

**JOINT APPLICATION AND NOTIFICATION
U.S. ARMY CORPS OF ENGINEERS
MISSISSIPPI DEPARTMENT OF MARINE RESOURCES
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY/OFFICE OF POLLUTION CONTROL**

Applicant: City of Diamondhead
Mailing Address: 5000 Diamondhead
Circle
Diamondhead, MS 39525
Phone Number:
Email Address:

Agent: Kristen Rorabaugh
Mailing Address: 407 Highway 90
Bay St. Louis MS, 39520
Phone Number: 2284676755
Email Address: kristen@chiniche.com

Date Submitted:
09/24/2026
DMR Permit Number:
DMR26-000507

Historic DMR Permit Numbers:

DMR22-000024, DMR24-000460, Connected to DMR26-000506

DMR File Number:

22-000020

Project Location:

132 -0-09-001.002
Noma Dr
Diamondhead, MS
Hancock County
Jourdan River

Are there existing structures?

Do you still need to enter a Project Location? No

How will you identify the project location:

Is this property accessible?

Project Information:

Project Name or Title: Rotten Bayou Nature Observation Project

Project Description: The project will include the construction of a 5,710 SF gravel parking area and one ADA Concrete parking spot and van space (342 SF) built in a primarily upland area, along with the construction of an ADA-accessible, timber nature observation facility supported on timber piles. The observation facility will include an accessible ramp leading to a 4-foot-high viewing deck, as well as a second accessible ramp leading to an 8-foot-high, two-story bird observation tower. The observation tower will be located adjacent to a portion of Rotten Bayou and is intended to provide enhanced opportunities for wildlife observation, environmental education, and public access while minimizing impacts to the surrounding natural resources.

Project Purpose and Need: The proposed activity consists of constructing an approximately 5,710-square-foot (SF) gravel parking area located primarily within upland areas and an ADA accessible timber nature observation facility adjacent to Rotten Bayou. The observation facility will include a pile-supported, ADA-accessible timber boardwalk and ramp configured in a zigzag ("Z") alignment to minimize the project footprint and reduce impacts to adjacent wetlands. The boardwalk will provide access to a 20-foot by 20-foot elevated viewing deck approximately 4 feet above grade and will continue to an 8-foot-high, two-story bird observation tower.

Intended Use: Public/Government

Will the Proposed Project have a Public Benefit?:

Increased tax base:

Increased employment:

National security benefits:

Improved habitat:

Other:

Does Project area contain any marsh Vegetation?:

What measures will be taken to reduce detrimental off-site effects to the Coastal Wetlands during and after the proposed activity?:

Impact Information:

Number of Impact Types**01****Impact Type:****Wetland Fill**

Permanent or Temporary?

Permanent

Specific Purpose of Fill (Wetland Fill)

Concrete parking lot for visitors to the nature observatory

Acreage/Square Footage or Linear Feet (Wetland Fill)

0.1

Fill Material Type (Wetland Fill)

gravel

Habitat Type (Wetland Fill)

08. Scrub/Shrub

Is this a component of a larger project?

No

Is any portion of this impact complete?

No

Additional information relating to the proposed activity

Have any other federal, state, or local agencies issued permits or other types of approvals for the proposed project?:

Have any other federal, state, or local agencies denied approval for the proposed project?:

Additional information about the proposed project.

Project Schedule

Do you know the Proposed Start Date?

Do you know the Proposed Completion Date?

Do you know the Estimated Cost of the Project?

Adjacent Property Owners:

Application Certified by: Jon McCraw

U.S. Army Corps of Engineers (USACE)
NATIONWIDE PERMIT PRE-CONSTRUCTION NOTIFICATION (PCN)

For use of this form, see 33 CFR 330; the proponent agency is CECW-CO-R.

Form Approved -
OMB No. 0710-
0003
Expires: 2027-10-31

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Program of the Corps of Engineers (Corps); Final Rule 33 CFR 320-332.

Principal Purpose Information provided on this form will be used in evaluating the nationwide permit pre-construction notification.

Routine Uses This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of the agency coordination process.

Disclosure Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can

The public reporting burden for this collection of information, 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR RESPONSE TO THE ABOVE EMAIL.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see *sample drawings and/or instructions*) and be submitted to the district engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED 08/10/2026	4. DATE APPLICATION COMPLETE
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(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First – Jon Middle – Last – McCraw Company – City of Diamondhead, MS Company Title – E-mail Address – jmccraw@diamondhead.ms.gov	8. AUTHORIZED AGENT'S NAME AND TITLE (<i>agent is not required</i>) First – Kristen Middle – Last – Rorabaugh Company – Chiniche Engineering and Surveying E-mail Address – kristen@chiniche.com
6. APPLICANT'S ADDRESS Address – 5000 Diamondhead Cir City – Diamondhead State – MS ZIP – 39525 Country – US	9. AGENT'S ADDRESS Address – 407 HWY 90 City – Bay Saint Louis State – MS ZIP – 39520 Country – US
7. APPLICANT'S PHONE NOS. with AREA CODE a. Business b. c. Fax +12282225120	10. AGENT'S PHONE NOS. with AREA CODE a. Primary b. c. Fax +12282233898

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Kristen Rorabaugh to act in my behalf as my agent in the processing of this nationwide permit pre-construction notification and to furnish, upon request, supplemental information in support of this nationwide permit pre-construction notification.

/s/ - provided on authorized agent form

08/10/2026

SIGNATURE OF APPLICANT

DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME or TITLE (*see instructions*)

Rotten Bayou Nature Observatory

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

13. NAME OF WATERBODY, IF KNOWN (*if applicable*)

Rotten Bayou

14. PROPOSED ACTIVITY STREET ADDRESS (*if applicable*)

Address: 4209 Noma Dr

15. LOCATION OF PROPOSED ACTIVITY (*see instructions*)

Latitude: 30.3692014 °N

Longitude: -89.3952647 °W

City: Diamondhead State: MS Zip: 39525

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (*see instructions*)

Section – 09

Township – 008 S

Range – 014 W

County – Hancock County

Project Area – 7750 Square Feet

State Tax Parcel ID – 132 -0-09-001.002

17. DIRECTIONS TO THE SITE

Rouses Market

4407 E Aloha Dr, Diamondhead, MS 39525 off of Diamondhead MS exit 16 off I10

Head west on E Aloha Dr

0.1 mi

Turn left onto W Aloha Dr

Pass by Burger King (on the right)

0.2 mi

At the traffic circle, take the 1st exit onto Gex Dr

0.4 mi

At the traffic circle, take the 3rd exit onto Noma Dr

0.8 mi

At the traffic circle, take the 1st exit and stay on Noma Dr

Destination will be on the right

0.9 mi
30.3691135, -89.3951918

18. IDENTIFY THE SPECIFIC NATIONWIDE PERMIT(S) YOU PROPOSE TO USE

NWP 42 Recreational Facilities

19. DESCRIPTION OF PROPOSED NATIONWIDE PERMIT ACTIVITY (*see instructions*)

The project will include the construction of a 5,710 SF gravel parking area and one ADA Concrete parking spot and van space (342 SF) built in a primarily upland area, along with the construction of an ADA-accessible, timber nature observation facility supported on timber piles. The observation facility will include an accessible ramp leading to a 4-foot-high viewing deck, as well as a second accessible ramp leading to an 8-foot-high, two-story bird observation tower. The observation tower will be located adjacent to a portion of Rotten Bayou and is intended to provide enhanced opportunities for wildlife observation, environmental education, and public access while minimizing impacts to the surrounding natural resources.

The proposed activity consists of constructing an approximately 5,710-square-foot (SF) gravel parking area located primarily within upland areas and an ADA-accessible timber nature observation facility adjacent to Rotten Bayou. The observation facility will include a pile-supported, ADA-accessible timber boardwalk and ramp configured in a zigzag ("Z") alignment to minimize the project footprint and reduce impacts to adjacent wetlands. The boardwalk will provide access to a 20-foot by 20-foot elevated viewing deck approximately 4 feet above grade and will continue to an 8-foot-high, two-story bird observation tower.

Construction activities will include limited site preparation, grading within upland areas, placement of gravel, installation of pile-supported foundations and timber structural components, and implementation of erosion and sediment control measures to protect adjacent wetlands and waters from temporary construction impacts. Best Management Practices (BMPs) will be implemented throughout construction to avoid and minimize impacts to surrounding natural resources and to ensure that any temporarily disturbed areas are properly stabilized following project completion.

The project includes approximately 5,710 SF of gravel parking improvements, 342SF of ADA concrete parking, and 2,176 SF of pile-supported timber structures, consisting of the ADA-accessible boardwalk and ramps, the 20-foot by 20-foot viewing deck, and the two-story bird observation tower.

20. DESCRIPTION OF PROPOSED MITIGATION MEASURES (*see instructions*)

The project has been designed to utilize an existing previously disturbed upland area to the maximum extent practicable. The proposed parking area is located within an upland area that was historically developed and used for infrastructure associated with a nearby wastewater treatment facility, including what appears to have been a tank or pump station. Use of this previously disturbed area avoids the need to develop an otherwise undisturbed upland or wetland area and minimizes additional disturbance to surrounding natural resources.

The proposed 5,710-square-foot parking area will utilize permeable gravel surfacing to allow continued infiltration of stormwater and minimize changes to existing runoff characteristics. The parking area will be graded to follow existing site contours and drainage patterns to the maximum extent practicable, thereby reducing the potential for alteration of existing drainage patterns or increased stormwater runoff.

The nature observation facilities will be elevated and pile-supported to minimize ground disturbance and reduce permanent impacts to wetlands and other waters. The ADA-accessible ramp and boardwalk will be configured in a zigzag ("Z") alignment to provide the required accessible route while minimizing the overall project footprint. The viewing deck and bird observation tower will also be pile-supported, limiting permanent ground disturbance to the areas necessary for installation of piles and associated structural components.

Permanent impacts associated with the pile-supported observation structures are limited to approximately 68.3 square feet (0.00157 acre), based on 87 piles with a 12-inch diameter.

Temporary construction impacts will be minimized by utilizing the previously disturbed upland area for construction access, equipment staging, and material storage to the maximum extent practicable. Where access through wetlands cannot be avoided, temporary construction mats or other appropriate measures will be utilized to minimize soil compaction, rutting, and disturbance to wetland soils and vegetation. Construction limits will be clearly marked, and unnecessary clearing and disturbance will be avoided.

Erosion and sediment control Best Management Practices (BMPs) will be implemented throughout construction to prevent sediment from entering adjacent wetlands

and Rotten Bayou. All temporary fills, construction mats, and other temporary construction measures within wetlands or waters will be removed following construction, and temporarily disturbed areas will be restored and stabilized to the maximum extent practicable.

21. PURPOSE OF NATIONWIDE PERMIT ACTIVITY (*Describe the reason or purpose of the project, see instructions*)

The purpose of this project is to improve public access to the natural resources of the Rotten Bayou area by providing safe, ADA-accessible recreational and wildlife observation facilities. The proposed gravel parking area will provide convenient visitor access while being located primarily within upland areas to minimize impacts to wetlands. The ADA-accessible viewing deck and bird observation tower will expand opportunities for birdwatching, nature observation, photography, and environmental education, allowing visitors of all abilities to experience the ecological value of the bayou. The project is designed to enhance passive recreation while preserving the surrounding natural environment and encouraging stewardship of the area's coastal and wetland resources.

The project is located within an area that serves as a regional outdoor recreation hub and will complement existing public recreational amenities. The site is located approximately 0.1 mile from the Noma Drive boat and kayak launch and is also within approximately 0.1 mile of the Diamondhead football fields, providing a unique opportunity to connect existing recreational destinations with an accessible nature-based observation facility. The project is intended to enhance passive recreation, promote environmental education, and encourage stewardship of the area's coastal and wetland resources while minimizing impacts to the surrounding natural environment through careful site design and construction practices.

22. QUANTITY OF WETLANDS, STREAMS, OR OTHER TYPES OF WATERS DIRECTLY AFFECTED BY PROPOSED NATIONWIDE PERMIT ACTIVITY
(*see instructions*)

See Appendix B

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

25. List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. (*see instructions*)

26. If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and/or the loss of greater than 3/100-acre of stream bed and requires pre-construction notification, explain how the compensatory mitigation requirement in paragraph (c) and/or paragraph (d) of general condition 23 will be satisfied, or explain why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required for the proposed activity.

27. Is any portion of the nationwide permit activity already complete? ☐ Yes ☒ No

If Yes, describe the completed work:

28. List the name(s) of any species listed as endangered or threatened under the Endangered Species Act that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. (*see instructions*)

ADDITIONAL AFFECTED SPECIES:

I'm not sure.

29. List any historic properties that have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic property or properties. (*see instructions*)

I'm not sure.

30. For a proposed NWP activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a

"study river" for possible inclusion in the system while the river is in an official study status, identify the Wild and Scenic River or the "study river":

31. If the proposed NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, have you submitted a written request for section 408 permission from the Corps district having jurisdiction over that project? ☐ Yes ☒ No

If "yes", please provide the date your request was submitted to the Corps district:

32. If the terms of the NWP(s) you want to use require additional information to be included in the PCN, please include that information in this space or provide it on an additional sheet of paper marked Block 30. (*see instructions*)

33. Pre-construction notification is hereby made for one or more nationwide permit(s) to authorize the work described in this notification. I certify that the information in this pre-construction notification is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

/s/ - provided on authorized agent form

Kristen Rorabaugh

08/10/2026

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

The pre-construction notification must be signed by the person who desires to undertake the proposed activity (applicant) and, if the statement in Block 11 has been filled out and signed, the authorized agent.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

**Instructions for Preparing a
Department of the Army
Nationwide Permit (NWP) Pre-Construction Notification (PCN)**

Blocks 1 through 4. To be completed by the Corps of Engineers.

Block 5. Applicant's Name. Enter the name and the e-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the preconstruction notification, please attach a sheet of paper with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the PCN. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant's Telephone Number(s). Please provide the telephone number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, consultant, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he / she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by the applicant, if an agent is to be employed.

Block 12. Proposed Nationwide Permit Activity Name or Title. Please provide a name identifying the proposed NWP activity, e.g., Windward Marina, Rolling Hills Subdivision, or Smith Commercial Center.

Block 13. Name of Waterbody. Please provide the name (if it has a name) of any stream, lake, marsh, or other waterway to be directly impacted by the NWP activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Activity Street Address. If the proposed NWP activity is located at a site having a street address (not a box number), please enter it in Block 14.

Block 15. Location of Proposed Activity. Enter the latitude and longitude of where the proposed NWP activity is located. Indicate whether the project location provided is the center of the project or whether the project location is provided as the latitude and longitude for each of the "corners" of the project area requiring evaluation. If there are multiple sites, please list the latitude and longitude of each site (center or corners) on a separate sheet of paper and mark as Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality where the site is located.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide a description of the location of the proposed NWP activity, such as lot numbers, tract numbers, or you may choose to locate the proposed NWP activity site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed NWP activity site if known. If there are multiple locations, please indicate directions to each location on a separate sheet of paper and mark as Block 17.

Block 18. Identify the Specific Nationwide Permit(s) You Propose to Use. List the number(s) of the Nationwide Permit(s) you want to use to authorize the proposed activity (e.g., NWP 29).

Block 19. Description of the Proposed Nationwide Permit Activity. Describe the proposed NWP activity, including the direct and indirect adverse environmental effects the activity would cause. The description of the proposed activity should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal. Identify the materials to be used in construction, as well as the methods by which the work is to be done.

Provide sketches when necessary to show that the proposed NWP activity complies with the terms of the applicable NWP(s). Sketches usually clarify the activity and result in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed NWP activity (e.g., a conceptual plan), but do not need to be detailed engineering plans.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 19.

Block 20. Description of Proposed Mitigation Measures. Describe any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed NWP activity. The description of any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or additional mitigation measures.

Block 21. Purpose of Nationwide Permit Activity. Describe the purpose and need for the proposed NWP activity. What will it be used for and why? Also include a brief description of any related activities associated with the proposed project. Provide the approximate dates you plan to begin and complete all work.

Block 22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by the Proposed Nationwide Permit Activity. For discharges of dredged or fill material into waters of the United States, provide the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained by the proposed NWP activity. For structures or work in navigable waters of the United States subject to Section 10 of the Rivers and Harbors Act of 1899, provide the amount of navigable waters filled, dredged, or occupied by one or more structures (e.g., aids to navigation, mooring buoys) by the proposed NWP activity.

For multiple NWPs, or for separate and distant crossings of waters of the United States authorized by NWPs 12 or 14, attach an extra sheet of paper marked Block 21 to provide the quantities of wetlands, streams, or other types of waters filled, flooded, excavated, or drained (or dredged or occupied by structures, if in waters subject to Section 10 of the Rivers and Harbors Act of 1899) for each NWP. For NWPs 12 and 14, include the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained for each separate and distant crossing of waters or wetlands. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 23. Identify Any Other Nationwide Permit(s), Regional General Permit(s), or Individual Permit(s) Used to Authorize Any Part of Proposed Activity or Any Related Activity. List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. For linear projects, list other separate and distant crossings of waters and wetlands authorized by NWPs 12 or 14 that do not require PCNs. If more space is needed, attach an extra sheet of paper marked Block 23.

Block 24. Compensatory Mitigation Statement for Losses of Greater Than 1/10-Acre of Wetlands and/or of Greater Than 3/100-Acre of Stream Bed When Pre-Construction Notification is Required. Paragraphs (c) and (d) of NWP general condition 23 require compensatory mitigation at a minimum one-for-one replacement ratio for all wetland losses that exceed 1/10-acre and/or for all losses of stream bed that exceed 3/100-acre, unless the district engineer determines in writing that either some other form of mitigation is more environmentally appropriate or the adverse environmental effects of the proposed NWP activity are no more than minimal without compensatory mitigation, and provides an activity-specific waiver of this requirement. Describe the proposed compensatory mitigation for wetland losses greater than 1/10 acre and/or for losses of stream bed that exceed 3/100-acre, or provide an explanation of why the district engineer should not require wetland and/or stream compensatory mitigation for the proposed NWP activity. If more space is needed, attach an extra sheet of paper marked Block 24.

Block 25. Is Any Portion of the Nationwide Permit Activity Already Complete? Describe any work that has already been completed for the NWP activity.

Block 26. List the Name(s) of Any Species Listed As Endangered or Threatened under the Endangered Species Act that Might be Affected by the Nationwide Permit Activity. If you are not a federal agency, and if any listed species or designated critical habitat might be affected or is in the vicinity of the proposed NWP activity, or if the proposed NWP activity is located in designated critical habitat, list the name(s) of those endangered or threatened species that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 7 of the Endangered Species Act.

Block 27. List Any Historic Properties that Have the Potential to be Affected by the Nationwide Permit Activity. If you are not a Federal agency, and if any historic properties have the potential to be affected by the proposed NWP activity, list the name(s) of those historic properties that have the potential to be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

Block 28. List the Wild and Scenic River or Congressionally Designated Study River if the Nationwide Permit Activity Would Occur in such a River. If the proposed NWP activity will occur in a river in the National Wild and Scenic River System or in a river officially designated by Congress as a "study river" under the Wild and Scenic Rivers Act, provide the name of the river. For a list of Wild and Scenic Rivers and study rivers, please visit <http://www.rivers.gov/>.

Block 29. Nationwide Permit Activities that also Require Permission from the Corps Under 33 U.S.C. 408. If the proposed NWP activity also requires permission from the Corps under 33 U.S.C. 408 because it will temporarily or permanently alter, occupy, or use a Corps federal authorized civil works project, indicate whether you have submitted a written request for section 408 permission from the Corps district having jurisdiction over that project.

Block 30. Other Information Required For Nationwide Permit Pre Construction Notifications. The terms of some of the Nationwide Permits include additional information requirements for preconstruction notifications:

- * NWP 3, Maintenance –information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals.
- * NWP 31, Maintenance of Existing Flood Control Facilities –a description of the maintenance baseline and the dredged material disposal site.
- * NWP 33, Temporary Construction, Access, and Dewatering –a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre project conditions.
- * NWP 44, Mining Activities –if reclamation is required by other statutes, then a copy of the final reclamation plan must be submitted with the pre construction notification.
- * NWP 45, Repair of Uplands Damaged by Discrete Events –documentation, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration.
- * NWP 48, Commercial Shellfish Aquaculture Activities –(1) a map showing the boundaries of the project area, with latitude and longitude coordinates for each corner of the project area; (2) the name(s) of the species that will be cultivated during the period this NWP is in effect; (3) whether canopy predator nets will be used; (4) whether suspended cultivation techniques will be used; and (5) general water depths in the project area (a detailed survey is not required).
- * NWP 49, Coal Remining Activities –a document describing how the overall mining plan will result in a net increase in aquatic resource functions must be submitted to the district engineer and receive written authorization prior to commencing the activity.
- * NWP 50, Underground Coal Mining Activities –if reclamation is required by other statutes, then a copy of the reclamation plan must be submitted with the pre construction notification.

If more space is needed, attach an extra sheet of paper marked Block 30.

Block 31. Signature of Applicant or Agent. The PCN must be signed by the person proposing to undertake the NWP activity, and if applicable, the authorized party (agent) that prepared the PCN. The signature of the person proposing to undertake the NWP activity shall be an affirmation that the party submitting the PCN possesses the requisite property rights to undertake the NWP activity (including compliance with special conditions, mitigation, etc.).

DELINEATION OF WETLANDS, OTHER SPECIAL AQUATIC SITES, AND OTHER WATERS

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current wetland delineation manual and regional supplement published by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. The 45 day PCN review period will not start until the delineation is submitted or has been completed by the Corps.

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross Section Map. Identify each illustration with a figure or attachment number. For linear projects (e.g. roads, subsurface utility lines, etc.) gradient

drawings should also be included. Please submit one original, or good quality copy, of all drawings on 8½x11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.

ADDITIONAL INFORMATION AND REQUIREMENTS

For proposed NWP activities that involve discharges into waters of the United States, water quality certification from the State, Tribe, or EPA must be obtained or waived (see NWP general condition 25). Some States, Tribes, or EPA have issued water quality certification for one or more NWPs. Please check the appropriate Corps district web site to see if water quality certification has already been issued for the NWP(s) you wish to use. For proposed NWP activities in coastal states, state Coastal Zone Management Act consistency concurrence must be obtained, or a presumption of concurrence must occur (see NWP general condition 26). Some States have issued Coastal Zone Management Act consistency concurrences for one or more NWPs. Please check the appropriate Corps district web site to see if Coastal Zone Management Act consistency concurrence has already been issued for the NWP(s) you wish to use.

Appendix B. Aquatic Resource Inventory:

<i>Aquatic Resource Name</i>	<i>State</i>	<i>Cowardin System</i>	<i>Cowardin Class</i>	<i>HGM Class</i>	<i>Local Waterway Name</i>	<i>Measurement Type</i>	<i>Measurement Amount</i>	<i>Measurement Units</i>	<i>Waters Type</i>	<i>Latitude</i>	<i>Longitude</i>
Rotten Bayou1	Mississippi	PALUST RINE	PFO-PALUSTRIN E, FORESTED	ESTUARI NEF	Rotten Bayou	Area	0.073	ACRE	DELIN.CONC	30.3692014	-89.3952647
Rotten Bayou2	Mississippi	PALUST RINE	PFO-PALUSTRIN E, FORESTED	ESTUARI NEF	Rotten Bayou	Area	0.083	ACRE	DELIN.CONC	30.3692014	-89.3952647

Appendix C. Impact Inventory:

<i>Water Name</i>	<i>Impact Name</i>	<i>Activity</i>	<i>Type of Material Being Discharged</i>	<i>Resource Type</i>	<i>Permanent Loss (Y/N)</i>	<i>Impact Duration</i>	<i>Amount Type</i>	<i>Proposed Length</i>	<i>Proposed Width</i>	<i>Proposed Amount</i>	<i>Amount Units</i>
Rotten Bayou1	Nature Observatory	Structure (Sec 10 only)		Tidal Wetland	No	Permanent	Structure Area			0.00157	Acres

Provide any additional information you may have about the proposed quantity of wetlands, streams, or other types of waters directly affected by the proposed activity. This level of detail is helpful to better understand the type of impacts that are proposed for your project.

Permanent impacts associated with the pile-supported nature observation structures are limited to approximately 68.3 square feet (0.00157 acre), based on 87 piles with a 12-inch diameter.

The current project design proposes timber decking. However, if review indicates that the proposed decking configuration may result in excessive shading impacts due to the structure footprint, the decking material may be revised to a flow-through FRP (fiberglass-reinforced plastic) decking system to improve light penetration and reduce potential impacts to aquatic resources.

The retaining edge shown on the plans is a result of the steep elevation transition between the upland area and the adjacent small shrub wetland area. A limited quantity of rock is proposed along the upland slope to provide stabilization and prevent erosion. The proposed slope stabilization measures will occur entirely within the upland area and are intended to maintain slope integrity while minimizing potential impacts to the adjacent wetland area.

The proposed 5,710-square-foot parking area is located within an upland area that was historically developed and utilized for infrastructure associated with a nearby wastewater treatment facility, including what appears to have been a tank or pump station. The parking area will utilize permeable gravel surfacing to maintain infiltration of stormwater and minimize changes to existing runoff characteristics. Grading will generally follow existing site contours and drainage patterns to the maximum extent practicable, reducing the potential for altered drainage patterns, increased stormwater runoff, and secondary impacts to adjacent natural resources.

Temporary impacts will be minimized through the use of existing disturbed upland areas for construction access, staging, and material storage to the maximum extent practicable. Where temporary access through wetlands is unavoidable, construction mats will be used to minimize soil compaction, rutting, and vegetation disturbance. Erosion and sediment control BMPs will be implemented throughout construction to prevent sedimentation of adjacent wetlands and Rotten Bayou. All temporary fills, mats, and construction materials will be removed upon completion, and temporarily disturbed areas will be restored and stabilized to pre-construction contours and conditions to the maximum extent practicable.

Definitions and help text

Water Name: The name of the wetland, stream, or other type of water that would be impacted.

Impact Name: Useful if entering more than one impact for the same or multiple waters (e.g., linear projects) and name accordingly. This may be different than the Water Name; keep it short and simple. For example, if Stream-1 is the water, the impact name could be “Crossing-1,” “Crossing-2,” “Crossing-3.” A short name helps describe the impact and is useful when looking at a list of impacts.

Activity: Options are:

- Conversion of waters type (forested wetland to emergent wetland, stream to lake)
- Discharge of dredged material
- Discharge of fill material
- Dredging (Section 10)
- Ecological restoration
- Other (Aquaculture, Work, Aerial or Submarine cable crossings)
- Removal (Sec 10 structures)
- Structure (Sec 10 only)
- Transport of dredged material (Sec 103)

Type of Material Being Discharged: Describe the material to be discharged within USACE jurisdiction. Make sure this description is consistent with your illustrations. Discharge material includes: rock, sand, clay, concrete, etc.

Resource Type: Options are Harbor/Ocean, Lake, Non-Tidal wetland, Other, Pond, River/Stream, and Tidal wetland.

Permanent Loss (Y/N): Only enter “YES” when the ‘discharge of dredged or fill material’ activity types are chosen. A permanent loss means the conversion of an aquatic resource to dry land.

Impact Duration: Options are Permanent or Temporary. An example of a temporary impact is the discharge of fill for temporary access roads that are later removed and returned to pre-construction contours.

Amount Type: Options are Area or Volume.

Amount Units: Options are Acre or Square Feet if Amount Type=Area, Cubic Yards if Amount Type=Volume.

Proposed Length and Proposed Width: Unit is linear feet.

Proposed Amount: Unit is square feet.

Appendix H. Supporting Information:

<i>Document Type</i>	<i>Document Created Date (YYYY-MM-DD)</i>	<i>Document Label</i>	<i>Information Source/Citation</i>	<i>Uploaded file name</i>
Project Plans	2026-07-27	Rotten Bayou Nature Observatory Plan Set	Chiniche Engineering and Survey	17-057-00-04-2024 Rotten Bayou Nature Observatory Set (Review).pdf
Wetland Datasheets	2026-07-24	Rotten Bayou Nature Observatory Wetland Delineation Report	Ecological Asset Management	Rotten Bayou Nature Observatory Wetland Delineation Report 072426.pdf
Maps Plans Plots or Plats	2026-07-27	Rotten Bayou Nature Observatory Wetland Map dwg	Chiniche Engineering and Survey	Rotten Bayou Parking Area Wetland Data MSPE NAD83 USFt 072726.dwg

U.S. Army Corps of Engineers (USACE)

PERMIT INFORMATION SHEET

PERMIT FORM TYPE

ENG 6082

DATE RECEIVED

08/10/2026

TYPE OF PERMIT YOU'RE REQUESTING

☐ Standard ☐ Letter Of Permission ☒ General Permit

APPLICABLE STATUTORY AUTHORITY

☒ Section 404 Clean Water Act ☐ Section 10 Rivers and Harbors Act☐ Section 103 of the Marine Protection, Research, and Sanctuaries Act

DO YOU PROPOSE COMPENSATORY MITIGATIONS?

No

COASTAL DISTRICT

WOULD THE PROJECT OCCUR IN THE TERRITORIAL SEAS OR OCEAN WATERS?

No

DESCRIBE THE ACTIVITY'S RELATIONSHIP TO THE BASELINE FROM WHICH THE TERRITORIAL SEA IS MEASURED

SECTION 408 USACE CIVIL WORKS PROJECTS

WILL THE PROPOSED ACTIVITY REQUIRES PERMISSION FROM THE USACE PURSUANT TO 33 U.S.C. 408 BECAUSE IT WILL ALTER OR TEMPORARILY OR PERMANENTLY OCCUPY OR USE A U.S. ARMY CORPS OF ENGINEERS FEDERALLY AUTHORIZED CIVIL WORKS PROJECT?

☐ Yes ☒ No ☐ I'm not sure

IF YES, HAVE YOU SUBMITTED A WRITTEN REQUEST FOR SECTION 408 PERMISSION FROM THE USACE DISTRICT HAVING JURISDICTION OVER THAT PROJECT?

☐ Yes ☒ No

GENERAL PERMIT INFORMATION

WILL THE PROPOSED ACTIVITY RESULT IN A LOSS TO WETLANDS OR WATERS THAT EXCEEDS NATIONAL OR DISTRICT THRESHOLDS?

No

U.S. Army Corps of Engineers (USACE) RIGHT OF ENTRY For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act, the proponent agency is CECW-COR.				Form Approved - OMB No. 0710-0003 Expires 2027-10-31	
The Agency Disclosure Notice (ADN)					
The Public reporting burden for this collection of information, 0710-003, is estimated to average 5 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil . Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
Purpose: This form is used by members of the public to authorize the USACE to enter their property for site investigations relating to USACE project reviews. These reviews include onsite investigations needed to support application review, processing, and issuance of a Clean Water Act and/or Rivers and Harbors Act delineations, determinations, and/or permits.					
This form is a component in the Corps Regulatory Request System (RRS), which is an online permitting application portal for the Regulatory Program.					
ITEMS 1 THRU 3 - FOR USACE USE ONLY					
1. APPLICATION NO.		2. FIELD OFFICE CODE		3. DATE RECEIVED	
ITEMS 4 THRU 12 - COMPLETD BY THE PROPERTY OWNER					
LOCATION AND LEGAL DESCRIPTION OF PROPERTY					
7. PROJECT STREET ADDRESS <i>(if applicable)</i>				8. LOCATION OF PROPERTY <i>(in decimal degrees)</i>	
Address Noma Dr	City: Diamondhead	State: MS	ZIP: 39525	Latitude: °N 30.3692014	Longitude: °W -89.3952647
9. TAX PARCEL ID(s) 132 -0-09-001.002 and 132 -0-09-001.000					
10. PROPERTY OWNER CERTIFICATION By signing below, I authorize representatives of the USACE to enter upon the property described above for the purpose of conducting on-site investigations, if necessary, and issuing a jurisdictional determination pursuant to Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899. I, the undersigned, am a duly authorized owner of record of the property identified herein.					
11. SIGNATURE OF PROPERTY OWNER			12. DATE		
			08/06/2026		
18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.					

U.S. Army Corps of Engineers (USACE) AUTHORIZATION TO ACT AS AN AGENT For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act, the proponent agency is CECW-COR.		Form Approved - OMB No. 0710-0003 Expires 2027-10-31	
The Agency Disclosure Notice (ADN)			
The Public reporting burden for this collection of information, 0710-003, is estimated to average 5 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.			
Purpose: This form is used by members of the public to authorize an agent (for example - a private consultant) to act on their behalf in all matters relating to all dealings with the USACE regarding the project. This includes taking all necessary actions for the application, processing, issuance, and/or acceptance of a Clean Water Act and/or Rivers and Harbors Act delineations, determinations, and/or permits.			
This form is a component in the Corps Regulatory Request System (RRS), which is an online permitting application portal for the Regulatory Program.			
ITEMS 1 THRU 3 - FOR USACE USE ONLY			
APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	
ITEMS 4 THRU 14 - COMPLETD BY THE APPLICANT or REQUESTOR			
4. PROJECT NAME Rotten Bayou Nature Observatory		5. PROJECT LOCATION 4209 Noma Dr, Diamondhead, MS 39525	
6. APPLICANT NAME (<i>first, middle, last</i>) Jon McCraw		7. AGENT NAME Kristen Rorabaugh	
Company (<i>if applicable</i>): City of Diamondhead		Company: Chiniche Engineering and Survey	
E-mail Address: jmccraw@diamondhead.ms.us		E-mail Address: kristen@chiniche.com	
8. APPLICANT ADDRESS (<i>if applicable</i>) Address 5000 Diamondhead Circle		9. AGENT ADDRESS (<i>if applicable</i>) Address 407 HWY 90	
City: Diamondhead	State: MS	City: Bay Saint Louis	State: MS
10. APPLICANT PHONE NUMBERS. w/AREA CODE		11. AGENT PHONE NUMBERS. w/AREA CODE	
a. +12282224626	b.	c. Fax	a. Business +12284676755
			b.
		c. Fax	
12. APPLICANT/AGENT CERTIFICATION By signing below, I hereby authorize the agent listed above, to act on my behalf in all matters relating to all dealings with the USACE regarding the project and properties listed above, including taking all necessary actions for the application, processing, issuance, and/or acceptance of a Clean Water Act and/or Rivers and Harbors Act delineations, determinations, and/or permits. Any and all acts carried out by my agent on my behalf as it relates to this project and property shall have the same effect as acts of my own.			

I agree to review all information submitted to the USACE on my behalf by my agent and certify that any information submitted on my behalf is true and correct.

13. SIGNATURE of APPLICANT or REQUESTOR



14. DATE

08/06/2026

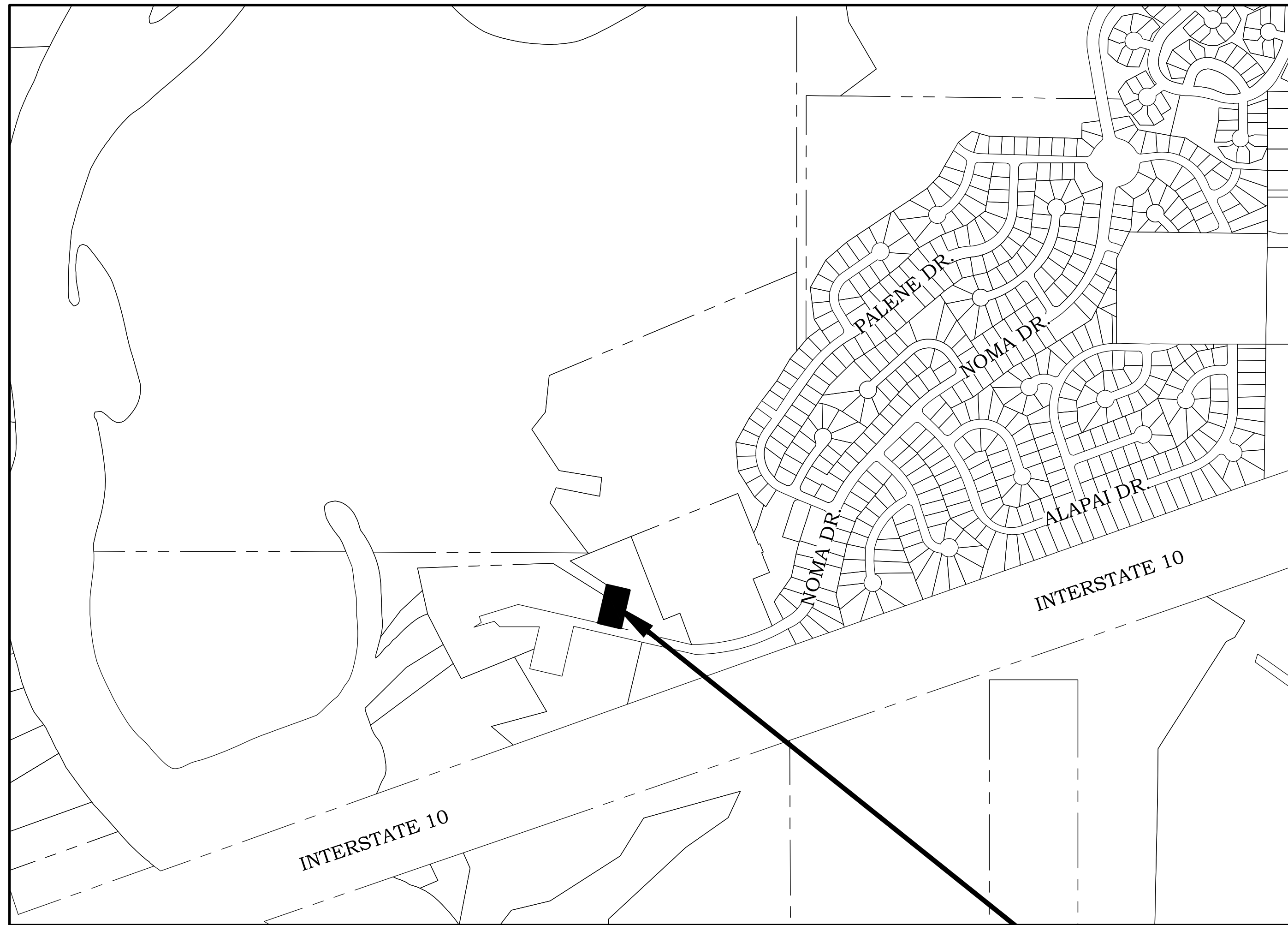
18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

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©CHINICHE ENGINEERING & SURVEYING, 2021

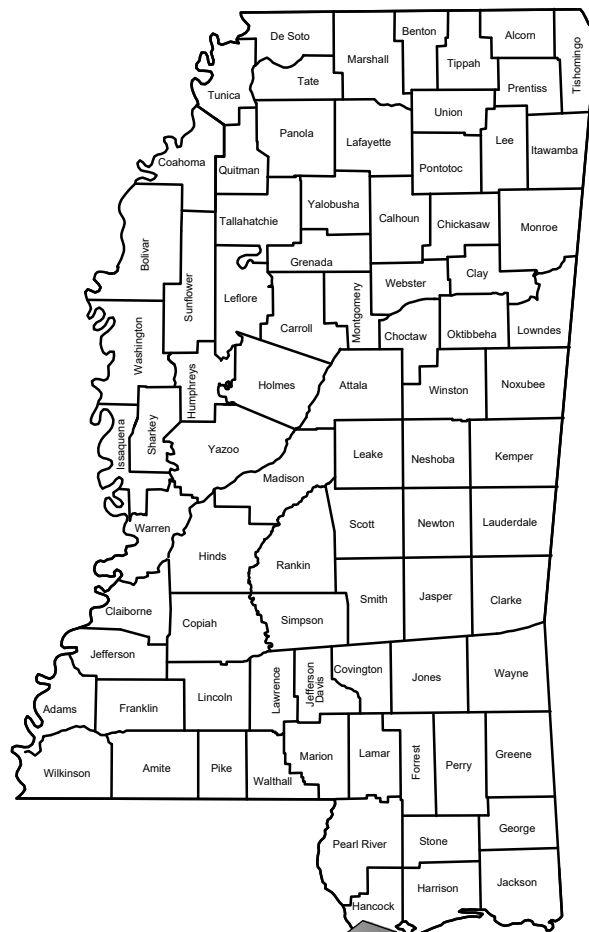
ROTTEN BAYOU NATURE OBSERVATORY

DIAMONDHEAD, HANCOCK COUNTY, MISSISSIPPI

JULY 2026



VICINITY MAP
1" = 500'



LOCATION MAP

★ DENOTES PROJECT LOCATION

PREPARED FOR:

..\\..\\.._DRAFTING\\Drafting_Standards\\Stamps_Logos\\Diamondhead.tif

THE CITY OF DIAMONDHEAD

ANNA LIESE, MAYOR

JON MCCRAW, CITY MANAGER

COUNCIL MEMBERS

GERARD MAHER	COUNCILMAN AT LARGE
SHANE FINLEY	WARD 1
RICKY SHEPPARD	WARD 2
JESSIE HARWOOD	WARD 3
AUSTIN CLARK	WARD 4

DETAILED INDEX

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SITE PLAN	C-121	6
GRADING & DRAINAGE PLAN	C-131	7
EROSION CONTROL PLAN	C-141	8
PARKING LOT DETAILS	C-501	9
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TRAFFIC CONTROL DETAILS	C-503	11
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407 Hwy. 90
Bay St. Louis, MS 39520
Office - (228) 467-6755
Email - admin@chiniche.com
Website - www.chiniche.com

OWNER INFORMATION

CITY OF DIAMONDHEAD
5000 DIAMONDHEAD CIRCLE
DIAMONDHEAD MS 39525

SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
COVER SHEET

PRELIMINARY
FOR REVIEW!

MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO:	17-057-00-04-2024	
DATE:	07/01/2026	
DRAWN BY:	NMP	
CHECKED BY:	JPC	
SCALE:	1:1	

SHEET NUMBER

1

SHEET DESIGNATION

GN-01

DATE :
JASON P. CHINICHE, P.E.
MISSISSIPPI LICENSE NO. 19732

GENERAL NOTES

1. CONTRACTOR SHALL ADHERE TO ALL REGULATORY PERMITTING REQUIREMENTS.
2. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH APPROVED ENVIRONMENTAL PERMITS, US COAST GUARD, AND USACE REQUIREMENTS.
3. FOR DRIVEWAYS REQUIRING PAVEMENT REMOVAL, CONTRACTOR SHALL PLAN TO REMOVE PAVEMENT TO THE APPARENT RIGHT-OF-WAY AS SHOWN ON THE PLANS. IF AN EXISTING JOINT PROVIDES FOR A CLEANER CUT AND IS WITHIN THE RIGHT-OF-WAY, THE CONTRACTOR IS ALLOWED TO USE THIS JOINT AS A LIMIT FOR REMOVAL, IF PRE-APPROVED BY THE ENGINEER.
4. CONTRACTOR IS REQUIRED TO SAWCUT JAGGED EDGES OF ASPHALT PAVEMENT AND REPLACE WITH ASPHALT PATCH (INCLUDING STRIPING) TO PROVIDE A SMOOTH EDGE TO INSTALL ADJACENT SIDEWALK.
5. CONTRACTOR SHALL COORDINATE WITH HOMEOWNERS AND BUSINESS OWNERS 48 HOURS BEFORE DISRUPTING OR INHIBITING ACCESS TO HOMEOWNER'S/BUSINESS PROPERTY DUE TO CONSTRUCTION ACTIVITIES. WRITTEN NOTICE SHALL BE PROVIDED.
6. CONTRACTOR SHALL CONNECT ALL NEW HDPE DRAIN PIPES TO EXISTING CULVERTS.
7. THERE WILL BE NO SEPARATE PAYMENT FOR STRUCTURAL EXCAVATION.
8. CONTRACTOR SHALL ABSORB COST OF TREE AND ROOT TRIMMING IN COST OF SIDEWALK. ANY TREES/ BUSHES OR PLANTS THAT SUSTAIN DAMAGE DUE TO CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
9. ALL ELEMENTS OF CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2017 EDITION, UNLESS NOTED OTHERWISE, AND SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
10. CONTRACTOR SHALL DISPOSE OF ALL MISCELLANEOUS TRASH & DEBRIS FROM ALL AREAS WITHIN THE LIMITS OF WORK IN AN OFF-SITE LOCATION. ALL SUCH WORK AND DISPOSAL SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
11. WHEN ANY SERVICES OR MATERIALS ARE REQUIRED TO COMPLETE THE PROJECT AND DO NOT HAVE A SEPARATE PAY ITEM LISTED, THE CONTRACTOR SHALL ACCEPT AND ABSORB ANY AND ALL COSTS INVOLVED TO COMPLETE THE PROJECT.
12. EXISTING UNDERGROUND UTILITY LINES ARE SHOWN ON THE DRAWINGS BASED UPON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THE ENGINEER CAN NOT AND DOES NOT WARRANT THAT THIS INFORMATION IS COMPLETE OR ACCURATE. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION (LOCATION, SIZE, TYPE, ETC.) OF ALL UTILITIES WITHIN THE PROJECT AREA PRIOR TO SUBMITTING THEIR BID. THE CONTRACTOR MUST CALL IN M8811 UTILITY LOCATES AND PHYSICALLY LOCATE AND VISUALLY VERIFY LOCATIONS OF ALL UTILITIES IN THE FIELD, AT LEAST 200 FEET AHEAD OF ANY EXCAVATIONS.
13. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF EXISTING GRADES AND MAKING ADJUSTMENTS AS NECESSARY TO ENSURE POSITIVE DRAINAGE. WITH THE APPROVAL OF THE PROJECT ENGINEER.
14. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT EXISTING STRUCTURES SUCH AS PIPES, INLETS, APRONS, BRIDGES, ETC., FROM DAMAGE WHICH MIGHT OCCUR DURING CONSTRUCTION. EXTREME CARE SHOULD BE EXERCISED IN THE UNDERCUT AREA AND THE UNDERCUT DEPTH MAY BE ADJUSTED AT CROSS DRAINS, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL REPLACE OR REPAIR, AS DIRECTED BY THE ENGINEER, ANY STRUCTURES DAMAGED DURING THE LIFE OF THE CONTRACT. NO PAYMENT WILL BE MADE FOR REPLACEMENT OR REPAIR OF DAMAGED ITEMS.
15. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING BRACING, SHORING, OR ANY GROUND SUPPORT SYSTEM REQUIRED TO PREVENT A FAILURE FROM OCCURRING DURING EXCAVATION. ALL COST FOR ANY PROTECTIVE MEASURES, INCLUDING THE MATERIALS AND LABOR FOR DESIGNING AND CONSTRUCTING THE FACILITY, SHALL BE ABSORBED IN THE APPLICABLE PAY ITEMS.
16. THE CONTRACTOR SHALL RELOCATE ANY MAILBOXES NECESSARY TO COMPLETE THIS WORK. REMOVAL, STORAGE AND REPLACEMENT OF BOXES SHALL BE ABSORBED IN THE PRICE BID FOR REMOVAL OF OBSTRUCTIONS AND SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES & REQUIREMENTS.
17. CONTRACTOR SHALL NOT DEVIATE FROM SUBMITTED CONSTRUCTION SCHEDULE WITHOUT PRIOR WRITTEN APPROVAL FROM ENGINEER.
18. "REMOVAL OF OBSTRUCTIONS," LUMP SUM SHALL INCLUDE THE REMOVAL OF ANY STRUCTURES AND OBSTRUCTION ENCOUNTERED ABOVE AND BELOW GRADE WHICH INTERFERE WITH THE CONSTRUCTION AS DIRECTED BY THE ENGINEER.
19. "REMOVAL OF PIPE 8" AND ABOVE," SHALL INCLUDE ALL ASSOCIATED COSTS OF THE PIPE REMOVAL, INCLUDING BUT NOT LIMITED TO, THE REMOVAL OF THE PIPE, END SECTIONS, FITTING, COLLARS, CONNECTORS, AND BACKFILL/COMPACTION OF THE VOID LEFT FROM THE REMOVAL.
20. IF IT IS NECESSARY TO HOLD ANY UTILITY POLES, OR WORK NEAR POWER/COMMUNICATION LINES, THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY. ANY FEE OR "CHARGE FOR THIS SERVICE SHALL BE ABSORBED BY THE CONTRACTOR.
21. CONTRACTOR SHALL ADHERE TO SAMPLING AND TESTING REQUIREMENTS FOR TESTING INTERVALS. ANY DEVIATION FROM THE APPROVED PROPOSAL WHICH INCURS ADDITIONAL COST, SHALL BE PAID FOR BY CONTRACTOR.
22. ANY DEVIATION FROM CONTRACT DOCUMENTS WITHOUT PRIOR APPROVAL BY ENGINEER/OWNER, CONTRACTOR SHALL ASSUME ALL COSTS ASSOCIATED WITH DEVIATION.
23. BID PRICES SHALL INCLUDE SALES TAXES AND OTHER APPLICABLE TAXES AND FEES. QUANTITIES ARE ESTIMATED AND THERE SHALL BE NO INCREASE IN UNIT PRICE COST TO THE OWNER SHOULD AN INCREASE OR DECREASE IN QUANTITIES BE REQUIRED.
24. ALL MATERIAL/EQUIPMENT SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.
25. CONTRACTOR SHALL PERFORM PRE CONSTRUCTION VIDEO OF ENTIRE JOB SITE AND PROVIDE TO ENGINEER PRIOR TO WORK COMMENCING. CONTRACTOR TO PERFORM POST CONSTRUCTION VIDEO OF ENTIRE JOB SITE AND PROVIDE TO ENGINEER PRIOR TO FINAL PAYMENT. COORDINATE WITH ENGINEER ON VIDEO FORMAT.
26. CONTRACTOR SHALL COORDINATE WITH LOCAL AUTHORITY ON ALL LOCAL EVENTS AND SHALL ADJUST SCHEDULE TO PROHIBIT INTERFERENCE DURING CONSTRUCTION ACTIVITIES.
27. ALL LOAD TICKETS/ DELIVERY TICKETS SHALL BE SIGNED BY CONTRACTOR AND INSPECTOR, AND A COPY GIVEN TO INSPECTOR. NO DELIVERIES SHALL BE MADE WITHOUT PRIOR (24 HOUR) NOTICE TO INSPECTOR.
28. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE LOCAL AUTHORITY REGARDING PERMITTING INSPECTIONS AND APPROVED HAUL ROUTES.
29. CONTRACTOR SHALL INSTALL REGULATED RAIN GAGE ON JOB SITE AND SHALL ALLOW ENGINEER ACCESS FOR MONITORING AT ALL TIMES.
30. ALL NEW WATER OR SEWER SERVICES SHALL REQUIRE CONTRACTOR TO VERIFY WITH CURRENT HOMEOWNER FOR PREFERRED LOCATION OF SERVICE PRIOR TO COMMENCEMENT OF WORK.
31. CONTRACTOR SHALL VERIFY LOCATION OF RIGHT-OF-WAY (ROW). ALL WORK SHALL BE PERFORMED WITHIN THE ROW UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS.
32. IF WORK IS REQUIRED ON PRIVATE PROPERTY, THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNER FOR ACCESS PRIOR TO COMMENCING WORK AND SHALL PROVIDE WRITTEN AUTHORIZATION FROM THE PROPERTY OWNER TO THE ENGINEER FOR REVIEW.
33. CONTRACTOR SHALL GIVE PRIOR NOTICE TO THE RPR (MIN 24 HOURS) BEFORE ANY NEWLY INSTALLED OR EXPOSED ITEMS ARE BACKFILLED, COMPACTED, OR COVERED. FAILURE TO COMMUNICATE WITH THE RPR SHALL RESULT IN CONTRACTOR LIABILITY FOR ALL COSTS ASSOCIATED WITH RE-EXCAVATION OF WORK.
34. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL LANE AND ROAD CLOSURES, UTILITY OUTAGES, ETC., WITH THE OWNER AND GENERAL PUBLIC 48 HOURS PRIOR TO CLOSING OR OUTAGE. ALL COORDINATION SHALL BE IN WRITING TO LOCAL AUTHORITY AND ENGINEER.
35. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ENGINEER WITH A 48 HOUR NOTICE PRIOR TO CONDUCTING ALL HOLIDAY AND WEEKEND WORK.
36. CONTRACTOR REQUIRED TO VERIFY FIELD MEASUREMENTS, GRADES AND ELEVATIONS TO MAKE ADJUSTMENTS PRIOR TO COMMENCEMENT OF FABRICATIONS AND COORDINATE ADJUSTMENTS WITH ENGINEER.
37. CONTRACTOR SHALL REPAIR ALL PROPERTY TO PRE-CONSTRUCTION CONDITIONS OR BETTER.
38. ALL RAISED ROADSIDE APPURTENANCES TO BE PLACED A MINIMUM OF 2' BEHIND FACE OF CURB UNLESS OTHERWISE SPECIFIED ON PLANS.
39. ALL EQUIPMENT REPAIR AND MAINTENANCE SHALL BE DONE OFFSITE.
40. RECEIPTACLES SHALL BE PROVIDED TO PROPERLY DISPOSE OF ALL TRASH AND WASTE. ALL CONSTRUCTION DEBRIS SHALL BE PICKED UP AT THE END OF EACH DAY AND SHALL BE REMOVED COMPLETELY FROM THE SITE AT THE END OF THE PROJECT.
41. SANITARY FACILITIES SHALL BE PROVIDED ON-SITE FOR ALL EMPLOYEES.

ROADWAY & CONCRETE WORK

1. FOR DRIVEWAYS REQUIRING PAVEMENT REMOVAL, CONTRACTOR SHALL PLAN TO REMOVE PAVEMENT TO THE APPARENT RIGHT-OF-WAY.
2. BASE AND PAVEMENT FOR STREET INTERSECTION AND LOCAL ROAD TURNOUTS SHALL MATCH THE PROPOSED ROADWAY.
3. WHERE MILLING OF THE ROADWAY IS REQUIRED, THE CONTRACTOR SHALL PROVIDE OUTLETS IN THE EXISTING SHOULDERS AT SUFFICIENT INTERVALS TO PREVENT POOLING OR STANDING WATER ON THE MILLED SURFACE. ANY ASSOCIATED COST SHALL BE ABSORBED IN MILLING.
4. CONTRACTOR SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT AT CONNECTIONS TO EXISTING PAVEMENT. CONTRACTOR SHALL HAVE SMOOTH TRANSITION FROM PAVEMENT TO UTILITIES.
5. ALL RADII ARE TO BE FIELD DETERMINED. RADII SHOWN ON THE PLANS ARE APPROXIMATE.
6. ALL CONCRETE SHALL BE CLASS "B", 3500 PSI UNLESS OTHERWISE NOTED. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 3/4". MATERIALS, PLACEMENT, AND CURING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
7. EXPANSION JOINTS & SEALANT SHALL CONFORM TO MDOT SPECIFICATIONS. IN LOCATIONS WHERE NEW CONCRETE IS CAST AGAINST EXISTING CONCRETE OF MORE THAN 28 DAYS OF AGE, AN EXPANSION JOINT IS REQUIRED.

EARTHWORK

1. VOIDS CREATED BY THE REMOVAL OF POSTS, CONCRETE ANCHORS, FOOTINGS, ETC. SHALL BE BACKFILLED AND TAMPED IN.
2. EXCAVATION FOR STRUCTURES SHALL BE ABSORBED IN THE APPLICABLE PAY ITEM.
3. 30% SHRINKAGE FACTOR USED IN THE EARTHWORK CALCULATIONS IS FOR DESIGN ESTIMATING PURPOSES ONLY.
4. VEGETATIVE MATERIAL WILL BE REMOVED PRIOR TO PLACEMENT OF GRANULAR MATERIAL. COST TO BE ABSORBED IN OTHER ITEMS.
5. UNCLASSIFIED EXCAVATION - PER CUBIC YARD, SHALL CONSIST OF EXCAVATED MATERIALS THAT ARE SUITABLE FOR PLACEMENT IN OTHER FURNISHED PORTIONS OF THE PROJECT. PAYMENT FOR UNCLASSIFIED EXCAVATION SHALL INCLUDE THE EXCAVATION OF THE MATERIAL AND THE PROPER PLACEMENT OF THE MATERIAL. MATERIALS SUITABLE FOR PLACEMENT IN OTHER AREAS OF THE PROJECT SHALL BE STOCKPILED UNTIL THE MATERIAL IS NEEDED. SUITABLE MATERIALS THAT CAN BE USED IN OTHER AREAS OF THE PROJECT WILL NOT BE REMOVED AS EXCESS EXCAVATION. BORROW EXCAVATION WILL NOT BE ACCEPTED WHEN SUITABLE UNCLASSIFIED EXCAVATION IS AVAILABLE.
6. TOPSOIL STRIPPING, STOCKPILING, AND PLACING WILL BE PAID UNDER UNCLASSIFIED EXCAVATION AT THE TIME OF PLACEMENT.
7. EXCESS EXCAVATION - PER CUBIC YARD' SHALL BE PAID FOR EXCAVATED MATERIAL THAT IS NOT SUITABLE FOR REUSE ON THE PROJECT SITE AND MUST BE REMOVED FROM THE PROJECT SITE. UNDERCUT AND EXCAVATION AT OR BELOW THE PLANNED EXCAVATION LIMIT THAT ARE UNSUITABLE FOR PLACEMENT WITHIN THE PROJECT SITE SHALL ALSO BE MEASURED AND PAID FOR AS EXCESS EXCAVATION.
8. WHERE DIRECTED TO PLACE RIP-RAP, THE RIP-RAP SHALL BE PLACED 18" DEEP OR AS NOTED ON THE PLANS AND THE TOP OF THE RIP-RAP SHALL BE FLUSH WITH THE SURROUNDING GRADE LEVEL. ALL COST ASSOCIATED WITH THE INSTALLATION OF THE RIP-RAP INCLUDING EXCAVATION AND BACKFILL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR RIP-RAP.
9. BACK OF CURBS SHALL BE BACKFILLED TO TOP OF CURB ELEVATIONS.
10. CONTRACTOR REQUIRED TO SEPARATE AND STOCKPILE RE-USABLE MATERIAL.

DRAINAGE & UTILITIES

1. TOE WALLS ARE REQUIRED AT ALL UPSTREAM AND DOWNSTREAM FLARED END SECTIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. ALL PIPE JOINTS ARE TO BE WRAPPED IN TYPE V GEOTEXTILE FABRIC, 36" WIDTH. THE COST OF THE FABRIC SHALL BE ABSORBED IN THE UNIT PRICE BID FOR THE PIPE.
3. FLARED END SECTIONS (ALL SIZES) MAY BE FURNISHED WITH EITHER BELL & SPIGOT OR TONGUE & GROOVE JOINTS. PAYMENT SHALL BE MADE UNDER PAY ITEM ASSOCIATED W/PIPE SIZE.
4. EXISTING UTILITY APPURTENANCES SHALL BE ADJUSTED TO FINISHED GRADE IN ROADWAY AREAS OR ABOVE FINISHED GRADE OUTSIDE ROADWAY AREAS AS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE MADE UNDER THE APPLICABLE UTILITY ADJUSTMENT PAY ITEM AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NEEDED TO COMPLETE THE ADJUSTMENT.
5. PRIVATE UTILITY APPURTENANCE ADJUSTMENTS WILL BE DONE BY OTHERS. CONTRACTOR SHALL COORDINATE ADJUSTMENTS WITH THE PRIVATE UTILITY COMPANIES.
6. AT ALL LOCATIONS WHERE PIPE AND/OR FITTINGS COME IN CONTACT WITH CONCRETE, THE TWO MATERIALS SHALL BE SEPARATED BY 1/8" SHEET RUBBER.
7. EXISTING SANITARY SEWER MANHOLE TOPS, WATER VALVES/BOXES, METERS, OR OTHER RELATED APPURTENANCES SHALL BE ADJUSTED TO FINISH GRADE BY CONTRACTOR. PAYMENT PER APPURTENANCE SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED FOR THE ADJUSTMENT.
8. ALL VARIES DIMENSIONS DEPEND DIRECTLY ON PIPE SIZE, THICKNESS AND DEPTH OF PIPE.
9. PIPE LENGTHS ARE MEASURED FROM INSIDE FACE OF BOX TO INSIDE FACE OF BOX.
10. ALL PIPES SHALL BE FLUSH WITH THE INTERIOR FACE OF THE BOX OR STRUCTURE.
11. CONTRACTOR SHALL RECORD VIDEO ALL NEW STORM DRAIN LINES 42" AND SMALLER AND ALL NEW ARCH STORM DRAIN LINES 65"x40" AND SMALLER "IF REQUIRED BY THE ENGINEER". ALL PIPES SHALL BE FLUSHED CLEAN OF DEBRIS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH VIDEOTAPEING. ADDITIONAL VIDEO COVERAGE OF SUSPECT DISCREPANT AREAS SHALL BE PROVIDED THROUGH THE USE OF ROTATING CAMERA. DISCREPANCIES INCLUDE BUT ARE NOT LIMITED TO: PIPE JOINT SEPARATIONS OR ROLLED GASKETS, CRACKS OR BREAKS IN THE WALL OF THE PIPE, DEFORMATION OF THE PIPE WALL, PENETRATION OF THE WALL BY VEGETATION OF FOREIGN OBJECTS, OR EXCESSIVE DEBRIS. CONTRACTOR SHALL PROVIDE COLOR VIDEO INCLUDING LOCATION, DATE AND TIME, REFERENCE END POINTS OF PIPE INSPECTED ON DRAWINGS, NOTING THE DIRECTION OF INSPECTION. CONTRACTOR SHALL PROVIDE A WRITTEN REPORT IDENTIFYING LOCATION, LENGTH, SIZE OF ALL PIPE INSPECTED. THE REPORT SHALL IDENTIFY ALL AREAS WHERE THE INTEGRITY OF THE PIPE SYSTEM IS SUSPECT.
12. PICK-UP HOLES WILL NOT BE ALLOWED IN ANY PIPE. CONTRACTOR SHALL POUR CONCRETE INVERTS IN ALL DRAINAGE STRUCTURES AS DIRECTED BY THE ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.
13. NO IMPROVEMENT SHALL INTERFERE OR BLOCK DRAINAGE. NEW AND EXISTING DRAINAGE STRUCTURES AND PIPE SHALL BE CLEANED AT THE END OF THE PROJECT.
14. EXISTING FIRE HYDRANTS SHALL BE ADJUSTED AS REQUIRED TO PROVIDE 18" OF CLEARANCE BETWEEN THE NEW GRADE LEVEL AND THE BOTTOM OF THE PUMPER NOZZLE. ADJUSTMENT OR RELOCATION OF FIRE HYDRANTS SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NEEDED AND SHALL BE PAID UNDER "FIRE HYDRANT ASSEMBLY".
15. WATER MAINS FOUND TO CONFLICT WITH THE NEW CONSTRUCTION SHALL BE REROUTED ABOVE OR BELOW THE CONFLICT. REROUTING WATER MAIN, DISINFECTION, AND TESTING SHALL COMPLY WITH THE STATE OF MISSISSIPPI HEALTH DEPARTMENT REGULATIONS. REROUTING WATER MAINS SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY INCLUDING, BUT NOT LIMITED TO: PIPE FITTINGS, RESTRAINTS, EXCAVATION, BACKFILL, CONCRETE, GASKETS, HARDWARE, CLEAN OUTS, METER BOXES, DISINFECTION, TESTING, AND REPORTING.
16. WATER AND SEWER SERVICES FOUND TO CONFLICT WITH THE NEW CONSTRUCTION SHALL BE REROUTED AS APPROVED BY THE ENGINEER. REROUTING WATER SERVICES, DISINFECTION, AND TESTING SHALL COMPLY WITH THE STATE OF MISSISSIPPI HEALTH DEPARTMENT REGULATIONS. REROUTING SERVICES SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY INCLUDING, BUT NOT LIMITED TO: PIPE FITTINGS, RESTRAINTS, EXCAVATION, BACKFILL, CONCRETE, GASKETS, HARDWARE, CLEAN OUTS, METER BOXES, DISINFECTION, TESTING, AND REPORTING.
17. ADJUSTMENT OF UTILITY APPURTENANCE, WILL BE USED FOR PAYMENT AS AUTHORIZED BY THE ENGINEER FOR ANY UTILITY APPURTENANCE NEEDING ADJUSTING TO FINISHED GRADE FOR WHICH A SEPARATE PAY ITEM IS NOT LISTED.
18. TOP ELEVATIONS OF INLETS AND BOXES ARE APPROXIMATE. FINAL GRADES SHALL BE FIELD DETERMINED.
19. PRE-CAST DRAINAGE STRUCTURES SHALL NOT BE ALLOWED FOR THIS PROJECT. ALL DRAINAGE STRUCTURES, INCLUDING INLETS AND JUNCTION BOXES SHALL BE CAST-IN-PLACE ON SITE OR PRE-FORMED PLASTIC.
20. PAYMENT FOR STEPS AND INSTALLATION OF STEPS IN DRAINAGE STRUCTURES SHALL BE INCLUDED AN ABSORBED COST. STEPS ARE REQUIRED IN ANY BOX DEEPER THAN 3'.
21. REPAIR TO EXISTING DRAINAGE STRUCTURES TO TIE IN NEW DRAINAGE LINES SHALL BE ABSORBED IN THE COST OF THE NEW PIPE.
22. RECONNECTING EXISTING PIPES TO NEW UTILITY STRUCTURES SHALL BE AN ABSORBED COST. THIS INCLUDES ANY DISCOVERED PIPES THAT NEED TO BE TIED IN.
23. EXISTING PRIVATE DRAIN LINES SHALL BE TIED INTO THE NEW SUBSURFACE DRAINAGE SYSTEM. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING PRIVATE DRAIN LINES. (COST ABSORBED IN THE PRICE BID FOR PIPE OR STRUCTURAL CONCRETE).
24. THE COST OF CONCRETE COLLARS WILL BE IN PAY ITEMS. COLLARS WITH REINFORCEMENTS WILL BE REQUIRED WHERE TYING NEW DRAINAGE PIPE TO EXISTING DRAINAGE PIPE, OR CONNECTION OF END TREATMENTS TO CUT ENDS OF PIPES, SUCH AS FLARED END SECTIONS.
25. THE AREA AROUND A NEW DRAINAGE INLET SHALL HAVE SOD PLACED 18" AROUND ALL SIDES OF IT.

DEWATERING NOTES

1. UTILIZE APPROPRIATE DEWATERING SYSTEMS AND TECHNIQUES TO MAINTAIN THE EXCAVATED AREA SUFFICIENTLY DRY FROM GROUNDWATER AND/ OR SURFACE RUNOFF SO AS NOT TO ADVERSELY AFFECT CONSTRUCTION PROCEDURES OR CAUSE EXCESSIVE DISTURBANCE OF UNDERLYING NATURAL GROUND.
2. PROVIDE AND STORE AUXILIARY DEWATERING EQUIPMENT ON SITE IN THE EVENT OF BREAKDOWN. PROVIDE NON-WOVEN FILTER FABRIC WHERE REQUIRED FOR UNDERDRAIN SYSTEM. THE NON-WOVEN FILTER FABRIC SHALL BE SPECIFICALLY DESIGNED FOR SUBSURFACE DRAINAGE APPLICATIONS.
3. WATER FROM TRENCHES AND EXCAVATIONS SHALL BE DISPOSED OF IN A MANNER AS TO AVOID PUBLIC NUISANCE, INJURY TO PUBLIC HEALTH OR THE ENVIRONMENT, OR DAMAGES TO PUBLIC OR PRIVATE PROPERTY, OR DAMAGE TO THE WORK COMPLETED OR IN PROGRESS. **DO NOT DISCHARGE** WATER INTO ANY SANITARY SEWER SYSTEM. SILTATION BARRIERS SHALL BE UTILIZED AS NECESSARY.
4. WATER FROM TRENCHES AND EXCAVATIONS SHALL NOT BE DISCHARGED DIRECTLY TO STORM DRAIN SYSTEM. PROPER TREATMENT TO A SEDIMENTATION AREA IS TO TAKE PLACE PRIOR TO DISCHARGE TO ANY DRAINAGE SYSTEMS.
5. THE CONTRACTOR SHALL REPAIR ANY DAMAGE RESULTING FROM THE FAILURE OF THE DEWATERING OPERATIONS OR FROM FAILURE TO MAINTAIN ALL THE AREAS OF WORK IN SUITABLE DRY CONDITION.

PERMANENT & TEMPORARY TRAFFIC CONTROL

1. ALL TRAFFIC CONTROL SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD). THE OWNER WILL HAVE THE AUTHORITY TO SUSPEND ALL WORK AND/OR WITHHOLD PAYMENTS FOR FAILURE OF THE CONTRACTOR TO MAINTAIN/FOLLOW PROPER TRAFFIC CONTROL.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES ON THIS PROJECT SHALL COMPLY WITH PART VI OF THE MUTCD (LATEST EDITION).
3. THE LOCATION AND SPACING OF SIGNS AS SHOWN ON THE TRAFFIC CONTROL PLANS ARE APPROXIMATE AND MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
4. ALL SIGNS THAT CONFLICT WITH THE CONSTRUCTION OF THIS PROJECT SHALL BE COVERED/REMOVED AND RESET BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. ALL ASSOCIATED COST SHALL BE ABSORBED IN MAINTENANCE OF TRAFFIC.
5. WORK ON STRUCTURES FOR THIS PROJECT REQUIRES EXCAVATION IN THE IMMEDIATE VICINITY OF TRAFFIC AND ADJACENT PROPERTIES. THEREFORE, THE RISK OF A FAILURE OCCURRING DURING THE EXCAVATION REQUIRES THAT EXTREME CAUTION BE EXERCISED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE WHAT BRACING, SHORING, OR GROUND SUPPORT SYSTEM THAT IS DEEMED NECESSARY TO PREVENT A FAILURE AND PROTECT THE PERSONS WORKING NEAR THE EXCAVATION, THE PUBLIC THAT MAY BE ABOVE THE EXCAVATION, OR ANY STRUCTURE ADJACENT TO THE EXCAVATION. ALL COST FOR ANY PROTECTIVE MEASURES INCLUDING THE MATERIALS AND LABOR FOR DESIGNING, DRAWING, AND CONSTRUCTING THE FACILITY SHALL BE ABSORBED IN MAINTENANCE OF TRAFFIC.
6. REMOVAL OF RAISED PAVEMENT MARKERS SHALL BE ABSORBED IN MAINTENANCE OF TRAFFIC.
7. EXISTING BLUE RAISED PAVEMENT MARKERS INDICATING THE LOCATION OF FIRE HYDRANTS SHALL BE REINSTALLED OR REPLACED ONCE FINAL ROADWAY SURFACE IS INSTALLED. ALL ASSOCIATED COSTS SHALL BE ABSORBED IN MAINTENANCE OF TRAFFIC.
8. REMOVAL OF OBJECT MARKERS SHALL BE ABSORBED IN MAINTENANCE OF TRAFFIC.
9. TEMPORARY STRIPING SHALL CONFORM TO FINISHED STRIPE SPECIFICATIONS FOR ALIGNMENT AND STRAIGHTNESS.
10. ORANGE FLUORESCENT SHEETING SHALL BE USED ON ALL CONSTRUCTION AND TRAFFIC CONTROL SIGNS EXCEPT FOR THOSE DESIGNATED IN PLANS TO BE BLACK LEGENDS AND BORDER ON WHITE BACKGROUND.
11. ALL POST LENGTHS FOR SIGNS SHALL BE VERIFIED IN THE FIELD PRIOR TO FABRICATION.
12. ALL PLASTIC DRUMS SHALL HAVE A BALLASTING COLLAR MADE FROM RECYCLED TRUCK TIRES OR OTHER SUITABLE MATERIAL.
13. THE COST OF REMOVAL OF OBSOLETE SIGNAGE OR REMOVAL OF OLD SIGNS TO BE REPLACED SHALL BE ABSORBED IN MAINTENANCE OF TRAFFIC.
14. ACCESS TO ALL BUSINESSES AND RESIDENCES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES. COST TO BE ABSORBED IN "MAINTENANCE OF TRAFFIC".

EROSION CONTROL

1. THE EROSION CONTROL DEVICES REFERENCED IN THESE PLANS ARE A MINIMUM REQUIREMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SILT DOES NOT LEAVE THE RIGHT OF WAY OR CONTAMINATE WATERS OF THE U.S. DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN PRIOR TO COMMENCEMENT OF WORK AND MAINTAIN THE PLAN DURING CONSTRUCTION.
2. TEMPORARY SEEDING IS REQUIRED FOR SOILS THAT REMAIN STOCKPILED OR ARE NOT SCHEDULED FOR ANY ACTIVITY FOR MORE THAN THIRTY (30) CALENDAR DAYS. AREAS SHALL BE SEEDD WITHIN SEVEN (7) DAYS OF DISTURBANCE. TEMPORARY SEEDING SHALL BE APPLIED IN ACCORDANCE WITH THE PLANTING SCHEDULE AND THE RATE OF APPLICATION/PLANTING PREPARATION OUTLINED IN THE MDEQ SEEDING CHART.
3. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH ALL MATERIALS AND PERFORM ALL WORK FOR THE PROPER INSTALLATION, MAINTENANCE AND REMOVAL OF TEMPORARY EROSION CONTROL MEASURE NECESSARY TO CONTROL SILTATION. IF THERE IS NO SEPARATE PAY ITEM FOR TEMPORARY EROSION CONTROL MEASURES, THE COST OF TEMPORARY EROSION CONTROL SHALL BE ABSORBED IN OTHER ITEMS BID.
4. THE CONTRACTOR SHALL FOLLOW THE STORM WATER PERMIT FOR CONSTRUCTION IN ACCORDANCE WITH THE MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS. THE ENGINEER SHALL PROVIDE A COPY OF THE SWPPP AND PERMIT AT THE PRECONSTRUCTION CONFERENCE. THE SWPPP AND PERMIT SHALL REMAIN ON-SITE AND BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES, DURING CONSTRUCTION.
5. SILT FENCES SHALL BE INSTALLED AROUND ALL STOCKPILED MATERIALS.
6. ALL DISTURBED AREAS SHALL BE SEEDD OR SODDED IMMEDIATELY ONCE FINISHED GRADING IS COMPLETE IN AN AREA. SEEDING AND SODDING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER TO MATCH EXISTING ADJACENT CONDITIONS.
7. NO ADDITIONAL PAYMENT WILL BE MADE FOR WATERING. WATERING SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE COST SHALL BE ABSORBED IN GRASSING. THE WATERING SCHEDULE SHALL BE ADHERED TO UNLESS OTHERWISE APPROVED BY THE ENGINEER OR AS DIRECTED OTHERWISE BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE VEGETATION THROUGHOUT THE LIFE OF THE PROJECT AND THROUGH THE MAINTENANCE PERIOD. THE CONTRACTOR SHALL NOT BE PAID FOR ANY ADDITIONAL WATERING REQUIRED ABOVE AND BEYOND WHAT IS REQUIRED IN THE VEGETATION SCHEDULE.
8. THE PLACEMENT OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE IN ACCORDANCE WITH THE MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY'S HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS.
9. NATURAL VEGETATION SHALL BE MAINTAINED AND PROTECTED WHEREVER POSSIBLE.
10. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROLS THROUGHOUT THE DURATION OF THE PROJECT.
11. TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL NOT BE REMOVED UNTIL PERMANENT EROSION CONTROLS (SUCH AS GRASSING) ARE ESTABLISHED.
12. ALL EROSION CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS.
13. THE CONTRACTOR IS RESPONSIBLE FOR MAKING MODIFICATIONS TO THE EROSION CONTROL PLAN AS FIELD CONDITIONS CHANGE OR EXISTING CONTROL BECOME INEFFECTIVE.
14. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM CONTROLS WHEN IT REACHES 1/2 THE HEIGHT OF THE CONTROL. THE SEDIMENT SHALL BE PROPERLY DISPOSED OF SO AS NOT TO CAUSE SEDIMENTATION IN ANOTHER LOCATION.
15. EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED WEEKLY AND FOLLOWING ANY RAIN EVENT. NON-FUNCTIONING, INEFFECTIVE OR DAMAGED CONTROLS SHALL BE REPAIRED, REPLACED OR SUPPLEMENTED WITH FUNCTIONAL CONTROLS WITHIN 24 HOURS OF DISCOVERY.
16. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ANY SEDIMENT THAT MIGRATES INTO THE STORM DRAIN SYSTEM.
17. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ANY SEDIMENT OR CONSTRUCTION DEBRIS THAT IS TRACKED ONTO ADJACENT PAVED AREAS. ADJACENT STREETS SHALL BE KEPT CLEAN THROUGHOUT CONSTRUCTION AND SHALL BE CLEANED WITH A STREET-SWEEPER OR SIMILAR TECHNIQUE IMMEDIATELY UPON DISCOVERY OF SEDIMENT. WASHING DOWN OF THE STREET OR ANY PAVED AREAS IS NOT ALLOWED.
18. ANY SEDIMENT THAT HAS MIGRATED OFFSITE, WHETHER IT BE ONTO PUBLIC OR PRIVATE PROPERTY, SHALL BE REMOVED IMMEDIATELY UPON DISCOVERY. THE SOURCE OF THE BREACH SHALL IMMEDIATELY BE LOCATED AND CORRECTED.



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OWNER INFORMATION

CITY OF BAY ST. LOUIS
688 HWY. 90
BAY ST. LOUIS, MS 39520

SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
GENERAL NOTES

PRELIMINARY
FOR REVIEW!

MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO:	17-057-00-04-2024	
DATE:	07/01/2026	
DRAWN BY:	NMP	
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SCALE:	1:1	
SHEET NUMBER		
2		
SHEET DESIGNATION		
GN-02		

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SCALE: 1" = 20'

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OWNER INFORMATION

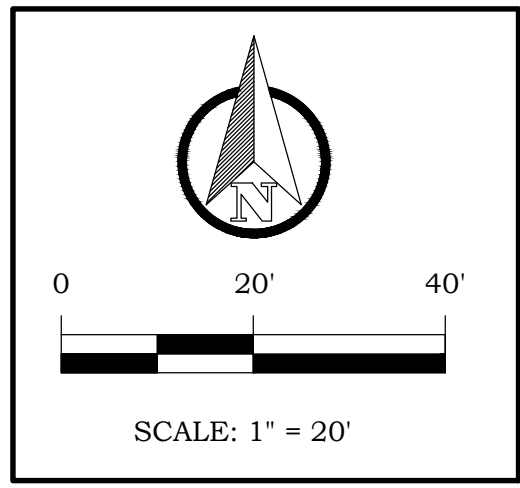
CITY OF DIAMONDHEAD
5000 DIAMONDHEAD CIRCLE
DIAMONDHEAD MS 39525

SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
CIVIL EXISTING CONDITIONS

PRELIMINARY
FOR REVIEW!

MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO: 17-057-00-04-2024		
DATE: 07/01/2026		
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DIAMONDHEAD MS 39525

SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
DEMOLITION PLAN

PRELIMINARY
FOR REVIEW!

MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO: 17-057-00-04-2024		
DATE:	07/01/2026	
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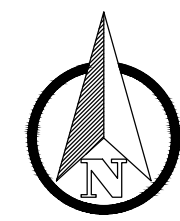
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SHEET DESIGNATION

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OWNER INFORMATION

CITY OF DIAMONDHEAD
5000 DIAMONDHEAD CIRCLE
DIAMONDHEAD MS 39525

SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
EXISTING SITE PLAN

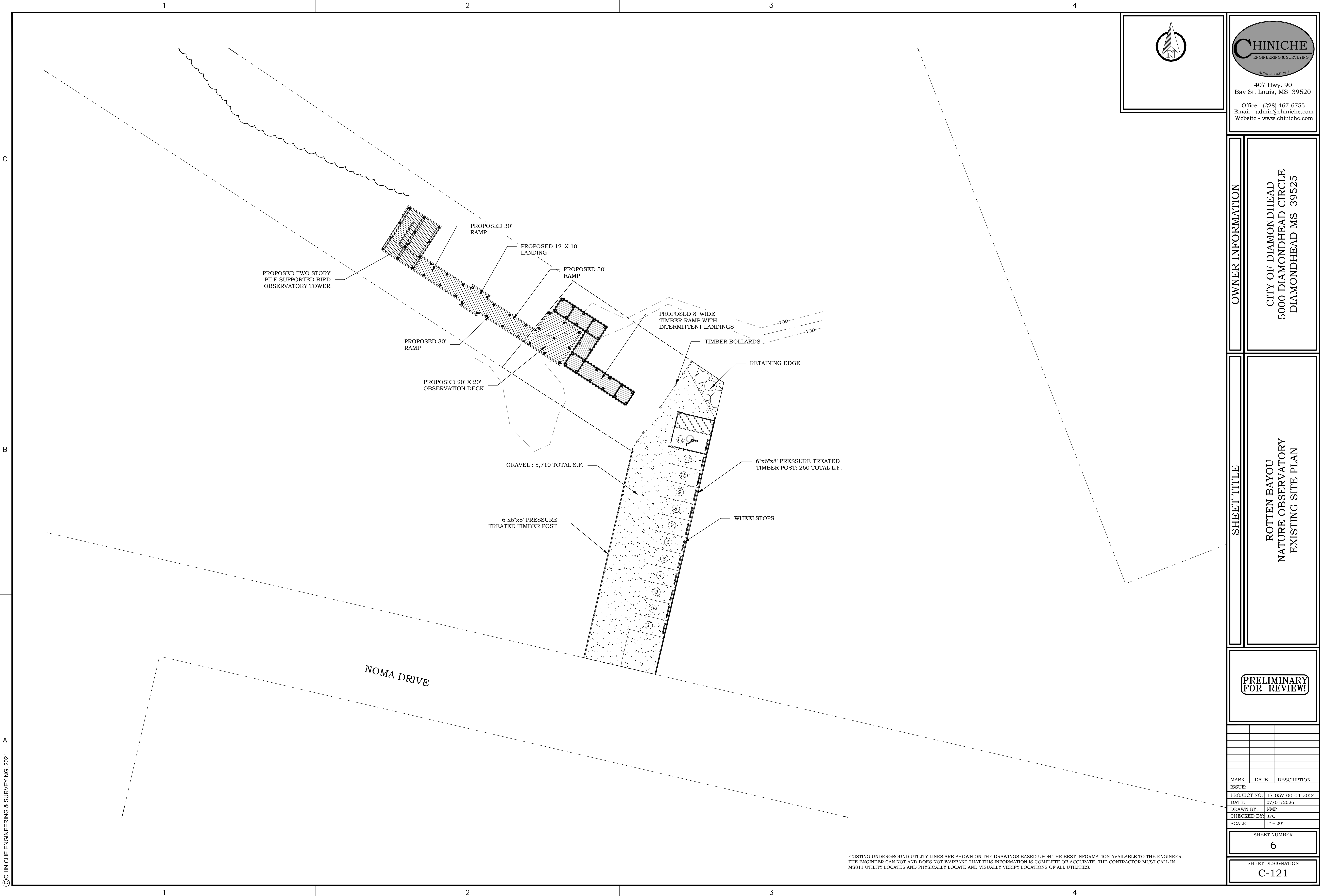
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FOR REVIEW!

MARK	DATE	DESCRIPTION
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PROJECT NO: 17-057-00-04-2024		
DATE:	07/01/2026	
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SCALE:	1" = 20'	

SHEET NUMBER
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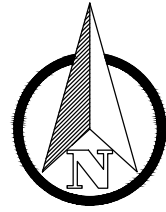
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ROTTEN BAYOU
NATURE OBSERVATORY
EXISTING SITE PLAN

PRELIMINARY
FOR REVIEW!

MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO: 17-057-00-04-2024		
DATE: 07/01/2026		
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SCALE: 1" = 20'		

SHEET NUMBER
6

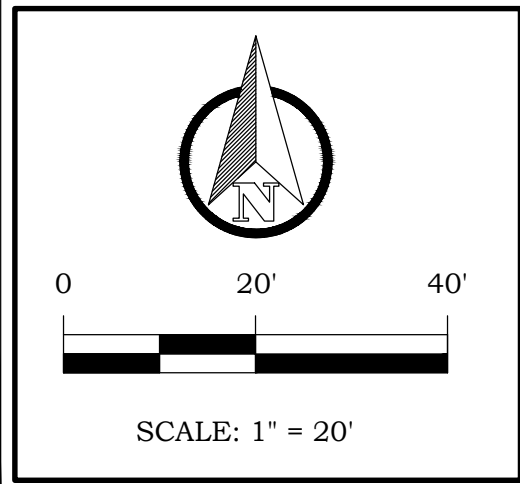
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GRADE PARKING LOT AT 5 FT. ELEVATION
WITH A 2% SLOPE TO THE WEST SIDE



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DIAMONDHEAD MS 39525

SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
GRADING AND DRAINAGE

PRELIMINARY
FOR REVIEW!

MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO:		17-057-00-04-2024
DATE:		07/01/2026
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SHEET NUMBER

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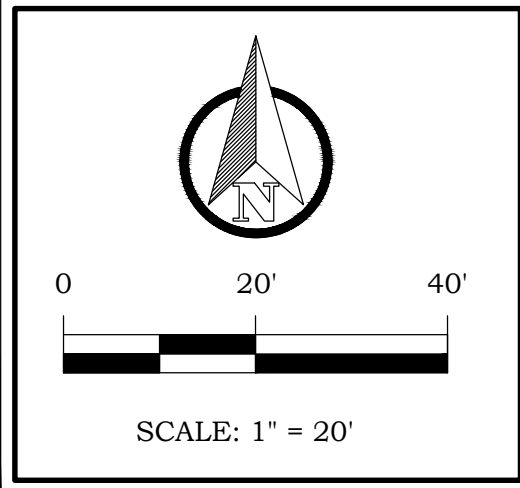
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OWNER INFORMATION

CITY OF DIAMONDHEAD
5000 DIAMONDHEAD CIRCLE
DIAMONDHEAD MS 39525

SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
EROSION CONTROL PLAN

PRELIMINARY
FOR REVIEW!

MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO:	17-057-00-04-2024	
DATE:	07/01/2026	
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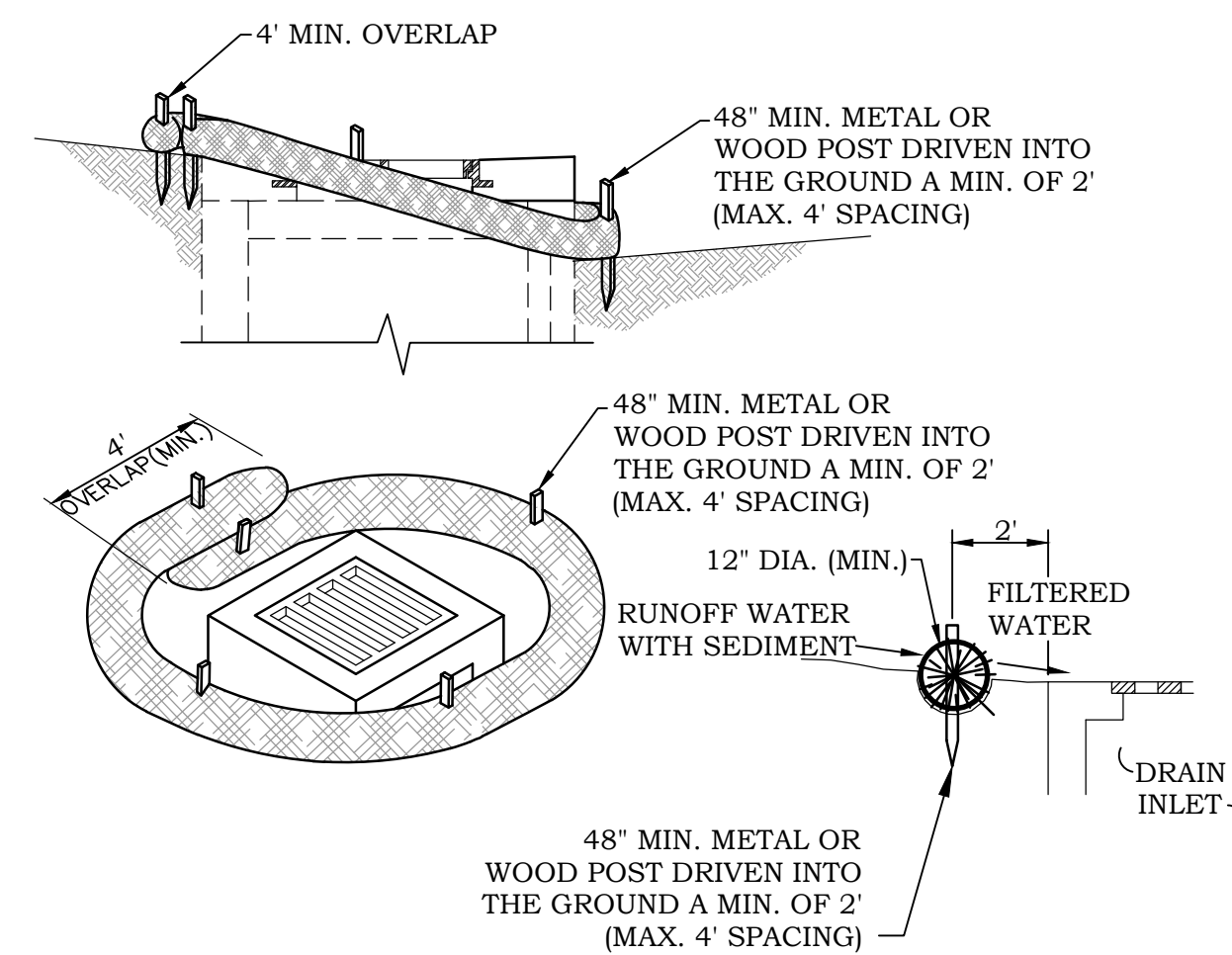
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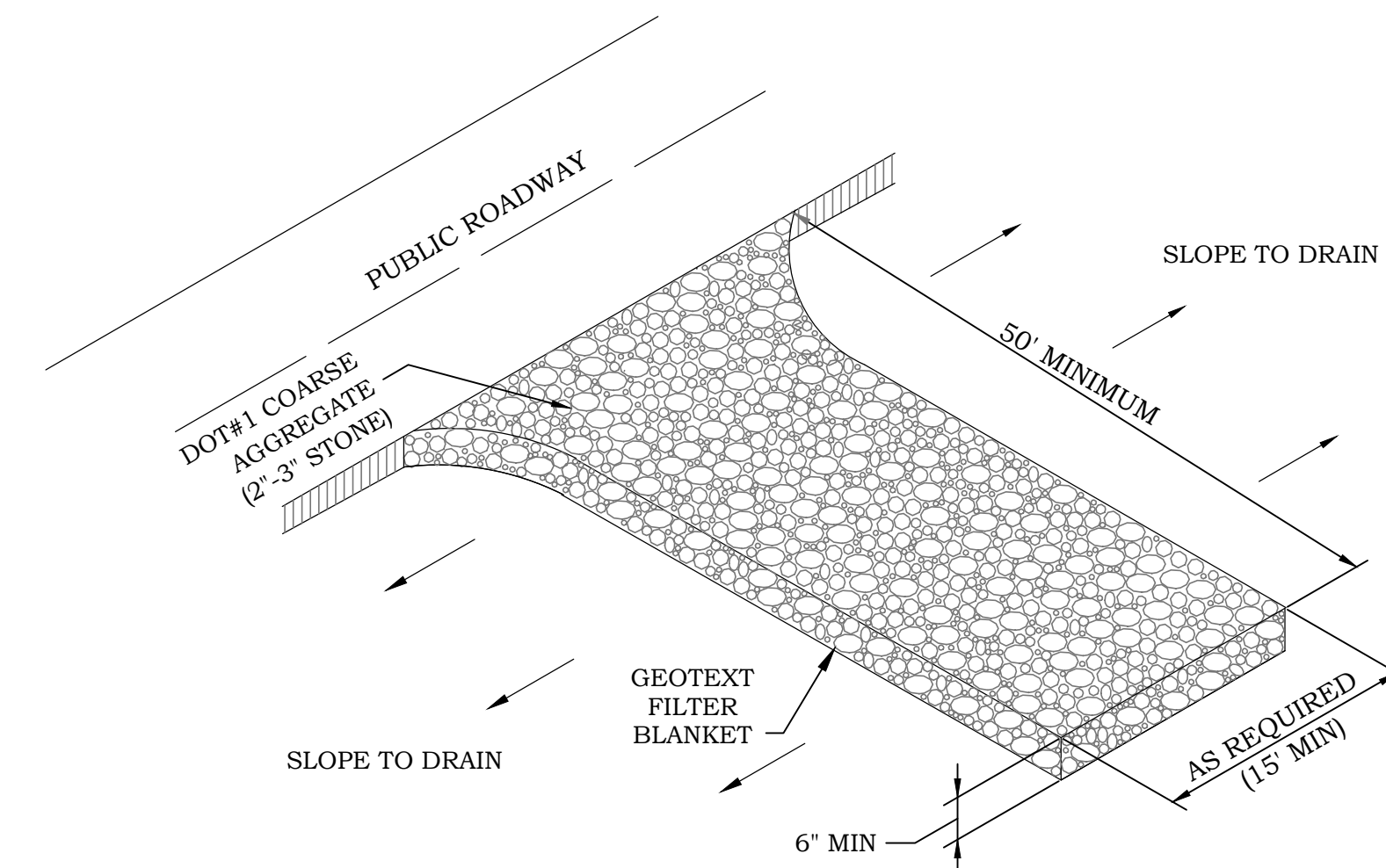
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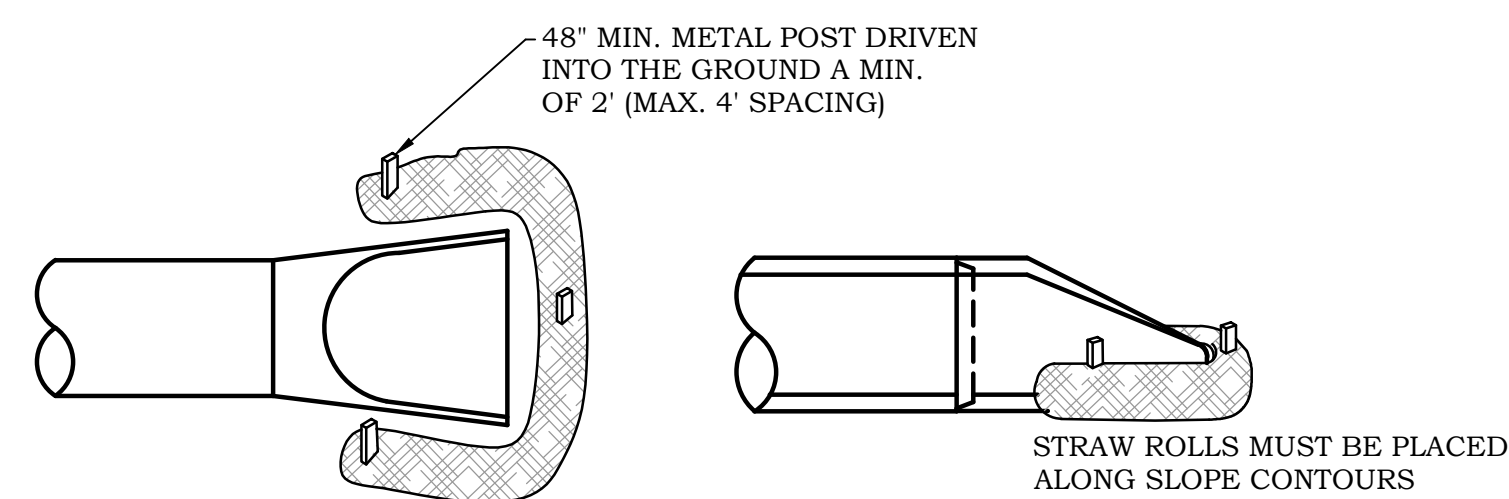
EXISTING UNDERGROUND UTILITY LINES ARE SHOWN ON THE DRAWINGS BASED UPON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THE ENGINEER CAN NOT AND DOES NOT WARRANT THAT THIS INFORMATION IS COMPLETE OR ACCURATE. THE CONTRACTOR MUST CALL IN MS811 UTILITY LOCATES AND PHYSICALLY LOCATE AND VISUALLY VERIFY LOCATIONS OF ALL UTILITIES.



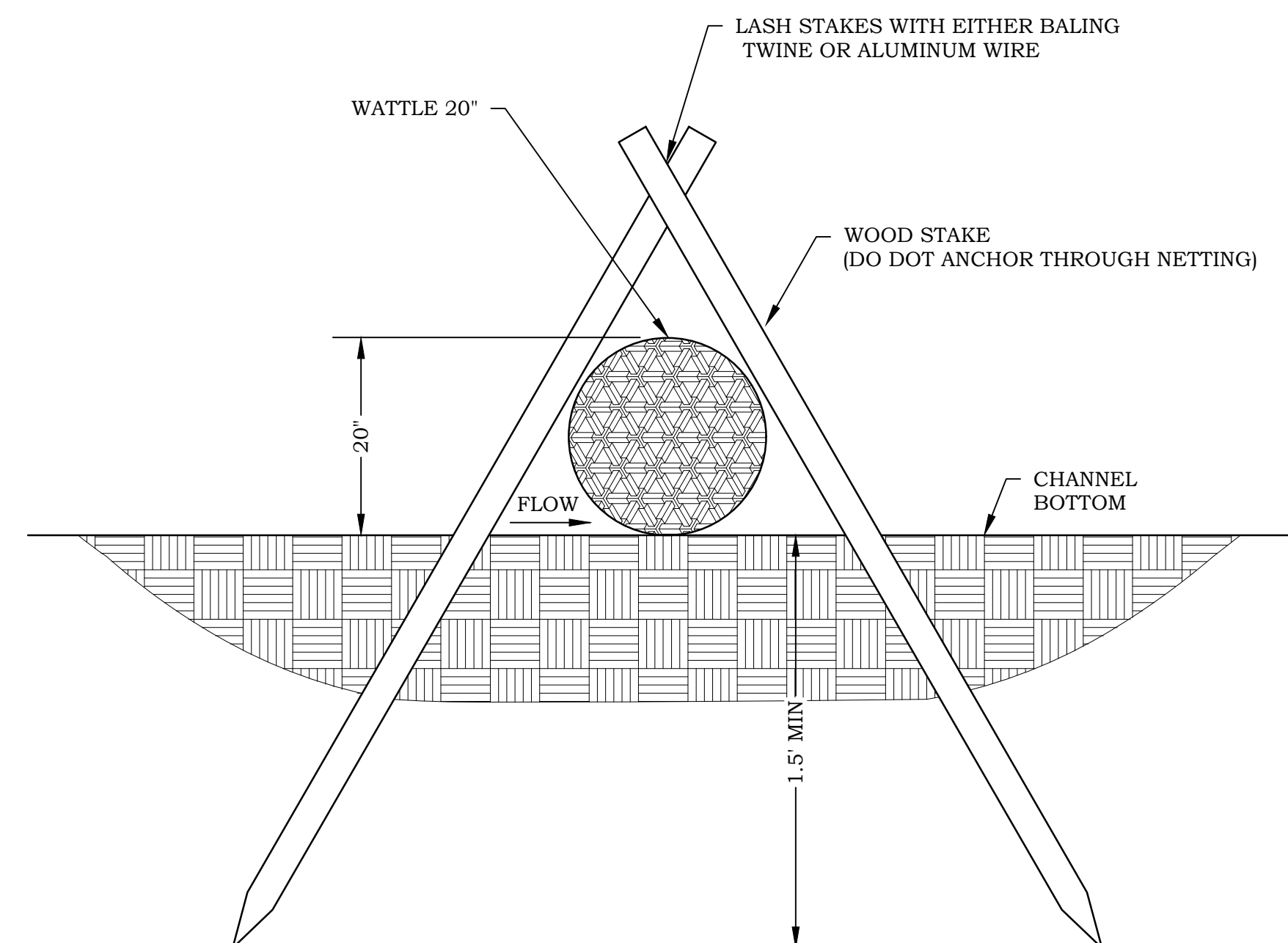
STRAW WATTLE INLET AND PROTECTION



STABILIZED CONSTRUCTION ENTRANCE

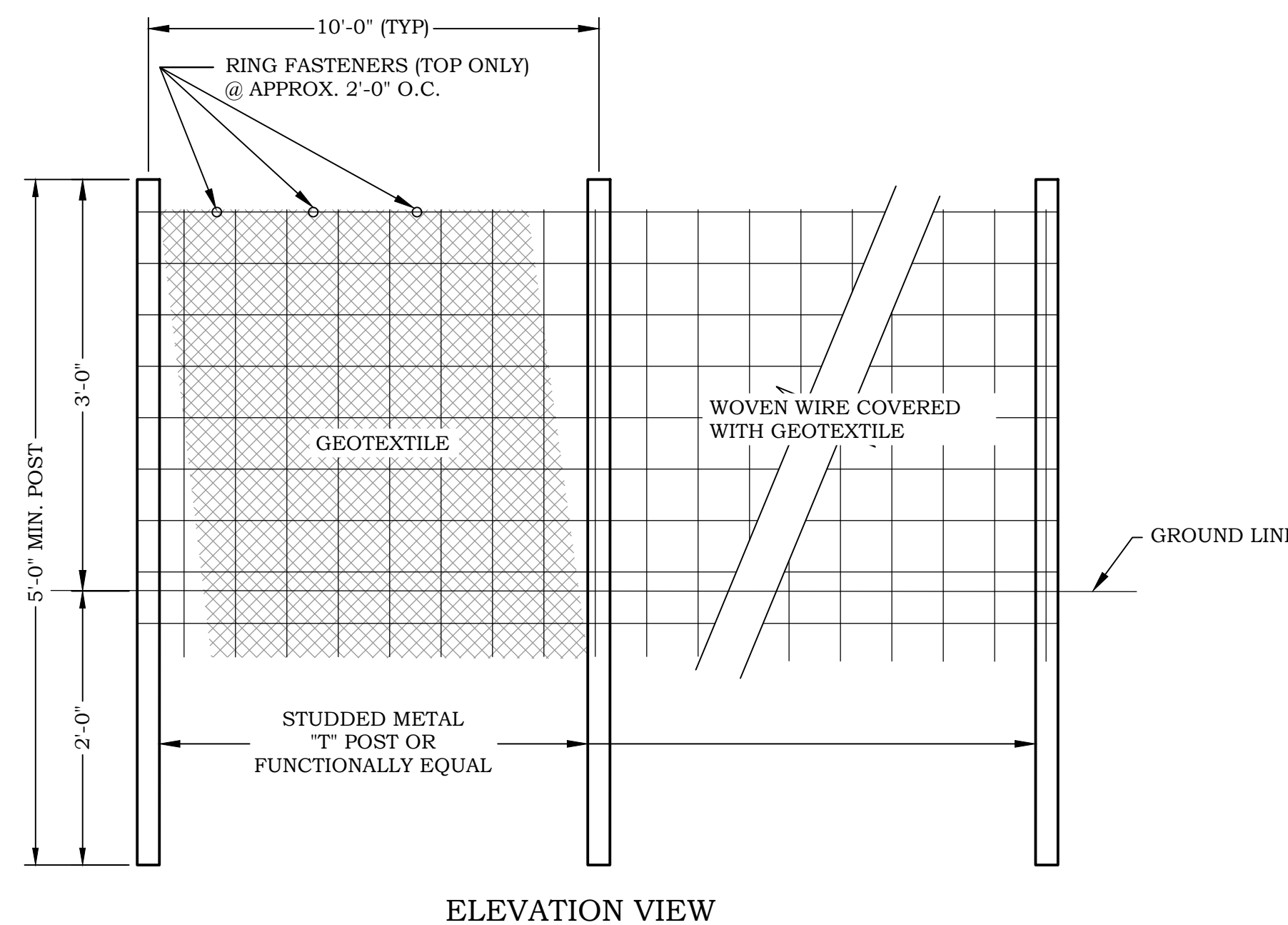


STRAW WATTLE FLARED END SECTION PROTECTION



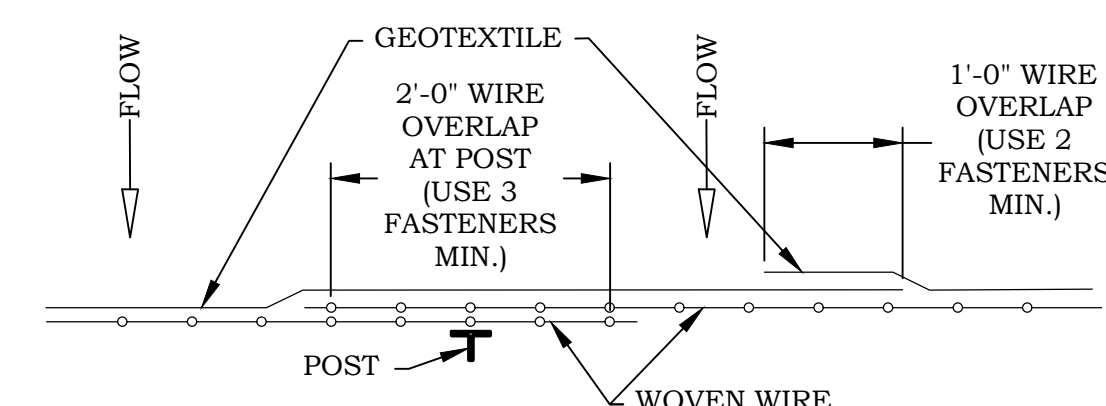
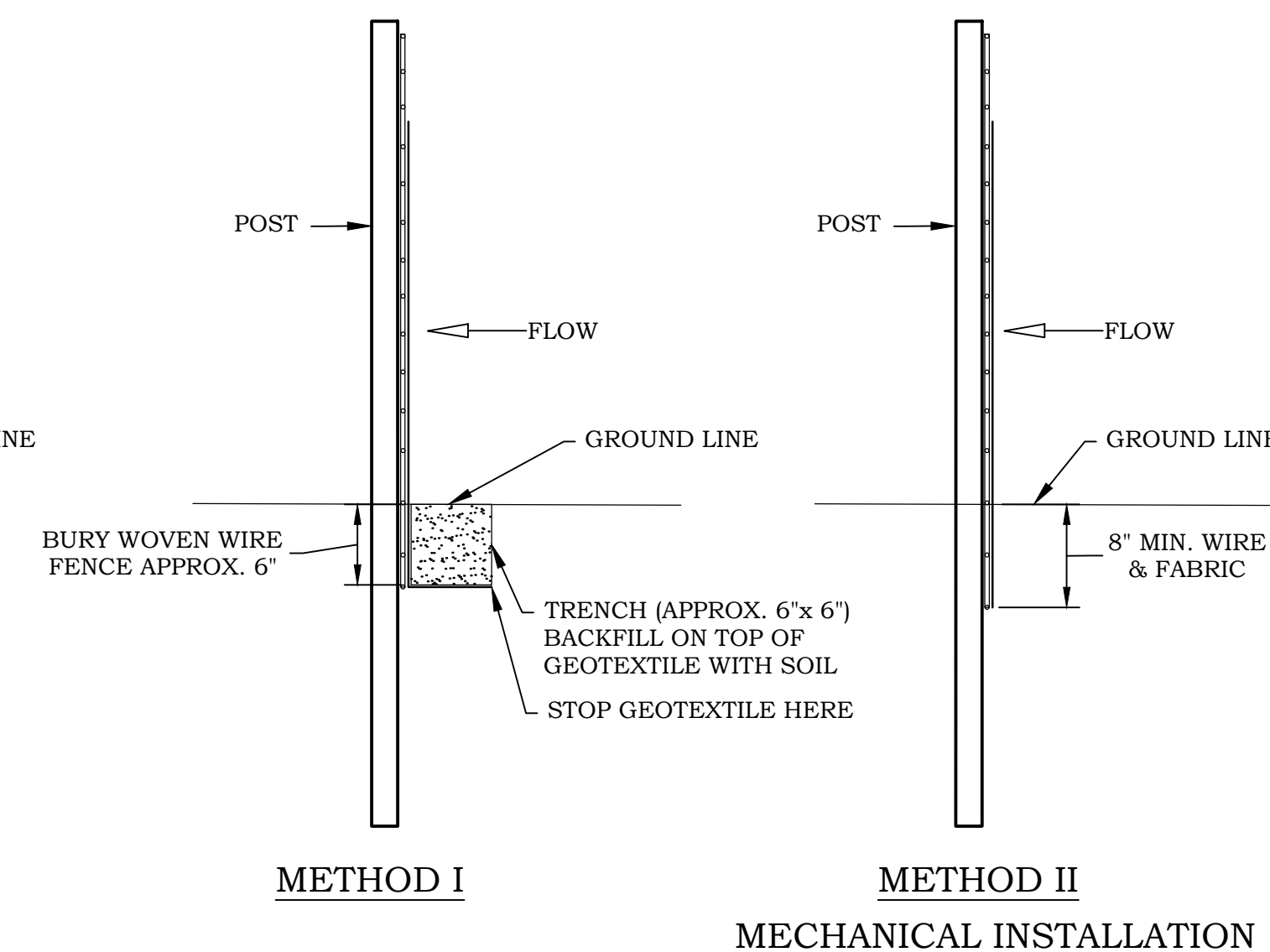
1. WATTLE DITCH CHECKS CAN BE USED FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS.
2. THE PLACEMENT INTERVAL BETWEEN WATTLE DITCH CHECK SHALL BE 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
3. ANCHORING WOOD STAKES SHALL BE SIZED, SPACED, DRIVEN, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET. ALL NON-DEGRADABLE MATERIALS SHALL BE REMOVED WHEN NO LONGER NEEDED.
4. TRENCHING OF WATTLES MAY BE NECESSARY IF PIPING BECOMES EVIDENT.
5. WATTLES SHOULD NOT BE USED IN HARD BOTTOM CHANNELS
6. IN THE EVENT WATTLES CANNOT BE SECURED IN PLACE USING WOOD STAKES, SAND BAGS MAY BE USED IN LIEU OF WOOD STAKES IN ORDER TO SECURE THE WATTLES IN PLACE. IF SAND BAGS ARE USED IN THIS APPLICATION THEY WILL NOT BE A SEPARATE PAY ITEM.

WATTLE CHECK DAM



TEMPORARY SILT FENCE DETAILS

1. SILT FENCES SHOULD BE USED IN AREAS WHERE FLOW IS NOT SEVERE.
2. SILT FENCES ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHOULD BE ERECTED OPPOSITE ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
3. SILT FENCES SHOULD BE PLACED WELL INSIDE RIGHT-OF-WAY AND ALONG EDGE OF CLEARING LIMITS. THIS WILL ALLOW ROOM FOR BACK-UP FENCE IF FIRST FENCE BECOMES FULL.
4. WHENEVER POSSIBLE SILT FENCE SHOULD BE CONSTRUCTED ACROSS A LEVEL AREA IN THE SHAPE OF A SMILE, THIS AIDS IN PONDING OF RUNOFF AN FACILITATES SEDIMENTATION.
5. THE CONTRACTOR MAY ELECT TO USE EITHER METHOD I OR METHOD II. COST TO BE LINEAR FEET OF SILT FENCE.
6. METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES A CONFIGURATION MEETING THE REQUIREMENTS OF DETAIL.
7. GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATION MAY BE USED WITHOUT WIRE FENCE.



PLAN VIEW

REQUIRED LAPPING



- t NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
 $L = WS$ FOR SPEEDS OF 45 mph OR GREATER
 $L = WS^2/60$ FOR SPEEDS OF 40 mph OR LESS
 WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
 W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
 S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

**PRELIMINARY
FOR REVIEW!**

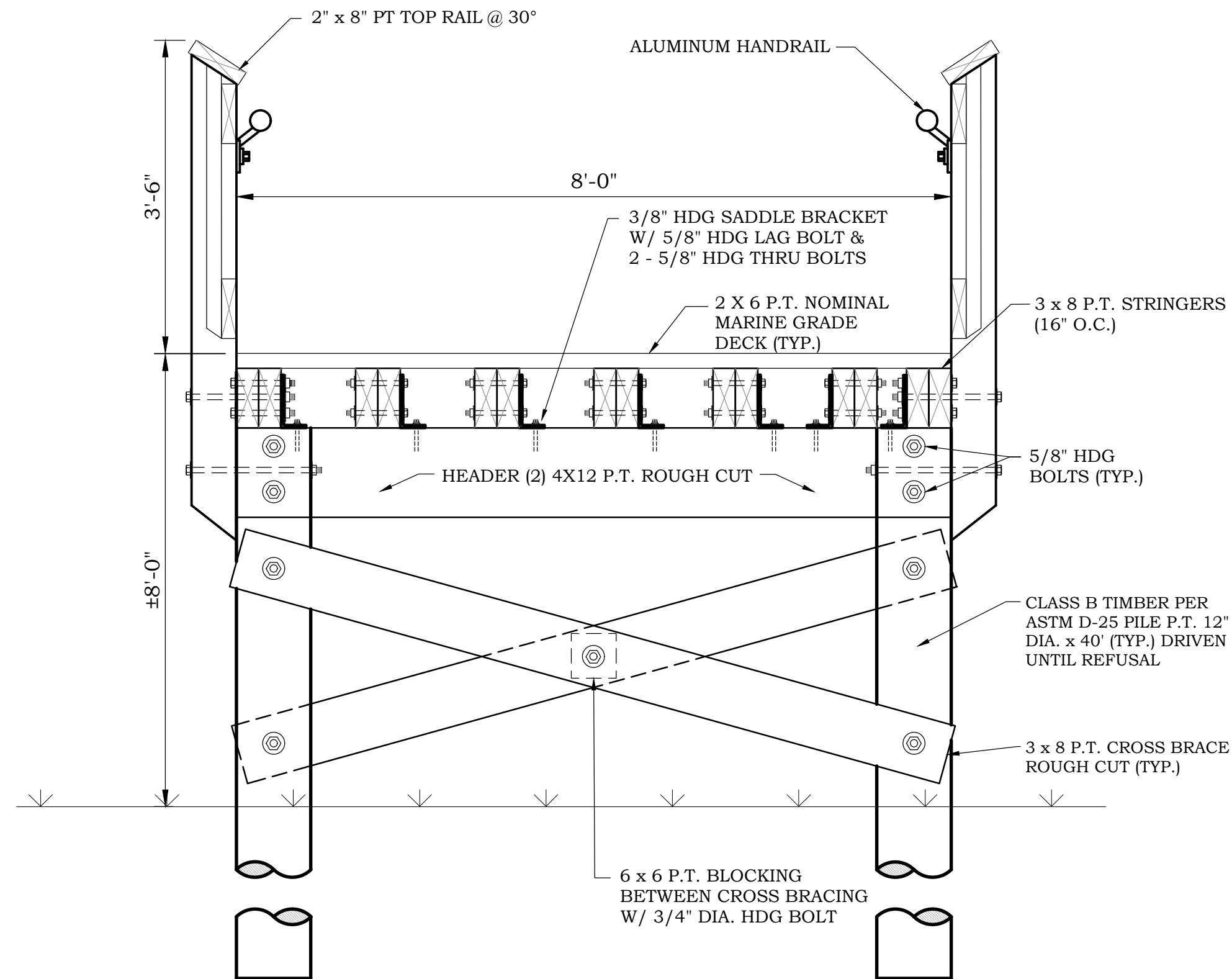
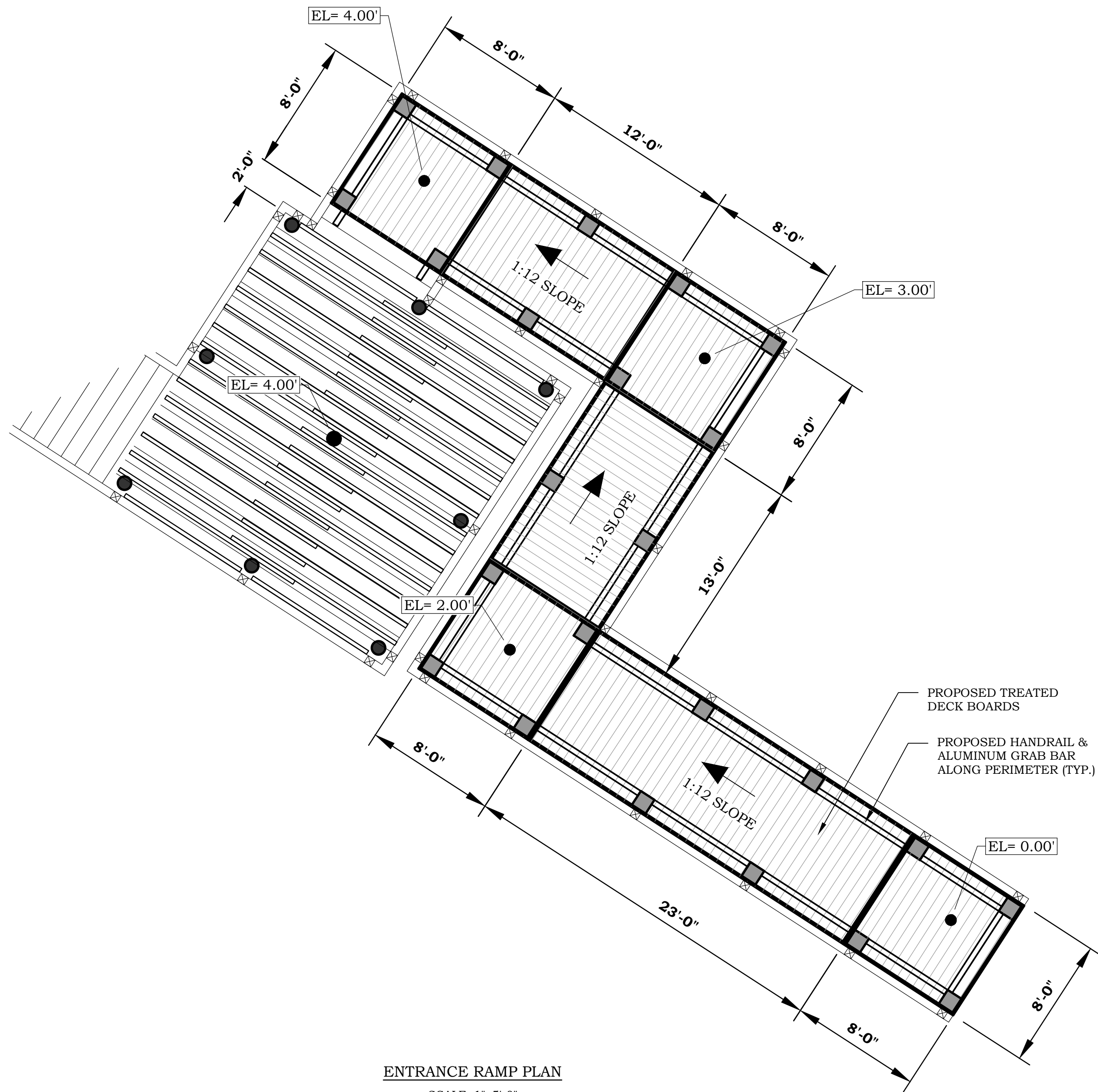
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PROJECT NO:		17-057-00-04-2024
DATE:		07/01/2026
DRAWN BY:		NMP
CHECKED BY:		JPC
SCALE:		1:1

SHEET NUMBER

11

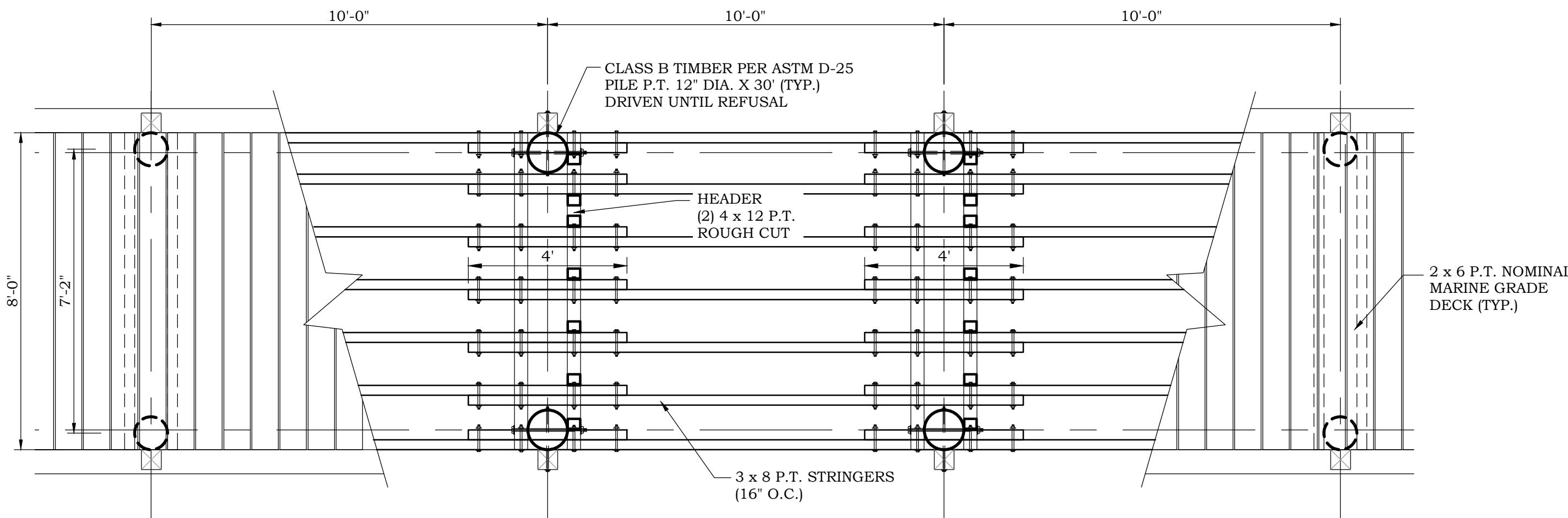
SHEET DESIGNATION

C-503



NOTES

1. CROSS BRACING REQUIRED FOR ELEVATIONS 4FT AND ABOVE.



407 Hwy. 90
Bay St. Louis, MS 39520
Office - (228) 467-6755
Email - admin@chiniche.com
Website - www.chiniche.com

OWNER INFORMATION

CITY OF DIAMONDHEAD
5000 DIAMONDHEAD DRIVE CIRCLE
DIAMONDHEAD, MS 39525

SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
BOARDWALK & BRIDGE DETAILS



MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO: 17-057-00-04-2024		
DATE: 07/01/2026		
DRAWN BY: NMP		
CHECKED BY: JPC		
SCALE: AS NOTED		

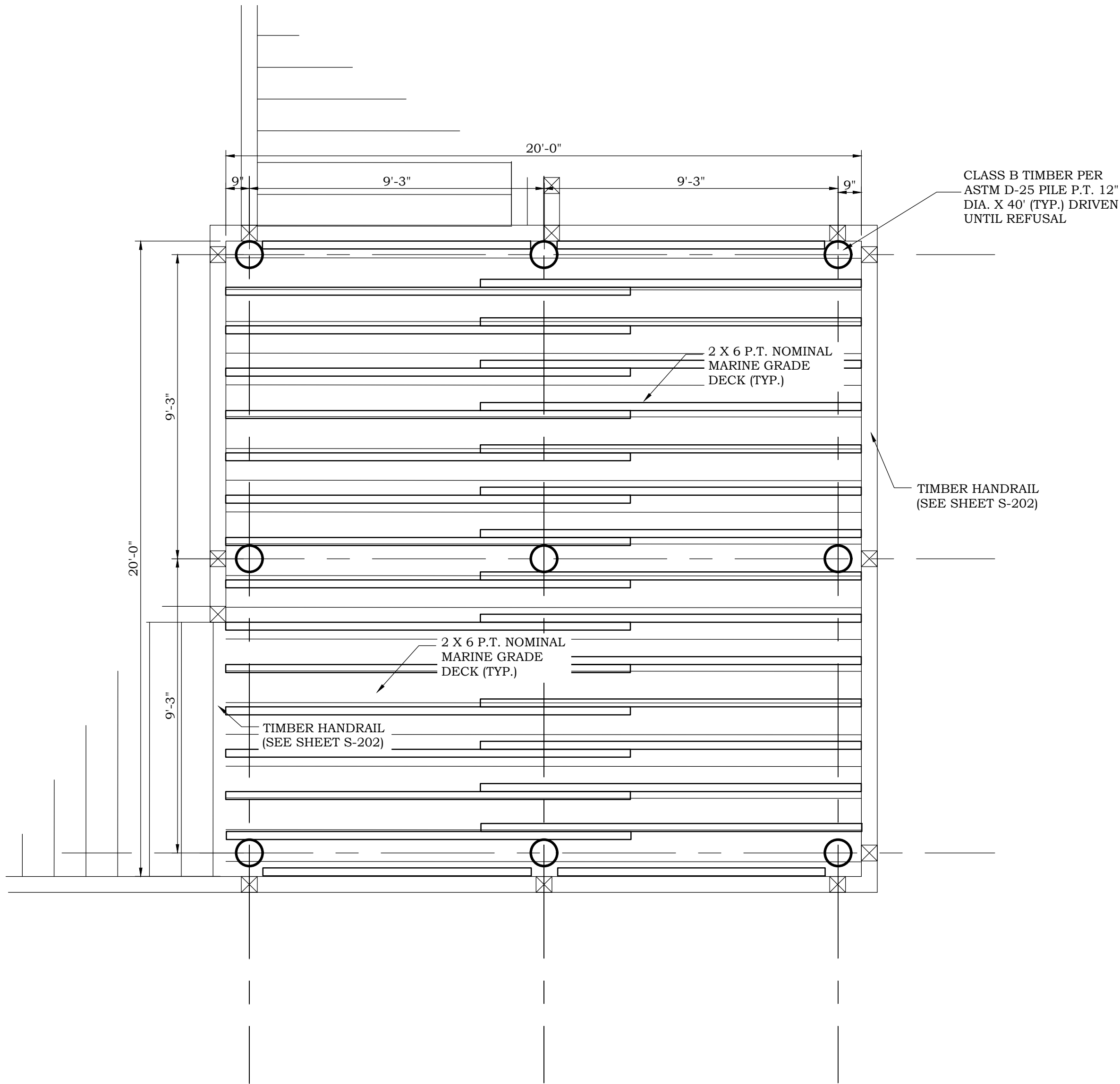
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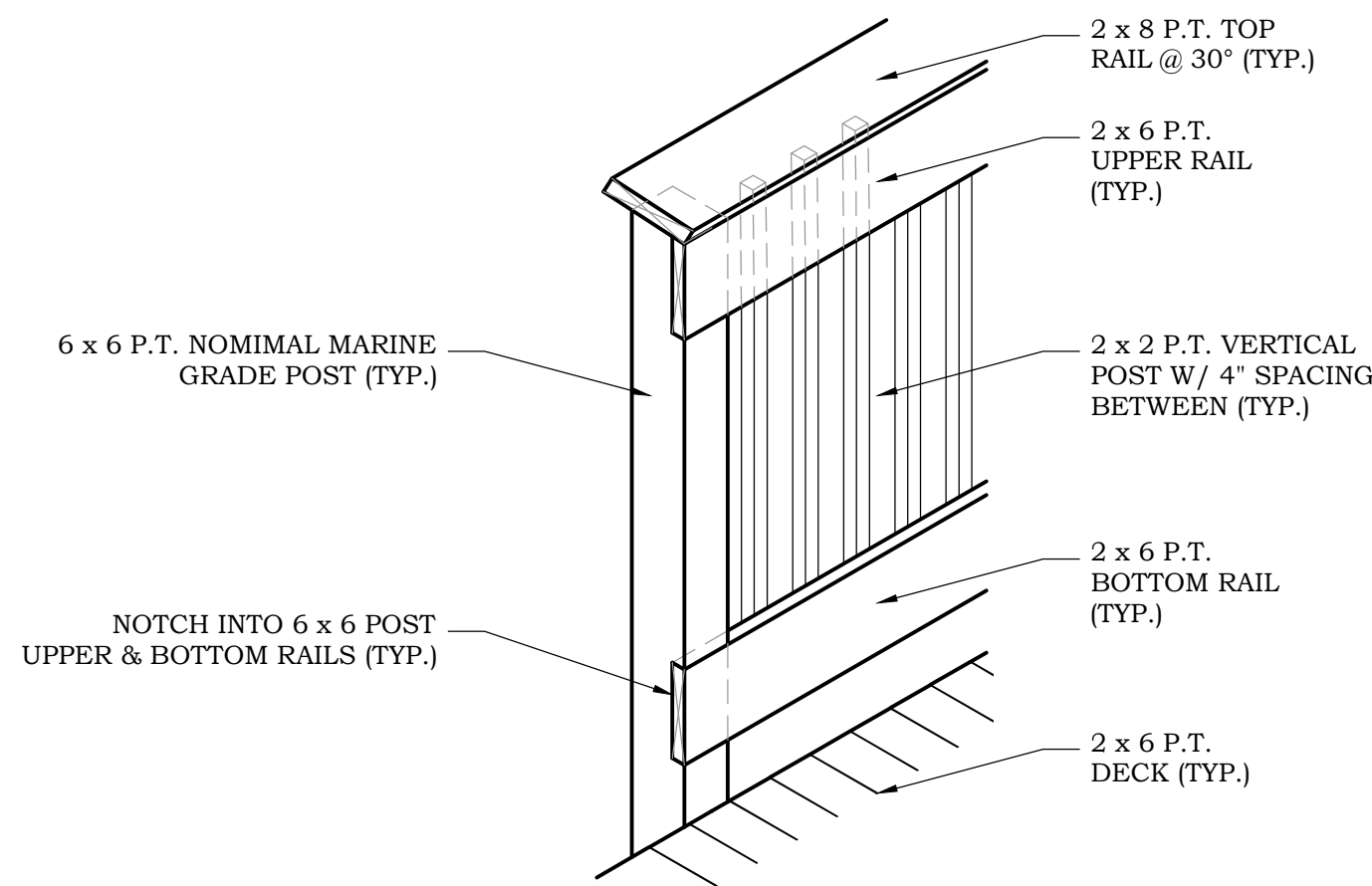
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S-201

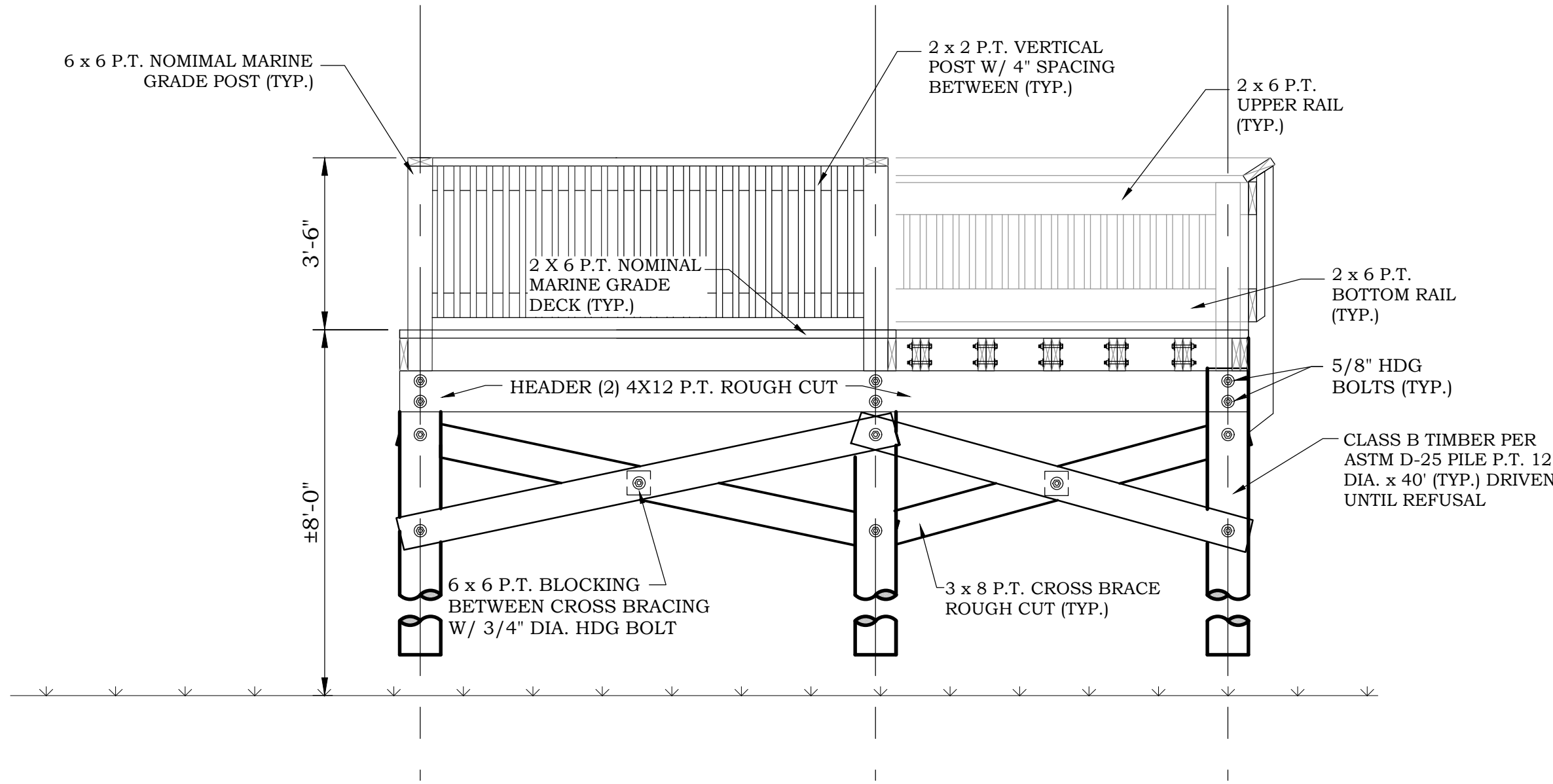
©CHINICHE ENGINEERING & SURVEYING, 2024



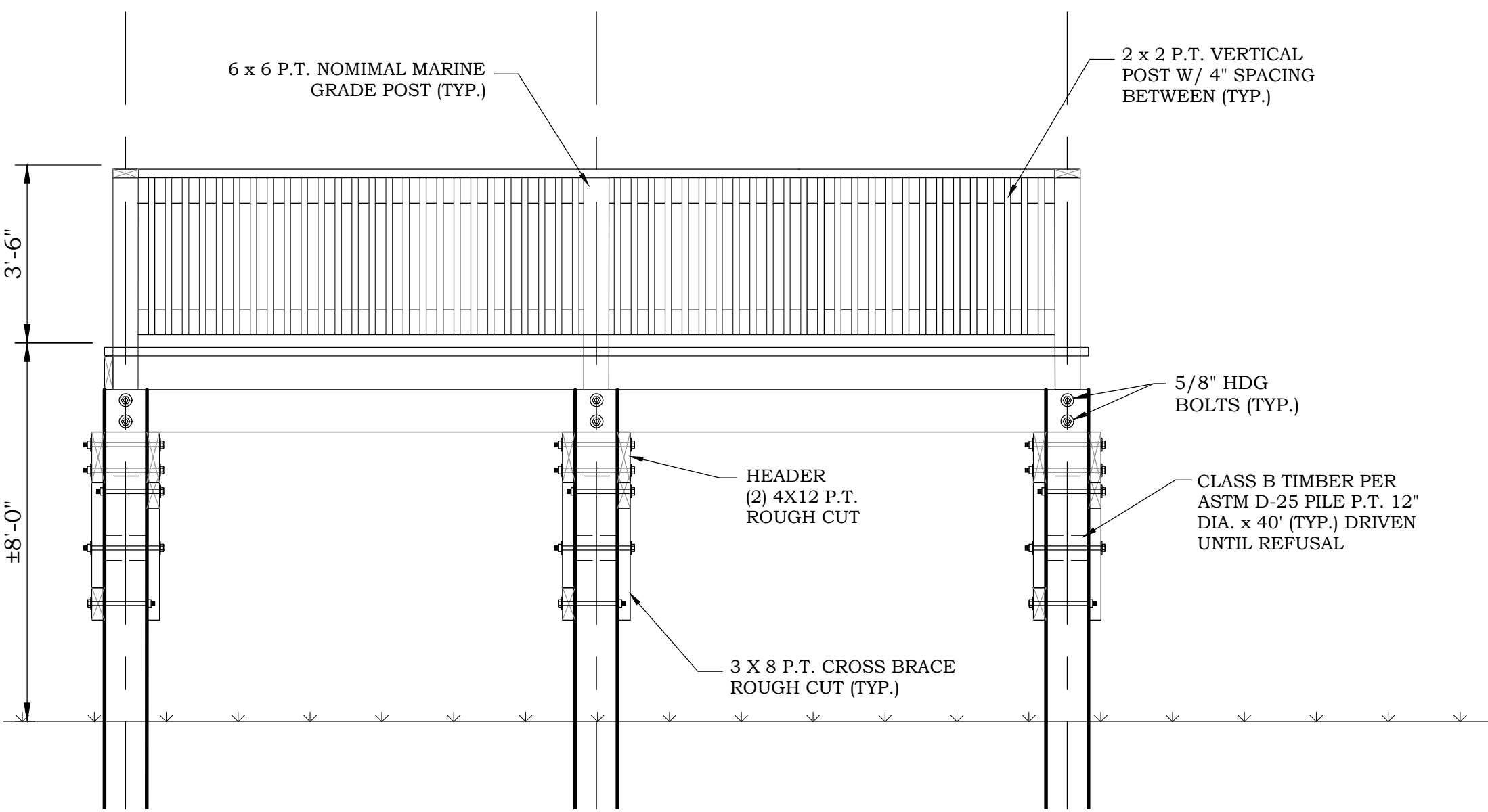
20' X 20' PLATFORM FRAMING PLAN
SCALE: 1"=5'-0"



TIMBER HANDRAIL DETAIL
SCALE: 3/4"=1'-0"



NORTHEAST PLATFORM VIEW ELEVATION
SCALE: N.T.S.



SOUTHEAST PLATFORM VIEW ELEVATION
SCALE: N.T.S.



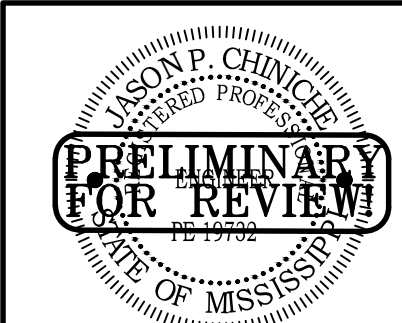
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OWNER INFORMATION

CITY OF DIAMONDHEAD
5000 DIAMONDHEAD DRIVE CIRCLE
DIAMONDHEAD, MS 39525

SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
BOARDWALK & BRIDGE DETAILS



MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO: 17-057-00-04-2024		
DATE: 07/01/2026		
DRAWN BY: NMP		
CHECKED BY: JPC		
SCALE: AS NOTED		

SHEET NUMBER
13

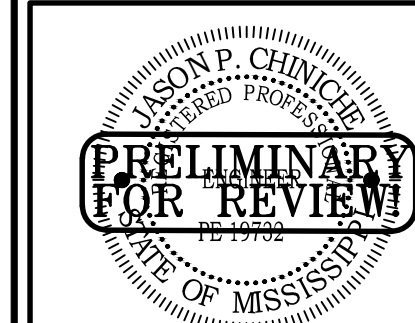
SHEET DESIGNATION
S-202

OWNER INFORMATION

CITY OF DIAMONDHEAD
5000 DIAMONDHEAD DRIVE CIRCLE
DIAMONDHEAD, MS 39525

SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
RAMP AND LANDING PLAN
AND LANDING FRAMING PLAN



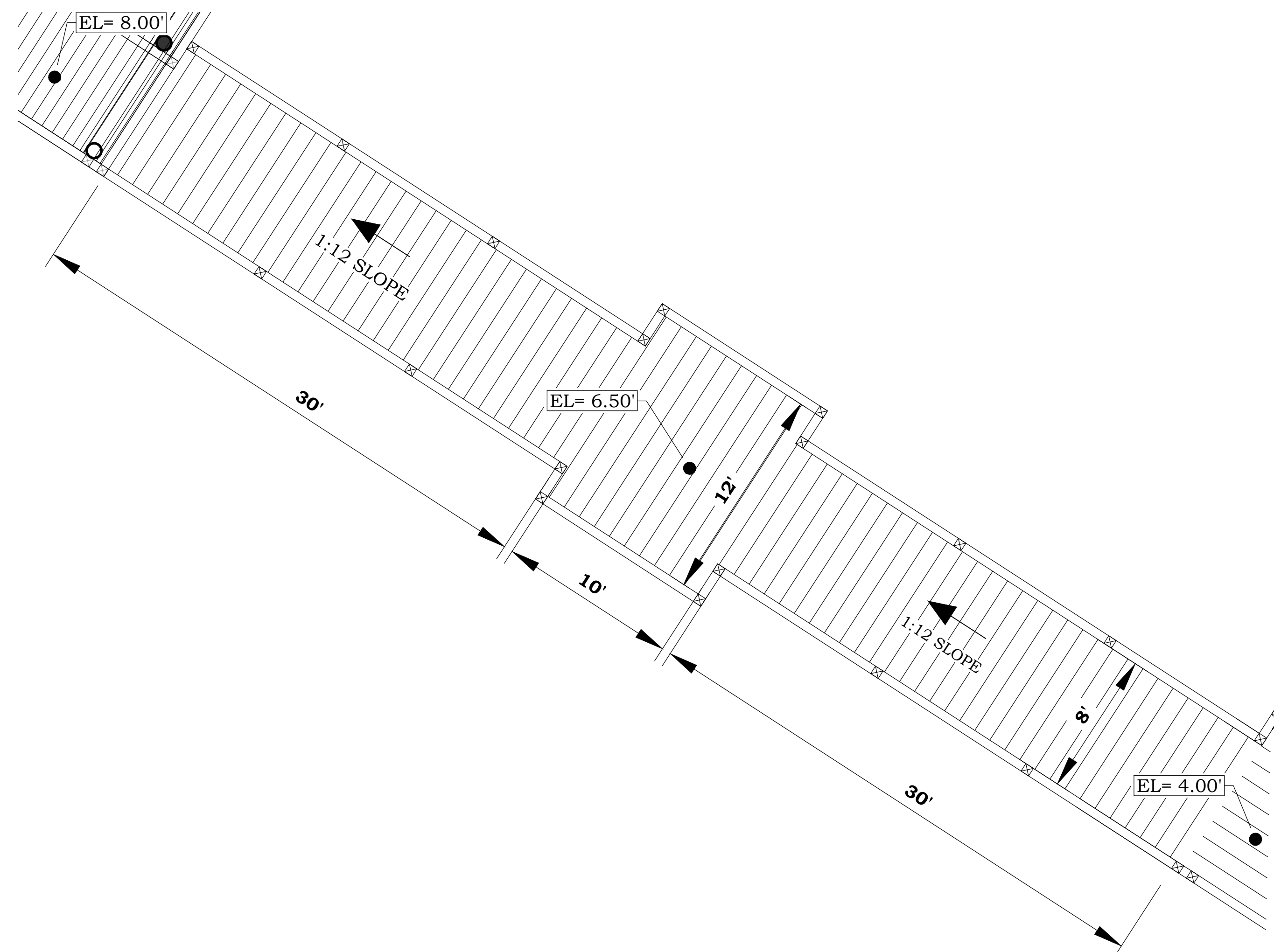
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SHEET NUMBER

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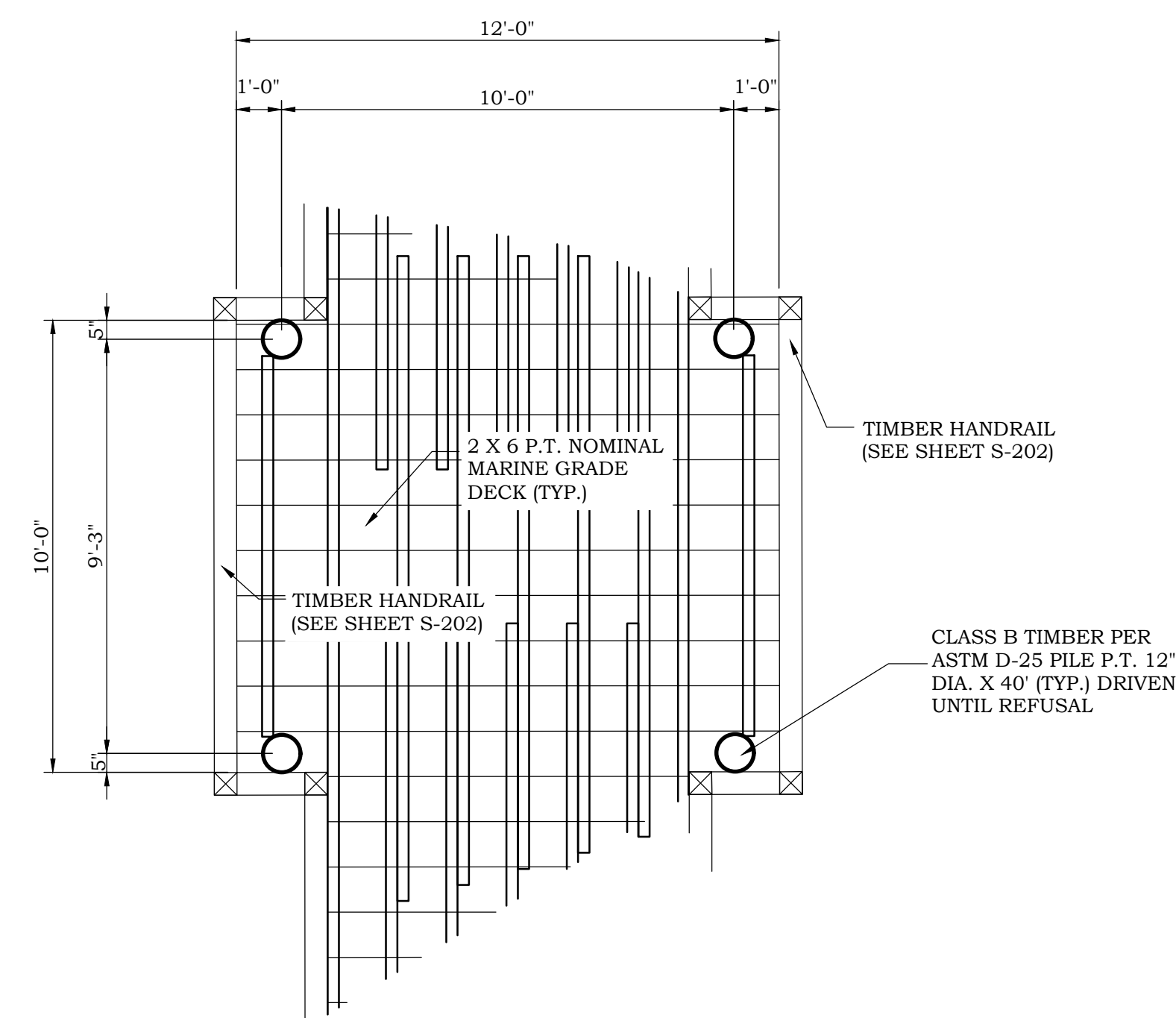
SHEET DESIGNATION

S-203



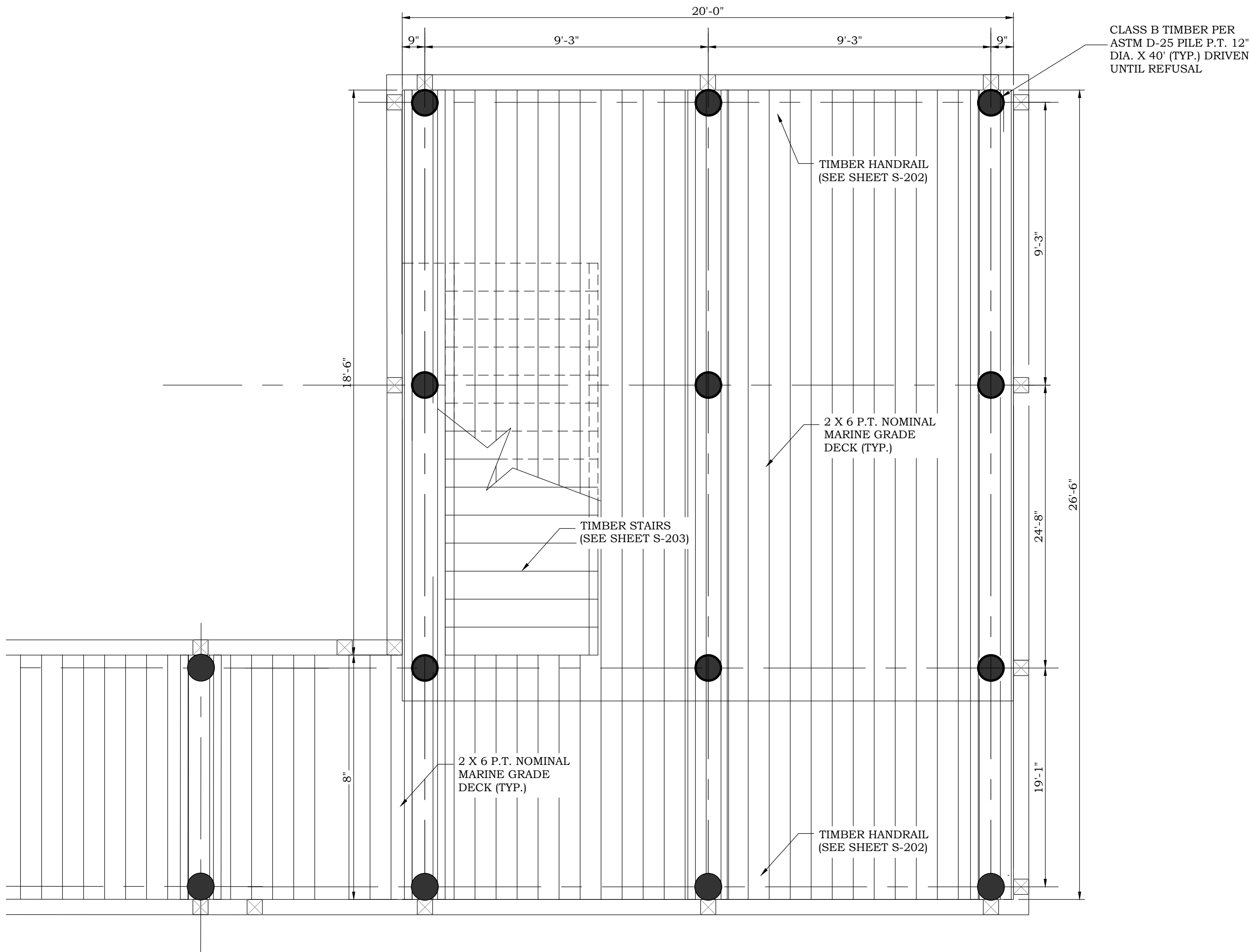
12' X 10' LANDING AND RAMP PLAN

SCALE: N.T.S.

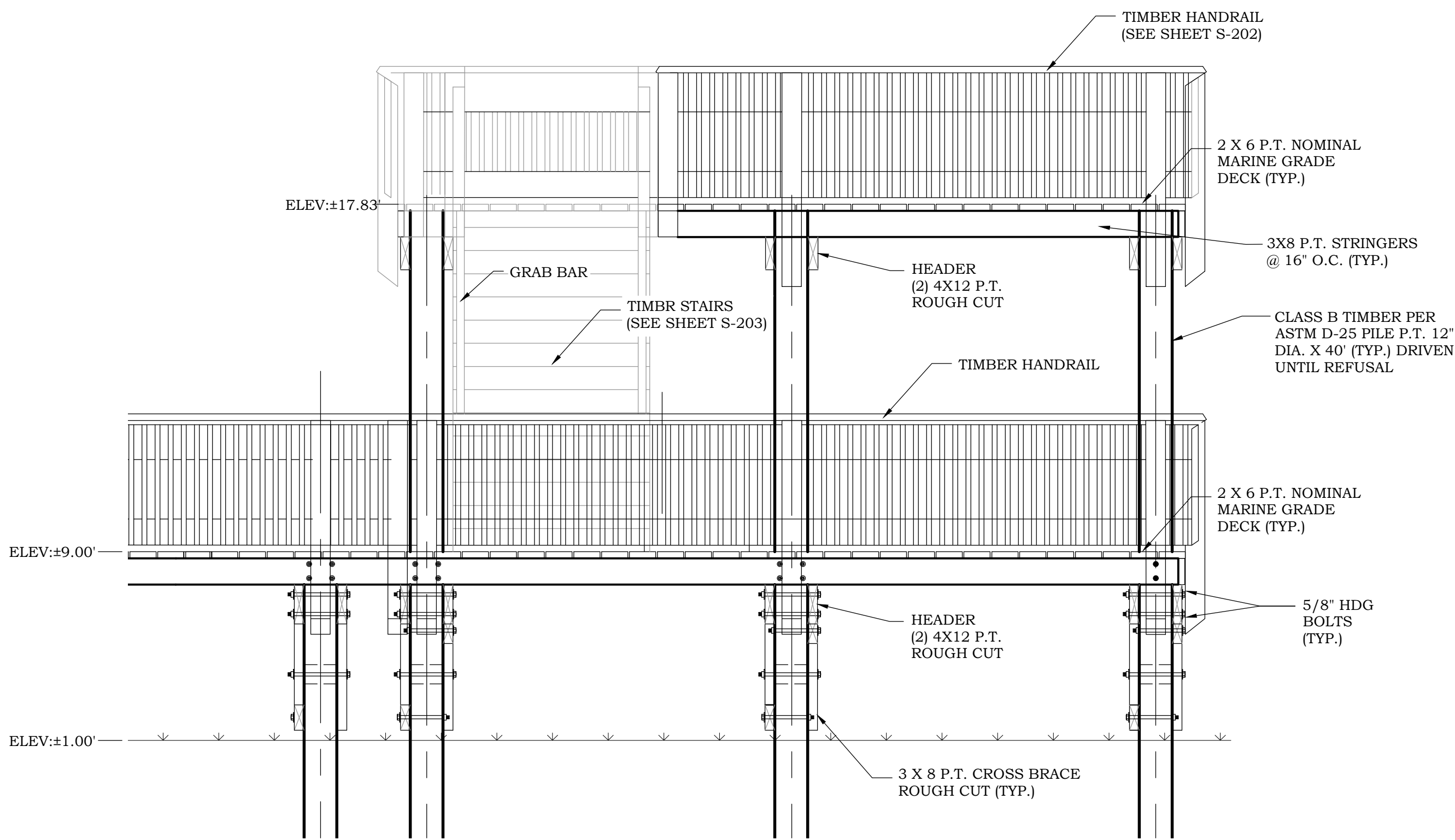


12' X 10' LANDING FRAMING PLAN

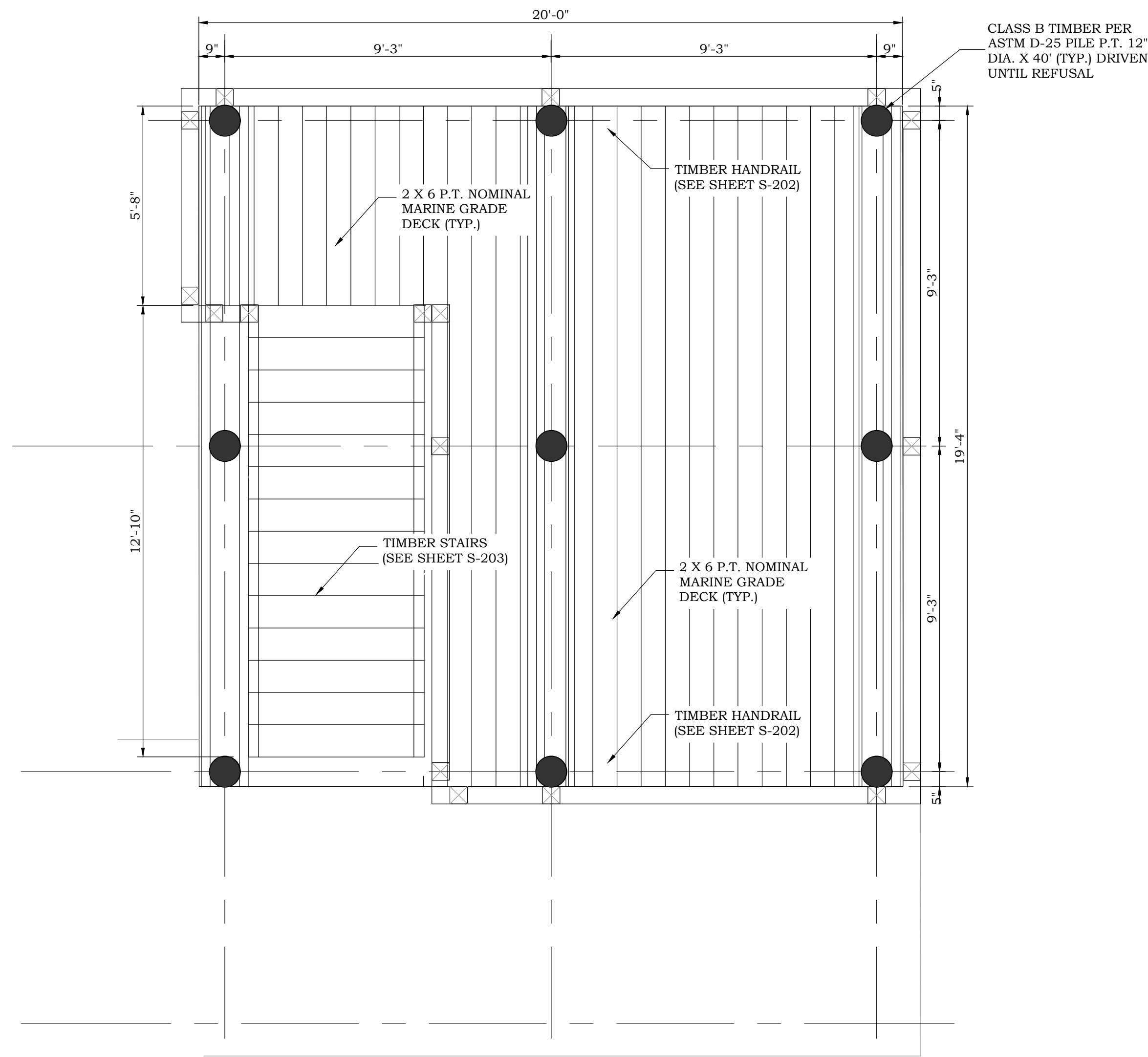
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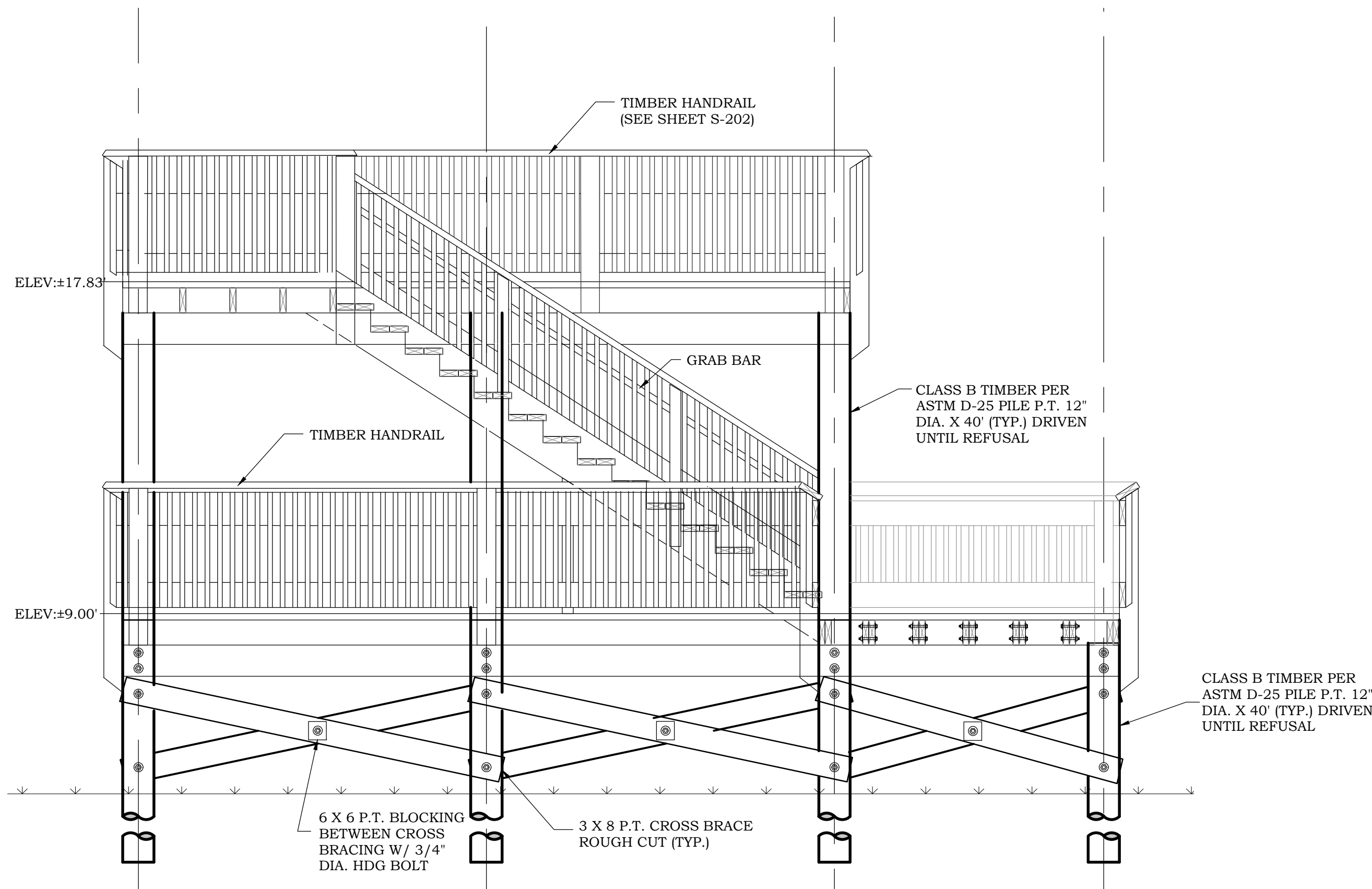
BIRD TOWER LOWER PLAN
SCALE: 3/8"=1'-0"



BIRD TOWER NORTH ELEVATION
SCALE: 3/8"=1'-0"



BIRD TOWER UPPER PLAN
SCALE: 3/8"=1'-0"



BIRD TOWER EAST ELEVATION
SCALE: 3/8"=1'-0"

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OWNER INFORMATION

CITY OF DIAMONDHEAD
5000 DIAMONDHEAD DRIVE CIRCLE
DIAMONDHEAD, MS 39525

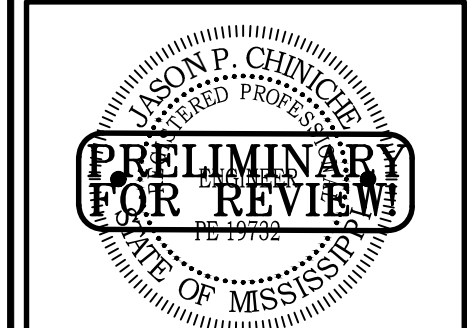
SHEET TITLE

ROTTEN BAYOU
NATURE OBSERVATORY
BIRD TOWER PLANS & ELEVATIONS

PRELIMINARY FOR REVIEW

USON P. CHINICHE
REGISTERED PROFESSIONAL
STATE OF MISSISSIPPI

MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO:	17-057-00-04-2024	
DATE:	07/01/2026	
DRAWN BY:	SNP	
CHECKED BY:	JPC	
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SHEET DESIGNATION	S-204	



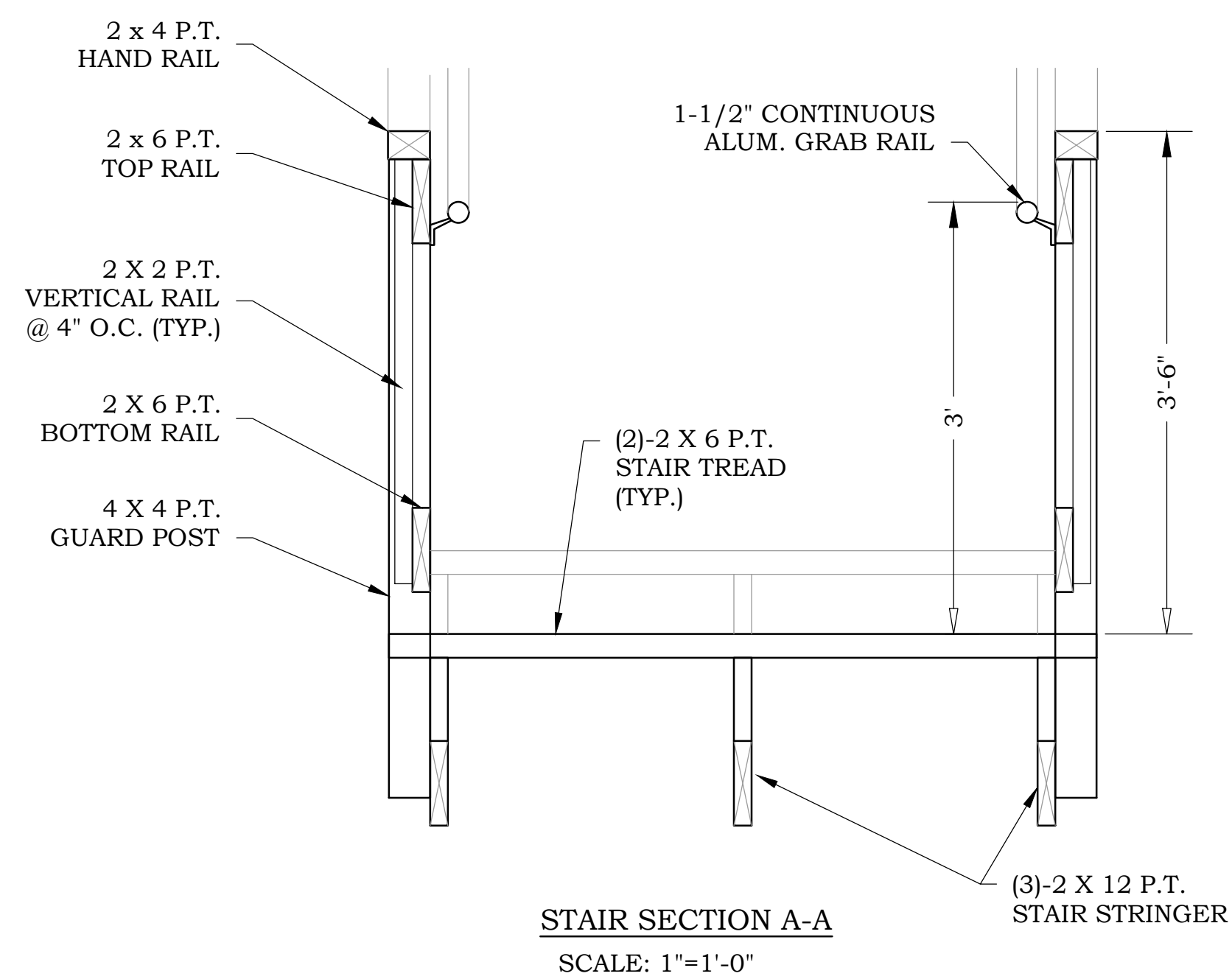
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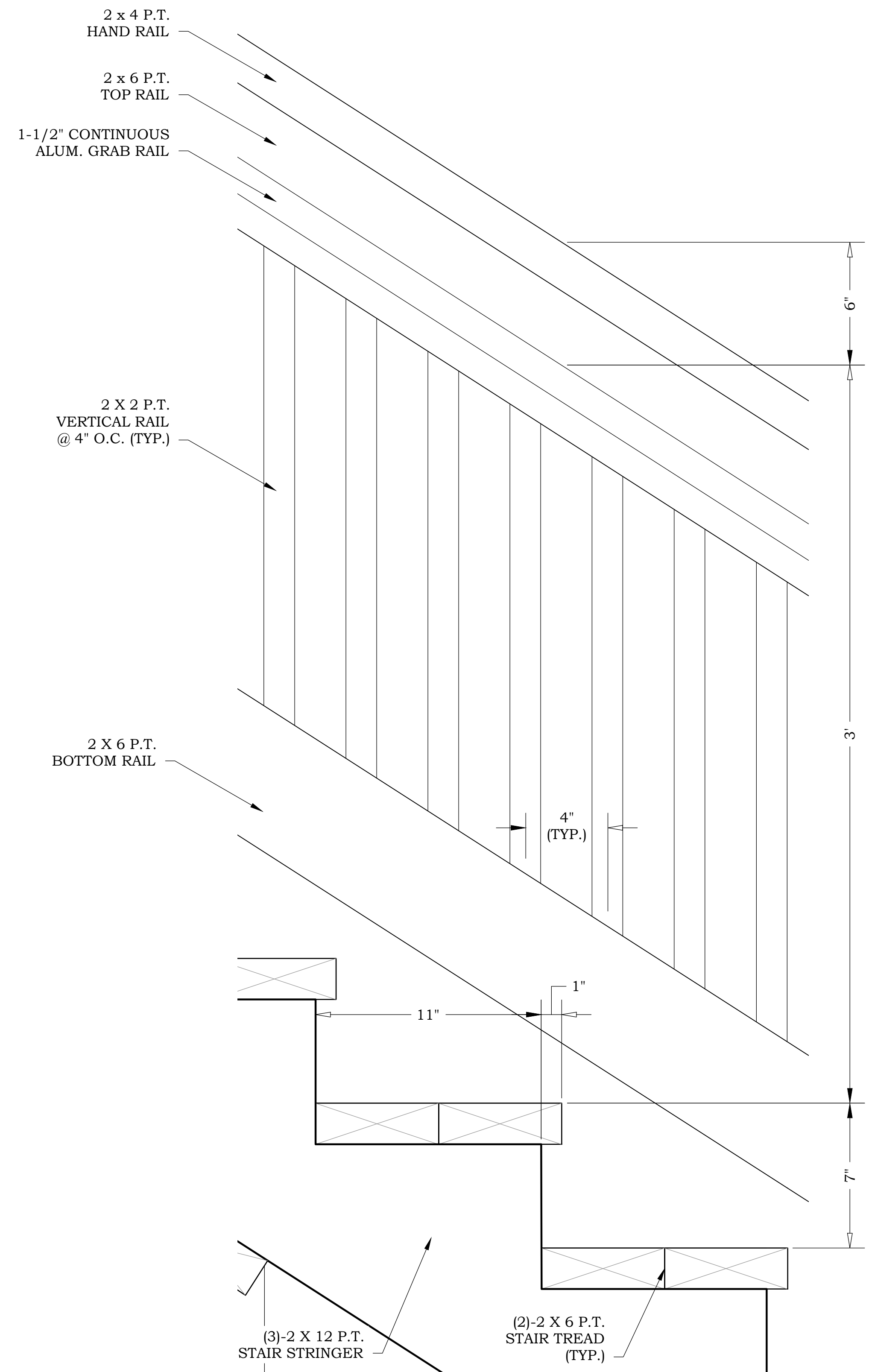
SHEET DESIGNATION
S-205



STAIR SECTION
SCALE: 1"=1'-0"



STAIR SECTION A-A
SCALE: 1"=1'-0"



STAIR TREAD DETAIL
SCALE: 3"=1'-0"

WETLAND DELINEATION REPORT

Rotten Bayou Nature Trail Parking Area
Diamondhead, Hancock County, MS

Prepared by
Dylan Bartlett, B.S.
Anna Grace Boxx, B.S.
Randy Ellis, B.S.

Ecological Asset Management, LLC

Environmental Consulting and Restoration
530 Main Street, Suite B
Bay St. Louis, MS 39520

July 24, 2026

CONFIDENTIAL

WETLAND DELINEATION REPORT
+/- 0.36-Acre Rotten Bayou Nature Trail Parking Area
Section 9, Township 8-South, Range 14-West
Diamondhead, Hancock County, Mississippi

Introduction

Ecological Asset Management, LLC (EAM) was retained by Chiniche Engineering & Surveying to conduct a wetland delineation and provide a report for the +/- 0.36-acre project area (Figure 1) described above. The following sections present EAM's methods, hydrology, vegetation, soils, and conclusion.

Methods

Prior to the field investigation, a variety of in-house data, maps and reports as well as area specific digital repositories were researched and gathered to assist in identifying potential wetlands on the property. Examples of detailed in-house data includes digital elevation models (DEM) compiled from LiDAR elevation data (USGS, 2014), high accuracy true color and infrared aerial imagery. The field investigation, conducted on June 25 & July 15, 2026, was performed according to the wetland delineation definition and procedures outlined in the 1987 Corps of Engineers Wetland Delineation Manual (USACE, 1987) with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (USACE, 2010). An area is a wetland, according to the procedure, if positive wetland indicators are found for each of the three criteria (hydrology, vegetation, and soils). If positive wetland indicators are not found for any of the three criteria, the area cannot be determined a wetland.

Hydrology

The local hydrology was investigated extensively throughout the project area. It was determined that the natural hydrology has not been recently altered. Drainage is primarily topography driven northwestward from areas of higher elevation into wetland areas located at lower elevations and then off-site into Rotten Bayou and contiguous estuarine & marine systems. Much of the project area presents a mosaic of scrub/shrub wetlands and estuarine & marine wetlands. The majority of the site's wetland system exhibited surface water and appears to experience regular inundation. A small maintained upland area exists within the southern portion of the project area. This area is located at higher elevations and exhibits a compact surface that does not appear to maintain surface saturation for the minimum duration or frequency to generate hydric conditions.

Vegetation

The subject property contains a maintained upland vegetative community, a scrub/shrub wetland vegetative community and an estuarine & marine wetland vegetative community.

The maintained upland vegetative community is dominated by *Triadica sebifera* (Chinese Tallow), *Pinus elliottii* (Slash Pine), *Panicum repens* (Torpedo Grass), *Paspalum urvillei* (Vasey Grass), *Imperata cylindrica* (Cogon Grass) and *Rubus trivialis* (Southern Dewberry).

The scrub/shrub wetland vegetative community is dominated by *Pinus elliottii* (Slash Pine), *Nyssa biflora* (Swamp Tupelo), *Triadica sebifera* (Chinese Tallow), *Baccharis halimifolia* (Groundsel Tree), *Sabal minor* (Dwarf Palm), *Spartina cynosuroides* (Big Cordgrass), *Rubus trivialis* (Southern Dewberry) and *Nekemias arborea* (Peppervine).

The estuarine & marine wetland vegetative community is dominated by *Pinus elliottii* (Slash Pine), *Triadica sebifera* (Chinese Tallow), *Nyssa biflora* (Swamp Tupelo), *Spartina cynosuroides* (Big Cordgrass), *Sagittaria lancifolia* (Lanceleaf Arrowhead), *Hydrocotyle bonariensis* (Largeleaf Pennywort) and *Sabal minor* (Dwarf Palm).

Soils

The US Department of Agriculture - Natural Resource Conservation Service's Web Soil Survey shows the following soil map units in the project area: Escambia loam, 0 to 2 percent slopes (EsA) (USDA-NRCS. Accessed July 14, 2026).

According to the Soil Survey of Hancock County, Mississippi (USDA-SCS, 1978), Escambia loam, 0 to 2 percent slopes (EsA), is a somewhat poorly drained soil typically found on low upland ridges. Permeability is moderate in the upper part of the subsoil and slow in the lower part. Available water capacity is high with slow runoff.

A portion of the site contains apparent non-native fill material. The fill consists of strata of sand and clay. The soils are compact and do not exhibit indicators of hydrology.

The detailed soil profile descriptions of sample sites can be found in Appendix A. The hydric indicators "Histic Epipedon" (A2), "1 cm Muck" (A9), and "Depleted Matrix" (F3) were observed in Plot 1.

Conclusion

Positive wetland indicators were found for hydrology, vegetation, and soils on +/- 0.156 acres of the +/- 0.360-acre project area. Of the +/- 0.156 acres of wetlands found on-site, +/- 0.083 acres are scrub/shrub wetland areas, and +/- 0.073 acres have been classified as estuarine and marine wetlands. Additionally, +/- 0.062 acres of Other Waters were found within the project area. This wetland delineation was performed using approved federal guidelines and procedures.

In the professional opinion of EAM's field personnel, each specified area satisfies the criteria to be a wetland or waters of the US pursuant to the Army Corps of Engineers' Regional Supplement and appropriate guidance and pursuant to confirmation by appropriate regulatory staff including but not limited to the Army Corps of Engineers. **However, final authority for jurisdictional determinations within the subject property resides with the U.S. Army Corps of Engineers, Mobile District.**

References

- University of California Davis-Land, Air and Water Resources (UCD-LAWR). 2018. "California Soil Research Lab (CSRL) processing data for the Soil Survey Geographic Database (SSURGO)." Retrieved from: https://casoilresource.lawr.ucdavis.edu/soil_web/ssurgo.php?action=list_mapunits&areasymbol=ms045 . Mississippi, USA.
- US Army Corps of Engineers Environmental Laboratory (USACE). 1987. "Corps of Engineers Wetlands Delineation Manual," U.S. Army Engineers Waterways Experiment Station, Vicksburg, MS.
- US Army Corps of Engineers Environmental Laboratory (USACE). 2010. "Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0)." U.S. Army Engineers Waterways Experiment Station, Vicksburg, MS.
- US Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS). 2002. "Field Office Technical Guide for Hancock County, MS." US Department of Agriculture's Natural Resources Conservation Service. Washington, D.C.
- US Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS). "Web Soil Survey (WSS)" Retrieved on July 14, 2026, from: <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>
- US Department of Agriculture-Soil Conservation Service (USDA-SCS). 1978. "Soil Survey of Hancock County, Mississippi," USDA Natural Resources Conservation Service. Washington, D.C.
- US Geologic Survey (USGS). 2014. "Mississippi Coastal QL2 Lidar with 3DEP Extension Lidar 0.7m NPS Lidar Data Acquisition and Processing Production Task, USGS Contract No. G10PC00057, Task Order No. G15PD00091," Contractor, Woolpert, Inc., DEMs distributed by: Mississippi Automated Resource Information System (MARIS).

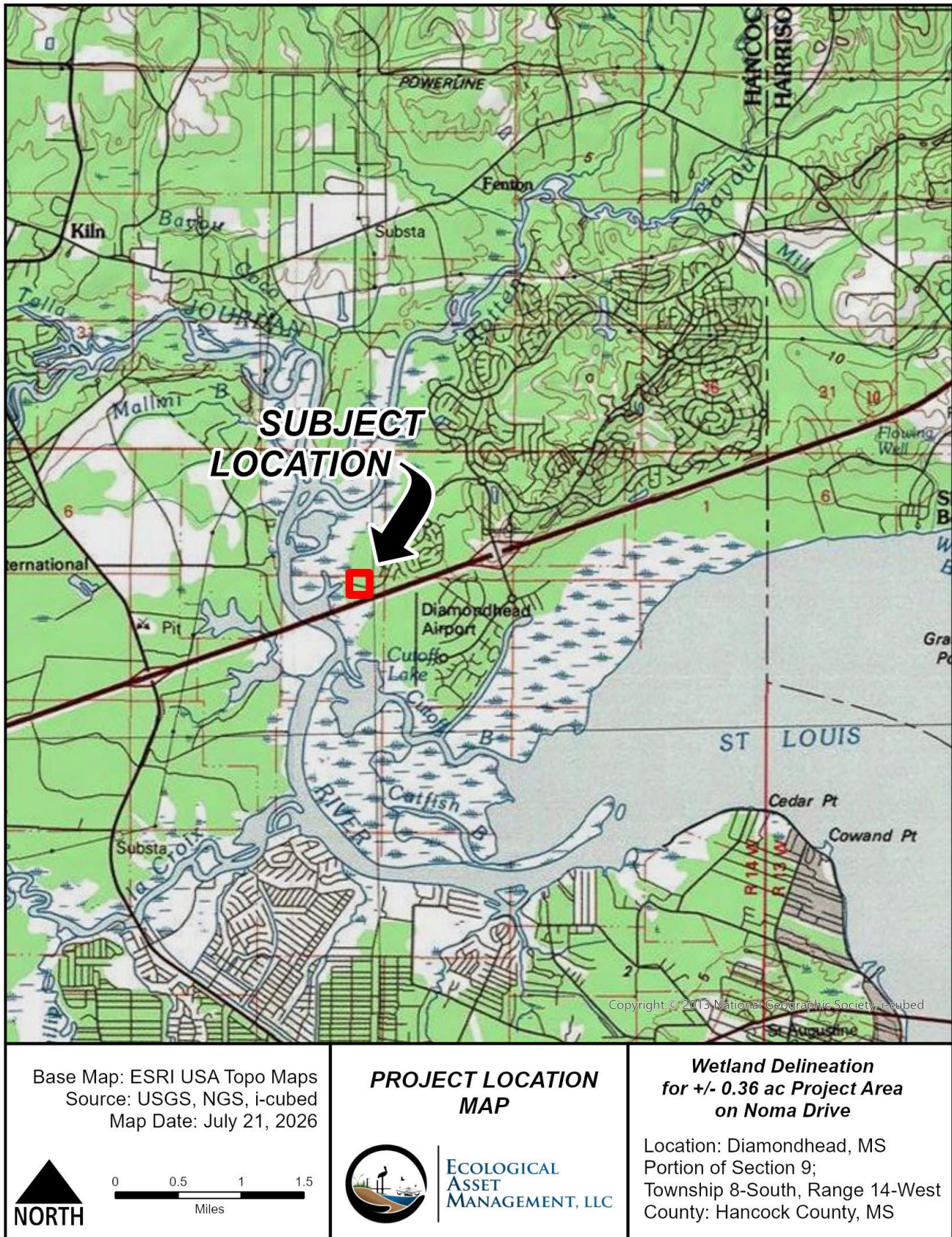


Figure 1: Project Location of the +/- 0.36-acre Rotten Bayou project area; Diamondhead, Hancock County, MS.

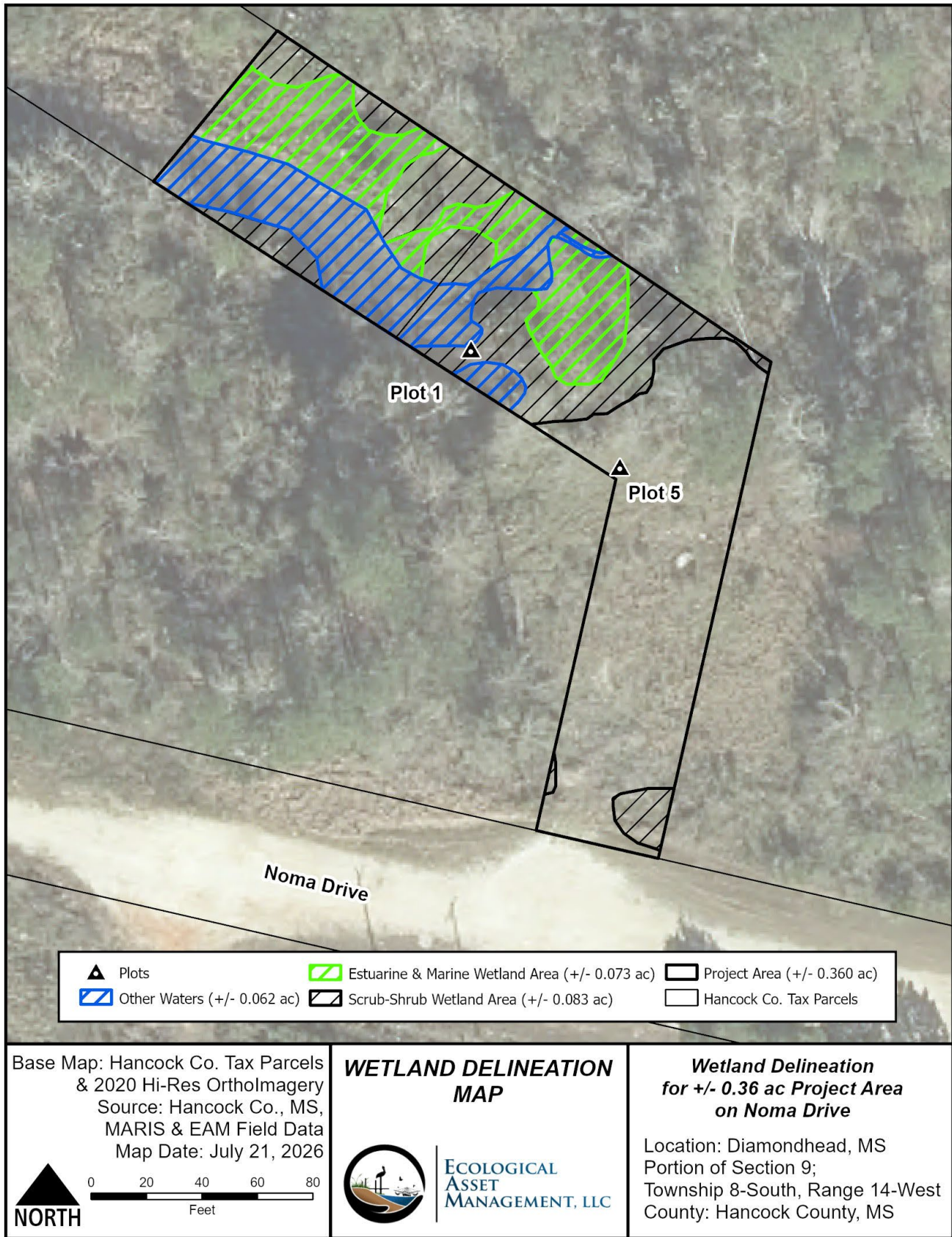


Figure 2: Wetland Delineation Map of the +/- 0.36-acre Rotten Bayou project area; Diamondhead, Hancock County, MS.

Appendix A

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Rotten Bayou **City/County:** Diamondhead, Hancock Co. **Sampling Date:** 25-Jun-26
Applicant/Owner: Chiniche Engineering & Surveying **State:** MS **Sampling Point:** Plot 1
Investigator(s): Dylan Bartlett & Anna Grace Boxx **Section, Township, Range:** S 9 T 8-S R 14-W
Landform (hillslope, terrace, etc.): Stream Terrace **Local relief (concave, convex, none):** none **Slope:** 0.5 % / 0.3 °
Subregion (LRR or MLRA): LRR T **Lat.:** 30.36944°N **Long.:** -89.39533°W **Datum:** WGS84
Soil Map Unit Name: Escambia loam, 0 to 2 percent slopes (EsA) **NWI classification:** PFO1/4S

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☒ No ☐	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)	
Primary Indicators (minimum of one required; check all that apply)			
☒ Surface Water (A1)	☐ Aquatic Fauna (B13)	☐ Surface Soil Cracks (B6)	
☒ High Water Table (A2)	☐ Marl Deposits (B15) (LRR U)	☐ Sparsely Vegetated Concave Surface (B8)	
☒ Saturation (A3)	☐ Hydrogen Sulfide Odor (C1)	☒ Drainage Patterns (B10)	
☒ Water Marks (B1)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Moss Trim Lines (B16)	
☐ Sediment Deposits (B2)	☐ Presence of Reduced Iron (C4)	☐ Dry Season Water Table (C2)	
☐ Drift Deposits (B3)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Crayfish Burrows (C8)	
☐ Algal Mat or Crust (B4)	☐ Thin Muck Surface (C7)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Iron Deposits (B5)	☐ Other (Explain in Remarks)	☒ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)		☐ Shallow Aquitard (D3)	
☐ Water-Stained Leaves (B9)		☒ FAC-Neutral Test (D5)	
		☐ Sphagnum moss (D8) (LRR T, U)	
Field Observations:			
Surface Water Present? Yes ☒ No ☐	Depth (inches): <u>6</u>	Wetland Hydrology Present? Yes ☒ No ☐	
Water Table Present? Yes ☒ No ☐	Depth (inches): <u>0</u>		
Saturation Present? (includes capillary fringe) Yes ☒ No ☐	Depth (inches): <u>0</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Plot taken during high tide (+/- 1.93 ft - MLLW); mosaic of scrub/shrub and marsh			

VEGETATION (Five/Four Strata) - Use scientific names of plants.

Dominant Species?					Sampling Point: Plot 1
Tree Stratum (Plot size: 30 m)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:	
1. <i>Triadica sebifera</i>	3	☒ 27.3%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 8 (A)	
2. <i>Pinus elliotii</i>	3	☒ 27.3%	FACW	Total Number of Dominant Species Across All Strata: 9 (B)	
3. <i>Acer rubrum</i>	1	☐ 9.1%	FAC	Percent of dominant Species That Are OBL, FACW, or FAC: 88.9% (A/B)	
4. <i>Nyssa biflora</i>	3	☒ 27.3%	OBL		
5. <i>Taxodium ascendens</i>	1	☐ 9.1%	OBL		
6.	0	☐ 0.0%			
7.	0	☐ 0.0%			
8.	0	☐ 0.0%			
50% of Total Cover: 5.5 20% of Total Cover: 2.2	11	= Total Cover		Prevalence Index worksheet:	
				Total % Cover of: Multiply by:	
				OBL species 68 x 1 = 68	
				FACW species 23 x 2 = 46	
				FAC species 32 x 3 = 96	
				FACU species 20 x 4 = 80	
				UPL species 0 x 5 = 0	
				Column Totals: 143 (A) 290 (B)	
				Prevalence Index = B/A = 2.028	
Hydrophytic Vegetation Indicators:					
☐ 1 - Rapid Test for Hydrophytic Vegetation					
☒ 2 - Dominance Test is > 50%					
☒ 3 - Prevalence Index is ≤3.0 ¹					
☐ Problematic Hydrophytic Vegetation ¹ (Explain)					
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
Definition of Vegetation Strata:					
Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).					
Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.					
Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.					
Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.					
Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.					
Woody vine - All woody vines, regardless of height.					
Hydrophytic Vegetation Present? Yes ☒ No ☐					
Remarks: (If observed, list morphological adaptations below). mosaic of scrub/shrub and marsh					

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: Plot 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²		
0-2	10YR	2/1	100				Muck	
2-6	10YR	3/2	85	10YR	3/1	10		
+mottle				10YR	3/6	5	Muck	
6-17	10YR	4/1	60	10YR	6/1	10		
+mottle				10YR	3/6	30	Clay	

¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
☒ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Organic Bodies (A6) (LRR P, T, U)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
☐ Muck Presence (A8) (LRR U)
☒ 1 cm Muck (A9) (LRR P, T)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Coast Prairie Redox (A16) (MLRA 150A)
☐ Sandy Muck Mineral (S1) (LRR O, S)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
☐ Thin Dark Surface (S9) (LRR S, T, U)
☐ Loamy Mucky Mineral (F1) (LRR O)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Marl (F10) (LRR U)
☐ Depleted Ochric (F11) (MLRA 151)
☐ Iron-Manganese Masses (F12) (LRR O, P, T)
☐ Umbric Surface (F13) (LRR P, T, U)
☐ Delta Ochric (F17) (MLRA 151)
☐ Reduced Vertic (F18) (MLRA 150A, 150B)
☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

saturated at 0"; water table at 0"

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Rotten Bayou **City/County:** Diamondhead, Hancock Co. **Sampling Date:** 15-Jul-26
Applicant/Owner: Chiniche Engineering & Surveying **State:** MS **Sampling Point:** Plot 5
Investigator(s): Dylan Bartlett & Anna Grace Boxx **Section, Township, Range:** S 9 T 8-S R 14-W
Landform (hillslope, terrace, etc.): Microhigh-NRCS **Local relief (concave, convex, none):** convex **Slope:** 3.0 % / 1.7 °
Subregion (LRR or MLRA): LRR T **Lat.:** 30.3693371°N **Long.:** -89.3951865°W **Datum:** WGS84
Soil Map Unit Name: Escambia loam, 0 to 2 percent slopes (EsA) **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ Aquatic Fauna (B13) ☐ High Water Table (A2) ☐ Marl Deposits (B15) (LRR U) ☐ Saturation (A3) ☐ Hydrogen Sulfide Odor (C1) ☐ Water Marks (B1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Sediment Deposits (B2) ☐ Presence of Reduced Iron (C4) ☐ Drift Deposits (B3) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7) ☐ Iron Deposits (B5) ☐ Other (Explain in Remarks) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)		Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ FAC-Neutral Test (D5) ☐ Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____	Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: maintained yard with trash piles; very compact surface; adjacent to canal and marsh-scrub/shrub mosaic		

VEGETATION (Five/Four Strata) - Use scientific names of plants.

Tree Stratum (Plot size: 30 m)					Dominant Species?	Indicator Status	Sampling Point: Plot 5	
	Absolute % Cover	Rel.Strat. Cover						
1. <u>Pinus elliotii</u>	5	☒	50.0%		FACW	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>77.8%</u> (A/B)		
2. <u>Triadica sebifera</u>	5	☒	50.0%		FAC			
3. _____	0	☐	0.0%					
4. _____	0	☐	0.0%					
5. _____	0	☐	0.0%					
6. _____	0	☐	0.0%					
7. _____	0	☐	0.0%					
8. _____	0	☐	0.0%					
50% of Total Cover: <u>5</u> 20% of Total Cover: <u>2</u> 10 = Total Cover								
Sapling or Sapling/Shrub Stratum (Plot size: 30 m)							Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>55</u> x 2 = <u>110</u> FAC species <u>68</u> x 3 = <u>204</u> FACU species <u>21</u> x 4 = <u>84</u> UPL species <u>10</u> x 5 = <u>50</u> Column Totals: <u>154</u> (A) <u>448</u> (B) Prevalence Index = B/A = <u>2.909</u>	
1. <u>Pinus elliotii</u>	10	☒	35.7%		FACW			
2. <u>Triadica sebifera</u>	10	☒	35.7%		FAC			
3. <u>Morella cerifera</u>	5	☐	17.9%		FAC			
4. <u>Liquidambar styraciflua</u>	3	☐	10.7%		FAC			
5. _____	0	☐	0.0%					
6. _____	0	☐	0.0%					
7. _____	0	☐	0.0%					
8. _____	0	☐	0.0%			Hydrophytic Vegetation Indicators: ☐ 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is > 50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
50% of Total Cover: <u>14</u> 20% of Total Cover: <u>5.6</u> 28 = Total Cover								
Shrub Stratum (Plot size: _____)								
1. _____	0	☐	0.0%					
2. _____	0	☐	0.0%					
3. _____	0	☐	0.0%					
4. _____	0	☐	0.0%					
5. _____	0	☐	0.0%					
6. _____	0	☐	0.0%			Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.		
50% of Total Cover: <u>0</u> 20% of Total Cover: <u>0</u> 0 = Total Cover								
Herb Stratum (Plot size: 30 m)								
1. <u>Panicum repens</u>	35	☒	30.2%		FACW			
2. <u>Paspalum urvillei</u>	20	☒	17.2%		FAC			
3. <u>Imperata cylindrica</u>	10	☒	8.6%		UPL			
4. <u>Eupatorium capillifolium</u>	6	☐	5.2%		FACU			
5. <u>Rubus trivialis</u>	10	☒	8.6%		FACU			
6. <u>Triadica sebifera</u>	10	☒	8.6%		FAC			
7. <u>Eupatorium serotinum</u>	5	☐	4.3%		FAC	Hydrophytic Vegetation Present? Yes ☒ No ☐		
8. <u>Liquidambar styraciflua</u>	5	☐	4.3%		FAC			
9. <u>Pinus elliotii</u>	5	☐	4.3%		FACW			
10. <u>Smilax bona-nox</u>	5	☐	4.3%		FAC			
11. <u>Ambrosia artemisiifolia</u>	5	☐	4.3%		FACU			
12. _____	0	☐	0.0%					
50% of Total Cover: <u>58</u> 20% of Total Cover: <u>23.2</u> 116 = Total Cover								
Woody Vine Stratum (Plot size: _____)								
1. _____	0	☐	0.0%					
2. _____	0	☐	0.0%					
3. _____	0	☐	0.0%					
4. _____	0	☐	0.0%					
5. _____	0	☐	0.0%					
50% of Total Cover: <u>0</u> 20% of Total Cover: <u>0</u> 0 = Total Cover								

 Remarks: (If observed, list morphological adaptations below).
 maintained

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: Plot 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR	3/2	100				Loam	lots of roots
3-19	10YR	4/2	65	10YR	3/1	5		
+mottle				10YR	5/1	20		
+mottle				10YR	6/6	5		
+mottle				2.5YR	5/8	5	Sandy Clay	some gravel

¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Organic Bodies (A6) (LRR P, T, U)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
☐ Muck Presence (A8) (LRR U)
☐ 1 cm Muck (A9) (LRR P, T)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Coast Prairie Redox (A16) (MLRA 150A)
☐ Sandy Muck Mineral (S1) (LRR O, S)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
☐ Thin Dark Surface (S9) (LRR S, T, U)
☐ Loamy Mucky Mineral (F1) (LRR O)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Marl (F10) (LRR U)
☐ Depleted Ochric (F11) (MLRA 151)
☐ Iron-Manganese Masses (F12) (LRR O, P, T)
☐ Umbric Surface (F13) (LRR P, T, U)
☐ Delta Ochric (F17) (MLRA 151)
☐ Reduced Vertic (F18) (MLRA 150A, 150B)
☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

very compact; apparent non-native fill material present

Appendix B

Field Photographs



Figure B-1. View of soil profile from Plot 1 (June 25, 2026).



Figure B-2. View of vegetation from Plot 1 facing north (June 25, 2026).



Figure B-3. View of soil profile from Plot 5 (July 15, 2026).



Figure B-4. View of vegetation from Plot 5 facing east (July 15, 2026).