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October 15, 2025

Jay C. Johnson

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Adam Assenza
Office of Environmental Analysis
Surface Transportation Board
395 E Street, SW
Washington, DC 20423

Re: Docket No. FD 36633, Plaquemines Port Harbor and Terminal District (PPHTD) – Construction and Operation Exemption – Line of Railroad in Plaquemines Parish, Louisiana; Response to Information Request No. 1

Dear Mr. Assenza:

This letter responds to the Office of Environmental Analysis's first information request in Docket No. FD 36633.

1. Proposed Action:

IR1-1. *Please provide shapefiles or .kmz files for the centerlines, right-of-way (ROW), and access roads, with annotation, consistent with what is shown in the Preliminary Design Drawings for PPHTD's preferred alignment provided to OEA on September 2, 2025. If shapefiles or .kmz files are not available, please provide CAD files that we may use for conversion.*

The requested .kmz files are being transmitted via email with this letter.

IR1-2. *Please provide shapefiles or .kmz files for any staging areas or laydown yards proposed along PPHTD's preferred and any alternative rail alignments.*

PPHTD is negotiating the purchase of property that is adjacent to the rail extension right-of-way. This property would be available for storage, staging, and laydown. Because negotiations are ongoing, PPHTD will provide more details about the location when the negotiation is complete.

It remains possible that the preferred storage, staging, and laydown site could change based on additional engineering and construction planning. But given the Board's "discretion" and "broad latitude to draw a 'manageable line'" in preparing its NEPA

review, *Seven County Infrastructure Coalition v. Eagle County*, 145 S. Ct. 1497, 1513 (2025), PPHTD believes that identifying the currently planned site in the EA (once the purchase is complete) will be sufficient to "inform" the Board's decisionmaking, *id.* at 1507. This is especially true because the impacts from staging areas and laydown yards are temporary, and any impacts outside the rail right-of-way will be mitigated when construction is complete.

IR1-3. *Please provide information about PPHTD's approach to securing right-of-entry for the parcels identified in Attachment A so that OEA can conduct appropriate field work.*

To secure the right-of-entry for the parcels listed in Attachment A, PPHTD has taken the steps described below:

- Parcel ID 1601611 - Alliance River Properties: discussions are ongoing.

- Parcel ID 1176225 – NOLA Oil Terminal, LLC: right-of-entry is secured.

- Parcel ID 1119300 – IMT: right-of-entry is secured.

- Parcel ID 1269400 – IMT: right-of-entry is secured.

- Parcel ID 1172955 – Woodland Borrow Pits, LLC: no right-of-entry is needed (see discussion below).

- Parcel ID 8337286 – Plaquemines Land Ventures LLC: discussions are ongoing.

- Parcel ID 1616913 – Plaquemines Land Ventures LLC: discussions are ongoing.

- Parcel ID 1172967 – Plaquemines Land Ventures LLC: discussions are ongoing.

- Parcel ID 1614351 – Bolsu PCF LLC: PPHTD has acquired a letter of intent to secure a right-of-entry.

IRI-4. *Please provide the design information for the first mile of new rail line and the crossing at the Venture Global, LLC property*.

As mentioned during PPHTD's September monthly applicant meeting, this information is in progress and will be provided once complete. PPHTD is working with the residents of Ironton and with Venture Global to ensure its design has the greatest practicable degree of stakeholder buy-in.

2. Construction/Design

IR1-5. *Please confirm whether all construction and potential ground disturbances would be confined to a 40- to 100-foot ROW for PPHTD's preferred alignment and any alternative rail line alignments.*

PPHTD does not anticipate that any construction or ground disturbances will fall outside of the rail right-of-way. If any disturbance were to occur, it would be restored when construction is complete.

IR1-6. *Please describe the general construction process for the proposed rail line, including the materials that would be used and the anticipated railbed width (in feet).*

Construction of the proposed rail corridor will follow standard railroad construction practices, including AREMA and Union Pacific Railroad specifications. Work will include clearing and grubbing, earthwork and subgrade preparation, placement of subballast and ballast, and installation of the complete track structure.

A typical trackbed section will be constructed as follows:

- Subgrade: Compact to at least 95 percent of maximum dry density per ASTM D698 (Standard Proctor) with a 2 percent cross-slope to promote positive drainage. A nonwoven geotextile separator will be placed on the finished subgrade prior to subballast placement.

- Subballast: Place a minimum 12-inch compacted layer of well-graded crussed aggregate meeting AREMA Chapter 1, Part 2, section 5.1. The subballast will be compacted in lifts over the geotextile fabric.

- Ballast: Provide a minimum 12-inch layer of clean, angular ballast conforming to AREMA #4A gradation. Ballast will be tamped and regulated to achieve uniform bearing and alignment beneath the ties.

- Track Structure: Install 115-lb RE rail (min.) supported on 7" x 9" x 8'-6" timber ties (grade 5) spaced per AREMA/UPRR recommendations. Underdrains and retaining walls will be included where indicated in the typical sections.

Based on additional construction planning and engineering, the rail ROW width is generally 60 feet. The rail bed including all infrastructure's width for a single mainline track is 28 feet, increasing to 48 feet where mainline and siding tracks run parallel.

The estimated construction material quantities, derived from the 360 Rail Services 50% design geometry and plans (as sent to OEA on September 2, 2025) are summarized below.

TABLE 1

MATERIAL/ITEM	UNIT OF MEASURE	ESTIMATED QUANTITY
Cut Volume	Cubic Yard	92,290
Fill Volume	Cubic Yard	49,109
Subballast	Cubic Yard	83,804
Ballast	Ton	125,000
Cross Ties (Grade 5 Hardwood)	Each	29,721
Tie Plates	Each	59,442
Anchors (Boxed Every Other Tie)	Each	59,442
Spikes	Kegs	500
Rail (115-lb minimum)	Lineal Foot	118,884

PPHTD further notes that because it is a public entity, it must conduct a Request for Proposal process to select suppliers of construction materials. As a result, it does not and cannot know where those materials will come from at this time. All it can say at present is that materials and suppliers are readily available in the area, and may include New Orleans & Gulf Coast Railway Company, BOLSU PCF, Vulcan Materials, or Pontchartrain Materials. Further, the desired method will be to bring the track construction materials by rail, thus minimizing the truck traffic impact.

The most intensive equipment use will occur during subgrade and structural-fill placement, while lighter rail-mounted specialty equipment will be used during final track construction.

Table 2 lists the equipment anticipated to be used during construction.

TABLE 2

EQUIPMENT TYPE	NUMBER OF UNITS
Subgrade construction and placement of structural fill	
Excavator	6
Dozer	6
Compactor	12
Motorgrader	6

Water Truck	2
Subballast construction	
Dozer	2
Roller	2
Motorgrader	2
Water Truck	1
Track Construction	
Excavator	2
Rubber Tire Loader	2
Rubber Tire Backhoe	2
Hi-rail Boom Truck	1
Track Spiker	1
Track Tamper	1
Track Regulator	1
Track Broom	1

Most of the permanent railbed, including access road and shoulder drainage ditches, will be 100 feet wide. In a few areas, the railbed will be less than 100 feet to accommodate existing facilities and structures. These areas are shown in the drawings supplied on September 2, 2025. The railbed alone, without considering the planned access road and ditches, will be 28 feet wide for the primary track and 48 feet wide where the siding and primary track are parallel.

IR1-7. *Please provide the proposed construction timeline and hours of construction per day for the proposed rail line.*

As with materials suppliers, PPHTD must conduct a Request for Proposal process to choose a construction contractor. That process will not happen until the project has completed the regulatory process. Once a construction contractor is chosen, that contractor will have some discretion in deciding how construction progresses. PPHTD will use the following guidelines when it chooses a construction contractor.

Based on production sequencing developed by 360 Rail Services, construction is expected to occur in sequential work segments corresponding to the design mileposts.

The project includes five primary linear segments and one siding section, as shown in Table 3.

TABLE 3

Segment	Limits (MP)	Length (LF)	Duration (Days)	Work Components
1	22.78 – 24.00	6,441	99.2	Civil, Track, Surfacing
2	24.00 – 26.00	10,560	94.2	Civil, Track, Crossings, Surfacing
3	26.00 – 28.00	10,560	79.2	Civil, Track, Crossings, Surfacing
4	28.00 – 30.00	10,560	64.2	Civil, Track, Crossings, Surfacing
5	30.00 – 32.40	12,714	55.2	Civil, Track, Turnouts, Surfacing
Siding	30.50 – 32.00	8,607	44.2	Civil, Track, Surfacing

Using the production rates included below, 360 Rail Services estimates that the total construction duration will be approximately 179 days.

- Civil Construction Production Rate: 386 LF/day
- Track Construction Production Rate: 400 LF/day
- Track Surfacing Production Rate: 833 LF/day (three lifts/day)
- Crossing Installation Rate: 100 LF/day
- Turnout Installation: 3.5 days each

Construction activities will occur Monday through Saturday, limited to daylight hours (10-hour shifts). No night or Sunday work is anticipated unless required for schedule recovery or under special approval.

IR1-8. *Please provide road crossing designs, including what types of safety equipment, barriers, and signaling would be used.*

The proposed route will cross two public roads, Ironton Road and Myrtle Grove Road, as well as a number of private roads.

All crossings will be protected in accordance with AREMA and Department of Transportation guidelines. These protections may include advance warning signage, crossing signage, crossbucks, flashers, or drop-arm barriers. The precise style of crossing

selected will depend on a number of factors, including community input and more detailed design and engineering work.

IR1-9. *Please provide the number, location, and types of crossings of any other existing infrastructure or utilities (e.g., transmission lines) anticipated, if any.*

The preferred route's only above-ground utility crossing will be the Venture Global LNG Plant pipe bridge located close to Station 359+55. The preferred route will also cross at Bolsu as well as cross at underground pipelines in five places. The preferred route will cross underground pipelines in five places.

3. Transportation/Traffic

IR1-10. *Please provide the maximum and average train operating speeds anticipated on the proposed rail line.*

The maximum train speed will be 10 mph. Average operating speeds will be between 5 and 10 mph.

IR1-11. *Please provide the anticipated length and composition of trains that would operate on the proposed rail line.*

The proposed rail line—the "project at hand," in the Supreme Court phrasing—will connect the existing New Orleans & Gulf Coast Railway line with the proposed Louisiana Gateway Container Terminal. PPHTD notes that the container terminal must go through its own environmental review and permitting process, in addition to the commercial, real estate, and financing agreements that must be concluded, before it can be built.

For purposes of drawing a manageable line that will help the Board in its decisionmaking, PPHTD assumes that if and when the container terminal is built, it will send 2–3 container unit trains per week on the new line. These trains would have an average length of 2500 feet and would be powered by two GP-38-3 locomotives. Train length may vary, depending on the number of containers entering and exiting the port terminal, but the maximum length that existing NOGC infrastructure can accommodate is 4000 feet.

IR1-12. *Please provide the anticipated truck traffic that may be required during construction of the proposed rail line (i.e., trucks per day for delivery of construction materials, etc.).*

As noted above, PPHTD intends to deliver construction materials via rail and barge to the maximum extent practicable.

Rail and ballast in particular will likely be delivered by work train. These deliveries would be part of NOGC's rail operations and will not affect existing traffic through local communities.

Subballast material and other aggregates will likely be delivered by river barge. Using the estimates in Table 1 above, about 150 barge loads of subballast materials will be required. Barge delivery will not affect existing traffic in local communities.

To the extent materials cannot practicably be delivered by rail or barge, trucks would be used. If such deliveries are necessary, PPHTD anticipates that the number of truck trips would be minimal and would not affect traffic in the area.

IR1-13. *Please provide the number of trains per day anticipated to operate on the proposed rail line and any anticipated increases in number of trains per day for future rail operations.*

As noted above and in the information paper already submitted to the Board, PPHTD expects rail traffic in the range of 2–3 trains per week, assuming for purposes of drawing a manageable line that the container terminal goes into operation around the same time that the rail line does.

We hope that this information answers OEA's questions and facilitates its environmental review process.

Please don't hesitate to contact me if you have any questions.

Sincerely,

Jay C. Johnson

cc: Waymon T. Peer
Charles Tillotson
Celeste Bergeron
Cindy Gallo

Information Request No. 1 Comprehensive Response

Docket No. FD 36633, Plaquemines Port, Harbor & Terminal District (PPHTD) – Louisiana Gateway Port Rail Extension Line in Plaquemines Parish, Louisiana

Prepared for:

Surface Transportation Board
Office of Environmental Analysis
395 E Street
SW, Washington, DC 20423-0001

Prepared by:

Freese and Nichols, Inc.
601 Poydras St, Suite 2550
New Orleans, LA 70130

March 2026

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Attachments (Submitted Separately)

Attachment A- KMZ Files Referenced in Comprehensive Response (Separate)

Attachment B – Previous Cultural Resource Investigations (Redacted)

Information Request No. 1 Comprehensive Response

Plaquemines Port, Harbor & Terminal (PPHTD) – LGP Rail Extension Line in Plaquemines Parish

This document provides the information requested in Information Request No. 1 (e.g., IR1-1), submitted to Plaquemines Port Harbor and Terminal District (PPHTD) on September 30, 2025, together with PPHTD's response received on October 15, 2025. Additional information provided by PPHTD after their initial response has been included and identified where applicable.

1. Proposed Action:

IR1-1. *Please provide shapefiles or .kmz files for the centerlines, right-of-way (ROW), and access roads, with annotation, consistent with what is shown in the Preliminary Design Drawings for PPHTD's preferred alignment provided to OEA on September 2, 2025. If shapefiles or .kmz files are not available, please provide CAD files that we may use for conversion.*

Response: The requested .kmz files are being transmitted via email with this letter

Supporting Documentation: See **Attachment A** -*25031_PP_Alignment.kmz* (transmitted electronically with this Comprehensive Response)

IR1-2. *Please provide shapefiles or .kmz files for any staging areas or laydown yards proposed along PPHTD's preferred and any alternative rail alignments.*

Response: PPHTD is negotiating the purchase of property that is adjacent to the rail extension right-of-way. This property would be available for storage, staging, and laydown. Because negotiations are ongoing, PPHTD will provide more details about the location when the negotiation is complete.

It remains possible that the preferred storage, staging, and laydown site could change based on additional engineering and construction planning. But given the Board's "discretion" and "broad latitude to draw a 'manageable line'" in preparing its NEPA review, Seven County Infrastructure Coalition v. Eagle County, 145 S. Ct. 1497, 1513 (2025), PPHTD believes that identifying the currently planned site in the EA (once the purchase is complete) will be sufficient to "inform" the Board's decision making, id. at 1507. This is especially true because the impacts from staging areas and laydown yards are temporary, and any impacts outside the rail right-of-way will be mitigated when construction is complete.

Supplemental Information: Subsequent to the original response, the requested information was obtained on December 12, 2025.

Supporting Documentation: See **Attachment A** - *ProposedStagingAreas.kmz* (transmitted electronically with this Comprehensive Response)

IR1-3. *Please provide information about PPHTD's approach to securing right-of entry for the parcels identified in Attachment A so that OEA can conduct appropriate field work.*

Response: To secure the right-of-entry for the parcels listed in Attachment A, PPHTD has taken the steps described below:

- Parcel ID 1601611 - Alliance River Properties: discussions are ongoing.
- Parcel ID 1176225 – NOLA Oil Terminal, LLC: right-of-entry is secured.
- Parcel ID 1119300 – IMT: right-of-entry is secured.
- Parcel ID 1269400 – IMT: right-of-entry is secured.
- Parcel ID 1172955 – Woodland Borrow Pits, LLC: no right-of-entry is needed (see discussion below).
- Parcel ID 8337286 – Plaquemines Land Ventures LLC: discussions are ongoing.
- Parcel ID 1616913 – Plaquemines Land Ventures LLC: discussions are ongoing.
- Parcel ID 1172967 – Plaquemines Land Ventures LLC: discussions are ongoing.
- Parcel ID 1614351 – Bolsu PCF LLC: PPHTD has acquired a letter of intent to secure a right-of-entry.

Supplemental Information:

Although not issued as a formal Information Request, data gaps in **IR1-3** were identified and additional information in reference to **IR1-3** was requested on December 09, 2025.

A. PPHTD was asked to provide any updated information about PPHTD's approach to securing right-of-entry for parcels where access has not been secured so that OEA can conduct appropriate fieldwork.

a. PPHTD provided access updates from January 23, 2026 – January 29, 2026 for parcels where access had not been secured. Access was not secured for the following parcels;

- Parcel ID 1601611 – Alliance River Properties, LLC
- Parcel ID 1119300 – IMT
- Parcel ID 1119300 - IMT
- Parcel ID 1269400 – IMT
- Parcel ID 1616913 – Plaquemines Land Venture Global

B. PPHTD was asked to provide clarification on why no right-of-entry was needed for Parcel ID 1172955.

a. PPHTD confirmed the current proposed alignment does not intersect through Parcel ID 1172955 on December 31, 2025.

C. PPHTD was asked to provide information on their approach to securing right-of entry for additional parcels identified by the OEA in order to conduct appropriate fieldwork.

Additional parcels requested included:

- Parcel ID 1621220 – Coastal Protection & Restoration Authority
- Parcel ID E003300 – Entergy Louisiana LLC
- Parcel ID 1611146 – River Dock LLC
- Parcel ID 1611112 – River Rock LLC

a. PPHTD provided access updates from January 23, 2026 – January 29, 2026 for the additional parcels identified. Access was secured for the additional parcels identified.

Supporting Documentation: See **Appendix A.**

IR1-4. *Please provide the design information for the first mile of new rail line and the crossing at the Venture Global, LLC property.*

Response: As mentioned during PPHTD's September monthly applicant meeting, this information is in progress and will be provided once complete. PPHTD is working with the residents of Ironton and with Venture Global to ensure its design has the greatest practicable degree of stakeholder buy-in.

Supplemental Information: Subsequent to the original response, the requested information has been obtained on January 16, 2026.

Supporting Documentation: See **Appendix C.**

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2. Construction/Design

IR1-5. *Please confirm whether all construction and potential ground disturbances would be confined to a 40- to 100-foot ROW for PPHTD's preferred alignment and any alternative rail line alignments.*

Response: PPHTD does not anticipate that any construction or ground disturbances will fall outside of the rail right-of-way. If any disturbance were to occur, it would be restored when construction is complete.

IR1-6. *Please describe the general construction process for the proposed rail line, including the materials that would be used and the anticipated railbed width (in feet).*

Response: Construction of the proposed rail corridor will follow standard railroad construction practices, including AREMA and Union Pacific Railroad specifications. Work will include clearing and grubbing, earthwork and subgrade preparation, placement of sub ballast and ballast, and installation of the complete track structure.

A typical trackbed section will be constructed as follows:

- Subgrade: Compact to at least 95 percent of maximum dry density per ASTM D698 (Standard Proctor) with a 2 percent cross-slope to promote positive drainage. A nonwoven geotextile separator will be placed on the finished subgrade prior to subballast placement.
- Subballast: Place a minimum 12-inch compacted layer of well-graded crussed aggregate meeting AREMA Chapter 1, Part 2, section 5.1. The subballast will be compacted in lifts over the geotextile fabric.
- Ballast: Provide a minimum 12-inch layer of clean, angular ballast conforming to AREMA #4A gradation. Ballast will be tamped and regulated to achieve uniform bearing and alignment beneath the ties.
- Track Structure: Install 115-lb RE rail (min.) supported on 7" x 9" x 8'-6" timber ties (grade 5) spaced per AREMA/UPRR recommendations. Underdrains and retaining walls will be included where indicated in the typical sections.

Based on additional construction planning and engineering, the rail ROW width is generally 60 feet. The rail bed including all infrastructure's width for a single mainline track is 28 feet, increasing to 48 feet where mainline and siding tracks run parallel.

The estimated construction material quantities, derived from the 360 Rail Services 50% design geometry and plans (as sent to OEA on September 2, 2025) are summarized below.

Table 1

MATERIAL/ITEM	UNIT OF MEASURE	ESTIMATED QUANTITY
Cut Volume	Cubic Yard	92,290
Fill Volume	Cubic Yard	49,109
Subballast	Cubic Yard	83,804
Ballast	Ton	125,000
Cross Ties (Grade 5 Hardwood)	Each	29,721
Tie Plates	Each	59,442
Anchors (Boxes Every Other Tie)	Each	59,442
Spikes	Kegs	500
Rail (115-lb minimum)	Lineal Foot	118,884

PPHTD further notes that because it is a public entity, it must conduct a Request for Proposal process to select suppliers of construction materials. As a result, it does not and cannot know where those materials will come from at this time. All it can say at present is that materials and suppliers are readily available in the area, and may include New Orleans & Gulf Coast Railway Company, BOLSU PCF, Vulcan Materials, or Pontchartrain Materials. Further, the desired method will be to bring the track construction materials by rail, thus minimizing the truck traffic impact.

The most intensive equipment use will occur during subgrade and structural-fill placement, while lighter rail-mounted specialty equipment will be used during final track construction.

Table 2 lists the equipment anticipated to be used during construction.

Table 2

EQUIPMENT TYPE	NUMBER OF UNITS
Subgrade construction and placement of structural fill	
Excavator	6
Dozer	6
Compactor	12
Motorgrader	6
Water Truck	2
Subballast construction	
Dozer	2
Roller	2
Motorgrader	2
Water Truck	1
Track construction	
Excavator	2
Rubber Tire Loader	2
Rubber Tire Backhoe	2
Hi-rail Boom Truck	1
Track Spiker	1
Track Tamper	1
Track Regulator	1
Track Boom	1

Most of the permanent railbed, including access road and shoulder drainage ditches, will be 100 feet wide. In a few areas, the railbed will be less than 100 feet to accommodate existing facilities and structures. These areas are shown in the drawings supplied on September 2, 2025. The railbed alone, without considering the planned access road and ditches, will be 28 feet wide for the primary track and 48 feet wide where the siding and primary track are parallel.

IR1-7. *Please provide the proposed construction timeline and hours of construction per day for the proposed rail line.*

Response: As with materials suppliers, PPHTD must conduct a Request for Proposal process to choose a construction contractor. That process will not happen until the project has completed the regulatory process. Once a construction contractor is chosen, that contractor will have some discretion in deciding how construction progresses. PPHTD will use the following guidelines when it chooses a construction contractor.

Based on production sequencing developed by 360 Rail Services, construction is expected to occur in sequential work segments corresponding to the design mileposts.

The project includes five primary linear segments and one siding section, as shown in Table 3.

Table 3

Segment	Limits (MP)	Length (LF)	Duration (Days)	Work Component
1	22.78 – 24.00	6,441	99.2	Civil, Track, Surfacing
2	24.0 – 26.00	10,560	94.2	Civil, Track, Crossings, Surfacing
3	26.00 – 28.00	10,560	79.2	Civil, Track, Crossings, Surfacing
4	28.00 – 30.00	10,560	64.2	Civil, Track, Crossings, Surfacing
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Siding	30.50 – 32.00	8,607	44.2	Civil, Track, Surfacing

Using the production rates included below, 360 Rail Services estimates that the total construction duration will be approximately 179 days.

- Civil Construction Production Rate: 386 LF/day
- Track Construction Production Rate: 400 LF/day
- Track Surfacing Production Rate: 833 LF/day (three lifts/day)
- Crossing Installation Rate: 100 LF/day
- Turnout Installation: 3.5 days each Construction activities will occur Monday through Saturday, limited to daylight hours (10-hour shifts). No night or Sunday work is anticipated unless required for schedule recovery or under special approval.

IR1-8. ***Please provide road crossing designs, including what types of safety equipment, barriers, and signaling would be used.***

Response: The proposed route will cross two public roads, Ironton Road and Myrtle Grove Road, as well as a number of private roads.

All crossings will be protected in accordance with AREMA and Department of Transportation guidelines. These protections may include advance warning signage, crossing signage, crossbucks, flashers, or drop-arm barriers. The precise style of crossing selected will depend on a number of factors, including community input and more detailed design and engineering work.

IR1-9. *Please provide the number, location, and types of crossings of any other existing infrastructure or utilities (e.g., transmission lines) anticipated, if any.*

Response: The preferred route's only above-ground utility crossing will be the Venture Global LNG Plant pipe bridge located close to Station 359+55. The preferred route will also cross at Bolsu as well as cross at underground pipelines in five places. The preferred route will cross underground pipelines in five places**.**

Supporting Documentation: See **Appendix C.**

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3. Transportation / Traffic

IR1-10. *Please provide the maximum and average train operating speeds anticipated on the proposed rail line.*

Response: The maximum train speed will be 10 mph. Average operating speeds will be between 5 and 10 mph.

IR1-11. *Please provide the anticipated length and composition of trains that would operate on the proposed rail line.*

Response: The proposed rail line—the "project at hand," in the Supreme Court phrasing—will connect the existing New Orleans & Gulf Coast Railway line with the proposed Louisiana Gateway Container Terminal. PPHTD notes that the container terminal must go through its own environmental review and permitting process, in addition to the commercial, real estate, and financing agreements that must be concluded, before it can be built.

For purposes of drawing a manageable line that will help the Board in its decision making, PPHTD assumes that if and when the container terminal is built, it will send 2–3 container unit trains per week on the new line. These trains would have an average length of 2500 feet and

would be powered by two GP-38-3 locomotives. Train length may vary, depending on the number of containers entering and exiting the port terminal, but the maximum length that existing NOGC infrastructure can accommodate is 4000 feet.

IR1-12. *Please provide the anticipated truck traffic that may be required during construction of the proposed rail line (i.e., trucks per day for delivery of construction materials, etc.).*

Response: As noted above, PPHTD intends to deliver construction materials via rail and barge to the maximum extent practicable.

Rail and ballast in particular will likely be delivered by work train. These deliveries would be part of NOGC's rail operations and will not affect existing traffic through local communities.

Subballast material and other aggregates will likely be delivered by river barge. Using the estimates in Table 1 above, about 150 barge loads of subballast materials will be required. Barge delivery will not affect existing traffic in local communities.

To the extent materials cannot practicably be delivered by rail or barge, trucks would be used. If such deliveries are necessary, PPHTD anticipates that the number of truck trips would be minimal and would not affect traffic in the area.

IR1-13. *Please provide the number of trains per day anticipated to operate on the proposed rail line and any anticipated increases in number of trains per day for future rail operations.*

Response: As noted above and in the information paper already submitted to the Board, PPHTD expects rail traffic in the range of 2–3 trains per week, assuming for purposes of drawing a manageable line that the container terminal goes into operation around the same time that the rail line does.

Supplemental Information Provided for the Record

Although not specifically requested in Information Request No. 1, the Applicant has provided the following additional information for completeness of the record.

Supplemental Item 1 – Plaquemines Port. 2024 Master Plan: Turning Bigger Ships Faster

Description: Plaquemines Port's 2024 Master Plan presents the long-term strategy for port development, focusing on infrastructure improvements and operational enhancements to accommodate larger vessels and increase cargo throughput efficiency along the Lower Mississippi River.

Supporting Documentation: Appendix E

Supplemental Item 2 – Information Paper: NOGC Mainline Extension Project

Description: *Information Paper: NOGC Mainline Extension Project* provides background and context to the project. This document summarizes the project purpose and need, preferred alignment, alternatives analysis, anticipated environmental considerations, and required permits. This document is included to provide overall project framework.

Supporting Documentation: Appendix F

Supplemental Item 3 – Environmental Constraints Assessment (LGT Mainline Extension Project)

Description: *LGT Mainline Extension Project – Environmental Constraints Assessment* evaluated alternative rail alignments using a multicriteria analysis of environmental, social, and technical constrains. This document is included to provide supporting background regarding the alignment selection process.

Supporting Documentation: Appendix G

Supplemental Item 4 – Previous Cultural Survey Files

Titles:

1. A Cultural Resource Survey of a Proposed 200-Acre Development in Plaquemines Parish, Louisiana
2. Mid- Barataria Sediment Diversion Draft Phase I Cultural Resource Survey of the Proposed Site
3. Phase II Testing and Evaluation of Portions of Archaeological Site 16PL107 (ST. Rosalie Plantation), Plaquemines Parish, Louisiana
4. A Cultural Resource Survey of A 185- Acre Parcel for a Proposed Liquids Terminal in Plaquemines Parish, Louisiana
5. Revised Work Plan Phase II Site Testing (16PL107) and Associated Cemetery Investigation for the St. Rosalie Plantation Plaquemines Parish, Louisiana

6. Cultural Resource Investigations of the Mid-Barataria Sediment Diversion (MBSD) Construction Impacts APE and the MBSD Operations Impacts APE in Plaquemines and Jefferson Parishes, Louisiana
7. Phase II Site Testing (16PL107) and Associated Cemetery Investigation of St. Rosalie Plantation in Plaquemines Parish, Louisiana
8. Phase II Site Testing (16PL107) and Associated Cemetery Investigation Of St. Rosalie Plantation in Plaquemines Parish, Louisiana
9. A Phase II Testing and Evaluation of Locus One Within Site 16PL107, The St. Rosali Plantation, Plaquemines Parish, Louisiana
10. Report of Findings For Plaquemines Port Harbor & Terminal District – Parcel 1 (Tract DR – 2A) Located in Plaquemines Parish, Louisiana Sections 3,4, and 5, Township 17S, Range 25E
11. Phase II/III Archeological Investigations of the St. Rosalie Plantation, Site 16PL107 Plaquemines Parish, Louisiana

Supporting Documentation: Appendix H

Supplemental Item 5: Ironton Townhall Meeting Presentation

Description: Townhall meeting held on 08/06/2025.

Supporting Documentation: Appendix I

Supplemental Item 6: Voluntary Mitigation Measures of Ironton

Description: Voluntary mitigation measures proposed between and among PPHTD and the town of Ironton.

Supporting Documentation: Appendix J

Supplemental Item 7: Coastal Protection and Restoration Authority (CPRA) Meeting Presentation

Description: The Port and CPRA meeting held 08/27/2025.

Supporting Documentation: Appendix K

Appendix A

Docket No. FD 36633, Plaquemines Port Harbor and Terminal District (PPHTD) – Construction and Operation Exemption – Line of Railroad in Plaquemines Parish, Louisiana; Information Request # 1

SURFACE TRANSPORTATION BOARD
Washington, DC 20423

Office of Environmental Analysis

September 30, 2025

Jay Johnson
Venable, LLC
Counsel for Plaquemines Port Harbor and Terminal District

SENT BY ELECTRONIC MAIL

Re: Docket No. FD 36633, Plaquemines Port Harbor and Terminal District (PPHTD) – Construction and Operation Exemption – Line of Railroad in Plaquemines Parish, Louisiana.; Information Request #1

Dear Mr. Johnson:

Consistent with 49 C.F.R. 1105.7(f), the Surface Transportation Board's Office of Environmental Analysis (OEA) requests the information listed below, which is needed to support the environmental review for the above-referenced proceeding.

Proposed Action:

IR1-1. Please provide shapefiles or .kmz files for the centerlines, right-of-way (ROW), and access roads, with annotation, consistent with what is shown in the Preliminary Design Drawings for PPHTD's preferred alignment provided to OEA on September 2, 2025. If shapefiles or .kmz files are not available, please provide CAD files that we may use for conversion.

IR1-2 Please provide shapefiles or .kmz files for any staging areas or laydown yards proposed along PPHTD's preferred and any alternative rail alignments.

IR1-3 Please provide information about PPHTD's approach to securing right-of-entry for the parcels identified in **Attachment A** so that OEA can conduct appropriate field work.

IRI-4 Please provide the design information for the first mile of new rail line and the crossing at the Venture Global, LLC property.

Construction/Design

IR1-5 Please confirm whether all construction and potential ground disturbances would be confined to a 40- to 100-foot ROW for PPHTD's preferred alignment and any alternative rail line alignments.

IR1-6 Please describe the general construction process for the proposed rail line, including the materials that would be used and the anticipated railbed width (in feet).

IR1-7 Please provide the proposed construction timeline and hours of construction per day for the proposed rail line.

IR1-8 Please provide road crossing designs, including what types of safety equipment, barriers, and signaling would be used.

IR1-9 Please provide the number, location, and types of crossings of any other existing infrastructure or utilities (e.g., transmission lines) anticipated, if any.

Transportation/Traffic

IR1-10 Please provide the maximum and average train operating speeds anticipated on the proposed rail line.

IR1-11 Please provide the anticipated length and composition of trains that would operate on the proposed rail line.

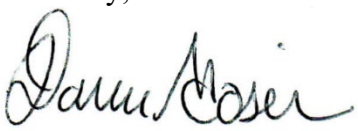
IR1-12 Please provide the anticipated truck traffic that may be required during construction of the proposed rail line (i.e., trucks per day for delivery of construction materials, etc.).

IR1-13 Please provide the number of trains per day anticipated to operate on the proposed rail line and any anticipated increases in number of trains per day for future rail operations.

Please provide this information by **October 15, 2025** to avoid delays in the environmental review process. If information is not currently available, OEA requests that PPHTD provide a best estimate for purposes of the environmental analysis.

If you have any questions, please reach out to Adam Assenza at adam.assenza@stb.gov. Thank you for your assistance in this matter.

Sincerely,



Danielle Gosselin
Director
Office of Environmental Analysis

Enclosures:
Attachment A – Right-of-Entry Request

SURFACE TRANSPORTATION BOARD
Washington, DC 20423

Office of Environmental Analysis

Attachment A – Right-Of-Entry Request

Re: Docket No. FD 36633, Plaquemines Port Harbor and Terminal District (PPHTD) – Construction and Operation Exemption – Line of Railroad in Plaquemines Parish, La.; Preliminary Environmental Consultation

The below lists parcels and their associated property owner information within the Study Area where right-of-entry is requested for field work as part of OEA's environmental analysis.

Parcel ID	**Primary Owner**	**Mailing Address**
1601611	ALLIANCE RIVER PROPERTIES, LLC	PO BOX 97 BELLE CHASSE, LA 70037-0097
1176225	NOLA OIL TERMINAL, LLC	3400 HESSMER STREET, METAIRIE, LA 70002
1119300	IMT	PO BOX 4372 HOUSTON, TX 77210-4372
1269400	IMT	PO BOX 4372 HOUSTON, TX 77210
1172955	WOODLAND BORROW PITS LLC	1074A HWY 1 THIBODAUX, LA 70301
8337286	PLAQUEMINES LAND VENTURES LLC	1500 ARLINGTON, VA 22209
1616913	PLAQUEMINES LAND VENTURES LLC	1500 ARLINGTON, VA 22209
1172967	PLAQUEMINES LAND VENTURES LLC	1500 ARLINGTON, VA 22209
1614351	BOLSU PCF LLC	2106 LAWRENCE RD KEMAH, TX 77565

Appendix B

Docket No. FD 36633, Plaquemines Port Harbor and Terminal District (PPHTD) – Construction and Operation Exemption – Line of Railroad in Plaquemines Parish, Louisiana; Response to Information Request #1

VENABLE LLP
600 MASSACHUSETTS AVE., NW WASHINGTON, DC 20001
T 202.344.4000 F 202.344.8300 www.Venable.com

October 15, 2025

Jay C. Johnson
T 202.344.4698
JCJohnson@Venable.com

Adam Assenza
Office of Environmental Analysis
Surface Transportation Board
395 E Street, SW
Washington, DC 20423

Re: Docket No. FD 36633, Plaquemines Port Harbor and Terminal District (PPHTD) – Construction and Operation Exemption – Line of Railroad in Plaquemines Parish, Louisiana; Response to Information Request No. 1

Dear Mr. Assenza:

This letter responds to the Office of Environmental Analysis's first information request in Docket No. FD 36633.

1. Proposed Action:

IR1-1. *Please provide shapefiles or .kmz files for the centerlines, right-of-way (ROW), and access roads, with annotation, consistent with what is shown in the Preliminary Design Drawings for PPHTD's preferred alignment provided to OEA on September 2, 2025. If shapefiles or .kmz files are not available, please provide CAD files that we may use for conversion.*

The requested .kmz files are being transmitted via email with this letter.

IR1-2. *Please provide shapefiles or .kmz files for any staging areas or laydown yards proposed along PPHTD's preferred and any alternative rail alignments.*

PPHTD is negotiating the purchase of property that is adjacent to the rail extension right-of-way. This property would be available for storage, staging, and laydown. Because negotiations are ongoing, PPHTD will provide more details about the location when the negotiation is complete.

It remains possible that the preferred storage, staging, and laydown site could change based on additional engineering and construction planning. But given the Board's "discretion" and "broad latitude to draw a 'manageable line'" in preparing its NEPA

review, *Seven County Infrastructure Coalition v. Eagle County*, 145 S. Ct. 1497, 1513 (2025), PPHTD believes that identifying the currently planned site in the EA (once the purchase is complete) will be sufficient to "inform" the Board's decisionmaking, *id.* at 1507. This is especially true because the impacts from staging areas and laydown yards are temporary, and any impacts outside the rail right-of-way will be mitigated when construction is complete.

IR1-3. *Please provide information about PPHTD's approach to securing right-of-entry for the parcels identified in Attachment A so that OEA can conduct appropriate field work.*

To secure the right-of-entry for the parcels listed in Attachment A, PPHTD has taken the steps described below:

- Parcel ID 1601611 - Alliance River Properties: discussions are ongoing.

- Parcel ID 1176225 – NOLA Oil Terminal, LLC: right-of-entry is secured.

- Parcel ID 1119300 – IMT: right-of-entry is secured.

- Parcel ID 1269400 – IMT: right-of-entry is secured.

- Parcel ID 1172955 – Woodland Borrow Pits, LLC: no right-of-entry is needed (see discussion below).

- Parcel ID 8337286 – Plaquemines Land Ventures LLC: discussions are ongoing.

- Parcel ID 1616913 – Plaquemines Land Ventures LLC: discussions are ongoing.

- Parcel ID 1172967 – Plaquemines Land Ventures LLC: discussions are ongoing.

- Parcel ID 1614351 – Bolsu PCF LLC: PPHTD has acquired a letter of intent to secure a right-of-entry.

IRI-4. *Please provide the design information for the first mile of new rail line and the crossing at the Venture Global, LLC property*.

As mentioned during PPHTD's September monthly applicant meeting, this information is in progress and will be provided once complete. PPHTD is working with the residents of Ironton and with Venture Global to ensure its design has the greatest practicable degree of stakeholder buy-in.

2. Construction/Design

IR1-5. *Please confirm whether all construction and potential ground disturbances would be confined to a 40- to 100-foot ROW for PPHTD's preferred alignment and any alternative rail line alignments.*

PPHTD does not anticipate that any construction or ground disturbances will fall outside of the rail right-of-way. If any disturbance were to occur, it would be restored when construction is complete.

IR1-6. *Please describe the general construction process for the proposed rail line, including the materials that would be used and the anticipated railbed width (in feet).*

Construction of the proposed rail corridor will follow standard railroad construction practices, including AREMA and Union Pacific Railroad specifications. Work will include clearing and grubbing, earthwork and subgrade preparation, placement of subballast and ballast, and installation of the complete track structure.

A typical trackbed section will be constructed as follows:

- Subgrade: Compact to at least 95 percent of maximum dry density per ASTM D698 (Standard Proctor) with a 2 percent cross-slope to promote positive drainage. A nonwoven geotextile separator will be placed on the finished subgrade prior to subballast placement.

- Subballast: Place a minimum 12-inch compacted layer of well-graded crussed aggregate meeting AREMA Chapter 1, Part 2, section 5.1. The subballast will be compacted in lifts over the geotextile fabric.

- Ballast: Provide a minimum 12-inch layer of clean, angular ballast conforming to AREMA #4A gradation. Ballast will be tamped and regulated to achieve uniform bearing and alignment beneath the ties.

- Track Structure: Install 115-lb RE rail (min.) supported on 7" x 9" x 8'-6" timber ties (grade 5) spaced per AREMA/UPRR recommendations. Underdrains and retaining walls will be included where indicated in the typical sections.

Based on additional construction planning and engineering, the rail ROW width is generally 60 feet. The rail bed including all infrastructure's width for a single mainline track is 28 feet, increasing to 48 feet where mainline and siding tracks run parallel.

The estimated construction material quantities, derived from the 360 Rail Services 50% design geometry and plans (as sent to OEA on September 2, 2025) are summarized below.

TABLE 1

MATERIAL/ITEM	UNIT OF MEASURE	ESTIMATED QUANTITY
Cut Volume	Cubic Yard	92,290
Fill Volume	Cubic Yard	49,109
Subballast	Cubic Yard	83,804
Ballast	Ton	125,000
Cross Ties (Grade 5 Hardwood)	Each	29,721
Tie Plates	Each	59,442
Anchors (Boxed Every Other Tie)	Each	59,442
Spikes	Kegs	500
Rail (115-lb minimum)	Lineal Foot	118,884

PPHTD further notes that because it is a public entity, it must conduct a Request for Proposal process to select suppliers of construction materials. As a result, it does not and cannot know where those materials will come from at this time. All it can say at present is that materials and suppliers are readily available in the area, and may include New Orleans & Gulf Coast Railway Company, BOLSU PCF, Vulcan Materials, or Pontchartrain Materials. Further, the desired method will be to bring the track construction materials by rail, thus minimizing the truck traffic impact.

The most intensive equipment use will occur during subgrade and structural-fill placement, while lighter rail-mounted specialty equipment will be used during final track construction.

Table 2 lists the equipment anticipated to be used during construction.

TABLE 2

EQUIPMENT TYPE	NUMBER OF UNITS
Subgrade construction and placement of structural fill	
Excavator	6
Dozer	6
Compactor	12
Motorgrader	6

Water Truck	2
Subballast construction	
Dozer	2
Roller	2
Motorgrader	2
Water Truck	1
Track Construction	
Excavator	2
Rubber Tire Loader	2
Rubber Tire Backhoe	2
Hi-rail Boom Truck	1
Track Spiker	1
Track Tamper	1
Track Regulator	1
Track Broom	1

Most of the permanent railbed, including access road and shoulder drainage ditches, will be 100 feet wide. In a few areas, the railbed will be less than 100 feet to accommodate existing facilities and structures. These areas are shown in the drawings supplied on September 2, 2025. The railbed alone, without considering the planned access road and ditches, will be 28 feet wide for the primary track and 48 feet wide where the siding and primary track are parallel.

IR1-7. *Please provide the proposed construction timeline and hours of construction per day for the proposed rail line.*

As with materials suppliers, PPHTD must conduct a Request for Proposal process to choose a construction contractor. That process will not happen until the project has completed the regulatory process. Once a construction contractor is chosen, that contractor will have some discretion in deciding how construction progresses. PPHTD will use the following guidelines when it chooses a construction contractor.

Based on production sequencing developed by 360 Rail Services, construction is expected to occur in sequential work segments corresponding to the design mileposts.

The project includes five primary linear segments and one siding section, as shown in Table 3.

TABLE 3

Segment	Limits (MP)	Length (LF)	Duration (Days)	Work Components
1	22.78 – 24.00	6,441	99.2	Civil, Track, Surfacing
2	24.00 – 26.00	10,560	94.2	Civil, Track, Crossings, Surfacing
3	26.00 – 28.00	10,560	79.2	Civil, Track, Crossings, Surfacing
4	28.00 – 30.00	10,560	64.2	Civil, Track, Crossings, Surfacing
5	30.00 – 32.40	12,714	55.2	Civil, Track, Turnouts, Surfacing
Siding	30.50 – 32.00	8,607	44.2	Civil, Track, Surfacing

Using the production rates included below, 360 Rail Services estimates that the total construction duration will be approximately 179 days.

- Civil Construction Production Rate: 386 LF/day
- Track Construction Production Rate: 400 LF/day
- Track Surfacing Production Rate: 833 LF/day (three lifts/day)
- Crossing Installation Rate: 100 LF/day
- Turnout Installation: 3.5 days each

Construction activities will occur Monday through Saturday, limited to daylight hours (10-hour shifts). No night or Sunday work is anticipated unless required for schedule recovery or under special approval.

IR1-8. *Please provide road crossing designs, including what types of safety equipment, barriers, and signaling would be used.*

The proposed route will cross two public roads, Ironton Road and Myrtle Grove Road, as well as a number of private roads.

All crossings will be protected in accordance with AREMA and Department of Transportation guidelines. These protections may include advance warning signage, crossing signage, crossbucks, flashers, or drop-arm barriers. The precise style of crossing

selected will depend on a number of factors, including community input and more detailed design and engineering work.

IR1-9. *Please provide the number, location, and types of crossings of any other existing infrastructure or utilities (e.g., transmission lines) anticipated, if any.*

The preferred route's only above-ground utility crossing will be the Venture Global LNG Plant pipe bridge located close to Station 359+55. The preferred route will also cross at Bolsu as well as cross at underground pipelines in five places. The preferred route will cross underground pipelines in five places.

3. Transportation/Traffic

IR1-10. *Please provide the maximum and average train operating speeds anticipated on the proposed rail line.*

The maximum train speed will be 10 mph. Average operating speeds will be between 5 and 10 mph.

IR1-11. *Please provide the anticipated length and composition of trains that would operate on the proposed rail line.*

The proposed rail line—the "project at hand," in the Supreme Court phrasing—will connect the existing New Orleans & Gulf Coast Railway line with the proposed Louisiana Gateway Container Terminal. PPHTD notes that the container terminal must go through its own environmental review and permitting process, in addition to the commercial, real estate, and financing agreements that must be concluded, before it can be built.

For purposes of drawing a manageable line that will help the Board in its decisionmaking, PPHTD assumes that if and when the container terminal is built, it will send 2–3 container unit trains per week on the new line. These trains would have an average length of 2500 feet and would be powered by two GP-38-3 locomotives. Train length may vary, depending on the number of containers entering and exiting the port terminal, but the maximum length that existing NOGC infrastructure can accommodate is 4000 feet.

IR1-12. *Please provide the anticipated truck traffic that may be required during construction of the proposed rail line (i.e., trucks per day for delivery of construction materials, etc.).*

As noted above, PPHTD intends to deliver construction materials via rail and barge to the maximum extent practicable.

Rail and ballast in particular will likely be delivered by work train. These deliveries would be part of NOGC's rail operations and will not affect existing traffic through local communities.

Subballast material and other aggregates will likely be delivered by river barge. Using the estimates in Table 1 above, about 150 barge loads of subballast materials will be required. Barge delivery will not affect existing traffic in local communities.

To the extent materials cannot practicably be delivered by rail or barge, trucks would be used. If such deliveries are necessary, PPHTD anticipates that the number of truck trips would be minimal and would not affect traffic in the area.

IR1-13. *Please provide the number of trains per day anticipated to operate on the proposed rail line and any anticipated increases in number of trains per day for future rail operations.*

As noted above and in the information paper already submitted to the Board, PPHTD expects rail traffic in the range of 2–3 trains per week, assuming for purposes of drawing a manageable line that the container terminal goes into operation around the same time that the rail line does.

We hope that this information answers OEA's questions and facilitates its environmental review process.

Please don't hesitate to contact me if you have any questions.

Sincerely,

Jay C. Johnson

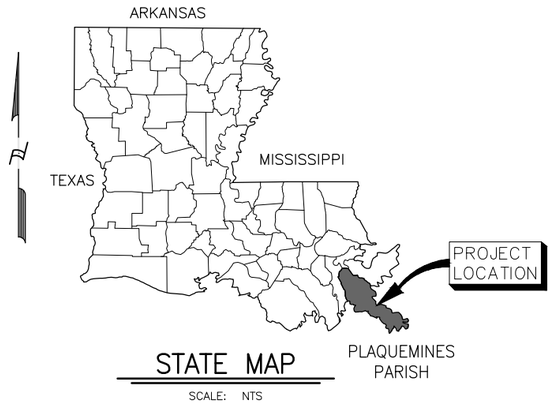
cc: Waymon T. Peer
Charles Tillotson
Celeste Bergeron
Cindy Gallo

Appendix C

LGP Mainline Rail Extension 40% Design Drawings

LGP MAINLINE RAIL EXTENSION

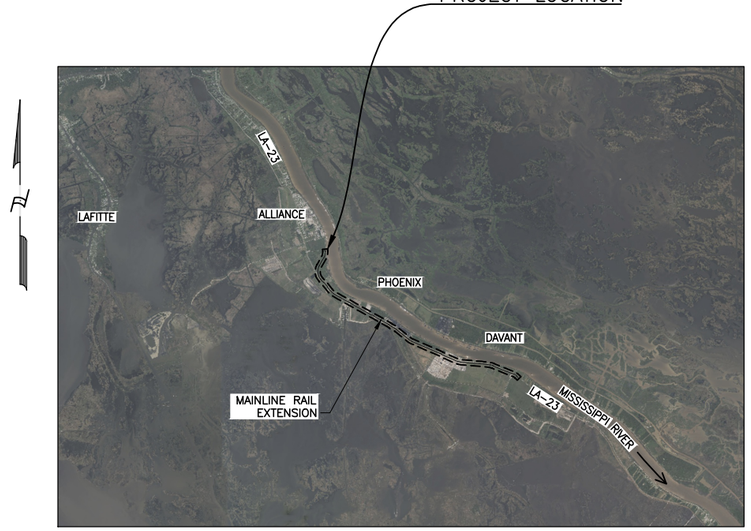
NOGC RR TERMINUS (MP 24)
TO FUTURE GATEWAY TERMINAL (MP 33)
PLAQUEMINES PARISH, LOUISIANA
JANUARY 15, 2026



STATE MAP

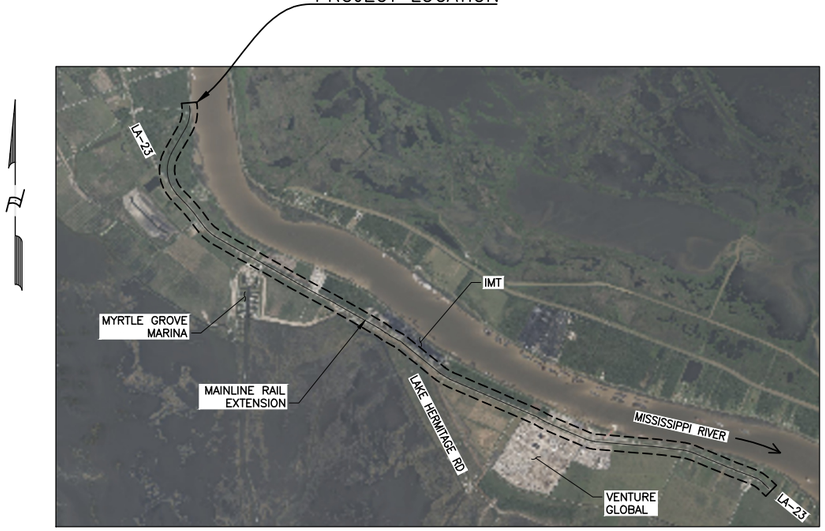
SCALE: NTS

DRAWING INDEX		
SHEET NUMBER	SHEET TITLE	REV
1	TITLE SHEET	A
2	PROJECT INDEX & EXEMPTION TABLE	B
3	PROJECT NOTES & CONTACTS	B
4	ABREVIATIONS & LEGENDS	B
5	SURVEY, CONTROL POINTS & GEOMETRY	B
6	MASTER PLAN	B
7	KEY MAP	B
8 – 41	PLAN & PROFILE – MAINLINE TRK 00+00 – E.O.T.	B
42 – 44	PROFILE – SIDING 0+00 – E.O.T.	B
45 – 62	ROAD CROSSINGS	B
63 – 75	TYPICAL SECTIONS & DETAILS	B
76 – 151	CROSS SECTIONS	B
152	GENERAL NOTES & LEGEND	A
153	OVERALL LAYOUT & KEY PLAN	A
154 – 171	DRAINAGE PLAN & PROFILE	A



VICINITY MAP

SCALE: 1" = 15,000'



SITE MAP

SCALE: 1" = 5000'

REV. #	BY	DATE	DESCRIPTION
A	DLB	01/15/2026	ISSUED FOR REVIEW

PRELIMINARY – FOR REVIEW ONLY 01/15/2026

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION OF RICARDO A. CONTRERAS, P.E. (LA No 28533) IN THE OFFICE OF INFINITY ENGINEERING CONSULTANTS, LLC.

FIRM No: LA - EF. 0003109
Infinity Engineering Consultants, LLC
IEC Project No 24-002
Civil∞Structural∞Mechanical∞Electrical∞Marine∞Transportation
Metairie, LA www.infinityec.com 504-304-0548

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 1 of 172	SHEET TITLE: TITLE SHEET

PROJECT INDEX

SHEET NUMBER	SHEET TITLE
2	PROJECT INDEX, EXEMPTION TABLE
3	PROJECT NOTES & CONTACTS
4	ABBREVIATIONS & LEGENDS
5	SURVEY, CONTROL POINTS & GEOMETRY
6	MASTER PLAN
7	KEY MAP
8 - 41	PLAN & PROFILE - MAINLINE TRK 00+00 - E.O.T
42 - 44	PROFILE - SIDING 0+00 - E.O.T
45 - 62	ROAD CROSSINGS
63 - 75	TYPICAL SECTIONS & DETAILS
76 - 151	CROSS SECTIONS

- PRELIMINARY -
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

Infinity Engineering Consultants, LLC
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 2 of 151	SHEET TITLE: PROJECT INDEX & EXEMPTION TABLE

GENERAL NOTES

1. Contractors shall notify Infinity Engineering, NOGC & Plaquemines Port, 48 hours prior to any excavation. The USA Authorization Numbers shall be kept at the job site.
2. No work whatsoever shall be commenced without first notifying "The Engineer".
3. The Contractor shall comply with all Federal, State, County, and Parish Laws and Ordinances and Regulations of the Department of Industrial Relations, OSHA, NPDES and Industrial Accident Commission related to the safety and character of the work, equipment and labor personnel.
4. Contractor shall be responsible for coordinating with all Utility agencies.
5. Contractor shall protect in place (by any means necessary) all existing utilities to remain unless otherwise specified herein, contractor shall be responsible for the complete repair at his expense, for any damage to existing utilities, structures, or other site features, as a result of his work.
6. Prior to placing curbs, pavements, base, subbase, track, etc., all underground utilities shall be installed, backfill completed, and the Engineer notified by each of the utility companies having facilities within the work area, that the utility installation has satisfactorily passed acceptance tests.
7. All existing underground utilities, that are not to be re-used shall be abandoned in place. All existing pipelines to be abandoned in place shall be cement slurry filled and capped at least 3'-0" below top of proposed subgrade.
8. Contractor shall verify locations and elevations of existing utilities whether known or unknown prior to beginning construction.
9. Any underground structures such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, and pipelines not located prior to construction shall be brought to the attention of the Engineer for determination of appropriate action such as removal or treatment in a manner judged suitable to the Engineer.
10. Contractor shall coordinate location of all proposed utilities with Infinity Engineering to assure accuracy of utility connections and compliance with local codes.
11. Any existing conditions found to be a variance with these drawings must be immediately reported to the Engineer.
12. Contractor shall maintain and clean to the satisfaction of "The Engineer", all access and service roads used during construction.
13. Contractor shall perform all construction in such a manner as to protect adjacent existing buildings, and other site elements which are to remain in service.
14. Contractor shall provide As-built Drawings for all improvements.
15. No field changes will be permitted without direct written authorization from the UPRR Engineer or his representative.
16. Contractor shall coordinate work which affects adjacent property owners. Any questions or agreements between adjacent property owners and contractor shall be made in writing. A copy of such agreement shall be provided to Infinity Engineering Engineer or his/her representative.
17. The contractor is responsible for preparing a Stormwater Pollution Prevention Plan (SWPPP) to comply with State regulations. General specifications and typical erosion control details are included in the plan set.
18. Right-of-way lines shown on the plans were taken from existing UPRR right-of-way map and are approximate.
19. Match lines for sheets are based on the existing Main Line stationing unless otherwise specified.
20. Track laying, ballasting, and installation of road crossing panels will be done by UPRR unless otherwise stated.
21. Where existing culverts are to be extended, the contractor shall expose existing drainage structures and field verify size and type before ordering.
22. The contractor is responsible for the removal of all pavement markings that will be in conflict with the proposed work.
23. Contractor shall comply with all STATE and PARISH standard specifications for construction of public improvements requirements. PARISH standard specifications shall prevail.
24. Contractor shall maintain at least one access to all affected business. If necessary, multiphase construction shall be utilized.

DESIGN CRITERIA

1. UPRR standard plans and trackworks
2. PARISH Public Works Engineering Division
3. STATE Department of Transportation Roadway Standards
4. American Railway Engineering and Maintainance of Way Association - 2022 Manual for Railway Engineering

SURVEY NOTES

1. Railroad stationing for project profiles and alignments is based on stations established for chord definition spiraled curves at the centerline of the existing NOGC Main Line unless otherwise noted.
2. The contractor is responsible for the preservation of all survey control monuments. In the event monuments are damaged or destroyed by the contractor, the Engineer will replace the monument solely at the contractor's expense.

TRAFFIC NOTES

1. All barricades, warning signs, lights, devices, etc. for the guidance of vehicle traffic and pedestrians must conform to the installation shown in the Manual on Uniform Traffic Control Devices (MUTCD), current edition.
2. Contractor shall make twice daily inspections of barricades and flashing lights to ensure proper placement and functioning of warning devices.
3. Grade crossings closed to traffic during construction shall be barricaded in accordance with the MUTCD.
4. At all grade crossings, all grade crossing warning signs (crossbuck) shall temporarily be relocated during construction and reset after the grade crossings construction is completed to a point adjacent to the roadway and 15 feet from the centerline of the near track as stated in the MUTCD except where automatic grade crossing warning signals/gates exist. All automatic warning devices are the responsibility of NOGC. At no time shall a crossing be left open without proper warning signs in place.
5. Contractor shall submit traffic control plans to PARISH Traffic Department for approval at least 2 weeks prior to each road closure. Plans shall be 11" x 17" engineered drawings, sealed by a professional engineer from the STATE.
6. The contractor is responsible for the prompt replacement and/or repair of all traffic control devices and appurtenances damaged or disturbed due to construction.

	DATUM
HORIZONTAL	NAD83 Louisiana State Plane, Southern Zone US Foot
VERTICAL	North American Vertical Datum of 1988 (NAVD88)

PROJECT CONTACTS

CONTACT	PHONE NUMBER	INFINITY ENGINEERING
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FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

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CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 3 of 151	SHEET TITLE: GENERAL NOTES

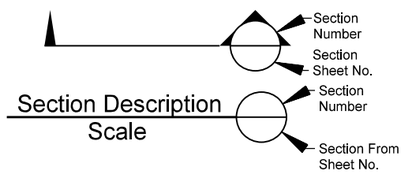
ABBREVIATIONS

MISCELLANEOUS

Ac.	Acres
Ave.	Avenue
Blvd.	Boulevard
BNSF	BNSF Railway
C.Y.	Cubic Yards
Conc.	Concrete
°	Degree (s)
Dia.	Diameter
Dr.	Drive
Dwg.	Drawing
E	East
Elev.	Elevation
Exist.	Existing
'	Foot, Feet or Minute (s)
F.S.	Finished Surface
Horiz.	Horizontal
"	Inch, Inches or Second (s)
Inv.	Invert
Lt.	Left
L	Length
L.F.	Lineal Feet
Max.	Maximum
Min.	Minimum
N	North
NTS	Not to Scale
No.	Number
OH	Overhead
Prop.	Proposed
RR	Railroad
Rwy	Railway
R/W	Right of Way
Rt.	Right
S	South
S.F.	Square Feet
Sta.	Station
Std.	Standard
St.	Street
Twp.	Township
Typ.	Typical
UG	Underground
UPRR	Union Pacific Railroad
V	Velocity
Wt.	Weight
W	West
X-ing	Crossing

SIGNAL

ABS	Automatic Block Signal
ATC	Automatic Train Control
CTC	Centralized Traffic Control
DED	Dragging Equipment Detector
DTC	Direct Traffic Control
ELTO	Electric Lock Turnout
HBD	Hot Box Detector
HTTO	Hand Throw Turnout
HWD	High Wide Dectector
POTO	Power Operated Turnout
TWC	Track Warrant Control
WILD	Wheel Impact Load Dectector



STRUCTURES

Bldg.	Building
Br.	Bridge
CB	Catch Basin
CPT	Concrete Pile Trestle - Ballast Deck
CIP	Cast Iron Pipe
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
CSP	Corrugated Steel Pipe
Culv.	Culvert
DI	Drop Inlet
DPGBD	Deck Plate Girder - Ballast Deck
DPGOD	Deck Plate Girder - Open Deck
EBW	East Backwall
F.L.	Flowline
F.F.	Finished Floor
GIP	Galvanized Iron Pipe
Hdwl	Headwall
NBW	North Backwall
PSCT	Prestressed Concrete Trestle
RCA	Reinforced Concrete Arch
RCB	Reinforced Concrete Box
RCP	Reinforced Concrete Pipe
SBW	South Backwall
SSP	Smooth Steel Pipe
SPTBD	Steel Pile Trestle - Ballast Deck
SPTOD	Steel Pile Trestle - Open Deck
SPP	Structural Plate Pipe
TPGBD	Through Plate Girder - Ballast Deck
TPGOD	Through Plate Girder - Open Deck
TPTBD	Timber Pile Trestle - Ballast Deck
TPTOD	Timber Pile Trestle - Open Deck
TTBD	Through Truss - Ballast Deck
TTOD	Through Truss - Open Deck
TWB	Treated Wood Box
VCP	Vitrified Clay Pipe
Viad.	Viaduct
WBW	West Backwall
WIP	Wrought Iron Pipe

TRACK

TOR	Top of Rail
ATR	Above Top of Rail
Align.	Alignment
BBR	Below Base of Rail
Cntrs.	Centers
CWR	Continuous Welded Rail
DSPD	Double Switch Point Derail
EOT	End of Track
HH	Head Hardened
Jtd.	Jointed Rail
LH	Left Hand
ML	Main Line
MM	Mile Marker
MP	Mile Post
NSC	Not Sufficient Clearance
OTM	Other Track Material
PCC	Point of Compound Curve
PC	Point of Curve
PCS	Point of Curve to Spiral
POC	Point on Curve
PF	1/2" Point of Frog
PI	Point of Intersection
PITO	Point of Intersection of Turnout
PS	Point of Spiral
PSC	Point of Spiral to Curve
POS	Point on Spiral
PT	Point of Tangent
POT	Point on Tangent
Pt. Sw.	Point of Switch
PVC	Point of Vertical Curve
PVI	Point of Vertical Intersection
PVT	Point of Vertical Tangent
RH	Right Hand
SH	Second Hand
SPD	Single Switch Point Derail
TC	Track Centers
T.F.	Track Feet
Trk.	Track
UXO	Universal Cross-Over
X-Over	Cross-Over

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SYMBOLS

UTILITIES

- Compressed Air
- F/O — Fiber Optic Cable
- G — Gas Pipeline
- OHP — Overhead Power Line
- SS — Sanitary Sewer
- Overhead Signal Line
- Steam Line
- SS — Storm Sewer
- T — Telephone
- UGE — Underground Electric
- Water Main
- Underground Wire
- V. — Valve
- M.H. — Manhole
- C.B. — Catch Basin
- F.H. — Fire Hydrant

TRACK

- Existing Mainline
- Existing Siding, Spur or UPRR Owned Industry
- Proposed Mainline
- Proposed Siding, Spur or UPRR Owned Industry
- Remove Mainline
- Shift Mainline
- No RR Operations
- Existing Industry Owned
- Proposed Industry Owned
- Remove Industry Owned
- Shift Industry Owned
- Future Industry Track
- Prop. Leased Ind. Track
- Exist. Leased Ind. Track
- In Building or Under Structures
- Turnout
- Wheel Stop
- Bumping Post
- Earthen Bumper
- 56' — Inert Retarder
- 52' — Dowty Retarder
- Derail
- Switch Point Derail or Double Switch Point Derail

PROPERTY

- Section Line
- Center Section Line
- Parcel or Easement Line
- Right of Way
- Former Right of Way
- Right of Way to be Acquired
- Foreign Right of Way

ROAD CROSSING WARNING DEVICES

- Crossbuck Sign
- Flashing Light Warning Device
- Flashing Light Warning Device with Gate
- Cantilever Flashing Light Warning Device
- Cantilever Flashing Light Signal with Gate

SIGNAL

- Absolute Signal
- Signal Bridge
- Cantilever Signal
- ACS or CTC Signal
- Dwarf Signal
- Begin CTC
- Microwave Tower
- AEI — AEI

STRUCTURES

- Culvert
- Culvert with Headwalls
- Double Culvert
- Railroad Bridge
- Highway Overpass
- Highway Underpass
- Tunnel
- Building

LIGHTING

- Light Pole
- Light Tower

CONSTRUCTION

- Work — Note (Work by Contractor)
- Note — Note (Work by Railroad)
- Cut Lines
- Fill Lines

SIGNS

- Stop
- Yard Limit
- 1 Mile to Yard Limit
- W — Whistle Post
- Flanger
- Station
- Reduce Speed
- Resume Speed
- General Purpose

FENCES

- X — X — Barbed Wire
- Chain Link
- Snow / Sand

ROADS

- Paved Road
- Unimproved Road
- 80 — Interstate Highway
- 20 — Federal Highway
- 58 — State Highway
- C3 — County Highway

OTHER

- Wetlands
- River or Lake
- Embankment
- Flow Line
- Milepost
- MM — Milemarker
- 15 — Control Point
- 1 — Revision Number
- Revision Cloud

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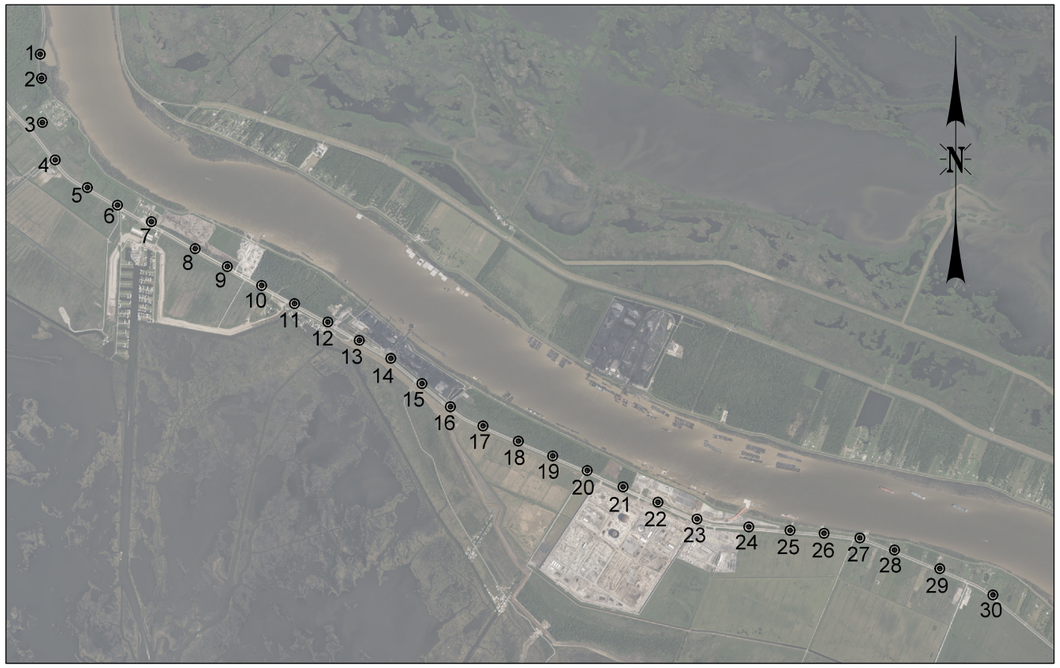
SHEET NUMBER: 4 of 151	SHEET TITLE: ABBREVIATIONS & LEGENDS



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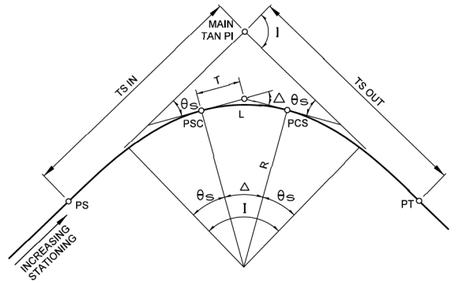

FIGURE A
CIRCULAR CURVES WITH SPIRAL TRANSITION

I - TOTAL INTERSECTION ANGLE

θ_S - SPIRAL ANGLE = $\frac{AL^2}{2}$

Δ - CENTRAL ANGLE OF CIRCULAR CURVE = I - 2 θ_S

Dc - DEGREE OF CURVE

A - RATE OF CHANGE OF DEGREE OF CURVE PER 100-ft. OF LENGTH = $\frac{Dc}{L}$

R - RADIUS OF CIRCULAR CURVE

T - TANGENT LENGTH OF CIRCULAR CURVE = R TAN $\frac{\Delta}{2}$

L - LENGTH OF CIRCULAR CURVE = $\frac{\Delta}{Dc}$ x 100

PS - TANGENT TO SPIRAL

PSC - SPIRAL TO CURVE

PCS - CURVE TO SPIRAL

PT - SPIRAL TO TANGENT

MAIN TAN PI - POINT OF INTERSECTION OF MAIN TANGENTS

(TS IN) (TS OUT) - TANGENT LENGTH OF COMPLETE CURVE = (R+o) TAN $\frac{I}{2}$ + t

(WHEN SPIRALS OF EQUAL LENGTH ARE USED ON BOTH SIDES OF CIRCULAR CURVE, SEE FIGURE C. FOR o AND t).

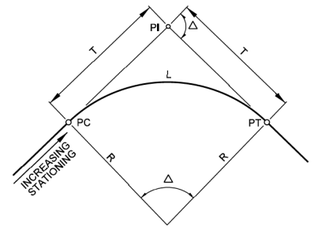

FIGURE B
SIMPLE CIRCULAR CURVE

R = RADIUS OF CIRCULAR CURVE

Δ = CENTRAL ANGLE OF CIRCULAR CURVE

T = R TAN $\frac{\Delta}{2}$

L = $\frac{\Delta}{Dc}$ x 100

Dc = 2 SIN^{-1} (50/R) = DEGREE OF CURVE (CHORD DEFINITION)

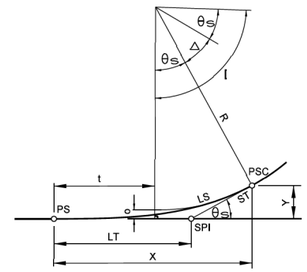

FIGURE C
SPIRAL TRANSITION CURVE

SPIRAL TRANSITION CURVE DATA:
THE SPIRAL USED IS DEFINED BY THE TALBOT SPIRAL.

LS = LENGTH OF SPIRAL (TS TO PSC)

θ_S = $\frac{AL^2}{2}$

X = $100\,L_1 - 0.000762A^2L_1^5$

Y = $0.291AL_1^3 - 0.00000158A^3L_1^7$

o = $0.0727AL_1^3$

t = $50L_1 - 0.000127A^2\,L_1^5$

ST = $\frac{Y}{\text{SIN}\ \theta_S}$

LT = $X - \frac{Y}{\text{TAN}\ \theta_S}$

Dc = 2 SIN^{-1} (50/R) = DEGREE OF CURVE (CHORD DEFINITION)

L_1 - TOTAL NO. OF STATIONS IN SPIRAL

SPI - SPIRAL POINT OF INTERSECTION

NOTE: Dc, θ_S, Δ, AND I ARE IN DEGREES.
ALL OTHERS DIMENSIONS ARE FEET.

POINT NO.	NORTHING	EASTING	ELEVATION
1	422656.5608	3715902.262	9.4967
2	421700.087	3715954.026	12.1143
3	419953.9816	3715986.793	0.9931
4	418471.1963	3716492.643	0.7959
5	417375.7904	3717766.666	0.8848
6	416679.668	3718959.068	0.534
7	416027.2544	3720304.446	0.63
8	414959.4939	3722036.606	0.5659
9	414248.4061	3723309.508	-0.1417
10	413499.9376	3724667.941	0.0081

POINT NO.	NORTHING	EASTING	ELEVATION
11	412780.9967	3725969.976	2.514
12	412054.1512	3727289.202	3.439
13	411329.122	3728533.53	2.7394
14	410615.4461	3729782.301	5.7737
15	409617.1343	3731016.277	4.5844
16	408701.1508	3732141.473	0.9756
17	407939.8575	3733432.71	0.6385
18	407337.9832	3734832.341	0.681
19	406751.5113	3736193.295	0.2391
20	406174.8148	3737559.435	0.7338

POINT NO.	NORTHING	EASTING	ELEVATION
21	405528.1437	3738979.633	0.3697
22	404920.7528	3740359.743	1.0708
23	404255.6276	3741906.943	1.5294
24	403942.4719	3743957.759	2.1212
25	403804.7251	3745590.889	2.9933
26	403688.9084	3746938.6	3.4382
27	403504.8074	3748355.598	3.8448
28	403027.9316	3749728.348	2.3941
29	402289.5596	3751520.895	1.1263
30	401247.6876	3753624.775	2.8062

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DATE: 1/14/2026	
SHEET NUMBER: 5 of 151	SHEET TITLE: CONTROL POINTS & GEOMETRY

LOUISIANA GATEWAY TERMINAL MAINLINE EXTENSION
PLAQUEMINES PORT, LA
SHEET KEY MAP

To Avondale
North

To Terminal
South

N

EXISTING TRK
24 L.F. CONC. X-ING
IRONTON
PHOENIX
24 L.F. TIMBER X-ING
24 L.F. TIMBER X-ING
MYRTLE GROVE
32 L.F. CONC. X-ING
40 L.F. CONC. X-ING
48 L.F. CONC. X-ING
48 L.F. CONC. X-ING
LA 23
48 L.F. CONC. X-ING
40 L.F. CONC. X-ING
24 L.F. TIMBER X-ING
MAINLINE TRK 50,834 T.F.
LA 39
IMT
MISSISSIPPI RIVER
32 L.F. TIMBER X-ING
30 L.F. CONC. X-ING
96 L.F. CONC. X-ING
NO. 11 LH HTTO
DSPD RH DERAIL
SIDING TRK 8,610 T.F.
40 L.F. DOUBLE CONC. X-ING
48 L.F. DOUBLE MAINLINE TRK
DAVANT
VENTURE GLOBAL
12 L.F. DOUBLE TIMBER X-ING
LOCKED SECURITY GATE
40 L.F. DOUBLE TIMBER X-ING
DSPD LH DERAIL
NO. 11 RH HTTO
12 L.F. TIMBER X-ING
VENTURE GLOBAL LNG

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3000 0 3000 6000
SCALE IN FEET

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Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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DATE: 1/14/2026	
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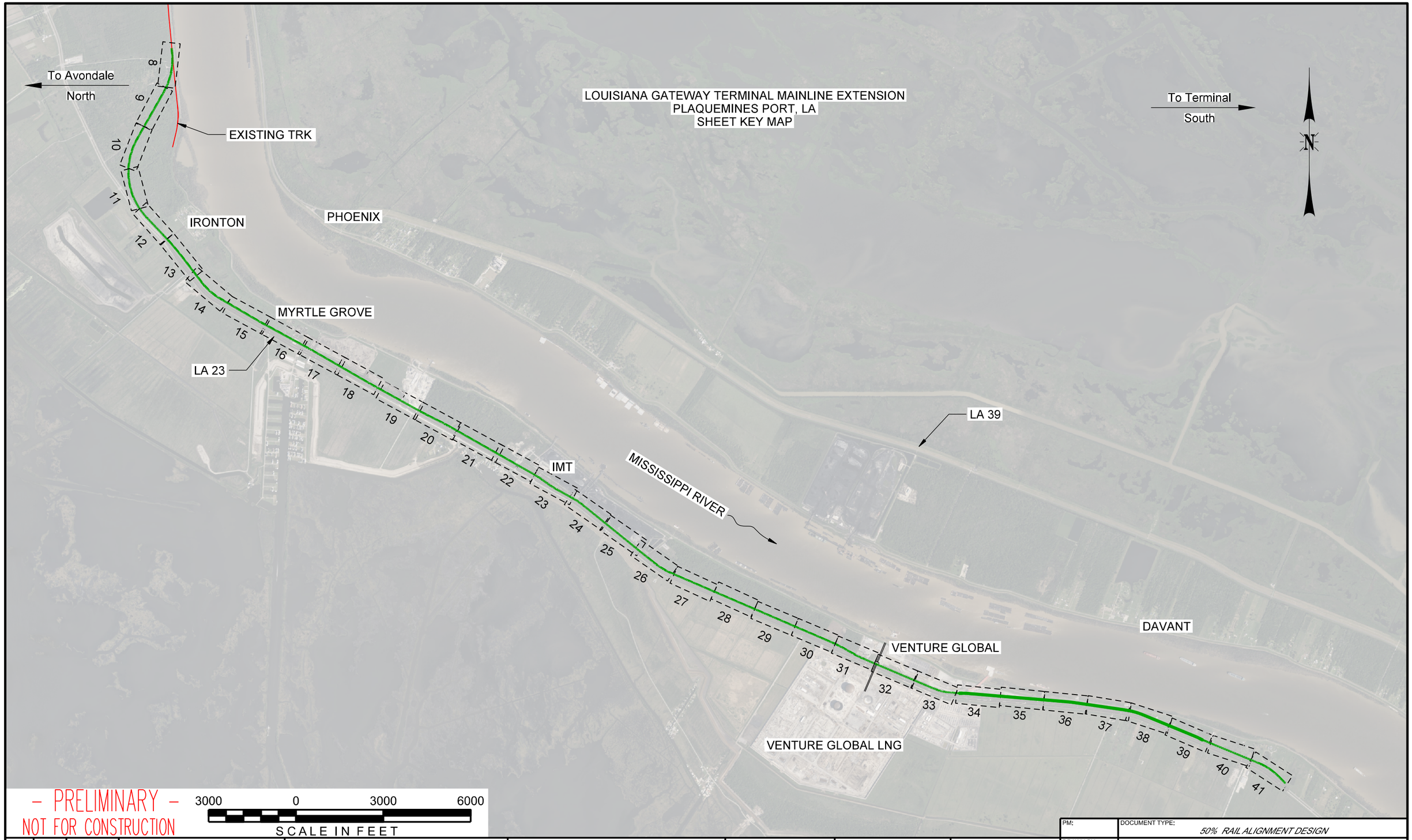
LOUISIANA GATEWAY TERMINAL MAINLINE EXTENSION
PLAQUEMINES PORT, LA
SHEET KEY MAP



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3000 0 3000 6000
SCALE IN FEET

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Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
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Power Turnout
Power Derail
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Fill

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SHEET NUMBER: 7 of 151	SHEET TITLE: KEY MAP

To Avondale
North

To Terminal
South

VPI=0+00.00
EL=3.00

TOR PROP. MAINLINE

0.00%

EX. GROUND

20
10
0
-10
-20

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00

3.00 2.36 | 3.00 2.23 | 3.00 1.80 | 3.00 0.89 | 3.00 -0.22 | 3.00 2.53 | 3.00 1.19 | 3.00 2.85 | 3.00 2.59 | 3.00 3.09 | 3.00 3.74 | 3.00 3.59 | 3.00 2.45 | 3.00 3.92 | 3.00 1.19 | 3.00 -0.89

MISSISSIPPI RIVER

EXISTING TRK

MAINLINE TRK - 50,834 T.F.

5
63

3
63

1205+00

PPOT
1202+82.51

EX. TRK STA. 1202+82.51 =
MAINLINE TRK STA. 0+00

S/L
93.00'

PTS
1+29.24

PSC
2+22.24

MAINLINE TRK
Delta = 34°43'19"
R = 2292.01'
Dc = 02°30'00"
S/L = 93.00'

5+00

10+00

15+00

ACCESS ROAD

MAINLINE TRK
Delta = 32°23'50"
Dc = 02°30'00"

14'

18'

MATCHLINE - MAINLINE TRK STA.15+00 (SHEET 09)

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100 0 100 200
SCALE IN FEET

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Prop. Mainline Track
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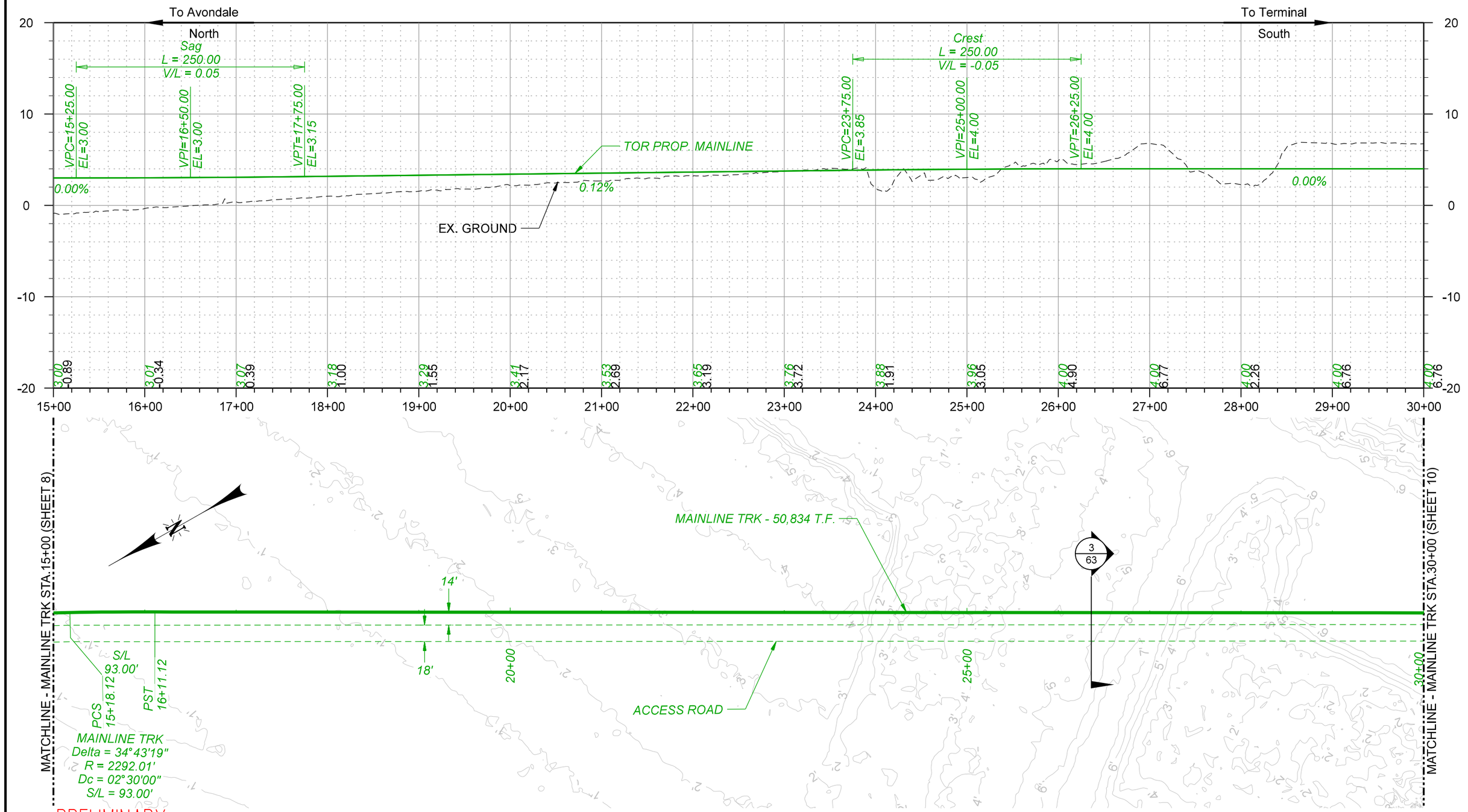
SHEET NUMBER: 8 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 0+00 - 15+00



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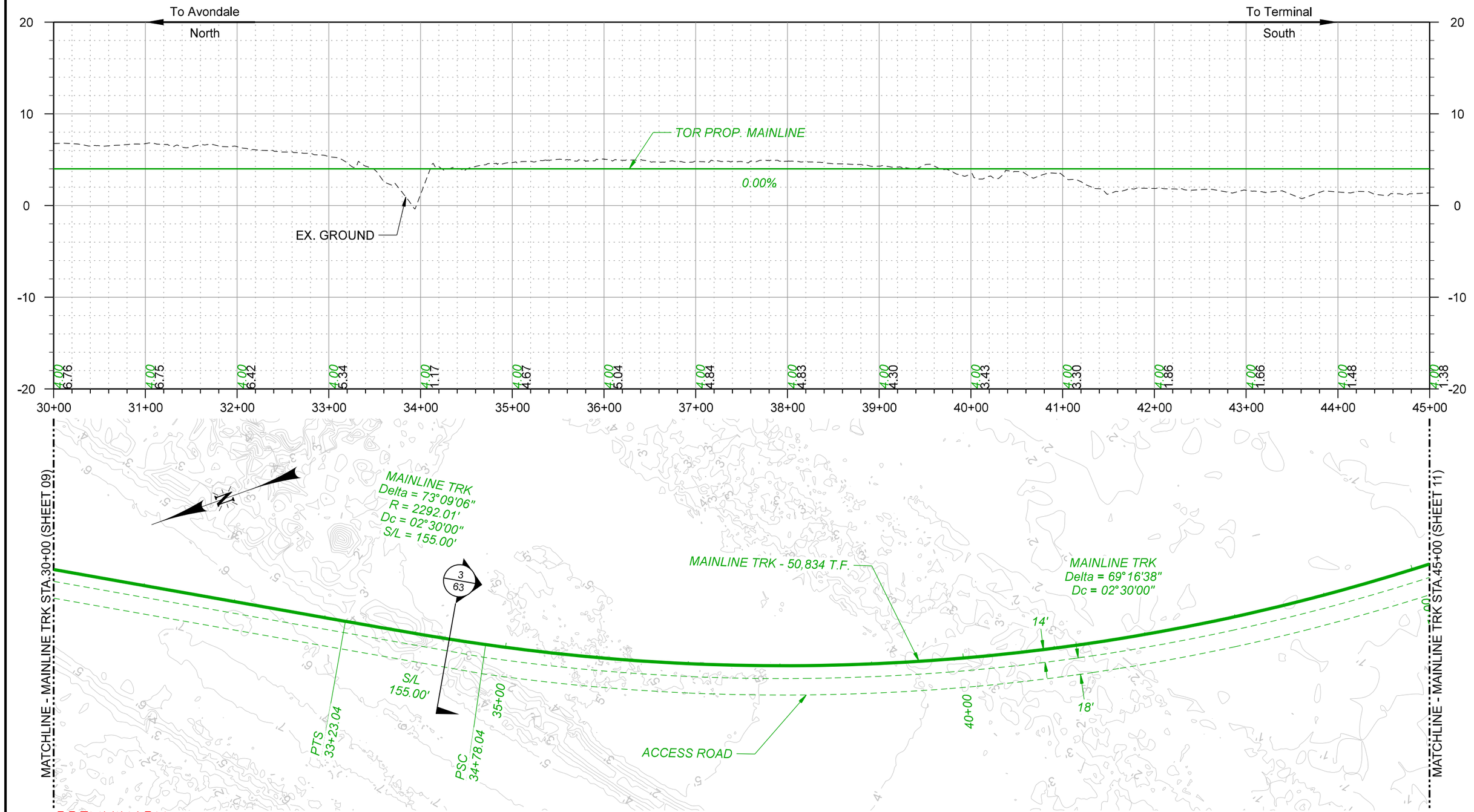
DATE: 1/14/2026	
SHEET NUMBER: 9 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 15+00 - 30+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

Infinity Engineering Consultants, LLC
Civil=Structural=Mechanical=Electrical=Marine=Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 10 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 30+00 - 45+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE
0.00%
EX. GROUND

45+00	46+00	47+00	48+00	49+00	50+00	51+00	52+00	53+00	54+00	55+00	56+00	57+00	58+00	59+00	60+00
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
1.38	1.03	0.31	0.87	1.57	0.66	0.60	0.91	0.22	0.36	-0.19	-0.33	0.74	0.11	-0.34	0.56

MATCHLINE - MAINLINE TRK STA.45+00 (SHEET 10)

MATCHLINE - MAINLINE TRK STA.60+00 (SHEET 12)

MAINLINE TRK - 50,834 T.F.

MAINLINE TRK
Delta = 69° 16'38"
Dc = 02° 30'00"

3/63

1/63

45+00

14'

18'

50+00

55+00

ACCESS ROAD

DOTD ROW

LA 23

LA 23

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 11 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 45+00 - 60+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE
0.00%
EX. GROUND
ROAD X-ING
73+69.87
EL=4.00

4.00 0.56 | 4.00 0.45 | 4.00 0.27 | 4.00 0.88 | 4.00 1.45 | 4.00 0.85 | 4.00 0.83 | 4.00 1.88 | 4.00 1.15 | 4.00 0.68 | 4.00 1.34 | 4.00 1.67 | 4.00 3.17 | 4.00 2.68 | 4.00 2.22 | 4.00 0.85

60+00 61+00 62+00 63+00 64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00

MATCHLINE - MAINLINE TRK STA.60+00 (SHEET 11)

MAINLINE TRK
Delta = 69°16'38"
Dc = 02°30'00"

MAINLINE TRK
Delta = 73°09'06"
R = 2292.01'
Dc = 02°30'00"
S/L = 155.00'

MAINLINE TRK - 50,834 T.F.

S/L
155.00'

PCS
62+49.12

PST
64+04.12

65+00

DOTD ROW

1
63

70+00

PC
70+83.91

MAINLINE TRK
Delta = 06°02'04"
Dc = 00°30'00"

LA 23

22
74

23
75

24' CONC. X-ING
73+69.87 MAINLINE TRK

IRONTON ROAD

ACCESS
ROAD

2
63

MATCHLINE - MAINLINE TRK STA.75+00 (SHEET 13)

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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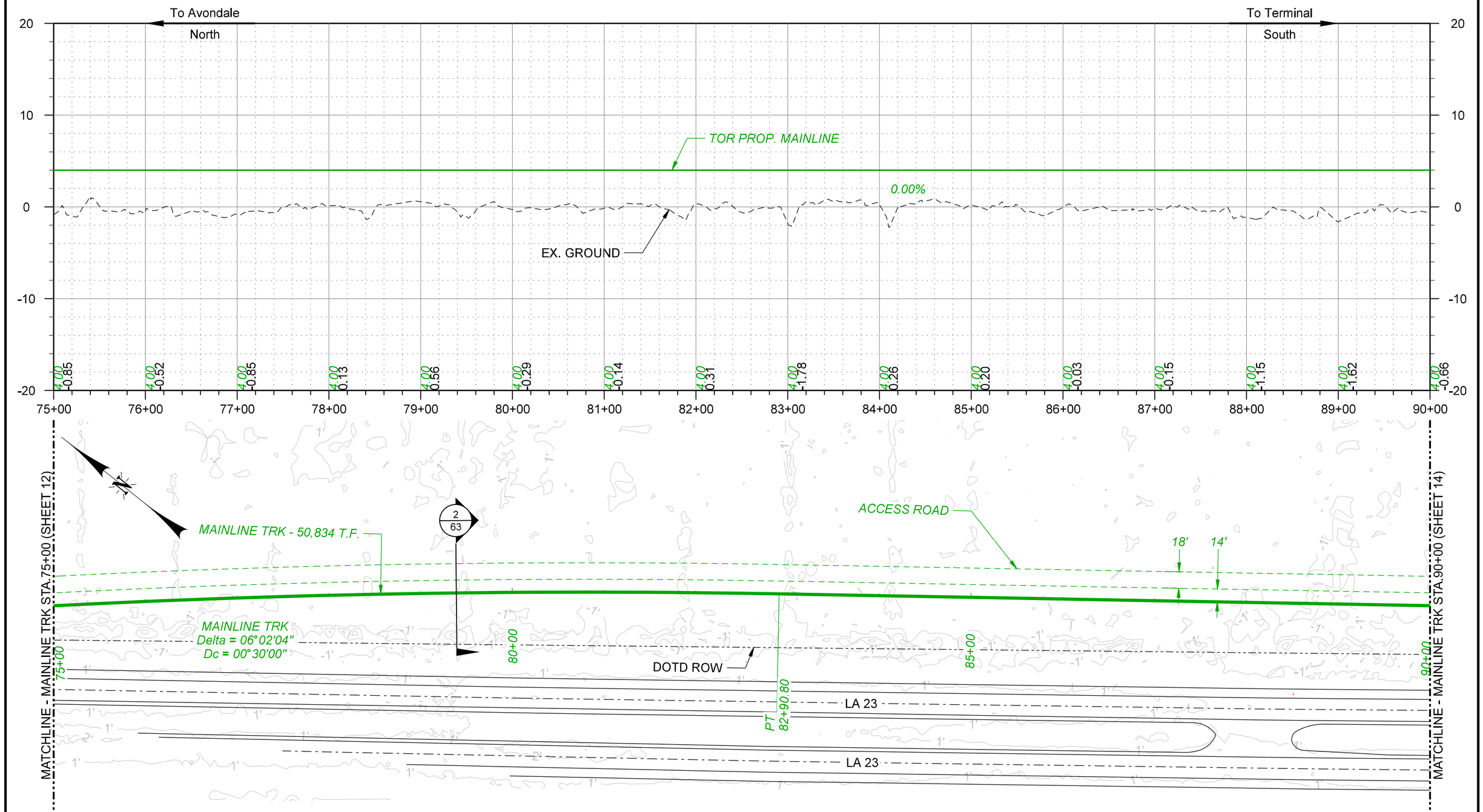
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 12 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 60+00 - 75+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 13 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 75+00 - 90+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE

0.00%

EX. GROUND

90+00	91+00	92+00	93+00	94+00	95+00	96+00	97+00	98+00	99+00	100+00	101+00	102+00	103+00	104+00	105+00
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
-0.66	-0.67	-0.58	-0.01	-0.00	-0.47	-0.07	-0.81	-0.82	-0.81	-0.54	-0.50	-1.06	-0.90	-0.64	-0.66

MAINLINE TRK
Delta = 73°09'06"
R = 2292.01'
Dc = 02°30'00"
S/L = 155.00'

MAINLINE TRK - 50,834 T.F.

MAINLINE TRK
Delta = 19°53'43"
Dc = 02°30'00"

MAINLINE TRK
Delta = 22°13'13"
R = 2292.01'
Dc = 02°30'00"
S/L = 93.00'

ACCESS ROAD

2
63

14'

18'

MATCHLINE - MAINLINE TRK STA.90+00 (SHEET 13)

MATCHLINE - MAINLINE TRK STA.105+00 (SHEET 15)

90+00

PTS
91+70.78

S/L
93.00'

PSC
92+63.78

95+00

DOTD ROW

EX. DITCH CL.

100+00

S/L
93.00'

PCS
100+59.59

PST
101+52.59

LA 23

LA 23

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 14 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 90+00 - 105+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE

0.00%

EX. GROUND

4.00 0.66 | 4.00 1.45 | 4.00 0.69 | 4.00 0.48 | 4.00 0.32 | 4.00 0.49 | 4.00 0.84 | 4.00 1.06 | 4.00 0.42 | 4.00 0.14 | 4.00 0.71 | 4.00 1.18 | 4.00 0.89 | 4.00 0.09 | 4.00 0.11 | 4.00 2.05

105+00 106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00

MATCHLINE - MAINLINE TRK STA.105+00 (SHEET 14)

MATCHLINE - MAINLINE TRK STA.120+00 (SHEET 16)

MAINLINE TRK - 50,834 T.F.

ACCESS ROAD

2
63

MAINLINE TRK
Delta = 01°50'07"
Dc = 00°30'00"

14' 18'

DOTD ROW

EX. DITCH CL.

105+00

110+00

115+00

PC 114+62.64

PT 116+29.70

LA 23

LA 23

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 15 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 105+00 - 120+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

REMOVE X-ING
125+92.85
EL=4.00

24' TIMBER X-ING
128+82.49
EL=4.00

REMOVE X-ING
133+68.23
EL=4.00

TOR PROP. MAINLINE

0.00%

EX. GROUND

4.00 2.05 | 4.00 1.24 | 4.00 0.01 | 4.00 0.63 | 4.00 0.67 | 4.00 0.79 | 4.00 0.60 | 4.00 0.49 | 4.00 0.18 | 4.00 0.30 | 4.00 1.16 | 4.00 2.08 | 4.00 0.65 | 4.00 1.63 | 4.00 0.57 | 4.00 0.02

120+00 | 121+00 | 122+00 | 123+00 | 124+00 | 125+00 | 126+00 | 127+00 | 128+00 | 129+00 | 130+00 | 131+00 | 132+00 | 133+00 | 134+00 | 135+00

MATCHLINE - MAINLINE TRK STA.120+00 (SHEET 15)

MATCHLINE - MAINLINE TRK STA.135+00 (SHEET 17)

ACCESS ROAD

MAINLINE TRK 50,834 T.F.

2
63

14' 18'

MYRTLE GROVE DRIVE WAY

REMOVE X-ING
125+92.85 MAINLINE TRK

MYRTLE GROVE DRIVE WAY

24' TIMBER X-ING
128+82.49 MAINLINE TRK

20
72

21
73

2
63

14' 10'

REMOVE X-ING
133+68.23 MAINLINE TRK

MYRTLE GROVE DRIVE WAY

120+00

125+00

130+00

EX. DITCH CL.

DOTD ROW

LA 23

LA 23

MYRTLE GROVE
BAR TO BE RELOCATED

PC
134+69.60

MAINLINE TRK
Delta = 01°25'06"
Dc = 00°30'00"

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 16 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 120+00 - 135+00

To Avondale
North

To Terminal
South

24' TIMBER X-ING
135+61.36
EL=4.00

TOR PROP. MAINLINE

0.00%

EX. GROUND

20
10
0
-10
-20

4.00 -0.02 | 4.00 0.37 | 4.00 1.18 | 4.00 0.56 | 4.00 1.76 | 4.00 1.61 | 4.00 0.96 | 4.00 0.39 | 4.00 0.71 | 4.00 0.58 | 4.00 -0.32 | 4.00 0.60 | 4.00 0.56 | 4.00 1.07 | 4.00 0.39 | 4.00 0.29

135+00 | 136+00 | 137+00 | 138+00 | 139+00 | 140+00 | 141+00 | 142+00 | 143+00 | 144+00 | 145+00 | 146+00 | 147+00 | 148+00 | 149+00 | 150+00

MATCHLINE - MAINLINE TRK STA.135+00 (SHEET 16)

MATCHLINE - MAINLINE TRK STA.150+00 (SHEET 18)

20
72

21
73

MYRTLE GROVE DR

24' TIMBER X-ING
135+61.36 MAINLINE

MAINLINE TRK 50,834 T.F.

ACCESS ROAD

2
63

14'

10'

MAINLINE TRK
Delta = 01°25'06"
Dc = 00°30'00"

EX. DITCH CL.

DOTD ROW

PT
137+53.24

LA 23

LA 23

135+00

140+00

145+00

150+00

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 17 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 135+00 - 150+00

To Avondale
North

To Terminal
South

Crest
L = 450.00
V/L = -0.03

Sag
L = 500.00
V/L = 0.02

VPC=151+83.15
EL=4.00

VPI=154+08.15
EL=4.00

VPT=156+33.15
EL=3.72

VPC=163+68.57
EL=2.81

TOR PROP. MAINLINE

0.00%

-0.12%

EX. GROUND

20
10
0
-10
-20

150+00 151+00 152+00 153+00 154+00 155+00 156+00 157+00 158+00 159+00 160+00 161+00 162+00 163+00 164+00 165+00

4.00 0.29 | 4.00 1.37 | 4.00 0.59 | 3.98 0.88 | 3.93 2.18 | 3.86 0.93 | 3.76 0.77 | 3.64 -0.59 | 3.51 1.05 | 3.39 1.23 | 3.27 1.00 | 3.14 0.56 | 3.02 -0.43 | 2.90 -0.12 | 2.77 -0.21 | 2.67 0.74

MAINLINE TRK 50,834 T.F.

ACCESS ROAD

2
63

EX. DITCH CL.

DOTD ROW

155+00

14'

10'

MAINLINE TRK
Delta = 01°03'49"
Dc = 00°15'00"

160+00

PC 158+75.84

PT 163+01.23

MATCHLINE - MAINLINE TRK STA.150+00 (SHEET 17)

MATCHLINE - MAINLINE TRK STA.165+00 (SHEET 19)

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
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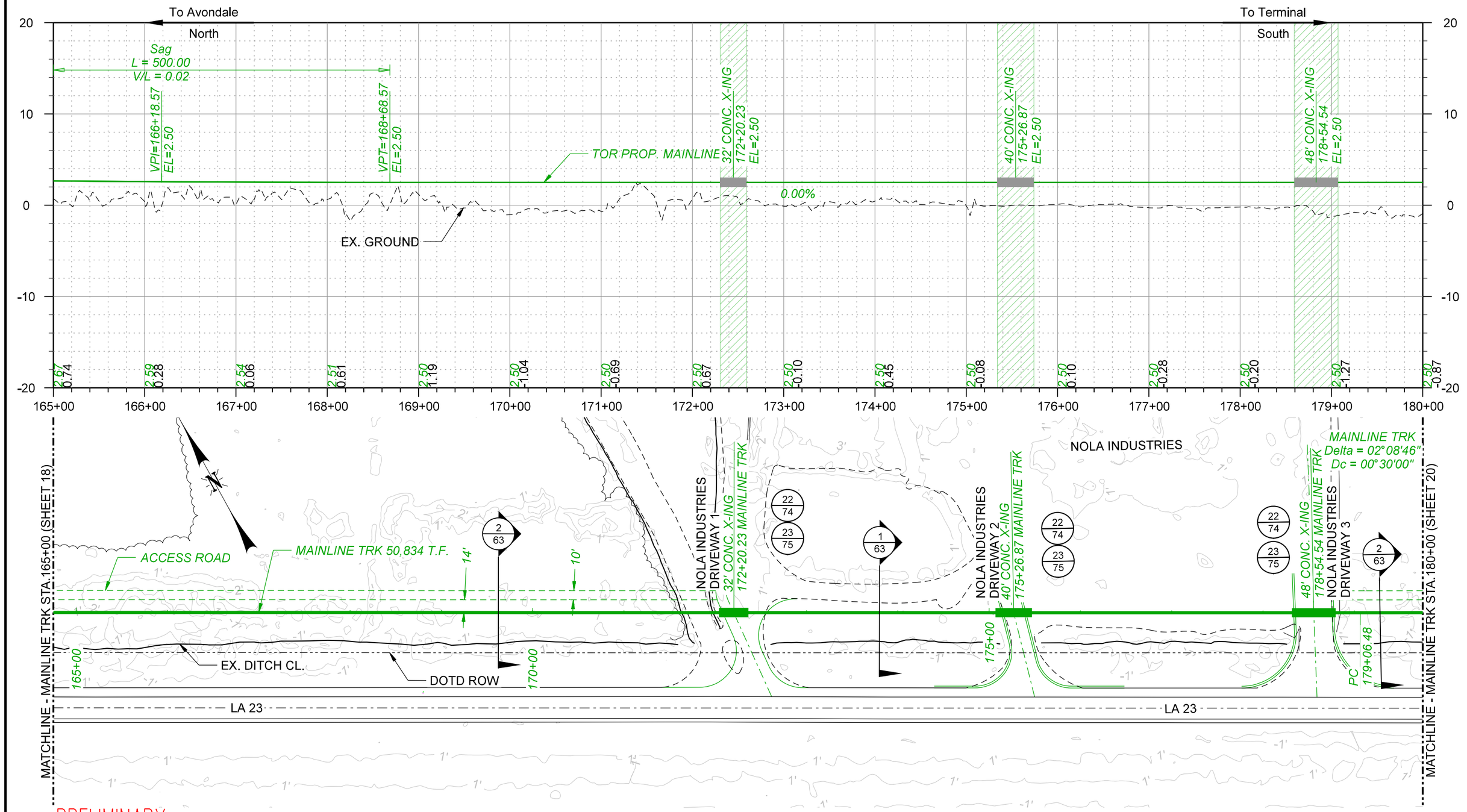
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 18 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 150+00 - 165+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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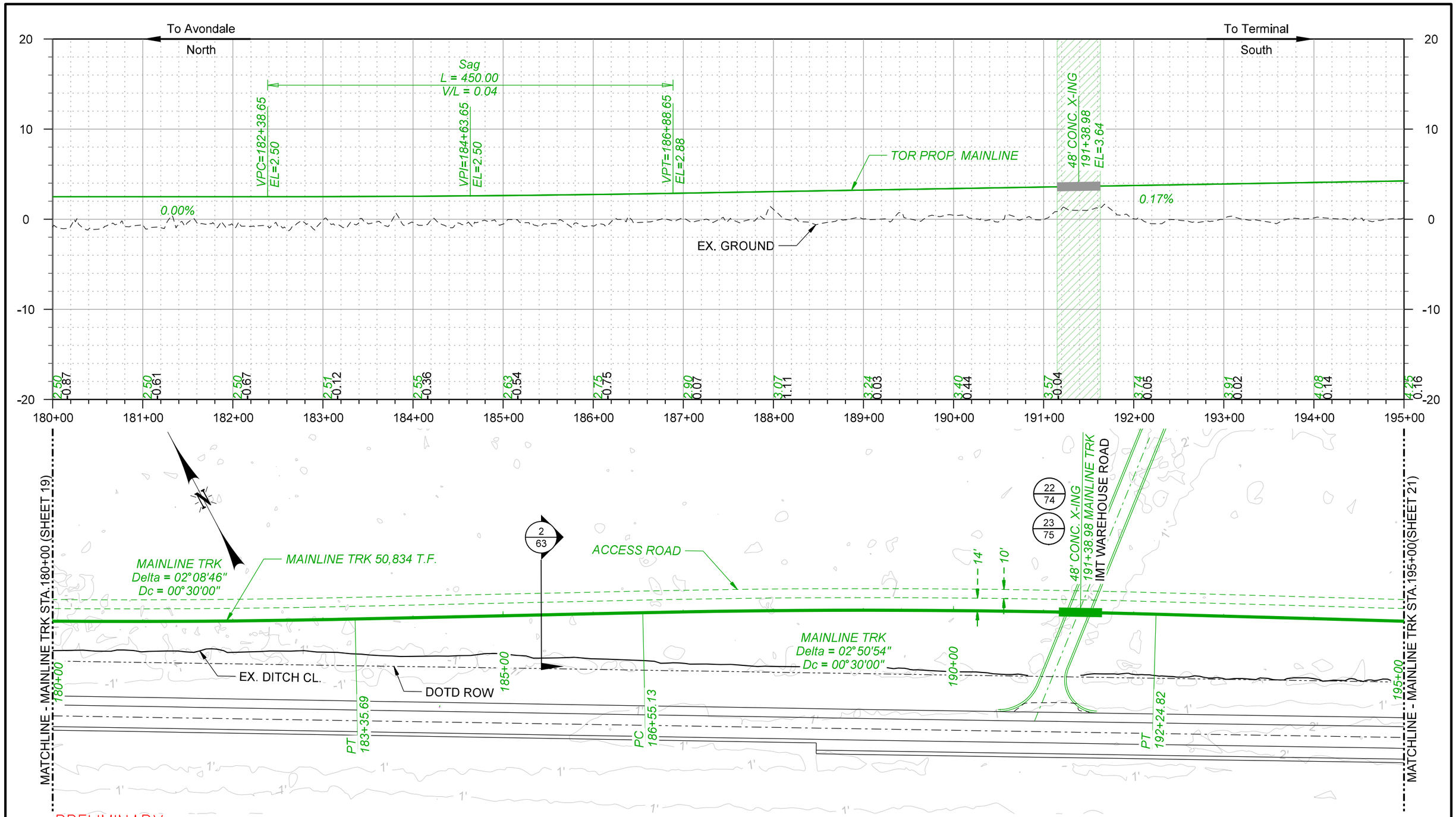
LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 19 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 165+00 - 180+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

Infinity Engineering Consultants, LLC
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 20 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 180+00 - 195+00

To Avondale
North

To Terminal
South

Crest
L = 450.00
V/L = -0.04

VPC=197+22.49
EL=4.62

VPI=199+47.49
EL=5.00

VPT=201+72.49
EL=5.00

TOR PROP. MAINLINE

0.17%

0.00%

EX. GROUND

20
10
0
-10
-20

4.25 0.16 | 4.41 0.13 | 4.58 -0.02 | 4.74 -0.20 | 4.86 -0.02 | 4.94 0.42 | 4.99 0.44 | 5.00 1.29 | 5.00 2.04 | 5.00 0.72 | 5.00 1.98 | 5.00 0.78 | 5.00 1.59 | 5.00 1.15 | 5.00 1.64 | 5.00 1.06

195+00 196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00 204+00 205+00 206+00 207+00 208+00 209+00 210+00

MATCHLINE - MAINLINE TRK STA.195+00 (SHEET 20)

MATCHLINE - MAINLINE TRK STA.210+00 (SHEET 22)

2
63

ACCESS ROAD

MAINLINE TRK 50,834 T.F.

14'

10'

195+00

200+00

205+00

EX. DITCH CL.

DOTD ROW

- PRELIMINARY -
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007141

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 21 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 195+00 - 210+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE
48' CONC. X-ING
218+03.45
EL=5.00
0.00%
EX. GROUND

5.00 1.06 | 5.00 1.31 | 5.00 1.31 | 5.00 1.19 | 5.00 1.55 | 5.00 1.70 | 5.00 1.71 | 5.00 1.91 | 5.00 2.14 | 5.00 1.37 | 5.00 4.99 | 5.00 3.31 | 5.00 2.57 | 5.00 3.20 | 5.00 2.90 | 5.00 4.00

210+00 211+00 212+00 213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00 223+00 224+00 225+00

MATCHLINE - MAINLINE TRK STA.210+00 (SHEET 21)

MATCHLINE - MAINLINE TRK STA.225+00 (SHEET 23)

2
63

ACCESS ROAD
MAINLINE TRK 50,834 T.F.
14'
10'

22
74
23
75

48' CONC. X-ING
218+03.45 MAINLINE TRK

1
63

INTERNATIONAL
MARINE TERMINAL

POND TO BE
MODIFIED AS NECESSARY

210+00
215+00
220+00

EX. DITCH CL.
DOTD ROW

S/L
125.00'

PTS
223+83.86

MAINLINE TRK
Delta = 06°12'32"
R = 2864.93'
Dc = 02°00'00"
S/L = 125.00'

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 22 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 210+00 - 225+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE

0.00%

EX. GROUND

40' CONC. X-ING
239+03.19
EL=5.00

5.00 4.00 | 5.00 5.36 | 5.00 4.86 | 5.00 0.98 | 5.00 0.19 | 5.00 1.31 | 5.00 5.06 | 5.00 2.70 | 5.00 1.25 | 5.00 2.57 | 5.00 2.58 | 5.00 2.67 | 5.00 2.91 | 5.00 3.23 | 5.00 4.10

225+00 226+00 227+00 228+00 229+00 230+00 231+00 232+00 233+00 234+00 235+00 236+00 237+00 238+00 239+00

MATCHLINE - MAINLINE TRK STA.225+00 (SHEET 22)

INTERNATIONAL
MARINE TERMINAL

POND TO BE
MODIFIED AS NECESSARY

1/63

4/63

MAINLINE TRK
Delta = 03°42'33"
Dc = 02°00'00"

MAINLINE TRK
Delta = 06°55'07"
R = 2864.93'
Dc = 02°00'00"
S/L = 125.00'

MAINLINE TRK
Delta = 04°25'08"
Dc = 02°00'00"

MAINLINE TRK 50,834 T.F.

MAINLINE TRK
Delta = 06°55'07"
R = 2864.93'
Dc = 02°00'00"
S/L = 125.00'

MAINLINE TRK
Delta = 06°12'32"
R = 2864.93'
Dc = 02°00'00"
S/L = 125.00'

S/L 125.00'

S/L 125.00'

S/L 125.00'

RETAINING WALL

DOTD ROW

MAINLINE TRK
Delta = 06°55'07"
R = 2864.93'
Dc = 02°00'00"
S/L = 125.00'

PSC 225+08.86

PST 228+19.31

PTS 229+61.85

PSC 230+86.85

PCS 233+07.79

PST 234+32.79

PCS 226+94.31

228+67.11 BEGIN RETAINING WALL OFFSET - 14.00R

230+00

235+00

238+83.19 END RETAINING WALL OFFSET - 14.00R

239+23.19 BEGIN RETAINING WALL OFFSET - 14.00R

PTS 239+42.90

239+03.19 MAINLINE TRK

22/74

23/75

MATCHLINE - MAINLINE TRK STA.240+00 (SHEET 24)

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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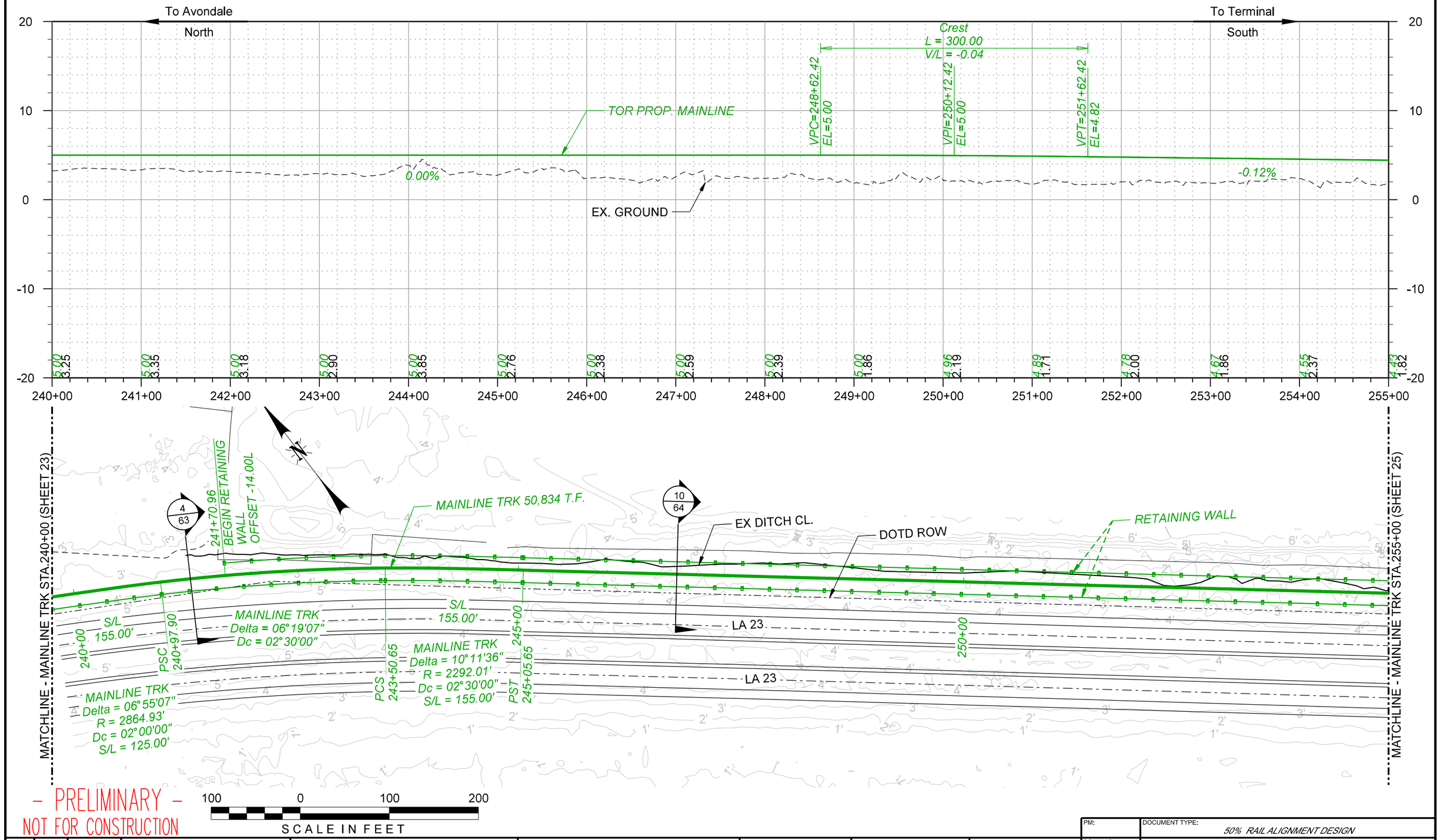
Civil—Structural—Mechanical—Electrical—Marine—Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 23 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 225+00 - 240+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 24 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 240+00 - 255+00

To Avondale
North

To Terminal
South

Sag
L = 350.00
V/L = 0.03

VPC=265+63.76
EL=3.20

VPI=267+38.76
EL=3.00

VPT=269+13.76
EL=3.00

TOR PROP. MAINLINE

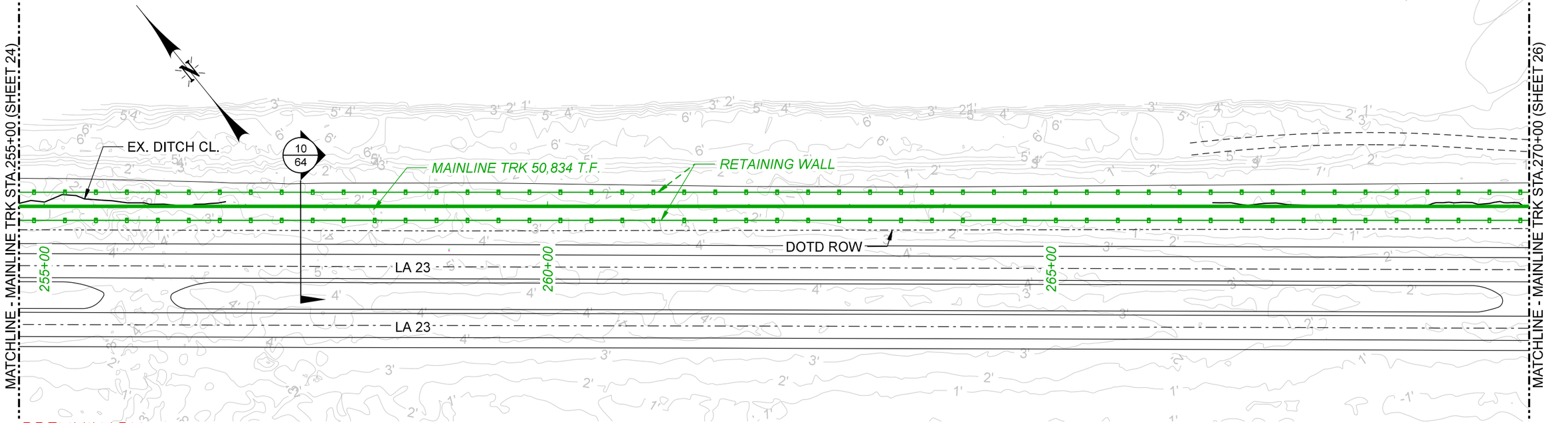
-0.12%

0.00%

EX. GROUND

20
10
0
-10
-20

255+00	256+00	257+00	258+00	259+00	260+00	261+00	262+00	263+00	264+00	265+00	266+00	267+00	268+00	269+00	270+00
	4.32 / 3.04	4.20 / 2.62	4.09 / 2.83	3.97 / 3.13	3.86 / 2.49	3.74 / 1.91	3.62 / 1.85	3.51 / 1.32	3.39 / 0.87	3.28 / 0.49	3.16 / 0.20	3.08 / -0.77	3.02 / 1.62	3.00 / 0.22	3.00 / -0.58



– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 25 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 255+00 - 270+00

To Avondale
North

To Terminal
South

REMOVE X-ING
272+09.23
EL=3.00

24' TIMBER X-ING
272+67.46
EL=3.00

TOR PROP. MAINLINE

0.00%

EX. GROUND

3.00 0.96 | 3.00 0.10 | 3.00 1.87 | 3.00 1.42 | 3.00 2.03 | 3.00 1.19 | 3.00 2.23 | 3.00 1.87 | 3.00 2.27 | 3.00 0.94 | 3.00 1.65 | 3.00 1.59 | 3.00 1.48 | 3.00 1.56 | 3.00 -2.09

20 10 0 -10 -20

270+00 271+00 272+00 273+00 274+00 275+00 276+00 277+00 278+00 279+00 280+00 281+00 282+00 283+00 284+00 285+00

MATCHLINE - MAINLINE TRK STA.270+00 (SHEET 25)

MATCHLINE - MAINLINE TRK STA.285+00(SHEET 27)

KINDER MORGAN DRIVE WAY

USCAE DRIVEWAY

EX. DITCH CL.

10/64

20/72

21/73

2/63

REMOVE X-ING
272+09.23 MAINLINE TRK

24' TIMBER X-ING
272+67.46 MAINLINE TRK

MAINLINE TRK 50,834 T.F.

MAINLINE TRK
Delta = 15°41'44"
R = 2864.93'
Dc = 02°00'00"
S/L = 125.00'

ACCESS ROAD

RETAINING WALL

DOTD ROW

MAINLINE TRK
Delta = 13°11'45"
Dc = 02°00'00"

MAINLINE TRK
Delta = 15°41'44"
R = 2864.93'
Dc = 02°00'00"
S/L = 125.00'

14'

10'

270+00

272+48.40
END RETAINING WALL
OFFSET 14.00R

272+80.11
BEGIN RETAINING WALL
OFFSET 14.00R

PTS
274+63.65

275+00
S/L
125.00'

PSC
275+88.65

278+99.19
END RETAINING WALL
OFFSET 14.00R

280+00

LA 23

LA 23

PCS
282+48.44

S/L
125.00'

PST
283+73.44

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 26 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 270+00 - 285+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE

0.00%

EX. GROUND

285+00	286+00	287+00	288+00	289+00	290+00	291+00	292+00	293+00	294+00	295+00	296+00	297+00	298+00	299+00	300+00
3.00 2.09	3.00 1.98	3.00 1.38	3.00 0.96	3.00 1.98	3.00 1.11	3.00 0.44	3.00 0.15	3.00 1.82	3.00 1.56	3.00 1.79	3.00 1.43	3.00 1.87	3.00 1.87	3.00 1.10	3.00 1.76

MATCHLINE - MAINLINE TRK STA.285+00 (SHEET 26)

MATCHLINE - MAINLINE TRK STA.300+00 (SHEET 28)

2
63

MAINLINE TRK 50,834 T.F.

ACCESS ROAD

14'

10'

DOTD ROW

285+00

290+00

295+00

LA 23

LA 23

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA • EF. 0007141

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 27 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 285+00 - 300+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE

0.00%

EX. GROUND

300+00	301+00	302+00	303+00	304+00	305+00	306+00	307+00	308+00	309+00	310+00	311+00	312+00	313+00	314+00	315+00
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
1.76	2.33	1.49	1.92	2.12	2.08	1.96	1.75	0.57	1.96	1.71	1.64	1.63	1.59	0.79	1.82

MATCHLINE - MAINLINE TRK STA.300+00 (SHEET 27)

MATCHLINE - MAINLINE TRK STA.315+00 (SHEET 29)

2
63

ACCESS ROAD

MAINLINE TRK 50,834 T.F.

14'

10'

DOTD ROW

300+00

305+00

310+00

LA 23

LA 23

- PRELIMINARY -
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 28 of 151	SHEET TITLE: PLAN & PROFILE MANILINE TRK STA. 300+00 - 315+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE

0.00%

EX. GROUND

315+00	316+00	317+00	318+00	319+00	320+00	321+00	322+00	323+00	324+00	325+00	326+00	327+00	328+00	329+00	330+00
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
-1.82	-1.96	-1.11	-0.74	-0.46	-1.17	-0.80	-1.12	-1.05	-0.95	-1.39	-0.81	-0.88	-0.38	-1.13	-0.58

MATCHLINE - MAINLINE TRK STA.315+00 (SHEET 28)

MATCHLINE - MAINLINE TRK STA.330+00 (SHEET 30)

2
63

ACCESS ROAD

MAINLINE TRK 50,834 T.F.

10'

14'

DOTD ROW

315+00

320+00

325+00

LA 23

LA 23

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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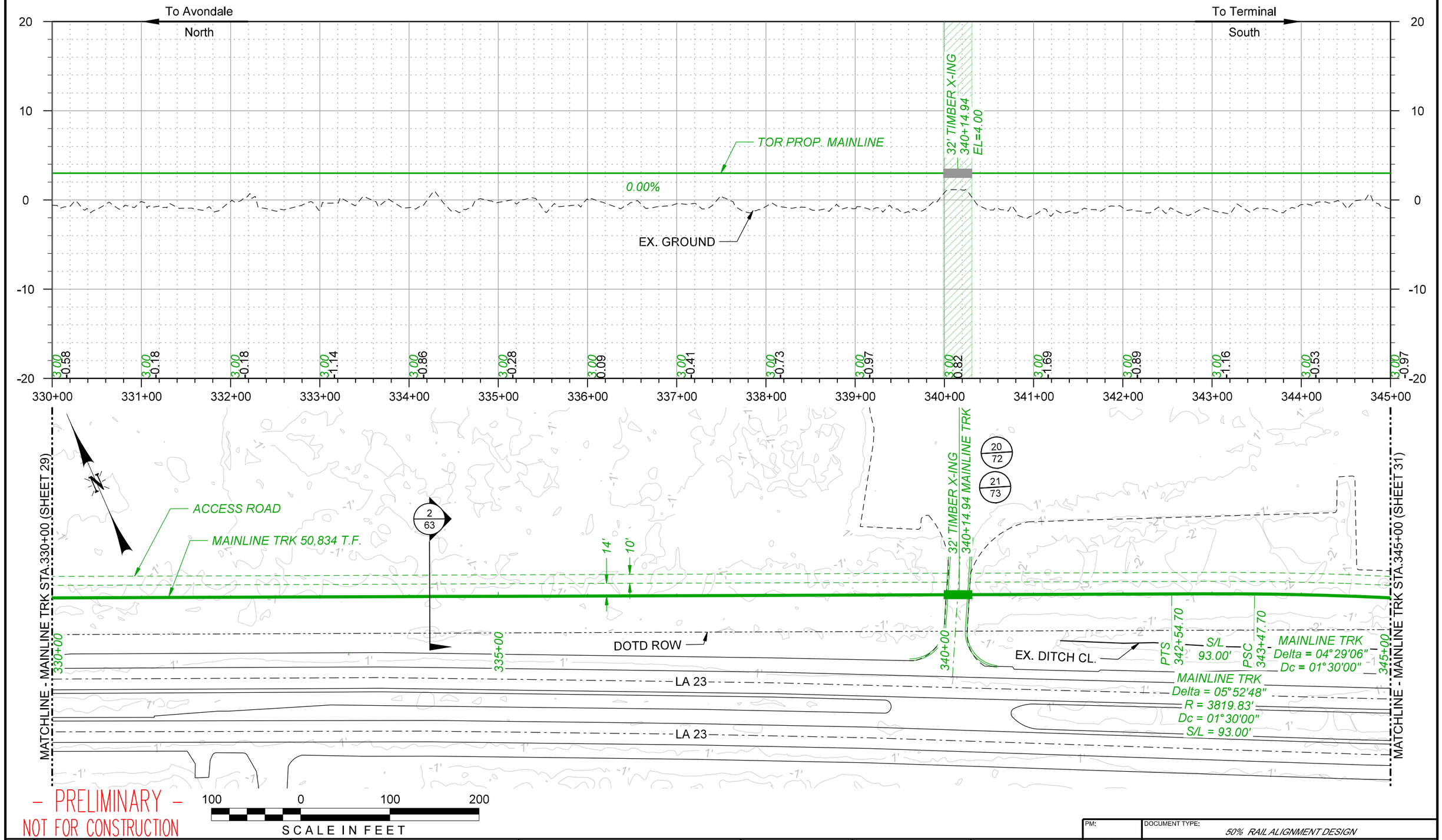
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 29 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 315+00 - 330+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

Infinity Engineering Consultants, LLC
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007141

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 30 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 330+00 - 345+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE
0.00%
EX. GROUND

ROAD X-ING
353+89.29
EL=3.00

ROAD X-ING
356+28.03
EL=3.00

3.00 -0.97
3.00 -0.52
3.00 -0.24
3.00 -0.13
3.00 -1.84
3.00 -2.02
3.00 -2.43
3.00 -2.17
3.00 -2.12
3.00 -0.67
3.00 -1.17
3.00 -0.24
3.00 -1.03
3.00 -0.18
3.00 -0.54
3.00 -0.93

345+00 346+00 347+00 348+00 349+00 350+00 351+00 352+00 353+00 354+00 355+00 356+00 357+00 358+00 359+00 360+00

MATCHLINE - MAINLINE TRK STA.345+00 (SHEET 30)

MATCHLINE - MAINLINE TRK STA.360+00 (SHEET 32)

2
63

14
66

ACCESS ROAD
MAINLINE TRK 50,834 T.F.
10' 14'

DOTD ROW

MAINLINE TRK
Delta = 06°11'56"
R = 3819.83'
Dc = 01°30'00"
S/L = 93.00'

MAINLINE TRK
Delta = 04°48'14"
Dc = 01°30'00"

REMOVE ROAD X-ING
353+89.29 MAINLINE TRK

REMOVE ROAD X-ING
356+28.03 MAINLINE TRK

MAINLINE TRK
Delta = 06°11'56"
R = 3819.83'
Dc = 01°30'00"
S/L = 93.00'

MAINLINE TRK
Delta = 04°29'06"
Dc = 01°30'00"
PCS 346+46.71
S/L 93.00'
PST 347+39.71

EX. DITCH CL.

350+00
S/L 93.00'

MAINLINE TRK
Delta = 05°52'48"
R = 3819.83'
Dc = 01°30'00"
S/L = 93.00'

LA 23

LA 23

PTS 350+76.75
PSC 351+69.75

355+00
S/L 93.00'

PCS 354+90.02
PST 355+83.02

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 31 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 345+00 - 360+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

30' CONC X-ING
369+08.97
EL=3.00

TOR PROP. MAINLINE

0.00%

EX. GROUND

360+00	361+00	362+00	363+00	364+00	365+00	366+00	367+00	368+00	369+00	370+00	371+00	372+00	373+00	374+00	375+00
3.00 0.93	3.00 1.02	3.00 1.58	3.00 1.72	3.00 1.35	3.00 1.56	3.00 1.68	3.00 1.86	3.00 2.16	3.00 0.73	3.00 1.43	3.00 1.59	3.00 1.14	3.00 2.00	3.00 1.81	3.00 2.03

MATCHLINE - MAINLINE TRK STA.360+00 (SHEET 31)

MATCHLINE - MAINLINE TRK STA.375+00 (SHEET 33)

2
63

MAINLINE TRK 50,834 T.F.

DOTD ROW

22
74

23
75

30' CONC. X-ING
369+08.97 MAINLINE TRK

LA 23

LA 23

365+00

370+00

- PRELIMINARY -
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007141

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
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CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 32 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 360+00 - 375+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

96' CONC. X-ING
379+92.26
EL=3.00

TOR PROP. MAINLINE

0.00%

EX. GROUND

NO. 11 LH HTTO
PT. SW. MAINLINE TRK
STA. 389+95.90 =
SIDING TRK
STA. 0+00.00
T/O MAINLINE TRK
ELV = 3.00

3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
2.03	2.45	2.29	1.90	1.79	1.45	1.89	2.38	2.00	1.90	1.10	0.81	0.36	0.89	1.45									

375+00 376+00 377+00 378+00 379+00 380+00 381+00 382+00 383+00 384+00 385+00 386+00 387+00 388+00 389+00 390+00

MATCHLINE - MAINLINE TRK STA.375+00 (SHEET 32)

MATCHLINE - MAINLINE TRK STA.390+00 (SHEET 34)

2
63

MAINLINE TRK 50,834 T.F.

96' CONC. X-ING
379+92.26 MAINLINE TRK

22
74

23
75

MAINLINE TRK
Delta = 18°14'10"
R = 1910.08'
Dc = 03°00'00"
S/L = 186.00'

DOTD ROW

ACCESS ROAD

MAINLINE TRK
Delta = 12°39'24"
Dc = 03°00'00"

MAINLINE TRK
Delta = 18°14'10"
R = 1910.08'
Dc = 03°00'00"
S/L = 186.00'

15
67

NO. 11 LH HTTO
MAINLINE TRK STA. 389+95.90 =
SIDING TRK STA. 0+00

390+00

S/L
186.00'

S/L
186.00'

LA 23

LA 23

380+00

385+00

PTS
379+90.73

PSC
381+76.73

PCS
385+98.62

PST
387+84.62

N

- PRELIMINARY -
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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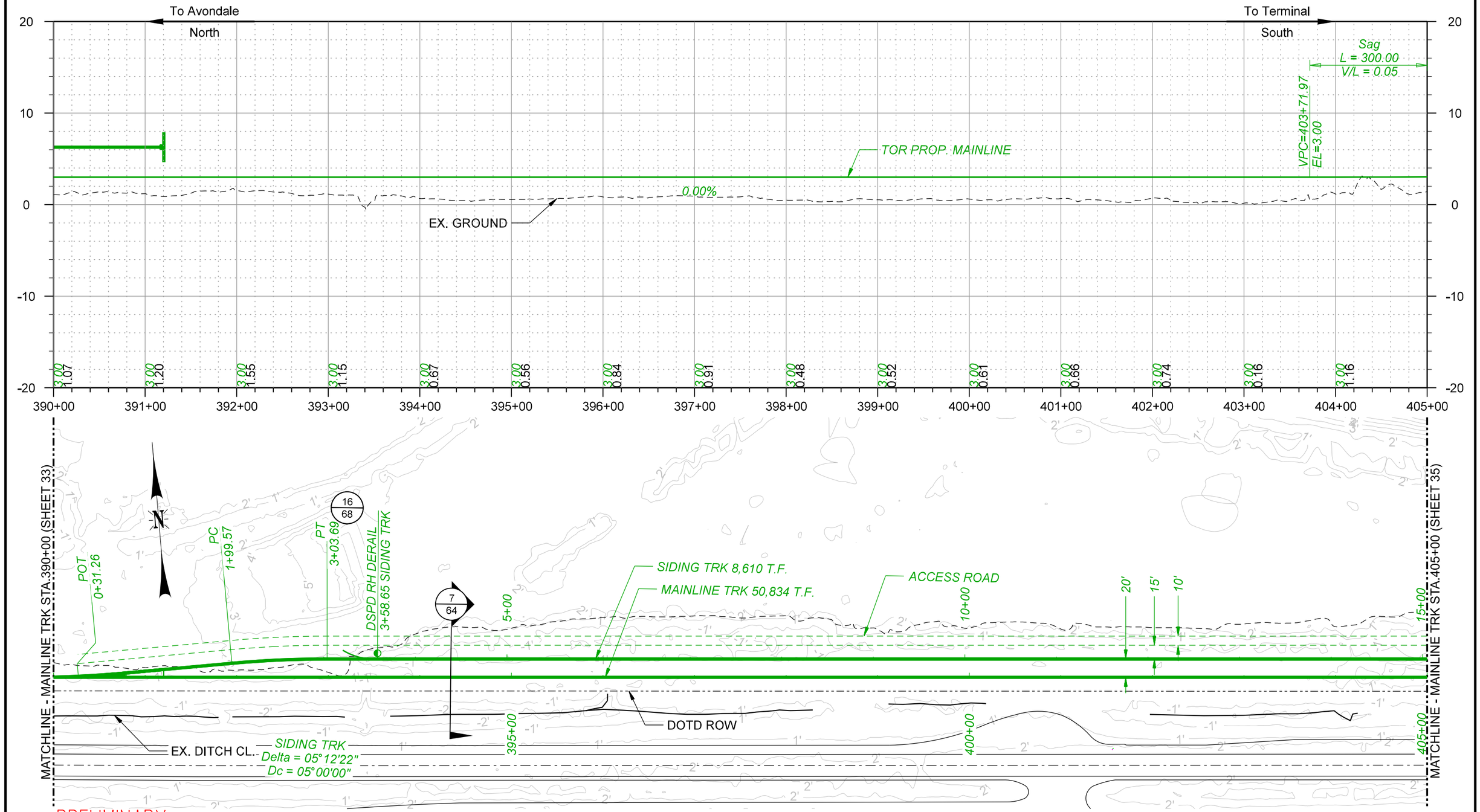
FIRM No: LA - EF. 0003709
Civil—Structural—Mechanical—Electrical—Marine—Transportation
Metairie, LA www.infinityec.com 504-304-0548

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 33 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 375+00 - 390+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 34 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 390+00 - 405+00

To Avondale
North

To Terminal
South

Sag
L = 300.00
V/L = 0.05

Crest
L = 250.00
V/L = -0.06

VPI=405+21.97
EL=3.00

VPT=406+71.97
EL=3.22

40' CONC. X-ING
413+02.63
EL=3.18

TOR PROP. MAINLINE

0.15%

EX. GROUND

48' CONC. X-ING
417+15.89
EL=3.00

VPC=417+39.13
EL=4.81

VPI=418+64.13
EL=5.00

VPT=419+89.13
EL=5.00

20
10
0
-10
-20

405+00	406+00	407+00	408+00	409+00	410+00	411+00	412+00	413+00	414+00	415+00	416+00	417+00	418+00	419+00	420+00
3.04 / 1.41	3.13 / 0.45	3.27 / 0.34	3.42 / 1.69	3.56 / 1.40	3.71 / 1.98	3.86 / 2.29	4.01 / 2.29	4.16 / 2.93	4.31 / 2.51	4.46 / 3.00	4.61 / 2.46	4.75 / 3.47	4.89 / 2.58	4.97 / 2.18	

MATCHLINE - MAINLINE TRK STA.405+00 (SHEET 34)

MATCHLINE - MAINLINE TRK STA.420+00 (SHEET 36)

N

ACCESS ROAD
MAINLINE TRK 50,834 T.F.
SIDING TRK 8,610 T.F.

20+00

7
64

20'
15'
10'

40' DOUBLE CONC. X-ING
413+02.63 MAINLINE TRK
23+06.02 SIDING TRK

22
74

23
75

25+00

USACE "Y" DRIVEWAY

48' DOUBLE TIMBER X-ING
417+15.89 MAINLINE TRK
27+22.38 SIDING TRK

20
72

21
73

13
65

30+00

DOTD ROW

EX. DITCH CL.

410+00

415+00

420+00

100 0 100 200
SCALE IN FEET

– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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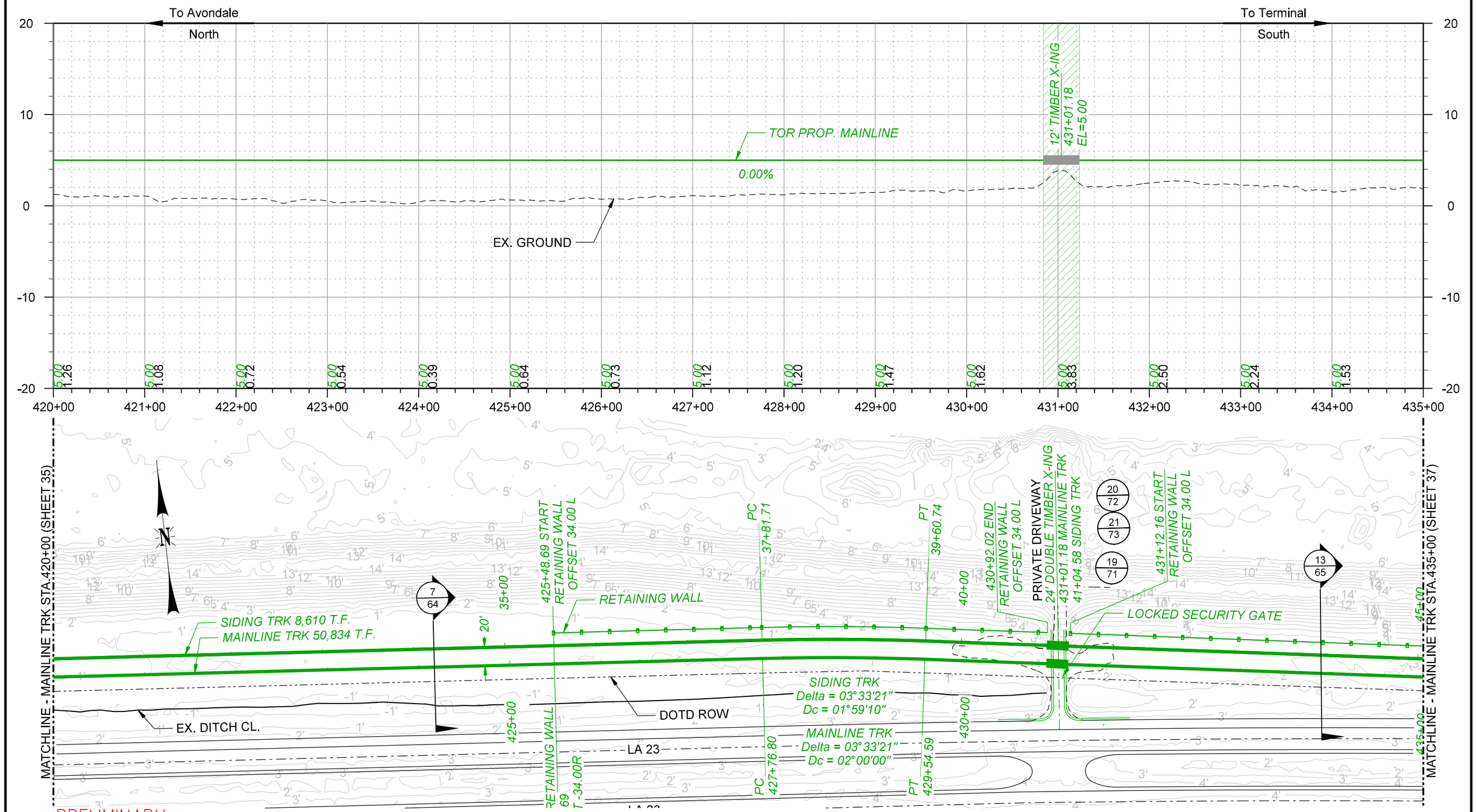
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 35 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 405+00 - 420+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 36 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 420+00 - 435+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE
0.00%
EX. GROUND
40' TIMBER X-ING
446+63.16
EL=3.00

5.00 1.81 | 5.00 1.75 | 5.00 1.68 | 5.00 1.63 | 5.00 1.37 | 5.00 1.03 | 5.00 0.84 | 5.00 1.43 | 5.00 1.51 | 5.00 1.68 | 5.00 1.88 | 5.00 2.36 | 5.00 2.53 | 5.00 2.46 | 5.00 2.06

435+00 436+00 437+00 438+00 439+00 440+00 441+00 442+00 443+00 444+00 445+00 446+00 447+00 448+00 449+00 450+00

MATCHLINE - MAINLINE TRK STA.435+00 (SHEET 36)

MATCHLINE - MAINLINE TRK STA.450+00 (SHEET 38)

N

SIDING TRK 8,610 T.F.
MAINLINE TRK 50,834 T.F.
20'
RETAINING WALL
DOTD ROW
LA 23
LA 23

6/64
13/65
20/72
21/73

435+00
440+00
445+00
450+00
50+00
55+00
60+00

446+34.28 END RETAINING WALL OFFSET 34.00 L
446+63.16 MAINLINE TRK
56+80.93 SIDINGLINE TRK
446+98.19 START RETAINING WALL OFFSET 34.00 L
PTS 57+09.54
PSC 58+64.54
S/L 155.00'
S/L 155.00'
SIDING TRK
Delta = 10°13'24"
Dc = 02°28'42"
SIDING TRK
Delta = 14°03'52"
R = 2312.01'
Dc = 02°28'42"
S/L = 155.00'
MAINLINE TRK
Delta = 10°11'23"
Dc = 02°30'00"
PTS 447+03.39
MAINLINE TRK
Delta = 14°03'52"
R = 2292.01'
Dc = 02°30'00"
S/L = 155.00'
PSC 448+58.39

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 37 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 435+00 - 450+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE

0.00%

EX. GROUND

5.00 0.15 | 5.00 0.24 | 5.00 0.13 | 5.00 0.74 | 5.00 1.00 | 5.00 1.11 | 5.00 2.69 | 5.00 2.80 | 5.00 3.10 | 5.00 2.61 | 5.00 0.19 | 5.00 1.16 | 5.00 0.77 | 5.00 0.35 | 5.00 0.50

450+00 451+00 452+00 453+00 454+00 455+00 456+00 457+00 458+00 459+00 460+00 461+00 462+00 463+00 464+00 465+00

MATCHLINE - MAINLINE TRK STA.450+00 (SHEET 37)

MATCHLINE - MAINLINE TRK STA.465+00 (SHEET 39)

RETAINING WALL

6/64

452+57.30 END RETAINING WALL OFFSET -34.00R

PCS 452+65.98

PCS 462+77.04

7/64

S/L 155.00'

PST 464+32.04

20'

65+00

70+00

75+00

ACCESS ROAD

MAINLINE TRK 50,834 T.F.

SIDING TRK 8,610 T.F.

DOTD ROW

SIDING TRK
Delta = 10°13'24"
Dc = 02°28'42"

MAINLINE TRK
Delta = 10°11'23"
Dc = 02°30'00"

S/L 155.00'

SIDING TRK
Delta = 14°03'52"
R = 2312.01'
Dc = 02°28'42"
S/L = 155.00'

MAINLINE TRK
Delta = 14°03'52"
R = 2292.01'
Dc = 02°30'00"
S/L = 155.00'

PST 454+20.98

450+00

455+00

460+00

465+00

LA 23

LA 23

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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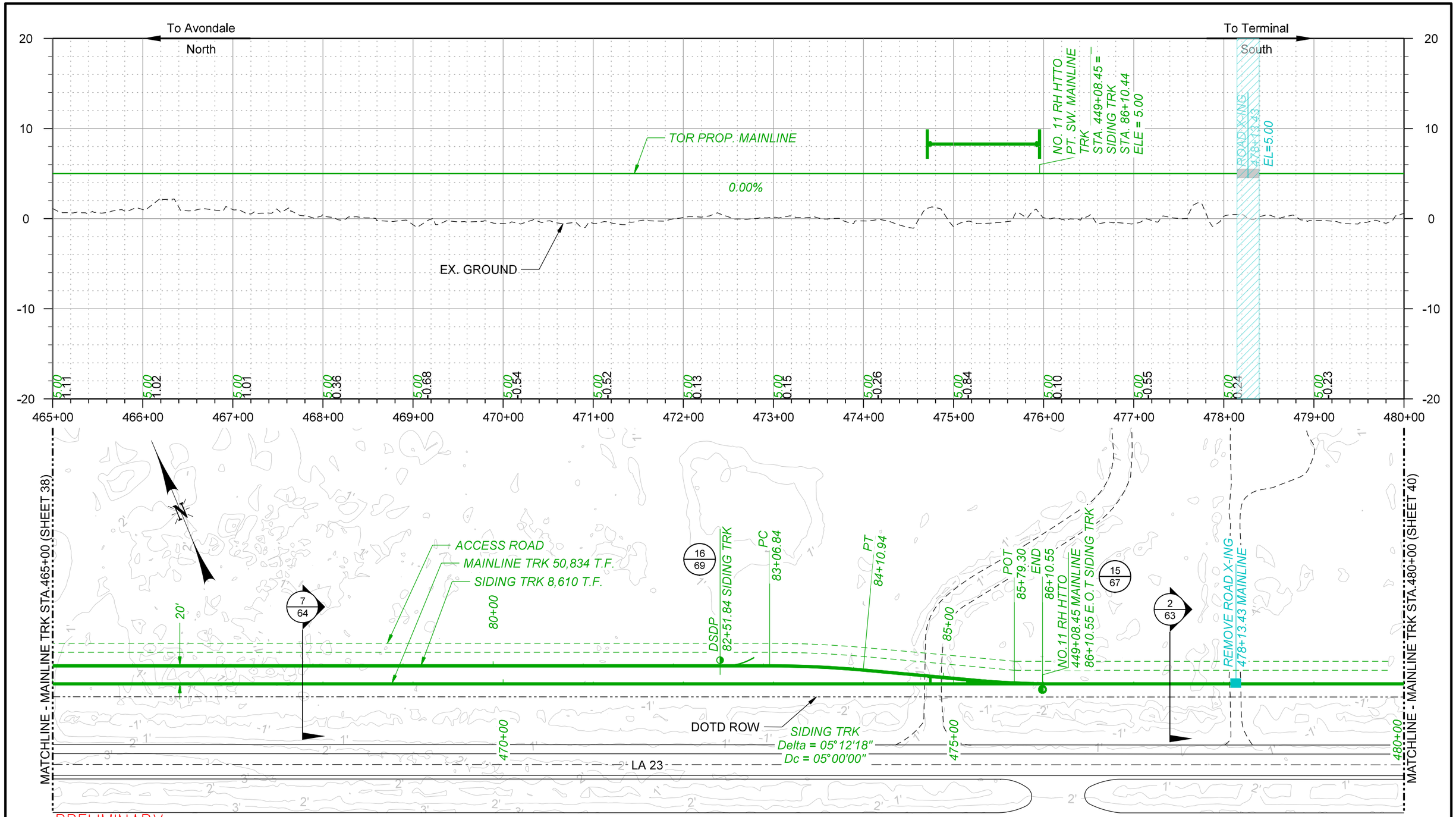
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 38 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 450+00 - 465+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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Civil—Structural—Mechanical—Electrical—Marine—Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 39 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 465+00 - 480+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

TOR PROP. MAINLINE
0.00%
EX. GROUND

ROAD X-ING
489+54.58
EL=3.00

ROAD X-ING
491+40.24
EL=3.00

480+00	481+00	482+00	483+00	484+00	485+00	486+00	487+00	488+00	489+00	490+00	491+00	492+00	493+00	494+00	495+00
5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
0.57	1.22	0.77	1.23	0.62	1.56	0.24	0.88	0.09	-0.38	-0.02	0.52	0.91	0.50	0.42	

MATCHLINE - MAINLINE TRK STA.480+00 (SHEET 39)

MATCHLINE - MAINLINE TRK STA.495+00 (SHEET 41)

BOLSU PROPERTY

1
63

MAINLINE TRK 50,834 T.F.

15'

REMOVE ROAD X-ING
489+54.58 MAINLINE TRK

ROAD X-ING
491+40.24 MAINLINE TRK

DOTD ROW

485+00

490+00

LA 23

– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 40 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 480+00 - 495+00

To Avondale
North

To Terminal
South

20
10
0
-10
-20

12' TIMBER X-ING
499+55.86
EL=5.00

TOR PROP. MAINLINE

VPI=508+34.74
EL=5.00

0.00%

EX. GROUND

5.00 0.72
5.00 1.02
5.00 1.33
5.00 1.90
5.00 2.10
5.00 -0.21
5.00 1.98
5.00 2.03
5.00 2.34
5.00 1.96
5.00 2.12
5.00 2.57
5.00 2.27
5.00 2.34

495+00 496+00 497+00 498+00 499+00 500+00 501+00 502+00 503+00 504+00 505+00 506+00 507+00 508+00 509+00 510+00

MATCHLINE - MAINLINE TRK STA. 495+00 (SHEET 40)

BOLSU PROPERTY

1
63

21
72

22
73

24' TIMBER X-ING
499+55.86 MAINLINE TRK

ACCESS ROAD

MAINLINE TRK 50,834 T.F.

2
64

10'
14'

S/L
186.00'

495+00

MAINLINE TRK
Delta = 22°39'17"
R = 1910.08'
Dc = 03°00'00"
S/L = 186.00'

PTS
496+10.72

PSC
497+96.72

500+00

MAINLINE TRK
Delta = 17°04'31"
Dc = 03°00'00"

DOTD ROW

PCS
503+65.90

505+00

S/L
186.00'

MAINLINE TRK
Delta = 22°39'17"
R = 1910.08'
Dc = 03°00'00"
S/L = 186.00'

PST
505+51.90

PEND
508+34.74

- PRELIMINARY -
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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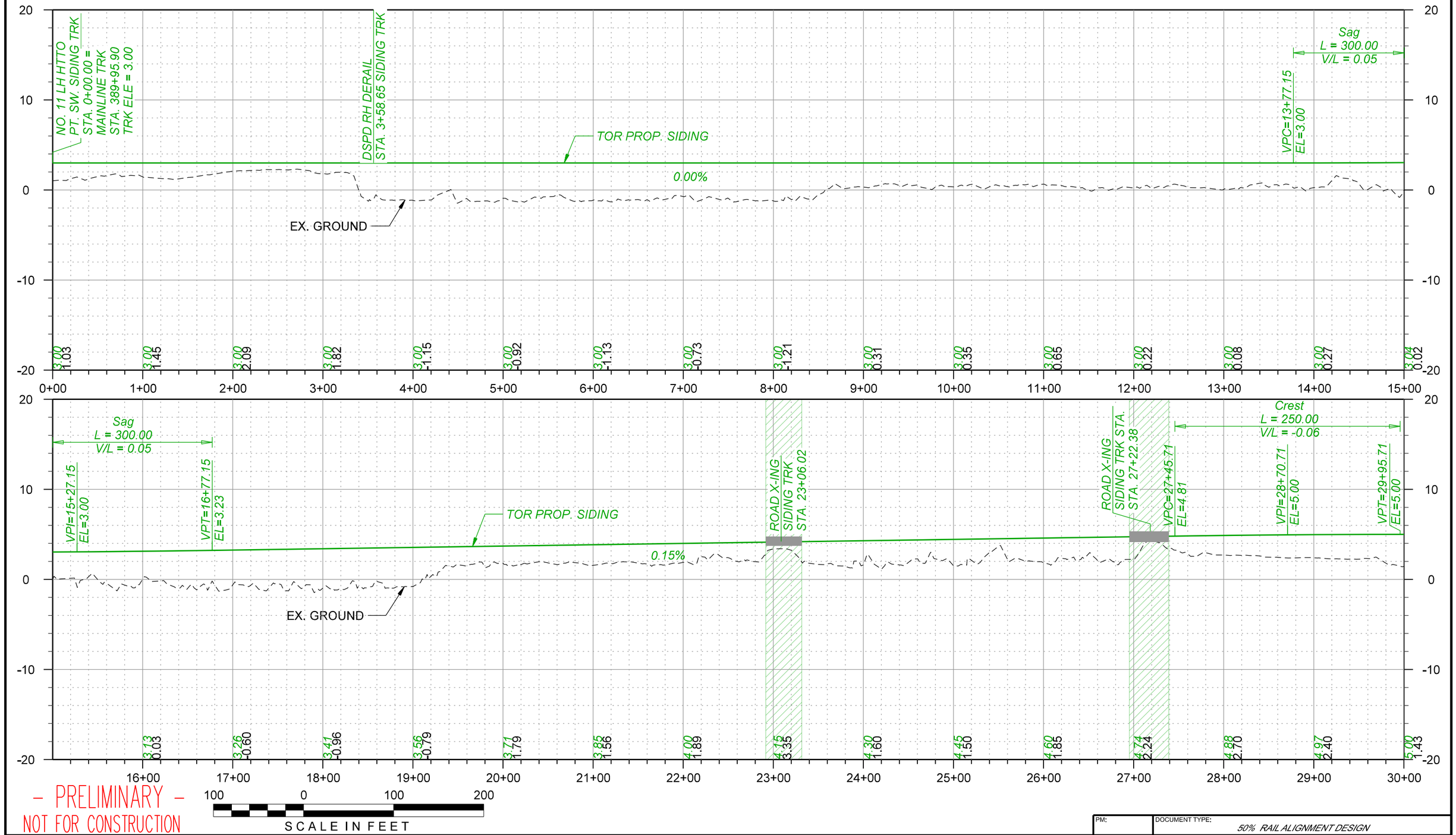
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 41 of 151	SHEET TITLE: PLAN & PROFILE MAINLINE TRK STA. 495+00 - 508+34.74 (EOT)



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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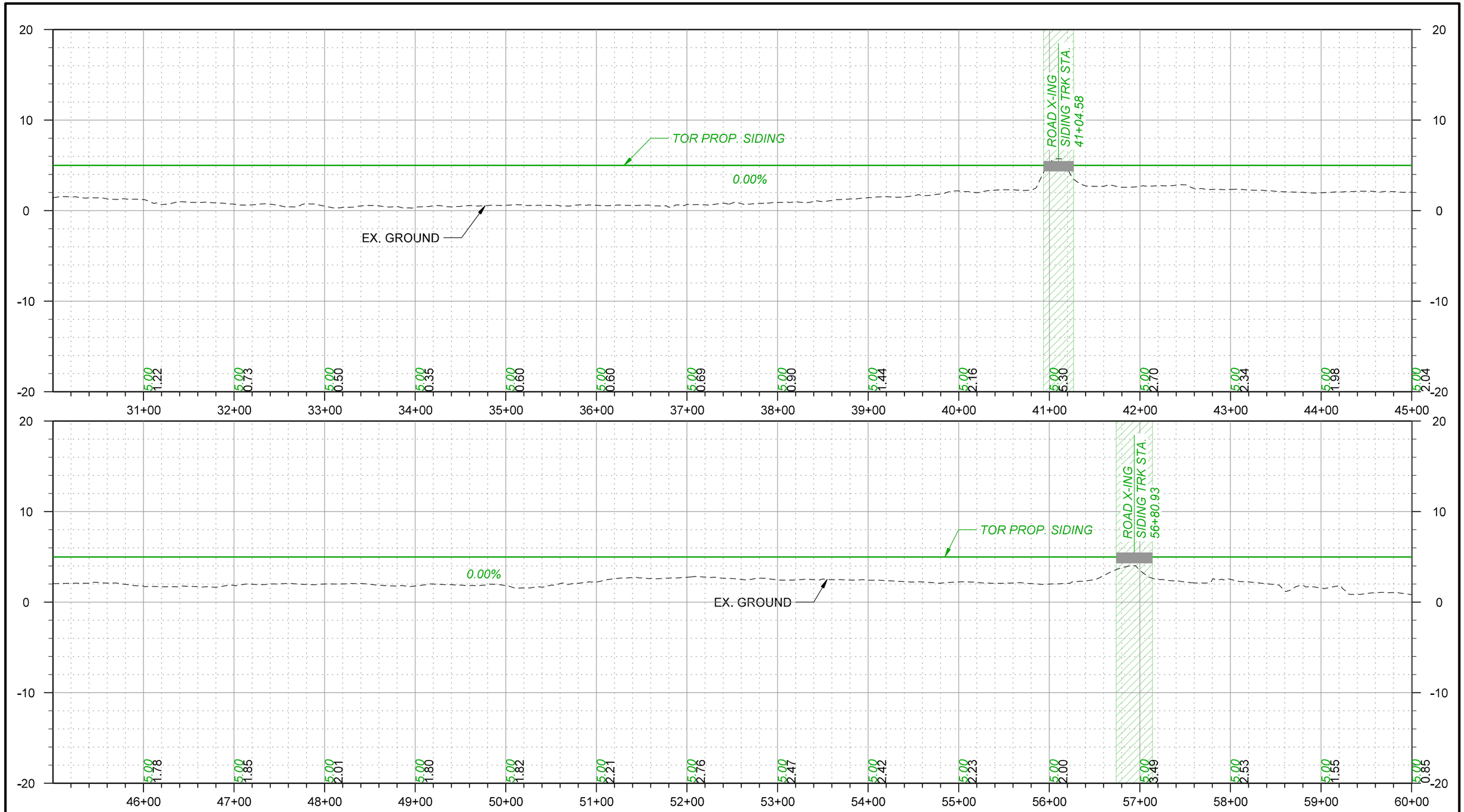
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 42 of 151	SHEET TITLE: SIDING PROFILE SIDING TRK STA. 0+00 - 30+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

100 0 100 200
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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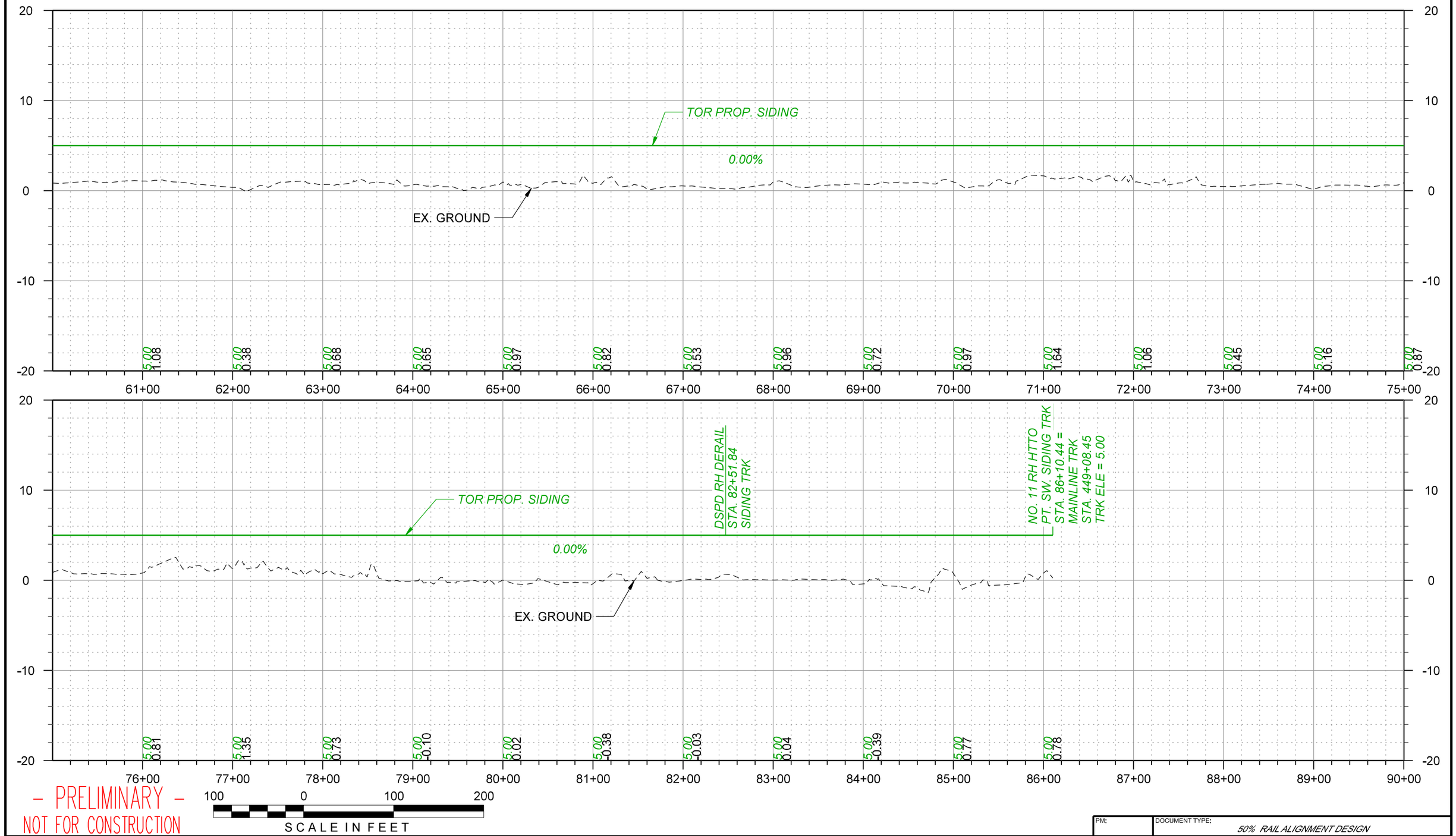
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007141

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 43 of 151	SHEET TITLE: SIDING PROFILE SIDING TRK STA. 30+00 - 60+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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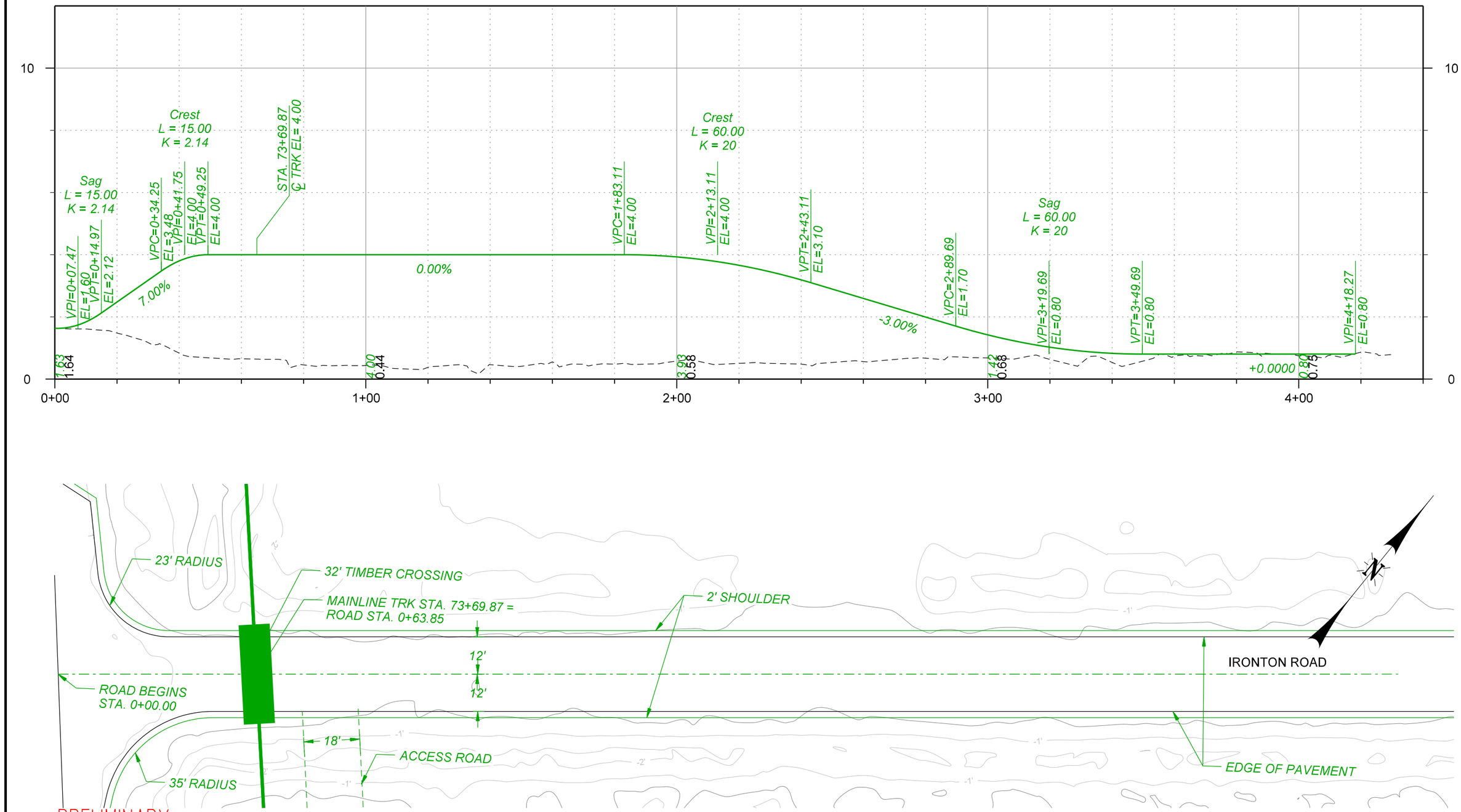
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 44 of 151	SHEET TITLE: SIDING PROFILE SIDING TRK STA. 60+00 - 90+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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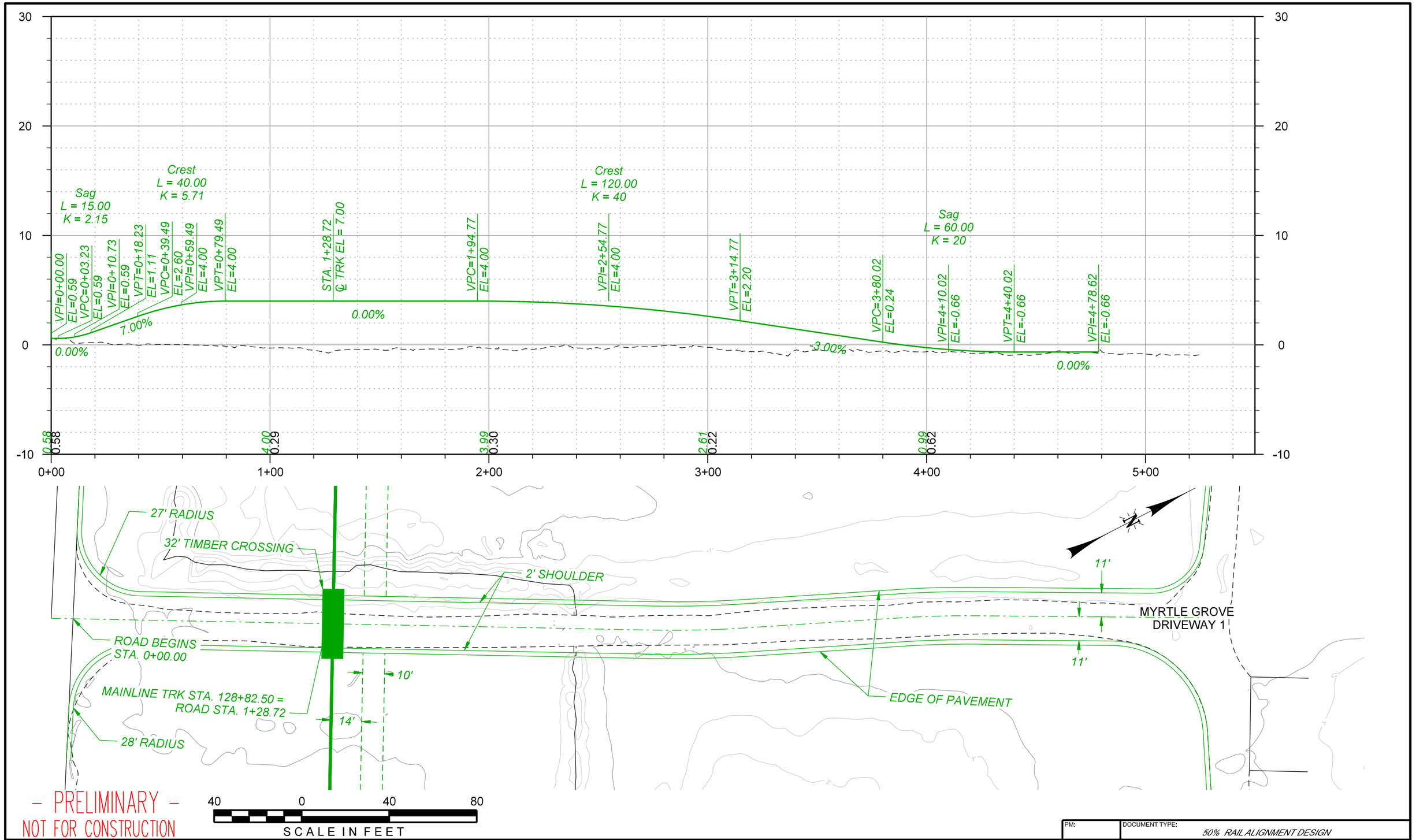
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 45 of 151	SHEET TITLE: ROAD PLAN & PROFILE IRONTON ROAD



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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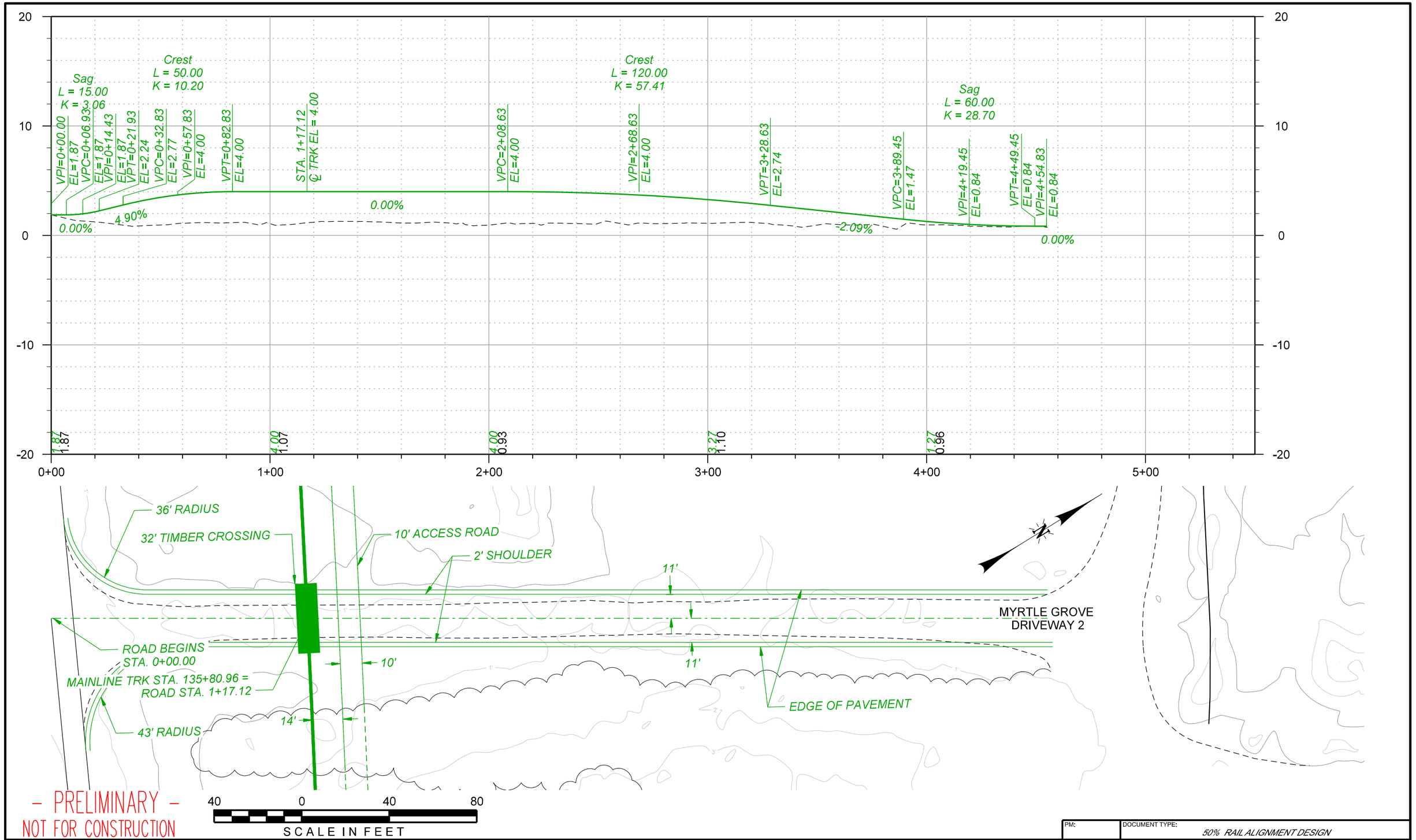
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 46 of 151	SHEET TITLE: ROAD PLAN & PROFILE MYRTLE GROVE DRIVEWAY 1



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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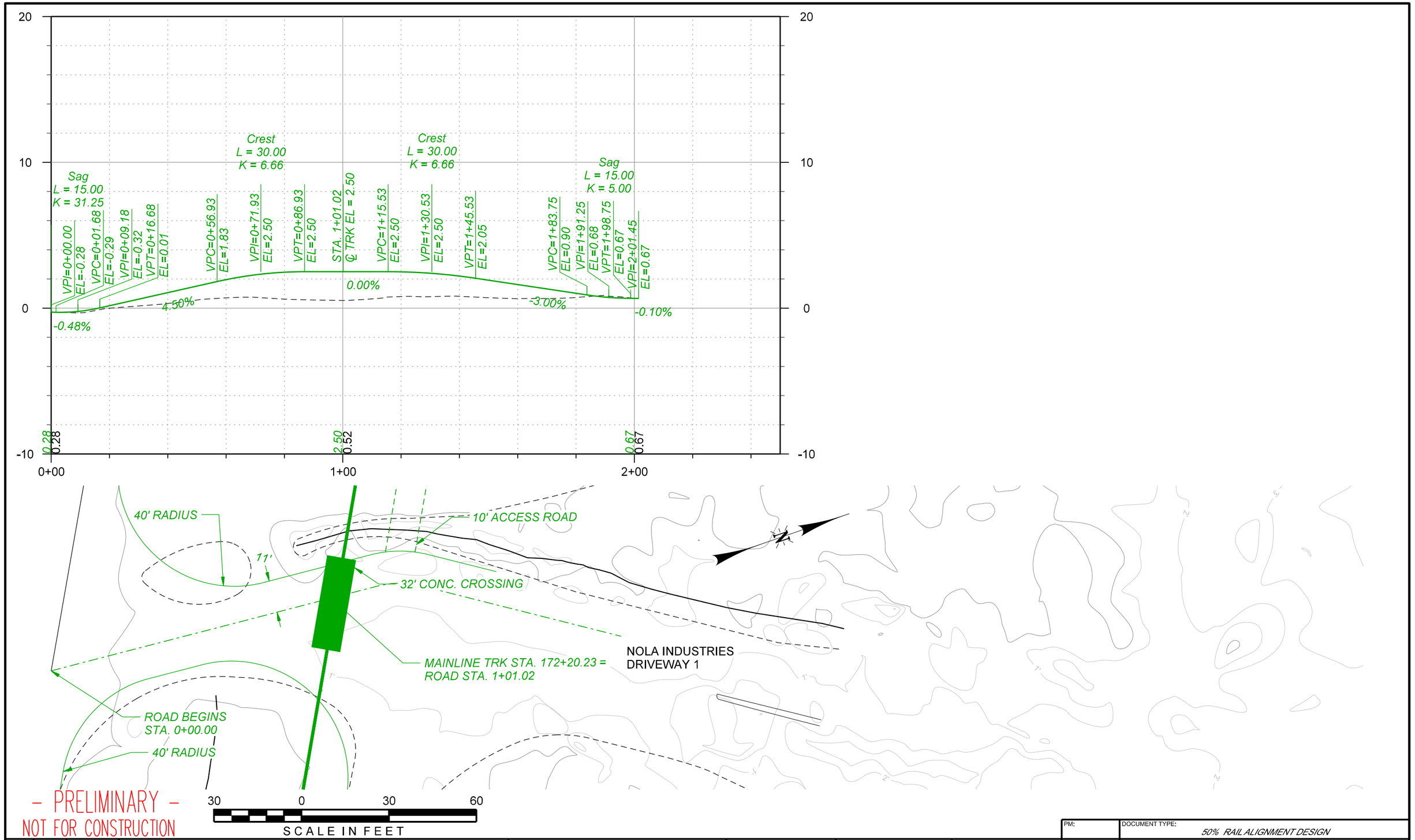
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 47 of 151	SHEET TITLE: ROAD PLAN & PROFILE MYRTLE GROVE DRIVEWAY 2



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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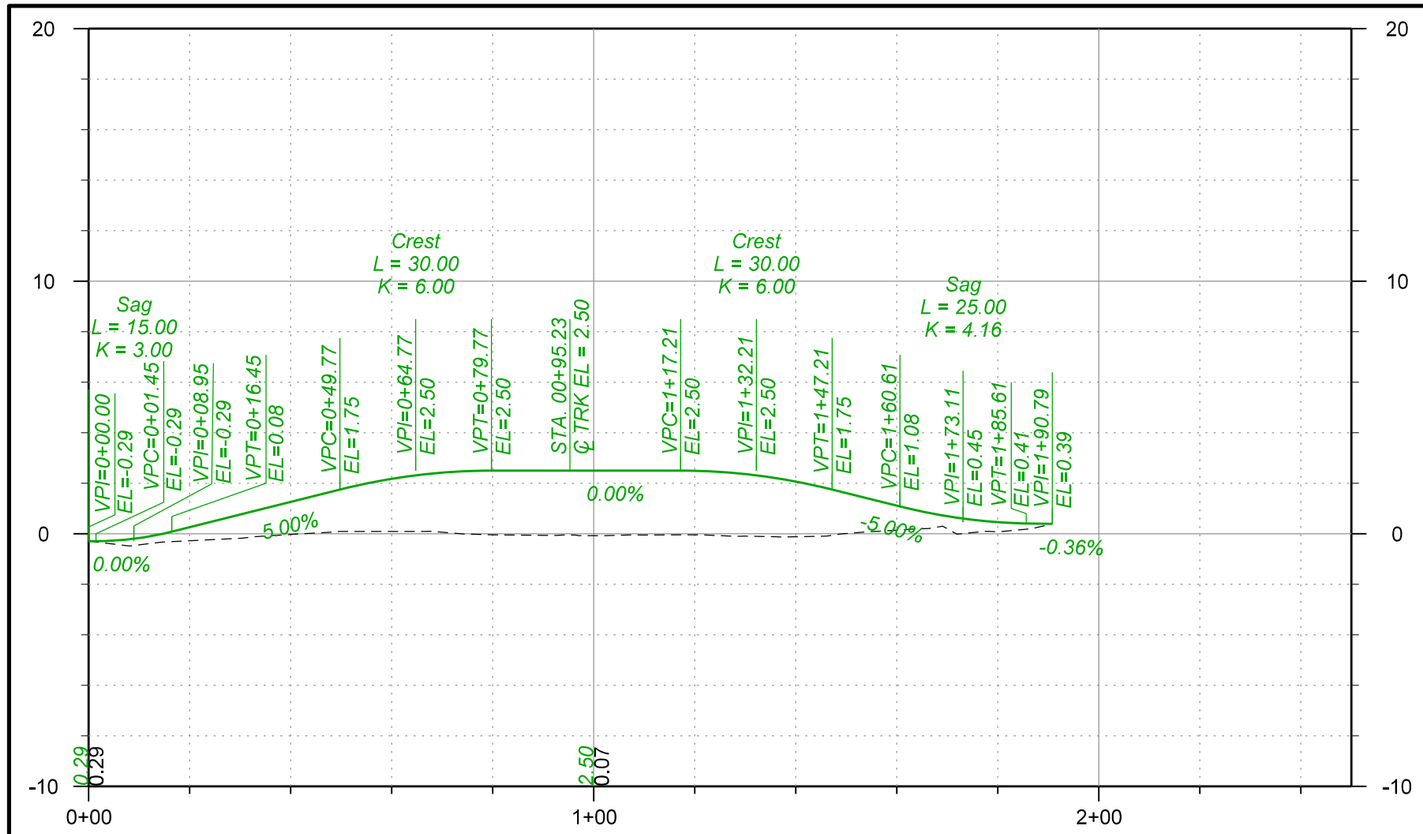
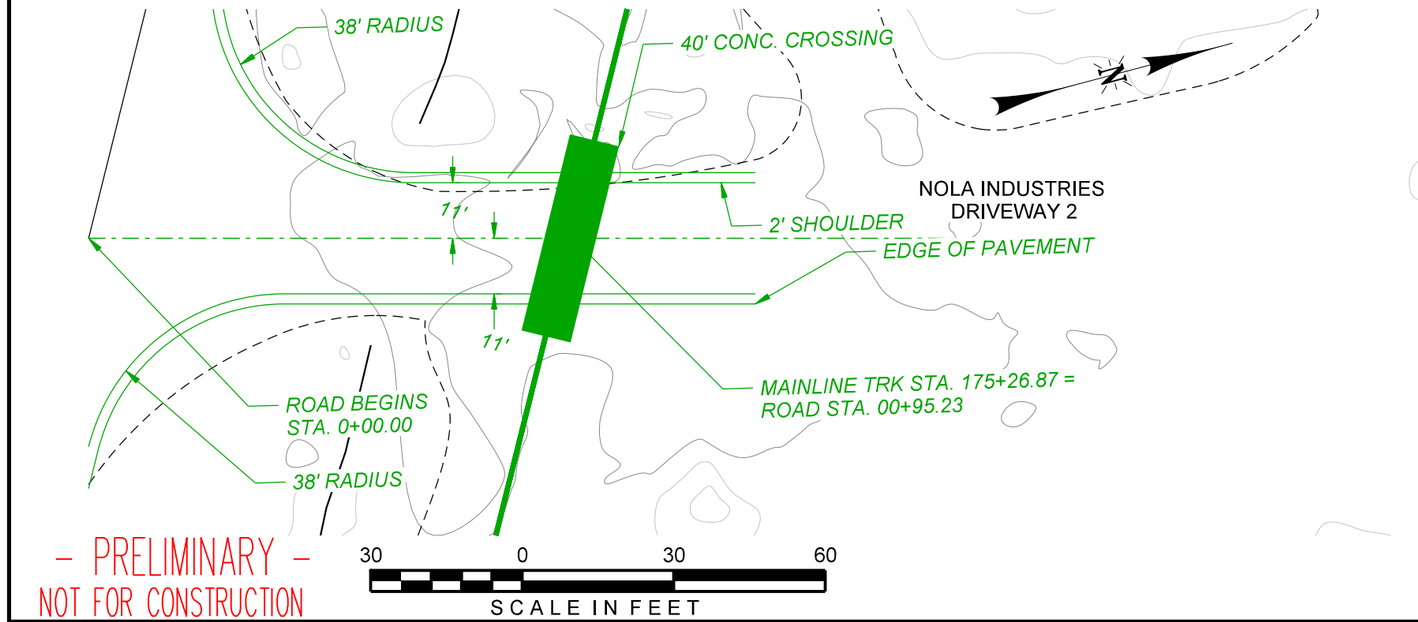
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 48 of 151	SHEET TITLE: ROAD PLAN & PROFILE NOLA INDUSTRIES DRIVEWAY 1





– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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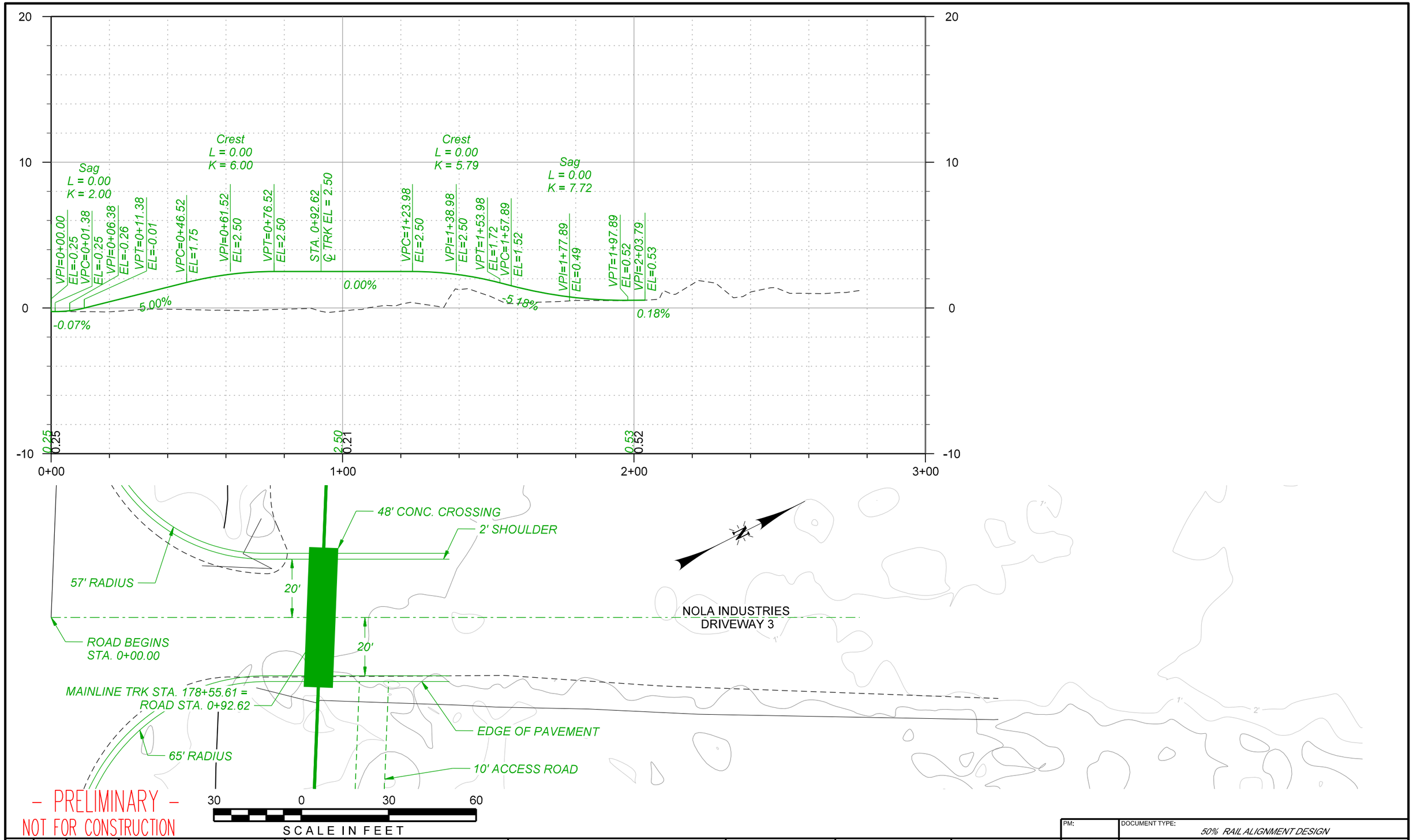
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 49 of 151	SHEET TITLE: ROAD PLAN & PROFILE NOLA INDUSTRIES DRIVEWAY 2



REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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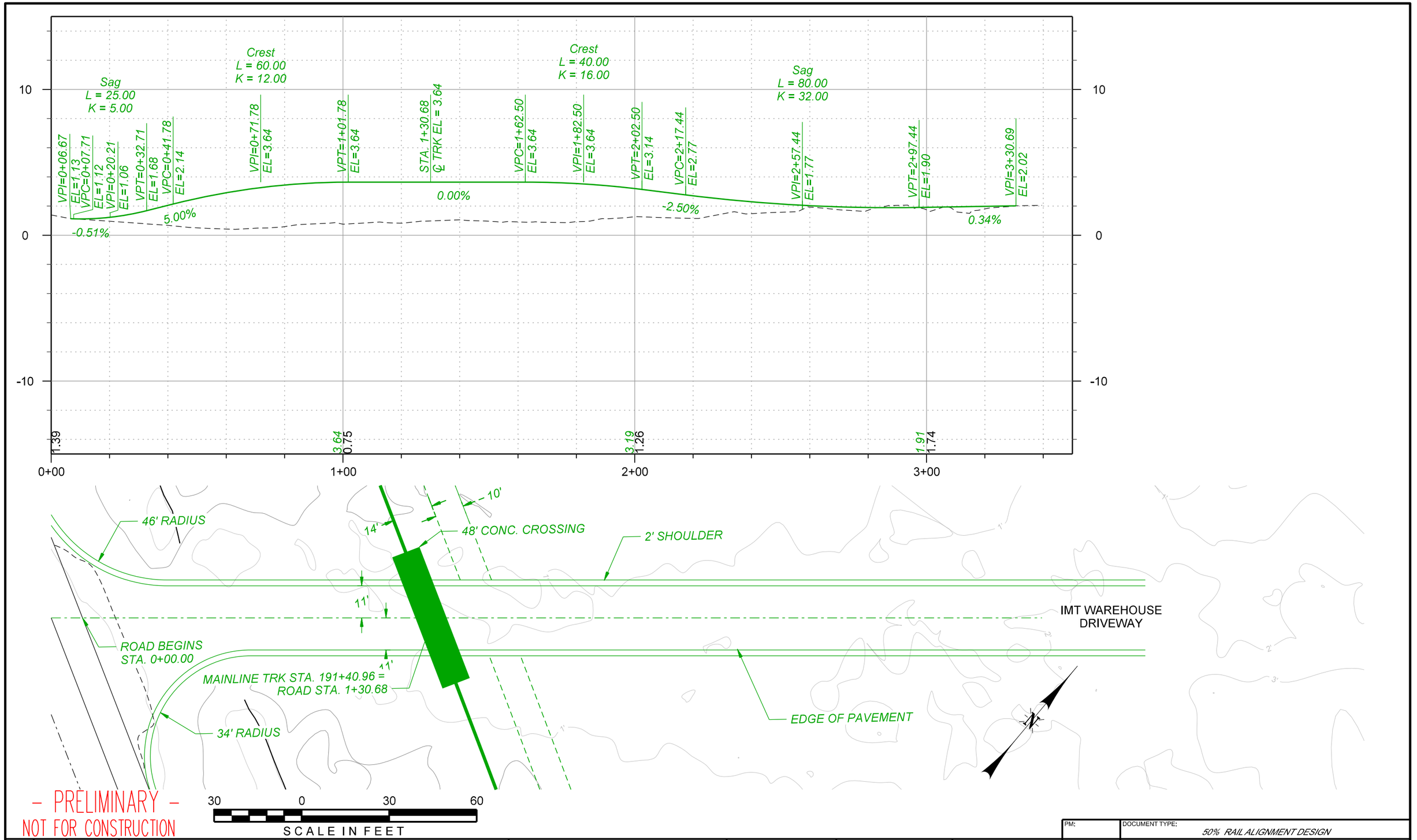
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 50 of 151	SHEET TITLE: ROAD PLAN & PROFILE NOLA INDUSTRIES DRIVEWAY 3



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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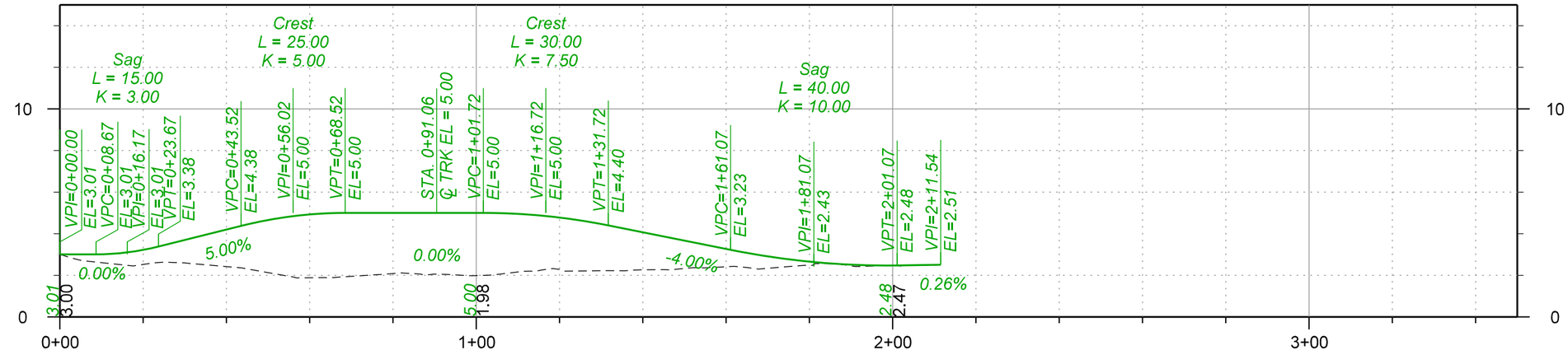
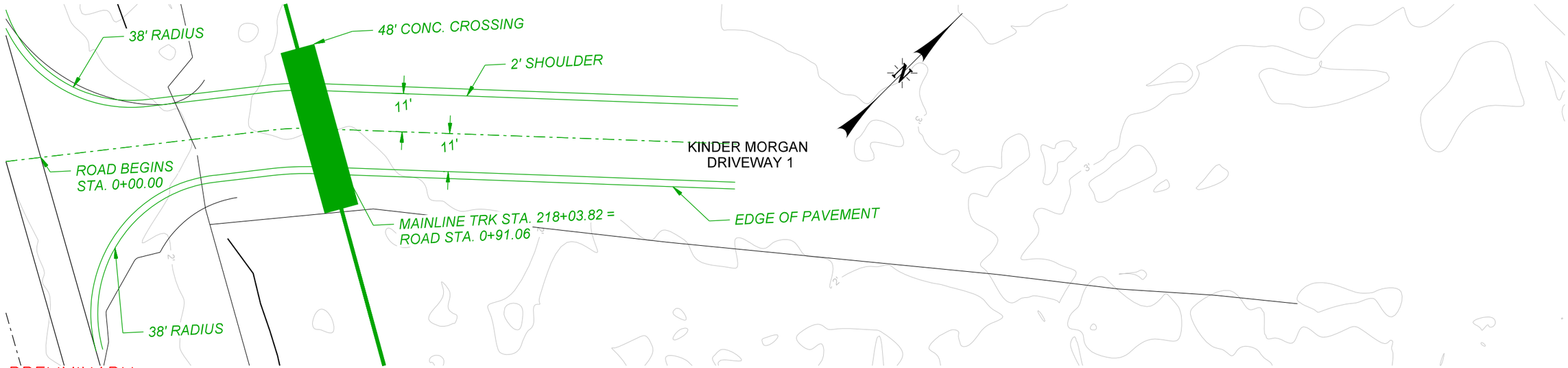
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 51 of 151	SHEET TITLE: ROAD PLAN & PROFILE IMT WAREHOUSE DRIVEWAY





– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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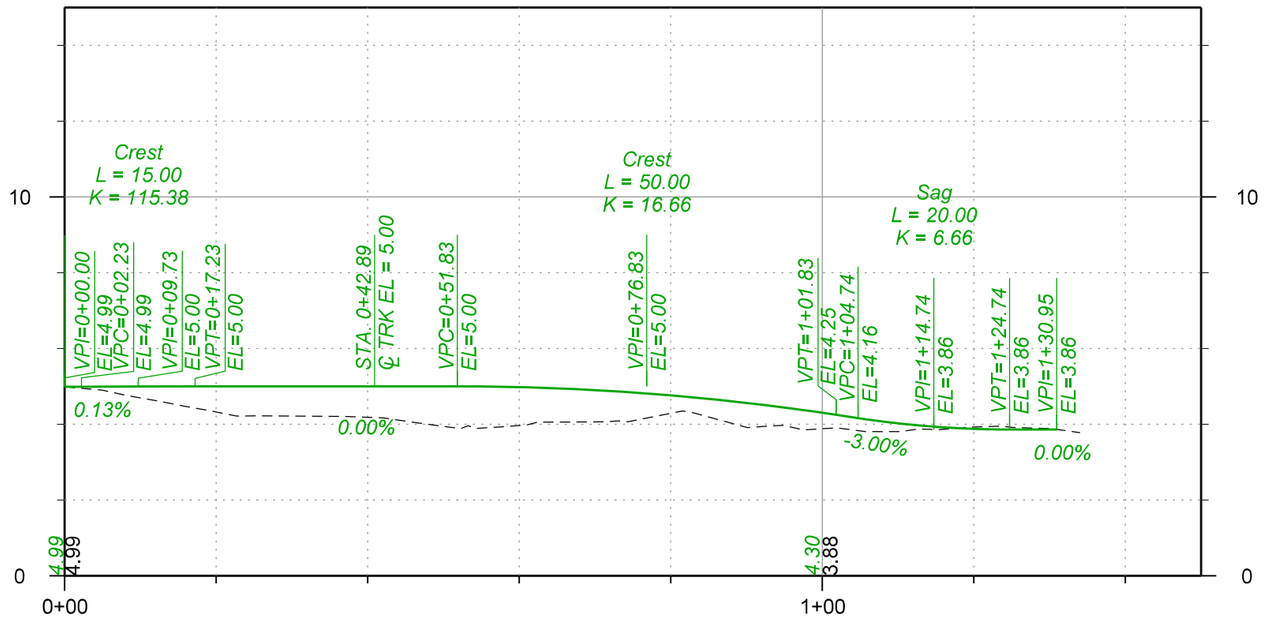
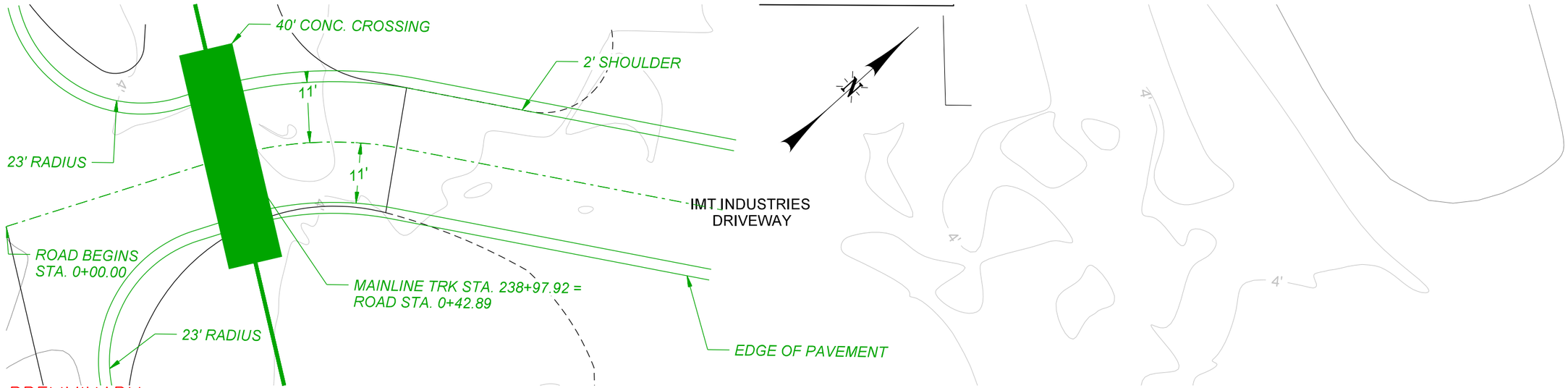
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 52 of 151	SHEET TITLE: ROAD PLAN & PROFILE KINDER MORGAN DRIVEWAY 1





– PRELIMINARY –
NOT FOR CONSTRUCTION

20 0 20 40
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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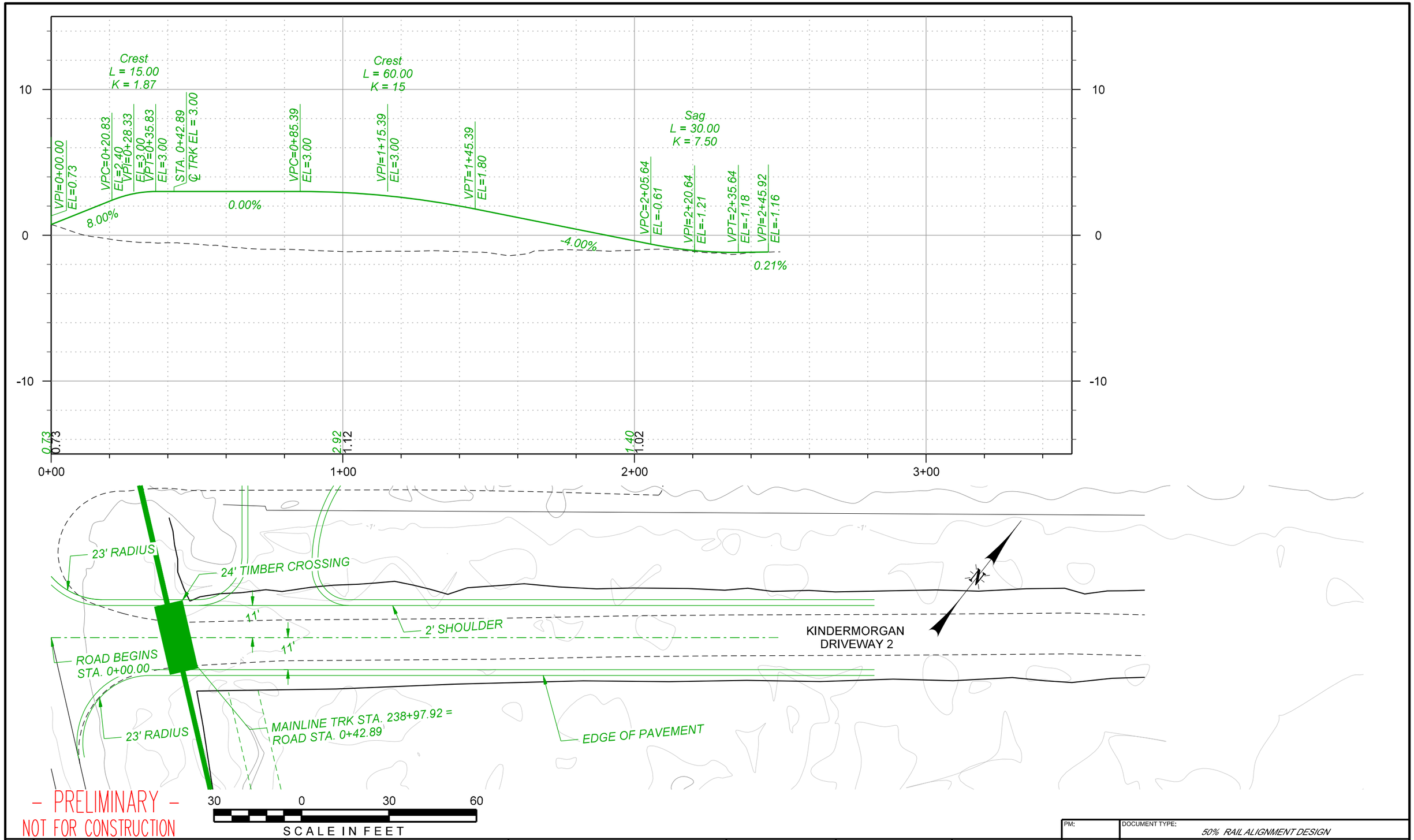
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 53 of 151	SHEET TITLE: ROAD PLAN & PROFILE IMT INDUSTRY DRIVEWAY



– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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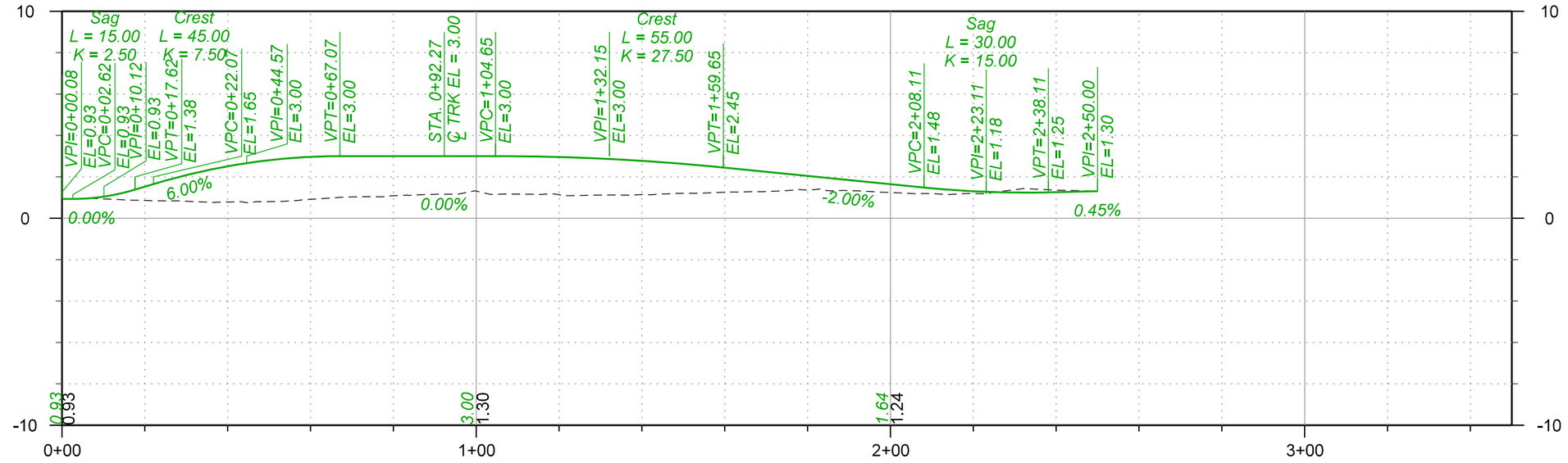
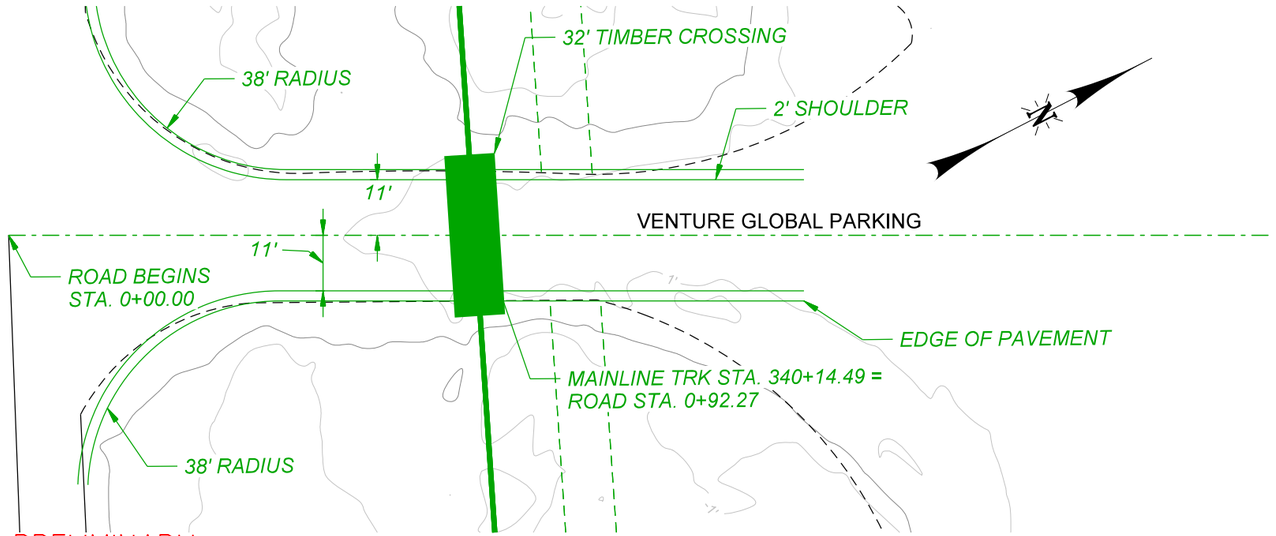
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 54 of 151	SHEET TITLE: ROAD PLAN & PROFILE KINDER MORGAN DRIVEWAY 2





– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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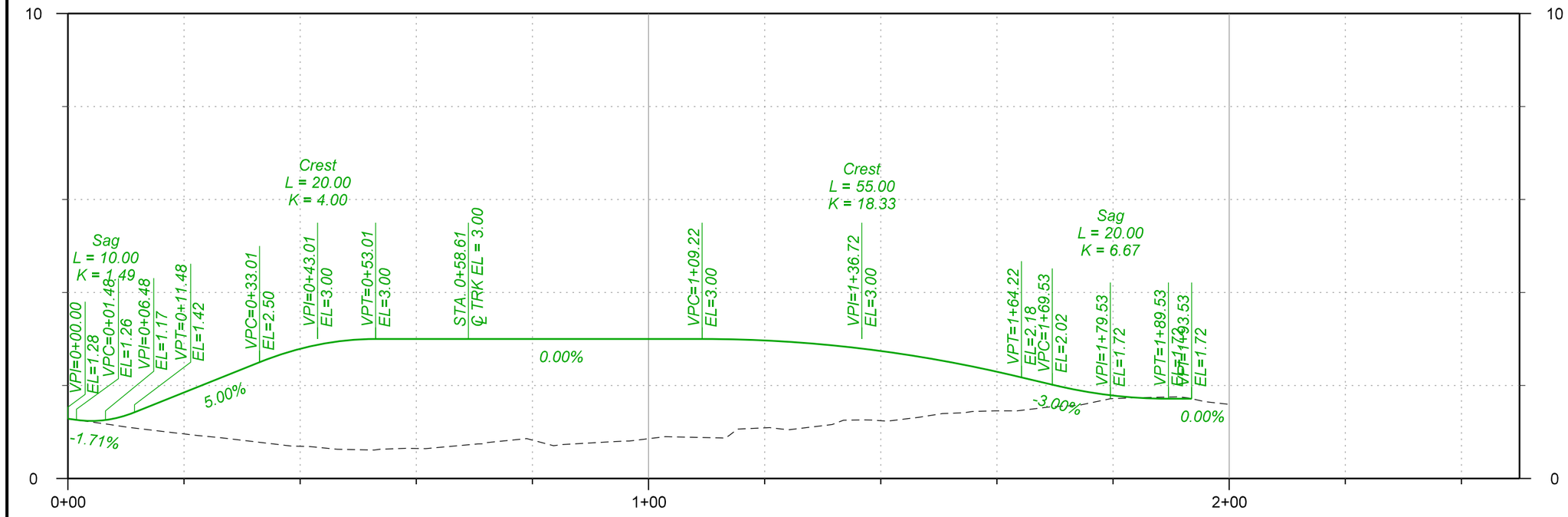
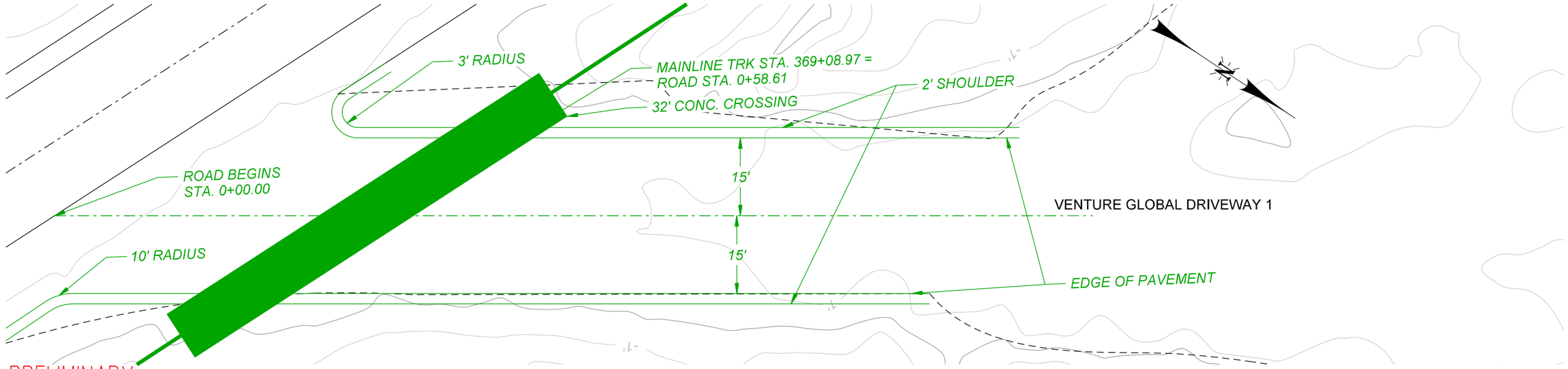
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 55 of 151	SHEET TITLE: ROAD PLAN & PROFILE VENTURE GLOBAL PARKING





REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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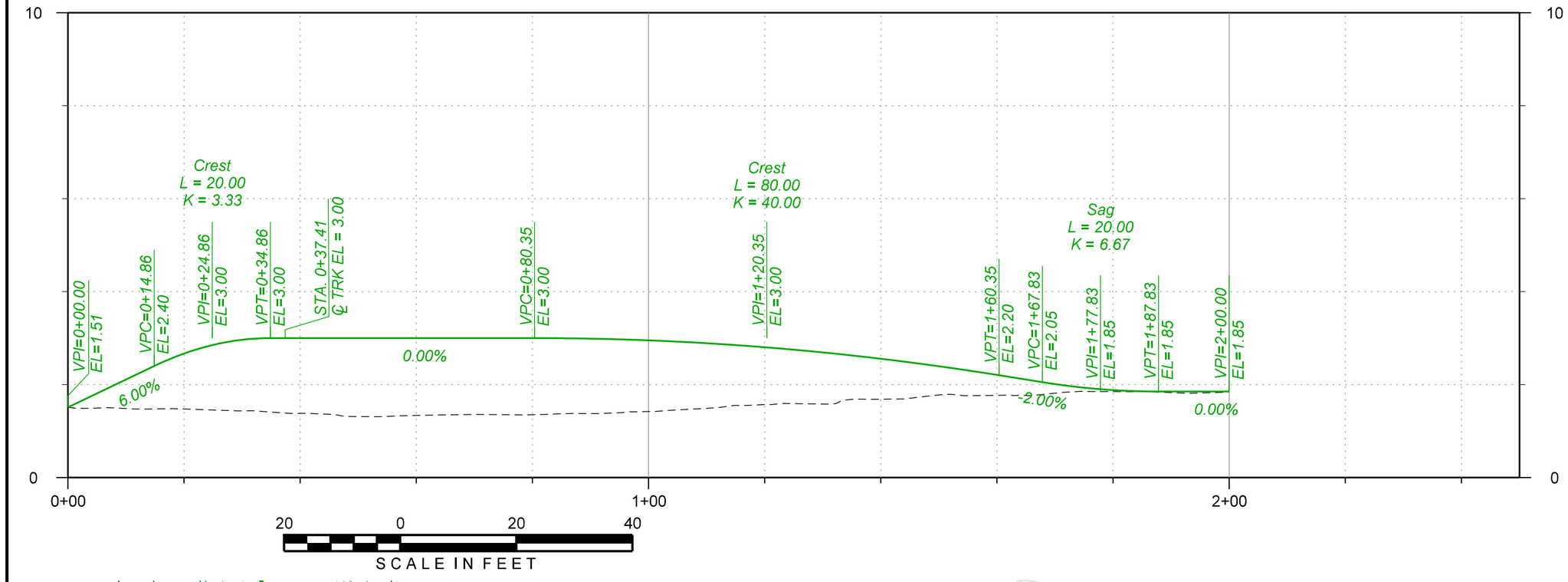
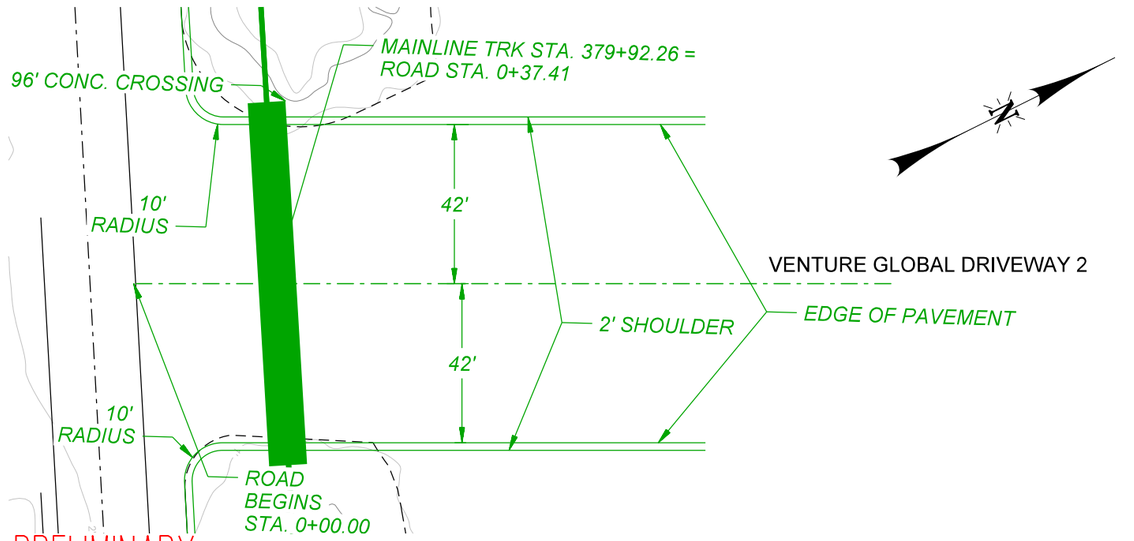
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 56 of 151	SHEET TITLE: ROAD PLAN & PROFILE VENTURE GLOBAL 1





– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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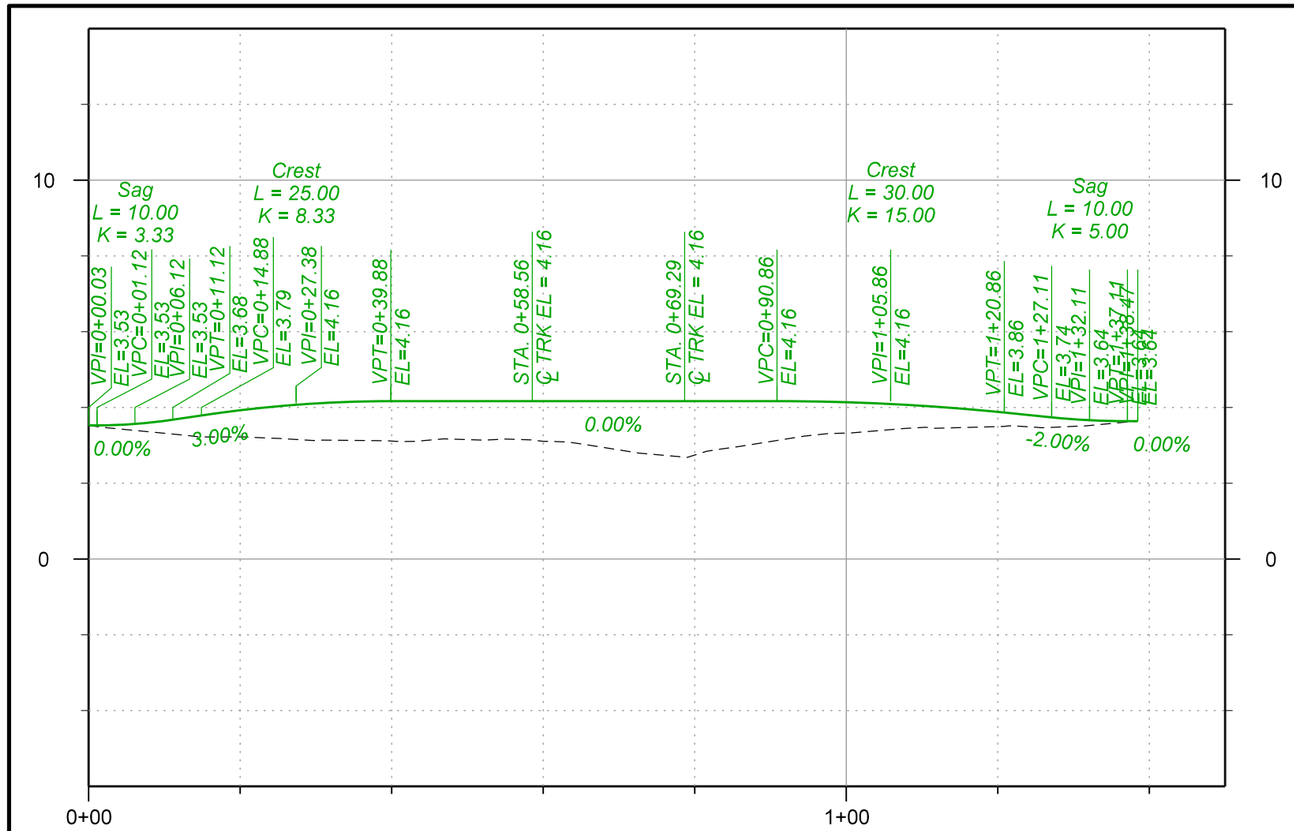
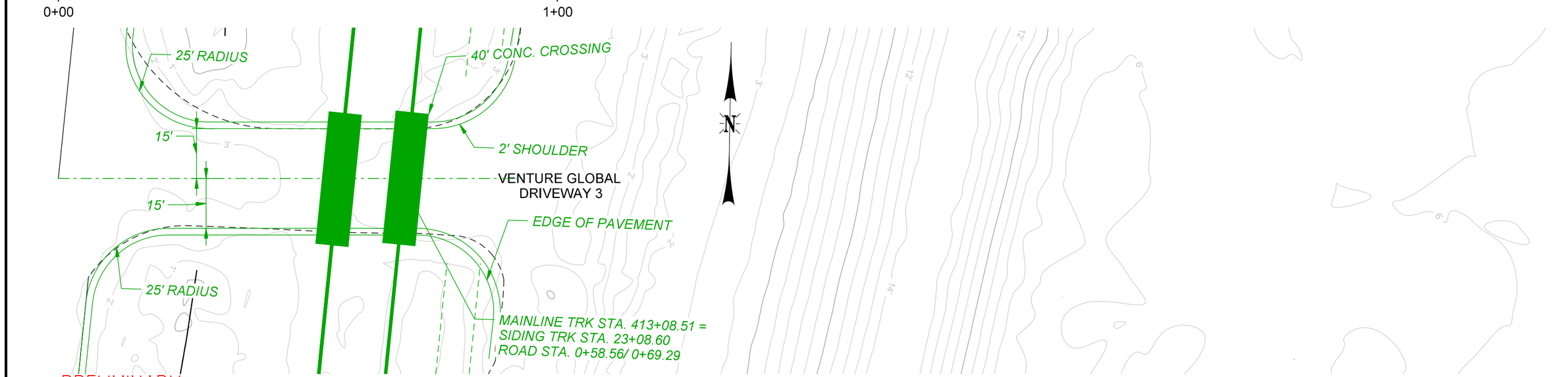
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 57 of 151	SHEET TITLE: ROAD PLAN & PROFILE VENTURE GLOBAL DRIVEWAY 2





– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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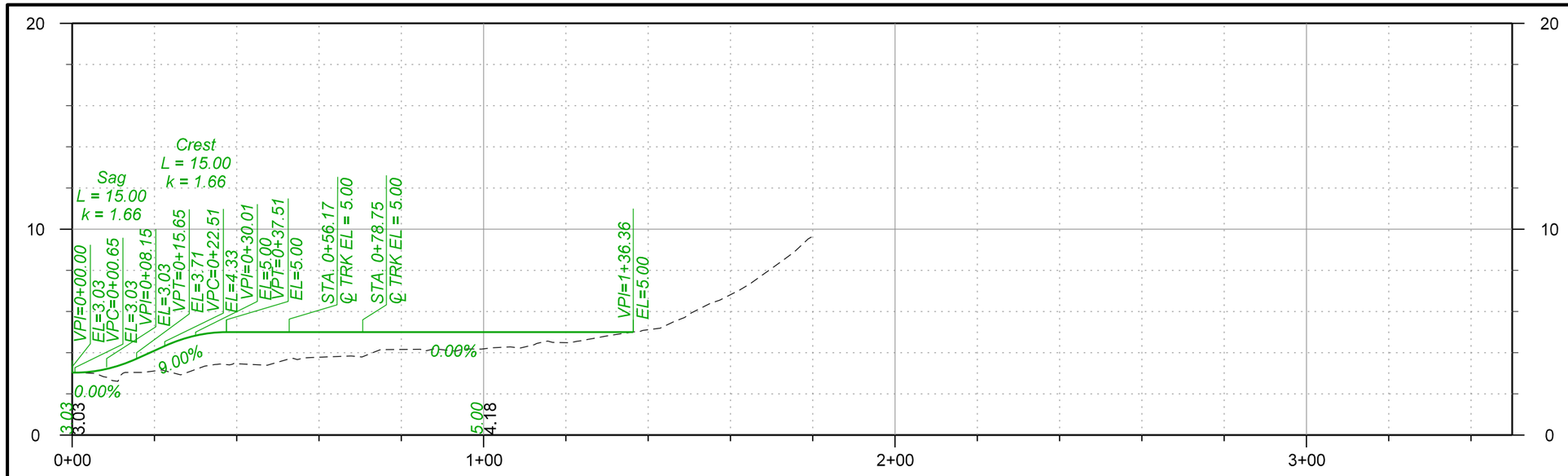
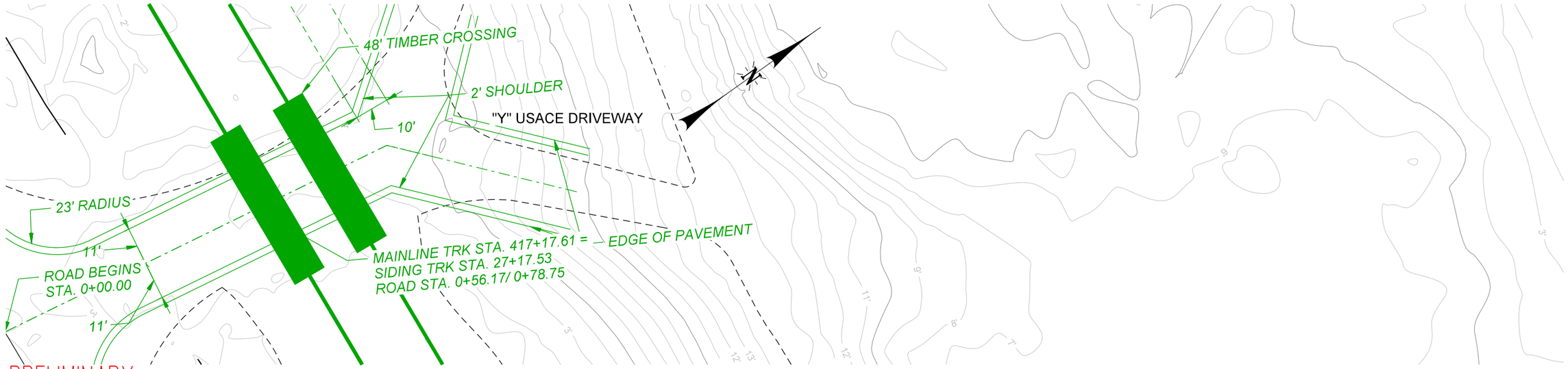
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 58 of 151	SHEET TITLE: ROAD PLAN & PROFILE VENTURE GLOBAL DRIVEWAY 3





REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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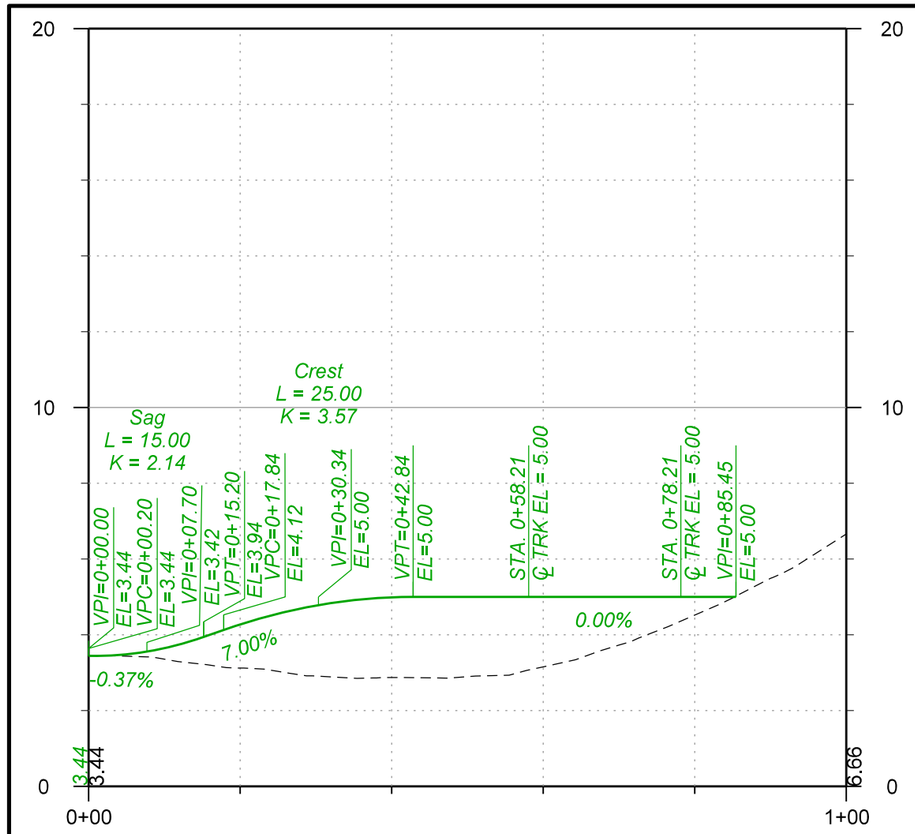
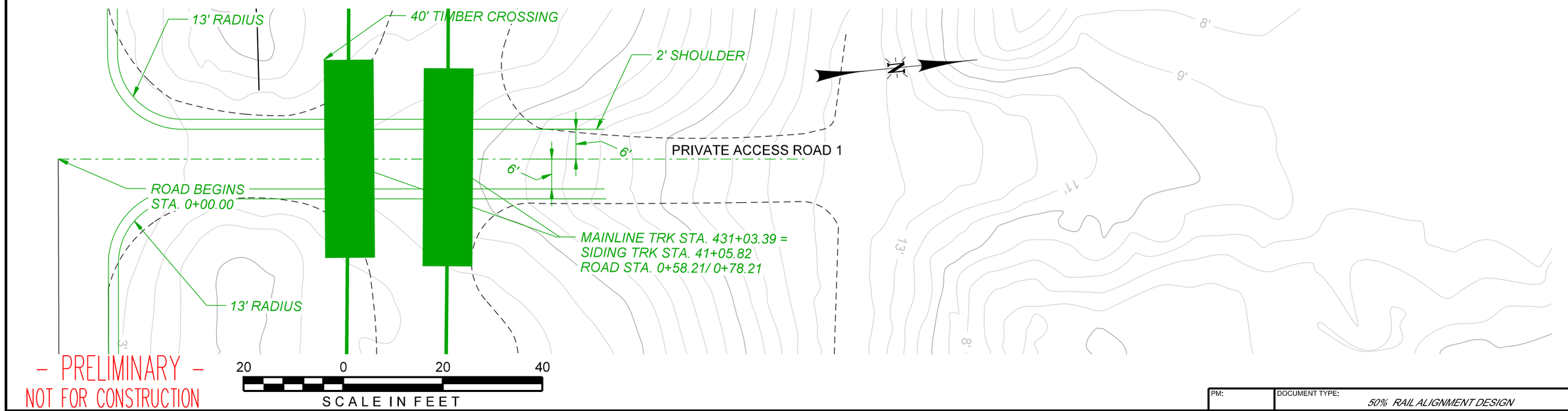
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 59 of 151	SHEET TITLE: ROAD PLAN & PROFILE "Y" USACE DRIVEWAY





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NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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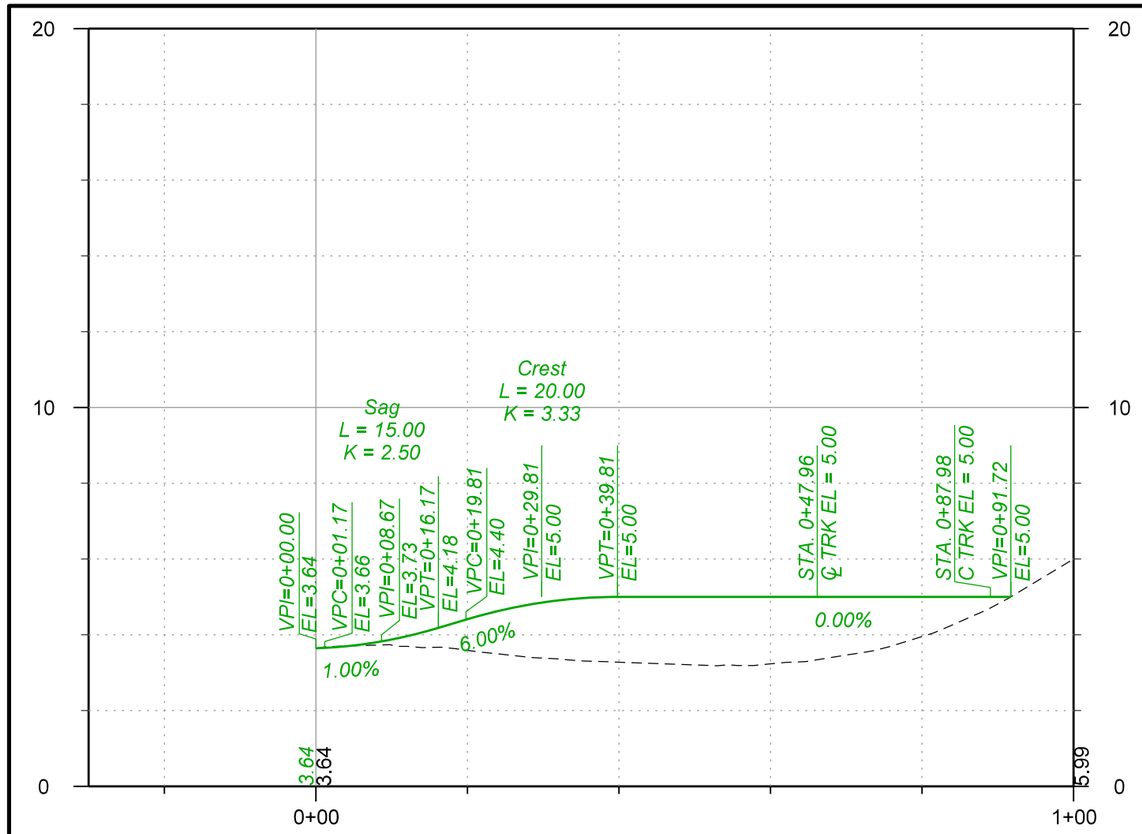
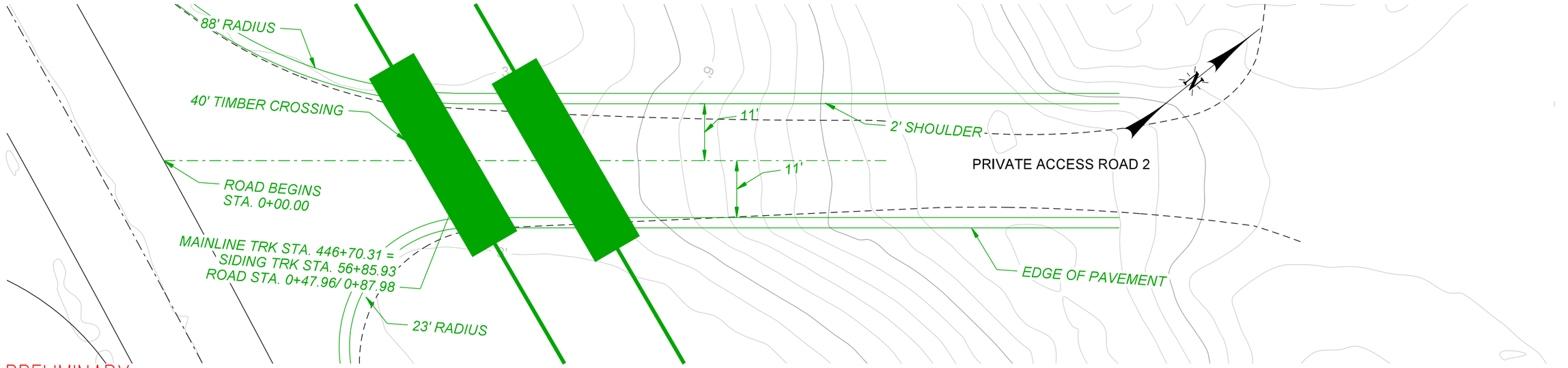
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 60 of 151	SHEET TITLE: ROAD PLAN & PROFILE PRIVATE ACCESS ROAD 1





– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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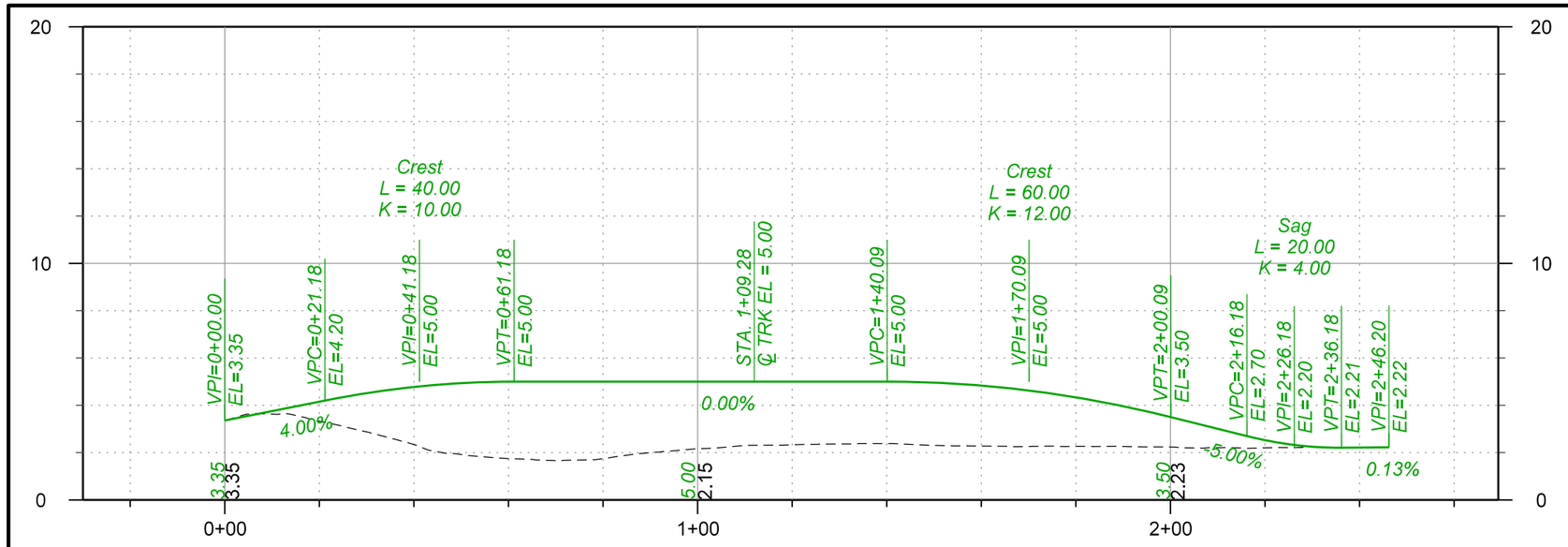
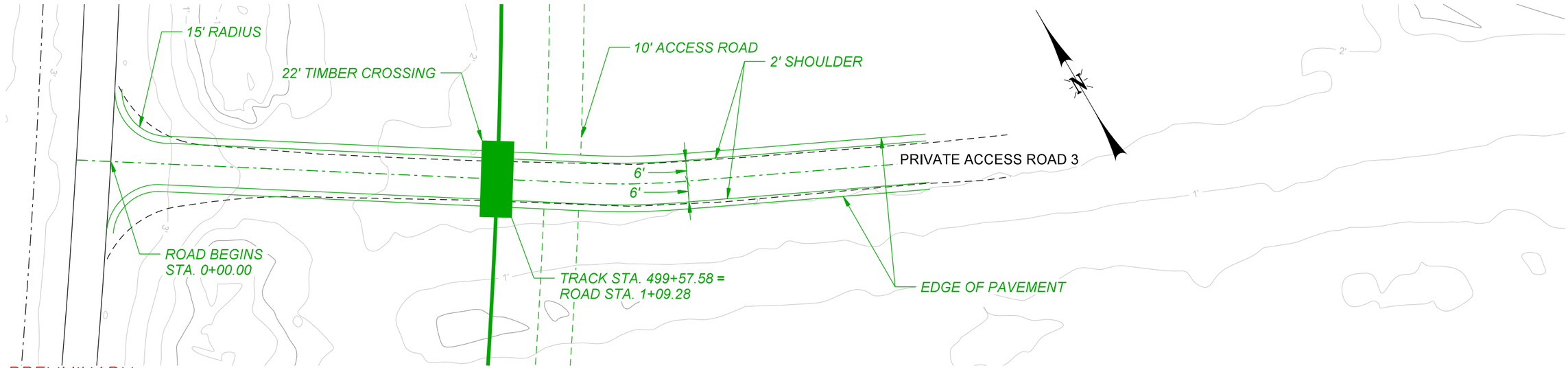
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 61 of 151	SHEET TITLE: ROAD PLAN & PROFILE PRIVATE ACCESS ROAD 2





– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY –
FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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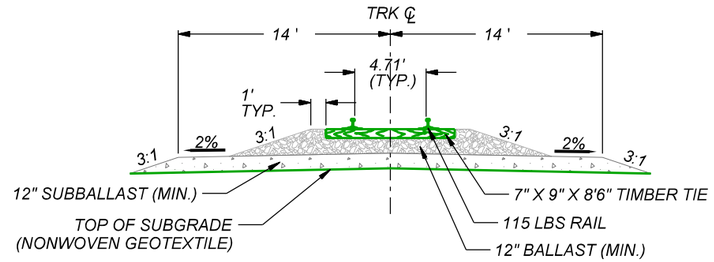
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

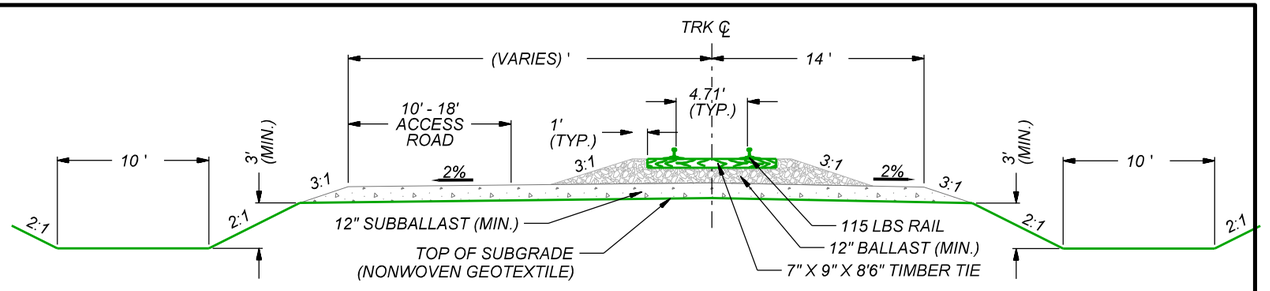
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 62 of 151	SHEET TITLE: ROAD PLAN & PROFILE PRIVATE ACCESS ROAD 3



1 / * TYPICAL TRACK SECTION 1

SCALE: 1:10
MAINLINE TRK
STA.218+65.25 - 178+33.91

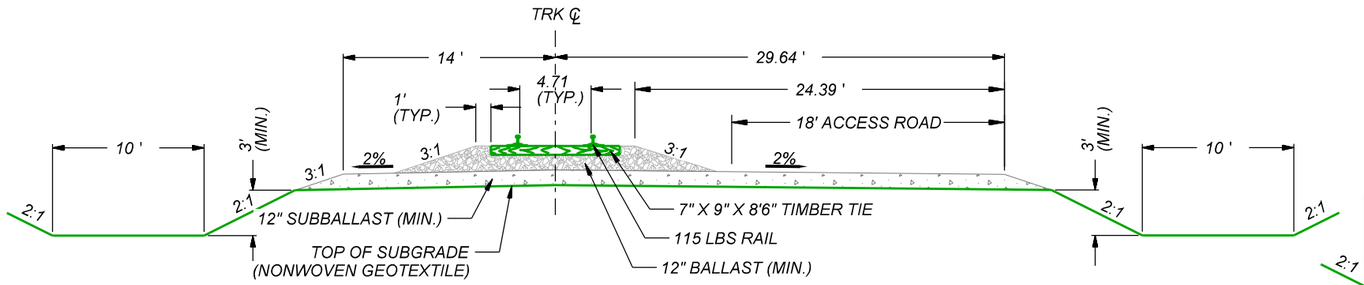
* = 11, 12, 19, 22, 23



2 / * TYPICAL TRACK SECTION 2

SCALE: 1:10
MAINLINE TRK
STA.74+00 - 172+00.61
STA.278+99.14 - 389+98.69
STA.475+98.69 - 508+34.74

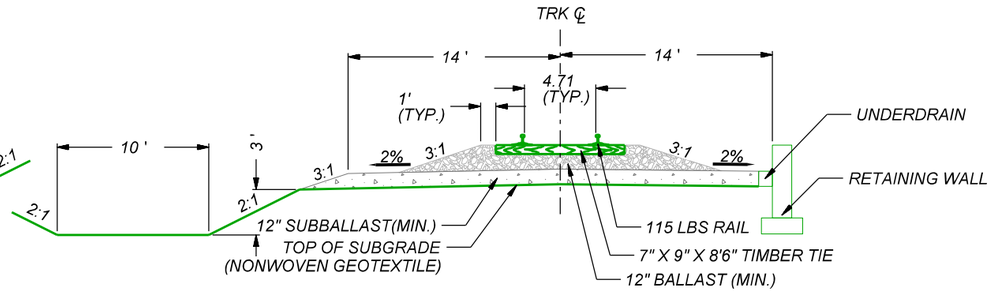
* = 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 26, 27, 28, 29, 30, 31, 32, 33, 39, 40, 41



3 / * TYPICAL TRACK SECTION 3

SCALE: 1:10
MAINLINE TRK
STA.1+83.00 - 73+52.04

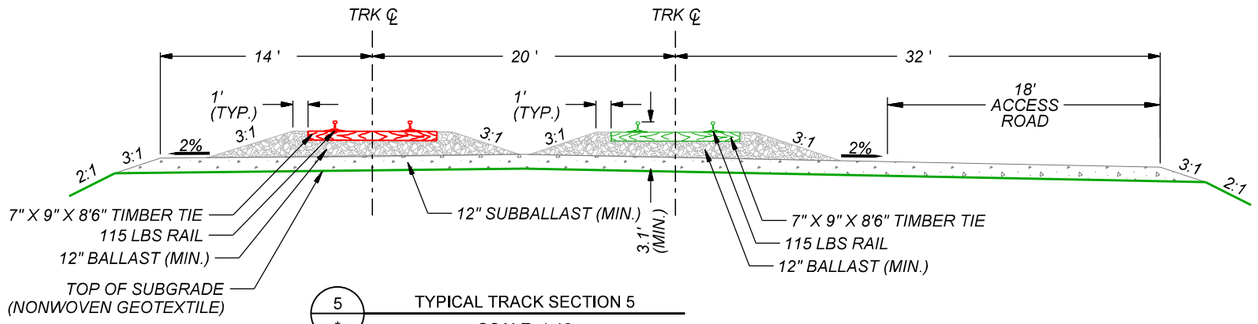
* = 8, 9, 10, 11



4 / * TYPICAL TRACK SECTION 4

SCALE: 1:10
MAINLINE TRK
STA.228+67.11 - 241+70.96

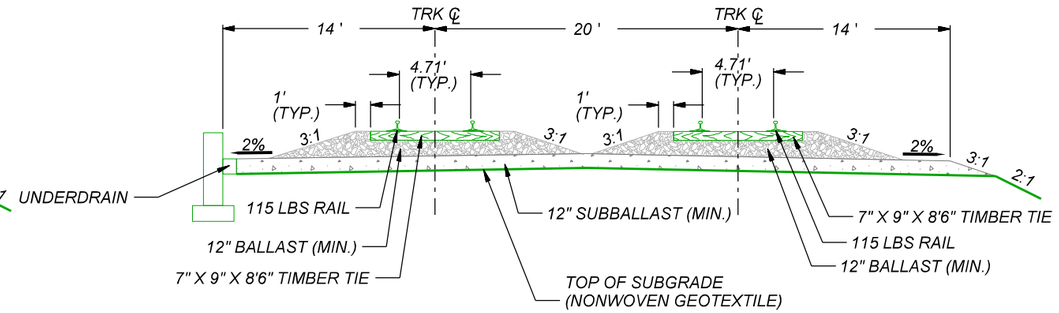
* = 23, 24



5 / * TYPICAL TRACK SECTION 5

SCALE: 1:10
MAINLINE TRK
STA.0+00.00 - 1+83.00

* = 8



6 / * TYPICAL TRACK SECTION 6

SCALE: 1:10
MAINLINE TRK
STA.431+62.07 - 446+36.38

* = 36, 37

– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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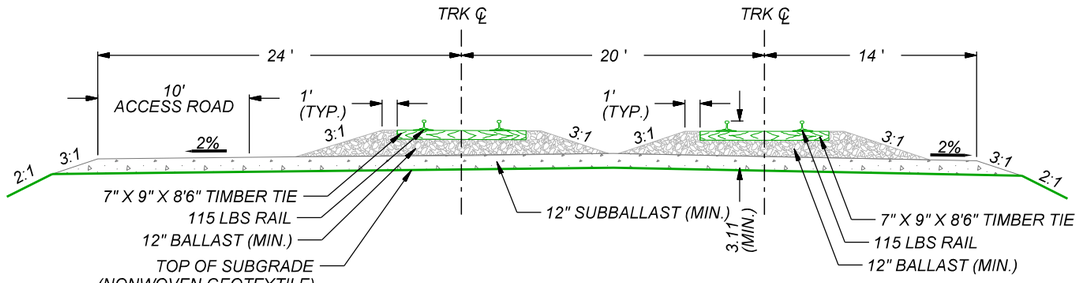
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

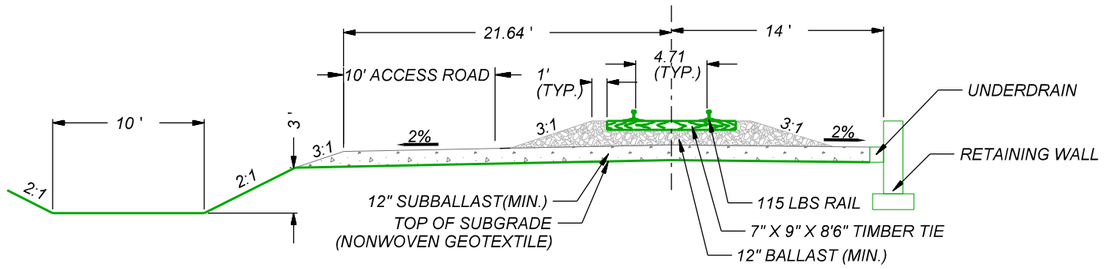
PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 63 of 151	SHEET TITLE: TYPICAL DETAILS



7 / * TYPICAL TRACK SECTION 7

SCALE: 1:10
MAINLINE TRK & SIDING TRK
STA.389+98.69 - 425+48.69
STA.452+56.65 - 475+98.69

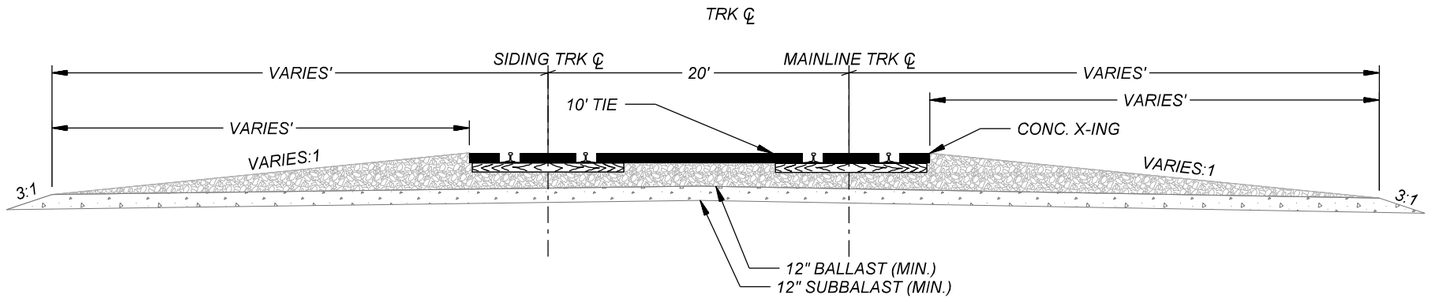
* = 34, 35, 36, 37, 38, 39



8 / * TYPICAL TRACK SECTION 8

SCALE: 1:10
MAINLINE TRK
STA.272+82.20 - 272+49.71

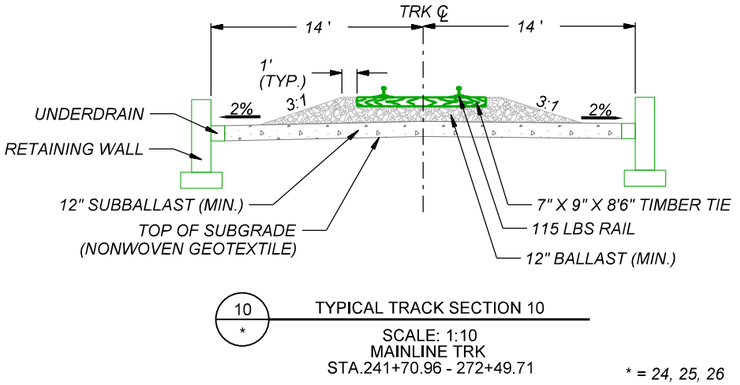
* = 26



9 / * TYPICAL DOUBLE ROAD X-ING

SCALE: 1:10

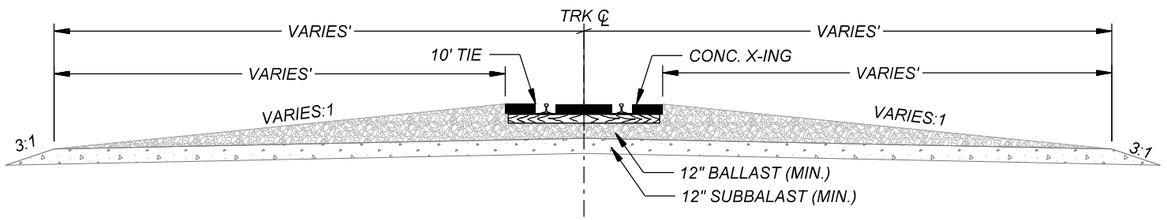
* = 12, 16, 17, 19, 20, 22, 23, 26, 30, 32, 33, 41



10 / * TYPICAL TRACK SECTION 10

SCALE: 1:10
MAINLINE TRK
STA.241+70.96 - 272+49.71

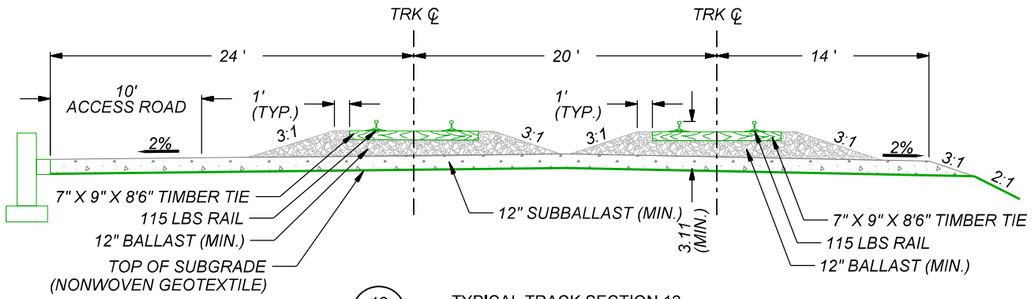
* = 24, 25, 26



11 / * TYPICAL SINGLE ROAD X-ING

SCALE: 1:10

* = 35, 36, 37



12 / * TYPICAL TRACK SECTION 12

SCALE: 1:10
MAINLINE TRK & SIDING TRK
STA.425+48.69 - 430+60.00
STA.446+98.19 - 452+56.65

* = 36, 37, 38

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Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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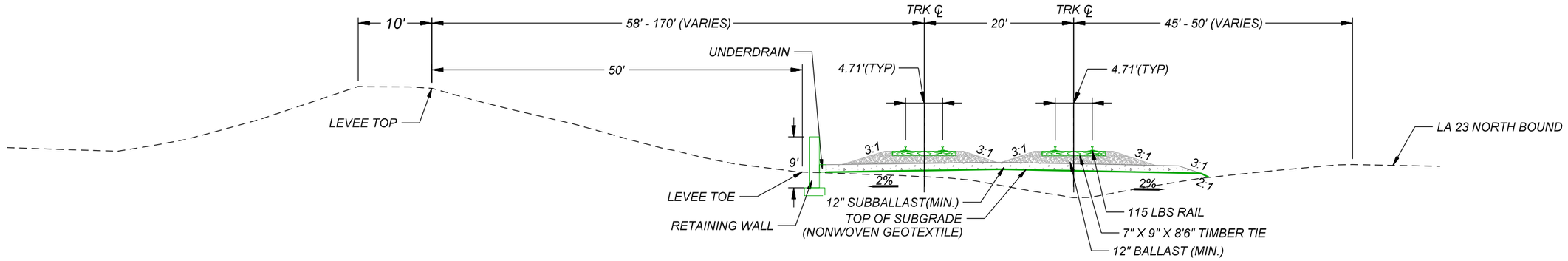

13 / * TYPICAL TRACK SECTION 13

SCALE: N.T.S

* = *35, 36, 37*

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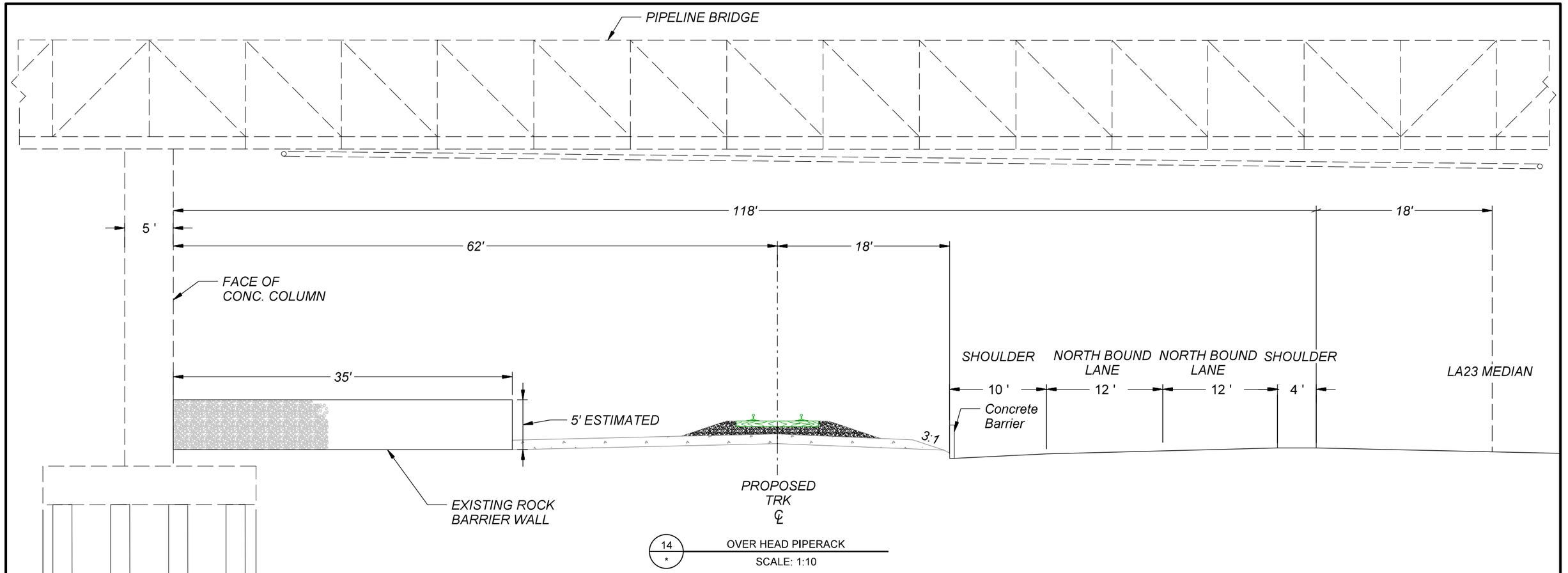

General Guidelines for Crash Walls (Pier Protection Multiple Piers)

Applicability:
- Crash walls are required when any pier or column is within 25 ft of the track
- Centerline (UPRR / BNSF Joint Guidelines). Applies to single or multiple piers.

Multiple-Pier Structures:
- Crash walls must extend continuously across the entire pier line facing the track.
- For multi-column piers, 1' 0" per AREMA and UPRR standards Plan no. 711100
- Columns should not remain exposed individually; the wall must provide uninterrupted protection across the face of the pier line.

Purpose:
- Protect all piers from impact of derailed equipment, preventing direct column strikes and redistributing loads.

Design Load:
- Per AREMA Ch. 2.1.5, structures must resist 400-kip collision load applied at 4 ft above top of rail.
- Railroad may require greater collision loads depending on site and traffic conditions.

Low-Speed Tracks:
- AREMA notes that for track speeds ≤25 mph, reduced collision loads may be considered.
- Final acceptance of reduced load is at operators discretion and must be documented in project agreements.

Geometry:
- Wall height: ≥=4 ft above top of rail (68 ft preferred).
- Wall should extend continuously across multiple columns, beyond the pier group.
- Thickness determined by impact design, typically 24 ft reinforced concrete.

Foundation:
- Wall footing may be **independent of pier footing** to avoid transferring impact loads to columns.
- In seismic zones, wall and pier may require isolation detailing.

Clearances:
- Should meet AREMA/UPRR, and or State vertical and horizontal clearance envelopes (Most Restrictive).

Drainage:
- Walls must not obstruct trackside ditches; alternative drainage facilities required.

Future Tracks:
- Any agreements should allow for retrofit or extension of crash walls if additional tracks are added later.

Materials:
- Reinforced concrete (4,000-5,000 psi compressive strength) with heavy reinforcement per AREMA Ch. 8.

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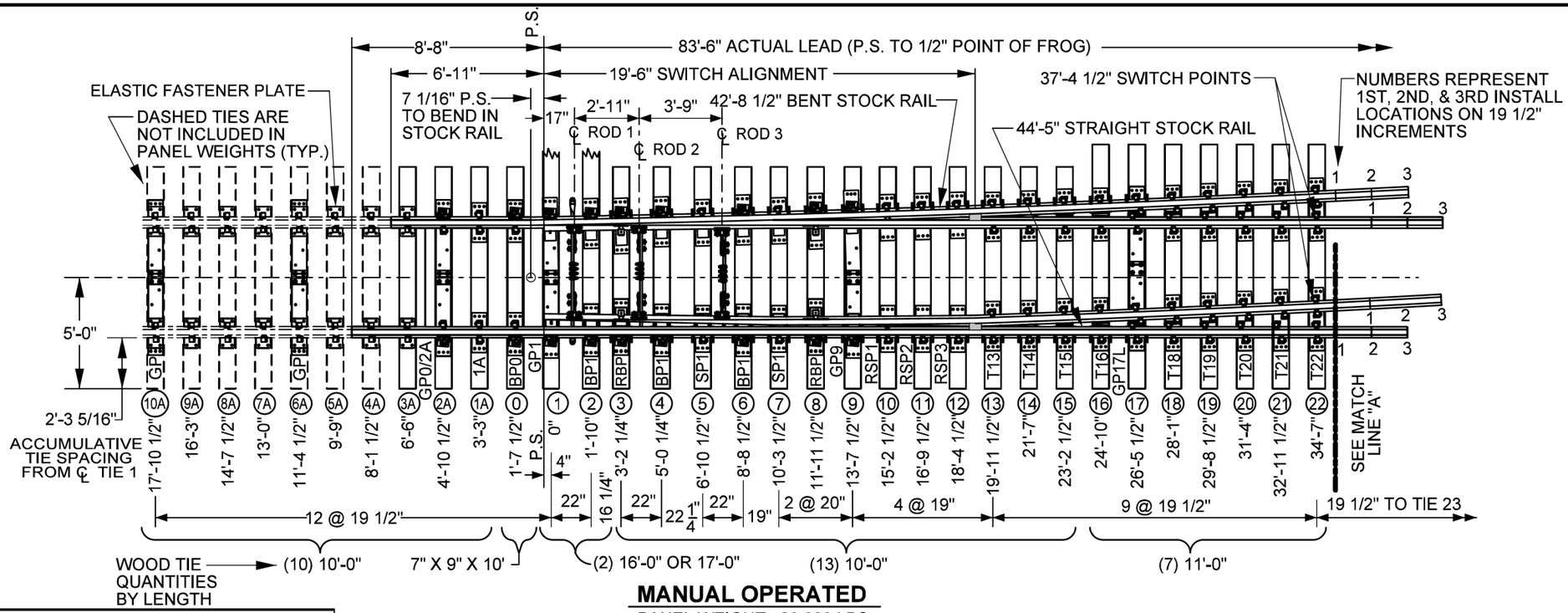

MANUAL OPERATED

PANEL WEIGHT: 20,000 LBS.

ITEMS USED IN ALL # 11 TURNOUTS			
QTY.	COMPONENT DESCRIPTION	DWG #	UPRR ITEM #
1	19'-6" (EXT. 37'-4 1/2") STRT SAMSON SWITCH POINT	1325	SEE DWG
1	19'-6" (EXT. 37'-4 1/2") CURVED SAMSON SWITCH POINT	1325	SEE DWG
1	44'-5" STRAIGHT SAMSON STOCK RAIL	1405	SEE DWG
1	42'-8 1/2" BENT / CURVED SAMSON STOCK RAIL	1405	SEE DWG
1	EA. SWITCH RODS NO. 2, AND 3	2190	SEE DWG
2	"GP" GAUGE PLATE FOR TIES 6A & 10A AHEAD OF POINT	1705	N/A
1	"GP0/2A" ADJUSTABLE BRACE GAUGE PLATE FOR TIE 2A	1702	N/A
2	"1A" PLATE FOR TIE 1A	1500	N/A
1	"GP9" ADJUSTABLE BRACE GAUGE PLATE FOR TIE 9	1707	N/A
4	RBP - ADJUSTABLE BRACE ROLLER PLATE FOR TIES 3 & 8	2230	SEE DWG
2	EKOSLIDE ROLLER ASSEMBLY TYPE CZ-5	2230	SEE DWG
2	EKOSLIDE ROLLER ASSEMBLY TYPE CZ-10	2230	SEE DWG
4	"BP1" ADJUSTABLE BRACE SLIDE PLATE	1540	557-2960
6	"SP1" SIDE PLATE	1540	557-2961
2	EA. "RSP1", "RSP2", AND "RSP3" RISER SLIDE PLATES FOR TIE 10-12	1525	N/A
2	TURNOUT PLATES T13 THUR T22	1505	SEE DWG
1	"GP17" GAUGE PLATE FOR TIE 17	1715	SEE DWG
1	"GP31" GAUGE PLATE FOR TIE 31	1715	SEE DWG
1	"GP38" GAUGE PLATE FOR TIE 38	1715	SEE DWG
1	36'-1" CLOSURE INSULATED JOINT RAIL	5011	N/A
1	32'-9" INSULATED JOINT TURNOUT RAIL	5011	N/A
1	36'-1" CLOUSRE RAIL (ONLY IN NON-INSULATED TU)	5011	N/A
1	32'-9" JOINT TURNOUT RAIL (ONLY IN NON-INSULATED TURNOUT)	5011	N/A
253	136 OR 141 LB. RAIL (IN LINEAR FEET)	N/A	N/A
152	PANDROL TIE PLATE	0469	503-9020
12	MODIFIED PANDROL TIE PLATE	0470	N/A
518	PANDROL ECLIP E-2055 (SUBTRACT 8 FOR INSULATED TURNOUT)	0436	503-6100
8	INSULATED JOINT CLIP ASSEMBLY (ONLY IN INSULATED TURNOUT)	N/A	SEE DWG
1254	15/16" DIA. 6 1/2' LG. "RAILROAD APPROVED" SCREW SPIKES	0431	503-8620
520	RAIL ANCHORS	0439	550-1650

MANUAL OPERATED ITEM NUMBERS	UPRR L.H.		UPRR R.H.		UPRR L.H.	UPRR R.H
USE OF SPRING SWITCH 1 1/4" REINF. IN TURNOUTS					WITH	WITH
USE OF BONDED JOINT IN TURNOUS	WITHOUT	WITH	WITHOUT	WITH	WITH	WITH
136 LB - #11 TURNOUT W/ RBM FROG, PPTO	N/A	557-8058	N/A	557-8059	557-8034	557-8082
136 LB - #11 TURNOUT W/ SPRING FROG, PPTO	N/A	557-8083	N/A	557-8084	557-8079	557-8080
136 LB - #11 TURNOUT W/ SMSG FROG, PPTO	557-8089	N/A	557-8090	N/A	N/A	N/A
136 LB - #11 TURNOUT W/ JUMP FROG, PPTO	N/A	557-8098	N/A	557-8099	N/A	N/A

POWER OPERATED ITEM NUMBERS	L.H.	R.H.
136 LB #11 TURNOUT W/ SPRING FROG, PPTO	557-8077	557-8078

TIES USED IN ALL # 11 TURNOUTS		
QTY	SIZE	TIE NUMBER
10	7" X 9" X 10'-0"	TIES 1A THRU 10A
13	7" X 9" X 10'-0"	TIES 3 THRU 15
20	7" X 9" X 11'-0"	TIES 16 THRU 35
8	7" X 9" X 12'-0"	TIES 36 THRU 43
7	7" X 9" X 13'-0"	TIES 44 THRU 50
7	7" X 9" X 14'-0"	TIES 51 THRU 57
7	7" X 9" X 15'-0"	TIES 58 THRU 64
6	7" X 9" X 16'-0"	TIES 65 THRU 70
7	7" X 9" X 17'-0"	TIES 71 THRU 77

141 LB ITEMS
DESCRIPTION
141 LB RH SPRING MANUAL W O/ INSULATED JOINTS
141 LB LH SPRING MANUAL W O/ INSULATED JOINTS
141 LB RH SPRING POWER W O/ INSULATED JOINTS
141 LB LH SPRING POWER W O/ INSULATED JOINTS
141 LB RH SPRING MANUAL TURNOUT W/ INSULATED JOINTS
141 LB LH SPRING MANUAL TURNOUT W/ INSULATED JOINTS
141 LB RH SPRING POWER TURNOUT W/ INSULATED JOINTS
141 LB LH SPRING POWER TURNOUT W/ INSULATED JOINTS

NOTES:
1. ALL TIES 7" X 9" BODY UNLESS OTHERWISE SHOWN.
2. FULLY BOX ANCHOR STOCK RAILS, TIES 3-15 FOR SHIPPING OF PANELS ONLY.
3. APPLY 5" BOND WIRES ONE CRIB AHEAD OF HEEL OF SWITCH ON STOCK AND SWITCH POINT RAILS.
4. ALL SWITCH POINT AND STOCKRAIL DIMENSIONS ARE TO FIRST INSTALL, SEE PLAN 1405 FOR FULL LENGTH.

15 / * — NO. 11 TURNOUT
SCALE: 1:10

* = 34, 39

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Prop. Mainline Track
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Shift Mainline Track
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Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
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Cut
Fill

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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007141

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DATE: 1/14/2026	
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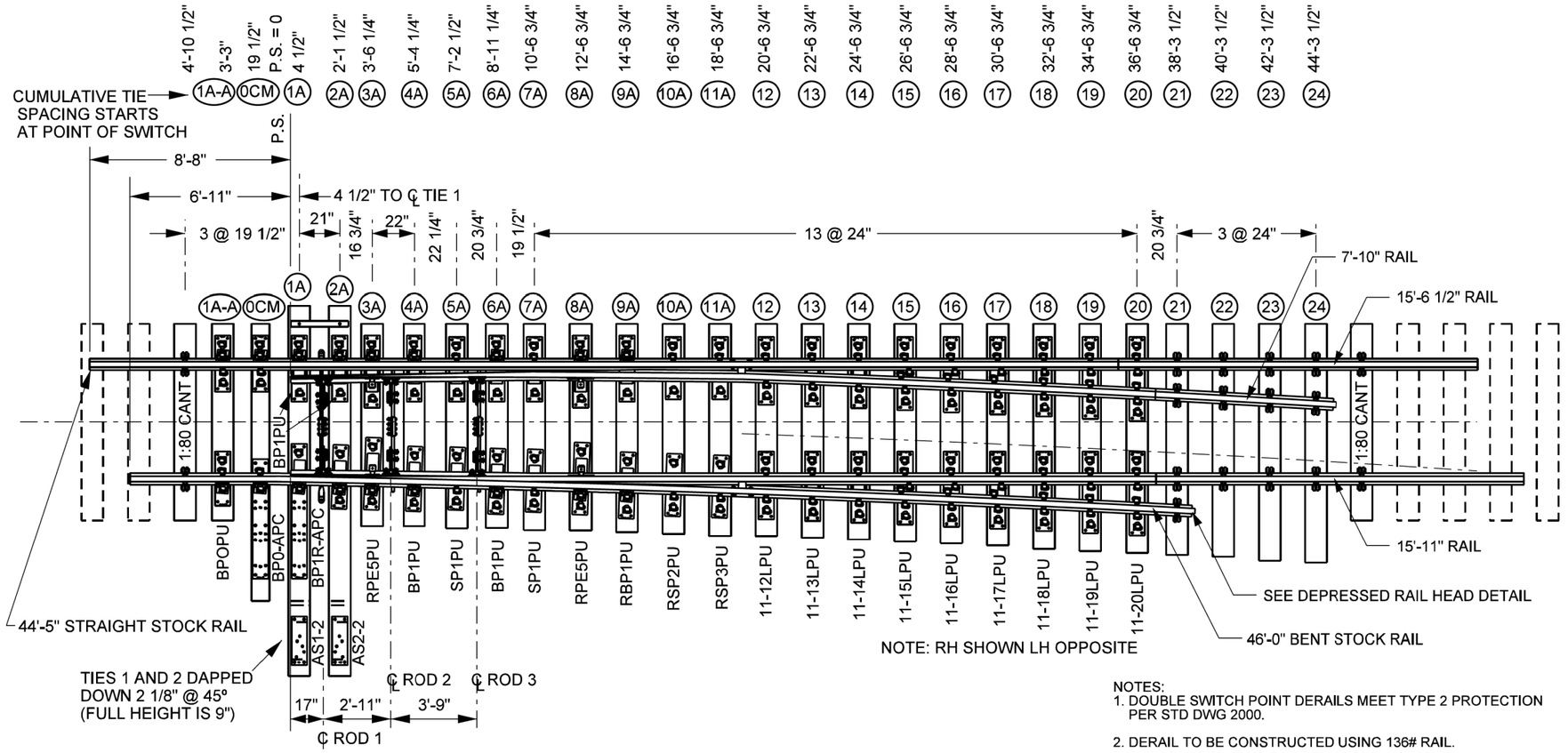

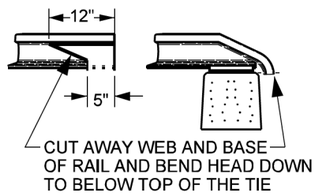

DEPRESSED RAIL HEAD DETAIL

NOTES:
1. DOUBLE SWITCH POINT DERAILS MEET TYPE 2 PROTECTION PER STD DWG 2000.
2. DERAIL TO BE CONSTRUCTED USING 136# RAIL.
3. DOUBLE SWITCH POINT DERAILS MAY BE CONSTRUCTED OF THE SAME RAIL SIZE AS THE CONNECTING TRACK. (115 LB MINIMUM). ALL NEW DERAILS INSTALLED IN UPRR MAINTAINED TRACK SHALL BE CONSTRUCTED OF 133 OR 136 LB. MATERIAL.

REF. UP STD DWG 2000 FOR INSTALL LOCATION
REF. UP STD DWG 2100 FOR DERAIL TARGET
REF. UP STD DWG 2132 FOR 36EH SWITCH STAND
REF. UP STD DWG 2125 FOR CONNECTING ROD

16 / * DOUBLE SWITCHPOINT DERAIL
SCALE: N.T.S.

** = 34, 39*

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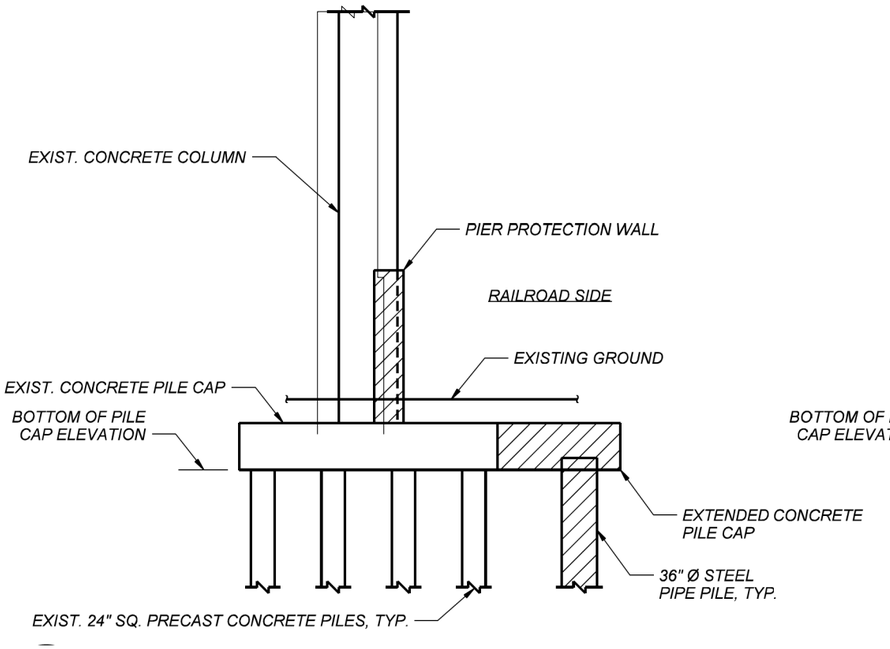

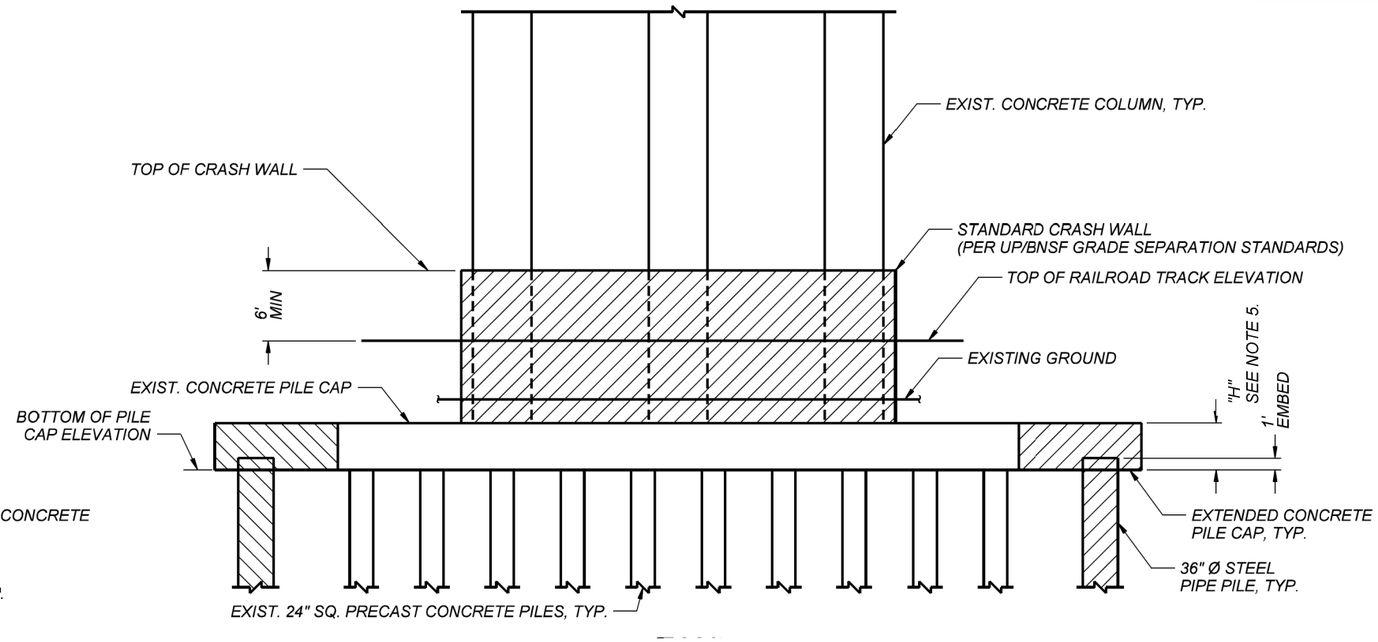

17 / * CRASH WALL DETAIL A & B

SCALE: NTS

* = 31

NOTES:

1. INFORMATION ON EXISTING STRUCTURE SHOWN HEREIN IS BASED ON DATA PROVIDED BY VENTURE GLOBAL. CONTRACTOR TO FIELD VERIFY ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF THE WORK.
2. UPRR STANDARD CRASH WALL IN ACORDANCE TO BNSF/UPRR BRIDGE STANDARD PLAN No. 711100, SHEET 4.
3. THE CONTRACTOR SHALL THROUGHLY ROUGHEN THE INTERFACE BETWEEN EXISTING AND NEW CONSTRUCTION TO A UNIFORMLY DISTRIBUTED 1/4-INCH MINIMUM AMPLITUDE SURFACE PROFILE, WITH PEAKS AT A MAXIMUM OF 1-INCH. BEFORE PLACING NEW CONCRETE AGAINST EXISTING CONCRETE, THE CONTRACTOR SHALL THOROUGHLY CLEAN AND SATURATE THE EXISTING SURFACE. ALL LOOSE PARTICLES, DUST, DIRT, LAITANCE, OIL, OR FILM OF ANY SORT SHALL BE REMOVED. THE CLEANED SURFACE SHALL BE SATURATED WITH WATER FOR A MINIMUM OF 4 HOURS BEFORE NEW CONCRETE IS PLACED.
4. SEE SHEET 2 FOR CONCRETE ROUGHENING ALTERNATE.
5. PILE CAP HEIGHT "H" TO MATCH EXISTING CONCRETE PILE CAP.
6. MIN. PILE TIP ELEVATION IS 130' BELOW BOTTOM OF PILE CAP ELEVATION.
7. PROVIDE OPEN-ENDED PIPE PILES AS SHOWN IN THE PLANS TO MEET ASTM AS52, GRADE 3, Fy = 50,000 PSI.
8. MINIMUM PIPE PILE WALL THICKNESS SHALL BE 1/2". PILE DRIVING SHALL NOT EXCEED THE MAXIMUM AS SPECIFIED IN STANDARD SPECIFICATION SECTION 804.07.6. THIS WILL BE MONITORED AND VERIFIED BY PDA ANALYSIS.

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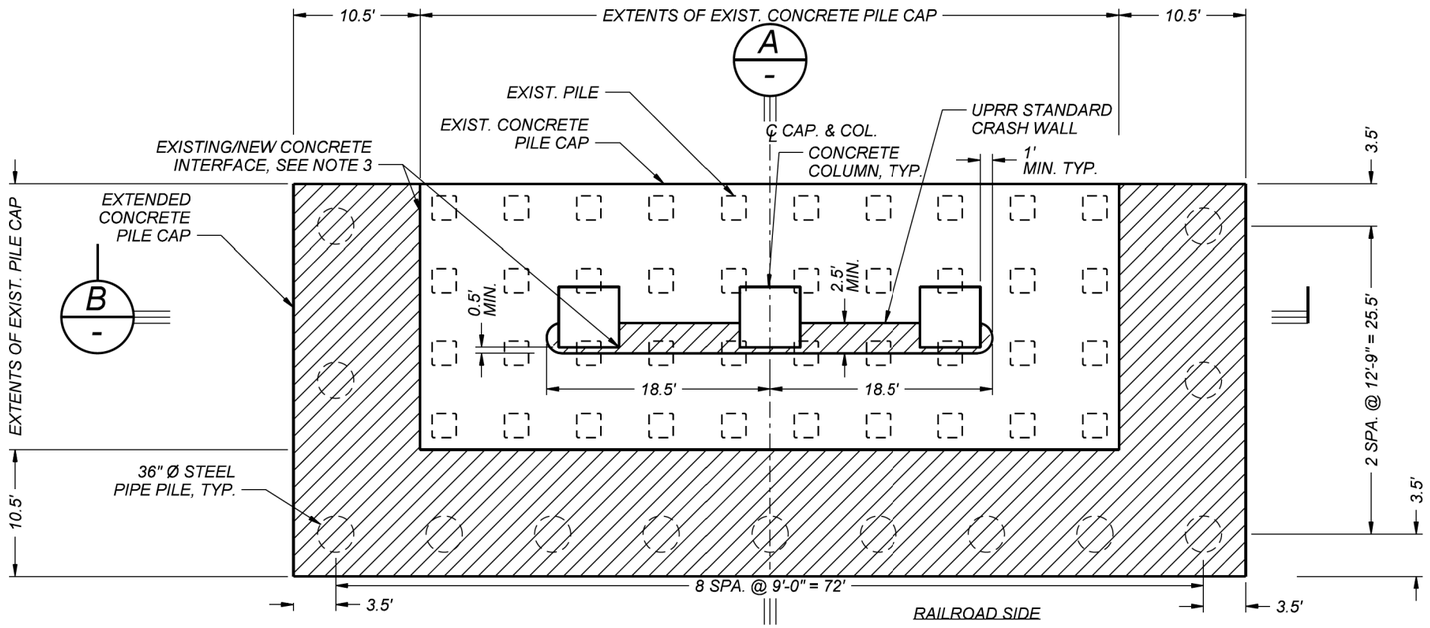
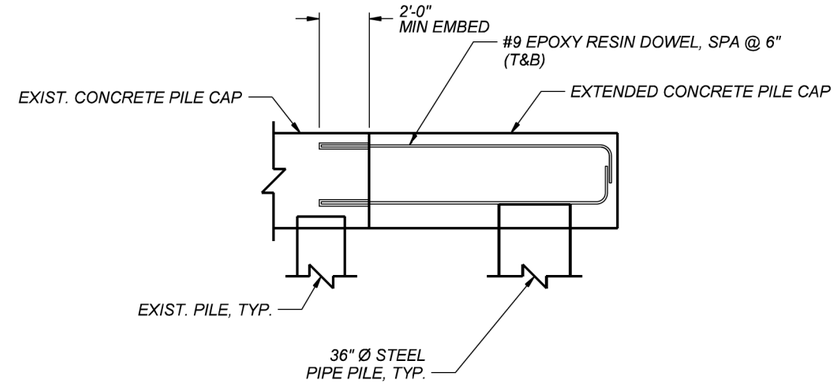
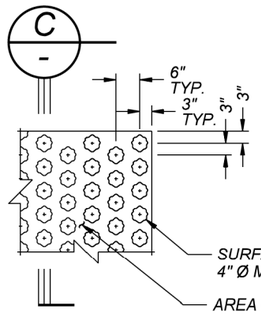


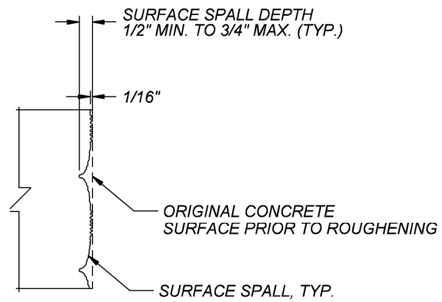


18 / * CRASH WALL TYPICAL DETAIL

SCALE: NTS

* = 31





NOTES:

1. CONCRETE DESIGN AND CONSTRUCTION SHALL CONFORM TO THE AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA), VOLUME 2A, CHAPTER 8, CONCRETE STRUCTURES AND FOUNDATIONS.
2. CONCRETE MIX SHALL BE CLASS I, f'c = 5,000 PSI
3. REINFORCING STEEL SHALL BE DEFORMED Fy = 60,000 PSI AND IN CONFORMANCE TO ASTM A615.

- PRELIMINARY -
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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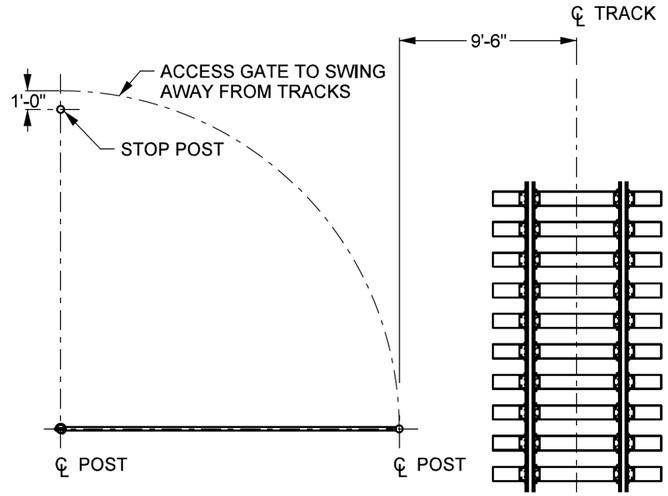
FIRM No: LA - EF. 0003109

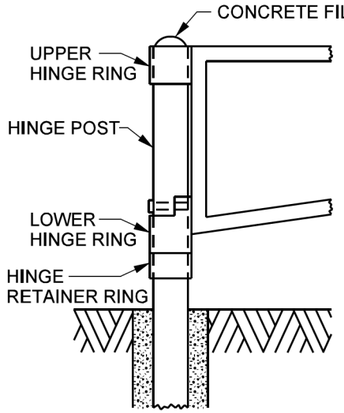
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

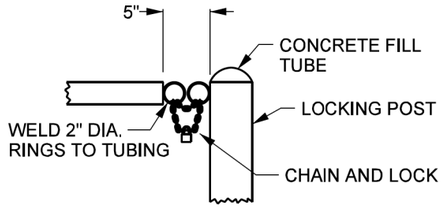
PM:	DOCUMENT TYPE: 50% RAIL ALIGNMENT DESIGN
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 70 of 151	SHEET TITLE: TYPICAL DETAILS



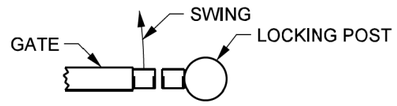
TYPICAL GATE LOCATION PLAN



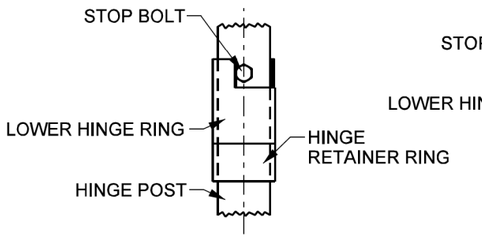
HINGE POST DETAIL



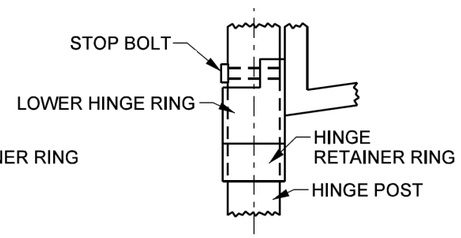
LOCKING DETAIL



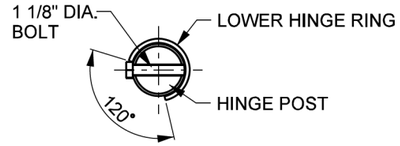
LOCKING POST PLAN DETAIL



HINGE RING END DETAIL

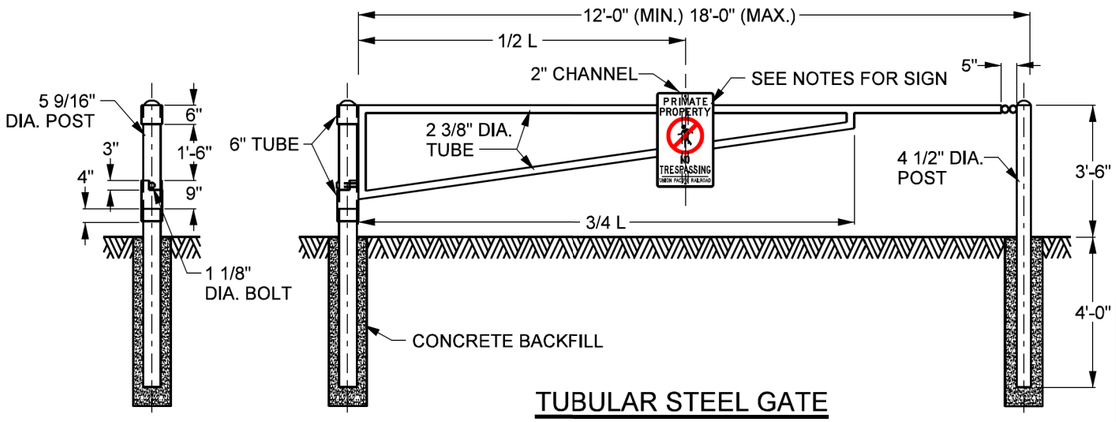


LOWER HINGE RING DETAIL



HINGE POST PLAN DETAIL

NOTES:
1. SECURITY GATES WILL BE PLACED AT LEAST 25 FEET FROM THE ROADWAY.
2. GATE TO BE USED AT LOCATIONS WHERE MAXIMUM SECURITY IS REQUIRED.
3. FOR MOUNTING OF PRIVATE PROPERTY SIGN, BOLT SIGN TO 2" CHANNEL WELDED TO GATE. FOR SIGN DETAILS, SEE PLAN 0538.
4. CONCRETE BACKFILL TO BE 6" MINIMUM 2500 PSI.



TUBULAR STEEL GATE

ITEM	ITEM NO.
12' GATE	598-9200
14' GATE	598-9202
16' GATE	598-9204
18' GATE	598-9206

19 / * SECURITY GATE
SCALE: NTS

* = 36

– PRELIMINAR
NOT FOR CONSTRUC

REV. #	BY	DATE	DESCRIPTION

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Prop. Mainline Track
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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

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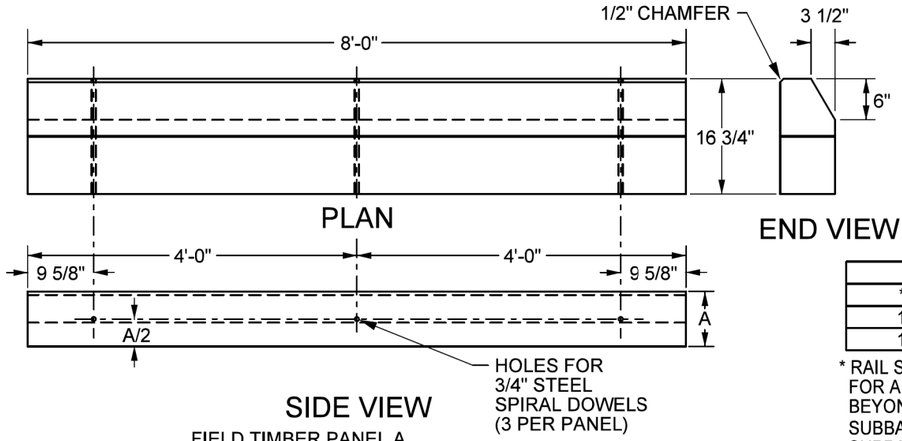
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 71 of 151	SHEET TITLE: TYPICAL DETAILS

TIMBER PANELS FOR USE WITH 110# - 141# RAIL



SIDE VIEW

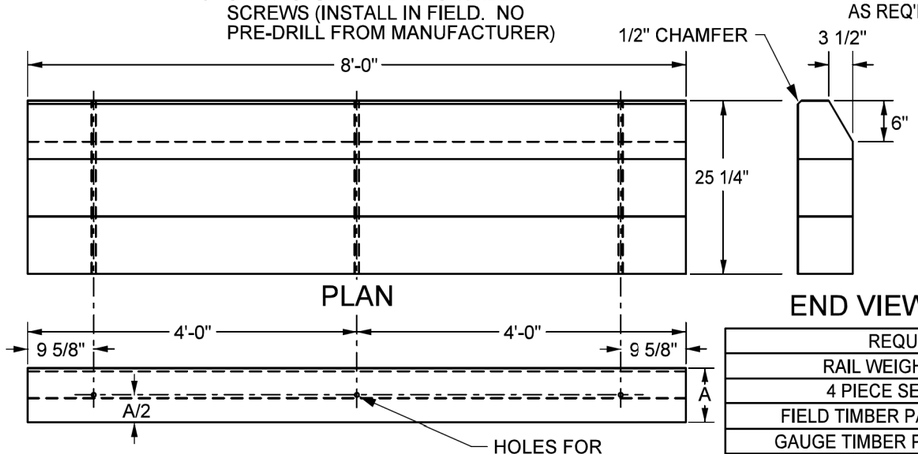
FIELD TIMBER PANEL A

MATERIAL FOR ONE SECTION
2 - A x 8 3/8" x 8'-0" TIMBERS
3 - 3/4" STEEL SPIRAL DOWELS
6 - 3/4" x 13" SELF TAPPING TIMBER SCREWS (INSTALL IN FIELD. NO PRE-DRILL FROM MANUFACTURER)

DIMENSION CHART		
*RAIL SIZE	A	SCREWS
131# - 141#	8"	3/4" x 13"
110# - 119#	7 1/2"	3/4" x 13"

* RAIL SHALL BE AT LEAST 115# FOR A MINIMUM LENGTH OF 20' BEYOND THE EDGE OF TRAVELED WAY

SUBBALLAST NOTE:
SUBBALLAST SECTION TO BE A MINIMUM OF 4" WHEN RENEWING EXISTING CROSSING. FOR NEW CONSTRUCTION, SUBBALLAST SECTION TO BE IN ACCORDANCE WITH CONSTRUCTION DESIGN STANDARDS OR AS REQ'D. BY STATE OR LOCAL AGENCIES.



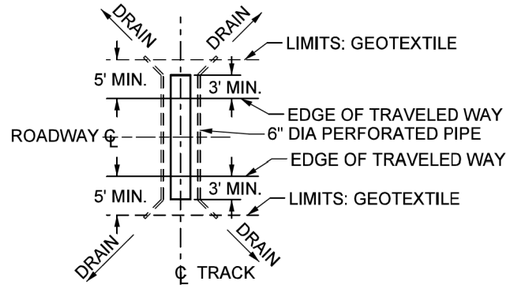
SIDE VIEW

GAUGE TIMBER PANEL B

MATERIAL FOR ONE SECTION
3 - A x 8 3/8" x 8'- 0" TIMBERS
3 - 3/4" STEEL SPIRAL DOWELS
6 - 3/4" x 13" SELF TAPPING TIMBER SCREWS SCREWS (INSTALL IN FIELD. NO PRE-DRILL FROM MANUFACTURER)

REQUIRED COMPONENTS		
RAIL WEIGHT	110#-119#	131#-141#
4 PIECE SET	540-3900	540-4300
FIELD TIMBER PANEL A	540-4000	540-4400
GAUGE TIMBER PANEL B	540-4100	540-4500
3/4" SELF TAP TIMBER SCREWS	130-5402	

OPTIONAL COMPONENTS	
20' SECTION 6" PERFORATED PIPE	510-3201
6" ADJUSTABLE PIPE ELBOW	510-3557
6" PIPE CONNECTOR BAND	510-3379
100' ROLL GEOTEXTILE	550-0119
FLANGEWAY RUBBER	540-1950
GEOWEB PANEL	550-0120
ATRA KEY (BOX OF 450)	550-0122



TYPICAL PIPE LAYOUT

NOTES

FABRICATION AND TREATMENT:
1. CROSSING SECTIONS TO BE FABRICATED AND ASSEMBLED TO AVOID ANY CUTTING OR FITTING AT THE POINT OF INSTALLATION. SECTIONS TO BE PREDRILLED WITH 1/2" HOLES AND TRANSVERSELY DOWELED WITH 3/4" TWISTED DRIVE DOWELS. EACH PLANK TO BE FRAMED, BORED AND TREATED WITH A P2 SOLUTION TO 8 LBS. PER CUBIC FOOT RETENTION PRIOR TO ASSEMBLY INTO CROSSING SECTION. PLACE THE CROSSING SECTION MARK ON THE END OF ALL SECTIONS. EACH MARK TO HAVE A SUFFIX DENOTING RAIL SIZE AS SHOWN UNDER CATEGORIES IN DIMENSION CHART.

MATERIALS AND INSTALLATION:
1. REQUISITIONS FOR PREFABRICATED CROSSING SECTIONS TO BE MADE SPECIFYING THE NUMBER OF EACH TYPE OF SECTION REQUIRED (A OR B) AND THE WEIGHT OF RAIL WITH WHICH IT IS TO BE USED (133, 131, ETC.) AS DENOTED IN THE DIMENSION CHART UNDER CATEGORIES. DRILLING TO START AT THE CENTERLINE OF CROSSING AND WORK TOWARDS THE ENDS.

2. GEOTEXTILE AND PIPE TO BE INSTALLED ONLY AT LOCATIONS WHERE REQUIRED BY STATE OR LOCAL AGENCIES OR WHERE DESIGNATED BY CHIEF ENGINEER.

3. REPORT CROSSING GATE MALFUNCTIONS TO 24 HR UPRR CROSSING HOT LINE AT 1-800-848-8715.

4. ALL EXCEPTIONS TO THIS PLAN MUST BE APPROVED BY THE CHIEF ENGINEER.

– PRELIMINARY –
NOT FOR CONSTRUCTION

20 / * TIMBER TIE X-ING

SCALE: NTS

* = 16, 17, 26, 30, 35, 36, 37, 41

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1/14/2026

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Prop. Mainline Track
Remove Mainline Track
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Power Turnout
Power Derail
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Cut
Fill

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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

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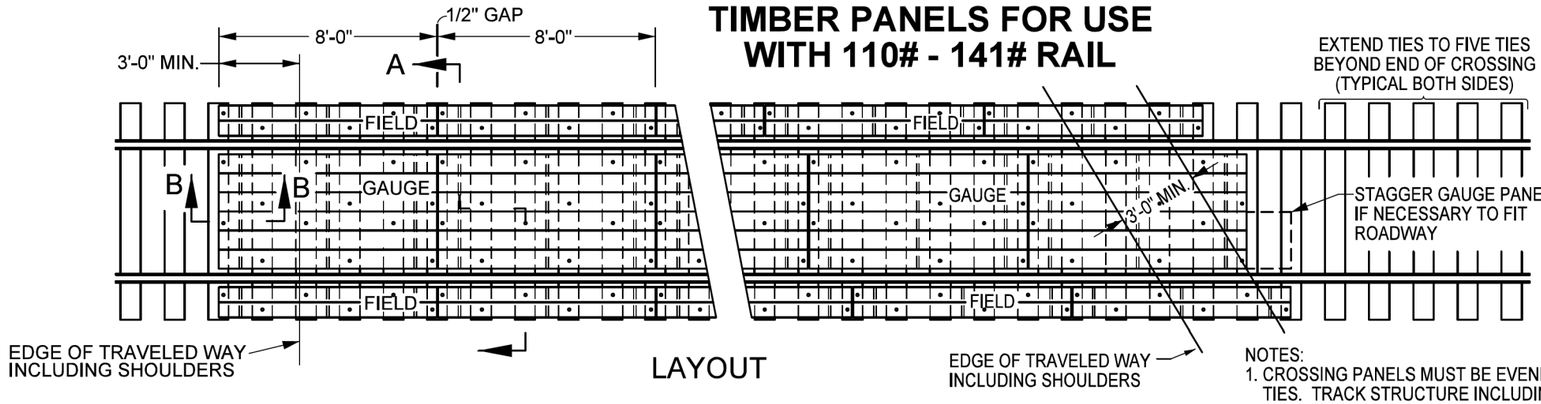
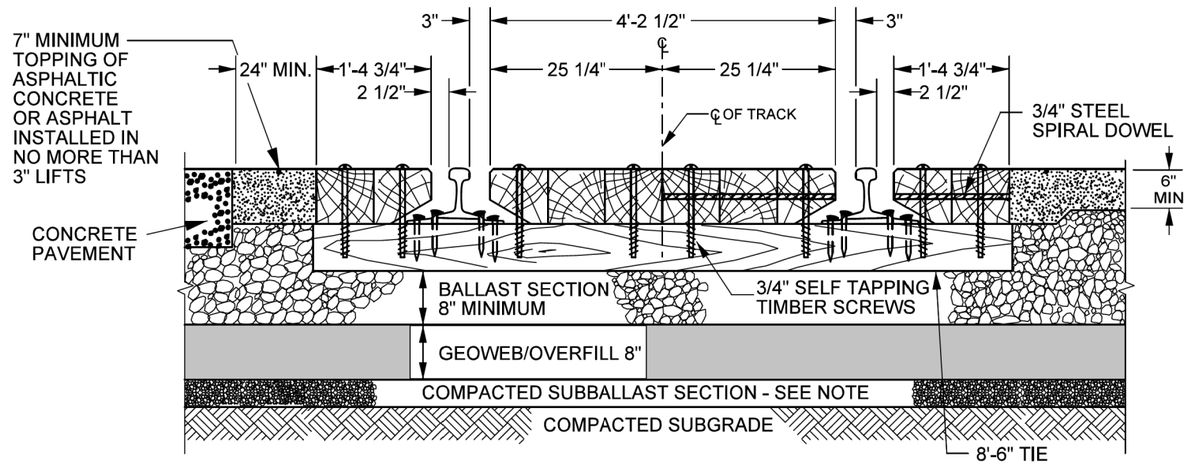
DATE: 1/14/2026	
SHEET NUMBER: 72 of 151	SHEET TITLE: TYPICAL DETAILS

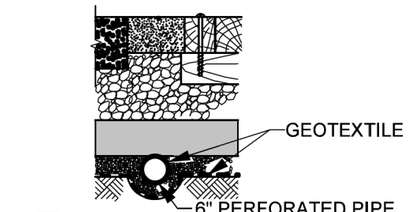
TIMBER PANELS FOR USE WITH 110# - 141# RAIL



LAYOUT

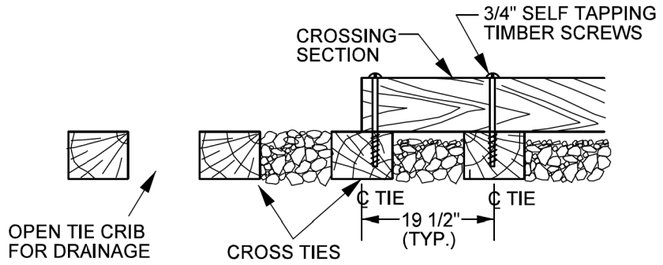


SECTION A-A (THROUGH CROSSING WITH TIMBER TIES)



NOTE:
PERFORATIONS TO BE PLACED DOWN-WARD NEAR FLOW LINE OF PIPE.

SECTION WITH DRAIN



SECTION B-B

NOTES:

1. CROSSING PANELS MUST BE EVENLY SUPPORTED ON ALL TIES. TRACK STRUCTURE INCLUDING RAIL, OTM, TIES, BALLAST AND ROADBED MUST BE IN EXCELLENT CONDITION ALL TIES MUST BE 8'-6" LONG, SPACED AT 19 1/2" CENTERS AND EXTEND FIVE TIES BEYOND END OF CROSSING. NEW 7" X 9" X 8'-6" TRACK TIES TO BE INSTALLED IF NECESSARY.
2. CROSSING SITE IS TO BE INSPECTED PRIOR TO START OF INSTALLATION TO DETERMINE THAT PROPER DRAINAGE AND SURFACE SUPPORT IS PROVIDED, TRACK GRADE IS UNIFORM AND EXISTING TIES ARE AT LEAST 8'-6" LONG.
3. IF CONDITIONS WARRANT, SITE IS TO BE OVER-EXCAVATED AND CROSSING DRAINAGE SYSTEM INSTALLED USING COMPACTED, WELL GRADED GRANULAR FILL; SUBBALLAST, GEOTEXTILE AND PERFORATED DRAINAGE PIPE (IF REQUIRED) INSTALLED PER DETAILS OF THIS DRAWING.
4. GEOWEB UNDERLAYMENT RECOMMENDED FOR ALL ROAD CROSSING INSTALLATIONS.
5. ADDITIONAL SITE DRAINAGE INCLUDING PROPER DRAINAGE AT EACH QUADRANT OF CROSSING SHALL BE COMPLETED TO ENSURE CROSSING DRAINAGE.
6. RAIL JOINTS TO BE LOCATED TO FALL OUTSIDE THE CROSSING AREA A MINIMUM OF 15'-0" FROM END OF CROSSING TIMBER.

21
*
TIMBER TIE X-ING

SCALE: NTS

* = 16, 17, 26, 30, 35, 36, 37, 41

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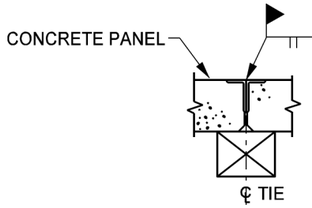
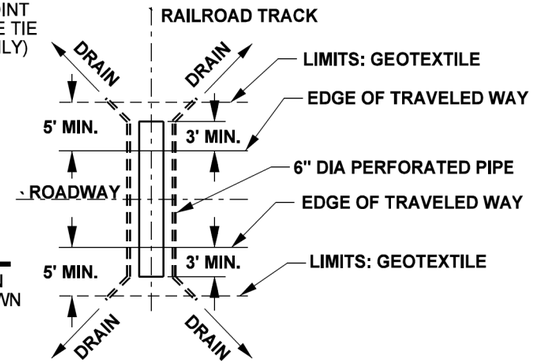


JOINT BETWEEN PANELS

INTERIOR JOINTS BETWEEN PANELS MUST REST ON CENTER LINE OF A WOOD OR CONCRETE TIE AS SHOWN



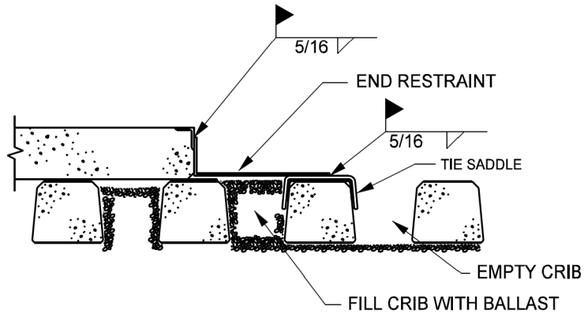
TYPICAL PIPE LAYOUT

NOTES:

1. CROSSING PANEL SUPPORT THROUGH THE CROSSING MUST BE UNIFORM. CONCRETE TIE SPACING IS TO BE A MAXIMUM OF 24" CENTER TO CENTER. WOOD TIE SPACING TO BE MAXIMUM OF 19 1/2" CENTER TO CENTER. TIE SPACING MUST BE ADJUSTED TO SUPPORT THE ENDS OF THE PANELS
2. CROSSING SITE IS TO BE INSPECTED PRIOR TO START OF INSTALLATION TO DETERMINE THAT PROPER DRAINAGE AND SURFACE SUPPORT IS PROVIDED, TRACK GRADE IS UNIFORM AND EXISTING TIES ARE AT LEAST 10' LONG.
3. IF CONDITIONS WARRANT, SITE IS TO BE OVER-EXCAVATED AND CROSSING DRAINAGE SYSTEM INSTALLED USING COMPACTED, WELL GRADED GRANULAR FILL; SUBBALLAST, GEOTEXTILE AND PERFORATED DRAINAGE PIPE (IF REQUIRED) INSTALLED PER DETAILS OF THIS DRAWING.
4. GEOWEB UNDERLAYMENT RECOMMENDED FOR ALL ROAD CROSSING INSTALLATIONS.
5. ADDITIONAL SITE DRAINAGE INCLUDING PROPER DRAINAGE AT EACH QUADRANT OF CROSSING SHALL BE COMPLETED TO ENSURE CROSSING DRAINAGE.
6. PRECAST PANELS ARE TO BE HANDLED AND SUPPORTED AT SPECIFIED LIFTING INSERT LOCATIONS ONLY. LIFTING EQUIPMENT AND CONNECTION INSERTS ARE TO BE PROPERLY SIZED TO HANDLE THE LENGTH OF PANELS BEING INSTALLED. RING LIFTING DEVICES ARE AVAILABLE FROM COMPANY WAREHOUSE.
7. APPROACH ASPHALT ROADWAY PAVING IS TO MEET STATE DOT HIGHWAY SPECIFICATIONS AND INSTALLED ACCORDINGLY. ASPHALT IS TO BE INSTALLED WITH PAVER WITH MAXIMUM 3" LIFTS AND LAID PARALLEL TO CROSSING TO MINIMIZE APPROACH SETTLEMENTS.
8. GEOTEXTILE AND PIPE TO BE INSTALLED ONLY AT LOCATIONS WHERE REQUIRED BY STATE OR LOCAL AGENCIES OR WHERE DESIGNATED BY CHIEF ENGINEER.
9. GALVANIZED ELASTIC FASTENERS ARE TO BE USED WITHIN THE CROSSING AREA. PANDROL E-CLIPS TO BE USED ON WOOD TIE CROSSINGS AND SAFELOK CLIPS ON CONCRETE TIE CROSSINGS.
10. ALL RAIL JOINTS IN CROSSING AREA TO BE WELDED, DO NOT INSTALL BOLTED JOINT BARS.

REQUIRED COMPONENTS	
RING LIFTING DEVICE	410-1371
3/4" TORX SCREW FOR WOOD TIES (STD DWG 131500)	130-5400
ELASTOMERIC BEARING PAD FOR 141 LB. RAIL ON WOOD TIES	540-0203
CONFORMAL ELASTOMERIC BEARING PAD FOR 10'-0" CONCRETE TIES	503-6315
CONFORMAL ELASTOMERIC BEARING PAD FOR 8'-6" CONCRETE TIES	503-6312
END RESTRAINT FOR CONCRETE TIES (ONLY)	540-1925

OPTIONAL COMPONENTS	
20' SECTION 6" PERFORATED PIPE	510-3201
6" ADJUSTABLE ELBOW	510-3557
6" PIPE BANDS	510-3379
100' ROLL GEOTEXTILE	550-0119
GEOWEB PANEL	550-0120
ATRA KEY (BOX OF 450)	550-0122



END RESTRAINT DETAIL (FOR CONCRETE TIES ONLY)

22 / * — CONC. TIE X-ING

SCALE: NTS

** = 12, 19, 20, 22, 23, 32, 33, 35*

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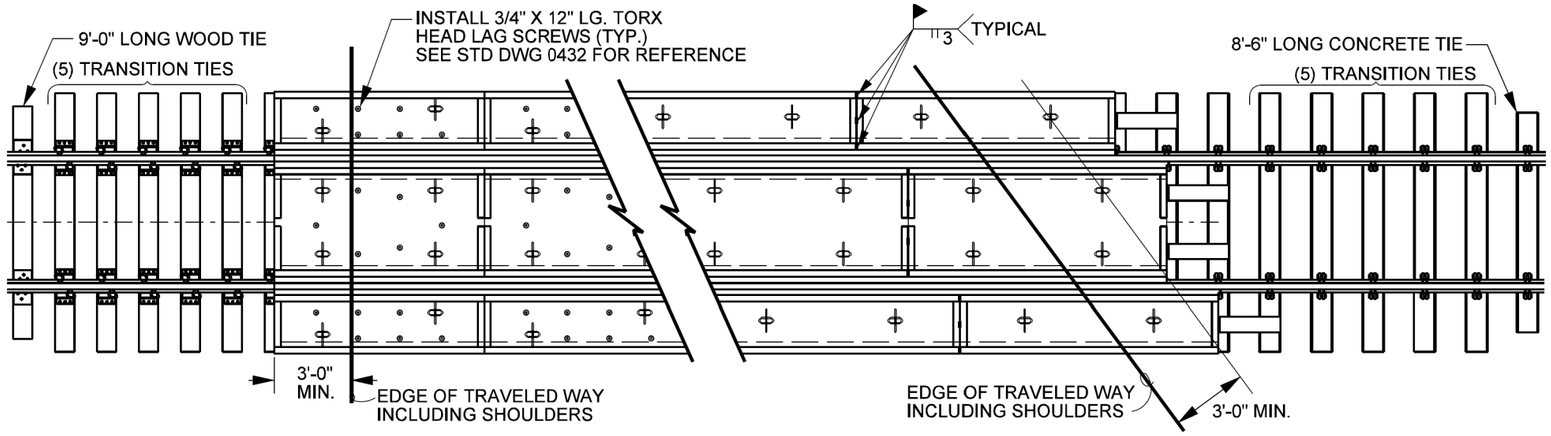
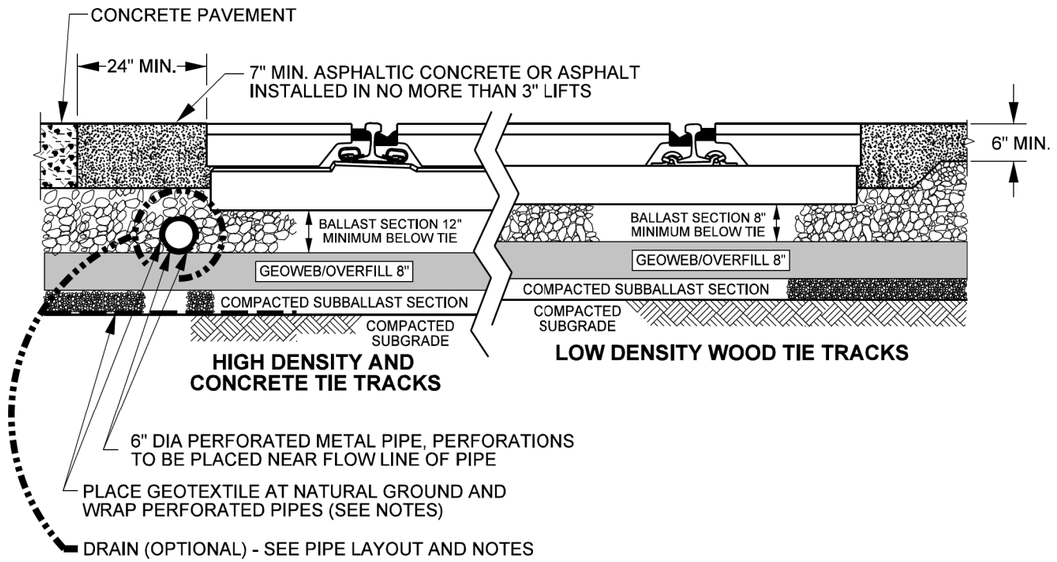
DATE: 1/14/2026	
SHEET NUMBER: 74 of 151	SHEET TITLE: TYPICAL DETAILS



PLAN VIEW OF PANEL WITH TIMBER TIES

PLAN VIEW OF PANEL & JOINT WELD LOCATION W/CONCRETE TIES



HIGH DENSITY AND CONCRETE TIE TRACKS

LOW DENSITY WOOD TIE TRACKS

TYPICAL BALLAST AND ASPHALT DETAIL

23/* CONC. TIE X-ING

SCALE: NTS

** = 12, 19, 20, 22, 23, 32, 33, 35*

– PRELIMINARY –
NOT FOR CONSTRUCTION

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/14/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

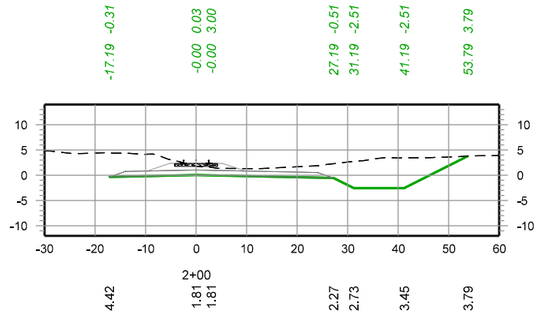
THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

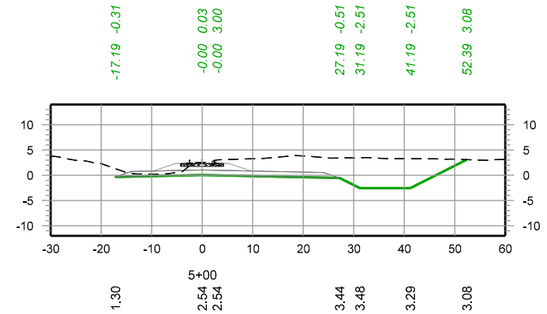
Infinity Engineering Consultants, LLC
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

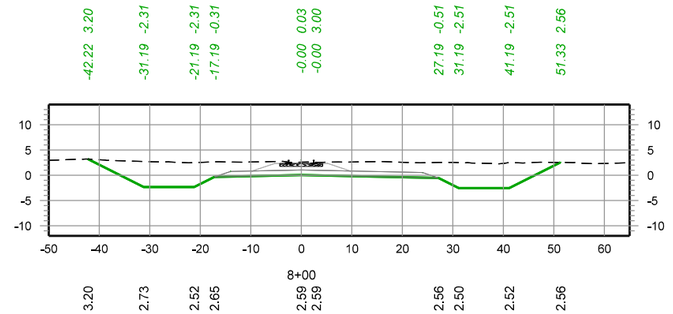
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

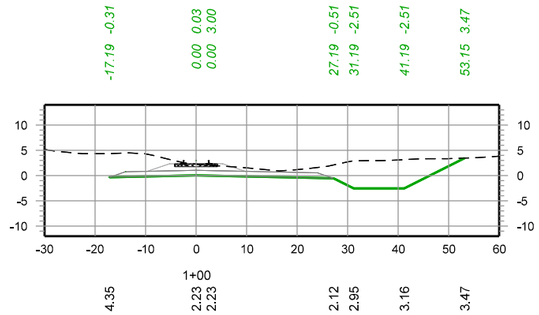
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

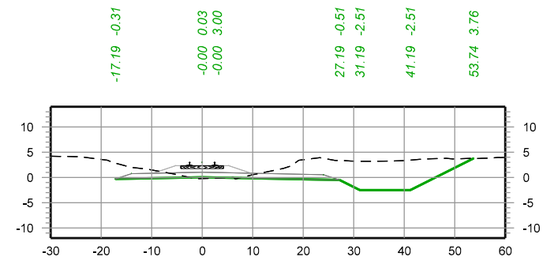
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/14/2026	
SHEET NUMBER: 75 of 151	SHEET TITLE: TYPICAL DETAILS

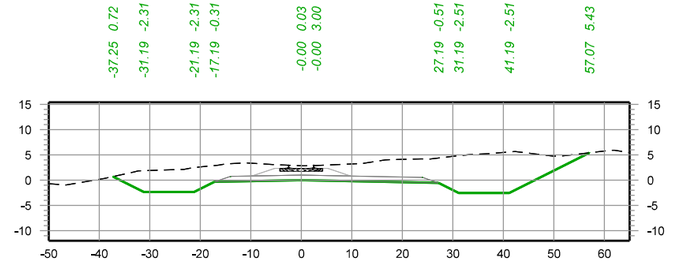


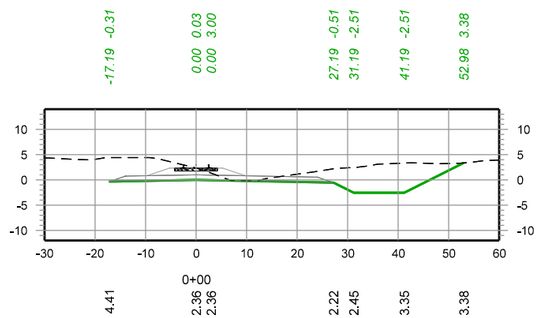


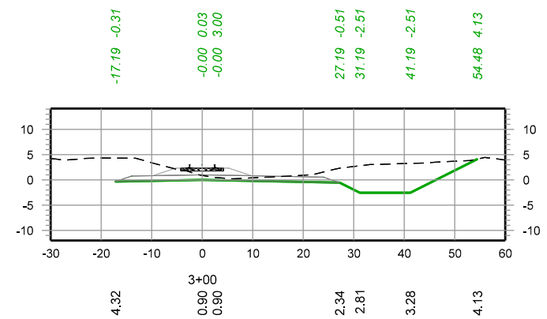


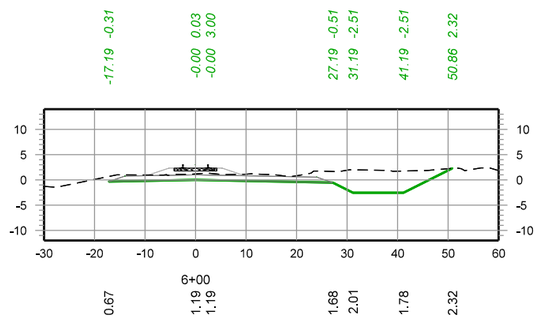












– PRELIMINARY –
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30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
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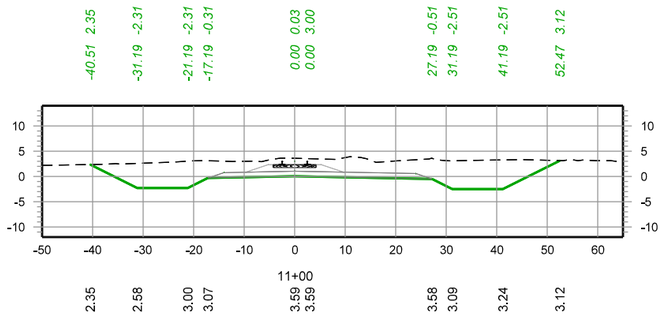
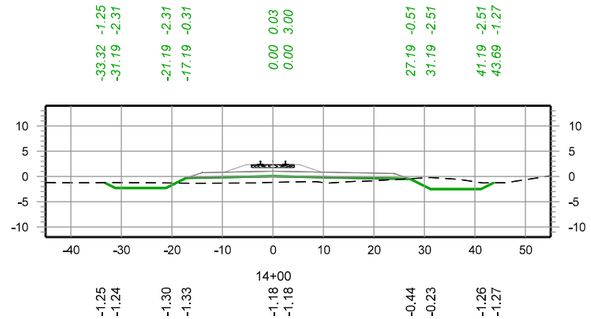
FIRM No: LA - EF. 0003709

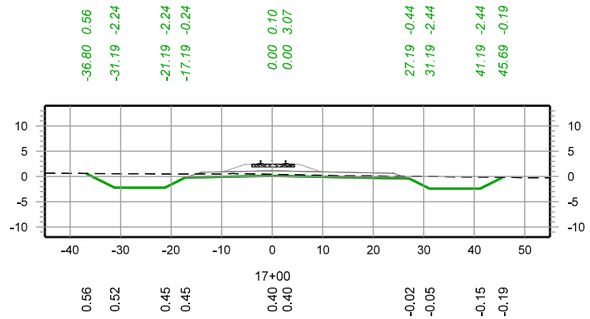
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

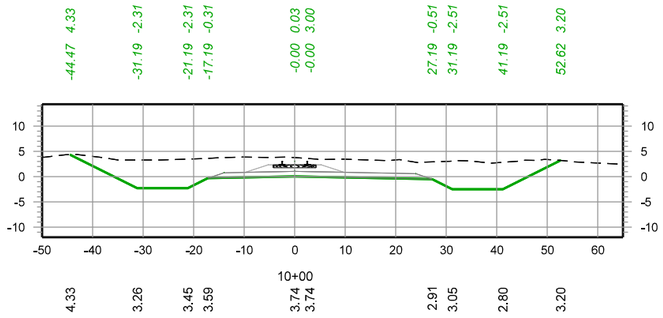
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

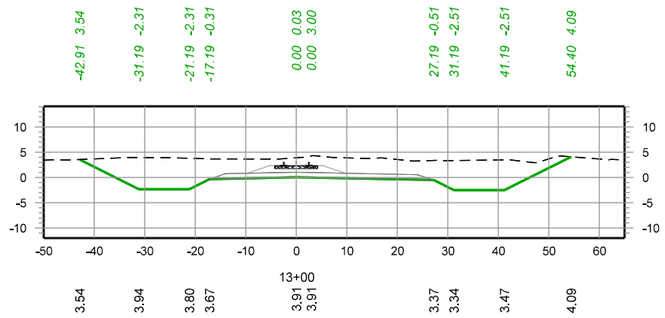
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 76 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 0+00 - 8+00

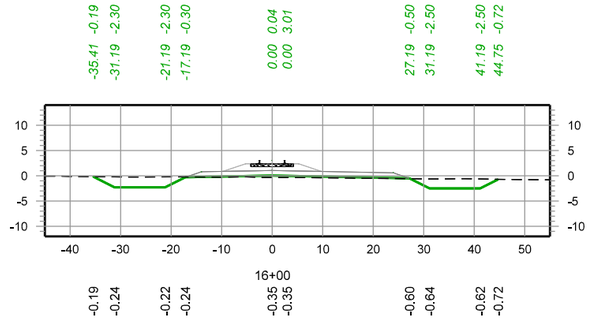


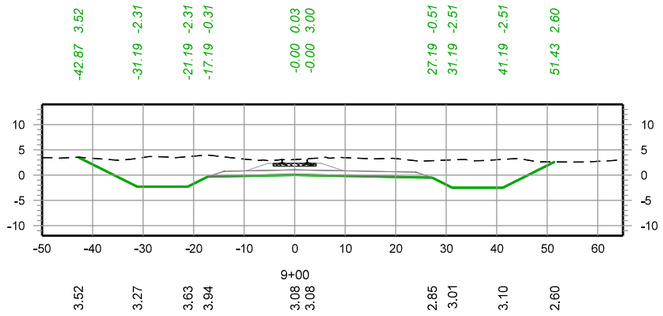


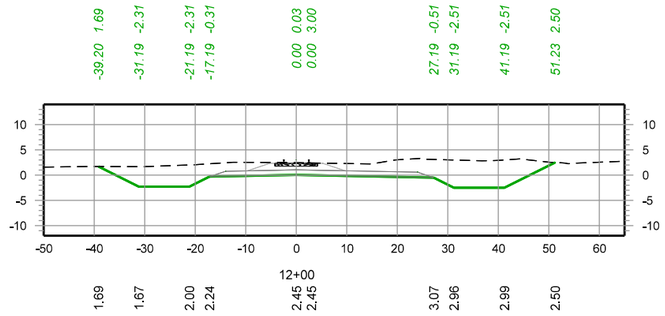


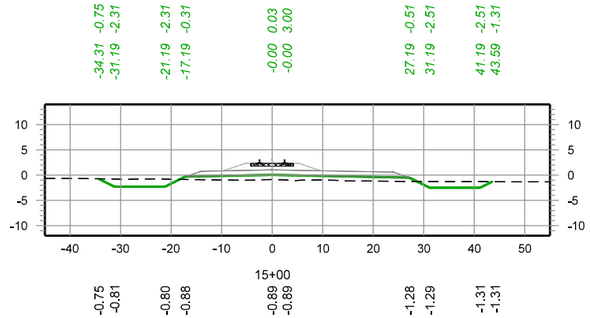












– PRELIMINARY –
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30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
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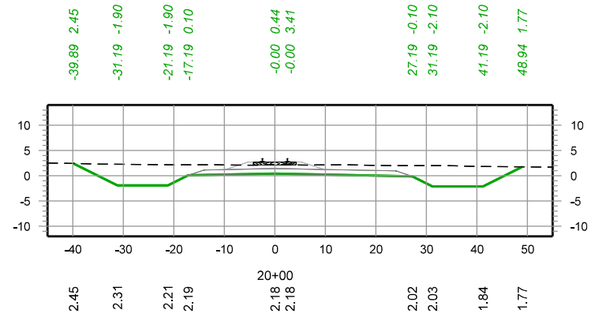
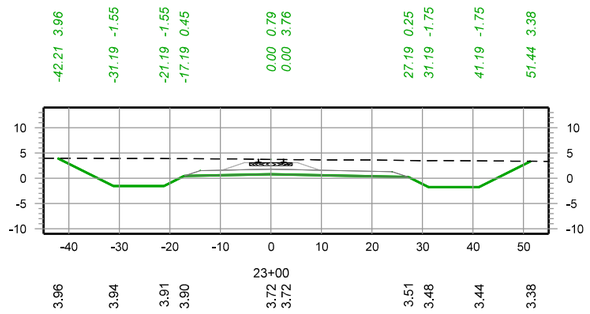
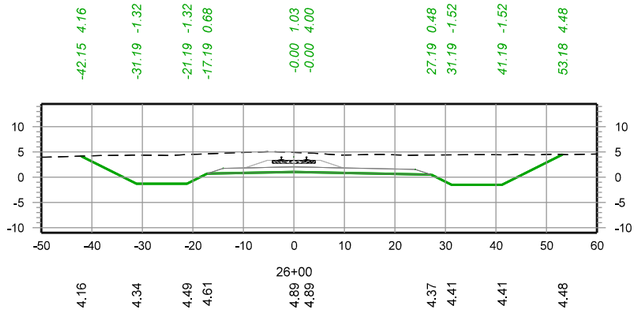
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

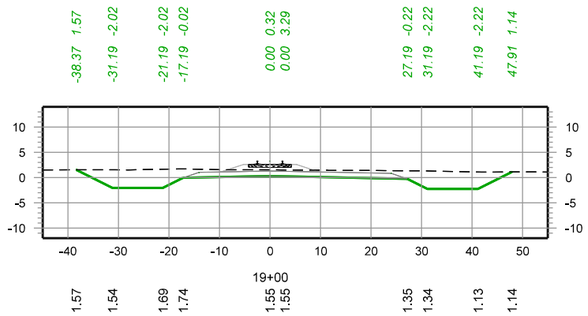
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

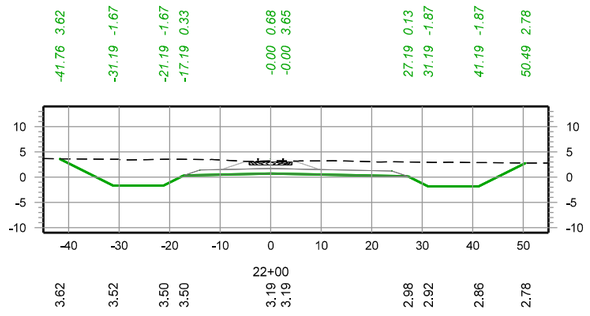
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 77 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 9+00 - 17+00

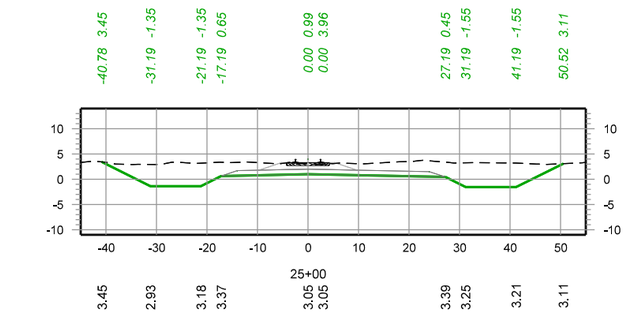


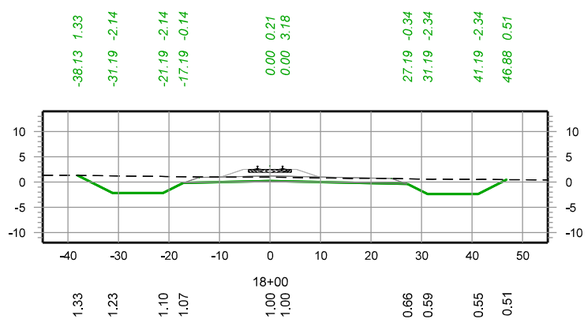


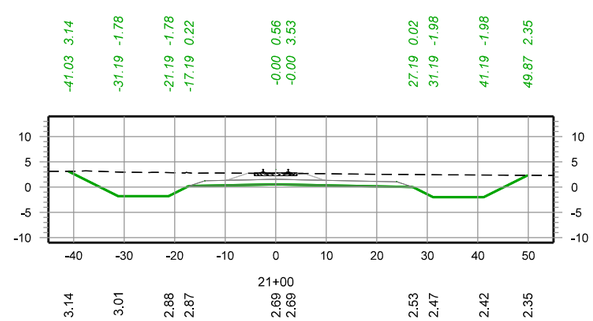


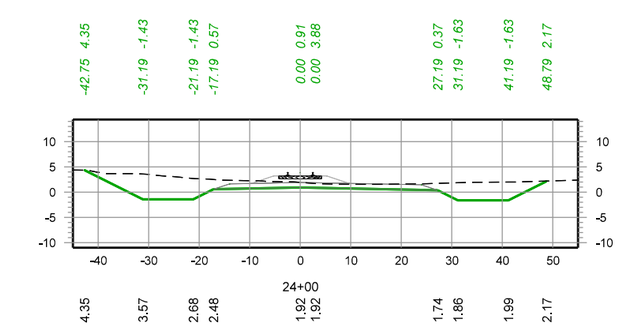












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30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

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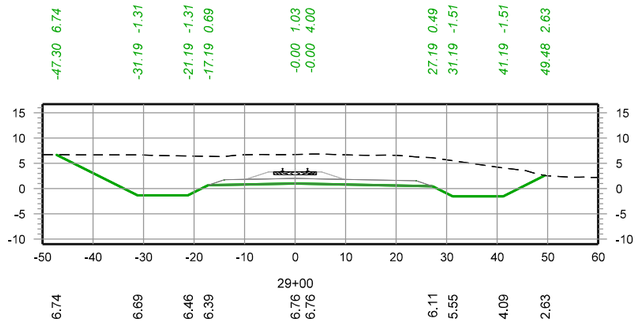
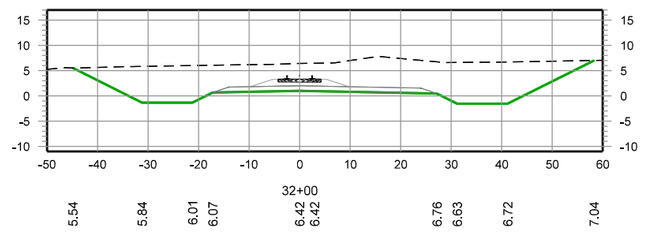
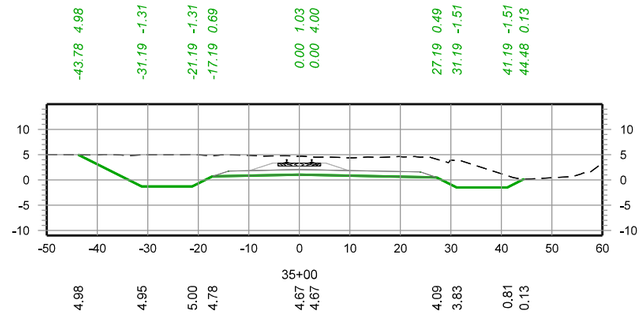
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

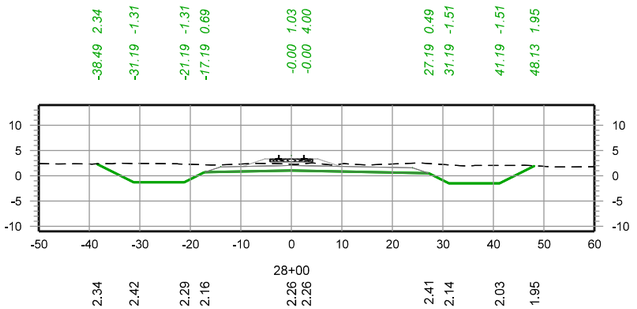
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

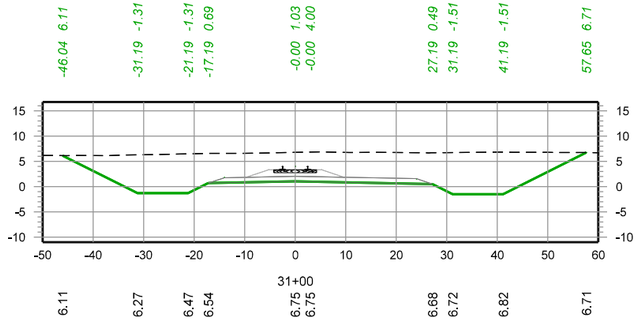
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 78 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 18+00 - 26+00

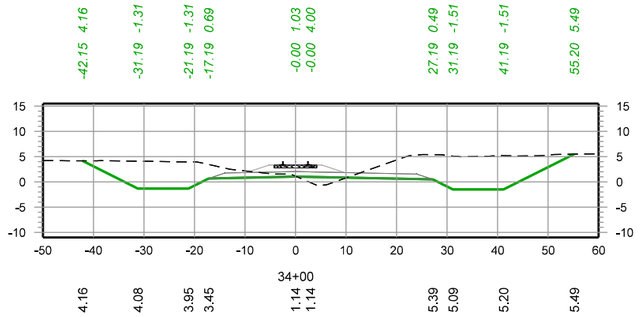


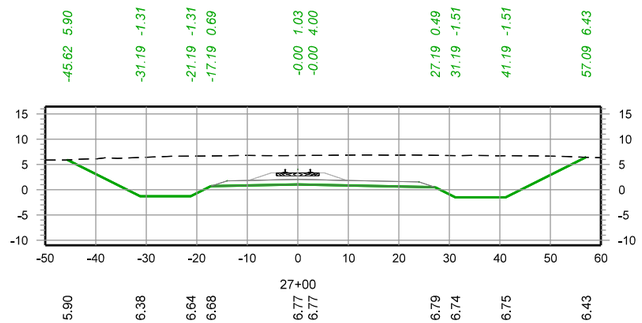


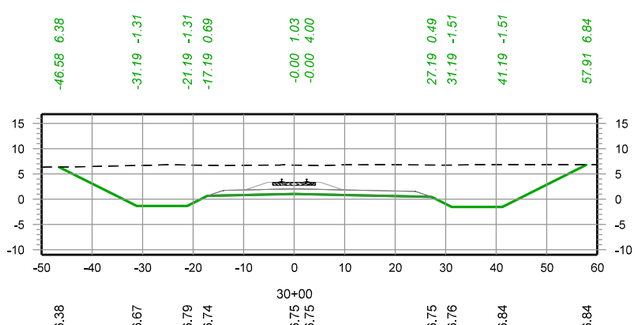


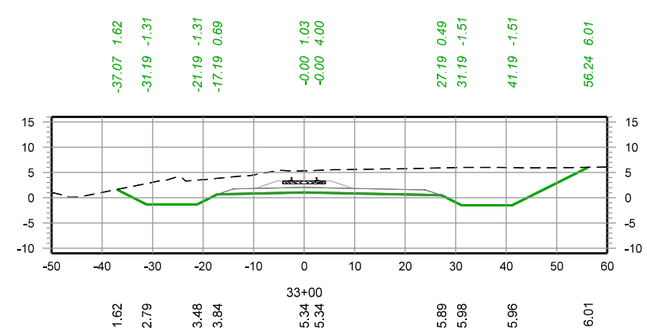












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30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

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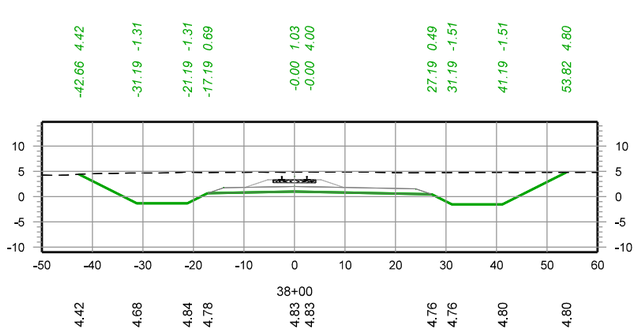
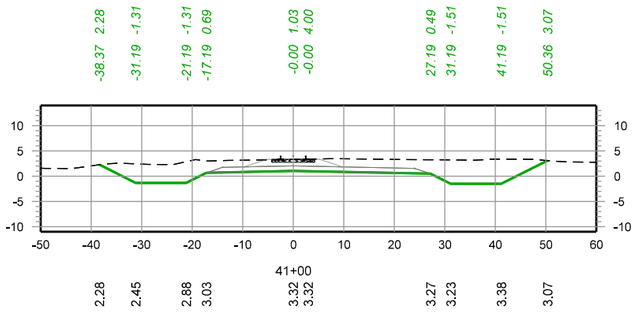
FIRM No: LA - EF. 0003709

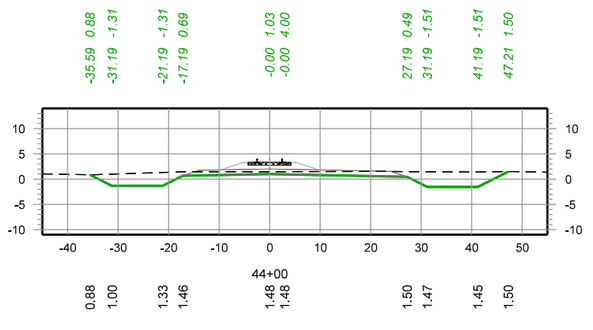
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

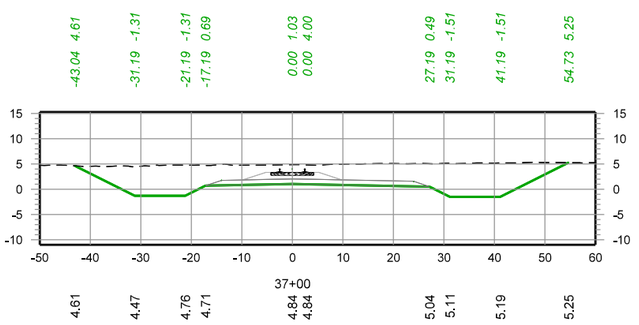
360 RAIL SERVICES
FIRM No: LA - EF.0007741

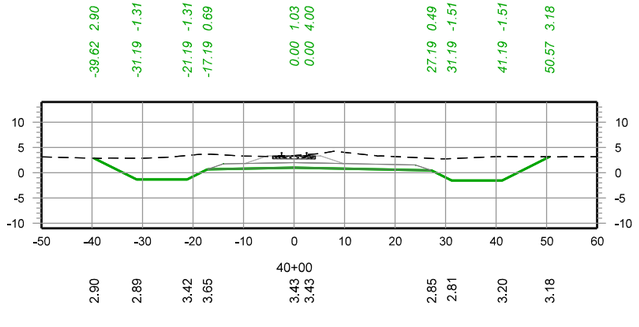
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 79 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 27+00 - 35+00

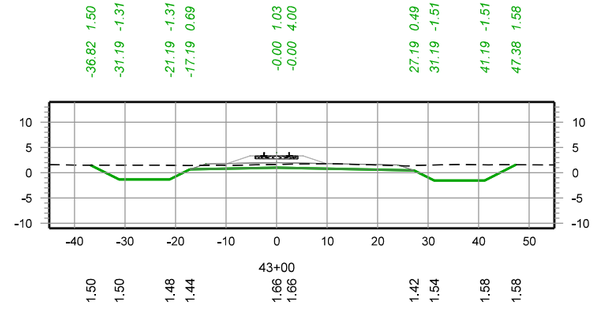


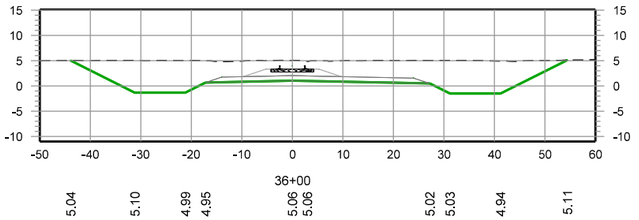


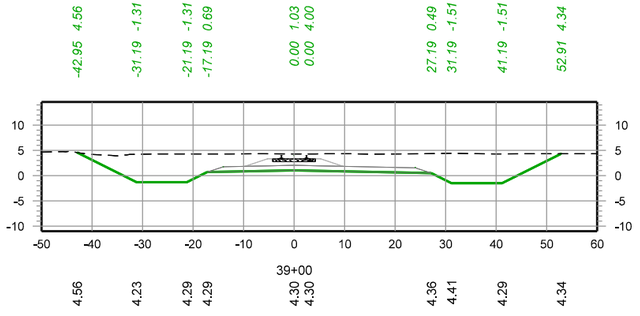


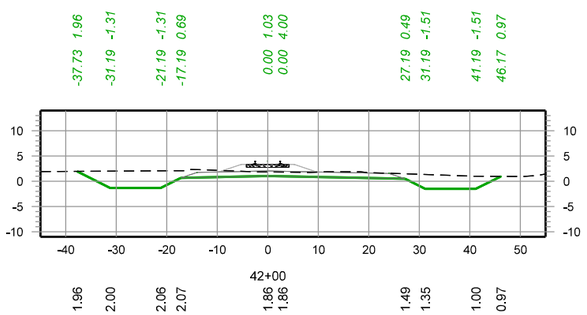












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

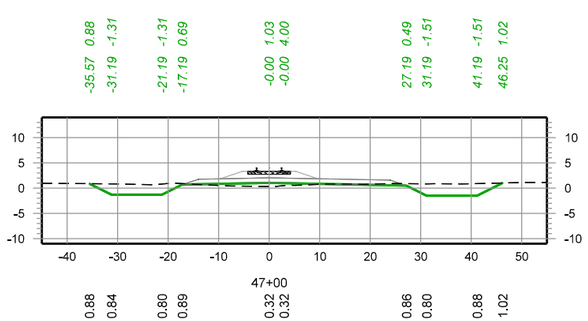
THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

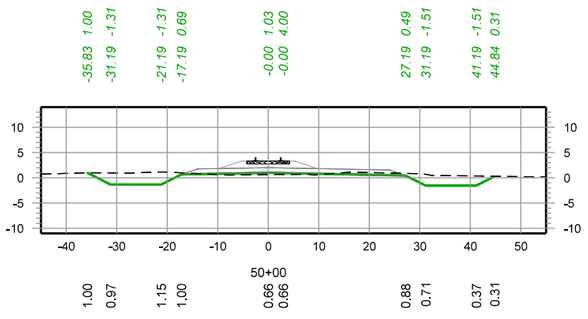
Infinity Engineering Consultants, LLC
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

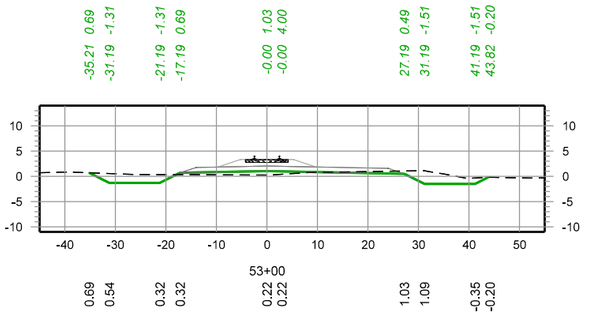
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

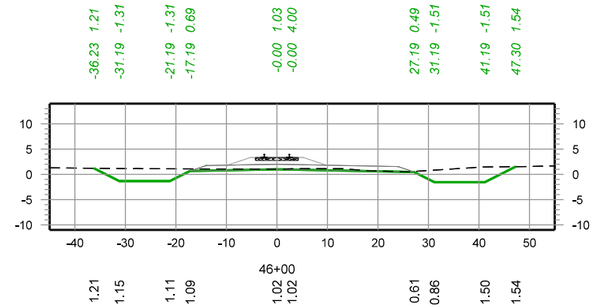
360 RAIL SERVICES
FIRM No: LA - EF. 0007141

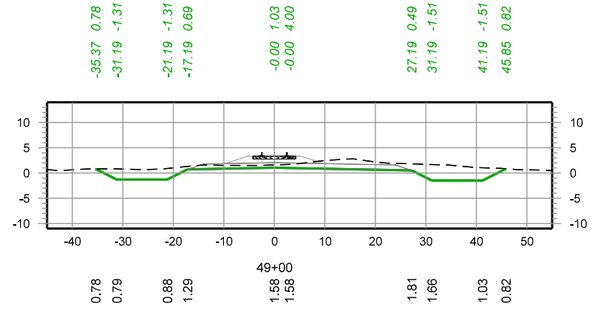
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 80 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 36+00 - 44+00

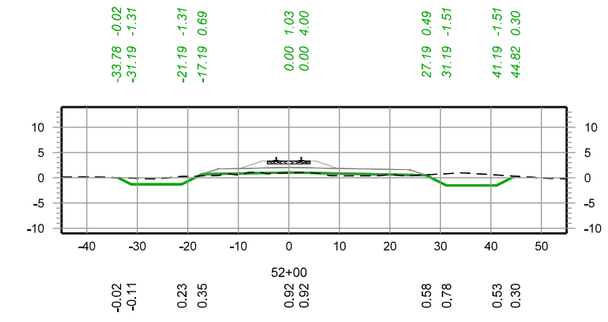


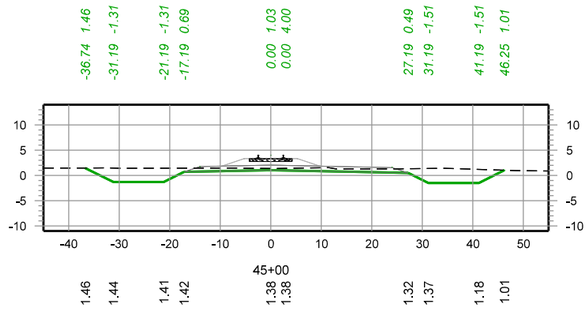


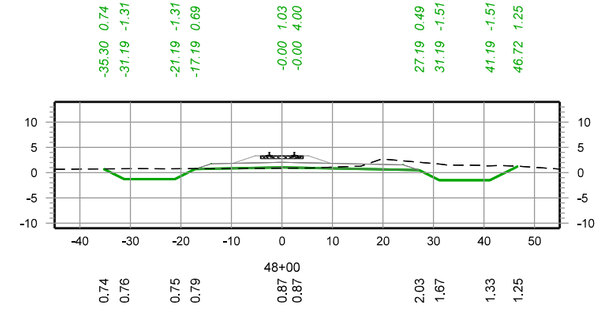


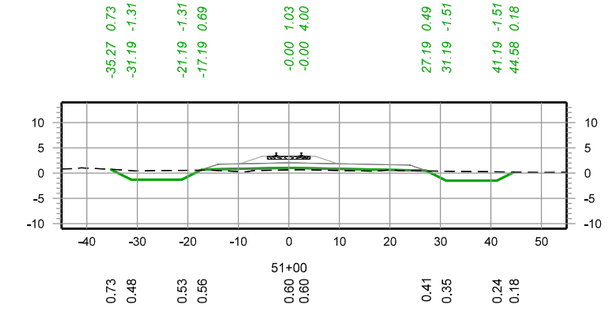












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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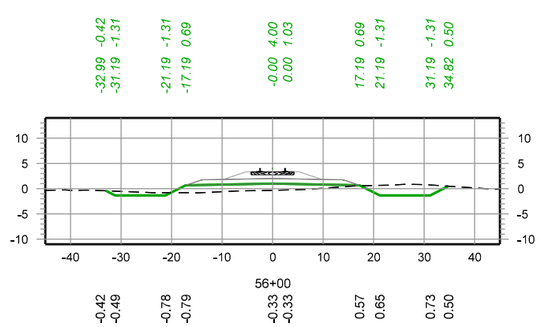
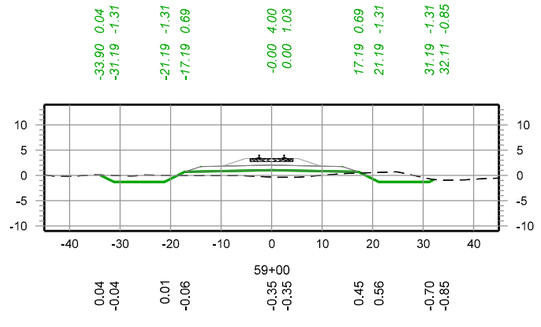
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

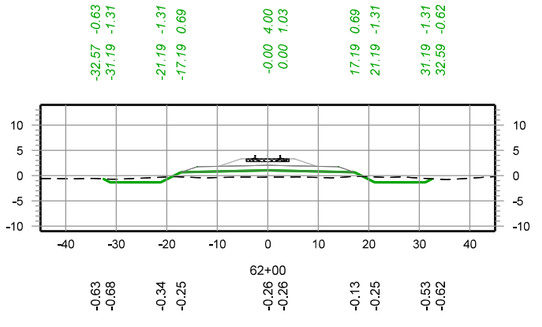
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

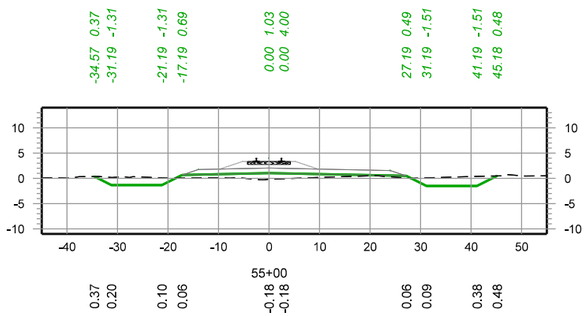
360 RAIL SERVICES
FIRM No: LA - EF.0007741

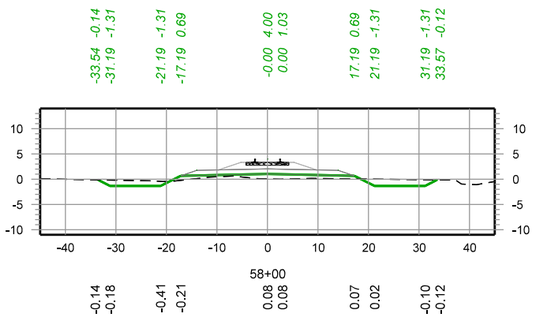
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 81 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 45+00 - 53+00

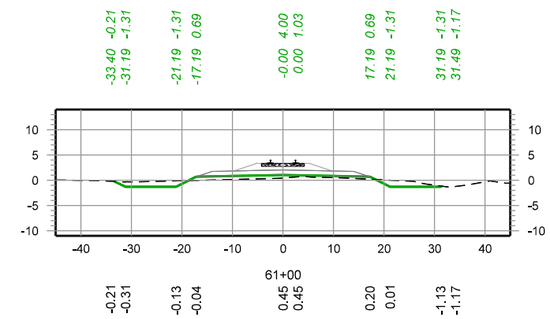


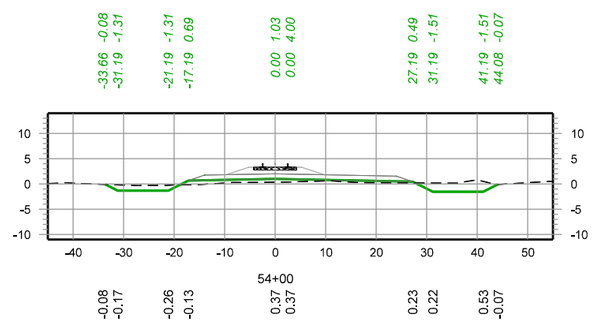


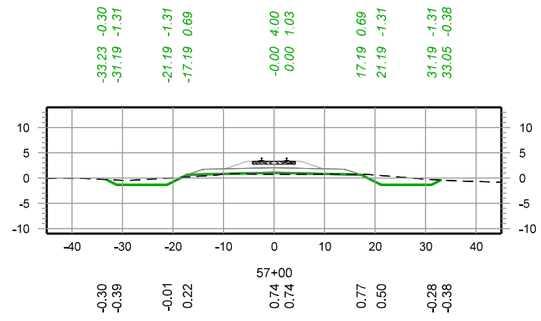


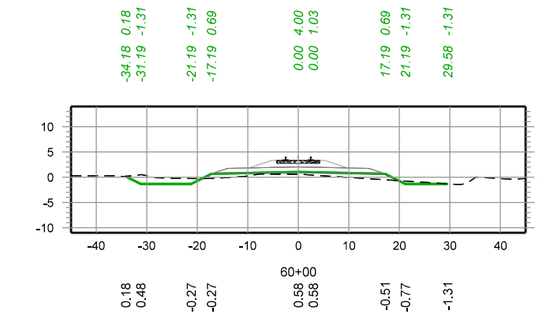












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
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Fill

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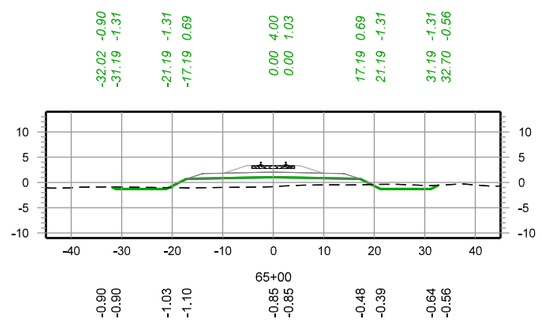
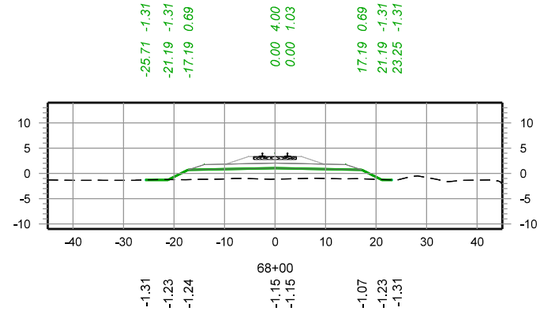
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - Eff. 0003109

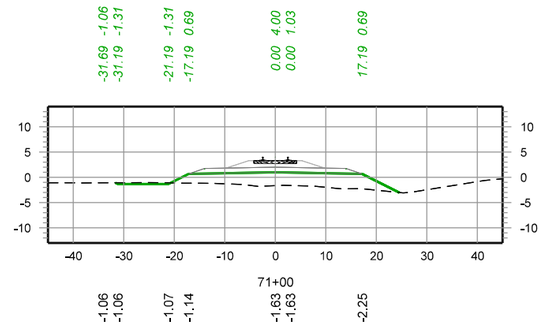
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

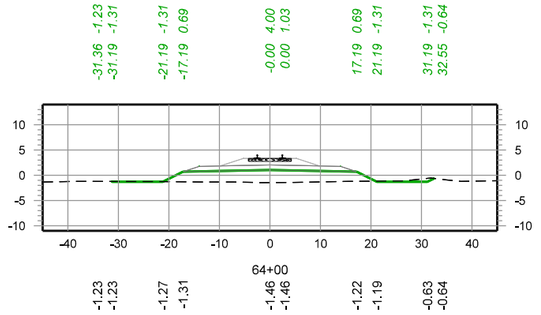
360 RAIL SERVICES
FIRM No: LA - Eff. 0007141

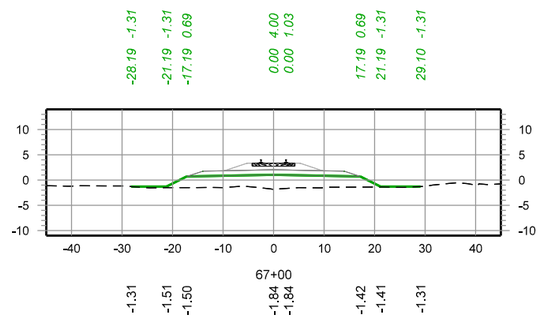
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 82 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 54+00 - 62+00

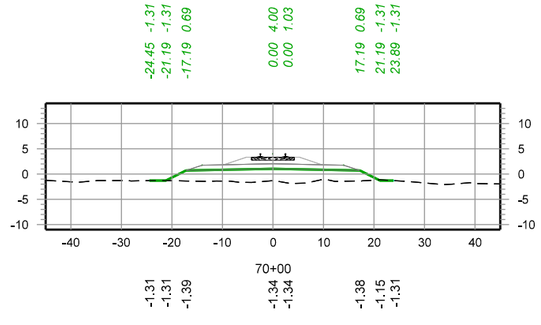


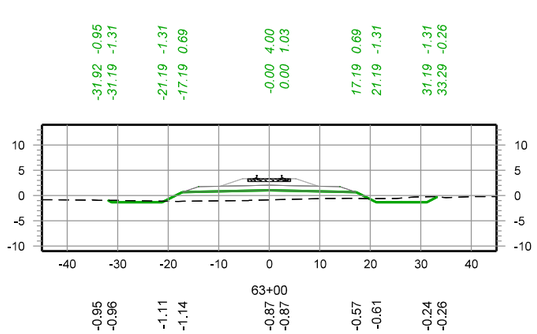


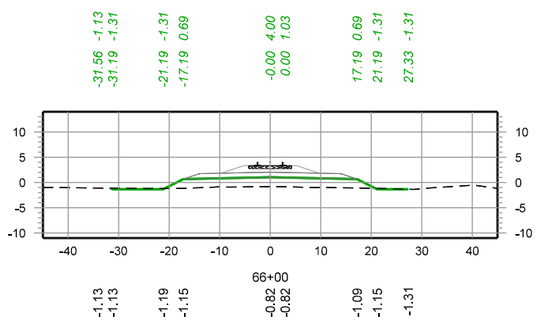


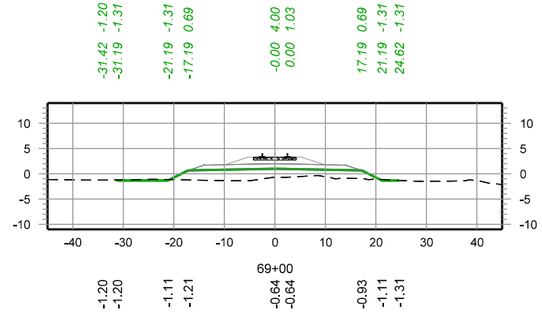












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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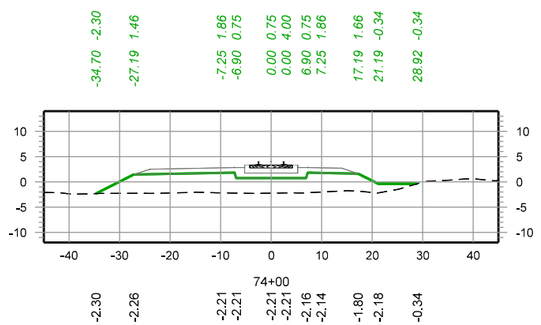
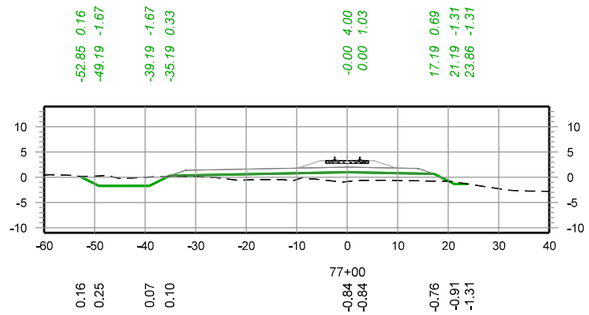
FIRM No: LA - EF. 0003709

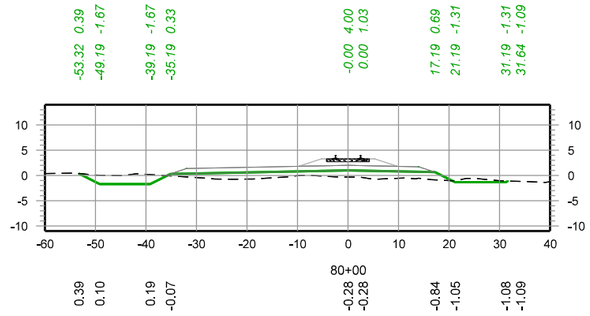
LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

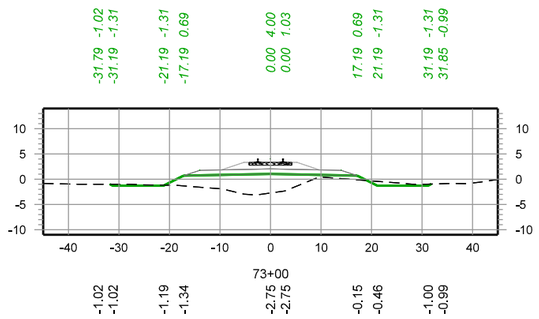
360 RAIL SERVICES
FIRM No: LA - EF.0007741

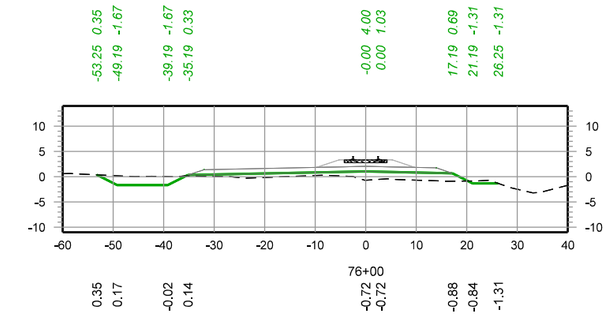
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 83 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 63+00 - 71+00

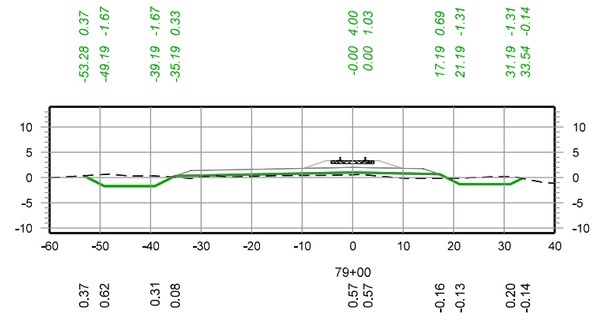


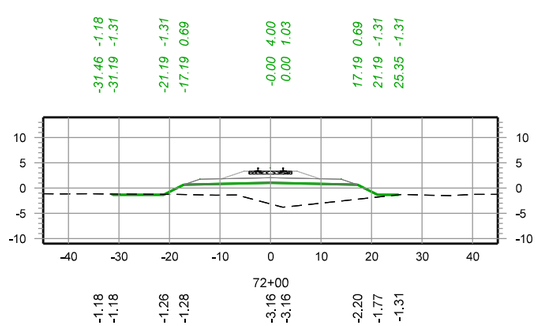


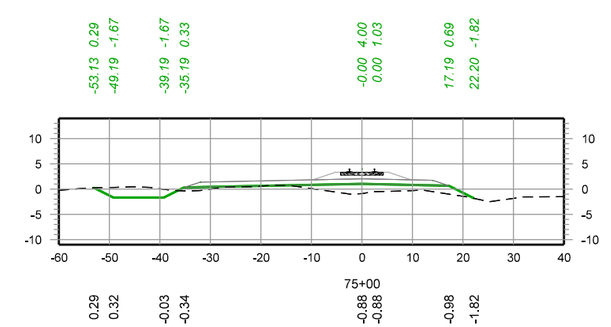


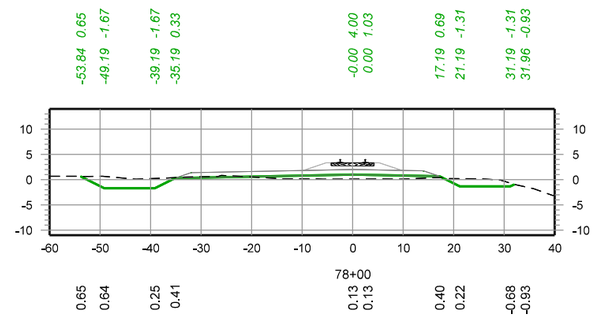












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
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Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
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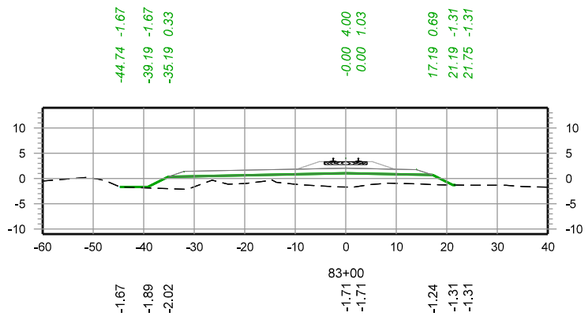
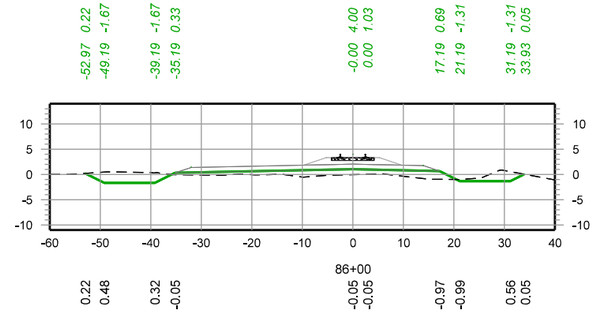
FIRM No: LA - EF. 0003709

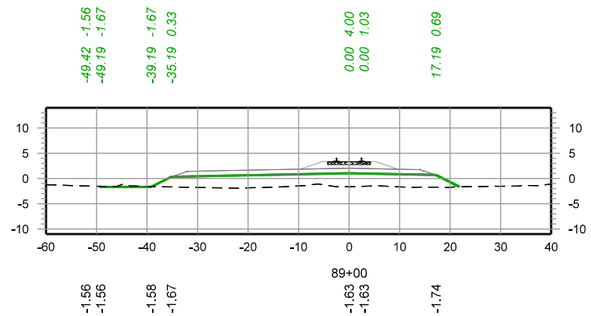
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

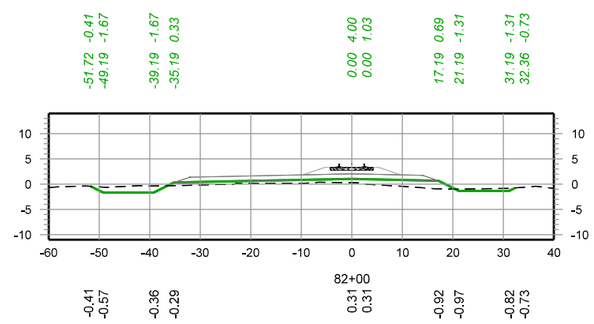
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

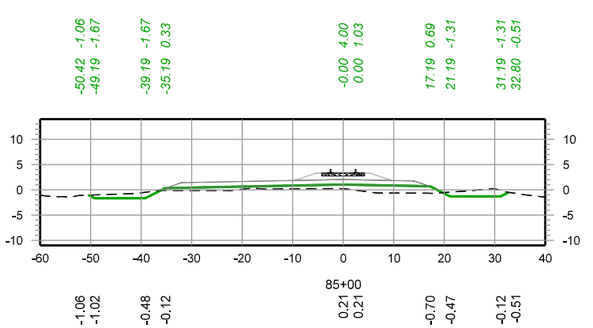
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 84 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 72+00 - 80+00

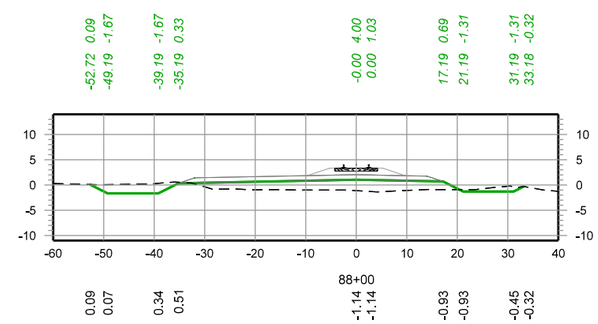


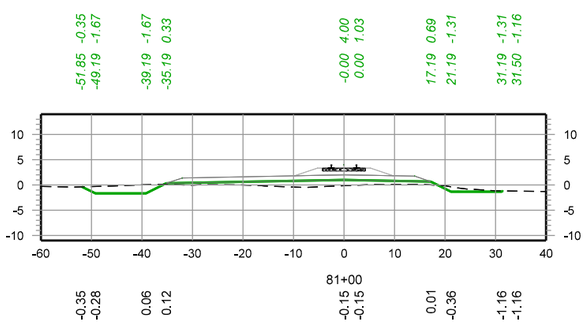


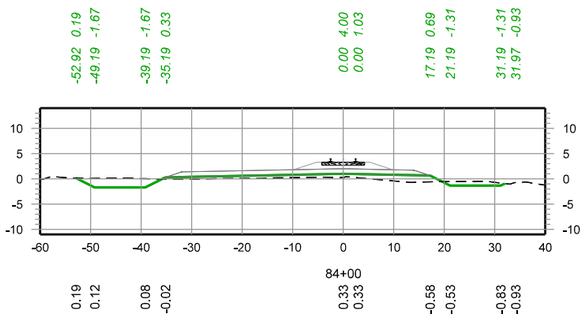


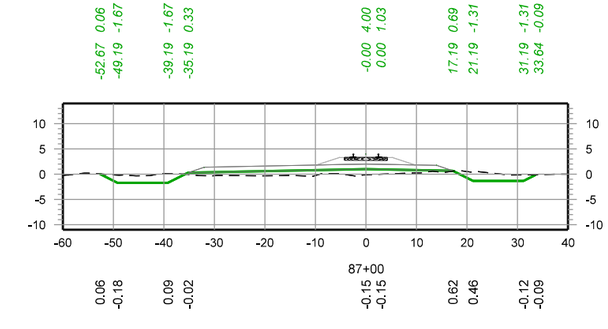












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

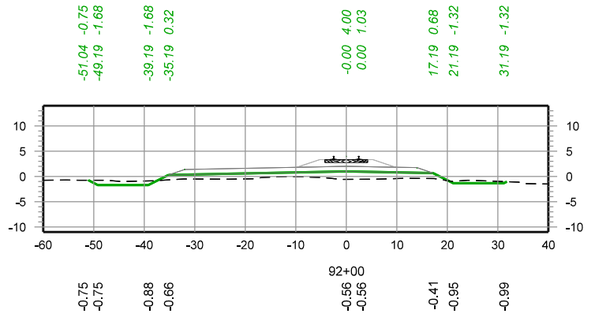
THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

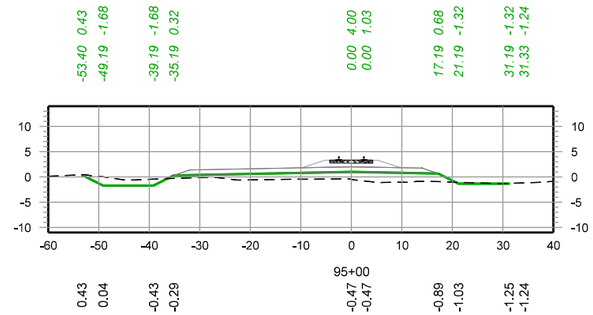
Infinity Engineering Consultants, LLC
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

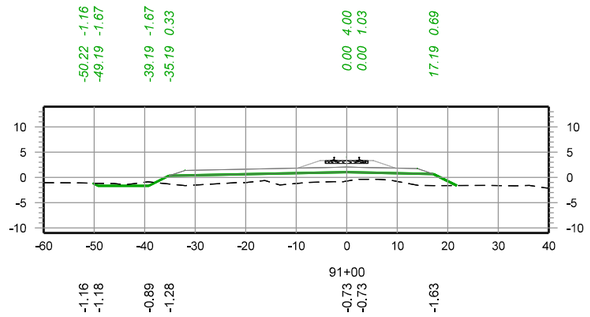
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

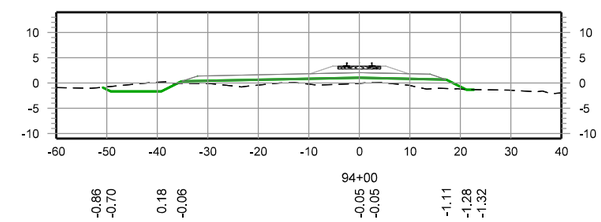
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

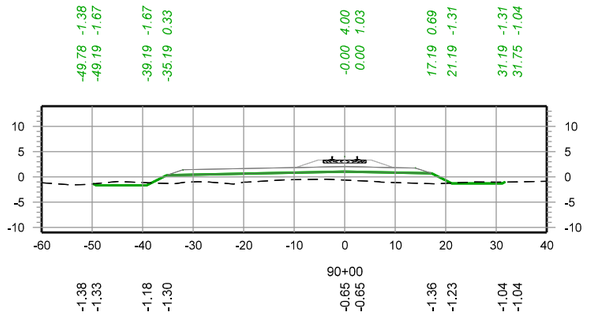
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 85 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 81+00 - 89+00

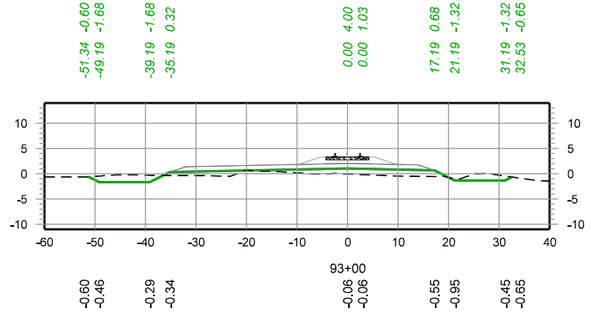












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SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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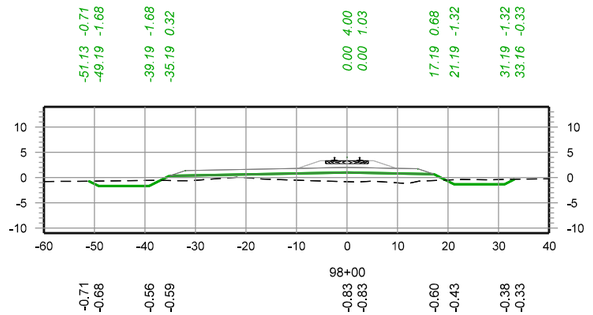
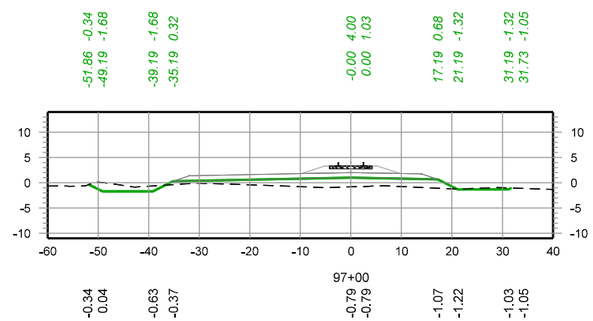
FIRM No: LA - EF. 0003109

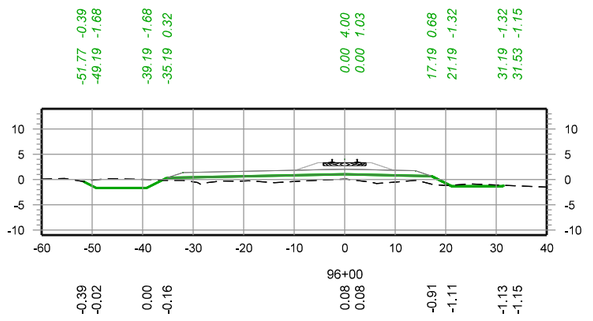
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

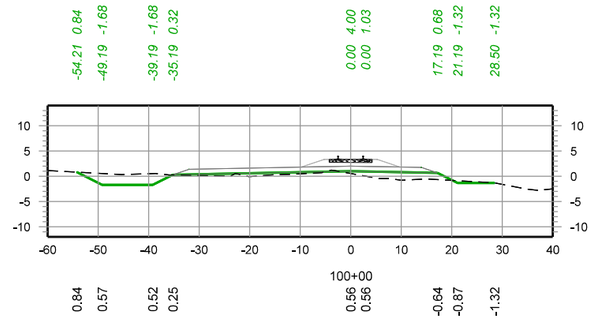
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

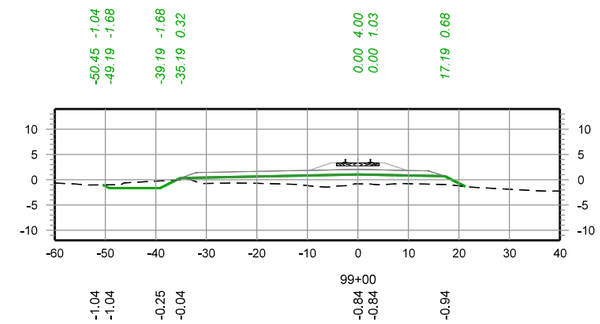
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 86 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 90+00 - 95+00











– PRELIMINARY –
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SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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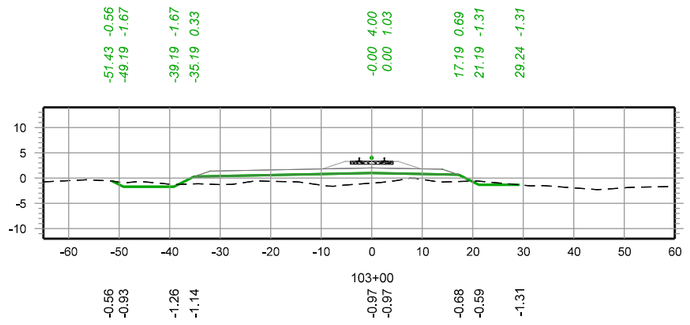
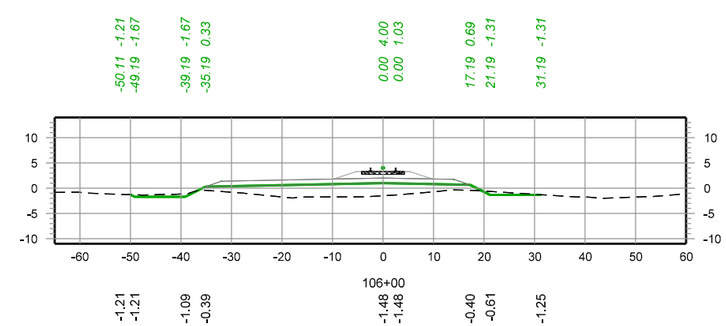
FIRM No: LA - EF. 0003109

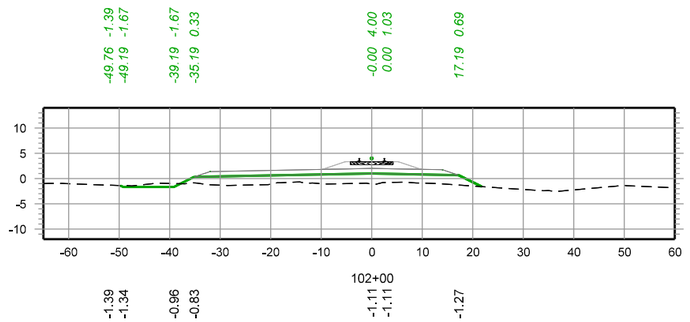
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

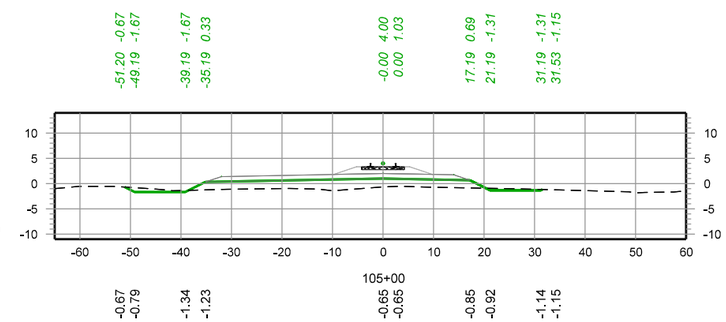
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

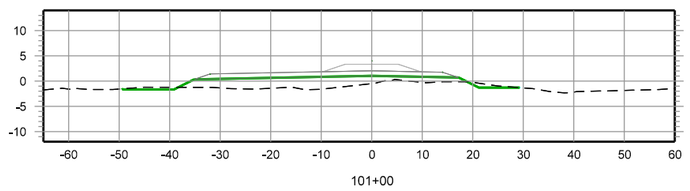
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 87 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 96+00 - 100+00

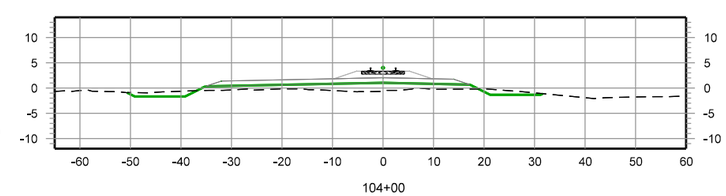












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NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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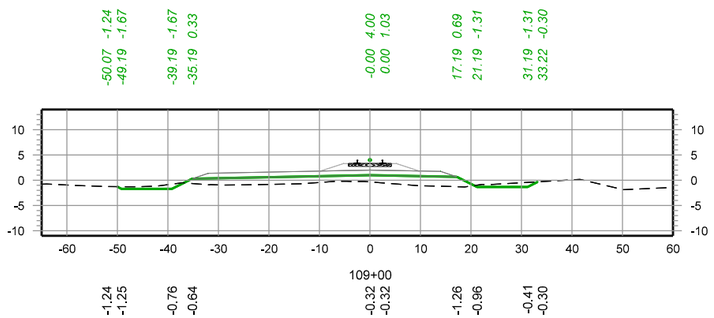
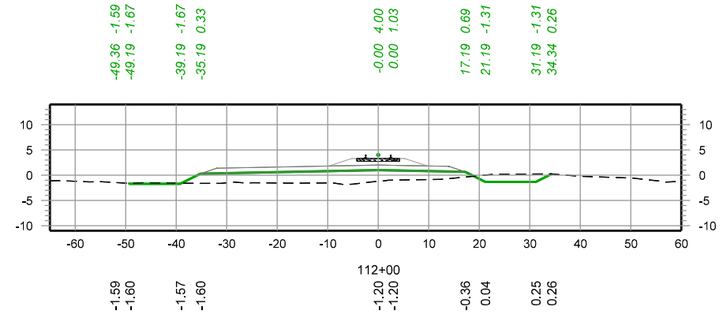
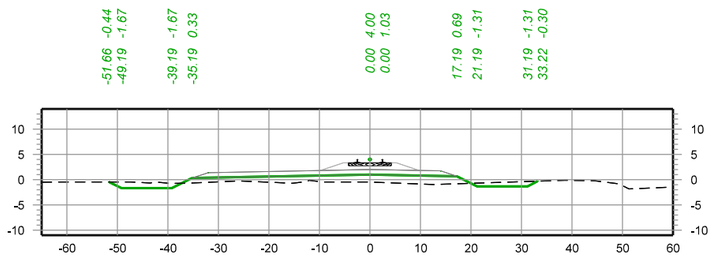
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

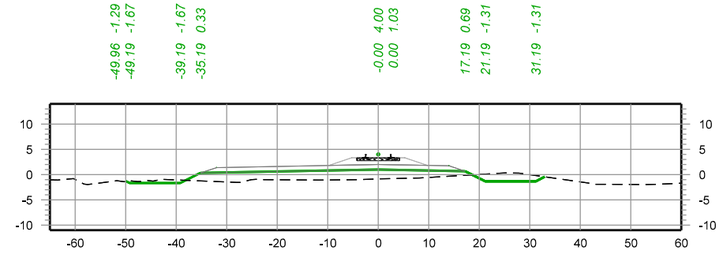
360 RAIL SERVICES
FIRM No: LA - EF.0007141

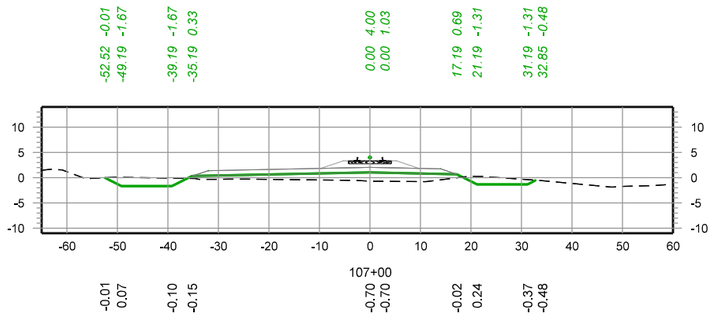
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 88 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 101+00 - 106+00

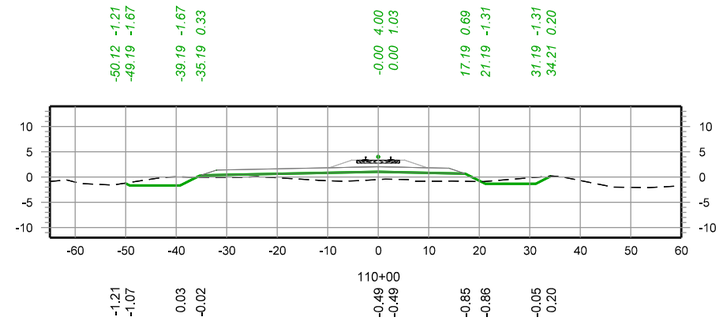












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY –
FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

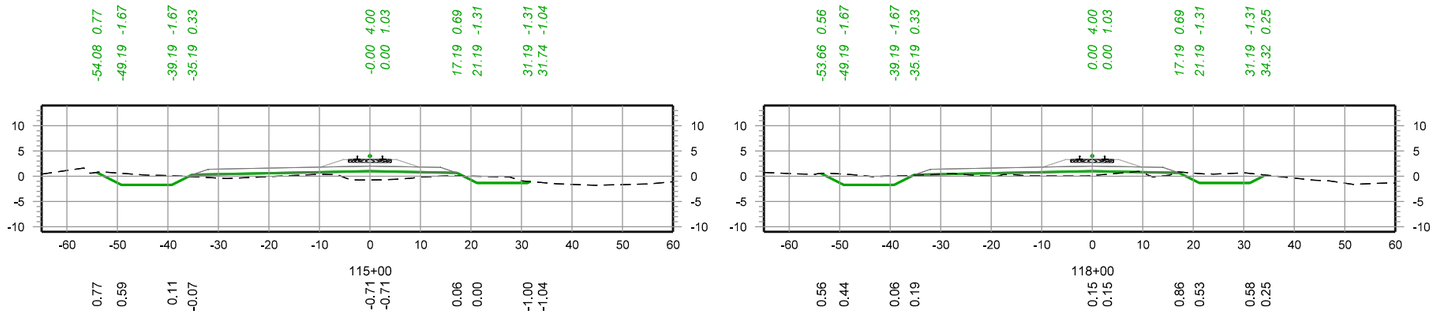
THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

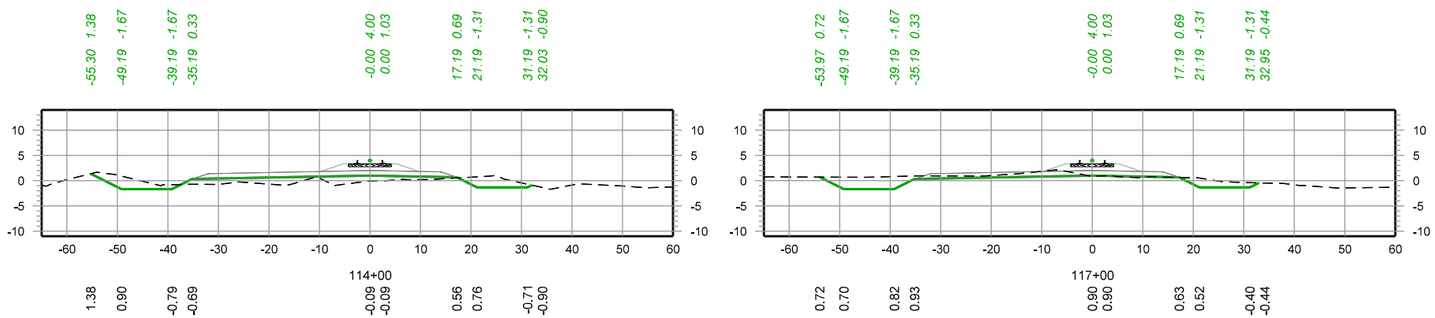
Infinity Engineering Consultants, LLC
FIRM No: LA - EF. 0003109
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548

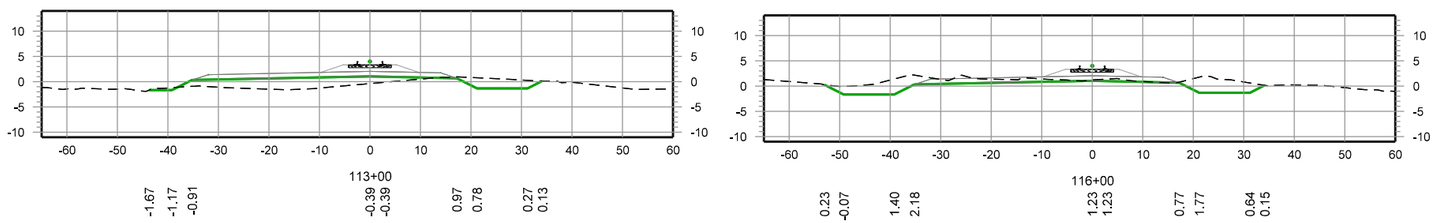
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA • EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 89 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 107+00 - 112+00







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SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY –
FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
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Fill

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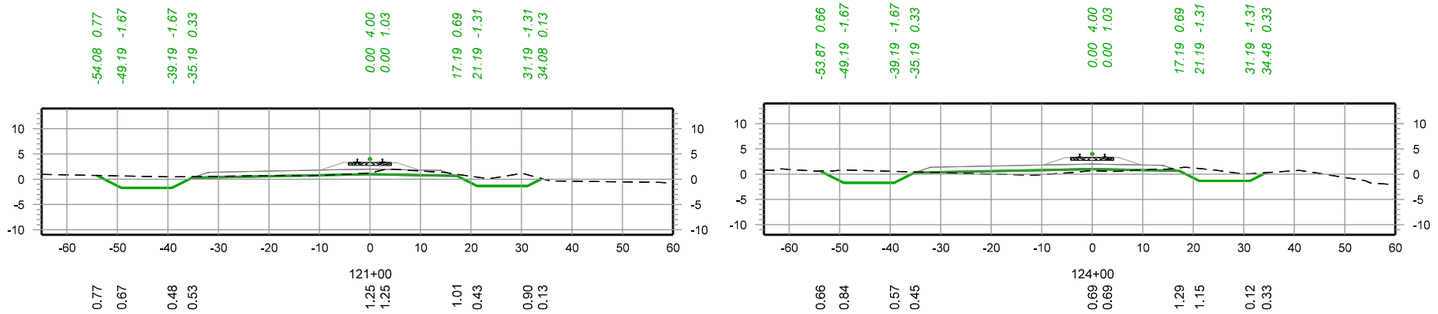
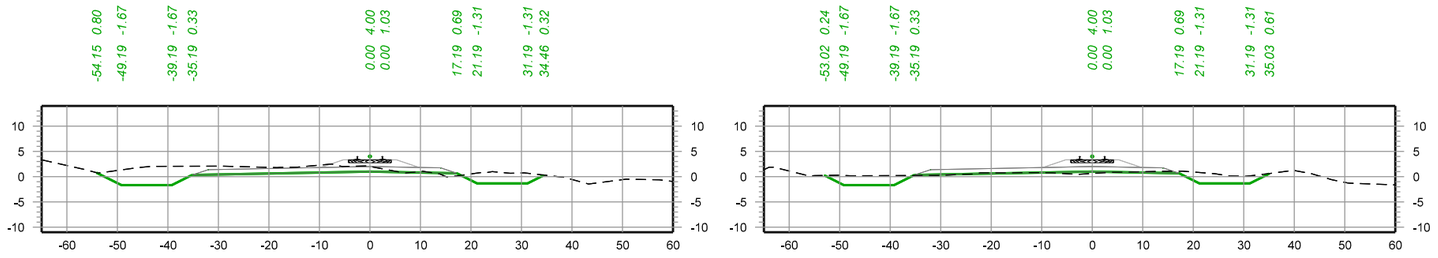
FIRM No: LA - EF. 0003109

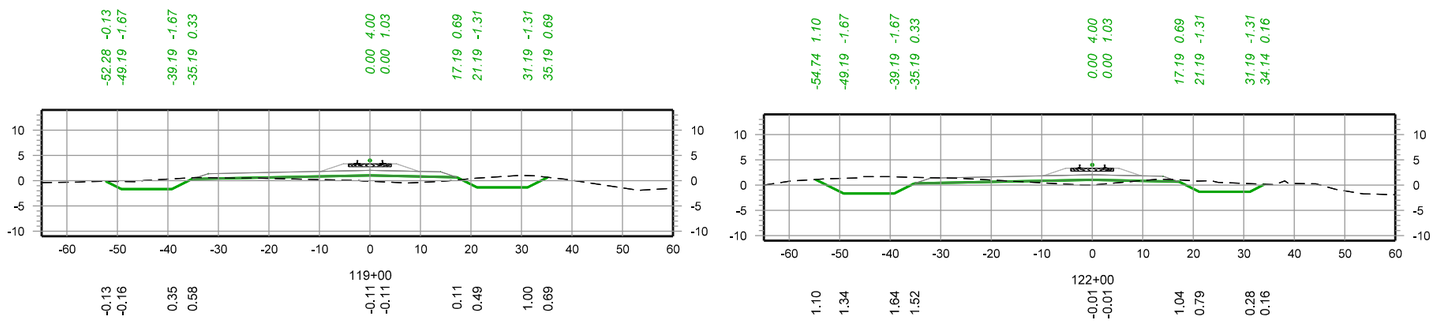
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 90 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 113+00 - 118+00







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NOT FOR CONSTRUCTION

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SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

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1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
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Right of Way
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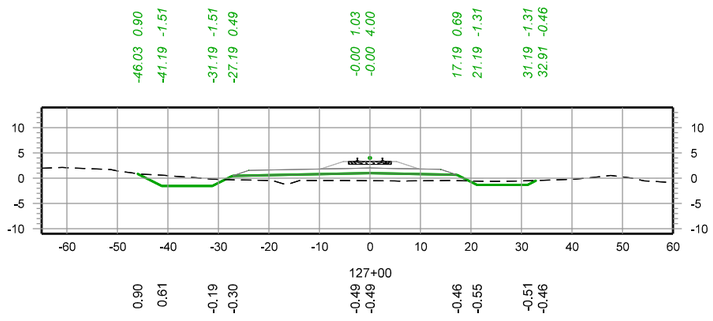
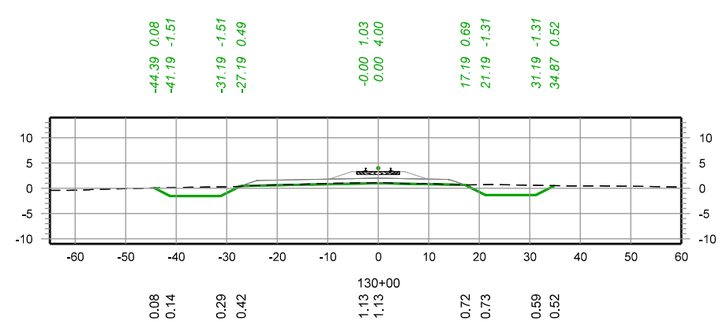
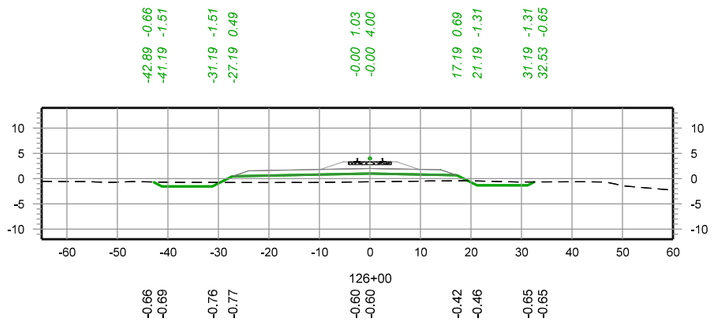
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

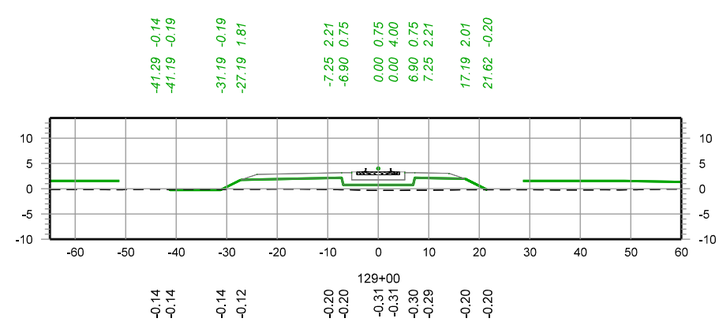
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

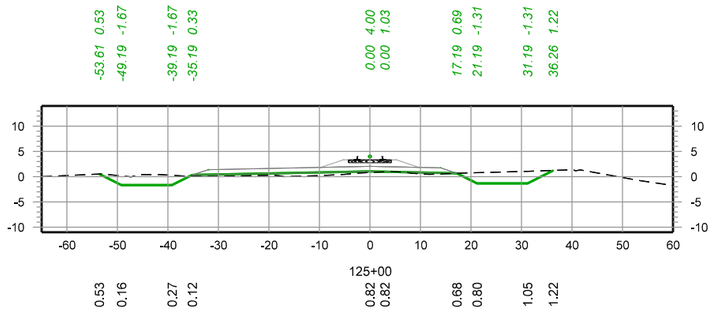
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 91 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 119+00 - 124+00

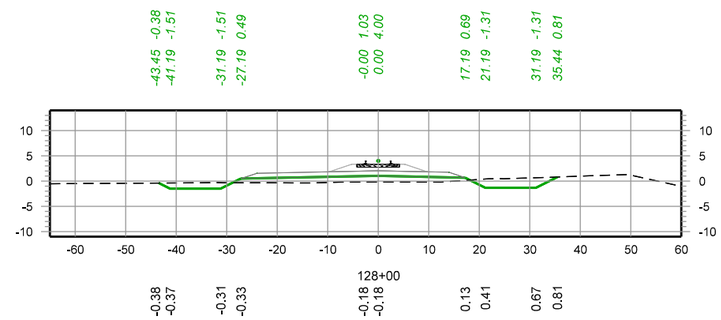












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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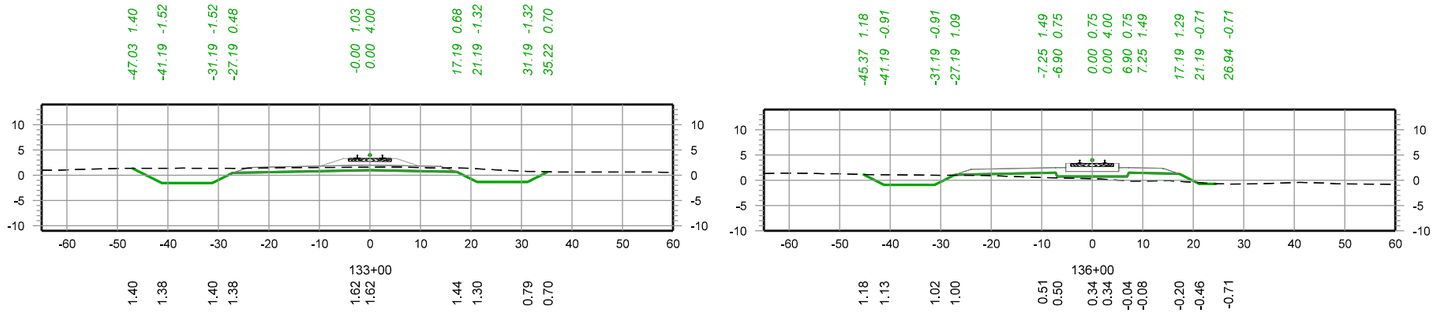
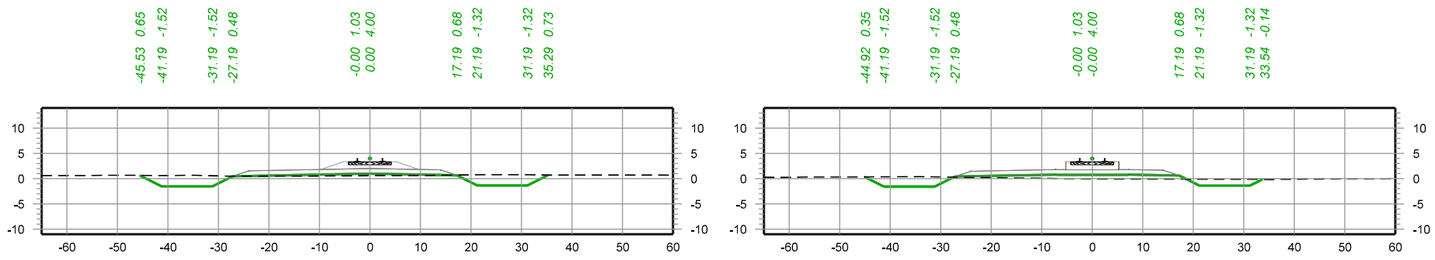
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

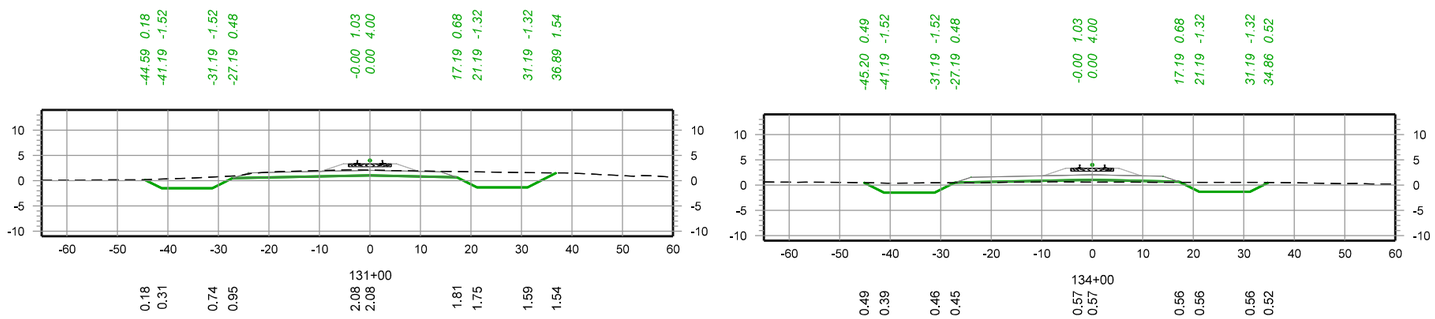
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 92 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 125+00 - 130+00







– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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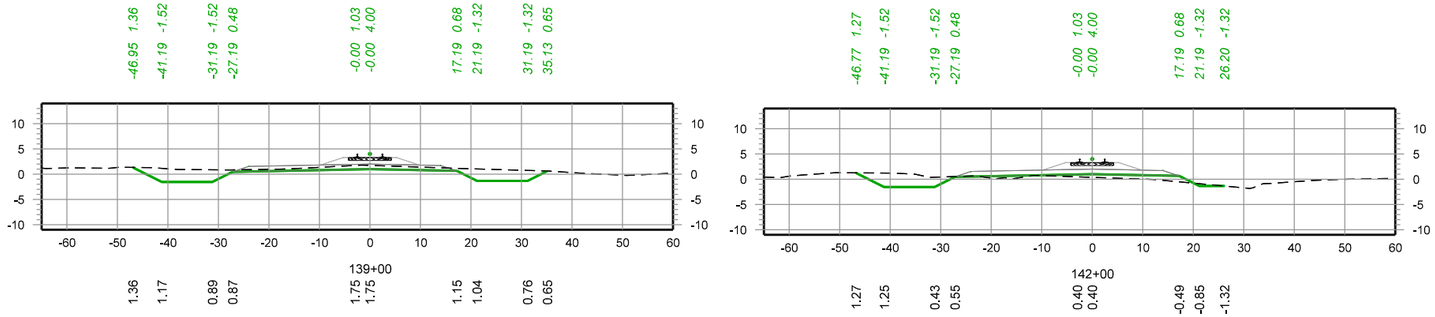
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 93 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 131+00 - 136+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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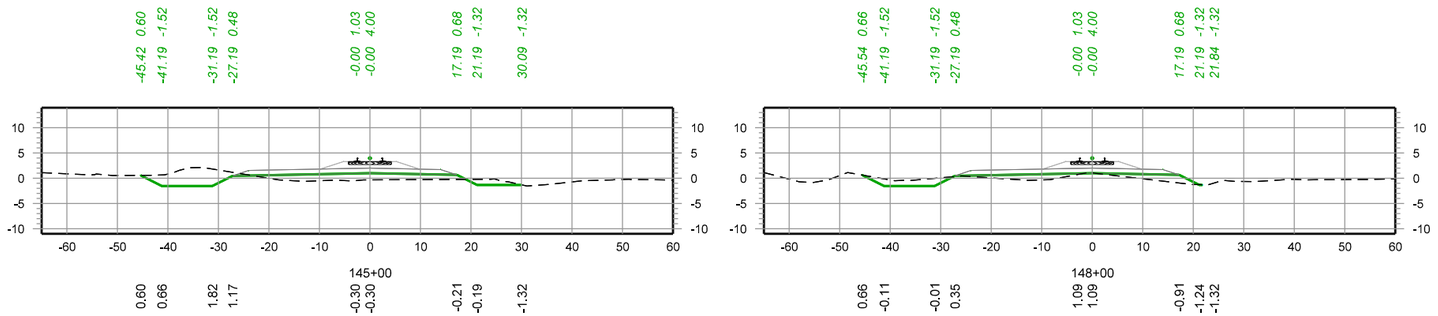
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 94 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 137+00 - 142+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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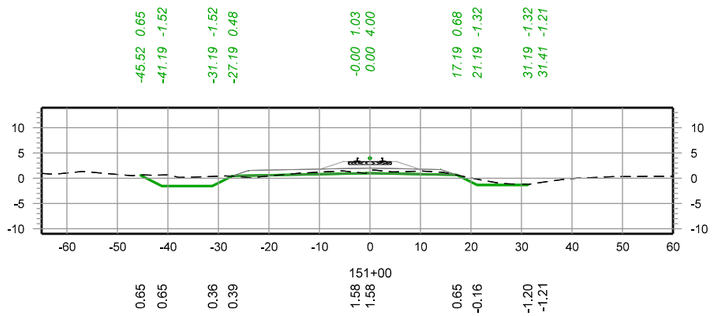
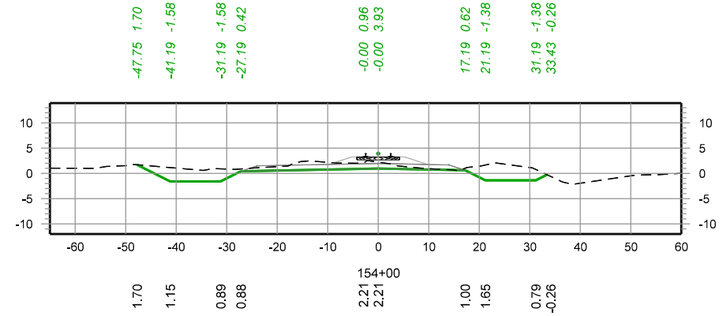
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

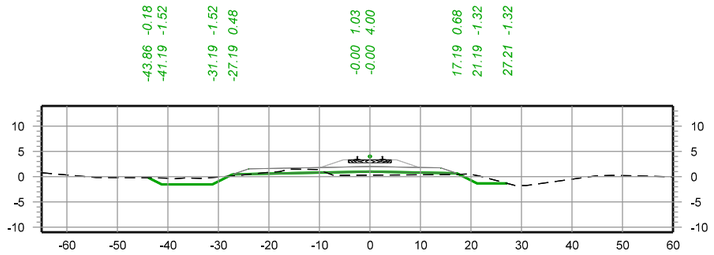
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

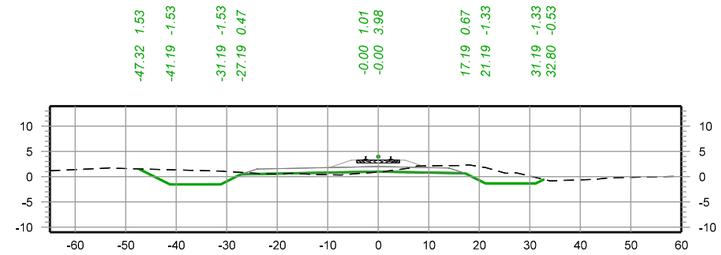
360 RAIL SERVICES
FIRM No: LA - EF.0007741

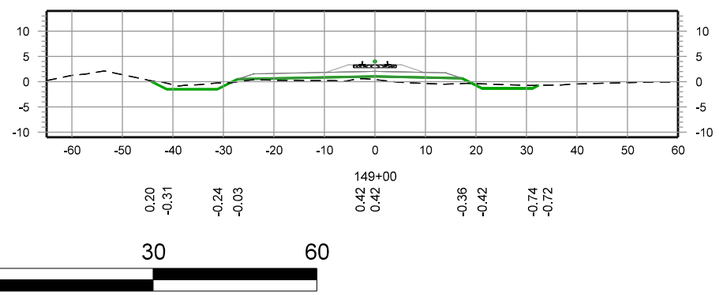
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 95 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 143+00 - 148+00

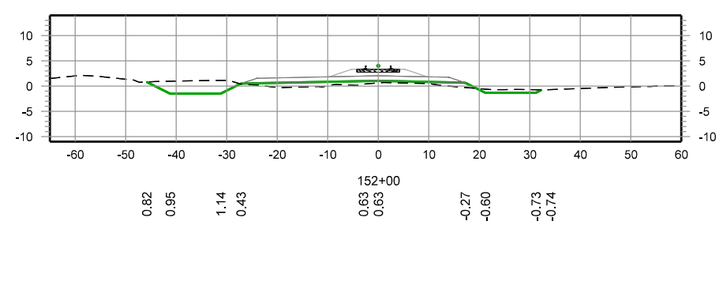












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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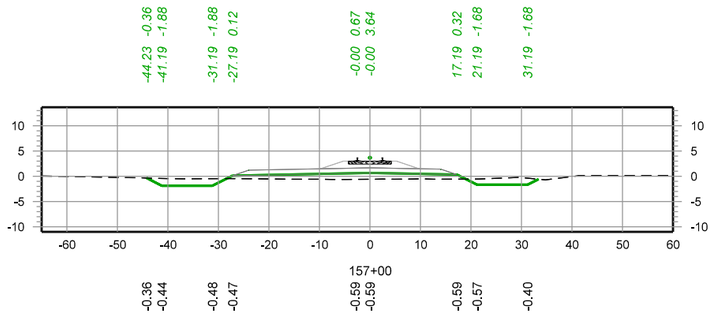
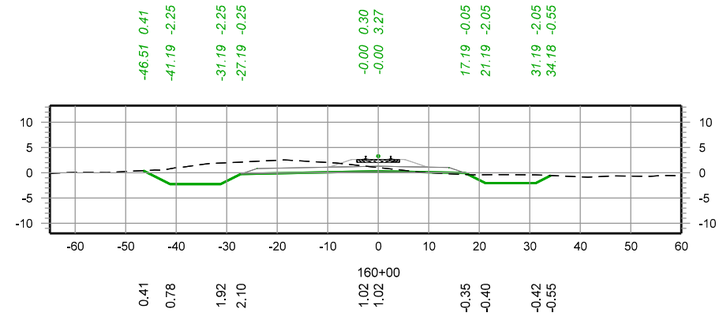
FIRM No: LA - EF. 0003109

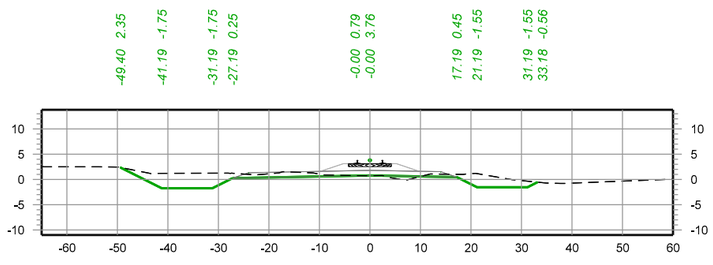
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

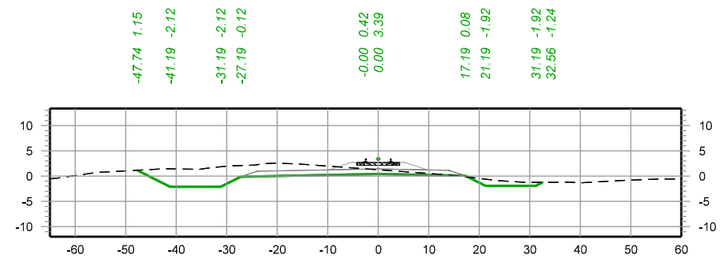
360 RAIL SERVICES
FIRM No: LA - EF.0007741

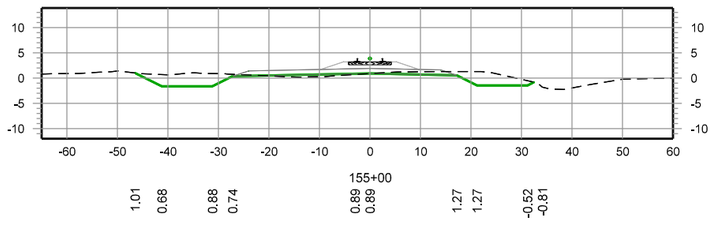
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 96 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 149+00 - 154+00

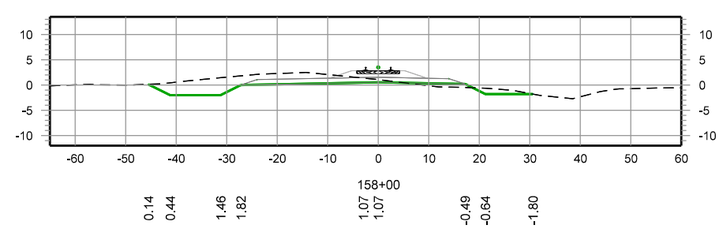












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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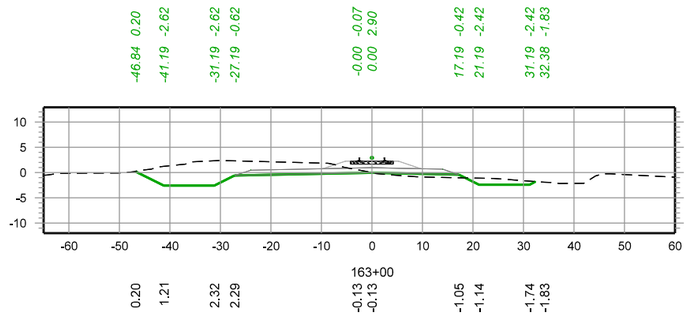
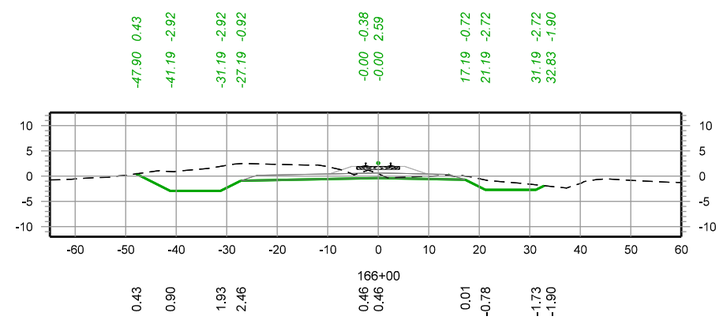
FIRM No: LA - EF. 0003709

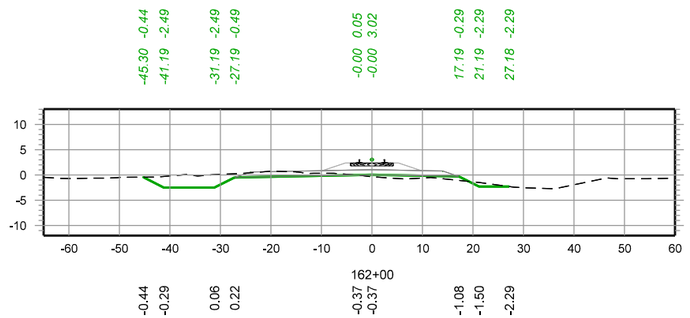
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

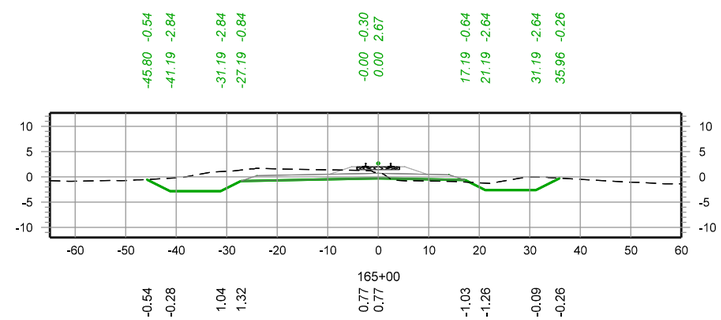
360 RAIL SERVICES
FIRM No: LA - EF.0007741

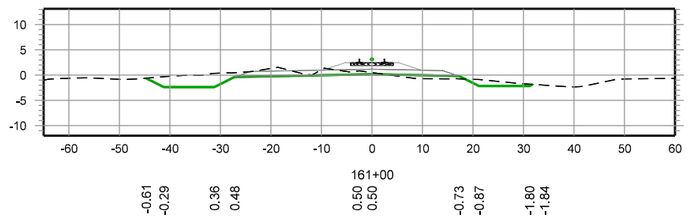
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 97 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 155+00 - 160+00

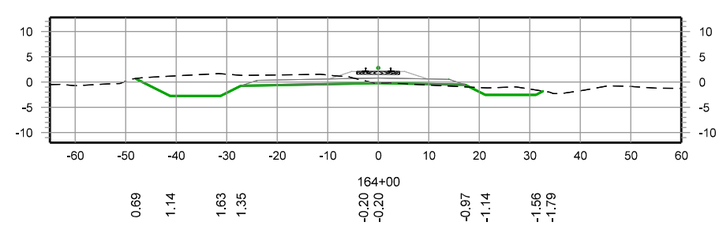












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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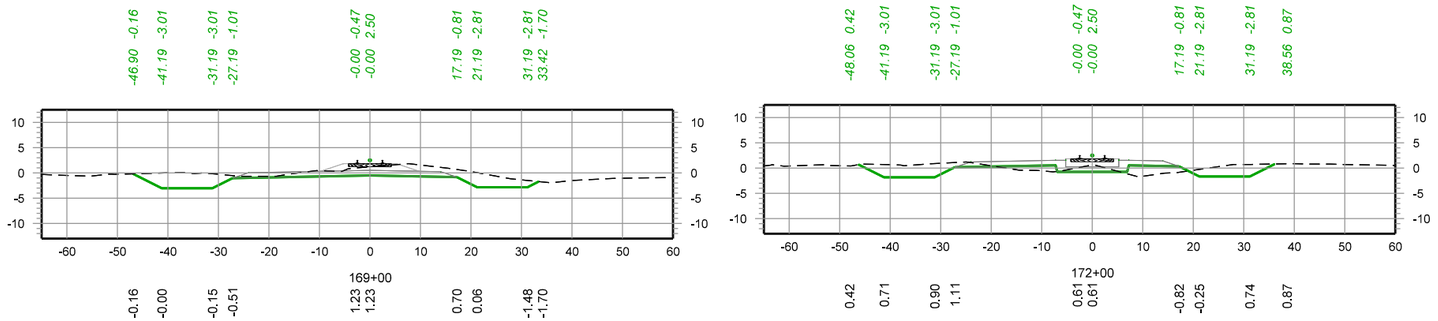
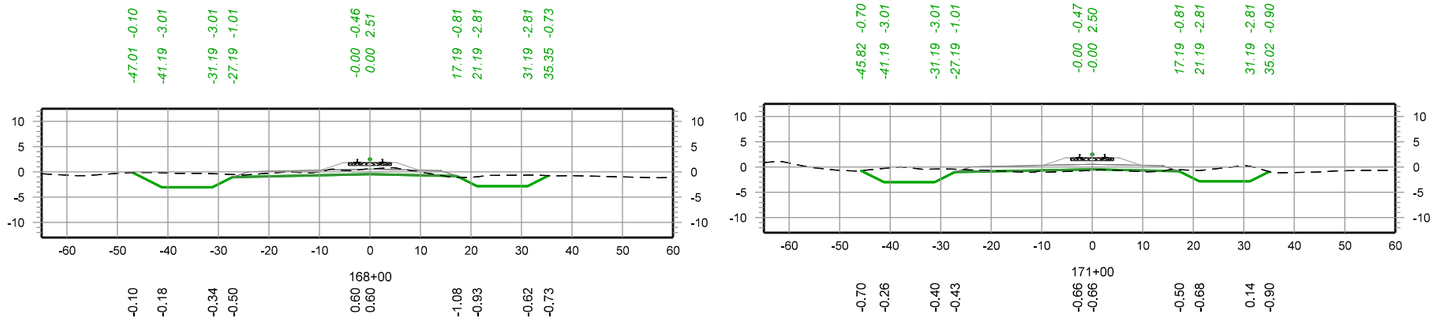
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

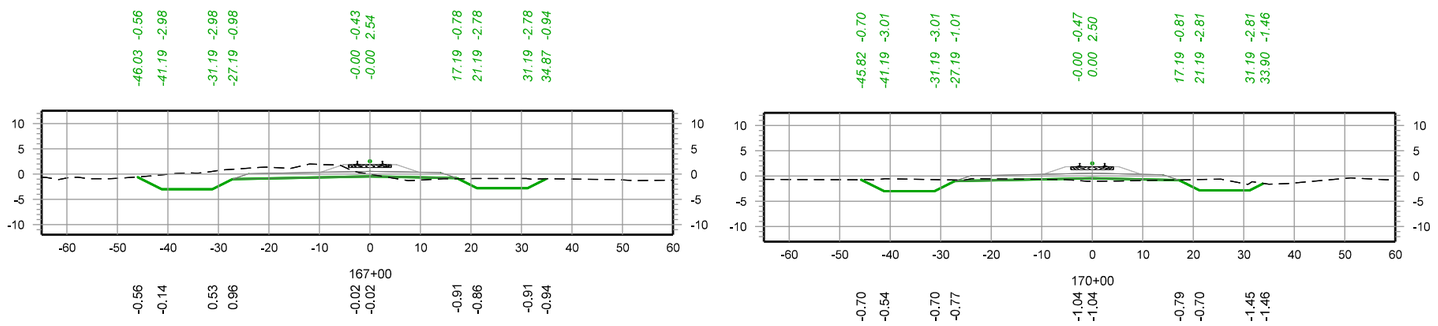
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 98 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 161+00 - 166+00







– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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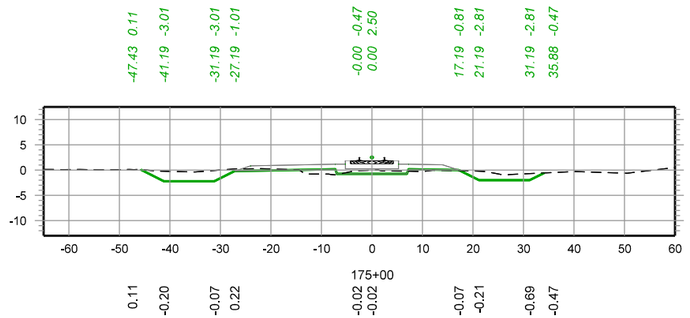
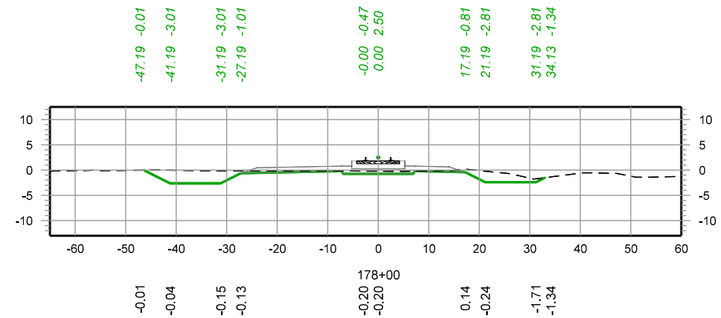
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

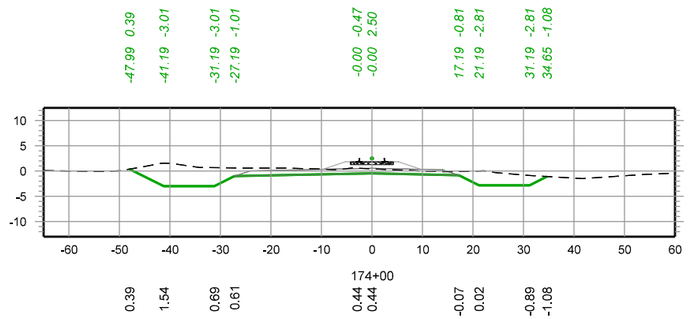
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

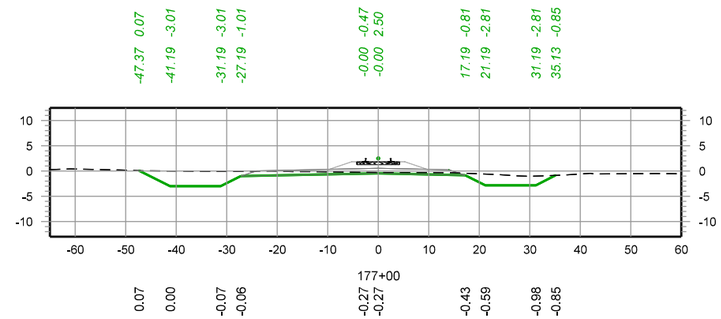
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

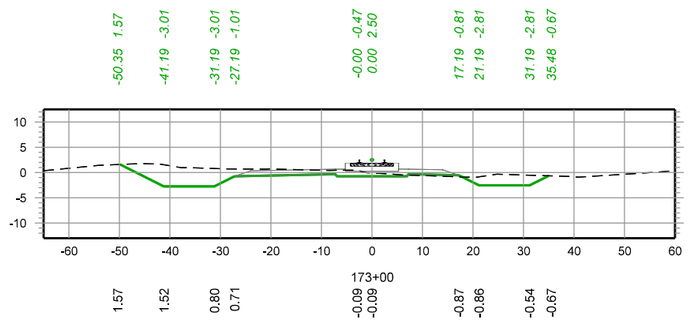
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 99 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 167+00 - 172+00

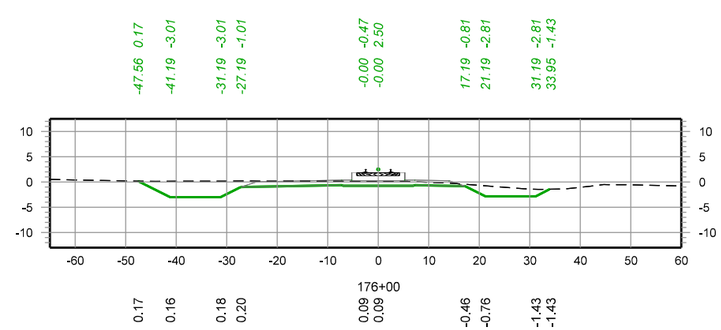












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY –
FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

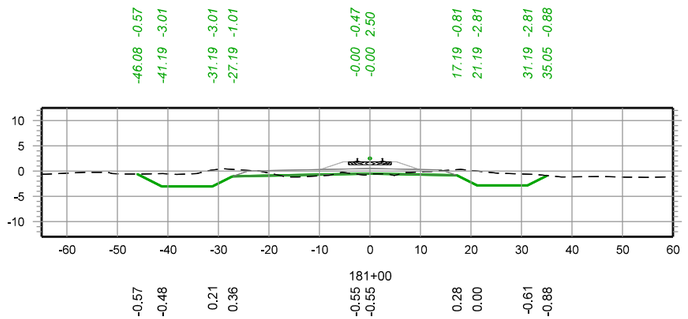
THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

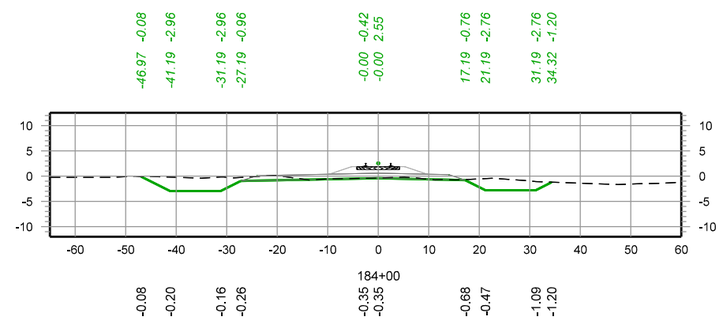
Infinity Engineering Consultants, LLC
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

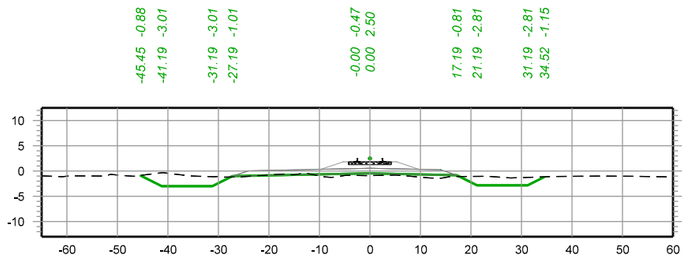
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

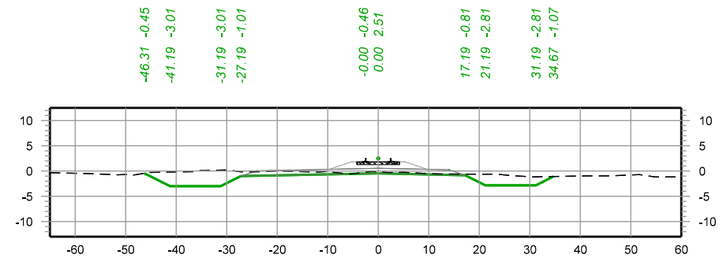
360 RAIL SERVICES
FIRM No: LA - EF.0007741

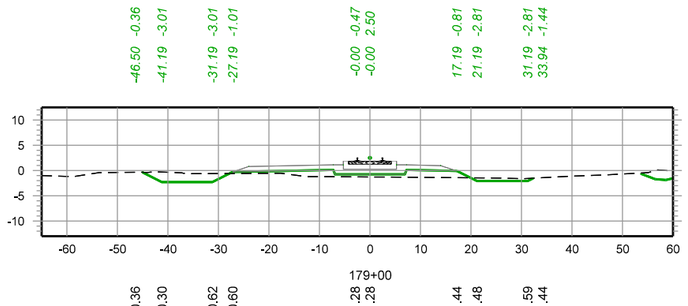
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 100 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 173+00 - 178+00

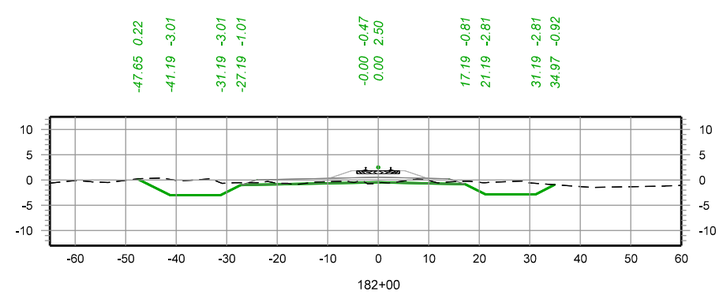












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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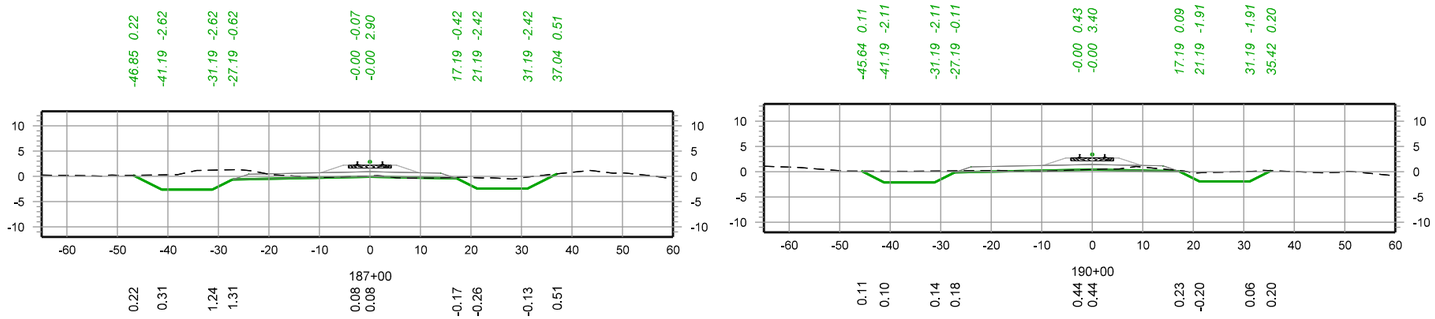
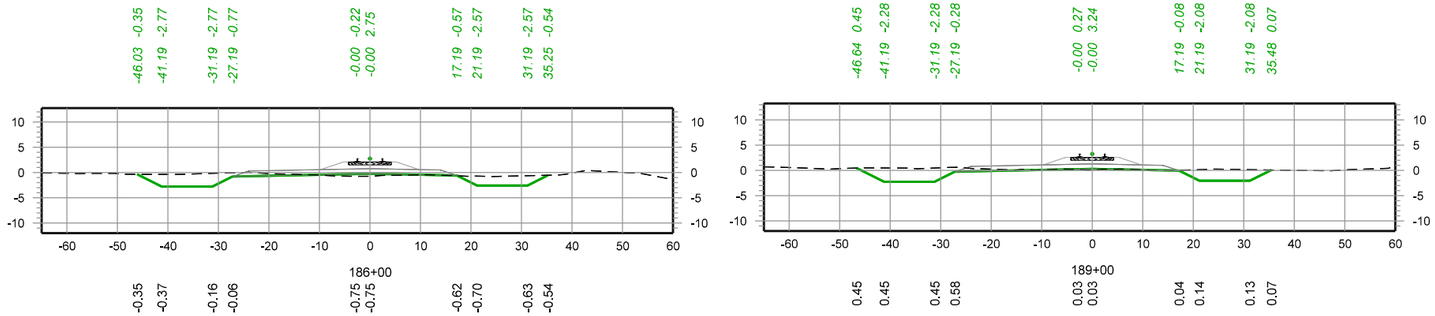
FIRM No: LA - EF. 0003709

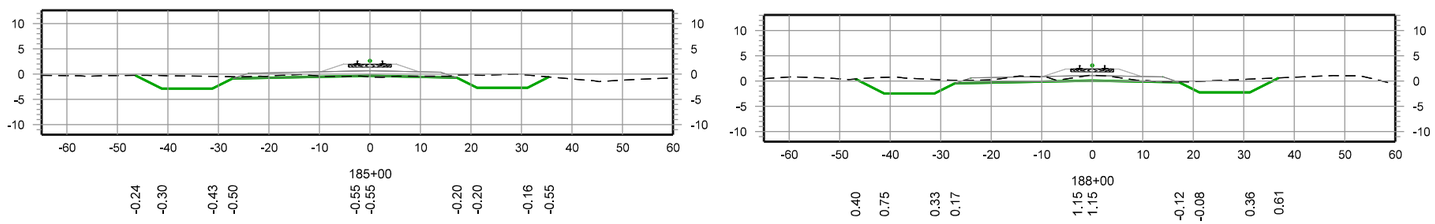
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 101 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 179+00 - 184+00







– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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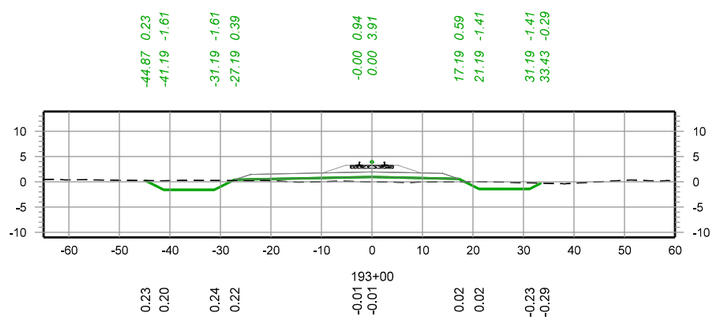
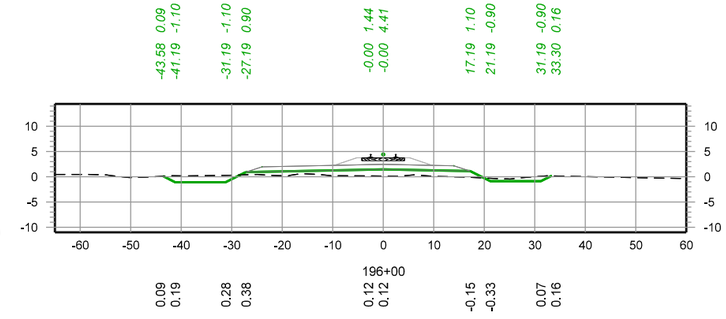
FIRM No: LA - EF. 0003109

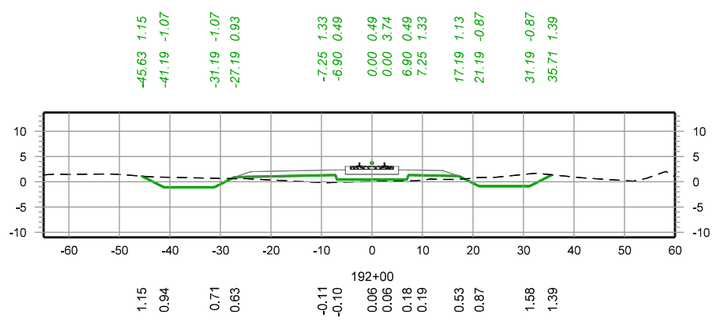
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

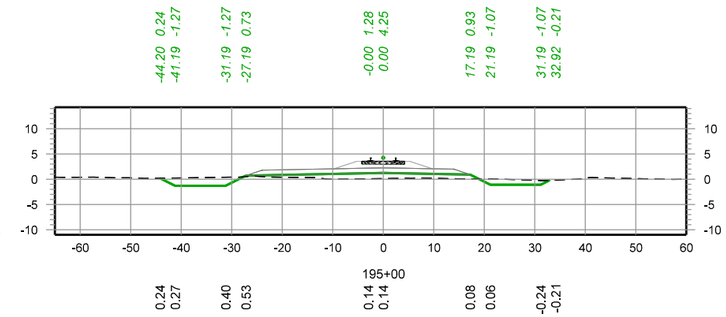
360 RAIL SERVICES
FIRM No: LA - EF.0007741

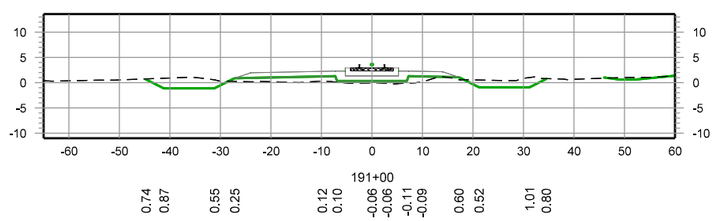
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 102 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 185+00 - 190+00

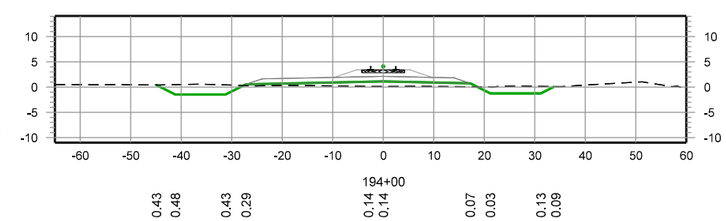












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NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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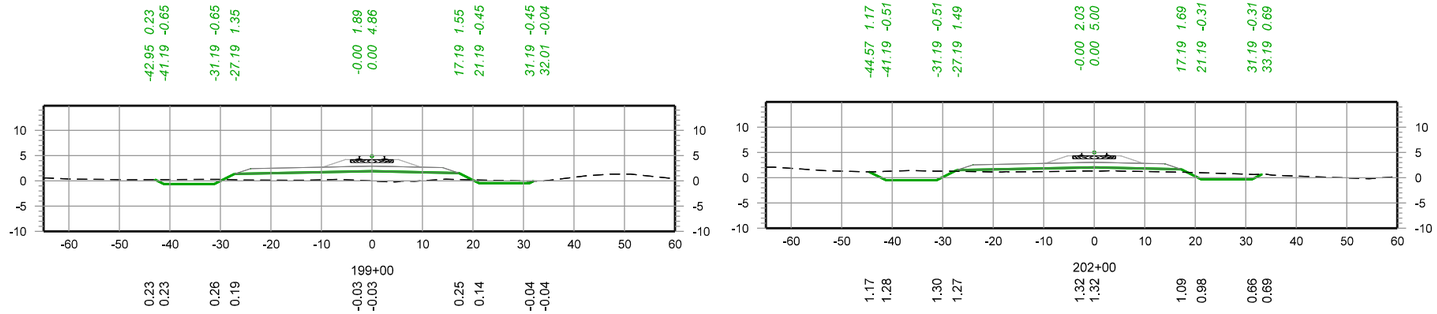
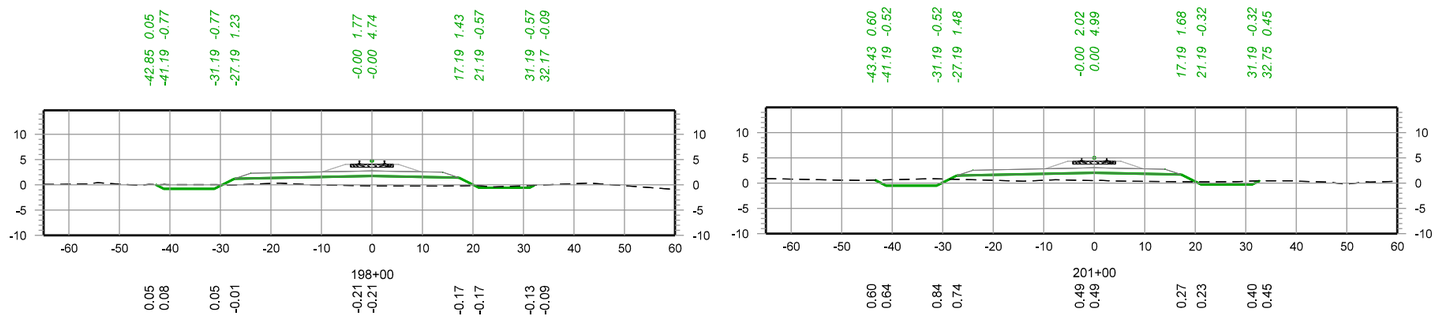
FIRM No: LA - EF. 0003109

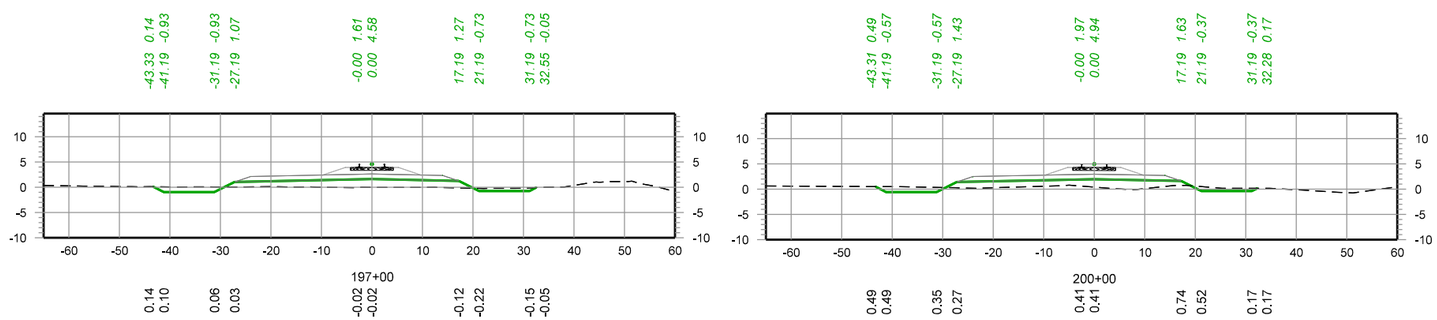
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 103 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 191+00 - 196+00







– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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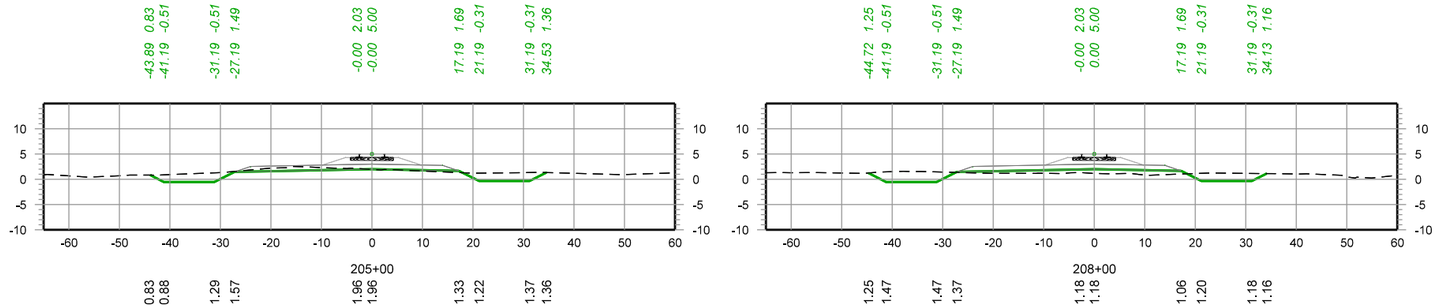
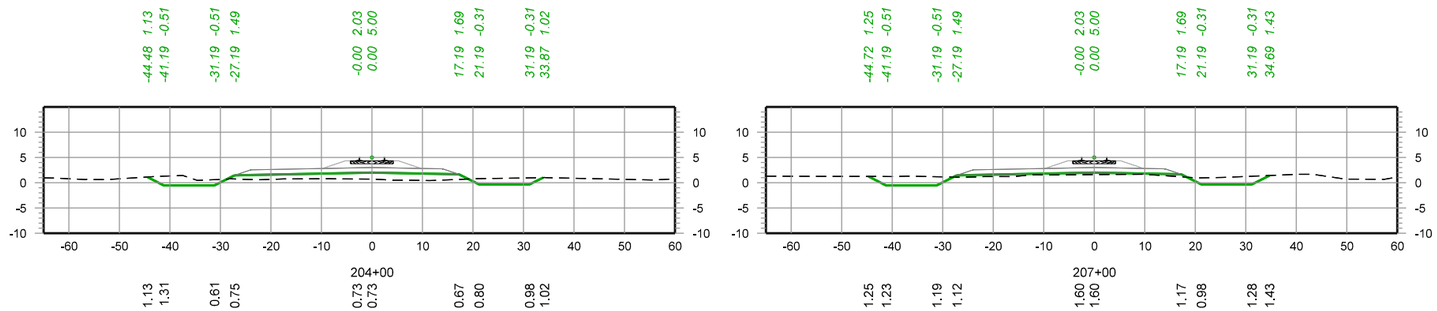
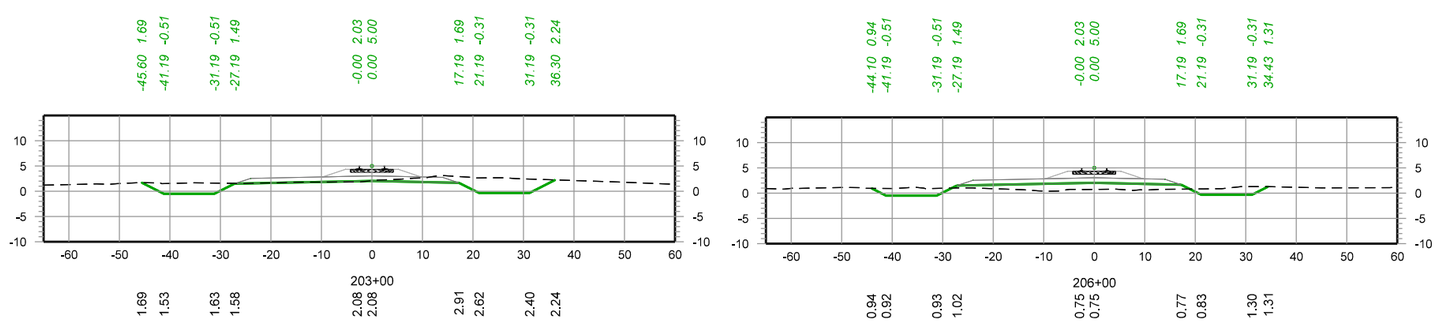
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 104 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 197+00 - 202+00







– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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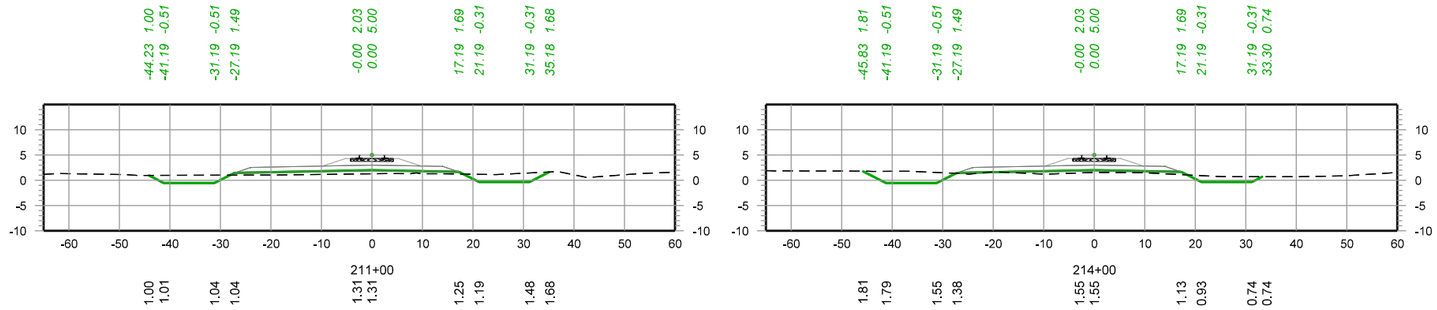
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 105 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 203+00 - 208+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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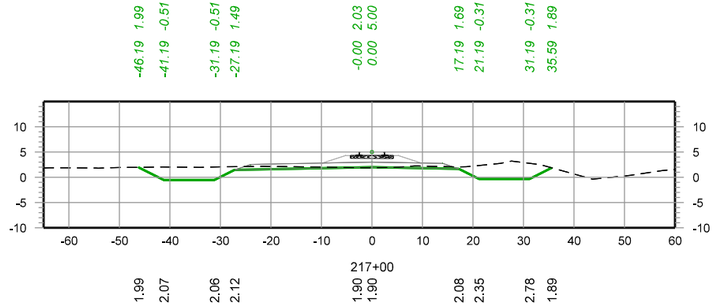
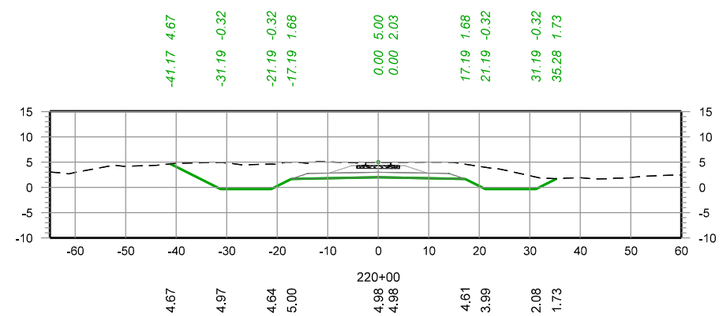
FIRM No: LA - EF .0003109

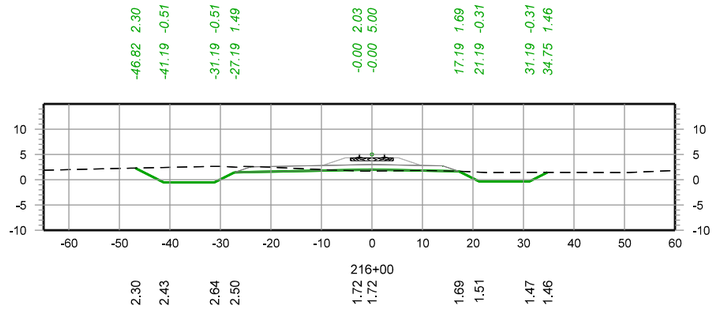
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

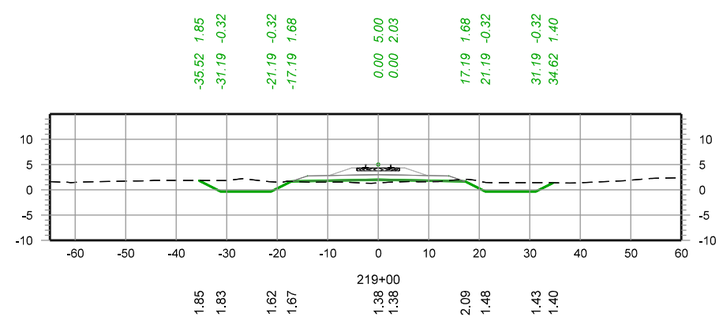
360 RAIL SERVICES
FIRM No: LA - EF.0007741

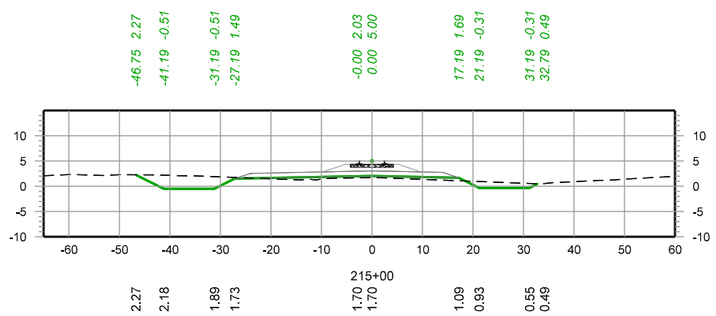
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 106 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 209+00 - 214+00

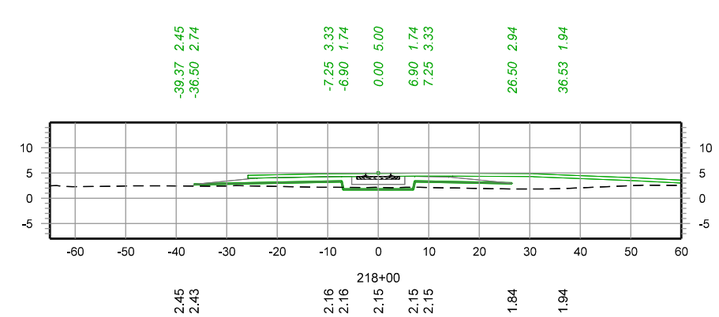












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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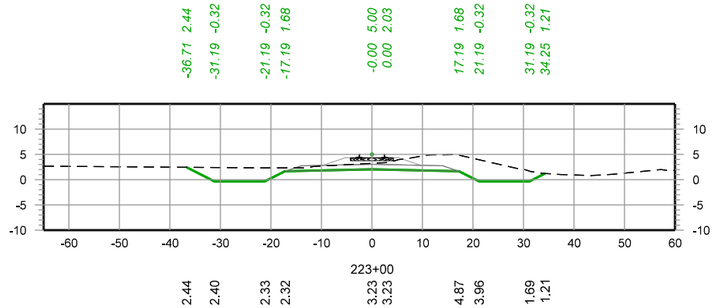
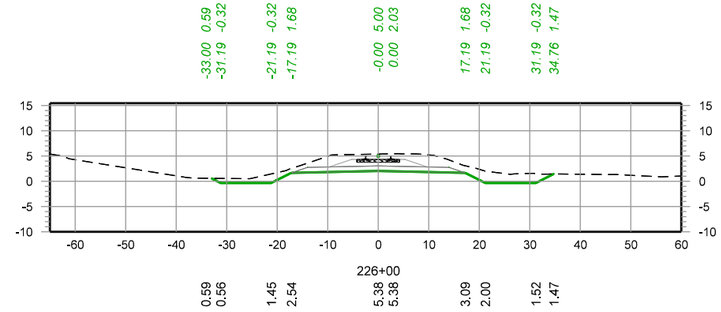
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

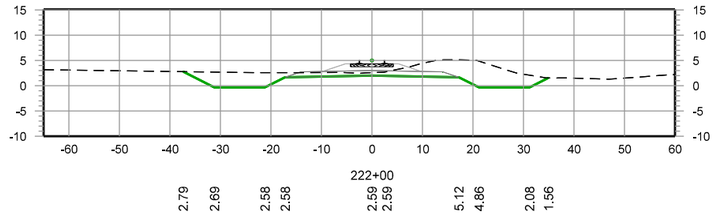
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

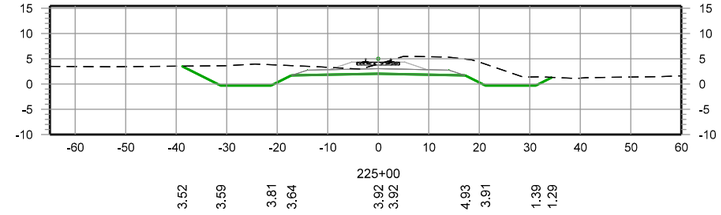
360 RAIL SERVICES
FIRM No: LA - EF.0007141

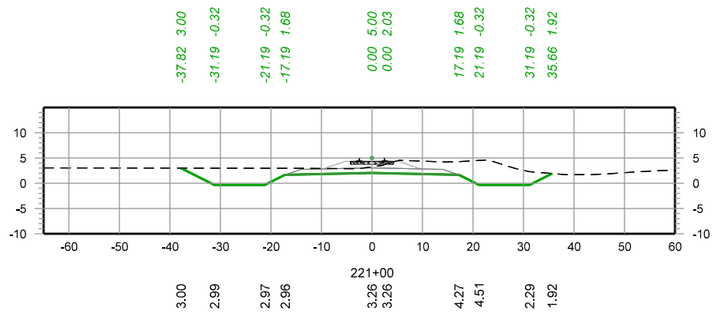
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 107 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 215+00 - 220+00

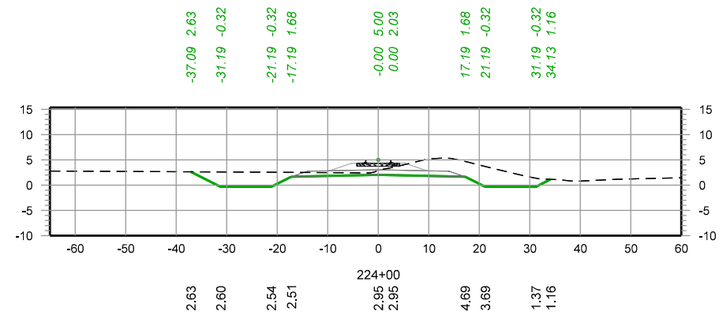












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

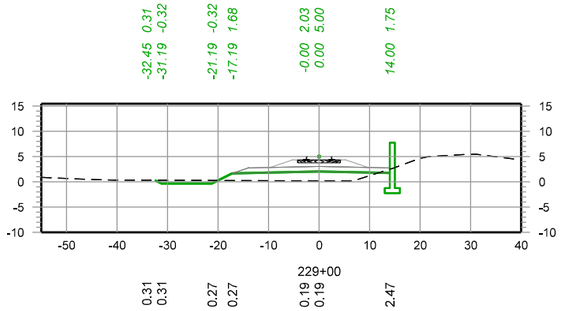
THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

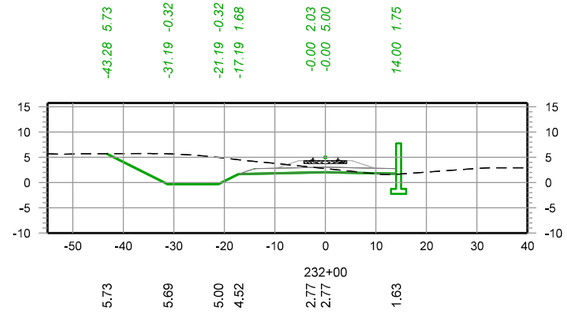
Infinity Engineering Consultants, LLC
FIRM No: LA - EF. 0003109
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548

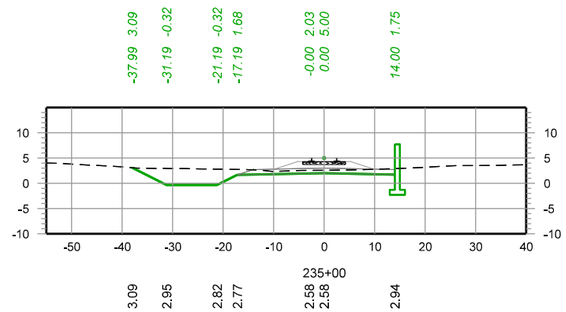
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

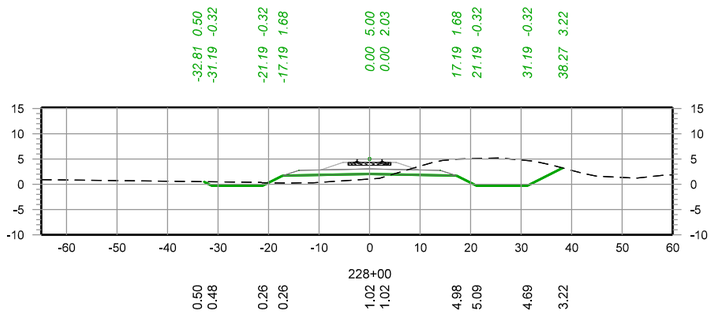
360 RAIL SERVICES
FIRM No: LA • EF.0007741

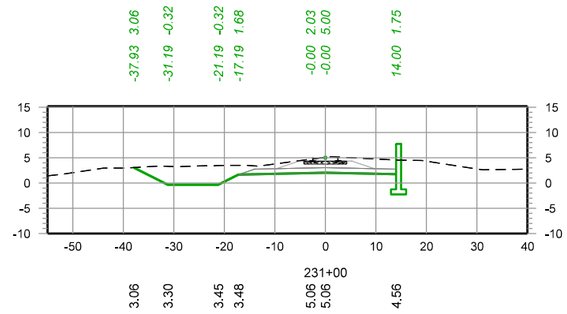
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 108 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 221+00 - 226+00

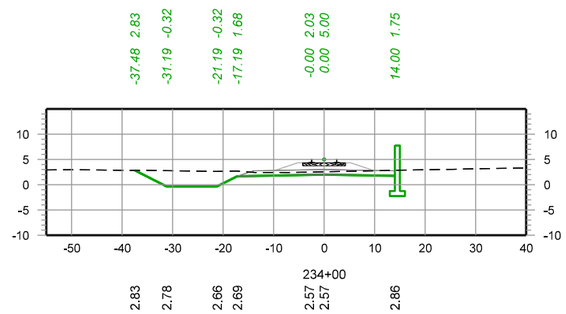


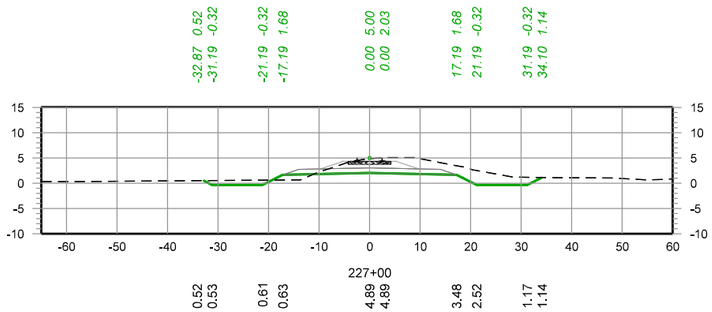


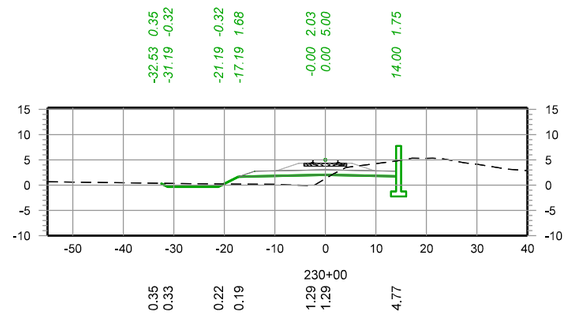


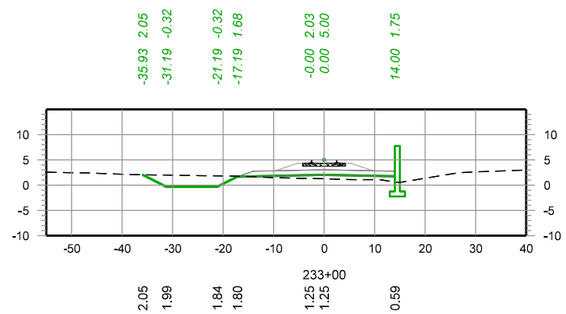












– PRELIMINARY –
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30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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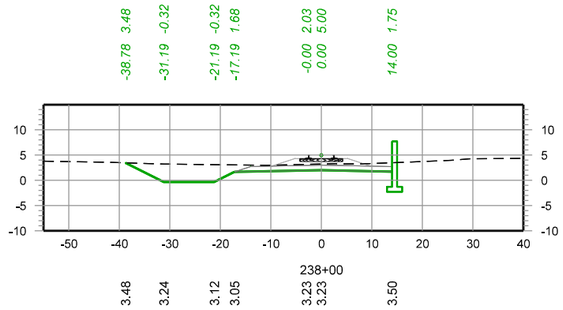
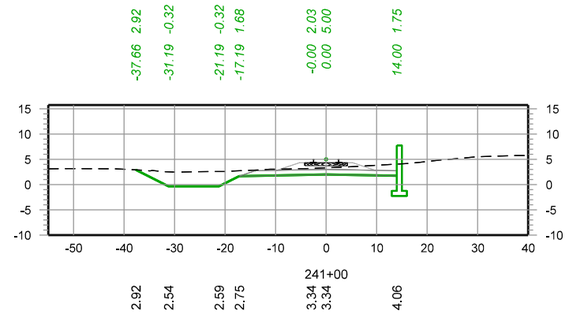
Metairie, LA www.infinityec.com 504-304-0548

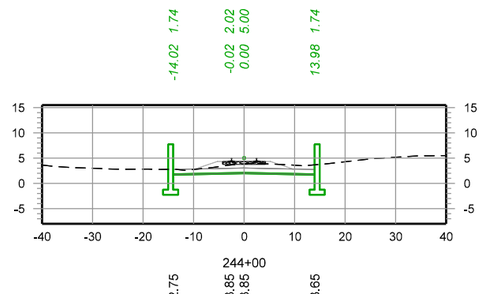
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

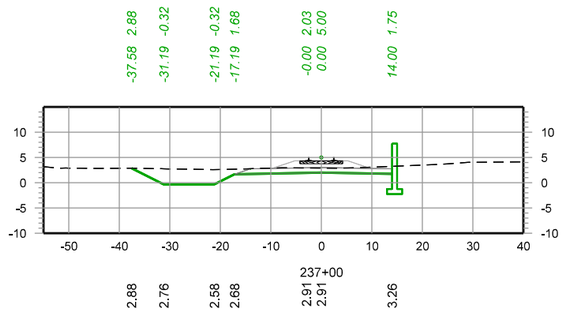
360 RAIL SERVICES
FIRM No: LA • EF.0007741

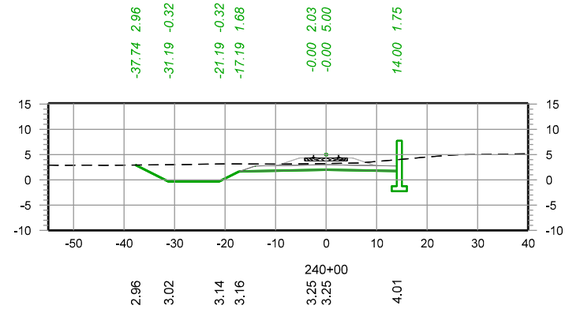
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 109 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 227+00 - 235+00

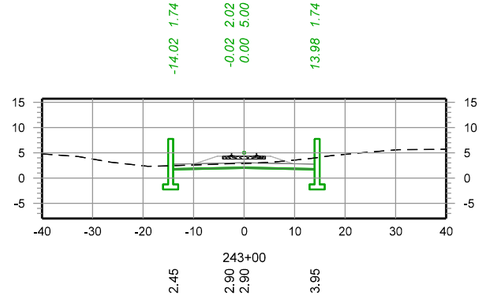


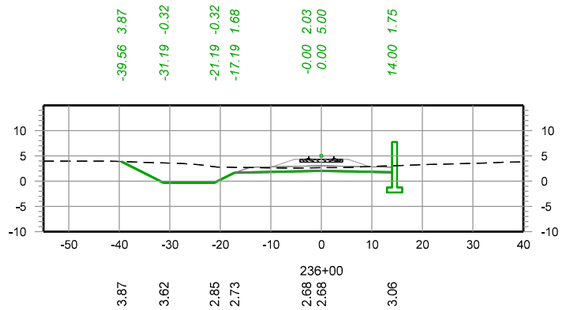


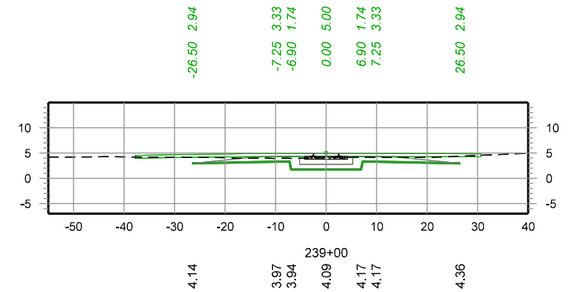


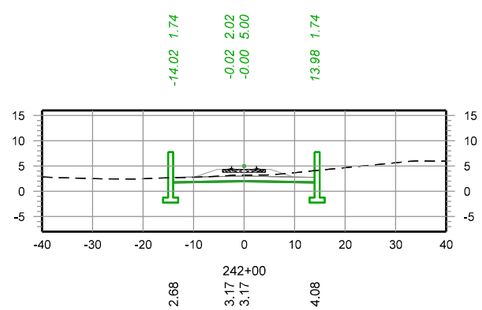












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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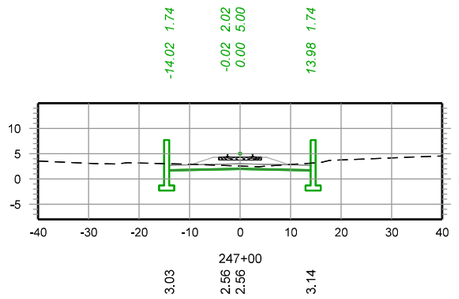
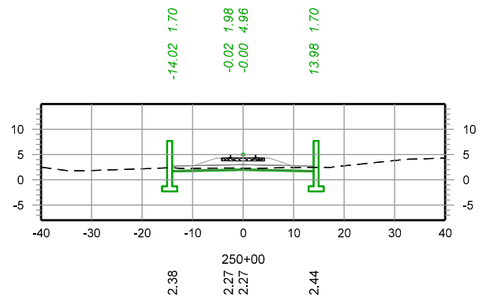
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

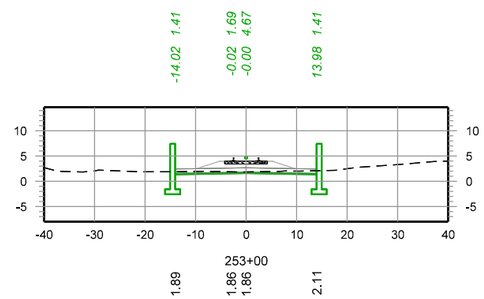
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

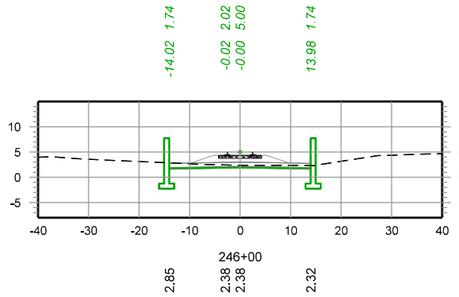
360 RAIL SERVICES
FIRM No: LA - EF.0007741

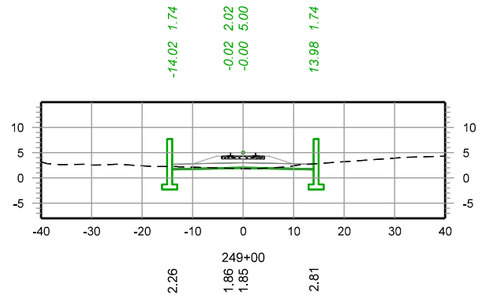
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 110 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 236+00 - 244+00

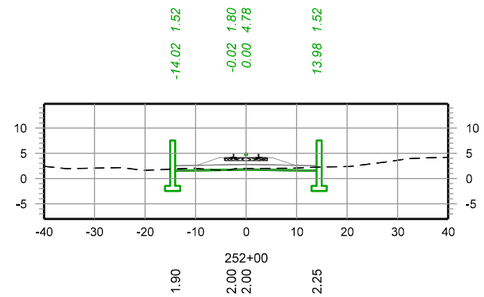


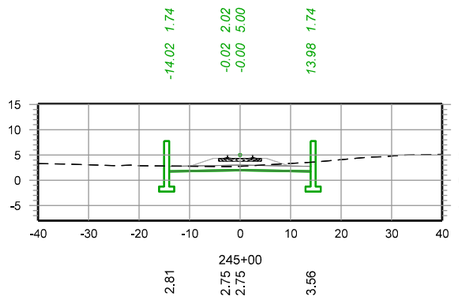


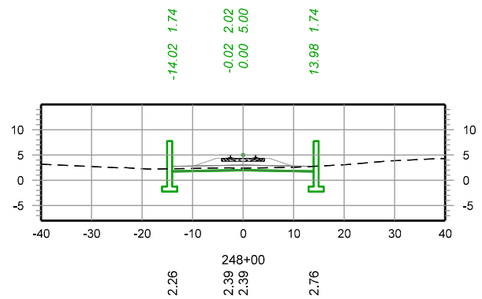


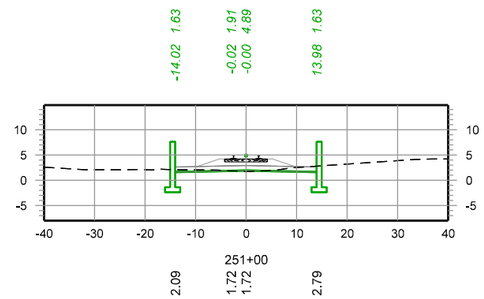












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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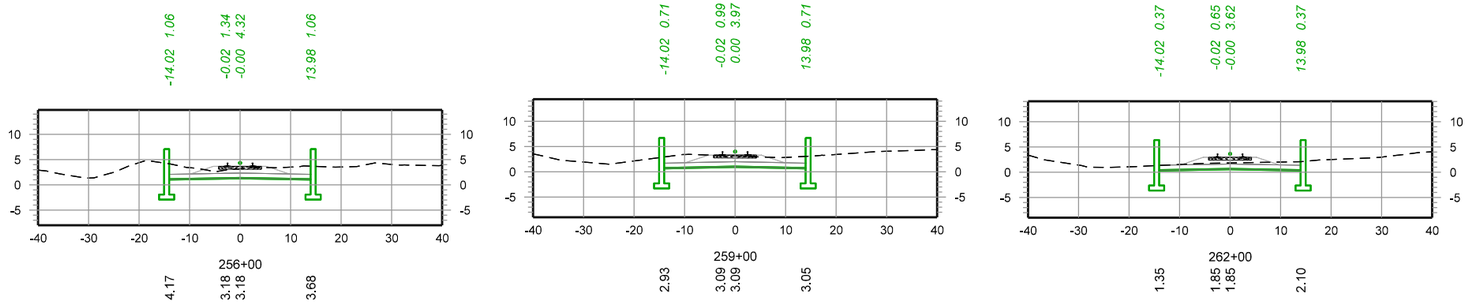
FIRM No: LA - EF. 0003709
Civil—Structural—Mechanical—Electrical—Marine—Transportation
Metairie, LA www.infinityec.com 504-304-0548

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 111 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 245+00 - 253+00



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NOT FOR CONSTRUCTION

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SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

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Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
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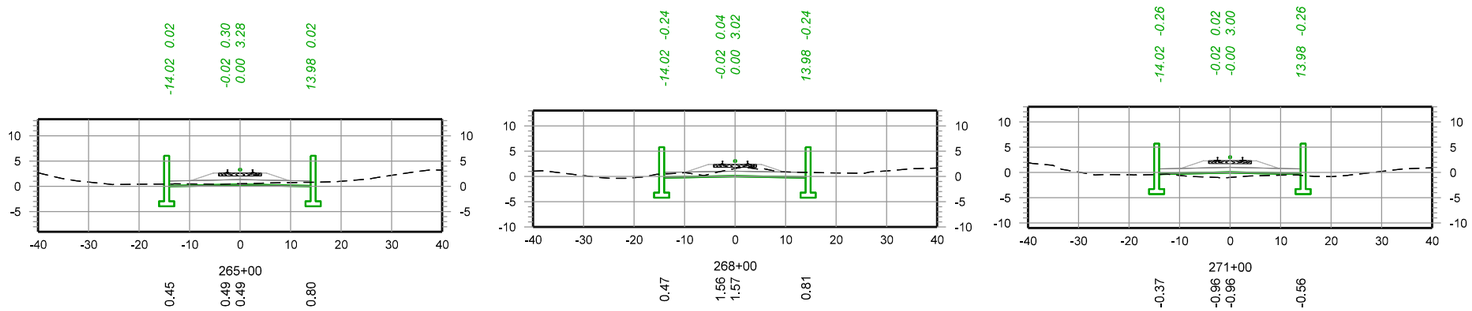
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 112 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 254+00 - 262+00



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NOT FOR CONSTRUCTION

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SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY –
FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
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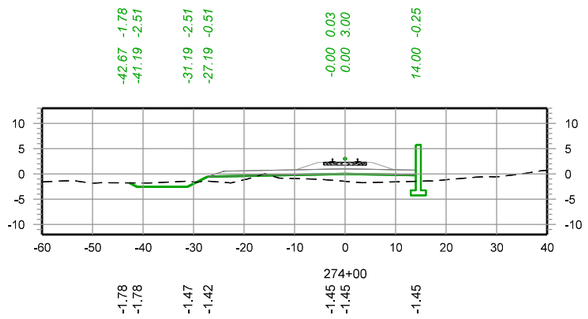
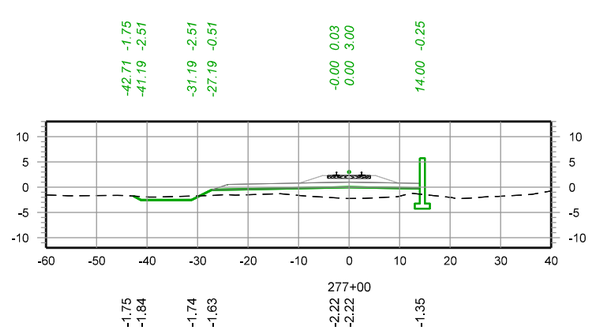
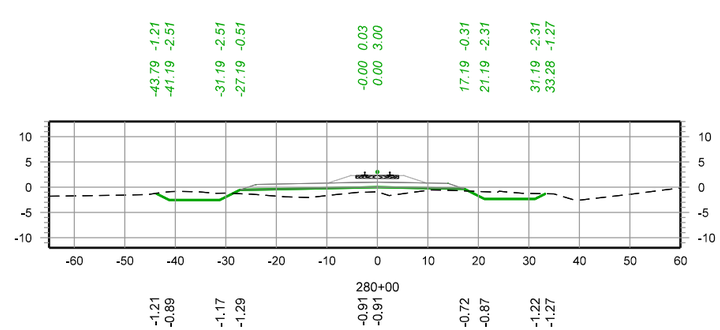
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

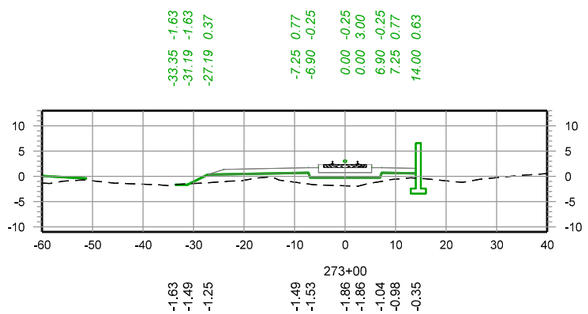
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

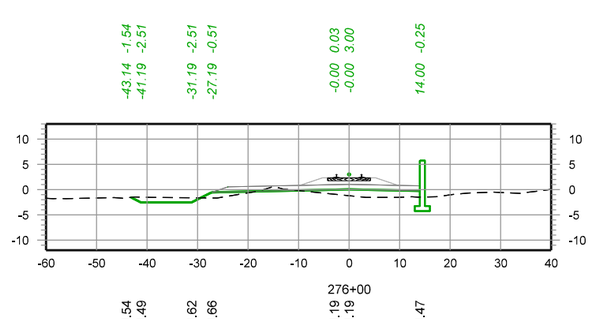
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 113 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 263+00 - 271+00

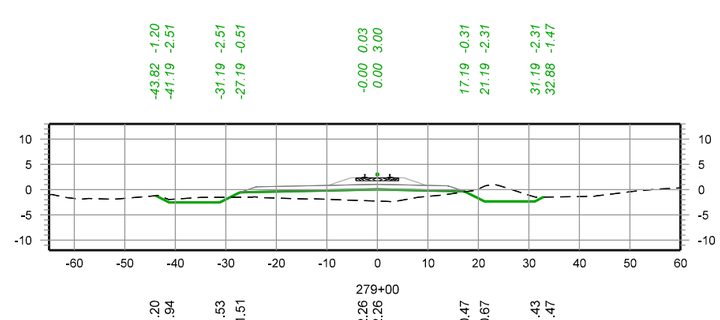


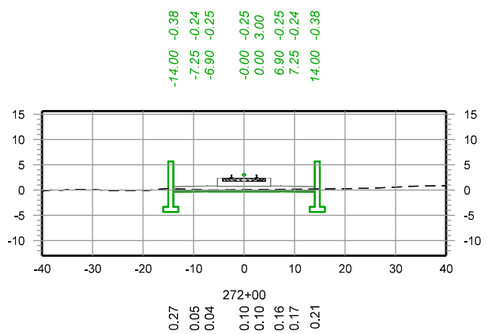


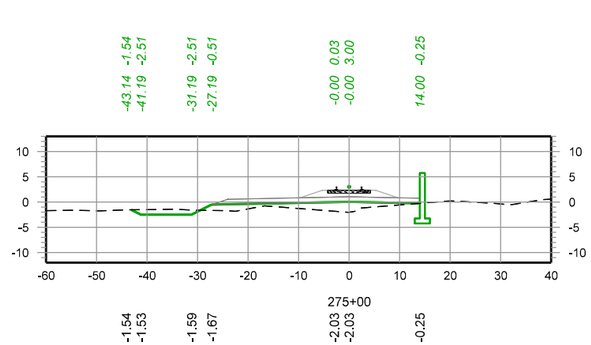


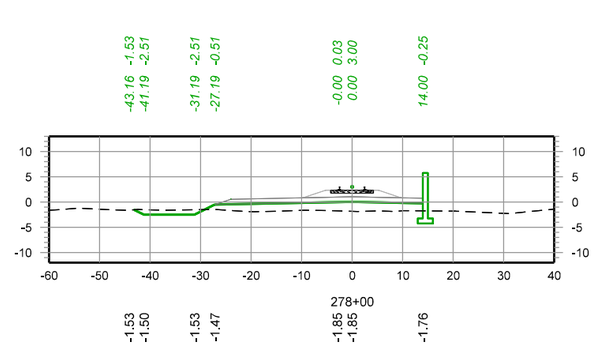












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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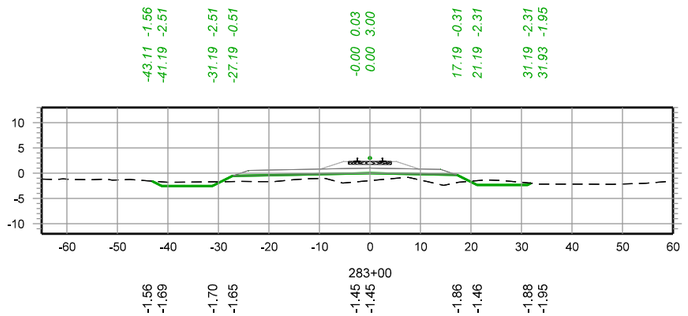
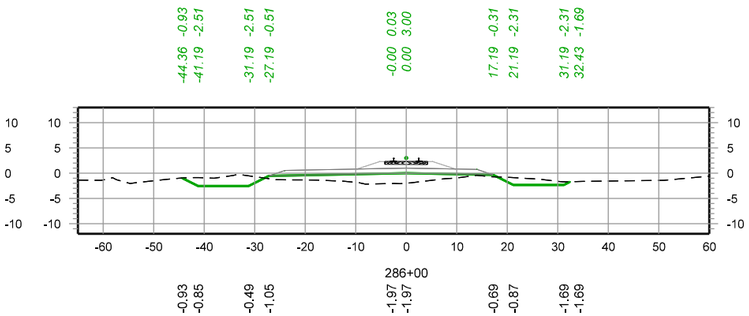
FIRM No: LA - EF. 0003109

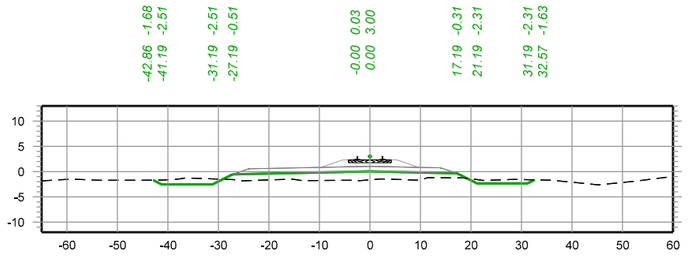
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

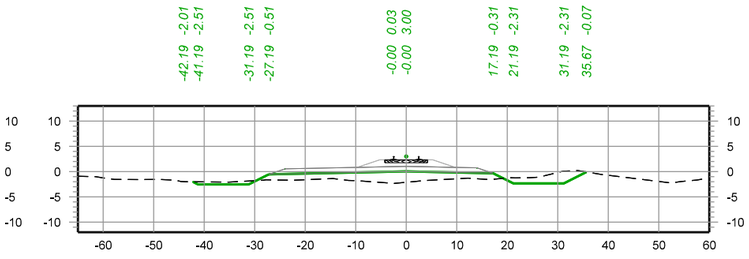
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

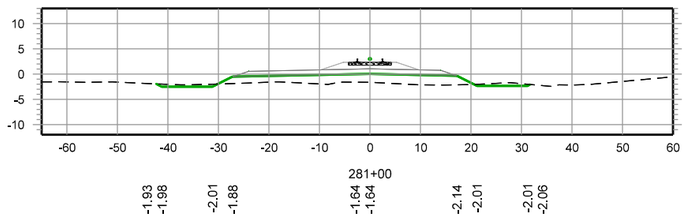
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 114 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 272+00 - 280+00

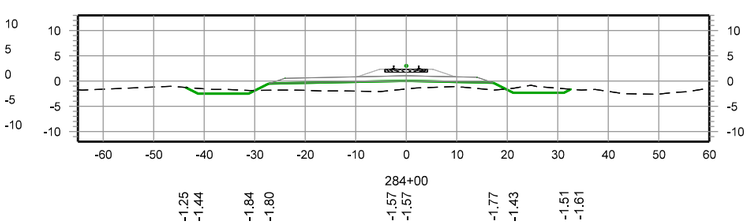












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NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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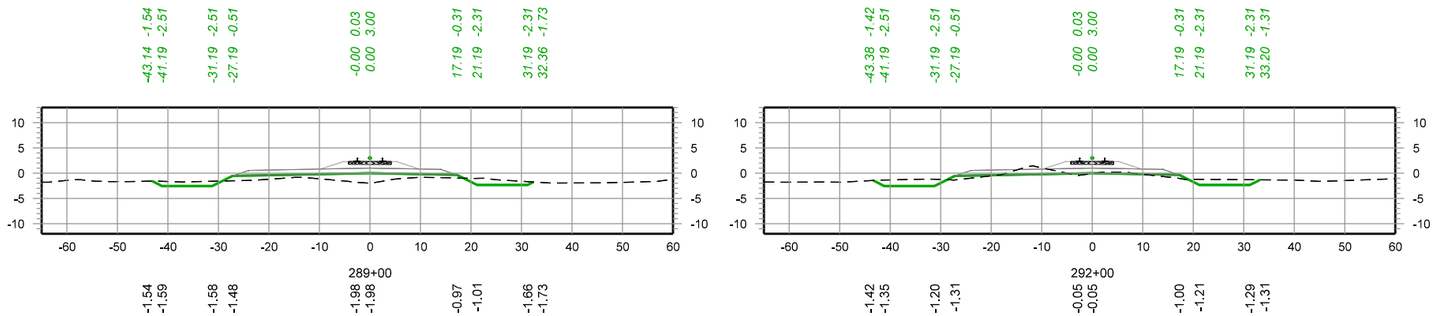
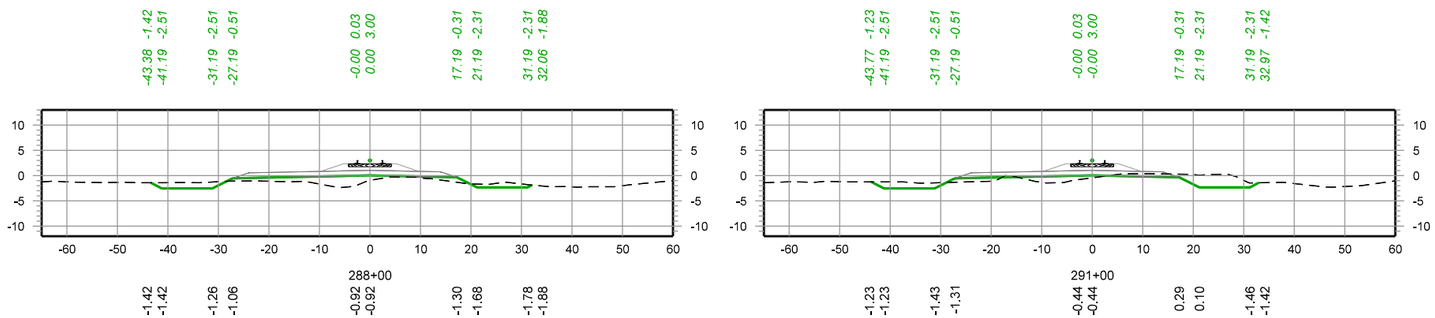
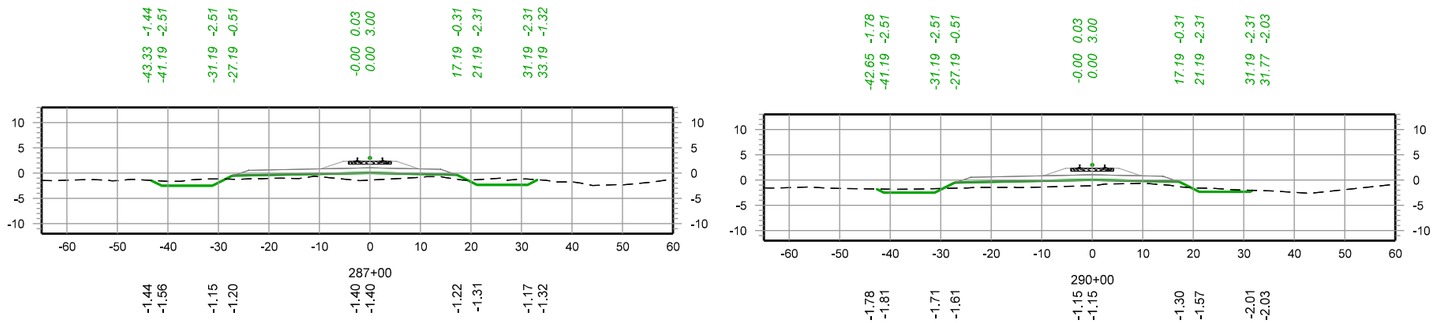
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 115 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 281+00 - 286+00







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30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

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FIRM No: LA - EF. 0007741

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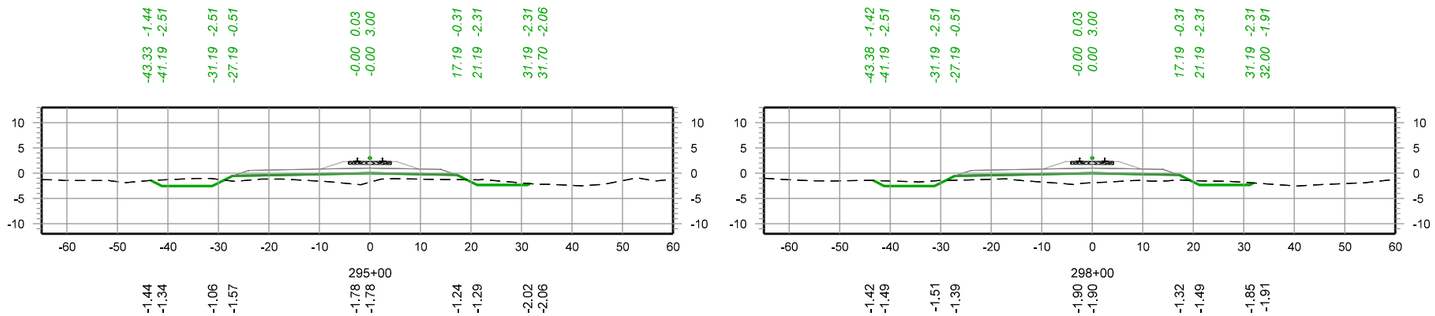
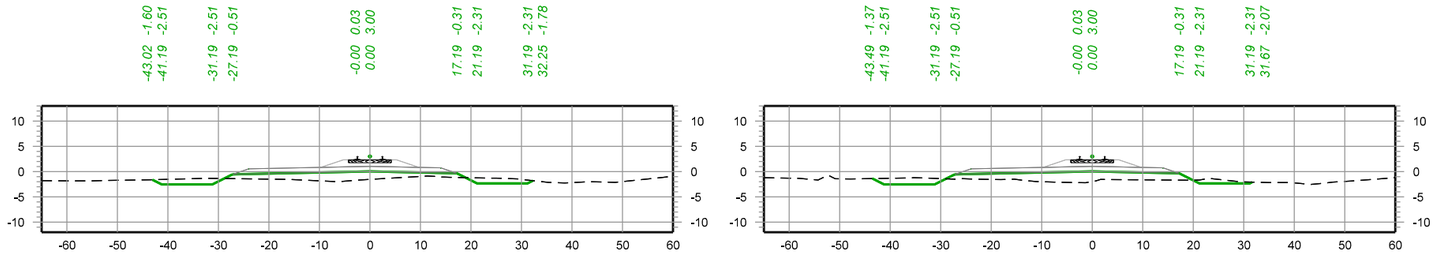
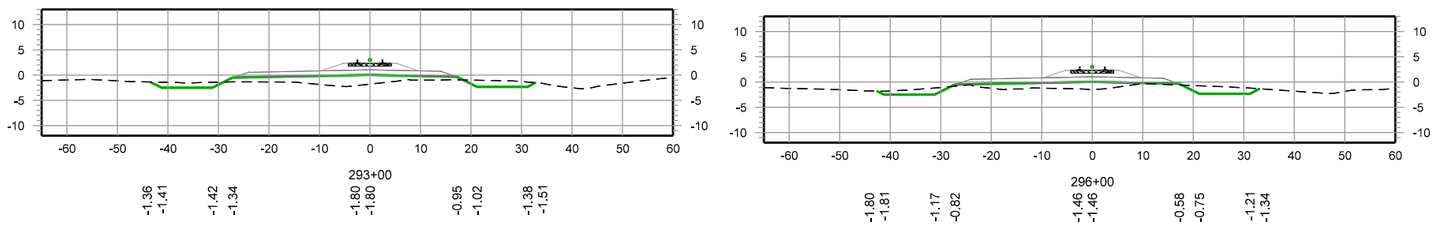
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 116 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 287+00 - 292+00







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SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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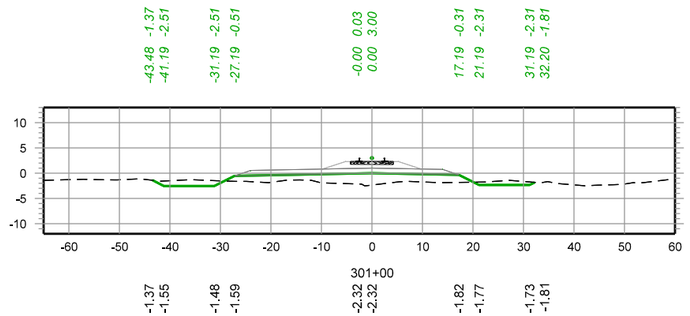
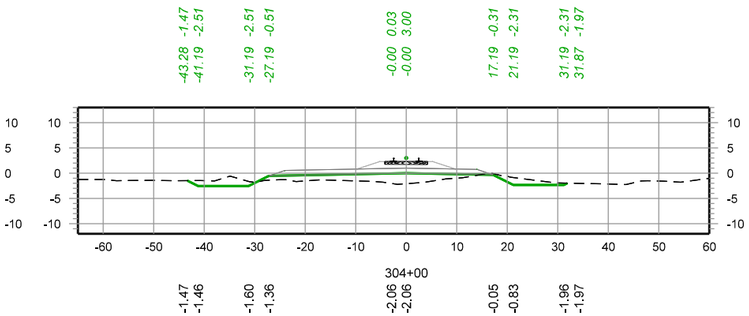
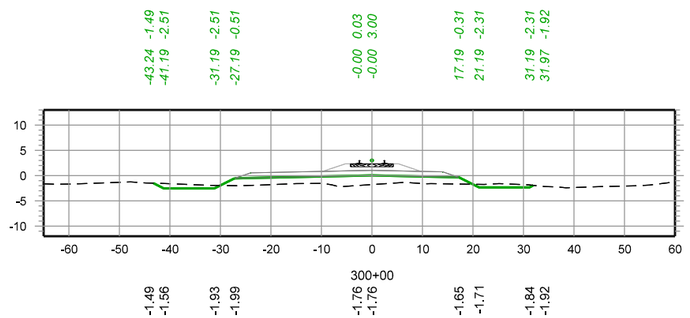
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

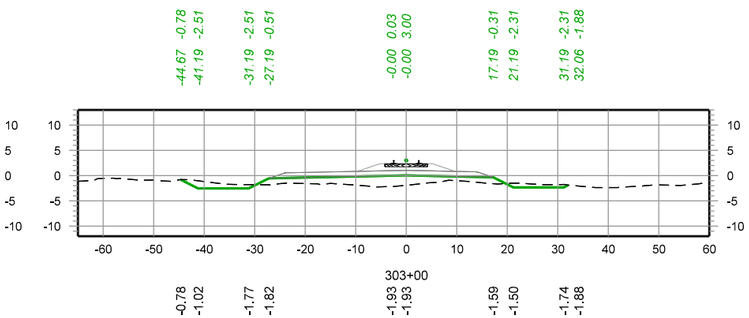
360 RAIL SERVICES
FIRM No: LA - EF.0007741

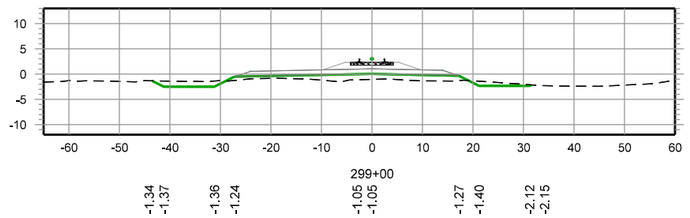
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 117 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 293+00 - 298+00

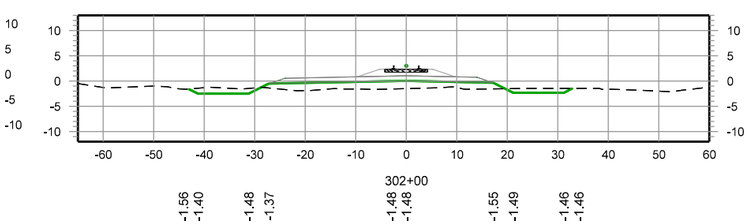












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SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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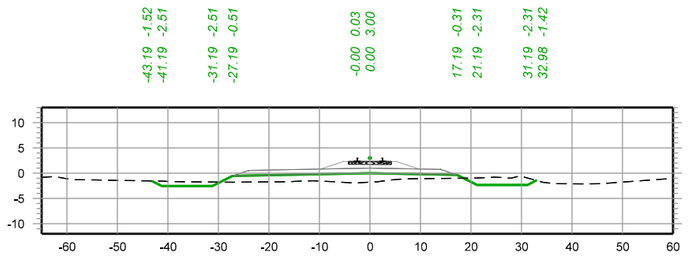
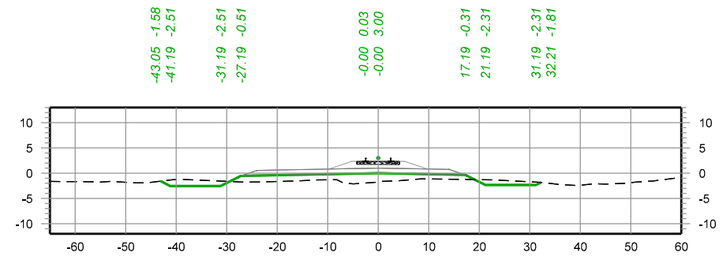
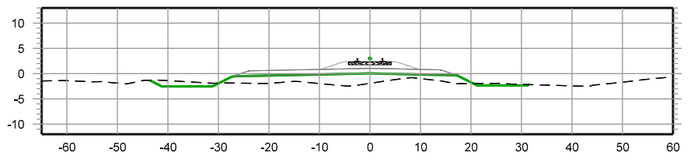
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

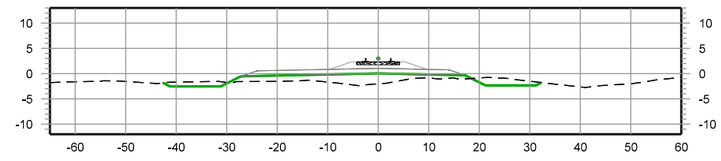
360 RAIL SERVICES
FIRM No: LA - EF.0007741

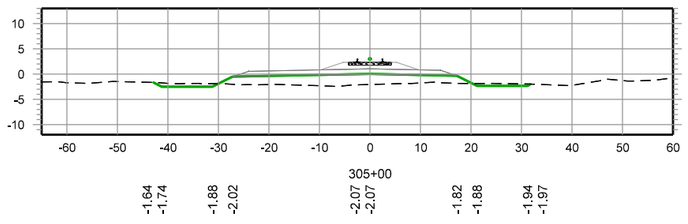
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 118 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 299+00 - 304+00

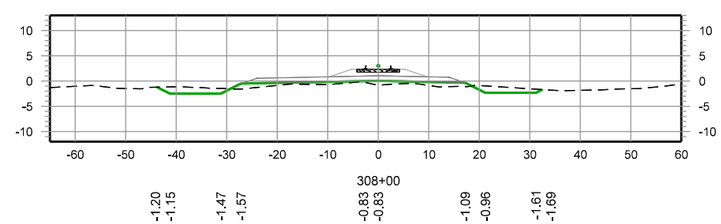












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SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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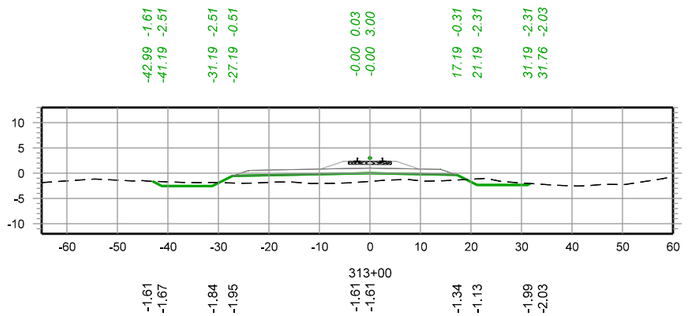
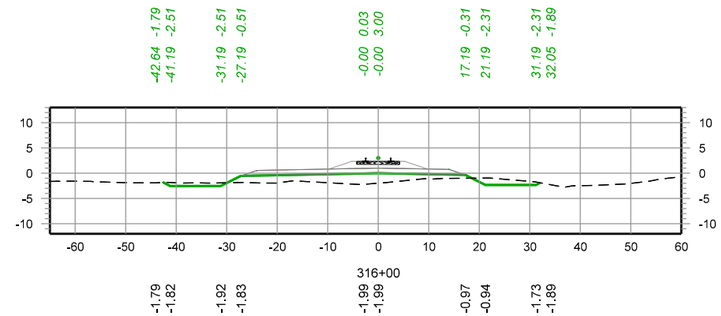
FIRM No: LA - EF. 0003109

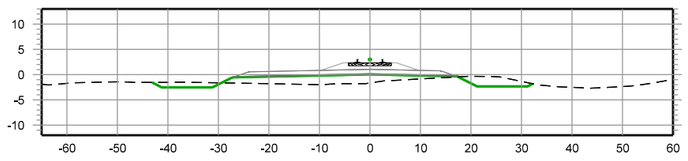
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

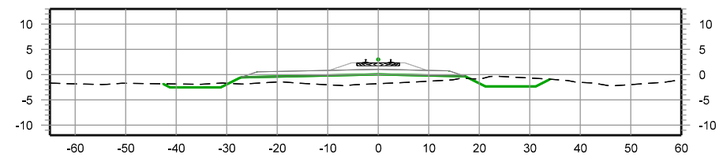
360 RAIL SERVICES
FIRM No: LA - EF.0007741

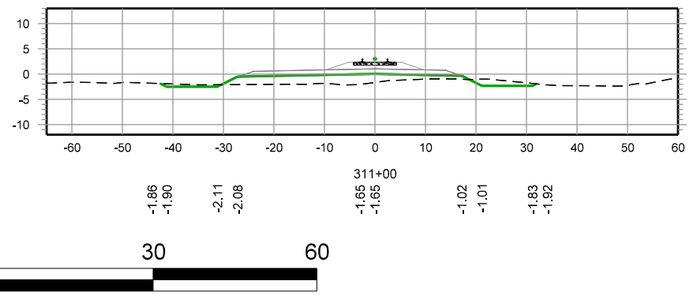
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 119 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 305+00 - 310+00

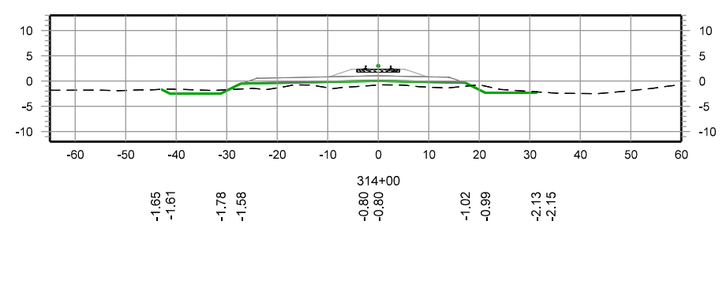












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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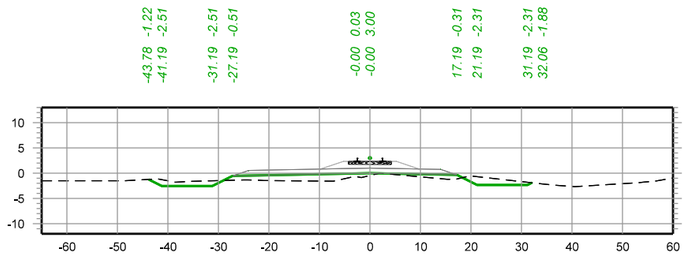
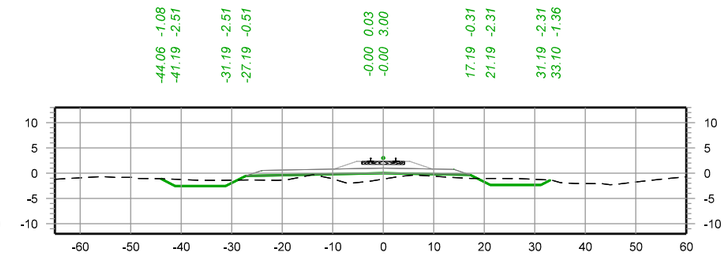
FIRM No: LA - EF. 0003109

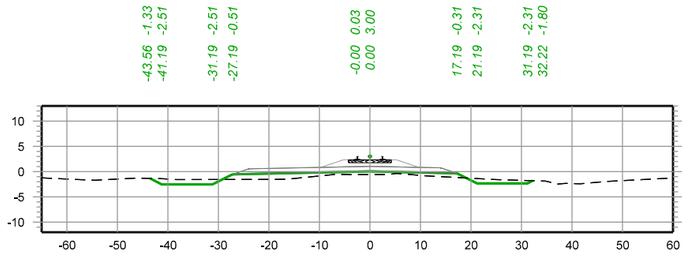
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

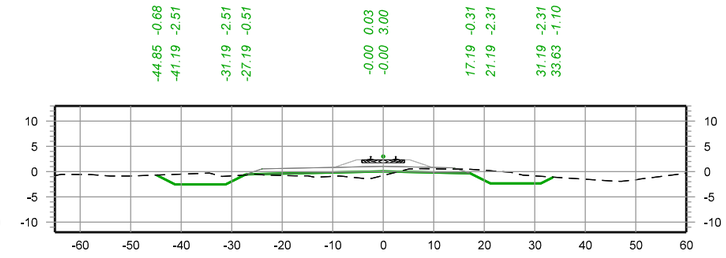
360 RAIL SERVICES
FIRM No: LA - EF.0007741

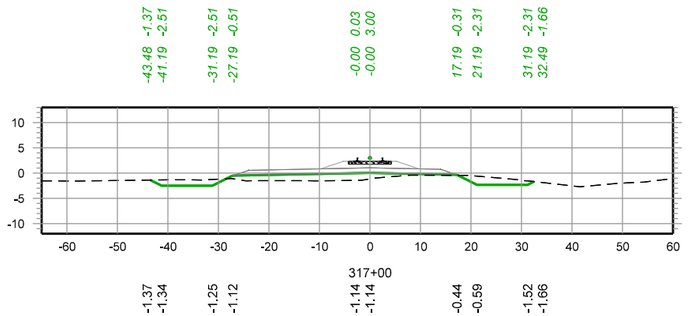
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 120 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 311+00 - 316+00

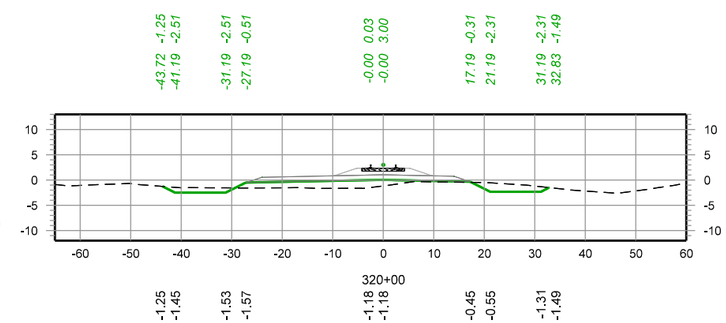












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Llc No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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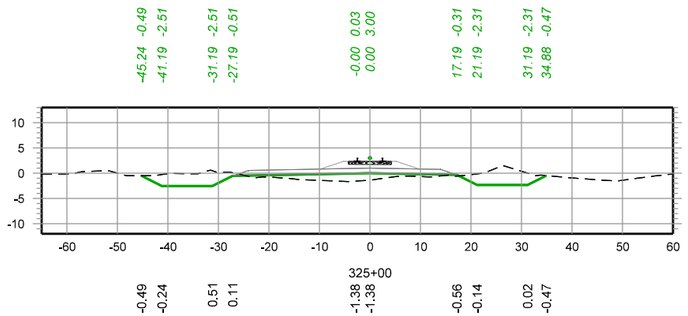
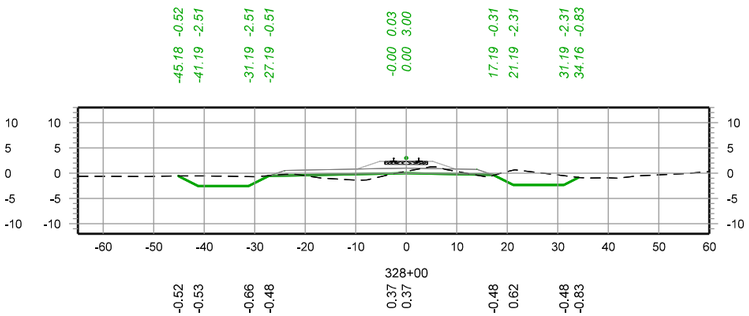
FIRM No: LA - EF. 0003109

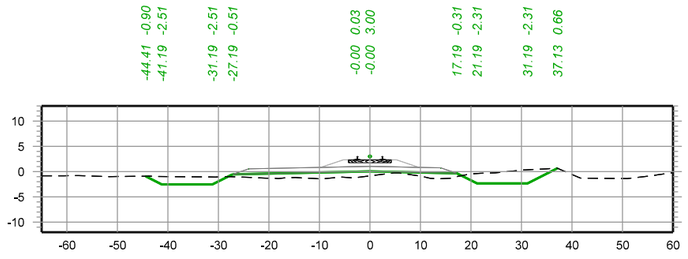
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

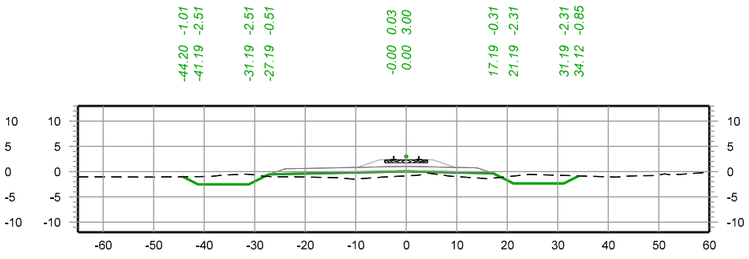
360 RAIL SERVICES
FIRM No: LA - EF.0007741

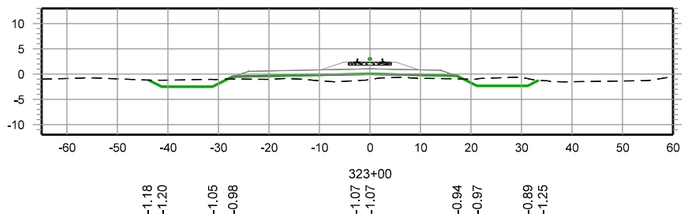
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 121 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 317+00 - 322+00

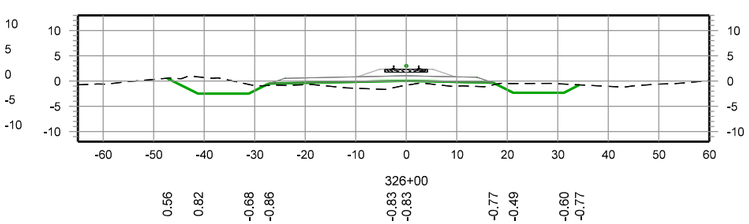












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY –
FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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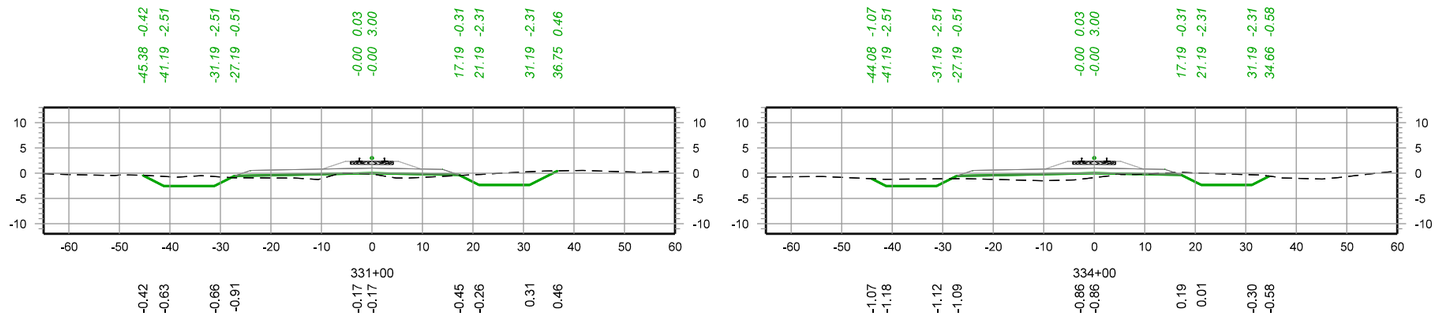
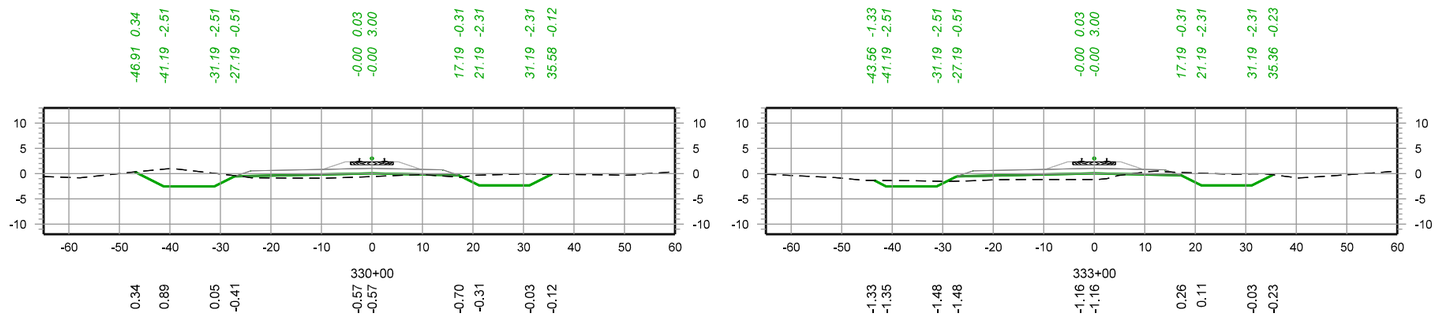
FIRM No: LA - EF. 0003109

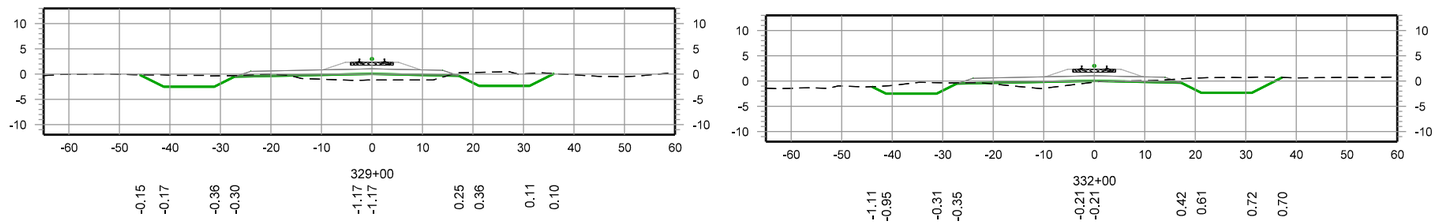
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 122 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 323+00 - 328+00







– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY –
FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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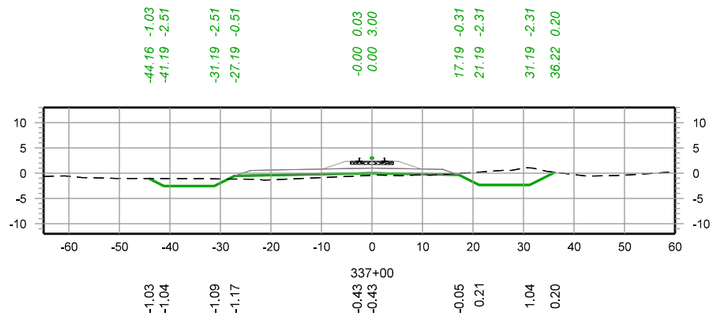
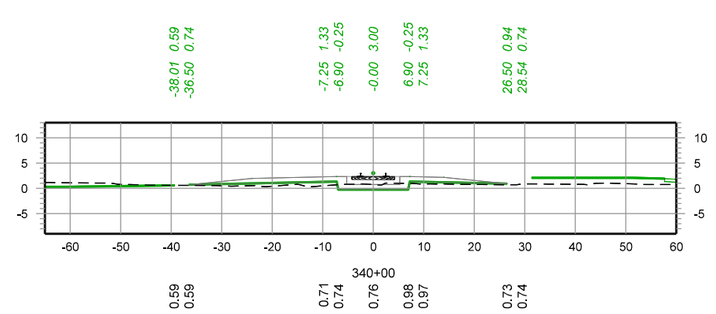
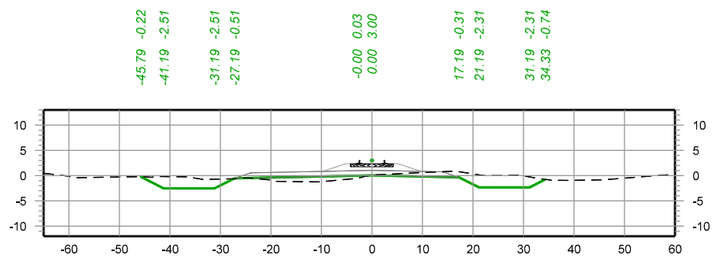
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

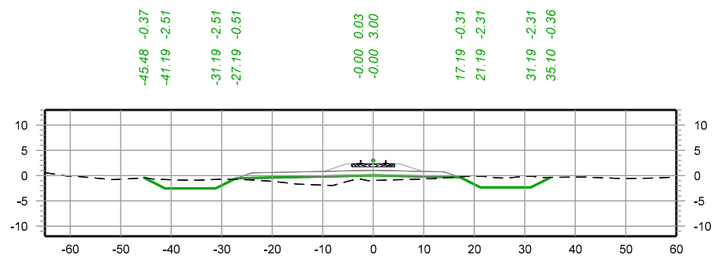
360 RAIL SERVICES
FIRM No: LA - EF.0007741

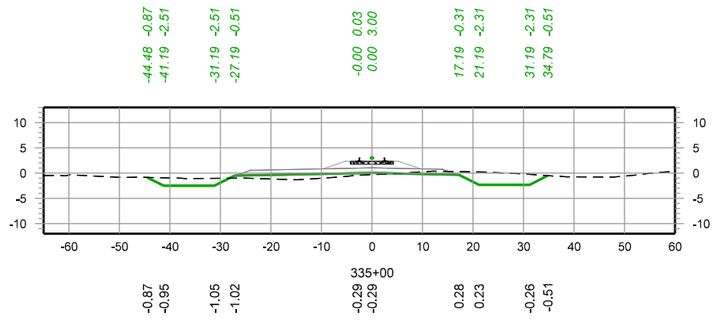
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 123 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 329+00 - 334+00

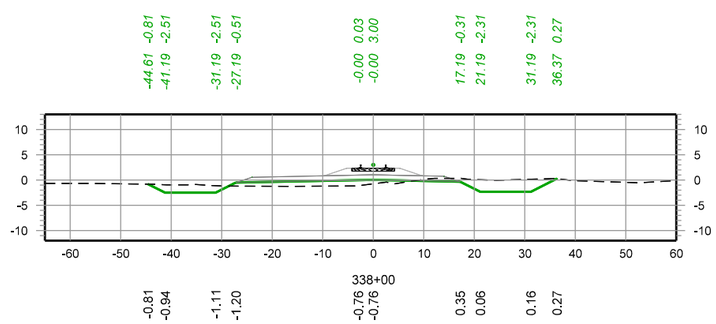












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NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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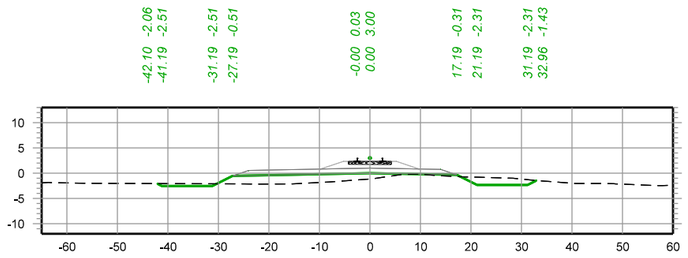
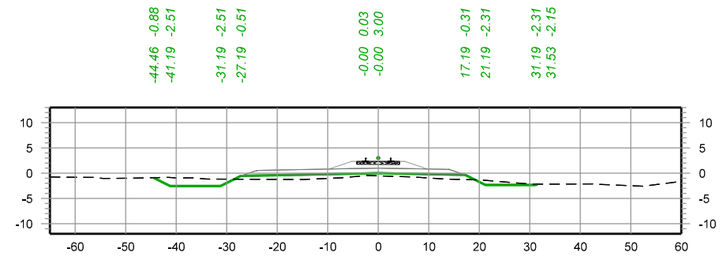
FIRM No: LA - EF. 0003109

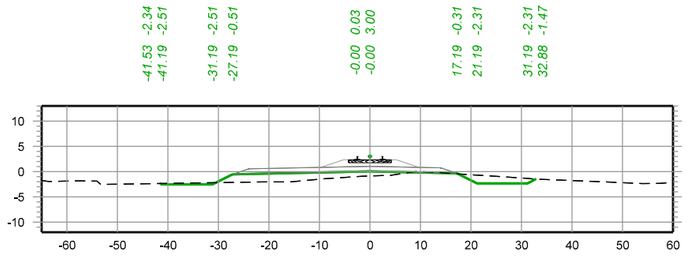
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

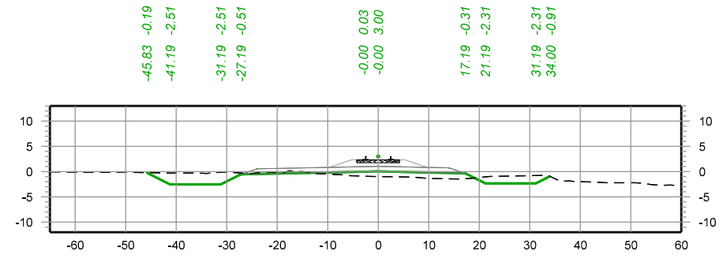
360 RAIL SERVICES
FIRM No: LA - EF.0007741

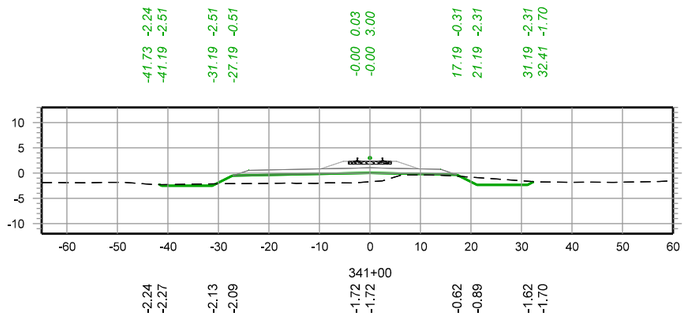
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 124 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 335+00 - 340+00

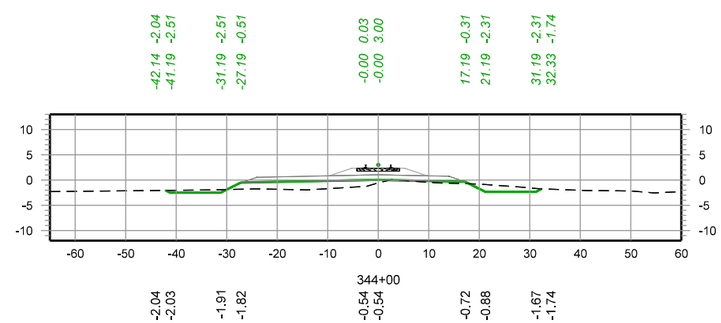












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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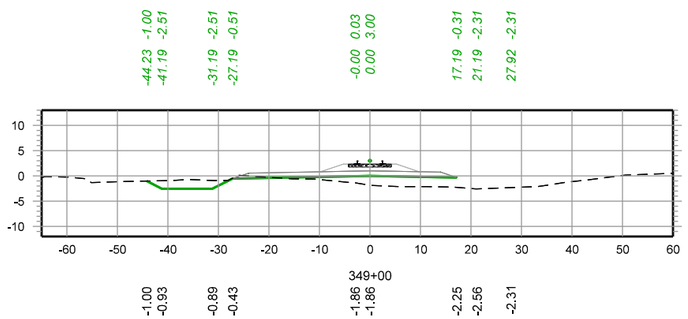
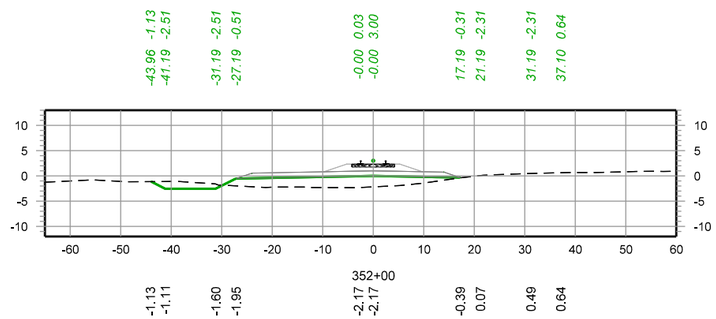
FIRM No: LA - EF. 0003109

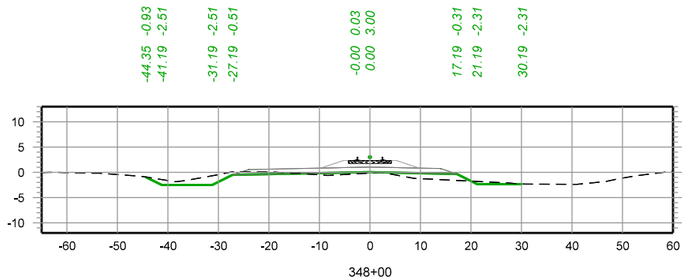
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

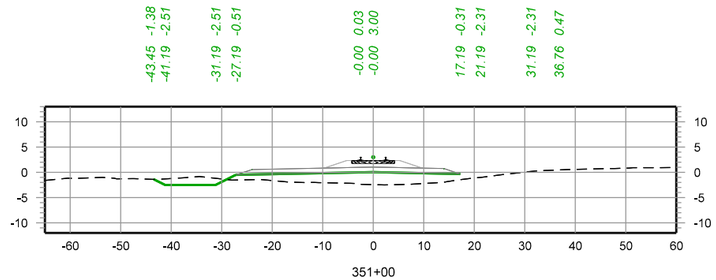
360 RAIL SERVICES
FIRM No: LA - EF.0007741

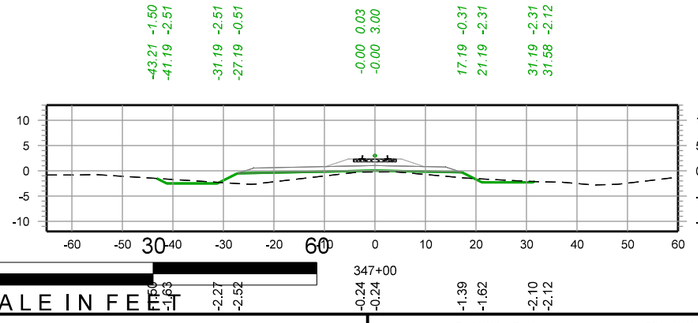
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 125 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 341+00 - 346+00

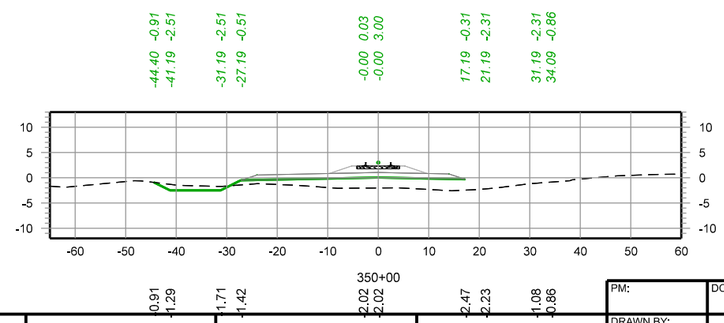












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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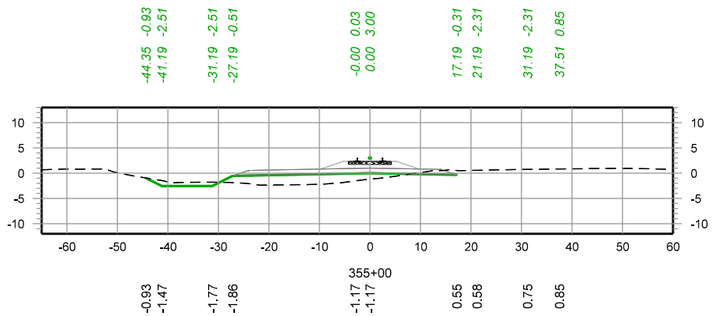
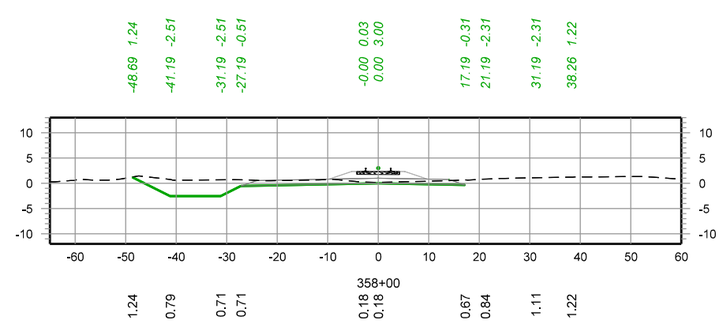
Metairie, LA www.infinityec.com 504-304-0546
FIRM No: LA - EF. 0003109

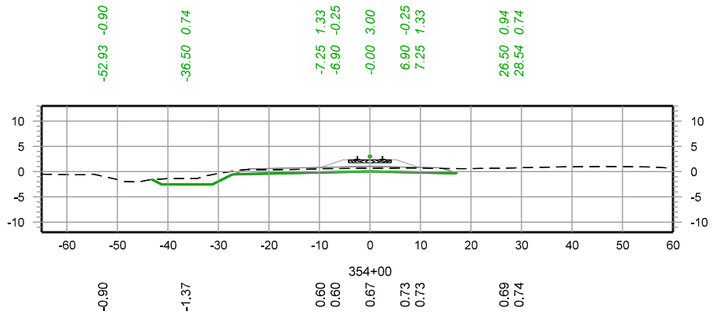
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

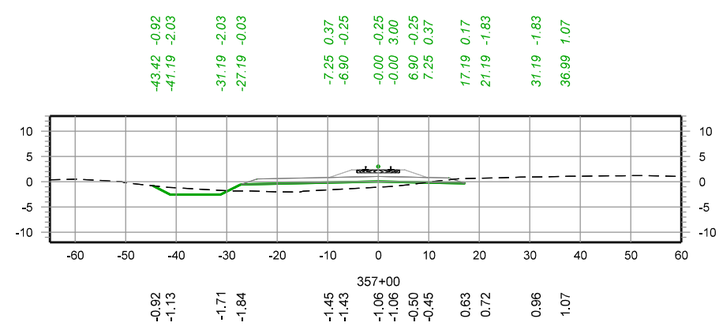
360 RAIL SERVICES
FIRM No: LA - EF.0007741

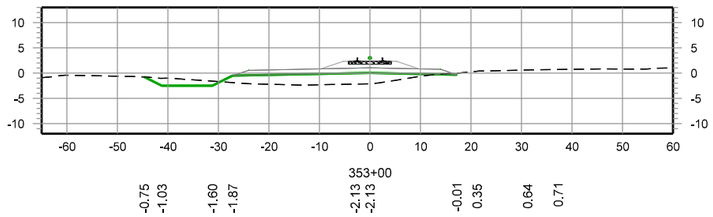
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 126 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 347+00 - 352+00

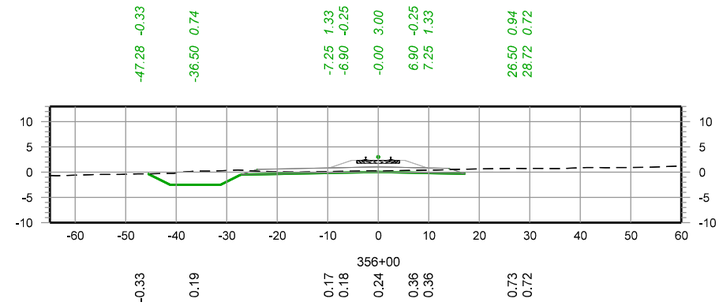












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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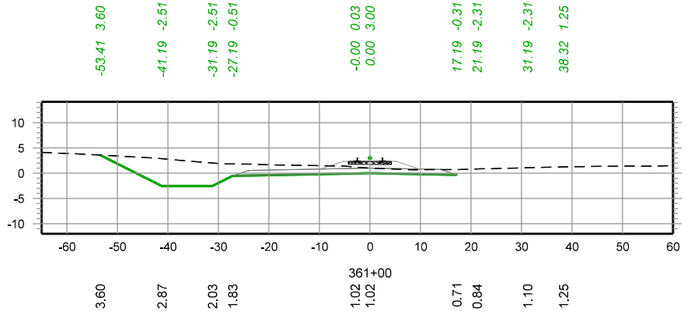
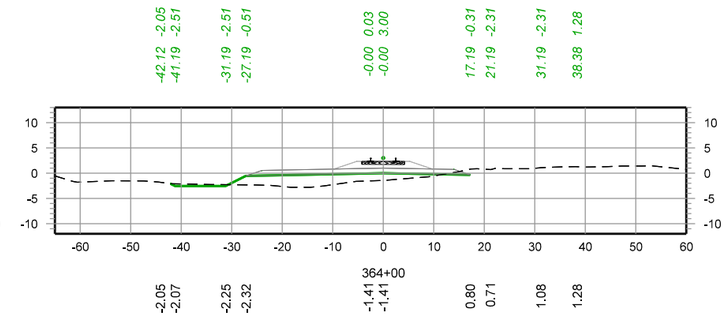
FIRM No: LA - EF. 0003109

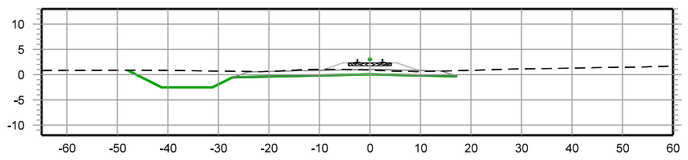
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

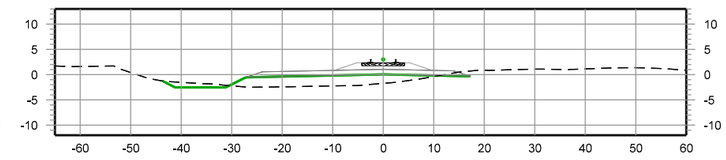
360 RAIL SERVICES
FIRM No: LA • EF.0007141

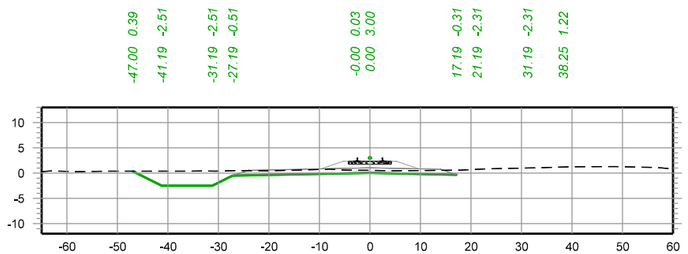
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 127 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 353+00 - 358+00

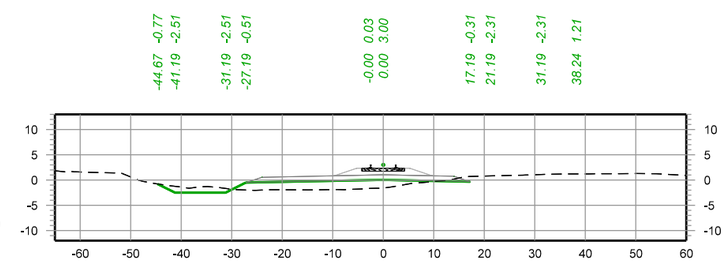












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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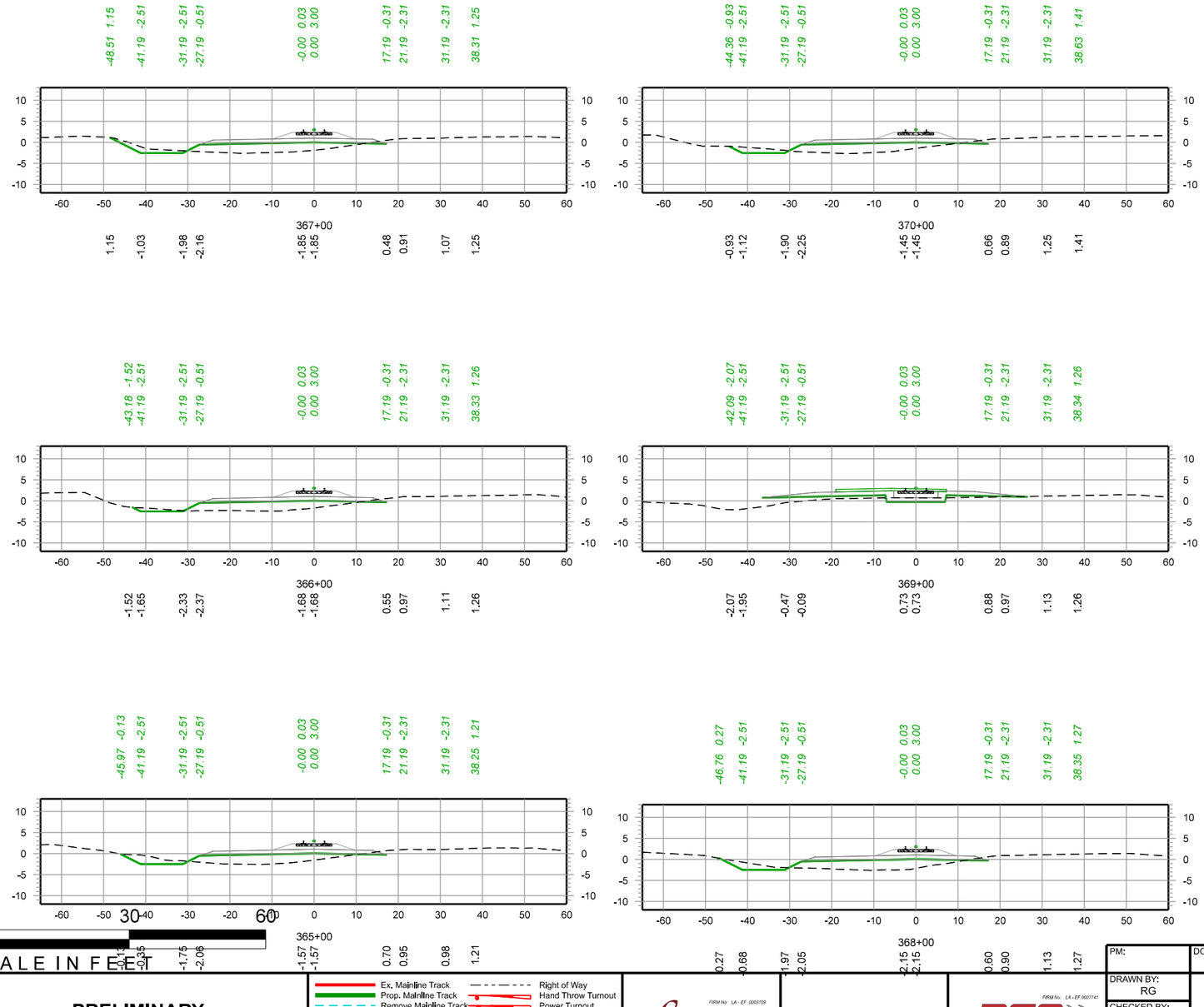
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 128 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 359+00 - 364+00



– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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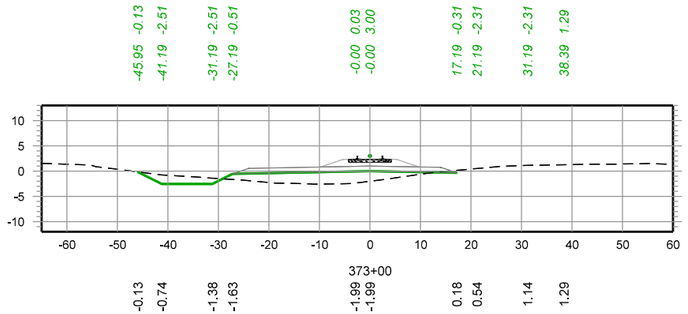
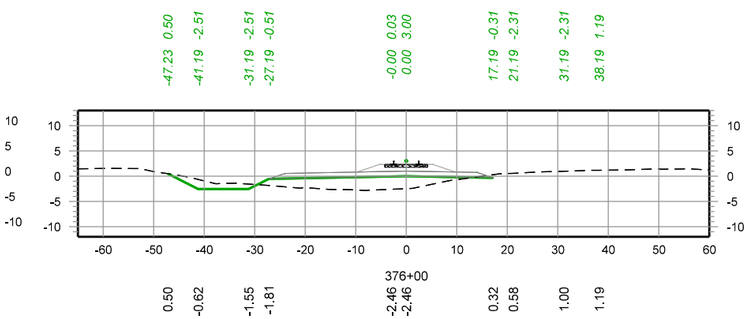
FIRM No: LA - EF. 0003109

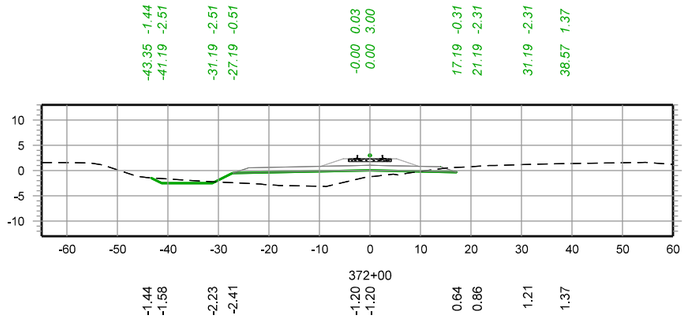
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

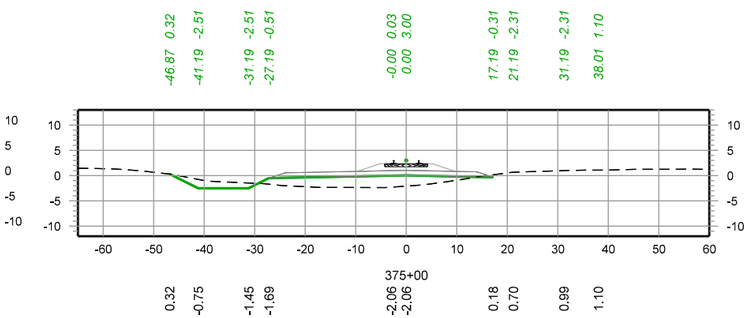
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

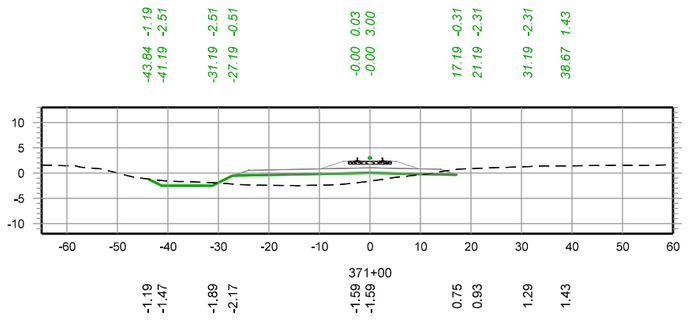
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 129 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 365+00 - 370+00

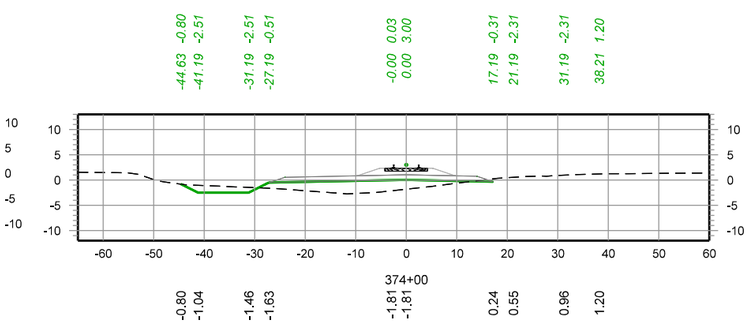












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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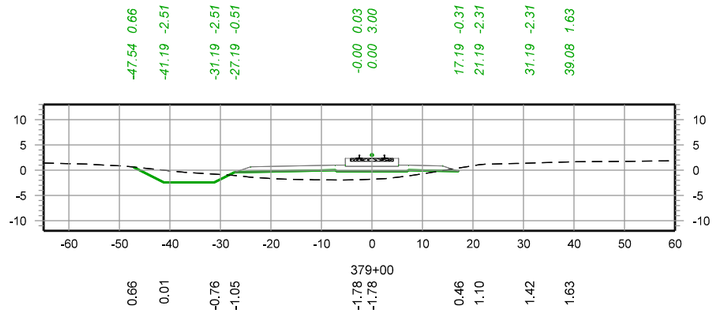
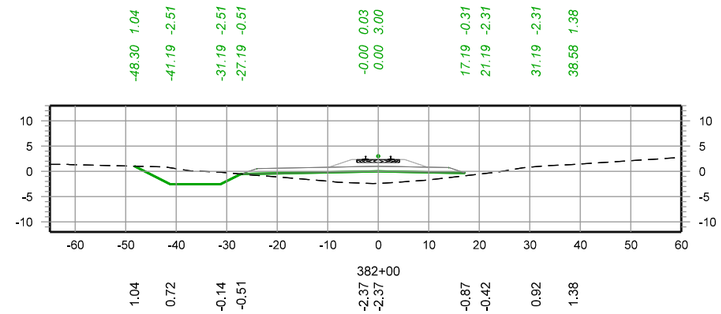
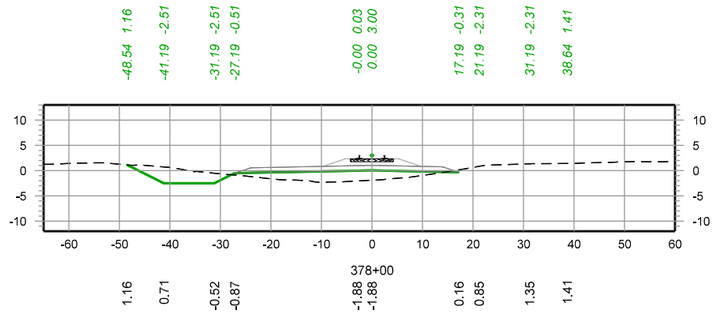
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

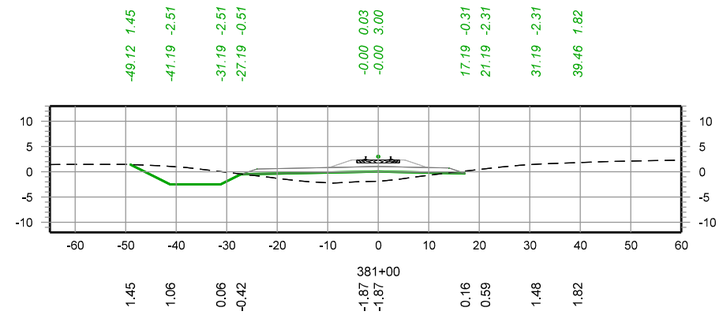
360 RAIL SERVICES
FIRM No: LA - EF.0007741

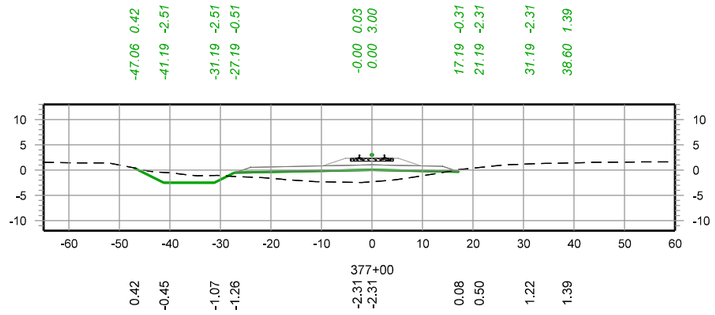
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 130 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 371+00 - 376+00

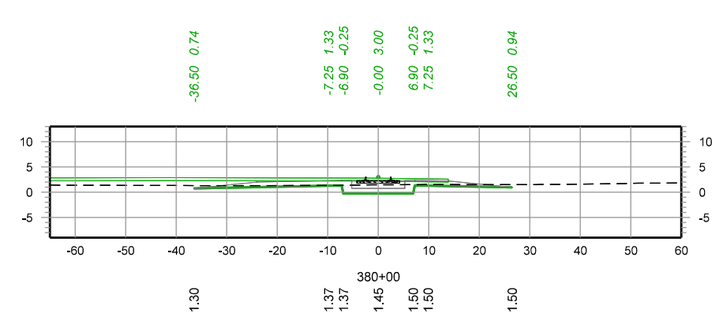












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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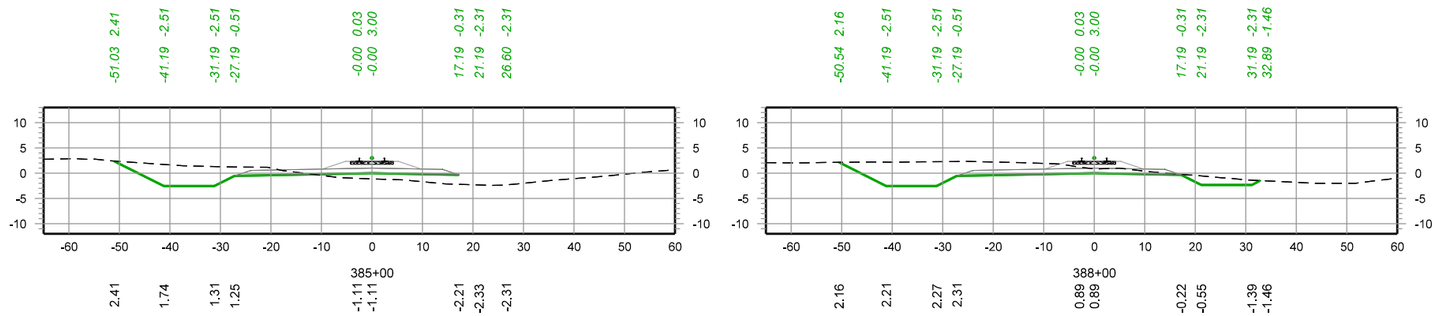
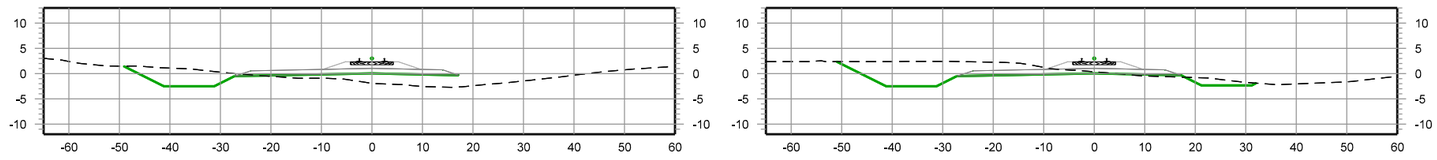
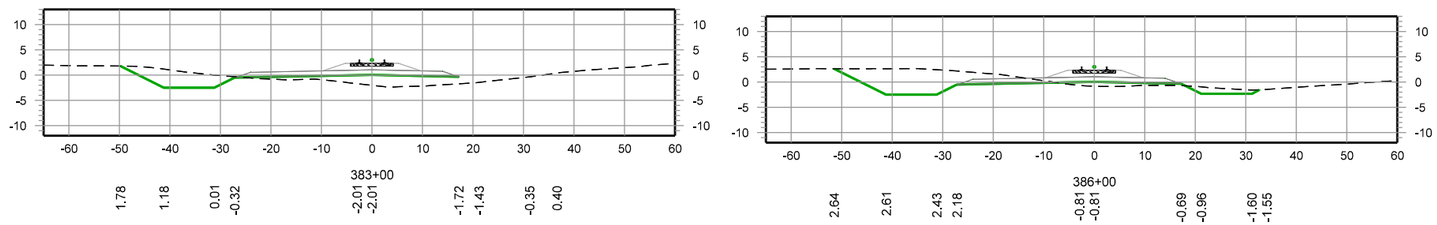
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA • EF.0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 131 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 377+00 - 382+00







– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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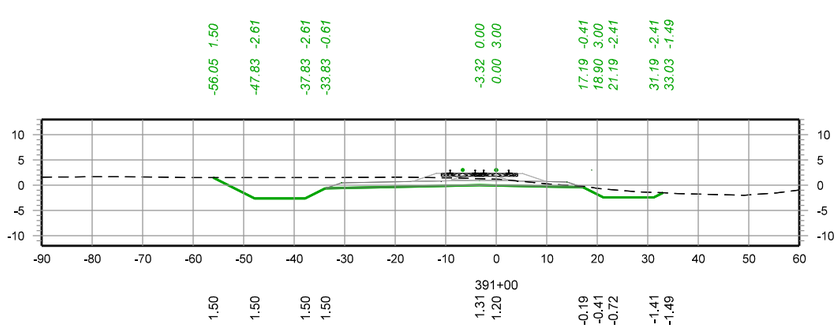
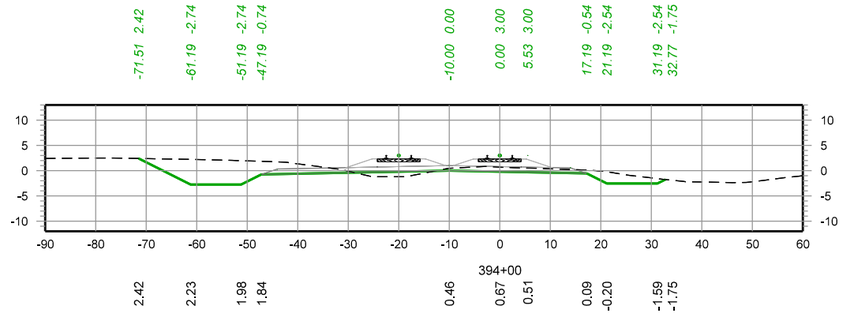
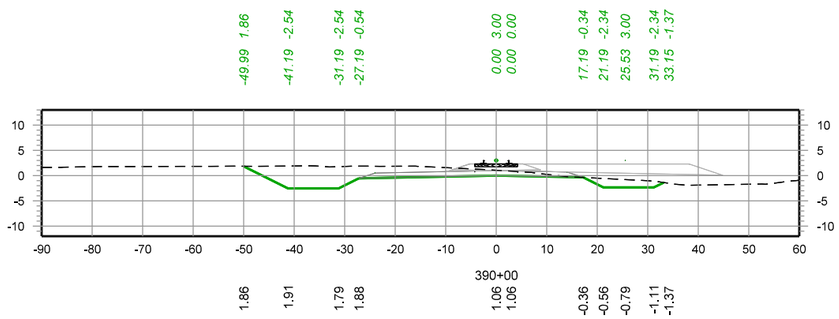
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

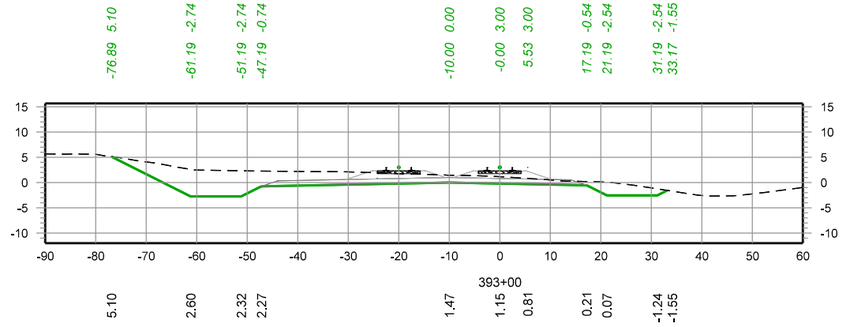
360 RAIL SERVICES
FIRM No: LA - EF.0007741

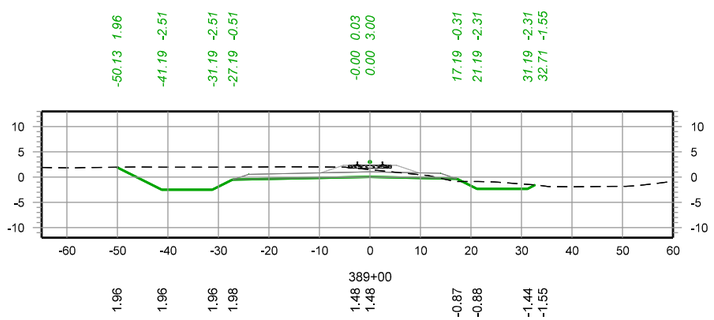
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 132 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 383+00 - 388+00

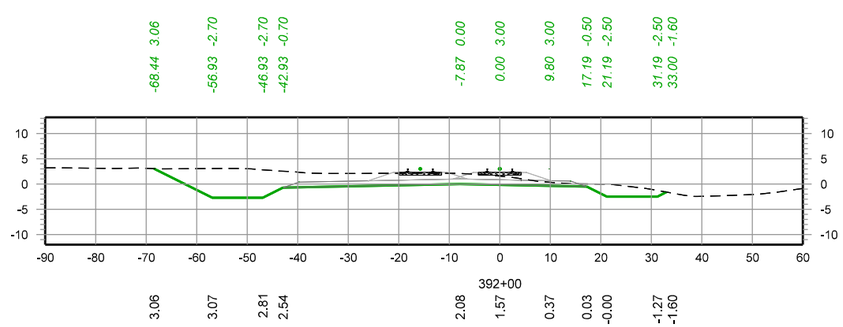












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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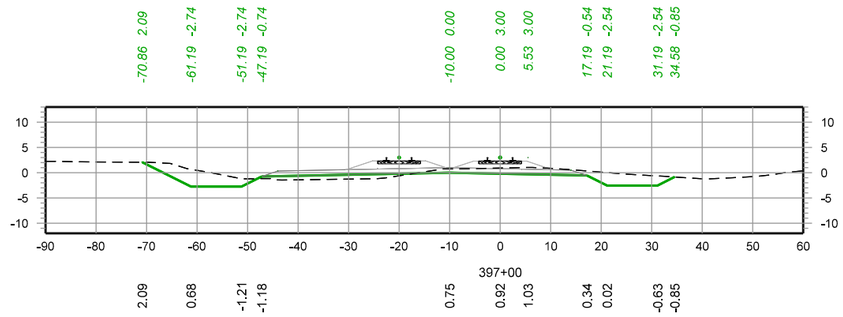
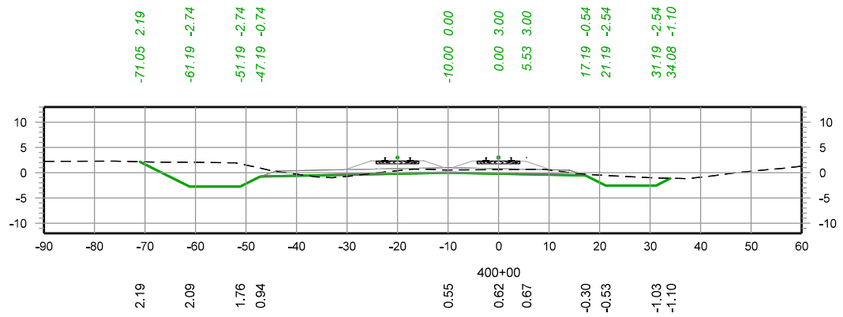
FIRM No: LA - EF. 0003109

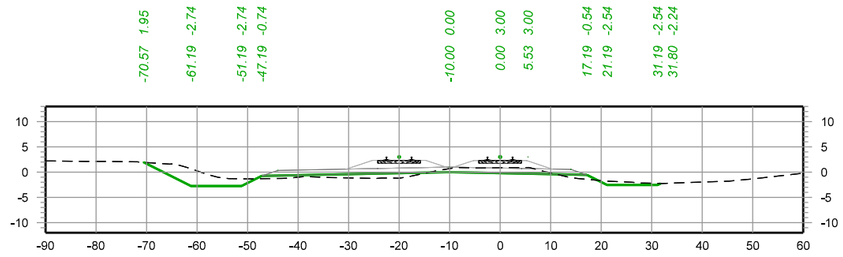
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

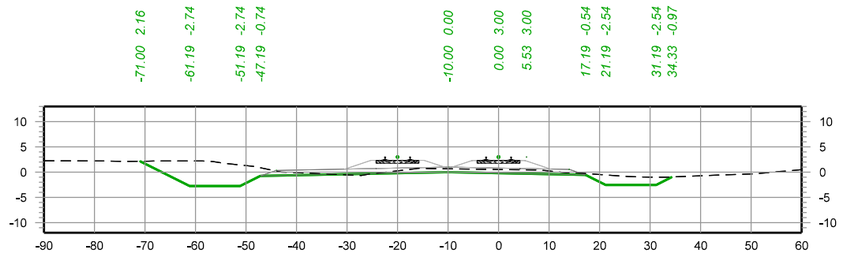
360 RAIL SERVICES
FIRM No: LA - EF.0007741

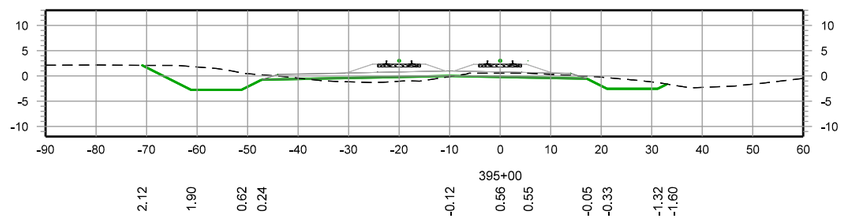
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 133 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 389+00 - 394+00

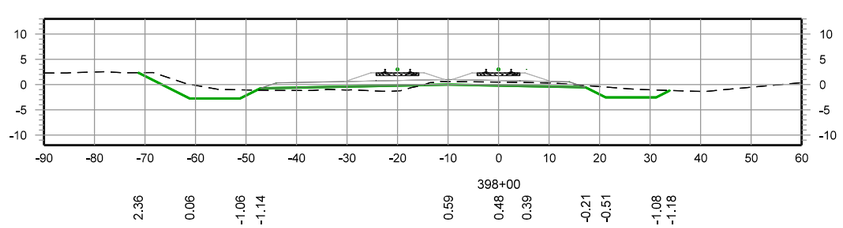












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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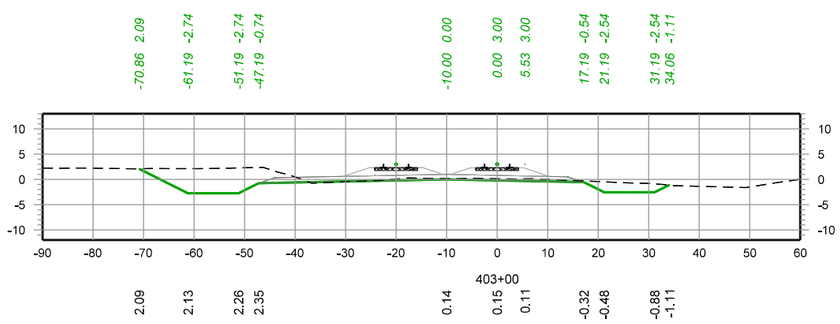
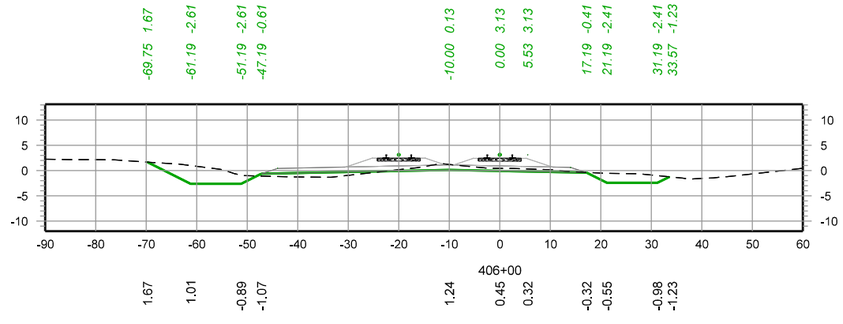
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

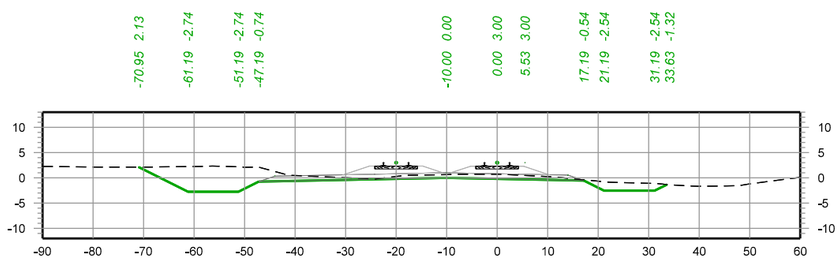
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

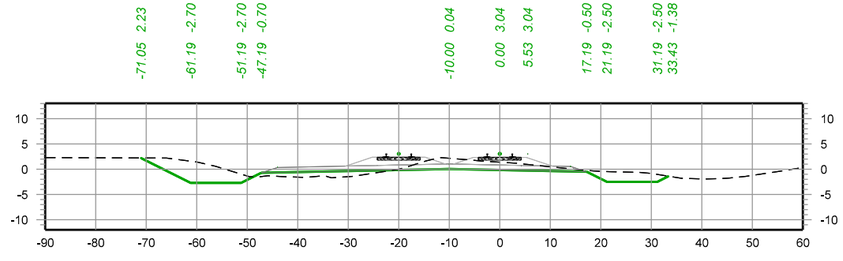
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

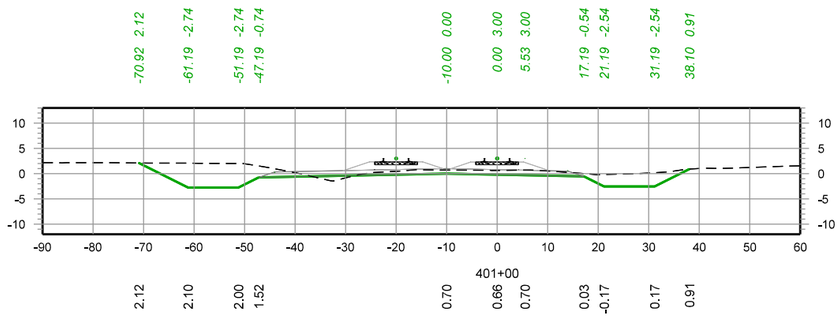
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 134 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 395+00.00 - 400+00.00

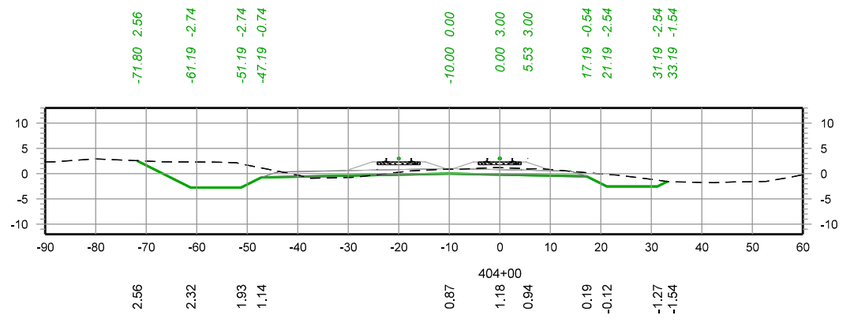












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

Infinity Engineering Consultants, LLC
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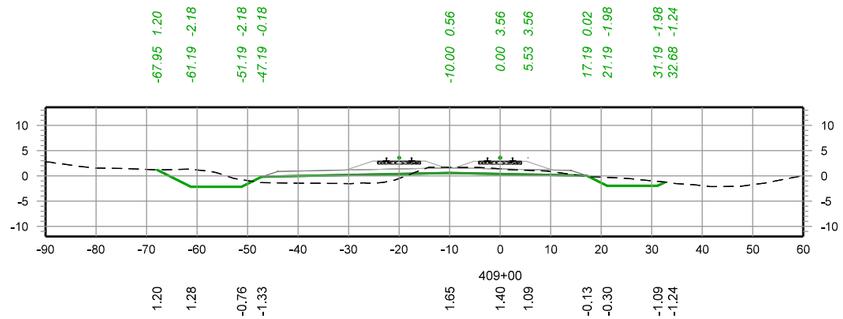
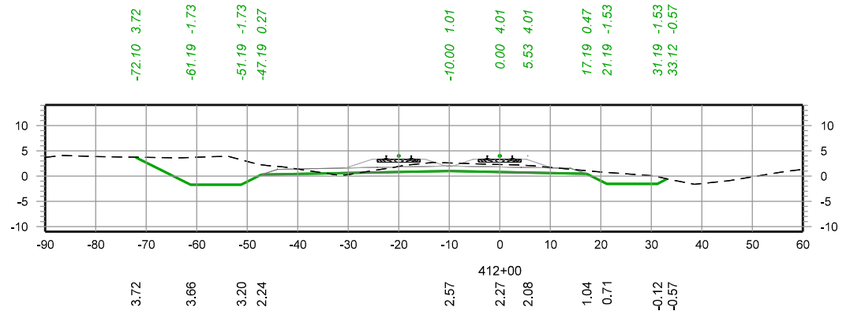
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

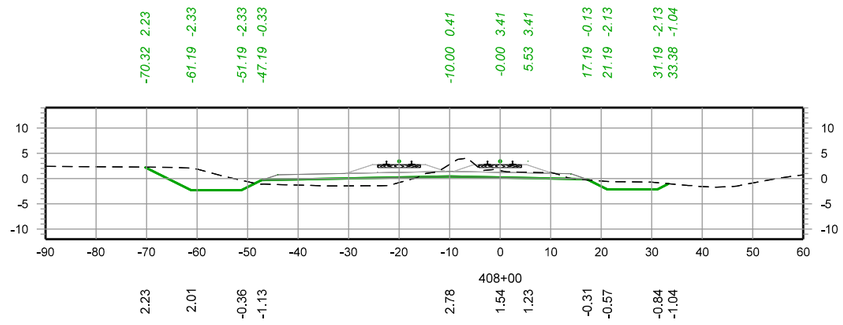
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

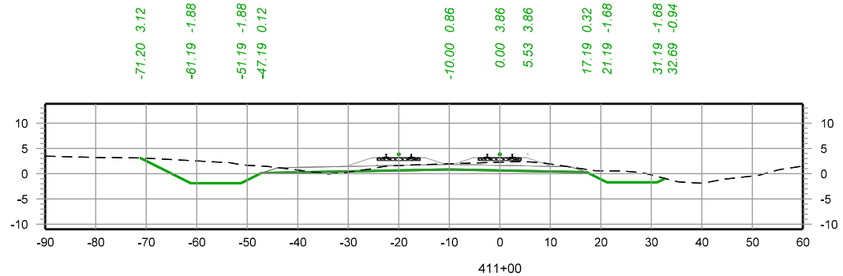
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

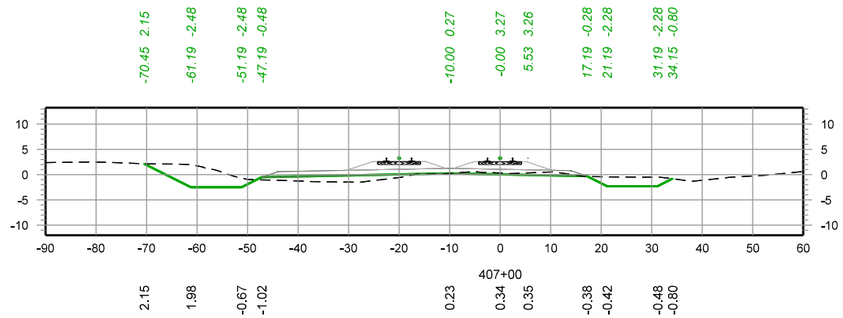
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 135 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 401+00.00 - 406+00.00

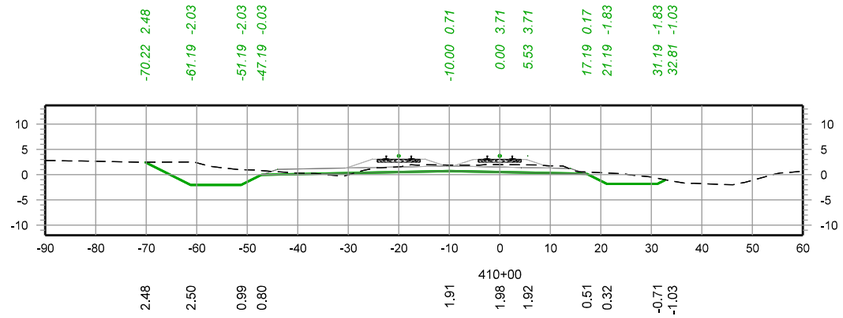












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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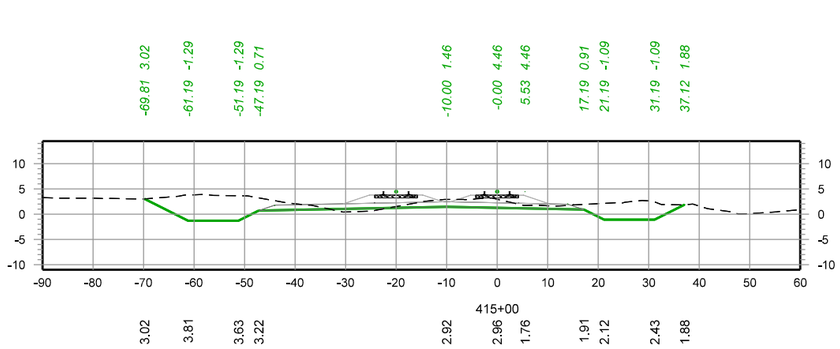
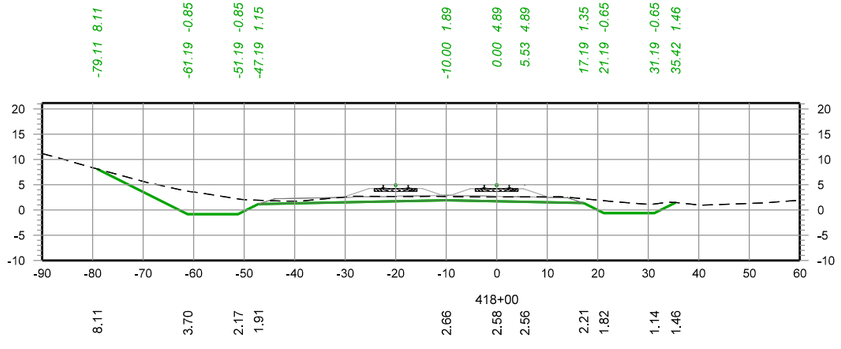
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

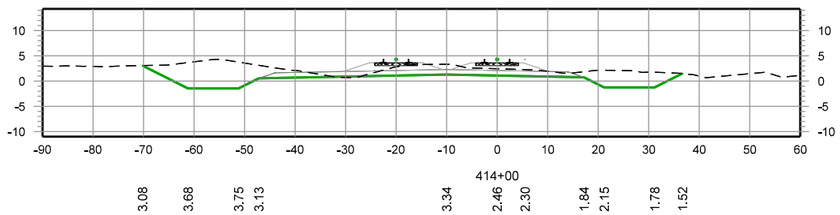
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

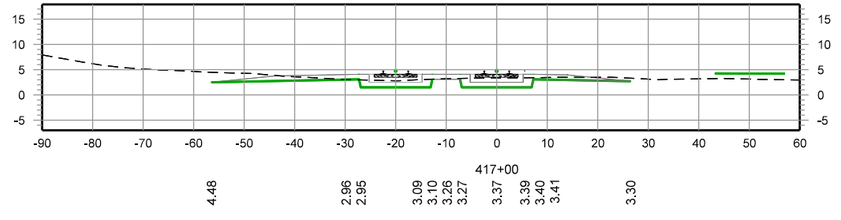
360 RAIL SERVICES
FIRM No: LA - EF.0007741

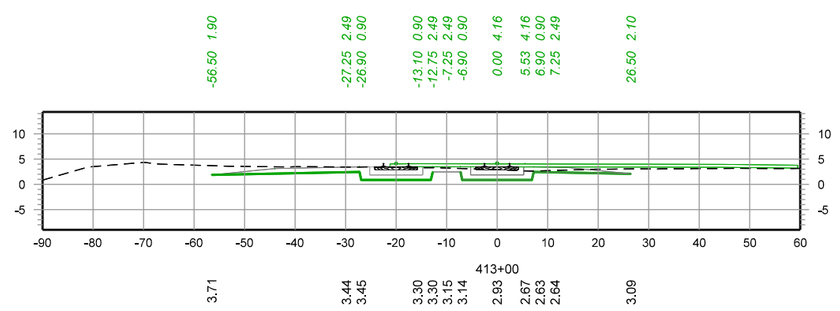
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 136 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 407+00.00 - 412+00.00

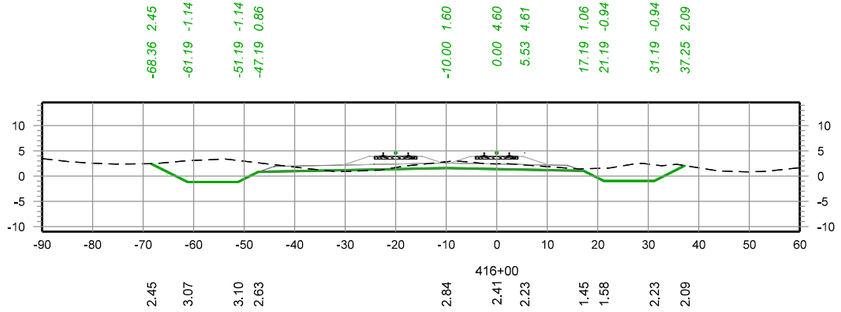












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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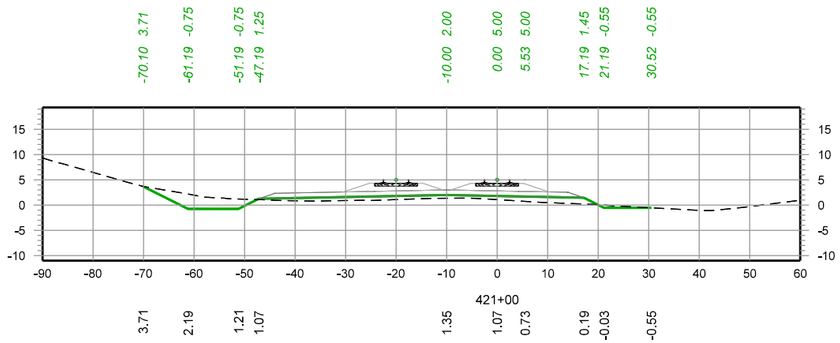
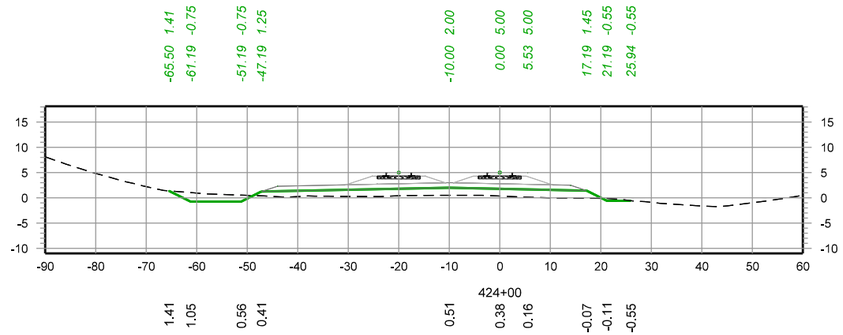
FIRM No: LA - EF. 0003709

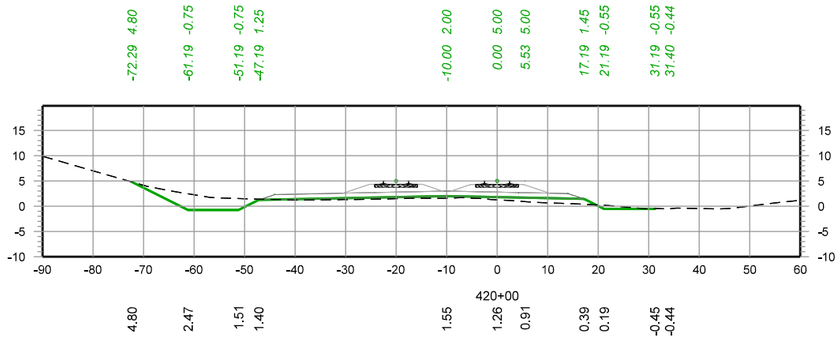
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

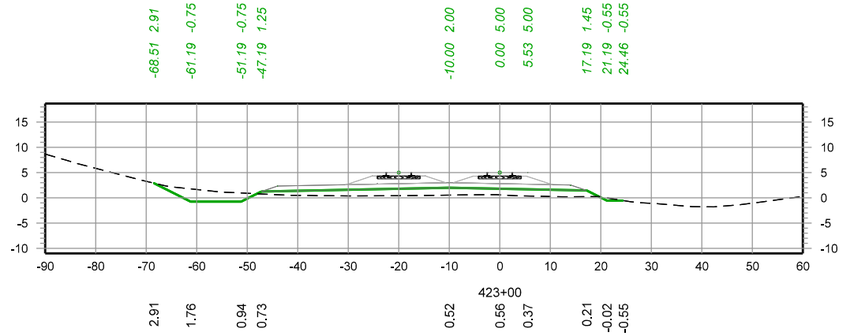
360 RAIL SERVICES
FIRM No: LA - EF.0007741

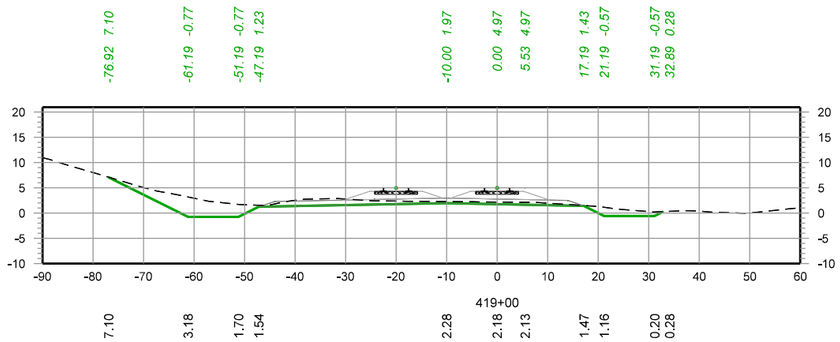
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 137 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 413+00.00 - 418+00.00

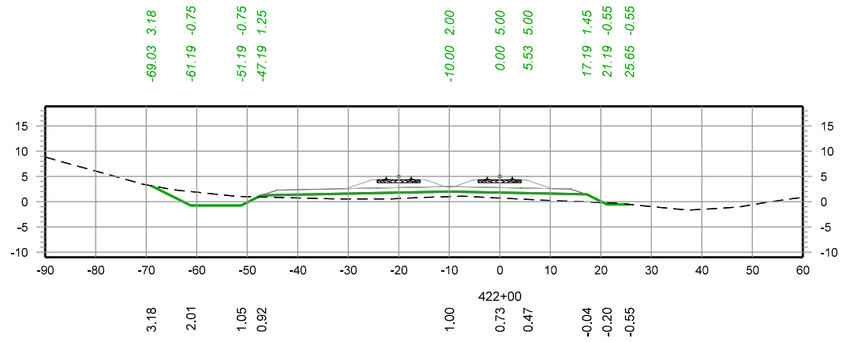












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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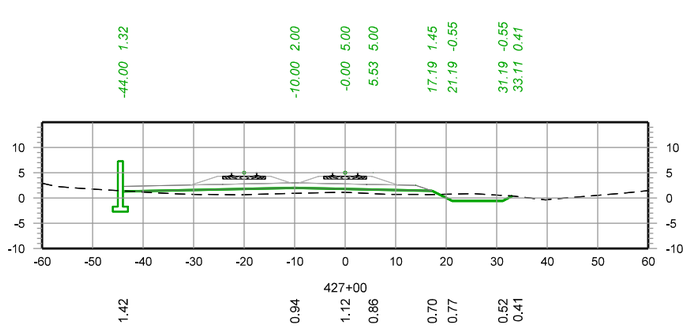
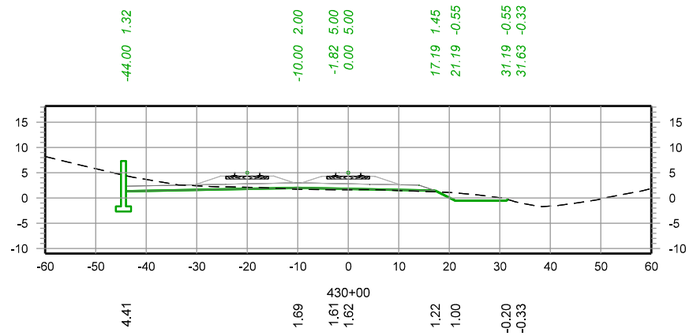
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

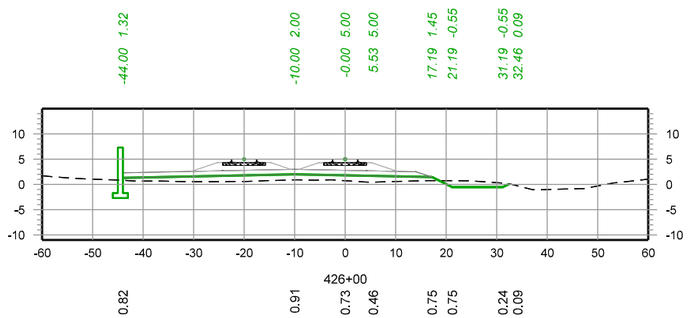
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

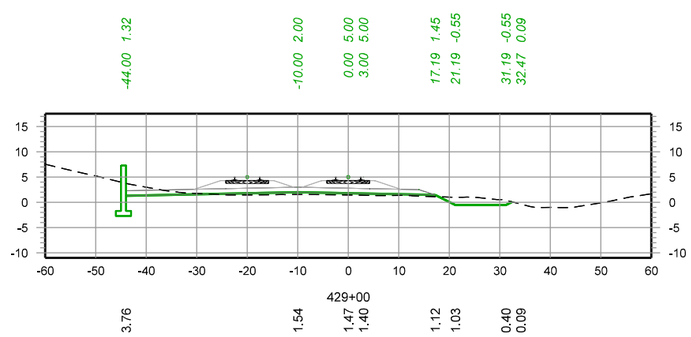
360 RAIL SERVICES
FIRM No: LA - EF.0007741

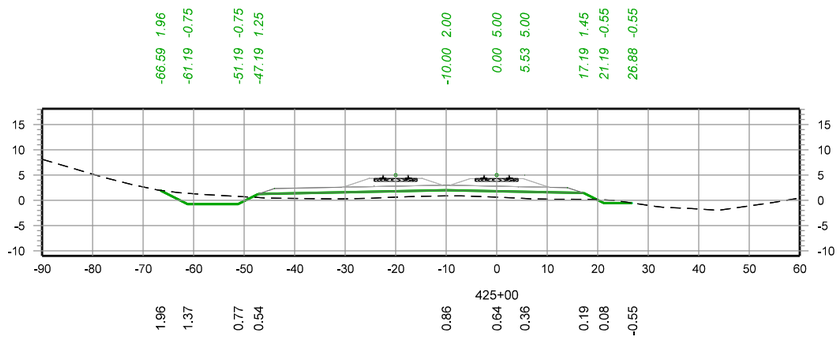
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 138 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 419+00.00 - 424+00.00

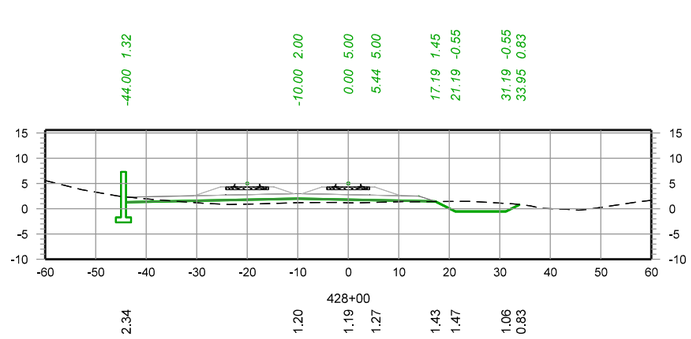












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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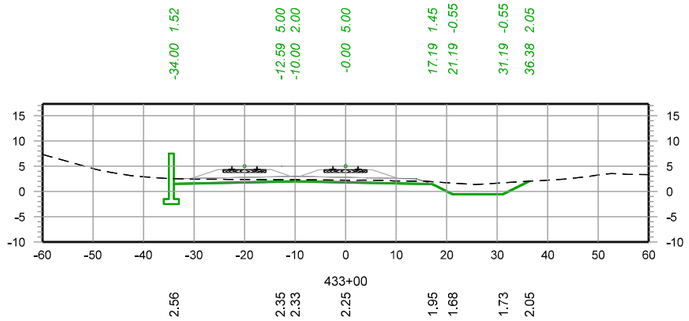
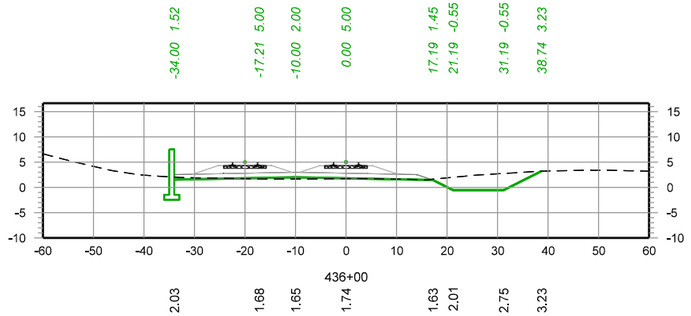
FIRM No: LA - EF. 0003109

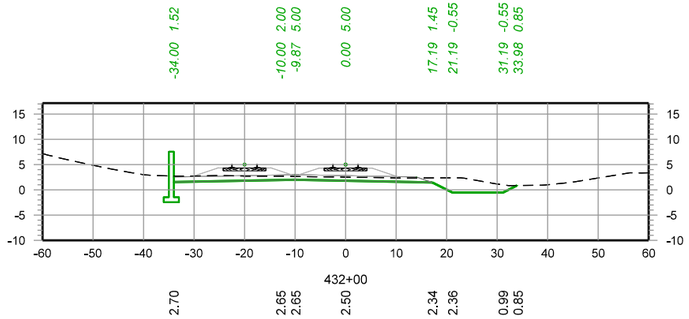
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

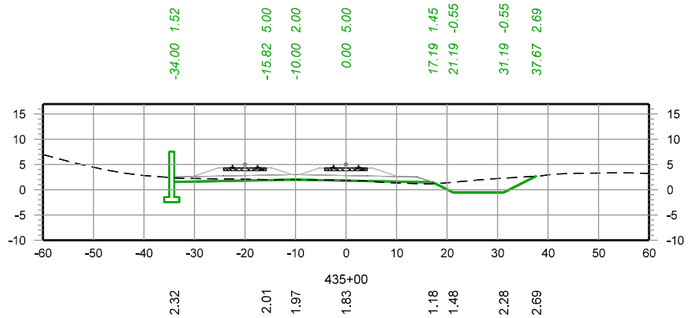
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

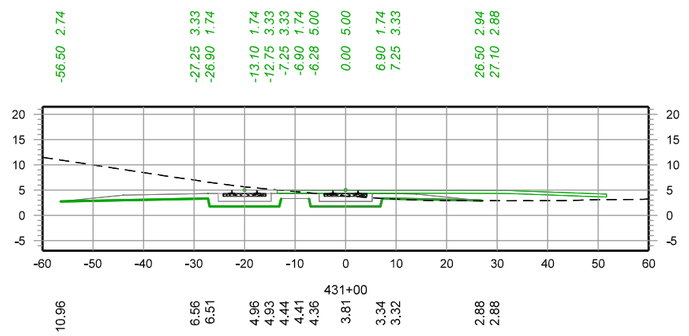
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 139 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 425+00.00 - 430+00.00

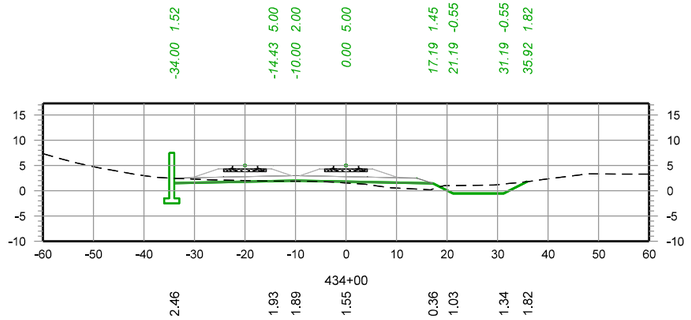












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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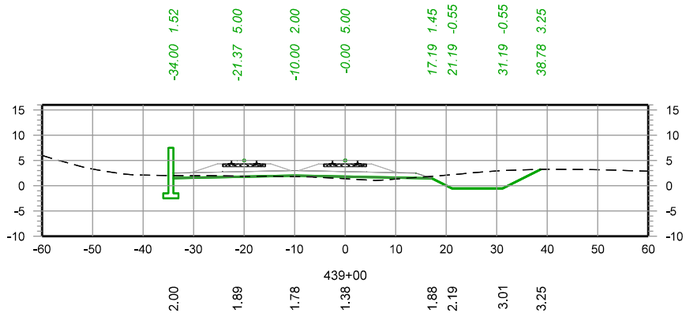
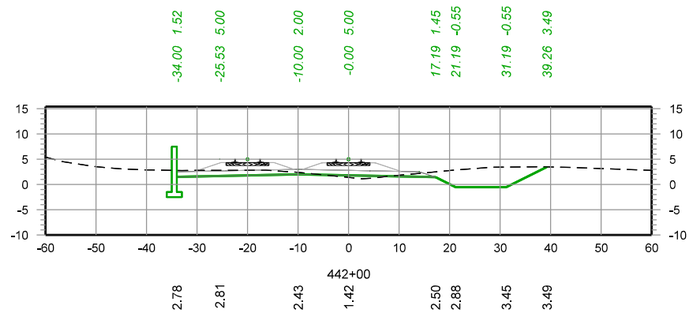
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

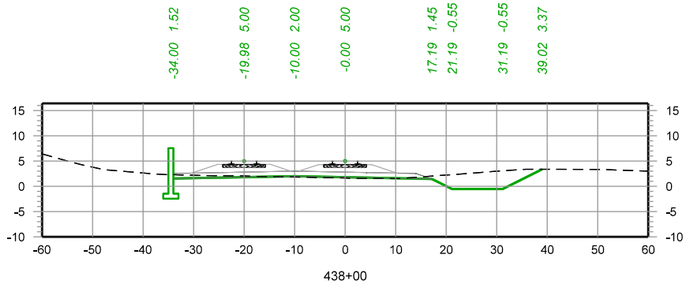
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

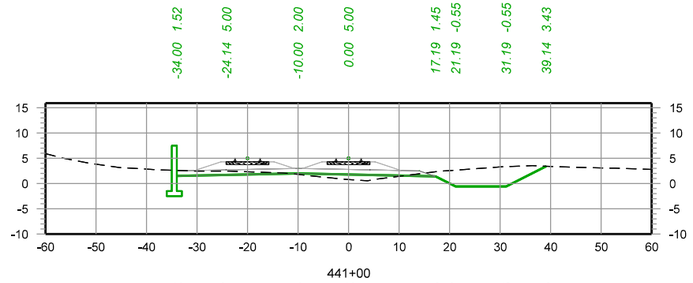
360 RAIL SERVICES
FIRM No: LA - EF.0007141

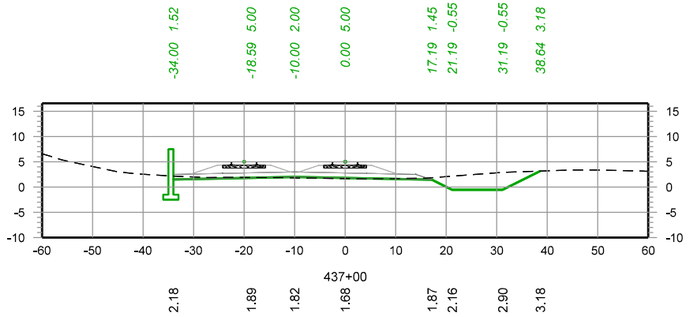
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 140 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 431+00.00 - 436+00.00

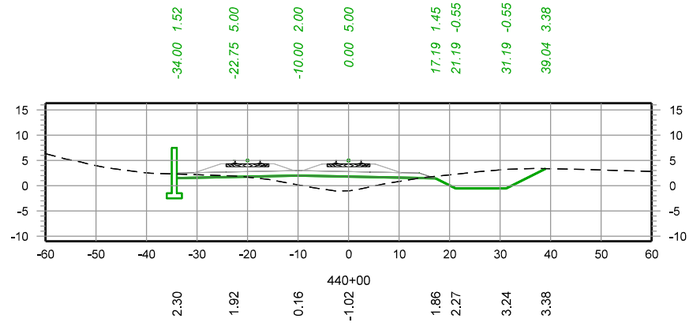












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY –
FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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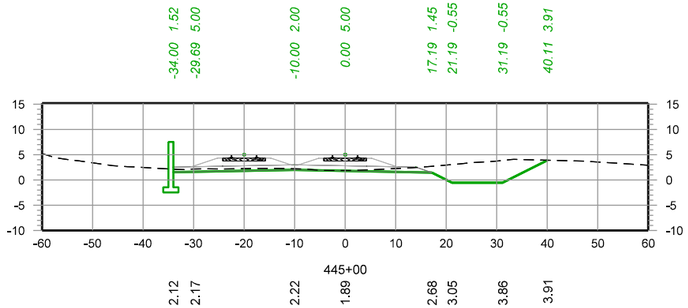
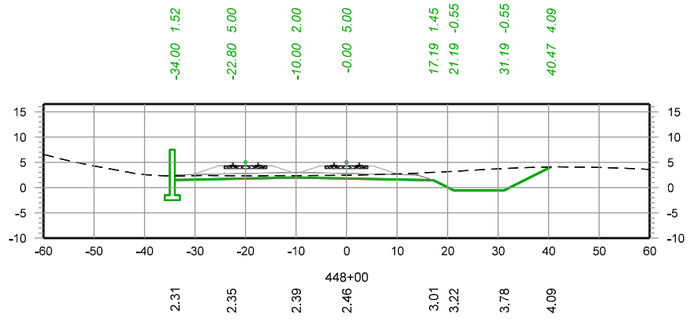
Infinity Engineering Consultants, LLC
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003709

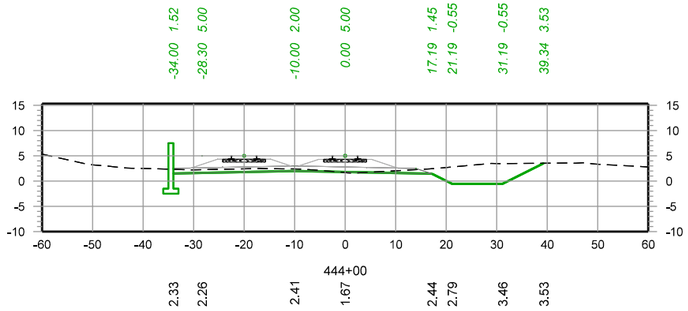
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

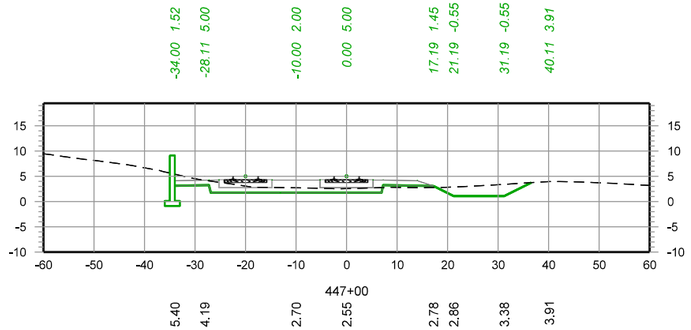
360 RAIL SERVICES
FIRM No: LA - EF.0007741

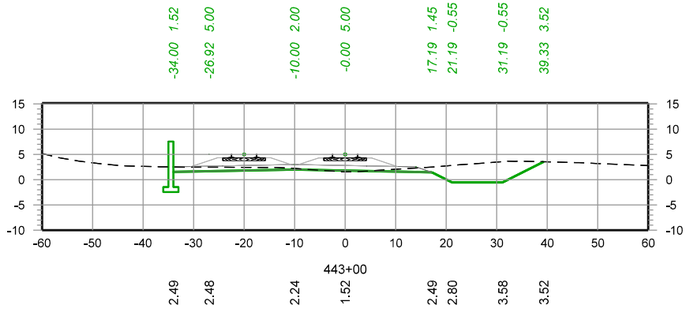
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 141 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 437+00.00 - 442+00.00

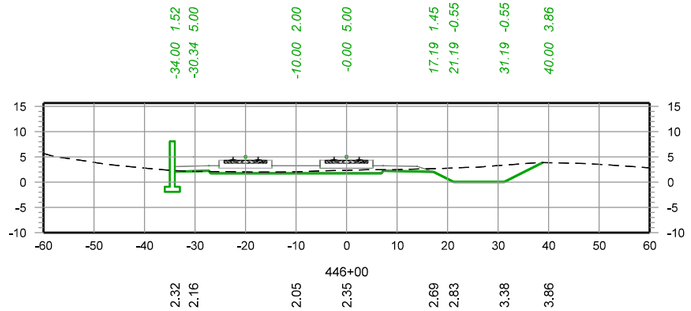












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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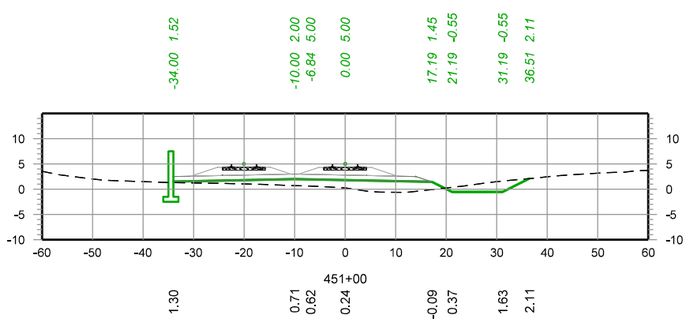
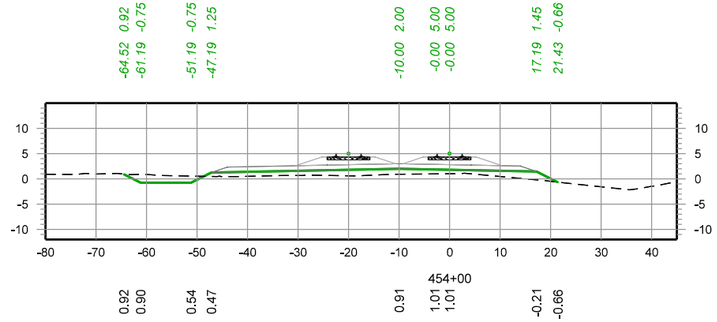
FIRM No: LA - EF. 0003109

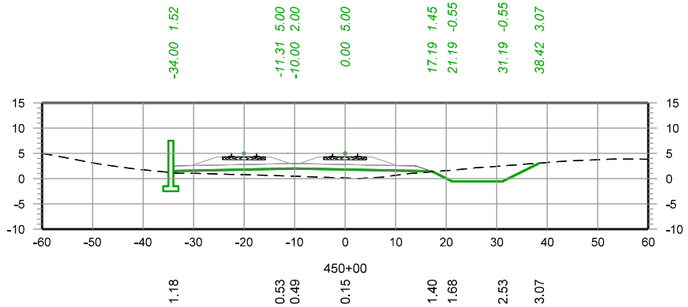
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

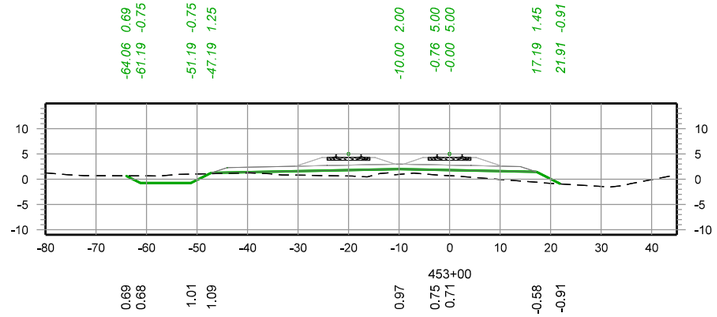
360 RAIL SERVICES
FIRM No: LA - EF. 0007141

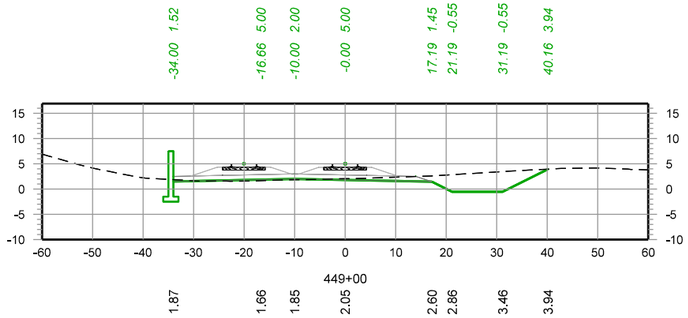
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 142 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 443+00.00 - 448+00.00

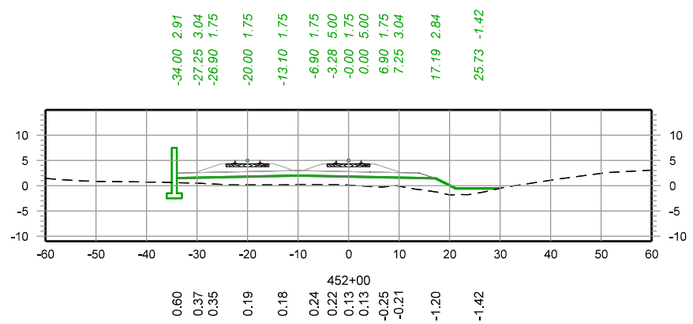












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NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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FIRM No: LA - EF. 0003709

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
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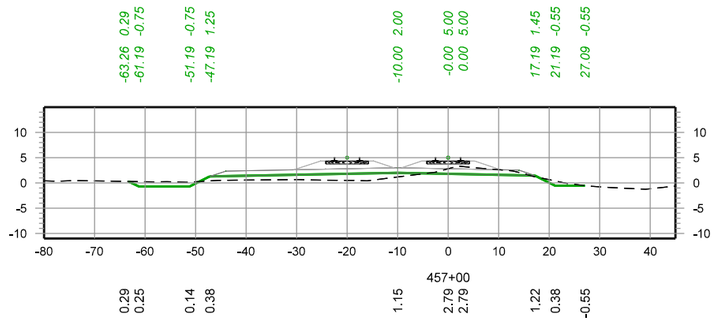
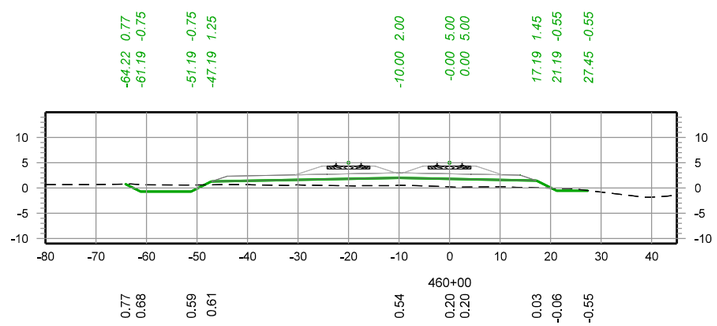
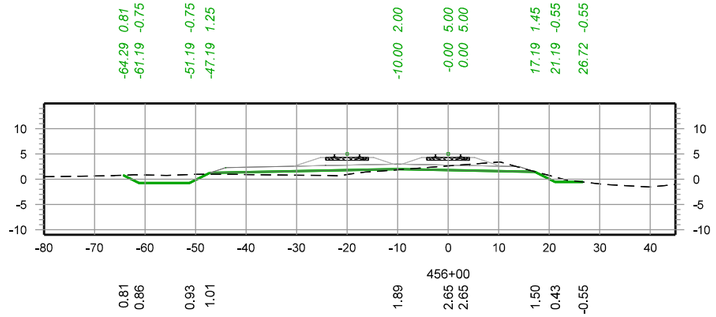
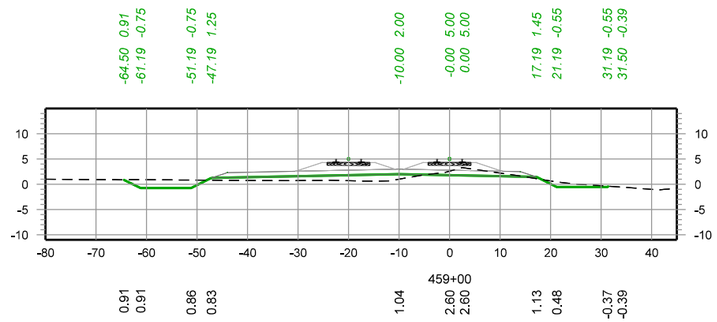
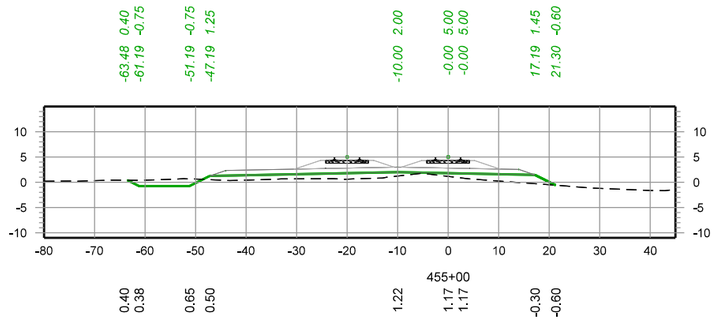
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 143 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 449+00.00 - 454+00.00

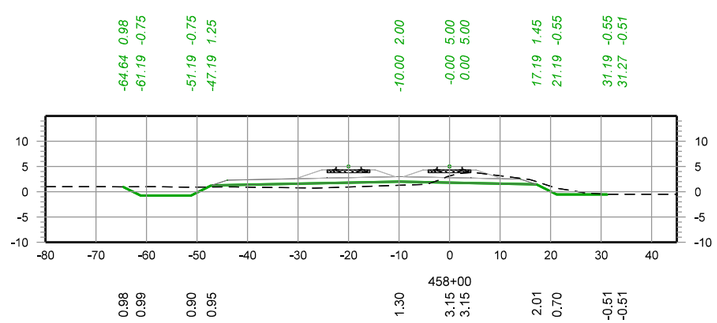












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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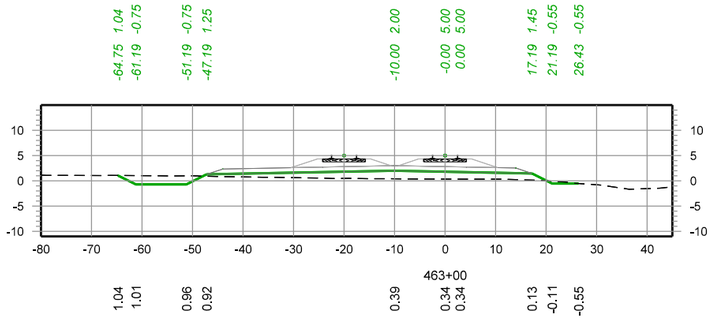
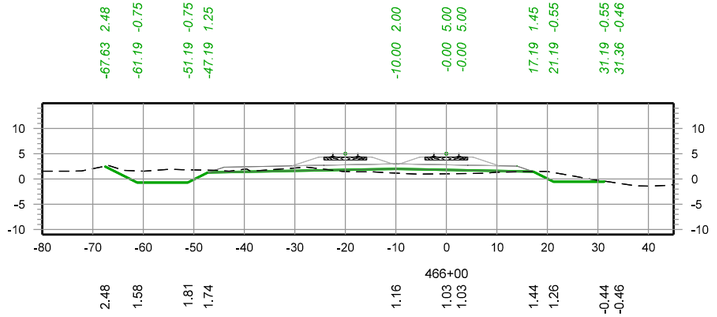
FIRM No: LA - EF. 0003109

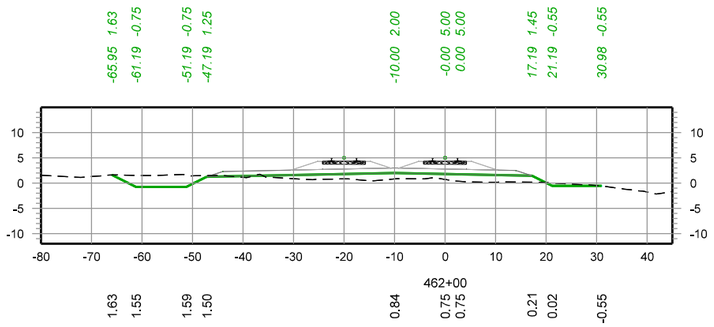
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

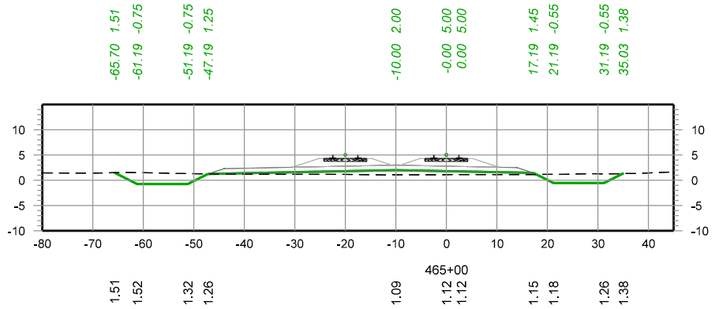
360 RAIL SERVICES
FIRM No: LA • EF.0007141

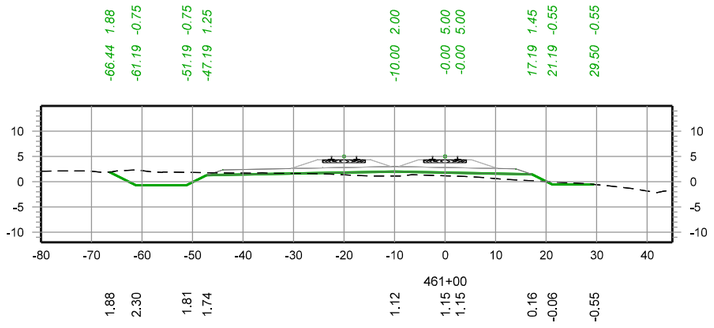
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 144 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 455+00.00 - 460+00.00

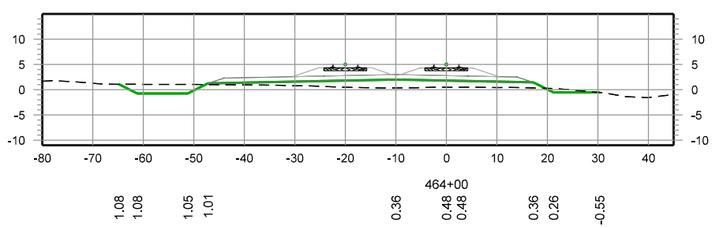












– PRELIMINARY –
NOT FOR CONSTRUCTION

30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

**PRELIMINARY –
FOR REVIEW ONLY**
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

THESE PLANS HAVE BEEN PREPARED UNDER THE SUPERVISION SUSHANT ADMUTHE, P.E. (Lic No. PE.0050989) IN THE OFFICE OF 360 RAIL SERVICES LLC.

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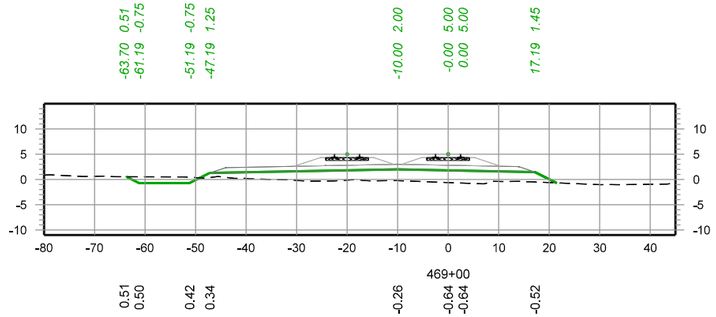
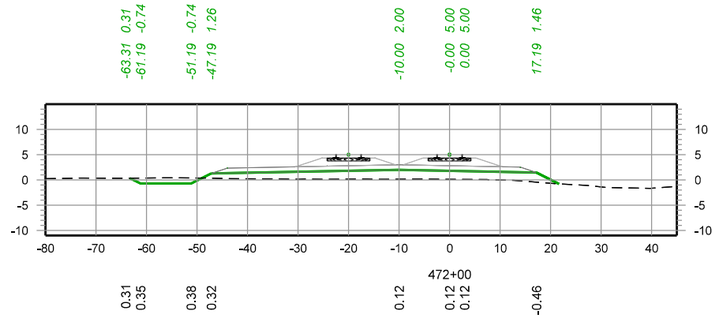
FIRM No: LA - EF. 0003709

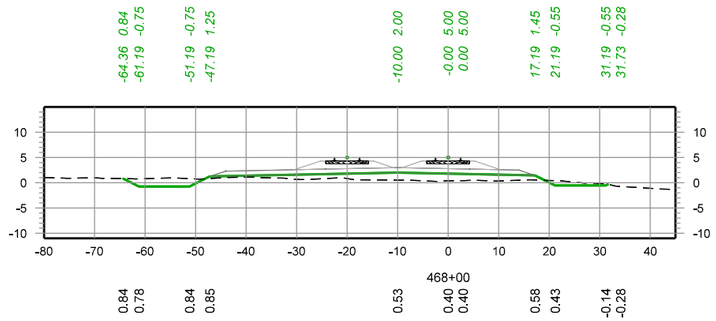
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

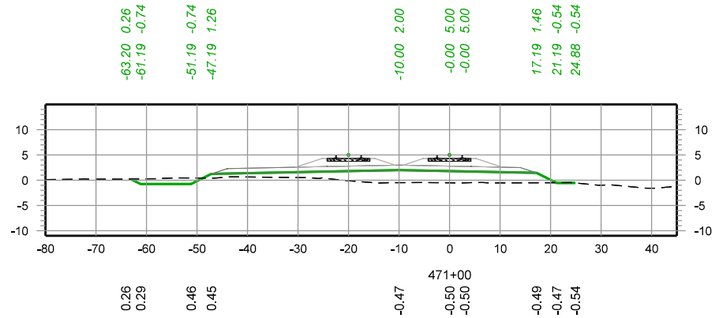
360 RAIL SERVICES
FIRM No: LA - EF.0007741

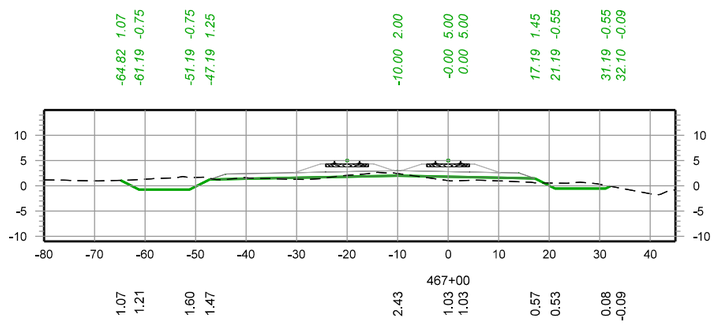
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 145 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 461+00.00 - 466+00.00

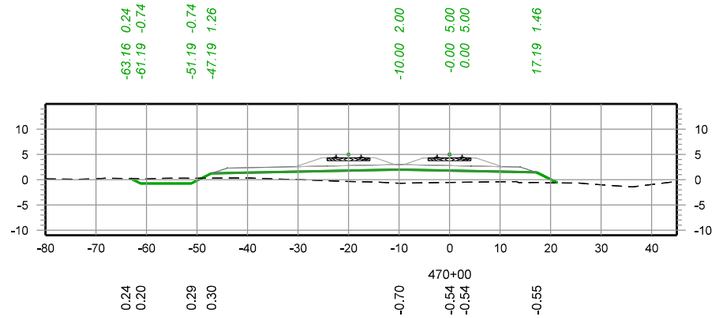












– PRELIMINARY –
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30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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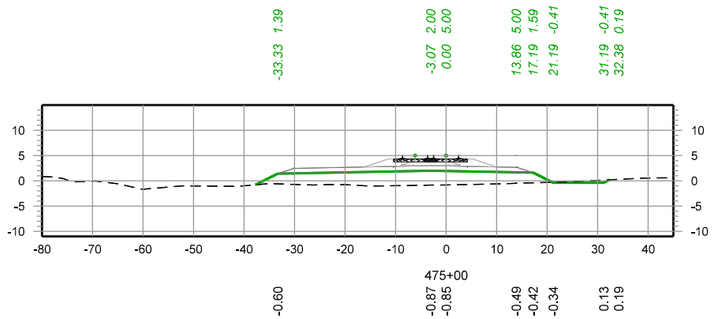
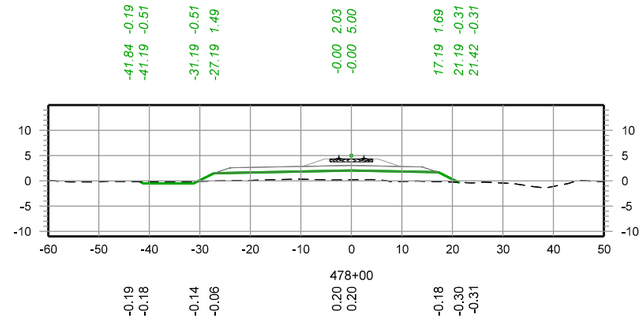
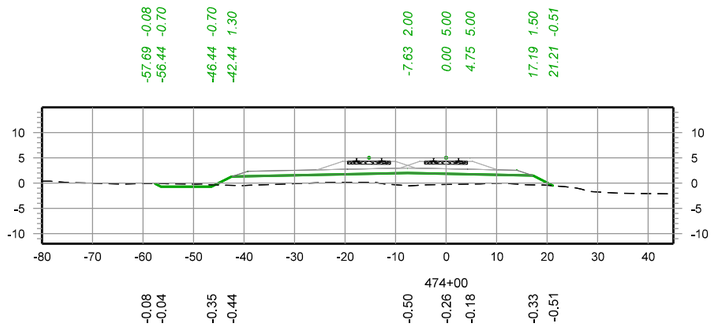
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

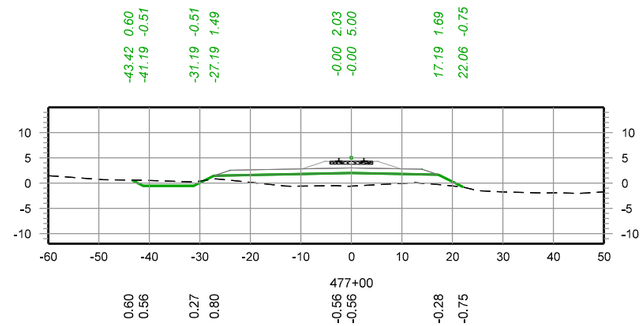
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

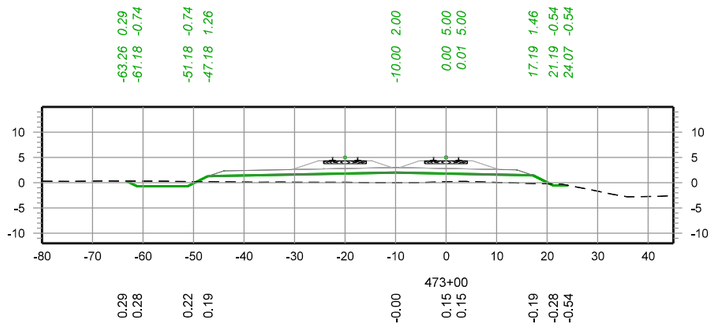
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 146 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 467+00.00 - 472+00.00

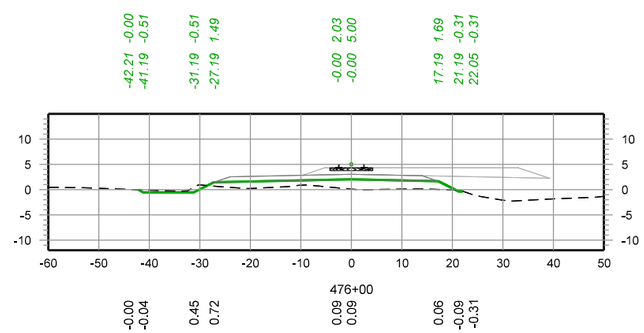












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30 0 30 60
SCALE IN FEET

REV. #	BY	DATE	DESCRIPTION

PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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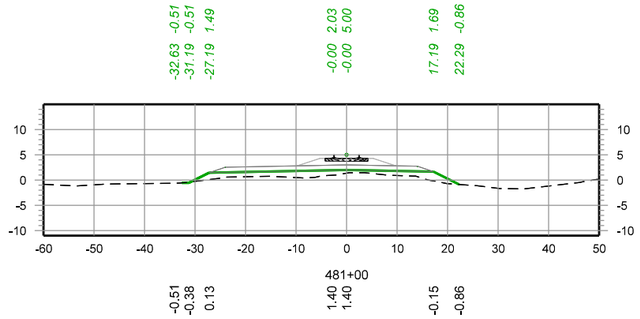
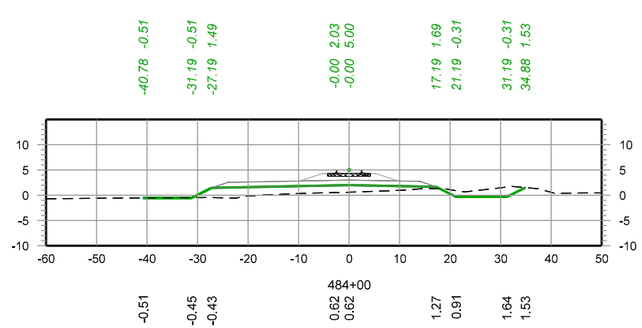
FIRM No: LA - EF. 0003709

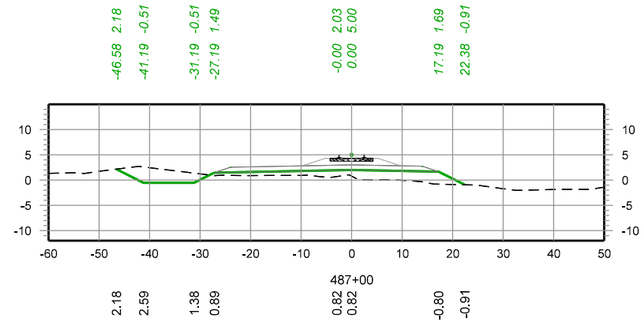
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

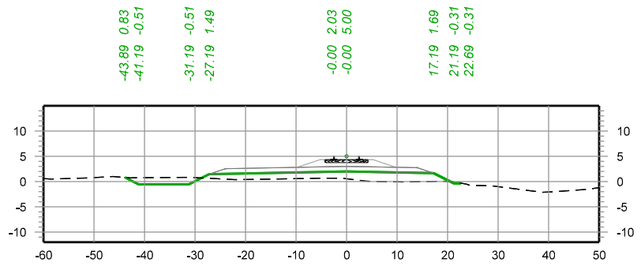
360 RAIL SERVICES
FIRM No: LA - EF. 0007741

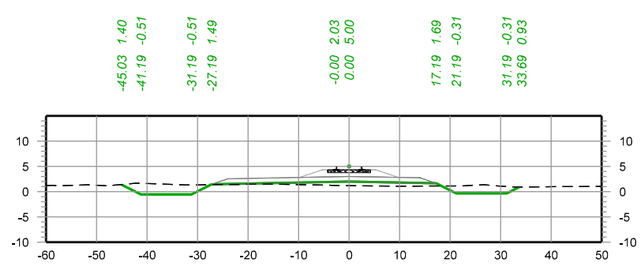
PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
DRAWN BY: RG	LGP MAINLINE RAIL EXTENSION
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 147 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 473+00.00 - 478+00.00

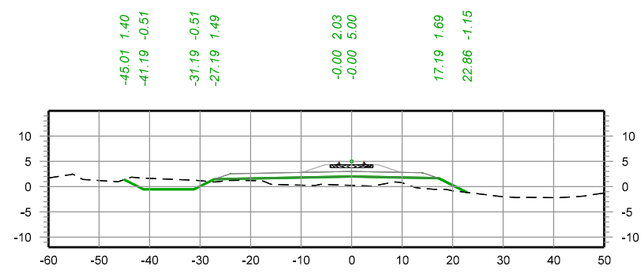


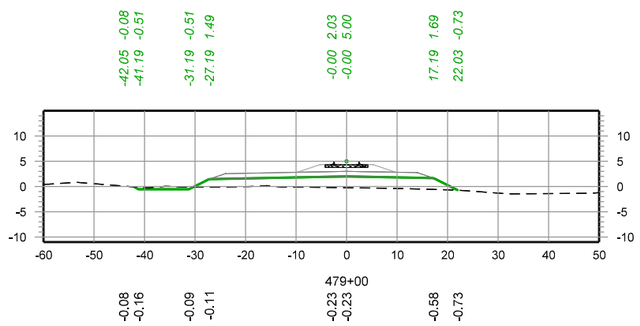


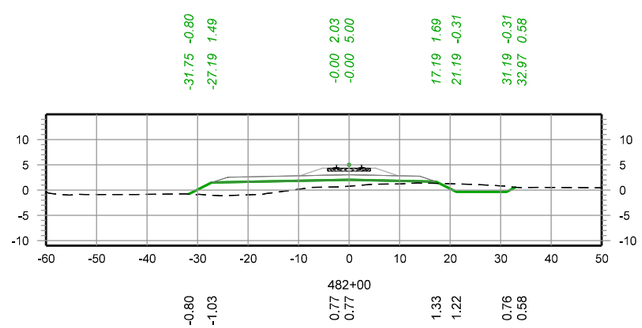


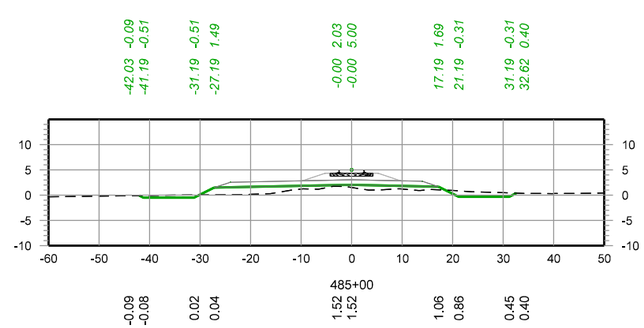












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SCALE IN FEET

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PRELIMINARY – FOR REVIEW ONLY
1/13/2026

Ex. Mainline Track
Prop. Mainline Track
Remove Mainline Track
Shift Mainline Track
Ex. Ind. Track
Future Ind. Track
Remove Ind. Track
Right of Way
Hand Throw Turnout
Power Turnout
Power Derail
Hand Throw Derail
Cut
Fill

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Infinity Engineering Consultants, LLC
Civil–Structural–Mechanical–Electrical–Marine–Transportation
Metairie, LA www.infinityec.com 504-304-0548
FIRM No: LA - EF. 0003109

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF. 0007741

PM:	DOCUMENT TYPE: *50% RAIL ALIGNMENT DESIGN*
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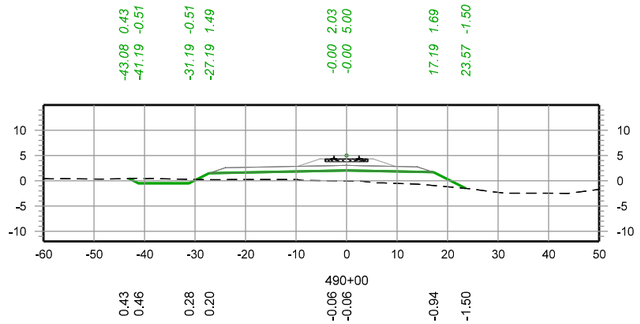
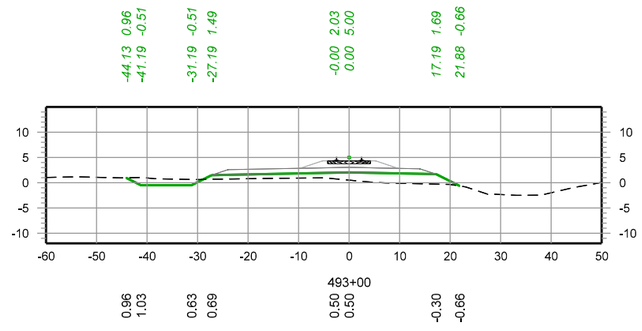
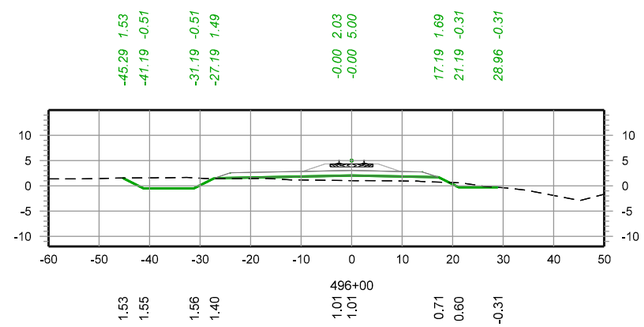
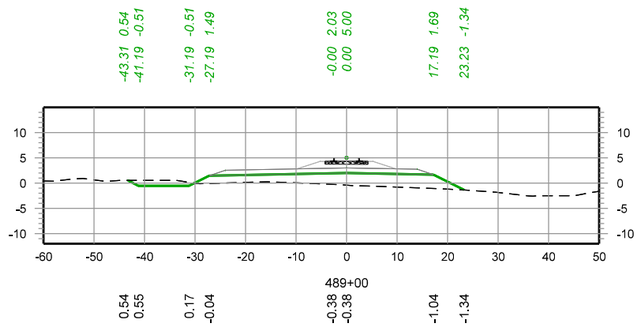
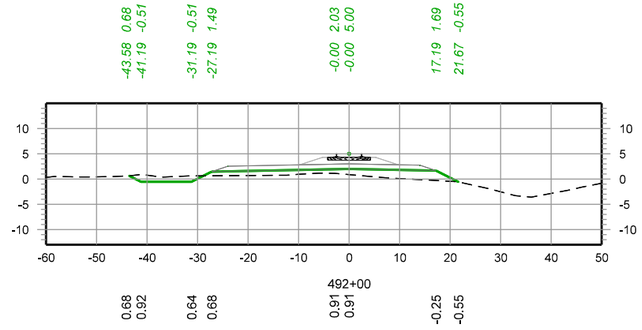
CHECKED BY: SAA	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 1/13/2026	
SHEET NUMBER: 148 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 479+00.00 - 487+00.00

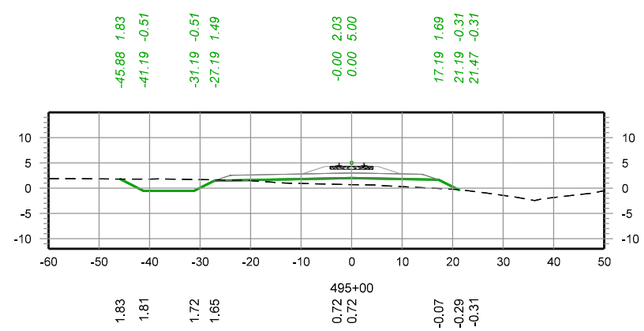


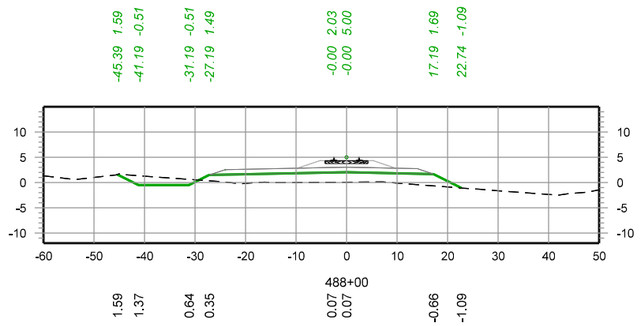


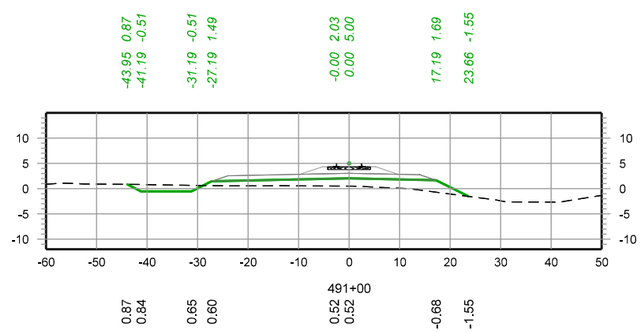


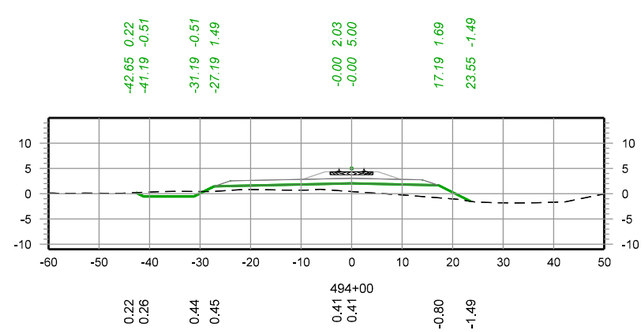












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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007741

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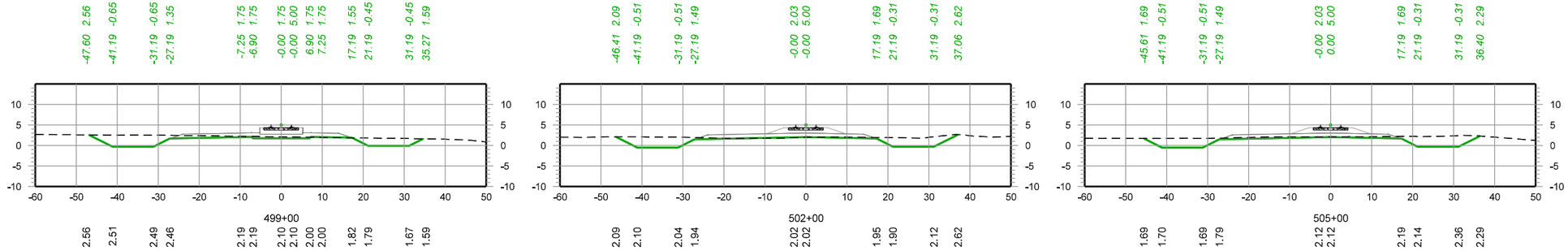
DATE: 1/13/2026	
SHEET NUMBER: 149 of 151	SHEET TITLE: CROSS SECTIONS MAINLINE TRK 488+00.00 - 496+00.00



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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA • EF.0007141

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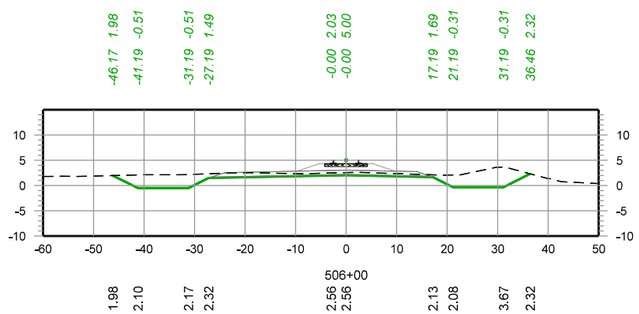

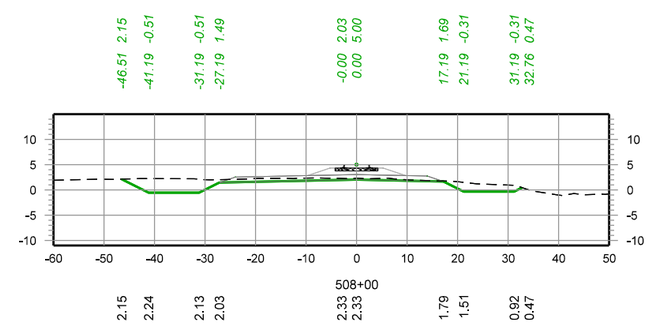

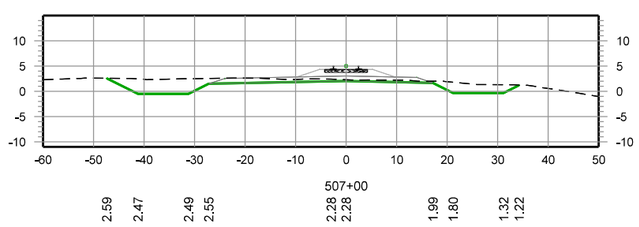

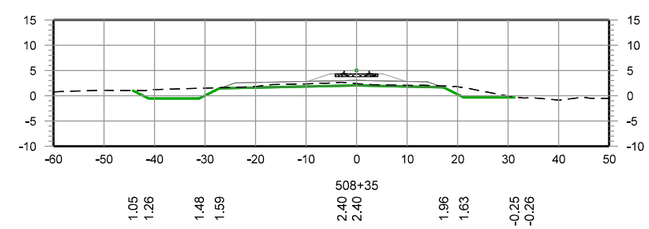

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LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

360 RAIL SERVICES
FIRM No: LA - EF.0007141

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GENERAL NOTES

1. ALL ELEVATIONS SHOWN REFER TO N.G.V.D. = NATIONAL GEODETIC VERTICAL DATUM = 0.00 FT

2. THE LOCATIONS OF UNDERGROUND AND OTHER NONVISIBLE UTILITIES SHOWN HAVE BEEN DETERMINED FROM DATA EITHER FURNISHED BY THE AGENCIES CONTROLLING SUCH DATA AND/OR EXTRACTED FROM RECORDS MADE AVAILABLE TO US BY AGENCIES CONTROLLING SUCH RECORDS. WHERE FOUND, THE LOCATIONS ARE SHOWN ON THE DRAWINGS. EACH AGENCY SHOULD BE CONTACTED RELATIVE TO THE LOCATION OF ITS UNDERGROUND INSTALLATION PRIOR TO ANY EXCAVATING. THE CONTRACTOR SHALL CALL LOUISIANA ONE CALL (1800–272–3020) TO MARK THE CONSTRUCTION AREA.

3. CONTRACTOR IS TO COORDINATE ALL WORK ASSOCIATED WITH EXISTING LIGHT POLES TO BE RELOCATED WITH THE OWNER, ENTERGY, AND OWNER'S ENGINEER.

4. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY LIGHTING DURING CONSTRUCTION. EXISTING LIGHT STANDARDS MAY BE USED PROVIDED THAT THE LIGHT STANDARDS DO NOT CONFLICT WITH CONSTRUCTION ACTIVITIES. CONTRACTOR TO COORDINATE WITH THE OWNER, ENTERGY, AND OWNER'S ENGINEER.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND VERIFYING ALL MEASUREMENTS AND GRADES PRIOR TO BEGINNING OF CONSTRUCTION. PROJECT VERTICAL AND HORIZONTAL CONTROLS HAVE BEEN INDICATED ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH OFFSETS FROM BASELINE AND ADDITIONAL T.B.M.s. FOR CONSTRUCTION PURPOSES FROM THE PROJECT MONUMENTS/NAILS/CROSS CUTS ETC., WITHIN THE PROJECT AREA.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAUL AND STACK ALL DESIGNATED SALVAGEABLE MATERIAL TO AN AREA DESIGNATED BY AUTHORIZED REPRESENTATIVE. (NO DIRECT PAYMENT). MATERIAL NOT DESIGNATED TO BE SALVAGED SHALL BE DISPOSED OFF THE SITE UNLESS OTHERWISE DIRECTED BY THE OWNER. (NO DIRECT PAYMENT).

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH AND SIZE OF UNDERGROUND EXISTING UTILITIES AND STRUCTURES PRIOR TO CONSTRUCTION AND SHALL BE LIABLE FOR ANY DAMAGES OR DOWNTIME CAUSED BY FAILURE TO COMPLY WITH THESE REQUIREMENTS. ANY CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED IMPROVEMENTS SHOULD BE REPORTED TO THE OWNER FOR COORDINATION.

8. THE CONTRACTOR SHALL VERIFY ELEVATIONS OF ALL EXISTING INVERTS THAT ARE PART OF THIS PROJECT.

9. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SERVICES DURING CONSTRUCTION. ALL UTILITIES AND OTHER CONCERNED AGENCIES SHALL BE CONTACTED AT LEAST 72 HOURS IN ADVANCE, UNLESS OTHERWISE SPECIFIED PRIOR TO CUTTING OR CLOSING STREETS OR OTHER TRAFFIC AREAS, EXCAVATING UNDERGROUND UTILITIES OR POLE LINES OR TEMPORARY SHUTDOWN OF EXISTING FACILITIES.

10. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN TEMPORARY DRAINAGE WITHIN THE PROJECT AREA DURING CONSTRUCTION (NO DIRECT PAYMENT).

11. CONTRACTOR SHALL NOT BE ALLOWED TO IMPEDE EXISTING OR NEW DRAINAGE DURING RAINSTORMS OR WHEN A STORM IS IMMINENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE WITHIN THE PROJECT AREA DURING CONSTRUCTION. TEMPORARY DRAINAGE SHALL INCLUDE, BUT NOT BE LIMITED TO, BYPASSING DRAINAGE AND REMOVAL OF ALL TEMPORARY DRAINAGE, EROSION CONTROL, AND OBSTRUCTIONS DURING ALL STORM EVENTS.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING DRAIN LINES WITHIN THE CONSTRUCTION SITE.

13. CONTRACTOR SHALL PROVIDE THE OWNER AND OWNER'S ENGINEER, THE NAMES AND PHONE NUMBERS OF PERSONNEL WHO ARE AVAILABLE ON A 24 HOUR BASIS FOR REMOVING ANY TEMPORARY IMPEDIMENT TO DRAINAGE DURING CONSTRUCTION WITHIN THE CONSTRUCTION AREA.

14. CONTRACTORS SHALL BE RESPONSIBLE FOR HOUSEKEEPING OF THE PROJECT SITE AND ALL ACCESS ROADS ON A DAILY BASIS AND SHALL KEEP THE AREA CLEAN AND FREE OF ALL TRASH AND DEBRIS (NO DIRECT PAYMENT).

15. CONSTRUCTION TRAFFIC CONTROL SIGNS, BARRICADES, WARNING LIGHTS, DEVICES AND METHODS, SHALL COMPLY WITH MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND THESE CONTRACT DOCUMENTS, UNLESS OTHERWISE NOTED IN THE FIELD BY THE OWNER OR OWNER'S ENGINEER.

16. ALL TRAFFIC CONTROL DEVICES AND THEIR ASSOCIATED HARDWARE (SIGNS, SIGNALS, CONDUIT AND MARKINGS) REMOVED OR DAMAGED DURING EXECUTION OF THIS CONTRACT, OTHER THAN AS PROVIDED FOR IN THE CONTRACT, SHALL BE REPLACED BY THE CONTRACTOR AT NO COST.

17. NO SIGNS OR SIGNALS SHALL BE REMOVED WITHOUT THE APPROVAL OF THE OWNER OR OWNER'S ENGINEER. THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY DURING THE TIME OF REMOVAL. THE CONTRACTOR MUST NOTIFY THE OWNER OR OWNER'S ENGINEER IN WRITING THREE (3) WORKING DAYS PRIOR TO THE REMOVAL OF TRAFFIC CONTROL DEVICES. ALL SIGN, SIGNALS AND PAVEMENT MARKINGS SHOWN ON THE CONTRACT SIGNAGE AND PAVEMENT MARKING DRAWINGS SHALL BE IN PLACE BY OR BEFORE THE TIME OF FINAL ACCEPTANCE.

18. THE CONTRACTOR IS RESPONSIBLE TO DESIGN, PROVIDE, INSTALL AND MAINTAIN SHEETING, SHORING, BRACING AND DEWATERING SYSTEMS REQUIRED TO COMPLETE THE WORK IN A CONTINUOUS SAFE MANNER. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR THE STABILITY AND ADEQUACY OF SHEETING, SHORING, BRACING AND DEWATERING SYSTEMS CONSTRUCTED AND ALL COSTS AND DAMAGES RESULTING FROM ANY FAILURE THEREOF.

19. TRACKED CONSTRUCTION EQUIPMENT WHICH IS NOT ON MATS SHALL NOT BE ALLOWED ON EXISTING STREETS OR PAVED CONSTRUCTION ACCESS AREAS.

20. ENTERGY TRANSMISSION AND DISTRIBUTION LINES

   A. WHILE CONSTRUCTING THE PROJECT, THE CONTRACTOR WILL BE WORKING NEAR THE ENTERGY OVERHEAD POWER LINES. PRIOR BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ENTERGY TO COORDINATE ALL CONSTRUCTION WITH ENTERGY. THE CONTRACTOR SHALL COOPERATE WITH ENTERGY; COMPLETE THE NECESSARY SAFETY PRECAUTIONS; CONSTRUCT THE WORK IN ACCORDANCE WITH OSHA AND NEC REQUIREMENTS; AND ENSURE THE SAFETY OF THE SITE.

   B. THE CONTRACTOR SHALL MAINTAIN A SAFE DISTANCE FROM ALL ENERGIZED POWER LINES IN ACCORDANCE WITH OSHA, ENTERGY AND NEC REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE MAXIMUM HEIGHT AND REACH ATTAINABLE BY ANY PART OF ANY PIECE OF EQUIPMENT, AND AFTER COORDINATING WITH ENTERGY TO DETERMINE THE HEIGHT AND LOCATION OF THE POWER LINE, SHALL DETERMINE THE SAFE CLEARANCE WHICH WILL NOT BE VIOLATED. IF THE SAFE CLEARANCE WILL BE VIOLATED, PRIOR TO BEGINNING ANY OPERATIONS IN THE AREA, THE CONTRACT SHALL COORDINATE WITH ENTERGY TO DE–ENERGIZE THE LINE. THE CONTRACTOR SHALL ESTABLISH A COORDINATION PROCEDURE WITH ENTERGY TO ENSURE THAT THE CONTRACTOR SHALL HAVE SUFFICIENT NOTICE TO ALLOW REMOVAL OF ALL EQUIPMENT WHICH MAY VIOLATE THE SAFE CLEARANCE FROM THE AREA PRIOR TO THE LINE BEING RE–ENERGIZED.

22. ENVIRONMENTAL PROTECTION

   A. THE CONTRACTOR SHALL COMPLY WITH FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS CONTROLLING POLLUTION OF THE ENVIRONMENT, INCLUDING AIR, WATER AND NOISE. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT POLLUTION OF WATERS AND WETLANDS WITH FUELS, OILS, ASPHALTS, CHEMICALS OR OTHER HARMFUL MATERIALS AND TO PREVENT POLLUTION OF THE ATMOSPHERE FROM PARTICULATE AND GASEOUS MATTER.

   B. THE CONTRACTOR SHALL MAINTAIN AND OPERATE EQUIPMENT TO MINIMIZE NOISE; ENGINES SHALL BE EQUIPPED WITH PROPERLY FUNCTIONING MUFFLERS. THE CONTRACTOR SHALL LIMIT ACTIVITY NEAR NOISE SENSITIVE AREAS, SUCH AS CHURCHES, HOSPITALS AND SCHOOLS AND DURING FUNERAL PROCEEDINGS, SO NORMAL ACTIVITIES ARE NOT UNDULY DISRUPTED.

   C. THE CONTRACTOR SHALL TAKE REASONABLE MEASURES TO PREVENT UNNECESSARY DUST. SURFACES SUBJECT TO DUSTING SHALL BE KEPT MOIST WITH WATER OR BY APPLICATION OF CHEMICAL DUST SUPPRESSANT. DUSTY MATERIALS STORED OR IN TRANSIT SHALL BE COVERED TO PREVENT THE DUST FROM BLOWING.

23. STRUCTURAL

   A. PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (2006 EDITION), REGULATIONS STIPULATED IN THE BUILDING CODE OF THE CITY OF NEW ORLEANS ORDINANCE (LATEST EDITION), AND CONTRACT SPECIFICATIONS.

25. ACCESS TO ADJACENT PROPERTIES

   A. DURING THE PROGRESS OF THE WORK, THE CONVENIENCE OF THE PUBLIC MUST BE PROVIDED FOR AS FAR AS PRACTICABLE. CONVENIENT ACCESS TO DRIVEWAYS AND BUSINESS ALONG THE STREET MUST BE MAINTAINED WHENEVER POSSIBLE. TEMPORARY APPROACHES TO AND CROSSINGS OF INTERSECTING STREETS AND SIDEWALKS MUST BE PROVIDED FOR AND KEPT IN GOOD CONDITION WHENEVER POSSIBLE. TEMPORARY APPROACHES TO AND CROSSINGS OF INTERSECTING STREETS AND SIDEWALKS MUST BE PROVIDED FOR AND KEPT IN GOOD CONDITION WHENEVER PRACTICABLE. DETOUR OR WARNING SIGNS SHALL BE PROVIDED AND PLACED AS MAY BE DIRECTED BY THE DIRECTOR OF PUBLIC WORKS, OF SUCH SIZE AND CONTAINING SUCH INFORMATION AS HE MAY INDICATE. SIDEWALKS SHALL BE KEPT IN CLEAN AND PASSABLE CONDITION.

26. GARBAGE COLLECTION AND MAIL SERVICE

   A. THE CONTRACTOR SHALL ENSURE THAT GARBAGE COLLECTION AND MAIL SERVICE SHALL HAVE AN ACCESS PROVIDED FOR ON A CONTINUOUS BASIS DURING CONSTRUCTION OF THE PROJECT.

   B. THE CONTRACTOR IS REQUIRED TO OBSERVE ALL LAWS AND ORDINANCES RELATED TO THE OBSTRUCTION OF STREETS, SIGNALS, MAINTENANCE OF PASSAGEWAYS, AND PROTECTION OF PEDESTRIANS FROM DAMAGES, AND ALL GENERAL ORDINANCES AFFECTING THE CONTRACTOR OF HIS EMPLOYEES OR HIS WORK.

27. ALL WORK SHALL BE PREFORMED IN ACCORDANCE WITH CURRENT SPECIFICATIONS OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (LSSRB), 2016 EDITION INCLUDING ALL REVISIONS, UNLESS OTHERWISE SPECIFIED OR INDICATED ON PLANS AND IN SPECIFICATIONS.

28. THE CONTRACTOR SHALL NOT SCALE THE DRAWINGS FOR CONSTRUCTION PURPOSES.

29. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PUBLIC UTILITY SERVICES DURING CONSTRUCTION.

30. WHEN ROADWAY PAVEMENT IS REQUIRED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL PERFORM FULL DEPTH SAWCUT, AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE PROJECT ENGINEER, AT NO DIRECT PAY.

31. THE CONTRACTOR SHALL FULLY AND CAREFULLY EXAMINE ALL ADJOINING OR ADJACENT STRUCTURES SO AS TO FULLY DEPICT EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL VISIT THESE STRUCTURES AT REGULAR INTERVALS AND NOTE CONDITIONS AND SUPPLEMENT WITH ADDITIONAL PHOTOGRAPHS. THE CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ANY DAMAGE DONE TO ADJACENT STRUCTURES CAUSED FROM OPERATIONS. THE CONTRACTOR SHALL SEE THAT THE ADJACENT OR ADJOINING STRUCTURES (I.E. HOUSES, BUSINESSES) ARE PROPERLY BRACED, IF REQUIRED TO WITHSTAND VIBRATIONS DUE TO OPERATIONS.

32. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF SHEETING AND BRACING. THE DESIGN SHALL BE PERFORMED BY A LICENSED ENGINEER IN THE STATE OF LOUISIANA.

SYMBOLS LEGEND

- × 5.25 — ELEVATION
- GUY ANCHOR
- FIRE HYDRANT
- POWER POLE
- SURVEY CONTROL POINT
- TREE
- DRIPLINE
- WATER VALVE
- APPARENT ROW
- OHE — OVERHEAD ELECTRIC LINE
- EXISTING DITCH ℄
- X — X — X — FENCE
- SFM — S — SEWER LINE
- SFM — SEWER FORCE MAIN
- W16 — W — WATER LINE
- W18 — W16 — 16" WATER LINE
- W20 — W18 — 18" WATER LINE
- W20 — 20" WATER LINE
- REQ'D DITCH ℄

REV. #	BY	DATE	DESCRIPTION
A	DLB	01/15/2026	ISSUED FOR REVIEW

PRELIMINARY – FOR REVIEW ONLY 01/15/2026

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FIRM No: LA - EF. 0003109
IEC Project No 24-002
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Metairie, LA www.infinityec.com 504-304-0548

LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 153 of 172	SHEET TITLE: GENERAL NOTES & LEGEND

OVERALL LAYOUT

SCALE:1" = 1500'

REV. #	BY	DATE	DESCRIPTION
A	DLB	01/15/2026	ISSUED FOR REVIEW

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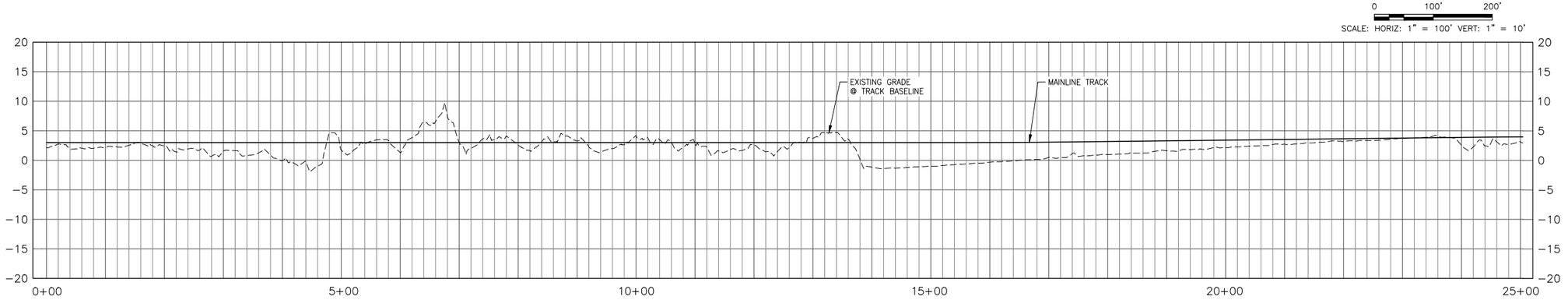
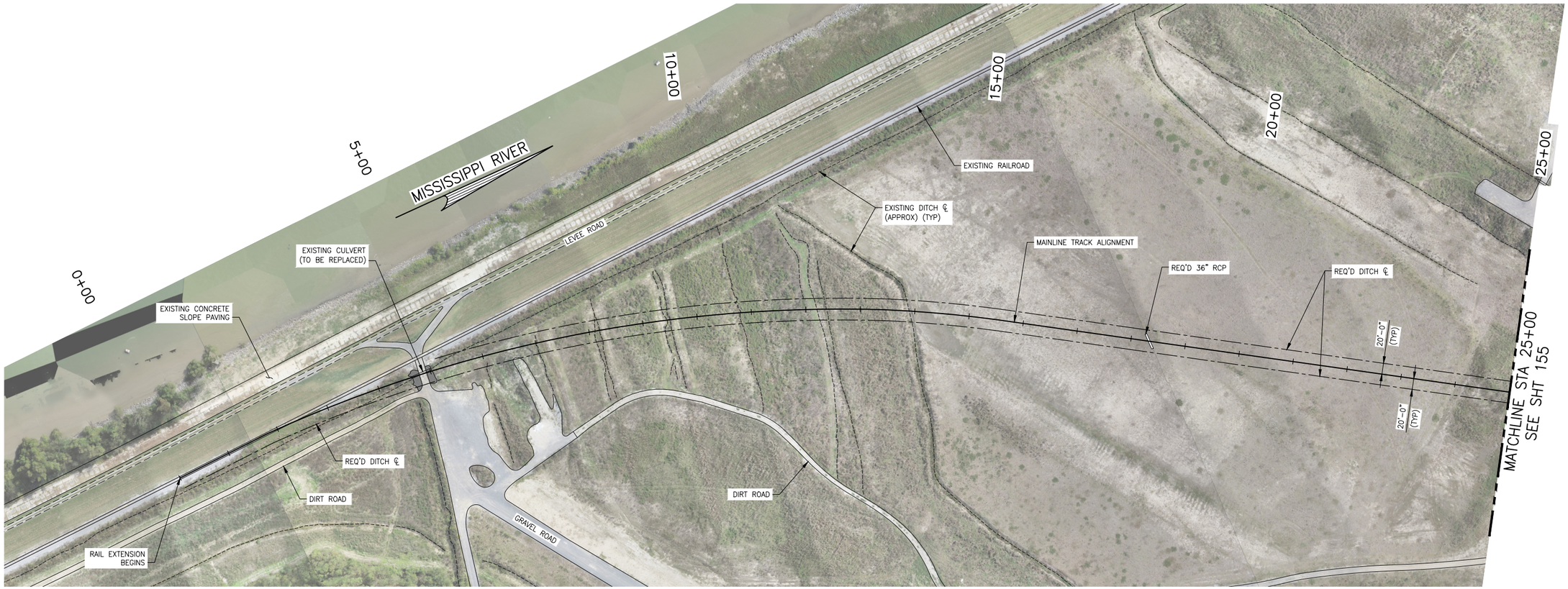
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 154 of 171	SHEET TITLE: OVERALL LAYOUT & KEY PLAN





KEY PLAN

0 100' 200'
SCALE: 1" = 100'
SCALE: 1" = 200' (HALF SIZE)

REV. #	BY	DATE	DESCRIPTION
A	DLB	01/15/2026	ISSUED FOR REVIEW

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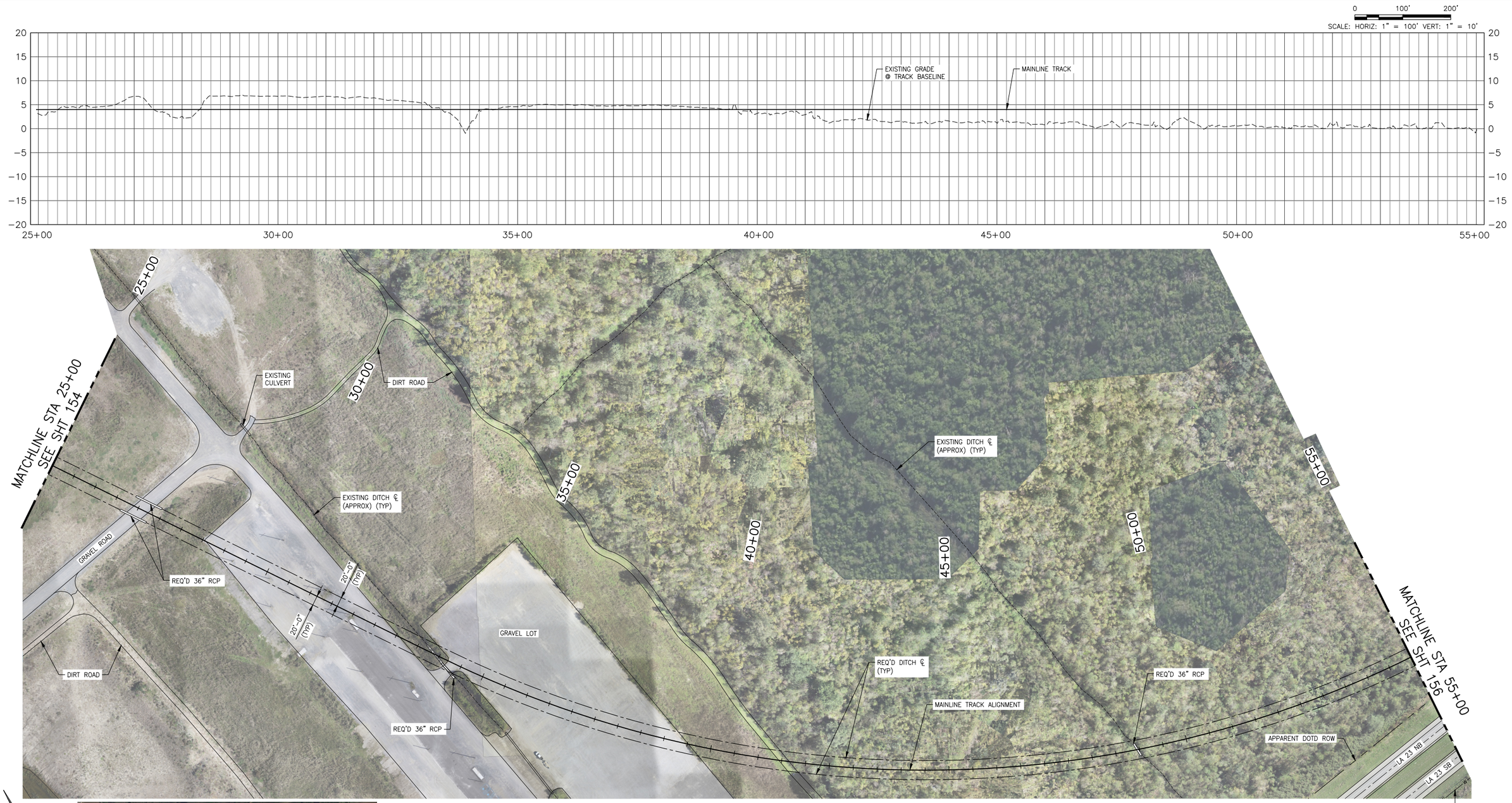
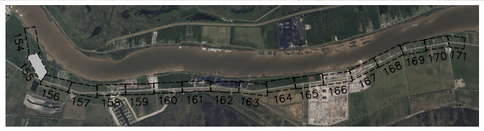
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 154 of 171	SHEET TITLE: DRAINAGE PLAN & PROFILE (1 OF 18)





0 8000' 16000'
SCALE: 1" = 8000'

KEY PLAN

REV. #	BY	DATE	DESCRIPTION
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PRELIMINARY – FOR REVIEW ONLY 01/15/2026

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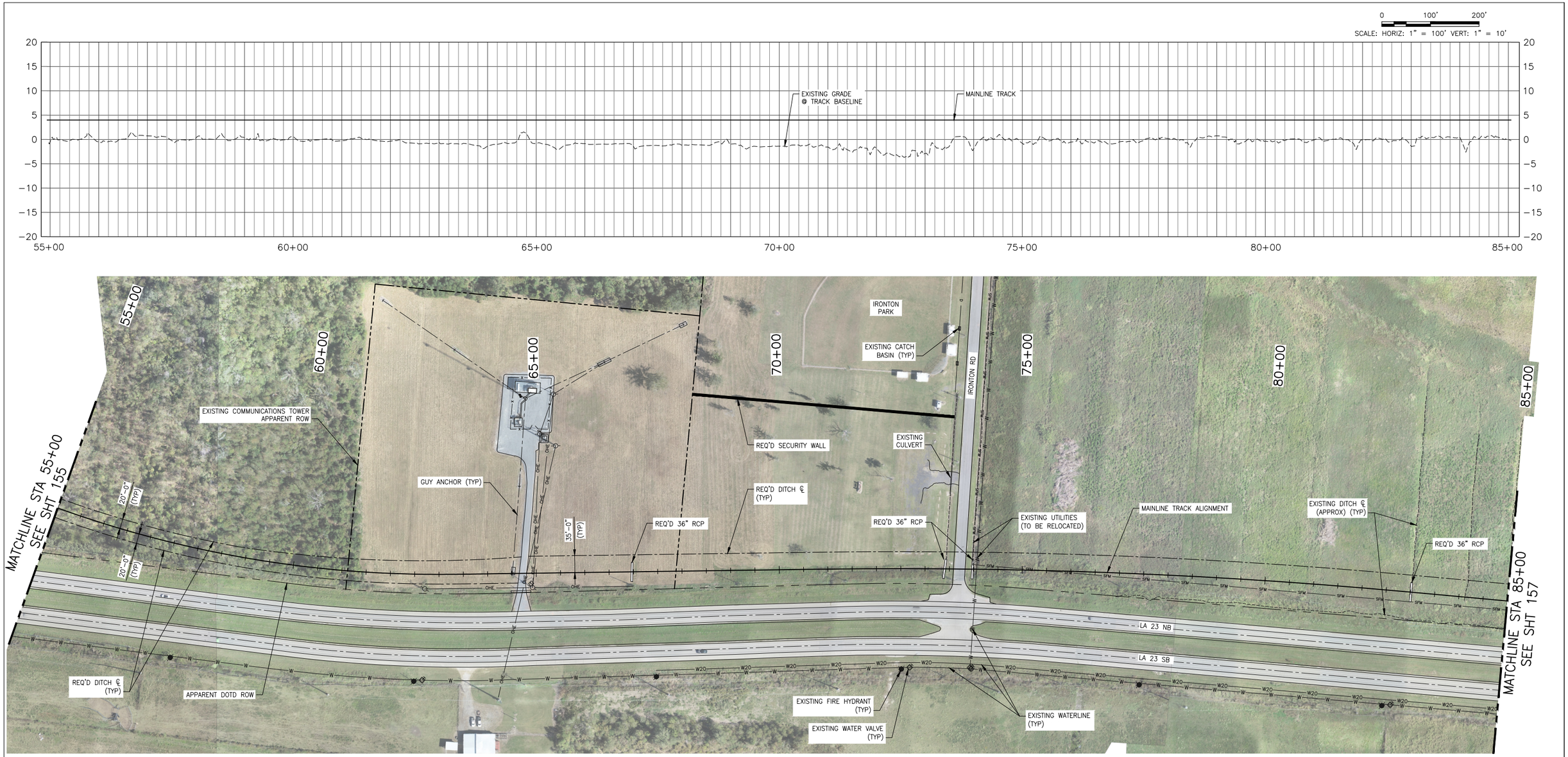
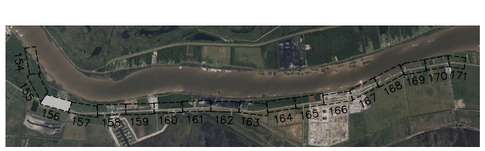
LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 155 of 171	SHEET TITLE: DRAINAGE PLAN & PROFILE (2 OF 18)





KEY PLAN

0 8000' 16000'
SCALE: 1" = 8000'

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

REV. #	BY	DATE	DESCRIPTION
A	DLB	01/15/2026	ISSUED FOR REVIEW

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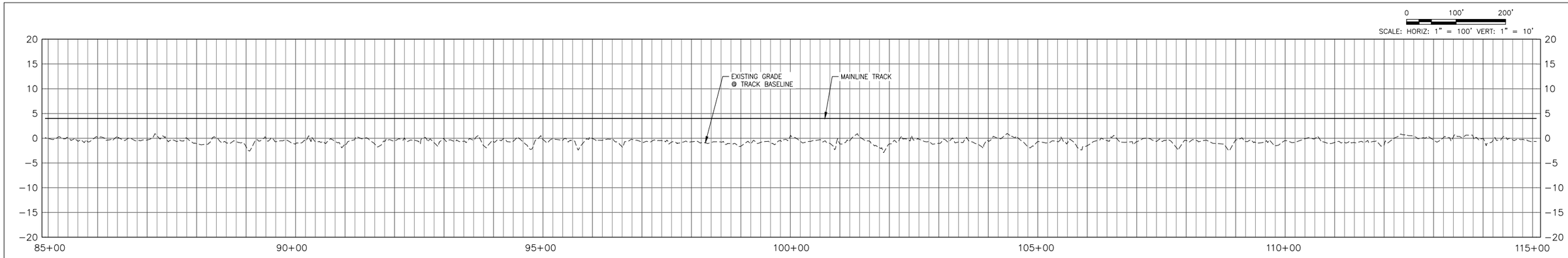
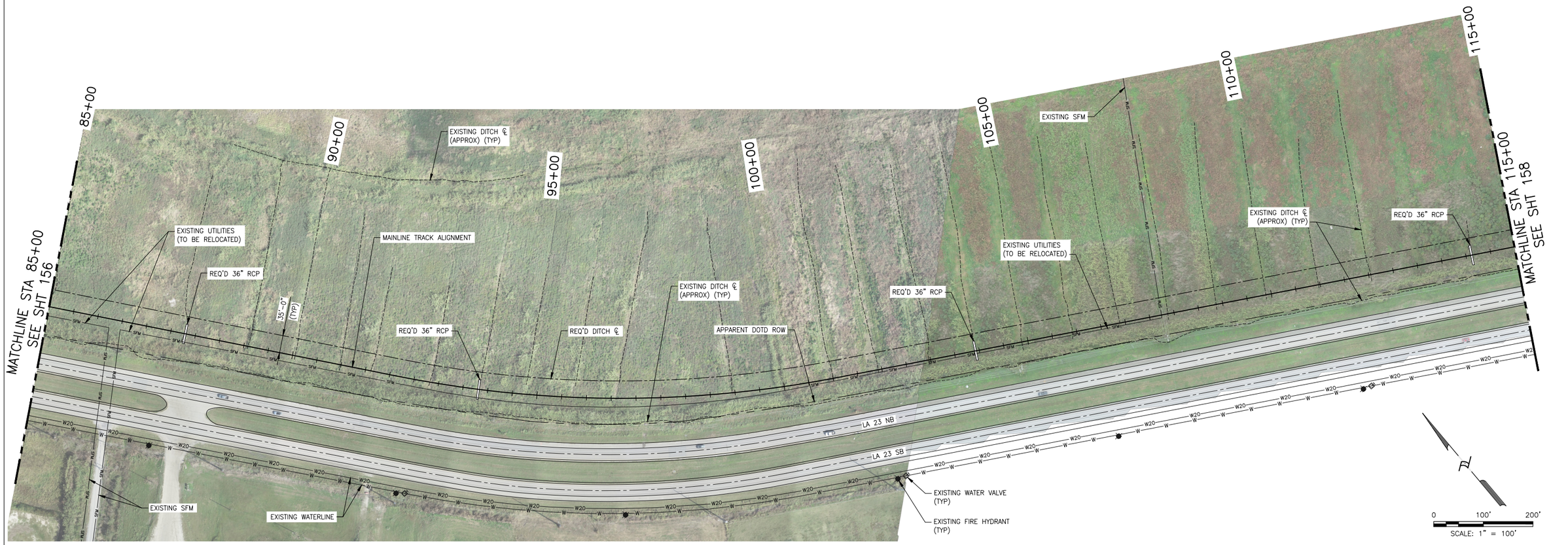
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 156 of 171	SHEET TITLE: DRAINAGE PLAN & PROFILE (3 OF 18)





KEY PLAN

0 8000' 16000'
SCALE: 1" = 8000'

REV. #	BY	DATE	DESCRIPTION
A	DLB	01/15/2026	ISSUED FOR REVIEW

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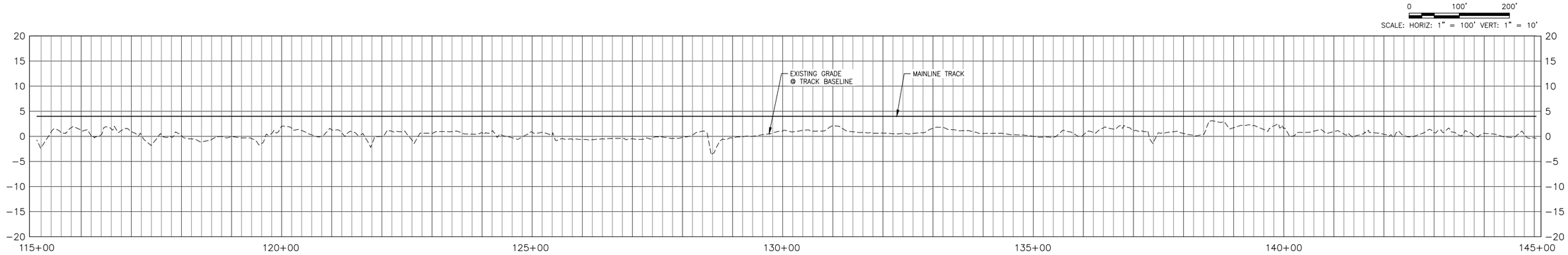
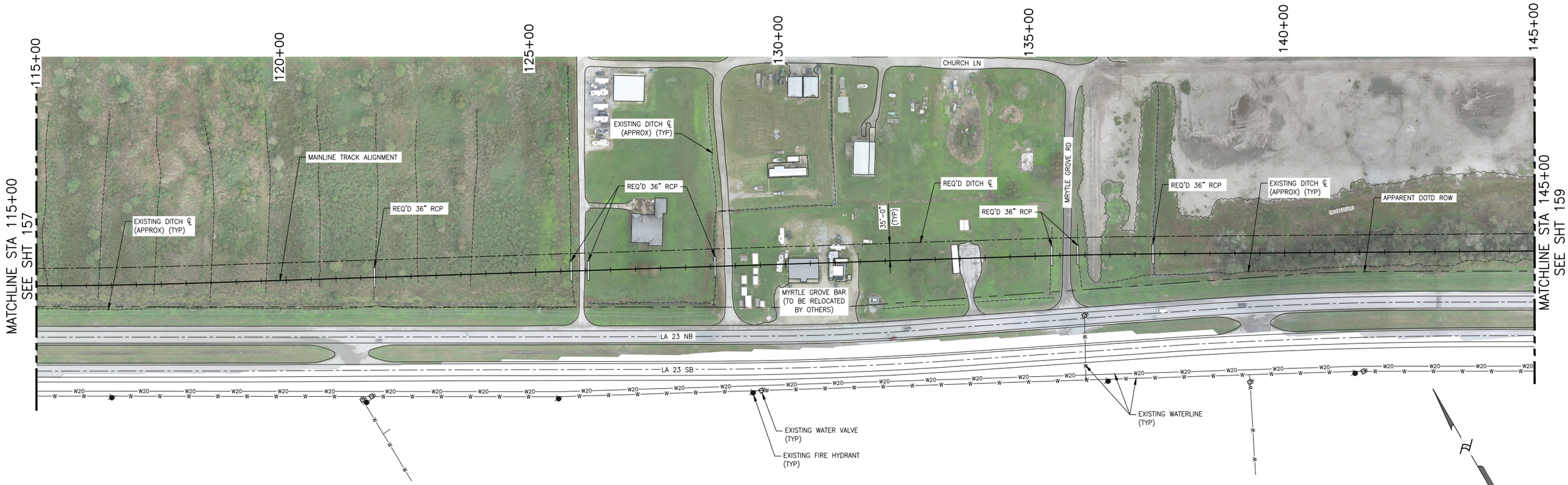
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 157 of 171	SHEET TITLE: DRAINAGE PLAN & PROFILE (4 OF 18)





KEY PLAN

REV. #	BY	DATE	DESCRIPTION
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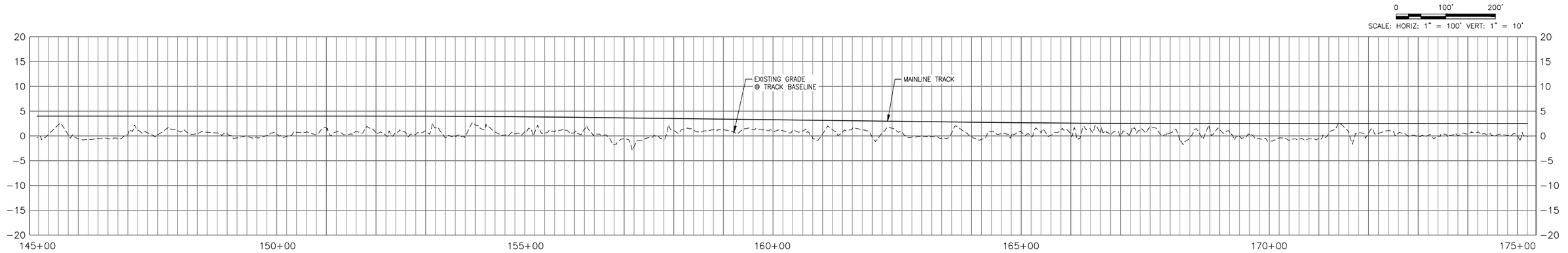
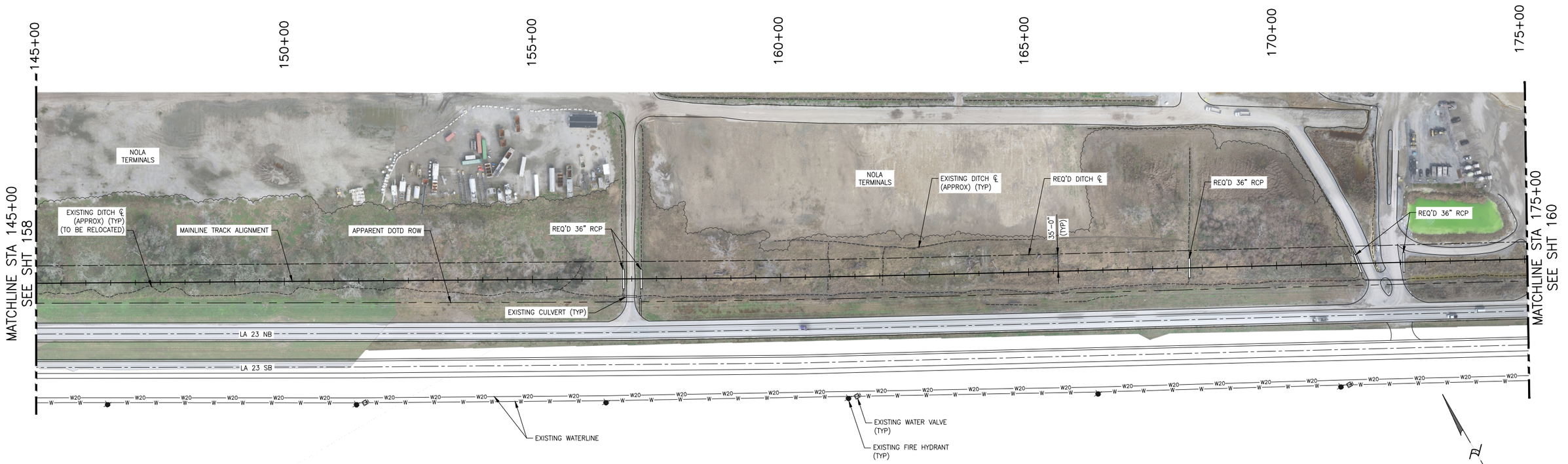
LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 158 of 171	SHEET TITLE: DRAINAGE PLAN & PROFILE (5 OF 18)





KEY PLAN

REV. #	BY	DATE	DESCRIPTION
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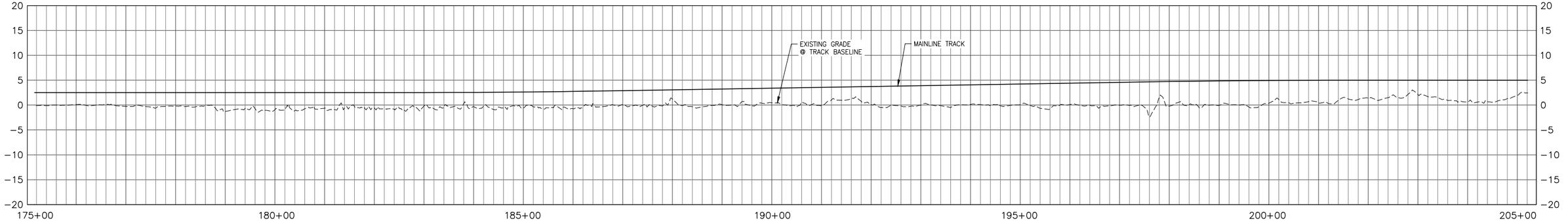
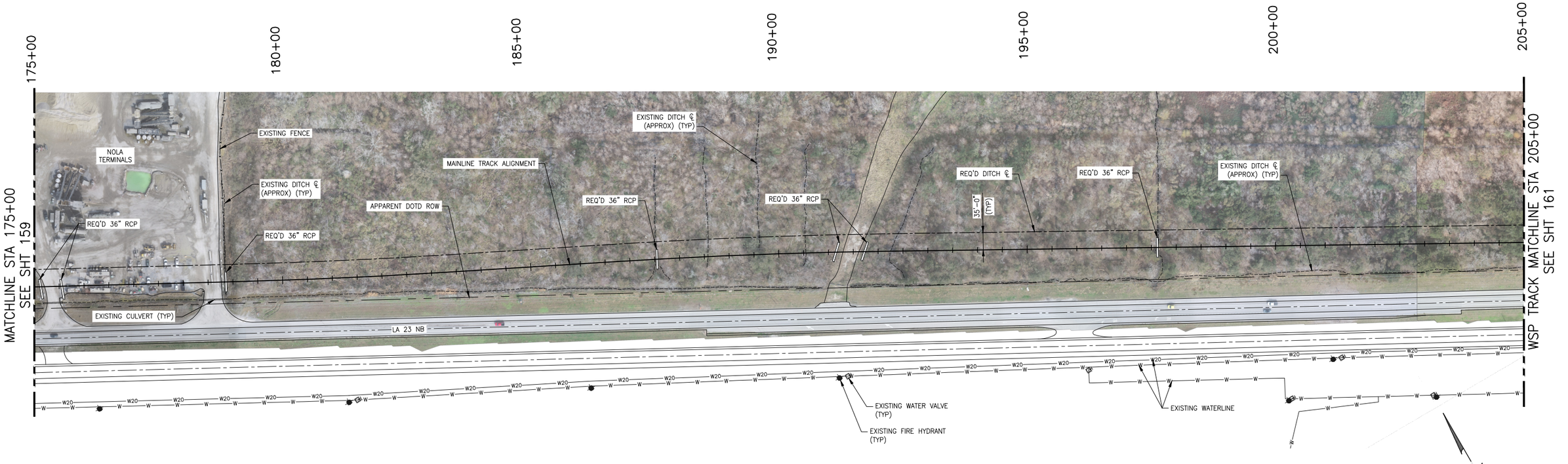
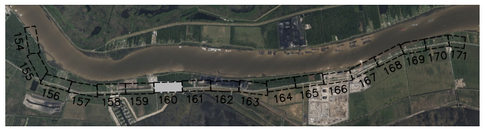
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 159 of 171	SHEET TITLE: DRAINAGE PLAN & PROFILE (6 OF 18)

SCALE: HORIZ: 1" = 100' VERT: 1" = 10'







KEY PLAN

REV. #	BY	DATE	DESCRIPTION
A	DLB	01/15/2026	ISSUED FOR REVIEW

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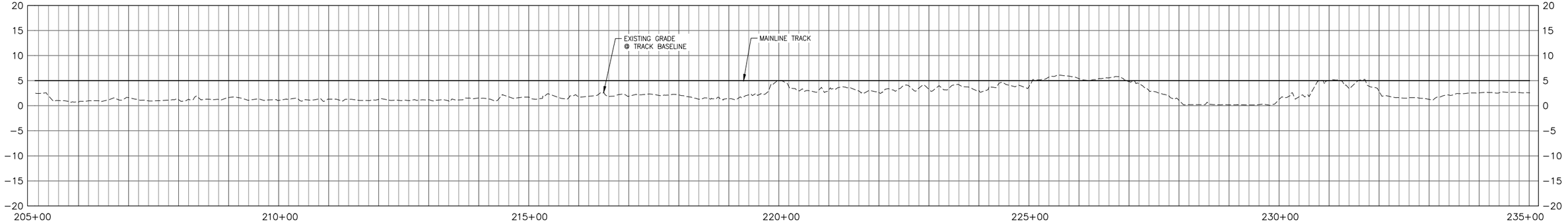
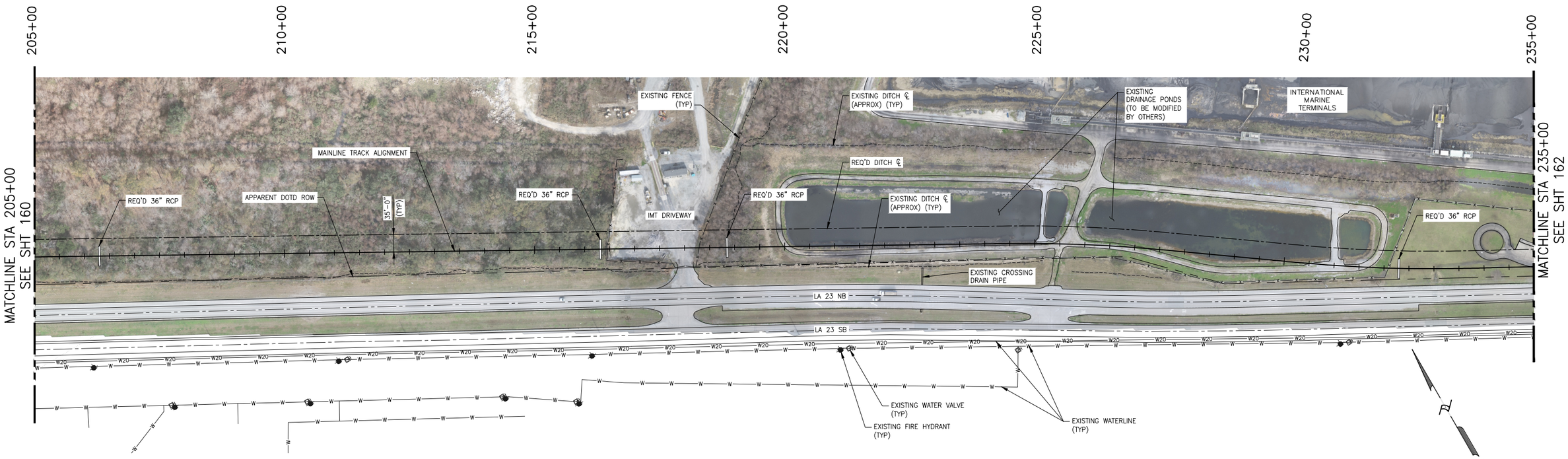
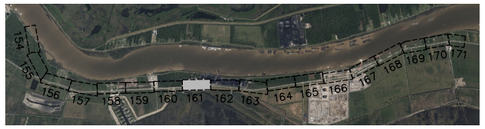
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 160 of 171	SHEET TITLE: DRAINAGE PLAN & PROFILE (7 OF 18)

SCALE: HORIZ: 1" = 100' VERT: 1" = 10'







KEY PLAN

0 8000' 16000'

SCALE: 1" = 8000'

REV. #	BY	DATE	DESCRIPTION
A	DLB	01/15/2026	ISSUED FOR REVIEW

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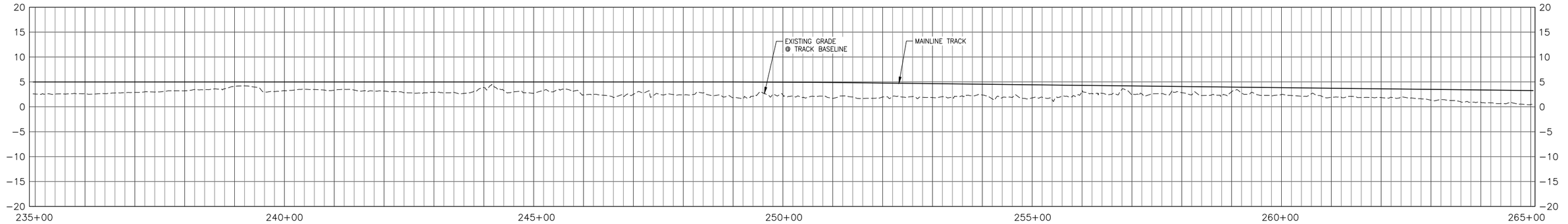
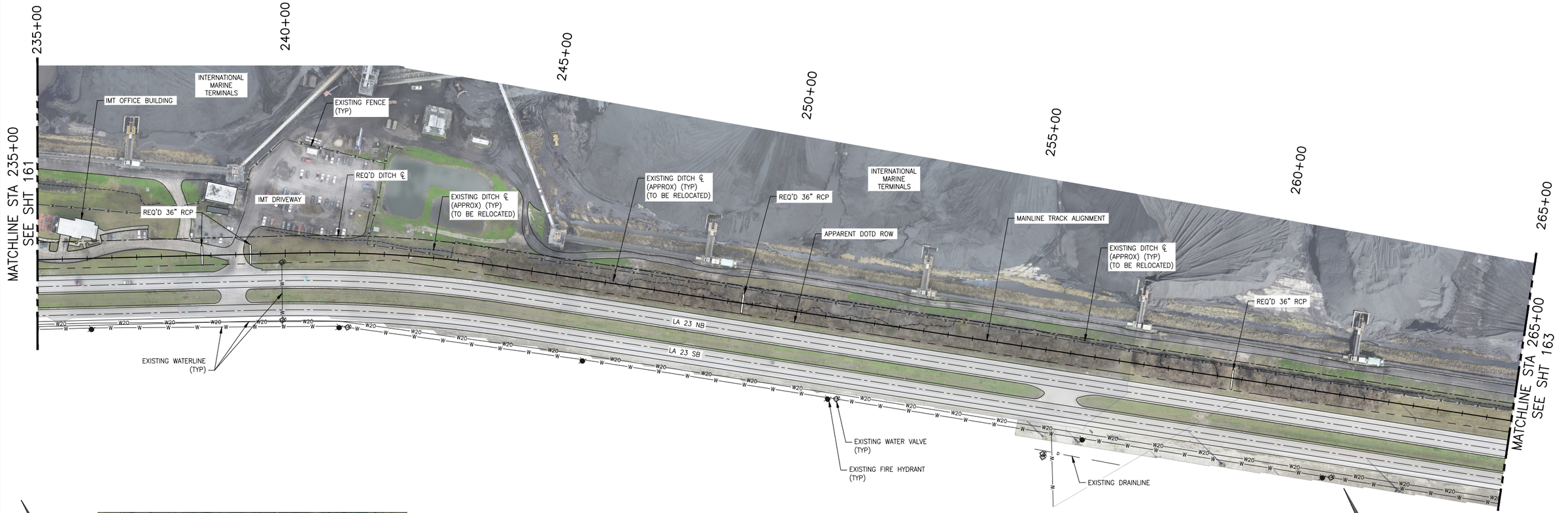
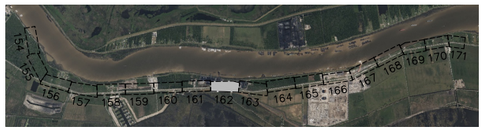
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEUAX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 161 of 171	SHEET TITLE: DRAINAGE PLAN & PROFILE (8 OF 18)

SCALE: HORIZ: 1" = 100' VERT: 1" = 10'







KEY PLAN

0 8000' 16000'
SCALE: 1" = 8000'

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

REV. #	BY	DATE	DESCRIPTION
A	DLB	01/15/2026	ISSUED FOR REVIEW

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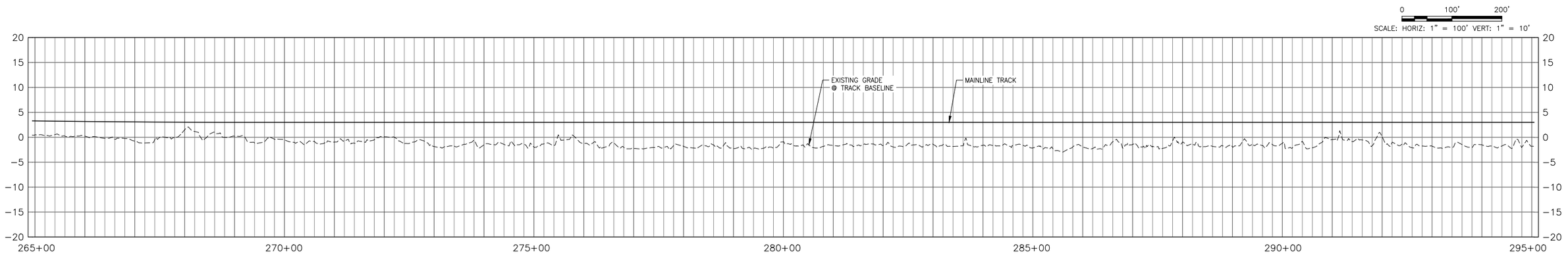
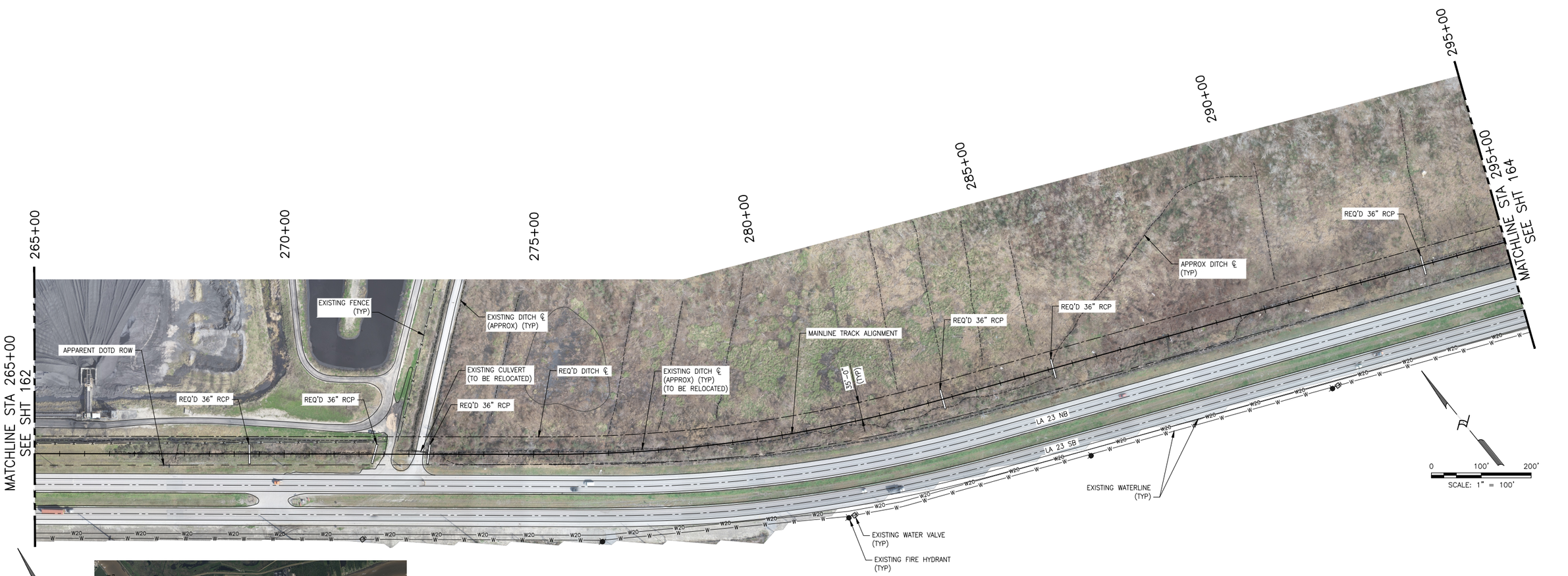
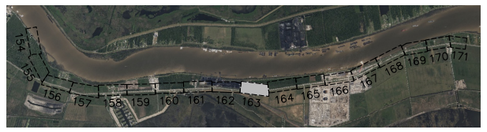
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 162 of 171	SHEET TITLE: DRAINAGE PLAN & PROFILE (9 OF 18)







KEY PLAN

0 8000' 16000'
SCALE: 1" = 8000'

REV. #	BY	DATE	DESCRIPTION
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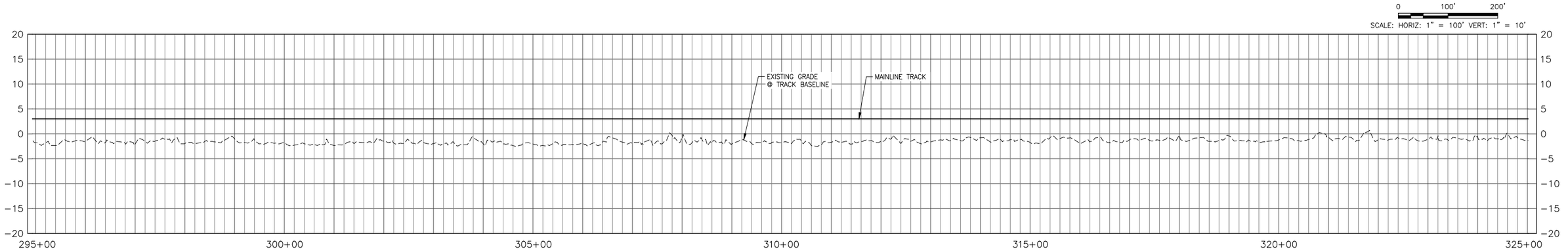
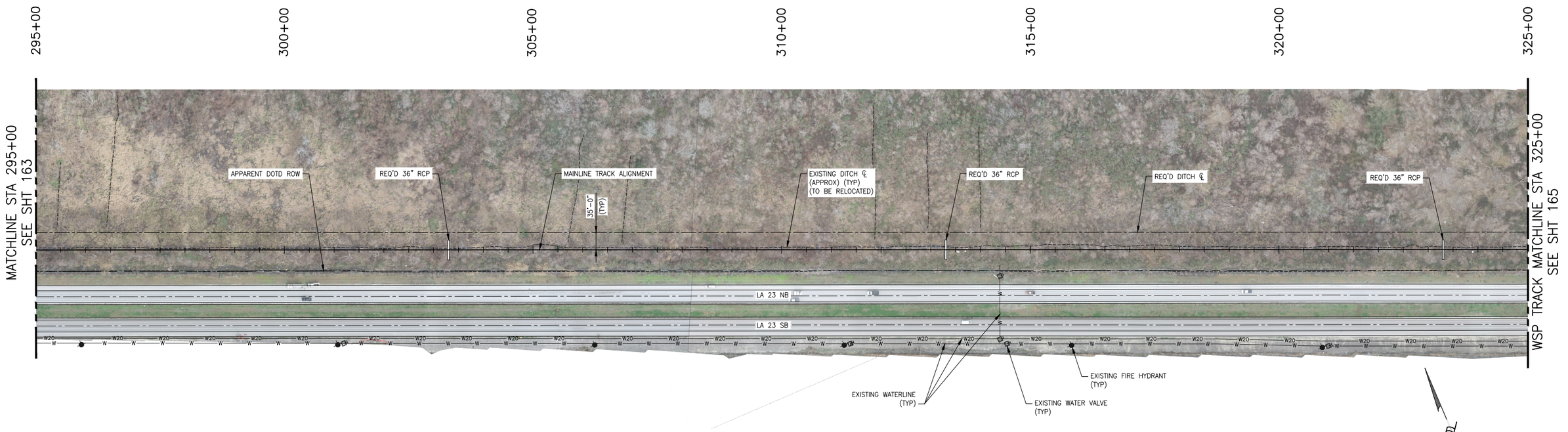
LOUISIANA GATEWAY PORT PLAQUEMINES PARISH

PM: C. GALLO	DOCUMENT TYPE: *40% DESIGN*
DRAWN BY: D. BABINEAUX	LGP MAINLINE RAIL EXTENSION
CHECKED BY: R. CONTRERAS	LOCATION & DESCRIPTION: NOGC RR TERMINUS (MP 24) TO FUTURE GATEWAY TERMINAL (MP 33) PLAQUEMINES PARISH, LA
DATE: 01/15/2026	
SHEET NUMBER: 163 of 171	SHEET TITLE: DRAINAGE PLAN & PROFILE (10 OF 18)





KEY PLAN

REV. #	BY	DATE	DESCRIPTION
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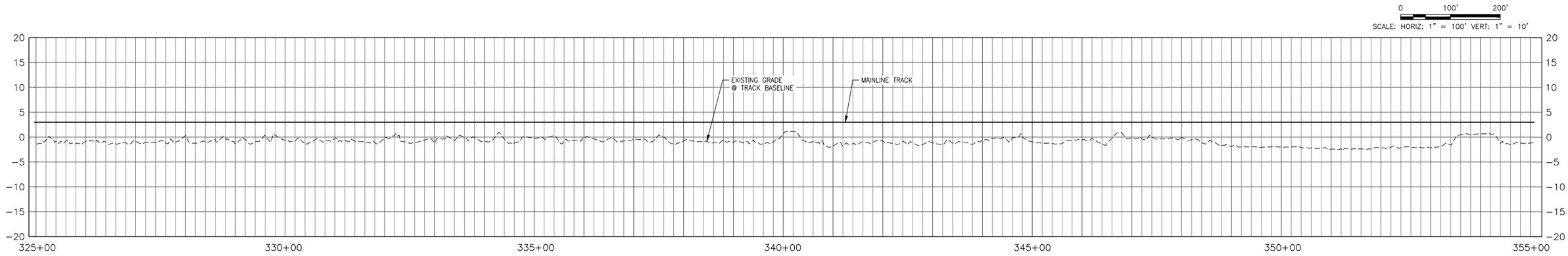

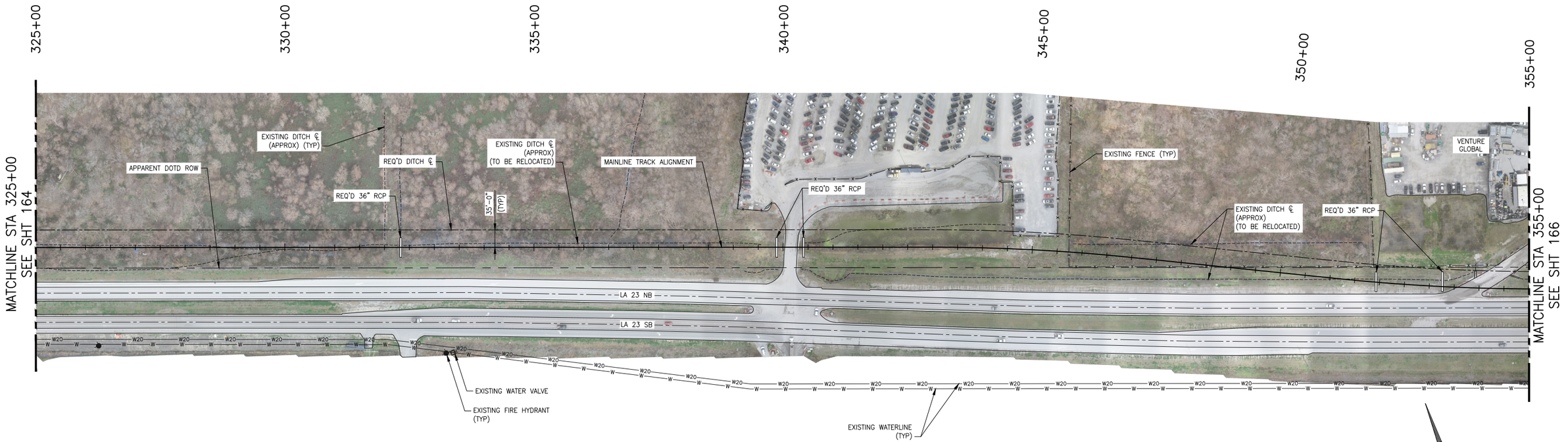

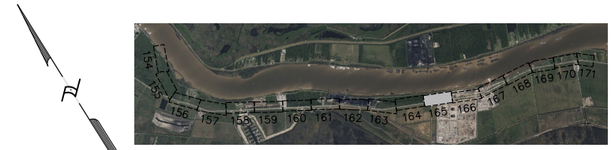

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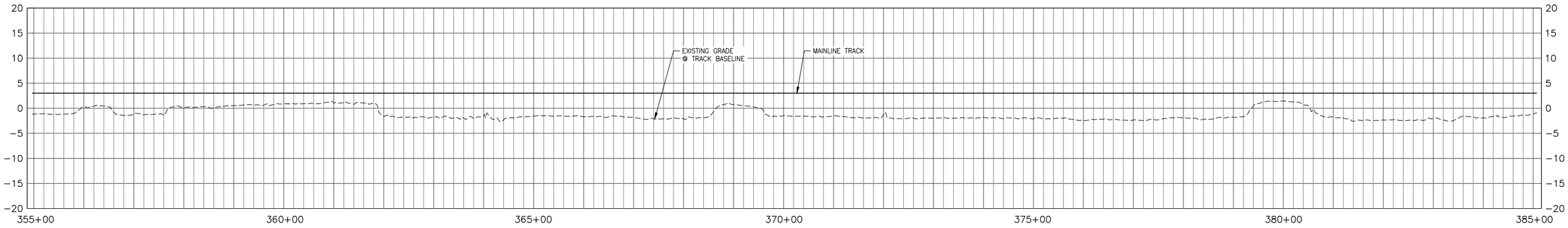

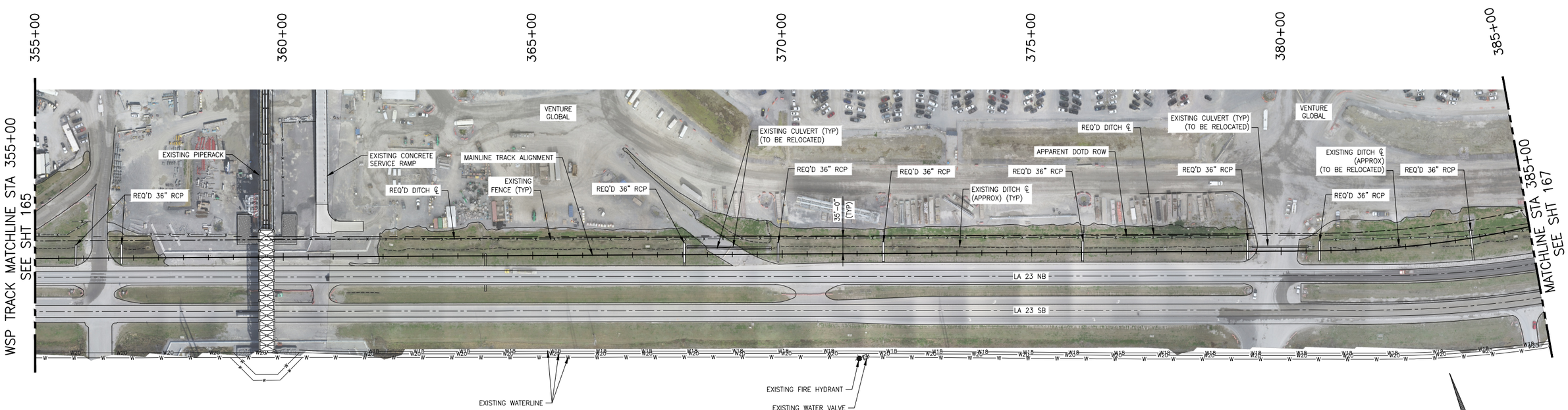

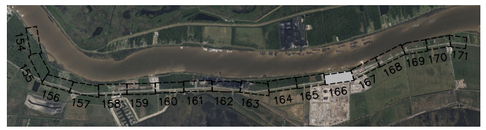

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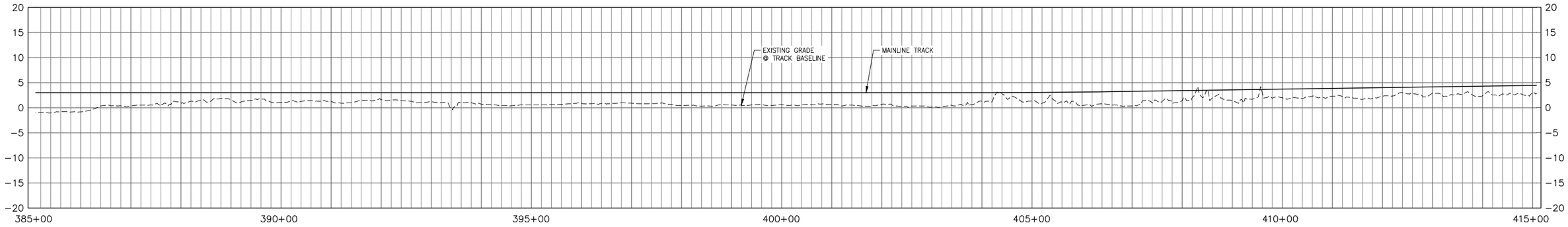

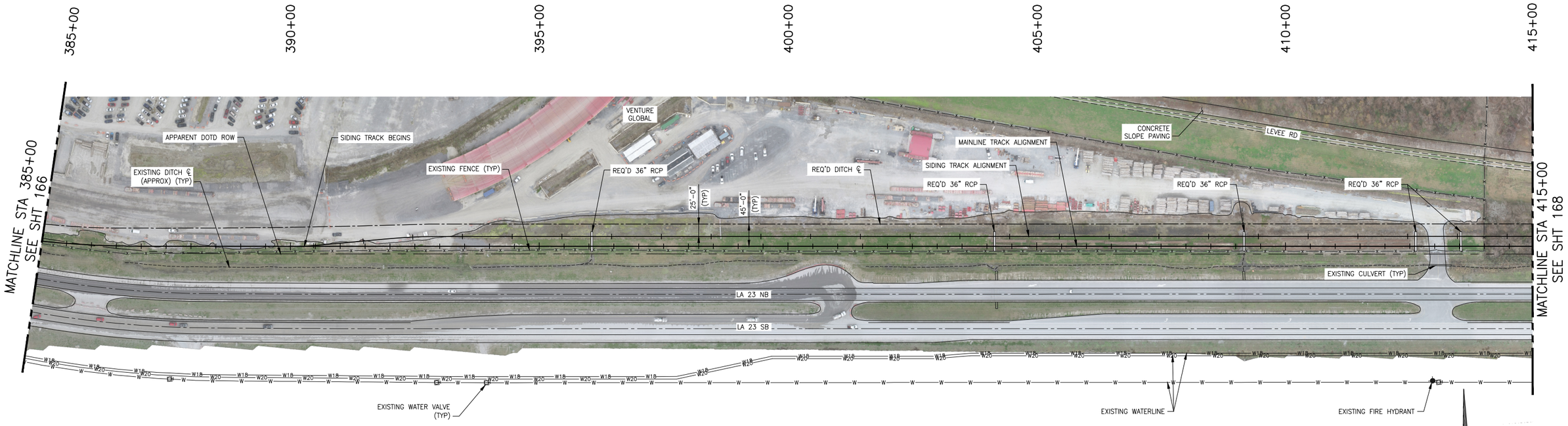

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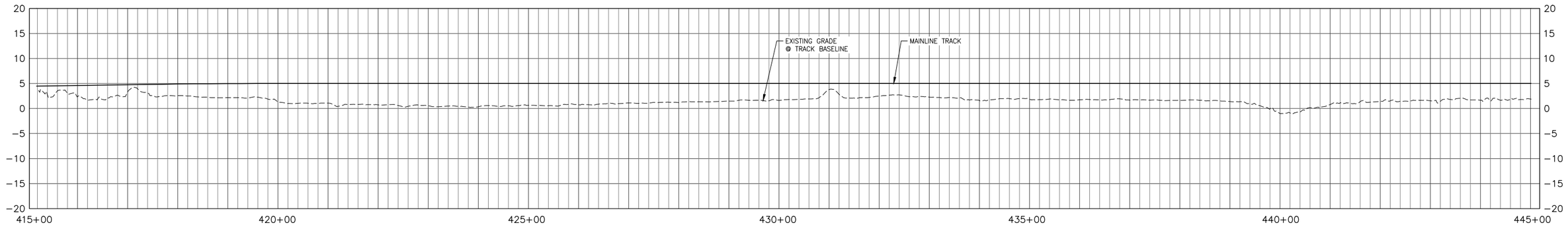

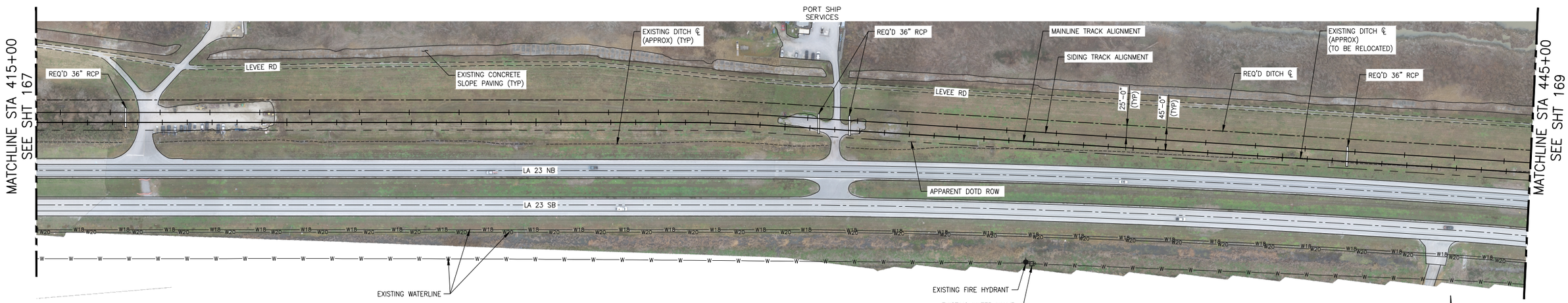

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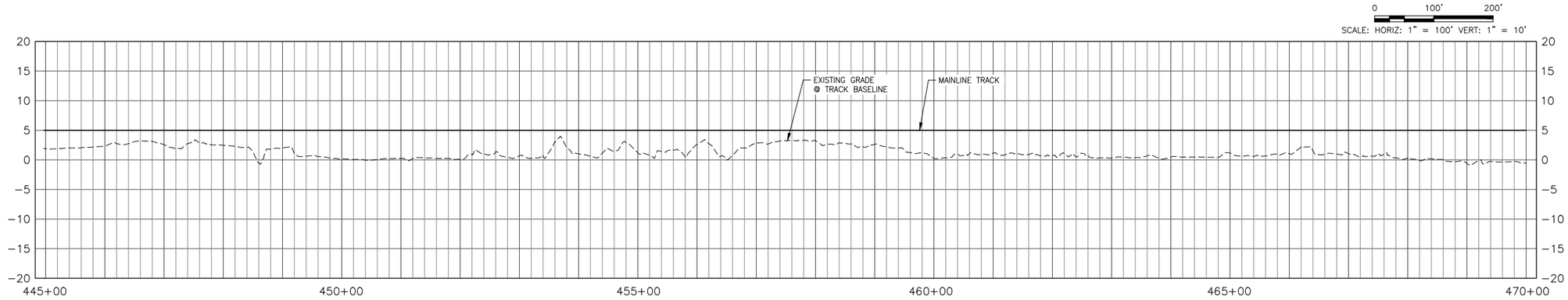

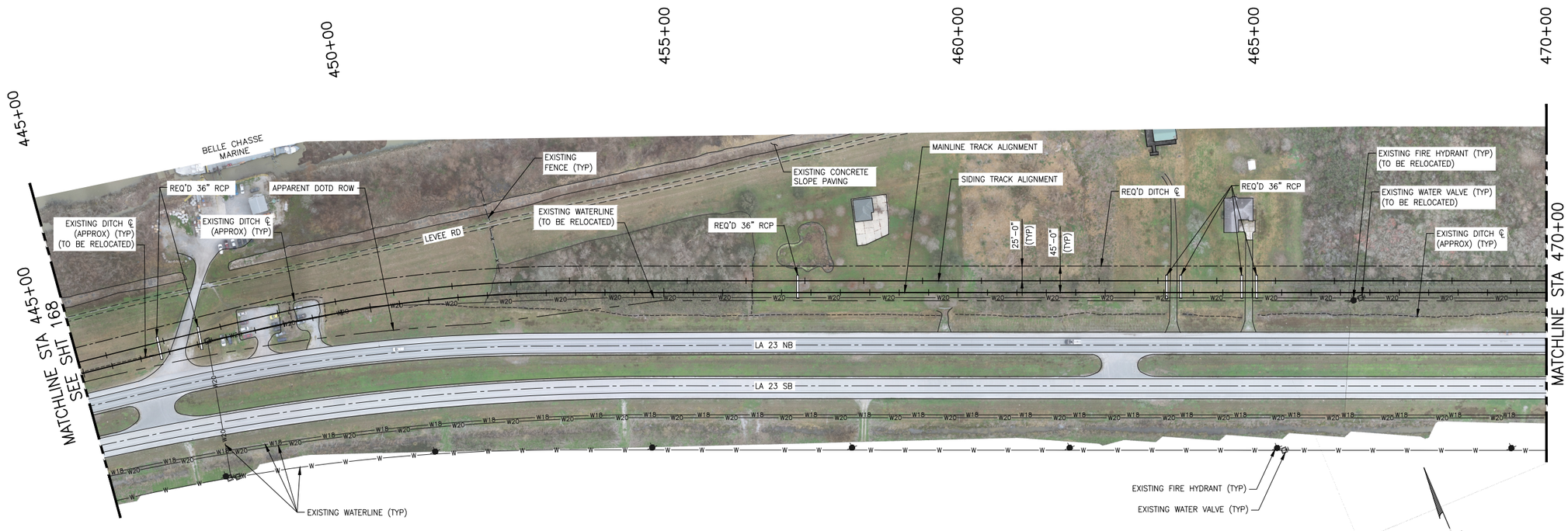

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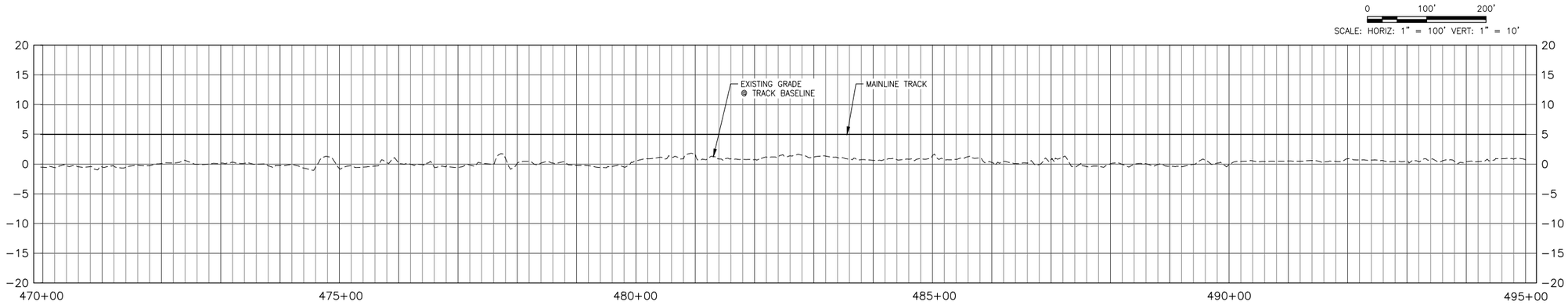

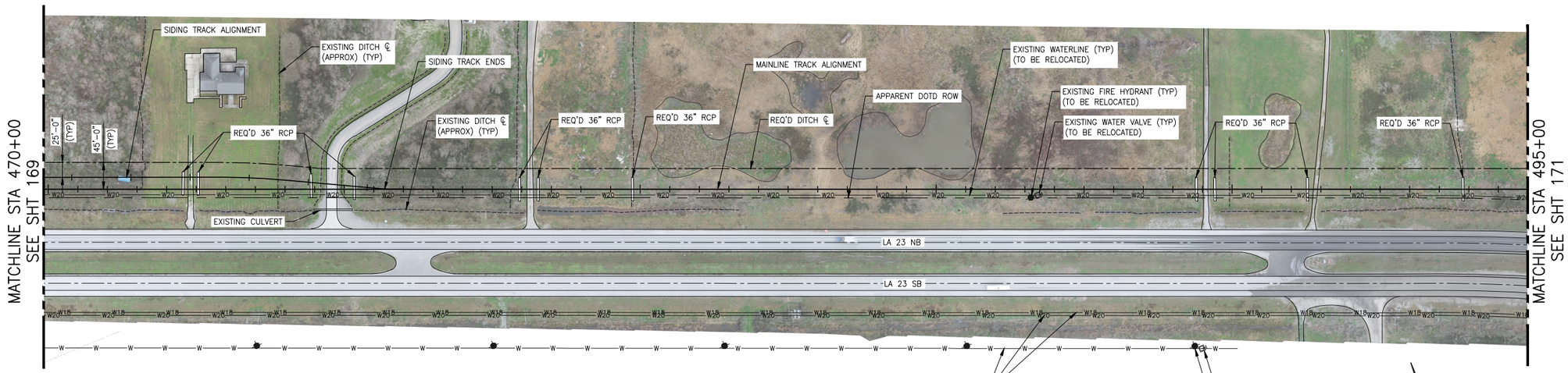

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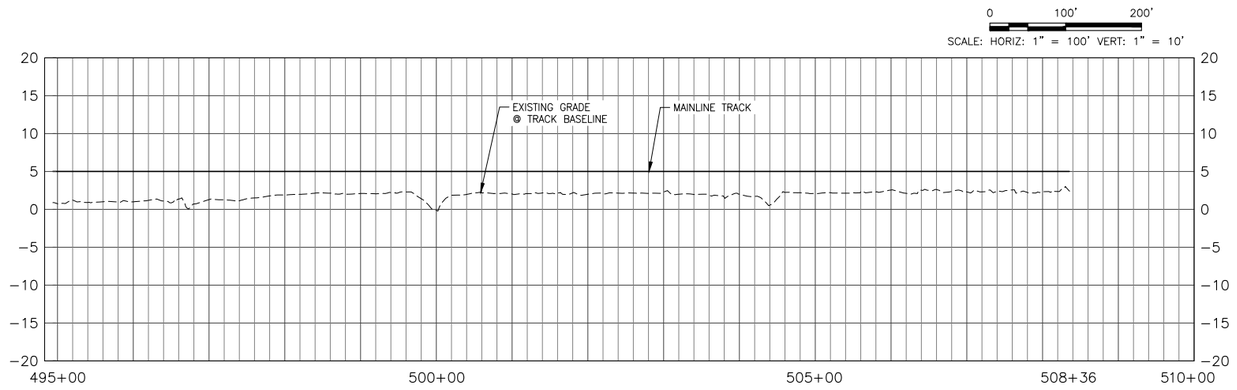

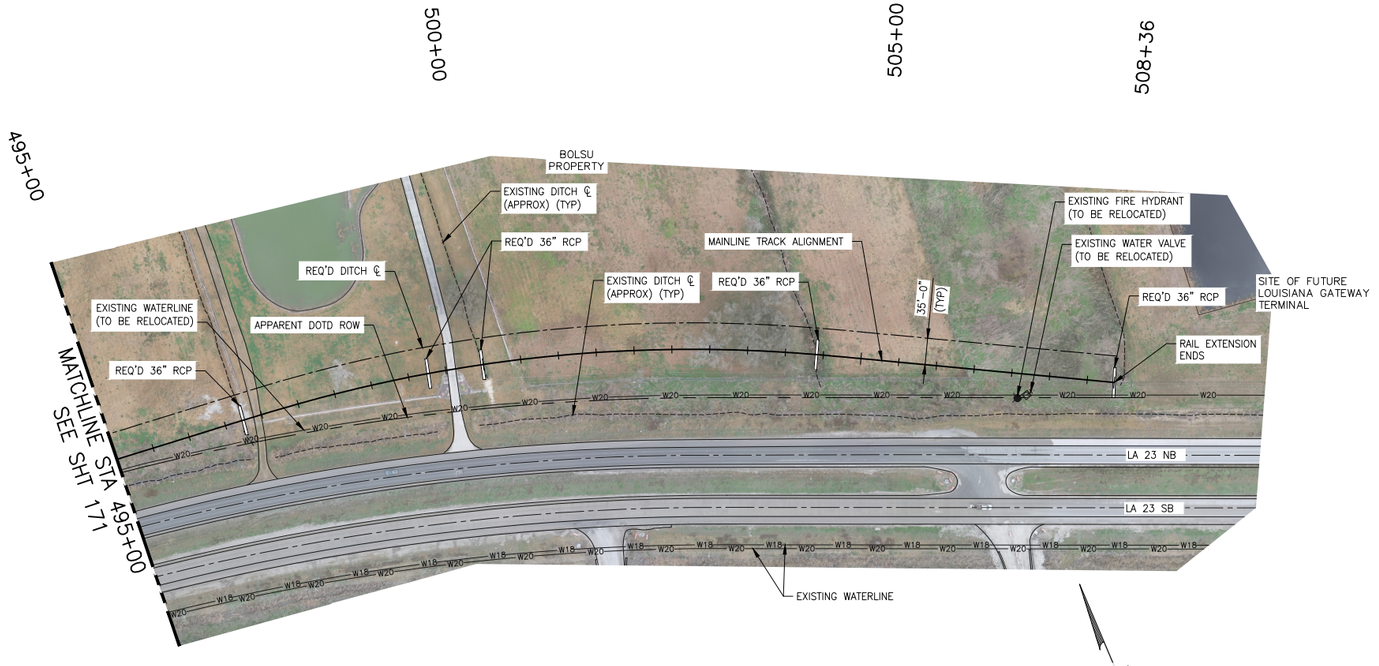

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Appendix D

KMZ Files (Transmitted Electronically)

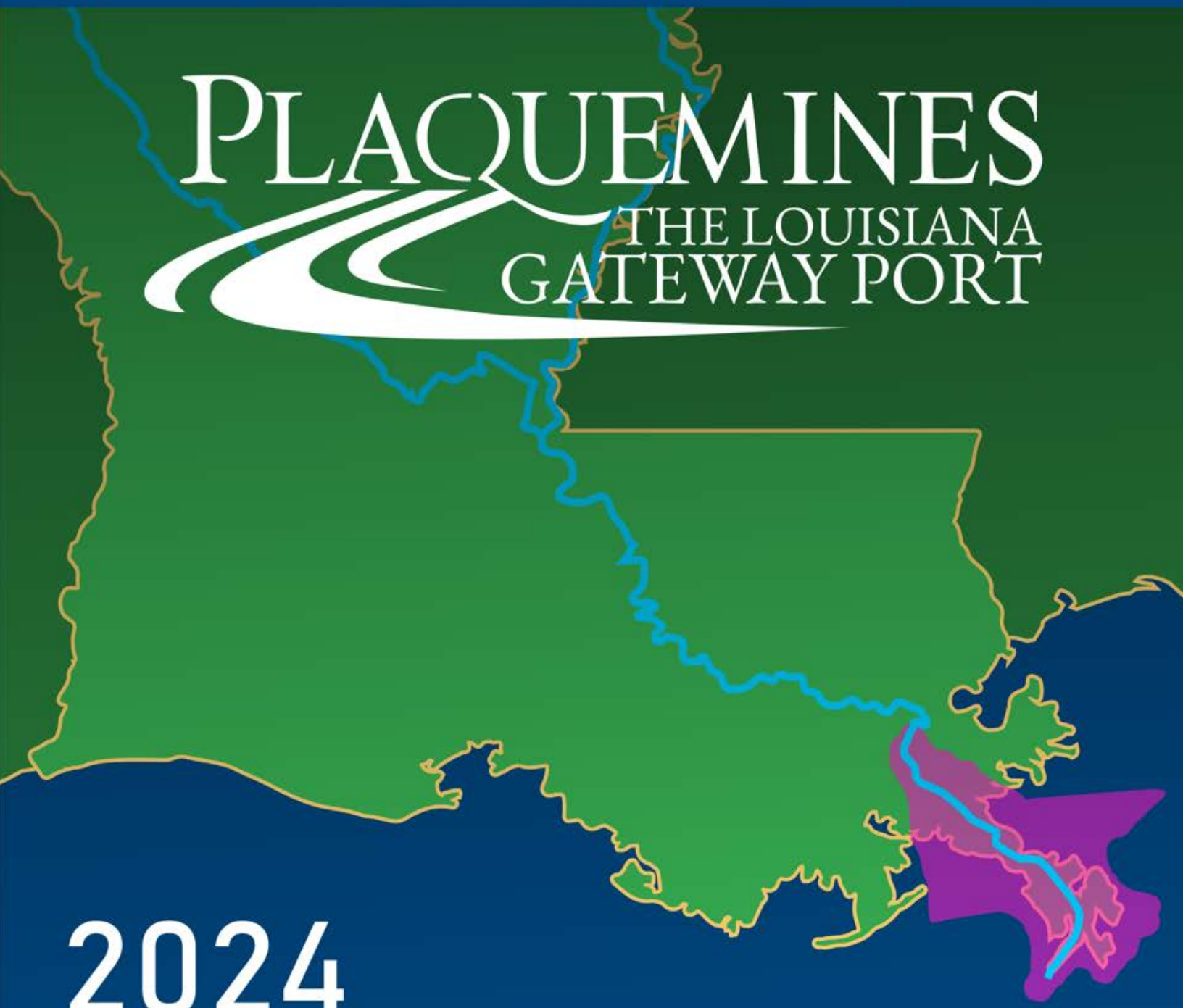
The following geospatial files are transmitted electronically concurrent with this Comprehensive Response and are incorporated herein by reference:

1. *25031_PP_Alignment.kmz*
2. *ProposedStagingAreas.kmz*

Appendix E

Plaquemines Port. 2024 Master Plan: Turning Bigger Ships Faster

PLAQUEMINES
THE LOUISIANA GATEWAY PORT



2024 MASTER PLAN
TURNING BIGGER SHIPS FASTER

Prepared by:

Bujanda & Allen® | INFRASTRUCTURE AND ECONOMIC ADVISORS

TBG The Bridges Group International LLC

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Acronyms

- **AAPA** – American Association Port Authorities
- **AHP** – Above Head of Passes: Location on the Mississippi River upstream from the Head of Passes (HOP). The HOP is where the main stem of the Mississippi River branches off into three distinct directions at its mouth in the Gulf of Mexico. The river mile-marker (mm) is zero at the HOP and is measured above (upstream) or below (downstream) of the HOP.
- **ASC** – Automatic Stacking Crane
- **BCA** – Benefit-Cost Analysis: A method for quantifying total cost to the total expected reward of a project or investment.
- **B/C** – Benefit Cost Ratio: Identifies the relationship between the cost and benefit of a proposed project.
- **BHP** – Below Head of Passes: Location on the Mississippi River downstream from the HoP.
- **BLRE** – Beaver Lake Renewable Energy: Subsidiary of Sun Gas Renewables a green methanol plant in Pineville, Louisiana.
- **CAA** – Clean Air Act
- **CAGR** – Compound Annual Growth Rate: Measures how an investment or business has grown over a specific period of time. It considers the effect of compounding which means that the growth builds upon itself.
- **CAPEX** – Capital Expenditures: Funds used to acquire, upgrade, and maintain physical assets.
- **CEQ** – Council on Environmental Quality
- **CERCLA** – Comprehensive Environmental Response, Compensation, and Liability Act
- **CFIUS** – Committee of Foreign Investments In the United States
- **CO2** – Carbon Dioxide emission
- **COB** – Container on Barge
- **COVID-19** – Coronavirus Disease of 2019
- **CRISI** – Consolidated Rail Infrastructure and Safety Improvements program
- **CWA** – Clean Water Act
- **DDGs** – Dried Distiller Grains
- **DOT** – Department of Transportation
- **DPI** – Disposable Personal Income
- **EA** – Environmental Assessment
- **EIA** – Economic Impact Analysis: A methodology used for evaluating the impact of a project, program or policy on the economy of a specified region.
- **EIS** – Environmental Impact Statement
- **EPA** – Environmental Protection Agency
- **ESA** – Endangered Species Act
- **FEMA** – Federal Emergency Management Agency
- **FEU** – Forty-foot Equivalent Unit: the size of a container that is 40 feet.
- **FHWA** – Federal Highway Administration
- **FONSI** – Finding Of No Significant Impact
- **FTA** – Federal Transit Authority
- **GDP** – Gross Domestic Product
- **GIWW** – Gulf Intercoastal Waterway
- **HOP** – Head of Passes: the location of where the main stem of the Mississippi River branches off into 3 distinct directions at the mouth of the Gulf of Mexico.
- **IRR** – Internal Rate of Return: A metric used in financial analysis to estimate the profitability of potential investments. IRR calculations rely on the same formula to estimate the Net Present Value (NPV) of future cash flows.
- **LADOTD** – Louisiana Department of Transportation and Development
- **LDEQ** – Louisiana Department of Environmental Quality
- **LGCT** – Louisiana Gateway Container Terminal
- **MAG** – Minimal Annual Guarantee
- **MARAD** – U.S. Maritime Administration
- **MBTA** – Migratory Bird Treaty Act
- **MLLW** – Mean Lower Low Water
- **MPDG** – Multimodal Project Discretionary Grant
- **MRSC** – Mississippi River Ship Channel
- **NAFTA** – North America Free Trade Agreement
- **NHPA** – National Historic Preservation Act
- **NOAA** – National Oceanic and Atmospheric Administration

- **NOGC** – New Orleans and Gulf Coast railway company
- **NOx** – Nitrogen Oxide (gas emission).
- **NPDES** – National Pollution Discharge Elimination System
- **NPPV** – Net Present Public Value
- **NPV** – Net Present Value
- **OCA** – Ocean Carriers Alliances: Ocean carriers are companies that provide maritime transportation services for shipment of goods and materials by sea. Ocean Carriers Alliances: are cooperative groups of carriers that are committed to vessel-sharing agreements in order to help cover as much of the ocean-shipping market as possible.
- **OPEX** – Operational Expenditures: The cost or expenses that a business incurs as a result of performing its normal business operations.
- **OTO** – Ocean Terminal Operator (sometimes referred to as a Marine terminal operator or just Terminal Operator): A company engaged in providing and operating wharfage, dock, warehouse or other terminal facilities in connection with a common carrier.
- **PCE** – personal consumption expenditures
- **PDIP** – Port Infrastructure Development Program Grants
- **PM** – Particulate atter
- **RCRA** – Resource Conservation and Recovery Act
- **RM** – River Mile: A river mile is a measure of distance in miles along the river from the HOP. River mile marker is zero at the HOP.
- **RTG** – Rubber Tire Gantry
- **SDGs** – Sustainable Development Goals
- **SG&A** – Selling, General, and Administrative Costs
- **SP** – South Pass
- **STB** – Surface Transportation Board
- **STS** – Ship-to-Shore
- **SWP** – Southwest Pass
- **SWPPP** – Storm Water Pollution Prevention Plan
- **TEU** – Twenty-foot Equivalent Unit: the size of a container that is 20-feet. 2 TEU = 1 FEU for volume calculation purposes.
- **TIFIA** – Transportation Infrastructure Finance Innovation Act
- **TSCA** – Toxic Substance and Control Act
- **USACE** – United States Army Corps of Engineers
- **USEC** – United States East Coast
- **USGC** – United States Gulf Coast
- **USMCA** – United States Mexico Canada Agreement
- **USPC** – United States Pacific Coast
- **USWC** – United States West Coast
- **VOC** – Volatile Organic Compounds
- **WACC** – Weighted Average Cost of Capital

Glossary

- **Agribulk** – Agricultural goods shipped in bulk such as animal feed, grains, and oil seeds.
- **BCR** – Benefit Cost Ratio: Identifies the relationship between the cost and benefit of a proposed project.
- **Backhaul** – The return portion of a transportation move.
- **Base Case projections** – The forecast that represents the most likely outcome given current information.
- **Base oil** – An oil product from refining crude oil.
- **Benefit Cost Analysis** – A method for quantifying and comparing total cost to the total expected reward of a project or investment.
- **Breakbulk** – Goods shipped in crates, bags, boxes, drums, or barrels without the use of a shipping container.
- **Capacity** – The maximum amount of cargo that a terminal can contain (hold).
- **Capacity constraints** – Factors that limit the amount of output that can be produced in a given time period.
- **Capital expenditures** – Funds used to acquire, upgrade and maintain physical assets.
- **Carbon Black feed stock** – A byproduct of petroleum refining used to produce tires, rubber, black ink and other products.
- **Cargo** – Goods transported in a ship, airplane or vehicle; also referred to as freight.
- **Cargo dock** – Infrastructure where ships berth for loading or unloading cargo, or to undergo repairs and services.
- **Cargo terminal** – Location where loading and unloading of goods take place.
- **Central & South America tradelane** – Shipping routes between countries in South and Central America to and from the U.S.
- **Coal** – Black sedimentary rock used for energy production.
- **Commodities** – Raw material or primary agricultural product that can be bought or sold.
- **CAGR** – Compound annual growth rate: measures how an investment or business has grown over a specific period of time. It considers the effect of compounding, which means that the growth builds upon itself.
- **Containerized** – Cargo packed into and transported by containers.
- **Covered storage facilities** – Facilities used to store commodities and cargo to protect from weather.

- **Crude oil** – A raw natural resource that is extracted from the earth and refined into products such as gasoline, jet fuel, and other petroleum products.
- **Diesel** – Also known as diesel oil, it is any liquid fuel specifically designed for use in a diesel engine.
- **Direct cost** – A price that can be directly tied to the production of specific goods or services.
- **Discount rates** – The interest rate used to calculate the present value of future cash flows from a project or investment.
- **Drybulk** – Is raw material that is shipped in large unpackaged parcels like coal, iron ore, or grain. In this report grain is classified as agribulk and not counted as drybulk.
- **Economic Impact Analysis** – A methodology used for evaluating the direct, indirect, and induced impact of a project, program, or policy on the economy of a specified region.
- **Effective capacity** – The sustainable amount of cargo that a terminal can store or process accounting for downtime.
- **Empty stacker** – A forklift used for stacking empty containers in a marine container terminal.
- **Export** – Goods or services shipped to another country for sale.
- **Fertilizers** – A chemical or natural substance added to soil or land to increase its fertility.
- **Free trade** – Policies or agreements by which a government does not discriminate against imports or interfere with exports by applying tariffs (to imports) or subsidies (to exports).
- **Free Trade Agreement Nation**s – The United States has Free Trade Agreements (FTAs) with 20 different countries allowing free flow of goods without tariffs and/or subsidies.
- **Freight** – Goods or cargo carried by ocean ship, river vessel, barge, rail, truck, or airplane.
- **Fuel oil** – Fuel used in an engine or furnace.
- **Gasoline** – Refined petroleum used as fuel for internal combustion engines.
- **Gross Domestic Product (GDP)** – The monetary value of goods and services produced in a country in a given period of time.
- **GDP Multiplier Ratio** – it is a widely used metric when evaluating freight and commodity markets. This ratio expresses the relationship between the growth rate of GDP and the growth rate of its trade (e.g. commodity, cargo type, mode, trade flow, etc).
- **Grants** – Sum of money given by a government or other organizations for a particular purpose.
- **Greenfield development** – Any kind of real estate development in previously undeveloped areas.
- **Headhaul** – A headhaul is a load of cargo that is heading to its destination from point A to point B. It is also the leg of the trade route that has the highest volume and the highest revenue generating shipping lane from the shipper to the receiver.
- **Hustlers** – Hustlers are trucks used to move containers around a terminal or a rail yard.
- **Import** – Are goods or services shipped into a country from abroad for sale.
- **Indirect cost** – Are expenses incurred that are not directly related to making a product or service.
- **Intermodal** – Involving two or more different modes of transportation in moving goods.
- **Intermodal rail service** – Transportation of containerized freight using combinations of different modes of transport such as ocean, rail, truck, or barge.
- **Intermodal yard** – A transportation facility primarily dedicated to the business of rail and/or intermodal rail operations.
- **Internal rate of return** – The internal rate of return (IRR) is the annual rate of growth that an investment is expected to generate
- **Jet fuel** – Fuel used in Jet engines.
- **Landlord por**t – The Port Authority owns the docks and terminals which are then leased to terminal operators or tenants.
- **Leases** – A contract in which one party conveys land, property or services to another for a specific time in return for periodic payments.
- **Limestone** – A hard rock used in making building materials and cement.
- **Liquid bulk** – Liquid that undergoes transportation in large volumes such as crude oil, vegetable oil and certain chemicals.
- **Liquefied Natural Gas (LNG)** – A natural gas that has been cooled to a liquid state for transport and storage.
- **Market share** – The portion of a market controlled by a particular company or product.
- **Market study area** – An analysis of consumer demand for products or services over a designated geographic area.
- **Metric ton** – A unit that was adopted by the General Conference on Weights and Measures and retained as a unit that may be used alongside units typically used in the International System of Units (SI) to denote 1,000 Kg. The official SI unit is 1 megagram (Mg) which equals 1,000 Kg and 2,204.6 pounds.
- **Macroeconomic drivers** – Economic indicators concerned with large-scale or general economic factors such as interest rates and national productivity that are leading other time-series indicators; hence, are helpful to make educated guesses about the future.
- **Microeconomic drivers** – Study of the economy that Is concerned with the actions of individuals and businesses.
- **Money supply** – Total amount of money in circulation in a country.
- **Money supply M1, M2, & M3** – Measurements of the United States money supply, known as money aggregates. **M1** includes money in circulation plus checkable deposits in banks. **M2** includes M1 plus savings deposits of less than $100,000 and Money Market Mutual Funds. **M3** includes M2 plus large time deposits and banks.
- **North America Free Trade Agreement (NAFTA)** – Free Trade Agreements (FTAs) are policies by which a government does not discriminate against imports or interfere with exports by applying tariffs (to imports) or subsidies (to exports). NAFTA was an FTA among the U.S., Mexico, and Canada signed in 1994, which was later replaced by the USMCA in 2020. The U.S. has FTAs with 20 different countries.
- **Navigation channels** – Passages providing access to deep draft ships in coastal channels and shallow draft tows in inland waterways.

- **Ocean carriers** – A company that provides maritime transportation services for shipment of goods and materials by sea.
- **Ocean carrier alliances** – Cooperative groups of Ocean Carriers that are committed to vessel-sharing agreements in order to help cover as much of the ocean-shipping market as possible.
- **Ocean (or Marine) Terminal Operator** – A company engaged in operating a wharfage, dock, warehouse, or other terminal facilities in connection with common carriers.
- **Operating expenditures** – The cost or expenses that a business incurs as a result of performing its normal business operations.
- **Optimistic projections curve** – The most favorable prediction about the future state of the economy or a business activity.
- **Overhead expense** – Are fixed operating costs that are not linked to a product or service. These are typically regularly occurring expenses that the company needs to operate.
- **Pessimistic projections curve** – Taking the least favorable view of events or conditions in expecting an unfavorable outcome.
- **Pet Coke** – Final carbon-rich solid material that derives from oil refining process.
- **Petroleum products** – Fuel made from crude oil and the hydrocarbons contained in natural gas.
- **Rail yard** – A location to store rail vehicles while waiting to be loaded, unloaded, or assembled into a train.
- **Rebrand** – Change the corporate image of a company or organization.
- **Soybean Meal** – A by-product of soybean processing used in food and animal feeds principally as a protein supplement.
- **Soybeans** – An Asian plant in the bean family widely grown for its edible seeds that is rich in oil and proteins.
- **Supply chain** – A sequence of processes involved in the production and distribution of a commodity. The network of all the individuals, organizations, resources, activities and technology involved in the creation and sale of a product.
- **Supply chain disruption** – Any event that causes the disruption in the production, sale or distribution of a product, such as national disasters, pandemic and regional conflicts.
- **Tariffs** – A tax or duty to be paid on a particular class of imports or exports. The schedule of payment for services in a Port district.
- **Tenant** – Company or an entity who rents or leases property within a Port district or terminal.
- **Terminal** – A facility located on ocean or inland ports property and are used to load and off-load vessels of all types, store cargo of all types, and manage delivery and pickup of products to customers.
- **The Great Recession of 2007** – The worst economic downturn in the United States since the Great Depression that started in December 2007 and lasted until June 2009.
- **Throughput** – The number of materials or cargo passing through a terminal system or process.
- **Throughput capacity** – For a marine terminal is the maximum amount of cargo that can move through a terminal on an annual basis.
- **Ton** – A unit of weight equal to 2,000 pounds typically used in the U.S., different from a metric-ton (tonne), which is 2,204.6 pounds.
- **Tonne (metric-ton)** – A unit that was adopted by the General Conference on Weights and Measures and retained as a unit that may be used alongside units typically used in the International System of Units (SI) to denote 1,000 Kg. The official SI unit is 1 megagram (Mg) which equals 1,000 Kg and 2,204.6 pounds.
- **Top-pick** – A forklift used to stack loaded containers in a terminal yard.
- **Trade balance** –The difference in value between a country's imports and exports
- **Trade lane** – Or trade route is a specific pathway along which goods are transported between two or more locations, typically across international borders. Trade lanes are established based on the flow of goods and the economic relationships between countries or regions.
- **Transatlantic tradelane** – The pathway of ocean transportation between Europe and the East Coast of the Western Hemisphere across the Atlantic Ocean, including the U.S. East Coast.
- **Waterborne** – Any cargo transported via water.
- **Wetlands** – Areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time during the year, including the growing season.
- **Wharf** – A structure built alongside navigable waters for ships to dock to receive and discharge cargo or passengers.

Disclaimer

Market and economic projections contained on this report are inherently forward-looking and subject to several risks and uncertainties, and actual results may differ materially. These forward-looking statements are not guarantees or predictions of future performance, and involve known and unknown risks, uncertainties, and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this presentation. The information presented in this document has been obtained from or based upon sources believed to be reliable, but we do not represent or warrant its accuracy and are not responsible for losses or damages arising out of errors, omissions, changes, or from the use of information in this document. This report should not be relied upon as a recommendation by Bujanda & Allen LLC, The Bridges Group International LLC, and our affiliates.

1. Introduction

Plaquemines: The Louisiana Gateway Port—is a vital maritime hub located at the mouth of the Mississippi River, serving as a major gateway for international trade and commerce. Plaquemines Port encompasses 1,691.8 acres, from which 548 acres are developed, and provide a variety of facilities to accommodate various cargo types. The port receives three revenue streams: tariffs, leases, and grants. The port does not receive taxpayer dollars as revenue. With no air draft limitations from bridges, 14 major anchorages, and 81 miles of deep draft of at least 50 ft, Plaquemines Port allows large vessel navigation, making it an ideal location for imports and exports, providing water access to more than 20 states. These states benefit from access to freight by barge, a greener and more efficient mode.

The port has specialized cargo-handling infrastructure and berths capable of handling agribulk, breakbulk, drybulk, liquid-bulk, project cargo, container vessels, and significant new terminal developments for liquid natural gas (LNG) and containerized freight. In addition to cargo handling, Plaquemines Port plays an important role in servicing the offshore oil and gas industry. It provides considerable support services and infrastructure for offshore drilling, storage, transportation, refining, petrochemical, as well as a supply base for equipment, employees, and resources. Overall, the port is a vital engine of economic growth and employment, contributing to the local economy through trade and service sectors, while placing a high value on environmental sustainability.

For several years, private commercial entities have approached Plaquemines Port regarding the potential development of port facilities to handle multiple cargo types and commodities. In support of these efforts, Plaquemines Port needs to assess potential markets and ultimately determine the degree of feasibility of any capacity expansions. Hence, it is critical to understand and document aspects such as master planning, multimodal connectivity, potential users, and expected levels of demand. Hence, it is critical for Plaquemines Port and project stakeholders to have an analytical framework that allows them to quantify potential demand levels that could realistically be attracted by Plaquemines Port.

1.1 Objective

The objective of this study is to develop a master plan that serves as a long-term roadmap for each of the major cargo types handled, such as:

- Agribulk
- Breakbulk
- Drybulk
- Liquid-bulk (particularly LNG)
- Project cargo
- Containers

1.2 Study area

The market study area comprises a 200-mile buffer around the Mississippi River and its main tributary marine highways. This buffer is considered the starting point to evaluate draw areas for potential freight flows entering or exiting through the mouth of the Mississippi River and Plaquemines Port. The port market study area, as defined in our *2023 Comprehensive Market Study of Plaquemines Port*, is shown in Figure 1.[1] The 2024 Port Facilities and Master Plan are described in Figure 2.

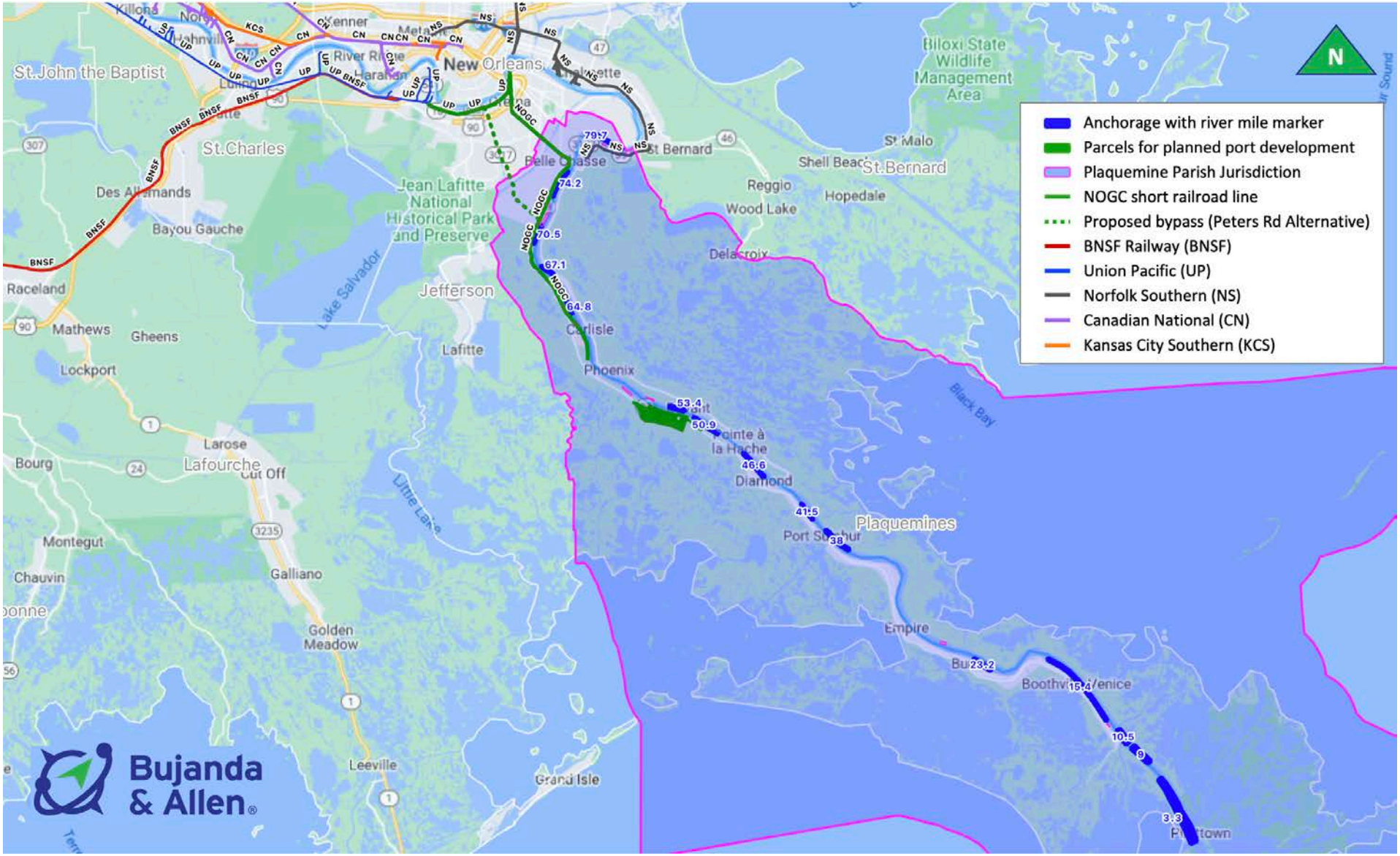
1.3 Report structure

This report is structured in fourteen sections including this one and two appendices, which present the economic impact analyses for Venture Global Plaquemines LNG LLC and Louisiana Gateway Container Terminal:

[1] 2023 Comprehensive Market Study of Plaquemines Port, Bujanda & Allen and The Bridges Group International, 2023, https://portofplaquemi.wpenginepowered.com/wp-content/uploads/2024/01/2301_BridgesGroup_Plaquemines_PUBLIC-FINAL-1.18.24.pdf

- **Section 1. Introduction** presents the project background, objectives, study area, and report structure**.**
- **Section 2. Vision, Mission, and Goals** presents the core principles for what Plaquemines Port aims to achieve in the future and what the port is doing presently to generate value for its customers.
- **Section 3. Planning approach** describes our four-step market-driven approach aligning market demand, existing facilities and pertinent infrastructure, handling equipment, operational capacity, traffic patterns, areas available for expansion, and environmental compliance.
- **Section 4. Stakeholder engagement** summarizes the findings of our structured group meetings, and interviews, aiming to understand operational needs, and obtain critical feedback valuable for the project.
- **Section 5. Market analysis** presents an overview of the macroeconomic environment and its impact on freight markets, industries contributing to freight movement in Plaquemines Port, and the commodities with greater potential in the short- and long-terms.
- **Section 6. Facility characteristics** documents the berth and cargo facilities, land use, as well as an analysis of potential constraints for future development.
- **Section 7. Capacity estimates** begins with an overview of our general assumptions, followed by an assessment of the capacity needs.
- **Section 8. Strategic direction & capital projects** presents a roadmap for existing terminal expansion and new terminal development for all cargo types (e.g. container, agribulk, drybulk, liquid-bulk), as well as supporting waterside and landside infrastructure such as highway connectivity and capital projects.
- **Section 9. Landlord port and operational model structure** designs a conceptual business management structure with direct implications on operating expenditures and the overall rentability of the project; the project site and terminal layout; and indicative startup capital costs.
- **Section 10. Financial analysis** integrates indicative volume, pricing, revenue, opex, and capex forecasts into a proforma discounted cash-flow (DCF) model and the expected net-present value (NPV) and internal rate of return (IRR).
- **Section 11. Benefit/cost analysis of public investment** identifies and quantifies potential public benefits that can accrue to the region in terms of transportation savings, carbon and non-carbon emissions, safety, and state of good repair.
- **Section 12. Economic impact analysis** assesses the direct, indirect, and induced economic benefits that could be expected to stem from an investment into the capital program of projects expected for Plaquemines Port.
- **Section 13. Environmental regulatory requirements** presents an outline of the regulatory requirements that Plaquemines Port must be compliant with.
- **Section 14. Conclusions** extracts and document the key takeaways from the overall study.
- **Appendix A.** Louisiana Gateway Container Terminal (LGCT) Economic Impact Analysis conducted by Loren C. Scott & Associates, Inc.
- **Appendix B.** Venture Global Plaquemines LNG Economic Impact Analysis conducted by Loren C. Scott & Associates, Inc.
- **Glossary.** Provides an alphabetical list of specialized terms or words found in or relating to a specific subject and their definitions to facilitate the reader access to further explanations of such concepts.

Figure 1. Plaquemines: The Louisiana Gateway Port Master Plan study area



Source: Bujanda & Allen, 2024.

Figure 2. Plaquemines: The Louisiana Gateway Port 2024 Port Facilities and Master Plan

ID	Company or property	Riverbank	River mile AHP	Main cargo type, current, or planned use
1	Stolthaven Braithwaite Terminal	East	79.5	Liquid-bulk
2	Amax Metal Recovery Inc (Port Nickel)	East	76.5	Breakbulk (design), drybulk
3	Chevron Oronite - Oak Point	West	72.3	Liquid-bulk
4	Madere & Sons Towing	West	72.3	Marine services
5	Cooper Moorings (Midstream)	West	72.0	Drybulk, Agribulk, Breakbulk
6	Harvest Midstream (formerly Conoco-Phillips 66 / Alliance)	West	63.0	Liquid-bulk
7	Cenex Harvest States (CHS) Myrtle Grove	West	61.5	Agribulk
8	Plaquemines Holdings Inc	West	61.5	Agribulk
9	Associated Midstream	West	61.0	Drybulk, Agribulk, Breakbulk
10	Vertex Refining - Maritime Facility	West	61.0	Liquid-bulk
11	Vertex Refining - Myrtle Grove	West	61.0	Liquid-bulk
12	NOLA Terminals	West	59.0	Drybulk, Liquid-bulk
13	International Marine Terminal (IMT) Coal (Kinder Morgan)	West	57.0	Drybulk
14	United Bulk Terminal (Davant)	East	55.4	Drybulk
15	Parcel 1 Port Development	West	55.0	Greenfield project

ID	Company or property	Riverbank	River mile AHP	Main cargo type, current, or planned use
16	Parcel 2 Venture Global	West	54.5	LNG (under consruction)
17	Parcel 3 Venture Global - Piano Keys 1	West	54.0	LNG (under consruction)
18	Parcel 4 Onsite Concrete	West	53.5	Cement/concrete (under construction)
19	Piano Keys 2 Parcels	West	53.0	Port seeking purchase agreements
20	Parcel 5 Woodland	West	52.5	Greenfield project
21	Parcel 6 Woodland Borrow Pits	West	52.0	Borrow pit with Batture access
22	Gulfstream LNG (at Magnolia Terminal)	West	47.0	Greenfield project
23	Bohemia Midstream	East	46.6	Greenfield project
24	Chevron Empire (pipeline)	East	27.5	Liquid-bulk
25	Plains Venice (Curlew Midstream)	West	11.8	Liquid-bulk
26	Venice Port Complex	West	11.4	Greenfield project
27	Pilot Town Anchorage	MR	3.3	Minimal usage partially silted
28	Tiger Pass dredging project	MR	-	All traffic
29	Head of Passess	MR	-	All traffic
30	Southwest Pass (SWP)	MR	(22.0)	All traffic

Source: Bujanda & Allen with information from Plaquemines Port, 2024.

2. Vision, mission, values, & goals

Plaquemines Port's slogan, ***"The Louisiana Gateway Port—Turning Bigger Ships Faster"*** is a testament to its vision, mission, and values statements, which we outline in this section; moreover, we outline Plaquemines Port's goals for this Master Plan to guide the development of the port in the near, medium, and long terms. These declarations support the superior geographic location, decades of sustained growth of existing commodity and customer groups, and the unparalleled future greenfield terminal development opportunities.

2.1 Vision

Be the leading U.S. International Gateway Port in the Gulf of Mexico.

2.2 Mission

Develop and promote a safe maritime district and cargo handling processes to enhance economic vitality and job growth.

2.3 Values

1. Drive integrity and trust
2. Demand customer focus
3. Foster transparent communication
4. Provide safe, efficient, and reliable services
5. Think community first, but with a global vision
6. Embrace a culture of excellence and customer service
7. Leverage technology and innovation
8. Champion environmental stewardship
9. Deliver continuous process improvement

2.4 Goals

Plaquemines Port growth is based on decades of legacy cargoes that have, year over year, outpaced normal market growth and has shown significant resilience in challenging market conditions, such as major weather events and the recent pandemic. Our customers and tenants are loyal and have steadfastly held ground, expanded footprints, operations and continued to employ hundreds of Parish and State residents that enables strong economic sustainability.

In, 2022 the port acquired the Parish's Ferry assets and currently has full operational control over ferry operations and maintenance. The port operates its ferry assets consistent with its mission statement. The port will operate safely, efficiently, and reliably, while delivering invaluable ferry service to the community, supporting traffic flows, and economic growth within the Parish.

The Vision for Plaquemines Port to be the leading International Gateway Port in the Gulf of Mexico in this Master Plan will guide our management team's efforts to help our existing customers continue to grow their business. The Vision encompasses our ability to leverage our natural geographic attributes to attract new business partners using bigger ships from Asia, South America, Mexico, and Europe to Louisiana.

Our goals to support the Vision will be key performance indicators as we move forward. We have identified the following key goals to be achieved toward the Master Plan's strategic outlook and planning:

- Increase Plaquemines Port's role as an economic engine for the State of Louisiana, Plaquemines, and surrounding Parishes.
- Support the growth of the existing tenants, customers, and port related businesses to maximize throughput utilizing the current infrastructure.
- Optimize the operations, safety, reliability, availability, and frequency of service by the ferry department services.
- Promote infrastructure development projects to address intermodal, rail, barge, and traffic fluidity in the supply chain.
- Promote and support the continued development of Venture Global Facilities and operations.
- Complete the public private partnership development of infrastructure that supports container terminal operations.
- Plan and develop a state-of-the-art container terminal that will utilize innovative technologies to minimize carbon emissions and reduce overall negative environment impacts.
- Plan to achieve net zero CO_2 emissions by 2050 in line with key energy-related Sustainable Development Goals (SDGs).
- Expand the market reach of Plaquemines Port via an aggressive International Branding and Marketing campaign that positions Plaquemines Port as the preferred Gulf of Mexico gateway to the U.S. consumer markets.
- Promote private investment in facilities and businesses that support supply chain development and job creations such as warehouses, distribution, and fulfillment centers.
- Create cross-Gulf service to Mexico to capture booming nearshoring opportunities, since Mexico is now the U.S.'s largest trading partner.
- Rebrand the port and business units strategically to improve global geographic recognition and through the Gulf Coast; furthermore, create an interactive website to transparently communicate development opportunities, community outreach plans, and community related port emergencies.

To achieve these goals, the Master Plan will list the capital investments currently planned for the port. The plan will identify future needed projects and their projected capital costs. This is not intended to be an engineer level plan, but it will provide an informed estimate of cost associated with the needed development. The achievement of goals listed will be timed to address improvement as needed to meet market demands and funding opportunities.

3. Planning approach

The planning approach for the development of this Master Plan was based on a straightforward market driven effort. The process includes aligning the various cargoes volumes currently handled at the port along with the econometric volume forecast over the next twenty years to assess the operational capacity and to determine future facilities' needs. With this approach decisions on future facility investments are based on the forecasts contained in the *2023 Comprehensive Market Study of Plaquemines Port* along with input from tenants and customer stakeholders.[2] Future facility needs and investments are translated into individual projects options that will deliver the required additional capacity and produce the best economic outcomes for the port.

The planning approach consists of stakeholders' engagement, assessment of market opportunities, quantify benefits, establish goals, assess facility condition/capabilities, identify options for investment, develop plans, ensure compliance, finalize plan, and implement.

3.1 Commercial assessment

Includes the results of updated data collection and analysis from the *2023 Comprehensive Market Study of Plaquemines Port*. In this market study, each of the major cargo groups were assessed and analyzed in the following tasks:

- Assessment of historical and current market's data.
- Development of cargo forecast and forecast curves.
- Identification of potential new markets.
- Development of competitive logistics hinterland for the port.

3.2 Facilities assessment

Provides a current inventory and condition of all terminals, infrastructure, equipment, and capacity within the port. In Plaquemines, it is important to note that the ownership and operational control of most of the facilities are privately held. Plaquemines Port's role in the development, maintenance, upgrades, and financial investment in these facilities is limited. In the planning approach for this Master Plan, Plaquemines Port will act as a conduit to aid the tenants and customer base grow their respective business by identifying potential cargo diversification opportunities and future facility needs.

The planning approach for facility assessment is focused on ensuring that based on market study analysis that capacity demands are being considered by the tenants and that the port is a partner in coordinating meaningful leadership with regulatory and other agencies to expediate getting things done.

With the announced Letter of Intent of a private terminal operator to develop a container terminal, the facility assessment focused on the projected cargo throughput and capacity model for container operations.

3.2.1. Needs assessment

The specific need for capacity was identified based on cargo projection curves in the market study. The three projections curves are Base Case, Optimistic, and Pessimistic. Each projection curve was analyzed to determine gaps in capacity requirements such as berths, warehouse, and open storage to provide the overall picture of facility infrastructure to be addressed in the planning approach.

[2] 2023 Comprehensive Market Study of Plaquemines Port, Bujanda & Allen and The Bridges Group International, 2023, https://portofplaquemi.wpenginepowered.com/wp-content/uploads/2024/01/2301_BridgesGroup_Plaquemines_PUBLIC-FINAL-1.18.24.pdf

3.2.2. Strategic direction

The strategic direction and priorities of infrastructure development were determined utilizing data from the commercial, facility and needs assessments. Existing customer's plans were included as provided. The direction for the container terminal complex is based on projected volumes of new cargos and in consultation with the private terminal operator.

3.3 Infrastructure planning

The future infrastructure development plan was created once the strategic direction, project inventory, and capacity requirements were specified. The necessary infrastructure upgrades and amenities were integrated within the port's footprint during a 30-year timeframe. The necessary facilities were first produced as separate design modules, scaled drawings, and arrangements on port footprint scale models. Preferred sites were identified and recorded at a high level by repeatedly positioning the different modules on the port map involving stakeholders throughout the planning process. Major improvements were identified as individual capital projects. The next step is the preparation of a capital plan, considering timeline, projected cost, and volume triggers. The final step of the infrastructure planning was assessing the economic impacts and development that could be accrued to the region.

The Port will work closely with the Parish in estimated infrastructure needs that support Port growth. A cooperative endeavor agreement will be used to jointly develop projects that impact Public Benefit.

3.3.1 Planning models

The integration of the outputs of various modelling tools was essential to the planning process. The market forecast projections, facility capacity assessment, various capital projects and their resulting capacity improvements, and the resulting computations for future port financials—including revenues, costs, net revenue, capital expenditures, and return on investment indices—all were integrated and analyzed together.

We also organized the discrete capital improvements that will be performed over time, considering their impacts on the expected port's yearly financials to properly scale and phase the capital projects over time aiming for the most efficient outcome. Lastly, potential monetary advantages are analyzed considering private and public funding sources, such as grant applications and lease agreements.

3.3.2 Economic impact assessment

The planning approach for the economic impact assessment for Plaquemines Port's contribution to the region and state is analyzed in the economic impact report. The economic impact report was produced by Dr. Loren Scott and incorporated into the Master Plan. Loren C. Scott & Associates Inc is a respected firm with 35 years of experience that provides economic consulting services based in Louisiana. Consulting activities include economic impact studies (EIA), forecasting services, policy analysis, and general economic analyses.

3.4 Environmental compliance

The default strategy in the planning approach was to avoid negative environmental impacts wherever possible. However, any proposed capital project may have environmental impacts. These impacts will be addressed on a project-by-project basis over time in the permitting process. The Master Plan conducted a high-level assessment of potential environmental impacts and suggested mitigations.

3.5 Finalize plan

The final step of the Master Plan is the preparation of a Master Plan report. Key findings and recommendations to execute and go forward are presented.

4. Stakeholder engagement

As an integral component in the development of *the 2024 Plaquemines Port Master Plan* actively engaged the port community, tenants, customers, and port related businesses to measure their concerns, growth plans and infrastructure needs. We reached out to 20 companies. The response rate to our request was 75 percent. We interviewed 16 companies and over 30 individuals within the responding companies. In this process we identified several recurring themes. All answers where consolidated based on such themes to preserve the confidentiality of the respondents.

4.1 Stakeholder survey

Aiming to keep pace with current and future demands from Plaquemines Port's current and prospective clients and markets, TBGI developed a survey instrument that was used primarily by phone with some in-person interviews. The goal was to effectively collect any information needed to address our research objectives and ultimately make business decisions. Questions were divided into primary and secondary.

Survey instrument

Primary questions:

- What are three things that would help improve your interaction with Plaquemines Port?
- What Plaquemines Port can do to improve your service experience?
- Do you call or use any other port on the Gulf of Mexico?
- Do you call or use any other port in the U.S.?
- How would you rate Plaquemines Port in comparison to other ports that you deal with?
- Over the next five to ten years do you anticipate growth in your level of business? How much?
- How can Plaquemines Port help you increase your business?
- What do recommend that Plaquemines Port do to increase its overall business?
- Do you support the development of a container terminal at Plaquemines Port?
- Is Plaquemines Port a good neighbor in terms of community, social, and environmental issues?
- Do you have data or records for the following:
    - Property boundaries
    - Building footprints
    - Dock footprints
    - Roads and driveways
    - Utilities

Secondary questions:

- Can you describe a positive experience you have had with Plaquemines Port?
- Can you describe a negative experience you have had with Plaquemines Port?
- Do you think that Plaquemines Port is an asset to Plaquemines and Louisiana and why or why not?
- What is your overall impression of Plaquemines Port's future and the ability to grow?
- Does Plaquemines Port communicate with you when there are service issues or concerns?
- Would support the creation of a Port Customer Advisory Committee?

4.2 Key takeaways

Based on the findings from our interviews to the 15 companies and over 30 individuals within the responding companies, TBGI identified the following reoccurring themes, which we consolidated to preserve the confidentiality of the respondents, in the following major key takeaways:

- **Plaquemines Port is a key catalyst and driver of economic growth** in the Parish and surrounding communities.
- **Cargo growth is a common theme for the commercial stakeholders.** Many of the stakeholders commonly agreed that there are clearly great expansion opportunities within the port district and specifically most tenants' plans include growth in their current footprint. Much of the anticipated volume growth is based on continuing recovery from the COVID pandemic as well as organic market growth and expanding demand.
    - **Agribulk** is the fastest growing business commodity sector and foresees advancement in loading technologies and processes that will improve throughput velocity and productivity.
    - **Drybulk**, mainly bulk coal, is stored and distributed primarily for domestic use and anticipates stable to moderate growth. Market fluctuations in coal are often offset by the growth in other drybulk commodities, such as: pet-coke, pig iron, limestone, and fertilizer.
    - **Liquid-bulk** commodities stakeholders anticipate growth from international demand. The mid-stream production, storage and delivery capacity of petroleum products will require minimum upgrades and expansion, but there will be some isolated opportunity for infrastructure upgrade.
- **Community outreach and impact**. The responding stakeholders all sighted their outreach to local community causes and activities. Many voiced concerns over the disconnected nature of the process and the belief that a more coordinated approach to community support would be more impactful.
- **Benefits of establishing a port customer advisory group**. To assist port staff in identifying, vetting, and promoting potential port opportunities and projects. The committee would become a strong community advocate and educational resource, thereby expanding the staff communications outreach and buy-in.
- **Support the development of the Venture Global project and the development of the container terminal and intermodal container transfer facility in Plaquemines**. Many believe that the developments will have positive implications for the growth of their business and the economic growth for the community.
- **The need for local employee resources to support current and future growth needs**. Many expressed that although their employee retention is good, the recruitment, developing and maintaining new personnel is challenging due to the lack of local availability of talent.

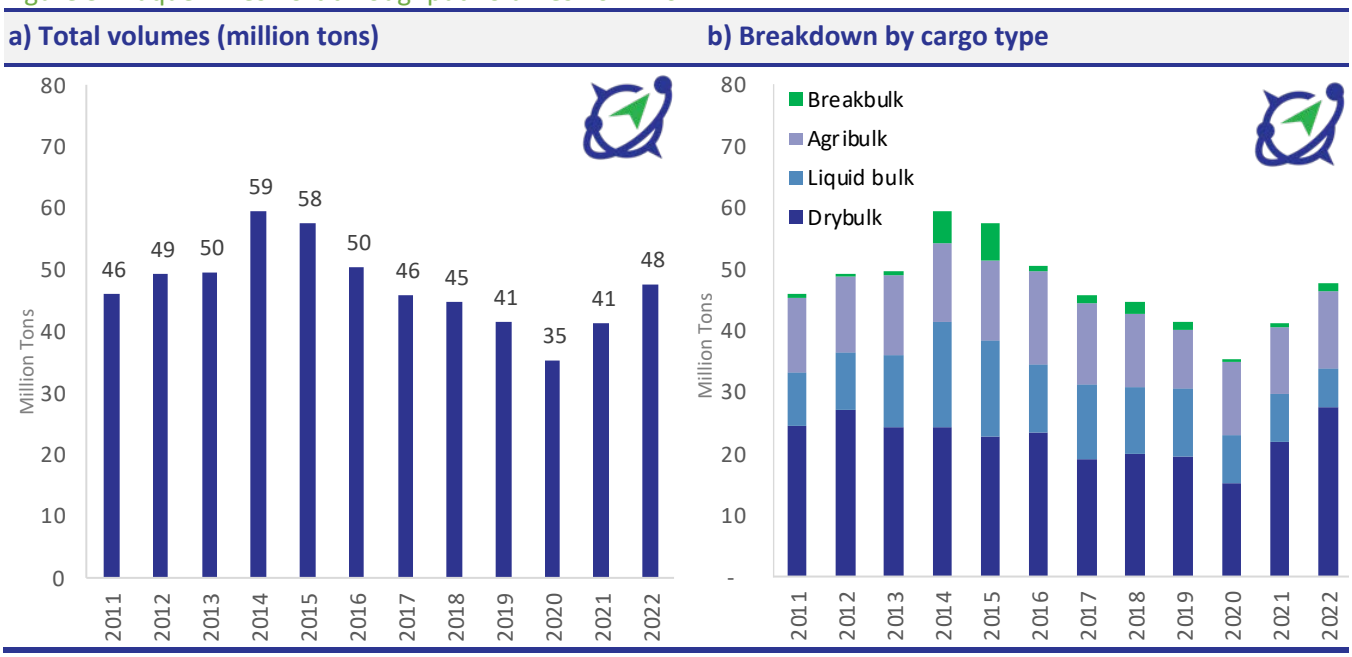
5. Market analysis

This section presents a summary of then *2023 Comprehensive Market Study of Plaquemines Port*.[3] We analyze throughput volumes via the port, identifying incumbent markets and top commodities. We present key macroeconomic drivers behind freight demand in North America and historical trends. We analyze headhaul volumes for imports and exports for non-containerized and containerized freight as well as coastal shares for each of the Pacific, Atlantic, and Gulf coasts. We quantify the market shares for the deep-draft ports in the U.S. Gulf with particular attention to those competing with Plaquemines Port.

5.1 Plaquemines Parish Port traffic

Plaquemines Port has historically served mainly **drybulk markets**, with a **2011-2022 average of 48%** of the total volume, composed primarily of **Coal, Pet Coke, Pig Iron, Limestone,** and **Fertilizers**. **Agribulk ranks next with 26%** of the cargo, followed by **breakbulk** with **3%**. **Liquid-bulk** commodities represent **23%** of the total volume (broken down in Oil & Fuels with 12%, Gases with 2%, and Other Liquids with 9%). Plaquemines Port's volume peaked in 2014 at **59 million tons** and bottomed in 2020 at the onset of the COVID-19 pandemic. In 2022, volumes have recovered to pre-pandemic levels. Plaquemines Port's total volumes and their breakdown by cargo type are shown in Figure 3.

Figure 3. Plaquemines Port throughput volumes 2011-2022



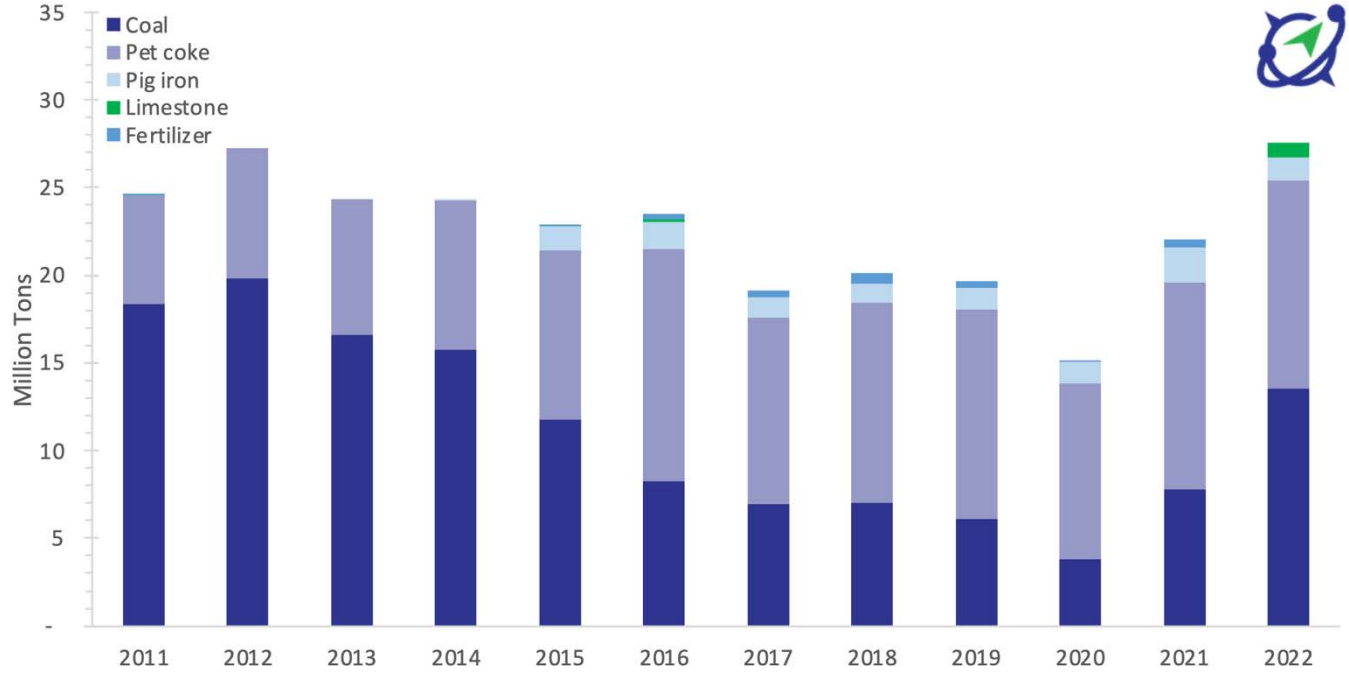
Source: Bujanda & Allen, 2023 with data from Plaquemines Port. Tonnage for some commodity groups were estimated from barrels for 2014 and 2015 using specific gravity factors provided by the port.

5.1.1 Drybulk

Drybulk markets at Plaquemines Port have faced ups and downs during the last decade. With a **2011-2022 average** of **11.3 million tons**, **Coal represents about 50%** of the drybulk market in the same period; followed by **Pet Coke with 44%**, **Pig Iron with 4%**, **Limestone with 1%**, and **Fertilizer with 1%**. Coal shipments have been more volatile due to regulatory changes introduced in 2015 pushing for cleaner energy. This led to less demand for coal, affecting exports via Plaquemines Port, until late 2018 when some of the regulatory restrictions were rolled back. Plaquemines Port's drybulk market is shown in Figure 4.

[3] 2023 Comprehensive Market Study of Plaquemines Port, Bujanda & Allen and The Bridges Group International, 2023, https://portofplaquemi.wpenginepowered.com/wp-content/uploads/2024/01/2301_BridgesGroup_Plaquemines_PUBLIC-FINAL-1.18.24.pdf

Figure 4. Plaquemines Port drybulk throughput volumes by commodity 2011-2022

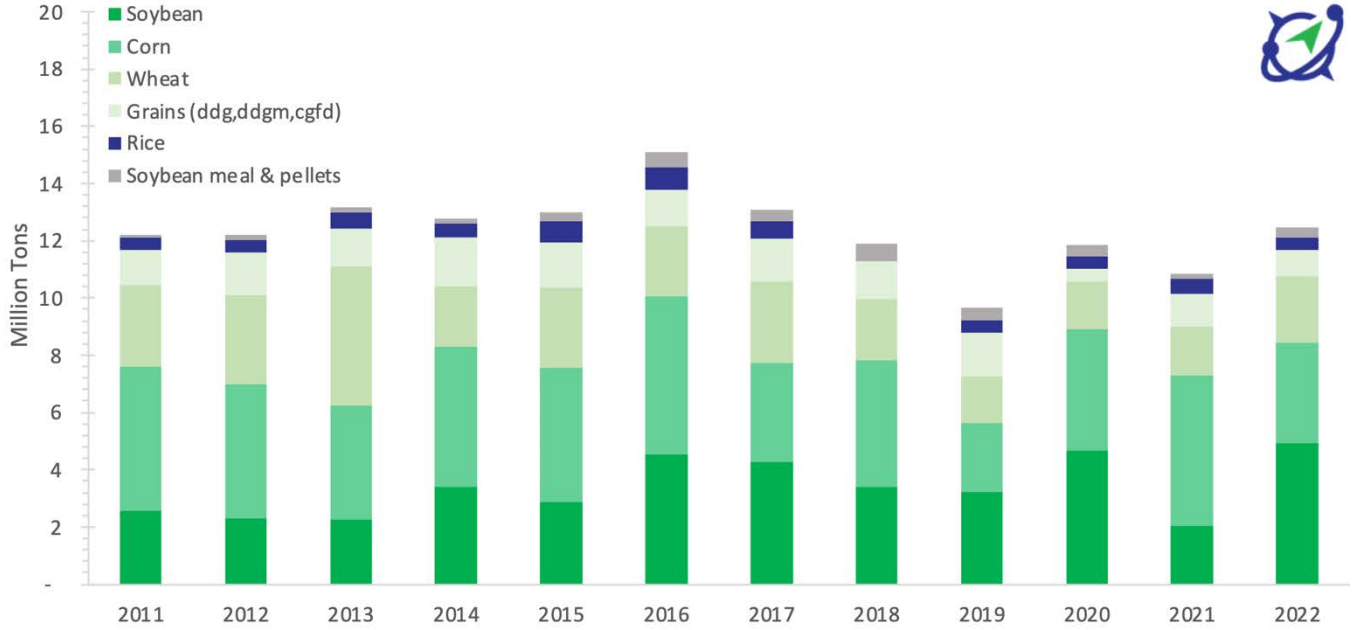


Source: Bujanda & Allen, 2023.

5.1.2 Agribulk

Agribulk markets at Plaquemines Port have faced ups and downs during the last decade. With an annual 2011-2022 average of **12.4 million tons**, **Corn represents about 35%** of the agribulk market volume; followed by **Soybeans with 27%**, **Wheat with 21%,** Dried Distillers Grains (**DDGs) with 10%**, **Rice with 4%**, and **Soybean Meal & Pellets with 3%**, as shown in Figure 5.

Figure 5. Plaquemines Port agribulk throughput volumes by commodity 2011-2022

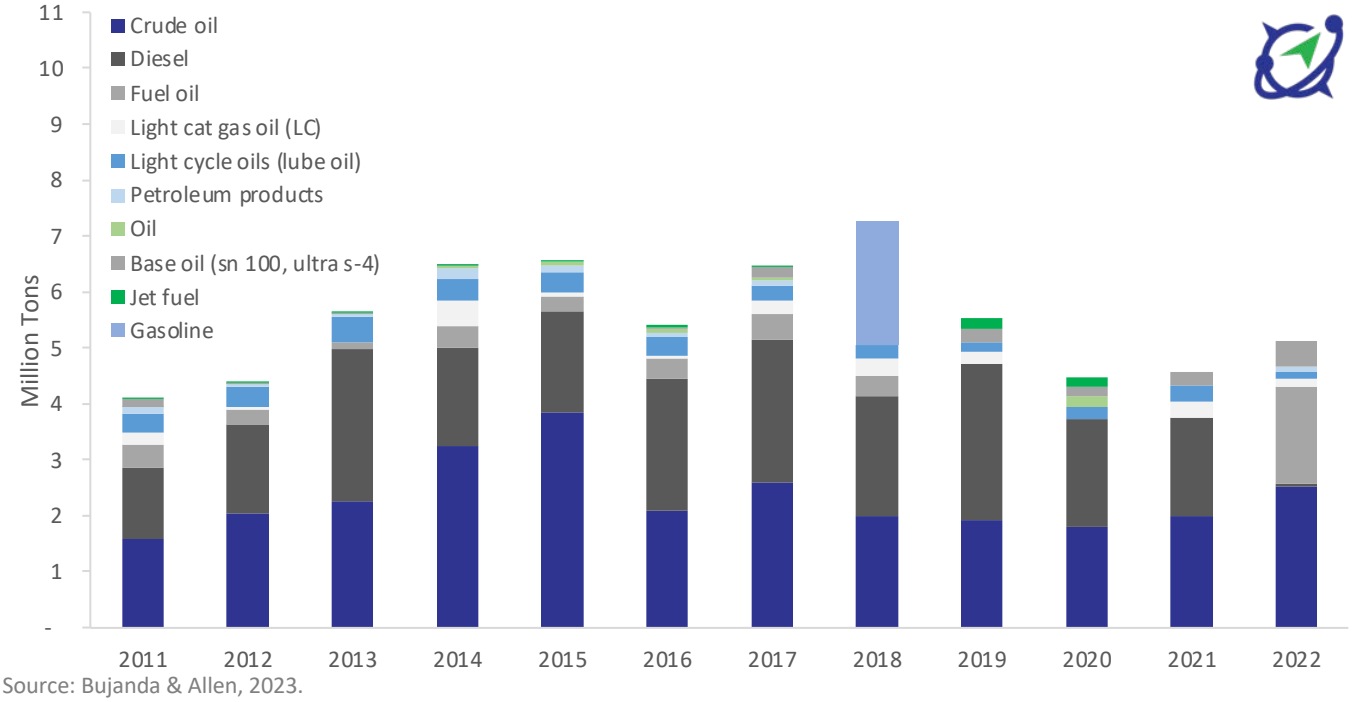


Source: Bujanda & Allen, 2023.

5.1.3 Liquid-bulk and gases

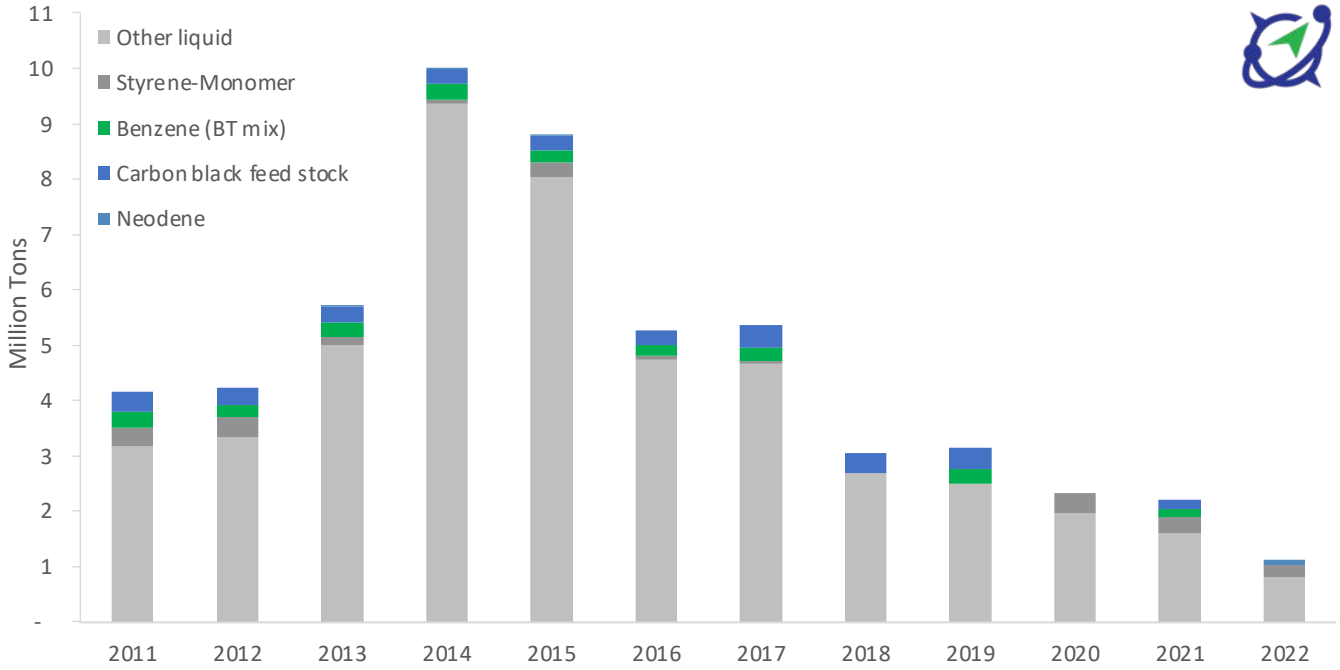
Plaquemines Port liquid-bulk and gas markets comprise a wide range of raw and refined products, which we grouped in three categories: (i) Oil & Fuels, (ii) Other Liquids, and (iii) Gases. With a 2011-2022 average of 2.3 million tons, **Crude Oil** is **31%** of the Oil & Fuels market; followed by **Gasoline** with **30%**, **Diesel** with **25%**, **Fuel Oil** with **5%**, **Light Cycle Oils** with **4%**, as well as Base Oil (SN 100, Ultra S-4), Light Cat Gas Oil, Jet Fuel, and Other Petroleum Products each with about **1%**. Liquid-bulk throughput volumes are shown for Oils & Fuels in Figure 6 and Other Liquids in Figure 7.

Figure 6. Plaquemines Port oils & fuels throughput volumes by commodity 2011-2022



Source: Bujanda & Allen, 2023.

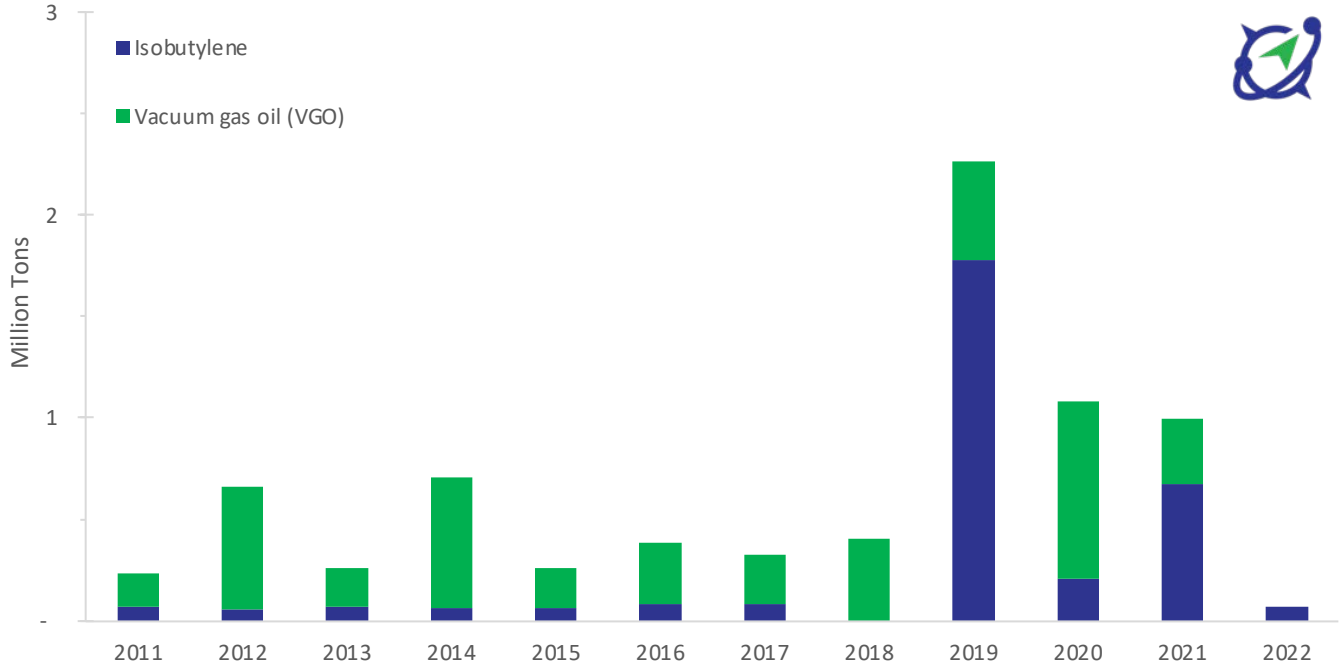
Figure 7. Plaquemines Port other liquid-bulk throughput volumes by commodity 2011-2022



Source: Bujanda & Allen, 2023.

The throughput volume of Gases at Plaquemines Port is relatively lower when compared to the Oil & Fuels and Other Liquids commodities, with an annual **2011-2022 average of 0.63 million tons**. **Vacuum Gas Oil (VGO) represents about 3.4% on average** of the gas markets, followed by **Isobutylene also with 2.5%.** Plaquemines Port gas volumes by commodity are shown in Figure 8.

Figure 8. Plaquemines Port gases (liquid-bulk) throughput volumes by commodity 2011-2022

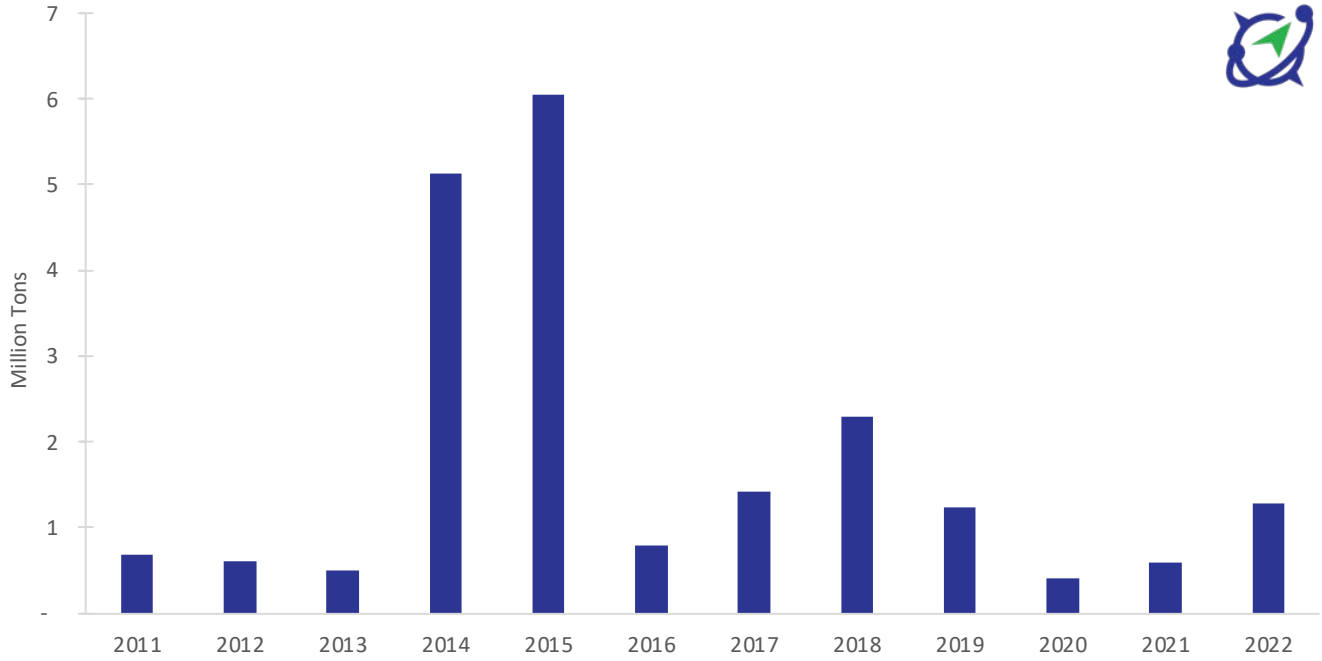


Source: Bujanda & Allen, 2023.

5.1.4 Breakbulk

Breakbulk markets at Plaquemines Port peaked in 2015, with strong years in 2014 and 2018. During the last 5 years, this category comprises super sacs of raw cement, stone, sand, and construction raw materials. Break-bulk throughput volumes are shown in Figure 9.

Figure 9. Plaquemines Port breakbulk throughput volumes 2011-2022



Source: Bujanda & Allen, 2023.

5.2 Macroeconomic overview

To anticipate future transportation needs, it is necessary to anticipate freight demand in the U.S. using a variety of indicators and data sources. Indicators that are frequently used to project freight demand include: real gross domestic product (GDP), employment, wages, consumer sentiment, personal consumption expenditures (PCE), as well as trends in durable and non-durable goods.

5.2.1 Real GDP and freight demand

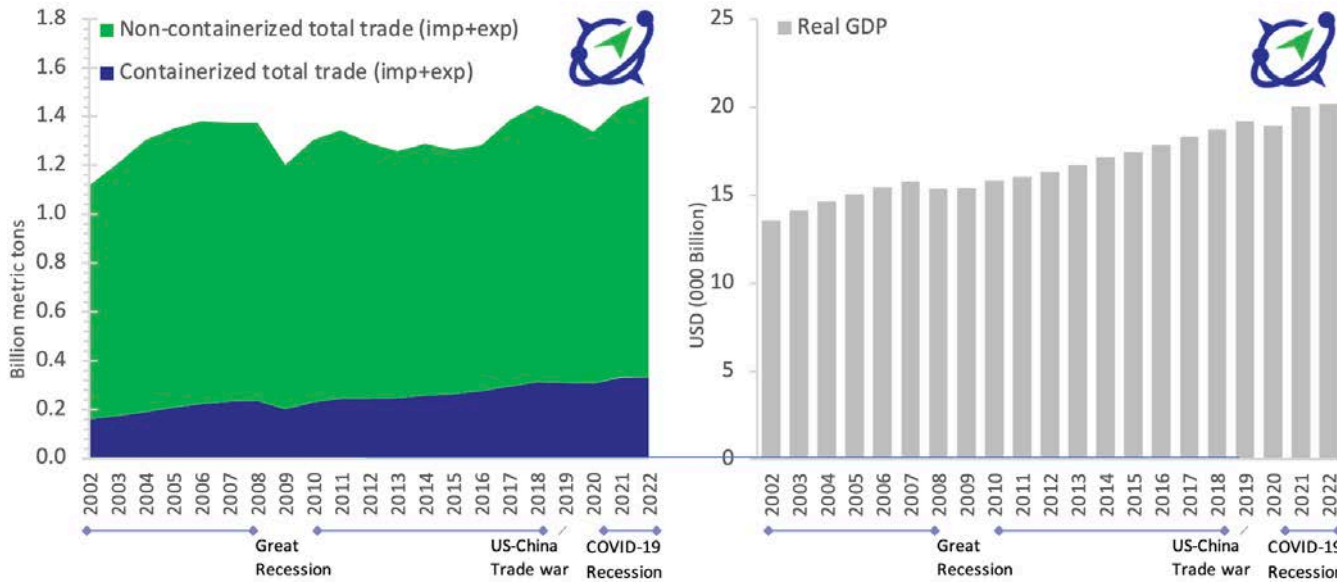
Significant global economic events have impacted the structural relationship between freight and real GDP:

- **1994**—The passage of the North American Free Trade Agreement (NAFTA) boosted trade between the U.S., Canada, and Mexico.
- **1995**—The establishment of the World Trade Organization (WTO) led to stronger imports from Asia and moving across borders, increasing the need for freight transportation in the U.S.
- **2001**—The Dot-com bubble burst and China's entry into the WTO altered industries worldwide, increased exports, affected freight imports, and fueled GDP growth.
- **2008**—The Great Recession led to a decline in trade and GDP driven by credit concerns and decreased demand.
- **2018**—U.S.-China Trade War and tit-for-tat tariffs wars.
- **2020**—The COVID-19 pandemic disrupted supply networks, reduced consumer demand, and significantly reduced real GDP.

Events like these demonstrate the strong link between movements of non-containerized and containerized freight and economic cycles, which are more clearly visualized side by side, as shown in Figure 10.

Figure 10. Total trade by vessel and its relationship to Real Gross Domestic Product (GDP)

a) Non-containerized trade and containerized trade **b) U.S. Real GDP**



	CAGR 2002-08	2010-18	2002-18
Containerized trade	6.5%	4.0%	4.2%
Non-containerized trade	2.9%	0.6%	1.1%
Total trade by vessel	**3.5%**	**1.3%**	**1.6%**

	CAGR 2002-08	2010-18	2002-18
Real GDP	2.1%	2.1%	2.0%
Containerized trade multiplier	3.0	1.9	2.0
Non-containerized trade multiplier	1.4	0.3	0.5

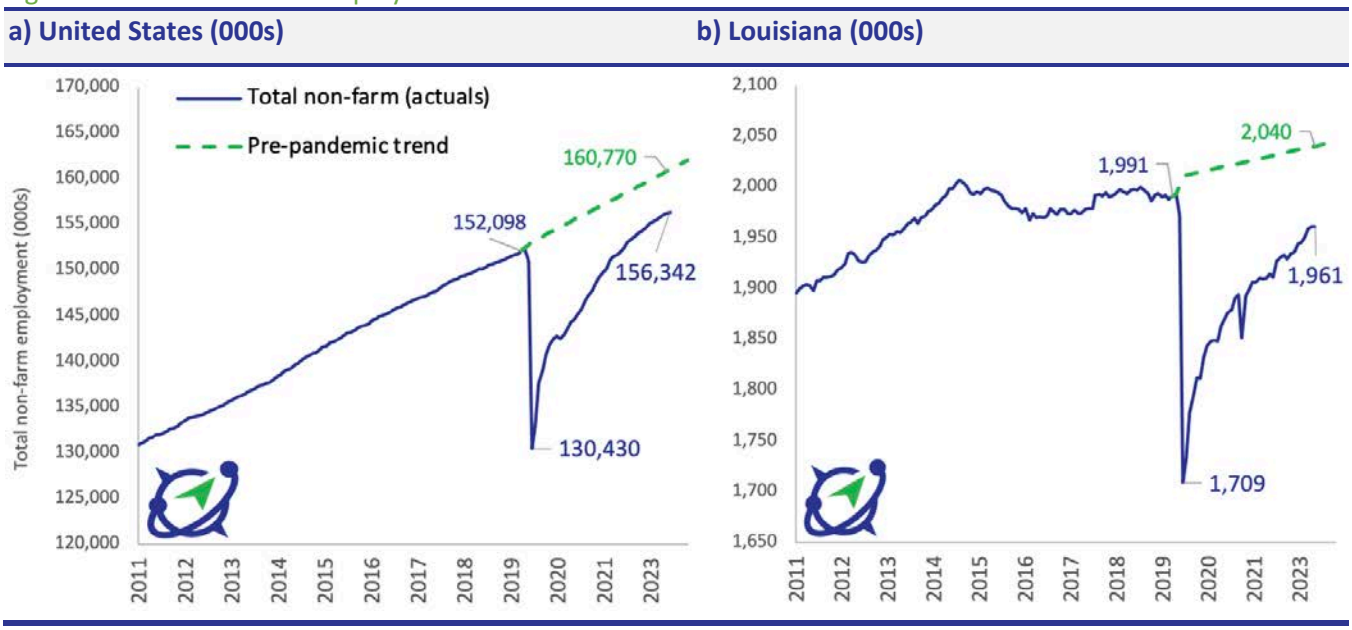
Source: Bujanda & Allen, 2023.

The GDP Multiplier Ratio[4] for containerized freight climbed from 2.4 in the 1994–2000 period (prior to the burst of the Dot-com Bubble) to 3.0 in the 2001–2008 period (prior to the Great Recession) then decreased to 1.9 in the 2010–2018 period (prior to the U.S.-China Trade War and COVID-19 Recession). For non-containerized, the ratio decreased from 1.4 in 2001–2008, then decreased to 0.3 in 2010–2018.

5.2.2 Employment

The COVID-19 pandemic brought an unprecedented downturn in non-farm employment and the labor participation rate. Lockdowns, restrictions, and economic uncertainties led to widespread job losses across industries, resulting in a historic decline in employment to 130.4 million jobs, an impressive loss of 21.6 million jobs at the national level and more 282 thousand in Louisiana. When compared to pre-pandemic trends, the U.S. is still 4.6 million and Louisiana about 79 thousand lower than the pre-pandemic trend, as shown in Figure 11.

Figure 11. Total non-farm employment for the U.S. and Louisiana



Source: Bujanda & Allen, 2023.

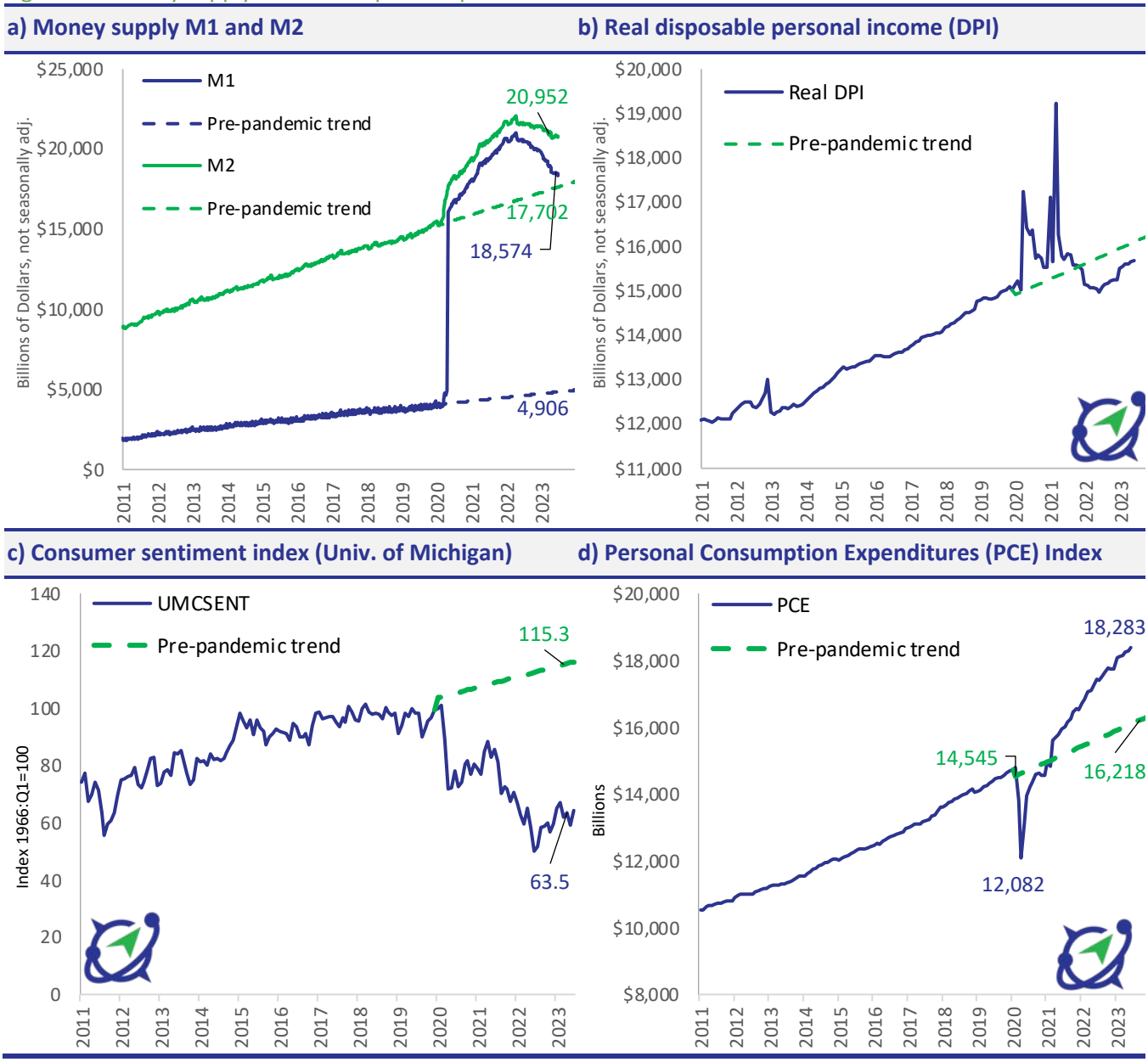
5.2.3 Money supply, disposable income, and consumer demand

The COVID-19 pandemic brought an unprecedented increase in the money supply, as measured by M1 and M2 from the Federal Reserve, which ensured that credit flowed to firms and households to prevent disturbances in the financial markets from escalating economic harm.

M1, which includes currency, demand, savings, and other liquid deposits, remains 278% above a hypothetical pre-pandemic trend. M2, which includes cash, checking, and other types of deposits readily convertible to cash such as CDs, remains 18.4% above the pre-pandemic trend. This was followed by an increase in disposable personal income (DPI), which in turn increased consumption and freight demand. The money supply and disposable income are shown in Figure 12 (a) and (b). The University of Michigan consumer sentiment index and the personal consumption expenditures (PCE) price index are shown in Figure 12 (c) and (d).

[4] **The GDP Multiplier Ratio** it is widely used when evaluating freight and commodity markets. This ratio expresses the relationship between the growth rate of GDP and the growth rate of its trade (e.g. commodity, cargo type, mode, trade flow, etc).

Figure 12. Money supply and real disposable personal income



Source: Bujanda & Allen, 2023.

5.2.4 Protectionism and nearshoring

During the last decade, the U.S. implemented some key protectionist measures, most of which directly impacted the movement of containerized and non-containerized freight imports from China, as well as imports and exports between the U.S. and the rest of the world.

- **USMCA Renegotiation (2018).** The U.S. renegotiated the North American Free Trade Agreement (NAFTA) into the U.S.-Mexico-Canada Agreement (USMCA), with provisions aimed at protecting U.S. industries, particularly in the automotive sector.
- **"Buy American" Executive Order (2017, 2021).** Executive orders were issued to strengthen the "Buy American" requirements for federal procurement, aiming to prioritize domestic products in government contracts.

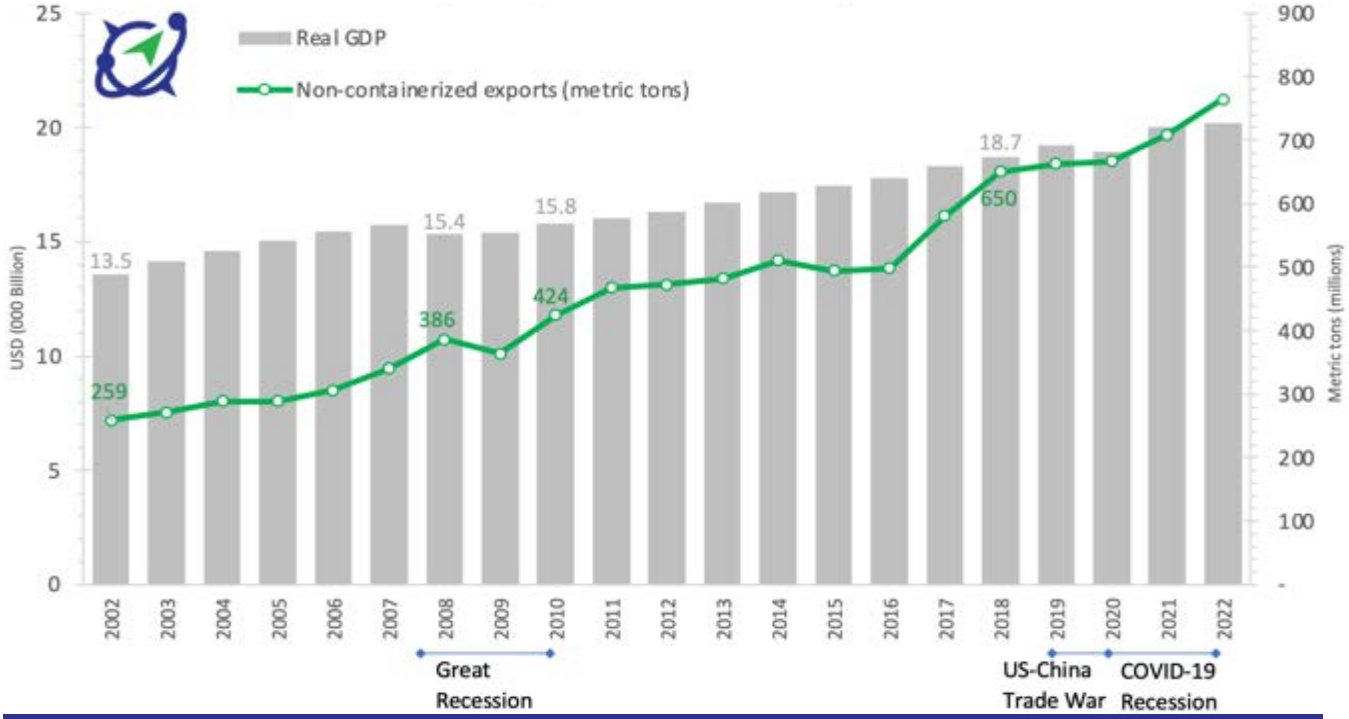
- **Investment screening and CFIUS reform (2018).** The Committee on Foreign Investment in the United States (CFIUS) underwent reform to scrutinize and regulate foreign investments more closely, particularly those in critical industries.
- **COVID-19 export restrictions (2020).** In response to the pandemic, the U.S. temporarily restricted the export of certain medical supplies and personal protective equipment (PPE) to ensure domestic availability.
- **Mexico displaces China as the U.S.'s top trading partner (2023).** During the first four months of 2023, U.S. trade with Mexico represented 15.4%, followed by trade with Canada at 15.2%, and with China at 12%. Mexico displaced Canada as U.S.'s top trading partners since 2015. FDI in Mexico increased 41% over the first seven months of 2023, with China being a major stakeholder as Chinese factories relocate to Mexico. China is now Mexico's 2nd largest trading partner, behind the U.S. Most U.S.-Mexico trade travels by surface transportation modes (i.e. rail and truck), giving Plaquemines Port an opportunity to capitalize on the economic advantages of moving freight by water, such as: the extremely efficient use of energy per ton-mile, lower emissions, lower costs, and expanded capacity without constraints.

5.3 Market demand for non-containerized cargoes

5.3.1 Non-containerized cargo 2002-2022

Non-containerized exports soared during periods of strong economic boom to meet global demand, which were fueled by increasing consumer spending, investment, and government spending. On the other hand, economic downturns produced declines in headhaul volumes for shipments because of weaker global demand. This underscores the bulk shipping industry susceptibility to shifts in trade and macroeconomic shocks. Non-containerized exports by vessel and their relationship to Real GDP are shown in Figure 13.

Figure 13. Total non-containerized exports by vessel and its relationship to Real Gross Domestic Product (GDP)



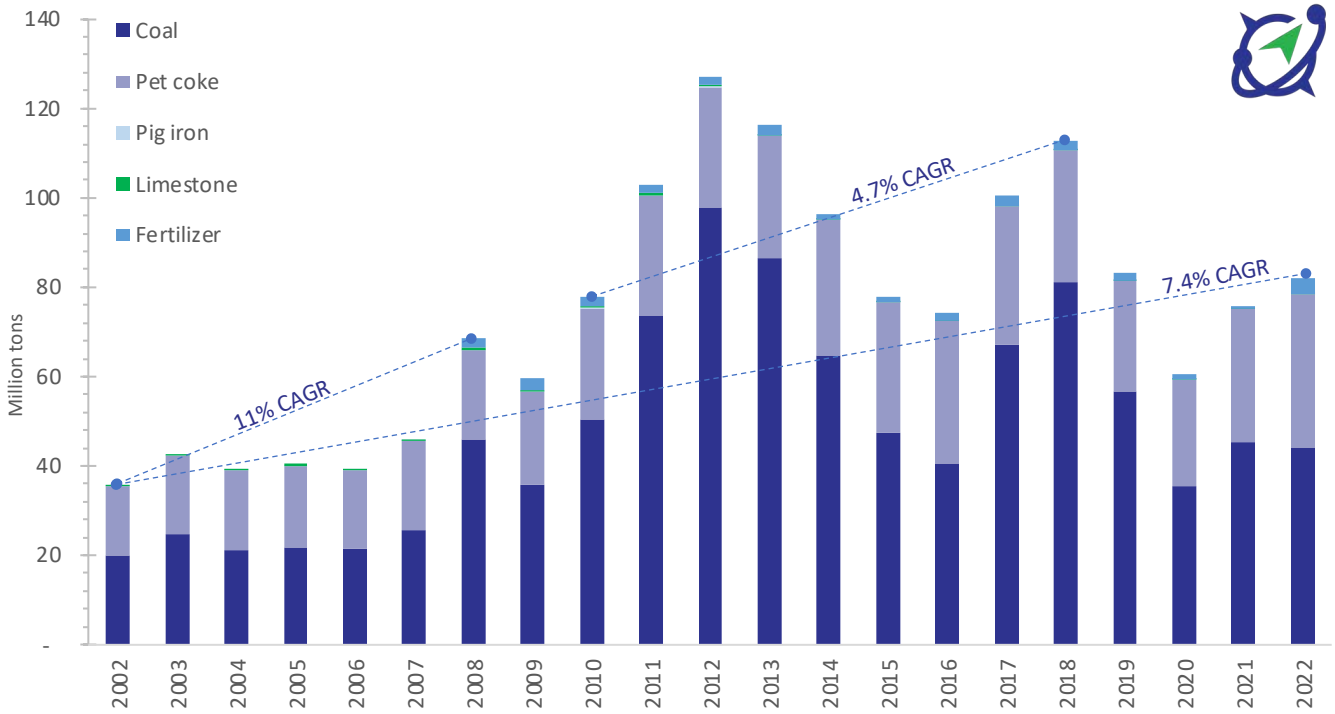
Metric	CAGR 2002-08	2010-18	2002-18
Real GDP growth	2.1%	2.1%	2.0%
Non-containerized exports growth	7.3%	5.5%	6.0%
Non-containerized exports multiplier	3.4x	2.6x	2.9x

Source: Bujanda & Allen, 2023.

5.3.2 *Drybulk*—historical volumes and trends in the market study area

Historical volumes and trends from the market study area (i.e. the 20 states that comprise the main catchment area of the Mississippi River) indicate the significance of exports of metallurgic coal for steel production and thermal coal for power generation. Destinations include Asia, Europe, and South America. Pet Coke, a solid byproduct of oil refining, ranks next, with similar market dynamics as the coal markets. Combined, drybulk exports from the market study area grew at a compounded annual growth rate (CAGR) of 11% in the 2002-2008 expansion cycle, interrupted by the Global Recession, and at 4.7% in the 2010-2018 cycle, interrupted in 2019 by the tariff wars and COVID-19, as shown in Figure 14.

Figure 14. Drybulk headhaul volumes by commodity in the market study area 2002-2022

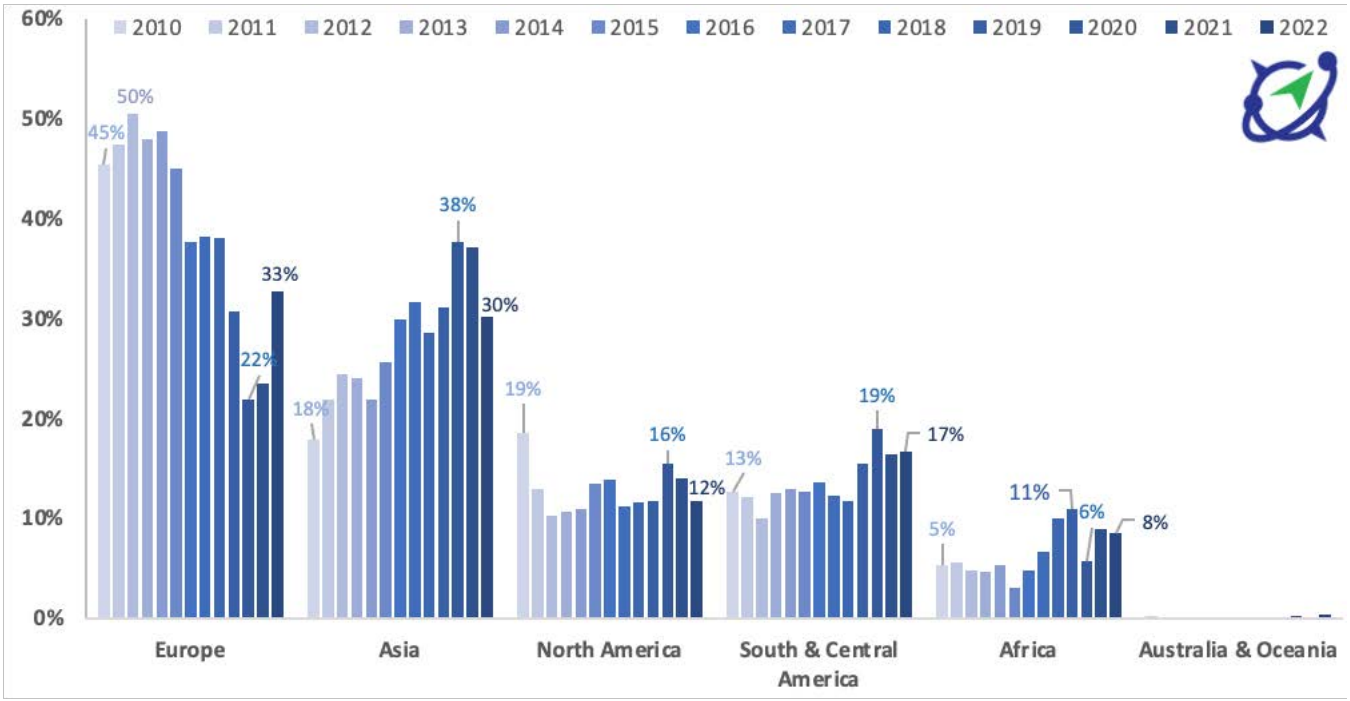


Metric	CAGR 2002-08	2010-18	2002-18
Real GDP growth (CAGR)	2.1%	2.1%	2.0%
Drybulk headhaul volumes growth (CAGR)	11%	4.7%	7.4%
Drybulk headhaul multiplier (times: *x*)	5.5*x*	2.3*x*	3.7*x*

Source: Bujanda & Allen, 2023.

Exports from the U.S. Midwest to Europe show a dramatic increase in 2022, as the European Union curtailed Russian fossil fuel imports due to Russia's invasion of Ukraine. This translated into rising imports of alternative energy sources, including coal, from alternative suppliers, such as the U.S. Showing also positive trends, South & Central America and Africa continue to gain more relevance, as shown in Figure 15.

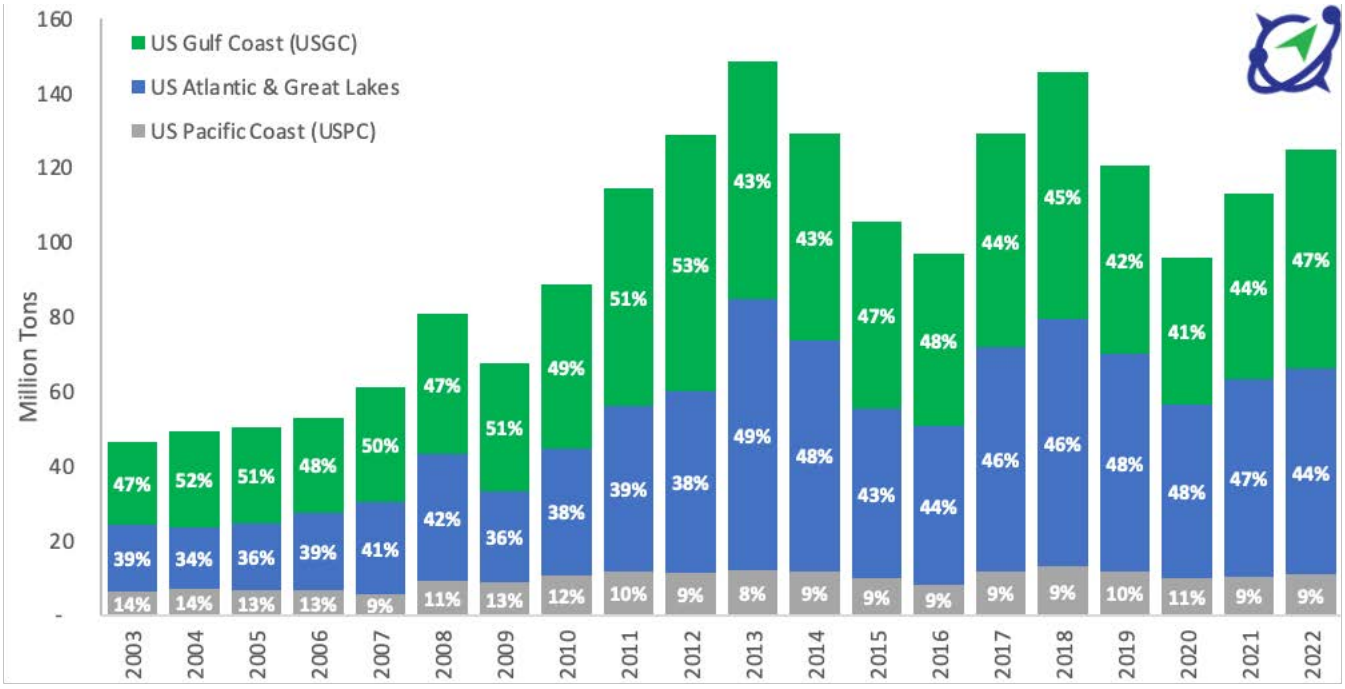
Figure 15. Evolution of shares by tradelane of ***drybulk headhaul exports*** from market study area 2010-2022



Source: Bujanda & Allen, 2023.

In terms of coastal outlets for drybulk headhaul exports, the U.S. Gulf Coast (USGC) has had an average market share of 47% between 2003-2022; closely followed by the U.S. Atlantic Coast & the Great Lakes Area with 43% market share. The U.S. Pacific Coast has held an average market share of 10% of the export volumes during the same period. Although the USGC was the outlet of choice for U.S. exports until 2012, the next year, the U.S. Atlantic Coast & the Great Lakes outlet overtook more market share surpassing the USGC for more than 15%. This trend remained until 2022 when the USGC start recouping some of the lost market share to the U.S. Atlantic Coast & the Great Lakes area. This trends are shown by market share and by volume in Figure 16.

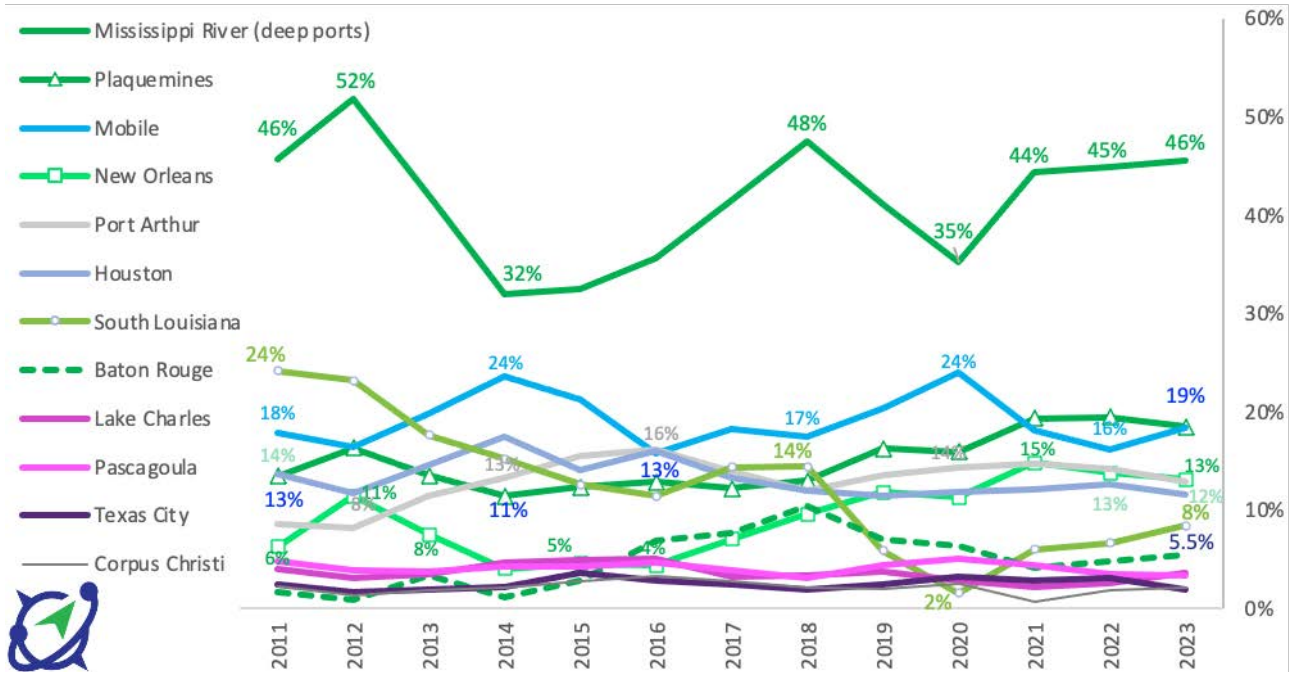
Figure 16. ***Drybulk headhaul volumes*** from the market study area by export gateway coast 2003-2022



Source: Bujanda & Allen, 2023.

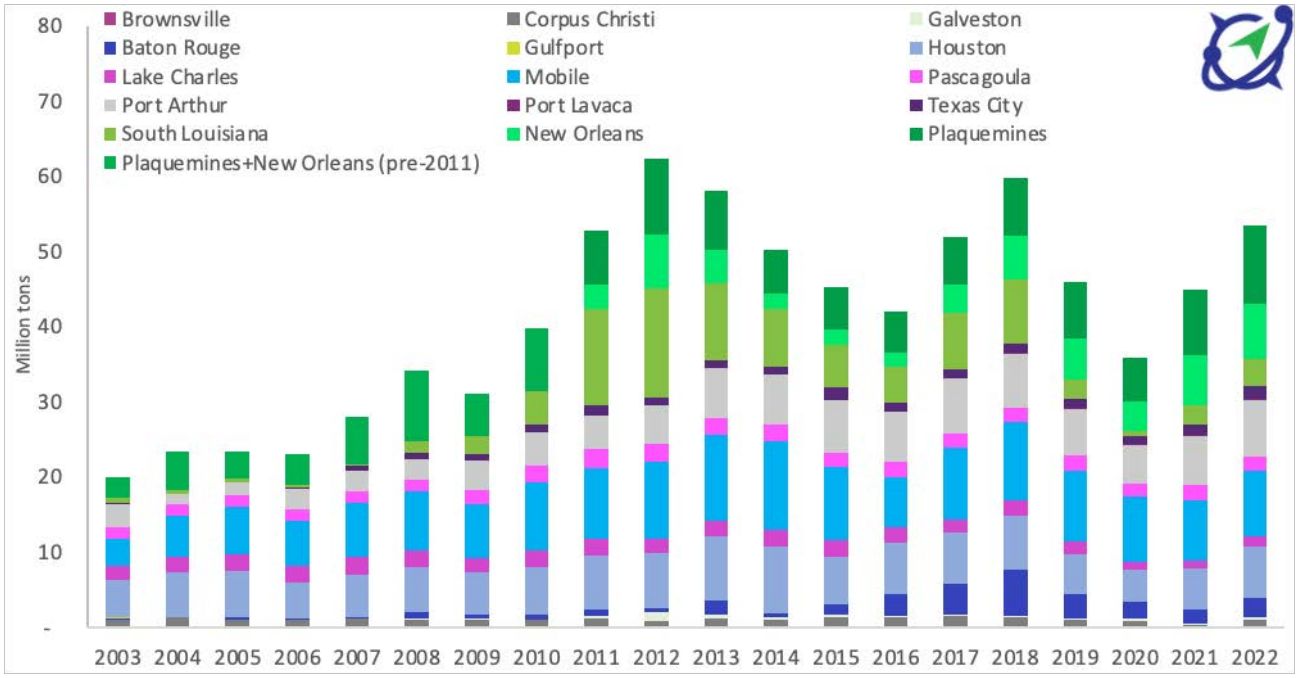
Deep ports in the Mississippi River have been the dominating outlet compared to the rest of the USGC, handling 41% of the drybulk headhaul exports based on the 2003-2022 average, and 45% on 2022 alone. When analyzed individually, Plaquemines surpassed South Louisiana for the first time in 2015 and after 2018 reaching 19% of the USGC market. Mobile is next with 19% of the USGC share, followed by Port Arthur with 14%, Houston with 12%, and South Louisiana with 8% for the top 5. Other relevant ports for drybulk exports in the USGC include Pascagoula, Lake Charles, Texas City, and Corpus Christi, as illustrated in Figure 17 and by volume in Figure 18.

Figure 17. Market share by U.S. Gulf port for ***drybulk headhaul exports*** from the market study area



Source: Bujanda & Allen, 2023.

Figure 18. ***Drybulk headhaul export volumes*** from the market study area by U.S. Gulf port 2003-2022



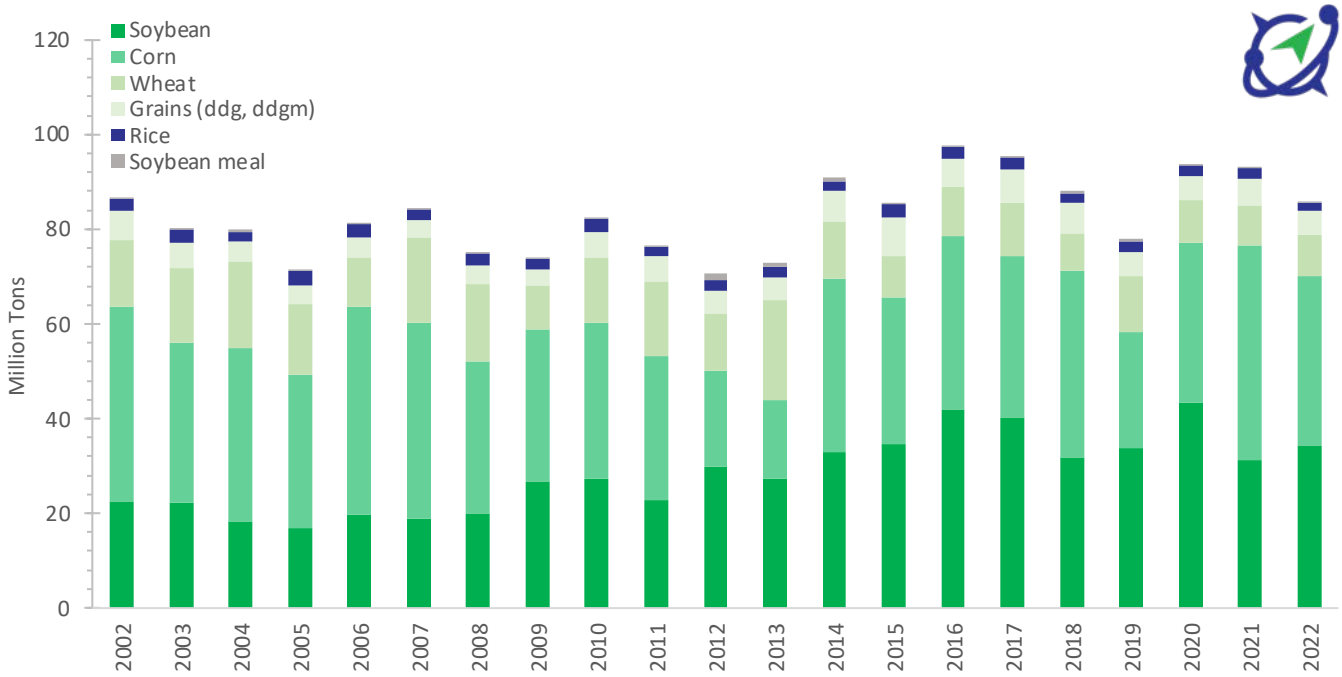
Source: Bujanda & Allen, 2023. Data constraints prevent us from analyzing Plaquemines separate from New Orleans Customs District, as reported by the U.S. Census, prior to 2011. Hence, Bujanda & Allen assumed the U.S. Census reports Plaquemines and New Orleans under the "New Orleans Port Customs District" label. After 2011, Bujanda & Allen estimated the breakdown between the New Orleans Customs District and Plaquemines by subtracting the volumes reported by Plaquemines from the total volumes reported by U.S. Census.

5.3.3 *Agribulk*—historical volumes and trends in the market study area

Plaquemines Port also plays a key role as a gateway for agribulk exports from the market study area, mainly to Asian markets. Soybean and Corn have historically represented about 80% of the total agribulk exports from the market study area. Business cycles for agribulk products are not as clearly defined as for other commodities because their trade gets impacted by externalities such as droughts, fertilizer availability and cost, harvest yields, in addition to tariffs and similar events.

Soybeans have grown at a CAGR of 7.4% between 2011-2020. **Corn had a CAGR of 13.3%** between 2013-2021, followed by Distiller's Dried Grains with Soluble (DDGS) which have gained more prominence during the last decade. Wheat, Rice, and Soybean Meal move at a smaller proportion. **All combined, agribulk exports** from the market study area grew at a **CAGR of 3.6%** in the 2012-2020 period, as shown in Figure 19.

Figure 19. Agribulk headhaul volumes by commodity in the market study area 2002-2022

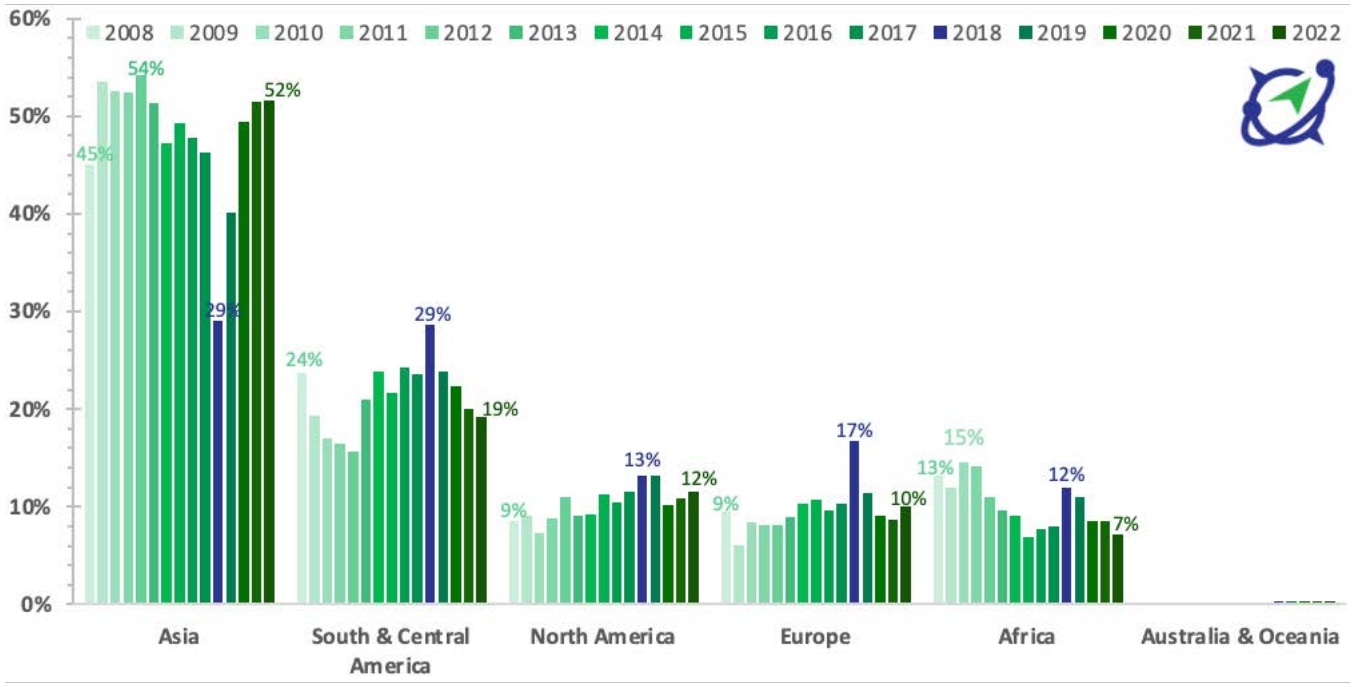


Source: Bujanda & Allen, 2023.

Agribulk exports to Asia bottomed in 2018, the same year that the trade tensions between the U.S. and China peaked when both countries-imposed tariffs on each other's exports. During that same year exports to South & Central America, North America, Europe, and Africa peaked as U.S. exporters pursued alternative markets. After 2018, the share of agribulk exports for the major tradelanes reverted closer to the historical averages (i.e. Asia 49%, South & Central America 22%, North America 11%, Europe 10%, and Africa 9%), as shown in Figure 20.

Regarding soybeans, China has consistently been the top export market for exports from the market study area, followed by Mexico, Japan, Indonesia, Taiwan, and the European Union. Regarding corn, top markets include, China, Mexico, Japan, South Korea, Taiwan, and Colombia, among others. Brazil and Argentina, major soybean and corn producers, have been competitors to the U.S. in the global markets. South American crops have continued to grow, influencing global supply dynamics, primarily due to increases in the use of fertilizers, better technology, and in cases such as Brazil due to the increase on the amount of arable land.

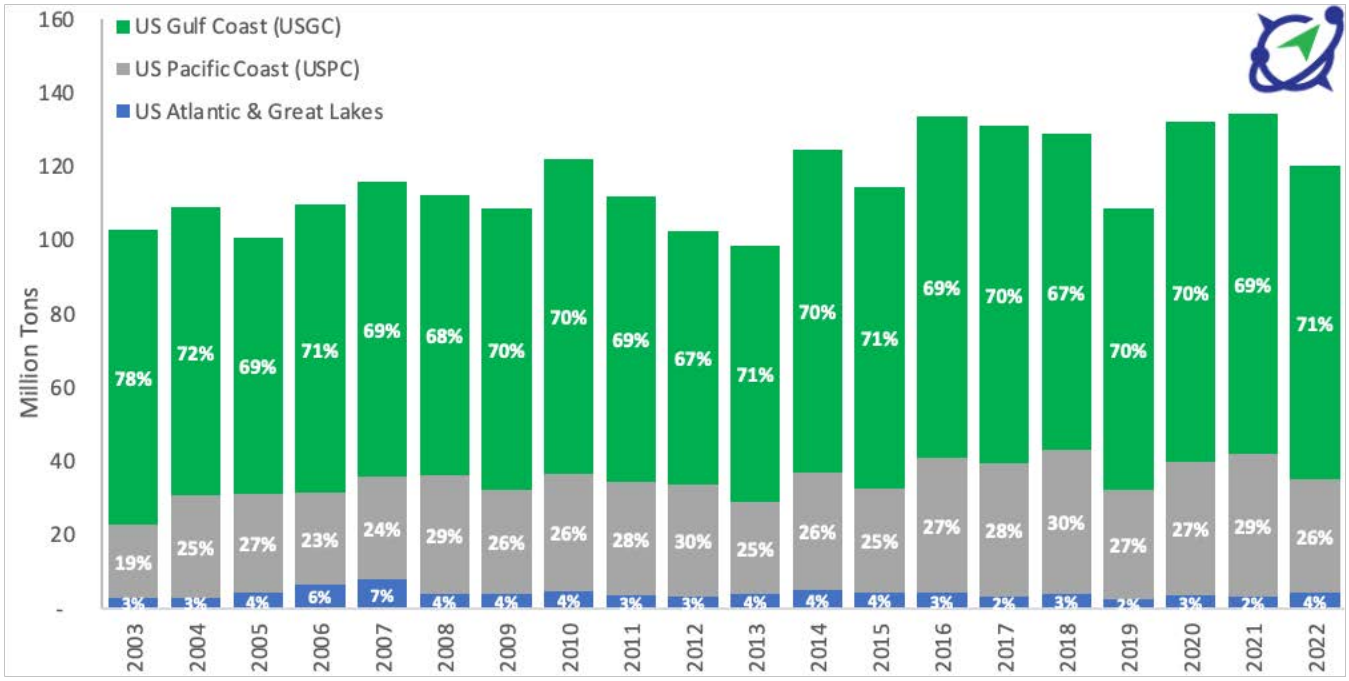
Figure 20. Evolution of shares by tradelane of ***agribulk headhaul exports*** from market study area 2010-2022



Source: Bujanda & Allen, 2023.

In terms of coastal shares for agribulk exports, the USGC had average share of 70% between 2003-2022; followed by the U.S. Pacific with 26%. The U.S. Atlantic Coast & the Great Lakes had an average of 4%. Competition for grain exports between ports in the USGC, particularly Plaquemines Port and ports in New Orleans, and in the U.S. Pacific coast is influenced by ocean shipping routes, inland transportation networks, and infrastructure investments. The Mississippi River system supports barge traffic, a more economical way to transport bulk freight from the heartland to export gateways. Although Pacific ports have an ocean shipping and geographic advantage to Asian markets being closer, often this is offset by lengthier and more expensive inland rail hauling. These competitive dynamics are shown by market share and by volume in Figure 21.

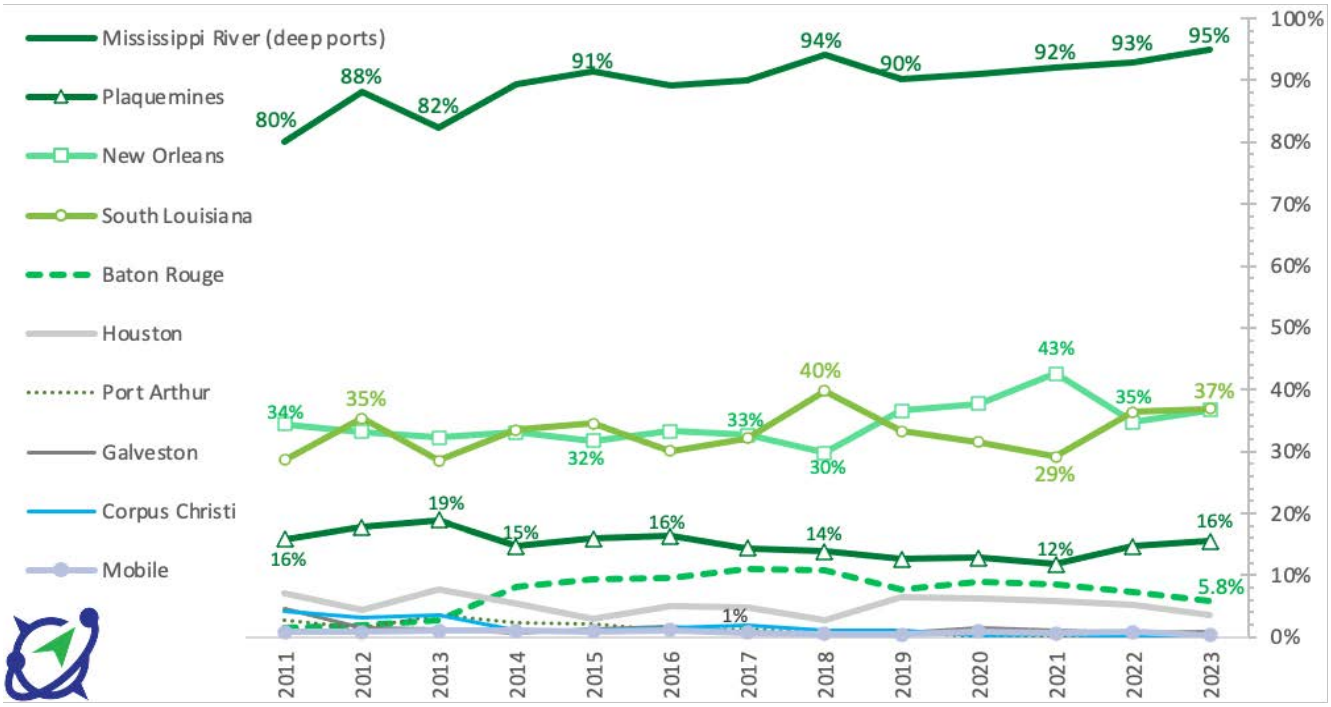
Figure 21. Agribulk headhaul volumes from the market study area by export gateway coast 2003-2022



Source: Bujanda & Allen, 2023.

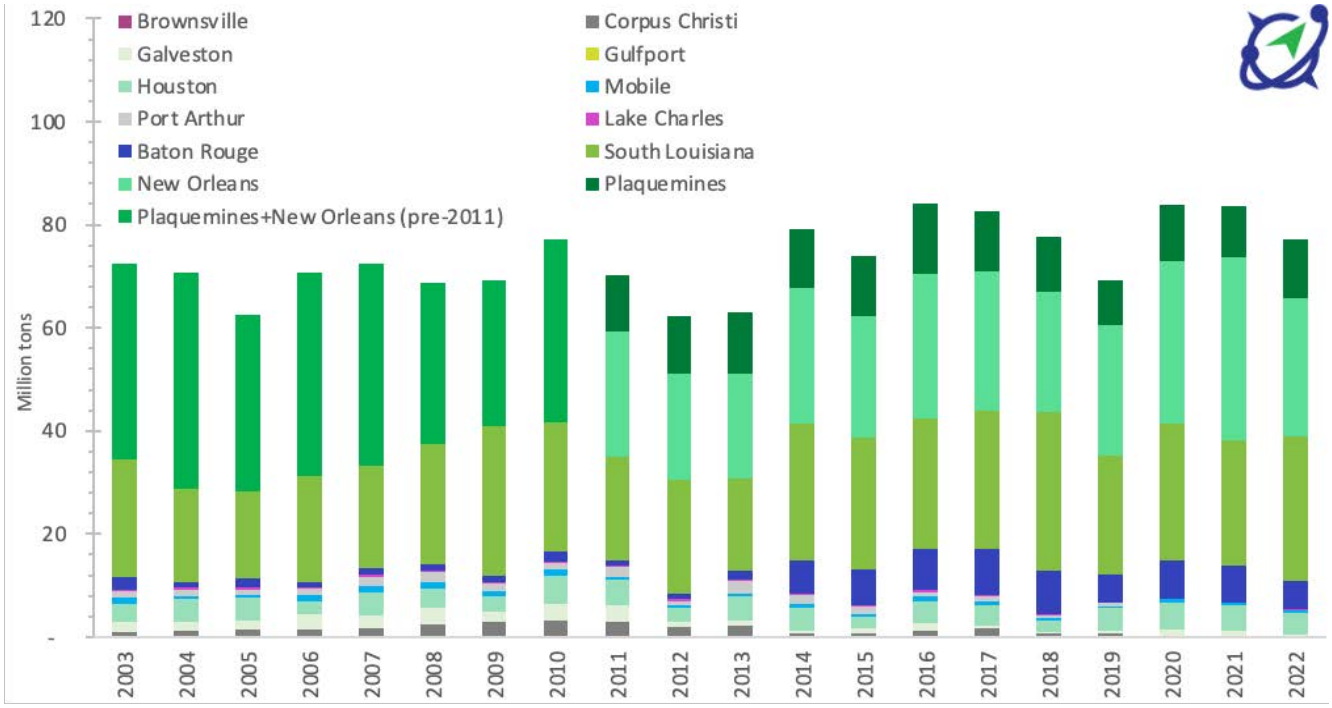
By analyzing the ports in the USGC, deep ports in the Mississippi River have been the dominating outlet compared to the rest of the USGC, handling 88% of the drybulk headhaul exports based on the 2003-2022 average, and 93% on 2022 alone. South Louisiana and New Orleans rank next with 37% each of the USGC share, followed by Plaquemines Port with 16%, Baton Rouge almost 6%, and Houston 5% for the top 5. Other ports include Port Arthur, Galveston, Corpus Christi, and Mobile, as shown in Figure 22 and by volume in Figure 23.

Figure 22. Market share by U.S. Gulf port for ***agribulk headhaul exports*** from the market study area



Source: Bujanda & Allen, 2023.

Figure 23. ***Agribulk headhaul export volumes*** from the market study area by U.S. Gulf port 2003-2022



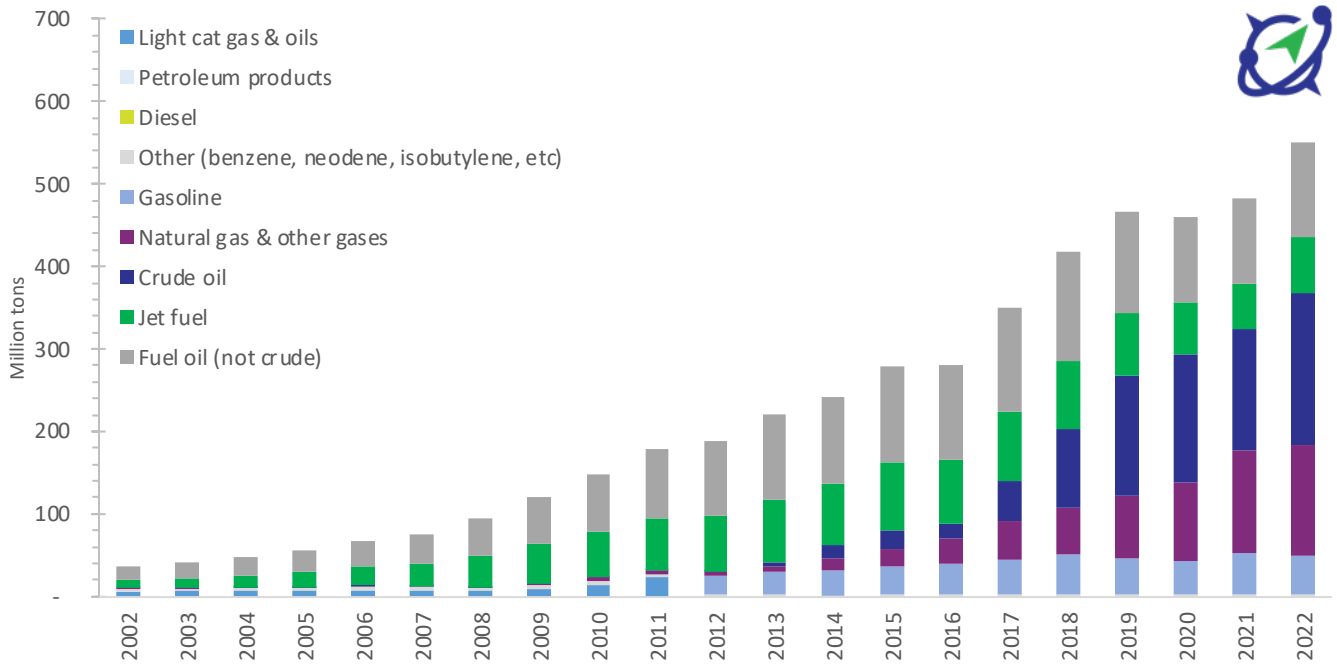
Source: Bujanda & Allen, 2023. Data constraints prevent us from analyzing Plaquemines separate from New Orleans Customs District, as reported by the U.S. Census, prior to 2011. Hence, Bujanda & Allen assumed the U.S. Census reports Plaquemines and New Orleans under the "New Orleans Port Customs District" label. After 2011, Bujanda & Allen estimated the breakdown between the New Orleans Customs District and Plaquemines by subtracting the volumes reported by Plaquemines Port from the total volumes by the U.S. Census.

5.3.4 *Liquid-bulk*—historical volumes and trends in the market study area

Plaquemines Port liquid-bulk markets have consistently allowed significant Crude Oil and Diesel shipments, establishing itself as a key player in the changing landscape of energy trade. Fuel oils (not crude), Jet Fuel, Crude Oil, and more recently Natural Gas have represented more than 70% of the total oil and fuel exports from Plaquemines Port and more than 85% of the exports from the market study area.

Fuel oils (not crude) grew at a CAGR of 10% 2002-2022. Jet Fuel ranks next also with a **CAGR of 10%** in the same period. **Crude Oil grew at an impressive CAGR of 56%**, accelerating particularly after the U.S. lifted restrictions on crude oil exports in December 2015. **Natural Gas grew at an impressive CAGR of 27%**, also accelerating after a regulatory shift allowed LNG exports in early 2016. Cheniere Energy's Sabine Pass LNG in Louisiana began exporting LNG in 2016—the first export terminal in the Lower 48. **Gasoline had a 2002-2022 CAGR of 8%**. Combined, the Other (benzene, neodene, isobutylene) category also represents a prominent volume with growth. Liquid-bulk export volumes by major commodity group are shown in Figure 24.

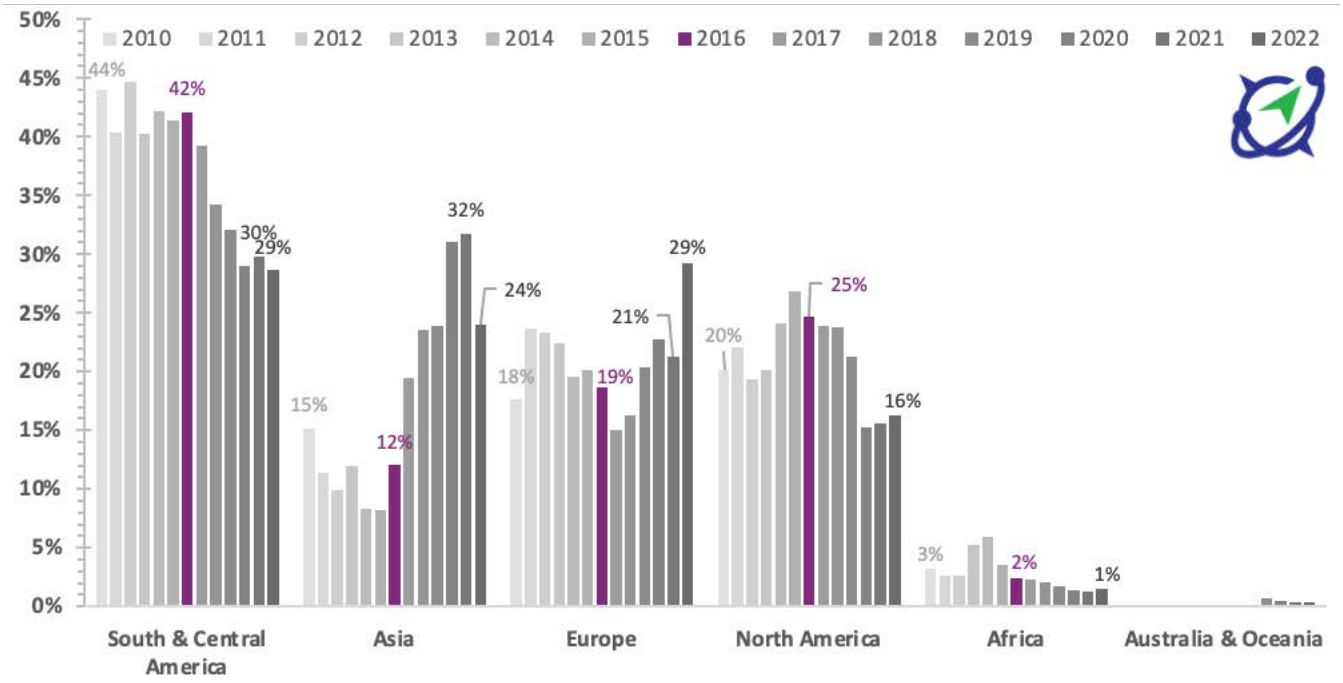
Figure 24. Liquid-bulk headhaul volumes by commodity in the market study area 2002-2022



Source: Bujanda & Allen, 2023.

The U.S. significantly expanded its natural gas and crude oil export capacity in recent years, particularly after lifting long-standing restrictions on crude oil and natural gas exports in 2016. A major development in U.S. exports came with the opening of the Asian and European markets, which gained more prominence after 2016 over markets in South & Central America. In 2020, the tradelane of Asia surpassed that of South & Central America peaking in 2021 with a 32% market share, versus 29% of South & Central America in the same year. A similar trend is observed for the European trade which peaked in 2022 with a 29% share as shown in Figure 25.

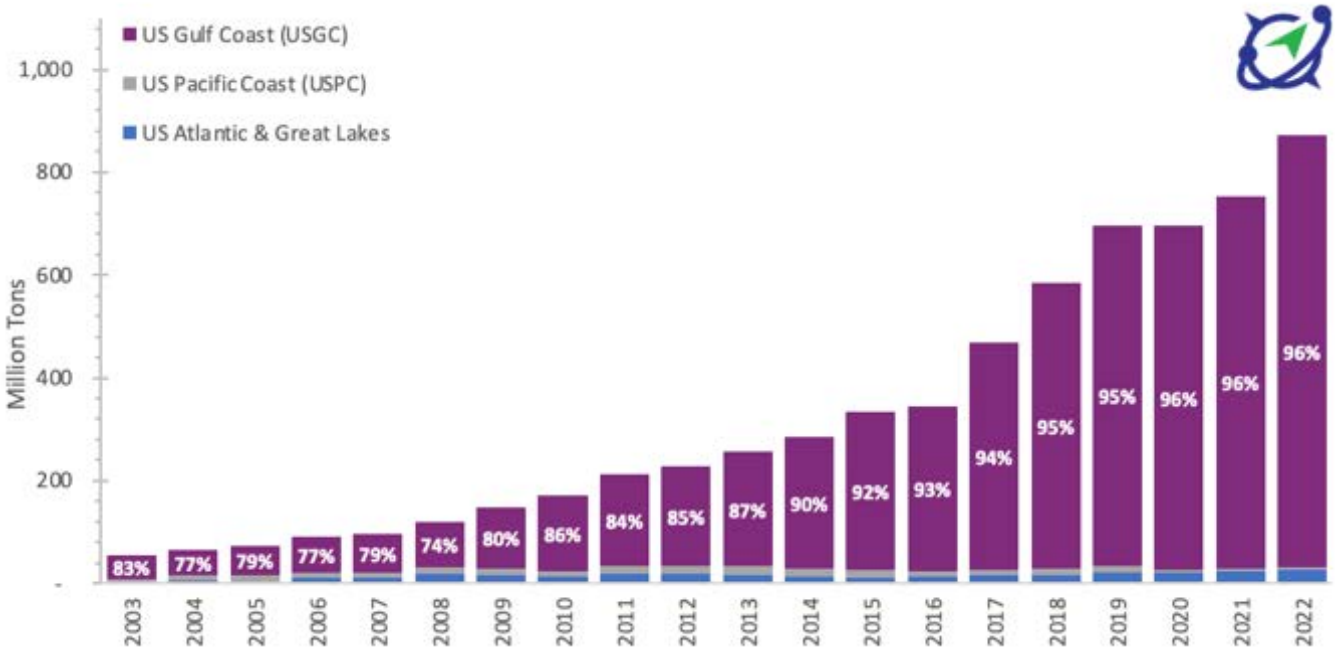
Figure 25. Evolution of shares by tradelane of ***liquid-bulk exports*** from market study area 2010-2022



Source: Bujanda & Allen, 2023.

In terms of coastal shares for liquid-bulk exports, the USGC has average market share of 87% between 2003-2022, surpassing by far exports via ports in the U.S. Pacific Coast and in the U.S. Atlantic Coast and the Great Lakes. The U.S. Atlantic Coast & the Great Lakes handled an average of 6% of liquid-bulk exports. Competition for liquid- exports flows is largely influenced by the location of oil and gas extraction sites and of the refineries that process their products and the availability of pipeline connectivity among the extraction sites, the refineries, and the export gateway ports, which is highly concentrated near the USGC. These competitive dynamics are illustrated by market share and by volume in Figure 26.

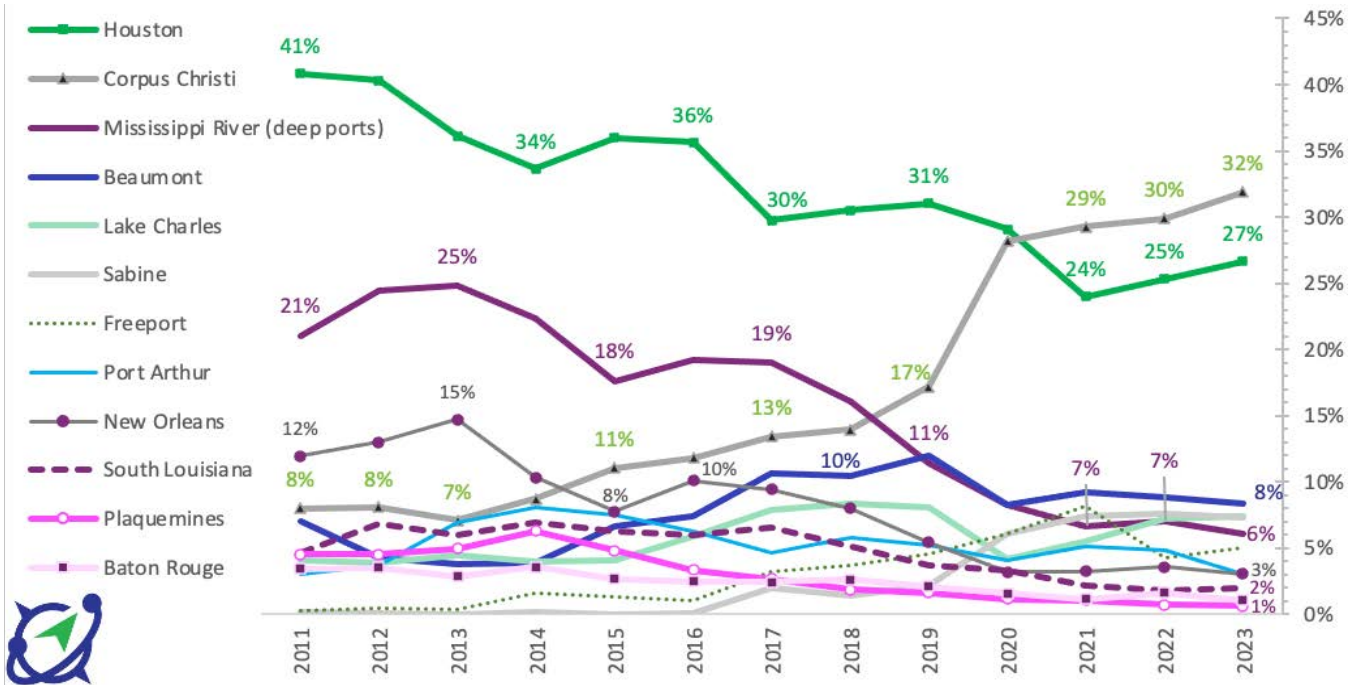
Figure 26. Liquid-bulk headhaul volumes from the market study area by export gateway coast 2003-2022



Source: Bujanda & Allen, 2023.

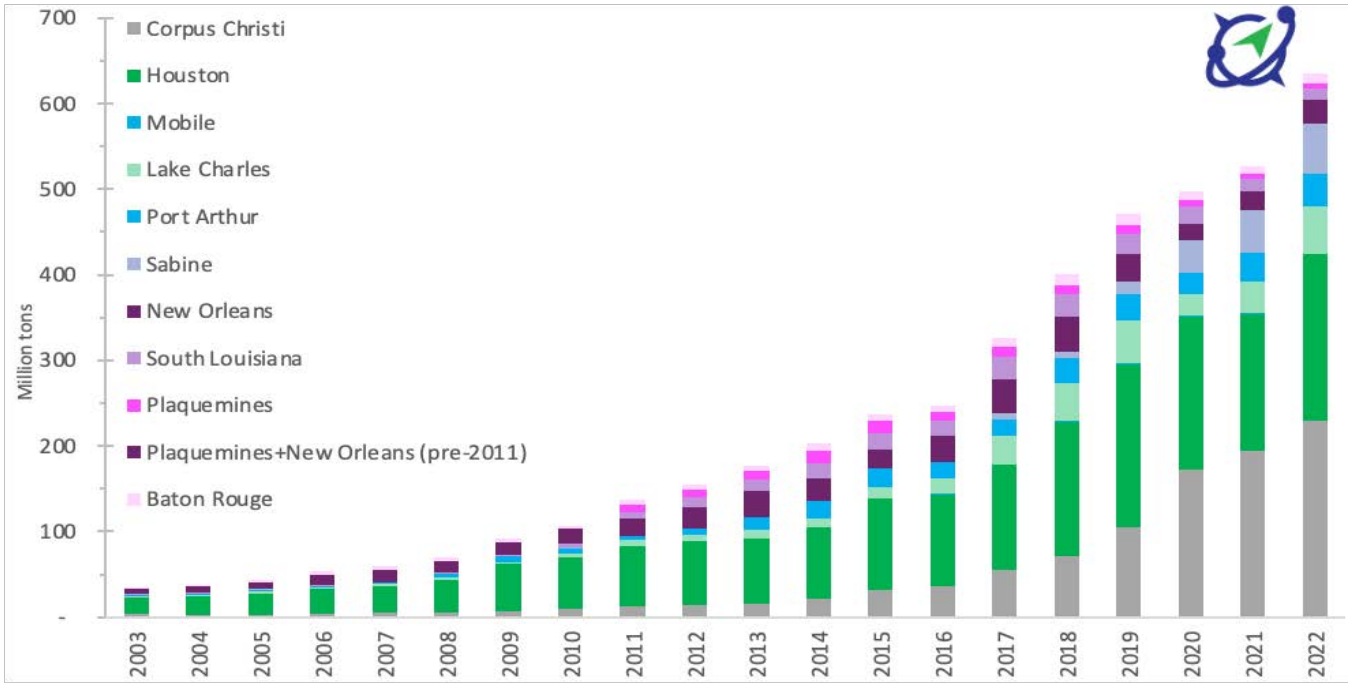
Starting in 2015, Corpus Christi surpassed all the deep ports in the Mississippi River and in the USGC after 2020 when it surpassed Houston. This is due to the proximity to the Eagle Ford, Permian Basin, and the Barnett shale oil & gas plays. Deep ports in the Mississippi had historically ranked second. This does not mean that the volumes of the other USGC ports have decreased; it only means that the volumes thru Corpus Christi have grown way faster. Increased volumes from the Texas shale plays have also impacted the ports of Beaumont, Sabine, Freeport, and Port Arthur, as shown in Figure 27 and by volume in Figure 28.

Figure 27. Market share by U.S. Gulf port for ***liquid-bulk headhaul exports*** from the market study area



Source: Bujanda & Allen, 2023.

Figure 28. ***Liquid-bulk headhaul export volumes*** from the market study area by U.S. Gulf port 2003-2022



Source: Bujanda & Allen, 2023. Data constraints prevent us from analyzing Plaquemines separate from New Orleans Customs District, as reported by the U.S. Census, prior to 2011. Hence, Bujanda & Allen assumed the U.S. Census reports Plaquemines and New Orleans combined under the "New Orleans Port Customs District" label. After 2011, B&A estimated the breakdown between the New Orleans Customs District and Plaquemines by subtracting the volumes reported by Plaquemines Port from the total volumes by the U.S. Census.

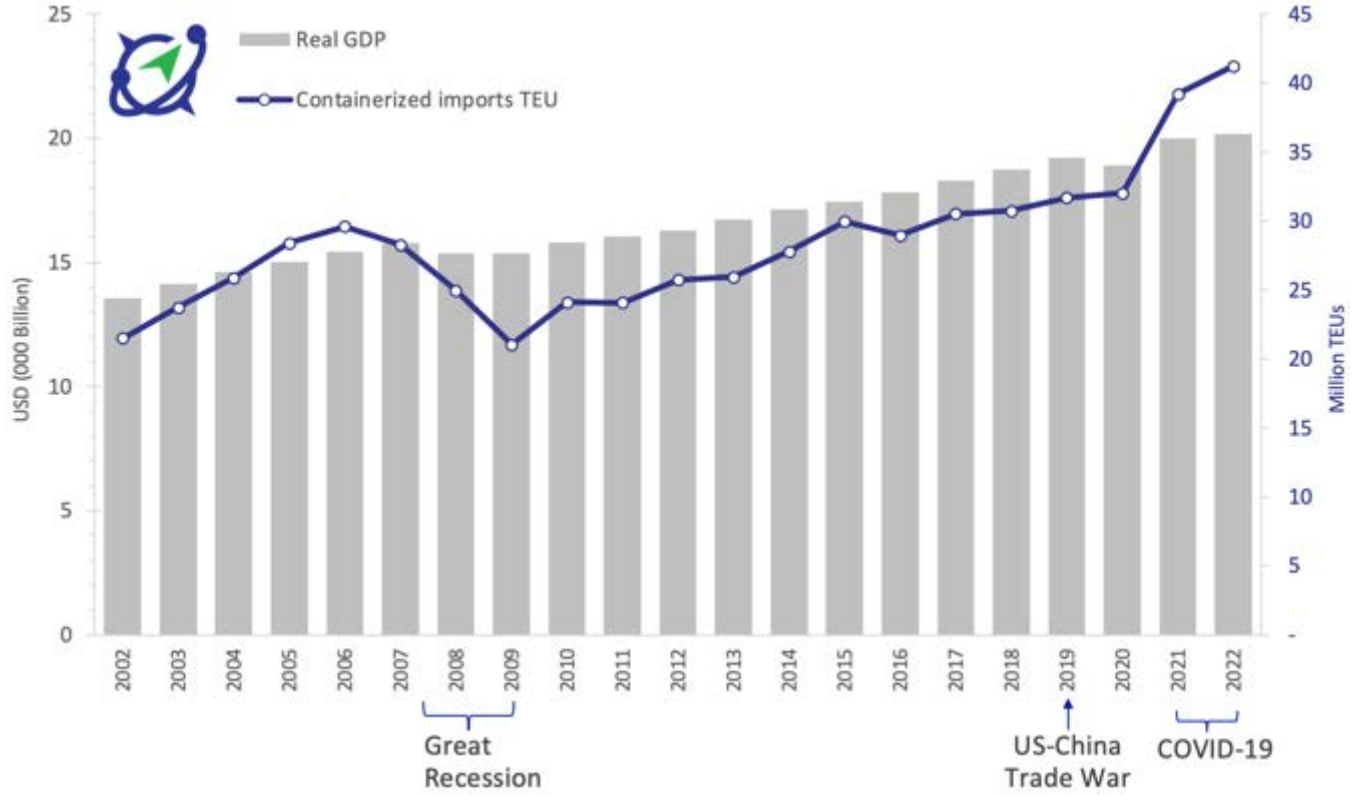
5.4 Market demand for containerized cargo

This section analyzes North American market demand for containerized cargo port throughput, considering inbound and outbound, loaded, and empty containers. Bujanda & Allen quantified and assessed total N. America port throughput shares for each of the Pacific, Atlantic, and Gulf coasts and international loaded volumes breaking them down by imports and exports, headhaul and backhaul. We analyzed headhaul volumes for imports and exports and identify the tradelane composition for each (i.e. Asia, Europe, South & Central America, Africa, and Oceania). We also analyzed total headhaul volume and market share by tradelane (i.e. Asia, Europe, South & Central America, Africa, and Oceania) for each of the U.S. Pacific, Atlantic, and Gulf coasts.

5.4.1 Containerized cargo and economic activity 2002-2022

Containerized imports soared during periods of strong economic boom to meet global demand, which were fueled by increasing consumer spending. On the other hand, economic downturns produced declines in headhaul volumes for shipments because of weaker U.S. demand. Containerized headhaul imports by vessel and their relationship to Real GDP are shown in Figure 29.

Figure 29. Containerized headhaul volumes and their relationship to Real GDP



Metric	CAGR 2002-08	2010-18	2002-18
Real GDP growth	2.1%	2.1%	2.0%
Containerized imports growth	2.5%	3.1%	2.3%
Containerized imports multiplier	**2.2x**	**2.0x**	**1.1x**

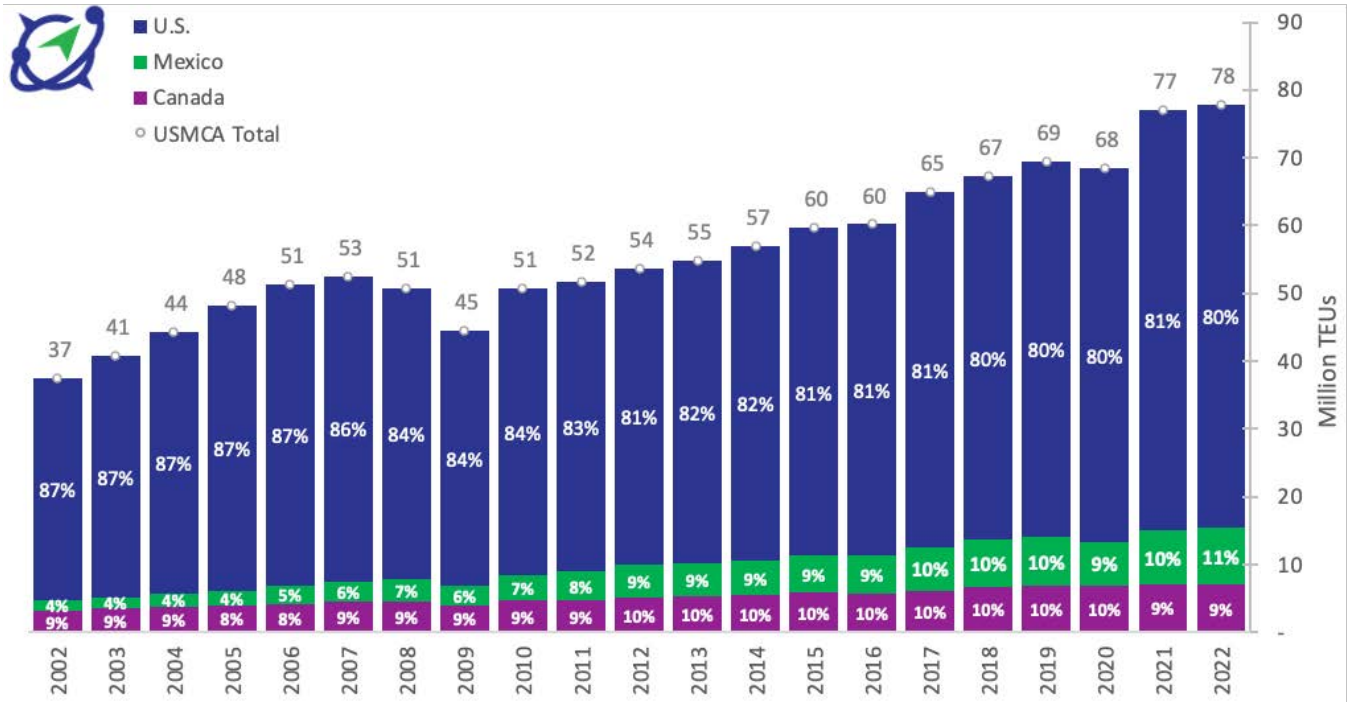
Source: Bujanda & Allen, 2023.

5.4.2 North America market for containerized cargo

The North American market for containerized cargo is defined as the USMCA free trade region. The U.S. is the destination of a significant number of containers arriving via Canadian and Mexican ports. Similarly, some containers imported via the U.S., mainly via the U.S. West Coast (USWC), carry raw materials and inventories-in-process that travel to manufacturing plants in Mexico, where products are finished, and then travel back into the U.S., which is the main destination for final consumption. The U.S. has consistently comprised more than

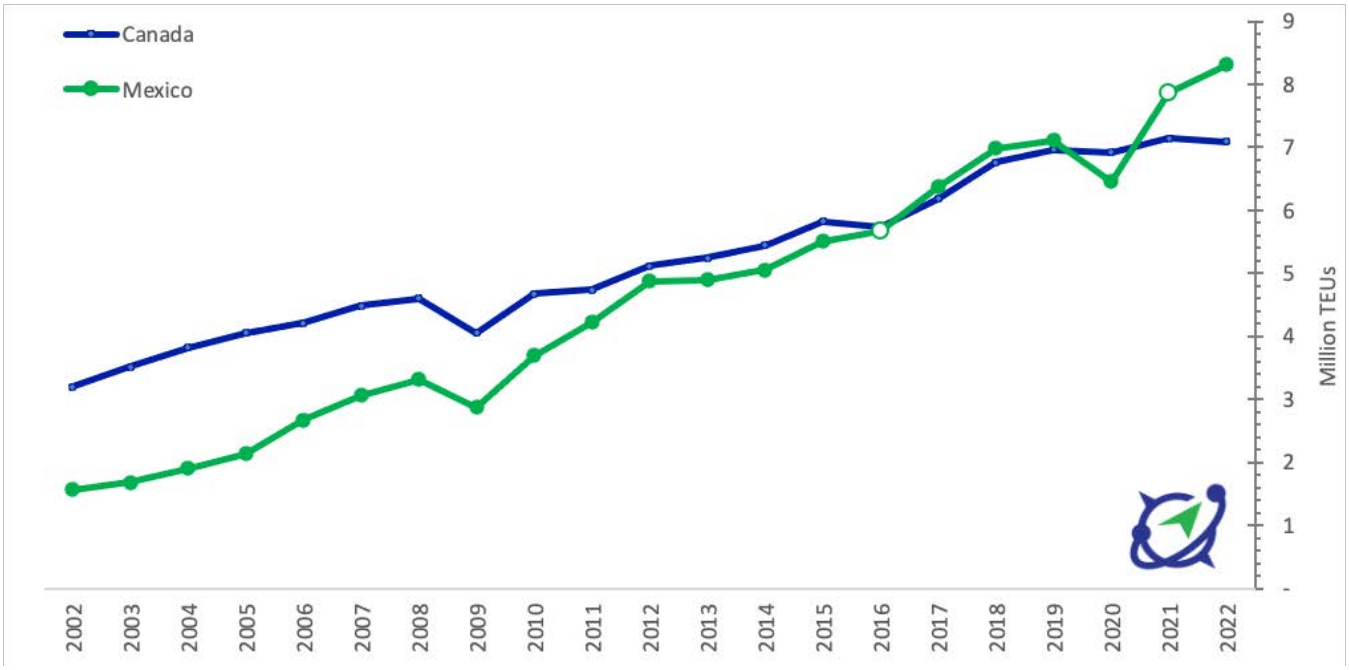
80% of the North American container market since 2002, as shown in Figure 30. Mexico container throughput started accelerating after 2010, surpassing Canadian volumes after 2016, interrupted only in 2020 due to COVID-19, and growing more prominently after 2021, as shown in Figure 31.

Figure 30. North American container throughput and shares by USMCA country



Source: Bujanda & Allen, 2023. *% shares rounded up to the nearest integer.

Figure 31. Container throughput via Mexico versus Canada



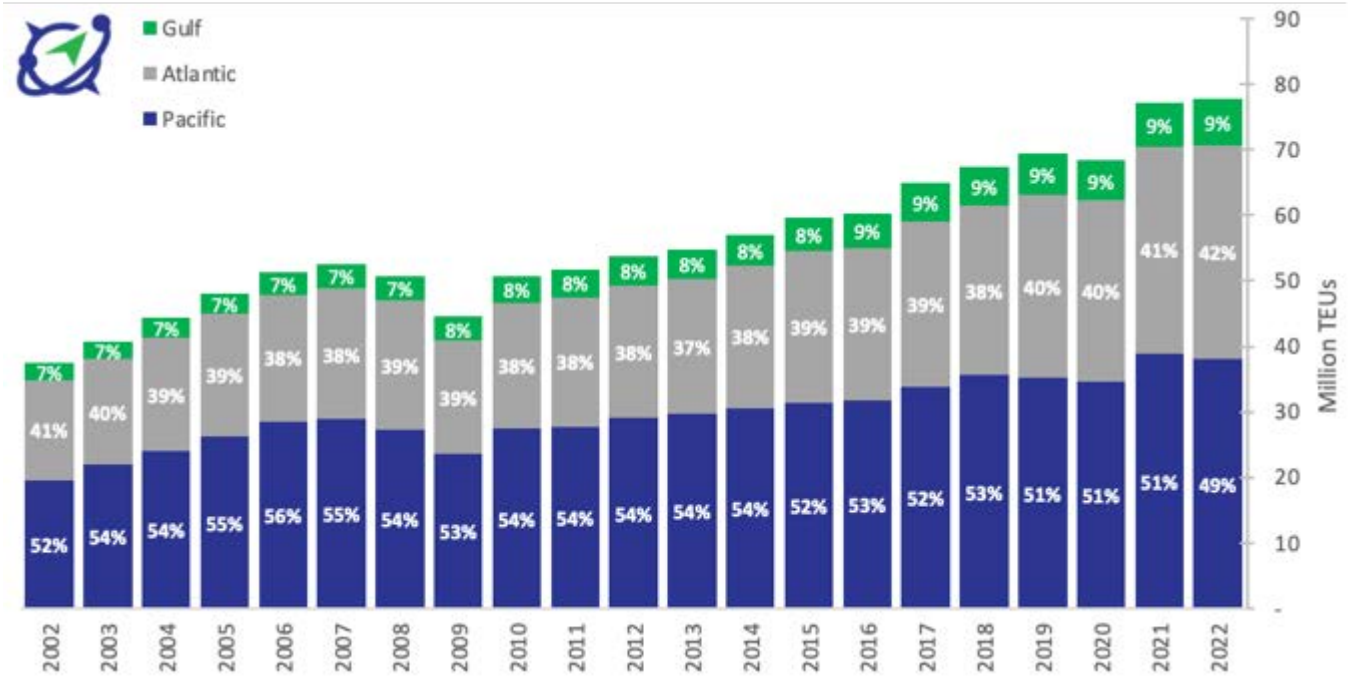
Source: Bujanda & Allen, 2023.

This trend is expected to continue, as more Chinese FDI continues spurring reshoring of production plants from Asia to Mexico.

Coastal shares

In terms of coastal shares, North American container throughput has historically been dominated by ports in the Pacific Coast, which market share peaked in 2006 and has continued to decrease until 2022 with 49%. Ports in the Atlantic and Gulf coasts have captured some of the market from ports in the Pacific. These trends accelerated after 2019, when the COVID-19 restrictions caused supply chain disruptions at most ports and were particularly notorious at the ports of Los Angeles and Long Beach. Supply chain disruptions including congestion, labor issues, increased consumer demand and shortages of empty containers. The North American container throughput broken down by coastal shares is shown in Figure 32. The Atlantic Coast had a 2022 market share of 42% and the Gulf of 9%.

Figure 32. North American container throughput and shares by coast

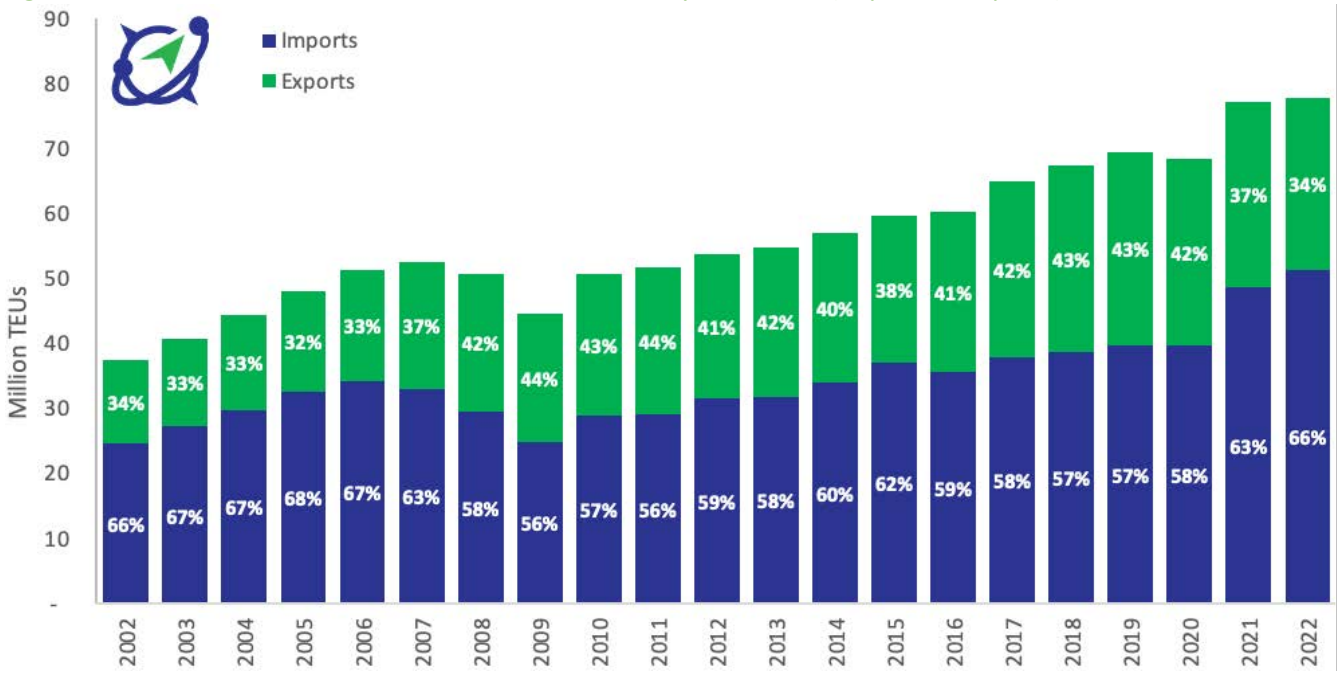


Source: Bujanda & Allen, 2023. *% shares rounded up to the nearest integer.

North America containerized cargo trade balance

In terms of headhaul versus backhaul trade flow, North American international imports have historically represented about 61% of the total trade balance compared to 39% corresponding to exports. The trade balance has changed over the years. Between 2002-2008, the share for imports was about 65% compared to 35% for exports, which decreased to 59% for imports and 41% export between 2010-2018, prior to the beginning of the U.S.-China Trade Wars and COVID-19 disruptions. During 2020-2022, these trends have reverted more aligned with long-term trends, having imports at an average of 62% and exports at 38%, even reaching 66% for imports and 34% for exports in 2022, as shown in Figure 33.

Figure 33. North American international laden volumes by trade flow (imports & exports)

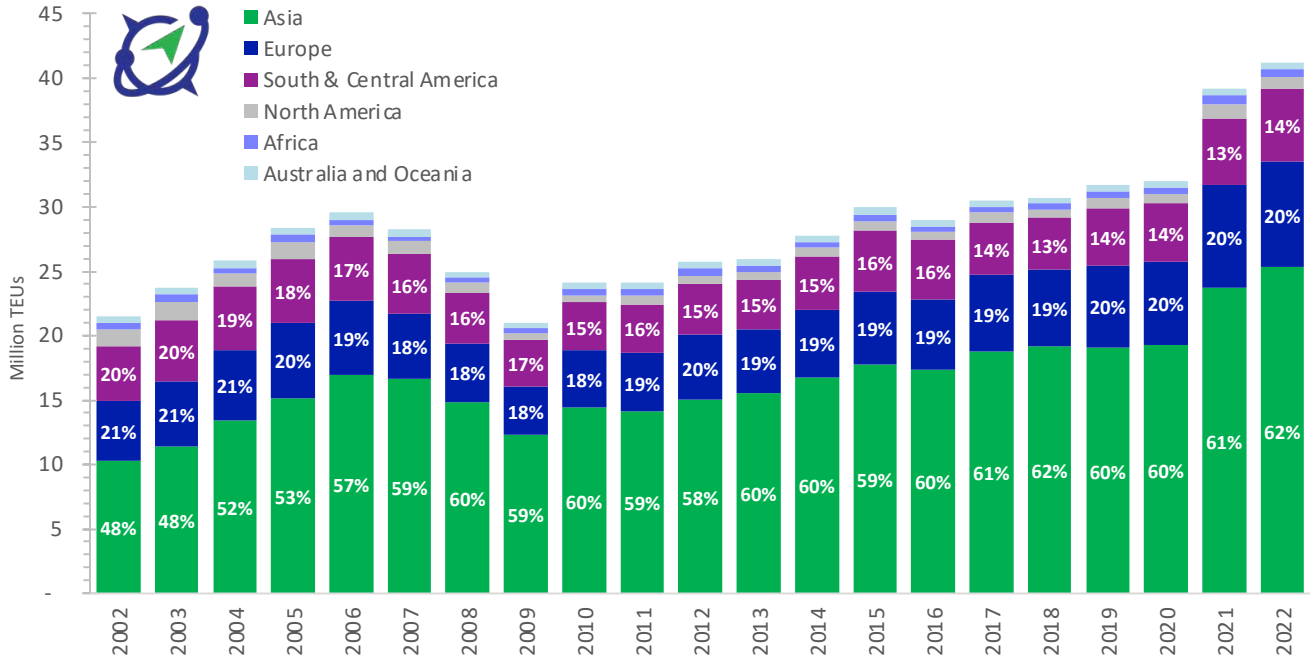


Source: Bujanda & Allen, 2023. *% shares rounded up to the nearest integer.

North American headhaul volumes by tradelane

The Asia-to-North America tradelane is one of the busiest and most significant in terms of container imports into North America, handling about 60% on average between 2002-2022. Major ports on the U.S. West Coast, such as Los Angeles and Long Beach, handle a substantial portion of container imports from Asian countries like China, Japan, South Korea, and Taiwan. The Trans-Atlantic tradelane that connects Europe with North America ranks next handling about 20% on average of containerized headhaul volumes. Ports on the U.S. East Coast, such as New York–New Jersey and Savannah, play a vital role in handling container imports from European countries like Germany, United Kingdom, and the Netherlands. South & Central America is the tradelane in third place with a 16% market share. The North American container headhaul volumes by tradelane are shown in Figure 34.

Figure 34. North American container headhaul volumes and shares by tradelane

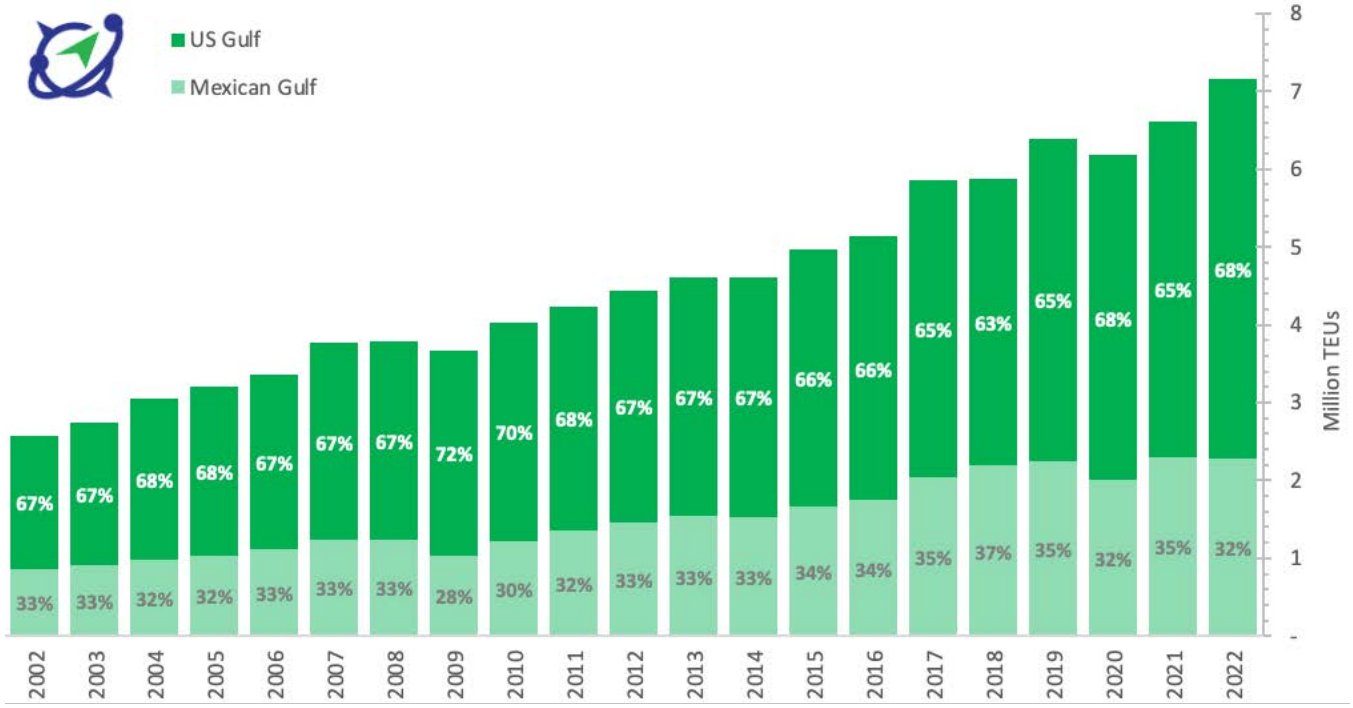


Source: Bujanda & Allen, 2023. *% shares rounded up to the nearest integer.

Gulf Coast throughput volumes

Throughput volume of containerized cargo via the Gulf Coast totaled 7.1 million TEUs in 2022, from which 68% moved through ports in the USGC and 32% through the Mexican Gulf Coast. Based on the 2002-2022 average, U.S. ports have handled 67% of the total Gulf market, while Mexican Gulf ports have handled an average of 33%. While these shares have remained consistently close to the average over the years, U.S. Gulf ports had larger shares during recession years (e.g. 2009, 2010, and 2020), as shown in Figure 35.

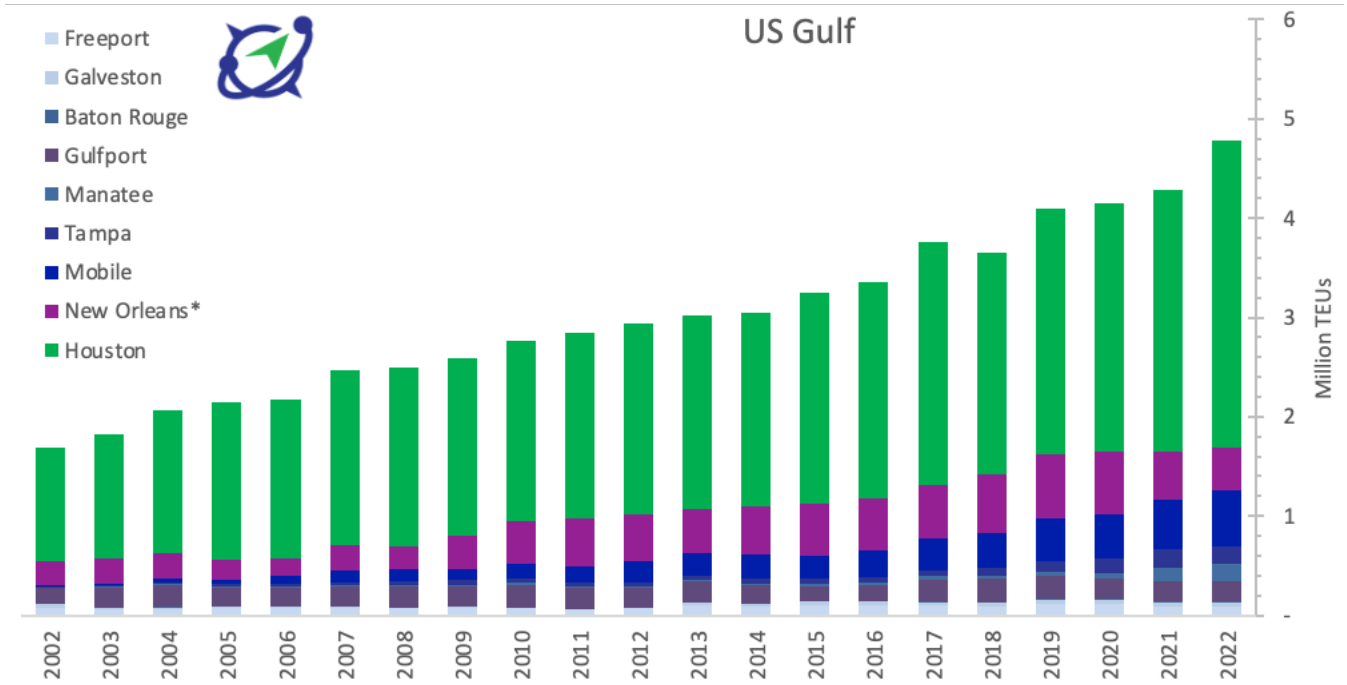
Figure 35. Gulf Coast throughput volumes of containerized cargo (U.S. and Mexico)



Source: Bujanda & Allen, 2023. *% shares rounded up to the nearest integer.

Regarding ports in the USGC, Houston is by far the number one container port, with an average market share of 63% from 2002-2022. Ports handling containers in the New Orleans region had an average market share of 15% from 2002-2022 and have gained share particularly from 2010-2018. With an average market share of 9%, Mobile is also gaining market accelerating after 2015 at par with New Orleans since 2021. Other ports in the U.S. Gulf with significant container headhaul volumes include Tampa, Manatee, Gulfport, Baton Rouge, Galveston, and Freeport, as shown in Figure 36.

Figure 36. U.S. Gulf Coast throughput volumes of containerized cargo by ports

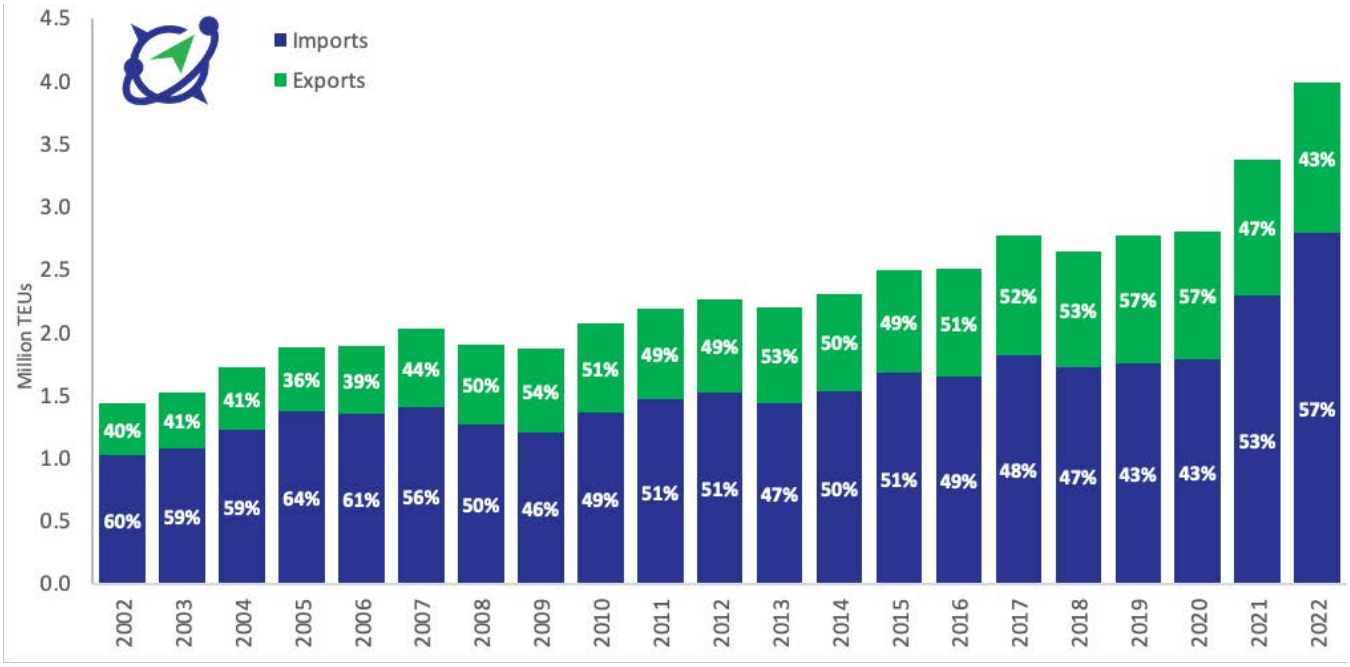


Source: Bujanda & Allen, 2023. Tampa report volumes only based on their fiscal year (FY), as opposed to calendar year like the rest of the ports. *2022 Volumes obtained from a 3rd party data provider (not confirmed by the port).

U.S. Gulf Coast containerized cargo trade balance

In terms of the trade balance (i.e. imports vs. exports) for containerized cargo, the USGC follows a similar pattern to the U.S. and the entire North America region, where international loaded import comprise the headhaul flow, although at smaller proportions than at the national scale. On average, imports represented 52% of the trade balance from 2002-22 via the U.S. Gulf with exports representing the remaining 48%. However, the import shares climbed to 53% in 2021 and 57% in 2022, as shown in Figure 37.

Figure 37. U.S. Gulf Coast international laden volumes by trade flow (imports & exports)

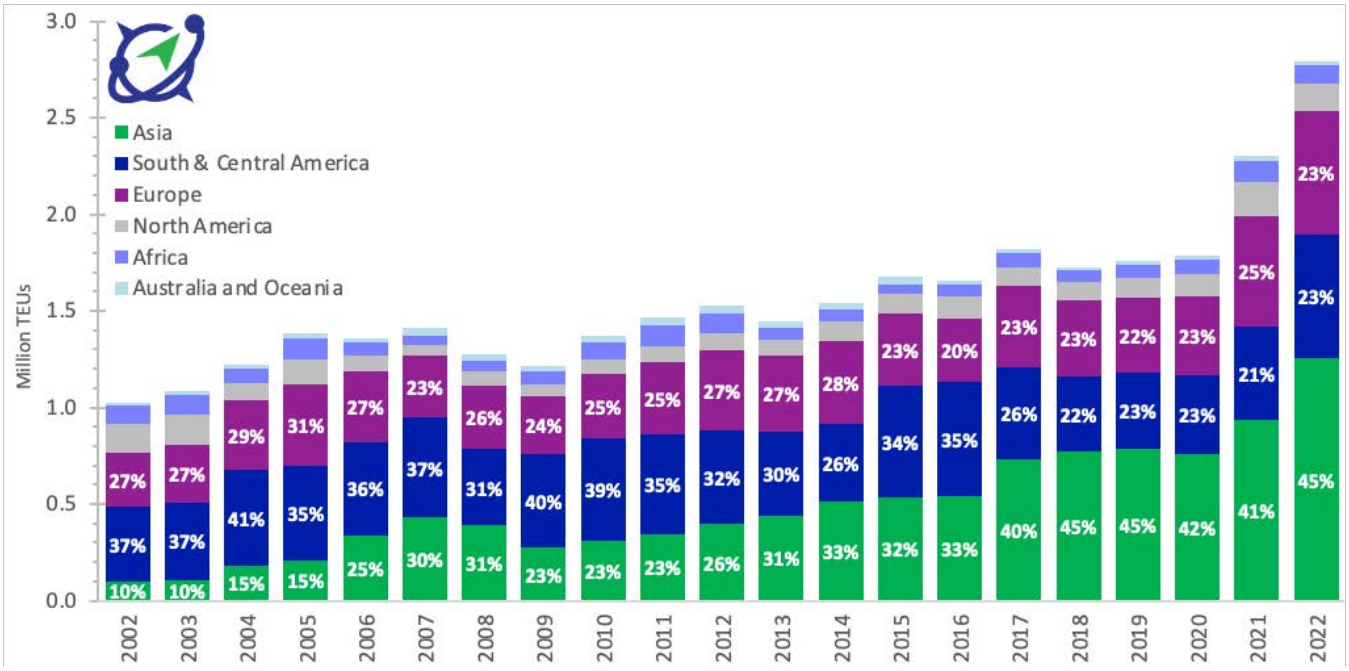


Source: Bujanda & Allen, 2023.

U.S. Gulf Coast headhaul volumes by tradelane

Regarding USGC headhaul volumes by tradelane, containerized imports from Asia have boomed since 2002, increasing from about 100 thousand to 1.25 million TEUs in 2022 (i.e. more than 1200% in terms of volume). During the same time, imports from South & Central America increased from about 383 thousand to 644 thousand TEUs in 2022 (i.e. more than 168% in terms of volume); although in terms of market share, freight from South & Central America decreased as a percentage of total TEUs per year. Imports from Europe increased from about 279 thousand TEUs in 2002 to 641 thousand TEUs in 2022. U.S. Gulf Coast headhaul TEU volumes by tradelane are shown in Figure 38.

Figure 38. U.S. Gulf Coast headhaul volumes by tradelane (million TEUs)



Source: Bujanda & Allen, 2023.

Mexican Gulf Coast headhaul volumes by port

Regarding ports in the Mexican Gulf Coast, Veracruz has historically been the dominant port with a 52% share of container headhaul volumes imported via the Mexican Gulf Coast. Nonetheless, Altamira has been increasing its market share from 31% prior to 2009 to more than 39% after 2018. Other ports in the Mexican Gulf include Tuxpan, Tampico, Coatzacoalcos, and Puerto Morelos, as shown in Figure 39.

5.5 Plaquemines Port long-term forecast

5.5.1 Containerized cargo forecast

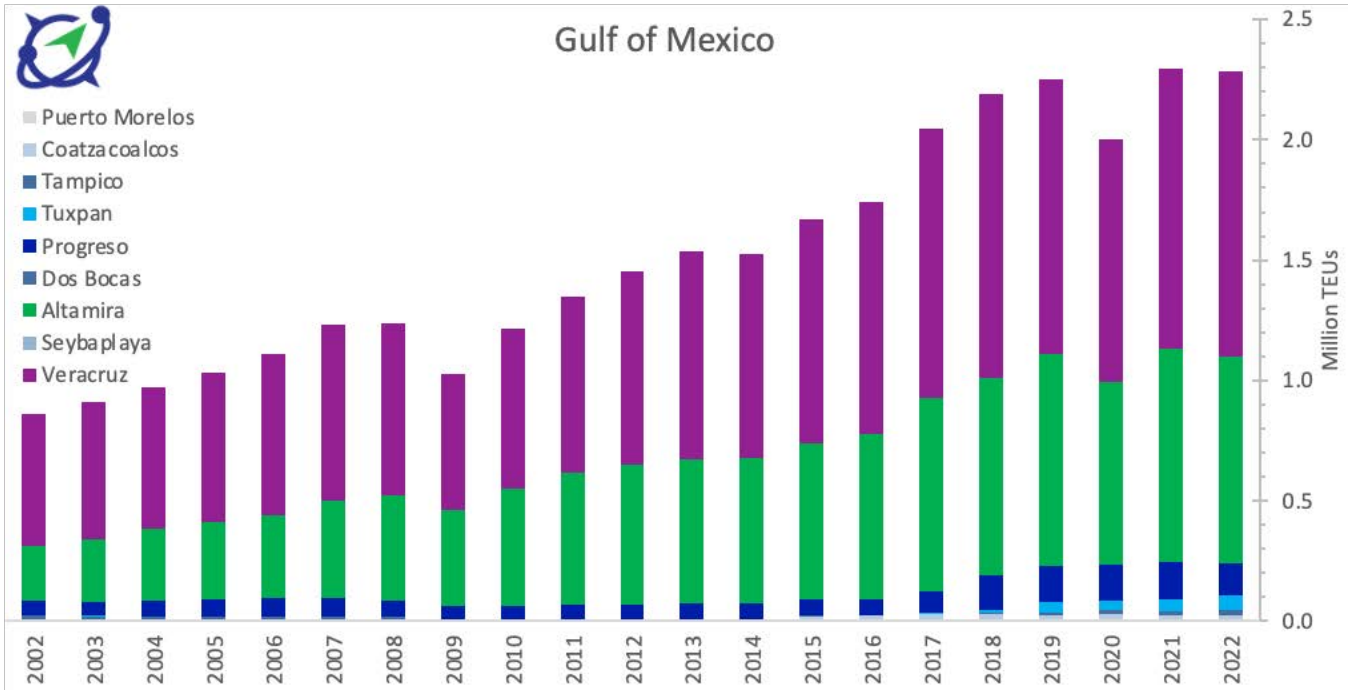
Plaquemines Port's position in the North American market

As of 2022, the container terminals in the New Orleans region collectively ranked as the 24th largest in North America (i.e. U.S., Mexico, and Canada) by total TEU throughput volume, as shown in Figure 41. When only U.S. ports are considered, the New Orleans region market ranks as the 15th largest container port.

Plaquemines Port's position in the U.S. Gulf Coast market

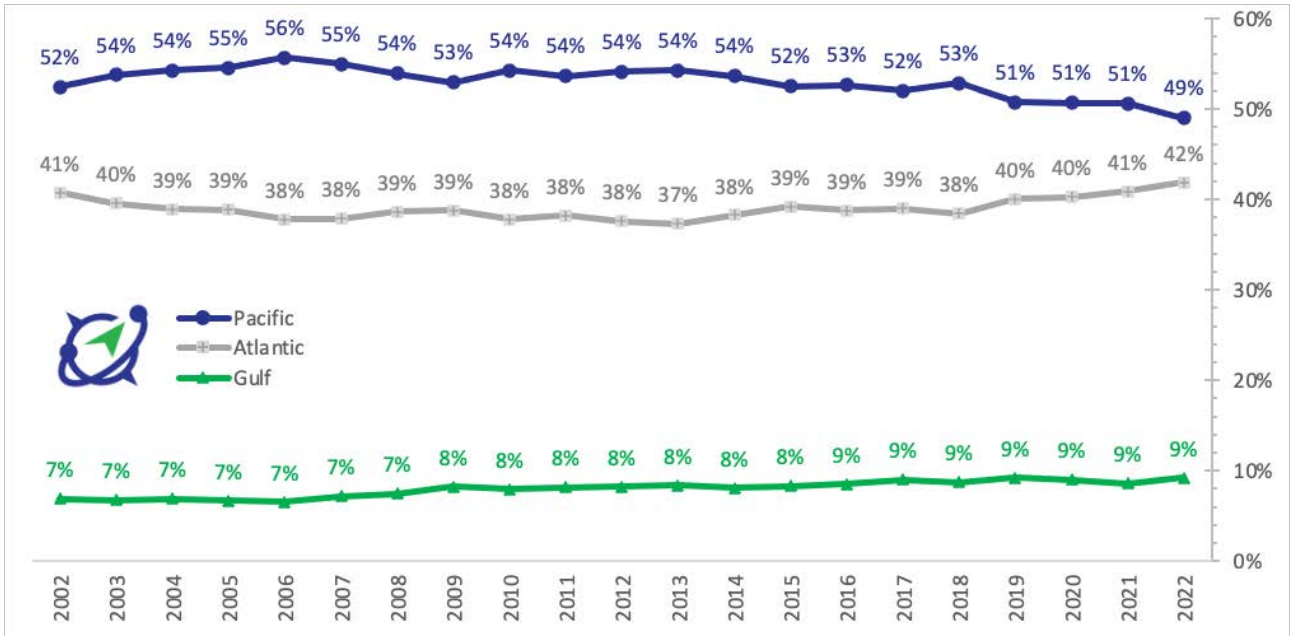
Ports in the Atlantic and Gulf coasts have captured some of the market from ports in the Pacific. These trends accelerated after 2019, when the COVID-19 restrictions caused supply chain disruptions at most ports and were particularly notorious at the ports of Los Angeles and Long Beach. The Atlantic Coast had a 2022 market share of 42% and the Gulf of 9%, as shown in Figure 40.

Figure 39. Mexican Gulf Coast throughput volumes of containerized cargo by ports



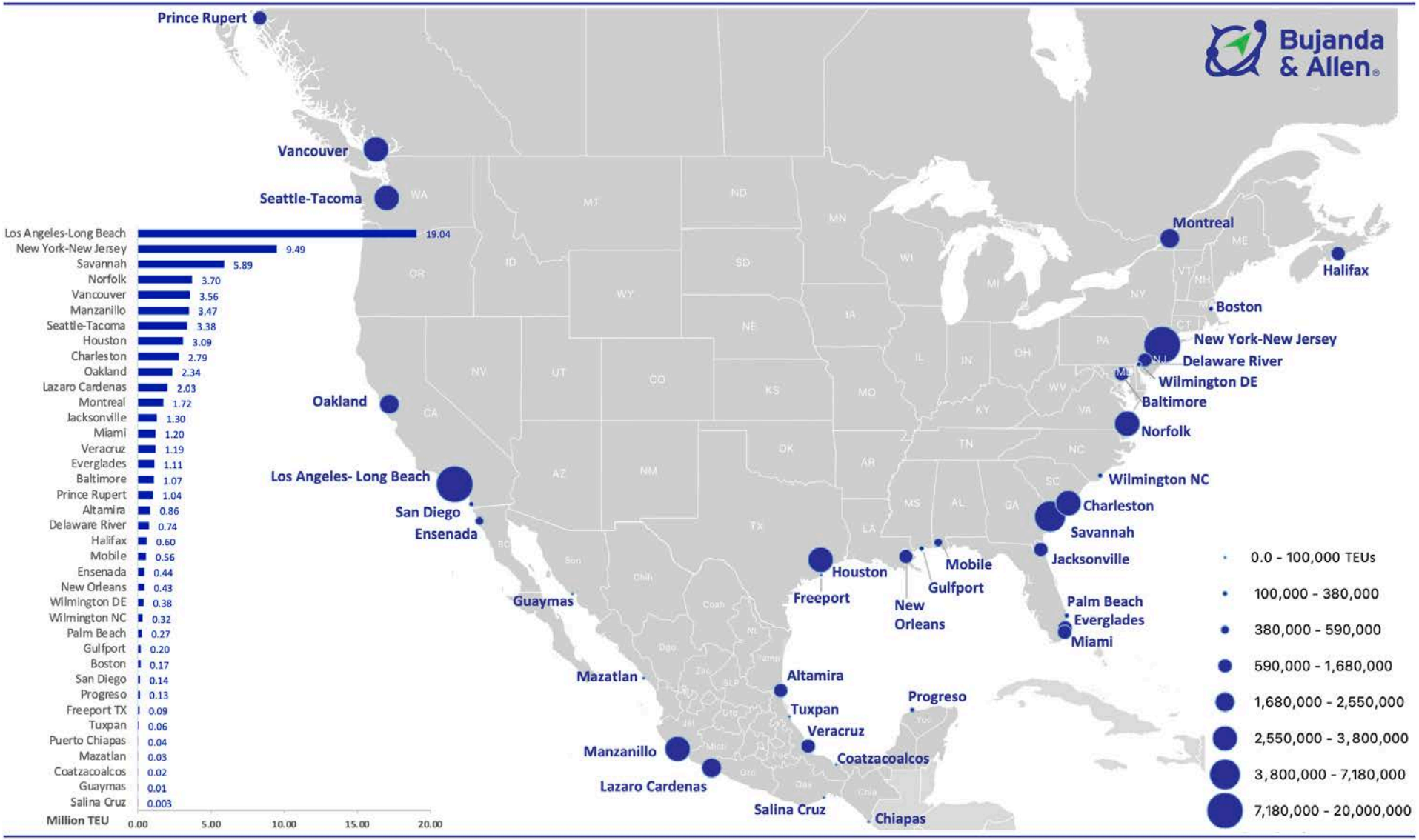
Source: Bujanda & Allen, 2023.

Figure 40. Shares by coast of North American container throughput



Source: Bujanda & Allen, 2023. *% shares rounded up to the nearest integer.

Figure 41. North American container ports: location and ranking (2022, TEUs)

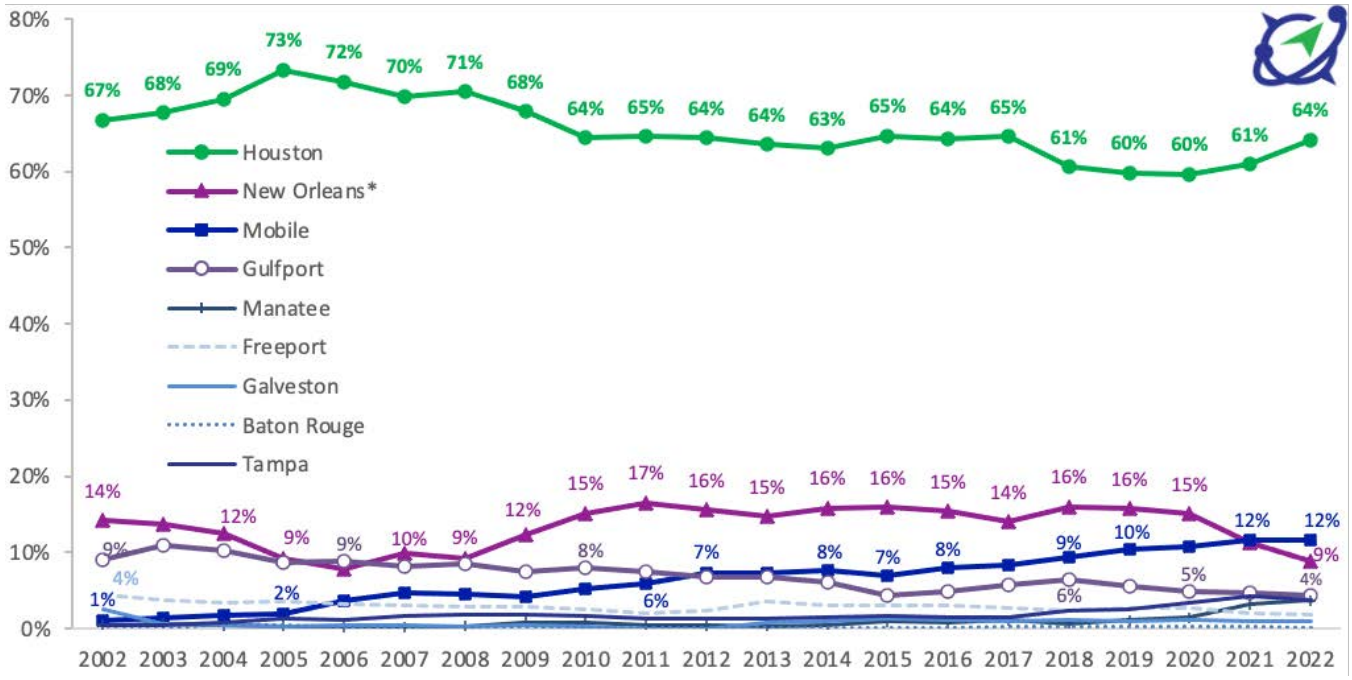


Source: Bujanda & Allen, 2023.

U.S. Gulf Coast port shares

Regarding ports in the USGC, Houston is by far the number one container port, with an average market share of 63% from 2002-2022. Container ports in the New Orleans Customs District (according to the U.S. Census) had an average market share of 15% from 2002-2022 and have gained share particularly from 2010-2018. With an average market share of 9%, Mobile is also gaining market accelerating after 2015 at par with New Orleans since 2021. Other ports in the U.S. Gulf with significant container headhaul volumes include Tampa, Manatee, Gulfport, Baton Rouge, Galveston, and Freeport, as shown in Figure 42.

Figure 42. U.S. Gulf Coast throughput volume share of containerized cargo by ports



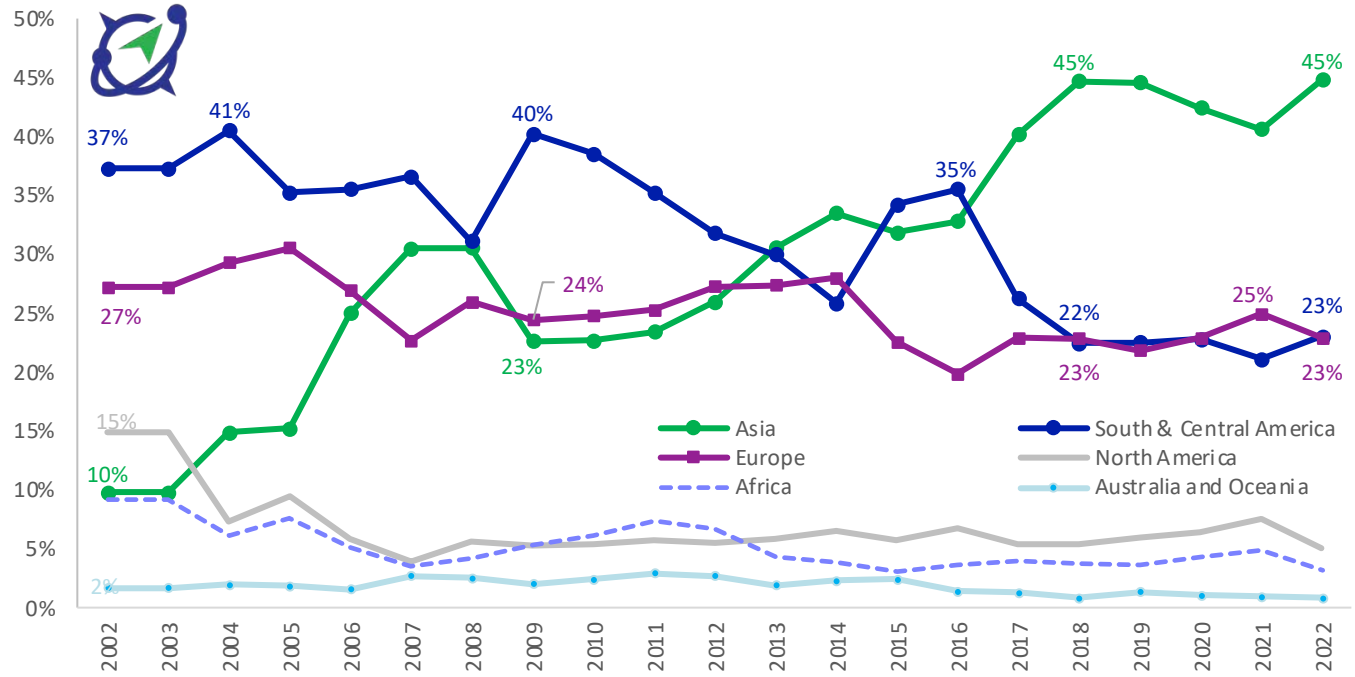
Source: Bujanda & Allen, 2023. *2022 Volumes obtained from a 3rd party data provider not the port.

The throughput volume share of containerized cargo by ports for each tradelane by coast are adjusted each year for the first years of the forecast period until they revert to the long-term mean. Then, the shares are held constant and applied to the total for North America to generate the volume forecast by coast and port region.

U.S. Gulf Coast headhaul volumes by tradelane

Regarding USGC headhaul volumes by tradelane, containerized imports from Asia have boomed since 2002, increasing from 10% of the total USGC headhaul volumes to 45% in 2022 (i.e. more than 400% in terms of volume). During the same time, the market share of imports from South & Central America decreased from 37% in 2002 to 23% in 2022; although in terms of absolute volume, the number of TEUs almost doubled. Europe also had a market share of 23% in 2022, which is more than double the TEUs handled in 2002 (see Figure 38). The evolution of the trends for the volume share by tradelane are shown in Figure 43.

Figure 43. U.S. Gulf Coast headhaul market shares by tradelane

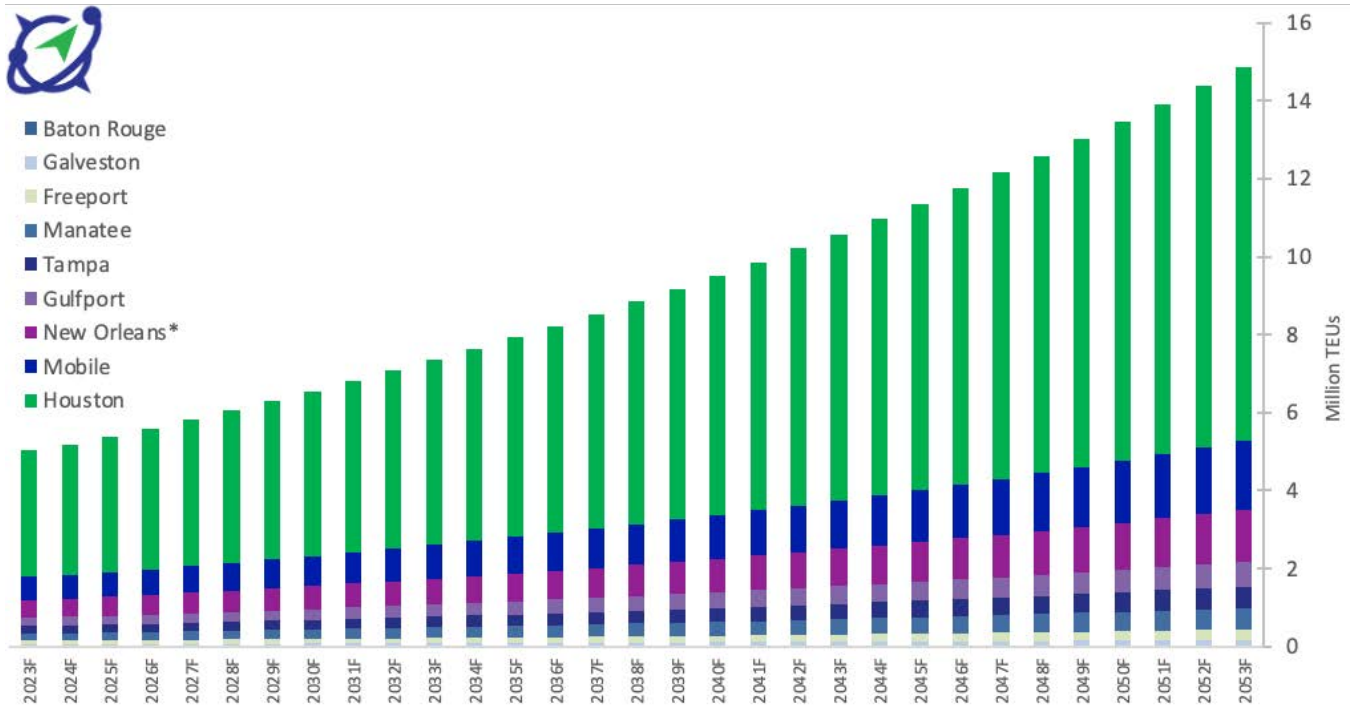


Source: Bujanda & Allen, 2023.

U.S. Gulf Coast volume forecast by port region

The next step is to apply our model to forecast USGC volumes by coast and port region. The throughput volume share of containerized cargo by ports for each tradelane by coast are adjusted each year for the first years of the forecast period until they revert to the long-term mean. Then, the shares are held constant and applied to the total for North America to generate the volume forecast by coast and port region. The USGC throughput volume forecast of containerized cargo by port region are shown in Figure 44.

Figure 44. Forecast of U.S. Gulf Coast throughput volume of containerized cargo by port region



Source: Bujanda & Allen, 2023. *2022 Volumes obtained from a 3rd party data provider.

6. Facility characteristics

Plaquemine's privileged location and depth of its navigational channel connect the two largest waterways in the U.S., the Mississippi River System and the Gulf Intracoastal Waterway (GIWW), with large linehaul vessels using deep-draft ports in existing and future ocean routes. Plaquemines Port encompasses 1,691.8 acres, from which 548 acres are developed, and provide a variety of facilities for various cargo types. By truck, Plaquemines Port has efficient access to I-49, I-55, and I-59 for north-south truck freight movements and I-10, I-12, and I-20 for east-west. By rail, connectivity to and from the port is provided by the New Orleans & Gulf Coast Railway Company (NOGC), a 32-mile short-line capable of handling railcars of 286,000 lb, interchanging with Union Pacific in Westwego, LA. This section presents the main waterside and landside facilities serving the movement of freight, including berth and cargo facilities, and land uses.

6.1 Waterside facilities

6.1.1 Navigational channel

The Mississippi River Ship Channel (MRSC) extends 255 miles from river mile (RM) 233 above head of passes (AHP) at Baton Rouge, LA to RM 22 below head of passes (BHP), where the MRSC terminus connects with the Gulf of Mexico.[5] MRSC's segment between RM 81.2 AHP and RM 22 BHP is within Plaquemines Port's jurisdictional limits (i.e. Plaquemines Port's Navigational Channel), providing access to an average of 11,000 deep-draft vessels per year.

The average depth of the navigational MRSC is maintained to 50 ft, but it is authorized to 55 ft:

- **Plaquemines Port Navigational Channel** is naturally deep and wide and does not require construction or maintenance dredging from RM 81.2 AHP to RM 13.4 AHP. From RM 13.4 AHP to RM 22 BHP, this navigational channel is maintained to a depth of 50 ft Mean Lower Low Water (MLLW).
- **Southwest Pass (SWP)** extends from the Head of Passes (HoP) at RM 0 to RM 22 BHP.
- **SWP Bar Channel** which extends from RM 19.5 BHP to RM 22 BHP.
- **South Pass (SP)** is located between the Pass a Loutre and SWP and not used by deep-draft vessels.[6]

The USACE has increased the maintained depth to 50 ft from the Gulf to RM 175 AHP. Navigational channel features are described in Table 1 and shown in Figure 45.

Table 1. Navigational channel features: maintained, authorized, and proposed channel dimensions

Jurisdiction	Navigational channel reach	Upper bound (River mile)	Lower bound (River mile)	Maintained (depth x width)	Authorized (depth x width)
PONOLA	New Orleans Harbor Approach Channel[7]	104.5 AHP	94.6 AHP	40 ft x 500 ft	40 ft x 500 ft
PONOLA	MRSC Channel	115.0 AHP	81.2 AHP	50 ft x 750 ft	55 ft x 750 ft
Plaquemines	Plaquemines Port Navigational Channel	**81.2 AHP**	13.4 AHP	50 ft x 750 ft	55 ft x 1000 ft
		13.4 AHP	18.0 BHP	50 ft x 750 ft	55 ft x 1000 ft
Plaquemines	Southwest Pass (SWP)	**0 at HoP**	18.0 BHP	50 ft x 750 ft	55 ft x 800 ft
		18.0 BHP	**22.0 BHP**	50 ft x 600 ft	55 ft x 600 ft
Plaquemines	SWP Bar Channel	19.5 BHP	22.0 BHP	17 ft x 300 ft	30 ft x 600 ft
Plaquemines	South Pass (SP)	2.0 BHP	15.2 BHP	17 ft x 300 ft	30 ft x 450 ft

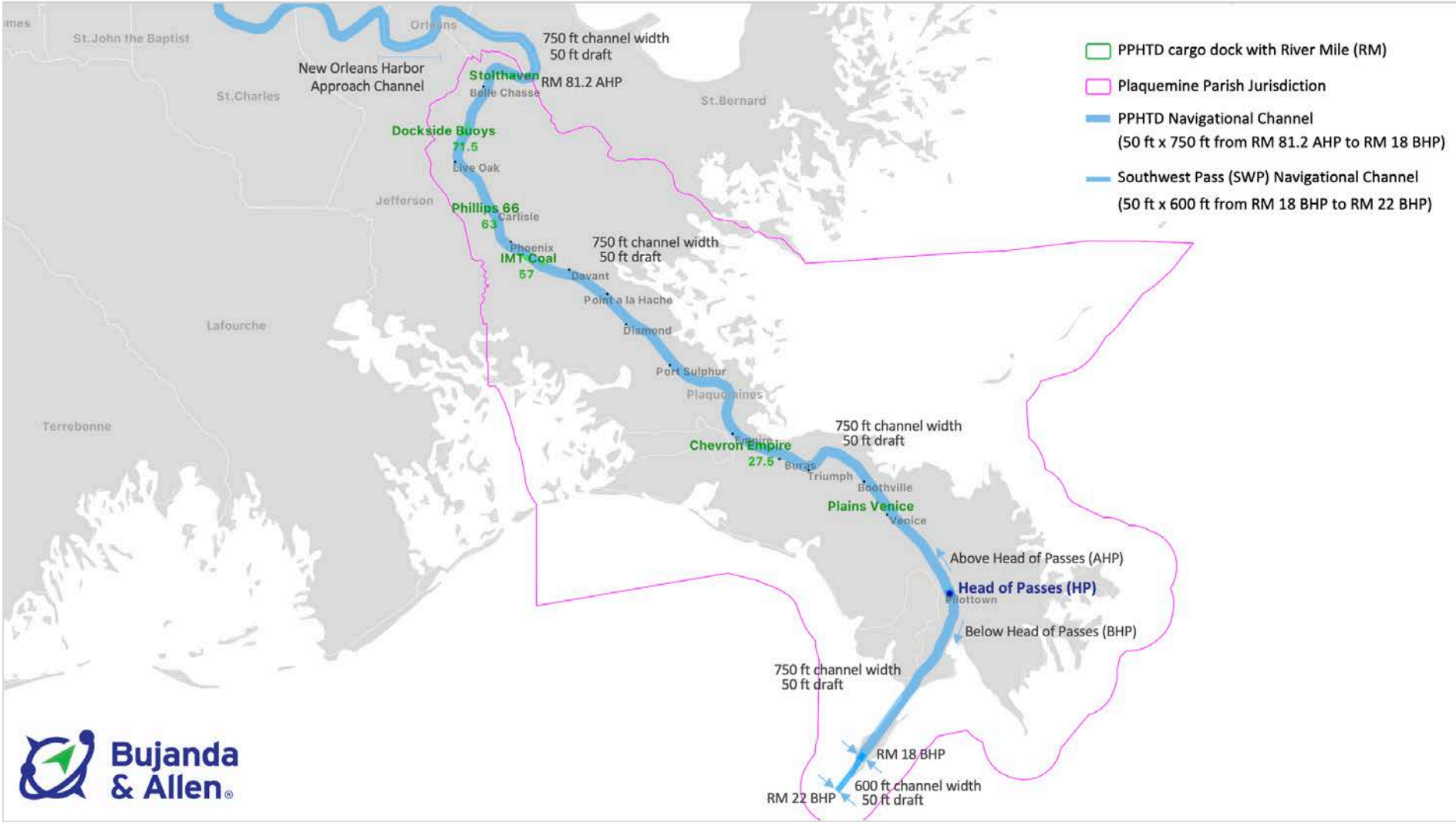
Source: Bujanda & Allen, 2024.

[5] USACE, Mississippi River Ship Channel, Final Report 2018: https://www.mvn.usace.army.mil/About/Mississippi-River-Ship-Channel

[6] The reference datum for project depth varies by reach. The SWP and SP are tidally influenced. SWP is referenced to the MLLW. The portion of the project that above the Port of New Orleans is maintained to the Lower Water Reference Plane (LWRP). The transition between reference datums MLLW and LWRP, occurs in the vicinity of New Orleans, where tidal influence in the river ceases.

[7] The 1986 Water Resource and Development Act authorized the Port of New Orleans Harbor Approach Channel to a depth of 40 ft. There is an ongoing effort to deepen the New Orleans Harbor Approach Channel. Deepening construction is scheduled for late 2024.

Figure 45. Mississippi River Ship Channel (MRSC) navigational channel features



Source: Bujanda & Allen with information obtained from the USACE, 2024.

6.1.2 Cargo dock and anchorage facilities

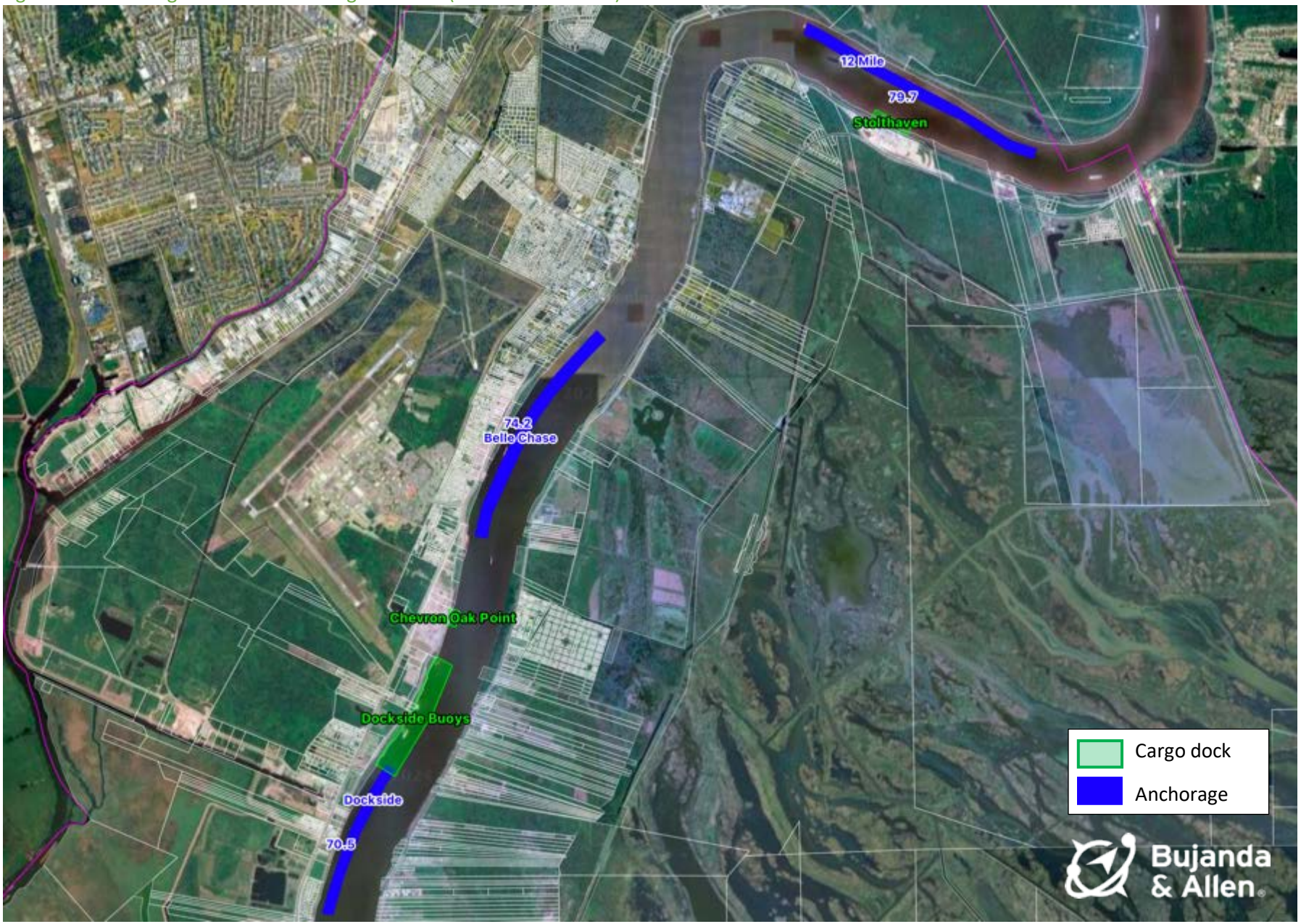
Based on information provided by the port, we generated a facility inventory and layout of the cargo dock and anchorage facilities at the port. With 9 cargo docks, the port provides ideal water-land freight transfer points. Fifteen major anchorages and 81 miles of deep draft of at least 50 ft allow navigation of large vessels, making it an ideal water location for vessel-to-vessel, barge-to-vessel, and vessel-to-barge transfer of freight. The 9 major cargo docks and 15 anchorage facilities at the port are shown in the following figures and described in Table 2.

Table 2. Port of Plaquemines cargo dock and anchorage facilities

Cargo dock or anchorage facility	Facility type	River bank	Upper bound (River mile)	Dock (River mile)	Lower bound (River mile)	Cross-reference (Figure)
1. **Stolthaven New Orleans (Braithwaite)**	Dock	East	80.0 AHP	79.5 AHP	79.4 AHP	Figure 46
2. **12 mile**	Anchorage	West	80.8 AHP	79.7 AHP	78.6 AHP	Figure 46
3. **Amax Metal Recovery Inc**	Dock	East	76.7 AHP	76.5 AHP	76.4 AHP	Figure 46
4. **Belle Chase**	Anchorage	West	75.2 AHP	74.2 AHP	73.1 AHP	Figure 46
5. **Chevron Oronite (Oak Point)**	Dock	West	72.9 AHP	72.3 AHP	71.7 AHP	Figure 46
6. **Dockside**	Anchorage	West	71.0 AHP	70.5 AHP	70.0 AHP	Figure 46
7. **Willis Pt**	Anchorage	East	67.6 AHP	67.1 AHP	66.5 AHP	Figure 47
8. **La Grange**	Anchorage	West	65.8 AHP	64.8 AHP	63.8 AHP	Figure 47
9. **Harvest Midstream Alliance (formerly Conoco-Phillips 66)**	Dock	West	63.3 AHP	63.0 AHP	62.2 AHP	Figure 47
10. **Cenex Harvest States (CHS) Myrtle Grove**	Dock	West	61.8 AHP	61.5 AHP	61.3 AHP	Figure 47
11. **Plaquemines Holdings Inc**	Dock	West	61.6 AHP	61.5 AHP	61.3 AHP	Figure 47
12. **NOLA Terminal***	Dock	West	59.4 AHP	59.0 AHP	58.8 AHP	Figure 48
13. **International Marine Terminals – IMT Coal (Kinder Morgan)**	Dock	West	57.6 AHP	57.0 AHP	56.5 AHP	Figure 48
14. **United Bulk Terminals (Davant)**	Dock	East	56.3 AHP	55.4 AHP	54.7 AHP	Figure 48
15. **Davant**	Anchorage	East	53.9 AHP	53.4 AHP	52.8 AHP	Figure 48
16. **Venture Global Plaquemines LNG***	Dock	West	54.5 AHP	54.0 AHP	53.7 AHP	Figure 48
17. **Celeste**	Anchorage	West	52.0 AHP	50.9 AHP	49.8 AHP	Figure 48
18. **Magnolia Terminal**	Anchorage	West	47.6 AHP	46.6 AHP	45.5 AHP	Figure 48
19. **Pt Michel**	Anchorage	West	42.0 AHP	41.5 AHP	41.0 AHP	Figure 49
20. **Port Sulphur**	Anchorage	East	39.7 AHP	38.0 AHP	37.5 AHP	Figure 49
21. **Chevron Empire**	Dock	East	27.7 AHP	27.5 AHP	27.3 AHP	Figure 50
22. **Ostrica**	Anchorage	West	24.4 AHP	23.2 AHP	23.0 AHP	Figure 50
23. **Boothville**	Anchorage	West	18.5 AHP	15.4 AHP	12.2 AHP	Figure 50
24. **Plains Venice (Curlew Midstream)**	Dock	West	12.0 AHP	11.8 AHP	11.5 AHP	Figure 50
25. **Upper Venice**	Anchorage	East	11.2 AHP	10.5 AHP	10.0 AHP	Figure 51
26. **Lower Venice**	Anchorage	East	9.0 AHP	9.0 AHP	8.0 AHP	Figure 51
27. **Pilottown**	Anchorage	West	3.5 AHP	3.3 AHP	1.5 AHP	Figure 51

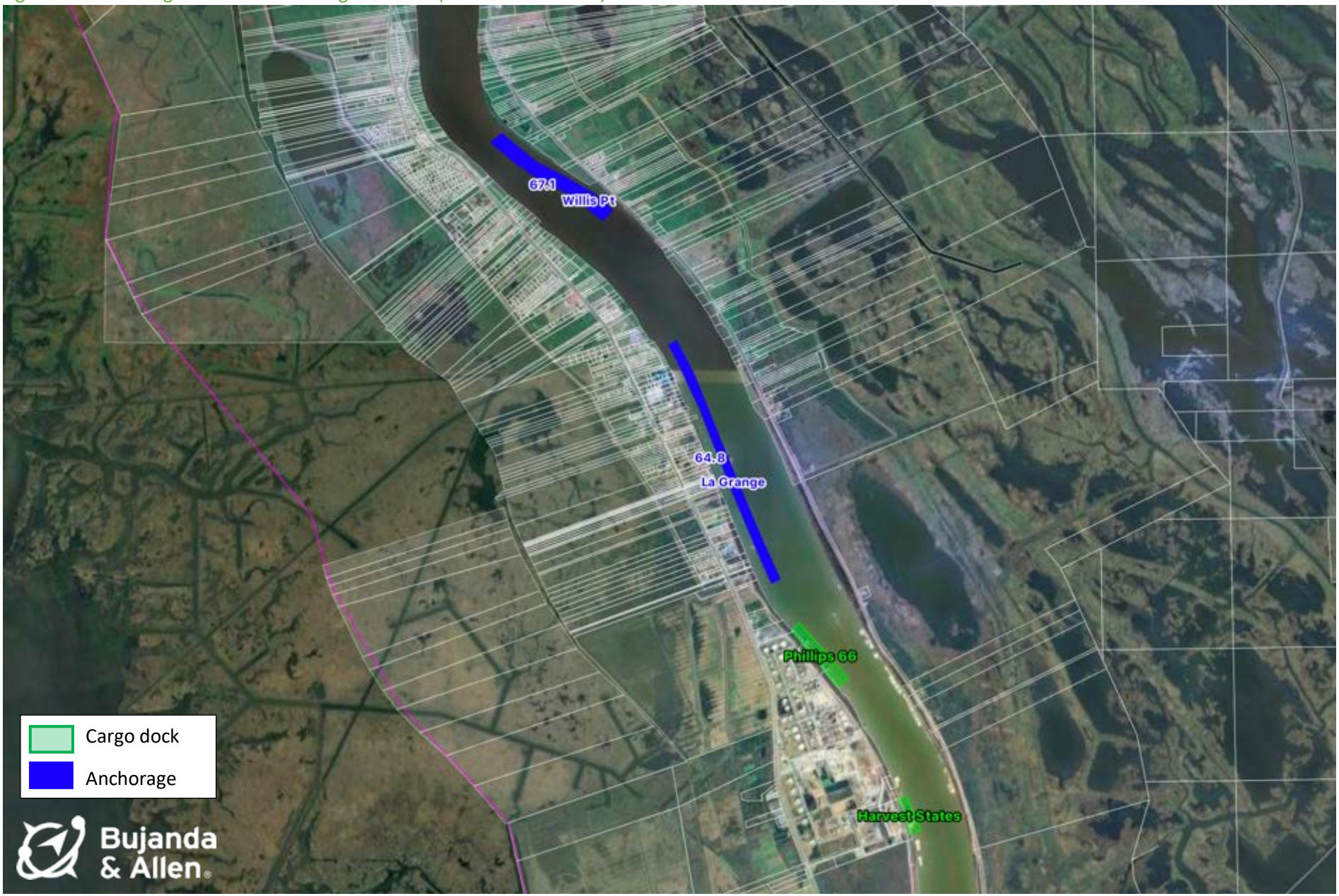
Source: Bujanda & Allen, 2024. *Under construction.

Figure 46. Main cargo dock and anchorage facilities (RM 82-RM 69 AHP)



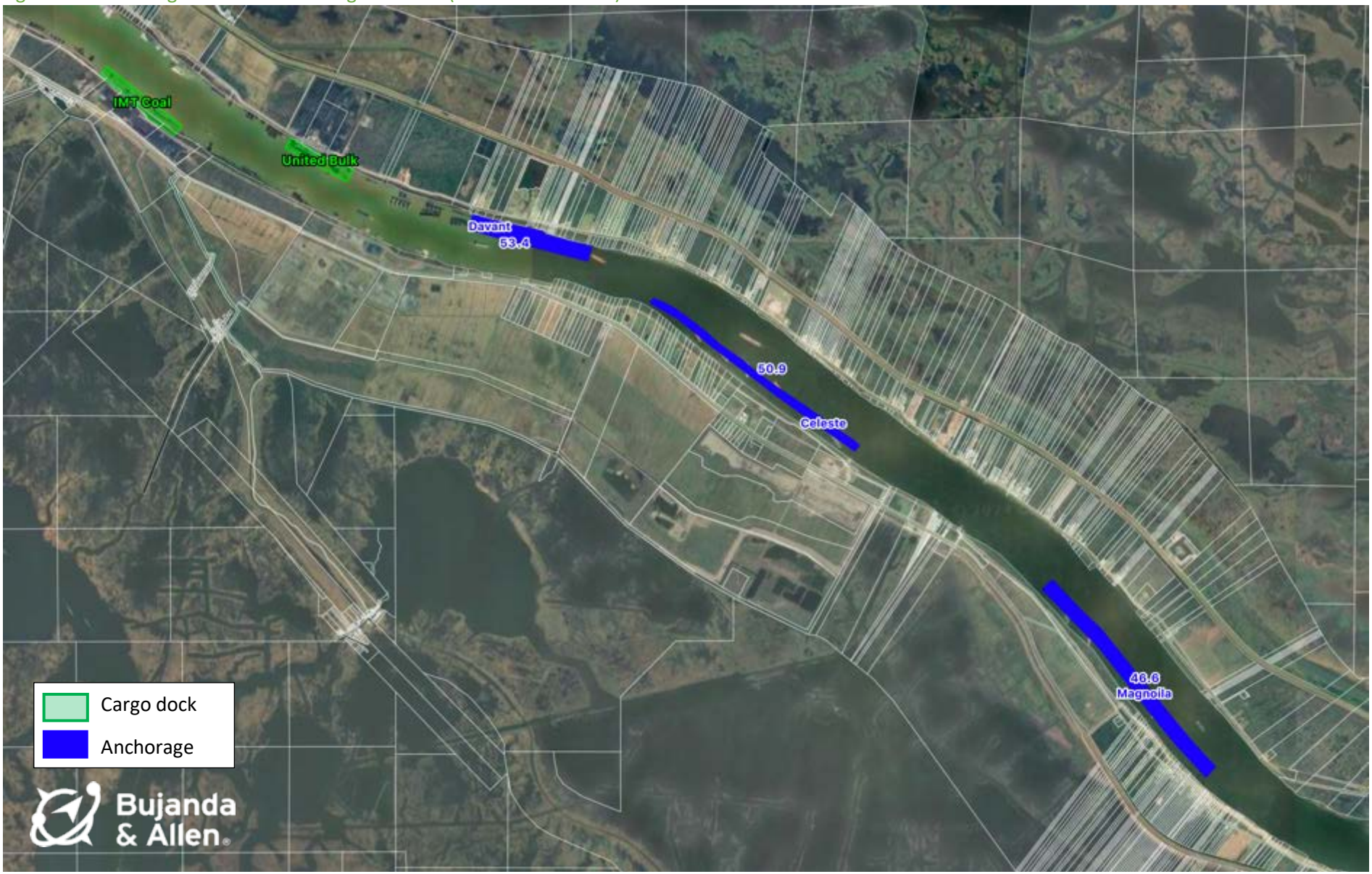
Source: Bujanda & Allen, 2024.

Figure 47. Main cargo dock and anchorage facilities (RM 68-RM 60 AHP)



Source: Bujanda & Allen, 2024.

Figure 48. Main cargo dock and anchorage facilities (RM 58-RM 45 AHP)



Source: Bujanda & Allen, 2024.

Figure 49. Main cargo dock and anchorage facilities (RM 45-RM 32 AHP)

Source: Bujanda & Allen, 2024.

Figure 50. Main cargo dock and anchorage facilities (RM 29-RM 13 AHP)

Source: Bujanda & Allen, 2024.

Figure 51. Main cargo dock and anchorage facilities (RM 13-RM 0 HoP)

Source: Bujanda & Allen, 2024.

6.1.3 Drybulk and covered storage facilities

B&A performed an assessment of the terminals at the port handling liquid-bulk, agribulk, and drybulk cargoes, documenting aspects such as cargo type, storage available, capacity, and the river mile at which the cargo dock for each of these facilities is located. From the 18 tenants at Plaquemines Port, 9 have a physical terminal at the port, shown in Table 3. Aerial imagery for such terminals, as well as aspects such as parcel ownership, parcel land boundaries, acreage, storage areas, and cargo handling equipment are shown in the following figures.

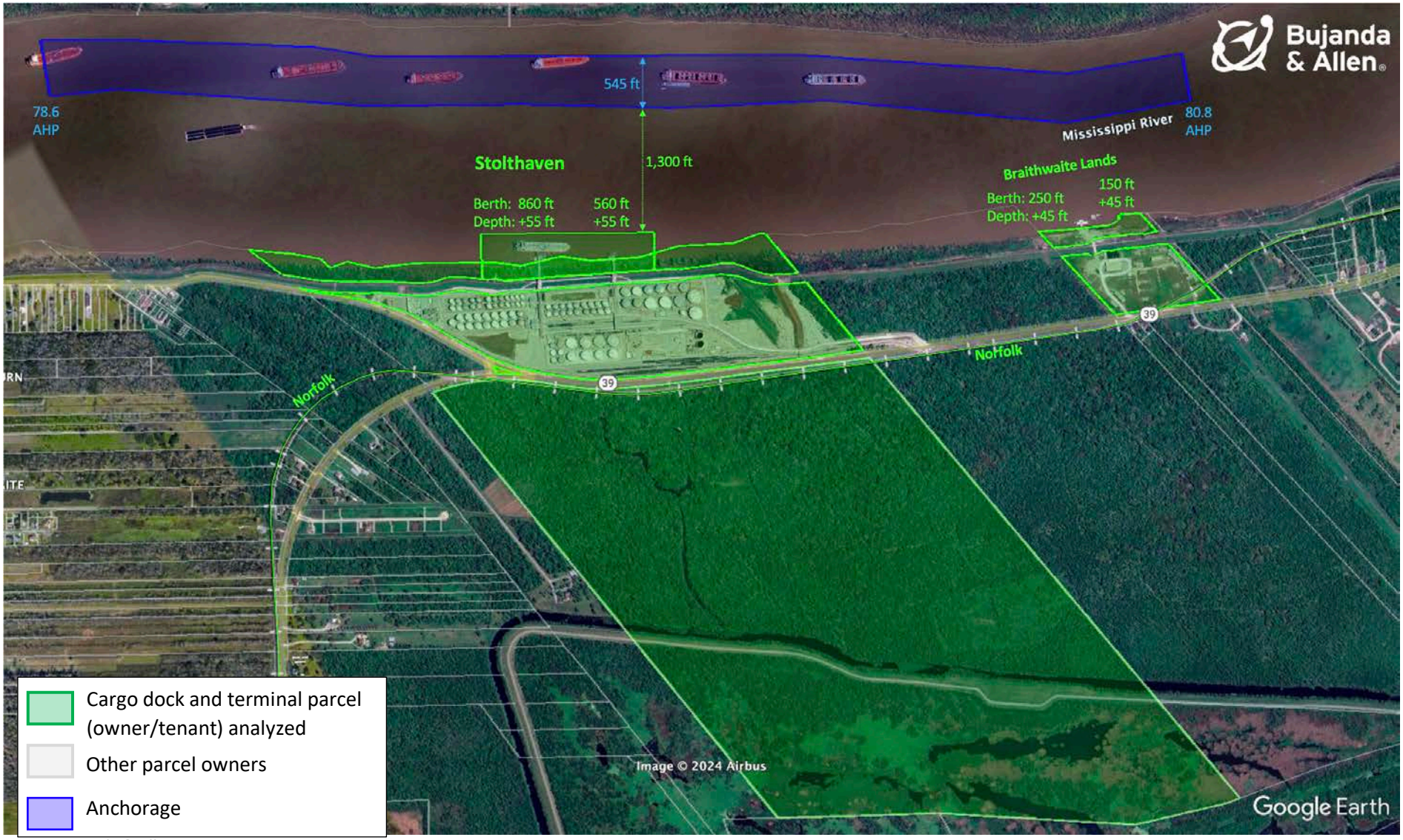
Table 3. Port of Plaquemines cargo storage facilities

Cargo storage facility	Cargo type	Storage	Dock (River mile)
1. **Stolthaven New Orleans (Braithwaite)**	▪ Liquid-bulk	▪ 91 tanks	▪ 79.5 AHP
2. **Amax Metal Recovery Inc**	▪ Breakbulk ▪ Drybulk	▪ 380 acres	▪ 76.5 AHP
3. **Chevron Oronite (Oak Point)**	▪ Liquid-bulk	▪ 307 tanks (total) ▪ 25 tanks (storage)	▪ 72.3 AHP
4. **Cooper Moorings (midstream)**	▪ Drybulk ▪ Agribulk ▪ Breakbulk	▪ At buoy facilities	▪ 72.0 AHP
5. **Harvest Midstream Alliance (formerly Conoco-Phillips 66)**	▪ Liquid-bulk	▪ 82 tanks	▪ 63.0 AHP
6. **Cenex Harvest States (CHS) Myrtle Grove**	▪ Agribulk	▪ 15 silos (metal) ▪ 60 silos (concrete)	▪ 61.5 AHP
7. **Plaquemines Holdings Inc**	▪ Agribulk	▪ 10 silos	▪ 61.5 AHP
8. **Associated Terminals (midstream)**	▪ Agribulk ▪ Drybulk	▪ At buoy facilities	▪ 61.0 AHP
9. **NOLA Terminal**	▪ Liquid-bulk ▪ Drybulk	▪ 28 tanks	▪ 59.0 AHP
10. **International Marine Terminal – IMT Coal (Kinder Morgan)**	▪ Drybulk	▪ 110 acres (uncovered)	▪ 57.0 AHP
11. **United Bulk Terminals (Davant)**	▪ Drybulk	▪ 210 acres (uncovered)	▪ 55.4 AHP
12. **Venture Global Plaquemines LNG**	▪ Liquid-bulk	▪ 4 tanks	▪ 54.0 AHP
13. **Chevron Empire**	▪ Liquid-bulk	▪ 10 tanks	▪ 27.5 AHP
14. **Plains Venice (Curlew Midstream)**	▪ Liquid-bulk	▪ At buoy facilities ▪ 4 tanks	▪ 11.8 AHP

Source: Bujanda & Allen, 2024. Most tenants that conduct midstream operations do not have a terminal at the port, but operations are conducted ship-to-ship or barge-to-ship at anchorage points.

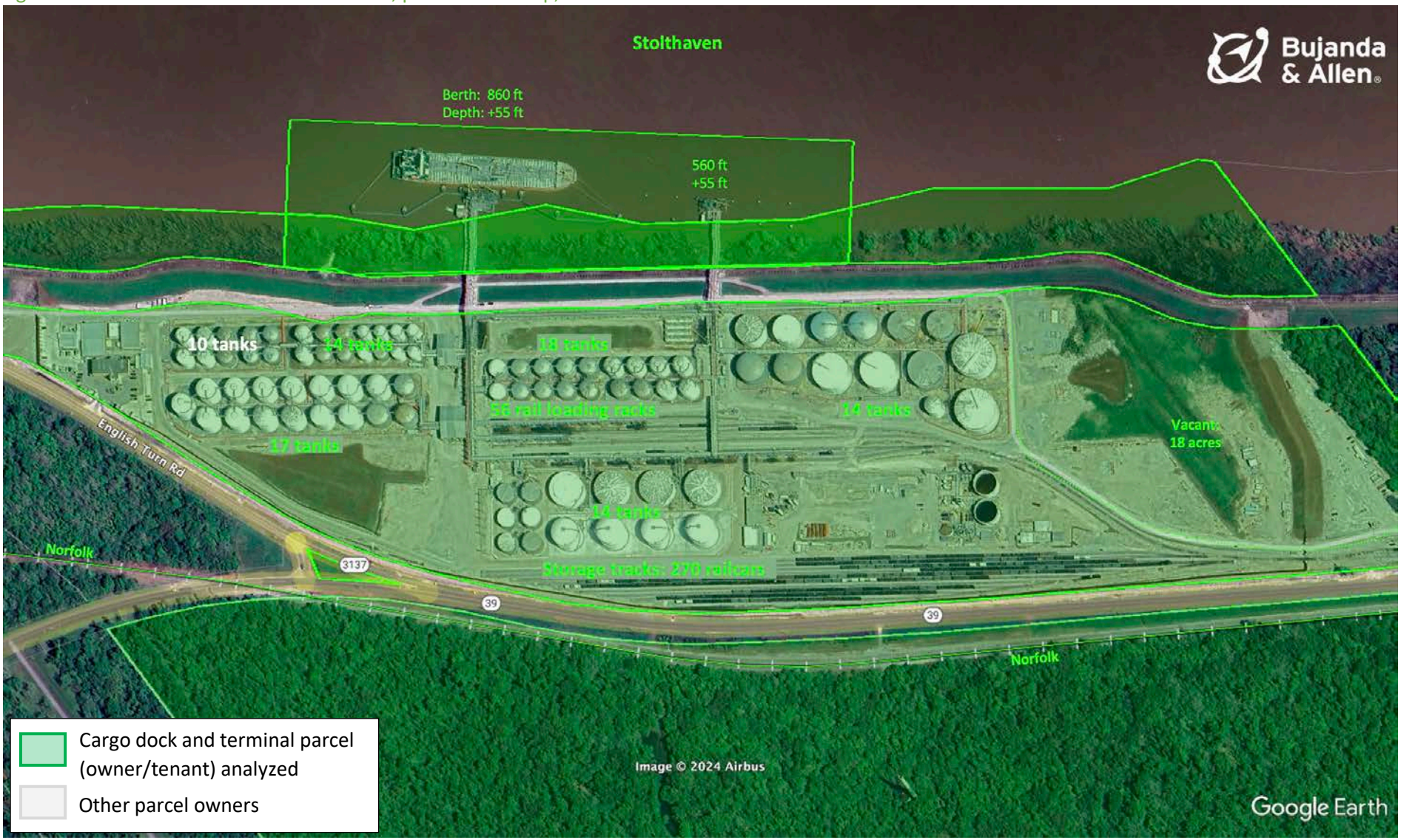
6.1.3.1 Stolthaven New Orleans

Figure 52. Stolthaven New Orleans and Braithwaite: terminal, parcel ownership, docks, and anchorage areas.



Source: Bujanda & Allen, 2024.

Figure 53. Stolthaven New Orleans: terminal, parcel ownership, and docks.



Source: Bujanda & Allen, 2024.

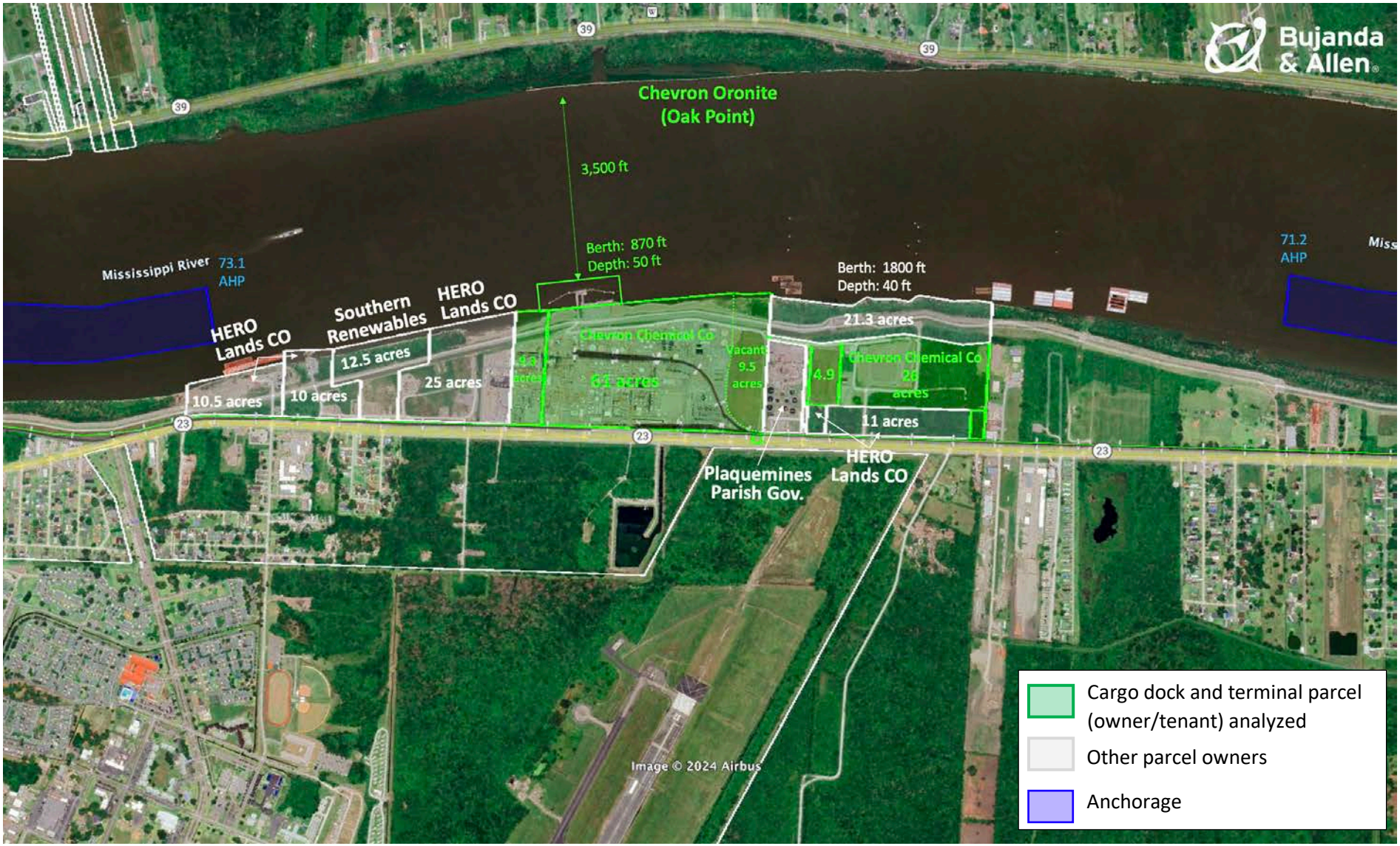
6.1.3.2 Amax Metal Recovery Inc (CCI Port Nickel)

Figure 54. Amax Metal Recovery: terminal, parcel ownership, dock, and anchorage areas.

Source: Bujanda & Allen, 2024.

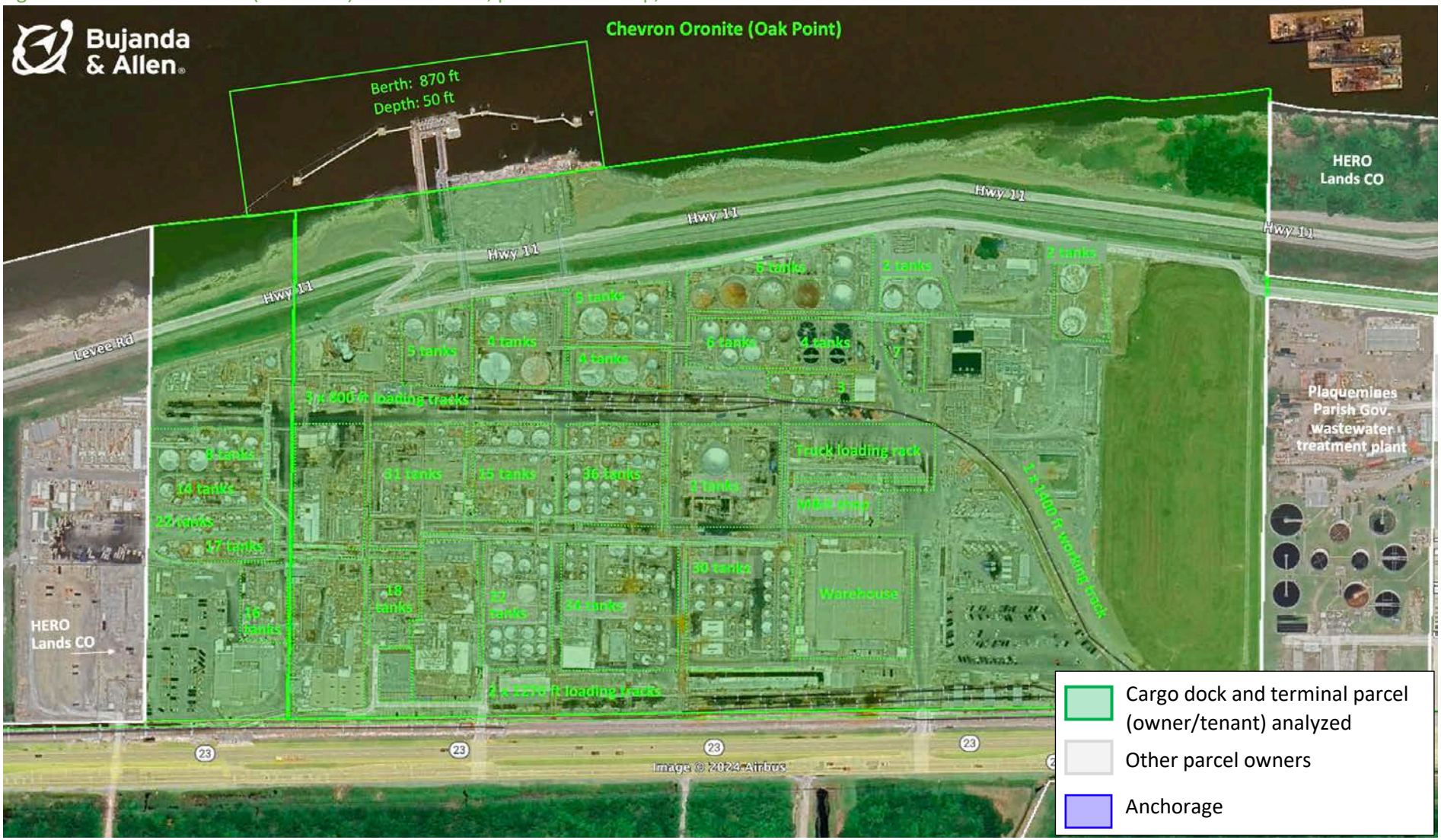
6.1.3.3 Chevron Oronite (Oak Point)

Figure 55. Chevron Oronite (Oak Point): terminal, parcel ownership, dock, and anchorage areas.



Source: Bujanda & Allen, 2024.

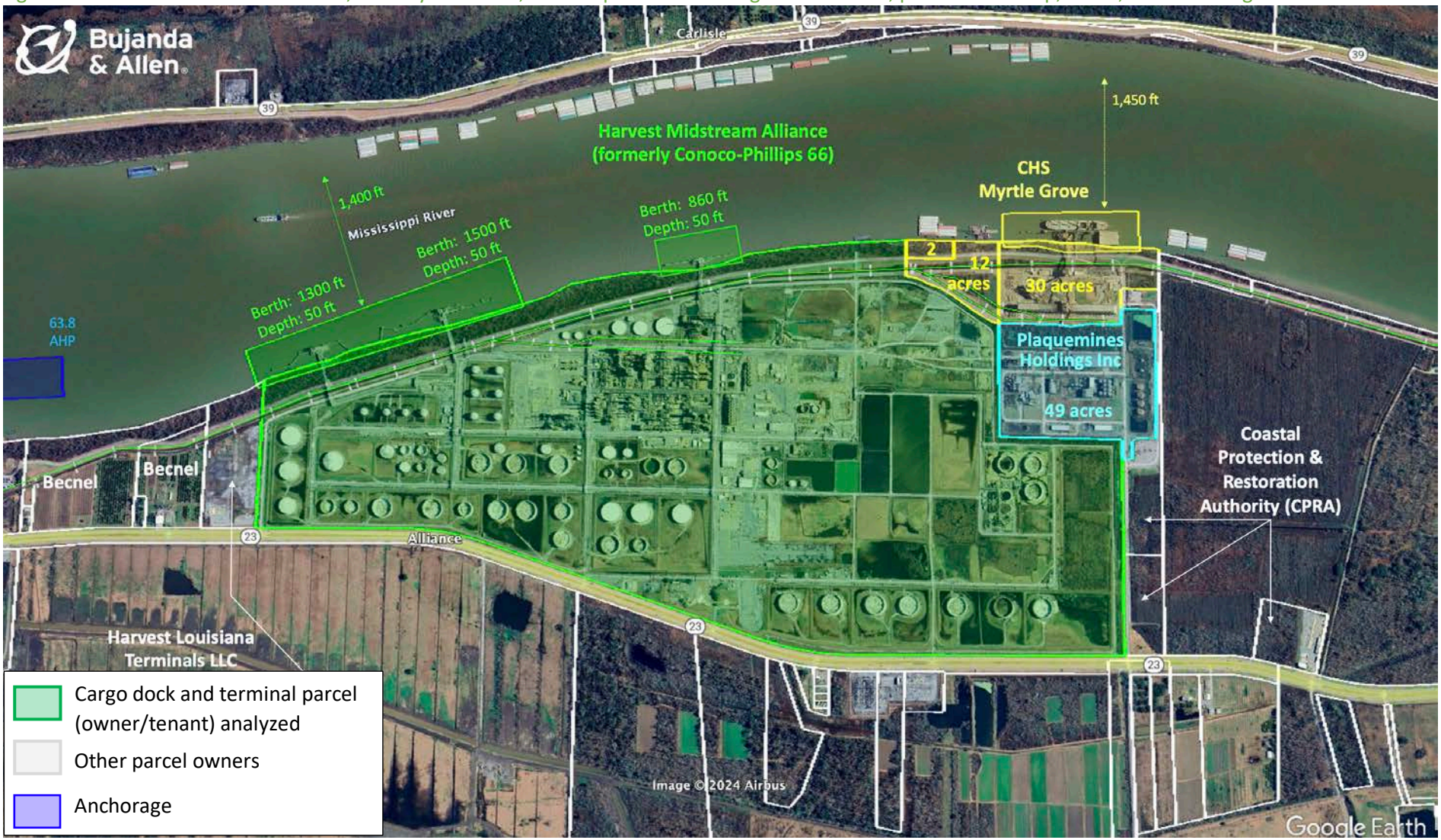
Figure 56. Chevron Oronite (Oak Point): terminal area, parcel ownership, and dock.



Source: Bujanda & Allen, 2024.

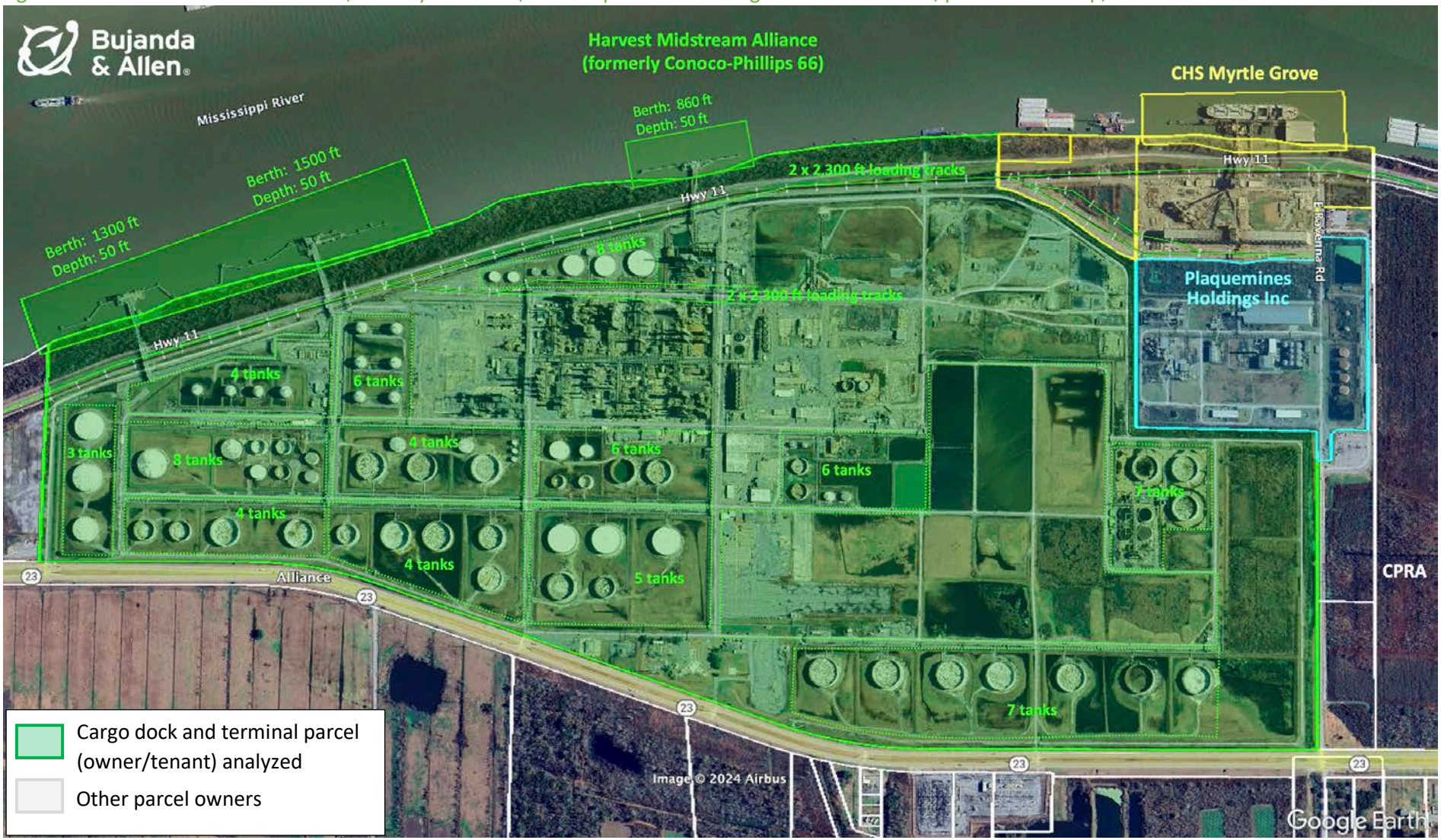
6.1.3.4 Harvest Midstream Alliance, CHS Myrtle Grove, and Plaquemines Holdings Inc

Figure 57. Harvest Midstream Alliance, CHS Myrtle Grove, and Plaquemines Holdings Inc: terminal, parcel ownership, docks, and anchorage areas.



Source: Bujanda & Allen, 202

Figure 58. Harvest Midstream Alliance, CHS Myrtle Grove, and Plaquemines Holdings Inc: terminal area, parcel ownership, and docks.

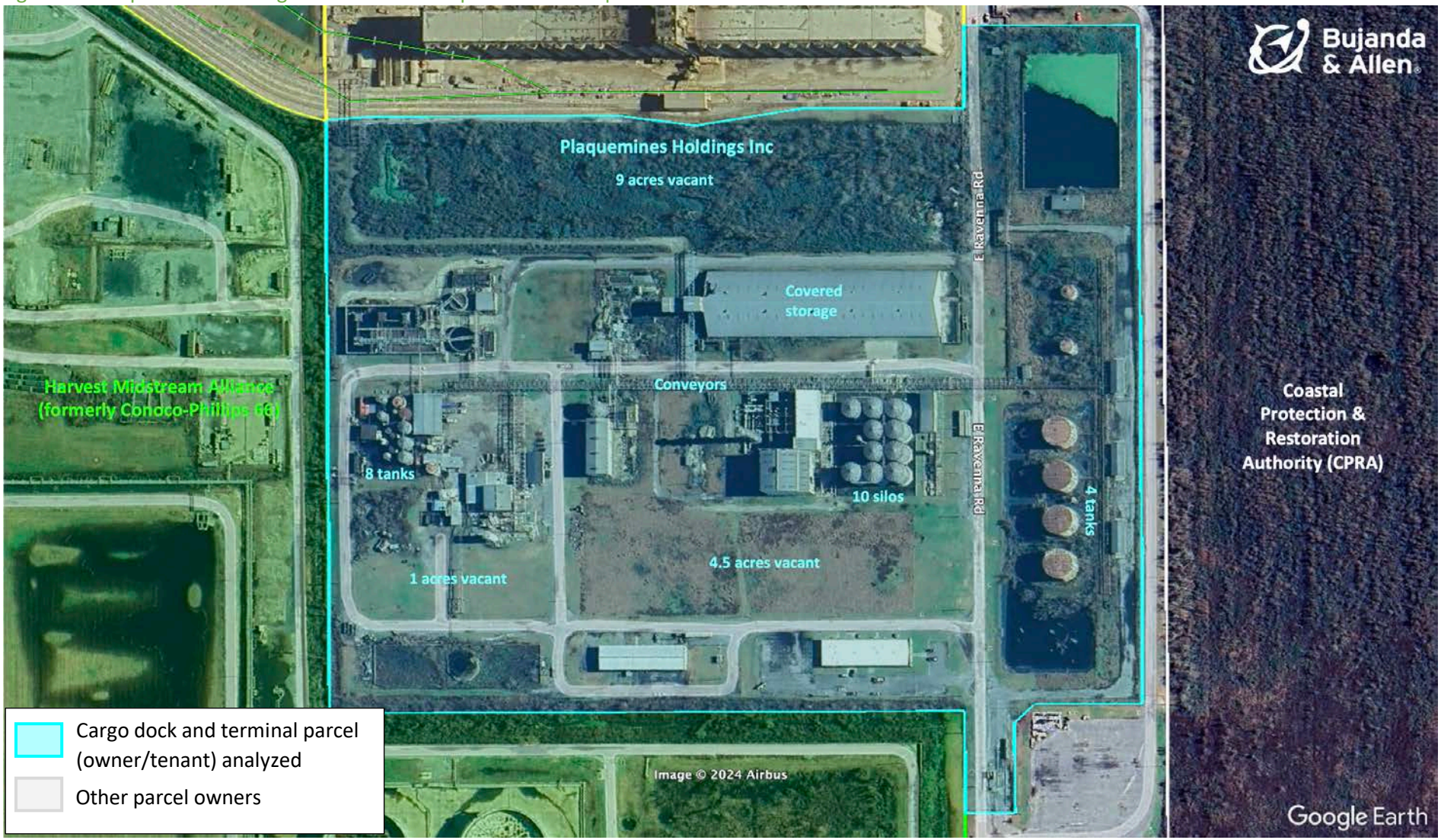


Source: Bujanda & Allen, 2024.

Figure 59. CHS Myrtle Grove: terminal, parcel ownership, dock, and anchorage areas.

Source: Bujanda & Allen, 2024.

Figure 60. Plaquemines Holdings Inc: terminal and parcel ownership.



Source: Bujanda & Allen, 2024.

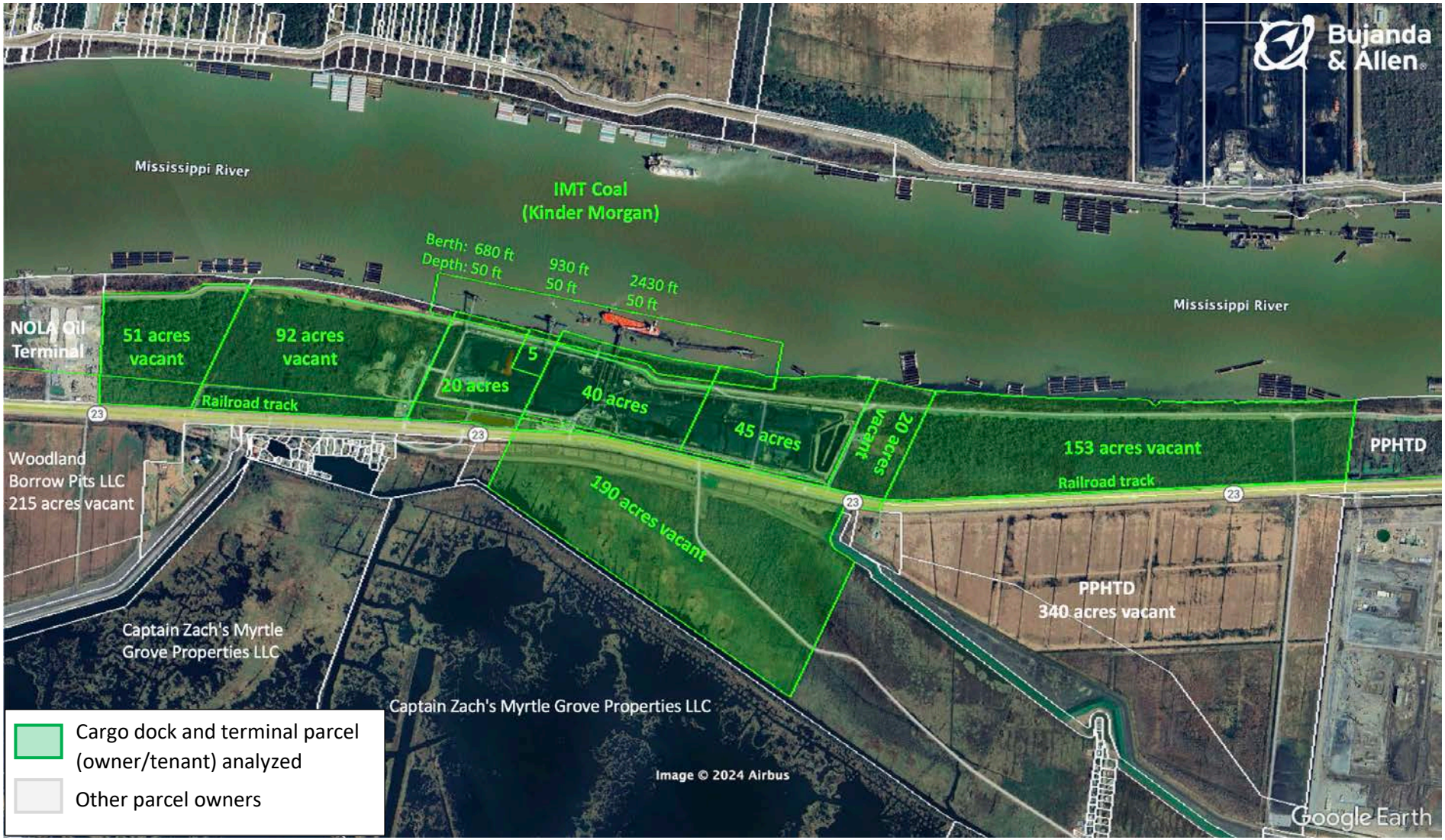
6.1.3.5 NOLA Terminal

Figure 61. NOLA Terminal: terminal, parcel ownership, dock, and anchorage areas.

Source: Bujanda & Allen, 2024.

6.1.3.6 IMT Coal (Kinder Morgan)

Figure 62. IMT Coal (Kinder Morgan): terminal, parcel ownership, dock, and anchorage areas.



Source: Bujanda & Allen, 2024.

Figure 63. IMT Coal (Kinder Morgan): terminal area, parcel ownership, and dock.

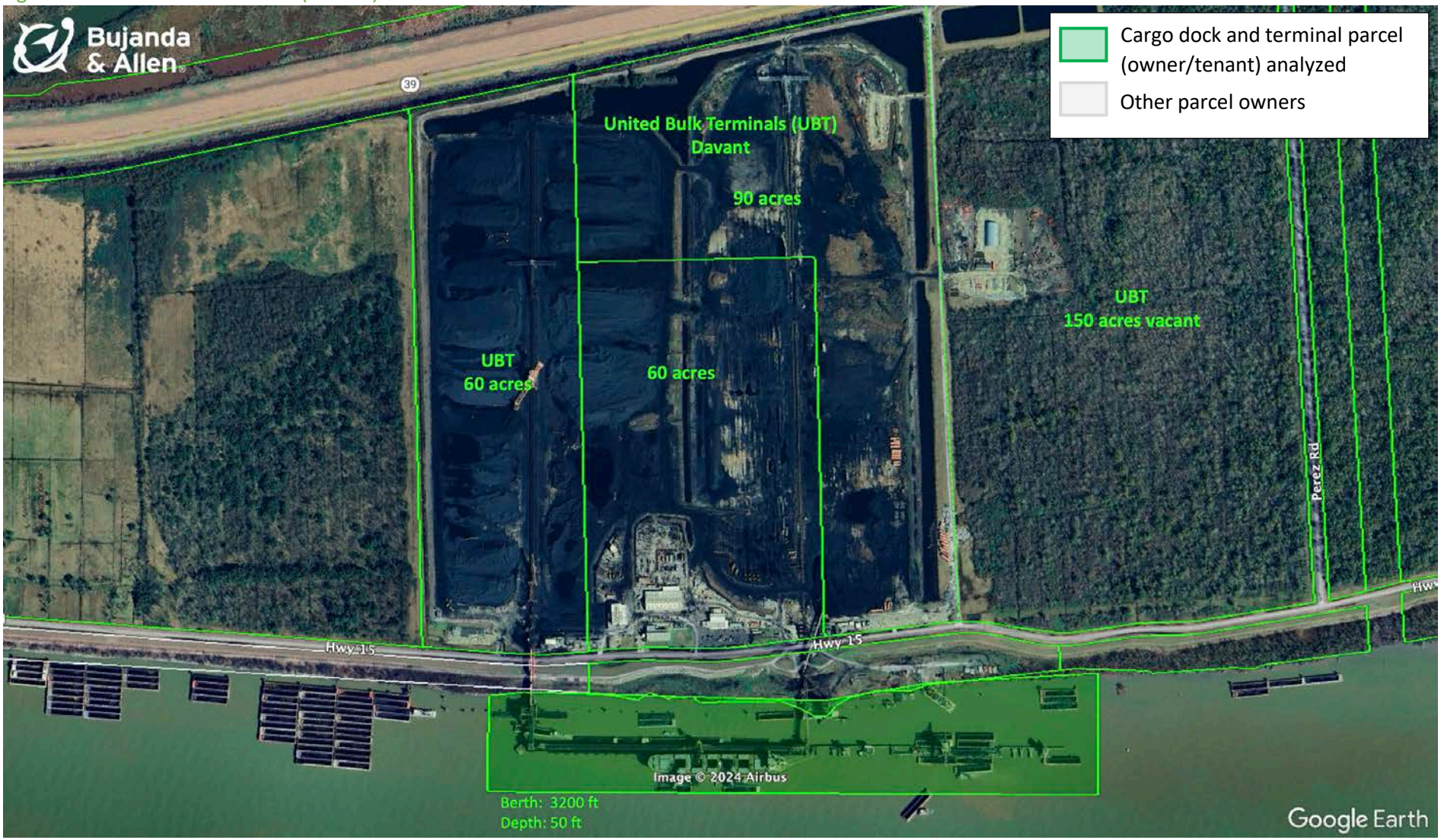
Source: Bujanda & Allen, 2024.

6.1.3.7 United Bulk Terminals (Davant)

Figure 64. United Bulk Terminals (Davant): terminal, parcel ownership, dock, and anchorage areas.

Source: Bujanda & Allen, 2024.

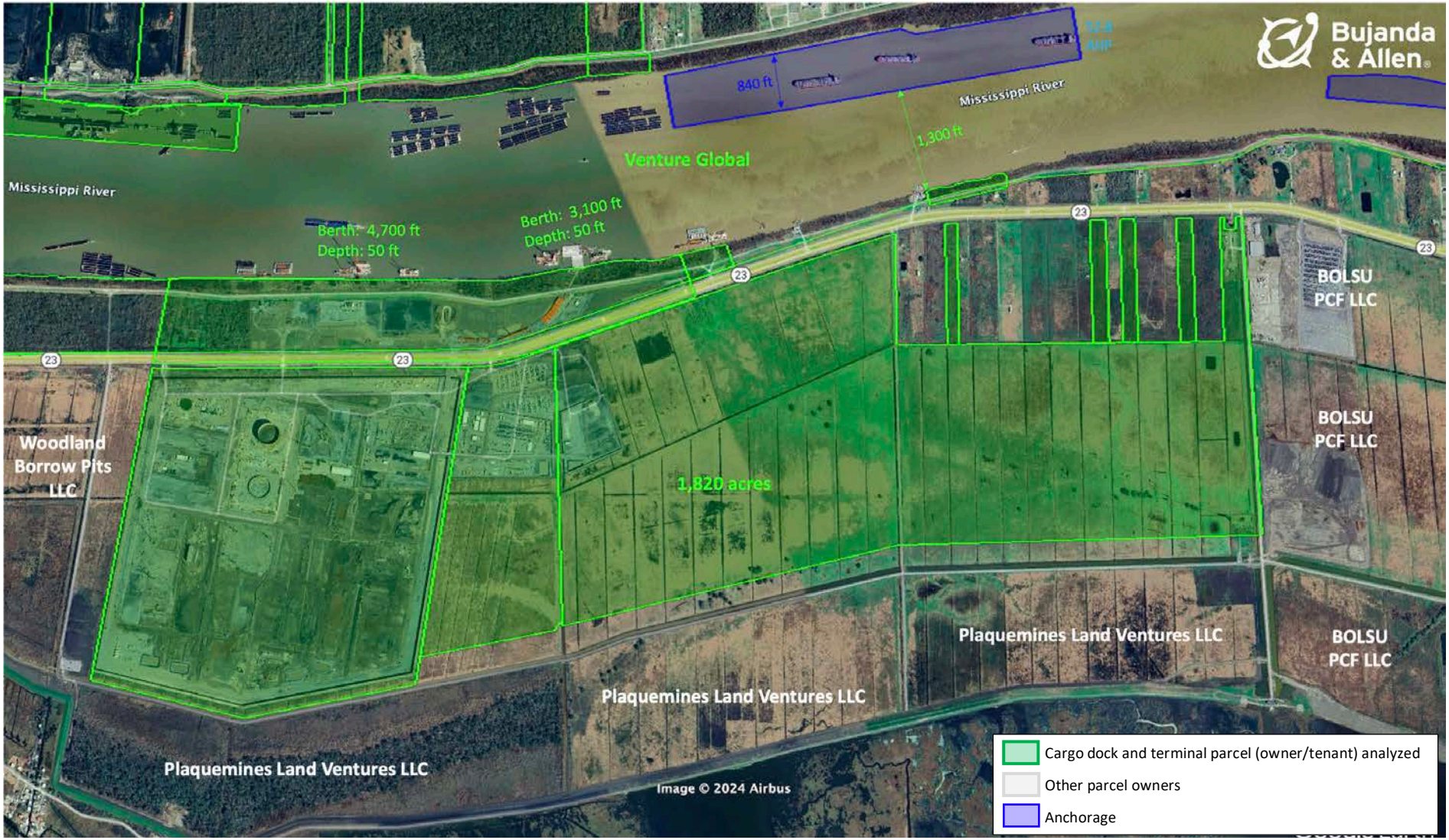
Figure 65. United Bulk Terminals (Davant): terminal area.



Source: Bujanda & Allen, 2024.

6.1.3.8 Venture Global Plaquemines LNG

Figure 66. Venture Global Plaquemines LNG: terminal, parcel ownership, dock, and anchorage areas.



Source: Bujanda & Allen, 2024.

6.1.3.9 Chevron Empire

Figure 67. Chevron Empire: terminal, parcel ownership, dock, and anchorage areas.

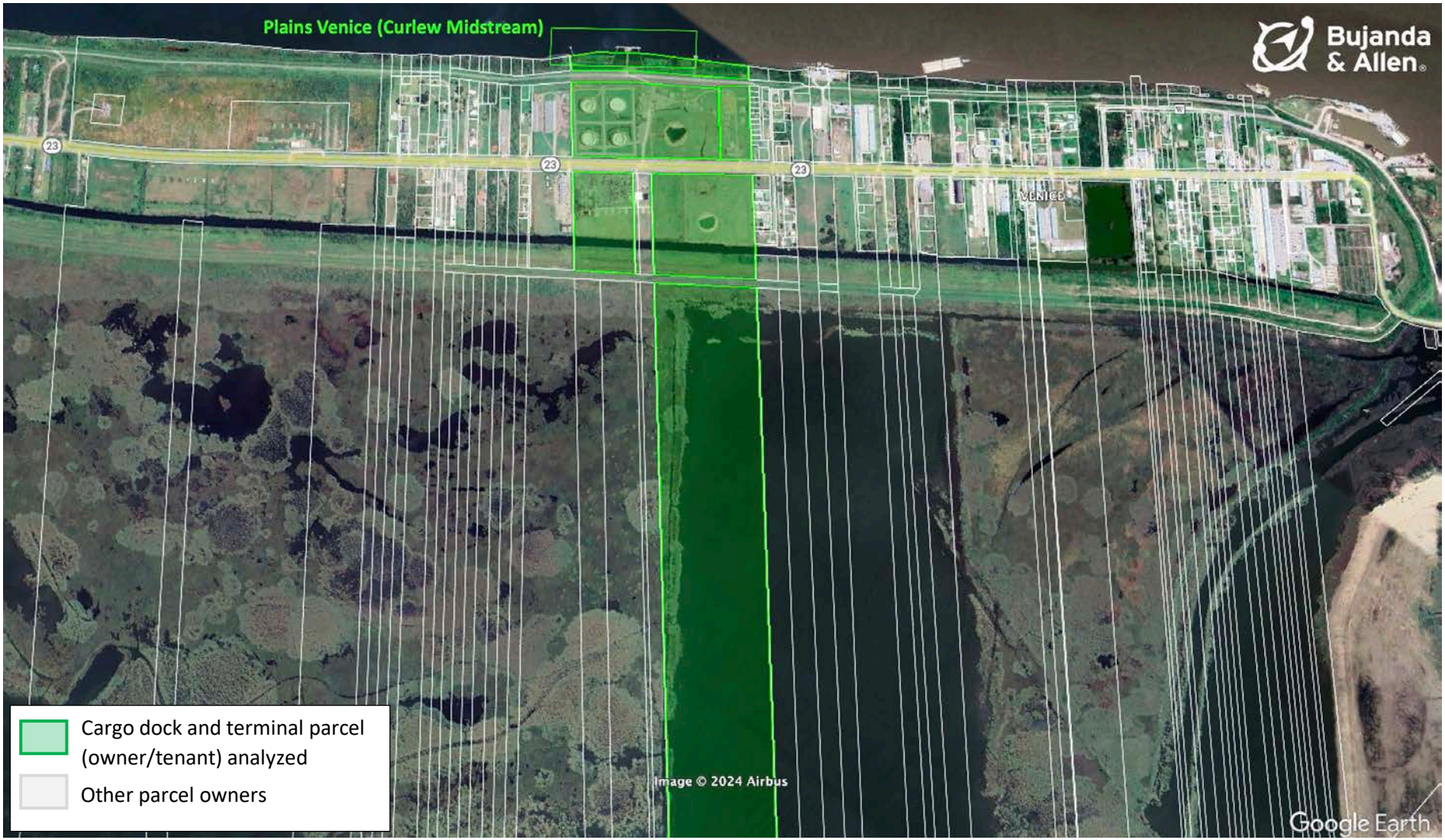
Source: Bujanda & Allen, 2024.

Figure 68. Chevron Empire: terminal, parcel ownership, and docks.

Source: Bujanda & Allen, 2024.

6.1.3.10 Plains Venice (Curlew Midstream)

Figure 69. Plains Venice (Curlew Midstream): terminal, parcel ownership, dock, and anchorage areas.



Source: Bujanda & Allen, 2024.

Figure 70. Plains Venice (Curlew Midstream): terminal area and dock.

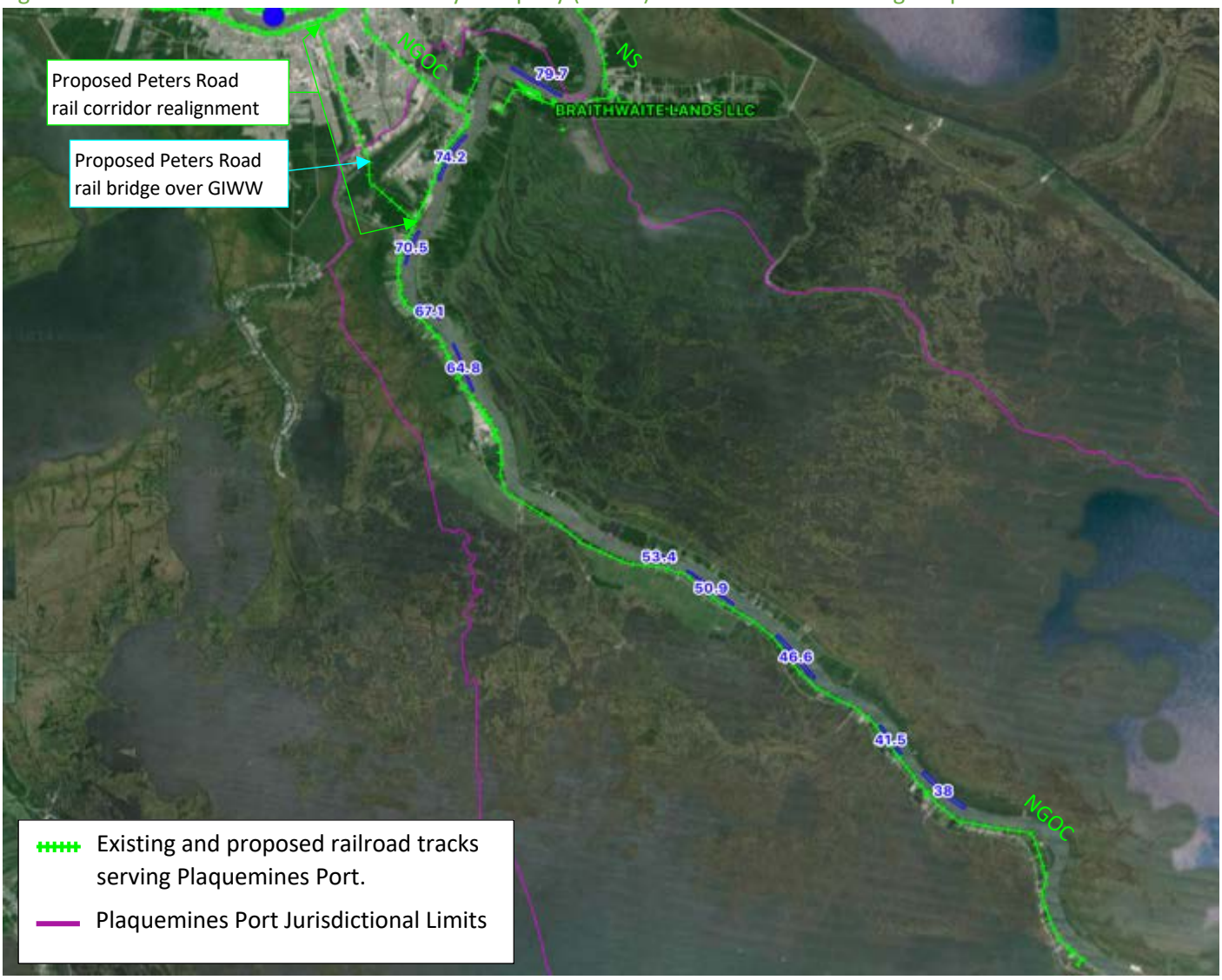
Source: Bujanda & Allen, 2024.

6.2 Landside facilities

6.2.1 Rail facilities

Rail connectivity to and from Plaquemines Port is provided by the NOGC. The NOGC is a 32-mile short-line capable of handling railcars of 286,000 lb, interchanging with the Union Pacific in Westwego, LA. The railroad serves over 20 switching and industrial customers and is the only railroad operating east of Avondale on the Westbank of the Mississippi River. Through NOGC, Plaquemines Port enjoys rail connectivity to/from major freight markets and entry/exit gateways (e.g. about 1,000 miles from Chicago, the largest rail hub in the U.S., 1,900 miles from the West Coast, the largest intermodal port gateway, 900 miles from Kansas City, 600 miles from Dallas Forth Worth, and 700 miles from Laredo). The NOGC existing and proposed rail facilities serving Plaquemines Port are shown in Figure 71.

Figure 71. New Orleans & Gulf Coast Railway Company (NOGC) and rail facilities serving Plaquemines Port



Source: Bujanda & Allen, 2024.

Regarding rail projects, the Reconstruction of Peters Road extends from 4th Street (LA Highway 18) to LA Highway 23 for approximately 9.3 miles. From north to south, this project generally follows a southeastern route along and parallel to existing Peters Road and the proposed Peters Road extension. After crossing the GIWW, the route curves around the southern end of the NAS JRB and then crosses LA 23 to meet up with the existing

NOGC track. Connection to the Belle Chasse Subdivision would occur on the east side of LA 23. This alignment would require the realignment and reconstruction of Peters Road between Lapalco Boulevard and Murphy Canal, shown in green in Figure 72.

6.2.2 Roadway facilities

The total length of the Peters Road reconstruction is estimated at 1.65 miles. Reconstruction of Peters Road should not be confused with the Peters Road Extension Project, which is a separate road project that extends all the way towards the southeastern terminus of Walker Rd. For that project, plans are underway to extend Peters Road into Plaquemines Parish via a bridge over the GIWW. The Peters Road Extension Project and the Walker Rd are shown in pink in Figure 72.

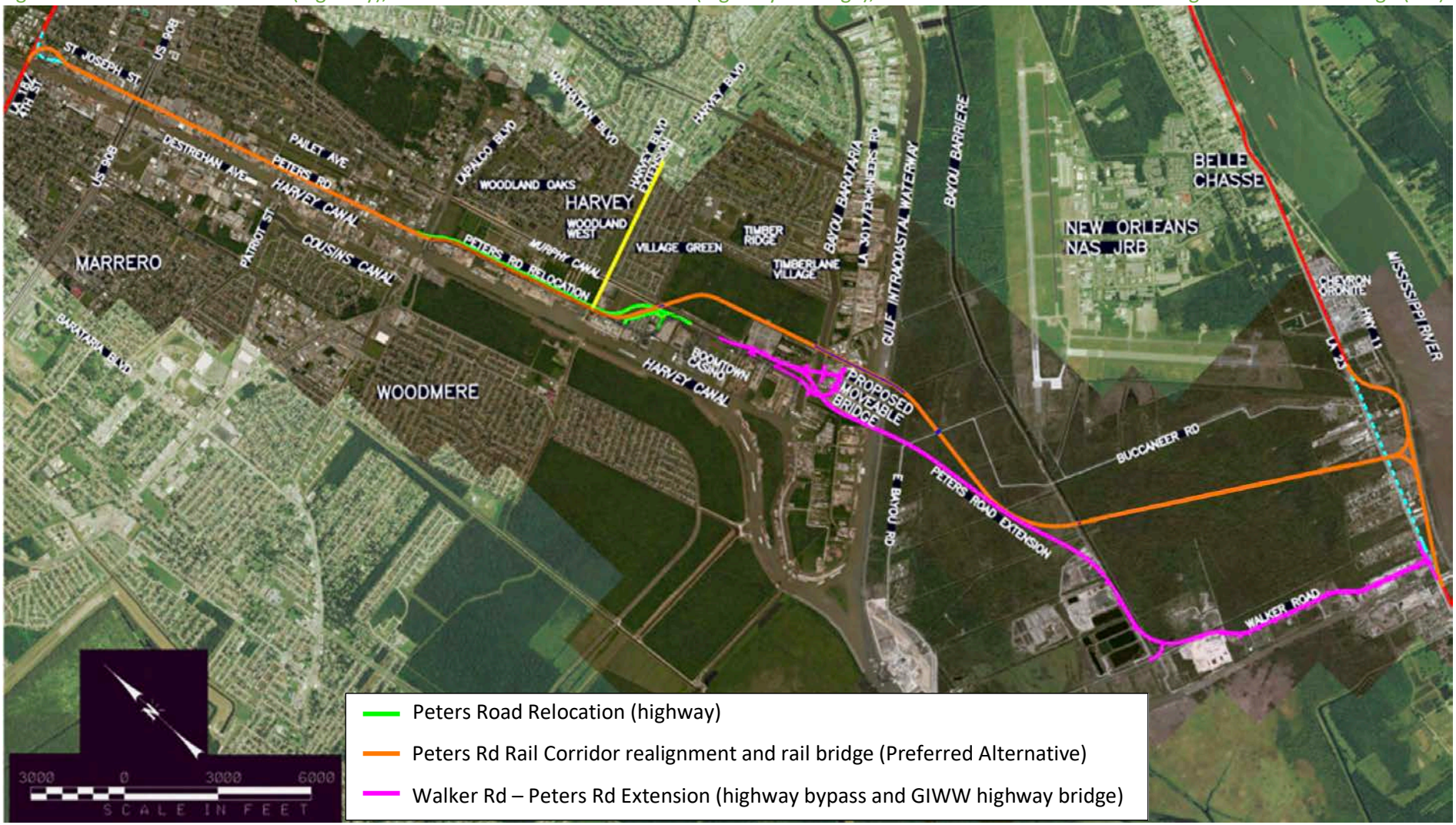
6.3 Land use

The Louisiana Constitution grants broad authority to public ports to acquire property via expropriation. Public ports may expropriate property once they provide just compensation to the owner and when the expropriation facilitates the transport of goods or people in domestic or international commerce generating public benefits and economic development. Public Benefits include societal value and economic development generated from the port and related projects, businesses, and services. Further, public ports are permitted under Louisiana law to lease expropriated property to another entity which physically handles operations, a standard practice in the maritime industry. These are projects that support Plaquemines Parish, the port region community, and the overall state economy.

By dividing the jurisdiction of Plaquemines in three major zones, we observe that the north part of the channel is the most developed and where most parcels are privately-owned. The most notable exception of government-owned parcels include the Belle Chasse Naval Air Station Joint Reserve Base. Traveling south, we observe that a vast number of parcels show no designation (i.e. no owner is recorded in the cadastral database). This trend is persistent through the middle section of the port and continues until the bottom portion of the port, where government owned parcels are prevalent near the Head of Passes. Government, privately-owned, and no designated parcels are shown in Figure 73.

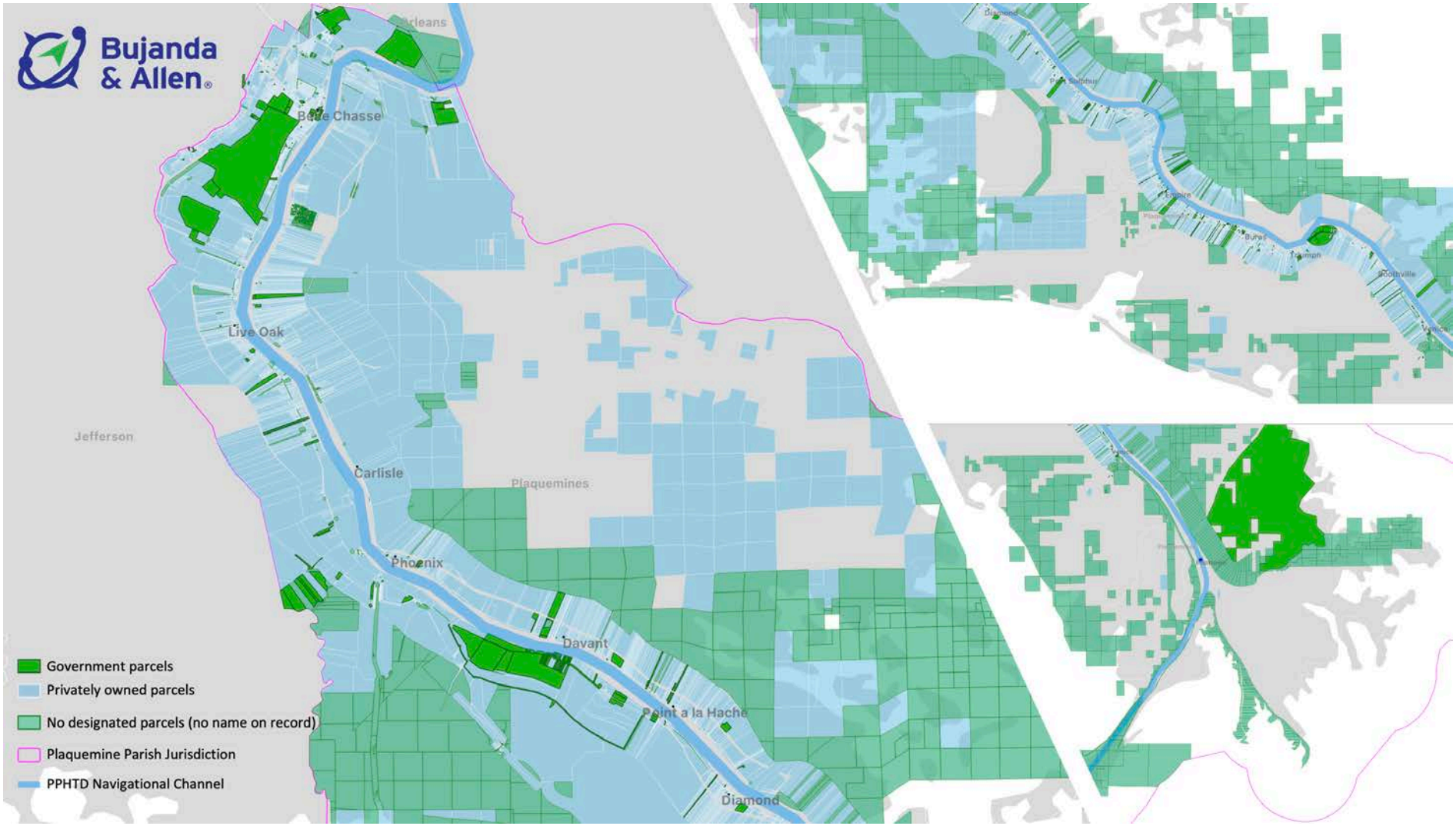
Plaquemines Port partnered with Venture Global LNG Inc. to bring a transformative $21 billion investment to Plaquemines Parish that will position the port as a heavyweight in the maritime industry. Plaquemines Port, Venture Global, and other partners are constructing a contiguous and secure natural gas and container port complex that will serve as one of the largest facilities of its kind in the world. Once fully operational, over seven hundred LNG carrier ships will call on Plaquemines Port each year. With its unique characteristics and location at the mouth of the Mississippi River, Plaquemines Port will meet its mission in **“turning bigger ships faster”** in servicing customers and delivering goods around the world.

Figure 72. Peters Rd Relocation (highway), Walker Rd—Peters Rd Extension (highway & bridge), and Peters Road rail corridor realignment and rail bridge (rail)



Source: LA 23 NOGC Railway relocation PE/NEPA Project FRR-RLD-0032-14-01-00, Apr 2018. Legend modified by B&A, May 2024.

Figure 73. Government, privately-owned, and no designated parcels in Plaquemines Parish.



Source: Developed by Bujanda & Allen, 2024 with data from Plaquemines Parish Assessor, 2023.

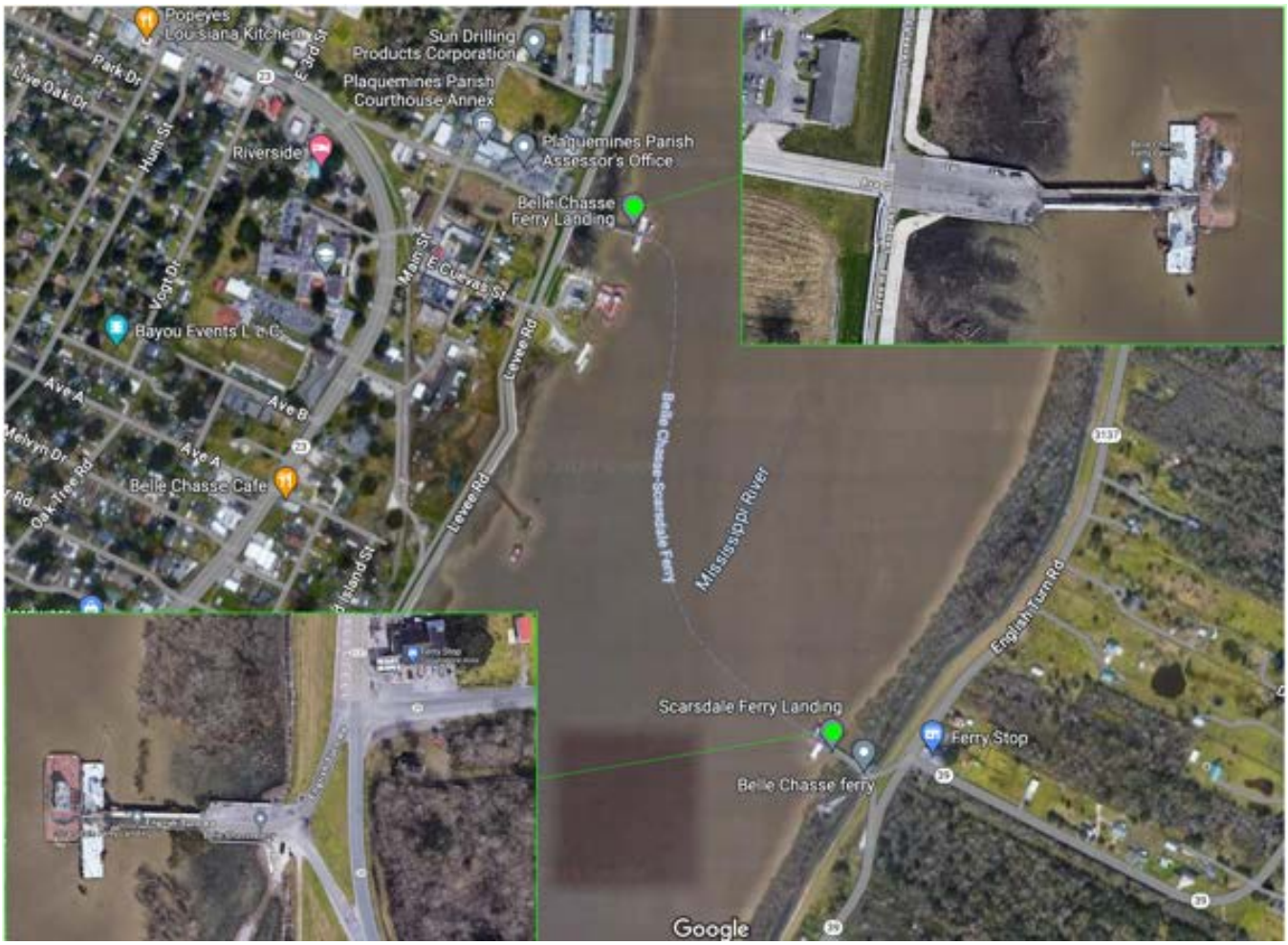
6.4 Ferry

The ferry provides transportation across the Mississippi River with two major landings one in Belle Chasse and a second one at Pointe à la Hache. The Pointe à la Hache Ferry was condemned by the Louisiana Department of Transportation in January 2023; however, in May 2024 the port started efforts to reopen it. The ferry was transferred from the Parish to Plaquemines Port in December 2022. The ferry is deemed critical infrastructure, needed to support emergency transportation routes. This service is funded by the port and the port earns approximately 10 cents on the dollar from riders. Both systems are described next.

6.4.1. Belle Chasse–Scarsdale ferry

Is a ferry across the Mississippi River connecting Belle Chasse and Scarsdale and is maintained by Plaquemines Port. It carried a toll of $1 and free for Parish seniors and emergency service personnel. The east bank ferry leaves every 30 minutes on the hour between 5:15am and 10:15pm. The west bank ferry leaves every 30 minutes on the top and bottom of every hour between 5:00am and 10:00pm. Both Belle Chasse and Scarsdale ferry landings are shown in Figure 74.

Figure 74. Belle Chasse–Scarsdale ferry: route and landings



Source: Bujanda & Allen, 2024.

6.4.2 Pointe à la Hache Ferry–Port Sulphur ferry

Is a ferry connecting West Pointe à la Hache and Pointe à la Hache as shown in Figure 75. Currently, it carries a toll of $1 and free for Parish seniors and emergency service personnel. It is the last vehicle crossing of the river in the downriver direction. The east bank side of the ferry is near the end of paved roadway. The west bank continues down to Venice. Ferry to the east bank occurs every 30 minutes between 8:00am and 7:00pm, as well as at 6:30am. On the west bank, service occurs every 30 minutes between 8:15am and 7:15pm.

Figure 75. Pointe à la Hache–Port Sulphur ferry: route and landings

Source: Bujanda & Allen, 2024.

Plaquemines Port relies heavily on Grant funding for its ferry operations from Federal Transit Authority and the Federal Highway Administration. Plaquemines Port operates three Ferries, the MV Pride, the MV Belle Chasse II, and the MV Point a la Hache. The Port is currently funded by the Federal Highway Administration $18 million to replace the PALH ferry landing and $26.5 million to build a new electric diesel Ferry. Both projects are planned for completion in 2028.

Plaquemines Port operates this service adjacent to a similar vehicle service operated by the Regional Transit Authority between Algiers and Chalmette, and a Passenger Ferry between Algiers Point and Canal Street. Both the Plaquemines Port and RTA Ferries operate a million-dollar deficit. As political sub-divisions of the State of Louisiana, both entities are seeking additional Federal and State financial support to off-set rising operating cost and maintenance expenses.

7. Capacity estimates

This section presents our capacity estimates for each cargo type based on the main elements of a port system for each cargo type. We describe the general assumptions of our planning capacity models and our assessment for each major cargo type to understand the requirements for facilities at the master planning level. We present capacity estimates for the facilities and the major infrastructure components necessary to satisfy long-term capacity needs for each cargo type.

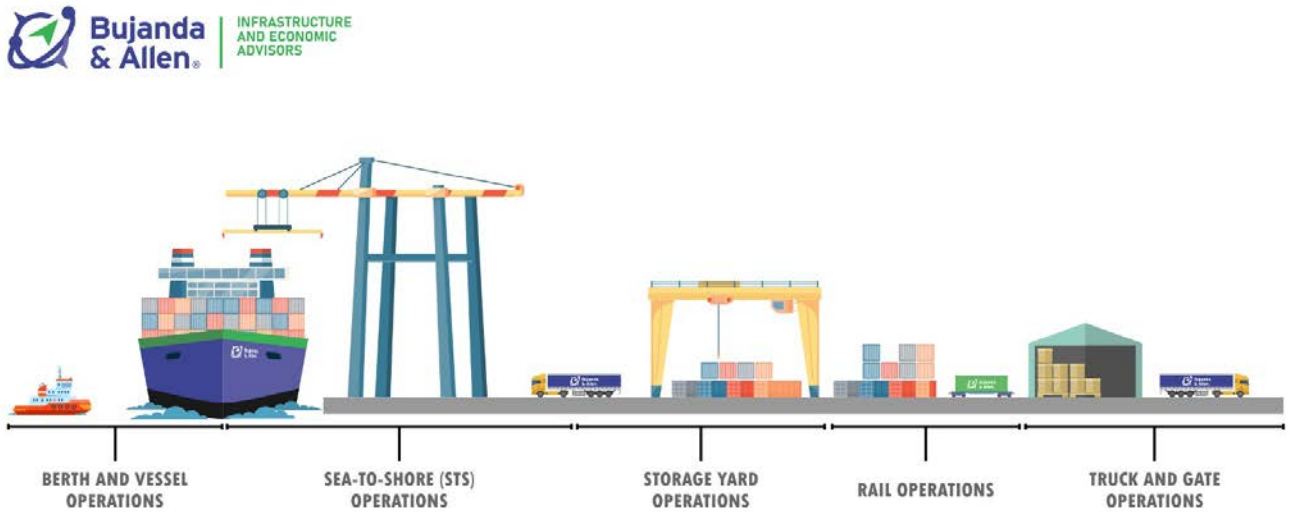
7.1 Container capacity assessment

Port capacity is the maximum level of output that a port system can produce over a set period of time. Maximum capacity assumes aspects such as a constant level of output, no machine or equipment breakdowns, or no delays due to employee breaks. Since this level of capacity is not possible, companies instead use effective capacity, which accounts for some of these variations.

B&A typically examines three main elements of a port system, illustrated using containers in Figure 76:

- Ship-to-shore (STS) operations
- Storage yard operations
- Rail operations

Figure 76. Main elements of a port system used on our port capacity assessment.



Source: Bujanda & Allen, 2024.

Box 1. Maximum vs. effective capacity

The model outputs for each component are expressed, first, in terms of ***maximum annual throughput capacity***, which accommodates peak operating conditions, and then, for long-term planning of sustainable operations in terms of ***effective annual throughput capacity***.

Effective capacity discounts maximum capacity to account for variations such as, machine or equipment breakdowns, employee breaks, operational frictions, etc to estimate throughput capacity under normal sustainable operating conditions. ***Effective capacity*** is usually reported as a percentage of maximum capacity and typical values range ***between 65% to 85% of maximum capacity***.

Regarding long-term planning, once volumes exceed effective capacity that is an indicator that capacity improvements are needed.

B&A calculates annual throughput capacity for each of these three components. We assess typical utilization intensity, such as normal operations and seasonal peaks, as well as their impacts on storage and retrieval systems and equipment.

Generally, the core long-term capacity constraint for most modern container terminals is yard storage and rail capacity. The capacity across the berth is a function of the number of cranes installed, which is more easily adjusted over time. Thus, for this analysis we focus on these constraints. Given the vast amount of space available, berth is not likely to be the constraint; hence, are not analyzed. Similarly, truck and gate operations are no longer constraints at most modern ports.

7.1.1 Container capacity assumptions

B&A conducted a bottom-up analysis to calculate the capacity of the Louisiana Gateway Container Terminal (LGCT) and define what potentially could be achieved in the future. Our analysis considered the number of ground slots and the container stack height for each type of storage mode and equipment (i.e. RTG, ASCs or strads, top-loader, empty handler, and wheeled) to calculate the maximum static capacity of the container yard.

Maximum capacity is then reduced by the peak/average inventory ratio to account for seasonal peaks on demand and reduced by the allowable occupancy percentage to arrive at the **effective capacity**. Dividing working days per year by average dwell time gives the annual turnover/year, which is multiplied by the allowable average inventory to calculate the actual storage-constrained annual throughput capacity. The B&A assumptions used to estimate the Louisiana Gateway Container Terminal capacity are shown in Table 4.

Table 4. Assumptions to estimate Louisiana Gateway Container Terminal capacity

Model inputs	Units	Assumption
TEU/FEU	TEU	**2.0**
Peak inventory / average inventory	times	**1.3**
Allowable occupancy	% of full	**70%**
Average dwell time / container (max)	days	**5**
Working days / year	days	**360**
Stacking heights by handling mode:		
RTGs – rubber tire gantry cranes	box	**6.0***
ASC – automatic stacking cranes	box	**6.0**
Top-loaders / empty stackers	box	**6.0***
Trucks (wheeled)	box	**1.0**

Source: Bujanda & Allen, 2024. *One position considered vacant for the "key-hole" to retreat boxes further inside.

7.1.2 Container capacity needs

Our capacity estimates indicate that under the planned footprint of 170.5 acres, LGCT can be expected to have an effective capacity of **1,004,000 TEUs per year**, which will be limited by the intermodal yard under the planned assumptions, followed by storage yard capacity. The key drivers for the rail capacity are the number and length of storage tracks as well as the number of turns per day (dwell time). The key drivers for storage capacity are available acreage, stacking density, and cargo dwell times. With improvements to storage space, maximum capacity can be increased to approximately 1,500,000 TEUs per year, which would then be limited by available ship-to-shore (STS) Crane capacity, as shown in Table 5.

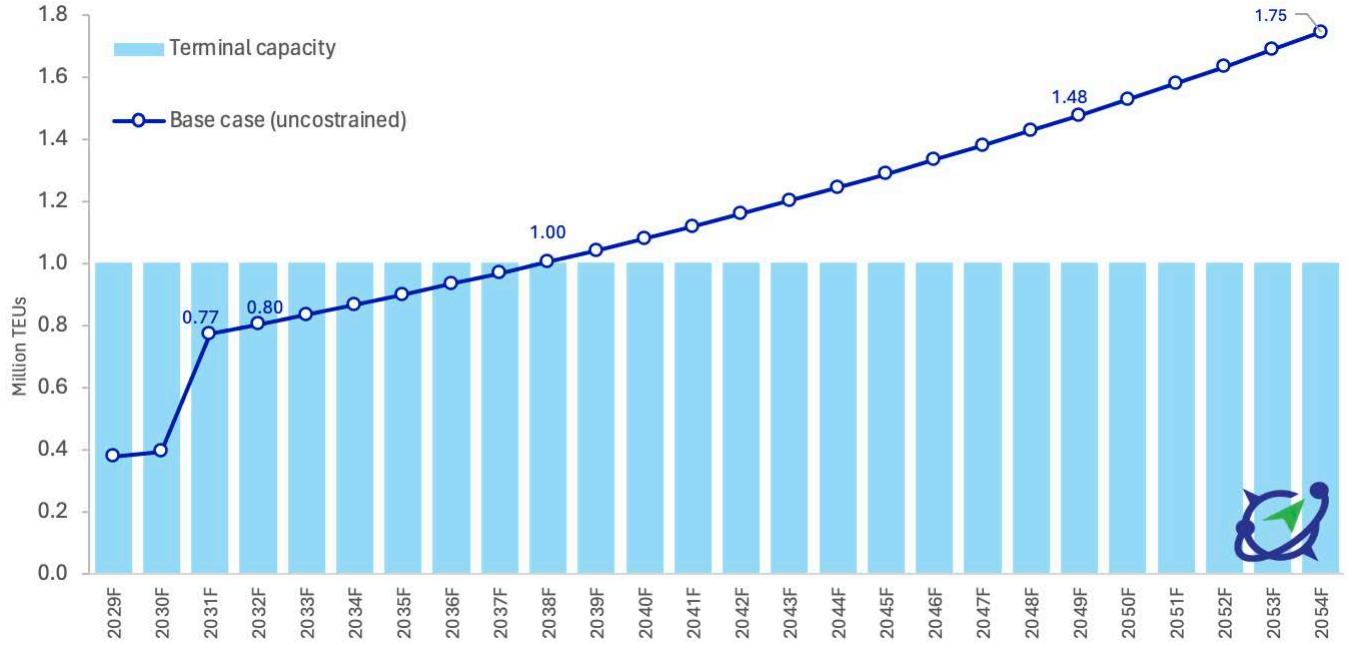
Table 5. Louisiana Gateway Container Terminal capacity

Effective capacity	Lifts/yr	TEU/yr
a) Yard constrained capacity	640,000	1,280,000
b) STS cranes constrained capacity	702,000	1,404,000
c) Rail constrained terminal capacity	502,000	1,004,000
Terminal capacity	**502,000**	**1,004,000**

Source: Bujanda & Allen, 2024.

Our results indicate that initial improvements should focus on rail capacity expansion to meet the demand needs indicated by the Base Case scenario, which our forecast anticipates will be around year **2037**. The available STS crane and berth capacity would provide sufficient capacity for a number of additional years; however, it would also require expansion over the planning horizon. The estimated terminal capacity charted against the unconstrained Base Case demand forecast is shown in Figure 77.

Figure 77. Container terminal capacity vs. unconstrained Base Case forecast: 2028F-2053F (million TEUs).



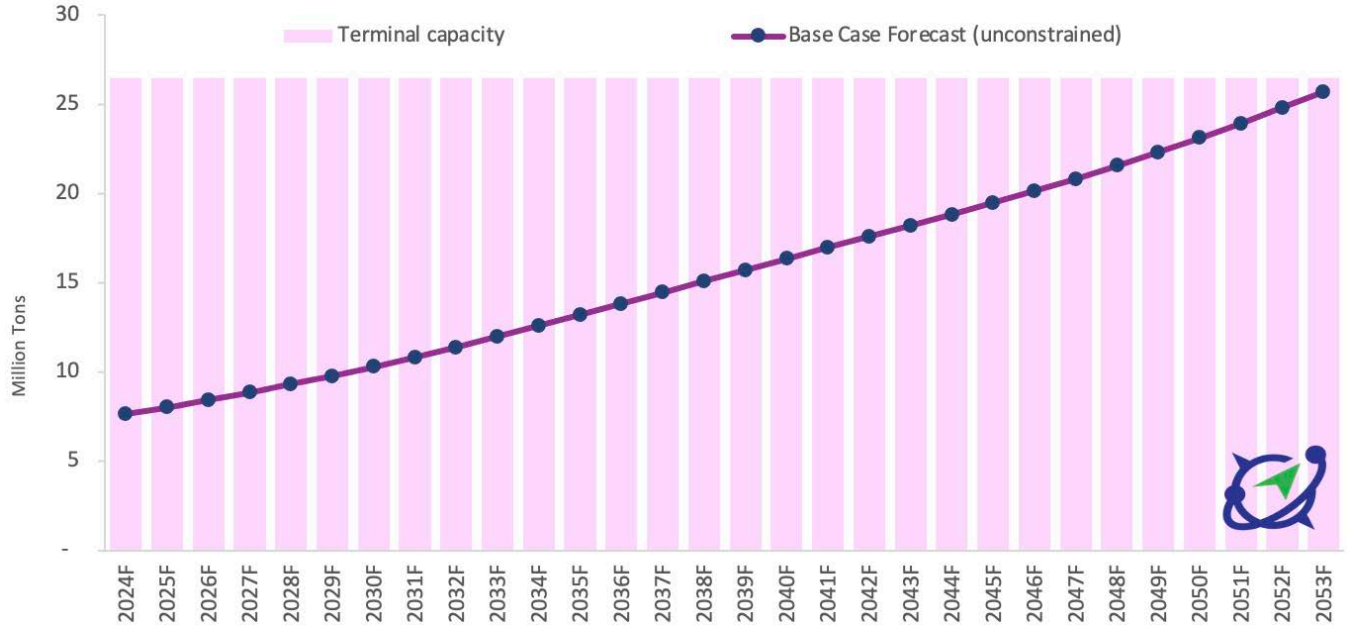
Source: Bujanda & Allen, 2024.

If the Optimistic Forecast Scenario materializes, container terminal capacity improvements might be needed as early as 2030. Under any scenario, planning for expansions and updates to the Master Plan must be considered at least every five years.

7.2 Liquid-bulk capacity assessment

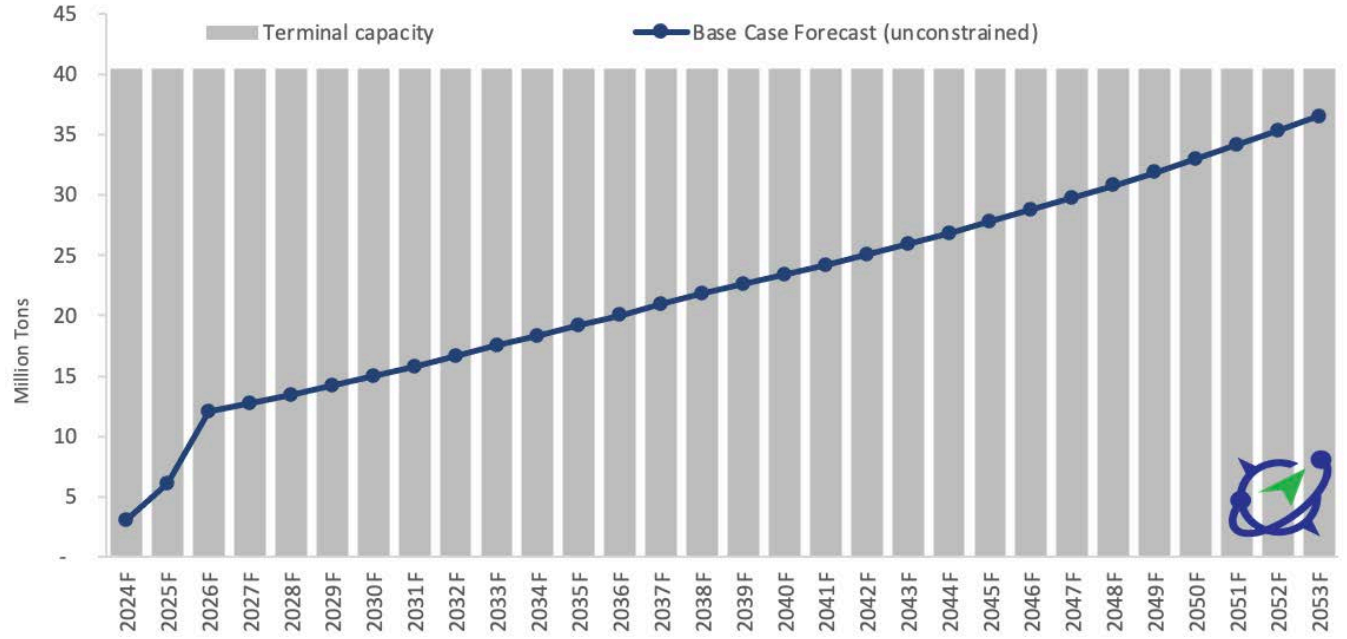
Our liquid-bulk assessment comprises petroleum and derivative liquids (i.e. crude oil, diesel, fuel oils, light oils, gasoline, jet fuel, and others) as well as LNG and other gases (i.e. benzene, neodene, isobutylene, and others). Typically, petroleum and derivatives are measured in barrels per day (bpd). LNG and other gases are measured in cubic ft per day (cfd). We converted all volumes to tons per year using specific gravity factors provided to have a comparable basis. Our analysis of liquid-bulk capacities includes data collected from on-site visits to the facilities and in-person interviews. Our capacity assessment against the expected demand for the major commodity groups analyzed, indicates the existing terminals can be expected to accommodate demand for the long term. Although we identified several tanks out of service or near the end of their useful life, tank storage is not a limiting component under typical demand conditions. The overall throughput capacity for oil and fuels and other liquid-bulk commodities is estimated at **26.5 million tons per year**, as shown in Figure 78. Similarly, the overall throughput capacity for LNG and other gases is estimated at **40.5 million tons per year**, as shown in Figure 79.

Figure 78. Liquid-bulk: oil & fuels capacity vs. unconstrained Base Case forecast: 2024F-2053F (million tons).



Source: Bujanda & Allen, 2024.

Figure 79. Liquid-bulk: LNG capacity vs. unconstrained Base Case forecast: 2024F-2053F (million tons).

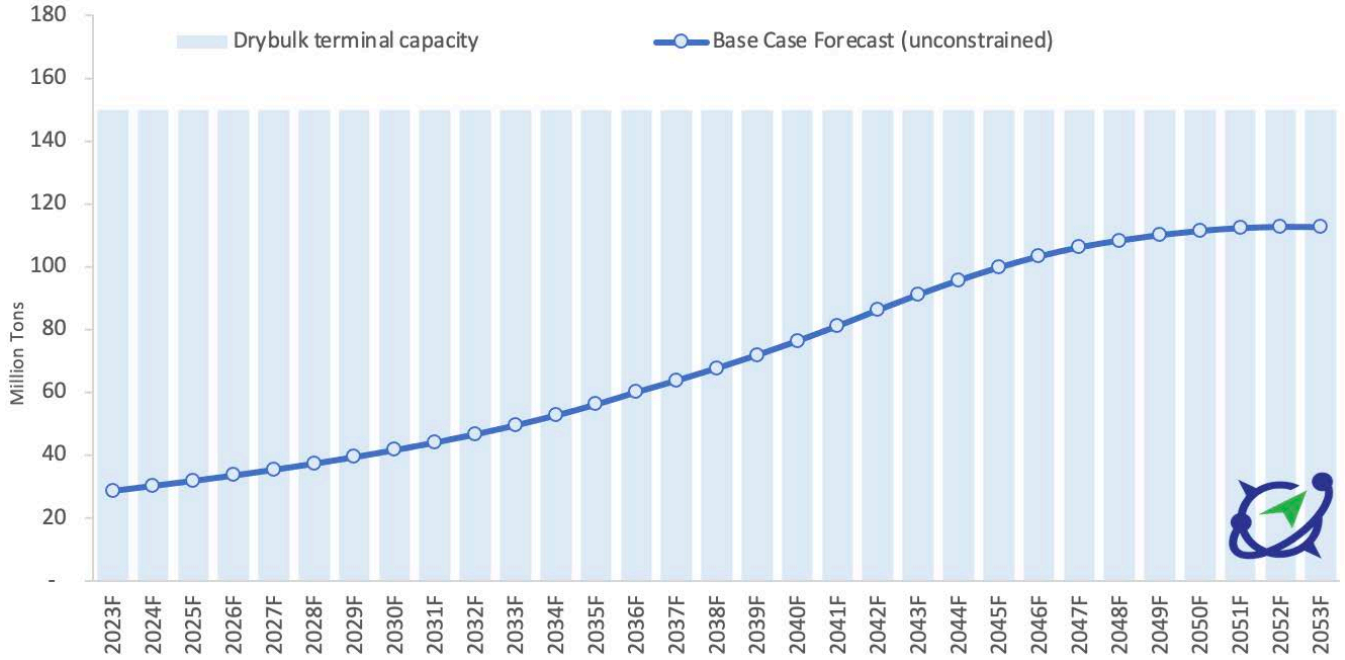


Source: Bujanda & Allen, 2024.

7.3 Drybulk capacity assessment

Our drybulk assessment comprises facilities serving the movement of minerals such as coal, pet coke, gravel, fertilizers, dry chemicals, etc. Drybulk is measured in tons per year. Our analysis of drybulk capacities includes data collected from on-site visits to the facilities and in-person interviews with operations staff. Our capacity assessment against the expected demand for the commodity groups analyzed, indicates the existing system can be expected to accommodate demand for the long term. Drybulk storage capacity is not constrained, and most ports are surrounded by a large amount of undeveloped space that can be used as needed. The overall throughput capacity for drybulk is estimated at approximately **150 million tons per year**, as shown in Figure 80.

Figure 80. Drybulk capacity vs. unconstrained Base Case forecast: 2027F-2053F (million tons).

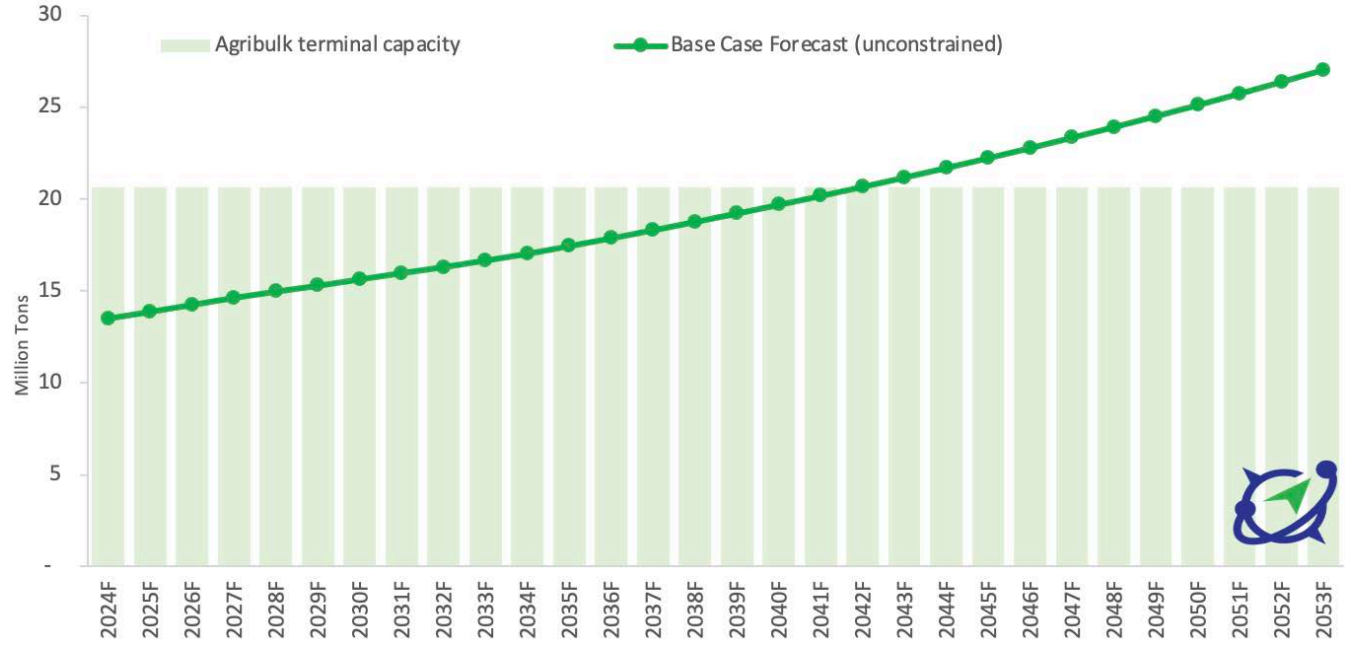


Source: Bujanda & Allen, 2024.

7.4 Agribulk capacity assessment

Our agribulk assessment comprises facilities serving the movement of grain, such as soybeans, corn, wheat, among others. Agribulk is typically measured in terms of bushels per year; however, we converted all volumes to tons per year using specific factors. Our analysis of the agribulk facilities include site-visits and interviews. Our capacity assessment against the expected demand for the major commodity groups analyzed, indicate the existing system can be expected to accommodate demand for the short and medium terms. Tank storage capacity does not seem to be a limiting component. The overall throughput capacity for agribulk is estimated at approximately **20.6 million tons per year**, as shown in Figure 81.

Figure 81. Agribulk terminal capacity vs. unconstrained Base Case forecast: 2027F-2053F (million tons).



Source: Bujanda & Allen, 2024.

A new container terminal will offer an option to containerize agribulk products helping to mitigate potential capacity constraints.

7.5 Breakbulk capacity and project cargo

Given the fact that the port has more than 12 cargo docks along its 80.2 miles of river length (most of which can act as a loading/unloading berth on both banks of the river), it is obvious that the port has an immense capacity for breakbulk and project cargo. One example is the amount of project cargo that has been handled for the construction of the Venture Global LNG Plant, which was done on a temporary dock, using a temporary mobile bridge to move the cargo from the berth to the construction site. Hence, the port has a huge capacity to handle breakbulk and project cargo on existing and temporary sites. It is important to keep the Master Plan up to date, at least, every five years to ensure adequate planning for capacity expansions in order to effectively support demand growth.

7.6 Mooring buoy facilities

The port's two active mooring buoy operations located in its district are poised for growth. Additionally, the opportunity exists to develop a mooring buoy operation near Pilottown to offload wind energy components from deep draft vessels to barge. The Venice Port Complex has land available for economic development to temporarily land components for later transfer to barge for transport to offshore wind farms.

7.7 Key takeaways

The Port of Plaquemines has more room for expansion than most top-ports in the U.S. Our results for **containers** indicate that the terminal will have enough effective capacity to meet the demand for the Base Case scenario, which our forecast anticipates will be around year **2037**. The port's **liquid-bulk** and **LNG** facilities have enough capacity to support the handling of petrochemicals, oils, and other critical liquids and gases until **2053**. For **drybulk**, demand volumes are expected to remain well below the available cargo laydown and storage area terminal capacity throughout **2053**. Regarding **agribulk**, the port has enough capacity to manage substantial volumes of agricultural products until **2041** under our Base Case forecast. For most cargoes, if the Optimistic forecast materializes, could accelerate capacity maximization in some cases by 10 years. Nonetheless, ample vacant land available for expansion positions the port as a premier hub for various industries, driving economic growth and facilitating global trade.

8. Strategic direction & capital projects

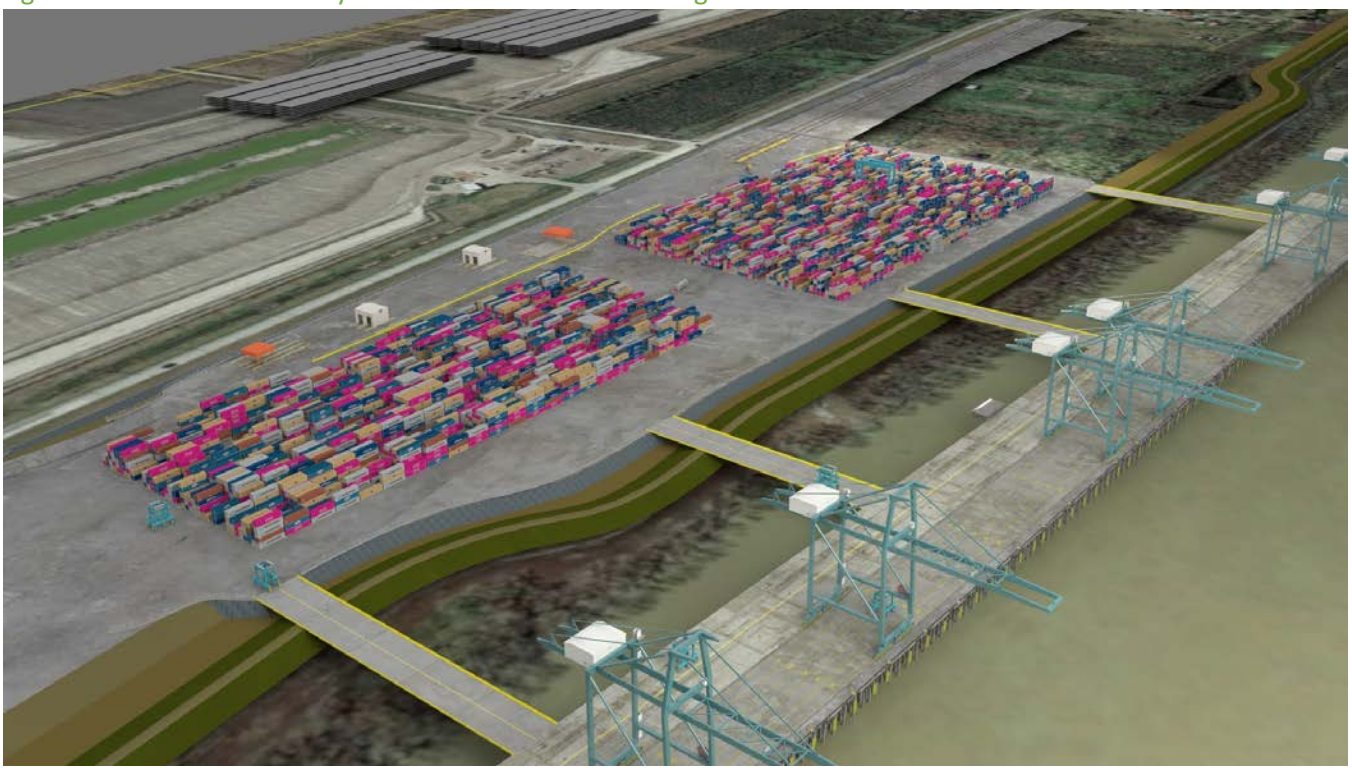
This section identifies the strategic direction and terminal development efforts for existing and future freight moving through the port. We present strategic objectives, related infrastructure, and the direction of the business units associated with each cargo type. We conclude with the port's inventory of capital projects identifying expected capital costs, funding sources (i.e. public vs. private), and major characteristics.

8.1 Louisiana Gateway Container Terminal

8.1.1 Louisiana Gateway Container Terminal

In January 2024, the port signed a letter of intent with APM Terminals for the development of the Louisiana Gateway Container Terminal (LGCT).[8] APM Terminals has committed an initial investment of $500 million, which includes the development of a 200-acre site under a 30-year lease from the port, with the possibility to expand up to 900 acres. LGCT will be located on the West Bank at mile marker 51 AHP. This location provides the first gateway access to the Mississippi River System and the advantage of not having to cross the river for freight moving to/from the U.S. West Coast (USWC). The terminal design includes 3 berths with 6 ship-to-shore (STS) cranes, an intermodal rail yard, and an effective terminal capacity of up to **1.0 million TEU annually** for Phase 1.[9] A rendering of LGCT is shown in Figure 82.

Figure 82. Louisiana Gateway Container Terminal rendering



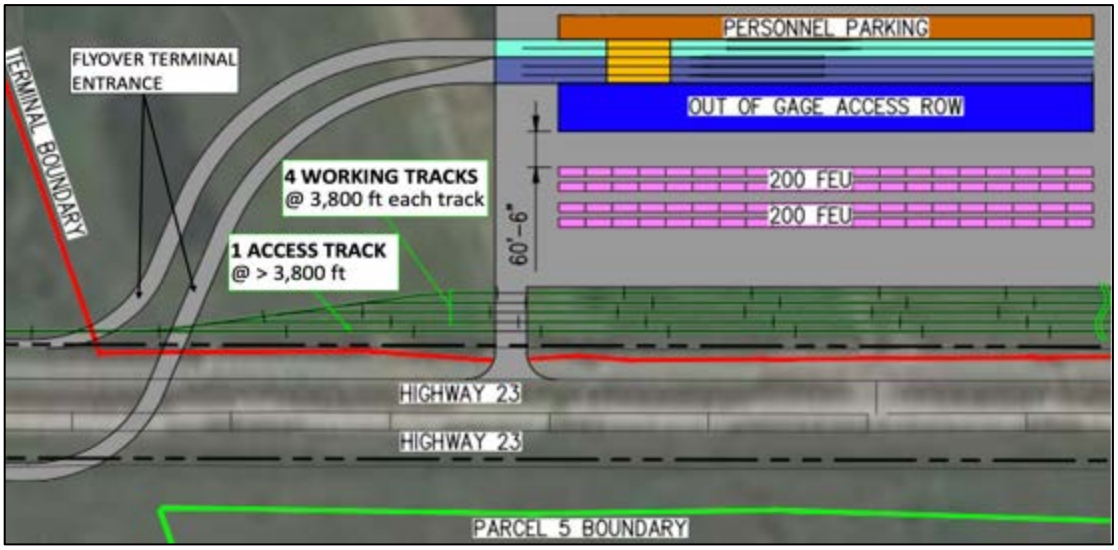
Source: APM Terminals, May 2024.

[8] Plaquemines Port Blog, Plaquemines Port and APM Terminals unveil strategic partnership to develop a major container terminal, https://www.portofplaquemines.com/plaquemines-port-and-apm-terminals-unveil-strategic-partnership-to-develop-a-major-container-terminal/, accessed May 2, 2024.
[9] Andalusian Energy, https://www.aecng.com/louisiana-gateway-terminal/, accessed May 2, 2024.

8.1.2 Louisiana Gateway Intermodal Yard

Plaquemines Port is embarking on a transformative project to construct a state-of-the-art intermodal rail yard designed to streamline the transfer of containers. This facility will enhance the port's logistics capabilities, improve efficiency, and strengthen the port's position as a key player in global trade. The Louisiana Gateway Intermodal Yard will consider 4 working and storage tracks with an average length of 3,800 ft plus one access track of similar length extending all the way to the southern end of the terminal. The first phase rail configuration's effective capacity is **1.0 million TEUs per year**. A flyover for the terminal entrance will comprise a divided two-lane elevated roadway connecting the main terminal area and personnel parking with highway LA23. This will support future intermodal growth for the container terminal and intermodal yard, while promoting a safer use of LA23 highway under all weather conditions. Simultaneously, providing uninterrupted access to emergency responders (e.g. during hurricane evacuations). The layout is shown in Figure 83.

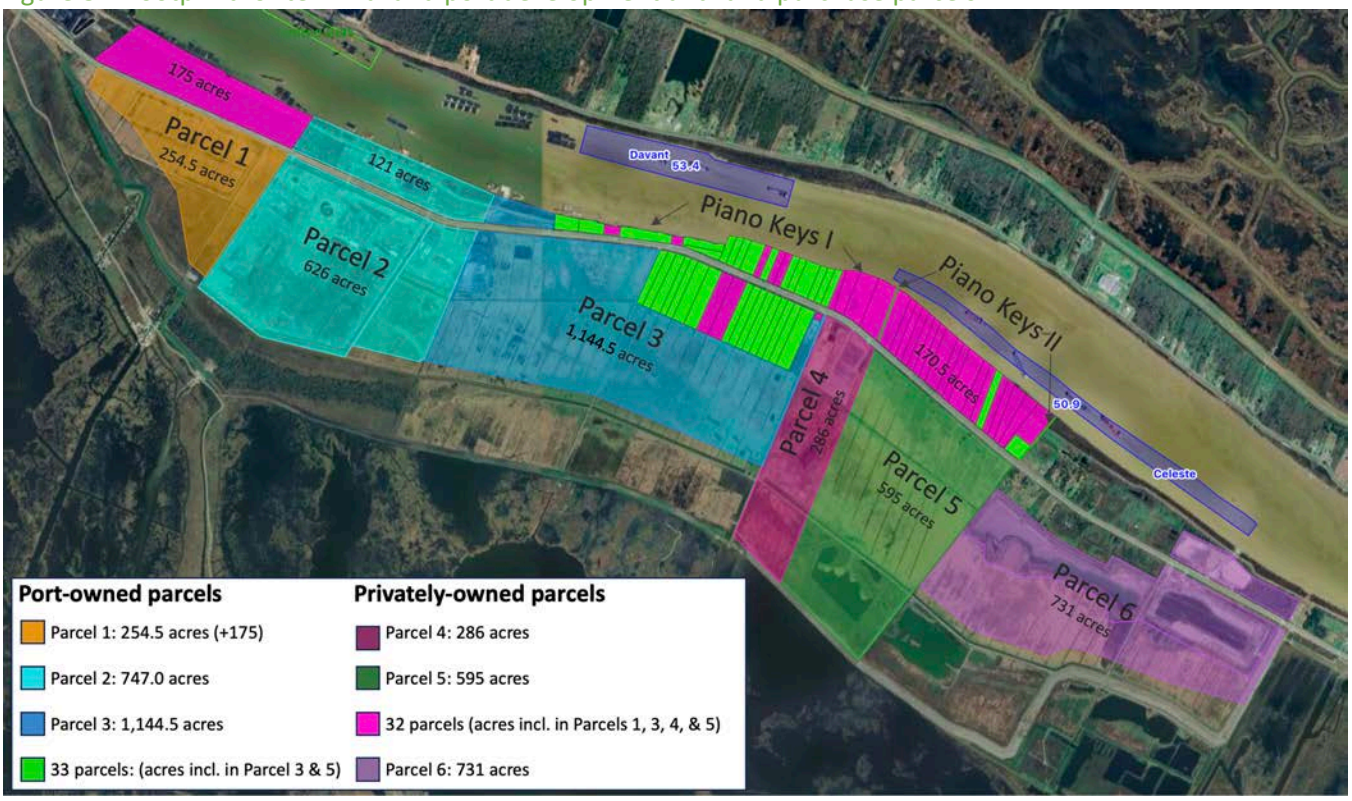
Figure 83. Intermodal container rail facility layout



8.1.3 Land purchases

As of May 2024, the port has acquired more than 50 percent of the footprint required for port development. According to the Plaquemines Parish Assessor, Parcels 1, 2, and 3, which comprise 2,146 acres, are now owned by the port; these include 31 parcels that correspond to the Piano Keys I most of which will become part of Parcel 3, shown in bright green in Figure 84. Parcels 4 and 5, along with the other 32 parcels in the segments named Piano Keys I and II are still under private ownership as well as 175 acres owned by IMT near Parcel 1, as shown in bright pink in Figure 84. The port is in the process of acquiring such parcels. Parcel 6 is also private, but it is considered for future phases.

Figure 84. Footprint for terminal and port development and land purchase parcels



Source: Developed by Bujanda & Allen with information from the Plaquemines Parish Assessor and Plaquemines Port, Mar 2024.

8.2 Liquid-bulk

8.2.1 Venture Global Plaquemines LNG

Venture Global Plaquemines LNG LLC is developing an LNG export facility on a 632-acre plot with 1.3 miles of deep-water frontage. The site will have three ship loading berths for vessels with a max carrying capacity of 185,000 m^3, four full containment LNG storage tanks with a 200,000 m^3 capacity, and a utility river dock. The terminal will have a capacity of **30 million tons per year**. The $21 billion investment will have a phased start-up with the first export of LNG before the end of 2024 and expected to be fully operational by 2026. A second phase expansion is scheduled for 2027.[10] The facility will construct two 42-inch diameter pipeline, 15 and 12 miles long, to connect interstate natural gas pipelines to the facility. Venture Global will export LNG to both Free Trade Agreement nations and non-Free Trade Agreement nations.[11] The company recently announced they will own a new fleet of nine next generation LNG vessels.[12] A rendering of the terminal is illustrated in Figure 85.

[10] Fox 8 Live, Plaquemines LNG facility reaches $21B investment, March 21, 2023: https://www.fox8live.com/video/2023/03/21/plaquemines-lng-facility-reaches-21b-investment/, accessed May 1, 2024.
[11] Venture Global LNG, Plaquemines, https://ventureglobalIng.com/project-plaquemines/, accessed May 1, 2024.
[12] Venture Global LNG, Venture Global Announces Fleet of State of the Art LNG Vessels, March 8, 2024: https://ventureglobalIng.com/press/venture-global-announces-fleet-of-state-of-the-art-lng-vessels-first-vessels-to-be-delivered-this-year/, accessed May 10, 2024.

Figure 85. Venture Global Plaquemines LNG LLC terminal rendering

Source: Venture Global LNG, 2024.

8.2.2 SunGas Renewables Green Methanol (at terminal and midstream)

Beaver Lake Renewable Energy (BLRE), a subsidiary of SunGas Renewables, is developing a green methanol plant in Pineville, Rapids Parish, LA. The green methanol is expected to be used for carbon-neutral ships.[13] SunGas Renewables anticipates BLRE will invest approximately $2 billion to construct the project at the former International Paper facility in Rapides Parish. The BLRE facility is expected to begin construction in late 2024 with commercial operations commencing in 2027.[14] The project estimates **441,000 tons** of green methanol will be produced per year traveling 255 miles on the Red River onto the Mississippi River, and ultimately to the Port of Plaquemines—all by barge.[15] Plaquemines Port is strategically located as the nearest deepwater port between Pineville's Red River site and the Gulf of Mexico; thus, offering lower transportation costs on the U.S. Gulf Coast.

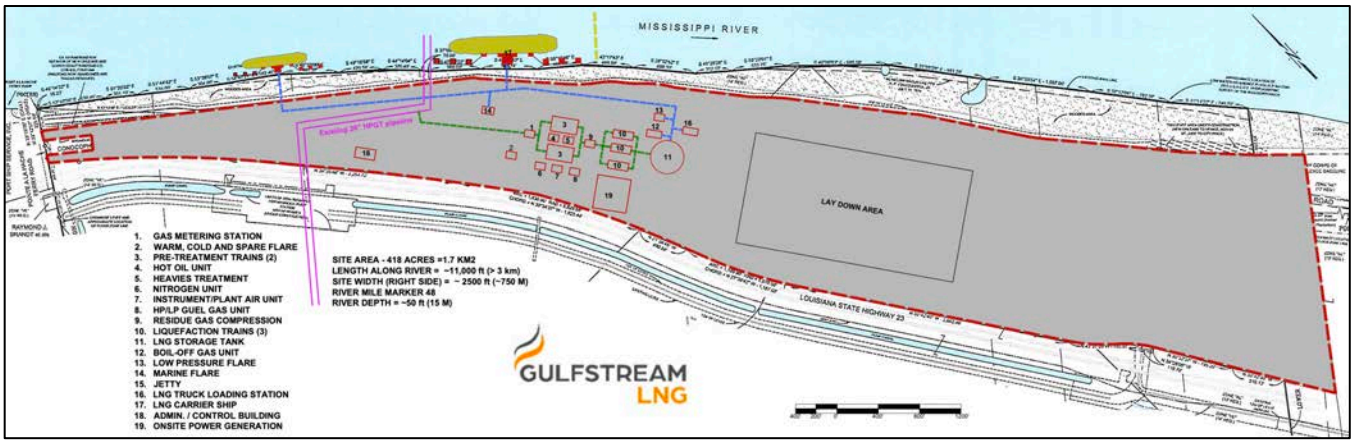
8.2.3 Gulfstream LNG (at Magnolia Terminal and midstream)

The Gulfstream LNG project, at Magnolia Terminal, includes connection to existing gas pipelines from multiple production basins, new natural gas treatment units, liquefaction units, compression, and storage facilities. A natural gas pipeline, with a diameter of 26 inches, traverses through the Project site. Gulfstream LNG has executed a term sheet with the pipeline owner to transport natural gas to the project site. Once approved, the plant is expected to be operational in three and a half years.

[13] Bever Lake Renewable Energy, https://beaverlakerenewable.com/, accessed May 2, 2024.
[14] SunGas Renewables , SunGas Renewables Announces Beaver Lake Renewable Energy, a Green Methanol Facility in Central Louisiana https://sungasrenewables.com/sungas-renewables-announces-beaver-lake-renewable-energy/, accessed May 2, 2024.
[15] PR Newswire, SunGas Renewables Announces Beaver Lake Renewable Energy, a Green Methanol Facility in Central Louisiana https://www.prnewswire.com/news-releases/sungas-renewables-announces-beaver-lake-renewable-energy-a-green-methanol-facility-in-central-louisiana-301886566.html, accessed May 2, 2024.

The plant will be located on a 418-acre parcel of land south of Belle Chasse on river marker 48 AHP which will be leased from the port. The project facilities will include: two feed gas processing trains, three LNG trains each with an average base LNG production capacity of approximately 1.4 MTPA, one LNG storage tank and tank protection system, two marine loading berths (one capable of receiving smaller barges and vessels, and one capable of receiving large (180,000 m^3) ocean-going LNG ships), and an on-site power generation plant. The plant estimates production of **237.5 billion cubic feet per year** to be sold to Free Trade Agreement and non-Free Trade Agreement countries.[16] The terminal layout is shown in Figure 86.

Figure 86. Gulfstream LNG at Magnolia Terminal layout



Source: Gulfstream LNG, Jun 2024.

8.3 Intermodal rail service

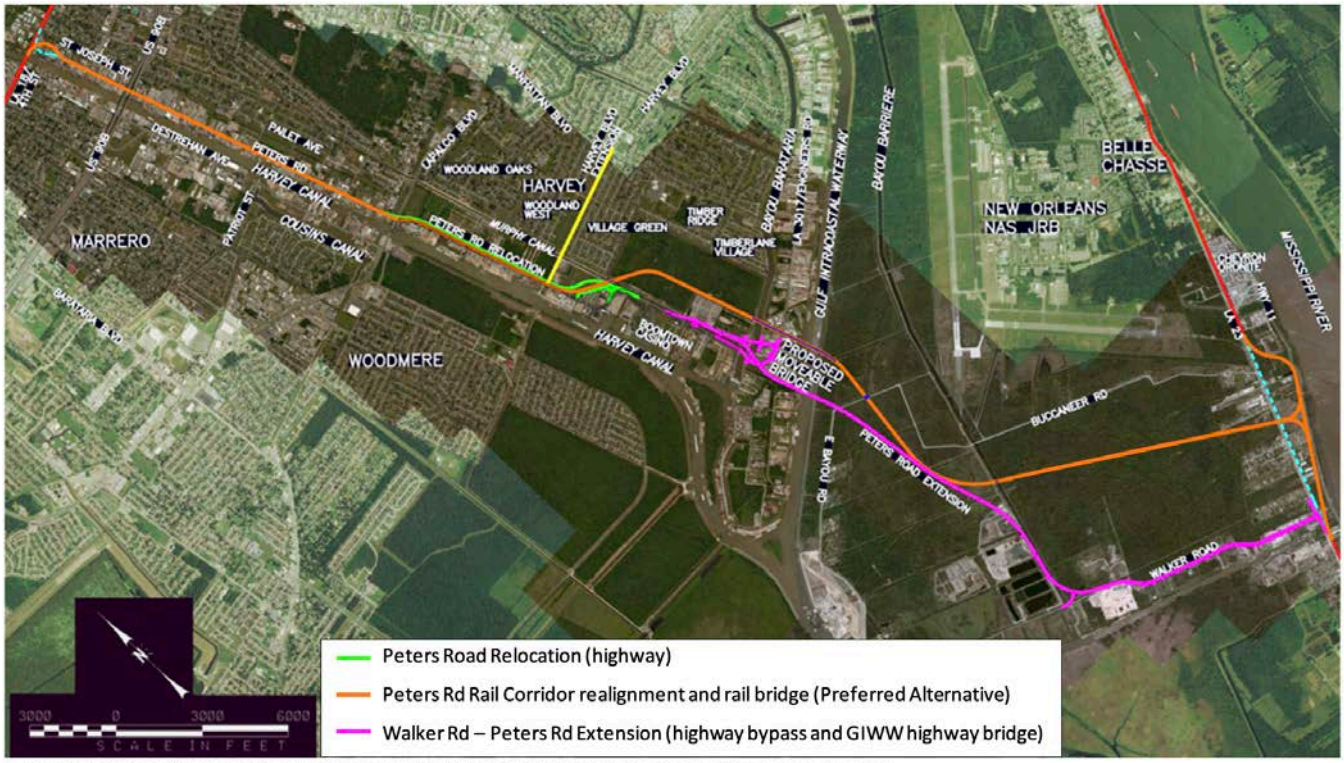
8.3.1 Peters Rd alternative rail alignment and rail bridge

The Peters Road alternative rail alignment and rail bridge is an alternative route to the existing rail line that runs through the City of Gretna downtown in Jefferson Parish. The proposed rail corridor parallels Peters Road. The project will be funded through a collaboration between the City of Gretna, Plaquemines Parish, and Jefferson Parish, with agreement from the Union Pacific railroad and NOGC Railway, a subsidiary of Rio Grande Railway.

Due to the development of the Louisiana Gateway Container Terminal and Global Venture LNG, this alternative route is needed due to future increased rail traffic through the town as there is no other railroad east of Avondale on the west bank that connects to the river.[17] The Peters Road alternative rail alignment will extend over the GIWW with the construction of a railroad bridge, as shown in Figure 87.

[16] Gulfstream LNG, The Project, http://gulfstreamlng.com/project/ , accessed May 2, 2024.
[17] Nola.com, Will Gretna finally move the railroad out of downtown? Here's why it could happen, https://www.nola.com/news/jefferson_parish/will-gretna-finally-move-the-railroad-out-of-downtown-heres-why-it-could-happen/article_d97aa34c-f1e3-11ee-b8ca-4b099c119687.html, accessed May 2, 2024.

Figure 87. Peters Rd alternative rail alignment and rail bridge

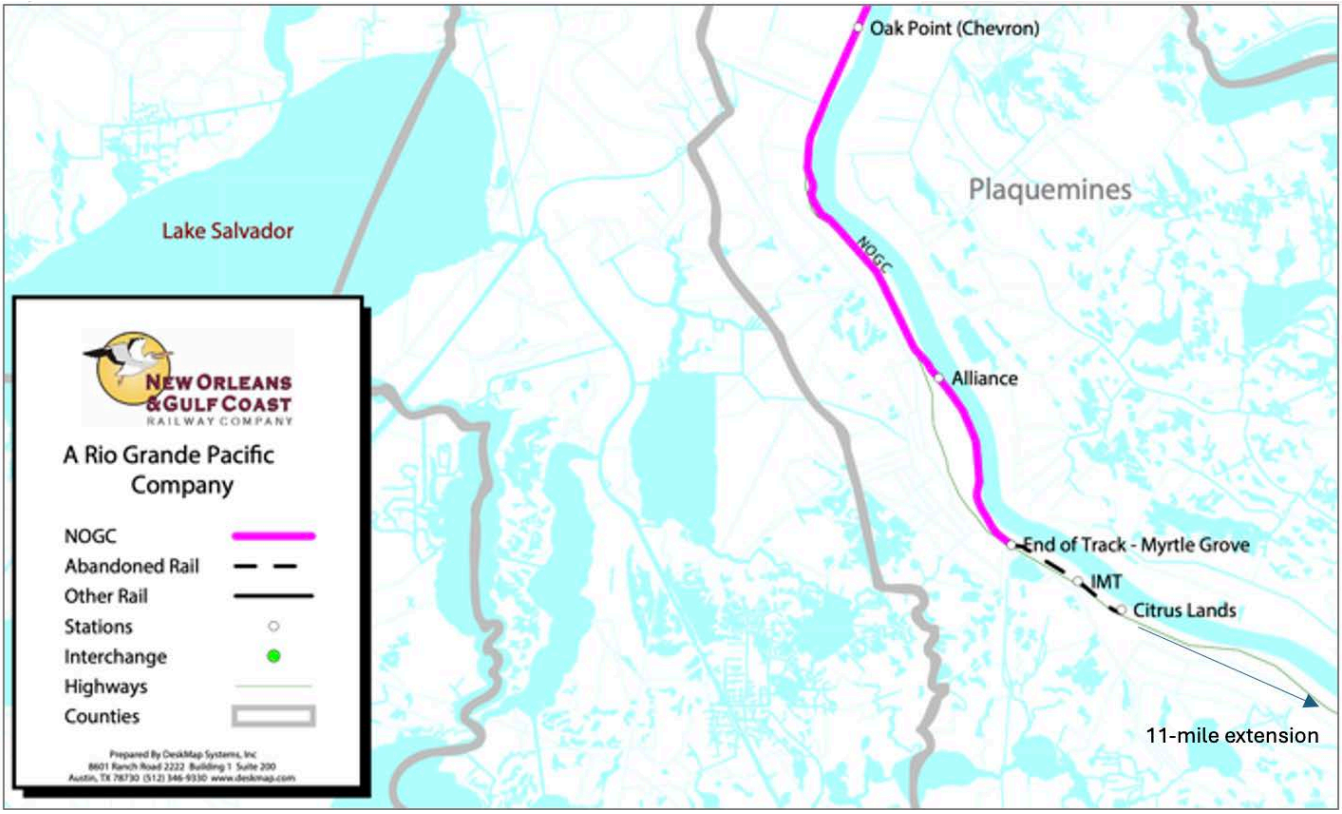


Source: LA 23 NOGC Railway relocation PE/NEPA Project FRR-RLD-0032-14-01-00, Apr 2018. Legend modified by B&A, May 2024.

8.3.2 Eleven-mile track extension and rehabilitation of abandoned line from Myrtle Grove to Woodland

Rail connectivity to and from PPHTD is provided by the NOGC. The NOGC is a 32-mile short-line capable of handling railcars of 286,000 lb, interchanging with the UP in Westwego, LA. The railroad serves over 20 switching and industrial customers and is the only railroad operating east of Avondale on the Westbank of the Mississippi River. Through NOGC, PPHTD enjoys rail connectivity to/from major freight markets and entry/exit gateways. However, its southern operational terminus ends at Myrtle Grove, and presently from Myrtle Grove southbound to Woodland tracks are abandoned. Furthermore, this rail corridor requires an 11-mile extension southbound of Citrus Lands. The current southern terminus of the NOGC short-line along with the direction of the proposed 11-mile extension are shown in Figure 88.

Figure 88. Eleven-mile track extension and rehabilitation of abandoned line from Myrtle Grove to Woodland



Source: Rio Grande Pacific Company, 2023 modified by B&A.

8.4 Highway connectivity

8.4.1 Walker Road – Peters Road extension (highway bypass and highway bridge)

Peters Road begins in the North at the intersection of 4th St (LA 18), in Harvey, LA, in Jefferson Parish, and presently has its southern terminus at the intersection with Engineers Rd (LA 3017), right after crossing the Bayou Barataria Canal bridge—a length of 5.5 miles. Currently there is no bridge along Peters Road to cross the GIWW. The Peters Road Extension will extend from its present southern terminus at the intersection with Engineers Rd, over the GIWW with the construction of a bridge, for nearly 3 miles until connecting with Walker Road. Walker Road connects to the main entrance of the Plaquemines Port and the Mississippi River via LA 23.

The Peters Road Extension will streamline the transportation network by improving access for trucks and other vehicles transporting goods to and from the port. Particularly, for traffic to/from the USWC and freight centers west of the Mississippi River (e.g. Dallas, TX) by serving as a relief route to more urbanized areas and bridges (e.g. the Belle Chasse Bridge and the Greater New Orleans Bridge). In July 2022, the Peters Road Extension project was in design status and the port requested a $7.5 million RAISE Grant in April 2024 to complete 100% engineering design for the Bridge.[18] The project and its alignment is shown in Figure 90.

8.4.2 Peters Road highway relocation (Union Pacific right-of-way relocation and realignment)

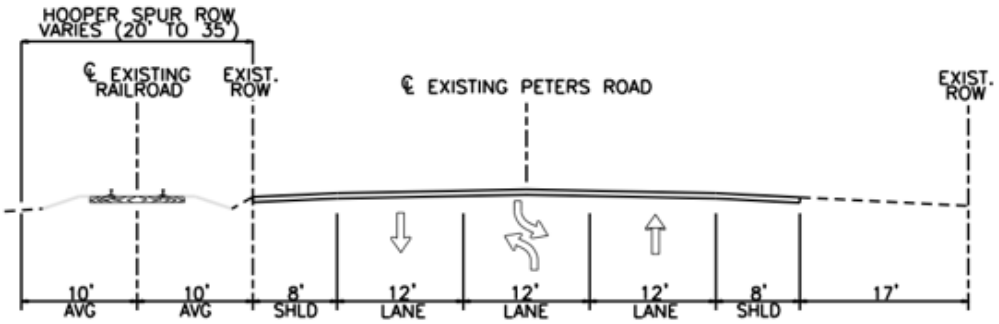
The Peters Road Relocation project involves relocating the existing **road** centerline and right of way of Peters Road (LA 3017) starting at Lapalco Blvd to approximately 1.8 miles south to accommodate the right of way for the Peters Road rail corridor realignment project. This project is interrelated to the *Peters Rd alternative rail alignment and rail bridge* project. The rail corridor realignment will be located next to the Boomtown Floodwall,

[18] Construction Journal, Bridge, Paving/Reconstruction Construction Project Lead, Harvey, LA 70058 (Jefferson County), https://www.constructionjournal.com/projects/details/83542f9ba54e48b3bc00dcb8233685f0.html, accessed May 2, 2024.

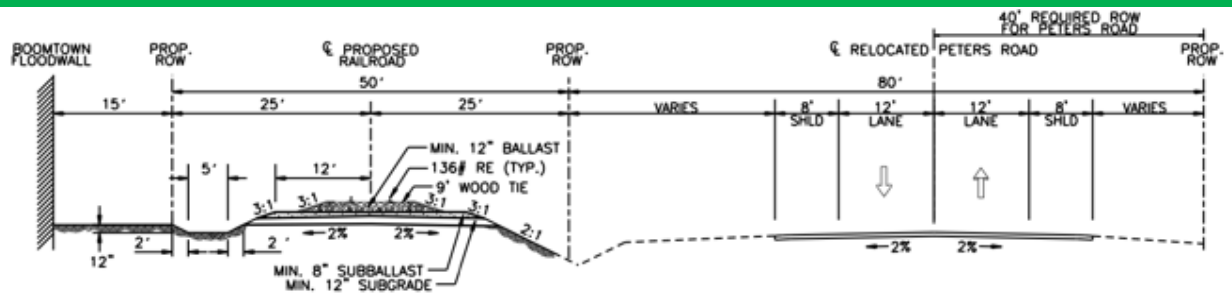
while the centerline and right of way of the Peters Road will be shifted east of the Union Pacific rail corridor as shown in Figure 89 and Figure 90.

Figure 89. Peters Road relocation project: existing vs. proposed alignment.

(a) Existing cross-section at Peters Road

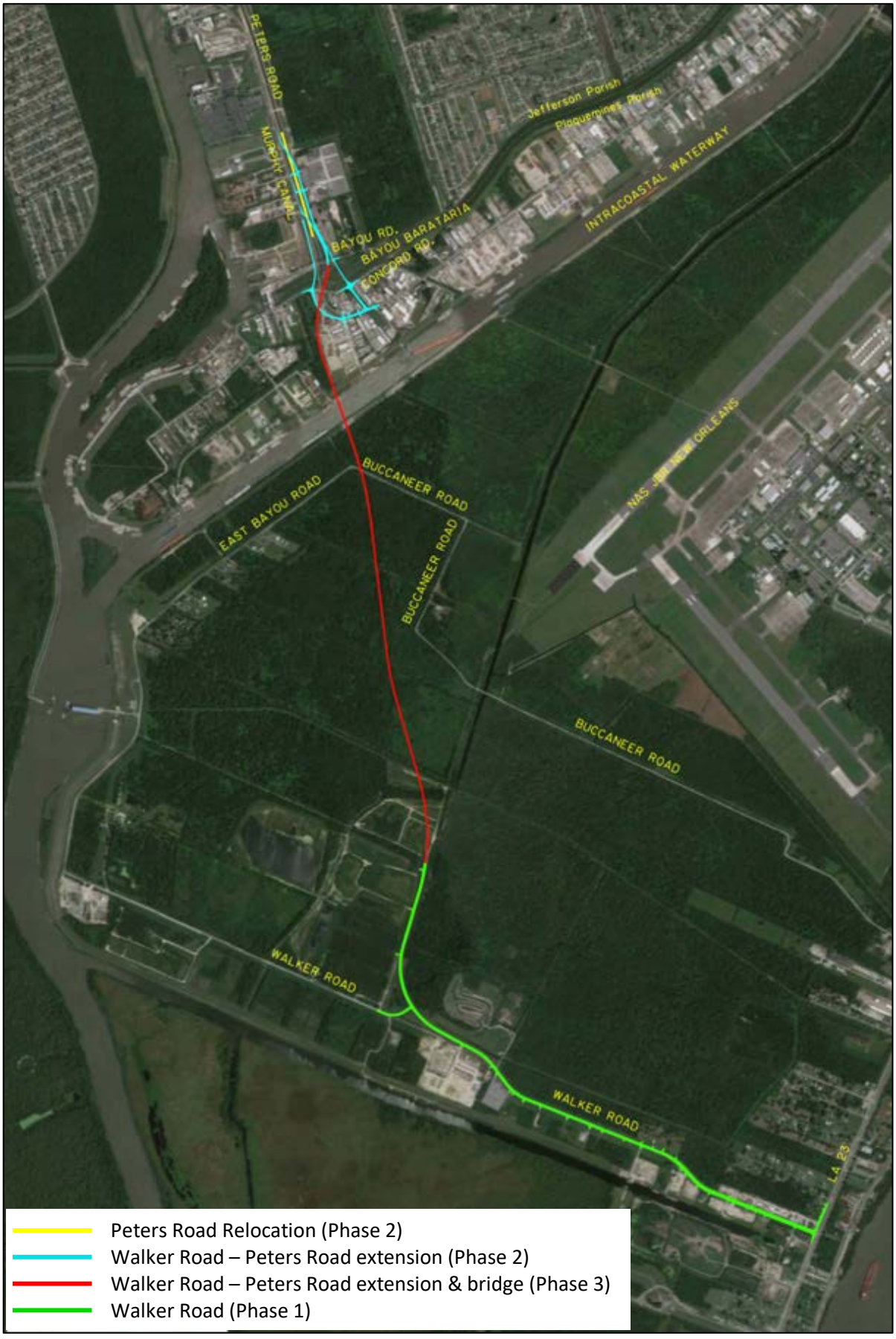


(b) Proposed cross-section at Peters Road (Lapalco Blvd to Harvey Blvd Extension)



Source: LA 23 NOGC Railway relocation PE/NEPA Project FRR-RLD-0032-14-01-00, Apr 2018.

Figure 90. Walker Road – Peters Road extension and bridge projects



Source: Burk-Kleinpeter Inc, Mar 2016. Legend modified by B&A, 2024.

8.5 Ferry, river traffic, and marine highway development

8.5.1 Belle Chasse–Scarsdale Ferry

The ferry system provides service across a span of the Mississippi that cannot support bridges due to river traffic that bolsters the resiliency of the regional freight transportation. In 2022, 329,000 passengers rode the Belle Chasse–Scarsdale Ferry. Without the Ferry Service Infrastructure Improvements, the current 193,334 vehicles using the ferry will be rerouted 54.0 miles each way through the City of Belle Chasse to get to and from work, resulting in an additional 20.8 million miles of travel.

Plaquemines Port seeks to replace two ferry landing barges and one maintenance barge on the Belle Chasse-Scarsdale evacuation route. Plaquemines Parish is a transportation insecure area. As a crucial lifeline across the Mississippi River, the existing infrastructure, built in 2002, requires immediate attention to address concerns over safety, reliability, and operational efficiency. The port aims to replace this infrastructure, safeguarding lives and bolstering the resilience of the region during emergencies. With this project, the port plans to purchase three new ferry landing barges, one of which will be utilized as a maintenance barge to service the port's fleet. The Belle Chasse and Scarsdale ferry landing barges will each measure 190’ x 35’ x 8’. The maintenance barge will measure 200’ x 50’ x 7’.

8.5.2 Pointe à la Hache Ferry–Port Sulphur ferry

The Pointe à la Hache–Port Sulphur Ferry project is an emergency restoration project on the existing ferry ramps and landing barges on both sides of the river to restore service after LaDOTD closed the ferry in January 2023.[19] In 2022, 109,650 passengers rode the Pointe à la Hache–Port Sulphur Ferry. Damage to the ferry landings has been inflicted by 2021’s Hurricane Ida and other storms. The port received an **$18.6 million** grant from the Federal Transit Administration to fund the rebuilding of the Pointe à la Hache ferry ramp. The ferry is expected to be operational by January 2025 through **$4.5 million** of temporary repairs and full reconstruction is expected in 2027.[20] A rendering of the Pointe à la Hache–Port Sulphur floating dock-barge is shown in Figure 91.

Figure 91. Pointe à la Hache Ferry Landing–Port Sulphur floating dock-barge rendering

Source: Infinity Engineering consultants and Port of Plaquemines, May 2, 2024.

[19] Nola.com, Pointe a la Hache ferry was condemned in January. Officials plan to rebuild it: https://www.nola.com/news/traffic/pointe-a-la-hache-ferry-to-be-rebuilt/article_f8844636-2fcd-11ee-ac64-a7e5ae4d12cc.html, May 1, 2024.
[20] Plaquemines Port Harbor and Terminal District, https://www.portofplaquemines.com/, accessed May 2, 2024.

8.5.3 New Ferry Build –diesel electric

Plaquemines Port is building a new ferry that can run on both on diesel and electric power. As part of a **$26.5 million** grant awarded to Plaquemines and Cameron Parishes, the new ferry will be placed into service in 2027.[21] The grant is part of the Multimodal Project Discretionary Grant (MPDG) Rural program.[22] The ferry will provide better service by having lower operation costs and downtime, and improved safety and time savings.[23, 24]

8.6 Other infrastructure

8.6.1 Port Sulphur water treatment plant and water booster station

A water treatment plant is essential for the Plaquemines Port expansion to ensure environmental compliance, protect local ecosystems, support sustainable development, safeguard public health, attract investment, improve resilience, mitigate legal risks, and build community trust. In order to capture these benefits and contribute to a more sustainable, efficient, and community-friendly port expansion, the port started discussions with the Parish to partner in seeking funding to construct. This water treatment plant must include reverse osmosis technology to mitigate the impact from the Mississippi River saltwater intrusion. The water treatment plant will be raised out of the flood zone and will have a **12 million gallons per day** capacity. This unfunded and proposed water treatment plant will be an **$80 million** investment in municipal and public works. A second but related project will improve the Alliance Water Booster Station along with feedline upgrades through an **$18 million** Louisiana Department of Transportation Division Port Priority Fund Grant.[25]

8.6.2 Port Support Boat Complex: Watercrafts – Emergency Response

The Port Support Boat Complex for watercrafts and emergency response will be a **$20 million** state-of-the-art facility at river mile 52 AHP designed to enhance maritime operations and safety. Strategically located to provide rapid response capabilities, this complex includes berthing for a variety of vessels, such as tugboats, pilot boats, ferries, and emergency response crafts. Equipped with advanced fueling, maintenance, and repair services, the complex ensures that all watercrafts are mission-ready. It also features dedicated emergency response coordination centers, allowing for swift and effective management of incidents such as hurricanes, tornados, oil spills, fires, and medical emergencies. This ensures the safety and security of port operations and surrounding waterways. The Port Support Boat Complex is shown in Figure 92.

8.6.3 NOLA Terminal new wharf and docks

In February 2022, NOLA Terminal announced that the Louisiana State Bond Commission approved $300 million in tax exempts bonds [not to exceed] for the construction of new wharf and docks.[26] NOLA Terminal in total is a **$930 million** project. The construction on the 158-acre terminal at mile marker 59 AHP began in October 2021. The terminal will be a state-of-the-art facility for crude oil and refined products along with a multi-use terminal for grain, gravel, containers, and breakbulk. The terminal design will accommodate new Panamax sized ships with three deep water berths and one barge dock. The 2024 layout for NOLA Terminal is shown in Figure 93.

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[21] WDSU News, New plans for the Pointe A La Hache Ferry in Plaquemines Parish, https://www.wdsu.com/article/new-plans-for-the-pointe-a-la-hache-ferry-in-plaquemines-parish/44649323, accessed May 2, 2024.
[22] Clay Higgins, Higgins Announces Grant Funding for New Cameron Ferry, https://clayhiggins.house.gov/2022/12/21/higgins-announces-grant-funding-new-cameron-ferry/, accessed May 2, 2024.
[23] American Press, $25M in funding granted for ferry improvements in Cameron, Plaquemines, https://www.americanpress.com/2022/12/21/25m-in-funding-granted-for-ferry-improvements-in-cameron-plaquemines/, May 2, 2024.
[24] A New Build Ferry engineer and design DOTD contract was awarded to Pelican Marine Design LLC, New Orleans, 2024 http://pelicanmd.com/ accessed May 20, 2024.
[25] Plaquemines Port Request for bid, https://portofplaquemi.wpenginepowered.com/wp-content/uploads/2024/03/H.014966-322-Advertisement-for-Bid.pdf, accessed May 2, 2024.
[26] NOLA Terminal, NOLA Terminal Approved for $300 Million Tax Exempt Bond Issuance, https://nolaterminal.com/2022/02/nola-terminal-approved-for-300-million-tax-exempt-bond-issuance/, May 2, 2024.

Figure 92. Port Support Boat Complex for watercrafts and emergency response

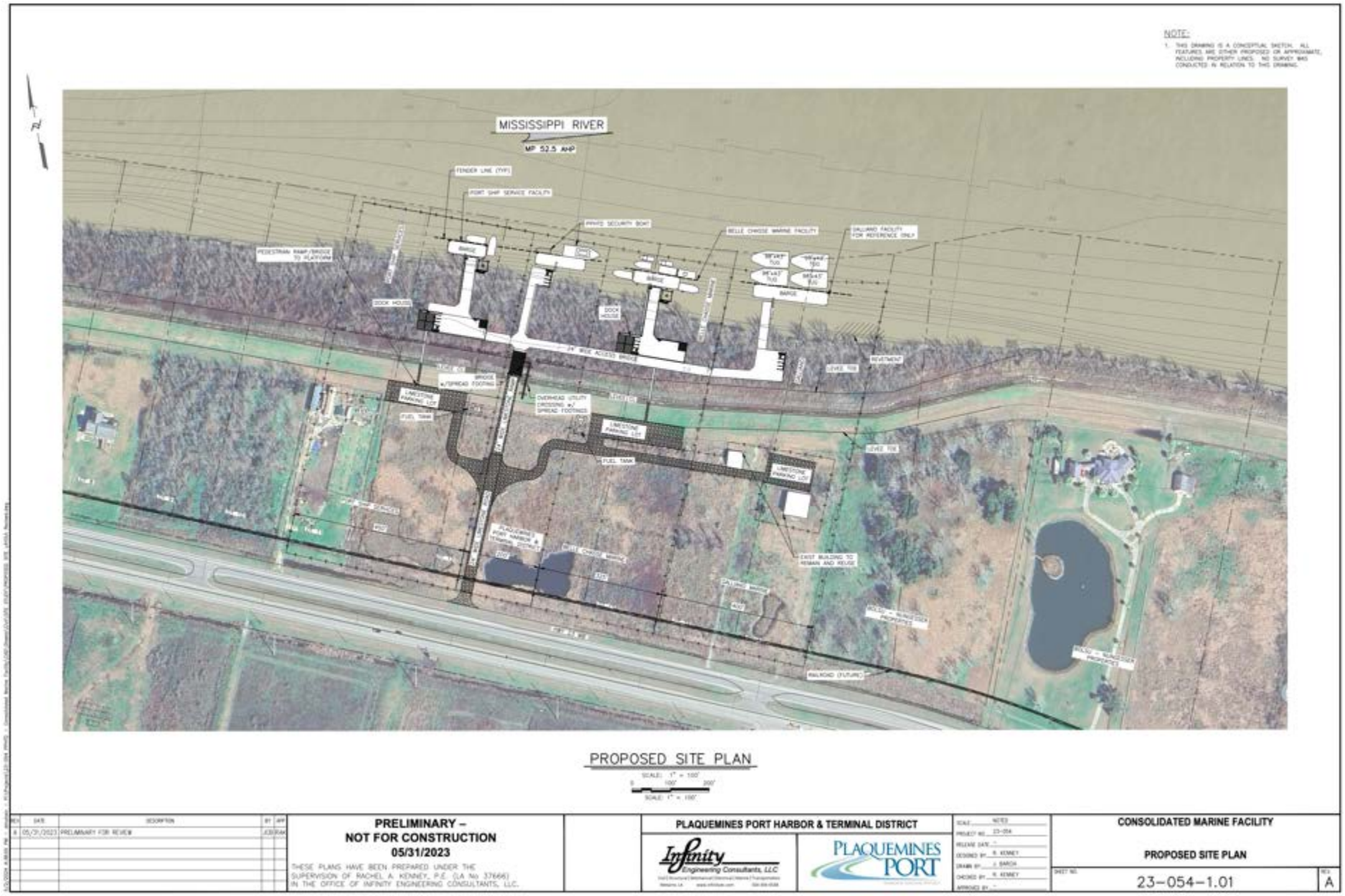


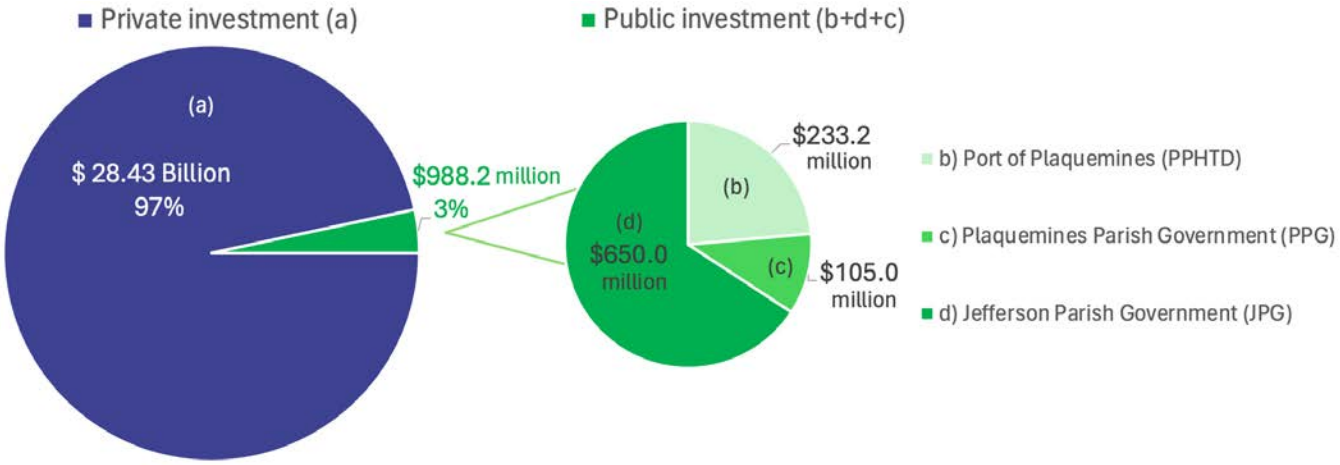
Figure 93. NOLA Terminal layout

Source: NOLA Terminal, 2024.

8.7 Inventory of capital projects

In summary, the port has an inventory of 16 major capital projects which add up to more than **$29.4 billion**, from which 97% ($28.43 billion) are expected to be funded by the private sector, and 3% ($988.2 million) from public investment. Regarding public investment, $650 million pertain to Jefferson Parish Government, $105 to the Plaquemines Parish Government, and $233.2 to Plaquemines Port, as illustrated in Figure 94.

Figure 94. Total project investment by funding source



Source: Port of Plaquemines, 2024.

The port's inventory of 16 major capital projects is presented in detail summarizing the main characteristics for each project (e.g. capacity, berth length, pipeline diameter, number of lanes on a highway, etc), the anticipated or planned capex, and the expected funding source. The inventory of capital projects is presented in Table 6.

Box 2. Public benefits from port expansion

Plaquemines Port is poised to fund over **$200 million over the next four years** from its own sources such as revenue from tariffs, leases, and grants. The port has funds already for 50 percent of the capex, 30 percent in current grant submissions, and revenue bond capacity to cover the balance of capex needs.

Public Benefits include societal value and economic development generated from the port inventory of capital projects documented in Table 6. Moreover, there are projects specifically designed to support Plaquemines Parish, the port region community, and the overall state economy, notably:

- Port Sulphur Water Treatment Plant
- Water Booster Station
- Ferry System upgrades
- Port Support Boat Complex with watercrafts and emergency response systems
- Relocating railroads away from urbanized residential areas
- Road and bridge projects.

For every three cents of public dollars, Plaquemines Port is leveraging 97 cents of private dollars, just considering construction dollars, to spur economic development in the region.[27]

No tax dollars are received or used by the port for these investments.

Source: Port of Plaquemines, 2024.

[27] There is societal value created also in the future beyond the construction period. A more comprehensive, non-exhaustive list of public benefits is described in Section 11 and direct, indirect, and induced economic impacts in Section 12.

Table 6. Capital Improvement Program (CIP) projects, main characteristics, anticipated capex, and funding sources.

Capital project	Dock River mile	Cargo type	Capacity and/or main project characteristic	Anticipated capex*	Funding sources
Containers—private and port capex					
1. **Louisiana Gateway Container Terminal**	▪ 51.0 AHP	▪ Containers	▪ 1,004,000 TEU / year (Phase 1) (throughput, steady state, Yr 5) ▪ 1,500,000 TEU / year (Phase 2)	▪$467 million ▪$300 million	▪Private ▪Private
2. **Louisiana Gateway Intermodal Rail Yard**	▪ 51.5 AHP	▪ All cargoes	▪ 1 throughput track ▪ 4 working & storage tracks (3800 ft) ▪ 286,000 lb max railcar wright ▪ Highway flyover with 4 lanes (2 per side)	▪$8 million	▪Port
Land purchases—port capex					
3. **Real Estate**	▪ 51.0 to ▪ 48 AHP	▪ Liquid-bulk (LNG) ▪ Containers ▪ Popich Bldg.	▪ 800 acres (LNG) ▪ 170.5 acres Phase 1 (containers) ▪ 500 acres Phase 2 (containers) ▪ Office building (admin)	▪$10 million ▪$20 million ▪$30 million ▪$4.2 million	▪Port ▪Port ▪Port ▪Port
Liquid-bulk—private capex					
4. **Venture Global**	▪ 53.5 AHP	▪ Liquid-bulk (LNG)	▪ 27 million MT / year ▪ 632 acres ▪ Berth (1.3 mi length x -50 ft depth) ▪ 2 pipelines (42 in diameter)	▪$13.2 billion ▪$7.8 billion	▪Private ▪Private
5. **SunGas Technology (at terminal and midstream)**	▪ 51 AHP ▪ Mid-stream	▪ Liquid-bulk (LNG)	▪ 400,000 MT / year ▪ 40 Acres – 10 million MT Storage ▪ Container Berth- 50 ft depth) ▪ 1 pipeline (TBD in diameter)	▪$1.8 billion	▪Private
6. **Gulfstream LNG (at Magnolia Terminal and midstream)**	▪ 46.5 AHP	▪ Liquid-bulk (LNG)	▪ 4 million MT / year ▪ 500 acres ▪ Berth (1 mi length x -50 ft depth) ▪ 1 pipeline (20 in in diameter)	▪$4.0 billion	▪Private
Intermodal rail service—public, port, private capex					
7. **Peters Rd alternative rail alignment and rail bridge (Preferred Alternative)**	▪ 71.5 AHP	▪ All cargoes	▪ 1 throughput track (9.3 mi) ▪ 1 passing sidetrack ▪ 286,000 lb max railcar wright	▪$650 million	▪Jefferson Parish Gov.
8. **11-mile track extension and rehabilitation of abandoned line from Myrtle Grove to Woodland**	▪ 61.5 AHP ▪ 27.5 AHP	▪ All cargoes	▪ 1 throughput track (34 mi) ▪ 1 passing sidetrack ▪ 286,000 lb max railcar wright	▪$50 million	▪Private

Capital project	Dock River mile	Cargo type	Capacity and/or main project characteristic	Anticipated capex*	Funding sources
Highway connectivity—public capex					
9. Walker Road – Peters Road Extension (highway bypass and highway bridge)	▪ 63.0 AHP	▪ All cargoes	▪ 4.65 miles	▪ $30 million	▪ Plaquemines Parish Gov.
10. Peters' Road highway relocation (Union Pacific right-of-way relocation and realignment—aligned with project *7. Peters Rd Rail Corridor realignment*)	▪ 63.0 AHP	▪ All cargoes	▪ 1.8 miles (approx.)	▪ $75 million	▪ Plaquemines Parish Gov.
Ferry, river traffic, marine highway development—port capex					
11. Belle Chasse–Scarsdale Ferry	▪ 75.0 AHP	▪ Vehicles ▪ Passengers	▪ 300,000 veh/year ▪ 329,000 passengers	▪ $2 million	▪ Port
12. Pointe à la Hache Ferry	▪ 48.0 AHP	▪ Vehicles ▪ Passengers	▪ 250,000 veh/year ▪ 109,650 passengers	▪ $4.5 million (emergency repairs) ▪ $18 million (perm. replacement)	▪ Port ▪ Port grant
13. New Ferry Build – Diesel Electric	▪ 51.5 AHP	▪ Vehicles ▪ Passengers	▪ 300,000 veh/year	▪ $26.5 million	▪ Port grant
Other Infrastructure—public and port capex					
14. Port Sulphur Water Treatment Plant and Water Booster Station	▪ 47.0 AHP	▪ Port Expansion ▪ Public Mitigation	▪ 12-million gal/day (w reverse osmosis) ▪ 10-mile water booster 20" line (Alliance Refinery to Port Sulphur)	▪ $80 million ▪ $18 million	▪ Port / Plaquemines Parish Gov. ▪ Port grant
15. Port Support Boat Complex: watercrafts and emergency response	▪ 52.0 AHP	▪ Port expansion ▪ All cargoes ▪ Ferry	▪ Multipurpose port complex ▪ Support boats	▪ $20 million	▪ Port
16. NOLA Terminal new wharf and docks	▪ 59.0 AHP	▪ Port development ▪ All cargoes	▪ Wharf and dock (Phase 1) ▪ Multipurpose port full complex (Phase 2)	▪ $300 million ▪ $630 million	▪ Private

Source: Plaquemines Port, 2024. *Obtained from publicly available information or 3rd party source; not estimated by B&A or TBGI.

9. Landlord port and operational model structure

This section describes the potential structure of the Louisiana Gateway Container Terminal (LGCT) lease and a possible operational model for the company undertaking the project. This section begins with a potential structure of the lease, the parties involved, and the flow of funds among potential stakeholders. This section then describes a conceptual organizational structure of the entity that would undertake the container terminal project. This section presents an overview of the project site and a conceptual layout of the project and its components, independent from the expected demand or financial viability levels analyzed in Section 10.

9.1 Potential terminal lease structure

Based on a landlord port model concept, Plaquemines Port would execute a lease agreement with an entity that would operate the terminal and pay a lease to the port in exchange for the leasing rights to exploit the terminal. Such entity would likely be an ocean terminal operator (OTO).

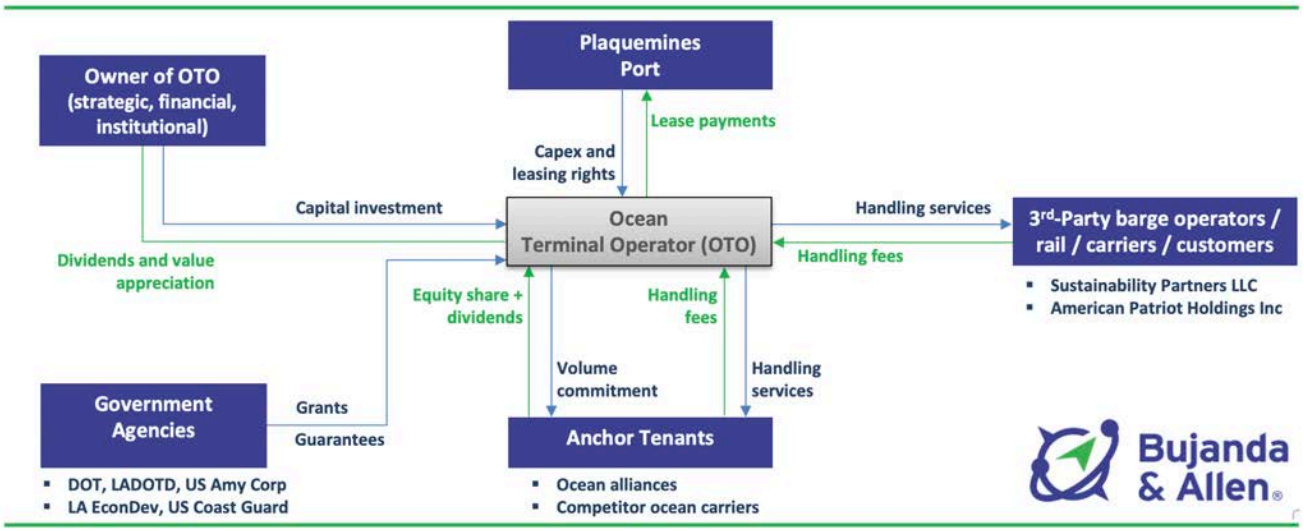
To simplify our project feasibility analysis, we assume that all investments (startup construction and other infrastructure costs, and operating equipment) are made by the operating entity (or tenant). Agreements for infrastructure having these characteristics are long-term in nature (exceed twenty years). In return for volume commitments, anchor tenants may wish to take a stake in the project.

Nonetheless, the port could install major infrastructure (Public Benefit) to help the project be more viable and attractive to potential investors. Under the same concept, the tenant could be required to invest in specialized infrastructure and equipment in addition to the operational expenditures. Users of the port would pay the OTO a throughput handling rate per unit of cargo and additional fees for ancillary services as required.

The port would receive an annual lease payment from the tenant (i.e. from the OTO). The amount of the annual payment is typically linked to cargo volumes subject to a minimum annual guarantee (MAG), increased on an annual basis by an agreed-upon inflationary index, and would be determined only after considering how much capital investment was being made by each entity (i.e. Plaquemines Port vs. the operator).

As example, a combination of MARAD, PDIP, CRISI, TIFIA, and Louisiana State Mobility grants could possibly be secured by the port and the different parishes across the project with the assistance and support of county and state governments, LaDOTD, etc. Nonetheless, our analysis presented in the next sections assumes no grants. Diagrams of the major elements of the landlord port lease structure for LGCT are shown in Figure 95.

Figure 95. Potential lease structure for the Louisiana Gateway Container Terminal.



Source: Bujanda & Allen LLC, 2024.

9.2 Conceptual organizational structure for the port and terminal

This section provides an overview of a possible organizational framework for governing the port and presents a potential terminal operator management model for operations of the container terminal. The structure defines the roles and chief responsibilities for the OTO undertaking the project. In our proposed structure, the container terminal operator would have two categories of staff—professional staff and laborers. Certain specialized functions would be outsourced to limit overhead. The conceptual organizational structure of the port is illustrated in Figure 96. The conceptual organizational structure of LGCT, which feeds the financial model in Section 10, is illustrated in Figure 97.

9.3 Project site and terminal layout

A conceptual plan has been provided and a total project cost estimate determined for the development of the Piano Keys II area, the recommended site, as detailed next.

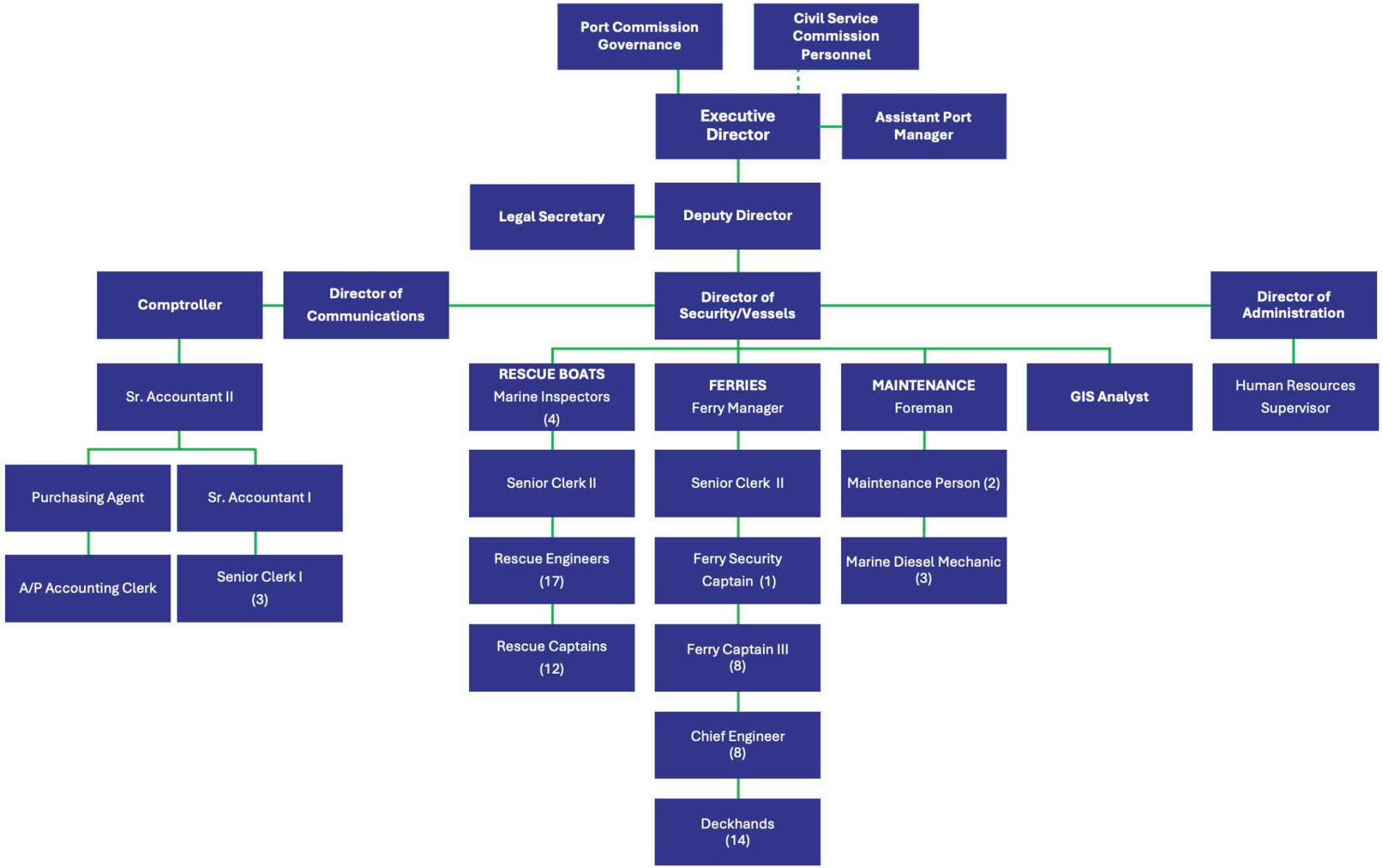
- **Phase 1—**There are approximately *170.5 acres* targeted for the overall footprint of this project, which depicts an elevated terminal with a lower area already graded for future containment loading via rail.
- **Phase 2—**This phase incorporates the surface area incorporated for storage/loading area for containers to rail and the additional site entrance.

Box 3. Permits required

1. **Construction Permit – Louisiana Department of Natural Resources.** Any port project will require a Construction Permit for site development from the Department of Natural Resources. A 404 and 408 permits will be required from USACE and a 401 permit from the Department of Natural Resources.
2. **Floodplain permit –** A Floodplain permit will be required, along with a No Rise Certification.
3. **Railroad construction permit –** A railroad permit will be required for construction of rail spur and waterline crossing with associated fees.
4. **Department of Natural Resources (DNR) construction permit –** A construction permit will be required for the waterline extension to the site.
5. **Louisiana Department of Transportation and Development (LaDOTD) permit–**LaDOTD will require entrance plans approved and possibly a new permit for entrance, widening of entrance and approach. There is a potential that a traffic study would have to be performed.
6. **Gas connection permit –** There will be a permit required for the proposed gas extension crossing the levee to reach the site.
7. **Septic system permit –** A septic system will have to be approved by the Health Department.
8. **Utilities, easements, and right of way permits –** Any existing utility in a public right-of-way, such as electric may need an easement to access the site depending on the routing preferred.
9. **Rezoning –** As there are no building and zoning requirements in the Parish, this parcel would not have to go through the rezoning procedures.
10. **Environmental clearances –** Although not actual permits, environmental clearances will have to be obtained for the selected option and further discussed in *Section 13* of this Report.

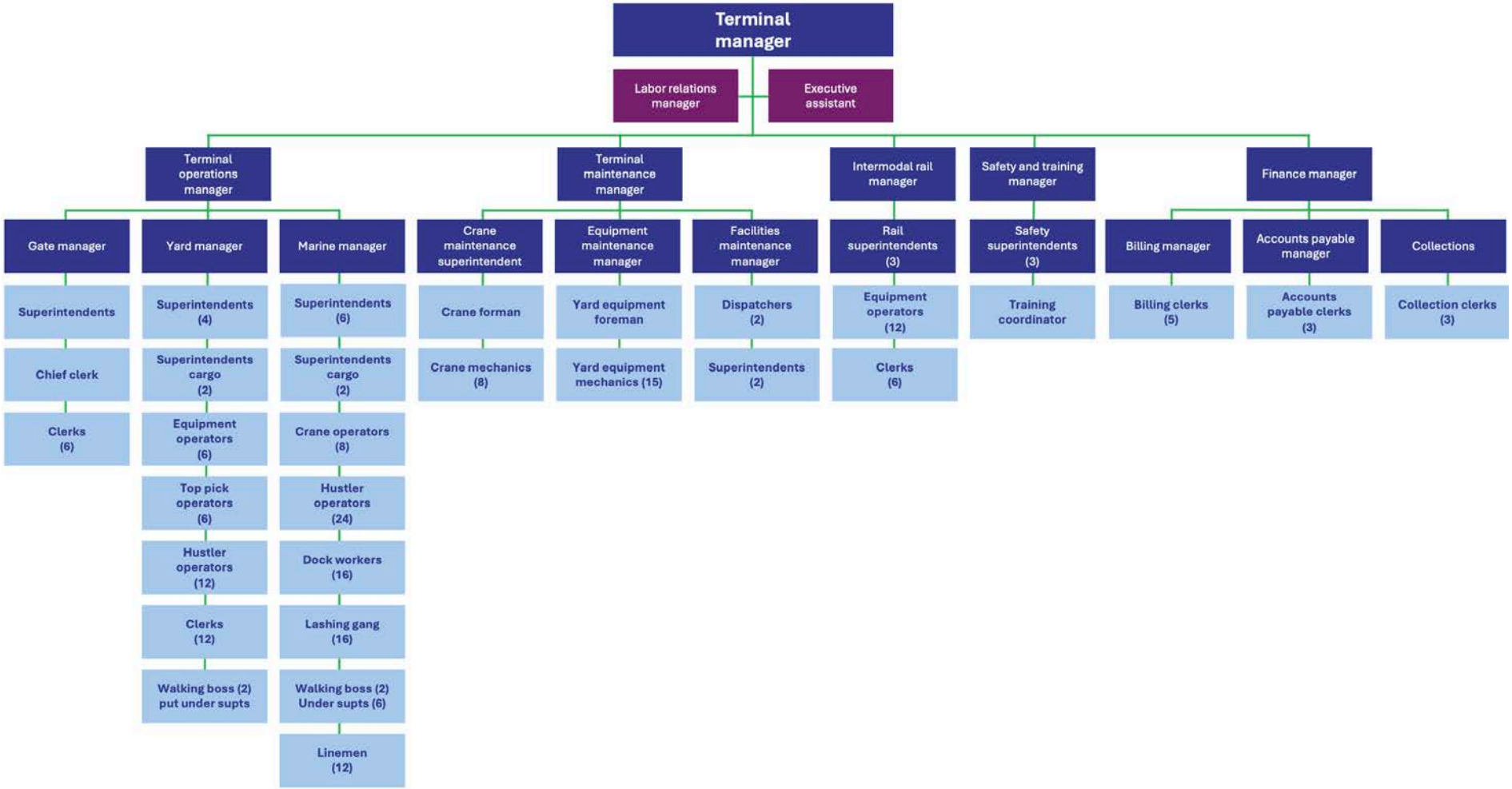
Source: Bujanda & Allen, 2024.

Figure 96. Conceptual organizational structure for the port



Source: TBGI, 2024.

Figure 97. Conceptual organizational structure for the container terminal



Source: TBGI, 2024.

9.4 Indicative startup capital costs

The cost estimate for **Phase 1** reflects an indicative startup capex of **$467 million** for years 1, when construction begins, through year 3, when the terminal opens to the public. Container handling equipment includes budget for six cranes (refurbished), rubber tire gantry (RTG) cranes, automatic stacking cranes (ASC), top-picks, and trucks. While not strictly required, a local tug would provide operational flexibility and could also support the barge business. The cost estimate for land value is based on our estimates and not actual appraisals. The indicative startup capex paid by the terminal operator for the base year are detailed in *Section 10.3* and summarized in Table 7.

Table 7. Indicative startup capex paid by the terminal operator (base year)

Year of construction	Container handling equipment (CHE), materials, & others	Civil works, railroad, engineering, & contigency	Total construction spend
Construction year 1	$ 60,000,000	$ 140,000,000	$ 200,000,000
Construction year 2	57,300,000	133,700,000	191,000,000
Construction year 3	22,800,000	53,200,000	76,000,000
Total	**$ 140,100,000**	**$ 326,900,000**	**$ 467,000,000**

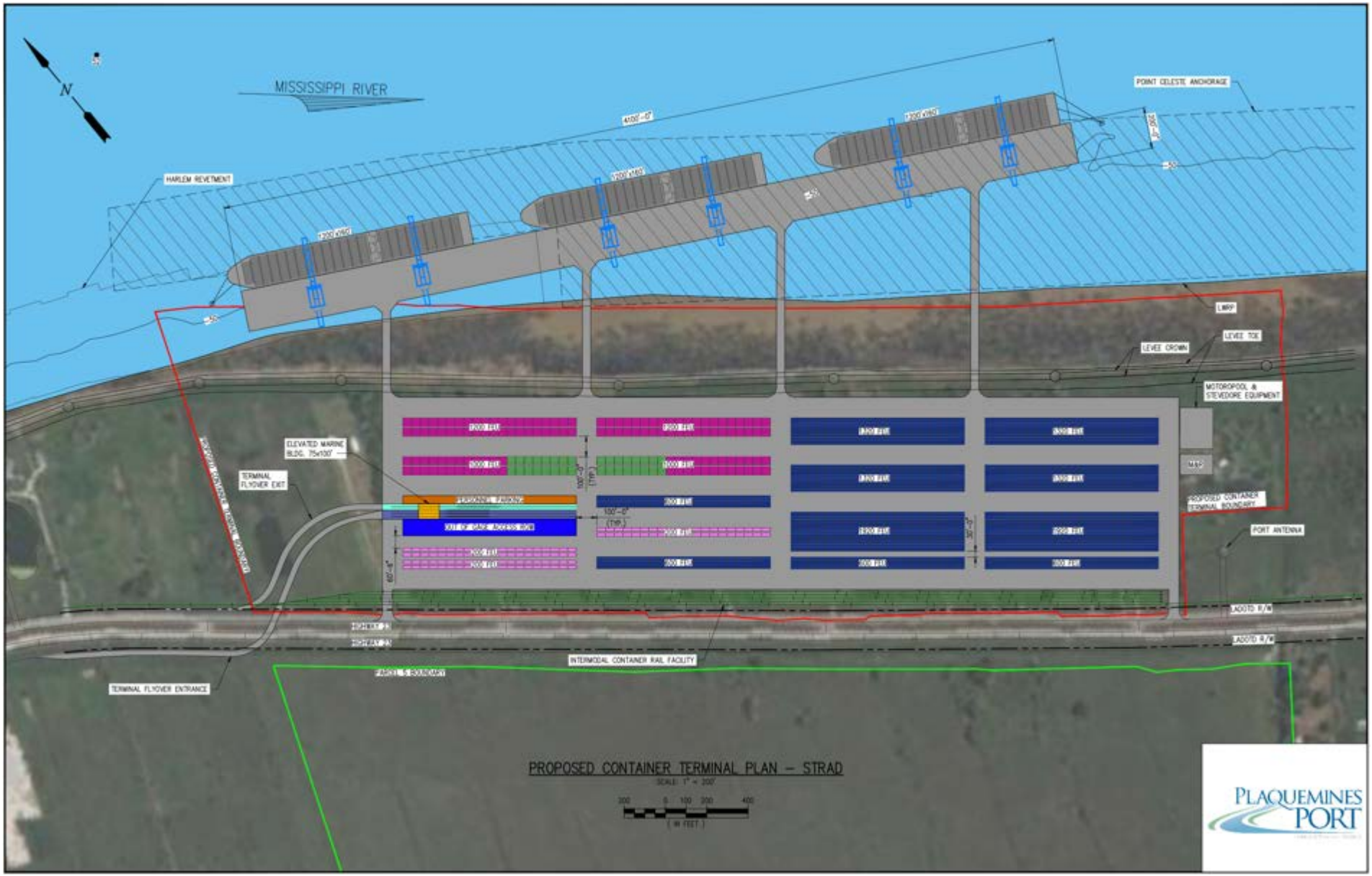
Source: Bujanda & Allen, 2024.

These capex are *indicative* (not engineering) and we recommend that the proposed conceptual plan be reviewed, and modifications deemed necessary by the OTO. The proposed project site and the conceptual container terminal layout as of May 2024 is presented in Figure 98. It is important to highlight that these Master Plan is not an engineering design and is not intended for construction. We provide a non-exhaustive list of recommendations prior to engage in construction in Box 4.

Box 4. Recommendations prior to construction

- A full engineering design before moving to construction.
- A hydraulic model with pre and post development to ensure there is a net zero increase in water surface elevation within the Floodway or adjust the amount of fill and compensatory storage needed to meet the requirements of FEMA as a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) will be required.
- Address environmental concerns for any clearances or additional surveys that will be requested with the proposed development.
- Pursue addressing any future components of this Master Plan in close coordination with the OTO and as private investment and government funding is made available.
- This study has identified the parcels to be acquired (*Section 8.1.2*), the proposed improvements, and the permits that will be required (*Section 13*).

Figure 98. Project site and container terminal layout (May 2024)



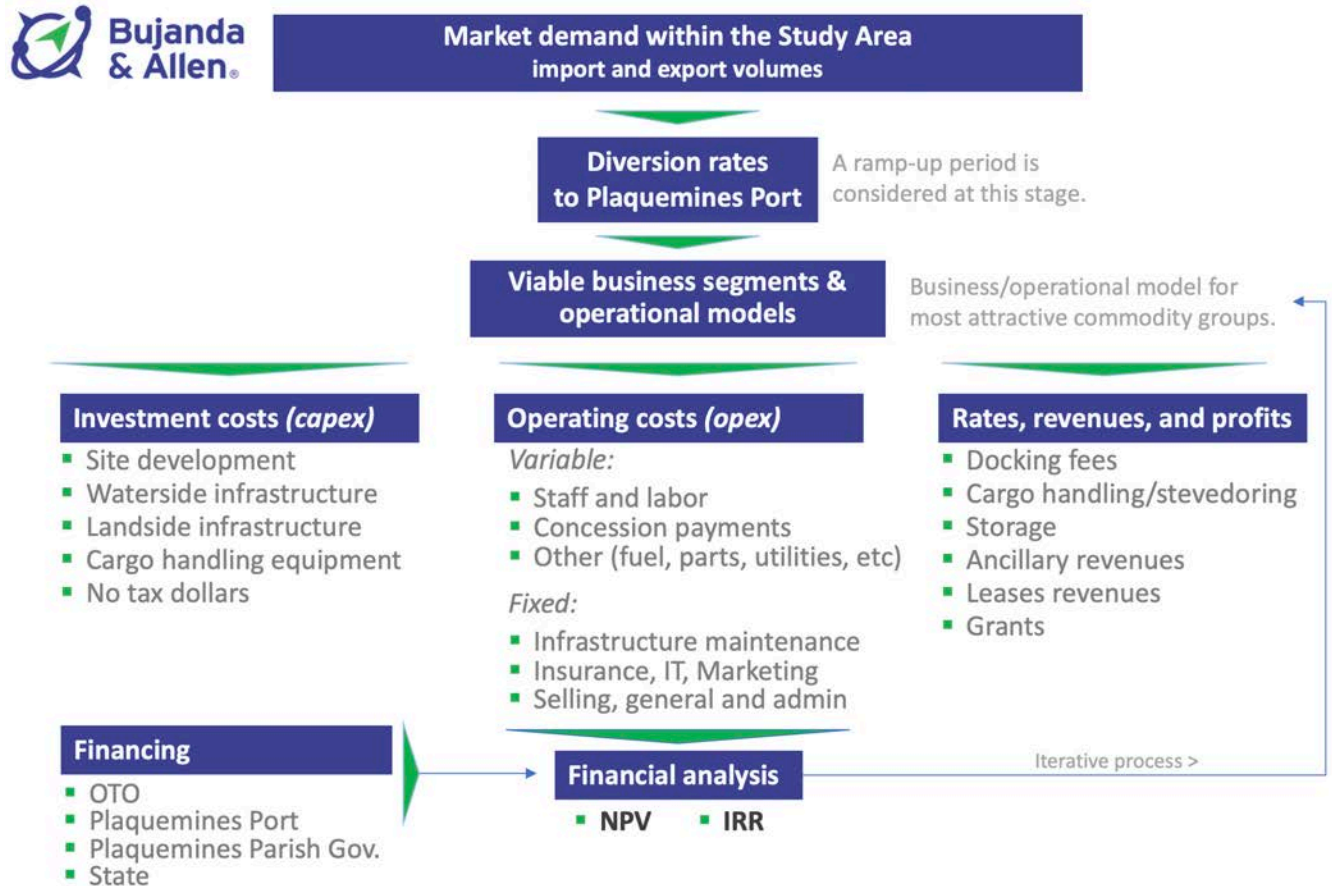
10. Financial analysis

This section presents the results of the financial analysis for the Louisiana Gateway Container Terminal project. We describe the methodology applied, our financial model, and its underlying assumptions. Then, we present the Base Case scenario, including the projected demand for the Louisiana Gateway Container Terminal, the necessary capital expenditures (capex), fixed and variable operating expenditures (opex), as well as the handling rates and associated revenues. Results indicate that the project, as conceived, barely meets financial feasibility criteria from a private investor perspective. Nonetheless, the project is expected to generate societal benefits that cannot be recouped by a private investor, as demonstrated by our BCA in *Section 11*.

10.1 General assumptions

Bujanda & Allen created a discounted cash flow model assuming the value for a private entity investing in the project development is entirely driven by its future cash flows. Throughput volumes are based on the market demand projections presented in *Section 5*. Such projections assume that only a growing fraction of the market will be captured in the early years of the project (i.e. the ramp-up period).[28] Revenues are based on the expected volumes and handling rates for each of the cargo flows (imports and exports) by cargo type moving thru the project. Variable capex and opex are also modeled as a function of the volume forecast. The model allows the development of scenarios where the share of capital investments can be split between private investment and government funding. The structure of the financial model is illustrated in Figure 99.

Figure 99. Structure of the financial model for the Louisiana Gateway Container Terminal (LGCT) Project.



Source: Bujanda & Allen LLC, 2024.

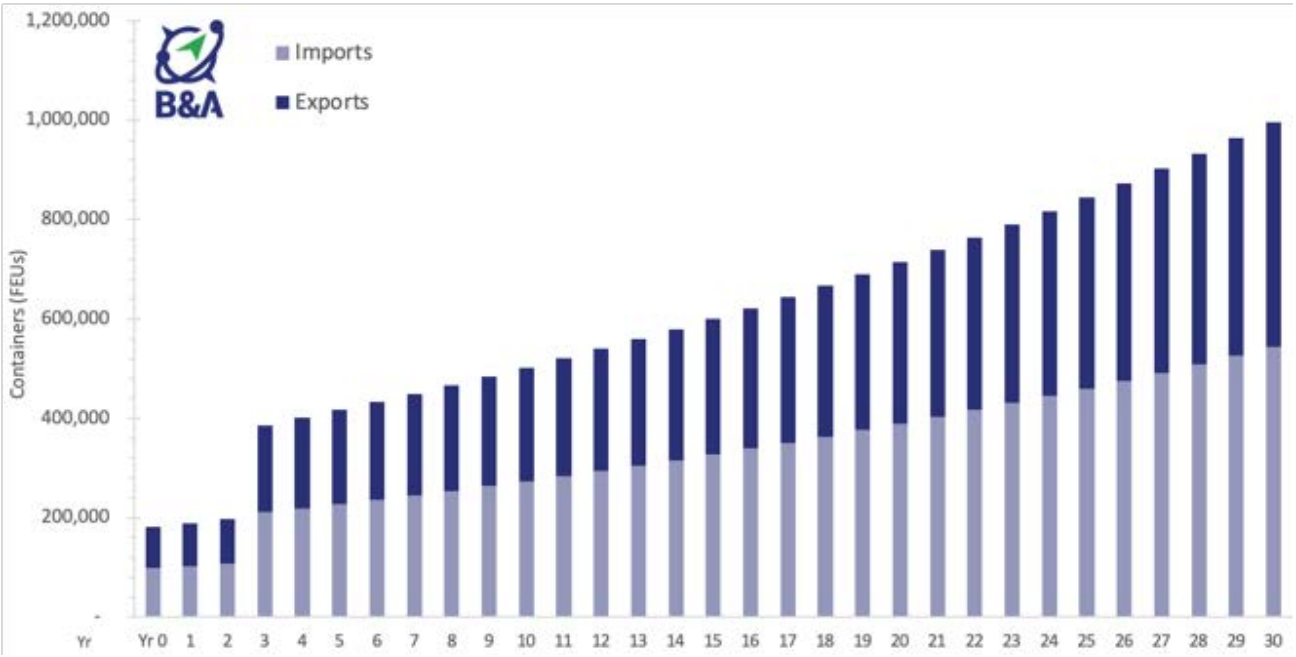
[28] The ramp-up refers to the amount of time it takes a new facility to become fully productive from when first opens operations. For this case, the Base Year (Yr 0), Construction Period is 1 year (between Yr 0 and Yr 1), Opening to the public in Yr 1 with a ramp-up of only 20% of the target volume, Yr 2 with 40%, Yr 3 with 60%, Yr 4 with 80%, and Years 5-30 with 100%.

The indicators used in the model to analyze the degree of financial feasibility are the Net Present Value (NPV) and the Internal Rate of Return (IRR). The financial model considers all cash flows at the end of each year over a 30-year analysis period. The capital structure is assumed to be **50% equity** and **50% debt**. The **cost of equity** is considered at **15%**, based on rates a private investor would achieve as a strategic player. The **cost of debt** is assumed at **10%** based on recent trends for comparable industry loans.[29] This results in a weighted average cost of capital (WACC) of **13.5%**, which is used as the hurdle rate. Bujanda & Allen expects the WACC hurdle rate to be conservative over the 30-year analysis period.[30]

10.2 Base Case volumes

For containerized freight movements, Bujanda & Allen utilized the Base Case volume forecast scenario. In the opening year, LGCT begins operations with one Asian 13,000 TEU weekly vessel service shifting from the West Coast, capturing 364,000 TEUs. The second year after opening, the 364,000 TEUs just grow with the growth rates for the market in the USGC region. The third year after opening, also grows with the rates for the market in the USGC. The fourth year after opening, LGCT captures one additional Asian 13,000 TEU weekly service shifting from New Orleans to LGCT, capturing an additional 364,000 TEUs. The fourth year we assume Plaquemines Port achieves a steady state of operations with 2 weekly services reaching 773,229 TEUs per year and continue to grow like the overall container market in the USGC, as shown in Figure 100.[31]

Figure 100. Forecast for total container throughput (FEUs): ***Base Case***



[29] Commercial Loan Direct, industrial property loan programs, May 2024: https://www.commercialloandirect.com/warehouse-mortgage-industrial-loans-warehouse-lending.html

[30] As of May 2024, borrowing costs are at the highest level since 2007 due to the 2022 hikes in the federal funds rates. COVID-19 sent the U.S. economy into a recession in February 2020 (before it was declared a pandemic in March 2020). Unemployment rose as high as 14.7% in April 2020—the highest since the Great Depression. Consequently, the Federal Reserve took steps to mitigate the effects by providing fiscal stimulus and relief by increasing the money supply (M2) by 25% from December 2019 (prior to the pandemic) to December 2020, and an additional 14% from December 2020 to April 2022 (when M2 peaked)—a 39% increase in M2 from trough to peak. The unemployment rate was 3.7% as of August 2022. On May 2022, the Federal Reserve started raising rates to combat the high inflation after the 2020 and 2021 fiscal and monetary responses to the COVID-19 pandemic. Once inflation returns to pre-pandemic levels, Bujanda & Allen expects unemployment, the federal funds rates, and consequently borrowing costs will revert to the pre-pandemic, long-run trends.

[31] While the movement of empties are considered in the inbound and outbound equipment balancing equation, we do not consider them as a separate source of revenue for LGCT.

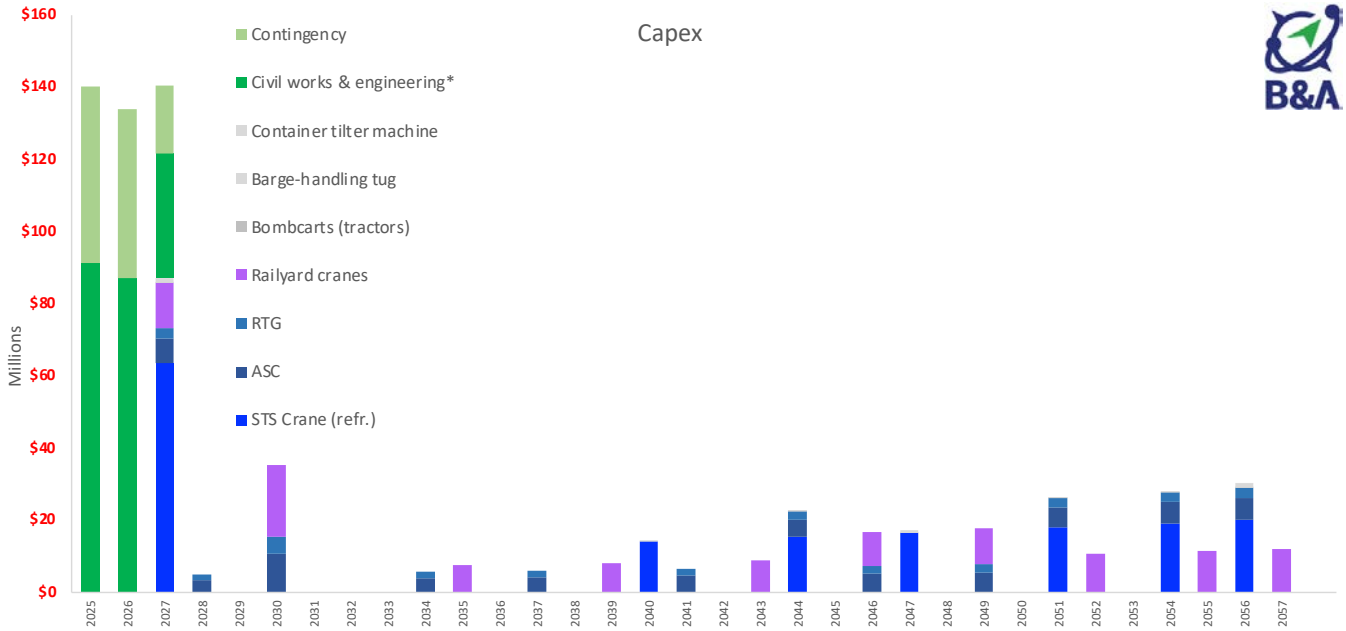
10.3 Capex

Bujanda & Allen developed scenario-based capex calculations utilizing the expected capital costs for the project. Given the size of the project, we assume that initial capex investment will start taking place three years before opening to the public (on year 1). Indicative capex are organized by construction and equipment capex for each of the following business segments:

- **Container**—Related to the infrastructure needed to construct a dock and cargo laydown area where cranes move containers between the landside and the waterside. This assumes 6 STS Cranes repurposed from the USWC, including a container spreader bar and installation and delivery.
- **Container Handling Equipment (CHE)**—For the 30 year forecasting period our model assumes a total of 15 ASC, 15 RTG, 4 used barge-handling tugs, and 6 container tilter machines to stuff containers on-site. The model assumes investments for container handling equipment take place based on the expected demand for future years. Capex related to *handling equipment* consider only the minimum necessary to handle expected volumes.
- **Civil works & engineering (dock, laydown, & rail yard)**. The model assumes investments on a basic laydown area of 75 acres considered to work containers and ancillary breakbulk cargo.
- **Contingency**—assumes 35% of the budget.

A summary for the startup capex modeled is shown in Figure 101. The net present value (NPV) of the capex over the 30-year analysis period, used as inputs in the benefit-cost analysis (BCA), are shown in Figure 101.

Figure 101. LGCT capex: contingency, civil works, engineering (dock, laydown, & rail yard) and equipment.



Source: Bujanda & Allen with data from a global ocean terminal operator, 2024.

Table 8. NPV of 30 years of capex: inputs for the benefit-cost analysis

Inputs for BCA Model	Disc. Rate	NPV ($)
NPV of capex (Yr0 $)	0%	702,522,463
Discounted at:	3%	547,523,078
Discounted at:	7%	442,348,596

Source: Bujanda & Allen with data from a global ocean terminal operator, 2024. This table is to feed the benefit-cost analysis model.

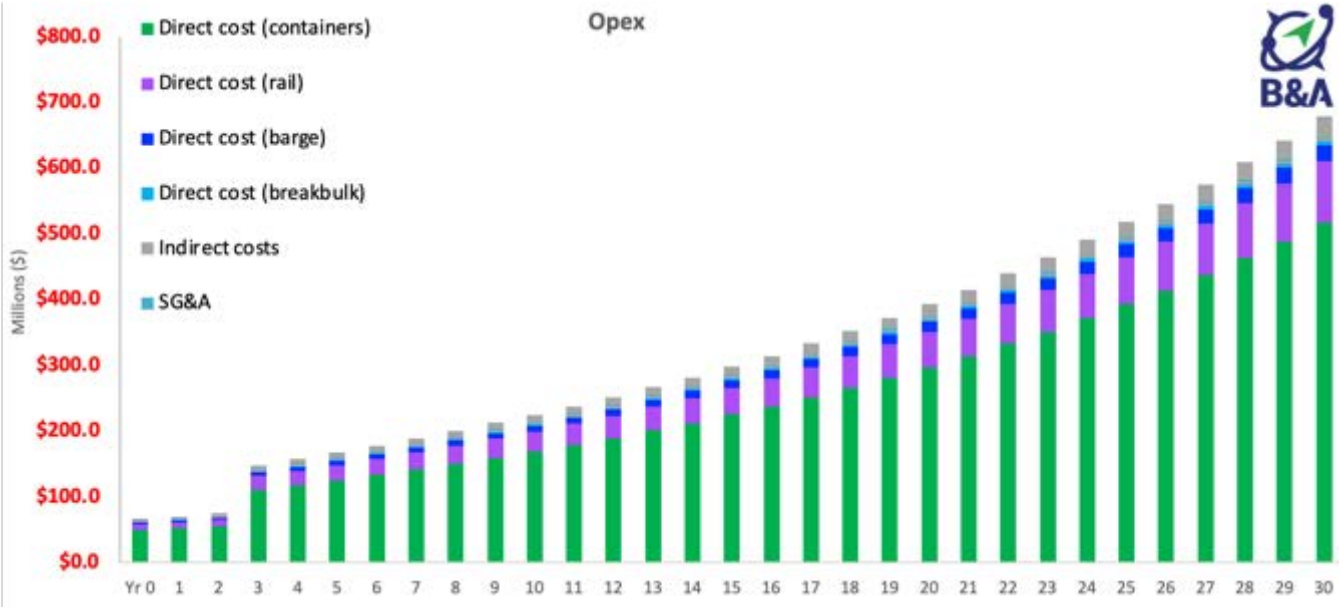
10.4 Opex

We assumed operating expenses (opex) typical for a global OTO for the operation. Opex costs are modelled to start in Year 1, after construction has been finished, the facility opens to the public, and traffic volumes have started to flow thru the facility. Opex are grouped in three main categories based on their operational characteristics:

(i) Direct costs
(ii) Indirect costs, and
(iii) Selling, General, and Administrative (SG&A).

Variable expenses are calculated as a function of the expected volume for each of the cargo types and business segments analyzed (i.e. containers, breakbulk, railroad, barge, and ancillary services for each mode). Fixed expenses include indirect/overhead and SG&A and are only adjusted for inflationary changes. A summary of the opex breakdown by category is provided in Figure 102, and each category detailed in the following sections.

Figure 102. Opex breakdown by category (million, $)



Source: Bujanda & Allen with data from a global ocean terminal operator, 2024.

Direct costs

We considered variable labor costs based on operational (activities) similarities: (i) mechanics, and (ii) stevedoring gangs, related to the movement of containers and breakbulk cargoes. Gangs are assumed to work based on the volume of cargo received for each type of cargo flow. The model utilizes a cost per unit (ton or container) calculation as it is assumed that the labor for container receiving and delivering can also be utilized for transloading services as the volumes for the barge operation would not necessitate a full-time employee for either operation. The composition of the gangs for bulk and container receiving and transloading along with the associated cost is shown in Table 9.

Table 9. Composition of specialized labor assumed for container and transload operations (variable cost)

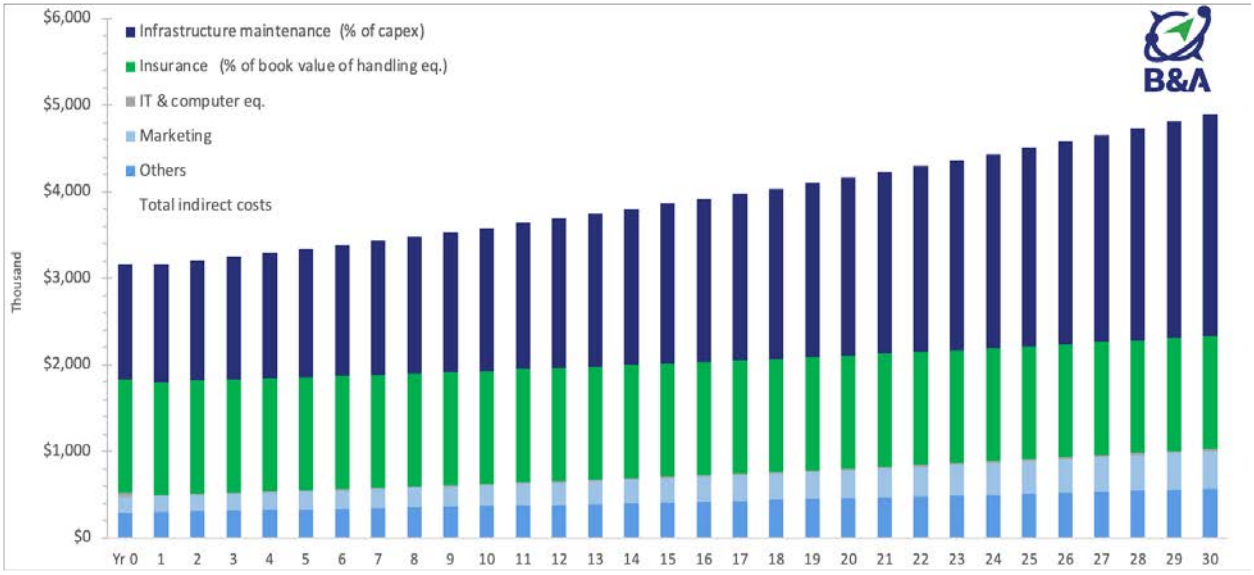
Activity table:	Volume driver	Productivity	Person Req.	Lab-hr/unit	$/Lab-hr	Labor cost$/Unit
Container						
Crane operator	Total containers	28	**8**	0.29	$62	**$18.0**
Checker	Total containers	28	**10**	0.36	$44	**$15.8**
Lasher/Barge Men	Total containers	28	**16**	0.58	$44	**$25.5**
Dock man	Total containers	28	**16**	0.58	$44	**$25.5**
Top-loaders	Total containers	28	**48**	1.72	$62	**$106.6**
Drivers	Total containers	28	**12**	0.43	$44	**$18.9**
Total container stevedoring gang	Total containers		**124**		**$54**	**$210.4**
Rail yard gang composition						
Rail crane operator	Rail containers	22	**12**	0.55	$62	**$34.1**
Checker	Rail containers	22	**9**	0.41	$44	**$18.0**
Total rail yard gang	Rail containers		**21**		**$54**	**$52.1**
Barge gang composition						
Crane operator	Barge containers	28	**2**	0.08	$62	**$5.0**
Checker	Barge containers	28	**1**	0.04	$44	**$1.8**
Lasher/Barge Men	Barge containers	28	**2**	0.08	$44	**$3.5**
Dock man	Barge containers	28	**2**	0.08	$44	**$3.5**
Top-loaders	Barge containers	28	**1**	0.04	$62	**$2.5**
Drivers	Barge containers	28	**4**	0.15	$62	**$9.3**
Total barge stevedoring gang	Barge containers		**12**		**$55**	**$25.5**
Container stuffing						
Toploader/forklift driver	Total containers	13	**1**	0.08	$62	**$4.8**
Utility	Total containers	13	**1**	0.08	$44	**$3.4**
Total transloading			**2**		**$53**	**$8.2**
Breakbulk						
Total gang	Breakbulk tonnage	120	**18**	0.15	$54	**$8.1**
Total break bulkreceive/deliver	Breakbulk tonnage		**18**		**$54**	**$8.1**

Source: Bujanda & Allen LLC, 2024.

Indirect/overhead and SG&A costs

- **Indirect/overhead**. Indirect and overhead expenses are assumed to be driven by staffing levels and costs. Once estimated for the operation, these costs are only expected to grow at the rate of inflation. Further explanation of the main indirect and overhead cost components is provided in the following bullets:
  - *Infrastructure maintenance*—considered as a 5% of the initial capex beginning in year 1.
  - *Insurance*—considered as a 1.5% of the book value of the cargo handling equipment.
  - *IT & computer equipment*—included minimal costs per employee for hardware and software.
  - *Marketing* – There is a small budget for additional marketing for this new COB operation.
  - *Other expenses*—assumed to be driven as a function of the number of professional staff, which remain fixed, and are composed of *General Business Expenses* (supplies, postage, communications, etc) and *Miscellaneous Overhead (*safety equip., tools, etc).

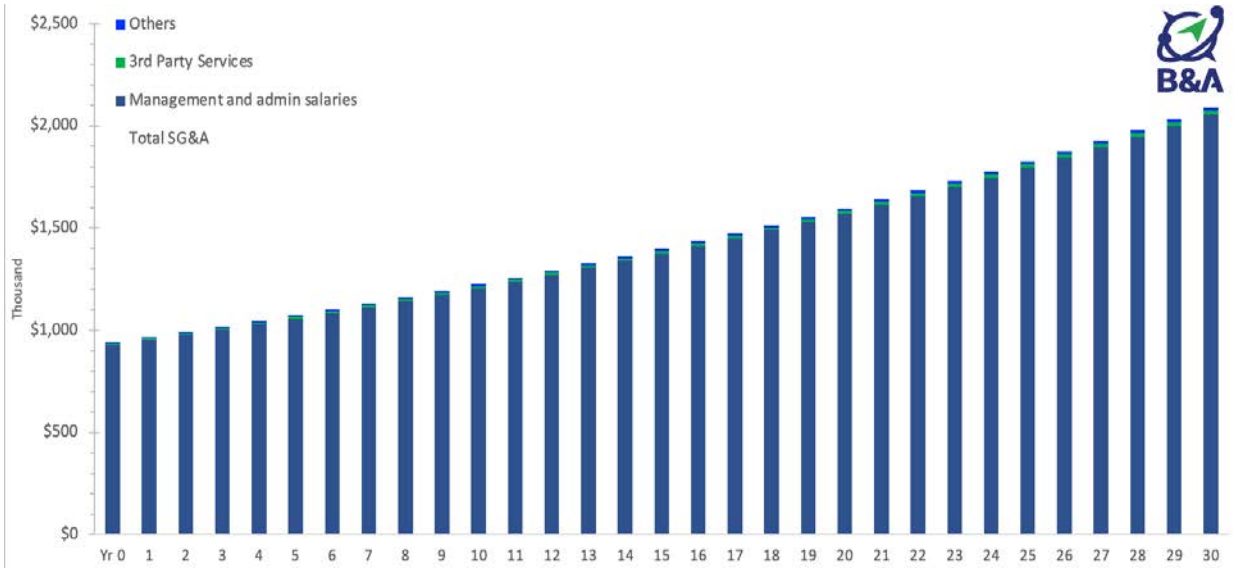
Figure 103. Indirect/overhead costs



Source: Bujanda & Allen LLC, 2024.

- **Selling, General Management, and Admin salaries (SG&A).** Salaries and overhead expenses are assumed to be driven by staffing levels and costs. In the early stage of the project, management and administrative staff is assumed to consist of:
  - Terminal manager
  - Operations manager
  - Maintenance manager
  - Intermodal rail manager
  - Safety manager
  - Finance manager
  - Office Admin
  - Maintenance staff and similar team members.

Figure 104. Selling, general management, and admin salaries (SG&A)



Source: Bujanda & Allen LLC, 2024.

Table 10. NPV of 30 years of opex: inputs for the benefit-cost analysis

Inputs for BCA Model	Disc. Rate	NPV ($)
NPV of opex (in Yr0 $)	0%	10,183,803,699
Discounted at:	3%	5,703,609,024
Discounted at:	7%	2,960,181,125

Source: Bujanda & Allen with data from a global ocean terminal operator, 2024. This table is to feed the benefit-cost analysis model.

11. LGCT Project benefit-cost analysis

This section describes the Benefit-Cost Analysis (BCA) for Plaquemines LGCT Project. Benefits elements include operating public advantages, such as lower freight transportation costs (route efficiency), lower emissions, safety and accident reduction, and repair savings. Cost elements include operational costs, maintenance costs for the facility, and capital costs for construction and equipment. The next sections explore each of these benefits and costs, as well as the underlying assumptions and modeling results, such as B/C ratios.

11.1 General assumptions

11.1.1 BCA framework

Our BCA methodology systematically identifies, measures, and analyzes the monetized dollar value of the benefits and costs anticipated to result from the project in accordance with the standards and principles set forth by the USDOT and MARAD.

- *Port Planning and Investment Toolkit: Marine Highway Projects Module (PP&IT)*. U.S. Department of Transportation, MARAD, and AAPA, August 2020.[32]
- *Benefit Cost Analysis (BCA) Guidance for Discretionary Grant Programs*. Office of the Secretary U.S. Department of Transportation, March 2022.[33]

Based on these guidelines, the first step of our BCA was to verify that the goals of the project are aligned with the strategic goals of MARAD's Marine Highway Program. The second step analyzed the financial feasibility to implement barge and rail service in a commercial manner (*Section 11.1.2*). The third step involved gathering the data inputs to quantify project benefits from the sources recommended by the USDOT and MARAD. These variables in combination with the costs savings derived from the traffic volumes that divert to barge comprise the benefits module of our model, which is the fourth step of our approach. These benefits are broken down into the following: freight transportation, freight emissions, safety, and state of good repair, as explained next:

- **Freight transportation cost savings (route cost savings)**—This benefit captures the cost savings from transporting goods over the proposed barge route via the LGCT Marine Highway as opposed to the incumbent routes via railroad to/from the major gateway ports. Benefits are calculated by multiplying freight volumes over each route by their corresponding unit cost for each mode and route (i.e. FEU x $/FEU for containers and MT x $/MT for non-containerized for ocean, rail, truck, and barge). The transportation costs for the incumbent routes (without project) minus the costs via the LGCT marine highway (with project) capture the net reduction in freight transportation costs (i.e. the net benefits).
- **Carbon emissions**—This category of project benefits captures the net savings in carbon (CO2) emissions resulting from ton-miles saved due to freight diversion from the incumbent routes (truck + rail) to the marine highway service (truck + barge) alternative.
- **Non-carbon emissions**—This category include damage costs associated with hydrocarbons and volatile organic compounds (VOC), nitrogen oxides (NOx), and particulate matter (PM) emissions resulting from ton-miles saved due to freight diversion from the incumbent routes (truck + rail) to the barge service (truck + barge) alternative.

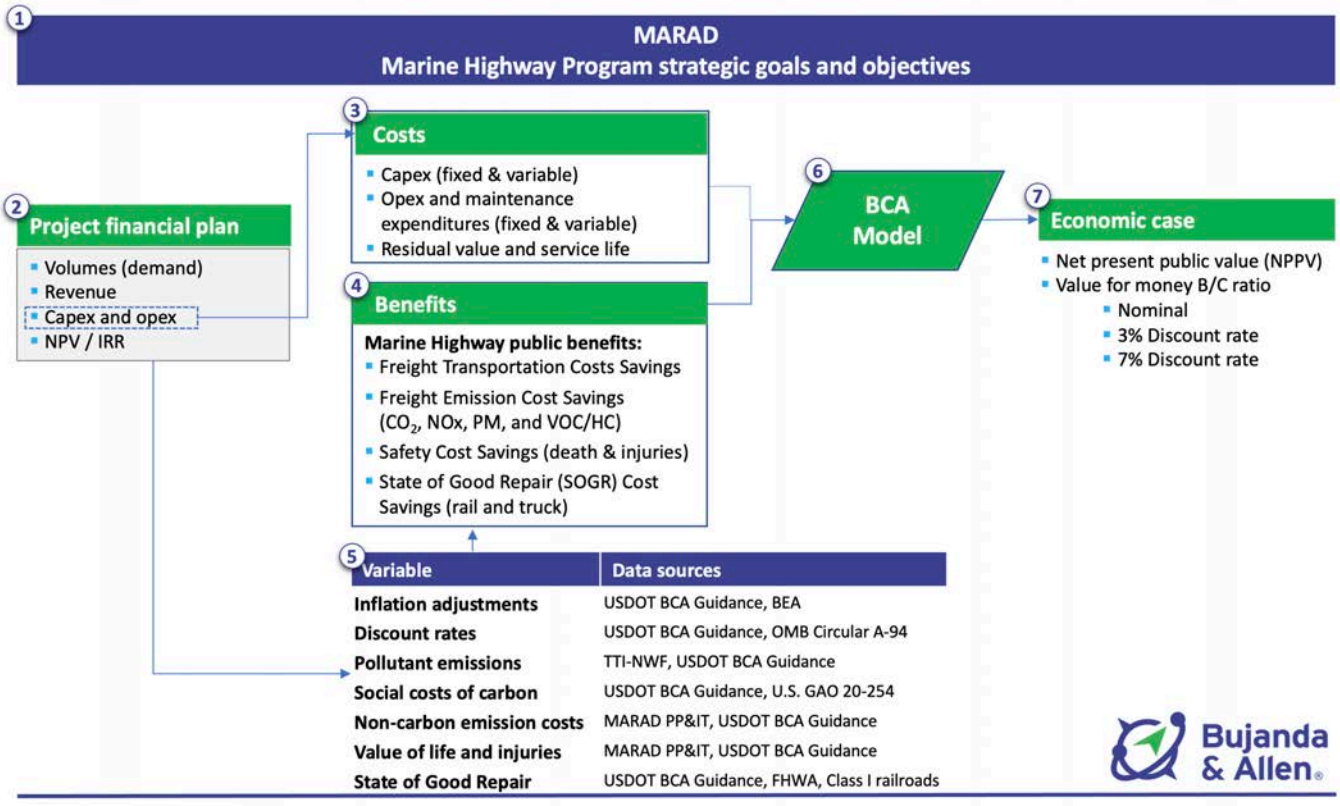
[32] *Port Planning and Investment Toolkit: Marine Highway Projects Module (PP&IT)*. U.S. Department of Transportation, MARAD, and AAPA, August 2020 (updated October 7, 2020), available online at: https://www.maritime.dot.gov/grants-finances/marine-highways/port-planning-and-investment-toolkit-marine-highway-projects-module.

[33] *Benefit Cost Analysis (BCA) Guidance for Discretionary Grant Programs*. Office of the Secretary U.S. Department of Transportation, March 2020 (updated December 5, 2023), available online at: https://www.transportation.gov/mission/office-secretary/office-policy/transportation-policy/benefit-cost-analysis-guidance

- **Safety**—This category of project benefits captures the net savings in traffic crash costs resulting from ton-miles saved due to freight diversion from the incumbent routes (truck + rail) to the marine highway service (truck + barge) alternative.
- **State of good repair**—This benefit category captures the net savings in pavement and rail track maintenance costs resulting from ton-miles saved due to freight diversion from the incumbent routes (truck + rail) to the marine highway service (truck + barge) alternative.

The model calculates costs based on the incumbent routes (without project) and cost savings derived from the volume of freight diverted from rail to barge (with project) and the mileage associated with each route and mode. Capex and opex from the project financial model are incorporated into the BCA Model. For our last step, the BCA Model estimates the net present public value (NPPV) and benefit/cost ratios (B/C). When the B/C ratio is greater than one, viability for the economic case is confirmed (i.e. the public benefits and societal value from the project are greater than its costs). The BCA framework applied to the LGCT project is shown in Figure 105.

Figure 105. Benefit-cost analysis framework for Louisiana Gateway Container Terminal project



Source: Bujanda & Allen LLC, 2024.

11.1.2 Project financial plan

Bujanda & Allen constructed a financial model incorporating the outputs of the market demand projections for the LGCT project, capex, opex, and potential rates to analyze the financial viability of the project from a private investor perspective. Indicative quotes and estimates were obtained from an ocean terminal operator and potential investor. A detailed description of the project financial plan is included in *Section 10*. The capex and opex components that cover our BCA Model are explained next.

Capex

Bujanda & Allen developed scenario-based capex calculations utilizing the initial capital costs provided by an ocean terminal operator (*Section 10.3.1*). Given the size of the investment, it is reasonable to assume that the project will be constructed three phases; hence, initial capex costs are modeled to occur in the three years prior to the terminal opening. Capex related to *handling equipment* consider the necessary to handle the expected

volumes for each business segment. Capex related to *construction and civil works* consider the necessary for the business to operate. Based on the Base Case scenario for containers, the indicative total capex for the 30 years is **$702.5 million**. These are discounted at the **3%** and **7%** for the BCA per USDOT guidelines, shown in Table 11.

Opex

Bujanda & Allen assumed operating expenses necessary for the operation of a terminal of comparable size and volume. Opex are modelled to begin on year 1, which is when construction has completed, the facility opens to the public, and traffic volumes begin. Opex are grouped in three main categories according to their operational characteristics:

(i) Direct costs for containers
(ii) Indirect costs
(iii) Selling, General and Administrative (SG&A)

Variable expenses are calculated as a function of the expected volume for the container flows and transloading—labeled as direct costs for containers. Fixed expenses include indirect/overhead and SG&A and are only adjusted for inflationary changes. Based on the Base Case volumes, our model indicated **$10.18 billion** in total opex for the 30-year period, which are discounted at the 3% and 7%, as illustrated in Table 11.

Table 11. LGCT project capex and opex net present value at different discount rates.

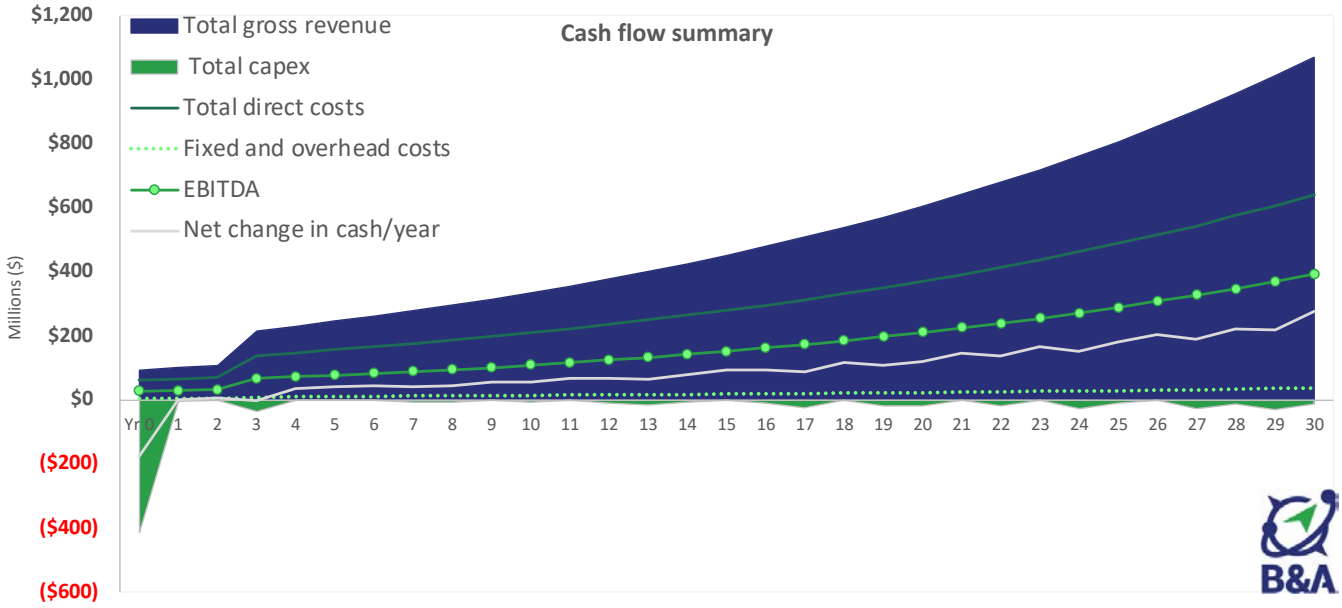
Inputs for the BCA Model	Discount rate	Capex ($)	Opex ($)
Net present value (in Yr 0 $)	0%	702,522,463	10,183,803,699
Discounted at:	3%	547,523,078	5,703,609,024
Discounted at:	7%	442,348,596	2,960,181,125

Source: Bujanda & Allen LLC, 2024.

Project financial plan summary

The business model considers the project operates primarily as a container terminal, with ancillary revenues from sporadic breakbulk following a similar business model to Mobile, AL. A cash flow statement summary along with other financial indicators is shown in Figure 106.

Figure 106. Project cash flow summary ($000s)



Source: Bujanda & Allen LLC, 2024.

11.2 Freight transportation cost savings

Bujanda & Allen computed the route costs for containerized goods by mode—ocean, truck, rail, and barge—and then compared them to the routes that freight would take via LGCT. Once cost inputs were calculated for every cost component of each route, all costs were converted to dollars per FEUs ($/FEU) for containers and ($/MT) breakbulk cargo, and multiplied times the estimated divertible volume (in FEUs and MTs respectively) for each tradelane and gateway combination. The net reduction in freight transportation costs due to the displacement of railcars vs the marine highway alternative is captured by subtracting the total route costs for the existing routes (without project) from the total route costs via LGCT marine highway routes (with project).

The values and key inputs and sources used in estimation of this benefit category include:

- Freight transportation costs ($/FEU and $/MT) per mode involved (truck, rail, barge) for each route.
- Freight volume ($/FEU and $/MT) diverted to the marine highway via LGCT.
- Truck, rail, and barge payload factors to convert MT to FEUs.

Total net savings in freight transportation costs resulting from the LGCT Project over the 30-year analysis period, account for $11.89 billion (in Yr 0 $), equivalent to $6.72 billion in benefits at a 3% discount rate, and to $3.47 billion at a 7% discount rate, as illustrated in Table 12.

Table 12. Freight transportation cost benefits from the LGCT project.

		Total freight transportation cost savings (in 2024$, thousands)			NPV of TOTAL freight transportation cost savings ($000)*	
Year	Calendar year	Imports	Exports	TOTAL	3.0%	7.0%
0	2024	$ -	$ -	$ -	$ -	$ -
1	2025	$ -	$ -	$ -	$ -	$ -
2	2026	$ -	$ -	$ -	$ -	$ -
3	2027	$ -	$ -	$ -	$ -	$ -
4	2028	$ 134,969	$ 62,717	$ 197,686	$ 175,641	$ 150,814
5	2029	$ 142,932	$ 66,417	$ 209,348	$ 180,586	$ 149,263
6	2030	$ 151,294	$ 70,302	$ 221,596	$ 185,584	$ 147,659
7	2031	$ 160,100	$ 74,394	$ 234,494	$ 190,665	$ 146,031
8	2032	$ 169,371	$ 78,702	$ 248,073	$ 195,831	$ 144,381
9	2033	$ 179,129	$ 83,237	$ 262,366	$ 201,081	$ 142,709
10	2034	$ 189,398	$ 88,008	$ 277,406	$ 206,416	$ 141,019
11	2035	$ 200,197	$ 93,027	$ 293,224	$ 211,831	$ 139,309
12	2036	$ 211,557	$ 98,305	$ 309,862	$ 217,331	$ 137,582
13	2037	$ 223,503	$ 103,856	$ 327,360	$ 222,916	$ 135,843
14	2038	$ 236,066	$ 109,694	$ 345,760	$ 228,588	$ 134,092
15	2039	$ 249,274	$ 115,831	$ 365,106	$ 234,348	$ 132,331
16	2040	$ 263,160	$ 122,284	$ 385,444	$ 240,196	$ 130,563
17	2041	$ 277,755	$ 129,066	$ 406,821	$ 246,134	$ 128,789
18	2042	$ 293,095	$ 136,194	$ 429,289	$ 252,162	$ 127,011
19	2043	$ 309,215	$ 143,684	$ 452,899	$ 258,282	$ 125,230
20	2044	$ 326,152	$ 151,555	$ 477,707	$ 264,495	$ 123,448
21	2045	$ 343,947	$ 159,823	$ 503,770	$ 270,801	$ 121,667
22	2046	$ 362,639	$ 168,509	$ 531,148	$ 277,202	$ 119,887
23	2047	$ 382,273	$ 177,632	$ 559,905	$ 283,699	$ 118,110
24	2048	$ 402,893	$ 187,214	$ 590,107	$ 290,294	$ 116,338
25	2049	$ 424,547	$ 197,276	$ 621,823	$ 296,986	$ 114,570
26	2050	$ 447,364	$ 207,879	$ 655,243	$ 303,833	$ 112,830
27	2051	$ 471,408	$ 219,051	$ 690,459	$ 310,837	$ 111,116
28	2052	$ 496,744	$ 230,824	$ 727,568	$ 318,003	$ 109,428
29	2053	$ 523,441	$ 243,230	$ 766,671	$ 325,334	$ 107,765
30	2054	$ 551,574	$ 256,302	$ 807,876	$ 332,834	$ 106,128
Totals cumm.	$000	$ 8,123,996	$ 3,775,013	$ 11,899,009	$ 6,721,909	$ 3,473,914

*NPV= TOTAL / (1+Disc. Rate)^Yr

Source: Bujanda & Allen LLC, 2024.

11.3 Freight emissions cost savings

This category of project benefits captures the net savings in carbon (CO_2) and non-carbon emission damage costs resulting from ton-miles saved due to freight diversion from the incumbent routes (truck + rail) to the COB service (truck + barge) alternative. Non-carbon emissions include Sulfur Oxide (SOx), nitrogen oxides (NOx), and particulate matter (PM).

To estimate this benefit, the first step involved multiplying ton-miles for each component of the incumbent routes (truck + rail) times the freight emission rates for each mode, as shown in Table 13. Next, the freight emissions were multiplied by the damage costs per unit for each non-carbon air pollutants, as shown in Table 14. The same process was repeated for the COB service (truck + barge) alternative, but accounting instead for the barge emission rates and corresponding ton-miles. The total route costs for the key incumbent routes minus the total route costs via LGCT routes capture the net reduction in non-carbon emission costs from displacing railcars versus the marine highway alternative. This estimation involved converting grams to MT for the non-carbon emissions (i.e. SOx, NOx, and PM) and updating the non-carbon emission damage costs from 2018$ to 2024$ using the GDP deflator, as recommended by the guidelines.[34]

Table 13. Freight emission rates by mode (grams / ton-mi).

Emission rates by mode	Units	Non-carbon SOx	Non-carbon NOx	Non-carbon PM	Carbon CO2
Inland tow (Barge)	gr / ton-mi	0.0094	0.2087	0.0056	15.62
Railroad	gr / ton-mi	0.0128	0.2830	0.0108	21.19
Truck	gr / ton-mi	0.0800	0.9400	0.0500	154.08

Table 14. Non-carbon emission damage costs (converted to 2020 $ / MT).

Non-carbon emission costs	$ / ton 2024	$ / MT 2024
SOx	$53,800	$59,100
NOx	$20,100	$22,100
PM	$963,200	$1,059,500

Source: USDOT Benefit-Cost Analysis (BCA) Guidance for Discretionary Grants, Dec 2023, Table A6, pg.33.

Regarding the social cost of carbon (SCC) dioxide (CO_2) emissions, a similar process was followed but utilizing instead the SCC emission costs per unit. Once the ton-miles for each component of the incumbent routes (truck + rail) times the freight emission rates for each mode, as shown in Table 13, were calculated, the freight emissions were multiplied by the unit emission damage costs for the SCC, as seen in Table 15. The total route costs for the key incumbent routes minus the total route costs via LGCT marine routes capture the net reduction in CO_2 emission costs from displacing railcars versus the marine highway alternative. This estimation involved converting grams to short-tons for the CO_2 emissions.

Table 15. Social cost of carbon (SCC) emissions (in 2020 $ / MT).

Social Cost of Carbon Emissions (SCC CO2)		2020	2025	2030	2035	2040	2045	2050
Current Approach: 2018 ACE Rule (in 2018 dollars)								
3.0% Discount Rate	$/MT	$ 7.00	$ 7.00	$ 8.00	$ 9.00	$ 9.00	$ 10.00	$ 10.00
7.0% Discount Rate	$/MT	$ 1.00	$ 1.00	$ 1.00	$ 2.00	$ 2.00	$ 2.00	$ 2.00
Current Approach: 2018 ACE Rule (in 2020 dollars)								
3.0% Discount Rate	$/MT	$ 7.19	$ 7.19	$ 8.22	$ 9.24	$ 9.24	$ 10.27	$ 10.27
7.0% Discount Rate	$/MT	$ 1.03	$ 1.03	$ 1.03	$ 2.05	$ 2.05	$ 2.05	$ 2.05

Sources: U.S. GAO - Social Cost of Carbon, Jun 2020, Fig. 1, pg.16 https://www.gao.gov/assets/710/707871.pdf.
USDOT Benefit-Cost Analysis (BCA) Guidance for Discretionary Grants, Dec 2023, Table A7.

[34] BEA, October 2023. Table 1.1.9. Implicit Price Deflators for Gross Domestic Product.

Non-carbon emissions

Total net savings due to the SCC resulting from the port development project over the 30-year timeframe, account for nearly $100.8 million (in 2024 dollars), equivalent to $57.3 million in benefits at a 3% discount rate, and $29.89 million in benefits at a 7% discount rate, as illustrated in Table 16.

Table 16. Non-carbon emissions (SOx, NOx, PM) cost benefits from the LGCT project.

		Social Cost of Carbon Emissions (SCC) CO2 cost savings (in 2024$, thousands, using 3% SCC)			NPV of TOTAL SCC cost savings ($000)*	
Year	Calendar year	Imports	Exports	TOTAL	3.0%	7.0%
0	2024	$ -	$ -	$ -	$ -	$ -
1	2025	$ -	$ -	$ -	$ -	$ -
2	2026	$ -	$ -	$ -	$ -	$ -
3	2027	$ -	$ -	$ -	$ -	$ -
4	2028	$ 1,195	$ 590	$ 1,785	$ 1,586	$ 1,362
5	2029	$ 1,242	$ 613	$ 1,855	$ 1,600	$ 1,322
6	2030	$ 1,289	$ 636	$ 1,926	$ 1,613	$ 1,283
7	2031	$ 1,339	$ 661	$ 1,999	$ 1,626	$ 1,245
8	2032	$ 1,389	$ 686	$ 2,075	$ 1,638	$ 1,208
9	2033	$ 1,441	$ 711	$ 2,153	$ 1,650	$ 1,171
10	2034	$ 1,709	$ 843	$ 2,552	$ 1,899	$ 1,297
11	2035	$ 1,772	$ 874	$ 2,646	$ 1,912	$ 1,257
12	2036	$ 1,837	$ 907	$ 2,743	$ 1,924	$ 1,218
13	2037	$ 1,903	$ 940	$ 2,843	$ 1,936	$ 1,180
14	2038	$ 1,972	$ 973	$ 2,946	$ 1,947	$ 1,142
15	2039	$ 2,298	$ 1,134	$ 3,433	$ 2,203	$ 1,244
16	2040	$ 2,380	$ 1,175	$ 3,555	$ 2,216	$ 1,204
17	2041	$ 2,465	$ 1,216	$ 3,681	$ 2,227	$ 1,165
18	2042	$ 2,551	$ 1,259	$ 3,811	$ 2,238	$ 1,127
19	2043	$ 2,641	$ 1,303	$ 3,944	$ 2,249	$ 1,090
20	2044	$ 2,732	$ 1,349	$ 4,081	$ 2,259	$ 1,055
21	2045	$ 2,827	$ 1,395	$ 4,222	$ 2,269	$ 1,020
22	2046	$ 2,924	$ 1,443	$ 4,367	$ 2,279	$ 986
23	2047	$ 3,023	$ 1,492	$ 4,515	$ 2,288	$ 953
24	2048	$ 3,126	$ 1,543	$ 4,669	$ 2,297	$ 920
25	2049	$ 3,590	$ 1,772	$ 5,362	$ 2,561	$ 988
26	2050	$ 3,711	$ 1,832	$ 5,543	$ 2,570	$ 955
27	2051	$ 3,836	$ 1,894	$ 5,730	$ 2,580	$ 922
28	2052	$ 3,966	$ 1,957	$ 5,923	$ 2,589	$ 891
29	2053	$ 4,100	$ 2,023	$ 6,123	$ 2,598	$ 861
30	2054	$ 4,238	$ 2,092	$ 6,330	$ 2,608	$ 831
Totals cummulative		**$ 67,497**	**$ 33,315**	**$ 100,811**	**$ 57,362**	**$ 29,898**

*NPV= TOTAL / (1+Disc. Rate)^Yr

Source: Bujanda & Allen LLC, 2024.

Social cost of carbon (SCC) emissions

Total net savings due to the SCC resulting from the port development project over the 30-year timeframe, account for nearly $11.2 billion (in 2024 dollars), equivalent to $6.3 billion in benefits at a 3% discount rate, and $3.7 billion in benefits at a 7% discount rate, as illustrated in Table 17.

Table 17. Social cost of carbon (SCC) emissions cost benefits from the LGCT project.

		Non-carbon emissions (SOx, NOx, PM) cost savings (in 2024$, thousands)			NPV of TOTAL non-carbon cost savings ($000)*	
Year	Calendar year	Imports	Exports	TOTAL	3.0%	7.0%
2024	0	$ -	$ -	$ -	$ -	$ -
2025	1	$ -	$ -	$ -	$ -	$ -
2026	2	$ -	$ -	$ -	$ -	$ -
2027	3	$ -	$ -	$ -	$ -	$ -
2028	4	$ 121,727	$ 64,617	$ 186,344	$ 165,564	$ 147,101
2029	5	$ 128,909	$ 68,429	$ 197,337	$ 170,225	$ 146,837
2030	6	$ 136,450	$ 72,432	$ 208,882	$ 174,936	$ 146,506
2031	7	$ 144,392	$ 76,648	$ 221,040	$ 179,726	$ 146,134
2032	8	$ 152,753	$ 81,086	$ 233,840	$ 184,595	$ 145,721
2033	9	$ 161,554	$ 85,758	$ 247,312	$ 189,544	$ 145,270
2034	10	$ 170,816	$ 90,674	$ 261,490	$ 194,573	$ 144,781
2035	11	$ 180,556	$ 95,845	$ 276,400	$ 199,677	$ 144,251
2036	12	$ 190,801	$ 101,283	$ 292,083	$ 204,861	$ 143,686
2037	13	$ 201,575	$ 107,002	$ 308,577	$ 210,126	$ 143,086
2038	14	$ 212,905	$ 113,017	$ 325,922	$ 215,473	$ 142,453
2039	15	$ 224,818	$ 119,340	$ 344,158	$ 220,902	$ 141,789
2040	16	$ 237,341	$ 125,988	$ 363,329	$ 226,415	$ 141,094
2041	17	$ 250,504	$ 132,975	$ 383,480	$ 232,012	$ 140,371
2042	18	$ 264,339	$ 140,319	$ 404,658	$ 237,694	$ 139,620
2043	19	$ 278,877	$ 148,037	$ 426,914	$ 243,463	$ 138,844
2044	20	$ 294,153	$ 156,145	$ 450,298	$ 249,319	$ 138,042
2045	21	$ 310,201	$ 164,665	$ 474,866	$ 255,264	$ 137,217
2046	22	$ 327,060	$ 173,614	$ 500,674	$ 261,298	$ 136,369
2047	23	$ 344,768	$ 183,013	$ 527,781	$ 267,422	$ 135,501
2048	24	$ 363,365	$ 192,885	$ 556,250	$ 273,638	$ 134,612
2049	25	$ 382,894	$ 203,252	$ 586,146	$ 279,946	$ 133,704
2050	26	$ 403,473	$ 214,176	$ 617,648	$ 286,400	$ 132,802
2051	27	$ 425,157	$ 225,687	$ 650,844	$ 293,003	$ 131,907
2052	28	$ 448,007	$ 237,816	$ 685,824	$ 299,758	$ 131,017
2053	29	$ 472,086	$ 250,598	$ 722,683	$ 306,668	$ 130,133
2054	30	$ 497,458	$ 264,066	$ 761,524	$ 313,738	$ 129,256
Totals cummulative		**$ 7,326,939**	**$ 3,889,366**	**$ 11,216,305**	**$ 6,336,240**	**$ 3,768,103**

*NPV= TOTAL / (1+Disc. Rate)^Yr

Source: Bujanda & Allen LLC, 2024.

11.4 Safety cost savings

This benefit category captures the net savings in traffic crash costs resulting in fatalities or injuries that could potentially result from ton-miles saved due to freight diversion from the incumbent routes (truck + rail) to the proposed COB (truck + barge) alternative via LGCT. The fatality and injury rates assumed for each freight mode and their data sources are shown in Table 18. Rail and truck statistics include incidents involving only vehicular crashes or derailments. Waterborne incidents involve collisions, vessels striking a fixed object, groundings, or capsizings/sinkings. These values account for the average number of fatalities and injuries per fatal crash, as well as the average number of injuries per injury crash.

Table 18. Fatality and injury rates by mode (persons / Million ton-mi).

		Annual Ton-mi	Total fatalities		Total injuries	
Freight mode	Units*	(millions)	Avg annual	Rate*	Avg annual	Rate*
Barge	pers / M ton-mi	272,600	6	0.000022	16	0.000059
Railroad	pers / M ton-mi	1,677,800	807	0.000481	7,962	0.004746
Truck	pers / M ton-mi	2,552,197	4,452	0.001744	104,286	0.040861

Source: Modal Comparison of Domestic Freight Transportation. Prepared for MARAD and NWF by TTI Jan 2017, Tables 13-14, pp. 50-51.
*Rates are per Million ton-miles.

USDOT-recommended values for monetizing fatalities and injuries were used in this analysis. The analysis was conservative and only looked at fatalities (K) and injuries (U). The inclusion of injuries at a more disaggregated level will only show the project as being even more beneficial. The average costs for fatalities and injuries are shown in Table 19. This estimation involved updating the monetized values from 2022$ to 2024$ using the GDP deflator, as recommended by the USDOT guidelines.[35]

Table 19. Average cost of fatalities and injuries ($ / person).

		Monetized Value	Monetized Value
Accident severity	Units	(in 2022$)	(in 2024$)
Fatal accident (K-killed)	$ / person	12,500,000	10,700,000
Severity unknown (U-injured)	$ / person	217,600	180,000

Source: USDOT Benefit-Cost Analysis (BCA) Guidance for Discretionary Grants, Dec 2023, Table A1, pg.30.

Total net savings due to the resulting from the port development project over the 2028-2054 timeframe, account for about $5.4 billion (in Yr 0, dollars), equivalent to $3.0 billion in benefits at a 3% discount rate, and $1.8 billion at a 7% discount rate, as illustrated in Table 20.

[35] BEA, December 2022. Table 1.1.9. Implicit Price Deflators for Gross Domestic Product.

Table 20. Safety cost benefits (fatalities and injuries) from the LGCT project.

		Total safety (K-killed + U-injured) cost savings (in 2024$, thousands)					NPV of TOTAL safety cost savings ($000)*	
Year	Calendar year	Imports		Exports	TOTAL		3.0%	7.0%
2024	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2025	1	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2026	2	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2027	3	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2028	4	$ 58,337	$ -	$ 31,387	$ 89,724	$ 79,719	$ 70,829	
2029	5	$ 61,779	$ -	$ 33,239	$ 95,018	$ 81,963	$ 70,702	
2030	6	$ 65,393	$ -	$ 35,184	$ 100,577	$ 84,231	$ 70,543	
2031	7	$ 69,199	$ -	$ 37,232	$ 106,431	$ 86,538	$ 70,363	
2032	8	$ 73,206	$ -	$ 39,387	$ 112,594	$ 88,883	$ 70,165	
2033	9	$ 77,424	$ -	$ 41,657	$ 119,081	$ 91,266	$ 69,947	
2034	10	$ 81,863	$ -	$ 44,045	$ 125,907	$ 93,687	$ 69,712	
2035	11	$ 86,530	$ -	$ 46,556	$ 133,087	$ 96,145	$ 69,457	
2036	12	$ 91,440	$ -	$ 49,198	$ 140,638	$ 98,641	$ 69,185	
2037	13	$ 96,604	$ -	$ 51,976	$ 148,580	$ 101,176	$ 68,896	
2038	14	$ 102,034	$ -	$ 54,898	$ 156,931	$ 103,750	$ 68,591	
2039	15	$ 107,743	$ -	$ 57,969	$ 165,712	$ 106,364	$ 68,271	
2040	16	$ 113,744	$ -	$ 61,198	$ 174,943	$ 109,019	$ 67,937	
2041	17	$ 120,053	$ -	$ 64,593	$ 184,645	$ 111,714	$ 67,589	
2042	18	$ 126,683	$ -	$ 68,160	$ 194,843	$ 114,450	$ 67,227	
2043	19	$ 133,650	$ -	$ 71,909	$ 205,559	$ 117,227	$ 66,853	
2044	20	$ 140,971	$ -	$ 75,847	$ 216,819	$ 120,047	$ 66,467	
2045	21	$ 148,662	$ -	$ 79,985	$ 228,648	$ 122,909	$ 66,070	
2046	22	$ 156,742	$ -	$ 84,332	$ 241,074	$ 125,815	$ 65,662	
2047	23	$ 165,228	$ -	$ 88,898	$ 254,126	$ 128,764	$ 65,244	
2048	24	$ 174,141	$ -	$ 93,694	$ 267,834	$ 131,757	$ 64,816	
2049	25	$ 183,500	$ -	$ 98,729	$ 282,229	$ 134,794	$ 64,378	
2050	26	$ 193,362	$ -	$ 104,035	$ 297,397	$ 137,902	$ 63,944	
2051	27	$ 203,754	$ -	$ 109,627	$ 313,381	$ 141,081	$ 63,513	
2052	28	$ 214,705	$ -	$ 115,519	$ 330,224	$ 144,333	$ 63,085	
2053	29	$ 226,244	$ -	$ 121,727	$ 347,972	$ 147,661	$ 62,659	
2054	30	$ 238,404	$ -	$ 128,270	$ 366,674	$ 151,065	$ 62,237	
Totals cummulative		**$ 3,511,396**	**$ -**	**$ 1,889,251**	**$ 5,400,647**	**$ 3,050,898**	**$ 1,814,340**	

*NPV= TOTAL / (1+Disc. Rate)^Yr

Source: Bujanda & Allen LLC, 2024.

11.5 State of good repair cost savings

This benefit category captures the net savings in landside freight infrastructure maintenance that could potentially result from ton-miles saved due to freight diversion from the incumbent routes (truck + rail) to the proposed alternative via LGCT (truck + barge). Over the course of the 30-year forecast period, over 17 million FEUs and potentially 7 million MT will be removed from the highways and railways into barge. This reduction will directly reduce the impact that trucks have on the condition of the roadway pavement, and railroads will also enjoy a lower generalized maintenance cost.

The cost of pavement maintenance was estimated per truck-mile and is estimated by multiplying the total number of reduced truck miles traveled by the annual cost savings in pavement maintenance due to diversion. We assumed diverted truck loads are split 10%/90% for 60 kip and 80 kip loads respectively, and diverted miles are 35% urban / 65% rural, as recommended by the guidelines. Estimates used to monetize benefits are based on FHWA's Federal Cost Allocation Study from 1997.[36] This estimation involved updating the monetized values

[36] 1997 Federal Highway Cost Allocation Study, Final Report. FHWA, May 2000, Table 13.

from 2003$ to 2024$ using the GDP deflator, as recommended by the USDOT guidelines.[37] This resulted on $0.20/truck-mi, which when converted to ton-miles resulted in $0.012/ton-mi for import trucks and $0.008/ton-mi for export trucks (using the corresponding payload factors of 15 MT/FEU for imports and 24 MT/FEU for exports assumed in *Section 4*).

Regarding railroads, M&R Way & Structures expenditures and their corresponding ton-miles of operation were obtained from the Class I financials submitted to the Surface Transportation Board (STB). Based on these data, an average expenditure of $0.0025/ton-mile for maintenance and repair of way and structures was estimated. A conservative generalized cost savings of $0.0008/ton-mile was used for the analysis. Any additional savings will only add to the overall benefit of the project.

Regarding railroads, M&R Way & Structures expenditures and their corresponding ton-miles of operation were obtained from the Class I financials submitted to the STB. Based on these data, an average expenditure of $0.0025/ton-mile for maintenance and repair of way and structures was estimated. A conservative generalized cost savings of $0.0008/ton-mile was used for the analysis, which is about half of the lowest value reported by a Class I railroad. Any additional savings will only add to the overall benefit of the project. Lastly, the state of good repair costs were estimated for the incumbent routes (truck + rail) and for the proposed alternative via LGCT (truck + barge) and the difference estimated to compute the net benefits, as shown in Table 21.

[37] BEA, December 2022. Table 1.1.9. Implicit Price Deflators for Gross Domestic Product.

Table 21. State of good repair cost benefits from the LGCT project.

		Surface maint. (state of good repair) cost savings (in 2024$, thousands)			NPV of Surface maint. (SOGR) cost savings ($000)*	
Year	Calendar year	Imports	Exports	TOTAL	3.0%	7.0%
0	2024	$ -	$ -	$ -	$ -	$ -
1	2025	$ -	$ -	$ -	$ -	$ -
2	2026	$ -	$ -	$ -	$ -	$ -
3	2027	$ -	$ -	$ -	$ -	$ -
4	2028	$ 16,394	$ 5,485	$ 21,879	$ 19,439	$ 16,691
5	2029	$ 17,029	$ 5,698	$ 22,727	$ 19,605	$ 16,204
6	2030	$ 17,684	$ 5,917	$ 23,600	$ 19,765	$ 15,726
7	2031	$ 18,358	$ 6,142	$ 24,500	$ 19,921	$ 15,257
8	2032	$ 19,052	$ 6,375	$ 25,426	$ 20,072	$ 14,798
9	2033	$ 19,766	$ 6,614	$ 26,380	$ 20,218	$ 14,349
10	2034	$ 20,502	$ 6,860	$ 27,362	$ 20,360	$ 13,909
11	2035	$ 21,259	$ 7,113	$ 28,372	$ 20,497	$ 13,479
12	2036	$ 22,038	$ 7,374	$ 29,412	$ 20,629	$ 13,059
13	2037	$ 22,841	$ 7,642	$ 30,483	$ 20,757	$ 12,649
14	2038	$ 23,666	$ 7,919	$ 31,585	$ 20,881	$ 12,249
15	2039	$ 24,515	$ 8,203	$ 32,718	$ 21,001	$ 11,859
16	2040	$ 25,389	$ 8,495	$ 33,884	$ 21,116	$ 11,478
17	2041	$ 26,288	$ 8,796	$ 35,084	$ 21,227	$ 11,107
18	2042	$ 27,213	$ 9,105	$ 36,318	$ 21,333	$ 10,745
19	2043	$ 28,164	$ 9,424	$ 37,588	$ 21,436	$ 10,393
20	2044	$ 29,142	$ 9,751	$ 38,893	$ 21,534	$ 10,051
21	2045	$ 30,149	$ 10,088	$ 40,236	$ 21,629	$ 9,718
22	2046	$ 31,183	$ 10,434	$ 41,617	$ 21,719	$ 9,393
23	2047	$ 32,247	$ 10,790	$ 43,036	$ 21,806	$ 9,078
24	2048	$ 33,340	$ 11,156	$ 44,496	$ 21,889	$ 8,772
25	2049	$ 34,465	$ 11,532	$ 45,997	$ 21,968	$ 8,475
26	2050	$ 35,627	$ 11,921	$ 47,548	$ 22,048	$ 8,188
27	2051	$ 36,829	$ 12,323	$ 49,151	$ 22,127	$ 7,910
28	2052	$ 38,071	$ 12,738	$ 50,809	$ 22,207	$ 7,642
29	2053	$ 39,354	$ 13,168	$ 52,522	$ 22,288	$ 7,383
30	2054	$ 40,682	$ 13,612	$ 54,294	$ 22,368	$ 7,132
Totals cummulative		**$ 731,246**	**$ 244,672**	**$ 975,918**	**$ 569,840**	**$ 307,696**

*NPV= TOTAL / (1+Disc. Rate)^Yr

Source: Bujanda & Allen LLC, 2024.

11.6 Net present public value (NPPV) and benefit/cost ratios (B/C)

The analysis quantifies the expected economic benefits generated by the potential rail-to-barge freight diversion in terms of reduced pavement maintenance cost and net reductions in freight operating costs, emissions and accidents arising from transporting goods via barge as opposed to truck or railroad carrier. Table 22 summarizes the benefit-cost analysis findings for the LGCT project. Annual costs and benefits are computed over the lifecycle of the project (30 years).

The project has a B/C ratio of **2.7** using 2024$ (Yr 0$) and at a real discount rate of rate of 3%. At a real discount rate of 7%, the B/C ratio of the project is **2.8**. In any case, findings from the BCA demonstrate that there are significant long-term economic benefits associated with the project, primarily associated with potential savings in the number of fatalities and injuries, non-carbon emissions, and freight transportation cost savings. These savings would be generated by transporting goods over the proposed barge route via LGCT (with project) as opposed to the incumbent routes via railroad (without project) to/from the major import/export gateway ports, as has been demonstrated throughout this report.

Table 22. Summary of Benefit-Cost Analysis

Description	USDOT categories	2024 $ (Yr0 $)	Discount rate	Discount rate
Project benefits		0%	3%	7%
Freight transportation cost savings	1.EconComp.	$ 11,899,009	$ 6,721,909	$ 3,473,914
Social cost of carbon (SCC) savings	2.Emissions benefits	$ 100,811	$ 57,362	$ 29,898
Non-carbon emission cost savings	2.Emissions benefits	$ 11,216,305	$ 6,336,240	$ 3,768,103
Safety cost savings	3.Safety improvements	$ 5,400,647	$ 3,050,898	$ 1,814,340
State of good repair	4.Maint. savings	$ 975,918	$ 569,840	$ 307,696
Total Benefits (B)		**$ 29,592,691**	**$ 16,736,248**	**$ 9,393,951**
Project costs				
Capital costs	5.Capital costs	$ 702,522	$ 547,523	$ 442,349
O&M costs	6.O&M costs	$ 10,183,804	$ 5,703,609	$ 2,960,181
Total Costs (C)		**$ 10,886,326**	**$ 6,251,132**	**$ 3,402,530**
Benefit-Cost ratio = (B) / (C)		**2.7**	**2.7**	**2.8**

Source: Bujanda & Allen LLC, 2024.

12. Economic impact analysis

12.1 Economic impacts from the Louisiana Gateway Container Terminal

Plaquemines Port is in the process of rebranding to *Plaquemines: The Louisiana Gateway Port*. The port has executed a letter of intent with Louisiana Gateway Container Terminal (LGCT) to construct over 2027-29, a **$467 million** state-of-the-art container terminal on the west bank of the Mississippi River in Plaquemines Parish. The terminal is to begin operations in 2030 and expand in size through 2036. The purpose of this section is to determine the economic impact over 2027-36 of this new entity on two geographic regions:

1. **The Port Region—**defined as Plaquemines, St. Bernard, Orleans, Jefferson, St. Tammany parishes, and
2. **The State of Louisiana**.

Input-output (I/O) tables for each geographic area were used to determine the multiplier effect of all of LGCT's capital and operational spending. The complete analysis is included in *Appendix A: Louisiana Gateway Container Terminal Economic Impact Analysis.*

12.1.1 Impact on the region's economy

Table 23 illustrates by year over 2027-36 the impact of LCGT's capital and operational spending on business sales, household earnings, jobs, and local government revenues in the 5-parish Region's economy. Years 2027-29 are the impacts of building the terminal.

Over this 3-year period, this construction spending will create a total of:

- **$581.8 million (over one half billion) in new sales** at businesses in the Region
- **$180 million in new earnings** for residents of these five parishes
- **1,008 jobs a year**, on average, with a peak employment of 1,321 jobs in 2027, and
- **$16 million in new taxes** for local governments in the Region.

Table 23. Total impacts on Plaquemines Port Region, 2027-2036

Year	Sales*	Earnings*	Jobs	Taxes*
2027	$249.9	$77.3	1,321	$6.9
2028	$236.8	$73.3	1,223	$6.5
2029	$95.1	$29.4	480	$2.6
2030	$43.7	$41.8	542	$3.8
2031	$57.6	$57.0	614	$4.6
2032	$72.3	$72.9	736	$5.5
2033	$78.5	$79.6	758	$5.9
2034	$85.0	$86.6	831	$6.3
2035	$87.6	$89.2	932	$6.5
2036	$90.2	$91.9	933	$6.7
Total	**$1,096.7**	**$698.9**	**837****	**$55.5**

Source: Loren C. Scott & Associates Inc, 2024. *Values in millions of dollars. **Jobs total represents an average of the 10-year period.

The numbers for years 2030-36 illustrate the I/O table estimates of the impacts of LCGT's operational spending. Note that by 2036, when the terminal is fully operational, it will support:

- **$90.2 million in sales** at businesses in the Region

- **$91.9 million in household earnings** for Region residents
- **933 jobs** for citizens in the Region:
  - This implies an **average annual wage of $98,500** ($91.9 million/933) across all supported industries---an indication these are very good paying jobs.
  - This also implies a **job multiplier of 2.3** (933/400), which implies for every new job created at the terminal, there are 1.3 additional jobs created throughout the Region via the multiplier effect.
- **$6.7 million in new revenues** for local governments in the Region.

The bottom of Table 23 shows the total impact of LCGT spending on the Region economy over the 10-year period. According to the I/O table, all this spending will create:

- **Over a billion dollars ($1,096.7 million) in sales** at firms in the Region
- **Over two-thirds of a billion dollars ($698.9 million) in new earnings** form households in the Region
- **837 jobs a year**, on average, with a top of 1,321 jobs in the peak construction year of 2027, and 933 permanent jobs by 2036 when the terminal is operating at capacity, and
- **$55.5 million in new revenues** in local government coffers.

12.1.2 Impact on the Louisiana economy

Table 24 illustrates by year over 2027-36 the impact of LCGT's capital and operational spending on business sales, household earnings, jobs, and local government revenues in the Louisiana economy. Years 2027-29 are the impacts of building the terminal. Over this 3-year period, this construction spending created a total of:

- Nearly two-thirds of a billion dollars **($640.4 million) in new sales** for businesses in the State
- **$22,198 million in new earnings** for Louisiana households
- **1,223 jobs a year**, on average, with a peak employment of 1,602 jobs in 2027, and
- **$15.5 million in new revenues** for the State Treasury.

Table 24. Total impacts on Louisiana: 2027-2036

Year	Sales*	Earnings*	Jobs	Taxes*
2027	$275.0	$95.3	1,602	$6.7
2028	$260.7	$90.3	1,484	$6.3
2029	$104.7	$36.3	582	$2.5
2030	$44.7	$43.1	557	$3.0
2031	$59.0	$58.6	632	$4.1
2032	$74.0	$74.9	758	$5.2
2033	$80.3	$81.8	782	$5.7
2034	$87.0	$89.0	855	$6.2
2035	$89.6	$91.7	956	$6.4
2036	$92.3	$94.4	957	$6.6
Total	**$1,167.3**	**$755.4**	**917****	**$52.9**

Source: Loren C. Scott & Associates Inc, 2024. *Values in millions of dollars. **Jobs total represents an average of the 10-year period.

The numbers for years 2030-36 illustrate the I/O table estimates of the impacts of LCGT's operational spending on the State's economy. Note that by 2036 when the terminal is fully operational it will support:

- **$92.3 million in sales** at businesses in the State
- **$94.4 million in household earnings** for Louisiana residents
- **957 jobs** for citizens in Louisianans:
  - This implies an **average annual wage of $98,642** ($94.4 million/957) across all supported industries—an indication these are very good paying jobs.
  - This also implies a **job multiplier of 2.4** (957/400), which implies for every new job created at the terminal, there are 1.4 additional jobs created throughout the Region via the multiplier effect.
- **$6.6 million in new revenues** for the State Treasury.

The bottom of Table 24 shows the total impact of LCGT spending on the Louisiana economy over the 10-year time period. According to the I/O table, all this spending will create:

- **$1,167.3 million in sales** at firms in the State
- **Over three-quarters of a billion dollars ($755.4 million) in new earnings** for Louisiana households
- **917 jobs a year**, on average, of Louisianans, with a top of 1,602 jobs in the peak construction year of 2027, and 957 permanent jobs by 2036 when the terminal is operating at capacity, and
- **$52.9 million in new revenues** for the State Treasury.

Obviously, the new LCGT will be a very significant economic win for the Parish, Region and the State.

12.2 Economic impacts from Venture Global LNG Terminal

Venture Global (VG) is constructing a new LNG export facility at the Louisiana Gateway Port. The complete analysis is included in *Appendix B: Venture Global Plaquemines LNG Economic Impact Analysis*. At a cost of **$18.5 billion** spent over a 5-year period, the VG Plaquemines LNG plant would be the largest single capital investment in the history of the Parish. Once operational in 2026, VG will spend **$56 million** in wages and salaries to VG employees to operate the facility, implying an **average annual wage of $140,000**. Because VG's operational spending on other key items, such as utilities, contract labor, Louisiana-sourced natural gas, professional services, etc. were not included in our analysis, VG's operational impacts, as listed below, are greatly under stated.

The purpose of this report is to estimate the impact of VG's construction and operational spending on two geographic areas:

1. **The Port Region—**defined as Plaquemines, St. Bernard, Orleans, Jefferson, St. Tammany parishes, and
2. **The State of Louisiana**.

Our findings can be summarized as follows:

12.2.1 Impact on the region's economy

VG's construction impacts on the Region's economy are detailed in Table 25.

Table 25. Impacts of construction on Plaquemines Port Region: 2021-2025

Year	Sales*	Earnings*	Jobs	Taxes*
2021	$1,864.9	$576.8	11,201	$65.6
2022	$3,729.8	$1,153.6	21,955	$131.1
2023	*$7,459.6*	*$2,307.2*	*43,013*	*$262.3*
2024	$3,729.8	$1,153.6	21,058	$131.1
2025	$1,864.9	$576.8	10,305	$65.6
Total	**$18,649.0**	**$5,768.0**	**21,506****	**$655.7**

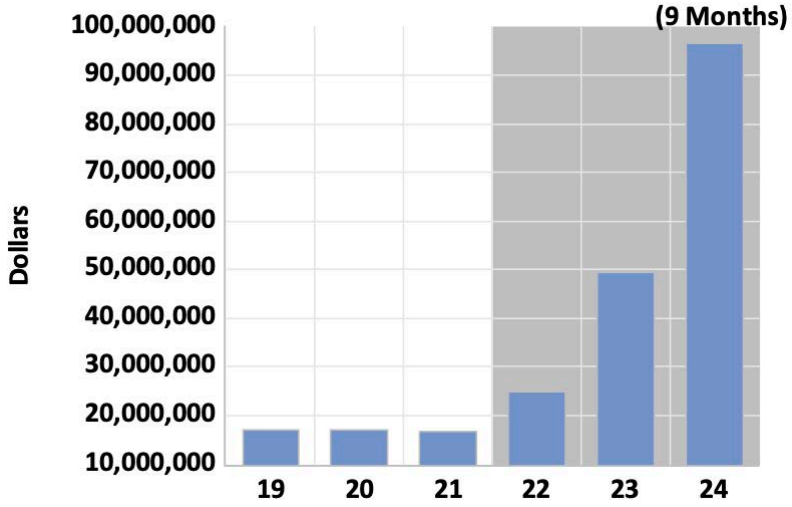
Source: Loren C. Scott & Associates Inc, 2024. *Values in million $. **Jobs total represents an average of the 10-year.

In 2023, the year of greatest construction spending, such spending creates:

- Nearly **$7.5 billion in new sales** for businesses in the Region
- Over **$2.3 billion in new earnings** for residents of the Region
  - As a reference point, total earnings in Plaquemines Parish in 2022 were $1.3 billion. Though spread across the Region's 5 parishes, VG's construction spending in 2023 created the equivalence of another Plaquemines Parish economy plus some.
- A stunning **43,013 jobs** for citizens of the Region:
  - As a reference point, total employment in Plaquemines Parish in 2023-III was 11,487. Jobs created by VG's spending in 2023 basically almost quadrupled, in the 5-parish Region, the employment levels in Plaquemines Parish.
  - This also implies an **average annual wage for all of these jobs of $53,472** ($2.3 million/43,013).
- Over a **quarter of a billion in new revenues** for local governments in the Region.

The impact of VG's construction on just Plaquemines Parish sales tax collections is vividly shown in Figure 107. Prior to VG's construction start the Parish was collecting just under $17 million annually. In FY24, the Parish has already collected over $98 million, with 3 months collections still to come.

Figure 107. Plaquemines Parish sales tax collection: FY19-24.



Source: Loren C. Scott & Associates Inc, 2024.

12.2.2 Impact on the Louisiana economy

VG's construction impacts on the Louisiana's economy are detailed in Table 26.

Table 26. Impacts of construction on Plaquemines Port Region: 2021-2025

Year	Sales*	Earnings*	Jobs	Taxes*
2021	$2,052.6	$711.0	13,589	$49.8
2022	$4,105.2	$1,422.0	26,635	$99.5
2023	*$8,210.4*	*$2,844.0*	*52,183*	*$199.1*
2024	$4,105.2	$1,422.0	25,548	$99.5
2025	$2,052.6	$711.0	12,502	$49.8
Total	**$20,526.0**	**$7,110.0**	**26,091****	**$497.7**

Source: Loren C. Scott & Associates Inc, 2024. *Values in million $. **Jobs total represents an average of the 10-year period.

In just the year of largest construction expenditure, 2023, it is estimated that VG spending created:

- Over **$8.2 billion in new sales** at businesses in Louisiana
- Over **$2.8 billion in new earnings** for Louisiana households:
  - As a reference point, this is only slightly less than the total earnings of all workers whose job in Louisiana is to construct buildings ($2.9 billion in 2022).
- **52,183 jobs**, and:
  - As a reference point, in 2023-III there were 50,835 people working in the heavy/civil engineering construction sector in Louisiana.
- Nearly **$199.1 million in new revenues** for the State treasury
  - As a reference point, in FY23 Louisiana collected $246.2 million in tobacco taxes.

12.2.3 VG operations impacts on the Region's Economy

Table 27 details the impacts of VG's operational spending over 2026-30 on the Region economy.

Table 27. Impacts of operations on Plaquemines Port Region: 2026-2030

Year	Sales*	Earnings*	Jobs	Taxes*
2026	$57.1	$72.9	809	$3.9
2027	$58.8	$75.1	813	$4.1
2028	$60.5	$77.3	816	$4.2
2029	$62.3	$79.6	820	$4.3
2030	$64.2	$82.0	823	$4.4
Total	**$302.9**	**$387.0**	**816****	**$20.9**

Source: Loren C. Scott & Associates Inc, 2024. *Values in million $. **Jobs total represents an average of the 10-year period.

In the first year of full operation, 2026, the I/O table estimates that VG's wage and salary spending will create:

- **$57.1 million in sales** at businesses in the Region
- **$72.9 million in new earnings** for households in the Region
  - As a reference point, this is approximately equal to the entire earnings of all the workers in the wholesale trade sector in Plaquemines Parish ($78 million in 2022).

- **809 jobs**, and:
  - As a reference point, this is slightly more jobs than in the entire wholesale trade sector in Plaquemines Parish (749 jobs in 2023-III).
  - This also implies a **job multiplier for this facility of 2.0** (809/400). This implies for every new job created at the LNG export facility, one additional job is created elsewhere in the Region via the multiplier effect. We are confident that if all of VG's operational expenditures were injected into the Region I/O table, the job multiplier would be at least 5.
- **$3.9 million in new revenues** for local governments in the Region.

Table 28 details the impacts of VG's operational spending over 2026-30 on the Louisiana economy.

Table 28. Impacts of operations on Louisiana: 2026-2030

Year	Sales*	Earnings*	Jobs	Taxes*
2026	$57.8	$74.1	822	$5.2
2027	$59.6	$76.3	826	$5.3
2028	$61.4	$78.6	830	$5.5
2029	$63.2	$81.0	834	$5.7
2030	$65.1	$83.4	837	$5.8
Total	**$307.0**	**$393.4**	**830****	**$27.5**

Source: Loren C. Scott & Associates Inc, 2024. *Values in million $. **Jobs total represents an average of the 10-year.

In the first year of operation, 2026, the I/O table estimates that VG's wage and salary spending will create in Louisiana:

- **57.8 million in sales** at businesses in the Region
- **$74.1 million in new earnings** for households in the Region
  - As a reference point, this is approximately equal to the entire earnings of all the workers in the State's textile industry ($79.1 million in 2022).[38]
- **822 jobs**, and:
  - As a reference point, this is slightly more jobs than in the entire cattle and aquaculture sector of the State (726 jobs in 2023-III).[39]
  - This implies a **job multiplier for this facility of 2.1**(822/400). This implies for every new job created at the LNG export facility, 1.1 additional jobs are created elsewhere in the State via the multiplier effect. We are confident that if all of VG's operational expenditures were injected into the State I/O table, the job multiplier would be at least 8.
- **$5.2 million in new revenues** for the State Treasury.
  - As a reference point, that is about two months of collections of the Louisiana Stadium & Exposition District tax collections.[40]

The attraction of VG's LNG export facility at the Louisiana Gateway Port was one of the top economic wins in the State's recent history.

[38] www.bea.gov
[39] www.laworks.net
[40] www.revenue.louisiana.gov/publications

13. Environmental regulatory requirements

The purpose of this section is to identify environmental regulatory requirements a project of this size would need to satisfy. A project that uses either Federal or State funds would need to comply with federal and state regulatory agencies. This section outlines a roadmap to help understand the various environmental requirements that would need to be satisfied. The roadmap considers the following:

- National Environmental Policy Act (NEPA)
- Council on Environmental Quality (CEQ)
- National Historic Preservation Act (NHPA)
- Clean Water Act (CWA)
- Clean Air Act (CAA)
- Endangered Species Act (ESA)
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
- Resource Conservation and Recovery Act (RCRA)
- Toxic Substance and Control Act (TSCA)
- Noise impacts
- Louisiana Department of Environmental Quality
- Other laws and regulations

13.1 National Environmental Policy Act (NEPA)

The National Environmental Policy Act (NEPA) is the foundational environmental law that applies to all federal actions taken or approved by any federal agency. The purpose of NEPA is to require federal decision makers to understand the environmental effects of their decision, the social and environmental effects, and to allow the public to review and to comment on the evaluations.[41] The ultimate goal is to, "require the federal government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony."[42] In most cases, the NEPA process will be fulfilled by the permit process. The permit process will either result in a (1) Categorical Exclusion, (2) Environmental Assessment (EA) and Finding of No Significant Impact (FONSI), or (3) Environmental Impact Statement (EIS).

A Categorical Exclusion is reserved only for actions that an agency has determined to normally have no significant impact on the human environment. An EA is required for any actions that would not be categorically excluded. An EA will result either in a FONSI or an EIS. A FONSI allows the proposed project to continue, whereas an EIS is a more detailed process to comply with NEPA.

An EIS is the mechanism used to comply with NEPA in the construction of marine river terminals like the Louisiana Gateway Container Terminal. An EIS must be prepared pursuant to NEPA (42 U.S.C. 4321 et seq.) and the Council on Environmental Quality (CEQ) NEPA Regulations (40 CFR Parts 1500-1508). The typical requirements of an EIS are described next.

[41] https://www.epa.gov/nepa/what-national-environmental-policy-act#:~:text=The%20National%20Environmental%20Policy%20Act%20(NEPA)%20was%20signed%20into%20law,actions%20prior%20to%20making%20decisions.
[42] Ibid.

13.1.1 EIS overview

An EIS is a detailed study of the potential impacts, both beneficial and adverse, of a proposed project on the environment and local community. It also evaluates reasonable alternatives based off the identified project purpose and need. NEPA requires a federal agency to prepare an EIS for any major federal action with the potential to significantly affect the quality of the human environment.

For marine river terminals of the scale of the Louisiana Gateway Container Terminal, USACE typically bears the responsibility as the "lead federal agency" responsible for both managing and overseeing the entire EIS process and identifying Cooperating Agencies to ensure compliance with other applicable laws and regulations. USACE will use the EIS to inform its permit decisions and permissions. The EIS will conclude with a Record of Decision (ROD) for the Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act permit decision and the 408-permission decision. The ROD is the document in which USACE will announce and explain the permit and permission decisions regarding the Louisiana Gateway Container Terminal project.

Following the publication of the Notice of Intent, the NEPA process involves Plaquemines Port and USACE holding scoping meetings, preparing and distributing the draft EIS for public review, holding public hearings to solicit public comment, and publishing the final EIS. Not less than 30 days after the publication of the U.S. Environmental Protection Agency's Notice of Availability of the final EIS, USACE may issue a ROD documenting its decision concerning the proposed action for the project. The EIS process is illustrated in Figure 108.

Figure 108. General EIS process

Source: Adapted from DOT, 2020.

13.1.2 Typical requirements for each stage of the EIS process

NEPA guides that an EIS must be analytic rather than encyclopedic. The EIS must contain discussions of impacts in proportion to their significance. Insignificant impacts eliminated during the process under § 775.11(a) to determine the scope of issues must be discussed only to the extent necessary to state why they will not be significant. The focus of an EIS document must be to comply with NEPA and to assess the environmental impact of proposed actions, rather than to justify decisions already made. If a cost-benefit analysis relevant to the choice among environmentally different alternatives was prepared, it must be incorporated by reference or appended to the statement to aid in evaluating the environmental consequences. A detailed description of each stage of the EIS process is provided in Table 29.

Table 29. EIS Process

Notice	The public is notified that the agency is preparing an EIS. The agency provides the public with information regarding how they can become involved in the process. The agency announces its project proposal with notices in the Federal Register, local media, and letters to citizens and groups that it knows are likely to be interested. Citizens and groups are welcome to send in comments helping the agency identify the issues it must address in the EIS (or EA).
Scoping, purpose, and need	The public scoping process is an early and open phase in the EIS process intended to provide interested or affected parties an opportunity to express concerns, ideas, and comments, which will inform/identify the issues and alternatives analyzed in the EIS document. The first meetings

	are held to discuss existing laws, the available information, and the research needed. The tasks are divided up and a lead group is selected. Decision makers and all those involved with the project should attend the meetings. At this stage the following questions must be answered: ▪ What is the purpose of this project? ▪ What is the goal trying to be achieved? ▪ Why is this project needed? ▪ What are the critical issues, resources, and impacts to be considered?
Project Alternatives	This stage must be informed by the information collected during the scoping process of the EIS. At this stage the following questions must be answered: ▪ What alternatives will be looked at in the EIS? ▪ No action alternative ▪ Proposed action, and ▪ A reasonable range of alternatives.
Affected Environment	This stage must aim to identify the potential environment to be affected by each of the alternatives. At this stage, the agency must conduct reasonable efforts to define the baseline conditions of the human environment that could potentially be affected and the anticipated environmental consequences. That is, defining how will building, operating, and maintaining this project could potentially affect those baseline conditions of the human environment.
Draft EIS (DEIS)	Based on both agency expertise and issues raised by the public, the agency prepares a Draft EIS with a full description of the affected environment, a reasonable range of alternatives, and an analysis of the impacts of each alternative.
Comment	Affected individuals have the opportunity to provide feedback through written and public hearing statements. Formal comments for the EIS can be recorded multiple ways: ▪ Submit comment cards and letters during scoping meetings and by mail to USACE ▪ Direct comments during public hearings (which must be recorded by the lead agency or the project sponsor) ▪ Construct and circulate a project website explaining the project, the EIS process, and soliciting public feedback.
Final EIS (FEIS) and Proposed Action	Based on the comments on the *Draft EIS*, the agency writes a *Final EIS*, and announces its Proposed Action. The public is not invited to comment on this, but if they are still unhappy, or feel that the agency has missed a major issue, they may protest the EIS to the Director of the agency. The Director may either ask the agency to revise the EIS.
Record of Decision (ROD)	Once all the protests are resolved the agency issues a Record of Decision which is its final action prior to implementation. If members of the public are still dissatisfied with the outcome, they may sue the agency in Federal court.
Supplemental EIS (SEIS)	Typically prepared after either a *Final EIS* or *Record of Decision* has been issued and new environmental impacts that were not considered in the original EIS are discovered, requiring the lead agency to re-evaluate its initial decision and consider new alternatives to avoid or mitigate the new impacts. Supplemental EISs are also prepared when the size and scope of a federal action changes, or when all of the proposed alternatives in an EIS are deemed to have unacceptable environmental impacts and new alternatives are proposed.

Items such as permits, licenses and authorizations relating to the proposal must be listed in the draft environmental impact statement. An EIS must also include discussion of any deviation from the proposal actions and any state or local law, or ordinances. Included in this discussion is an explanation on how the actions will be reconciled to the law or ordinance.

Figure 109. EIS recommended format

§ 1502.10 Environmental Impact Statement recommended format

(a) Agencies shall use a format for environmental impact statements that will encourage good analysis and clear presentation of the alternatives including the proposed action. Agencies should use the following standard format for environmental impact statements unless the agency determines that there is a more effective format for communication:

(1) Cover.
(2) Summary.
(3) Table of contents.
(4) Purpose of and need for action.
(5) Alternatives including the proposed action (sections 102(2)(C)(iii) and 102(2)(E) of NEPA).
(6) Affected environment and environmental consequences (especially sections 102(2)(C)(i), (ii), (iv), and (v) of NEPA).
(7) Submitted alternatives, information, and analyses.
(8) List of preparers.
(9) Appendices (if any).

(b) If an agency uses a different format, it shall include paragraphs (a)(1) through (8) of this section, as further described in §§ 1502.11 through 1502.19, in any appropriate format.

Source: CEQ, *National Environmental Policy Act Implementing Regulations*, July 2023.

13.2 Council on Environmental Quality (CEQ)

The Council on Environmental Quality (CEQ) oversees Federal agency NEPA implementation and develops and recommends national policies that promote the improvement of environmental quality. The CEQ has recently updated NEPA implementing regulations. This final rule, nicknamed Phase 2 Revisions, is effective July 1, 2024.

The new revisions are aimed at efficiencies in the NEPA process. For example, new updates limit the timelines, and page numbers to EAs and EISs. Additionally, agencies will be encouraged to utilize Categorical Exclusions when they are available. Substantial regulation was implemented for climate change, environmental justice, and tribal resources. This new regulation means agencies must analyze, “disproportionate and adverse human health and environmental effects on communities with environmental justice concerns.” Under section 1508.1(m) and consider any effects on Tribal rights or climate change. This includes relying on models to understand and predict possible future outcomes.

13.3 National Historic Preservation Act (NHPA)

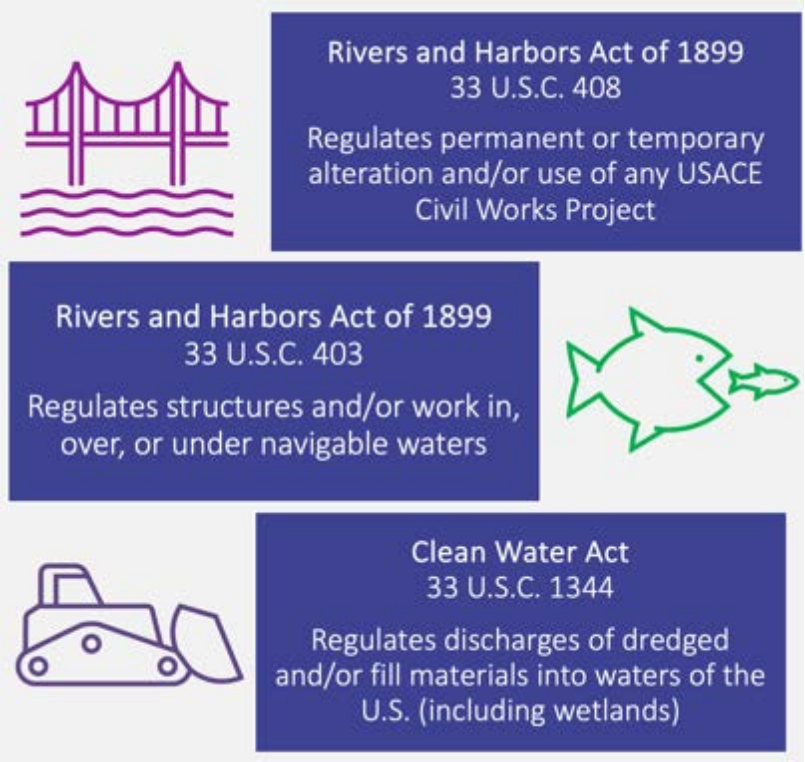
The National Historic Preservation Act (NHPA), section 106 requires federal agencies and applicants to review the effects of the project on historic structural and archaeological properties and gives interested parties and citizens the chance to weigh in before a conclusion is made. The key question is whether the project has the potential to affect historic properties. If there is the possibility of historic properties, a section 106 review is needed. An important part of a Section 106 review is consultation with any federally recognized tribes. A tribal consultation is a formal government-to-government dialogue between the federal agency and the tribe to discuss the project and make decisions following the consultation. However, the Section 106 process is intended to include a broad array of interested parties which would include state-recognized tribes. The regulations at 36 C.F.R. Part 800 provide the process and discuss the parties that must be invited to participate as well as those that may be invited. Mandatory and interested parties should be included in the consultation process as early as possible.

In the State of Louisiana, the Louisiana Office of Cultural Development is the State Historic Preservation Office (SHPO), the designated lead in conducting the section 106 review. Louisiana has four federally recognized tribes and eleven state recognized tribes. The tribes are located throughout fifteen different parishes throughout the state, however in Plaquemines Parish, only the United Houma Nation resides. The United Houma Nation is a state recognized tribe since 1972 but is not recognized by the Federal Government. If there is a possibility of the project affecting historic properties or land, the section 106 review should be broad in reaching out to potential interested parties including the United Houma Nation.

13.4 Clean Water Act (CWA)

The Army Corps of Engineers (USACE) is the typical review agency for the Clean Water Act's regulations. USACE reviews an applicant's request for permits and permissions to make decisions based on the best available science, engineering standards, and professional judgment. Specifically, the CWA analyzes impacts to USACE projects, waters of the United States, and jurisdictional wetlands. For marine river terminal projects, USACE typically considers Sections 408 and 403 of the River and Harbors Act, and Section 404 of the CWA. These requirements, as applied by the USACE, are illustrated in Figure 110.

Figure 110. USACE regulations typically applied to marine terminals



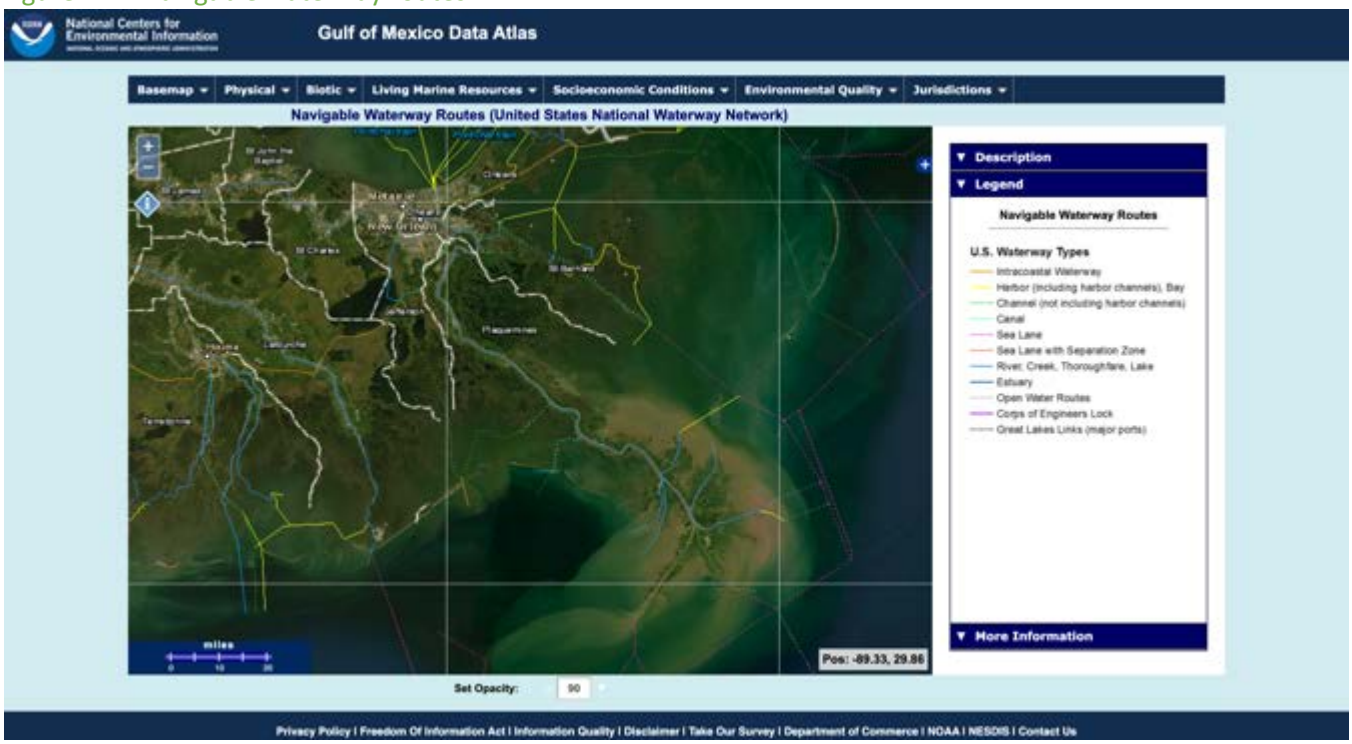
Source: Bujanda & Allen with information from the USACE, 2024.

- **Section 408—**A Section 408 permit is required for alterations that builds upon, alters, improves, moves, occupies, or otherwise affects the usefulness, or structural or ecological integrity of USACE projects. A decision on the Section 408 permit must come before a Section 10 or Section404 permit is issued. In addition, other environmental compliances must be issued prior to the approval of a Section 408. Documentation that is needed includes: technical analysis, hydrologic system performance, geotechnical, NEPA Compliance, real estate requirements, and the requester's review plan. NEPA compliance, ESA compliance, and the NHPA compliance should all be provided to USACE.
- **Section 10—**Section 10 of the Rivers and Harbors Act of 1899 is required for the construction of any structure in or over any navigable water of the United States. This includes dredging or disposal of dredged materials, excavation, filling, or channelization of the water, and any construction in the water,

such as docks, piers, pilings, etc. In addition, compliance with other federal regulations will also need to be completed for the issuance of the Section 10 approval.

- *Section 10 Navigable Waters of the United States within the New Orleans District, Corps of Engineers Regulatory Boundary.* USACE New Orleans District identifies the following navigable waters and NOAA compiled the information into the interactive map shown in Figure 111.

Figure 111. Navigable waterway routes



Source: NOAA, May 2024.

- **Section 404**—Section 404 of the Clean Water Act regulates the discharge of dredged or fill materials into any waters of the United States including wetlands. No discharge of dredged or fill material may be permitted if either a practical alternative exists, or the water would be significantly degraded. For the permit application, it should be shown how impacts are being minimized, and if needed, it is possible to provide compensation if there are unavoidable impacts.
- **Section 401**—If the project involves placing materials in a lake, river, stream, dry streambed, or wetland, and the project is within jurisdictional waters, it is a regulated activity and may require a Section 401 Water Quality Permit.

Best Management Practices should be established to reduce stormwater pollution. Prior to construction activities, the contractor would be required to obtain an National Pollution Discharge Elimination System (NPDES) permit and develop a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would outline phasing for erosion and sediment controls, stabilization measures, pollution-prevention measures, and prohibited discharges. The SWPPP would also include BMPs to minimize erosion, sedimentation, and stormwater runoff. For example, the use of fiber rolls, straw waddles, erosion mats, silt fencing, turbidity barriers, mulching, filter fabric fencing, sediment traps and ponds, surface water interceptor swales, and ditches may be utilized. In addition, waste material needs to be disposed of in accordance with state and federal laws. The SWPPP should include dust control measures during construction.

The responsible party or the operator is required to submit a Notice of Intent (NOI) to the Environmental Protection Agency (EPA) before start of construction project and submit the Notice of Termination (NOT) to EPA when the construction project is complete.

A jurisdictional determination is a decision by USACE New Orleans District as to whether areas on the property are regulated under federal statutes. A regulated water is termed "Waters of the United States." Effective September 8, 2023, the "Revised Definition of 'Waters of the United States,' Conforming" amended prior definitions to match with the Supreme Court ruling in *Sackett v. EPA*. Codified under 40 CFR 120.2(a),

Waters of the United States includes the following bodies of water: waters which are: currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; including wetlands adjacent (having a continuous surface connection). Additionally, waters that are territorial seas or interstate waters Including tributaries that are relatively permanent, standing or continuously flowing bodies of water; and any relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to those waters either territorial seas or interstate waters such as intrastate lakes, ponds, streams, or wetlands. In short, Waters of the United States is an encompassing definition, and it is important to ensure all waters of the United States are identified.

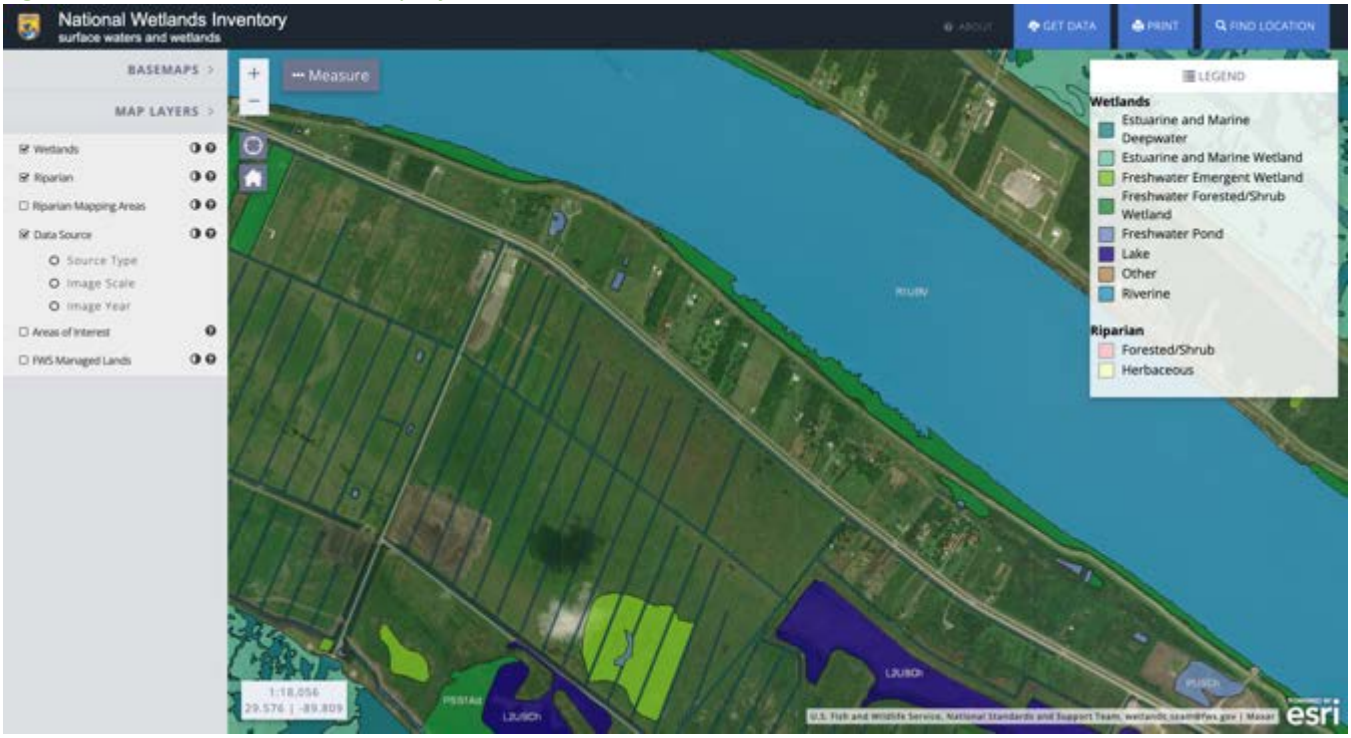
13.4.1 Wetlands

Lastly, to meet USACE's Dredge and Fill Wetlands Permit Requirements, a wetland delineation is recommended. USACE performs wetland delineations for potential applicants for permits under Section 404 of the CWA; however, this can take months and it is highly recommended that the potential applicant uses qualified consultants to conduct wetland delineations, especially for project of this magnitude. The USACE Wetlands Delineations Manual contains information to identify wetlands. All delineations must be conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual, or appropriate Regional Supplement, and submitted to the District for review and verification.

Using the IPaC system, a preliminary generation of possible wetlands on the site location has been identified including the status, extent, characteristics and functions of wetlands, riparian, and deep-water habitats. This information is intended to promote the understanding and conservation of wetland resources and to aid in resource management, research and decision making. The Wetlands Mapper shows wetland type and extent using a biological definition of wetlands. There is no attempt to define the limits of proprietary jurisdiction of any Federal, State, or local government, or to establish the geographical scope of the regulatory programs of government agencies. Based on this analysis, the following wetlands, riparian, and deep-water habitats have been identified in or near the project location according to their respective classification codes and definitions, as per the U.S. Fish and Wildlife Service. Due to the system limitations, wetlands should be verified through on-site delineation.

- Freshwater Forested/ Shrub Wetland: (PFO1R) This is area dominated by trees, or shrubs, and is seasonally flooded. Surface water is found for extended periods of time during the growing season but may not be present during the end of the season.
- Freshwater Pond: (PUBHx) This includes wetlands and deep-water habitats with at least 25% cover of small stones (less than 6-7 centimeters), and less than 30% vegetative cover. The area is permanently flooded.
- Riverine: (R1UBV): This riverine area includes the upper limits of the tidal fluctuations of the river channel. The soil is often mud and sand deposits with 25% cover of small stones, and less than 30% vegetative cover. This area is permanently flooded.
- Riverine: (R2UBHh): This area has a low gradient separating it from other areas. In addition, there is no tidal influence, though the area generally has water flow except in drought years. The subsurface is mud and sand.
- Riverine: (R2UBFx): Similarly, this area also has a low gradient with a subsurface of sand and mud. In addition, there are planktonic organisms present.

Figure 112. Potential wetlands in project location



Source: FWS, May 2024.

13.4.2 Floodplain management

Executive Order 11988 adopts a higher flood standard for future federal investments in and affecting floodplains. This includes projects where federal funds are used to build new structures and facilities or to rebuild those that have been damaged. The guidelines address an eight-step process that agencies should carry out as part of their decision-making on projects that have potential impacts to or within the floodplain. There are eight steps in the decision-making process required in Section 2(a) of the Order.

13.5 Clean Air Act (CAA)

Under the Federal Clean Air Act, each state must develop a State Implementation Plan outlining the State's plan to maintain and reach clean air. The regulatory agency tasked in Louisiana is the Louisiana Department of Environmental Quality (LDEQ). The federal standards for the criteria pollutants are known as the National Ambient Air Quality Standards (NAAQS). These criteria pollutants include particulate matter less than 10 microns in diameter (PM10), particulate matter less than 2.5 microns in diameter (PM2.5), sulfur dioxide (SO2), carbon monoxide (CO), ozone, nitrogen dioxide (NOx) and lead. Louisiana also measures volatile organic compounds at selected sites throughout Louisiana.

- A list of all Ambient Air Quality Standards and current attainment levels is found on LDEQs website at: https://www.deq.louisiana.gov/page/ambient-air-monitoring-program.
- The EPA approves State Implementation Plans. The current status of Louisiana's SIP is found at: https://www.deq.louisiana.gov/page/louisiana-state-implementation-plans#:~:text=Under%20the%20Federal%20Clean%20Air,air%20quality%20standards%20(NAAQS).
- Louisiana Guidance for Air Permitting Actions can be found here: https://www.deq.louisiana.gov/assets/docs/Air/LouisianaGuidanceforAirPermittingActions.pdf

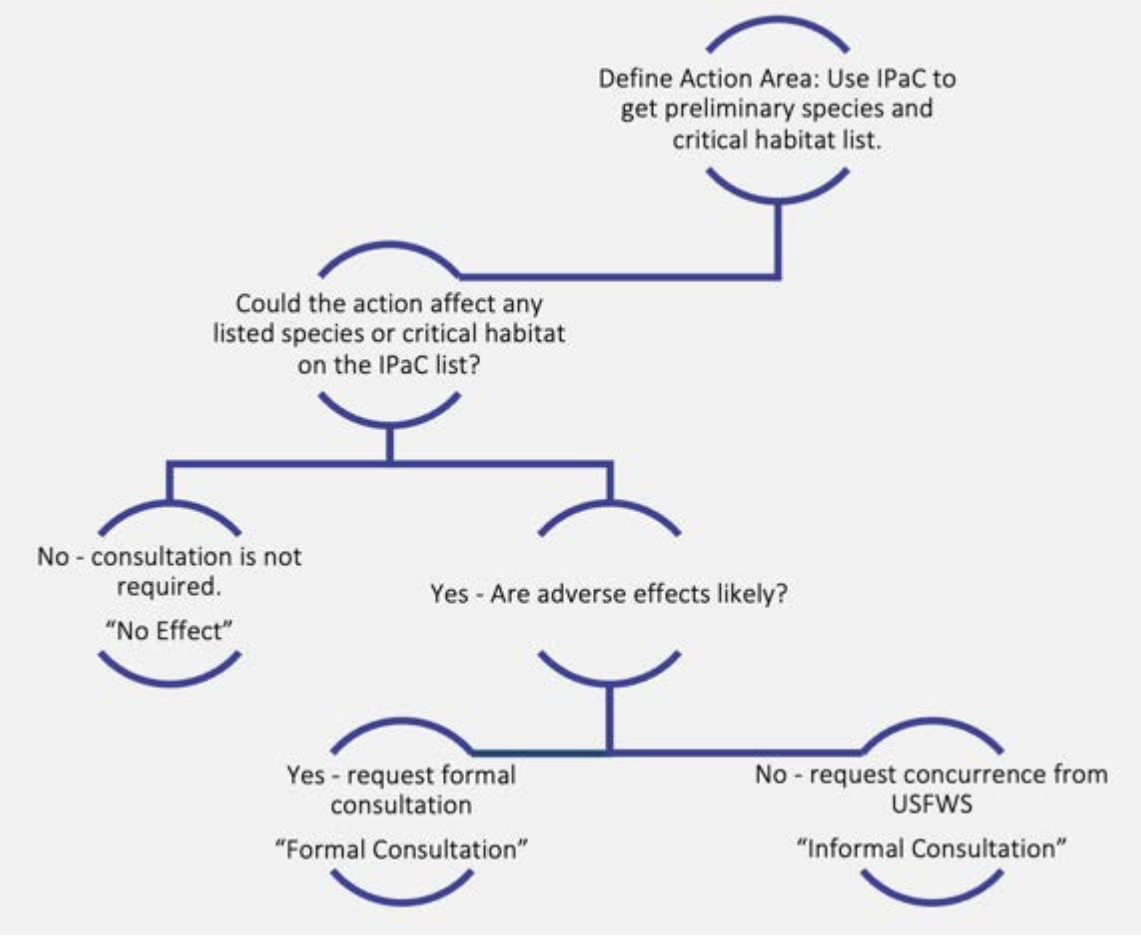
LDEQ issues air permits through the air permit application process, including New Source Review (NSR), Minor source, or regulatory permits. NSR permits are required for the construction of new major stationary sources and to major modifications of existing sources.

13.6 Endangered Species Act (ESA)

Section 7 of the Endangered Species Act of 1973 (ESA) requires all Federal agencies to use their authorities to conserve endangered and threatened species in consultation with U.S. Fish and Wildlife Service (USFWS). This 'proactive conservation mandate' for federal agencies is articulated in section 7(a)(1) of the law. Section 7(a)(2) contains a complementary consultation mandate for federal agencies, which is discussed below. Under the Section 7 implementing regulations (50 CFR Part 402), federal agencies must review their actions to determine whether they may affect endangered or threatened species or critical habitat. To accomplish this, federal agencies must determine whether any listed species may be present in the action area and whether that area overlaps with critical habitat. If one or more listed species may be present in the action area – or if critical habitat overlaps with the action area – agencies must evaluate the potential effects of their action.

Agencies must confer with the USFWS per Section 7(a)(4) of the ESA if any action is likely to jeopardize a species proposed for listing or to destroy or adversely modify proposed critical habitat. To determine whether either of these are likely, agencies may follow the same approach that we recommend for listed species and designated critical habitat – that is, evaluate the likely effects of their actions on any proposed species that may be present in the action area and on any proposed critical habitat that overlaps with the action area. A flow chart of the Section 7 process is provided in Figure 113.

Figure 113. Section 7 consultation process



Source: Adapted from the U.S. Fish and Wildlife Service.

Here, the U.S. Fish and Wildlife Service provides online tools to discover the under the Section 7 Consultation to determine whether a listed or proposed species or designated or proposed critical habitat may be present

within the action area.[43] The area definition of Louisiana Gateway Container Terminal used for this purpose in the IPaC system is illustrated in Figure 114.

Figure 114. Estimated area definition of the Louisiana Gateway Container Terminal.

Source: USFWS, May 2024.

13.6.1 Endangered Species Act of 1973

Formal Consultation with the United States Fish and Wildlife Louisiana Ecological Field Office is required if an action is likely to "adversely affect" a listed species and designated critical habitat. For proposed species, further consultation is required only if the action is likely to "jeopardize the continued existence" of the species or result in "destruction or adverse modification" of critical habitat. Federal agencies are required to determine whether their actions may affect listed or proposed species and designated and proposed critical habitat. In order to successfully execute a proposed action, Biological Assessments (BA) are required for any "major construction activities," which are federal actions that may significantly affect the quality of the human environment. The purpose of a BA is to evaluate the potential effects of the action on listed and proposed species and designated and proposed critical habitat and determine whether any such species or habitat are likely to be adversely affected by the action. For a section 7 ESA consultation, it is recommended that the applicant conduct a Biological Assessment to support conclusions regarding the effects of their proposed actions on protected resources.

Listed species and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries). Based on the preliminary analysis conducted using the IPaC System, Table 30 lists the potential species as proposed or candidate endangered species in the Louisiana Gateway Container Terminal location.

[43] U.S. Fish and Wildlife Service, Information for Planning and Consultation (IPaC), project planning tool, https://ecos.fws.gov/ipac/

Table 30. ESA present species in project location

Listed species	Is the species' habitat present in the action area?	Conclusion	Next step	Comments
Tricolored Bat (Perimyotis subflavus)	May be present	Informal consultation with USFWS may be needed	Informal consultation with USFWS may be needed	Species is proposed as endangered
West Indian Manatee (Trichechus manatus)	May be present	Informal consultation with USFWS	Informal consultation with USFWS	Species is listed as threatened
Alligator Snapping Turtle (Macrochelys temminckii)	May be present	Informal consultation with USFWS may be needed	Informal consultation with USFWS may be needed	Species is proposed as threatened
Pallid Sturgeon (Scaphirhynchus albus)	May be present	Informal consultation with USFWS	Informal consultation with USFWS	Endangered
Monarch Butterfly (Danaus plexippus)	May be present	No consultation needed	A candidate species does not require an informal consultation, but steps should be taken to conserve the species.	Species is a candidate for official listing

Source: IPaC, May 2024

13.6.2 Migratory Bird Treaty Act (MBTA)

Protection for migratory birds is provided under the Migratory Bird Treaty Act (MBTA) (916 U.S.C. § 703–711). The MBTA regulates impacts on migratory birds, such as taking, direct mortality, habitat degradation, and displacement of individual birds. The MBTA defines 'taking' to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof, except when specifically permitted by regulations. Certain birds are protected under the MBTA and the Bald and Golden Eagle Protection Act. The birds listed in Table 31 are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in the area of the Louisiana Gateway Container Terminal. Based on the analysis conducted using the IPaC System, we identified the following species as listed, proposed, or candidate migratory birds in the project area.

Table 31. Migratory birds

Listed migratory birds	Is the species' habitat present in the action area?	Conclusion	Comments
Bald Eagle (Haliaeetus leucocephalus)	May be present	Not a BCC (removed from listing due to recovery)	Breeds September to August
Chimney Swift (Chaetura pelagica)	May be present	BCC in the continental USA (CON) (not listed)	Breeds March to August
Dickcissel (Spiza americana)	May be present	BCC in particular Bird conservation regions (BCR) (not listed)	Breeds May to August
Forster's Tern (Sterna forsteri)	May be present	BCC – BCR (not listed)	Breeds March to August
Gull-billed Tern (Gelochelidon nilotica)	May be present	BCC – CON (not listed)	Breeds May to July
King Rail (Rallus elegans)	May be present	BCC – CON (not listed)	Breeds May to September
Least Tern (Sternula antillarum antillarum)	May be present	BCC- CON (not listed)	Breeds May to September
Lesser Yellowlegs (Tringa flavipes)	May be present	BCC – CON (not listed)	Possibility of breeding throughout the year
Painted Bunting (Passerina ciris)	May be present	BCC – BCR (not listed)	Breeds May to August
Prairie Loggerhead Shrike	May be present	BCC – BCR (not listed)	Breeds February to July

(Lanius ludovicianus excubitorides)			
Prothonotary Warbler (Protonotaria citrea)	May be present	BCC – CON (not listed)	Breeds April to July
Ruddy Turnstone (Arenaria interpres morinella)	May be present	BCC – BCR (not listed)	Possibility of breeding throughout the year
Sandwich Tern (Thalasseus sandvicensis)	May be present	BCC – BCR (not listed)	Breeds May to August
Short-billed Dowitcher (Limnodromus griseus)	May be present	BCC – CON (not listed)	Possibility of breeding throughout the year
Swallow-tailed Kite (Elanoides forficatus)	May be present	BCC – CON (not listed)	Breeds March to June
Willet (Tringa semipalmata)	May be present	BCC – CON (not listed)	Breeds April to August

Source: IPaC, May 2024

The Nationwide Standard Conservation Measures describe measures that can help minimize and avoid impacts to all birds at any location year-round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a helpful impact minimization measure.

General Measures as defined by the Nationwide Standard Conservation Measures include:

- Educate all employees, contractors, and site visitors about rules and regulations that protect wildlife.
- Prior to removal of an inactive nest, ensure that the nest is not protected under the Endangered Species Act (ESA) or the Bald and Golden Eagle Protection Act (BGEPA). Nests protected under ESA or BGEPA cannot be removed without a valid permit. See the Service Nest Destruction Policy.
- Do not collect birds (live or dead) or their parts (e.g. feathers) or nests without a valid permit. See the Service permits page for more information on permits and permit applications. Provide enclosed solid waste receptacles at all project areas. Non-hazardous solid waste (trash) would be collected and deposited in the on-site receptacles. Solid waste would be collected and disposed of by a local waste disposal contractor. For more information about solid waste and how to properly dispose of it, see the EPA Non-Hazardous Waste website.
- Report any incidental take of a migratory bird, to the local Service Office of Law Enforcement.
- Consult and follow applicable Service industry guidance.
- Habitat Measures as defined by the Nationwide Standard Conservation Measures include:
  - Minimize project creep by clearly delineating and maintaining boundaries and staging areas.
  - Consult all local, State, and Federal regulations for the development of an appropriate buffer distance between development site and any wetland or waterway.
  - Maximize use of disturbed land for all project activities (i.e. siting, lay-down, and construction).
  - Implement standard soil erosion and dust control measures. For example: (i) Establish vegetation cover to stabilize soil, (ii) Use erosion blankets to prevent soil loss, and (iii) Water bare soil to prevent wind erosion and dust issues.

Additional measures and/or permits may be advisable depending on the type of activity and the type of infrastructure or bird species present on the project site. A complete list of the Nationwide Conservation Measures is provided by the U.S. Fish and Wildlife Service.[44]

[44] U.S. Fish and Wildlife Service, Nationwide Standard Conservation Measures, https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

13.6.3 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act gives the National Oceanic and Atmospheric Administration (NOAA) an important advisory role to review and comment on proposed federally permitted activities that could affect living marine resources. As amended in 1964, the act requires that all federal agencies consult with NOAA Fisheries, U.S. Fish and Wildlife Service, and state wildlife agencies when proposed actions might result in modification of a natural stream or body of water. Federal agencies must consider how these projects would affect fish and wildlife and provide for improvement of these resources. NOAA provides an online Essential Fish Habitat mapper, to help determine essential fish habitat at project locations. Table 32 is the report generated from the NOAA's Essential Fish Habitat tool at the Louisiana Gateway Container Terminal location.

Table 32. Essential fish habitat

Species/management unit	Life stages found at location	Fishery management plan (FMP)
Coastal Migratory Pelagics	ALL	Coastal Migratory Pelagic Resources (Mackerels)
Red Drum	ALL	Red Drum Fishery
Balistidae - Triggerfishes ▪ Gray triggerfish (Balistes capriscus) **Carangidae - Jacks** ▪ Greater amberjack (Seriola dumerili) ▪ Lesser amberjack (Seriola fasciata) ▪ Almaco jack (Seriola rivoliana) ▪ Banded rudderfish (Seriola zonata) **Labridae - Wrasses** ▪ Hogfish (Lachnolaimus maximus) **Lutjanidae - Snappers** ▪ Queen snapper (Etelis oculatus) ▪ Mutton snapper (Lutjanus analis) ▪ Schoolmaster (Lutjanus apodus) ▪ Blackfin snapper (Lutjanus buccanella) ▪ Red snapper (Lutjanus campechanus) ▪ Cubera snapper (Lutjanus cyanopterus) ▪ Gray (mangrove) snapper (Lutjanus griseus) ▪ Dog snapper (Lutjanus jocu) ▪ Mahogany snapper (Lutjanus mahogoni) ▪ Lane snapper (Lutjanus synagris) ▪ Silk snapper (Lutjanus vivanus) ▪ Yellowtail snapper (Ocyurus chrysurus) ▪ Wenchman (Pristipomoides aquilonaris) ▪ Vermilion snapper (Rhomboplites aurorubens) **Malacanthidae - Tilefishes** ▪ Goldface tilefish (Caulolatilus chrysops) ▪ Blackline tilefish (Caulolatilus cyanops) ▪ Anchor tilefish (Caulolatilus intermedius) ▪ Blueline tilefish (Caulolatilus microps) ▪ (Golden) Tilefish (Lopholatilus chamaeleonticeps) **Serranidae - Groupers** ▪ Dwarf sand perch (Diplectrum bivittatum) ▪ Sand perch (Diplectrum formosum) ▪ Rock hind (Epinephelus adscensionis) ▪ Speckled hind (Epinephelus drummondhayi) ▪ Yellowedge grouper (Epinephelus flavolimbatus) ▪ Red hind (Epinephelus guttatus)	ALL	Reef Fish Fishery

Species/management unit	Life stages found at location	Fishery management plan (FMP)
▪ Goliath grouper (Epinephelus itajara) ▪ Red grouper (Epinephelus morio) ▪ Misty grouper (Epinephelus mystacinus) ▪ Warsaw grouper (Epinephelus nigritus) ▪ Snowy grouper (Epinephelus niveatus) ▪ Nassau grouper (Epinephelus striatus) ▪ Marbled grouper (Epinephelus inermis) ▪ Black grouper (Mycteroperca bonaci) ▪ Yellowmouth grouper (Mycteroperca interstitialis) ▪ Gag (Mycteroperca microlepis) ▪ Scamp (Mycteroperca phenax) ▪ Yellowfin grouper (Mycteroperca venenosa)		
Brown shrimp (Penaeus aztecus) White shrimp (Penaeus setiferus) Pink shrimp (Penaeus duorarum) Royal red shrimp (Pleoticus robustus)	ALL	Shrimp Fishery
Pacific Salmon Essential Fish Habitat	None	FMP not found at location
Atlantic Salmon	None	FMP not found at location
Habitat Areas of Particular Concern (HAPC)	**None**	FMP not found at location
Essential Fish Habitat Areas Protected from Fishing	None	FMP not found at location

Source: NOAA Essential Fish Habitat Mapper, May 2024.

The act allows NOAA Fisheries to provide comments to the U.S. Army Corps of Engineers during review of projects under section 404 of the Clean Water Act (concerning the discharge of dredged materials into navigable waters) and section 10 of the Rivers and Harbors Act of 1899 (obstructions in navigable waterways). NOAA Fisheries comments provided under the Fish and Wildlife Coordination Act are intended to reduce environmental impacts to migratory, estuarine, and marine fisheries and their habitats.

13.7 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) is the federal law to help protect the environment and public health from the release or threatened release of hazardous substances by determining and assigning liability to a responsible party. The act assigns liability to persons responsible for the release of hazardous wastes, establishes prohibition and requirements for closed or abandoned hazardous waste sites, and establishes a trust fund for cleanup when a responsible party cannot be identified. In short, the act assigns liability to help clean the site, or assigns liability to pay for the remediation.

Hazardous substances, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. § 9601(14)), are defined as: "(A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33; (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title; (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended, (42 U.S.C. § 6921); (D) any toxic pollutant listed under section 1317(a) of Title 33; (E) any hazardous air pollutant listed under Section 112 of the CAA (42 U.S.C. § 7412); and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator of the USEPA has taken action pursuant to section 2606 of Title 15. The term does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)."

13.8 Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act is a cradle to grave handling of hazardous waste. Cradle to grave handling includes generation, transportation, treatment, storage and disposal of hazardous waste. RCRA also provides the framework for handling and management of non-hazardous solid wastes.

A hazardous waste in 42 U.S.C. § 6903, as "a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may: (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."

13.9 Toxic Substance and Control Act (TSCA)

EPA has the authority to require reporting, record keeping and testing requirements in addition to restrictions on certain chemical substances such as the production, importation, use and disposal of polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint. If these substances are used, the TSCA applies.

13.10 Noise impact

Federal Highway Administration (FHWA) has given LaDOTD the ability of implementing Noise Standard at 23 CFR Part 772. LaDOTD program to implement FHWA Noise Standard include traffic noise prediction requirements, noise analyses, noise abatement criteria and requirements for informing local officials. It would be beneficial to determine the need for a noise study early in project scoping.

13.11 Louisiana Department of Environmental Quality (LDEQ)

The Louisiana Department of Environmental Quality (LDEQ) issues permits and implements several environmental programs throughout the state. While there are several programs administered by LDEQ, the focus of the agency is on Air, Land, Water, and Emergency and Radiation Response. Examples of the programs administered by LDEQ include:

- Air: air emissions inventory (ERIC), motor vehicle inspection program, emission reduction credit information resource center
- Land: UST Request for Statement of Interest and Qualification for Response Actions at Abandoned UST Sites, New UST Grant Program (effective January 1, 2024), Brownfields and Voluntary Remediation Program, Recycling, RECAP, Make a Map-GIS
- Water: Drinking water protection program, total maximum daily load (TMDL), nonpoint source, ambient water quality data
- Emergency and Radiation Response

13.12 Other laws and regulations

The boundaries of the Louisiana Gateway Container Terminal is the parish of Plaquemines in the State of Louisiana. Further discussion is required to ensure that project meets local laws and ordinances. All project activities must adhere to OSHA Regulations (Standard 1926, 29 CFR).

14. Conclusion

Building upon the foundational data and information compiled in the *2023 Comprehensive Market Study of Plaquemines Port*, this Master Plan undertook the task of creating a roadmap for the management team of the port to guide the physical, financial, operational, and environmental development of the port.

At the outset, market research identified a brand recognition issue for the port. The port currently handles over 48 million tons of agribulk, dry bulk, liquid bulk, and breakbulk cargoes, a significant contribution to national cargo movement. Despite its current tonnage making it the 12th largest tonnage port in the nation, The port has little to no name recognition in the national or international marketplace. To more effectively compete and raise the international profile of the port, the Master Plan recommends a rebranding initiative. Based on the Vision, and Mission statements, and the stated goals of the port, the rebranding starts with a name change. Going forward the port will be known as, ***"Plaquemines: The Louisiana Gateway Port"***.

The port serves as a key gateway for America's trade battlefield—the multimodal corridor connecting Canada, the U.S. Midwest, and Mexico. The privileged geographic location and depth of its navigational channel, provide the port with the opportunity to connect the two largest waterways in the U.S. with large linehaul vessels utilizing deep draft ports in existing and future transpacific, transatlantic, intra-Gulf, and Latin America ocean routes. The port has the potential to provide all-water freight connectivity to more than 1,700 river terminals and cargo docks within a 200-mile buffer of the Mississippi River and its tributary marine highways across 20 states. The port enjoys all-water connectivity with more than 1,300 cargo terminals and docks in the GIWW.

The port serves drybulk, liquid-bulk, agribulk, and breakbulk markets for which the projected growth trends in the next 10 years are greater than any other ports in the Gulf of Mexico. By 2033, The port's non-containerized freight throughput is expected to reach 100 million tons, with liquid-bulk reaching nearly 30 million tons driven largely by LNG production from the new Venture Global facility. Over the same period, alternative fuels, drybulk, agribulk, offshore wind projects, and container tonnage are expected to surpass 20 million tons. The port's aggressive expansion plans consider both existing business and new business growth strategies. Our non-containerized existing business markets are expected to see a 9.0% CAGR by 2028, driven by the LNG volume.

Through the construction and operation of LGCT, the container market will allow Beneficial Cargo Owners that specialize in drybulk, agribulk, and liquid-bulk to expand into new markets. With today's technology and know-how, these materials can be blown into containers for intermodal shipment using drybulk and agribulk technology. The economics of this mode transition will be favorable due to the short trucking distance to the container terminal, and it will have insignificant effect on highway traffic. To facilitate intermodal connections, the petroleum tenants of the port currently truck ISO tanks to Mobile and Houston. By lowering the supply chain cost of these ISO tanks and generating volume growth for container carriers, the container terminal will provide additional services. Some of these integrations of services can generate additional synergies by partnering with and complementing the current offering from deep ports in the mouth of the Mississippi.

With the implications and opportunities chronicled in the market study, this master plan is the roadmap that will guide the systematic planning, funding, development and ultimately the operations of two of the most transformative industrial projects in the Gulf of Mexico, Venture Global Plaquemines LNG project, and the LGCT in Plaquemines Parish.

For the State of Louisiana, the economic impact of the Venture Global project will result in the creation of an average of:

- 26,091 jobs in the five years of construction
- $498 million in additional state taxes
- $7.1 billion in earnings, and
- $20.5 billion in new sales at Louisiana's businesses.

For the Port Region, the impact is just as impressive during the construction period.

- 21,506 jobs
- $656 million in new taxes
- $5.8 billion in earnings, and
- $18.6 billion in new sales at businesses in Plaquemines, Jefferson, St. Bernard's, St. Tammany and Orleans Parishes.

These numbers and impact are significant for the five-year period of 2021 through 2025, however this represents only the beginning.

After the project is built and operating more benefits flow to the State and the Port Region. For Louisiana, during the first five years of operations 2026 through 2030, an average of 830 new jobs are created, $27.5 million in new tax revenues, $393 million in new earnings for residents, and $307 million in new sales for Louisiana businesses. The Port Region's economic impact will be an average of 816 jobs, $21 million in new taxes, $387 million in new earnings for residents and $303 million in sales for local businesses.

For the State of Louisiana, the total economic impact from the LGCT project for the combined 10-year period, 2027 to 2036, three years construction and seven years operations, is an annual:

- 917 new jobs
- $53 million in new taxes to the state treasury
- $755 million in new earnings, and
- $1.2 billion in new sales for Louisiana businesses.

The local impact for the Port Region is an annual of

- 837 new jobs
- $56 million in new local taxes
- $699 million in new sales for local residents, and
- $1.1 billion in new sales for local businesses.

The total economic impact of these two projects combined during the construction and operational periods between the years 2021 – 2036 is on average **8,986 jobs for Louisiana**. New earnings for Louisiana residents will be **$8.3 billion**. New sales for Louisiana businesses will be **$2.2 billion**. New tax revenue for Louisiana will be **$578 million**.

With these projects being developed and coming on-line at approximately the same time the financial and economic impacts will be tremendous in both the short and the long term. There will be challenges and opportunities during the construction periods with the rapid growth. This will require coordination with various community and government agencies to proactively address and mitigate any adverse social impacts that will accompany the growth, such as traffic, housing schools, healthcare, and public safety services. The Master Plan acknowledges the challenges and requires extensive and strategic engagement by Port Management with the appropriate responsible agencies to mitigate impacts as much as possible.

In addition to the substantial economic impact of these two new developments this Master Plan considers and incorporates the anticipated growth and diversification of the existing business in the port region as leverage to promote the port as the model for environmentally sustainable operations. The plan has evaluated the benefit cost analysis of the projects and the expanded utilization of the river systems, Gulf Intercoastal Water Ways, and intermodal rail system to measure the positive net present public value (NPPV) for the community.

This Master Plan is a roadmap focused on capitalizing on the global growth of cargo moving in containers, inbound and outbound, on the biggest container vessels using the Gulf of Mexico. The growth of new business opportunities offered by clean alternative fuels manufacturing and transportation. The plan will guide the management direction and efforts to meet and exceed customer service expectations through continuous process improvement, focus on existing customers commodities growth and maximizing new business opportunities. Using technology, innovation, and outstanding human resources the Master Plan will guide the development of facilities, processes and procedures that will enable the Plaquemines: The Louisiana Gateway Port to, **“Turning bigger ships faster”**.

Appendix A: Louisiana Gateway Container Terminal Economic Impact Analysis

ECONOMIC IMPACT OF THE PROPOSED
LOUISIANA GATEWAY CONTAINER TERMINAL ON THE
PLAQUEMINES PORT REGION AND LOUISIANA ECONOMIES

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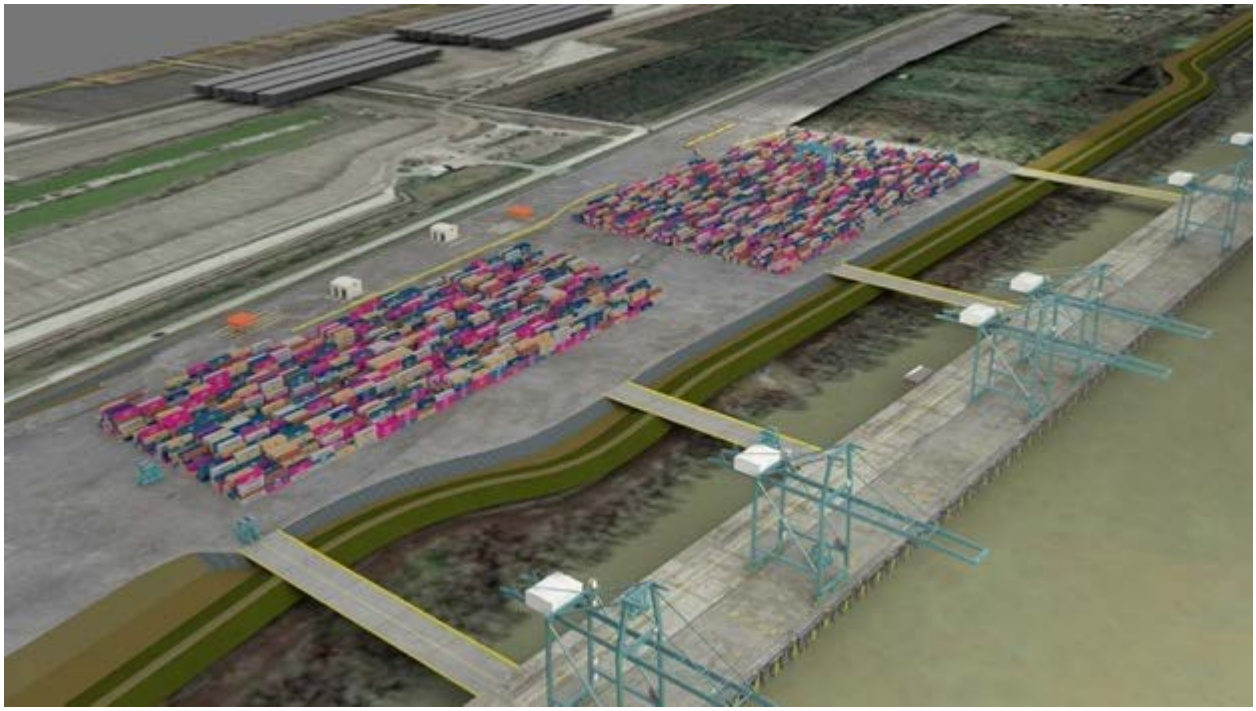


A.1 Introduction

Plaquemines Port is in the process of rebranding to the Louisiana Gateway Port (LGP). The port has executed a letter of intent with Louisiana Gateway Container Terminal (LGCT) to construct a state-of-the-art container terminal on the west bank of the Mississippi River in Plaquemines Parish. This new terminal will be the closest landing point for container ships on the Mississippi River. The next nearest proposed terminal is a three hour round trip further up the river, and the LGCT will have a wider turning radius for container ships. LGCT's value proposition is its geographic nearness to the Gulf of Mexico, natural 50 feet water depth, and unencumbered air draft access, and will facilitate quick and safe turn-around of container vessels.

To be located on 170.5 acres within the port, the terminal will have the capability of handling the largest container ships going through the Panama Canal (14,000 TEUs). Options are available to expand the terminal to cover another 900 acres. The port will lease the land under a 30-year agreement. The initial investment in the terminal—estimated at $467 million—will be privately funded. The terminal is projected to open in 2030, adding an estimated 300 new direct jobs to the Parish economy.

A.1.1 Purpose of this report

The purpose of this report is to determine the economic impact of both constructing and operating this terminal on the economies of two geographic areas: **(1) The Port Region**—defined as Plaquemines, St. Bernard, Orleans, Jefferson, and St. Tammany Parishes, and **(2) The State of Louisiana**. Impacts will be estimated over the time period from 2024 through 2031. The objective will be to estimate the impact of LGCT's capital and operational spending on (i) business sales, (ii) household earnings, (iii) jobs, and (iv) governmental revenues in each region.

A.2 Methodology

When the new construction and operational expenditures associated with LGCT are injected into these two geographic areas there is both a **direct** and a **multiplier effect** on the Region and the State. A helpful way of thinking of this methodology is to think of, for example, the Region economy as a large economic pond. Into this pond, a rock will be dropped labeled "new construction and operational monies associated with LGCT." This rock will make quite a splash, since about half a billion dollars will be spent to construct the facility and millions of dollars a year will be spent to operate it. This initial splash is what we call the "direct effect" of the new monies.

A.2.1 The multiplier effect

Once this rock hits the pond it will send ripples to the edge of the pond. For example, construction workers and employees at the site will take their new paychecks and spend those new monies at grocery stores, car dealerships, movie theaters, department stores, etc. in the Region. This will create new earnings at these establishments, and those workers will spend their new earnings at other establishments in the region. The construction firms will spend money on equipment and supplies at stores in the area, creating new income for their owners and employees, who will take this new money and spend it at car dealerships, grocery stores, etc. This is the "**multiplier"** effect.

A.2.2 Measuring the multiplier effect

Fortunately, there is a handy tool available for measuring these multiplier effects—an **input/output (I/O) table**. I/O tables for the Region and the State have been constructed by the Bureau of Economic Analysis (BEA) within the U.S. Department of Commerce. The BEA is the same governmental agency responsible for measuring the nation's gross domestic product each quarter.

These I/O tables can be used to estimate three separate impacts of the new monies brought to the Region/State by LGCT's activities—the impact on (1) **sales** at firms in each area, (2) **household earnings** of citizens in each area, and (3) **jobs** in each area. We will also be able to estimate the impacts on **local and state tax collections** as a result of the spending.

A.3 Economic impact of constructing LGCT

It is projected that construction on LGCT will commence in 2027 and take three years to fully construct. Table 33 illustrates LGCT's construction spending over 2027-29 and breaks out the portion of that spending that will take place in Louisiana. Only this Louisiana-oriented spending is used in conducting our impact study. Monies used to purchase, for example, a crane manufactured in Maine injects money into that state, but not Louisiana.

Table 33. Total construction spending by LGCT: 2027-2029

Year	Total	Louisiana Portion
2027	$200.0	$134.0
2028	$191.0	$127.0
2029	$76.0	$51.0
Total	**$467.0**	**$312.0**

Source: Loren C. Scott & Associates, Inc, April 2024.

Note that excluding out-of-state purchases, LGCT still plans to spend nearly one-third of a billion dollars ($312 million) in Louisiana to construct this terminal. The data in the last column of Table 33 were injected into the I/O tables for the Region and the State to determine the multiplier effect of this hefty new spending on these two geographic areas.

A.3.1 Impact of LGCT construction spending on the Region

Readers are reminded that the "Port Region" is composed of five parishes: Plaquemines, St. Bernard, Orleans, Jefferson, and St. Tammany. Table 34 reveals the I/O table estimate of the impact of LGCT's $312 million in construction spending over 2027-29 on the Region's economy. Over this 3-year construction cycle, LGCT's construction spending is estimated to create:

- **$581.8 million (over one half billion)** in new sales at businesses in the Region
- **$180 million in new earnings** for residents of these five parishes
- **1,008 jobs a year**, on average, with a peak employment of 1,321 jobs in 2027, and;
- **$16 million in new taxes** for local governments in the Region.

Table 34. Impacts of construction on Plaquemines Port Region: 2027-2029

Year	Sales*	Earnings*	Jobs	Taxes*
2027	$249.9	$77.3	1,321	$6.9
2028	$236.8	$73.3	1,223	$6.5
2029	$95.1	$29.4	480	$2.6
Total	**$581.8**	**$180.0**	**1,008****	**$16.0**

*Values in millions of dollars. **Jobs total represents an average of the 3-year period.
Source: Loren C. Scott & Associates, Inc, April 2024.

The last column of numbers in Table 34—the $16 million in local government tax collections—were not derived directly from the State I/O table. This number is composed of two components. First, the new earnings generated in the "earnings" column will be spent in ways that generate revenues for these governments. Dr. James Richardson with LSU's Public Administration Institute has estimates that for every dollar of new earnings generated in a region, local governments collect 5.4 cents in new sales taxes, property taxes, and other fees. The figures in the earnings column were multiplied by 5.4% to generate this component. Secondly, when new material, equipment and machinery are installed at the new site—regardless of source—local governments collect a sales tax on these items. That is the second source of local government revenues.

Importantly, the very impressive benefits to the Region detailed in Table 34 are, in fact, temporary. Once construction is complete at the site, these benefits will disappear. That is not true of the benefits of LGCT's operational expenditures which are discussed later in the report.

A.3.2 Impact of LGCT construction spending on Louisiana

The LGCT construction spending by year were plugged into the Louisiana I/O table to determine the total impacts on the State economy. Because the "economic pond" of the State is much bigger than that of the Region, the ripple effects have farther to go. Thus, the impacts in Table 35 for the State will be larger than those for the Region. This is shown clearly in Table 35.

Table 35. Impacts of construction on Louisiana: 2027-2029

Year	Sales*	Earnings*	Jobs	Taxes*
2027	$275.0	$95.3	1,602	$6.7
2028	$260.7	$90.3	1,484	$6.3
2029	$104.7	$36.3	582	$2.5
Total	**$640.4**	**$221.9**	**1,223****	**$15.5**

*Values in millions. **Jobs total represents an average of the 3-year period.
Source: Loren C. Scott & Associates, Inc, April 2024.

The impacts on the State are quite impressive as one might expect from nearly a third of a billion dollars in new spending is injected into the Louisiana economy. According to the State I/O table, over 2027-29, LGCT's construction spending will create:

- Nearly two-thirds of a billion dollars **($640.4 million) in new sales** for businesses in the State
- **$221.9 million in new earnings** for Louisiana households
- **1,223 jobs a year**, on average, with a peak employment of 1,602 jobs in 2027, and
- **$15.5 million in new revenues** for the State Treasury.

The last column of numbers in Table 35—the tax impacts—were not derived directly from the State I/O table. Officials with the State Legislative Fiscal Office have estimated that for every new dollar of earnings in Louisiana, the State collects about seven cents in income taxes, sales taxes, gasoline taxes, and other fees. The numbers in the last column of Table 35 were calculated by taking the numbers in the earnings column and multiplying them by 7%.

Readers may be interested in which industries in the State will benefit the most from LGCT's construction spending. Table 36 presents the I/O table breakdown by industry of the benefits of this spending in year 2027. Note that the numbers along the bottom line of Table 36 match those in the 2027 line back in Table 35.

It should be no surprise that the greatest beneficiary of this spending is the **construction sector** in terms of new sales ($135.2 million), new household earnings ($54.5 million), and new jobs (851). Note that two other sectors of the State's economy should enjoy job increases in excess of 100---(1) the very labor-intensive retail trade sector (+143 jobs) and (2) the healthcare/social services sector (+101 jobs). There are seven other sectors that are projected to see jobs increases in excess of 40. Obviously, the benefits of LGCT's construction spending are widespread.

Table 36. Indirect impacts of construction on Louisiana: 2027

Industry	Sales*	Earnings*	Jobs
Agriculture, Forestry, Fishing, and Hunting	$1.3	$0.4	13
Mining	$4.1	$1.0	6
Utilities	$3.8	$0.6	4
Construction	$135.2	$54.5	851
Durable Goods Manufacturing	$17.0	$3.7	51
Nondurable Goods Manufacturing	$17.7	$2.8	25
Wholesale Trade	$11.6	$3.0	30
Retail Trade	$14.4	$5.3	143
Transportation and Warehousing	$7.0	$2.2	40
Information	$3.6	$0.7	10
Finance and Insurance	$6.2	$1.5	26
Real Estate and Rental and Leasing	$11.3	$1.9	60
Professional, Scientific, and Technical Services	$8.6	$4.2	54
Management of Companies and Enterprises	$1.8	$0.7	7
Administrative and Waste Management Services	$3.9	$1.7	41
Educational Services	$1.7	$0.8	20
Health Care and Social Assistance	$13.6	$6.2	101
Arts, Entertainment, and Recreation	$1.1	$0.4	12
Accommodation	$1.4	$0.4	11
Food Services and Drinking Places	$4.2	$1.3	47
Other Services	$5.2	$1.8	45
Households	$0.0	$0.1	6
Total	**$275.0**	**$95.3**	**1,602**

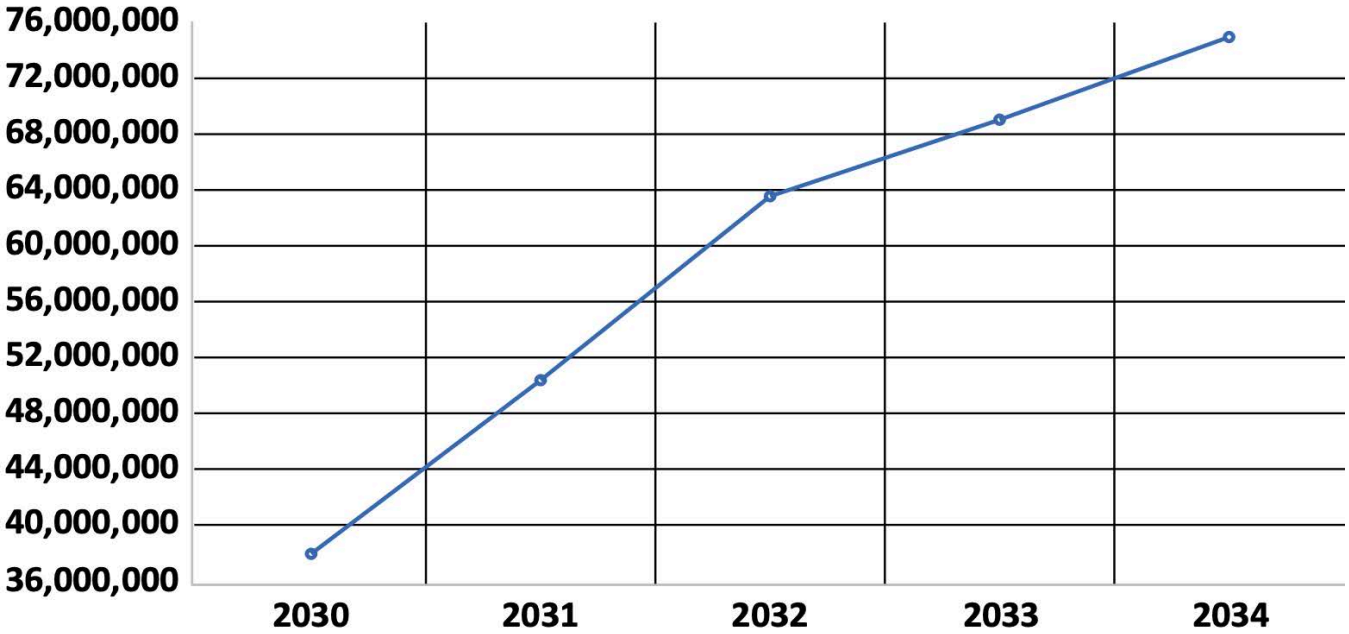
*Values in millions.
Source: Loren C. Scott & Associates, Inc, April 2024.

A.4 Impact of LGCT's operational spending

While the benefits to the Region and State economies listed in Table 34, Table 35, and Table 36 are impressive, it is important to understand that they are temporary---lasting only as long as the construction expenditures are underway. Once the construction of the terminal is completed, these benefits will disappear. The good news is that they will be replaced by the **permanent** benefits associated with the on-going operation of the terminal.

As shown in Figure 115, operating expenses will start out at nearly $38 million annually in 2030 and then grow to nearly $75 million a year in 2034 as the terminal business reaches capacity. Employment is projected to start at about 300 employees in 2030 and expand to about 400 jobs in 2034. Importantly, these will be high-wage jobs, averaging about $95,00 a year in the first year of operation. In fact, wages, salaries, and benefits are by far the largest component of LGCT's operational spending.

Figure 115. LGCT operating expenses ($)



Source: Loren C. Scott & Associates, Inc, April 2024.

A.4.1 Impact of LGCT operational spending on the Region

Table 37 contains the Region I/O table estimate of the impact of LGCT's operational spending on the Region economy over the 7-year period from 2030-36. This covers the period from initial operations to approximately full capacity of the present phase of construction.

Table 37. Impacts of operations on Plaquemines Port Region: 2030-2036

Year	Sales*	Earnings*	Jobs	Taxes*
2030	$43.7	$41.8	542	$3.8
2031	$57.6	$57.0	614	$4.6
2032	$72.3	$72.9	736	$5.5
2033	$78.5	$79.6	758	$5.9
2034	$85.0	$86.6	831	$6.3
2035	$87.6	$89.2	932	$6.5
2036	*$90.2*	*$91.9*	*933*	*$6.7*
Total	**$514.9**	**$518.9**	**764****	**$19.6**

*Values in millions of dollars. **Jobs total represents an average of the 7-year period.
Source: Loren C. Scott & Associates, Inc, April 2024.

The impacts obviously grow over time, as expected from viewing the pattern of operational spending in Figure 115. By the time this first phase is fully operational in 2036 (see italicized row in Table 37), LGCT's operational spending will be supporting:

- **$90.2 million in sales** at businesses in the Region
- **$91.9 million in household earnings** for Region residents
- **933 jobs** for citizens in the Region.
  - This implies an **average annual wage of $98,500** ($91.9 million/933) across all supported industries, an indication these are very good paying jobs.
  - This also implies a **job multiplier of 2.3** (933/400), which implies for every new job created at the terminal, there are 1.3 additional jobs created throughout the Region via the multiplier effect.

- And, **$6.7 million in new revenues** for local governments in the Region.

To emphasize again, the benefits enumerated in Table 37 are permanent (unlike the construction benefits) and will continue to accrue to the Region as long as the terminal remains operational.

A.4.2 Impact of LGCT operational spending on Louisiana

Table 38 contains the I/O table estimates of the impact of LGCT operational spending on the Louisiana economy over 2030-2036. Because the Louisiana "economic pond" is larger than that of the Region, the numbers in Table 38 will tend to be larger than those in Table 37. However, a quick comparison will show the numbers are not all that different, meaning that **the great majority of the benefits from LGCT's operational spending occur in the 5-parish Region**.

As was the case at the Region level, the impacts grow over time, as expected from viewing the pattern of operational spending in Figure 115. By the time this first phase is fully operational in 2036 (see italicized row in Table 38), LGCT's operational spending will be supporting:

- **$92.3 million in sales** at businesses in the State
- **$94.4 million in household earnings** for Louisiana residents
- **957 jobs** for citizens in Louisianans:
  - This implies an **average annual wage of $98,642 ($94.4 million/957)** across all supported industries---an indication these are very good paying jobs.
  - This also implies a **job multiplier of 2.4 (957/400)**, which implies for every new job created at the terminal, there are 1.4 additional jobs created throughout the Region via the multiplier effect.
- And, **$6.6 million in new revenues** for the State Treasury.

Obviously, the introduction of the LGCT will be a nice economic boon for the State's economy.

Table 38. Impacts of operations on Louisiana: 2030-2036

Year	Sales*	Earnings*	Jobs	Taxes*
2030	$44.7	$43.1	557	$3.0
2031	$59.0	$58.6	632	$4.1
2032	$74.0	$74.9	758	$5.2
2033	$80.3	$81.8	782	$5.7
2034	$87.0	$89.0	855	$6.2
2035	$89.6	$91.7	956	$6.4
2036	*$92.3*	*$94.4*	*957*	*$6.6*
Total	**$526.9**	**$533.6**	**785****	**$19.3**

*Values in millions. **Jobs total represents an average of the 7-year period.
Source: Loren C. Scott & Associates, Inc, April 2024.

Under the third bullet point above it was indicated that for every new job at LGCT, 1.4 jobs were created elsewhere in the State. Which industries in the State are the primary beneficiaries of LGCT's operational spending? I/O estimates are shown in Table 39.

Table 39. Indirect Impacts of Operations on Louisiana: 2030

Industry	Sales*	Earnings*	Jobs
Agriculture, Forestry, Fishing, and Hunting	$0.4	$0.1	3
Mining	$0.6	$0.2	1
Utilities	$1.4	$0.2	1
Construction	$3.5	$1.4	20
Durable Goods Manufacturing	$0.8	$0.2	2
Nondurable Goods Manufacturing	$3.4	$0.5	5
Wholesale Trade	$2.2	$0.6	5
Retail Trade	$3.8	$1.4	34
Transportation and Warehousing	$1.5	$0.5	8
Information	$1.2	$0.2	3
Finance and Insurance	$2.3	$0.6	9
Real Estate and Rental and Leasing	$5.2	$0.9	24
Professional, Scientific, and Technical Services	$5.1	$2.5	30
Management of Companies and Enterprises	$0.5	$0.2	2
Administrative and Waste Management Services	$1.1	$0.5	11
Educational Services	$0.7	$0.3	8
Health Care and Social Assistance	$6.1	$2.8	42
Arts, Entertainment, and Recreation	$0.5	$0.2	5
Accommodation	$0.6	$0.2	4
Food Services and Drinking Places	$1.9	$0.6	19
Other Services	$2.0	$0.7	16
Households	$0.0	$0.0	3
Total	**$44.7**	**$14.7**	**257**

*Values in millions. Source: Loren C. Scott & Associates, Inc, April 2024.

Of the 257 indirect jobs (non-LGCT jobs) created via the multiplier effect in 2030, there are eight sectors that are expected to see double-digit employment gains. Leading the pack is the healthcare/social assistance sector with 42 new jobs, followed in second place by retail trade (+34 jobs). A close third is the professional/ technical/ scientific sector with 30 additional jobs. In fourth place is the real estate/ rentals/ leasing sector, projected to pick up 24 new jobs. The spillover benefits of LGCT's operational spending, like its capital spending, are quite widespread.

A.5 Ten-year impacts of all LGCT spending

In Section A.2 Methodology, and Section A.4 Impact of LGCT's operational spending, the separate impacts of LGCT's capital spending and operational spending on each geographic area were estimated. As a handy reference for readers, in this section we combine the impacts of both types of spending in one table so readers can see the 10-year impact of this new terminal for both the Region and the State.

A.5.1 LGCT's 10-year spending impact on the Region

Table 40 shows the 10-year impact of all of LGCT's spending on the Region's economy. Note that the larger impacts occur in the first three years (2027-29) when the largest amounts are spent constructing the terminal. Once operational in 2030, the impacts go steadily until the facility is fully ramped up in 2036.

Table 40. Total impacts on Plaquemines Port Region, 2027-2036

Year	Sales*	Earnings*	Jobs	Taxes*
2027	$249.9	$77.3	1,321	$6.9
2028	$236.8	$73.3	1,223	$6.5
2029	$95.1	$29.4	480	$2.6
2030	$43.7	$41.8	542	$3.8
2031	$57.6	$57.0	614	$4.6
2032	$72.3	$72.9	736	$5.5
2033	$78.5	$79.6	758	$5.9
2034	$85.0	$86.6	831	$6.3
2035	$87.6	$89.2	932	$6.5
2036	$90.2	$91.9	933	$6.7
Total	**$1,096.7**	**$698.9**	**837****	**$55.5**

*Values in millions of dollars. **Jobs total represents an average of the 10-year period.
Source: Loren C. Scott & Associates, Inc, April 2024.

The 10-year total impacts along the bottom line of Table 40 are impressive. Over this 10-year period, the I/O table estimates indicate LGCT spending will create:

- **Over a billion dollars ($1,096.7 million) in sales** at firms in the Region
- **Over two-thirds of a billion dollars ($698.9 million) in new earnings** form households in the Region
- An average of **837 jobs a year**, with a top of 1,321 jobs in the peak construction year of 2027, and 933 permanent jobs by 2036 when the terminal is operating at capacity, and
- **$55.5 million in new revenues** in local government coffers.

Obviously, the new LGCT will be a big economic win for the Region.

A.5.2 LGCT's 10-year spending impact on the State of Louisiana

Table 41 shows the 10-year impact of all of LGCT's spending on the Louisiana economy. As was the case at the Region level, the larger impacts occur in the first three years (2027-29) when the largest amounts are spent constructing the terminal. Once operational in 2030, the impacts go steadily until the facility is fully ramped up in 2036.

Table 41. Total impacts on Louisiana: 2027-2036

Year	Sales*	Earnings*	Jobs	Taxes*
2027	$275.0	$95.3	1,602	$6.7
2028	$260.7	$90.3	1,484	$6.3
2029	$104.7	$36.3	582	$2.5
2030	$44.7	$43.1	557	$3.0
2031	$59.0	$58.6	632	$4.1
2032	$74.0	$74.9	758	$5.2
2033	$80.3	$81.8	782	$5.7
2034	$87.0	$89.0	855	$6.2
2035	$89.6	$91.7	956	$6.4
2036	$92.3	$94.4	957	$6.6
Total	**$1,167.3**	**$755.4**	**917****	**$52.9**

*Values in millions of dollars. **Jobs total represents an average of the 10-year period.
Source: Loren C. Scott & Associates, Inc, April 2024.

At the State level as well, LGCT's spending impacts are eye-catching, as seen along the bottom line of Table 41. Over this 10-year period, the I/O table estimates indicate LGCT spending will create:

- **$1,167.3 million in sales** at firms in the State
- **Over three-quarters of a billion dollars ($755.4 million) in new earnings** for Louisiana households
- An average of **917 jobs a year** of Louisianans, with a top of 1,602 jobs in the peak construction year of 2027, and 957 permanent jobs by 2036 when the terminal is operating at capacity, and
- **$52.9 million in new revenues** for the State Treasury.

These are clearly nice economic benefits for the State should LGCT proceed with this project.

Appendix B: Venture Global Plaquemines LNG Economic Impact Analysis

ECONOMIC IMPACT OF THE
VENTURE GLOBAL PLAQUEMINES LNG TERMINAL ON THE
PLAQUEMINES PORT REGION AND LOUISIANA ECONOMIES

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B.1 Introduction

B.1.1 The Venture Global Plaquemines LNG Project

Underway at mile marker 55 on the Mississippi River (about 20 miles south of New Orleans) is construction of the largest single capital investment in the history of Plaquemines Parish---the **Venture Global (VG) Plaquemines LNG** export facility. VG's facility is located within the Plaquemines Port Harbor and Terminal District, AKA Louisiana Gateway Port (hereafter, LGP). In 2022, a Final Investment Decision (FID) was issued on the first, $10.5 billion, phase of the project. In March 2023, an FID was issued on the approximately $8 billion second phase, bringing VG's total investment at the site to a stunning **$18.5 billion**.

Located on a huge 632-acre parcel of land, the site will contain 36 "trains" in 18 blocks. These trains will take natural gas in gas form, cool it to a liquefied form that is about 1/600th of its original volume, initially store it in one of four 200,000 cubic meter storage tanks, and then place it on an LNG tanker for shipment typically to Europe or Asia. There the LNG will be regasified for use in electricity generation, manufacturing, residential heating, etc. There are 1.3 miles of river frontage at the site at which three LNG carriers can berth at once.

Adding to the capital investment at the site, Gator is spending about $400 million on the **Gator Express Pipeline**. This 42-inch diameter pipeline (see Figure 116) will connect the site to interstate natural gas pipelines to provide feedstock to the VG site.

Figure 116. Gator Express pipeline

Source: Loren C. Scott & Associates, Inc., April 2024

B.1.2 Purpose of this report

The purpose of this report is to determine the economic impact of both constructing and operating this facility on the economies of two geographic areas: (1) the "**Port Region**" defined as Plaquemines, St. Bernard, Orleans, Jefferson, and St. Tammany Parishes, and (2) the **State of Louisiana**. Impacts will be estimated over the time period from 2021 through 2030. The objective will be to estimate the impact of VG's capital and operational spending on (1) business sales, (2) household earnings, (3) jobs, and (4) governmental revenues in each geographic region.

B.2 Methodology

When the new construction and operational expenditures associated with VG Plaquemines are injected into these two geographic areas there is both a **direct** and a **multiplier effect** on the Region and the State. A helpful

way of thinking of this methodology is to think of, for example, the Region economy as a large economic pond. Into this pond, a rock will be dropped labeled "new construction and operational monies associated with the VG Plaquemines LNG project." This rock will make quite a splash, since a remarkable $18.5 billion will be spent to construct the facility and hundreds of millions a year will be spent to operate the facility. This initial splash is what we call the "direct effect" of the new monies.

B.2.1 The multiplier effect

Once this rock hits the pond it will send ripples to the edge of the pond. For example, construction workers and employees at the site will take their new paychecks and spend those new monies at grocery stores, car dealerships, movie theaters, department stores, etc. in the Region. This will create new earnings at these establishments, and those workers will spend their new earnings at other establishments in the region. The construction firms will spend money on equipment and supplies at stores in the area, creating new income for their owners and employees, who will take this new money and spend it at car dealerships, grocery stores, etc. This is the "**multiplier"** effect.

B.2.2 Measuring the multiplier effect

Fortunately, there is a handy tool available for measuring these multiplier effects—an **input/output (I/O) table**. I/O tables for the Region and the State have been constructed by the Bureau of Economic Analysis (BEA) within the U.S. Department of Commerce. The BEA is the same governmental agency responsible for measuring the nation's gross domestic product each quarter.

These I/O tables can be used to estimate three separate impacts of the new monies brought to the Region/State by VG activities—the impact on (1) **sales** at firms in each area, (2) **household earnings** of citizens in each area, and (3) **jobs** in each area. We will also be able to estimate the impacts on **local and state tax collections** as a result of the spending.

B.3 Impact of VG construction spending

As mentioned in the introductory section, the VG LNG project in Plaquemines Parish is the largest single project in the history of the Parish. Over the 5-year period from 2021-25, a total of $18.5 billion will be spent on construction in both phases of this project. Table 42 provides estimates of how the capital expenditures will be spread over 2021-25. Note that peak construction spending ($7.4 billion) occurred in 2023 when construction of both phases overlapped. Total capital spending is further broken into two other categories. The middle column indicates the portion of total spending that takes place in Louisiana. This is the only part of VG's capital spending that is used in calculating the impacts on the region and State. Monies spent on, say a turbine manufactured in Maine, helps that state but does not impact the Louisiana economy.

Table 42. Total estimated construction spending by VG: 2021-2025 (millions of dollars)

Year	Total	Amount Spent in Louisiana	Machinery, Equipment, Materials
2021	$1,185	$1,000	$765
2022	$3,700	$2,000	$1,530
2023	$7,400	$4,000	$3,060
2024	$3,700	$2,000	$1,530
2025	$1,850	$1,000	$765
Total	**$18,500**	**$10,000**	**$7,650**

Source: Loren C. Scott & Associates, Inc., April 2024

There is a third breakout shown in Table 42. The final column illustrates that part of total capital spending that goes to materials, equipment and machinery---no matter where these items were sourced. That is because when these items are installed at the site, the Parish of Plaquemines gets to levy a sales tax on the items. This will be important in determining the tax impacts of VG's capital spending.

B.3.1 Impacts of VG capital spending: Region Economy

The data in Table 42 were injected into the Region I/O table to determine the impact of VG's massive amount of capital spending on the Region's economy. The results are shown in Table 43.

Table 43. Impacts of construction on Plaquemines Port Region: 2021-2025

Year	Sales*	Earnings*	Jobs	Taxes*
2021	$1,864.9	$576.8	11,201	$65.6
2022	$3,729.8	$1,153.6	21,955	$131.1
2023	*$7,459.6*	*$2,307.2*	*43,013*	*$262.3*
2024	$3,729.8	$1,153.6	21,058	$131.1
2025	$1,864.9	$576.8	10,305	$65.6
Total	**$18,649.0**	**$5,768.0**	**21,506****	**$655.7**

*Values in millions of dollars. **Jobs total represents an average of the 5-year period.
Source: Loren C. Scott & Associates, Inc., April 2024

As might be expected, multi-billions of dollars of investments result in multi-billions of dollars in benefits to the Region economy. The benefits vary by year just as the capital spending pattern in Table 42 did. The greatest benefits occurred in 2023 (shown in italics in Table 43) when the I/O estimates the Region gained:

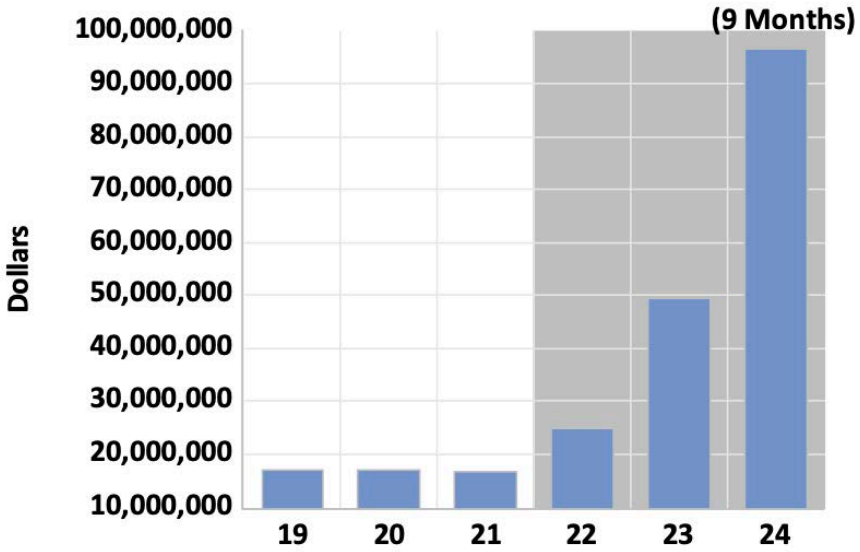
- Nearly **$7.5 billion in new sales** for businesses in the Region
- Over **$2.3 billion in new earnings** for residents of the Region
  - As a reference point, total earnings in Plaquemines Parish in 2022 were $1.3 billion.[45] Though spread across the Region's 5 parishes, VG's construction spending in 2023 created the equivalence of another Plaquemines Parish economy plus some.
- A stunning **43,013 jobs** for citizens of the Region, and
  - As a reference point, total employment in Plaquemines Parish in 2023-III was 11,487.[46] Jobs created by VG's spending in 2023 basically almost quadrupled, in the 5-parish Region, the employment levels in Plaquemines Parish.
  - This also implies an **average annual wage for all of these jobs of $53,472** ($2.3 million/43,013).
- Over a **quarter of a billion in new revenues** for local governments in the Region.

The estimates of the last bullet point above, the impact on local government treasuries, did not come from the I/O table. This estimate was derived separately and is comprised of two sources. First, as mentioned above, when VG installs new machinery, equipment, and materials at the site, the Parish of Plaquemines applies a sales tax to those installations. We estimate that unless VG has a special exemption from these sales taxes, they total over **$344 million** over the 5-year construction phase. These revenues go specifically to Plaquemines Parish, not to the other four parishes in the Region.

Second, Dr. James A. Richardson, retired director of LSU's Public Administration Institute, has estimated that for every dollar of new earnings generated in an area local governments collect an estimated 5.4 cents in sales taxes, property taxes, and other fees. Thus, a 5.4% rate was applied to the numbers on the earnings column of Table 43 to generate this impact.

[45] www.bea.gov.
[46] www.laworks.net

Figure 117. Plaquemines Parish sales tax collection: FY19-24



*Values in millions of dollars. **Jobs total represents an average of the 5-year period.
Source: Loren C. Scott & Associates, Inc., April 2024

The impact of VG's construction on just Plaquemines Parish sales tax collections is vividly shown in Figure 2. Prior to VG's construction start the Parish was collecting just under $17 million annually. In FY24, the Parish has already collected over $98 million, with 3 months collections still to come.

Readers may be taken aback by the size of these impacts, but recall that this is the largest, one-time capital investment in the Parish's history---a total of $18.5 billion over a 5-year period. Anecdotally, fishermen from Baton Rouge pass this site on the way to the salt marshes below it. They report being stunned by the number of cranes, pickup trucks, buses, etc., at the construction site.

Note that the bullet points above are the benefits just for 2023, the year of the highest construction spending. Along the bottom line of Table 43 are the I/O table estimates of the total benefits over the entire 5-year construction phase. According to the region I/O all this capital spending over 2021-25 will create:

- Over **$18.6 billion in new sales** at firms in the Region
- Nearly **$5.8 billion in new earnings** for households in the Region
- An **average of 21,506 jobs a year**, with the peak job creation of 43,013 in 2023, and
- Nearly **two-thirds of a billion dollars ($655.7 billion) in new revenues** for local governments in the Region.

As this project demonstrates, huge investments lead to huge economic benefits.

B.3.2 Impacts of VG capital spending: Louisiana Economy

In this section, the economic benefits of VG capital spending on the Louisiana economy are examined. Because the Louisiana "economic pond" is larger than that of the Region, the ripple effects will have further to go. That is, the economic benefits will tend to be much larger at the State level. This is confirmed by comparing the impact numbers in Table 44 to those back in Table 43.

Table 44. Impacts of construction on Louisiana: 2021-2025

Year	Sales*	Earnings*	Jobs	Taxes*
2021	$2,052.6	$711.0	13,589	$49.8
2022	$4,105.2	$1,422.0	26,635	$99.5
2023	$8,210.4	$2,844.0	52,183	$199.1
2024	$4,105.2	$1,422.0	25,548	$99.5
2025	$2,052.6	$711.0	12,502	$49.8
Total	**$20,526.0**	**$7,110.0**	**26,091****	**$497.7**

*Values in millions of dollars. **Jobs total represents an average of the 3-year period.
Source: Loren C. Scott & Associates, Inc., April 2024.

Again, the eye-popping impacts shown in Table 44 simply reflect the eye-popping nature of the $18.5 billion capital invest being made by VG. Note that in just the year of largest construction expenditure (2023) it is estimated that VG spending created:

- Over **$8.2 billion in new sales** at businesses in Louisiana
- Over **$2.8 billion in new earnings** for Louisiana households
  - As a reference point, this is only slightly less than the total earnings of all workers whose job In Louisiana is to construct buildings ($2.9 billion in 2022).[47]
- **52,183 jobs**, and:
  - As a reference point, in 2023-III there were 50,835 people working in the heavy/civil engineering construction sector in Louisiana.[48]
- Nearly **$199.1 million) in new revenues** for the State treasury.
  - As a reference point, in FY23 Louisiana collected $246.2 million in tobacco taxes.[49]

The State treasury revenue estimate in the last bullet point needs further explanation, since it is not derived from the I/O table directly. Officials with the Louisiana Legislative Fiscal Office have estimated that for every dollar of new earnings generated in the economy, the State collects just over seven cents in sales taxes, income taxes, gasoline taxes, and other taxes/fees. Thus, the numbers in the last column of Table 44 are derived by multiplying the numbers in the "Earnings" column by 7%.

Over the entire 5-year construction cycle the impacts on the State are obviously dramatic. According to the I/O table for the State, this $18.5 billion investment will create over 2021-26:

- Over **$20.5 billion in new sales** at businesses in Louisiana
- Over **$7.1 billion in new earnings** for Louisiana households
- An average of **26,091 jobs a year**, with a peak employment of 52,183 jobs in 2023, and
- Nearly **half a billion dollars ($497.7 million) in new revenues** for the State treasury.

B.3.3 Impacts of VG capital spending by industry: Louisiana Economy

Which industries benefit the most from the direct and multiplier effect of VG's capital spending? Table 45 illustrates the I/O table industry breakouts for the year of VG's largest capital spending---2023. It will be no surprise to readers that the largest beneficiary of this spending will be the **construction sector**, with (1) $4 billion in new sales, (2) over $1.6 billion in new earnings for construction workers, and (3) a total of 27,720 construction jobs supported in that year. From a jobs standpoint, the very labor-intensive **retail trade** sector (+4,648 jobs) comes in second place, followed by the **healthcare/social services** sector with +3,282 jobs supported. Note that

[47] www.bea.gov
[48] www.laworks.net
[49] www.revenue.louisiana.gov/publications

there are seven other sectors that picked up more than 1,000 jobs through VG's capital spending in 2023. Obviously the benefits were widespread.

Table 45. Indirect impacts of construction on Louisiana: 2023

Industry	Sales*	Earnings*	Jobs
Agriculture, Forestry, Fishing, and Hunting	$39.2	$10.8	417
Mining	$123.2	$29.6	199
Utilities	$114.0	$17.2	140
Construction	$4,035.2	$1,627.2	27,720
Durable Goods Manufacturing	$507.6	$109.2	1,677
Nondurable Goods Manufacturing	$528.8	$82.8	824
Wholesale Trade	$347.6	$88.8	971
Retail Trade	$430.0	$157.6	4,648
Transportation and Warehousing	$209.6	$65.6	1,303
Information	$107.6	$21.6	319
Finance and Insurance	$186.0	$46.0	857
Real Estate and Rental and Leasing	$338.0	$58.0	1,946
Professional, Scientific, and Technical Services	$257.6	$126.0	1,751
Management of Companies and Enterprises	$53.2	$20.0	215
Administrative and Waste Management	$117.6	$52.0	1,349
Educational Services	$50.0	$23.6	641
Health Care and Social Assistance	$406.8	$186.0	3,282
Arts, Entertainment, and Recreation	$33.6	$12.0	378
Accommodation	$43.2	$12.0	342
Food Services and Drinking Places	$126.4	$40.0	1,539
Other Services	$155.2	$54.8	1,453
Households	$0.0	$3.2	211
Total	**$8,210.4**	**$2,844.0**	**52,183**

*Values in millions.
Source: Loren C. Scott & Associates, Inc., April 2024

B.4 Impacts of VG operational spending

A second key way VG will inject monies into these two economies is via operational spending. Unlike the capital spending impacts which are temporary and vanish when construction is completed, operational spending benefits are permanent and continue as long as the plant remains operational.

Unfortunately, **our operational impacts will end up being grossly under-estimated.** That is because the only operational spending available were the data VG submitted to the Louisiana Department of Economic Development in order to qualify for the Industrial Tax Exemption Program (ITEP). ITEP only requires that firms submit wage, salary and employment numbers. Other operational expenditures such as utilities, contract labor, natural gas purchased in Louisiana, security services, professional services, etc., do not have to be documented.

Because this LNG plant is very capital-intensive, wages and salaries are typically a small part of total operational costs. Indeed, in an earlier impact study conducted on another LNG facility, wages and salaries composed only 15% of total operating costs. This means our operational impacts will be grossly under-stated for two reasons: (1) all other operational expenditures (about 85% of total costs) are not included, and (2) these other operational expenditures tend to have multiplier effects that significantly exceed those of the wages and salaries component. **Our rough guess is that the impact numbers shown below can easily be increased by a factor of 5 to 7 times**.

Having mentioned that, it is important to point out that the wages and salaries component of VG's operational spending is certainly non-trivial. VG estimates that annual wages and salaries in the first year of operation (2026)

will be **$56 million for its 400 employees**. That implies an **average annual wage of $140,000**. This is well in excess of the average wage in Louisiana: $57,564 in 2023.[50]

B.4.1 Impacts of VG operational spending: Region Economy

VG's wage and salary data were injected into the Region's I/O table to determine the multiplier effects of this $56 million being injected into the Region's economy. The results are shown in Table 46 for the 5-years period from 2026 through 2030. VG salary data in future years was allowed to grow by 3%.

Table 46. Impacts of operations on Plaquemines Port Region: 2026-2030

Year	Sales*	Earnings*	Jobs	Taxes*
2026	$57.1	$72.9	809	$3.9
2027	$58.8	$75.1	813	$4.1
2028	$60.5	$77.3	816	$4.2
2029	$62.3	$79.6	820	$4.3
2030	$64.2	$82.0	823	$4.4
Total	**$302.9**	**$387.0**	**816****	**$20.9**

*Values in millions of dollars. **Jobs total represents an average of the 5-year period.
Source: Loren C. Scott & Associates, Inc., April 2024

Even absent a large component of operational spending, the impacts on the Region's economy are impressive. In the first year of full operation (2026), the I/O table estimates that VG's wage and salary spending will create:

- **$57.1 million in sales** at businesses in the Region
- **$72.9 million in new earnings** for households in the Region
  - As a reference point, this is approximately equal to the entire earnings of all the workers in the wholesale trade sector in Plaquemines Parish ($78 million in 2022).[51]
- **809 jobs**, and:
  - As a reference point, this is slightly more jobs than in the entire wholesale trade sector in Plaquemines Parish (749 jobs in 2023-III). [52]
  - This also implies a **job multiplier for this facility of 2.0** (809/400). This implies for every new job created at the LNG export facility, one additional job is created elsewhere in the Region via the multiplier effect. We are confident that if all of VG's operational expenditures were injected into the Region I/O table, the job multiplier would be at least 5.
- **$3.9 million in new revenues** for local governments in the Region.

B.4.2 Impacts of VG operational spending: Louisiana Economy

Table 47 contains the I/O table estimates of the impacts of VG's operational spending on the State's economy. Readers will notice that the numbers in Table 47 are very little different from the Region impacts back Table 46. That is, the great majority of the multiplier effects of VG's operational spending occur solely in the 5-parish Region. This is not uncommon when the only operational expenditure injected into the I/O table is wages and salaries.

[50] www.laworks.net/labormarketinfo
[51] www.bea.gov
[52] www.laworks.net

Table 47. Impacts of operations on Louisiana: 2026-2030

Year	Sales*	Earnings*	Jobs	Taxes*
2026	$57.8	$74.1	822	$5.2
2027	$59.6	$76.3	826	$5.3
2028	$61.4	$78.6	830	$5.5
2029	$63.2	$81.0	834	$5.7
2030	$65.1	$83.4	837	$5.8
Total	**$307.0**	**$393.4**	**830****	**$27.5**

*Values in millions of dollars. **Jobs total represents an average of the 5-year period.
Source: Loren C. Scott & Associates, Inc., April 2024

Note that in the first full year of operation (2026), VG's operational spending is projected to create:

- **57.8 million in sales** at businesses in the Region
- **$74.1 million in new earnings** for households in the Region
  - As a reference point, this is approximately equal to the entire earnings of all the workers in the State's textile industry ($79.1 million in 2022).[53]
- **822 jobs**, and:
  - As a reference point, this is slightly more jobs than in the entire cattle and aquaculture sector of the State (726 jobs in 2023-III). [54]
  - This also implies a **job multiplier for this facility of 2.1**(822/400). This implies for every new job created at the LNG export facility, 1.1 additional jobs are created elsewhere in the State via the multiplier effect. We are confident that if all of VG's operational expenditures were injected into the State I/O table, the job multiplier would be at least 8.
- **$5.2 million in new revenues** for the State Treasury.
  - As a reference point, that is about two months of collections of the Louisiana Stadium & Exposition District tax collections.[55]

B.4.3 Impacts of VG operational spending by industry: Louisiana Economy

Readers may be curious about which industries benefit the most from the multiplier effect of VG's operational spending. Table 48 shows the I/O table industry breakdowns. Notice that these are only the indirect (as the table heading indicates) and does not include the direct jobs at the LNG facility.

For example, there are 400 direct VG employees at the LNG facility. There are a total of 822 jobs created including the multiplier effect (see Table 47). That means 422 jobs were created indirectly via the multiplier effect, which is the number at the bottom right corner of Table 48. Scanning up from this number, one can see how those 422 jobs are distributed across various industries in the State.

[53] www.bea.gov
[54] www.laworks.net
[55] www.revenue.louisiana.gov/publications

Table 48. Indirect impacts operations on Louisiana: 2026

Industry	Sales*	Earnings*	Jobs
Agriculture, Forestry, Fishing, and Hunting	$0.6	$0.1	5
Mining	$0.9	$0.2	2
Utilities	$1.9	$0.3	2
Construction	$0.6	$0.2	4
Durable Goods Manufacturing	$0.6	$0.1	2
Nondurable Goods Manufacturing	$5.2	$0.8	10
Wholesale Trade	$3.3	$0.8	10
Retail Trade	$6.2	$2.3	68
Transportation and Warehousing	$2.2	$0.7	16
Information	$1.9	$0.4	6
Finance and Insurance	$3.7	$0.9	19
Real Estate and Rental and Leasing	$6.4	$1.0	42
Professional, Scientific, and Technical Services	$2.2	$1.1	15
Management of Companies and Enterprises	$0.6	$0.2	3
Administrative and Waste Management Services	$1.5	$0.7	18
Educational Services	$1.3	$0.6	17
Health Care and Social Assistance	$10.6	$4.8	89
Arts, Entertainment, and Recreation	$0.8	$0.3	9
Accommodation	$1.0	$0.3	8
Food Services and Drinking Places	$3.1	$1.0	39
Other Services	$3.3	$1.2	32
Households	$0.0	$0.1	6
Total	**$57.8**	**$18.1**	**422**

*Values in millions of dollars.
Source: Loren C. Scott & Associates, Inc., April 2024

According to the State I/O table, the largest two beneficiaries of VG's operational spending are (1) **healthcare/social services** (+89 jobs) and **retail trade** (+68 jobs). In third place is the real estate/rentals/leasing sector (+42 jobs). There are 9 other sectors where 10 or more jobs should be created via the multiplier effect of VG's operational spending.

The industry breakouts shown in Table 48 are what one might expect if the only data injected into the I/O table are wages and salaries. If all of VG's operational spending had been used, such as utilities, contract labor, natural gas purchases, professional services, etc., the distribution shown in Table 48 would be much different and the numbers would all be much higher.

B.5 Impacts of all of VG's spending over 2021-30

In Section B.3.2 Impacts of VG capital spending: Louisiana Economy, the impacts of VG's capital spending to build its facility were analyzed, in Section B.4 Impacts of VG operational spending, attention was directed to the impact of VG's operational spending. In this section, those two impacts are merged, so readers can see the impacts of all of VG's spending over the 10-year span from 2021-30.

B.5.1 Impacts of total VG spending over 2021-30: Region Economy

The numbers in Table 49 show the total impacts of VG's capital and operational spending on the Region's economy over 2021-30. These are the sum of the numbers in Table 43 and Table 46. Clearly, the impacts are dominated by the huge construction spending over 2021-25. At the risk of being too repetitious, the operational impact numbers from 2026-30 would be substantially larger with the addition of all operations expenditures.

Table 49. Total impacts on Plaquemines Port Region: 2021-2030

Year	Sales*	Earnings*	Jobs	Taxes*
2021	$1,864.9	$576.8	11,201	$65.6
2022	$3,729.8	$1,153.6	21,955	$131.1
2023	$7,459.6	$2,307.2	43,013	$262.3
2024	$3,729.8	$1,153.6	21,058	$131.1
2025	$1,864.9	$576.8	10,305	$65.6
2026	$57.1	$72.9	809	$3.9
2027	$58.8	$75.1	813	$4.1
2028	$60.5	$77.3	816	$4.2
2029	$62.3	$79.6	820	$4.3
2030	$64.2	$82.0	823	$4.4
Total	**$18,951.9**	**$6,155.0**	**11,161****	**$676.6**

*Values in millions of dollars. **Jobs total represents an average of the 10-year period.
Source: Loren C. Scott & Associates, Inc., April 2024

The numbers along the bottom line of this table demonstrate just how substantial the largest capital project in Plaquemines Parish history can have on a Region. Over this 10-year period VG's spending is projected to create:

- Nearly **$19.billion in new sales** for firms in the 5-parish Region
- Over **$6 billion in new household earnings** for residents of the Region
- An average of **11,161 jobs** for Region citizens, dominated by the extremely large job creation during construction, and
- **Over two-thirds of a billion dollars ($676.6 million) in new revenues** for local governments in the Region.

Regarding this last impact of local government revenues, Plaquemines Parish has an especially bright revenue future ahead. In approximately 2035, the ITEP on this facility will reach its 10-year limit, and the Parish will begin to collect property taxes on this enormous project. The Parish will experience a revenue bounty like it has never experienced before.

B.5.2 Impacts of total VG spending over 2021-30: Louisiana Economy

Table 50 sums the capital and operational impacts on the State detailed back in Table 44 and Table 47. As was the case at the Region level, the impacts are dominated by the construction impacts in 2021-25. Over the 10-year period from 2021-30, VG's spending is projected to create:

- Over **$20.8 billion in new sales** at firms in Louisiana
- Over **$7.5 billion in new earnings** for Louisianans
- **An average of 13,461 jobs a year**, a figure dominated by the construction job impacts over 2021-25, and
- **Over one-half billion ($525.2 million) in new revenues** for the State Treasury.

The attraction of Venture Global's LNG export facility at the Louisiana Gateway Port was one of the top economic wins in the State's recent history.

Table 50. Total impacts on Louisiana: 2021-2030

Year	Sales*	Earnings*	Jobs	Taxes*
2021	$2,052.6	$711.0	13,589	$49.8
2022	$4,105.2	$1,422.0	26,635	$99.5
2023	$8,210.4	$2,844.0	52,183	$199.1
2024	$4,105.2	$1,422.0	25,548	$99.5
2025	$2,052.6	$711.0	12,502	$49.8
2026	$57.8	$74.1	822	$5.2
2027	$59.6	$76.3	826	$5.3
2028	$61.4	$78.6	830	$5.5
2029	$63.2	$81.0	834	$5.7
2030	$65.1	$83.4	837	$5.8
Total	**$20,833.0**	**$7,503.4**	**13,461****	**$525.2**

*Values in millions of dollars. **Jobs total represents an average of the 10-year period.
Source: Loren C. Scott & Associates Inc, April 2024.

PLAQUEMINES
THE LOUISIANA GATEWAY PORT

2024 MASTER PLAN

Prepared by:

Bujanda & Allen®

TBG The Bridges Group International LLC

Appendix F

Information Paper: NOGC Mainline Extension Project

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

Information Paper

Extension of the New Orleans & Gulf Coast Railroad Mainline Project

Plaquemines Port Harbor and Terminal District

August 8, 2025

1.0 Background

The New Orleans & Gulf Coast Railroad Mainline Extension Project ("NOGC Mainline Extension Project") is a proposed 10-mile rail extension in Plaquemines Parish, Louisiana. The rail extension would start at the current end of the existing New Orleans and Gulf Coast Railway ("NOGC") line and run to the future site of a 200-acre container terminal facility known as the Louisiana Gateway Container Terminal. The Louisiana Gateway Container Terminal is a joint effort between the Plaquemines Port Harbor and Terminal District[1] ("PPHTD") and APM Terminals to develop a state-of-the-art container terminal on the west bank of the Mississippi River capable of handling the largest container ships going through the Panama Canal.

Once the NOGC Mainline Extension Project is complete, NOGC will operate and maintain the line. NOGC currently operates a 32-mile former Union Pacific Railroad ("UP") branch line outside New Orleans that connects with the UP mainline in Westwego, Louisiana. This UP line serves over 20 switching and industrial customers and is the only railroad operating east of Avondale, Louisiana on the west bank of the Mississippi River.

Construction of the NOGC Mainline Extension Project is being sponsored by PPHTD, a public corporation and political subdivision of the State of Louisiana that is governed by the Plaquemines Parish Commission Council. PPHTD's territorial jurisdiction includes all of Plaquemines Parish, making it geographically one of the nation's largest seaports. Within that jurisdiction, PPHTD's vision is to be the leading international gateway port in the Gulf, helping existing customers continue to grow and attracting new business partners using bigger ships from Asia, South America, and Europe.

2.0 Project Overview

The NOGC Mainline Extension Project area stretches from just above Ironton, Louisiana in the north to Woodland, Louisiana in the south, generally following the Mississippi River. The area in which the project will be built has long been used for industrial purposes and is commonly referred to as the "industrial corridor." Given the area's industrial nature, the rail project will have little-to-no negative impact to the current land use. Indeed, PPHTD is the majority landowner in the project area, and it is committed to working with the remaining private owners, companies, and developers to ensure minimal impacts. The map below shows PPHTD's preferred rail route through the industrial corridor:

[1] Since this project began, PPHTD has been rebranded as the Louisiana Gateway Port. However, for consistency with all application and petition materials, the applicant will continue the project using the name PPHTD.

Figure 1: Overview of Proposed Route. The bright green line on this map is PPHTD's preferred rail alignment in the industrial corridor, which is largely unchanged from past proposals. The blue dots show where the route has been shifted to minimize effects on the Ironton community.

The NOGC Mainline Extension Project will use continuous welded rail to extend NOGC's line about 10 miles south to the future Louisiana Gateway Container Terminal. The Louisiana Gateway Container Terminal will accept the largest vessels currently traversing the Panama Canal. It will be designed to transload containers from those ocean vessels to river vessel. It will also be able to transload containers for transportation by truck. The NOGC Mainline Extension Project would add rail transloading capability.

To accommodate this rail traffic from the Louisiana Gateway Container Terminal, PPHTD seeks Surface Transportation Board ("STB") authority to construct and operate a new rail line within a right-of-way that will vary between 40 feet and 100 feet in width. The project would also include an 8,000-foot siding.

3.0 Project Purpose and Need

The NOGC Mainline Extension Project is needed because the future Louisiana Gateway Container Terminal lacks rail access. Without rail, when that facility receives containers, they would have to be transported by truck or river-going vessel. Those modes of transportation are often less efficient than rail. Adding a rail extension would thus make the Louisiana Gateway Container Terminal both more environmentally friendly and more attractive to shippers by enhancing multi-modal options.

Given this need, the purpose of the NOGC Mainline Extension Project is to build a rail corridor that connects the future Louisiana Gateway Container Terminal to the Class I railroad network via NOGC.

The NOGC Mainline Extension Project would also create economic development opportunities in Plaquemines Parish. The project area parallels the Mississippi River, where several river-based operations for commodities such as liquid bulk and dry bulk (including agricultural grains and aggregates) are already established. While nothing is reasonably foreseeable, a rail corridor could give these existing operations an opportunity to add inland transport capabilities and diversify their operations. The proposed rail corridor also includes a facility owned by Venture Global Plaquemines Liquefied Natural Gas (LNG) LLC and large tracts of undeveloped land, as well as land that is now being developed by private industry. Potential future development along the rail corridor would become more commercially attractive with rail service.

4.0 Proposed Action and Alternatives

PPHTD has evaluated potential routes that would meet the project purpose and need by connecting the proposed new rail corridor to the national rail network. Based on this evaluation, PPHTD has identified two potential route options: Option A and Option B. Option A is shown in

Figure 1 above and has been improved from its previous submission, as discussed further below. Option B is unchanged from past submissions.

Option A, as shown in the accompanying .kmz files, is PPHTD's preferred option. It runs from the NOGC mainline and extends south to Station 474+49, generally following Louisiana Highway 23 and parts of the old New Orleans and Lower Coast Railroad roadbed that historically operated from 1890 into the 1970s. Starting at the NOGC mainline near Myrtle Grove, Louisiana, as this route approaches Ironton, Louisiana, it dips south, away from the river and towards Highway 23, to avoid the town and a communications tower nearby. After passing the International Marine Terminal, it continues south along Highway 23 to its proposed operational terminus in Woodlands, Louisiana. This route is generally similar to the one proposed in 2022, but it is routed further south to entirely avoid Ironton, benefitting residents there by eliminating any impact to the Ironton athletic field and going around the Entergy communications tower.

Option B also starts at the NOGC mainline and extends further south to Station 499+25. No adjustments or modifications have been made to the Option B alternative since the 2022 Information Paper. For several reasons, Option B remains an inferior alternative. Besides having greater social and environmental impacts, Option B moves south from NOGC's mainline to the future terminal and has to cross Highway 23 twice—once as it moves south from the NOGC mainline and a second time as it moves back north to the terminal site. Given the traffic on Highway 23 and the fact that the highway serves as a hurricane evacuation route, both crossings would have to be grade-separated. These features make Option B infeasible from a cost and logistics perspective. For these reasons, Option B was eliminated from detailed consideration and PPHTD does not recommend its inclusion within the Environmental Assessment.

To understand the potential environmental impacts of both route options, PPHTD relied on a November 2022 report prepared by Golder Associates USA Inc. that studied a 400-foot area surrounding each route. Because the route options have generally remained unaltered,[2] PPHTD continues to rely on data from the 2022 Golder Sustainability Evaluation Tool ("GoldSET"), which considers several environmental, social, and technical indicators within the study area. The GoldSET analysis showed that the area around Option A contained the fewest emergent wetlands, the least woodland landcover, oil and gas wells, and several buildings. As a result, GoldSET concluded that Option A would have the least environmental and social impact. Indeed, the GoldSET analysis shows that Option A would have no significant environmental impacts. Further, to confirm the accuracy of this analysis, PPHTD also relies on Freese and Nichols (FNI) to conduct an additional assessment pursuant to the parties agreement.

[2] As noted above, PPHTD now proposes shifting the alignment even further away from the Ironton community. This change means that "Alignment C" in the Golder report is no longer relevant.

5.0 Potential Environmental Effects

PPHTD understands that the STB Office of Environmental Analysis' ("OEA") third-party contractor (FNI) will evaluate the potential environmental effects of the project under the National Environmental Policy Act and other relevant laws. To assist in that effort, PPHTD notes the following environmental issues:

- The proposed route crosses only one road. Because there is little reason to believe that trains will stop while traveling, delays should be minimal.

- There are few if any residences that will experience noise and vibration from the NOGC Mainline Extension Project. PPHTD has already been working with the Ironton community to ensure that any such impacts are mitigated, including by making the routing change described above that places it furthest from the community.

- Because the proposed route largely parallels Highway 23 at or near its right-of-way, the route is not pristine. Impacts to existing water resources, wetlands and biological resources will be minimal, and PPHTD will mitigate any such impacts as required by state and federal law.

- The air quality impacts from 2–3 trains per week will be minimal. Indeed, if that same traffic were to move by truck, the air quality impacts would be significantly greater.

Because PPHTD expects the project to have minimal environmental impacts it intends to send a letter asking that OEA consider preparing an Environmental Assessment instead of an Environmental Impact Statement.

6.0 Required Permits and Approvals

PPHTD anticipates obtaining these permits and authorizations for the NOGC Mainline Extension Project:

- USACE Section 404 permit (Nationwide Permit 12, or Programmatic General Permit 1 or 2) for potential impacts to wetlands and waterbodies under USACE jurisdiction.

- USACE Section 408 permit/consultation for work within 1,500 feet of a federally maintained levee.

- USFWS concurrence for potential impacts to federally protected species.

- LADOTD – Louisiana Department of Transportation and Development authorization as it coordinates with federal partners to ensure rail infrastructure compliance with the Louisiana State Rail Plan.

- LDNR OCM – Coastal Use Permit or Exemption concurrence for work within the Louisiana Coastal Zone.
- LDWF LNHP – State protected species concurrence for potential impacts to species protected by the Louisiana Department of Wildlife and Fisheries.
- LDWF Office of State Lands – State Lands approval for impacts to State Lands.
- SHPO – Consultation and concurrence to avoid, minimize, or mitigate impacts to historic or cultural resources.
- Plaquemines Parish – Construction/Coastal Zone approval for construction impacts in Plaquemines Parish.

PPHTD understands that OEA will reach out to these permitting agencies as appropriate.

7.0 Conclusion

PPHTD looks forward to working with OEA to complete the environmental review of the NOGC Mainline Extension Project.

Appendix G

Environmental Constraints Assessment (LGT Mainline Extension Project)

REPORT

LGT Mainline Extension Project

Environmental Constraints Assessment

Submitted to:

Chris Fetters
LA23 Development Company, LLC

c/o Sam Matheny

Volkert, Inc.

Submitted by:

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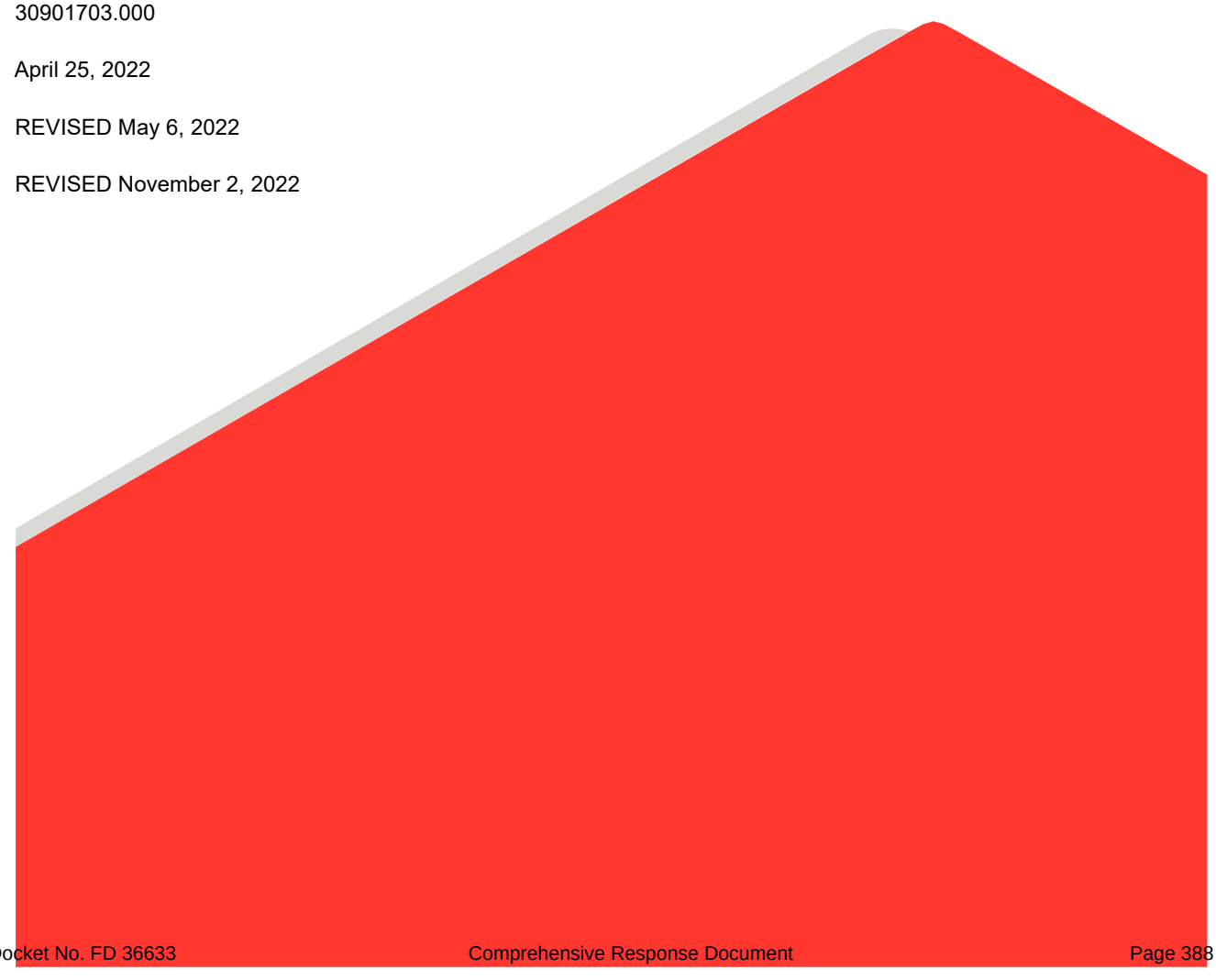
30901703.000

April 25, 2022

REVISED May 6, 2022

REVISED November 2, 2022



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Appendix E – Results from the GoldSET Options Analysis for the Four Alignments

1.0 INTRODUCTION

Golder Associates USA Inc., a Member of WSP, (Golder) utilized GoldSET© ("Golder Sustainability Evaluation Tool") to compare alternative alignments for the LA23 LGT Mainline Extension Project (Project) in Plaquemines Parish, Louisiana. This evaluation provides a thorough understanding of the strengths and weaknesses associated with each alternative alignment under consideration. Ultimately the results support the selection of the most appropriate alignment by using a traceable and repeatable approach with publicly available data.

GoldSET is a proprietary tool developed by Golder to implement sustainable development at the operational level by providing a means to better understand and manage business risks associated with projects in the context of our changing environment. The tool was originally developed in 2007 to investigate the sustainability issues involved with environmental remediation projects and is now widely used by several multinational companies in Canada, the USA, Europe, Australia etc. In Canada, Canadian National Railway (CN) has been relying on GoldSET for the past 9 years to support the selection of remediation technologies for all its site clean-up activities. Environment Canada in partnership with Public Works and Government Services Canada are also developing with Golder a similar approach, informed by GoldSET principles, to help manage federal contaminated sites. Golder has also used GoldSET on numerous other occasions across North America, within mining, oil and gas, transportation, manufacturing, and governmental clients.

The multicriteria analysis (MCA) approach was selected as the basis for GoldSET because of its versatility in evaluating alternatives based on a broad range of decision criteria and stakeholder perspectives. The approach was also originally selected based on an international best-practice recommendation for sustainable remediation. MCA has been used in other sustainability assessment tools, sustainable infrastructures, life-cycle assessment, municipal sustainability assessment, and chemical product and process design.

GoldSET provides an intuitive visual representation of results. Impacts are scored and rolled-up into the three dimensions of sustainable development: environmental, social, and technical. For each dimension, the rolled-up score ranges from 0% to 100% — the higher the score, the better the result. The three axes of the triangle illustrate the performance of each option with respect to the three dimensions. Under normal circumstances, the optimal option is illustrated by the largest, most balanced triangle.

The graphical representation of GoldSET results facilitates discussion on the sustainability issues and trade-offs, leading to more effective decisions. Furthermore, through the intuitive graphics, GoldSET can also be used to support the communication among various stakeholders. The framework facilitates communication on the key impacts, benefits, and drawbacks of different alternatives, and provides traceability and transparency throughout the decision-making process.

2.0 METHODOLOGY

The following four alignment alternatives were provided by LA23 for the Project:

- Alignment A
- Alignment B
- Alignment CA
- Alignment CB

Appendix A includes an aerial overview map of the four alignment alternatives. Appendix B includes Environmental Constraints maps for each alignment. Flood Emergency Management Agency (FEMA) Flood Hazard Zone maps for each alignment are shown in Appendix C.

The GoldSET evaluation process for the four alignment alternatives was conducted in four steps as described in the following sections below.

2.1 Step 1: Project Description

The first step of the evaluation is an initial assessment in which Golder reviews the available options/alternatives and identifies potential stakeholders and constraints.

2.2 Step 2: Indicator Selection and Weighting

The second step of the evaluation consisted of Golder selecting and weighting indicators within the Project area to mirror key decision criteria influencing project performance. Numerous environmental, social, and technical indicators were selected and the corresponding dataset for each indicator was downloaded. Refer to Table 1 and Table 2 in Appendix D for lists of reviewed data sources. Each indicator was then provided a weight based on the level of anticipated influence for the Project. These weights were calculated based on environmental knowledge of the site and potential constraints for each alignment. The weight scores indicate the risk on environmental, social, and technical resources as follows: 1 for low risk, 3 for moderate risk, and 5 for high risk.

2.3 Step 3: Data Download and Calculations

During this step, each of the four alternative alignments were buffered by 200 feet (100 feet on either side of the centerline) to create a 400 foot study area. Golder's GIS team then downloaded standard national and state GIS datasets for each indicator (environmental, social, and technical). WSP also incorporated data obtained from on-ground pedestrian field surveys for wetlands, waterbodies, protected species and habitats, and cultural resources. Once the datasets were downloaded, the spatial distribution of those datasets in relation to the study area was evaluated. This included calculating the area of overlap with the study area for each alignment or a count of the number of crossings (for example, road crossings or river crossings). Note that field surveys have only been partially completed to date, pending obtainment of outstanding landowner access approvals. Table 1 in Appendix D shows the results from these calculations. Table 2 in Appendix D shows National and State datasets reviewed but not included in the calculations due to lack of data or relevancy within the study area.

2.4 Step 4: Normalization of the Data and GoldSET Analysis

A normalization process was used to translate every indicator into a common scale so that all indicators will be compared with each other on a common basis for every option under consideration. The quantitative indicators have been normalized automatically by GoldSET between 0 and 100, according to predefined linear relationships.

In GoldSET, a score of 100 indicates that the performance is being maximized for any given indicator, while a score of 0 indicates that the performance is being minimized. Scores between 0 and 100 were also assigned, allowing for more precise, nuanced evaluation of the indicators. Of all the indicators listed in Appendix D, only the "Parallel Existing Roads" indicator was considered progressive with higher values within the study area indicating a higher score. The remaining indicators were all considered regressive with higher values indicating a lower score.

Within each dimension, an aggregate score out of 100% was calculated as a weighted average (results are multiplied by their weights, then divided by the sum of the weights), considering the scores and the weights assigned to each option for every indicator. This approach was used to derive the relative performance out of 100% for each of the environmental, social, technical dimensions, and for each option.

3.0 RESULTS AND DISCUSSION

Results of the spatial analysis are included in Table 1 in Appendix D. This shows the number and acreage of overlap for each of the four alignments as well as the weights associated with each indicator. Results of the GoldSET Options Analysis are shown in Appendix E. These results show that Alignment A scored the highest in all categories and is the preferred route based on the indicator list and the associated weights.

The final ranking of the alignments based on this analysis is Alignment A, CA, B, and then CB. Reviewing the results from the spatial and options analyses, the study area for Alignment A contained the lowest amount emergent wetlands, woodland landcover, oil and gas wells, and buildings, the second lowest acreage of forested/shrub wetlands, and was the shortest in length. Many of these indicators were weighed the highest and thus lower amounts in Alignment A's study area accounted for a higher score in the options analysis. The opposite is true for the B alignments, which had large amounts of highly weighed indicators thus resulting in a lower score.

Based on the results from this analysis and the indicator list, Alignment A would be considered the preferred alignment due to the high scores in the environmental, social, and technical categories.

Signature Page

Golder Associates Inc.

Matt D. Brown
Senior Biologist

Jon Donovan, PE
Vice President
Project Manager

golder.com

Appendix A – Proposed Alignments Overview Map

LEGEND

- Local Roads
- Existing Railroads
- Alignment A
- Alignment B
- Alignment C **
- Study Areas, 400ft Width

NOTE(S)

** FOR THIS ANALYSIS ALIGNMENT C WAS COMBINED WITH ALIGNMENT A AND ALIGNMENT B TO CREATE ALIGNMENTS CA AND CB

SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY

0 3,200 6,400
Feet

REFERENCE(S)

1. PROPOSED ROUTES, STUDY AREA; WSP 2022

COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983
FALSE EASTING: 3,280,833.3333

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-05-02
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
PROPOSED ALIGNMENTS OVERVIEW

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A003	0	1

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Appendix B – Environmental Constraints Maps

LEGEND

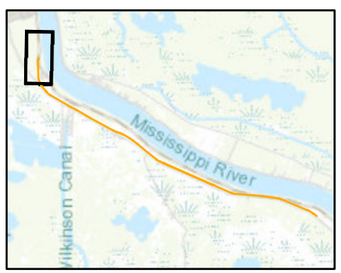
- Water Wells
- Parcel Boundaries
- Local Roads
- Existing Railroads
- Proposed Alignment A
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch



SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

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Feet

REFERENCE(S)
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2. PARCEL BOUNDARIES; WSP 2021
3. BUILDING FOOTPRINTS: ESRI/MICROSOFT 2021
4. WATER WELLS, WELL PITS, OIL AND GAS WELLS:DOWNLOADED FROM SONRIS 2022
5. HYDROLOGY FLOWLINES: NATIONAL HYDROLOGY DATASET 2022
6. NATIONAL WETLAND INVENTORY: USFWS 2021
COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT A

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	2-1

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LEGEND

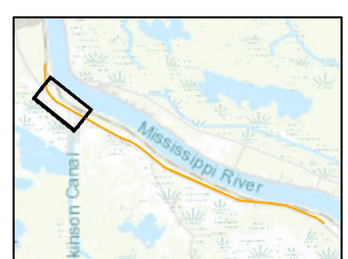
- Oil and Gas Wells
- Water Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment A
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch
- StreamRiver



SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
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0 500 1,000
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PROJECT
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WSP GOLDER

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TITLE
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PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	2-2

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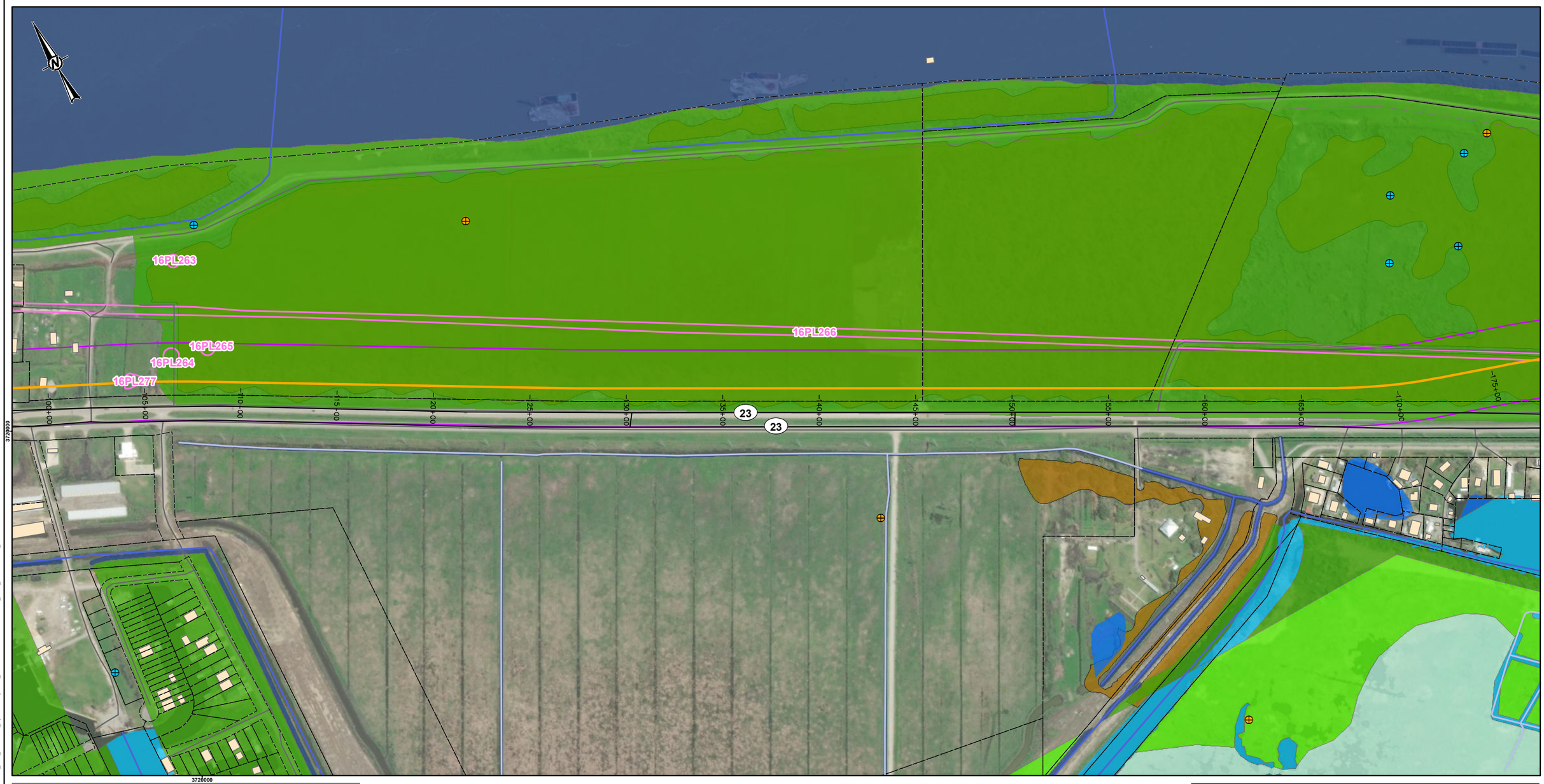


LEGEND

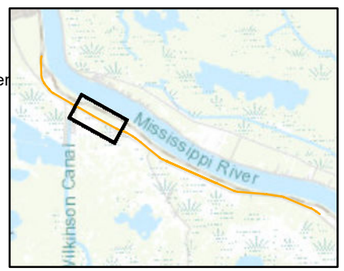
- Oil and Gas Wells
- Water Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment A
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch
- StreamRiver



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COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

PROJECT
LGT MAINLINE EXTENSION

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT A

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	2-3

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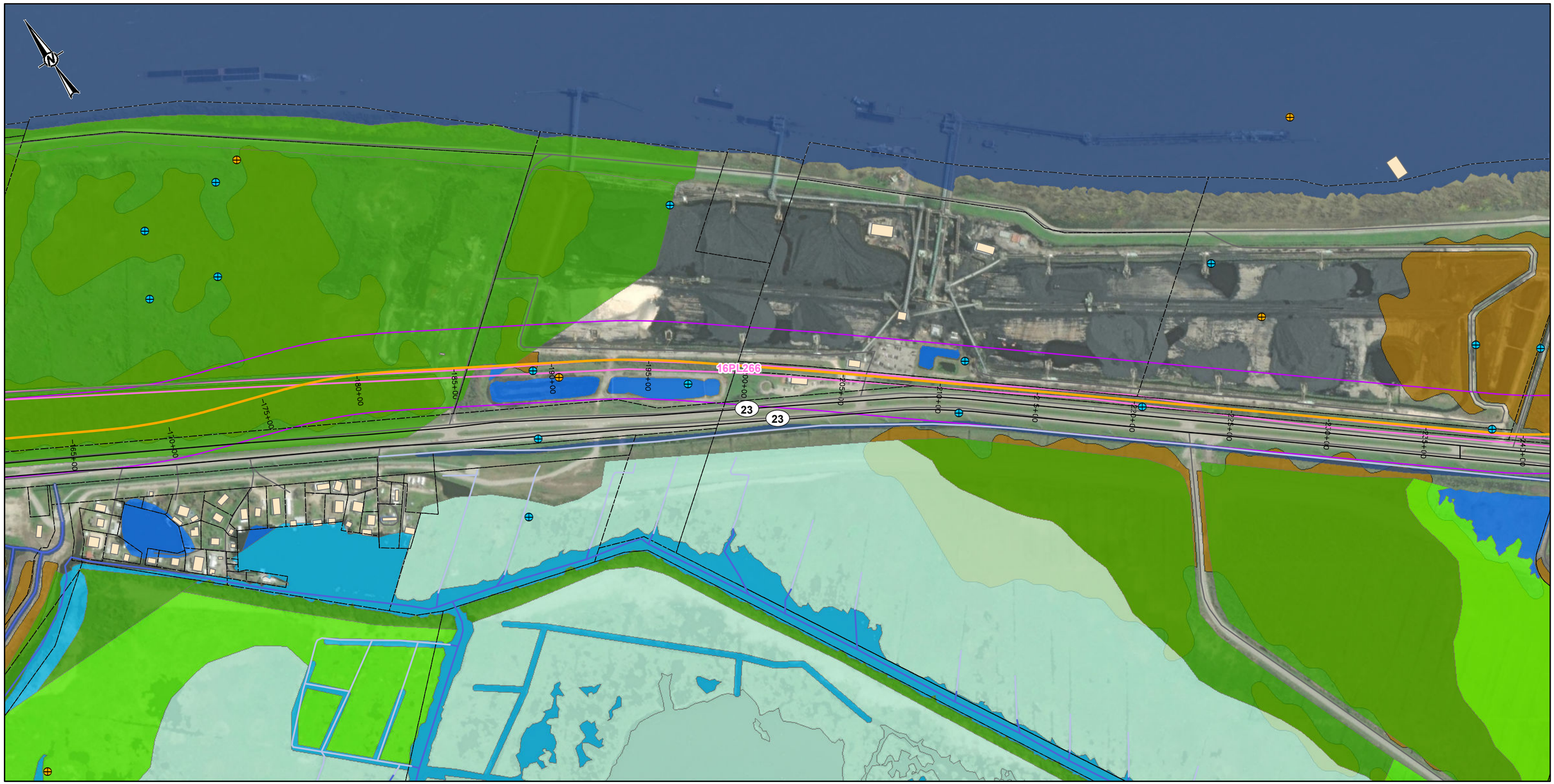


LEGEND

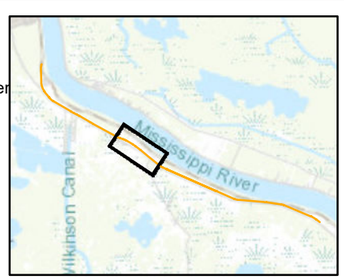
- Oil and Gas Wells
- Water Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment A
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch
- StreamRiver



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0 500 1,000
Feet

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COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT A

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	2-4

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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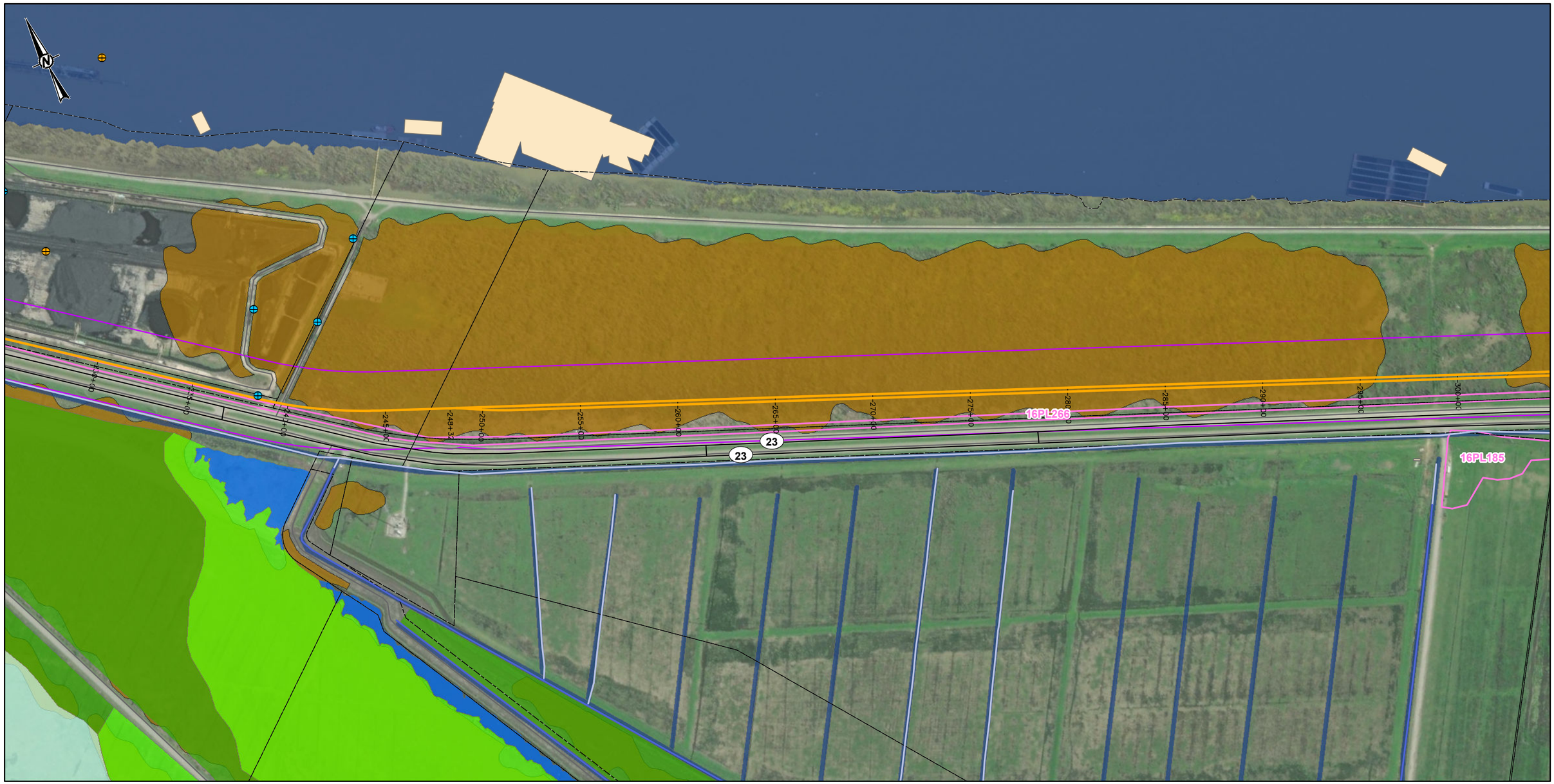


LEGEND

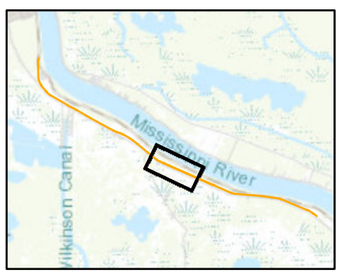
- Oil and Gas Wells
- Water Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment A
- LNG Terminal Site Boundary
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch



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Feet

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COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT A

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	2-5

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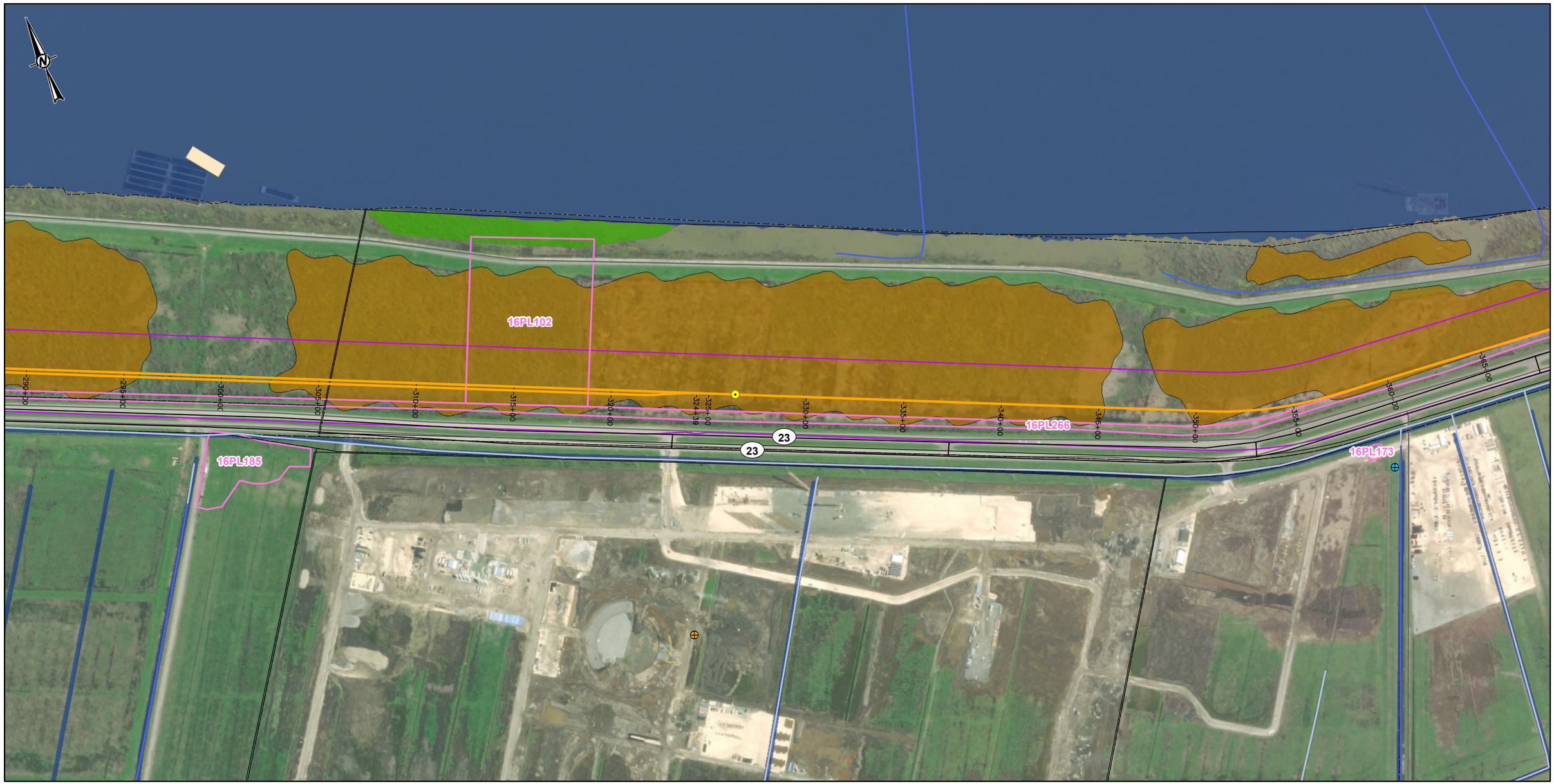


LEGEND

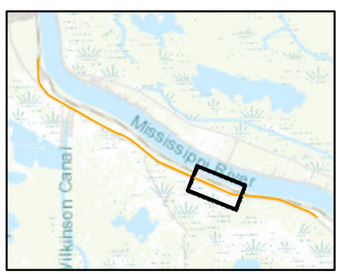
- Aboveground Pipeline Crossing
- Oil and Gas Wells
- Water Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment A
- LNG Terminal Site Boundary
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Freshwater Forested/Shrub Wetland
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch



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0 500 1,000
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PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT A

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	2-6

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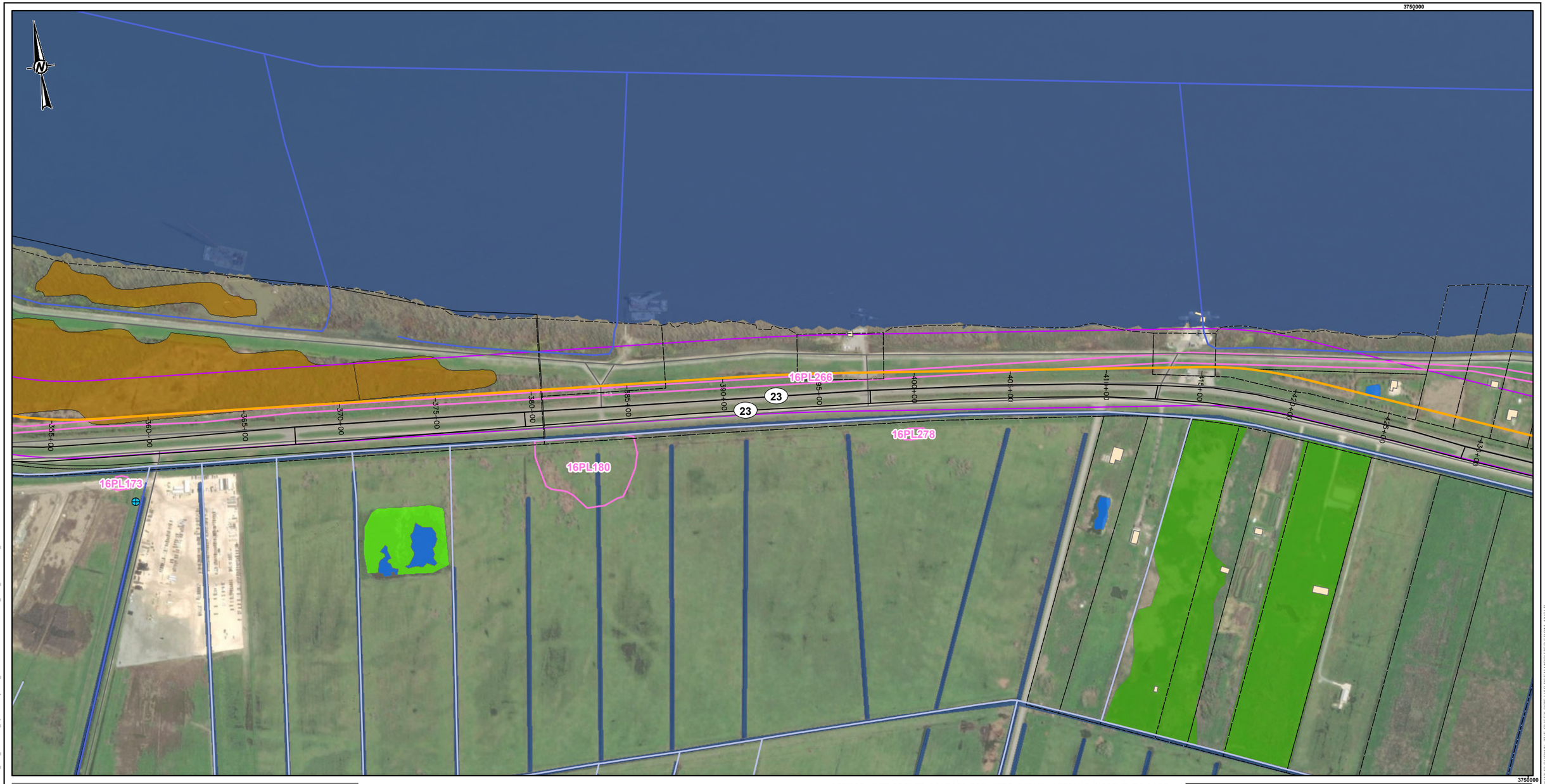

LEGEND

- Water Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment A
- LNG Terminal Site Boundary
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch

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DATUM: NORTH AMERICAN 1983

CLIENT
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CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
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PROJECT
LGT MAINLINE EXTENSION

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT A

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	2-7

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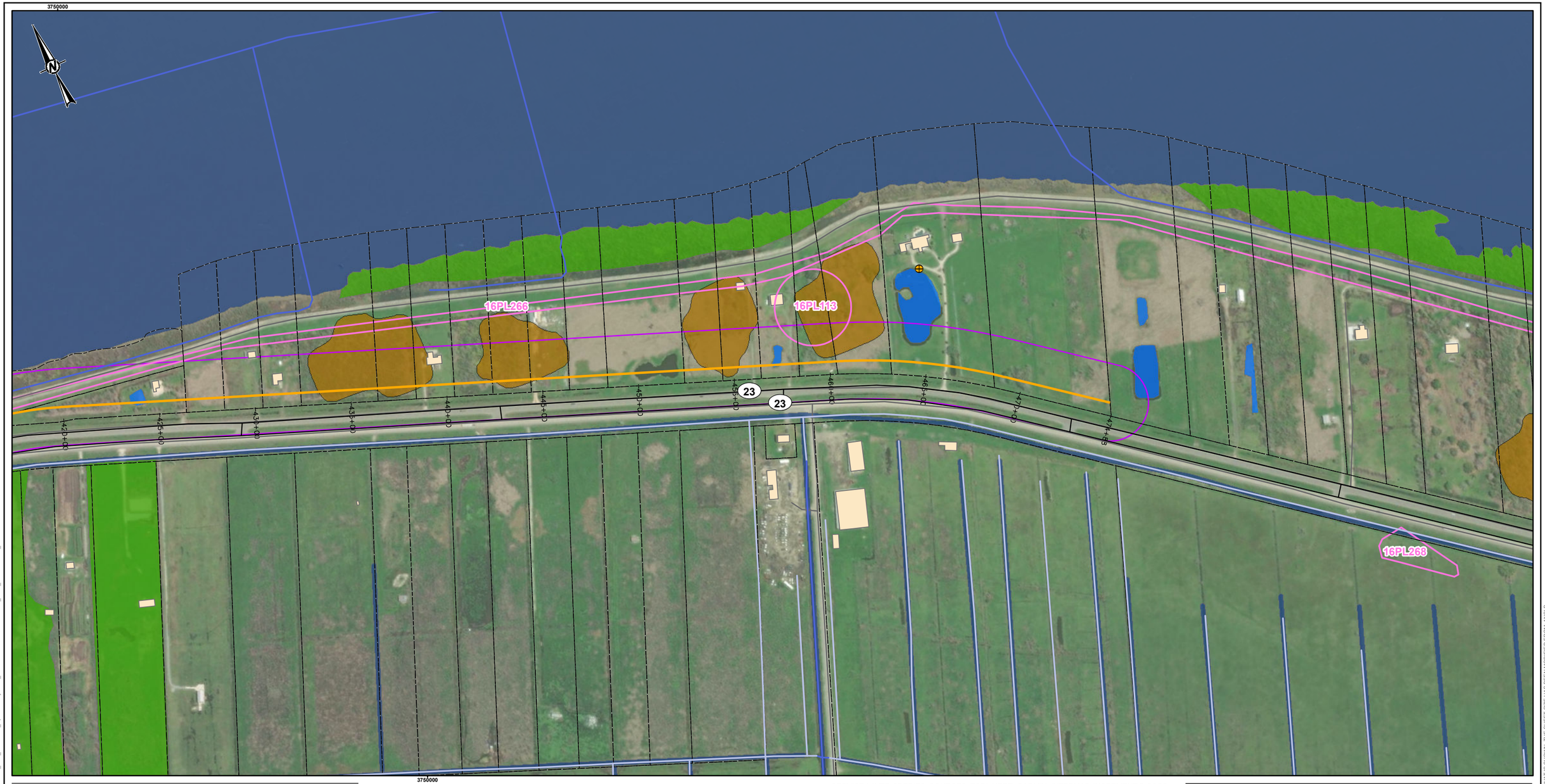


LEGEND

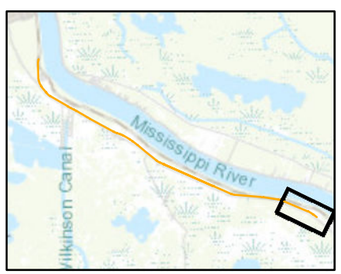
- Oil and Gas Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment A
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch



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PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

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APPROVED	####

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30901703	A001	0	2-8

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LEGEND

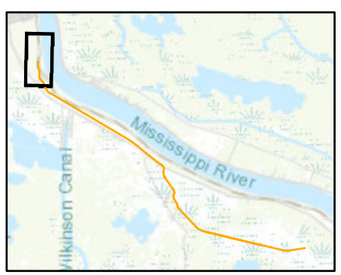
- Water Wells
- Parcel Boundaries
- Local Roads
- Existing Railroads
- Proposed Alignment B
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch



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- Water Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment B
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

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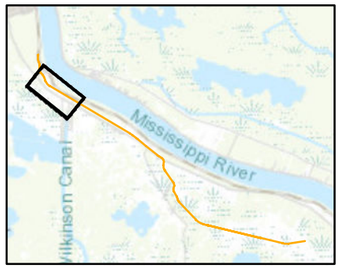
- Freshwater Forested/Shrub Wetland
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch
- StreamRiver



SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

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REFERENCE(S)
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4. WATER WELLS, WELL PITS, OIL AND GAS WELLS:DOWNLOADED FROM SONRIS 2022
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6. NATIONAL WETLAND INVENTORY: USFWS 2021

COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT B

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	3-2

PATH: G:\Projects\LGT_Extension\30901703_LGT_Mainline_Extension\99_PROJECTS\30901703_LGT_MainlineA_OptionsAnalysis\02_PRODUCTION\MXD\30901703_A001_Environmental_Contraints.mxd PRINTED ON: 2022-11-01 AT: 2:01:13 PM

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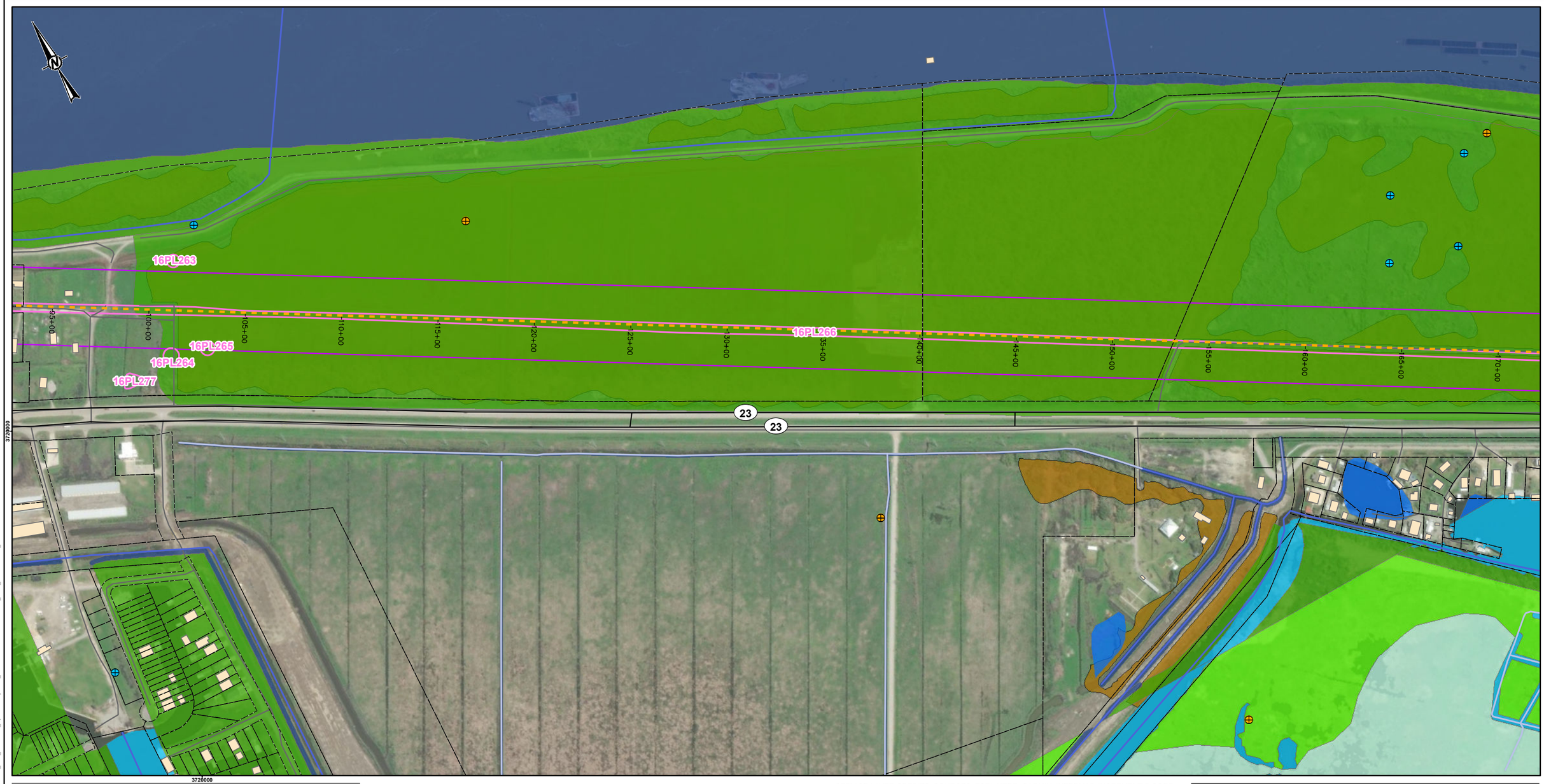


LEGEND

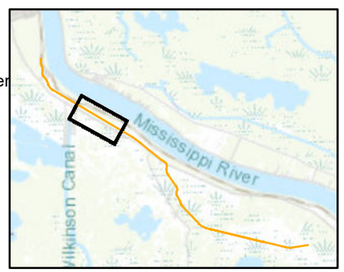
- Oil and Gas Wells
- Water Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment B
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch
- StreamRiver



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COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

PROJECT
LGT MAINLINE EXTENSION

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT B

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	3-3

PATH: G:\Projects\LGT_Extension\30901703_LGT_Mainline_Extension\99_PROJECTS\30901703_LGT_MainlineA_OptionsAnalysis\02_PRODUCTION\MXD\30901703_A001_Environmental_Contraints.mxd PRINTED ON: 2022-11-01 AT: 2:01:29 PM

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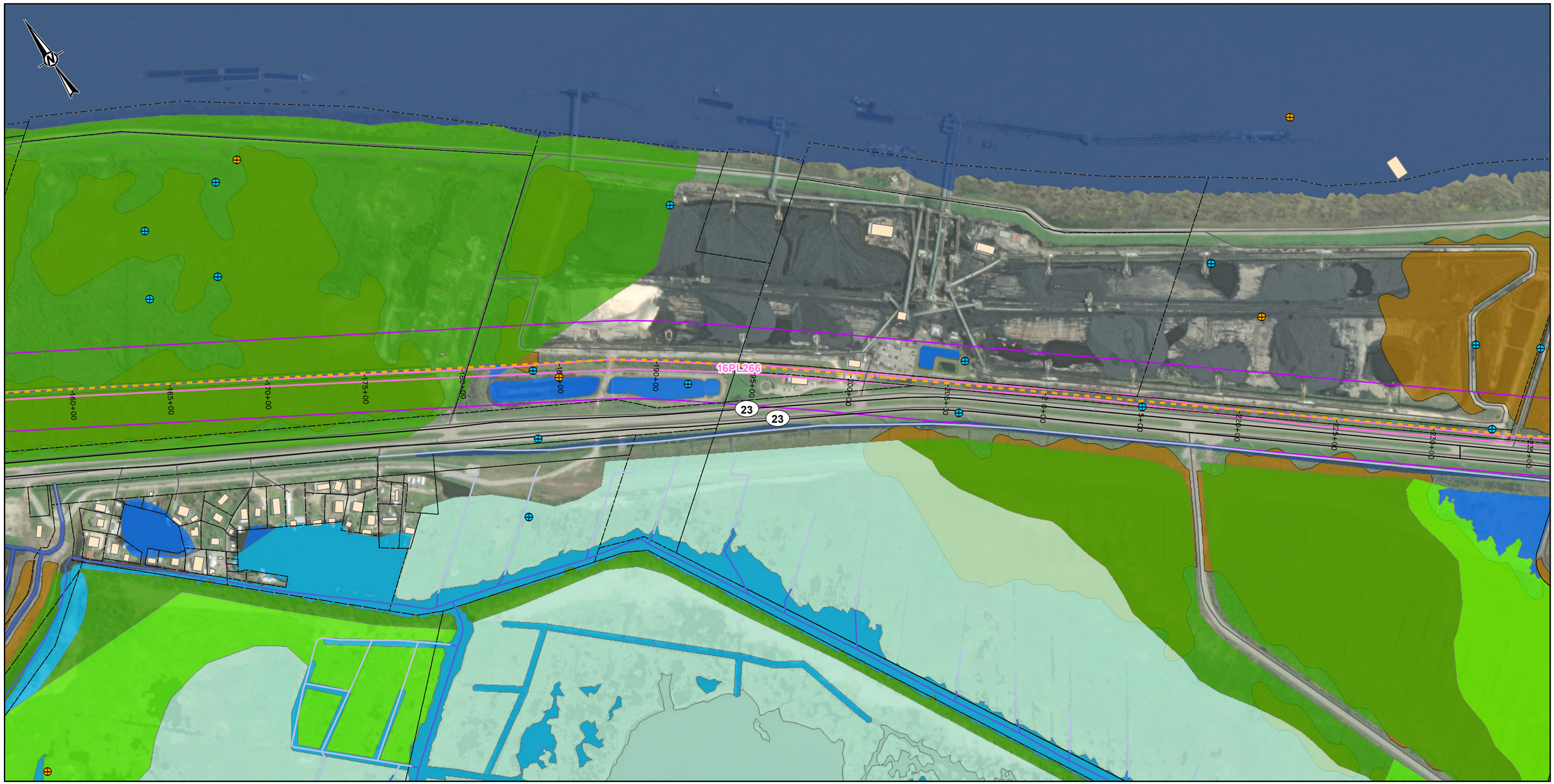


LEGEND

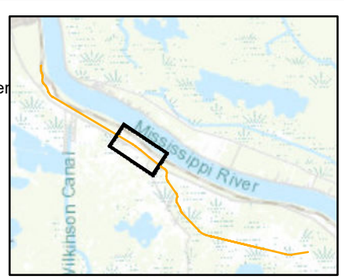
- Oil and Gas Wells
- Water Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment B
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch
- StreamRiver



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COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT B

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	3-4

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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16PL266

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295+00

300+00

220+00

225+00

230+00

235+00

240+00

245+00

LEGEND

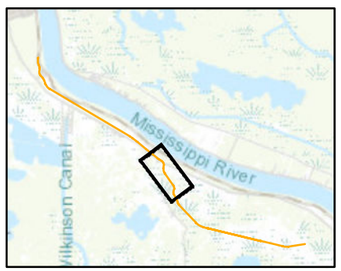
- Oil and Gas Wells
- Water Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment B
- LNG Terminal Site Boundary
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch



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COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT B

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	3-5

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LEGEND

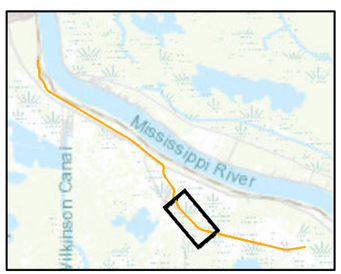
- Belowground Pipeline Crossing
- Oil and Gas Wells
- Parcel Boundaries
- Local Roads
- Proposed Alignment B
- LNG Terminal Site Boundary
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch



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Feet

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DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	#####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT B

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	3-6

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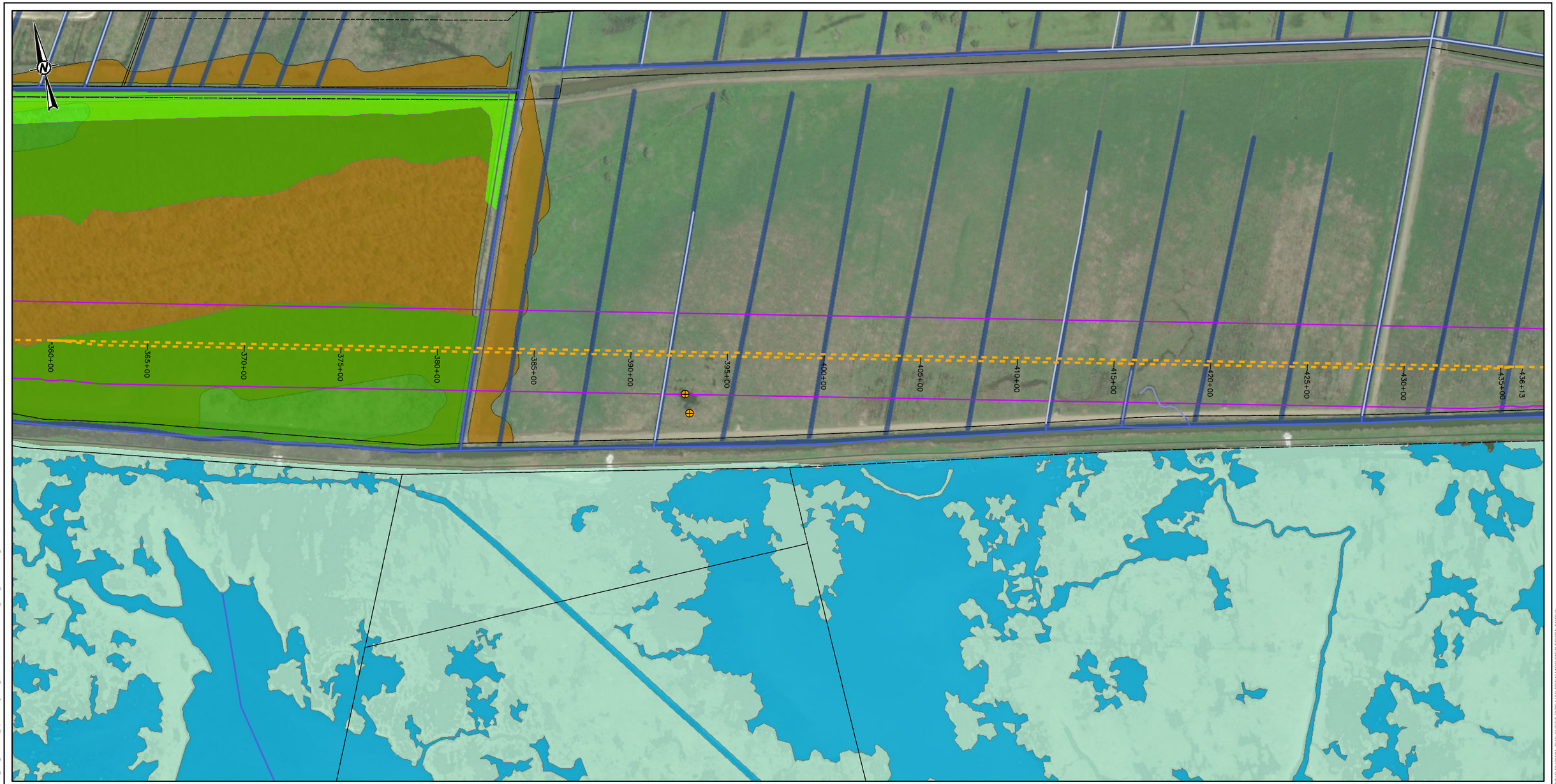


LEGEND

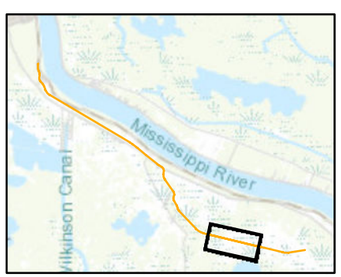
- Oil and Gas Wells
- Well Pits
- Parcel Boundaries
- Local Roads
- Proposed Alignment B
- LNG Terminal Site Boundary
- Study Area, 400ft Width
- Woodland Landcover

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch
- StreamRiver



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COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT B

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	3-7

PATH: G:\Projects\LGT_Extension\30901703_LGT_Mainline_Extension\99_PROJECTS\30901703_LGT_MainlineA_OptionsAnalysis\02_PRODUCTION\MXD\30901703_A001_Environmental_Contraints.mxd PRINTED ON: 2022-11-01 AT: 2:02:19 PM

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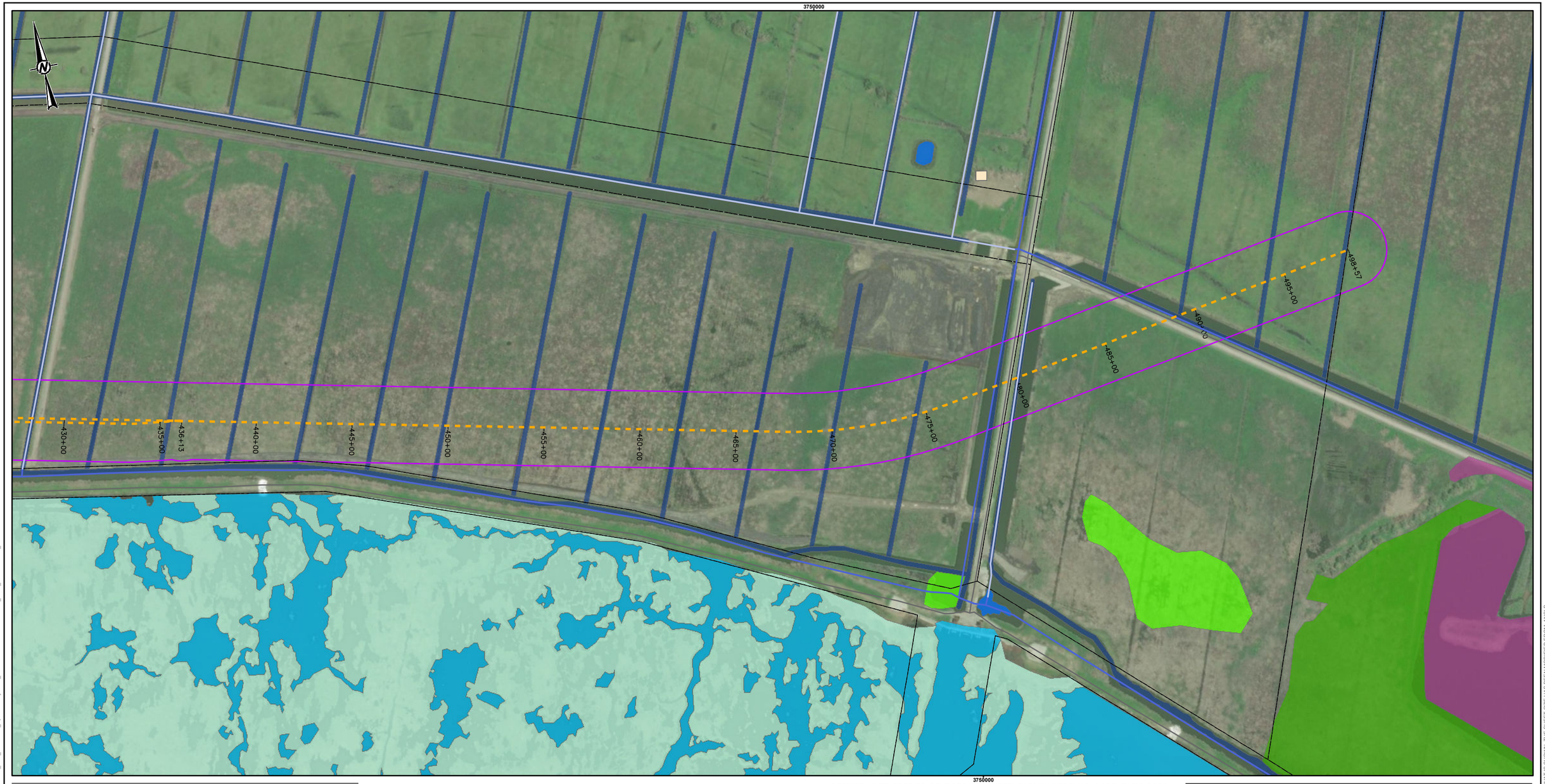


LEGEND

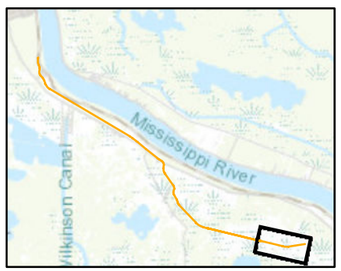
- Parcel Boundaries
- Local Roads
- Proposed Alignment B
- Building Footprints
- Study Area, 400ft Width

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch



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COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT B

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	3-8

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LEGEND

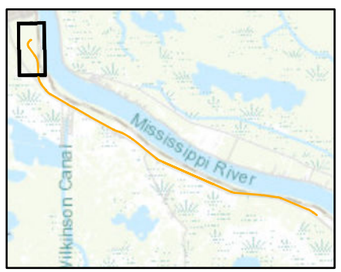
- Water Wells
- Parcel Boundaries
- Local Roads
- Existing Railroads
- Proposed Alignment CA
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch



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DATUM: NORTH AMERICAN 1983

CLIENT
LA 23 DEVELOPMENT COMPANY

PROJECT
LGT MAINLINE EXTENSION

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT CA

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	4-1

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

LEGEND

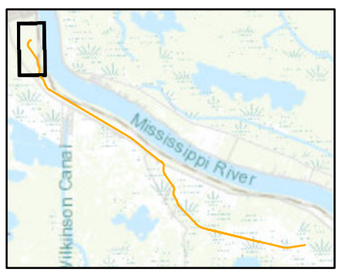
- Water Wells
- Parcel Boundaries
- Local Roads
- Existing Railroads
- Proposed Alignment CB
- Building Footprints
- Study Area, 400ft Width
- Woodland Landcover
- Previously Recorded Cultural Resource Sites

National Wetland Inventory

- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

National Hydrography Dataset Flowlines

- ArtificialPath
- CanalDitch



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CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-11-01
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

TITLE
ENVIRONMENTAL CONSTRAINTS - ALIGNMENT CB

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A001	0	5-1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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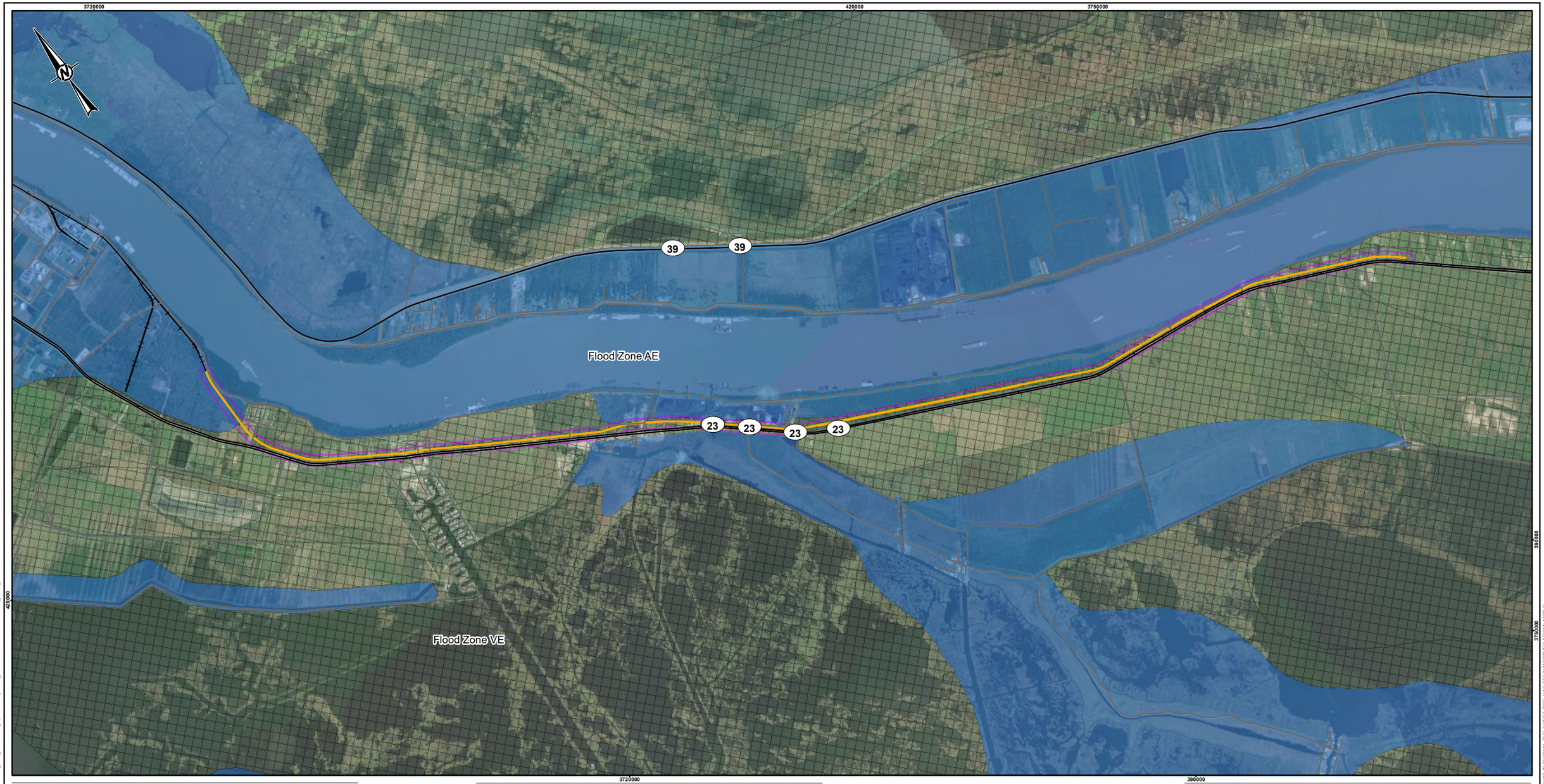
Appendix C – Federal Emergency Management Agency (FEMA) Flood Hazard Zones



LEGEND

- Local Roads
- Existing Railroads
- Proposed Alignment A
- Study Area, 400ft Width
- Flood Zone AE
- Flood Zone VE

NOTE(S)
FEMA FLOOD ZONE DEFINITIONS:

FLOOD ZONE AE: AREAS WITH A 1% ANNUAL CHANCE OF FLOODING AND A 26% CHANCE OF FLOODING OVER THE LIFE OF A 30-YEAR MORTGAGE. BASE FLOOD ELEVATIONS HAVE BEEN CALCULATED FOR THIS ZONE.

FLOOD ZONE VE: COASTAL AREAS WITH A 1% OR GREATER CHANCE OF FLOODING AND AN ADDITIONAL HAZARD ASSOCIATED WITH STORM WAVES. THESE AREAS HAVE A 26% CHANCE OF FLOODING OVER THE LIFE OF A 30□YEAR MORTGAGE. BASE FLOOD ELEVATIONS DERIVED FROM DETAILED ANALYSES ARE SHOWN AT SELECTED INTERVALS WITHIN THESE ZONES.

SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY

0 3,500 7,000
Feet

REFERENCE(S)
1. PROPOSED ROUTES, STUDY AREA; WSP 2022
2. FLOODZONE: FEMA 2021

COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983
FALSE EASTING: 3,280,833.3333

CLIENT
LA 23 DEVELOPMENT COMPANY

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-05-02
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

PROJECT
LGT MAINLINE EXTENSION

TITLE
FEMA FLOOD HAZARD ZONES- ALIGNMENT A

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A002	0	6

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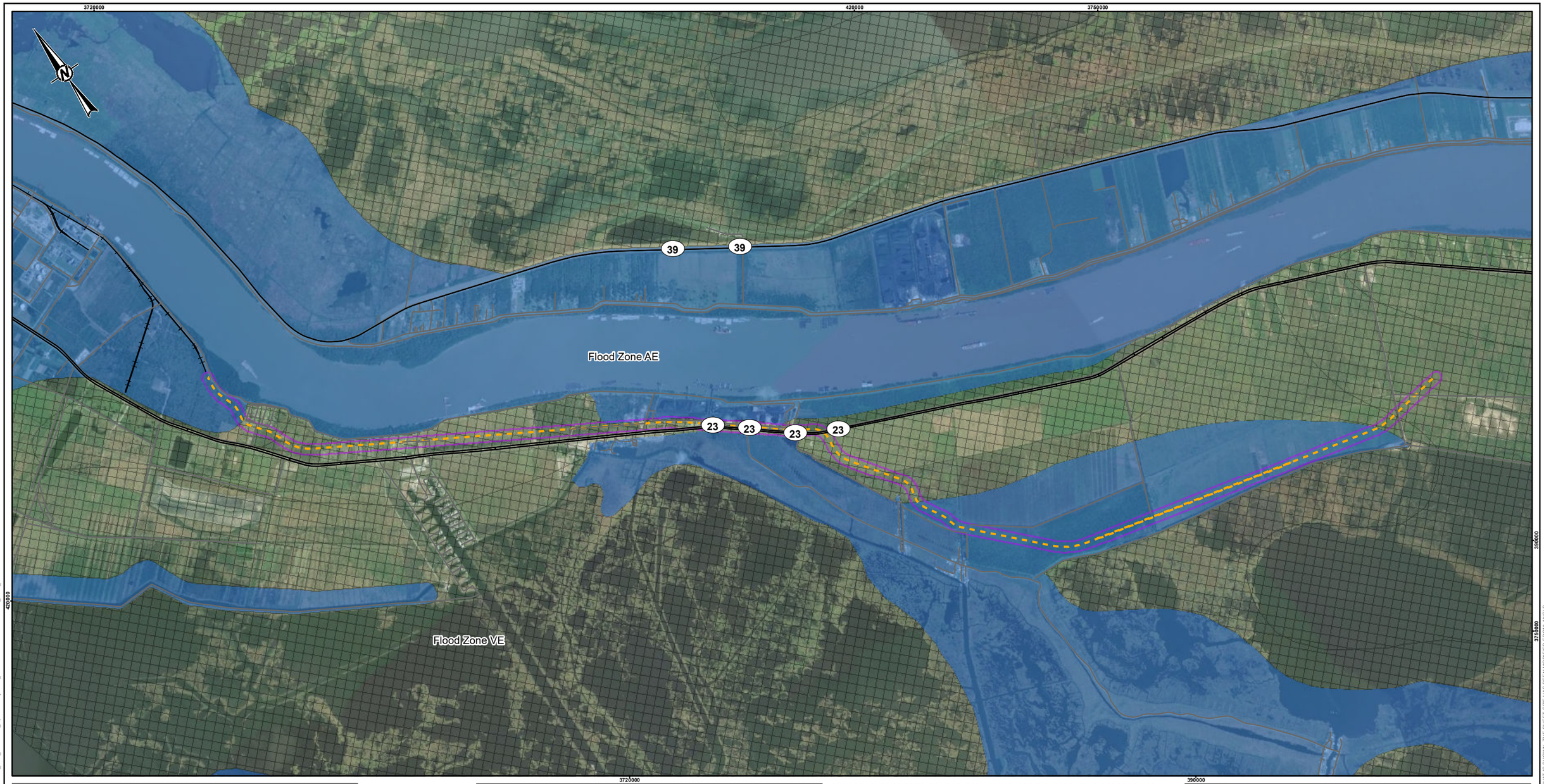

LEGEND

- Local Roads
- Existing Railroads
- Proposed Alignment B
- Study Area, 400ft Width
- Flood Zone AE
- Flood Zone VE

NOTE(S)
FEMA FLOOD ZONE DEFINITIONS:

FLOOD ZONE AE: AREAS WITH A 1% ANNUAL CHANCE OF FLOODING AND A 26% CHANCE OF FLOODING OVER THE LIFE OF A 30-YEAR MORTGAGE. BASE FLOOD ELEVATIONS HAVE BEEN CALCULATED FOR THIS ZONE.

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SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY

0 3,500 7,000
Feet

REFERENCE(S)
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2. FLOODZONE: FEMA 2021

COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983
FALSE EASTING: 3,280,833.3333

CLIENT
LA 23 DEVELOPMENT COMPANY

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-05-02
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

PROJECT
LGT MAINLINE EXTENSION

TITLE
FEMA FLOOD HAZARD ZONES- ALIGNMENT B

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A002	0	7

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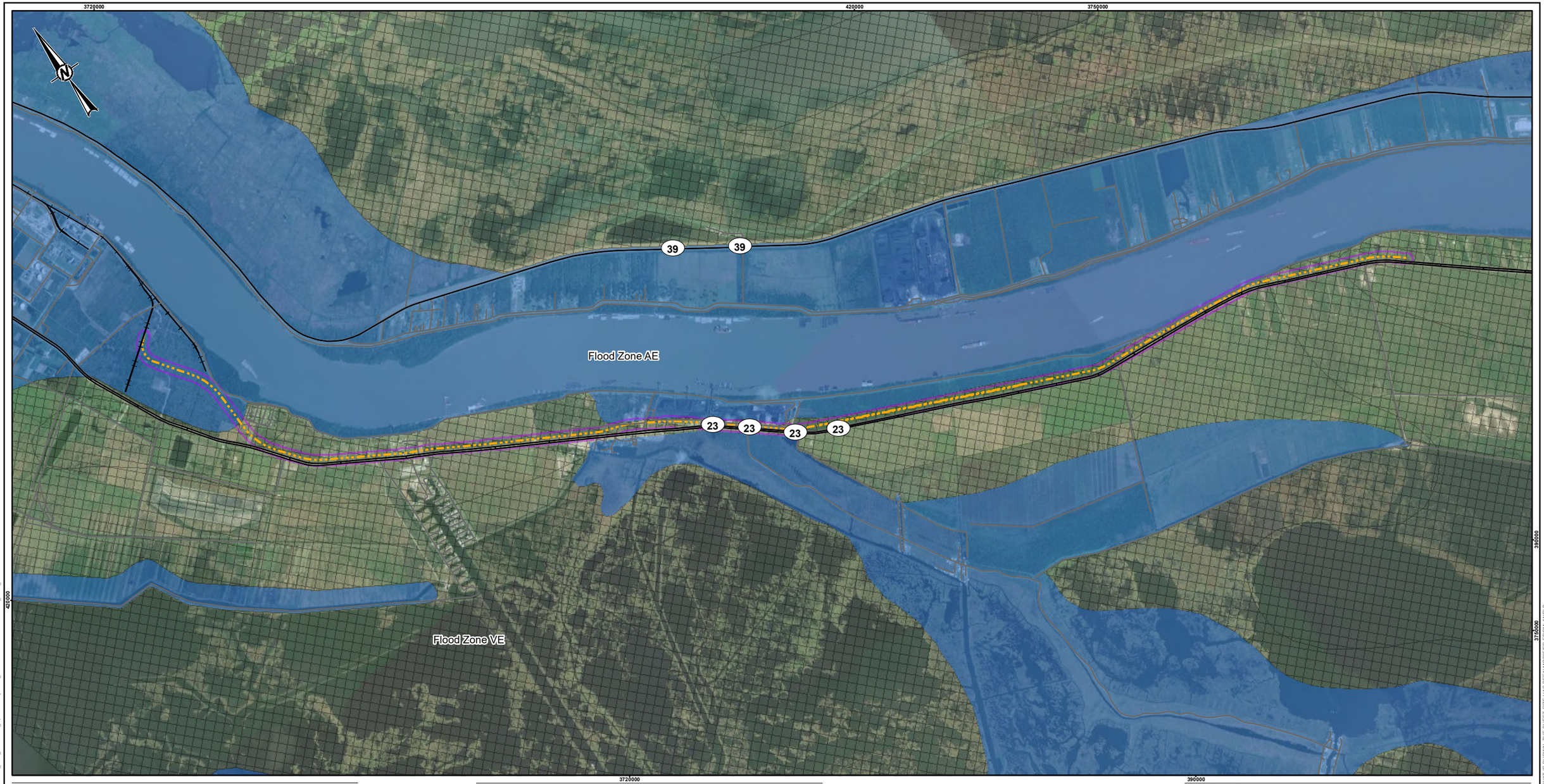

LEGEND

- Local Roads
- Existing Railroads
- Proposed Alignment CA
- Study Area, 400ft Width
- Flood Zone AE
- Flood Zone VE

NOTE(S)
FEMA FLOOD ZONE DEFINITIONS:

FLOOD ZONE AE: AREAS WITH A 1% ANNUAL CHANCE OF FLOODING AND A 26% CHANCE OF FLOODING OVER THE LIFE OF A 30-YEAR MORTGAGE. BASE FLOOD ELEVATIONS HAVE BEEN CALCULATED FOR THIS ZONE.

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SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY

0 3,500 7,000
Feet

REFERENCE(S)
1. PROPOSED ROUTES, STUDY AREA; WSP 2022
2. FLOODZONE: FEMA 2021

COORDINATE SYSTEM: NAD 1983 STATEPLANE LOUISIANA SOUTH FIPS 1702 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983
FALSE EASTING: 3,280,833.3333

CLIENT
LA 23 DEVELOPMENT COMPANY

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-05-02
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

PROJECT
LGT MAINLINE EXTENSION

TITLE
FEMA FLOOD HAZARD ZONES- ALIGNMENT CA

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A002	0	8

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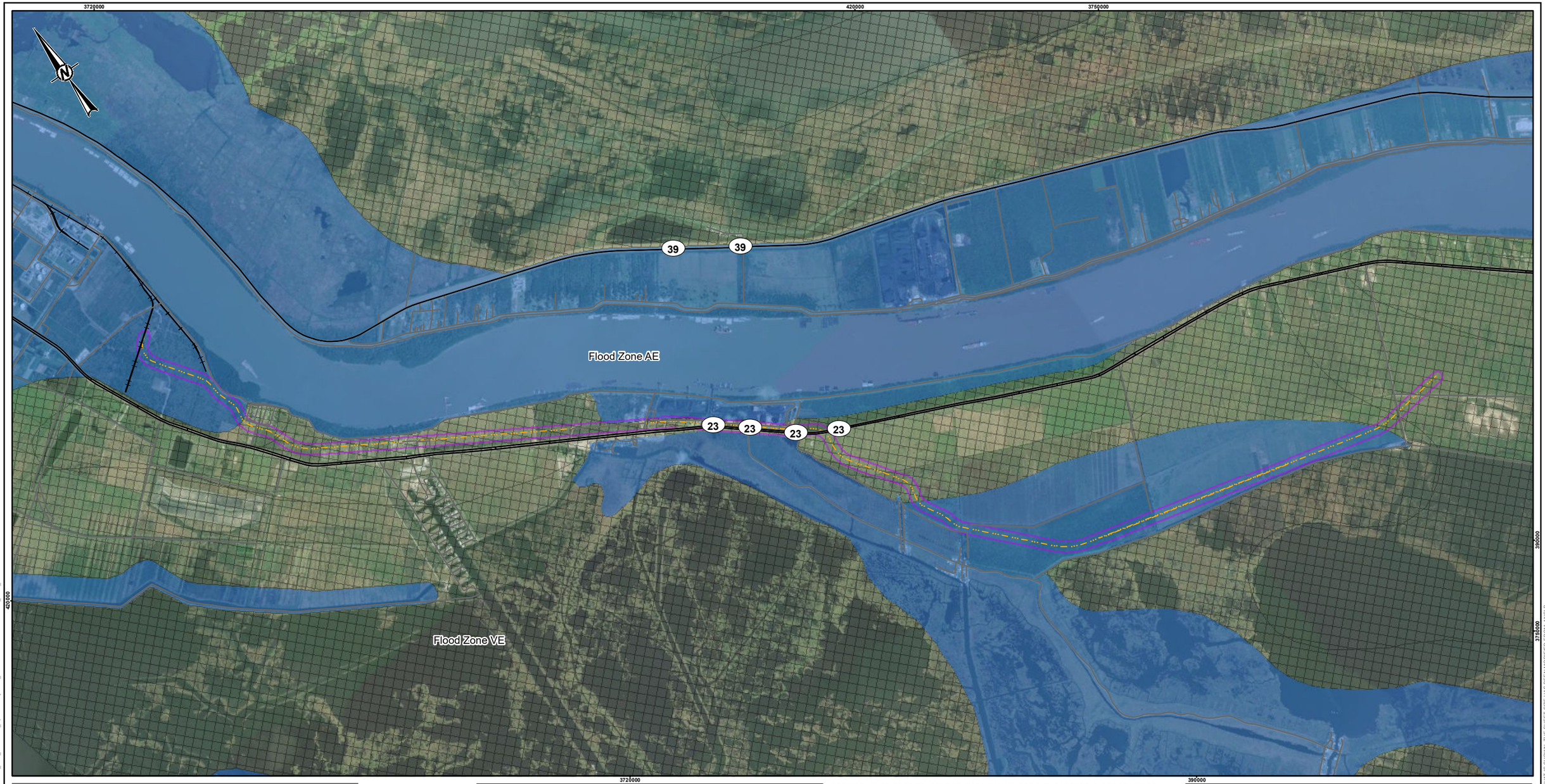

LEGEND

- Local Roads
- Existing Railroads
- Proposed Alignment CB
- Study Area, 400ft Width
- Flood Zone AE
- Flood Zone VE

NOTE(S)
FEMA FLOOD ZONE DEFINITIONS:

FLOOD ZONE AE: AREAS WITH A 1% ANNUAL CHANCE OF FLOODING AND A 26% CHANCE OF FLOODING OVER THE LIFE OF A 30-YEAR MORTGAGE. BASE FLOOD ELEVATIONS HAVE BEEN CALCULATED FOR THIS ZONE.

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Feet

REFERENCE(S)
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PROJECTION: LAMBERT CONFORMAL CONIC
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CLIENT
LA 23 DEVELOPMENT COMPANY

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-05-02
DESIGNED	JGW
PREPARED	JGW
REVIEWED	MB
APPROVED	####

PROJECT
LGT MAINLINE EXTENSION

TITLE
FEMA FLOOD HAZARD ZONES- ALIGNMENT CB

PROJECT NO.	CONTROL	REV.	FIGURE
30901703	A002	0	9

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

Appendix D – Tables

Table 1: Indicator List and Spatial Analysis Results for the Four Proposed Alignments

Constraint	Units	Alignment A	Alignment B	Alignment CA	Alignment CB	Weight*	Source
Environmental							
NHD Flowline Crossings - Artificial Path	Count	0	4	0	4	3	USGS NHD Layer
NHD Flowline Crossings - Canals/Ditches	Count	0	10	0	10	3	USGS NHD Layer
Land/Cover Woodland	Acres	153.32	180.72	181.69	208.79	2	USGS National Land Cover database
Floodplain - 100yr Flood Zone - AE	Acres	36.37	195.49	62.89	222.1	1	FEMA
Floodplain - 100yr Flood Zone - VE	Acres	396.78	261.34	396.78	261.31	1	FEMA
Freshwater Emergent Wetlands	Acres	31.71	89.05	31.99	89.33	5	USFWS – NWI, Field Survey Data
Freshwater Forested/Shrub Wetlands	Acres	127.93	150.04	155.05	178.05	5	USFWS – NWI, Field Survey Data
Freshwater Pond	Acres	3.27	2.42	3.27	2.42	2	USFWS – NWI, Field Survey Data
Riverine	Acres	1.80	4.65	1.80	4.65	4	USFWS – NWI, Field Survey Data
Coastal Conservation Plan Area	Acres	3.07	3.07	3.07	3.07	1	USGS National Map
Oil and Gas Wells	Count	1	2	1	2	5	SONRIS
Well Pits	Count	0	1	0	1	5	SONRIS
Water Wells	Count	8	8	8	6	5	SONRIS
Social							
Urban Areas	Percent	0	0	0	0	4	LADOTD
Parks and Recreational Areas	Acres	0	0	0	0	2	State/national layers
Buildings	Count	13	17	13	17	5	Microsoft /ESRI
Parcels	Count	38	16	38	16	2	From Surveyor
Cultural Resources	Count	8	6	9	7	5	NPS, NRHP, Field Survey Data
Technical							
Rail Length	Miles	10.33	10.78	10.83	11.3	3	Golder/WSP
Below-Ground Pipeline Crossings	Count	0	1	0	1	3	Venture Global
Above-Ground Pipeline Crossings	Count	1	0	1	0	5	Venture Global
Parallel Existing Roads	Miles	7.94	1.22	7.81	1.12	1	US Census – Tiger Layer
Minor Road Crossings	Count	10	8	10	8	3	US Census – Tiger Layer
Major Road Crossings	Count	0	1	0	1	5	US Census – Tiger Layer (LA23)

*Weight= The weight scores indicate the risk on environmental, social, and technical resources as follows: 1 for low risk, 3 for moderate risk, and 5 for high risk.

NHD = National Hydrography Dataset, USGS = United States Geological Survey, FEMA = Federal Emergency Management Agency, USFWS = United States Fish & Wildlife Service, NWI = National Wetlands Inventory, SONRIS = Strategic Online Natural Resources Information System, LADOTD = Louisiana Department of Transportation and Development, ESRI = Environmental Systems Research Institute, NPS = National Park Service, NRHP = National Register of Historic Places

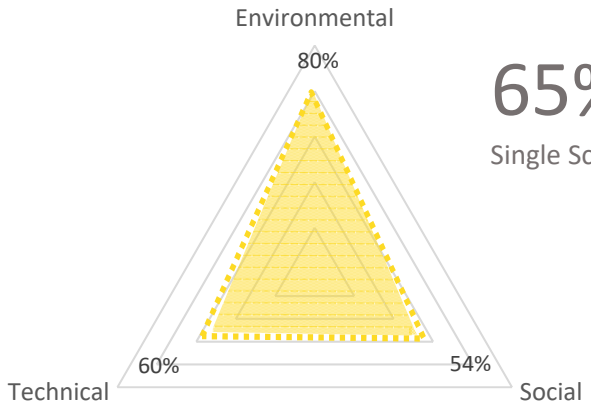
Table 2: National and State Datasets Reviewed but Not Located Within Study Area

Data Set Name	Source
National Datasets	
Critical Habitat	USFWS
Fisherman Gear Hang Points	USGS
Native American Area	USGS Government Unit
Unincorporated Place	USGS Government Unit
Jurisdictional	USGS Government Unit
Incorporated Place	USGS Government Unit
State Claimed Water Bodies	USGS National Hydrology Dataset
Structures	USGS National Map
Airports	USGS National Map
National Parks/Federal lands/Wildlife Refuges	USGS/NPS/USFS/ESRI
National Register of Historic Places	NPS
Installations/Ranges	USDOD
Pipelines	US Energy Information Administration
State Datasets - SONRIS	
Coastal Management Section	
Beneficial Use	SONRIS
Coastal Permit Lines/Polygons	SONRIS
Mitigation Areas	SONRIS
Gulf Ecological Management Site	SONRIS
Mineral Resources	
Active Leases	SONRIS
Exclusive Geophysical Agreements	SONRIS
Releases	SONRIS
Tract Archive 2001 to present	SONRIS
Tracts	SONRIS
Oil and Gas	
Bottom Hole	SONRIS
Injection Wells	SONRIS
Oil and Gas Fields	SONRIS
Coastal Protection and Restoration Authority (CPRA)	
Christmas Tree Point	CPRA
Outreach Projects	CPRA
Levee gates	CPRA
Monitoring Stations	CPRA

Data Set Name	Source
Model Domains	CPRA
Vegetation Planting Program	CPRA
Vegetation	CPRA
Louisiana State Parks	DNR
Public Oyster Areas	DNR
Water Management Areas	DNR
Bear Sightings	DNR
LA Department of Transportation and Development (LADOTD)	
Metropolitan Planning Areas	LADOTD
Urbanized Areas	LADOTD
USFWS = United States Fish & Wildlife Service, USGS = United States Geological Survey, NPS = National Park Service, USFS = United States Forest Service, ESRI = Environmental Systems Research Institute, USDOD = United States Department of Defence, SONRIS = Strategic Online Natural Resources Information System, DNR= Department of Natural Resources	

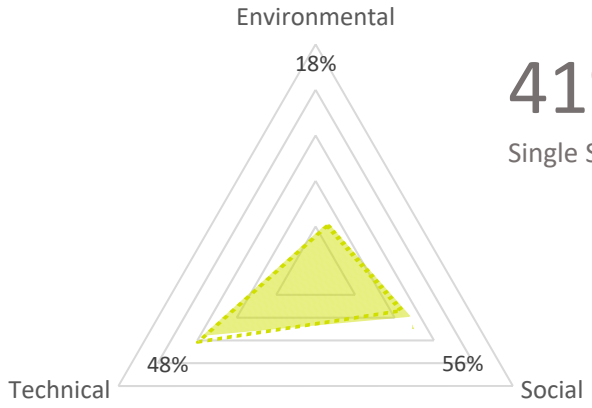
Appendix E – Results from the GoldSET Options Analysis for the Four Alignments

ALIGNMENT A



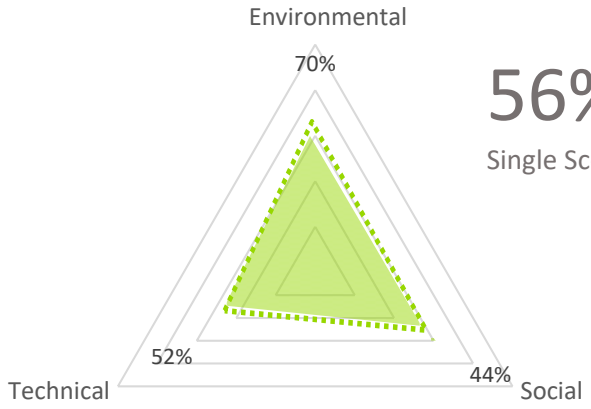
65%
Single Score

ALIGNMENT B



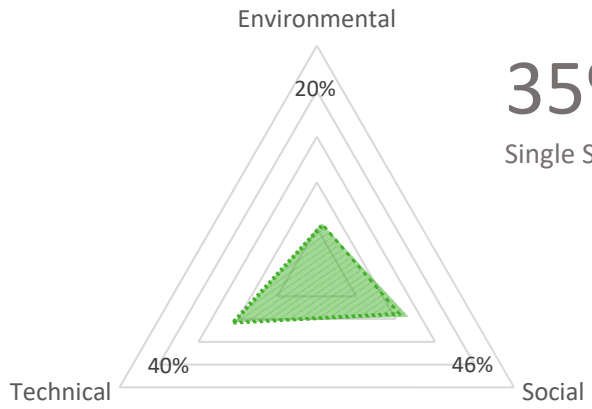
41%
Single Score

ALIGNMENT CA



56%
Single Score

ALIGNMENT CB



35%
Single Score

Appendix H

Previous Cultural Survey Files

Previous cultural resource investigations conducted within the project area are listed below. These reports contain sensitive archeological site location information and are therefore provided to the Surface Transportation Board separately (**Attachment B**) and not included in the public version of this response.

Report Title	Author	Year
A Cultural Resource Survey of a Proposed 200-Acre Development in Plaquemines Parish, Louisiana	Cultural Resource Analysts, Inc	2012
Mid- Barataria Sediment Diversion Draft Phase I Cultural Resource Survey of the Proposed Site	HDR, Inc	2014
Phase II Testing and Evaluation of Portions of Archaeological Site 16PL107 (ST. Rosalie Plantation), Plaquemines Parish, Louisiana	R. Christopher Goodwin & Associates, Inc	2017
A Cultural Resource Survey of A 185- Acre Parcel for a Proposed Liquids Terminal in Plaquemines Parish, Louisiana	Cultural Resource Analyst, Inc	2018
Revised Work Plan Phase II Site Testing (16PL107) and Associated Cemetery Investigation for the St. Rosalie Plantation Plaquemines Parish, Louisiana	ELOS Environmental	2019
Cultural Resource Investigations of the Mid-Barataria Sediment Diversion (MBSD) Construction Impacts APE and the MBSD Operations Impacts APE in Plaquemines and Jefferson Parishes, Louisiana	R. Christopher Goodwin & Associates, Inc.	2020
Phase II Site Testing (16PL107) and Associated Cemetery Investigation of St. Rosalie Plantation in Plaquemines Parish, Louisiana	ELOS Environmental	2020
Phase II Site Testing (16PL107) and Associated Cemetery Investigation Of St. Rosalie Plantation in Plaquemines Parish, Louisiana	ELOS Environmental	2021
A Phase II Testing and Evaluation of Locus One Within Site 16PL107, The St. Rosali Plantation, Plaquemines Parish, Louisiana	R. Christopher Goodwin & Associates, Inc.	2022
Report of Findings For Plaquemines Port Harbor & Terminal District – Parcel 1 (Tract DR – 2A) Located in Plaquemines Parish, Louisiana Sections 3,4, and 5, Township 17S, Range 25E	T. Baker Smith, LLC	2025
Phase II/III Archeological Investigations of the St. Rosalie Plantation, Site 16PL107 Plaquemines Parish, Louisiana	Goodwin & Associates, Inc	2025

Appendix I

Ironton Townhall Meeting Presentation

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

LGT Mainline Rail Extension Project
CPRA Presentation
Wednesday, August 27, 2025

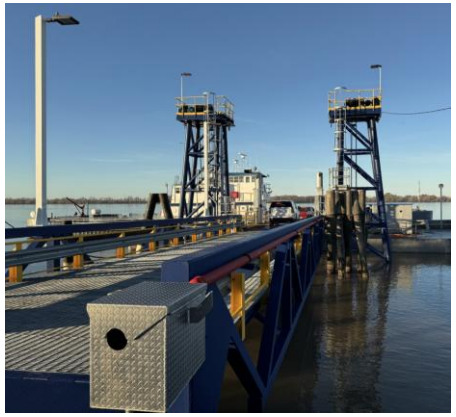
Turning Bigger Ships Faster

LGP's Values

- **Drive integrity and trust.**
- **Demand customer focus.**
- **Foster transparent communication.**
- **Provide safe, efficient, and reliable services.**
- **Think COMMUNITY FIRST – but with a GLOBAL VISION.**
- **Embrace a culture of excellence and customer service.**
- **Leverage technology and innovation.**
- **Champion environmental stewardship.**
- **Deliver continuous process improvement.**

LGP's Infrastructure Projects

- **PALH Ferry Landing Emergency Repair**



- **MV Plaquemines Pride**

LGP's Infrastructure Projects

- **Alliance Water Booster Station & Feed Lines**

- **Peters Road Bridge**

LGT Mainline Rail Extension Project

LGT Mainline Rail Extension Project

- **Updated Rail Alignment**
  - Avoiding impacts to the Ironton Community

LGT Mainline Rail Extension Project

- **Previously Proposed Rail Alignments**
  - Came through Ironton Park & Community

LGT Mainline Rail Extension Project

LGP's Main Focus

- Avoids Ironton Community
- No Impact on Ironton Park
- Fence Installed For Safety
- Port – Ironton Buffer Area

Thank You

Celeste Bergeron
Director of Projects

Charles Tillotson
Executive Director / CEO

Appendix J

Voluntary Mitigation Measures of Ironton

Assuming that the Board authorizes the Proposed Transaction, the below voluntary mitigation measures address community coordination between and among PPHTD and the town of Ironton.

Since August 2025, community meetings held on August 6, 2025 and February 4, 2026 have been attended by PPHTD leadership to ensure community members concerns are addressed. Based on what it learned in those meetings, PPHTD proposes the following community-focused voluntary mitigation measures:

- **VM-Community-01**. PPHTD will meet at least once per quarter with Ironton community representatives for the first five years following construction. If the Ironton community experiences construction or operation-related impacts, PPHTD will use these meetings to work directly with Ironton on ways to address their concerns.

- **VM-Community-02**. PPHTD has already added to its website an LGP Rail Extension Project page that provides contact information, updates on project status, a document library, and other resources relevant to the project. This project page will remain active throughout the environmental review and construction of the project. The LGP Rail Extension Project page also allows members of the public, including members of the Ironton community, to submit comments at any time. PPHTD will make members of the Ironton community aware of the LGP Rail Extension Project page available and will respond to any comments they submit.

- **VM-Community-03.** PPHTD will work with Ironton community members to install, at PPHTD's expense, permanent fencing as a safety barrier between the community and the railroad right-of-way.

- **VM-Community-04.** PPHTD will create a buffer zone on land that it owns adjacent to the Ironton community and will require input from the Ironton community before any development takes place on PPHTD-owned land between the rail infrastructure and the residential area.

PPHTD also proposes the following voluntary measures to mitigate potential impacts on safety and delay at the Ironton Road at-grade crossings:

- **VM-Grade Crossing-01.** PPHTD will coordinate with Ironton community members on selecting reasonable crossing protection for the Ironton Road at-grade crossing. When a selection is made, PPHTD will fund the installation of the crossing protection.

- **VM-Grade Crossing-02**. PPHTD will investigate the practicability of alternative access for properties in Ironton if it is determined that the sole access to a property is being blocked more than once per week by a train stationary for longer than 10 minutes.

- **VM-Grade Crossing-03.** PPHTD will discuss with the Ironton community a rail monitoring system.

PPHTD also proposes the following voluntary measures to mitigate potential noise and vibration impacts to the Ironton community:

- **VM-Noise-01.** If the Board authorizes only PPHTD's alternative alignment that is closer to the town of Ironton, PPHTD will work with the Ironton community to identify an appropriate sound barrier. Once a barrier is selected, PPHTD will install the barrier before rail traffic moves on the line.

Appendix K

Coastal Protection and Restoration Authority Meeting Presentation

LOUISIANA GATEWAY PORT
PLAQUEMINES PARISH

LGT Mainline Rail Extension Project
CPRA Presentation
Wednesday, August 27, 2025

Turning Bigger Ships Faster

Meeting Objective

- Receive CPRA rail right-of-way approval across its Plaquemines Property with an objective of mitigating impact on the Town of Ironton.

Our Values

- Drive integrity and trust.
- Demand customer focus.
- Foster transparent communication.
- Provide safe, efficient, and reliable services.
- Think COMMUNITY FIRST – but with a GLOBAL VISION.
- Embrace a culture of excellence and customer service.
- Leverage technology and innovation.
- Champion environmental stewardship.
- Deliver continuous process improvement.

LGT Mainline Rail Extension Project

Our Main Focus

- Avoid Ironton Community
- No Impact on Ironton Park
- Fence Installed For Safety
- Port – Ironton Buffer Area

LGT Mainline Rail Extension Project

- **Updated Rail Alignment**
  - Avoiding impacts to the Ironton Community

LGT Mainline Rail Extension Project

- **Previously Proposed Rail Alignments**
  - Came through Ironton Park & Community

LGT Mainline Rail Extension Project

Thank You

Celeste Bergeron
Director of Projects

Charles Tillotson
Executive Director / CEO