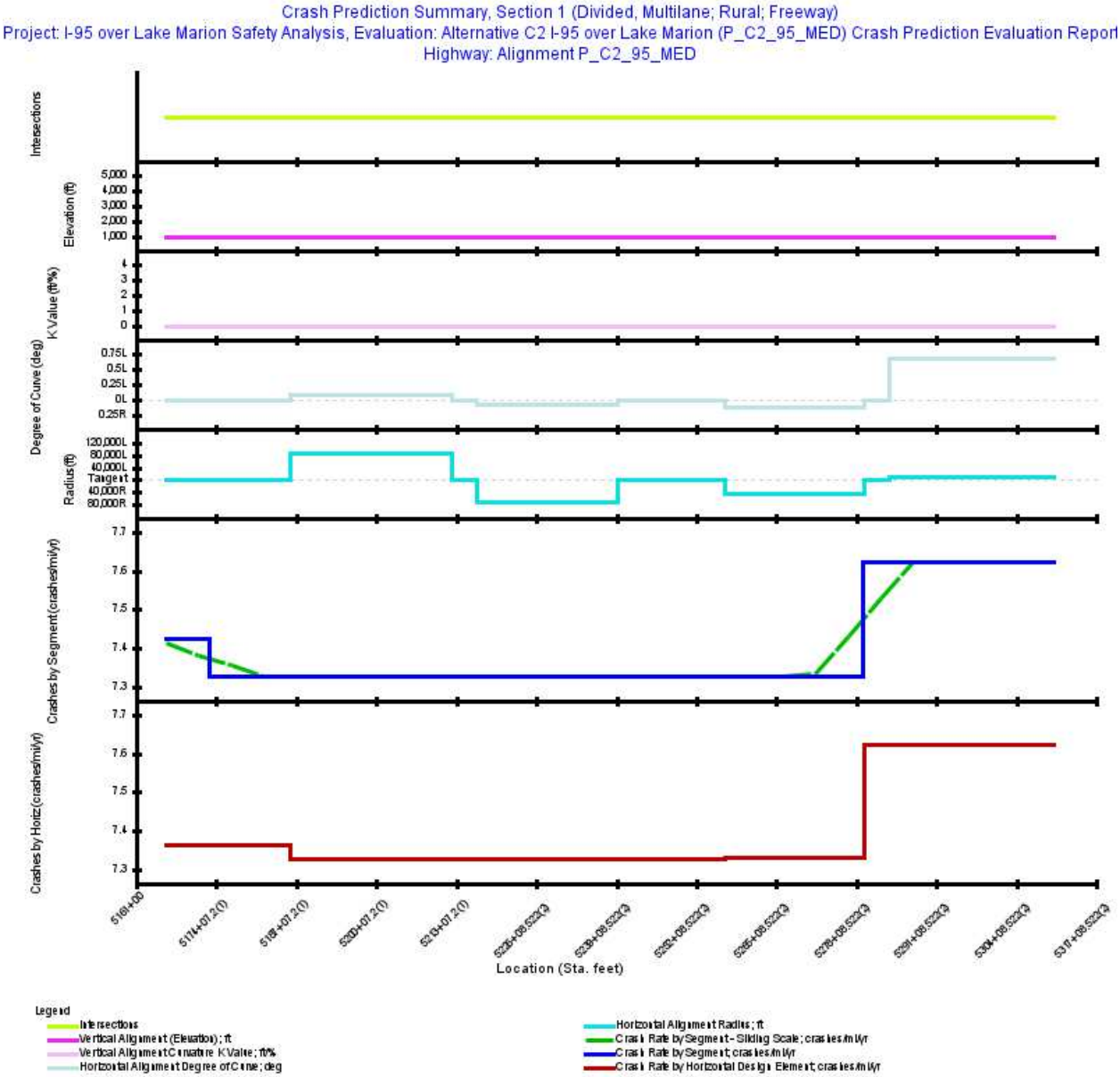

Figure 1. Crash Prediction Summary (Section 1)

Table 1. Evaluation Freeway - Homogeneous Segments (Section 1)

Seg. No.	Type	Area Type	Start Location (Sta. ft)	End Location (Sta. ft)	Length (ft)	Length (mi)	AADT	Median Width (ft)	Type	Effective Median Width (ft)
1	Four-lane Freeway	Rural	5165+86.300	5173+00.500(1)	707.00	0.1339	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00
2	Four-lane Freeway	Rural	5173+00.500(1)	5279+12.822(2)	10,611.00	2.0097	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00
3	Four-lane Freeway	Rural	5279+12.822(2)	5310+10.000(2)	3,097.18	0.5866	2029: 45,600; 2030: 46,512; 2031: 47,442; 2032: 48,391; 2033: 49,359; 2034: 50,346; 2035: 51,353; 2036: 52,380; 2037: 53,428; 2038: 54,496; 2039: 55,586	0.00	None	0.00

Table 2. Predicted Freeway Crash Rates and Frequencies Summary (Section 1)

First Year of Analysis	**2029**
Last Year of Analysis	**2039**
Effective Length (mi)	**2.7301**
Average Future Road AADT (vpd)	**50,445**
Predicted Crashes	
Total Crashes	**222.11**
Fatal and Injury Crashes	**71.89**
Property-Damage-Only Crashes	**150.22**
Percent of Total Predicted Crashes	
Percent Fatal and Injury Crashes (%)	**32**
Percent Property-Damage-Only Crashes (%)	**68**
Predicted Crash Rate	
Crash Rate (crashes/mi/yr)	**7.3959**
FI Crash Rate (crashes/mi/yr)	**2.3940**
PDO Crash Rate (crashes/mi/yr)	**5.0019**
Predicted Travel Crash Rate	
Total Travel (million veh-mi)	**552.95**
Travel Crash Rate (crashes/million veh-mi)	**0.40**
Travel FI Crash Rate (crashes/million veh-mi)	**0.13**
Travel PDO Crash Rate (crashes/million veh-mi)	**0.27**

Note: *Effective Length* is the *segment length* minus the length of the *speed change lanes* if present.
Note: *Total Travel and Crash Rates/Million Vehicle Miles* for *Speed Change Lanes* reflect AADTs that are **half of the Freeway Segment AADTs** based on the assumption of 50/50 directional distribution.

Table 3. Predicted Crash Frequencies and Rates by Freeway Segment/Intersection (Section 1)

Segment Number/Intersection Name/Cross Road	Start Location (Sta. ft)	End Location (Sta. ft)	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	5165+86.300	5173+00.500(1)	0.1339	10.937	0.9942	0.3190	0.6753	7.4251	0.40
2	5173+00.500(1)	5279+12.822(2)	2.0097	161.989	14.7263	4.7625	9.9638	7.3278	0.40
3	5279+12.822(2)	5310+10.000(2)	0.5866	49.184	4.4712	1.4544	3.0169	7.6225	0.41
Total			2.7301	222.110	20.1918	6.5359	13.6559	7.3959	0.40

Note: *Effective Length* is the *segment length* minus the length of the *speed change lanes* if present. This may create Freeway segments with zero effective length and zero crashes.

Table 4. Predicted Crash Frequencies and Rates by Horizontal Design Element (Section 1)

Title	Start Location (Sta. ft)	End Location (Sta. ft)	Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
Tangent	5165+86.300	5186+03.716(1)	0.3807	30.832	2.8029	0.9039	1.8990	7.3620	0.40
Simple Curve 1	5186+03.716(1)	5212+39.893(1)	0.4993	40.244	3.6586	1.1832	2.4754	7.3278	0.40
Tangent	5212+39.893(1)	5216+52.228(1)	0.0781	6.295	0.5723	0.1851	0.3872	7.3278	0.40
Simple Curve 2	5216+52.228(1)	5216+52.228(1)	0.0000	0.000	0.0000	0.0000	0.0000	7.3278	0.40
Simple Curve 3	5216+52.228(1)	5239+28.821(2)	0.4309	34.735	3.1577	1.0212	2.1365	7.3278	0.40
Tangent	5239+28.821(2)	5256+67.297(2)	0.3293	26.540	2.4127	0.7803	1.6324	7.3278	0.40
Simple Curve 4	5256+67.297(2)	5279+41.537(2)	0.4307	34.737	3.1579	1.0213	2.1365	7.3315	0.40
Tangent	5279+41.537(2)	5283+37.409(2)	0.0750	6.287	0.5715	0.1859	0.3856	7.6225	0.41
Simple Curve 5	5283+37.409(2)	5310+10.000(2)	0.5062	42.441	3.8583	1.2550	2.6033	7.6225	0.41

Table 5. Predicted Crash Frequencies by Year (Section 1)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2029	17.95	5.95	33.149	12.00	66.851
2030	18.36	6.06	33.002	12.30	66.998
2031	18.78	6.17	32.854	12.61	67.146
2032	19.22	6.29	32.705	12.93	67.295
2033	19.67	6.40	32.556	13.26	67.444
2034	20.13	6.52	32.406	13.61	67.594
2035	20.60	6.64	32.256	13.96	67.744
2036	21.09	6.77	32.105	14.32	67.895
2037	21.59	6.90	31.954	14.69	68.046
2038	22.10	7.03	31.802	15.07	68.198
2039	22.63	7.16	31.650	15.47	68.350
Total	222.11	71.89	32.369	150.22	67.631
Average	20.19	6.54	32.369	13.66	67.631

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Predicted Crash Severity by Freeway Segment (Section 1)

Seg. No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.1077	0.2514	1.3591	1.7904	7.4279
2	1.7566	4.1995	21.0486	25.3829	109.6018
3	0.5502	1.3245	6.4933	7.6302	33.1854
Total	2.4145	5.7755	28.9010	34.8035	150.2151

Table 7. Predicted Freeway Crash Type Distribution (Section 1)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.47	0.2	6.00	2.7	6.47	2.9
Highway Segment	Collision with Fixed Object	26.70	12.0	57.71	26.0	84.41	38.0
Highway Segment	Collision with Other Object	1.46	0.7	11.54	5.2	13.00	5.9
Highway Segment	Other Single-vehicle Collision	17.33	7.8	14.96	6.7	32.28	14.5
Highway Segment	Collision with Parked Vehicle	1.13	0.5	2.12	1.0	3.25	1.5
Highway Segment	Total Single Vehicle Crashes	47.08	21.2	92.33	41.6	139.42	62.8
Highway Segment	Right-Angle Collision	1.39	0.6	1.74	0.8	3.13	1.4
Highway Segment	Head-on Collision	0.45	0.2	0.23	0.1	0.68	0.3
Highway Segment	Other Multi-vehicle Collision	1.46	0.7	4.51	2.0	5.98	2.7
Highway Segment	Rear-end Collision	15.63	7.0	29.40	13.2	45.03	20.3
Highway Segment	Sideswipe, Same Direction Collision	5.88	2.6	21.99	9.9	27.88	12.6
Highway Segment	Total Multiple Vehicle Crashes	24.81	11.2	57.88	26.1	82.69	37.2
Highway Segment	Total Highway Segment Crashes	71.89	32.4	150.22	67.6	222.11	100.0
	Total Crashes	71.89	32.4	150.22	67.6	222.11	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 17 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 7/3/25

Description (required):

The UTJV Team proposes to increase the maximum allowable column spacing for typical multi-column interior bents of the NB Main Bridge from 30 feet to 34 feet as shown in Attachment 1 to this FATC. All service life design requirements in Exhibit 4b, Section 2.1.4 of the RFP will be satisfied. Additionally, the bent cap cantilever requirements of the RFP will be met. We will design the bent cap using the Strut-and-Tie method as outlined in AASHTO LRFD 9th Edition.

Usage:

The proposed ATC may be utilized for any interior bents on the NB Main Bridge. Bent cap overhangs will comply with the requirements of the RFP (i.e. less than or equal to 35% of the average column spacing).

Deviations (required):

This ATC deviates from the requirements of the RFP Exhibit 4b - Section 2.1.21 which states that the following applies to multi-column interior bents:
- The column spacing shall not exceed 30 feet center to center of columns.

Justification:

Bent caps can easily be designed for column spacings of 34 feet that slightly exceed the 30 foot limitation. In each of the NB Main Bridge interior bents, a column and drilled shaft can be eliminated if a spacing slightly larger than 30 feet is allowed. Attachment 1 illustrates this section for the proposed NB bridge alignment in FATC-16.

Schedule:

This ATC will eliminate 29 drilled shafts and bridge columns, reducing project schedule by approximately 2 months.

Impacts:

No negative impacts are expected as a result of this ATC.

History:

Column spacings in excess of 34 feet have been used in SC, as well as, in other states. Example bridges in South Carolina, Georgia, and Virginia, that were designed with column spacing greater than 30 feet, are listed below and are also provided as Attachments to this FATC.

1. South Carolina (Attachment 2): SC 31 North Myrtle Beach Connector overpass over Old Sanders Road in Horry County, SC utilized 35 foot column spacings.
2. Georgia (Attachment 3): SR 18 over Long Cane Creek in Troup County, Georgia was designed utilizing a 37 foot column spacing.
3. Virginia (Attachment 4): I-64 Bridge over Elizabeth River (High Rise Bridge) in Chesapeake, Virginia included column spacing of 48 feet.

In addition, the Georgia DOT's Bridge Design Manual (BDM) recommends using a 2 column bent for any caps 60 feet in length or less with overhangs that are 20% of the cap length. Therefore, a typical 60 foot long bent cap in Georgia could utilize a column spacing of 36 feet. The GDOT BDM reference is included as Attachment 5 to this FATC.

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 17 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 7/3/25

Risks:

There are no risks associated with the proposed ATC. Bent caps will be designed to resist all applicable loading scenarios for the column spacing requested.

Costs (required):

Project costs will be reduced by eliminating many interior bent columns and drilled shafts that would otherwise be required with less than 30 foot spacing between columns. The estimated cost savings associated with this ATC is approximately $14 million.

Quality:

There will be no reduction in quality due to the proposed ATC.

Operations & Maintenance:

Operations will be unaffected. Maintenance will be improved by reducing the number of columns and associated substructure elements that may require future maintenance.

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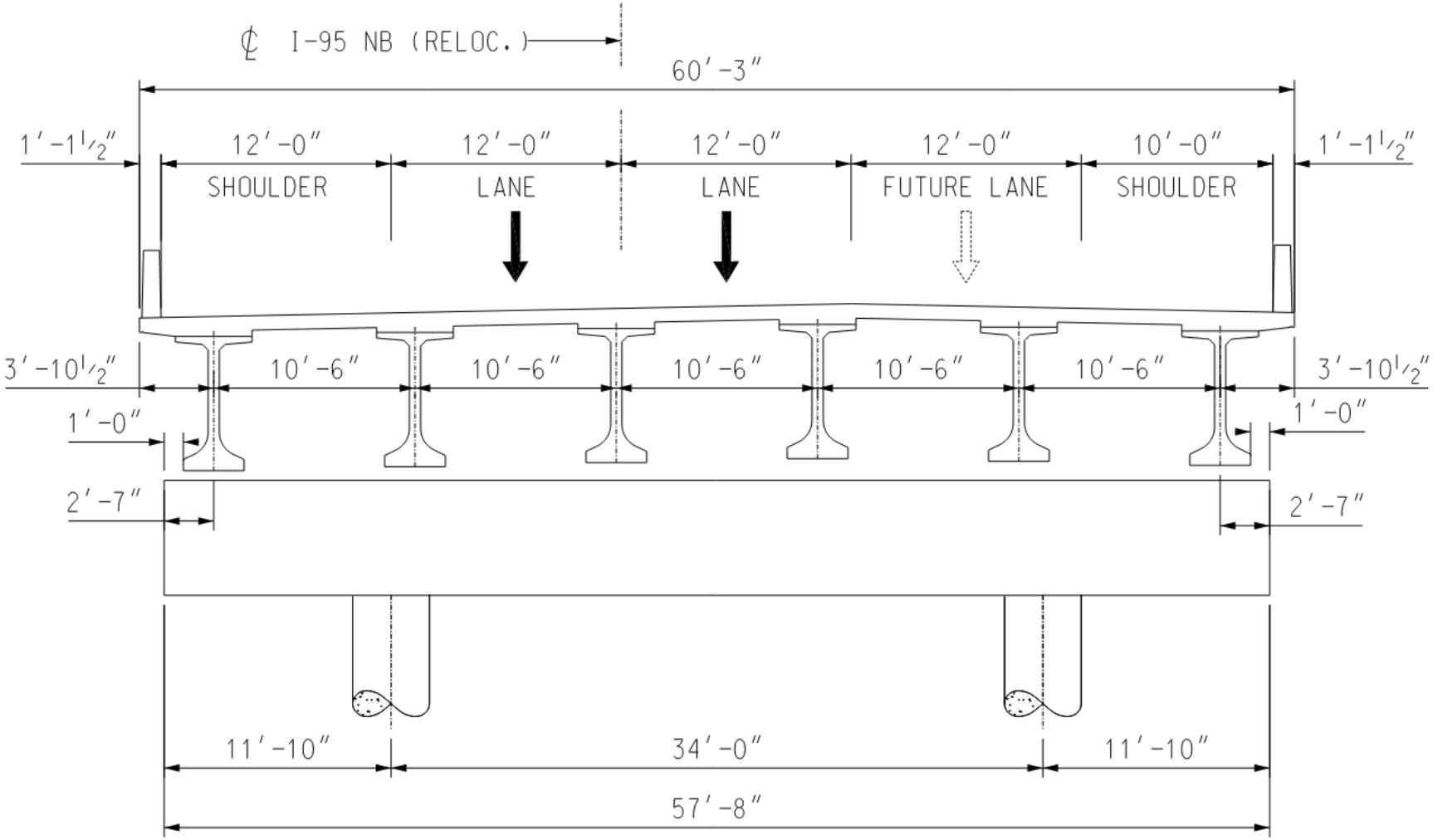
Attachment 1 – FATC 17

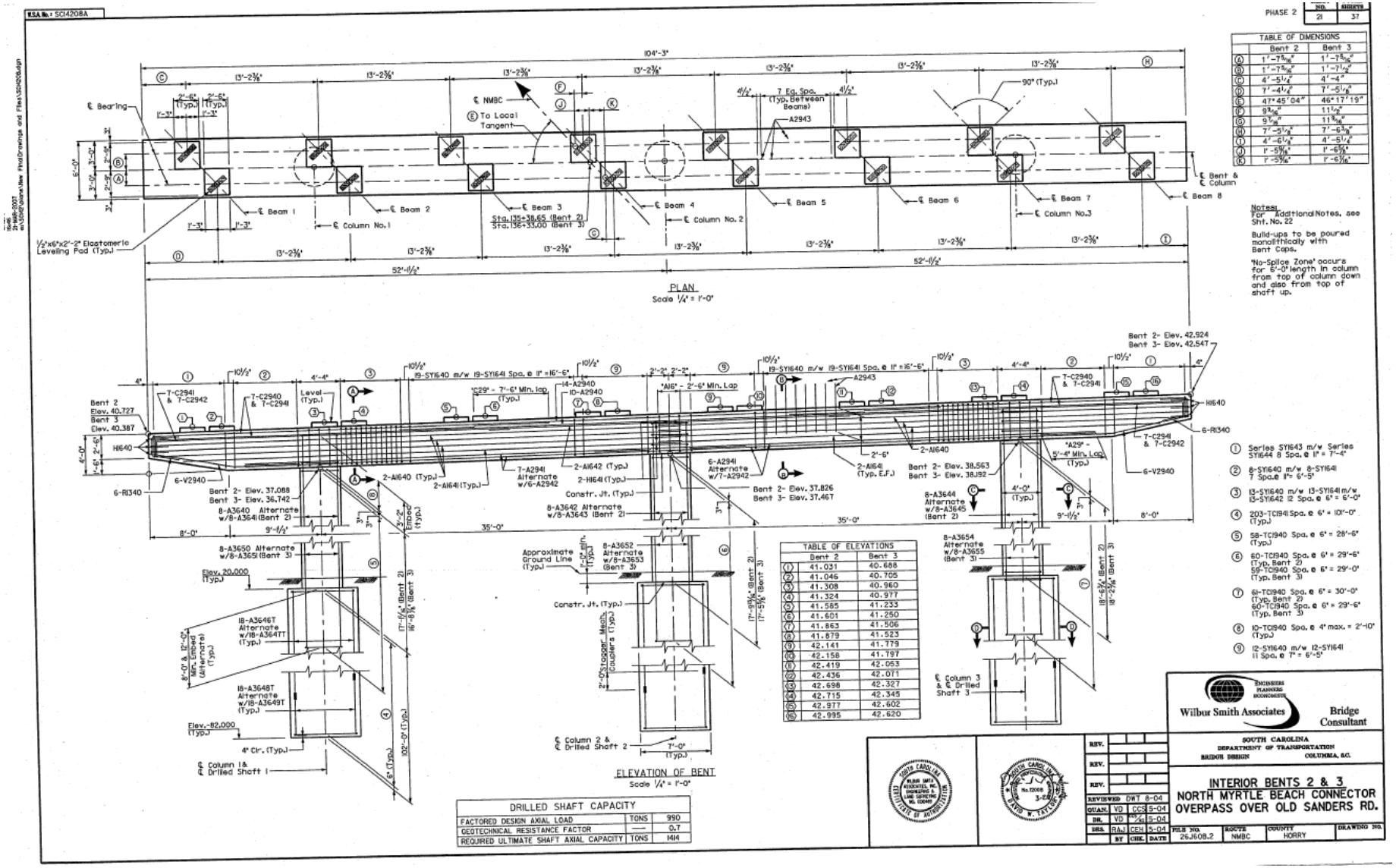
Increase Maximum Column Spacing



Proposed Column Spacing– NB Main Bridge – FATC 16 Alignment

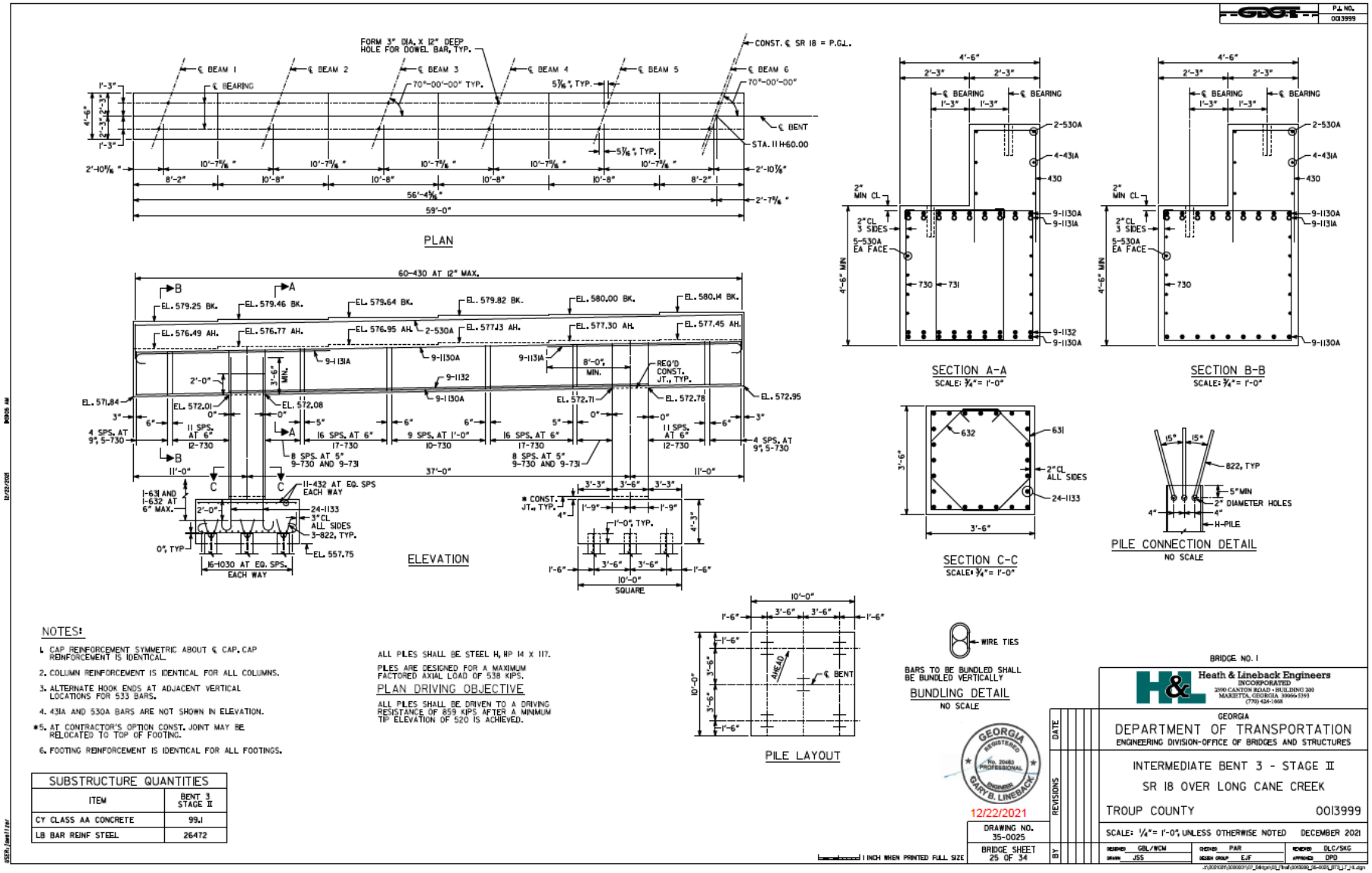
Attachment 2 – FATC 17

Increase Maximum Column Spacing Examples - South Carolina



Attachment 3 – FATC 17

Increase Maximum Column Spacing Examples - Georgia



Attachment 4 – FATC 17

Increase Maximum Column Spacing Examples - Virginia

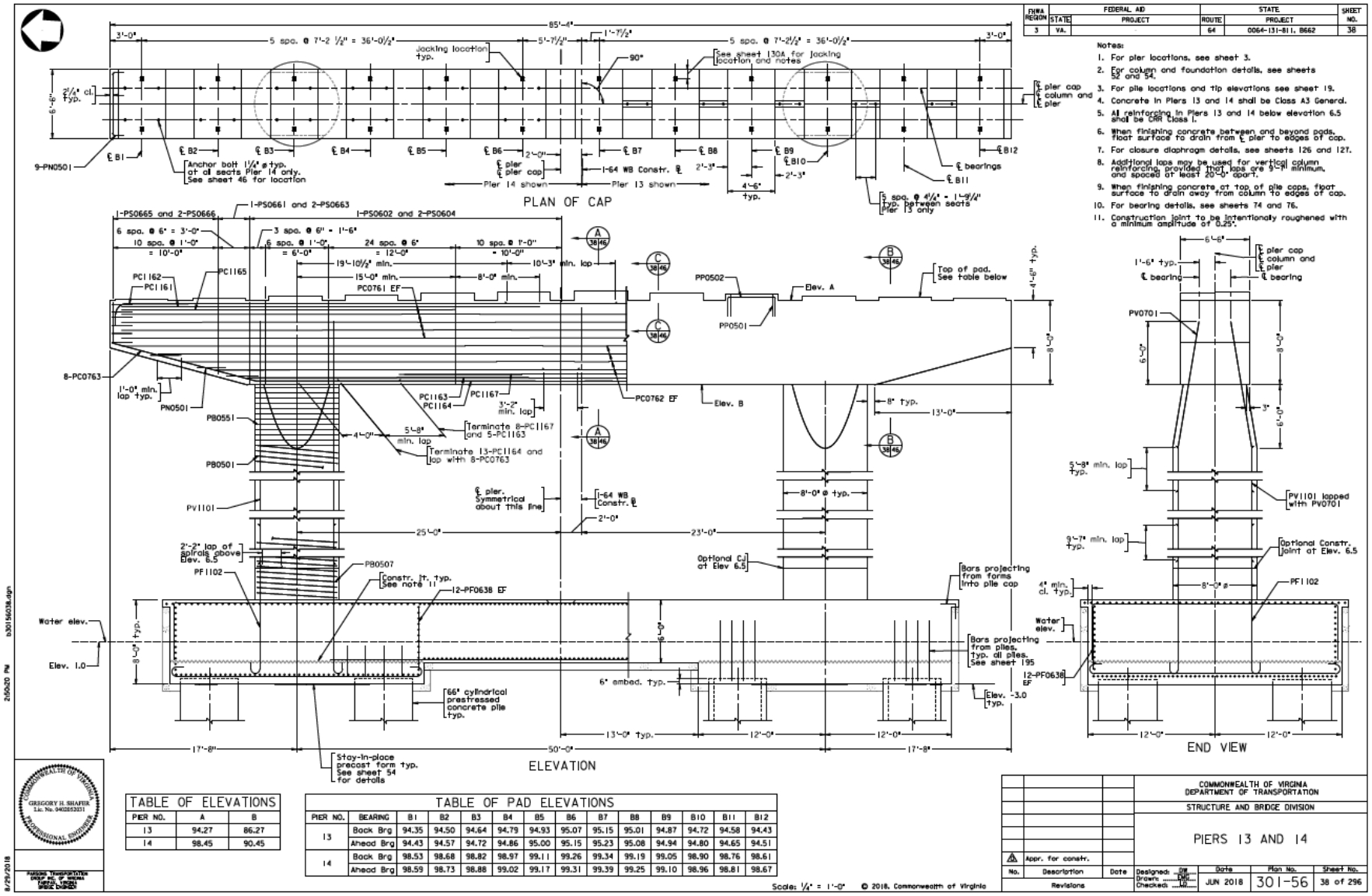


TABLE OF ELEVATIONS		
PIER NO.	A	B
13	94.27	86.27
14	98.45	90.45

TABLE OF PAD ELEVATIONS													
PIER NO.	BEARING	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
13	Back Brg	94.35	94.50	94.64	94.79	94.93	95.07	95.15	95.01	94.87	94.72	94.58	94.43
	Ahead Brg	94.43	94.57	94.72	94.86	95.00	95.15	95.23	95.08	94.94	94.80	94.65	94.51
14	Back Brg	98.53	98.68	98.82	98.97	99.11	99.26	99.34	99.19	99.05	98.90	98.76	98.61
	Ahead Brg	98.59	98.73	98.88	99.02	99.17	99.31	99.39	99.25	99.10	98.96	98.81	98.67

HRB RIVER SUBSTRUCTURE - FINAL - 09/10/18

Attachment 5 – FATC 17

GDOT Bridge Design Manual Reference

4.4 Intermediate Bents

4.4.1 Concrete Column Bents

4.4.1.1 Preliminary Design Considerations

A two-column bent is recommended when the cap length is 60 feet long or less. The columns should be arranged to balance the dead load moments on either side of the centerline of the column to avoid long-term bowing due to creep. The dead load moments on either side of the column centerline shall be within 5% to be considered balanced. Experience has shown that setting the cantilever lengths at approximately 20% of the cap length can accomplish this. For cap lengths greater than 60 feet, use a three-column bent or divide into 2 two-column bents.

When possible, use one column size for the entire bridge. For 90-degree bridges, set the column width equal to the cap width. However, it is acceptable and generally preferred to use a smaller column in skewed bridges that have wider caps to accommodate the bearings. The minimum column width should be 75% of the cap width.

Short column bents may have an issue with accommodating the forces generated by the shrinkage of the cap. When the design height of the columns is approximately 60% or less of the center to center spacing between the columns, consider the use of a wall pier with a strip footing. Determine the material quantities and pile capacity demands for the multi-column and wall pier options for comparison. If the wall pier appears to be the more economical choice, coordinate with the Bridge Office for approval of use, prior to incorporating it as a design solution. See BDM 4.4.3 for wall pier detailing requirements.

4.4.1.2 Concrete Column Bent Caps

4.4.1.2.1 Cap Dimensions

The width of an intermediate bent cap should be a minimum of 3 feet and increased in 3-inch increments to account for skew, bearing size and edge distances. The depth and length of a cap should be detailed in 3-inch increments. For bent caps at grade separations, use a minimum depth to width ratio of 0.75, with a ratio of 1.0 preferred at road underpasses, in order to provide a more aesthetic appearance.

Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 18 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 7/3/25

Description (required):

Non-uniform mse wall strip lengths are proposed for MSE wall by incorporating a permanent soil nail at the back of the lower portion of the MSE wall. Temporary Soil Nail Wall (SNW) used as support of excavation (SOE) will be upgraded to meet permanent soil nail wall in accordance with FHWA GEC 7 in all aspects including permanent shotcrete face thickness, corrosion requirements, and nail pull testing. The nails will be used to increase MSE wall global stability and seismic sliding. No connection will be made between MSE wall strips and SNW. Drainage behind shotcrete will be provided. Compound global stability will also be checked. Minimum MSE wall strip length will be 0.7H.

Usage:

For the anticipated MSE wall between the south shore of Lake Marion and the south end of the project.

Deviations (required):

SCDOT Supplemental Technical Specification SC-M-713-1, Section 3.4, 4th bullet point requires a constant length of all reinforcement layers within a design section to form a uniform reinforced soil mass.

Justification:

Use of this ATC minimizes MSE wall excavation and improves excavation safety for the traveling public by moving SOE wall further from open travel lanes.

Schedule:

The use of this proposed ATC will reduce wall construction duration by three months.

Impacts:

There are no additional impacts to humans and/or natural environment. Impacts to the traveling public may be reduced through reduced earthwork hauling trips.

History:

Ground anchors and SNW have been used to reduce MSE wall excavations as documented in FHWA manuals where MSE strips can be shortened to 0.3 to 0.4H. This ATC proposes a minimum MSE wall reinforcement length of 0.7H over the height of the buried soil nail wall.

Risks:

The use of this ATC has no inherent risks to SCDOT or any Third Parties as the technologies are mature and well proven.

Costs (required):

It is anticipated to have cost savings of approximately $1,000,000 due to potentially reducing MSE wall reinforced volume in a constrained area.

Quality:

Quality may be higher in final design as nails can be extended further than MSE wall reinforced volume due to the proximity of open travel lanes.

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Formal Alternative Technical Concepts Submittal Form

Project: I-95 Bridge Replacement over Lake Marion Design-Build Project **Project ID:** P041130

ATC No.: 18 **Priority:** High **Team:** United Traylor Joint Venture - ICE **Date:** 7/3/25

Operations & Maintenance:

No change in operations or maintenance will be required through the use of this ATC.

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Attachment 1 - FATC 18

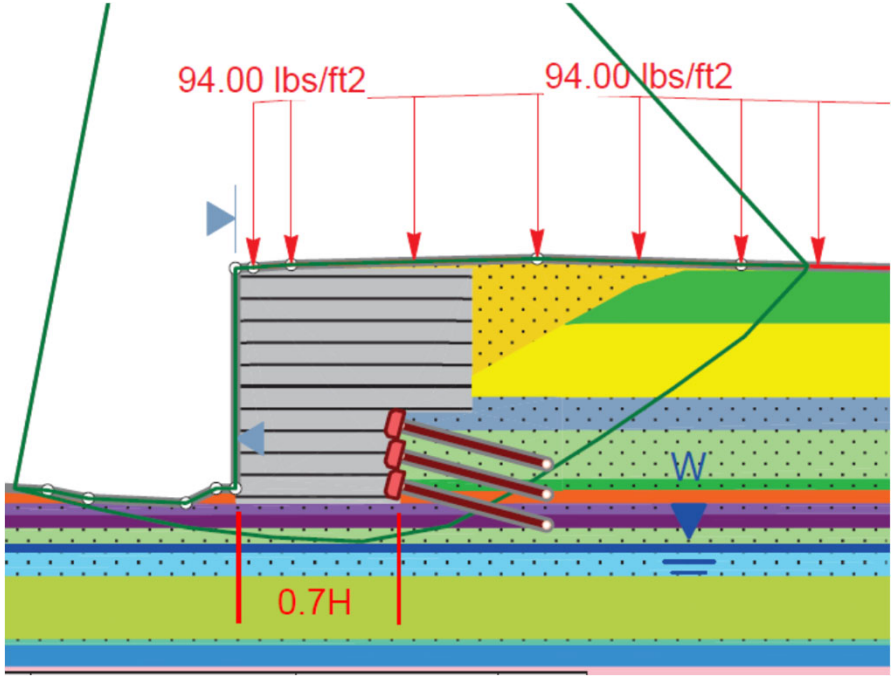
Non-uniform MSE wall reinforcement

General Description:

- Non-uniform MSE wall reinforced volume is proposed through the use of a buried permanent soil nail wall functioning as ground reinforcement.
- Minimum MSE wall strip length of 0.7H will be maintained.
- No connection between MSE wall and Soil Nail Wall will be provided. Compound stability will be checked in final design.
- Buried soil nail wall will be designed and constructed as a permanent soil nail wall in accordance with FHWA GEC 7 with a thickened permanent shotcrete face, drainage behind the shotcrete, and nail corrosion requirements.

Advantages:

- Minimizes MSE wall excavation and temporary SOE adjacent to traffic as would be required by longer MSE wall reinforcement



Conceptual Analysis Section

APPENDIX D

Approved Temporary Pavement Design

From: Wright, Carmen
To: Cameron Nations
Cc: Clark, Tyler, A.; Gambrell, Brian, C.; Mike Grey
Subject: RE: P041130 - I-95 over Lake Marion - Temporary Pavement Design Approval Concurrence Request
Date: Monday, August 11, 2025 1:19:08 PM

This Message Is From an External Sender
This message came from outside your organization.

Report Suspicious

Cameron,

Your team's Temporary Pavement Design is approved.

Thanks,

Carmen Wright, MBA, CPM
Director of Alternative Procurement and Card Services

P 803-737-1428 **Email:** wrightcl@scdot.org

South Carolina Department of Transportation
955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

From: Cameron Nations <cameron.nations@ice-eng.com>
Sent: Monday, August 11, 2025 11:06 AM
To: Wright, Carmen <WrightCL@scdot.org>
Cc: Clark, Tyler, A. <ClarkTA@scdot.org>; Gambrell, Brian, C. <GambrellBC@scdot.org>; Mike Grey <mike.grey@uig.net>
Subject: RE: P041130 - I-95 over Lake Marion - Temporary Pavement Design Approval Concurrence Request

*** This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source. ***

Carmen,

Please confirm receipt of the Temporary Pavement Design file that was reposted to SCDOT Projectwise on August 6th, per the below correspondence, and let me know if you need any additional information to provide approval.

Thank you,

Cameron

Cameron G. Nations, P.E., DBIA | Vice President – Special Projects
Cameron.Nations@ice-eng.com | 803-636-2469 (direct)

INFRASTRUCTURE CONSULTING & ENGINEERING

110 Midlands Court | West Columbia, SC 29169
803-822-0333 (Main) | 803-331-6284 (Cell)
www.ice-eng.com

From: Cameron Nations
Sent: Wednesday, August 6, 2025 4:30 PM
To: Wright, Carmen <WrightCL@scdot.org>
Cc: Clark, Tyler, A. <ClarkTA@scdot.org>; Gambrell, Brian, C. <GambrellBC@scdot.org>; Mike Grey <mike.grey@uig.net>
Subject: RE: P041130 - I-95 over Lake Marion - Temporary Pavement Design Approval Concurrence Request

Carmen,

The Temporary Pavement Design file was reposted to SCDOT's projectwise with the same date as originally resubmitted. The file name is P041130_UTJV-ICE_TempPavementDesign_20250520.

Please let me know if you have any issues accessing the file.

Thank you,

Cameron

Cameron G. Nations, P.E., DBIA | Vice President – Special Projects
Cameron.Nations@ice-eng.com | 803-636-2469 (direct)

INFRASTRUCTURE CONSULTING & ENGINEERING

110 Midlands Court | West Columbia, SC 29169
803-822-0333 (Main) | 803-331-6284 (Cell)
www.ice-eng.com

From: Wright, Carmen <WrightCL@scdot.org>

Sent: Wednesday, August 6, 2025 3:28 PM
To: Cameron Nations <cameron.nations@ice-eng.com>
Cc: Clark, Tyler, A. <ClarkTA@scdot.org>; Gambrell, Brian, C. <GambrellBC@scdot.org>; Mike Grey <mike.grey@uig.net>
Subject: FW: P041130 - I-95 over Lake Marion - Temporary Pavement Design Approval Concurrence Request

I am resubmitting this email, I did not reply to all.

Thanks,

Carmen Wright, MBA, CPM
Director of Alternative Procurement and Card Services

P 803-737-1428 **Email:** wrightcl@scdot.org

South Carolina Department of Transportation
955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

From: Wright, Carmen
Sent: Wednesday, August 6, 2025 3:27 PM
To: Cameron Nations <cameron.nations@ice-eng.com>
Subject: RE: P041130 - I-95 over Lake Marion - Temporary Pavement Design Approval Concurrence Request

Good afternoon Cameron,

Can you resubmit the document you provided on 5/20/2025.

Thanks,

Carmen Wright, MBA, CPM
Director of Alternative Procurement and Card Services

P 803-737-1428 **Email:** wrightcl@scdot.org

South Carolina Department of Transportation
955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

From: Cameron Nations <cameron.nations@ice-eng.com>
Sent: Wednesday, August 6, 2025 11:25 AM
To: Wright, Carmen <WrightCL@scdot.org>
Cc: Gambrell, Brian, C. <GambrellBC@scdot.org>; Clark, Tyler, A. <ClarkTA@scdot.org>; Mike Grey <mike.grey@uig.net>
Subject: RE: P041130 - I-95 over Lake Marion - Temporary Pavement Design Approval Concurrence

Request

*** This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source. ***

Carmen,

We are preparing all appendix items necessary for the technical proposal and also ensuring we have all approvals for our submittals. In looking through our records, we do not believe we received an email confirmation that our Temporary Pavement Design was approved. We received comments to our initial pavement design submittal on 5/19/2025 and we resubmitted the revised document via SCCOT Projectwise (with the below confirmation email) on 5/20/2025.

If this document was approved, please provide email concurrence. Or if further revisions are necessary, please let me know.

Thank you,

Cameron

Cameron G. Nations, P.E., DBIA | Vice President – Special Projects
Cameron.Nations@ice-eng.com | 803-636-2469 (direct)

INFRASTRUCTURE CONSULTING & ENGINEERING

110 Midlands Court | West Columbia, SC 29169
803-822-0333 (Main) | 803-331-6284 (Cell)
www.ice-eng.com

From: Cameron Nations
Sent: Tuesday, May 20, 2025 4:58 PM
To: WrightCL@scdot.org
Cc: GambrellBC@scdot.org; Reynolds, Bradley, S. <reynoldsbs@scdot.org>; Mike Grey <mike.grey@uig.net>
Subject: P041130 - I-95 over Lake Marion - UTJV-ICE FATCs and Temporary Pavement Design

Carmen,

The UTJV-ICE team has uploaded the following files to SCDOT's projectwise.

- P041130-UN-TRA-FATC-1-3

- P041130-UN-TRA-FATC-2-3
- P041130-UN-TRA-FATC-3-3
- P041130-UN-TRA-FATC-4-3
- P041130-UN-TRA-FATC-5-3
- P041130-UN-TRA-FATC-9-3
- P041130-UN-TRA-FATC-12-3
- P041130-UN-TRA-FATC-13-3
- P041130-UN-TRA-FATC-14-3
- P041130-UN-TRA-FATC-Comment-Response
- P041130_UTJV-ICE_TempPavementDesign_20250520

Please let me know if you have any problems accessing the files.

Thank you,

Cameron

Cameron G. Nations, P.E., DBIA | Vice President – Special Projects
Cameron.Nations@ice-eng.com | 803-636-2469 (direct)

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www.ice-eng.com

INFRASTRUCTURE
CONSULTING & ENGINEERING

TEMPORARY PAVEMENT DESIGN SUBMITTAL

I-95 Over Lake Marion

Project ID P041130

Prepared By: Jesse Thompson, PE

5/19/2025

SOUTH CAROLINA
INFRASTRUCTURE CONSULTING & ENGINEERING, LLC
No. 4470
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
LICENSED PROFESSIONAL ENGINEER
No. 27047
JESSE U. THOMPSON, JR.

Temporary Pavement Design Submittal

1. Design Method

The ***SCDOT Pavement Design Guidelines (July 2008)*** empirical design uses the **1972 AASHTO performance prediction equation** (commonly known as the "SN" Method) which was used to design the temporary pavement sections in support of the Project's Maintenance of Traffic (MOT) plans. The 1972 AASHTO performance prediction equation estimates the structural number (SN) of the pavement section, as shown below:

$$\log(ESALs) = 9.36\log(SN+1) - 0.20 + \frac{\log[(4.2-p_t)/(4.2-1.5)]}{0.40+[1094/(SN+1)^{5.19}]} + \log(\frac{1}{R}) + 0.372(SSV-3.0)$$

Where:
SN = Structural Numbers
ESAL = Equivalent Single Axle Load in Critical Lane
p_t = Terminal Serviceability
SSV = Soil Support Value
R = Regional Factor

The solution of the design equation presented in this guide is in terms of a structural number (SN). The required SN must be converted to actual thickness of surfacing, base and subbase by means of appropriate layer coefficients representing the relative strength of material to be used for each layer. By solving the equation with the soil support value representative of the roadbed soil, an SN for the entire pavement is obtained and is represented by the general equation:

$$SN = a_1D_1 + a_2D_2 + a_3D_3 + \ldots + a_nD_n$$

Where:
a_1, a_2, a_3, …, an *- layer coefficients representative of surface, base and subbase courses respectively, and*

D_1, D_2, D_3, …, D_n *- actual thickness in inches, of surface, base and subbase courses respectively.*

1.1 Design Parameters

The prediction equation requires several design parameters (inputs) to determine the overall SN of the pavement thickness. They are described briefly as follows:

1.1 Traffic (ADT, % Truck & Truck Group)

Traffic is one of the most influential design parameters. The makeup of traffic is of particular importance, especially the % of trucks and mix of trucks (single of multi-unit). To use the AASHTO performance prediction equation, mixed vehicle types in the traffic stream must be converted into an equivalent number of 18-kip single axle loads (ESAL). The actual ESAL value used for each type of truck varies depending on the traffic level. Because the effect of automobiles upon pavement is so slight, they are not considered in traffic analysis.

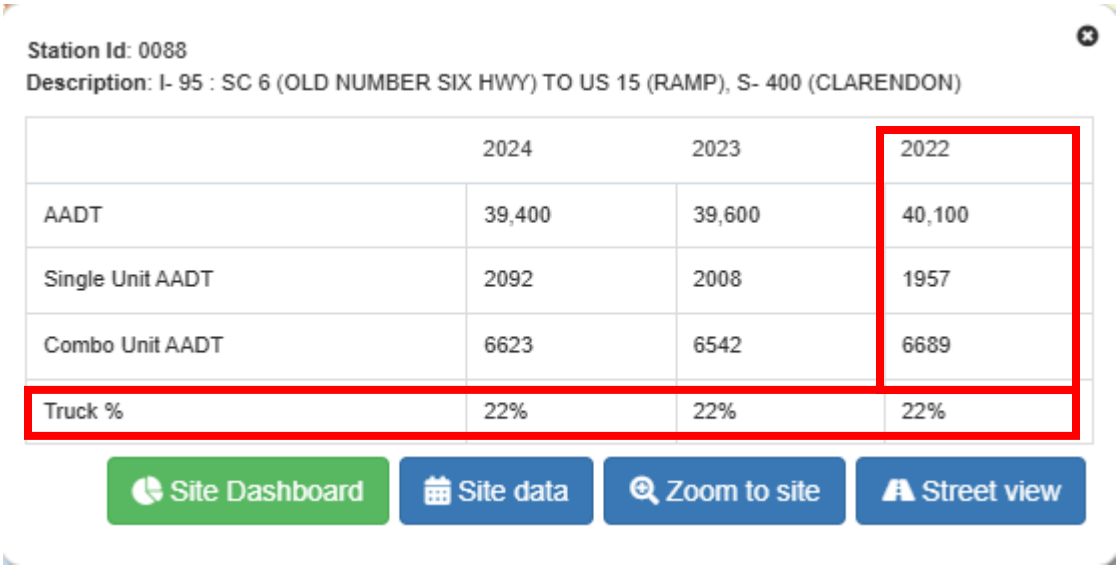
The traffic data utilized was obtained from the SCDOT traffic count webpage (https://www.scdot.org/travel/travel-trafficdata.html). Although AADT for 2024, as shown in Figure 1 was 39,400, a higher AADT from year 2022 was used in the analysis. ***Attachment 1*** includes SCDOT's estimated traffic volumes, Road Group and % truck for the I-95 mainline traffic.

As noted in ***Attachment 1***, the Road Group for I-95 has been determined to be the "O-66" Road Group, which comprises of 66% FHWA Class 9 trucks. The equivalent ESAL for Road Group O-66 for flexible pavement design is 0.9027, as shown in **Table 1** below:

Table 1 – SCDOT Road Group and ESAL Equivalency Factor

ROAD GROUP	DISTRIBUTION OF TRUCKS BY TYPE (%)					ESALs PER TRUCK (FLEXIBLE)	ESALs PER TRUCK (RIGID)
	Class 5	Class 6	Class 8	Class 9	All others		
A	94	-	-	-	6	.1864	.1821
B	90	5	-	4	1	.2419	.2637
C	81	5	5	7	2	.2841	.3189
D	73	6	6	10	5	.3023	.3533
E	68	6	8	12	6	.3443	.4172
F	64	6	7	15	8	.3774	.4766
G	59	8	5	19	10	.4178	.5345
H	54	6	7	25	9	.4721	.6185
I	48	7	5	31	8	.5269	.6981
J	44	8	5	36	7	.5822	.7929
K	40	7	6	41	7	.6398	.8838
L	33	7	6	49	6	.7052	.9948
M	27	7	6	55	5	.7713	1.0971
N	24	3	6	60	7	.8346	1.2086
O	21	0	6	66	8	.9027	1.3214
P	12	3	4	72	9	.9891	1.5227

The estimated Truck % based on vehicle class was utilized from the SCDOT traffic count dashboard as shown in Figure 1.



Station Id: 0088
Description: I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP), S- 400 (CLARENDON)

	2024	2023	2022
AADT	39,400	39,600	40,100
Single Unit AADT	2092	2008	1957
Combo Unit AADT	6623	6542	6689
Truck %	22%	22%	22%

Site Dashboard | Site data | Zoom to site | Street view

Figure 1 SCDOT Traffic Count and Truck %

1.2 Other Design Inputs

The prediction equation requires additional design input which are summarized in **Table 2** below:

Table 2 – Design Inputs for Mainline and Ramp Temporary Pavement Features

Design Inputs	**Mainline (I-95)**
Number of Lanes (1 way)	2
Lane Distribution Factor (LDF)	0.85
Year of MOT / Construction	2025-2026
2-way AADT	40,100
Trucks (%)	22%
SCDOT Road Group	O-66
ESAL Factor	0.9027
Soil Support Value (SSV) (**)	3.0
Terminal Serviceability (p_t) (***)	2.0
Regional Factor (R)	1.0

*(**) Examination of GBLR notes subgrade with A-2-4 material (see **Attachment 2**). There were no CBR's performed on the causeway borings. We have estimated the SSV based on the average value SCDOT utilizes for Clarendon County and an expected performance of the imported fill that was utilized to construct the embankment as was seen on the borings P-16 and P-17. This will be confirmed in the final design with additional geotechnical borings and laboratory testing.*

(***) Selected for Short-Term MOT Temporary Pavement Design

1.3 Estimated ESAL and SN

The estimated ESAL and SN for different duration of temporary traffic is summarized in **Table 3** below. The detailed calculations for estimated ESALs and SN are provided for in the accompanying Excel file for I-95 mainline traffic analyses.

Table 3 – Estimated ESAL and SN for Mainline and Ramp Temporary Pavement Features

Pavement Feature / MOT Duration (Months)	6 months	12 months	18 months	24 months
Mainline I-95	**609,217**	**1,235,356**	**1,856,758**	**2,495,420**
SN Required	**3.47**	**3.85**	**4.08**	**4.26**

2.0 Temporary Pavement Design Results

The assigned coefficient of relative strength for flexible pavement layers will be used from Figure 3, Page 8 of ***SCDOT Pavement Design Guidelines (July 2008)***, included As ***Attachment 3***. The Contractor will have the option for constructing temporary pavement features with either "full depth" using asphalt base or graded aggregate base course material topped with appropriate type and thickness of asphalt mix for interstate traffic. The lift thicknesses for base, intermediate, and surface courses will be in accordance with SCDOT's ***Guidelines for Asphalt Mixture Selection (Sep 2020)***, included as ***Attachment 4***. Surface Type B was selected due to the temporary nature of this pavement and recent usage of this material for other temporary interstate pavements by SCDOT.

Using theoretical duration, which is yet to be confirmed depending on the final MOT scheme and construction phasing, as well as the duration of work in the proposed CPM schedule (all of them yet to be developed). Temporary Pavement Design for mainline I-95 is shown in **Table 4** below.

We understand that this temporary design may be incorporated into the final pavement structure. For locations where this is the case, utilize a minimum design duration of 540 days to reduce the potential of any damage to the temporary pavement.

Table 4 – Proposed Temporary Pavement Sections for Mainline I-95

I-95 at Lake Marion
Temporary Pavement Design

INFRASTRUCTURE CONSULTING & ENGINEERING

Road:	I-95 over Lake Marion					Date:	4/22/2025
County:	Clarendon					Analysis by:	Jay T.
Duration	**Option**	**Surface Course Type B (PSY)**	**Intermediate Type B (PSY)**	**Base Type A (PSY)**	**GAB Course (inches)**	**SN Required**	**SN provided**
< 180 days	Full - depth	200		950		3.47	3.74
< 365 days	Full - depth	200	200	750		3.85	3.92
< 540 days	Full - depth	200	200	950		4.08	4.54
< 730 days	Full - depth	200	200	950		4.26	4.54
< 540 days	GAB	200	200	450	8	4.08	4.43
< 730 days	GAB	200	200	450	8	4.26	4.43

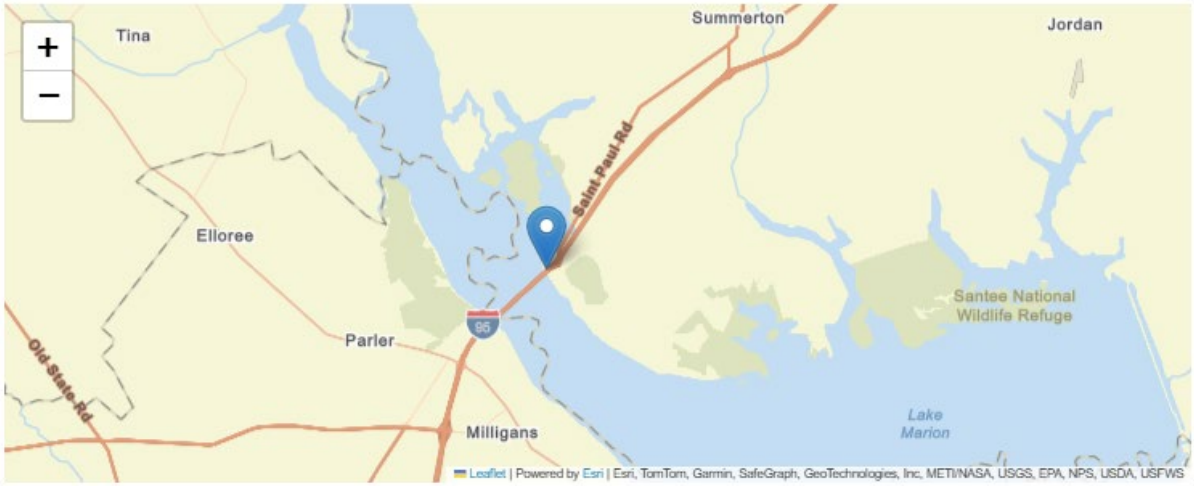
Attachment 1

SCDOT Traffic Data for Pavement Loading

(2-*lane Permanent Pavement Design*)

0088

- I- 95 : SC 6 (OLD NUMBER SIX HWY) TO US 15 (RAMP), S- 400 (CLARENDON)
County: Orangeburg
Route number: 95
Functional class: 1R - Interstate (Rural)



Weekday Average Traffic Count
39,179

Weekly Traffic Count
298,277

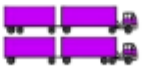
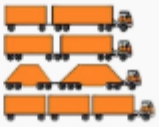
Weekend Average Traffic Count
51,192

Site Data

Annual Statistics

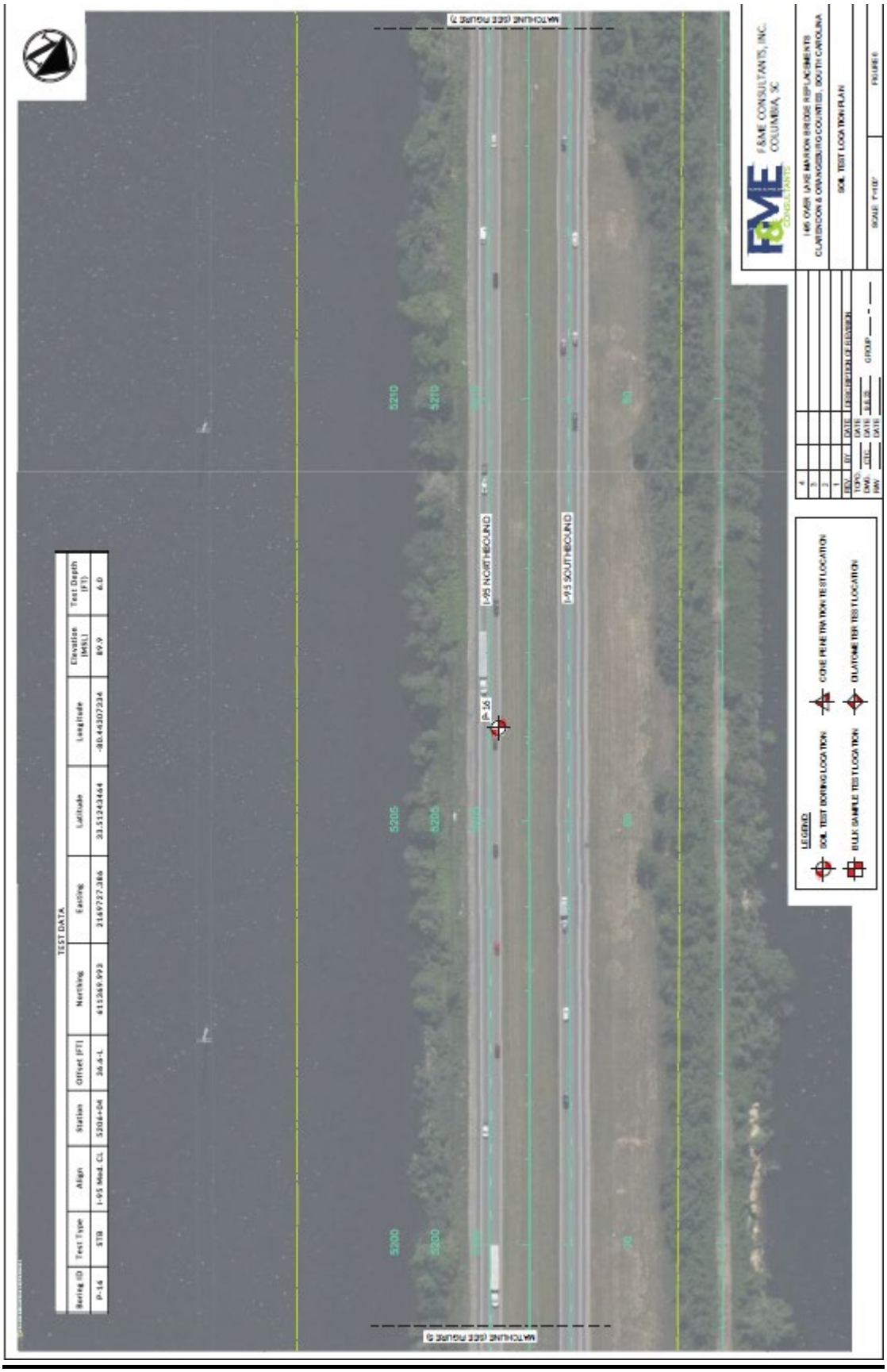
Data Item	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
AADT	33,900	35,600	36,900	35,700	36,600	33,000	38,900	40,100	39,600	**39,400**
K-Factor	0.070	0.070	0.070	0.070	0.070	0.120	0.110	0.110	0.110	**0.110**
D-Factor	0.540	0.540	0.540	0.540	0.540	0.550	0.520	0.500	0.520	**0.530**

Vehicle Classification 2025

1. Motorcycles 2 axles, 2 or 3 wheels.		**0.38%**
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.		**62.54%**
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		**17.26%**
4. Buses 2- or 3-axle, full length.		**0.59%**
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.		**3.76%**
6. Single-unit trucks 3-axle, single-unit trucks.		**0.34%**
7. Single-unit trucks 4 or more axle, single-unit trucks.		**0.03%**
8. Single-trailer trucks 3- or 4-axle, single-trailer trucks.		**1.25%**
9. Single-trailer trucks 5-axle, single-trailer trucks.		**12.60%**
10. Single-trailer trucks 6 or more axle, single-trailer trucks.		**0.12%**
11. Multi-trailer trucks 5 or less axle, multi-trailer trucks.		**0.18%**
12. Multi-trailer trucks 6-axle, multi-trailer trucks.		**0.18%**
13. Multi-trailer trucks 7 or more axle, multi-trailer trucks.		**0.01%**

Attachment 2

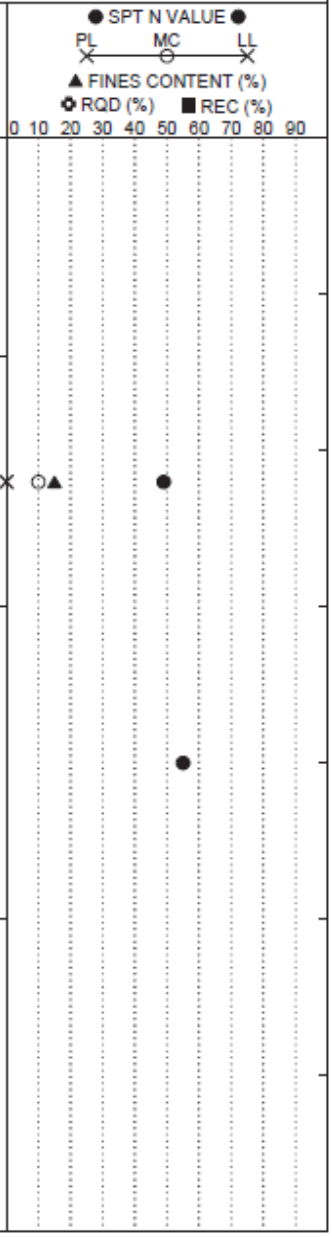
CBR / SSV Data from GBLR


TEST DATA
Boring ID | Test Type | Align | Station | Offset (FT) | Northing | Easting | Latitude | Longitude | Elevation (MSL) | Test Depth (FT)
P-16 | STB | I-95 Med. CL | 5204+04 | 26.6-L | 611269.992 | 2169727.386 | 33.51243464 | -80.44307234 | 89.9 | 6.0
MATCHLINE (SEE FIGURE 7)
MATCHLINE (SEE FIGURE 5)
I-95 NORTHBOUND
I-95 SOUTHBOUND
P-16
5200
5205
5210
LEGEND
SOIL TEST BORING LOCATION
BULK SAMPLE TEST LOCATION
CONE PENETRATION TEST LOCATION
DILATOMETER TEST LOCATION
F&ME CONSULTANTS, INC.
COLUMBIA, SC
I-95 OVER LAKE MARION BRIDGE REPLACEMENTS
CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA
SOIL TEST LOCATION PLAN
SCALE: 1"=100'
FIGURE 6

SCDOT Soil Test Log

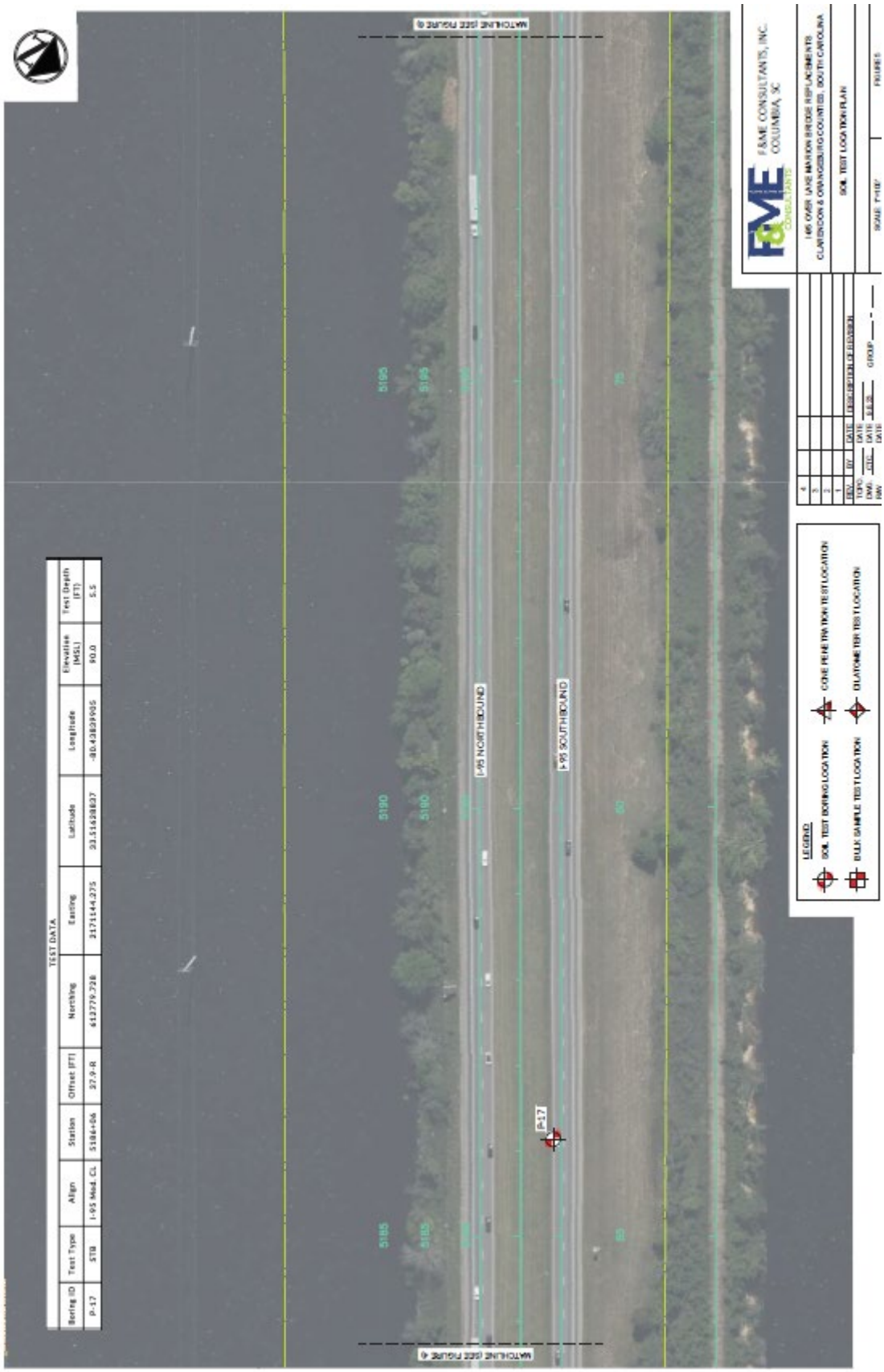
Project ID:	P041130			County:	Clarendon/Orangeburg	Boring No.:	P-16
Site Description:	I-95 NB/SB over Lake Marion Bridge Replacement					Route:	I-95
Eng./Geo.:	C. Thomas	Boring Location:	5206+04	Offset:	36.6-L	Alignment:	I-95 Med. CL
Elev.:	89.9 ft	Latitude:	33.51243464	Longitude:	-80.44307334	Date Started:	1/10/2023
Total Depth:	5 ft	Soil Depth:	5 ft	Core Depth:	N/A ft	Date Completed:	1/10/2023
Bore Hole Diameter (in):	4	Sampler Configuration		Liner Required:	Y (N)	Liner Used:	Y (N)
Drill Machine:	CME 550X	Drill Method:	RW	Hammer Type:	Automatic	Energy Ratio:	78%
Core Size:	N/A	Driller:	R. Huffstetler	Groundwater:	TOB	Not Encountered	24HR N/A

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	ASPHALT ROADWAY (I-95) (5.0-in.)								
	0.4	CONCRETE (12.0-in.)								
	1.4	**MARIETTA (PLIOCENE)** Dense to Very Dense, Moist, Light Reddish Brown, Non-Plastic, Silty Fine to Medium SAND (SM/A-2-4), 5YR6/4 LL=NP, PL=NP, PI=NP, NMC=9.7%, %200=15.1		1.4	SS-1	6	21	28		49
				3.0	SS-2	16	22	33	36	55
84.9	5.0	Boring Terminated at 5.0-ft. Below the Existing Ground Surface. Boring Achieved Target Depth.								



LEGEND

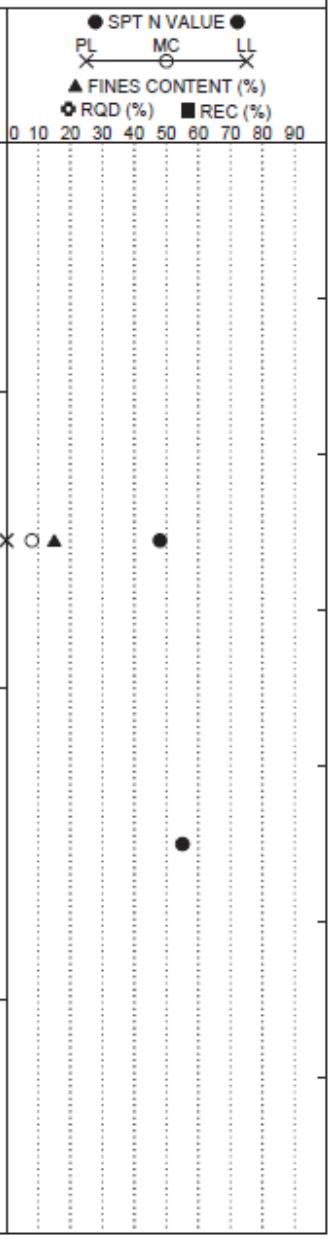
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	


TEST DATA
Boring ID | Test Type | Align | Station | Offset (FT) | Northing | Easting | Latitude | Longitude | Elevation (MSL) | Test Depth (FT)
P-17 | STB | I-95 Med. CL | 5186+06 | 27.9-R | 412779.728 | 2171144.275 | 33.51628827 | -80.43839905 | 90.0 | 5.5
MATCHLINE (SEE FIGURE 4)
MATCHLINE (SEE FIGURE 4)
I-95 NORTHBOUND
I-95 SOUTHBOUND
P-17
5185
5190
5195
LEGEND
SOIL TEST BORING LOCATION
BULK SAMPLE TEST LOCATION
CONE PENETRATION TEST LOCATION
DILATOMETER TEST LOCATION
F&ME CONSULTANTS, INC.
COLUMBIA, SC
I-95 OVER LAKE MARION BRIDGE REPLACEMENTS
CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA
SOIL TEST LOCATION PLAN
REV. BY DATE DESCRIPTION OF REVISION
TOPO DATE
DWG. DATE
NW DATE
GROUP
SCALE: 1"=100'
FIGURE 5

SCDOT Soil Test Log

Project ID:	P041130	County:	Clarendon/Orangeburg	Boring No.:	P-17		
Site Description:	I-95 NB/SB over Lake Marion Bridge Replacement			Route:	I-95		
Eng./Geo.:	C. Thomas	Boring Location:	5186+06	Offset:	37.9-R	Alignment:	I-95 Med. CL
Elev.:	90.0 ft	Latitude:	33.51628837	Longitude:	-80.43839905	Date Started:	1/11/2023
Total Depth:	5.5 ft	Soil Depth:	5.5 ft	Core Depth:	N/A ft	Date Completed:	1/11/2023
Bore Hole Diameter (in):	4	Sampler Configuration		Liner Required:	Y (N)	Liner Used:	Y (N)
Drill Machine:	CME 550X	Drill Method:	RW	Hammer Type:	Automatic	Energy Ratio:	78%
Core Size:	N/A	Driller:	R. Huffstetler	Groundwater:	TOB	Not Encountered	24HR N/A

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	ASPHALT ROADWAY (I-95) (5.0-in.)								
	0.4	CONCRETE (14.0-in.)								
	1.6	**EXISTING FILL** Dense to Very Dense, Moist, Pink, Non-Plastic, Silty Fine to Medium SAND (SM/A-2-4), 7.5YR7/4 LL=NP, PL=NP, PI=NP, NMC=8.0%, %200=14.6		1.6						
					SS-1	12	21	27	34	48
				3.5						
					SS-2	17	23	32	40	55
85.0	5.5	Boring Terminated at 5.5-ft. Below the Existing Ground Surface. Boring Achieved Target Depth.								



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

Attachment 3

Coefficient of Relative Strength for SC Material

(SCDOT Pavement Design Guide – Figure 3)

S.C. Department of Highways and Public Transportation
Coefficients of Relative Strength for
Flexible Pavement Components

July, 2008

Pavement Component	
Surface Course	a_1
HMA Surface	0.44[1]
HMA Intermediate	0.44[1]
Open Graded Friction Course	0.44[1]
Bituminous Surfacing	0.35
Old Surface	
Old Asphalt Concrete Surface	0.26
Old Asphalt Concrete Binder	0.26
Old Sand Asphalt	0.16
Bituminous Surfacing	0.21
Base	a_2
Sand-Clay Base	0.12-0.20[2]
Coquina Shell Base	0.12
Graded Aggregate Base	0.18
Cement Stabilized Earth Base	0.25
Asphalt Base, Type D	0.25[2]
Asphalt Base, Type A, B and C	0.34
Cement Modified Recycled Base	0.26
Cement Stabilized Aggregate Base	0.34
Old PCC Pavement	0.40
Subbase	a_3
Soil Aggregate Subbase	0.10
Cement-Modified Subbase	0.15[2]

Note 1. If the combined new HMA Surface and HMA Intermediate course rate exceeds 400 pounds per square yard, then coefficient of the excess material over 400 psy is reduced to 0.34. OGFC is not included in this total.

Note 2. Coefficient dependent on the quality of material available.

Figure 3 - Layer coefficients for South Carolina material

Attachment 4

SCDOT Guidelines for Asphalt Mixture Selection

(September 2020)

GUIDELINES FOR ASPHALT MIXTURE SELECTION

COURSE	TYPE FACILITY	TYPE	EST. % BINDER	BINDER GRADE	RECOM. RATE (LBS/SY)	COMMENTS
SURFACE	• Interstate • Problem intersections and areas (severe rutting and shoving potential)	A	5.5	PG 76-22	200	• Consult with OMR Pavement Design Unit when other facilities are being considered
	• High volume primary & secondary • ADT ≥ 5,000	B	5.5	PG 64-22	175 - 200	• Use only on high volume and / or • high % Truck traffic roads • FDP – Less than 6" or Less
	• Low volume primary & secondary • ADT 1,500 – 5,000	C	6.3	PG 64-22	150 - 175	• Truck traffic ≥ 20%, use • Surface Type B • FDP Less than 6" or Less
	• Low volume secondary routes • ADT < 1,500	D	6.5	PG 64-22	125 - 150	• Truck traffic ≥ 20%, use • Surface Type C • Use in lieu of PMTLSC on roads with rutting or other surface imperfections
	• Multiple facility usage • Consult with OMR Pavement Design Unit	E	6.5	PG 64-22	45 - 80	• Used for ride correction • and seal course • Leveling between 0.5 – 1.5 inches
INTERMEDIATE	• Interstate & High volume primary • (New Construction)	A	4.8	PG 64-22	250 - 300	• Use when no drop off restrictions • Use Intermediate B when there are drop off restrictions
	• High volume primary & secondary • ADT ≥ 5,000	B	5.4	PG 64-22	200	• Old Surface Type B Mixture
	• Interstate & High volume primary • ADT ≥ 5,000	B Special	5.4	PG 64-22	200 - 500	• Specialty warm mix – only used on high volume routes for partial –full depth rehabilitation and FDP (2 Lifts) • Mixture must be placed in confined area
	• Primary to low volume secondary	C	5.1	PG 64-22	200 - 300	• Use for build-up between 1.5 inches and 5 inches • Non-mainline paving and FDP
BASE	• Interstate, intersections & problem areas • Primary & secondary routes with ADT ≥ 5,000	A	4.5	PG 64-22	300 - 450	• Use for build-up more than 5 inches
	• Primary & secondary routes with ADT < 5,000	B	4.5	PG 64-22	300 - 450	• Use for build-up more than 5 inches
	• Special - Consult with OMR Pavement Design Unit	C	5.5	PG 64-22	200 - 300	• Screening asphalt base – high stability
	• Special – Consult with OMR Pavement Design Unit	D	5.0	PG 64-22	200 - 300	• Sand asphalt base – low stability
SPECIALTY MIXES	• Interstate (w or w/o OGFC)	SMA 9.5 / 12.5mm	6.2	PG 76-22	200	• Specialty Surface Course – Consult with OMR Pavement Design Unit prior to using mix
	• Interstate	OGFC	6.2	PG 76-22	125	• Open Graded Friction Course
	• Primary and secondary	PMTLSC	6.5	PG 64-22	-	• Preventative Maintenance Thin Lift Seal Course - select only for good roads • Paid by SY • ¾ " thickness checked behind paver by inspector
	• Primary and Secondary	SHOULDER WIDENING	5.0	PG 64-22	400 - 600	• Non-structural mix • Use on outer edge of pavement that does not carry continuous traffic loads • Less than 6 inches

Revised: 09-15-20

APPENDIX E

Approved Complex Bridge Independent Peer Review Package

UNITEDTRAYLOR
JOINT VENTURE

From: Wright, Carmen
To: Cameron Nations
Cc: Clark, Tyler, A.; Gambrell, Brian, C.; Mike Grey
Subject: RE: I-95 over Lake Marion // Complex Bridge IPR, Responses -United-Traylor JV
Date: Tuesday, July 29, 2025 5:03:52 PM

This Message Is From an External Sender
This message came from outside your organization.

Report Suspicious

Good afternoon Cameron,

SCDOT has reviewed and take no exception to your team's revised Complex Bridge Independent Peer Review for the above subject project.

Thanks,

Carmen Wright, MBA, CPM
CPO for Project Delivery

P 803-737-1428 **Email:** wrightcl@scdot.org

South Carolina Department of Transportation
955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

From: Cameron Nations <cameron.nations@ice-eng.com>
Sent: Friday, July 25, 2025 1:48 PM
To: Wright, Carmen <WrightCL@scdot.org>
Cc: Clark, Tyler, A. <ClarkTA@scdot.org>; Gambrell, Brian, C. <GambrellBC@scdot.org>; Mike Grey <mike.grey@uig.net>
Subject: RE: I-95 over Lake Marion // Complex Bridge IPR, Responses -United-Traylor JV

*** This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source. ***

Carmen,

The UTJV-ICE team has resubmitted the Complex Bridge IPR for the I-95 Lake Marion Design Build project to SCDOT's projectwise. The following responses provide clarification to SCDOT's comments below and are also addressed in the revised

uploaded document. Furthermore, the IPR document was updated to account for the additional approved alignment and non-alignment ATCs.

Comment Response:

1. After further evaluation, UTJV determined that precast caps were not advantageous for this project and FATC 5 (Precast Caps) will not be included in the technical proposal. However, precast columns are intended to be utilized per the approved FATC 9. The table located in Section b was revised to remove precast caps. The labor-hour effort shown on page 9 includes the review of the precast columns.
2. Independent strut-and-tie modeling will be performed for D-regions in accordance with AASHTO LRFD Section 5.

Please let me know if you have any issues accessing the revised IPR document on SCDOT's projectwise.

Thank you,

Cameron

Cameron G. Nations, P.E., DBIA | Vice President – Special Projects
Cameron.Nations@ice-eng.com | 803-636-2469 (direct)

INFRASTRUCTURE CONSULTING & ENGINEERING

110 Midlands Court | West Columbia, SC 29169
803-822-0333 (Main) | 803-331-6284 (Cell)
www.ice-eng.com

From: WRIGHT, CARMEN <WrightCL@scdot.org>
Sent: Friday, June 13, 2025 11:54 AM
To: Cameron Nations <cameron.nations@ice-eng.com>; Mike Grey <mike.grey@uig.net>
Cc: CLARK, TYLER, A. <ClarkTA@scdot.org>; GAMBRELL, BRIAN, C. <GambrellBC@scdot.org>
Subject: I-95 over Lake Marion // Complex Bridge IPR, Responses -United-Traylor JV

Good morning,

SCDOT has the following comments on your Team's Complex Bridge IPR:

- For qualifying components, Section a (Page 2) lists precast concrete columns but not caps. Table in Section b (Page 11) lists Caps and Columns. Please clarify if approved

ATC 5 (Precast Caps) is intended to be used and whether the labor-hour effort shown on Page 9 includes review of precast bent cap design?

- For the vessel collision design for the 1,245 kip collision load, please confirm/clarify that independent strut-and-tie modelling will be performed for D-regions in accordance with AASHTO LRFD Section 5? Finite element analysis should not replace the strut-and-tie modelling checks, where required by AASHTO.

Please make the revisions and resubmit for concurrence no later than **Monday, July 28th**.

Also, confirm receipt of this email.

Thanks,

Carmen Wright, MBA, CPM
CPO for Project Delivery

P 803-737-1428 **Email:** wrightcl@scdot.org

South Carolina Department of Transportation
955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

Complex Bridge Independent Peer Review

I-95 Bridge Replacement over Lake Marion

Design-Build Project

Project ID P041130

Clarendon and Orangeburg Counties

Submitted by:

UNITED TRAYLOR JOINT VENTURE

July 25, 2025

INDEPENDENT PEER REVIEW PACKAGE

a. List of bridges and components requiring Independent Peer Review (IPR), including any introduced through the ATC process.

The project consists of the replacement of the I-95 Northbound and Southbound main and relief bridges over Lake Marion. The replacement bridges fall under Operational Classification (OC) I for being on the Interstate system and require Independent Peer Review. Also, our team proposes to incorporate the approved Precast Concrete Column ATC (ATC 9) in the Main bridges. Though the Precast Pier Caps ATC (ATC 5) was approved, the ATC will not be incorporated into the design. The list of bridges and components of our design that require Independent Peer Review (IPR) are the following:

- I-95 Northbound Main Bridge over Lake Marion Seismic Design (Longest Bridge / 1st of the Main Bridges to be Designed and Constructed)
- I-95 Relief Bridge over Lake Marion Seismic Design (Shortest Bridge)
- I-95 Northbound and Southbound Main Bridges over Lake Marion Vessel Collision Design for 1,245 kip Load
- I-95 Northbound and Southbound Main Bridges over Lake Marion Precast Concrete Columns

b. Qualifications of selected IPR firm (résumé's showing past experience):

UTJV/ICE has selected Davis & Floyd to perform the Complex Bridge Peer Review services. Firm and individual experience are shown on the following pages.

FIRM EXPERIENCE

I-26 at I-95 Interchange Improvement DB Project – Dorchester and Orangeburg Counties, SC
Contact: SCDOT | John Caver | (803) 737-1441

Project Description: The $203M I-26 at I-95 Interchange Improvement Design Build project is a full reconstruction of the ramps and acceleration and deceleration lanes, including the replacement of the bridge over I-26 on Whetsel Pond Road. The project design proposed by the Archer Western / ICE team improved the level of service for the interchange, improved geometrics and safety of the corridor, while minimizing impacts to the traveling public. The complex MOT plan was developed in three stages and involved the design of four bridges: I-95 over I-26, two flyover ramps and the new bridge over I-26.

Solutions:

RELEVANT SERVICES
Bridge & Seismic Design
Bridge Independent Peer Review

- **Complex Bridge Design and Seismic Analysis:** DF was the Independent Peer Review for the two Complex Bridges: I-95 over I-26 and the long flyover ramp that extended over I-26 and I-95. This was the first time the SCDOT used the Independent Peer Review process on a design-build project. The independent designs prepared by DF were developed and compared to the design drawings, details and design criteria required by the project and provided by ICE. Close attention was paid to schedule. DF coordinated with ICE on the status of upcoming submittals, communicated changes and conducted regular meetings to discuss findings and address comments. The independent detailed seismic analysis of the two bridges included determining the seismic displacement demands for the design events utilizing multi-spectral analysis models calibrated based on the bridge design detailing and subsurface conditions. Seismic displacement capacities for the bents were determined by non-linear pushover analysis that modeled plastic hinge locations for each bent. Due to the bridge design criteria plastic hinge locations were limited to above ground locations only.

I-26 Palmetto Commerce Interchange – North Charleston, SC

Contact: Charleston County | Mackenzie Kelley, PMP | (843) 202-6157

RELEVANT SERVICES

Bridge & Seismic Design
Environmental & Permitting
Hydrology & Hydraulic Design
Project Management
Public Involvement
Quality Assurance/Quality Control
Right-of-Way Acquisition
Roadway Design
Surveying
Utility Coordination
Video Animation

Project Description: The $52M I-26 Palmetto Commerce Interchange is a new interchange for I-26 in North Charleston designed to SCDOT and FHWA guidelines. The project included a detailed environmental assessment, complex bridge/overpass design (with detailed seismic analysis), two new traffic signals, design of four new ramps and road extension of Weber Boulevard, extensive floodplain study, H&H analysis, right-of-way acquisition, utility coordination, and public involvement. Upon completion, the interchange is expected to improve mobility and serve as a direct route in and around Palmetto Commerce Park. Charleston County commissioned the firm to provide overall project management and roadway, bridge, interchange, and drainage design. Our team also provided landscape architecture and utility coordination as well as managing the environmental/permitting, public involvement, and right-of-way acquisition.

Solutions:

- **Intersection, Complex Bridge Design and Seismic Analysis, & Roadway Design:** The proposed solution is a three-point Urban Diamond Interchange between the US 78 and Ashley Phosphate Boulevard exits on I-26 with pedestrian access and new traffic signal design. This connection will relieve local roadways, especially Northside Drive, reducing traffic by at least a third. The design provides a smaller footprint, reducing the impact on low-income housing units north of the interchange. The new overpass is a 2-span bridge utilizing AAHSTO Type III beams supported by integral end bents on pipe piles and a multi-column interior bent on a pipe pile-supported footing and will include a barrier-separated, multi-use path that will connect the north and south sides of the interstate with pedestrian and bike traffic. Roadway design includes interstate ramps and a connection to Weber Boulevard.
- **Environmental:** Managed development of the EA, IJR, and traffic study, coauthoring the EA.
- **Public Involvement:** Conducted two public information meetings and a public hearing. Created reasonable alternative animations for public meetings.
- **Utility Coordination:** Coordinated with several utility companies during design.

Innovative Methods: The Urban Diamond Interchange design provides a smaller footprint using MSE walls adjacent to the north side of the interstate to bring the ramp traffic further away from impacted neighborhoods. The interchange connects at a strategic location along Weber Boulevard that intersects both Ingleside Boulevard and Palmetto Commerce Parkway. This connection will reduce the traffic on heavily used Northside Drive between 30% and 50%.

I-26 Port Access Road Design-Build – North Charleston, SC

Contact: SCDOT | Jae Mattox | (803) 737-1805

Project Description: Port Access Road (PAR) is a complex roadway and bridge interchange project that provides direct access from I-26 to the South Carolina Ports Authority's Hugh K. Leatherman Terminal. The project consists of the new fully directional interchanges on 1-26, the connector bridge from I-26 to the Hugh K. Leatherman Terminal, the extension of Stromboli Avenue, and connector roads to Bainbridge Avenue and Tidewater Drive. As a major subconsultant, our team provided designs for local roadways and intersections, stormwater, bridge scour, and three bridges with complex detailed seismic design/analysis. The firm also conducted field surveys, led the preparation of the Environmental Compliance Manual and three-phased land disturbance permit, provided right-of-way services, and performed utility and railroad coordination.

RELEVANT SERVICES

Bridge & Seismic Design
Design Support during Construction
Environmental Permitting
Hydrology & Hydraulic Design
Railroad & Utility Coordination
Right-of-Way Acquisition
Roadway Design
Seismic Design
Stormwater Design
Surveying

Solutions:

- Bridge & detailed seismic design/analysis for three bridges
  - **Tidewater Avenue:** Curved 2-lane 746' flat slab bridge supported by composite prestressed concrete piles driven in a marsh area with tidal flows. A Super elevation transition was provided on the bridge along with a closed drainage system.
  - **Bainbridge Connector:** Multi-curved 4-lane 1,040' flat slab bridge with a sidewalk and multi-use path supported by composite prestressed concrete piles driven in a marsh area with tidal flows. A closed drainage system was provided on the bridge to minimize environmental impacts.
  - **Stromboli Avenue:** Curved 646' bridge consisting of Type IV AASHTO girder and 72" modified bulb tee beam superstructures supported on multi-column interior bents with pile-supported footings and pile-supported free-standing end bents. Oversized drilled shaft foundations were originally designed to support the multi-column interior bents however prior to issuing plans for construction the design was changed to pile-supported foundations due to potential construction cost savings.
- Field surveys to verify surveys provided in the RFP including major drainage structures, bridge structures, key property corners, and additional geotechnical borings.
- Roadway design services of local roads including Bainbridge Connector, Tidewater Avenue, Stromboli Avenue Extension, Spruill Avenue, Carner Avenue, Meeting Street, and Shipyard Creek Road (cul-de-sac)
- All hydrologic and hydraulic drainage designs for the project including open channels, storm sewer systems, detention, underdrains, cross-line pipes, culverts, sediment/erosion control, stormwater design, and scour analysis.
- Traffic control coordination and design as well as pavement markings and signage details

Innovative Methods: As part of the design-build pre-bid process, we reconfigured a full-width bridge with a median into two separate bridges, decreasing the total deck area and weight of the new bridge. Also, certain sections of the bridge were designed to use pile and cap construction instead of drilled shafts, resulting in significant savings. A light weight concrete deck was utilized for the Stromboli Avenue bridge in order to minimize loads on the beams and meet the RFP design requirements.

US 76 Westbound Over Wateree River Bridge Replacement – Richland/Sumter Counties, SC

Contact: SCDOT | Ken Martin | (803) 737-1874

RELEVANT SERVICES

Bridge & Seismic Design QA/QC
Environmental Permitting
Environmental Studies and Documentation
Hydrology & Hydraulic Design
Project Management
Quality Assurance/Quality Control
Roadway Design
Structural Design

Project Description: US 76 Westbound (WB) serves as one of the primary evacuation routes from the Pee Dee region and the corridor carries over 17,000 vehicles per day. The 2,300' US 76 WB bridge over Wateree River is structurally deficient and does not meet current standards for shoulder width. The WB route was proposed to be relocated to the Eastbound (EB) during construction. This allows the new WB bridge to be constructed on the existing alignment and prevents time-consuming staged construction. 2,196 square miles of the 5,485-square-mile watershed are located within the state boundaries and approximately 7% of the state drains to the site. Responsible for providing project management, roadway design, hydrologic/hydraulic design (including 2D modeling), surveying, environmental services, permitting, and QA/QC design services for bridge and roadway designs. During the summer of 2021, routine SCDOT bridge inspections found settlement and cracking and reduced traffic to one lane on the existing bridge. Bridge inspection frequency increased to every 3 months and the existing bridge would be closed if additional settlement and cracking are identified. Due to the deteriorating development of the WB bridge, SCDOT coordinated to accelerate roadway design for the proposed EB bridge detour. It is estimated that this acceleration could save months on the construction of the EB detour if the existing bridge is required to be closed.

Solution

- Bridge will be replaced along the existing alignment to avoid impacting the existing boat ramp to the south and designated mitigation area to the north
- Replacement will require transition of WB traffic to EB roadway and bridge during construction
- The Wateree River will require 2D hydraulic modeling and detailed scour analysis
- Approximately 500'-deep soil boring will also be performed on this project

PERSONNEL RESUMES

DANIEL BRICE URQUHART, PE
Independent Bridge Peer Review Manager
30 Years of Experience

MS, Civil Engineering, Clemson University
BS, Civil Engineering, Clemson University
Professional Engineer: SC 34010

Project Experience:

- **I-26 at I-95 Interchange Improvement DB Project – Dorchester and Orangeburg Cos, SC. |** Independent Bridge Peer Review Manager for this $203M design build project for the SCDOT. The independent peer review was conducted for the two complex bridges: I-95 over I-26 and the long flyover ramp that extended over I-26 and I-95. This was the first time the SCDOT required an Independent Peer Review on an SCDOT design-build project. DF met schedule requirements, attended scheduled and necessary meetings with the EOR (ICE), and adhered to the comment escalation process for achieving quick resolution to outstanding comments as required by the Independent Peer Review and project requirements.
- **I-26 Palmetto Commerce Interchange – Charleston, SC |** Project manager of new $52M interchange along I-26 between US 78 and Ashley Phosphate exits. This new three-point interchange will provide a

newly needed connection from I-26 to Ingleside Boulevard and Palmetto Commerce Parkway and will provide traffic relief for Northside Boulevard. The new urban diamond interchange was selected for its smaller footprint, and therefore reduced impact to an adjacent mobile home park. Brice led the completion of the Environmental Assessment and Interchange Justification Report and coordination of all aspects of the design including roadway design, complex bridge and seismic design, USACE and SCDHEC permitting, geotechnical services, landscape architecture, public involvement, right-of-way acquisition services. He works directly with the County project management and coordinates with SCDOT/FHWA, the City of N. Charleston, and other agencies.

- **I-26 Port Access Road Design-Build – North Charleston, SC |** Served as a major subconsultant on this $221M Design-Build interchange project. Brice provided principal management services for the design team that was responsible for designing three bridges and provided lead H&H, environmental permitting/ NEPA, railroad & utility coordination, and roadway design for all local roads on the entire project. The firm was EOR for the bridge design and seismic analysis for 3 complex bridges within this interchange.

- **SCDOT DB Package 14 – Cherokee County, SC |** Lead design engineer (Project Manager) responsible for the management of all design activities for five bridges across Cherokee County. Brice is responsible for the management of the geotechnical, environmental, bridge, roadway, drainage, utility coordination, and right-of-way acquisition process to complete the five project designs within 11 months while meeting the aggressive construction schedule. He is the point of contact for all design-related items for the SCDOT and the contractor for this Design-Build project.

- **I-91 Battleboro Bridge Design-Build – Battleboro, VT |** Principal design project manager responsible for overall design, schedule, budget, quality management, and contract administration. The bridge included a complex three-span, 1,036' concrete bridge with a 515' main span built utilizing balanced cantilever construction. Brice led the team to develop and receive approval of an Alternative Technical Concept that allowed the team to merge the proposed twin bridges into one bridge, while maintaining cost, schedule, and footprint. Met the challenge to maintain interstate and local mobility and recreational use, and ensured foundations were designed to account for deep scour and ice load conditions. Communication with the public, contractor, multiple subconsultants, and owner was vital during the design and construction.

ROBERT GREGORY STEVENSON, PE
Lead Bridge and Seismic Engineer
16 Years of Experience

MS, Civil/Structural Engineering, Clemson University
BS, Civil/Structural Engineering, Clemson University
Professional Engineer: SC 32080

Project Experience:

- **I-26 at I-95 Interchange Improvement DB Project – Dorchester and Orangeburg Cos, SC. |** Independent Bridge Peer Review Lead Engineer for this $203M design build project for the SCDOT. The independent peer review was conducted for the two complex bridges: I-95 over I-26 and the long flyover ramp that extended over I-26 and I-95. This was the first time the SCDOT required an Independent Peer Review on an SCDOT design-build project. DF met schedule requirements, attended scheduled and necessary meetings with the EOR (ICE), and adhered to the comment escalation process for achieving quick resolution to outstanding comments as required by the Independent Peer Review and project requirements. As the lead engineer, Rob led the independent detailed seismic analysis of both bridges based on bridge detailing information provided by ICE, attended all meetings with the EOR and was responsible for reviewing and initially resolving all comments and responses. The detailed seismic analysis included developing multiple multi-spectral analysis models to determine the seismic displacement demands and non-linear pushover analysis models to determine the seismic displacement capacities.

- **I-26 Port Access Road Design-Build – Charleston, SC |** As lead bridge engineer, Rob was the engineer of record for the two largest of the three bridges designed by Davis & Floyd, all of which are located in a seismically sensitive area that was subject to liquefaction and scour. He performed detailed seismic design and analysis for all three bridges: Bainbridge, Tidewater, and Stromboli. Bainbridge was a multiple curved and variable width 1,040' flat slab bridge, 40' spans, supported on concrete piles (bents) with four lanes, multiuse path, and sidewalk. Tidewater was a curved 746' bridge with 40' flat slab spans, supported on concrete piles with two lanes in a tidal flow. Stromboli was a curved bridge, 646' long and 89' wide, with two superstructure segments consisting of AASHTO Type IV girders and Modified 72" bulb tees. The superstructure was supported by pile supported end bents and multi-column interior bents on combined pile supported footings.

- **I-26 Palmetto Commerce Interchange – Charleston County, SC |** Lead bridge engineer for this $52M project responsible for the design and detailed seismic analysis of the bridge over I-26 including the associated MSE retaining walls. Palmetto Commerce Interchange is a new interchange for I-26 in North Charleston designed to SCDOT and FHWA guidelines. The project included a detailed environmental assessment, two new traffic signals, new shared-use path, the design of four new ramps and road extension of Weber Boulevard, an extensive floodplain study, H&H analysis, right-of-way acquisition, utility coordination, and public involvement. The bridge over I-26 consisted of two AASHTO Type III spans with integral end bents supported by pipe piles and a multi-column interior bent supported by a combined pile supported footing.

- **US 378 (Sunset Blvd) Bridge Replacement Over Twelve Mile Creek – Lexington County, SC |** Rob is the bridge engineer for US 378 bridge over Twelve Mile Creek. Our team provided project management, bridge design, roadway design, environmental services and permitting H&H design, and survey services.

- **Statewide Bridge Load Rating |** Rob led the coordination and management of the bridge load ratings assigned to Davis & Floyd and was the engineer of record for a large portion of the load rating reports. Bridge site assessments were performed and load rating evaluations for 567 bridges for the SCDOT located in the Upstate (District 3). Each was field evaluated and compared against existing data so the bridge can be load rated properly. Where insufficient information/data was found, a detailed assessment and bridge drawing were prepared so the load rating could be prepared accurately. To inspect these bridges, each bridge location was mapped, scheduled, and choreographed for an efficient inspection process.

- **US 76 Westbound Over Wateree River Bridge Replacement – Richland/Sumter Counties, SC |** Structural engineer responsible for the quality control management of the design for the 2,310' long bridge supported by cased drilled shafts. Management of the quality control process included ensuring an internal QC review of the design was completed by the bridge design subconsultant, including the detailed seismic design/analysis of the bridge, in accordance with the project requirements. Lead the team who conducted an independent QA review of the bridge design including the detailed seismic analysis to verify the design was in accordance with the project requirements and the SCDOT Seismic Design Specifications.

TODD JEREMY WARREN, PE
Senior Bridge Engineer
20 Years of Experience

BS, Civil Engineering, Clemson University
BS, Physics, Presbyterian College
Professional Engineer: SC 27829

Project Experience:

- **I-26 at I-95 Interchange Improvement DB Project – Dorchester and Orangeburg Cos, SC. |** Independent Bridge Peer Review Structural Engineer for this $203M design build project for the SCDOT. The independent peer review was conducted for the two complex bridges: I-95 over I-26 and the long flyover ramp that extended over I-26 and I-95. This was the first time the SCDOT required an

Independent Peer Review on an SCDOT design-build project. DF met the schedule and design requirements of the peer review and provided the independent evaluation required by the SCDOT. DF met all schedule requirements, attended scheduled and necessary meetings with the EOR, and adhered to the comment escalation process for achieving quick resolution to outstanding comments.

- **I-26 Port Access Road Design-Build – Charleston County, SC |** Structural engineer responsible for the design of a pile cap and flat slab curved tidewater bridge measuring 746' x 39'-3". Coordinated the roadway, seismic, and H&H design team members. As a major subconsultant on this Design-Build project, the firm was responsible for the design of three bridges and roadway, stormwater, H&H, traffic control, signal, and pavement marking design for the entire project.

- **US 76 Westbound Over Wateree River Bridge Replacement – Richland/Sumter Counties, SC |** As project manager, Todd is responsible for multidisciplinary and multi-agency coordination for the design of a new 2,310' bridge crossing the Wateree River. The bridge will be replaced along the existing alignment to avoid impacting the existing boat ramp to the south and designated mitigation area to the north. Services include survey, environmental documentation and NEPA compliance, SUE, road and bridge design, geotechnical engineering, H&H, hazmat surveys, and utility coordination.

- **I-26 Palmetto Commerce Interchange – Charleston County, SC |** Structural engineer for this new $52M three-point interchange project responsible for the quality control and management of the design for the bridge over I-26 and associated MSE retaining walls, and (3) culvert extensions within the project area. Management of quality control included ensuring an independent review of the designs, including the detailed seismic design for the bridge over I-26, was completed in accordance with the project requirements and conducting QA reviews of the independent reviews completed by others.

- **US 378 (Sunset Blvd) Bridge Replacement Over Twelve Mile Creek – Lexington County, SC |** Provided technical quality control/quality assurance review of 95% plans for the replacement of the heavily traveled US 378 bridge over Twelve Mile Creek. Our team provided project management, bridge design, roadway design, environmental services and permitting H&H design, and survey services.

- **US 17 ACE Basin Widening – Segments 1 & 2a Design-Build – Beaufort & Colleton Counties, SC |** Structural designer and inspector for widening 8 miles of US 17 from two lanes to four and five lanes, including three bridges. Two bridges were flat slab with lengths of 600' and 720', both 47' x 3' wide with prestressed concrete pile bents. Third was single-span, 95' AASHTO girder bridge with MSE walls on a curved alignment for the new "tear drop" interchange at US 17/21. Responsible for producing design calculations for all bridge components. Provided construction-phase services. Construction inspection responsibilities included erosion control inspections and asphalt, concrete, and soil testing.

c. Proposed labor-hour effort (duration) for completion of IPR

Davis & Floyd estimates approximately 2660 manhours will be required to complete the independent peer reviews which includes the seismic design of the I-95 Northbound Main Bridge and the I-95 Relief Bridge and vessel collision and precast columns for the I-95 Northbound and Southbound Main Bridges.

d. Proposed IPR process. Describe how peer review work will be integrated into the design schedule for the project and interaction with EOR and lead design firm during peer review throughout the life of the project (i.e. revisions to RFC design). At a minimum, provide the following information:

The design team has held several meetings with the IPR team to strategize and develop a well-structured breakdown, task by task. This breakdown will serve as a seamless process for integrating the peer review work into our design schedule. To accomplish the work, we have provided the following breakdown of activities and scheduled these activities with mutually agreed-upon durations to ensure all final bridge design packages are delivered on time.

1. EOR Prepare Seismic, Vessel Collision, & Precast Column Package for IPR
2. EOR & IPR Perform Independent Seismic Design
3. EOR & IPR Seismic Design Check Meetings*
4. EOR Prepare 60% Plans for IPR Review
5. IPR Review of 60% Plans*
6. EOR & IPR Plan Check Meetings*
7. EOR Prepares 95% Plans for IPR Review
8. IPR Review of 95% Plans*
9. EOR & IPR Plan Check Meetings*
10. EOR Incorporates IPR Plan Comments
11. IPR of RFC plan revisions

*The actual meeting dates and plan review dates will be shown in our Technical Proposal CPM schedule.

The following outlines the processes that will be utilized for the independent peer review (IPR) conducted by the firm for the I-95 Bridge Replacement over Lake Marion Design-Build project.

The IPR process will begin without having access to detailed design drawings, but these drawings are expected to be made available before the IPR is completed. During the initial phase of the IPR, models and calculations will be created using the information provided by the EOR (Engineer of Record). The EOR will furnish essential information such as preliminary design/layout drawings, design assumptions, basic construction material properties, mild reinforcement layout/spacing, and any other necessary component properties. Once the detailed design drawings are obtained, the IPR will be refined and completed based on these more comprehensive drawings.

Prior to the start of the IPR process, an initial meeting will take place involving the EOR and the IPR Team. The purpose of this meeting will be to review the bridge layout, design criteria, and overall bridge design philosophy proposed by the EOR. Biweekly meetings will be scheduled between the EOR and IPR team to review and discuss the progress of the design and IPR activities. During these meetings, any modifications to the EOR's design will be addressed.

To verify the detailed seismic analysis and design, Computer & Structures, Inc.'s SAP2000 or CSiBridge will be used to create models. MathCAD and Excel will be used to develop input data or to verify certain seismic design, analysis, or detailing requirements that cannot be verified utilizing SAP2000 or CSiBridge. To ensure

accuracy, the internal program calculations and results obtained from SAP2000 or CSiBridge, specifically concerning material properties and section properties will be cross verified. The verification process will involve using select hand calculations developed in Mathcad or Excel or additional software such as XTRACT, developed by TRC.

The independent models and calculations developed by an individual on the IPR team will be reviewed by multiple qualified personnel. When possible, the reviews will be performed in electronic format. Initially, the independent model/calculation will be reviewed by the IPR team member who created it. Once the initial review is done and revisions are made, a secondary review of the independent model/calculation will be performed. The goal is to have this secondary review conducted by someone with equivalent or greater experience than the IPR team member who developed the model/calculation. Finally, a comprehensive final review of the independent model/calculation will be performed to verify both the initial and secondary reviews were performed, and all revisions have been addressed. All reviews and revisions will be completed and confirmed before the IPR process is finalized.

To have effective reviews of models and calculations, a Design Review Matrix will be employed, developed using Microsoft Excel. Each bridge submitted for IPR will have its own designated Design Review Matrix file. Within a Design Review Matrix file, separate tabs will be created for each bridge component/system (e.g. deck, bearings, girders, End Bent 1, Interior Bent 2, MSA Seismic Model, Interior Bent 2 Seismic Pushover Analysis, etc.). Each design file will include a dedicated comment section for review purposes. An example of a Design Review Matrix template is included below in Fig. 1. However, minor modifications to the template can be made to tailor it to the specific requirements of this IPR.

(Description) Design Review Comments

EOR:		Project Name:		Comment Status Key
Lead Tech. Prof.:		Client Project ID:		1 = Comment Submitted
LTP Approval Date:		D|F Project ID:		2 = Unresolved
QC Reviewer:		Road Name:		3 = Not Yet Implemented
QC Approval Date:		Route No.:		4 = Resolved as Noted
QA Reviewer:		Feature Crossed:		5 = Closed
QA Approval Date:		Asset ID:		n/a = Not Applicable or Retracted

Comment No.	Date	Reviewer	Page No., Section, or Item	Comment	Response	Status
(File 1 Name)						
(File 2 Name)						

Fig. 1: Design Review Matrix Template

To effectively communicate the findings of the IPR to the EOR, a combination of comment matrix logs and Bluebeam sessions will be utilized. A comment matrix log will be developed to document any comments related to the verification of design models and calculations during the IPR process. The comments will be provided by the IPR team and forwarded to the EOR, who will then develop responses. A comment matrix log like the one shown in fig. 1 will be utilized. For the IPR of the design drawings, a Bluebeam session will be utilized. The IPR team will use a comment status system to document whether each comment has been resolved to the satisfaction of both the EOR and IPR team. The following comment status system will be utilized for both the design models/calculations comment matrix logs and the Bluebeam sessions:

1. *Comment Submitted*
2. *Unresolved*
3. *Not Yet Implemented*
4. *Resolved as Noted*
5. *Closed*

a) Anticipated meetings between EOR and IPR firm and when they occur on the schedule

The actual meeting dates will be shown in our Technical Proposal CPM schedule.

b) Modeling software/methods for each qualifying complex bridge type/component.

Complex Bridge Type/Component	Responsible Party ICE - Engineer of Record	Independent Peer Review - Davis and Floyd
Seismic	CSiBridge	SAP2000 or CSiBridge
Vessel Collision	CSiBridge or FB-MultiPier	SAP2000 or CSiBridge, Strut-and-Tie
Precast Concrete Columns	OpenBridge Designer (RC Pier) & Excel	OpenBridge Designer (RC Pier)

c) Schedule for plan reviews and comment tracking method (Bluebeam, comment matrix, etc.)

The schedule for plan reviews will be included in our Technical Proposal. Bluebeam Studio Plan will be used to perform these reviews. During the review process, the IPR reviewer will add comments to the submittal and assign a comment status to each line item that requires resolution. Once the review is complete, the designer will address all the comments by providing responses to each in the Bluebeam session. The reviewer will then update the comment status accordingly using the following: 1-Submitted, 2-Unresolved, 3-Not Yet Implemented, 4-Resolved, or 5-Closed. This process will be repeated until all comments are resolved or closed unless a comment must be escalated. Once all comments have been addressed, the designer will upload the revised plans to the existing Bluebeam session. This will enable the reviewer to compare the original document with comments to the newly updated document for final resolution. When all comments have been resolved or closed, the designer will generate a detailed final comment report and a marked-up PDF. These documents will be submitted to the review team along with their IPR letter, completing the plan review process. This systematic approach ensures thorough and organized plan reviews, facilitating effective collaboration between the design team and the IPR reviewer.

d) Comment escalation / issue resolution process for resolving design differences

Level	EOR personnel	IPR personnel	Time Required
First Level	Keith Coogler	Robert Stevenson	2 hours
Second Level	Rafi Jamaluddin	Todd Warren	1 day
Third Level	Preston Felkel	Brice Urquhart	1 day decision; fix time varies

If a comment's resolution cannot be agreed upon at the first level, it will be escalated to the next level. If the comment remains unresolved at the third level, the EOR and IPR teams will utilize the issue resolution process below to reach a solution.

<u>Issue Resolution Process</u>

The design and peer review team will use this method for resolving issues between the EOR and IPR reviewers:

Step 1	Define the issue: What is it, where is it, when is it?
Step 2	Make a list of all the possible causes for the problem and/or opportunities for improvement.

Step 3	For all the causes listed, select one or two items for focus
Step 4	Make a list of all the possible actions that might be taken to improve the situation
Step 5	From all the actions listed, select the actions that will be implemented. What is to be done? When will it be done? Who will do it?
Step 6	Justification/Reasoning Why this solution?
Step 7	Evaluate the Results