



**TOWN OF HARRISBURG, NORTH CAROLINA
HARRISBURG TOWN HALL
TOWN COUNCIL MEETING**

**July 14, 2025
6:00 PM**

AGENDA

1. CALL TO ORDER

- A. The meeting may be viewed remotely via YouTube at the following link:
[Meeting Video](#)
- B. AGENDA ADOPTION
- C. INVOCATION
- D. PLEDGE OF ALLEGIANCE
- E. SPECIAL PRESENTATIONS
- F. PUBLIC COMMENT - Anyone wishing to address the Town Council may do so during the Public Comment section. Please state your name and address for the record, be courteous and do not repeat what has already been said. Please keep your comments about the subject and not personal in nature.

2. CONSENT AGENDA

- A. Consider the minutes of the June 9, 2025, Town Council Meeting
- B. Consideration of FY2026 Budget Ordinance Amendment for Insurance Proceeds for the Farmington Ridge Fire Incident

3. COMMUNICATIONS

- A. TOWN MANAGER REPORT
- B. FINANCE REPORT
- C. ECONOMIC DEVELOPMENT REPORT
- D. LAW ENFORCEMENT REPORT
- E. FIRE DEPARTMENT REPORT
- F. MAYOR'S COMMENTS
- G. COUNCIL COMMENTS

4. **PUBLIC HEARINGS**

5. **OLD BUSINESS**

6. **NEW BUSINESS**

- A. Consideration of Resolution Opposing SB 205
- B. Consideration of Contract with Signs Etc. for the Harrisburg Park & Harrisburg YMCA Entrance Monument Sign and related FY2026 Budget Ordinance Amendment
- C. Consideration of construction services contract for Cambridge Drive Extension and Davis Creek Greenway and the Related Project Ordinance Amendment and Reimbursement Resolution

7. **ACTION ITEMS**

8. **CLOSED SESSION**

9. **ADJOURNMENT**

Vision Statement

Harrisburg will be a distinctive, family-focused community where memories are made.

Mission Statement

Together, we enhance our quality of life by collaborating, planning, and investing to create our community of choice.



TOWN OF HARRISBURG

Agenda Item Details

Title:

Consider the minutes of the June 9, 2025, Town Council Meeting

Presenting Personnel:

Janet Rackley, Town Clerk

Suggested Motion or Action:

Motion to approve the minutes of the June 9, 2025, Town Council meeting.

Description/Background:

Draft minutes of the June 9, 2025, Town Council meeting are presented for consideration.

Recommendation:

Approval

Fiscal Impact:

None

Attachments:

1. June 9, 2025, Town Council Minutes

**TOWN OF HARRISBURG, NORTH CAROLINA
TOWN COUNCIL MEETING
MONDAY, JUNE 9, 2025
6:00 PM**

MINUTES

Mayor Jennifer Teague called the meeting to order.

PRESENT: Mayor Jennifer Teague; Mayor Pro-Tem La'Trecia Glover, Councilmembers Mike Thevenin, Chris Faw, Altyn Cotell, Ron Smith

ABSENT: Councilmembers Ian Patrick, Maurice Price Jr.

1A.

CALL TO ORDER

Mayor Teague called the meeting to order.

1B.

AGENDA ADOPTION

MOTION:

Councilmember Faw made a motion to adopt the agenda as presented. Second was made by Councilmember Thevenin. **The motion passed 5-0.**

1C.

INVOCATION

Councilmember Thevenin conducted the invocation.

1D.

PLEDGE OF ALLEGIANCE

1E.

SPECIAL PRESENTATIONS

1F.

PUBLIC COMMENT

None

2.

CONSENT AGENDA

- A. Consider the minutes of the May 12, 2025, Town Council Meeting
- B. Consideration of adopting the Cabarrus, Stanly, Union, Regional Hazard Mitigation Plan
- C. Consideration of Contract for Veterans Park Renovations with Navlani Construction
- D. Consideration of Contract for Harrisburg Park Storm Water and Playground Upgrade

MOTION:

Councilmember Thevenin made a motion to approve the Consent Agenda. Second was made by Councilmember Cotell. **The motion passed 5-0.**

3A.

COMMUNICATIONS

Town Manager Report (Lee Connor, Deputy Town Manager, presented for Rob Donham)

- We held our Annual Awards Banquet this evening, recognizing service milestones for employees as well as other special awards. We had two employees who were recognized for 25 years of service this year, Janet Rackley and Larry Aldridge. Special award winners were Frankie Flores, S.T.A.R Award; Captain Artie Craig, Good Samaritan Award; and Chief Tim Wooten, Town Manager's Excellence Award.
- July 4th Celebration is less than a month away and we have been holding many meetings in preparation for the event. It is really something to see everything that goes into putting on an event of this size.
- Wristbands for the July 4th event are available for sale online now, so you can go ahead and order them there and pick them up at Town Hall in advance of the event, so you do not have to stand in line.
- Keep an eye out for more July 4th Celebration event information on our website and our social media channels.
- Rockin the Burg this Saturday will be a Motown review band.

3B.

COMMUNICATIONS

Finance Report

Finance Director Brian Lee presented the Finance report.

3C.

COMMUNICATIONS

Law Enforcement Report:

Lt. Sherry Nash presented the Law Enforcement report.

3D.

COMMUNICATIONS

Fire Department Report:

Fire Chief Bryan Dunn presented the Fire Department report.

3E.

COMMUNICATIONS

MAYOR'S COMMENTS

- Attended Hyak Motorsports Fan Day festivities in May along with some Town staff. Great opportunity to learn about the business right here in Harrisburg and all that goes into racing.
- Celebrated Public Works Week with staff a couple of weeks ago.

- Second concert in our Rockin the Burg series will be this Saturday. The first one was a blast and there were so many people there. We got great feedback from everyone. This week's band, Motown Revue, is fantastic and I think everyone will enjoy them.

3F.

COMMUNICATIONS

COUNCIL COMMENTS

Councilmember Faw

- Kudos to the Town for getting our budget approved in May. Charlotte and Concord are still working on theirs.
- Always humbling to see employees who have been here 10, 15, 25 years and those receiving special awards. We are so lucky to have the staff we do, and it is great to take a moment to thank them for what they do.

Councilmember Smith

- This month I attended our Cabarrus Rowan Metropolitan Planning Organization meeting, and we had it outside our normal location. It was held at the Rowan County Community Center, and we got a chance to tour that nice facility as well. We had guests who attended the meeting: Representative Grant Campbell, Representative Jonathan Almond, Senator Measmer, and Representative Burris from Rowan County. They got a chance to see NCDOT in action. Hopefully, the things they heard there will be taken back with them to Raleigh, and we will see things improve in the future.
- A resident recently reached out to say there is an organic group that is very interested in our greenways. It's made up of residents in our area and they have launched a website, Harrisburggreenways.org and they would like to associate with the Town and provide some ideas and suggestions as we work through these greenway projects.

4A.

PUBLIC HEARING

None

5A.

OLD BUSINESS

None

6A.

NEW BUSINESS

Consider appointments to the Planning & Zoning Board. In accordance with the Rules of Procedure for appointments to the Harrisburg Planning & Zoning Board, the Town invited residents to apply for open seats on the Planning & Zoning Board through its website and social media platforms. The timetable followed for this appointment process is outlined below:

April - Applications accepted

May - Interviews conducted

June - Recommendation to Town Council

The Town received a total of eight (8) applications for upcoming vacancies on the Planning & Zoning Board and Board of Adjustment, to fill the following positions:

Planning & Zoning Board

- Regular (4)
- ETJ (1)
- Ex Officio (1)

A committee made up of Council Members Thevenin and Cottell and Planning Director Zac Gordon interviewed all applicants on May 21st and 22nd. Based on these interviews, the committee is recommending the following appointments:

Planning & Zoning Board

- Bill Leake: (Re-appointment to 2-year term; July 1, 2025, to June 30, 2027)
- Faith Silva: (Re-appointment to 2-year term; July 1, 2025, to June 30, 2027)
- Jessica Fava: (Re-appointment to 2-year term; July 1, 2025, to June 30, 2027)
- Robbie Furr: (Regular member appointment to 2-year term: July 1, 2025, to June 30, 2027)
- Eeswar Chamarthi: (ETJ appointment to 1-year term to complete the term of Steven Larson: July 1, 2025, to June 30, 2026)
- O'Hentrice Love: (**Ex Officio*_appointment** to 2-year term: July 1, 2025, to June 30, 2027)
* **Non-voting**

After some discussion, the following action was taken:

MOTION:

Councilmember Smith made a motion to **reappoint the following to the Planning & Zoning Board:**

- Bill Leake: (2-year term; July 1, 2025, to June 30, 2027)
- Faith Silva: (2-year term; July 1, 2025, to June 30, 2027)
- Jessica Fava: (2-year term; July 1, 2025, to June 30, 2027)

Second was made by Councilmember Faw. **The motion passed 5-0.**

MOTION:

Councilmember Smith made a motion to appoint **the following to the Planning & Zoning Board:**

- Robbie Furr (Regular): 2-year term (July 1, 2025, to June 30, 2027)
- Eeswar Chamarthi (ETJ): 1-year term to complete the term of Steven Larson (July 1, 2025, to June 30, 2026)
- O'Hentrice Love (Ex Officio): 2-year term (July 1, 2025, to June 30, 2027)

Second was made by Mayor Pro-Tem Glover . **The motion passed 5-0.**

6B.

NEW BUSINESS

Consider Appointments to the Board of Adjustment. In accordance with the Rules of Procedure for appointments to the Harrisburg Board of Adjustment, the Town invited residents to apply for open seats on the Board through its website and social media platforms. The timetable followed for this appointment process is outlined below:

April - Applications accepted

May - Interviews conducted

June - Recommendation to Town Council

The Town received a total of six (6) applications for upcoming vacancies on the Board of Adjustment, to fill the following positions:

- Regular (1)
- ETJ (1)
- Alternate (1)

A committee made up of Council Members Thevenin and Cottell and Planning Director Zac Gordon interviewed all applicants on May 21st and 22nd. Based on these interviews, the committee is recommending the following appointments:

- Monica Long: 3-year term (July 1, 2025, to June 30, 2028)
- Eeswar Chamarthi: **ETJ***: 2-year term to complete the term of Steven Larson (who resigned as of June 30, 2025) (July 1, 2025, to June 30, 2027)
- Kayla Stafford: Alternate: 3-year term (July 1, 2025, to June 30, 2028).

*The Rules and Procedures for the BOA require that one of the Board members also be the ETJ representative for the PZB

After some discussion, the following action was taken:

MOTION:

Councilmember Thevenin made a motion to reappoint Monica Long for a 3-year term from July 1, 2025, to June 30, 2028. Second was made by Mayor Pro-Tem Glover. **The motion passed 5-0.**

MOTION:

Councilmember Thevenin made a motion to appoint Kayla Stafford as an alternate member for a 3-year term from July 1, 2025, to June 30, 2028, and appoint Eeswar Chamarthi to the ETJ position for the remainder of Steven Larson's term, which ends June 30, 2027. Second was made by Councilmember Cotell. **The motion passed 5-0.**

6C.

NEW BUSINESS

Consider appointments to the Parks and Recreation Advisory Board. The Parks and Recreation Advisory Board has three open voting positions as well as one open sustainability position as of July 1st of this year. All are two-year appointments that will end on June 30th, 2027. We advertised the

open positions during the month of April and Council Member Chris Faw and Director Jim Spina interviewed the candidates in May and are recommending reappointing Cheryl Baker, Courtney Haynes, and Brett Crosby to a two-year term as voting members and appoint Micah Cash to a two-year term as an ex-officio member starting July 1, 2025, and ending on June 30th, 2027.

MOTION:

Councilmember Smith made a motion to reappoint Cheryl Baker, Courtney Haynes, and Brett Crosby to a two-year term as voting members on the Harrisburg Parks and Recreation Advisory Board starting July 1st, 2025, and ending on June 30th, 2027. Second was made by Councilmember Cotell. **The motion passed 5-0.**

MOTION:

Mayor Pro-Tem Glover made a motion to appoint Micah Cash to a two-year term on the Harrisburg Parks and Recreation Advisory Board as an ex-officio member starting July 1, 2025, and ending on June 30th, 2027. Second was made by Councilmember Thevenin. **The motion passed 5-0.**

6D.

NEW BUSINESS

Consider appointments to the Harrisburg Arts, Culture, and Heritage Committee. The Harrisburg Arts, Culture, and Heritage Committee has three open voting positions as of July 1st of this year. All are two-year appointments that will end on June 30, 2027. We advertised the open positions during the month of April and Council Member LaTrecia Glover and Director Jim Spina interviewed the candidates in May. There is no ex-officio member at this time since there were only three viable applicants. Director of Parks and Recreation Spina and Council Liaison LaTrecia Glover recommend the appointment of Kamaron Moore, Karli Cornett and Nelius Macharia each to a two-year term as voting members starting July 1, 2025, and ending on June 30, 2027.

MOTION:

Councilmember Thevenin made a motion to appoint Kamaron Moore, Karli Cornett and Nelius Macharia each to a two-year term as voting members on the Harrisburg Arts, Culture, and Heritage Committee starting July 1, 2025, and ending on June 30, 2027. Second was made by Councilmember Faw. **The motion passed 5-0.**

6E.

NEW BUSINESS

Consideration of Strategic Comprehensive Plan Professional Services Contract with Bolton & Menk. On October 29, 2024, the Planning & Zoning Department issued a Request for Qualifications (RFQ) for the preparation of a "Comprehensive Strategic Plan" for the Town.

Based on interviews conducted with each consultant, staff selected Bolton & Menk (B & M) as the consultants to prepare this plan. B & M is well-qualified to complete this plan, having completed similar plans for the Town of Matthews and City of Hendersonville.

The Town of Harrisburg "Strategic Comprehensive Plan" will be the first such plan in the history of the Town. The plan is being prepared in response to the rapid growth of the community and the desire of the Town to manage and direct this growth in a sustainable manner. The plan will provide the

necessary framework to guide the Town as it transitions from a primarily single-family residential land-use pattern to one that balances residential development with commercial and technology-based employment growth and development.

Consultation with the Town Council, Planning & Zoning Board, and other major stakeholders, along with the public, will be essential to the plan preparation process. The consultant preparing the plan will develop a comprehensive public engagement plan to solicit input from a diverse cross-section of the Town's residents and business owners. This public engagement plan will include a "statistically valid" survey, public input opportunities via the Town's social media platforms, and other public forums. Preparation of the plan will be overseen by a "Steering Committee" and a staff-led "Technical Committee." The Strategic Comprehensive Plan will be a graphics-rich document that will include maps, infographics, and charts in an easy-to-read format. The plan will also include an "Implementation and Action Plan" that will describe the portfolio of implementation projects which are recommended to advance the shared community vision described in the plan. This plan is intended to ensure the measures recommended are well aligned with plan goals and are feasible for the Town and its partners to implement. These measures will include short, medium, and long-range action items, which may include policy (e.g., UDO) changes, along with capital projects and programmatic initiatives which will allow the Town to achieve the plan's vision, goals, and objectives.

The consultant will be responsible for the following:

- General management of the project
- Drafting and preparation of the plan documents, both printed and electronic
- Graphics, mapping, handouts, flyers and other materials and services
- Data collection, analysis, and presentation
- Organization and facilitation of public meetings
- A 12-month timeframe is established for the completion of this project.

The purpose of the Strategic Comprehensive Plan is two-fold:

1. Guide Town officials in making sound policy and investment decisions regarding future land use, transportation, public facilities, and infrastructure improvements over the next 10-15 years.
2. Provide a strategic implementation "playbook" to guide Town departments in the delivery of services, programs and capital projects to residents, business operators/owners (both current and future) and visitors to the Town of Harrisburg, through the adoption of policies and program initiatives in support of the Town's Vision, Mission, and Goals.

The fiscal impact for the Town is an expenditure of \$200,000. The Strategic Comprehensive Plan was budgeted at \$150,000 in the Planning Department for FY2025. The Department has unspent funds in the Professional Services account related to Traffic Impact Analyses that were not needed this year, which can be redirected to the additional \$50,000 needed to support this study without formal budget modification.

The project is classified as a professional services project and properly followed a Request for Qualifications (RFQ) process to select the most qualified firm. Bolton & Menk received the

overwhelming recommendation from the evaluation team. The Town attorney has approved the contract.

After some discussion, the following action was taken:

MOTION:

Councilmember Faw made a motion to approve a contract between the Town of Harrisburg and Bolton & Menk, Inc., in the amount of \$200,000 for preparation of the Harrisburg Strategic Comprehensive Plan. Second was made by Mayor Pro-Tem Glover. **The motion passed 5-0.**

6F.

NEW BUSINESS

Consideration of Supplemental Service Agreement with McGill Associates for Main Street Park and Streetscape Design Services. This project will include the design of the closure and conversion of approximately 260 feet of Main Street to a new public park located at the front of Town Hall. Also included in this project will be the design of streetscape modifications to an additional 975 feet of Main Street from Kee Lane to Roberta Road, and approximately 860' of the remaining streets which make up the block surrounding Town Hall. The area of the proposed park is approximately 0.95 acres including the portion of the street which will be closed and converted. This Supplemental Service Agreement is an extension of a Master Service Agreement for On-Call professional Services currently in place between the Town and McGill. The Fiscal Impact of this agreement is \$181,600. The total budget is \$700,000, which would be reduced to \$518,400 for the construction phase of this project.

The professional services agreement with McGill meets the requirements of the Qualifications-based selection process and has been approved by the Town attorney.

After some discussion, the following action was taken:

MOTION:

Councilmember Faw made a motion to approve the Supplemental Services Agreement for Main Street Park and Streetscape Design Services to McGill Associates in the amount of \$181,600. Second was made by Councilmember Cotell. **The motion passed 5-0.**

6G.

NEW BUSINESS

Consideration of Supplemental Services Agreement with RK&K to perform a Feasibility Study to analyze the future extension of Harrisburg Veterans Road and a grade-separated railroad crossing on Robinson Church Road. In service of the Guiding Principles of the Town's Community Transportation Plan (CTP), staff is continually looking for opportunities to address traffic congestion and improve safety, connectivity, and ease of access throughout the Town. The segment of Stallings Road from Harrisburg Veterans to Robinson Church, including the intersection with Hickory Ridge, is identified as an area in need of relief from traffic and safety concerns. This area has seen several small improvements over the years to help address issues that have arisen since multiple railroad crossings were condensed to a single bridge. While these small improvements have provided some relief, a larger project will likely be necessary to see more tangible and sustainable improvements in congestion and safety concerns. This feasibility study will analyze the challenges, cost, and potential benefits of the extension of Harrisburg Veterans Road from the intersection with Stallings to a new connection

with Hickory Ridge Road as well as a potential grade-separated railroad crossing at Robinson Church where a previously existing at-grade crossing was closed with the railroad safety initiative project. The feasibility study will examine environmental impacts, private and public property impacts, potential project costs, and will provide an analysis of the potential benefits for traffic congestion and safety improvements. The results of the study will help determine if the projects are feasible and will provide the background information necessary to apply for future grant funding if desired.

After some discussion, the following action was taken:

MOTION:

Councilmember Faw made a motion to authorize Town Manager to finalize negotiation and execution of the Supplemental Services Agreement with RK&K for an amount not to exceed \$205,796 and approve the related FY2025 Budget Ordinance Amendment. Second was made by Mayor Pro-Tem Glover. **The motion passed 5-0.**

7.

ACTION ITEMS

- Veteran's Park Rededication
- Engineering Project Updates
- Steering Committee for Strategic Comprehensive Plan

8.

CLOSED SESSION

None

9.

ADJOURNMENT

MOTION:

There being no further business, Councilmember Cotell made a motion to adjourn the meeting. Second was made by Mayor Pro-Tem Glover. **The motion passed 5-0.**

Jennifer Teague, Mayor

ATTEST:

Janet Rackley, Town Clerk



TOWN OF HARRISBURG

Agenda Item Details

Title:

Consideration of FY2026 Budget Ordinance Amendment for Insurance Proceeds for the Farmington Ridge Fire Incident

Presenting Personnel:

Bryan Dunn, Fire Chief

Suggested Motion or Action:

Motion to approve the FY2026 Budget Ordinance Amendment for Fire Department Insurance Proceeds and related repair-expenditures totaling \$33,500.

Description/Background:

Engine 32 suffered extensive exterior damage to its passenger side from excessive radiant heat exposure when operating at the Farmington Ridge Parkway incident. Engines 32's Windshield was shattered, paint and graphics were blistered, scene and emergency warning lights melted. Several sections of hose and other equipment was also damaged or exposed to the high temperatures causing them to be either taken out of service or inspected and tested by a 3rd party testing company.

Recommendation:

Staff recommends approval of the attached FY2026 Budget Ordinance Amendment.

Fiscal Impact:

The fiscal impact to the Town for FY2026 is additional revenue of approximately \$32,500 in insurance proceeds toward the total cost of repair of approximately \$33,500. The deductible on the loss is \$1,000. This results in a net cost to the Town of \$1,000 for the damage, being funded with GF Contingency. The balance of contingency funds for the remainder of the fiscal year, after this use of \$1,000, will be \$699,000.

Attachments:

1. Amendment - GF - Fire Insurance Proceeds 07142025



AN ORDINANCE AMENDING THE 2025-2026 BUDGET ORDINANCE OF THE TOWN OF HARRISBURG, NORTH CAROLINA

Be it ordained by the Town Council of the Town of Harrisburg, North Carolina, that the following amendment be made to the annual budget ordinance for the fiscal year ending June 30, 2026:

Section 1. Amend the General Fund to account for insurance proceeds received from a claim made for damage to the Fire Department's ladder due to the Farmington Ridge fire.

Section 2. To amend the General Fund, the appropriations are to be changed as follows:

Increase line item 100-2100-54303 M/R – Vehicles	\$ 33,500
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Decrease line item 100-8750-59500 Contingency	\$ 1,000
--	----------

Section 3. To amend the General Fund, the estimated revenues are to be changed as follows:

Increase line item 100-49121 Insurance Proceeds	\$ 32,500
--	-----------

Section 4. Copies of this budget amendment shall be furnished to the Clerk of the Town Council, and to the Budget Officer and the Finance Officer for their direction.

Section 5. That this ordinance shall be effective upon its passage. Adopted this 14th day of July, 2025.

Jennifer Teague, Mayor

ATTEST:

Janet Rackley, Town Clerk



RESOLUTION

TOWN OF HARRISBURG TOWN COUNCIL

WHEREAS, a PCS to Senate Bill 205 has been introduced in the 2025 session of the North Carolina General Assembly that changes many aspects of local planning and zoning, contains numerous problematic provisions and detrimentally impacts local government land use authority; and

WHEREAS, zoning regulations are adopted to promote the health, safety, and general welfare of the citizens of the Town of Harrisburg jurisdiction through development regulations. The bill will result in development inconsistent with our community vision established by our various Harrisburg plans and ordinances.

WHEREAS, this bill would supersede and render Town adopted development standards null, allowing detrimental development to occur regardless of the damage to the environment, municipality, citizens or adjacent properties.

WHEREAS, the PCS to the bill has not been transparent and was hidden under the guise of a simple pool inspection bill when in fact, this appears to be a repackaging of many of the same provisions of HB 765 that our residents, and local government officials statewide, so strongly opposed and condemned. On April 14, 2025, the Harrisburg Town Council unanimously passed a resolution opposing HB 765, and we still oppose the same elements transposed into SB 205.

NOW THEREFORE, BE IT RESOLVED, the Town of Harrisburg North Carolina opposes SB 205 as it:

- Limits local government zoning and development regulation authorities by removing the ability to apply certain conditions based upon voluntary consent and prohibiting local governments from establishing parameters that uphold community values and character;
- Prohibits local governments from establishing parking and driveway standards that promote the safety and wellness of our residents;
- Enables developers to extend vested rights for unused plans from two years to five years;
- Burdens local governments and taxpayers with the cost of building additional road infrastructure currently required of developers;
- Prohibits elected officials from making development determinations, including subdivisions;
- Creates additional paperwork burden on local governments and cost to local taxpayers by further shortening review timelines to seven calendar days for development approvals and rezoning requests;

- Prohibits any development regulation or UDO from including a reapplication waiting period, even if the initial application was denied or withdrawn, which promotes taxpayer waste to continually re-review applications previously decided upon;
- Expands causes for civil action based on development regulations or development approvals or denials, thereby creating additional taxpayer costs and burden to local governments through additional lawsuits;
- Subjects the plan consistency statement to judicial review; and
- Requires the Division of Highways to accept performance guarantees and allow homes to be occupied without the completion of subdivision streets.

BE IT FURTHER RESOLVED that copies of this resolution be forwarded to North Carolina Senators, North Carolina Representatives and neighboring Cities and Towns in North Carolina.

ADOPTED the 14th day of July, 2025.

TOWN OF HARRISBURG

By: _____
Jennifer Teague
Mayor

ATTEST: _____
Janet Rackley
Town Clerk



TOWN OF HARRISBURG

Agenda Item Details

Title:

Consideration of Contract with Signs Etc. for the Harrisburg Park & Harrisburg YMCA Entrance Monument Sign and related FY2026 Budget Ordinance Amendment

Presenting Personnel:

Jim Spina, Parks and Recreation Director

Suggested Motion or Action:

Motion to approve a contract with Signs Etc. for \$65,656 to construct the Harrisburg Park & Harrisburg YMCA entrance monument sign and the related FY2026 Budget Ordinance Amendments.

Description/Background:

The Town and Rowan-Cabarrus YMCA have agreed to split the cost evenly for a new Harrisburg Park & Harrisburg YMCA monument sign that will be constructed at the entrance to the park at Z-Max Blvd. in front of the new Cookout. The sign will be constructed to match the other park entrance signs used throughout our town. It will be a 5'10" tall and 16' long internally illuminated monument sign with push-thru logos and will have halo-illuminated features. As you look at it, the Town's brand will be located on the left and the YMCA's brand will be featured on the right. The sign will be landscaped and maintained by Town Staff upon completion.

Recommendation:

Staff recommends the approval of the contract with Signs Etc. and the related FY2026 Budget Amendments.

Fiscal Impact:

The fiscal impact is an expenditure of approximately \$65,656. The sign construction, along with landscaping and electrical connection costs, is projected to total \$70,000. The YMCA has agreed to split the total project cost with the Town evenly, meaning the Town's maximum cost on the installation, power connection, and landscaping for the Monument sign is \$35,000.

The attached FY2026 Budget Amendment recognizes the YMCA's contribution towards the project and provides the capital authorization and necessary budget for the full project commitment. The YMCA's contribution will be deducted from the Town's final payment toward its contribution for the facility construction in Harrisburg Park.

Attachments:

1. HarrisburgPark-YMCAMonumentSign (rev 5.21.25)
2. Harrisburg YMCA Monument Sign Landscape
3. YMCASignQuoteEST-5534
4. Amendment - GF - Harrisburg Park Entrance Sign 07142025
5. Amendment - CRF - GF - Harrisburg Park Entrance Sign 07142025

OPTION 2

Qty: 1

SIGNS ETC

4941 Chastain Ave.
Charlotte, NC 28217
P: 704.522.8860
F: 704.522.8770
signsetcofcharlotte.com

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Job No:

Date: 2.23.25

Town of Harrisburg

Scale: 1/2"=1'-0"

Acct. Rep: Spencer Brower

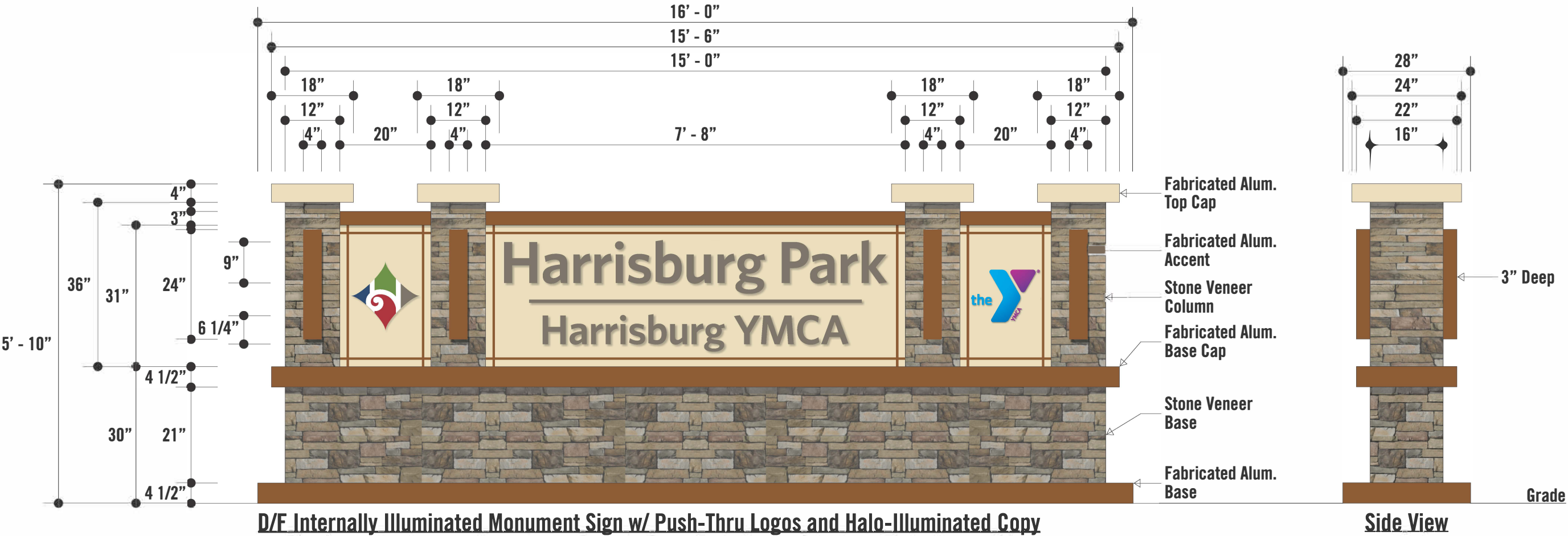
Designer: BG

Revisions: 4.8.25 (BG)
5.5.25 (BG)
5.21.25 (BG)

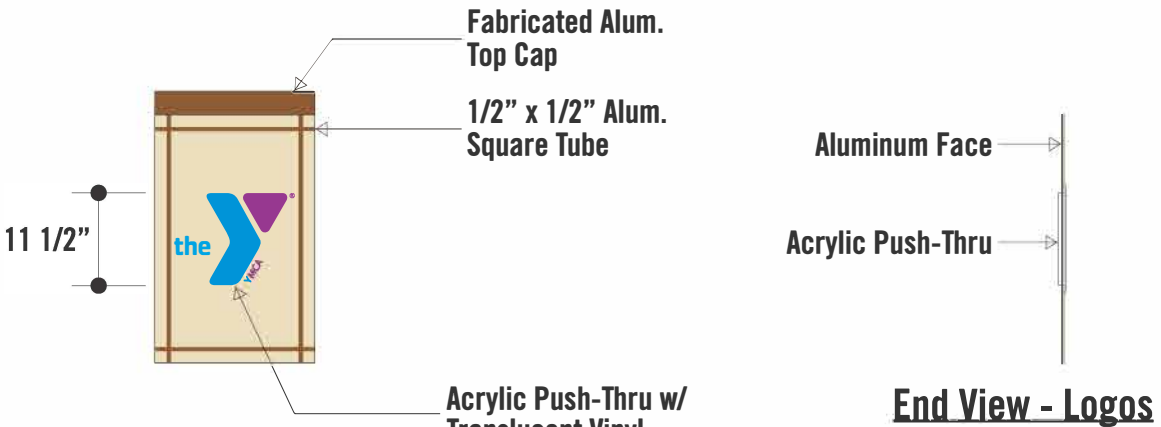
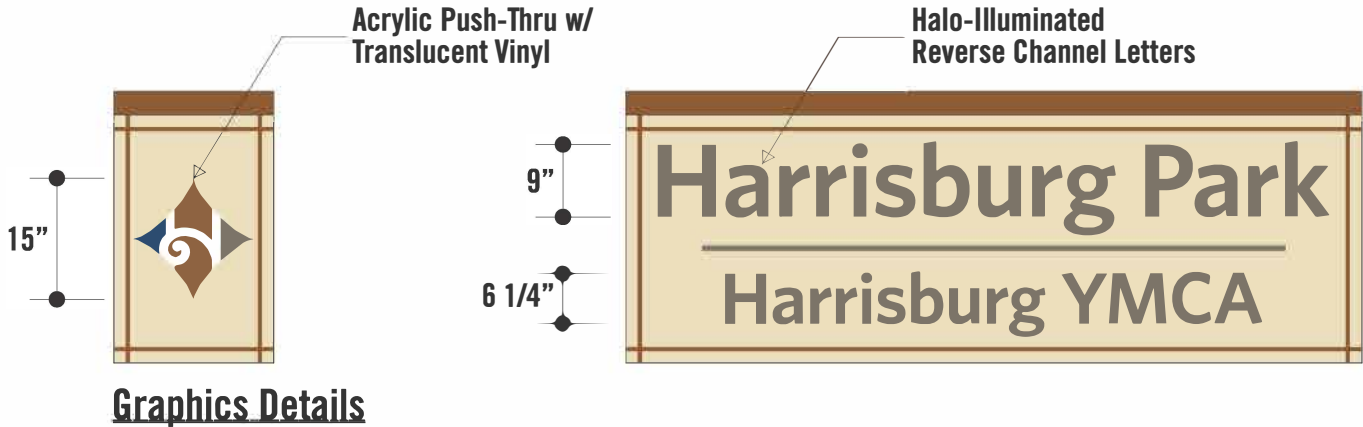
PROOF & PRODUCTION POLICY:
Final examination for drawing accuracy is the responsibility of the customer. Any revisions requested after initial customer approval is received will incur additional design and/or fabrication charges. Colors indicated on this drawing are representative only. Actual colors will be determined by the information you provide/approve during the submittal process using actual paints, inks, and vinyls. Pantone PMS colors will be matched as closely as possible, but exact matches are not guaranteed.

- ☐ Approved
- ☐ Approved As Noted
- ☐ Revise & Resubmit

2.0



Note:
• Stone Used to be Centurion Stone - Chardonnay Cutface.



- PMS 187C
- PMS 377C
- PMS 2955C
- White
- PMS 7506C
- PMS Warm Gray 10C
- Akzo Nobel - Otter Brook
- Black

4941 Chastain Ave.
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Job No:

Date: 2.23.25

Town of Harrisburg

Scale: 1/2" = 1'-0"

Acc. Rep: Spencer Brower

Designer: BG

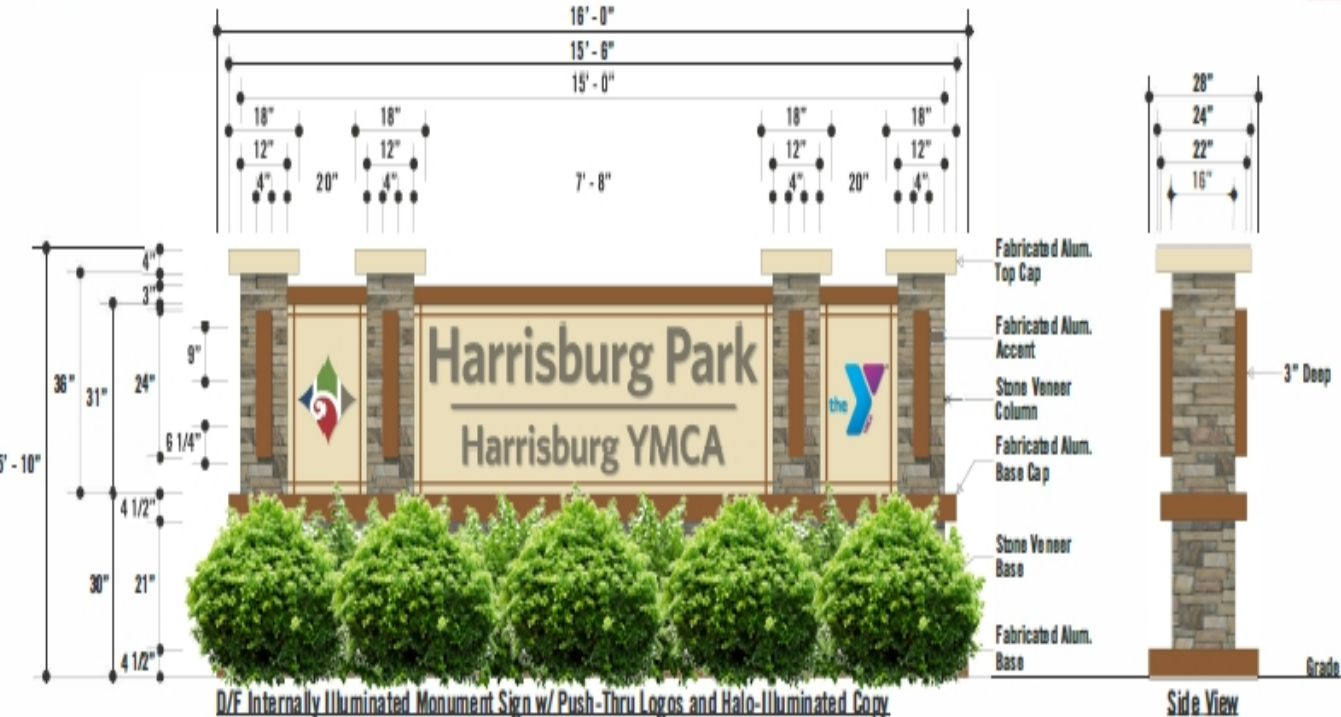
Revisions: 4.8.25 (BG)
5.5.25 (BG)
5.21.25 (BG)

PROOF & PRODUCTION POLICY:
Resubmission for drawing accuracy is the responsibility of the customer. Any revisions requested after initial customer approval is received will incur additional design and/or fabrication charges. Colors indicated on this drawing are representative only. Actual colors will be determined by the information you provide during the submittal process using actual paints, inks, and vinyls. Pantone PMS colors will be matched, as closely as possible, but exact matches are not guaranteed.

☐ Approved

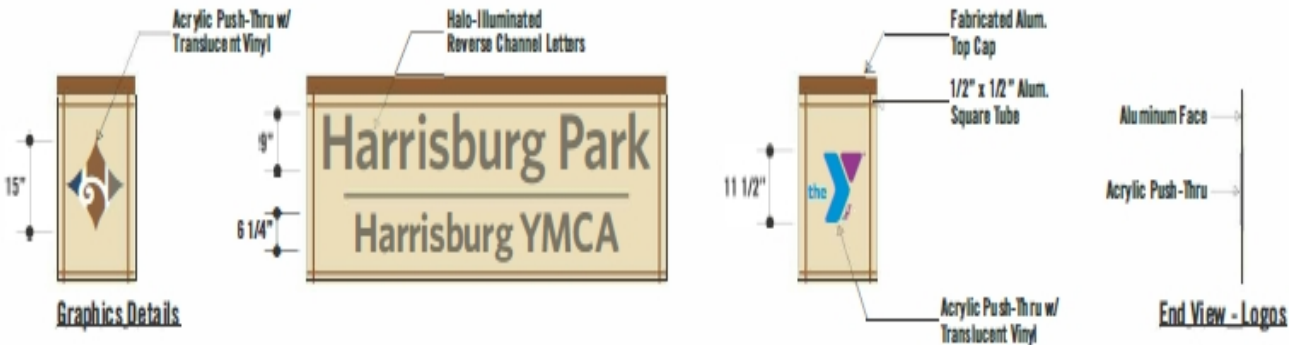
☐ Approved as Noted

☐ Revisions & Resubmitt



Note:

- Stone Used to be Centurian Stone - Chandonney Cutface.



DESCRIPTION: Harrisburg Park/Harrisburg YMCA Monument Sign - Halo Lit Letters - 16' Long and Taller Base Height

Bill To: Town of Harrisburg
PO Box 100
Harrisburg, NC 28075
US

Pickup At: Signs Etc
4941 Chastain Ave
Charlotte, NC 28217
US

Requested By: Shelley DeHart
Email: sdehart@harrisburgnc.gov
Work Phone: (704) 455-0728
Cell Phone: (704) 453-4822

Salesperson: Spencer Brower
Work Phone: 704-522-8860 x 125

PRODUCTS	QTY	UNIT PRICE	TOTALS
1 Fabrication & Installation of.... One (1) Double Sided Monument Sign Per Approved Drawings - Halo Lit Letters	1	\$62,149.55	\$62,149.55
Final Electrical Hookup To Power Source - Responsibility of Town of Harrisburg			
Logos are Lighted Push Thru Acrylic			

Subtotal:	\$62,149.55
Taxes:	\$4,505.84
Grand Total:	\$66,655.39

Signature: _____ Date: _____



**AN ORDINANCE AMENDING THE 2025-2026 BUDGET ORDINANCE
OF THE TOWN OF HARRISBURG, NORTH CAROLINA**

Be it ordained by the Town Council of the Town of Harrisburg, North Carolina, that the following amendment be made to the annual budget ordinance for the fiscal year ending June 30, 2026:

Section 1. Amend the General Fund to account for the construction of the Harrisburg Park Entrance Monument Sign to be shared with the YMCA.

Section 2. To amend the General Fund, the appropriations are to be changed as follows:

Increase line item 100-5000-57103	\$ 70,000
Capital Outlay	
2026-5000-006	

Section 3. To amend the General Fund, the estimated revenues are to be changed as follows:

Increase line item 100-48902	\$ 35,000
Contributions – Other	
 Increase line item 100-49905	 \$ 35,000
Transfers In – CRF – GF	

Section 4. Copies of this budget amendment shall be furnished to the Clerk of the Town Council, and to the Budget Officer and the Finance Officer for their direction.

Section 5. That this ordinance shall be effective upon its passage. Adopted this 14th day of July, 2025.

Jennifer Teague, Mayor

ATTEST:

Janet Rackley, Town Clerk



**AN ORDINANCE AMENDING THE 2025-2026 BUDGET ORDINANCE
OF THE TOWN OF HARRISBURG, NORTH CAROLINA**

Be it ordained by the Town Council of the Town of Harrisburg, North Carolina, that the following amendment be made to the annual budget ordinance for the fiscal year ending June 30, 2026:

Section 1. Amend the Capital Reserve Fund - General Fund to account for the construction of the Harrisburg Park Entrance Monument Sign to be shared with the YMCA.

Section 2. To amend the Capital Reserve Fund - General Fund, the appropriations are to be changed as follows:

Increase line item 200-8500-59100	\$ 35,000
Transfers Out – General Fund	

Section 3. To amend the Capital Reserve Fund - General Fund, the revenues are to be changed as follows:

Increase line item 200-48599	\$ 35,000
Appropriated Fund Balance	

Section 4. Copies of this budget amendment shall be furnished to the Clerk of the Town Council, and to the Budget Officer and the Finance Officer for their direction.

Section 5. That this ordinance shall be effective upon its passage. Adopted this 14th day of July, 2025.

Jennifer Teague, Mayor

ATTEST:

Janet Rackley, Town Clerk



TOWN OF HARRISBURG

Agenda Item Details

Title:

Consideration of construction services contract for Cambridge Drive Extension and Davis Creek Greenway and the Related Project Ordinance Amendment and Reimbursement Resolution

Presenting Personnel:

Devin Huston, Town Engineer

Suggested Motion or Action:

Motion to authorize the Town Manager to finalize negotiation and execution of the attached Construction Services contract to Performance Managed Construction, LLC in an amount not to exceed \$1,404,135 for construction of the Cambridge Drive Extension and Davis Creek Greenway and approve the related FY2026 Budget Ordinance Amendment, the Transportation Project Ordinance Amendment, and Reimbursement Resolution.

Description/Background:

New roadway section connecting the existing intersection of Carl Palmer Drive and Main Street to the recently constructed Cambridge Drive. The roadway will consist of two travel lanes with curb and gutter and cross Davis Creek via dual box culverts. The greenway portion of the project will begin at the Cambridge Drive intersection and run along Davis Creek for approximately 1,000 Linear Feet. This project has been advertised three times with the latest bids being received on May 27, 2025. To date, \$179,493.99 has been spent on professional design services performed by RK&K. The Engineer's Estimate for construction was \$1,572,087.

Recommendation:

Staff recommends authorizing the Town Manager to finalize negotiation and execution of the attached Construction Services contract to Performance Managed Construction, LLC in an amount not to exceed \$1,404,135 for construction of the Cambridge Drive Extension and Davis Creek Greenway and approve the related Budget and Project Ordinance Amendments and Reimbursement Resolution.

Fiscal Impact:

The Fiscal Impact of this project is \$1,404,135. The project was formally bid and the Town attorney has approved the attached contract. This project is included in the Town's Transportation General Obligation Bonds, which has \$2,350,000 remaining to issue. Approximately \$625,000 in total in capital reserve funding is required to be added to the debt issuance to cover the full cost of these projects, with \$300,000 of that coming from the Parks and Recreation Greenways Capital Reserve Fund. This represents the Davis Creek Greenway portion of the project.

The projects and costs associated with the total transportation bond package are as follows:

	Total Cost	Bonds - Round 1	Bonds - Round 2	Capital Reserve Fund - General Fund
Sidewalk Projects	\$ 1,058,072	\$ 474,852	\$ 575,392	\$ 7,828
Street Resurfacing	1,050,000	1,050,000	-	-
Caldwell Extension Plans	63,721	63,721	-	-
Hwy 49 - Phase 1	428,083	32,800	395,283	-
Traffic Mitigation Roberta Rd Improvements Cambridge Drive & Davis Creek Greenway	2,025,124	28,627	1,379,325	317,172
Total	\$ 4,625,000	\$ 1,650,000	\$ 2,350,000	\$ 325,000

The authorization for Transportation Bonds is \$4,000,000 in total. The total cost of the combined projects is approximately \$4,625,000, as shown above. A Project Ordinance Amendment is included to appropriate a total of \$625,000 in Capital Reserve Funding from the General Fund's and Parks and Recreation's Capital Reserve Funds, in combination with the debt proceeds from the bonds.

The attached reimbursement resolution provides authority to include these costs in the debt issuance at a later date.

Attachments:

1. PMC-Cambridge EXT. & Davis Creek GNWY (1)
2. 3rd Cambridge Dr - Bid Tab
3. Amendment - CRF-PR - Davis Creek Greenway 07142025
4. Project Amendment - CPF-TR - Transportation Bond Projects 07142025
5. Reimbursement Resolution - Traffic Mitigation 07142025



CONSTRUCTION SERVICES CONTRACT - CAMBRIDGE DRIVE EXT & DAVIS CREEK GREENWAY

This Contract is by and between Town of Harrisburg, NC (Owner) and
PERFORMANCE MANAGED CONSTRUCTION, INC (Contractor).

Owner and Contractor hereby agree as follows:

ARTICLE 1 - THE WORK

1.01 Work

- A. Work includes all labor, materials, equipment, services, and documentation necessary to construct the Project defined herein.
- B. The Contractor shall complete all Work as specified or indicated in the Contract Documents. The Project is generally described as follows:
 - 1. The scope includes a new roadway section connecting the existing intersection of Carl Palmer Drive and Main Street to the recently constructed Cambridge Drive. The roadway will consist of two travel lanes with curb and gutter and cross Davis Creek via dual box culverts. The greenway portion of the project will begin at the Cambridge Drive intersection and run along Davis Creek for approximately 1,000 Linear Feet.

ARTICLE 2 - CONTRACT DOCUMENTS

2.01 Intent of Contract Documents

- A. It is the intent of the Contract Documents to describe a functionally complete project. The Contract Documents do not indicate or describe all of the Work required to complete the Project. Additional details required for the correct installation of selected products are to be provided by the Contractor and coordinated with the Owner. This Contract supersedes prior negotiations, representations, and agreements, whether written or oral. The Contract Documents are complementary; what is required by one part of the Contract Documents is as binding as if required by other parts of the Contract Documents.

ARTICLE 3 - CONTRACT TIMES

3.01 Contract Times

- A. The Contractor shall provide all Submittals and Gantt chart or other acceptable project schedule within five (10) days of receipt of the Notice to Proceed. Beginning on the first Monday of the month following the Notice to Proceed and continuing each first Monday of the month until all work is complete and ready for final payment, the contractor shall provide an updated schedule and progress report to the designated Town representative. Failure to provide updated schedules and progress reports as outlined above shall subject the Contractor to an assessment of liquidated damages of Two Hundred Dollars (\$200.00) per calendar day until the updates are received.



- B. The work is to be substantially completed on or before May 31st, 2026. All work not required for substantial completion, including among other things, punch list and restoration, shall be completed within 30 days after substantial completion. All work shall be ready for final payment by or before June 30, 2026. Failure to perform the work required for acceptance within the time specified above shall subject the Contractor to an assessment of liquidated damages of Five Hundred Dollars (\$500.00) per calendar day.
- C. Substantial Completion is defined as the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.
- D. Work must be performed continuously by the Contractor except with consent from the designated Town representative. Inclement weather that prohibits the performance of the Work by the Contractor shall not result in the performance of the Work being considered not continuous. These times can be extended with a timely request. Unless so extended, failure to comply with this project shall subject the Contractor to liquidated damages as described above.

3.02 Delays in Contractor's Progress

- A. If Owner or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor or their subcontractors or suppliers.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times.
- D. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor or Contractor's subcontractors or suppliers.

ARTICLE 4 - CONTRACT PRICE

4.01 Payment

Owner shall pay Contractor in accordance with the Contract Documents at the unit prices provided in the Contractor's response to the Invitation to Bid received May 27, 2025, herein referred to as the "Bid Proposal Package." The Bid Proposal Package is attached and incorporated into this document as Exhibit "A."

Payment will be made in an amount equal to the total of all extended prices for actual Work completed. The extended price is determined by multiplying the unit price times the actual quantity of that Work item completed. The total contract price will be an extension of the



payment per unit price plus a 10% contingency and shall not exceed **\$1,404,135.00**. The Town may add or delete from the bid quantities. Use of contingency shall only be authorized by Change Order.

ARTICLE 5 - INSURANCE

5.01 Insurance

- A. Before starting Work, Contractor shall furnish evidence of insurance from companies that are duly licensed or authorized in the jurisdiction in which the Project is located.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

- A. Contractor shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, safety, and procedures of construction.
- B. Contractor shall assign a competent resident superintendent who is to be present at all times during the execution of the Work.
- C. Contractor shall at all times maintain good discipline and order at the Site.
- D. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday.

6.02 Other Work at the Site

- A. In addition to and apart from the Work of the Contractor, other work may occur at or adjacent to the Site. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.

6.03 Services, Materials, and Equipment

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be new, of good quality and shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable supplier, except as otherwise may be provided in the Contract Documents.

6.04 Subcontractors and Suppliers

- A. Contractor may retain subcontractors and suppliers for the performance of parts of the Work. Such subcontractors and suppliers must be acceptable to Owner.



6.05 Licenses, Fees and Permits

- A. Contractor shall pay all license fees and royalties and assume all costs incident to performing the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others.
- B. Contractor shall obtain and pay for all construction permits and licenses unless otherwise provided in the Contract Documents.

6.06 Laws and Regulations; Taxes

- A. Contractor shall give all notices required by and shall comply with all local, state, and federal Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, Owner shall not be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and the officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages if Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations.
- C. Contractor shall pay all applicable sales, consumer, use, and other similar taxes Contractor is required to pay in accordance with Laws and Regulations.

6.07 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work.
- B. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. All persons on the Site or who may be affected by the Work;
 - 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.
- C. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, or anyone for whose acts the Contractor may be liable, shall be remedied by Contractor at its expense.
- D. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.08 Warranties and Guarantees

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Owner and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.



6.09 Correction Period

- A. If within one year after the date of substantial completion, any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly and without cost to Owner, correct such defective Work.

6.10 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and any officers, directors, members, partners, employees, agents, consultants and subcontractors of the Owner from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any subcontractor, any supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts they may be liable.

ARTICLE 7 - OWNER'S RESPONSIBILITIES

7.01 Owner's Responsibilities

- A. Except as otherwise provided in the Contract Documents, Owner shall issue all communications to Contractor through Engineer.
- B. Owner shall make payments to Contractor as provided in this Contract.
- C. Owner shall provide Site and easements required to construct the Project.
- D. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, unless stated elsewhere in the Contract Documents, Owner shall have sole authority and responsibility for such coordination.
- E. The Owner shall be responsible for performing inspections and tests required by applicable codes.
- F. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- G. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.



ARTICLE 8 - CHANGES IN THE WORK

8.01 Authority to Change the Work

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work.

8.02 Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in the Work which are: (a) ordered by Owner or (b) agreed to by the parties.

ARTICLE 9 - TESTS AND INSPECTIONS; CORRECTION OF DEFECTIVE WORK

9.01 Tests and Inspections

- A. Owner will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access.
- B. Contractor shall give Owner timely notice of readiness of the Work for all required inspections and tests and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- C. If any Work that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Owner, Contractor shall, if requested by Owner, uncover such Work for observation. Such uncovering shall be at Contractor's expense.

9.02 Defective Work

- A. Contractor shall ensure that the Work is not defective.
- B. Owner has the authority to determine whether Work is defective, and to reject defective Work.
- C. Prompt notice of all defective Work of which Owner has actual knowledge will be given to Contractor.
- D. The Contractor shall promptly correct all such defective Work.
- E. If the Work is defective or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

ARTICLE 10 - PAYMENTS TO CONTRACTOR

10.01 Applications for Payments:

- A. Contractor shall submit an application for payment in a form acceptable to the Owner, no more frequently than monthly, to Owner. Applications for payment will be prepared and signed by Contractor. Contractor shall provide supporting documentation required by the



Contract Documents. Payment will be paid for Work completed as of the date of the application for payment.

10.02 Retainage

- A. The Owner shall retain 5% of each progress payment until the Work is substantially complete.

10.03 Review of Applications

- A. Within 10 days after receipt of each application for payment, the Owner will indicate in writing acceptance of application or return the application to Contractor indicating in writing Owner's reasons for refusing to recommend payment. The Contractor will make the necessary corrections and resubmit the application for payment.

10.04 Substantial Completion

- A. The Contractor shall notify Owner in writing that the Work is substantially complete and request the Owner issue a certificate of substantial completion when Contractor considers the Work ready for its intended use.

10.05 Final Inspection

- A. Upon written notice from Contractor that the entire Work is complete, Owner will promptly make a final inspection with Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

10.06 Final Payment

- A. Contractor may make application for final payment after Contractor has satisfactorily completed all Work defined in the Contract.
- B. The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Owner's written recommendation of final payment.

10.07 Waiver of Claims

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted.

ARTICLE 11 - CONTRACTOR'S REPRESENTATIONS

11.01 Contractor Representations

- A. Contractor makes the following representations when entering into this Contract:
 - 1. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - 2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.



3. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
4. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on:
 - a. The cost, progress, and performance of the Work;
 - b. The means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and
 - c. Contractor's safety precautions and programs.
5. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
6. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
7. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
8. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that, without exception, all prices in the Contract are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 12 - BONDING

12.01 Performance and Payment Bonds

Performance and payment bonds for the full amount of this Contract are required to be attached when the total amount awarded exceeds three hundred thousand dollars (\$300,000). Instead of bonds, a deposit of money, certified check or government securities for the full amount of the Contract may be accepted. Contractor shall provide the bonds in an acceptable form. The performance bond shall have a value equal to 100% of this Contract. This bond shall be conditioned upon faithful performance of the Contract in accordance with the plans, specifications and conditions of the Contract. The performance bond shall be solely for the protection of the Town. The payment bond shall be in an amount equal to 100% of the Contract and conditioned upon the prompt payment for all labor or materials for which a contractor or subcontractor is liable. The payment bond shall be solely for the protection of the persons furnishing materials or performing labor for which a contractor, subcontractor or construction manager at risk is liable.

ARTICLE 13 - ATTACHMENTS

13.01 Exhibits

Additional Exhibits may be used to further define this Agreement when the Contractor and Town so agree. Any additional exhibits shall be designated as exhibits to the Agreement with capitalized, sequential letters of the alphabet, shall be attached hereto and incorporated herein



by reference as if the same were fully recited, and shall become terms of this Agreement upon execution by both parties. The following attachments are made a part of this Agreement and incorporated herein by reference

Exhibit “A”: Bid Proposal Package

Exhibit “B”: E-Verify Affidavit

Exhibit “C”: Tax Form(s)

Exhibit “D”: Certificate of Insurance

Exhibit “E”: Bond Forms

Exhibit “F”: Notice to Proceed



IN WITNESS WHEREOF, Owner and Contractor have signed this Contract.

This Contract will be effective on _____ (which is the Effective Date of the Contract).

OWNER: Town of Harrisburg, NC

CONTRACTOR: Performance Managed Construction, Inc.

By: _____

By: _____

Title: _____

Title: _____

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

Attn: Devin Huston

4100 Main Street, Suite 101

Harrisburg, NC 28075

License No.: _____
(where applicable)



EXHIBIT A

(Bid Proposal Package)



EXHIBIT “A”

This document is an Exhibit to the Agreement for Construction Services between the TOWN OF HARRISBURG and PERFORMANCE MANAGED CONSTRUCTION, INC., dated the _____ day of _____, 20____.

Scope of Services:

The scope of services is described in the attached Bid Proposal Package submitted by Performance Managed Construction, Inc., which is hereby incorporated as part of this exhibit.

Fee for Scope of Services:

The fee for services shall not exceed **\$1,404,135.00** and shall be based on the unit costs provided in the attached Bid Proposal Package, whereby fees would be invoiced based on the quantity of units actually installed and accepted by the Town. Invoices shall be directed to: Town of Harrisburg Attention: Devin Huston, 4100 Main Street, STE 101, Harrisburg, NC 28026-0308. Should changes or extra services be needed, which will cause a cost overrun; KHA shall consult with the Town for adjustments prior to conducting the work.

Attachment:

Bid Proposal Package

- Bid Proposal Form
- Bid Form
- MBE Documents
- Bid Bond

LINE ITEM QUANTITIES ADJUSTED FOR CONTRACT AWARD AMOUNT							
19	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	0.00	LF	\$3.00	\$0.00
25	2286000000-N	840	MASONRY DRAINAGE STRUCTURES 1	3	EACH	\$5,000.00	\$15,000.00
31	PSP	SP	GUARDRAIL	0	LS	\$35,000.00	\$0.00
35	PSP	SP	SIGN ERECTION	0	LS	\$5,000.00	\$0.00
40	PSP	SP	GREENWAY FENCE	0	LF	\$100.00	\$0.00
				ADJUSTED SUBTOTAL			\$1,354,135.00
				CONTINGENCY			\$50,000.00
ADJUSTED TOTAL BID FOR PROJECT.....						\$1,404,135.00	



INVITATION TO BID

Town Center Roadway Extension & Davis Creek Greenway Project

The Town of Harrisburg will accept bids for the following project:

Extension of Town Center Drive from Carl Parmer Drive to Cambridge Drive, and Davis Creek Greenway Construction.

SCOPE OF WORK: New roadway section connecting the existing intersection of Carl Parmer Drive and Main Street to the recently constructed Cambridge Drive. The roadway will consist of two travel lanes with curb and gutter and cross Davis Creek via dual box culverts. The greenway portion of the project will begin at the Cambridge Drive intersection and run along Davis Creek for approximately 1,000 Linear Feet.

All work is to be completed by June 30, 2026

The Town of Harrisburg reserves the right to add or delete from the contract quantities. Please see instructions to bidders for more information.

All bids are due on May 27, 2025, at 11 AM. No late bids will be accepted. Sealed bids may be sent to:

Brian Lee
Harrisburg Town Hall
4100 Main Street, Suite 101
Harrisburg, North Carolina 28075

Bids will be opened at 11 AM on May 27, 2025, at:

Harrisburg Town Hall
4100 Main Street, Suite 101
Harrisburg, North Carolina 28075

The party submitting a bid is solely responsible for delivery of the bid at the specified location prior to the deadline for receipt of bids.

Any questions must be sent to Devin Huston dhuston@harrisburgnc.org prior to 5:00 PM May 16th, 2025.

For a copy of the bid documents, please contact Cathy Kiker at ckiker@harrisburgnc.org.



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INSTRUCTIONS TO BIDDERS	I-1

APPENDICES

- A. Permits
- B. MBE/WBE Compliance Forms
- C. Construction Documents



BID PROPOSAL FORM

Town Center Roadway Extension & Davis Creek Greenway Project

BASIS OF PAYMENT

GENERAL: Payment for the work Items shall be at the total unit or lump sum price Bid for each unit of work completed and accepted in accordance with the Contract Documents.

The latest “State of North Carolina, Department of Transportation, Quality Management System” manual shall govern the material and procedures used in this project, if not otherwise specified in the project Specifications.

PRICES TO INCLUDE: For each Bid Item, the total unit price or lump sum price Bid shall be considered full compensation for the completed and accepted work, and shall include all labor, materials, tools, equipment and transportation needed to perform the work in accordance with the Contract Documents so as to provide a complete and properly functional system. The General Contractor shall be responsible for reviewing the contents and conditions of all Contract Documents as they may relate to the work under this Contract and comply with the requirement thereof.

STANDARD SPECIFICATIONS: The January 2024 North Carolina Department of Transportation (NCDOT) Standard Specifications for Roads and Structures, herein referred to as the “NCDOT Standard Specifications,” is part of the Contract Documents and incorporated herein by reference and can be found online at: 2024 Standard Specifications for Roads and Structures.pdf ([ncdot.gov](https://www.ncdot.gov))

All construction items will be in accordance with the materials, methods, measurement, and payment specifications listed in the NCDOT Standard Specifications Manual, with the following project specific revisions and additions.



PROJECT SPECIAL PROVISIONS – GENERAL

MOBILIZATION

- A. Work included: As described in NCDOT QMS, and Supplementary Specifications and other work incidental to this Item. This line item shall include furnishing of adequate temporary restroom facilities for contractors and their subcontractors to use on site. Not to exceed 5% of total bid.
- B. Payment: Lump Sum price.
- C. Single mobilization is preferred for all work specified in this form.
- D. Contractor must provide the Town a minimum of 72 business hours' notice prior to work being performed on any roadway.

GREENWAY FENCE

- A. Work included: Installation of the fence as noted on the plans and of the type and style specified below and in the plan set. This work also includes the installation of the Post Anchor Assembly for Culvert and the HILTI MT-BASE Connectors as noted in the culvert plans. All work to be in accordance with the Manufacturer's specifications.

MFG: AMERISTAR

1555 N. MINGO

TULSA, OK. 74116

www.ameristarfence.com

PHONE: 1-888-333-3422

TYPE: AEGIS PLUS

STYLE: GENESIS WITH BALLCAP POST TOP

48", 3-RAIL X 8' NOMINAL PANEL

COLOR: BLACK

OR EQUIVELENT

- B. Payment: Linear Foot. No separate payment will be made for the connections to the culvert.

GUARDRAIL END UNITS, TYPE - TL-2

A. Description

Furnish and install guardrail end units in accordance with the details in the plans, the applicable requirements of Section 862 of the Standard Specifications, and at locations shown in the plans.

B. Materials

Furnish guardrail end units listed on the NCDOT APL. Units shall not be modified by the manufacturer and installer once approved and on the NCDOT APL.



HARRISBURG, NORTH CAROLINA
TOWN CENTER ROADWAY EXTENSION & DAVIS CREEK GREENWAY PROJECT - BID

Prior to installation the Contractor shall submit to the Engineer certified working drawings and assembling instructions from the manufacturer for each guardrail end unit in accordance with Article 105-2 of the Standard Specifications.

Perform installation in accordance with the details in the plans, and details and assembling instructions furnished by the manufacturer.

C. Construction Methods

Guardrail end delineation is required on all approach and trailing end sections for both temporary and permanent installations. Guardrail end delineation consists of yellow reflective sheeting applied to the entire end section of the guardrail in accordance with Article 1088-3 of the Standard Specifications and is incidental to the cost of the guardrail end unit.

D. Measurement and Payment

Measurement and payment will be made in accordance with Article 862-6 of the NCDOT Standard Specifications. Payment: EACH.

EROSION CONTROL PROJECT SPECIAL PROVISIONS

**TOWN OF HARRISBURG
DAVIS CREEK GREENWAY**

November 2024

PREPARED BY:



Rummel, Klepper & Kahl, LLP
8601 Six Forks Rd., Forum 1 Suite 700
Raleigh, NC 27615
NC License Number F-0112

EC-1

SPECIAL PROVISIONS INCLUDED

Seed Mix West (Includes Native Grass Seeding & Mulching – West)

Lawn Finish

Response for Erosion Control

Minimize Removal of Vegetation

Stockpile Areas/Access & Haul Roads

Construction Materials Management

Clean Water Diversion

Safety Fence & Jurisdictional Flagging

Coir Fiber Wattle with Polyacrylamide

Coir Fiber Wattle Barrier

Temporary Rock Silt Check A with Matting and PAM

Culvert Diversion Channel

Impervious Dike

Coir Fiber Mat

Concrete Washout Structure

Tack for Mulch for Erosion Control

ALL ITEMS LISTED IN THESE EC SPECIFICATIONS WILL BE PAID FOR UNDER THE
EROSION CONTROL – GENERAL ITEM AS A LUMP SUM PAYMENT

STABILIZATION REQUIREMENTS:

(4-30-2019)

Stabilization for this project shall comply with the time frame guidelines as specified by the NCG-010000 general construction permit effective April 1, 2019 issued by the North Carolina Department of Environmental Quality Division of Water Resources. Temporary or permanent ground cover stabilization shall occur within 7 calendar days from the last land-disturbing activity, with the following exceptions in which temporary or permanent ground cover shall be provided in 14 calendar days from the last land-disturbing activity:

- Slopes between 2:1 and 3:1, with a slope length of 10 ft. or less
- Slopes 3:1 or flatter, with a slope of length of 50 ft. or less
- Slopes 4:1 or flatter

The stabilization timeframe for High Quality Water (HQW) Zones shall be 7 calendar days with no exceptions for slope grades or lengths. High Quality Water Zones (HQW) Zones are defined by North Carolina Administrative Code 15A NCAC 04A.0105 (25). Temporary and permanent ground cover stabilization shall be achieved in accordance with the provisions in this contract and as directed.

SEEDING AND MULCHING:

(West)

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

Shoulder and Median Areas

August 1 - June 1

20#	Kentucky Bluegrass
75#	Hard Fescue
25#	Rye Grain
500#	Fertilizer
4000#	Limestone

May 1 - September 1

20#	Kentucky Bluegrass
75#	Hard Fescue
10#	German or Browntop Millet
500#	Fertilizer
4000#	Limestone

Areas Beyond the Mowing Pattern, Waste and Borrow Areas:

August 1 - June 1

100#	Tall Fescue
15#	Kentucky Bluegrass
30#	Hard Fescue
25#	Rye Grain
500#	Fertilizer
4000#	Limestone

May 1 - September 1

100#	Tall Fescue
15#	Kentucky Bluegrass
30#	Hard Fescue
10#	German or Browntop Millet
500#	Fertilizer
4000#	Limestone

Approved Tall Fescue Cultivars

06 Dust	Escalade	Justice	Serengeti
2 nd Millennium	Essential	Kalahari	Shelby
3 rd Millennium	Evergreen 2	Kitty Hawk 2000	Sheridan
Apache III	Falcon IV	Legitimate	Signia
Avenger	Falcon NG	Lexington	Silver Hawk
Barlexas	Falcon V	LSD	Sliverstar
Barlexas II	Faith	Magellan	Shenandoah Elite
Bar Fa	Fat Cat	Matador	Sidewinder
Barrera	Festnova	Millennium SRP	Skyline
Barrington	Fidelity	Monet	Solara
Barrobusto	Finelawn Elite	Mustang 4	Southern Choice II
Barvado	Finelawn Xpress	Ninja 2	Speedway
Biltmore	Finesse II	Ol' Glory	Spyder LS
Bingo	Firebird	Olympic Gold	Sunset Gold
Bizem	Firecracker LS	Padre	Taccoa
Blackwatch	Firenza	Patagonia	Tanzania
Blade Runner II	Five Point	Pedigree	Trio
Bonsai	Focus	Picasso	Tahoe II
Braveheart	Forte	Piedmont	Talladega
Bravo	Garrison	Plantation	Tarheel
Bullseye	Gazelle II	Proseeds 5301	Terrano
Cannavaro	Gold Medallion	Prospect	Titan Ltd
Catalyst	Grande 3	Pure Gold	Titanium LS
Cayenne	Greenbrooks	Quest	Tracer
Cessane Rz	Greenkeeper	Raptor II	Traverse SRP
Chipper	Gremlin	Rebel Exeda	Tulsa Time
Cochise IV	Greystone	Rebel Sentry	Turbo
Constitution	Guardian 21	Rebel IV	Turbo RZ
Corgi	Guardian 41	Regiment II	Tuxedo RZ
Corona	Hemi	Regenerate	Ultimate
Coyote	Honky Tonk	Rendition	Venture
Darlington	Hot Rod	Rhambler 2 SRP	Umbrella
Davinci	Hunter	Rembrandt	Van Gogh
Desire	Inferno	Reunion	Watchdog
Dominion	Innovator	Riverside	Wolfpack II
Dynamic	Integrity	RNP	Xtremegreen
Dynasty	Jaguar 3	Rocket	
Endeavor	Jamboree	Scorpion	

Approved Kentucky Bluegrass Cultivars:

4-Season	Blue Velvet	Gladstone	Quantum Leap
Alexa II	Blueberry	Granite	Rambo
America	Boomerang	Hampton	Rhapsody
Apollo	Brilliant	Harmonie	Rhythm
Arcadia	Cabernet	Impact	Rita
Aries	Champagne	Jefferson	Royce
Armada	Champlain	Juliet	Rubicon
Arrow	Chicago II	Jump Start	Rugby II
Arrowhead	Corsair	Keeneland	Shiraz
Aura	Courtyard	Langara	Showcase
Avid	Delight	Liberator	Skye
Award	Diva	Madison	Solar Eclipse
Awesome	Dynamo	Mercury	Sonoma
Bandera	Eagleton	Midnight	Sorbonne
Barduke	Emblem	Midnight II	Starburst
Barnique	Empire	Moon Shadow	Sudden Impact
Baroness	Envicta	Moonlight SLT	Total Eclipse
Barrister	Everest	Mystere	Touche
Barvette HGT	Everglade	Nu Destiny	Tsunami
Bedazzled	Excursion	NuChicago	Unique
Belissimo	Freedom II	NuGlade	Valor
Bewitched	Freedom III	Odyssey	Voyager II
Beyond	Front Page	Perfection	Washington
Blacksburg II	Futurity	Pinot	Zinfandel
Blackstone	Gaelic	Princeton 105	
Blue Note	Ginney II	Prosperity	

Approved Hard Fescue Cultivars:

Aurora II	Eureka II	Oxford	Scaldis II
Aurora Gold	Firefly	Reliant II	Spartan II
Berkshire	Granite	Reliant IV	Stonehenge
Bighorn GT	Heron	Rescue 911	
Chariot	Nordic	Rhino	

On cut and fill slopes 2:1 or steeper add 20# Sericea Lespedeza January 1 - December 31.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

TEMPORARY SEEDING:

Fertilizer shall be the same analysis as specified for *Seeding and Mulching* and applied at the rate of 400 pounds and seeded at the rate of 50 pounds per acre. German Millet, or Browntop Millet shall be used in summer months and rye grain during the remainder of the year. The Engineer will determine the exact dates for using each kind of seed.

FERTILIZER TOPDRESSING:

Fertilizer used for topdressing shall be 16-8-8 grade and shall be applied at the rate of 500 pounds per acre. A different analysis of fertilizer may be used provided the 2-1-1 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 16-8-8 analysis and as directed.

SUPPLEMENTAL SEEDING:

The kinds of seed and proportions shall be the same as specified for *Seeding and Mulching*, and the rate of application may vary from 25# to 75# per acre. The actual rate per acre will be determined prior to the time of topdressing and the Contractor will be notified in writing of the rate per acre, total quantity needed, and areas on which to apply the supplemental seed. Minimum tillage equipment, consisting of a sod seeder shall be used for incorporating seed into the soil as to prevent disturbance of existing vegetation. A clodbuster (ball and chain) may be used where degree of slope prevents the use of a sod seeder.

MOWING:

The minimum mowing height on this project shall be six inches.

LAWN TYPE APPEARANCE:

All areas adjacent to lawns must be hand finished as directed to give a lawn type appearance. Remove all trash, debris, and stones $\frac{3}{4}$ " and larger in diameter or other obstructions that could interfere with providing a smooth lawn type appearance. These areas shall be reseeded to match their original vegetative conditions, unless directed otherwise by the Field Operations Engineer.

REFORESTATION:

Description

Reforestation will be planted within interchanges and along the outside borders of the road, and in other areas as directed. *Reforestation* is not shown on the plan sheets. See the Reforestation Detail Sheet.

All non-maintained riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated with native woody species.

The entire *Reforestation* operation shall comply with the requirements of Section 1670 of the *Standard Specifications*.

Materials

Reforestation shall be bare root seedlings 12"-18" tall.

Construction Methods

Reforestation shall be planted as soon as practical following permanent *Seeding and Mulching*. The seedlings shall be planted in a 16-foot wide swath adjacent to mowing pattern line, or as directed.

Root dip: The roots of reforestation seedlings shall be coated with a slurry of water, and either a fine clay (kaolin) or a superabsorbent that is designated as a bare root dip. The type, mixture ratio, method of application, and the time of application shall be submitted to the Engineer for approval.

With the approval of the Engineer, seedlings may be coated before delivery to the job or at the time of planting, but at no time shall the roots of the seedlings be allowed to dry out. The roots shall be moistened immediately prior to planting.

Seasonal Limitations: *Reforestation* shall be planted from November 15 through March 15.

RESPONSE FOR EROSION CONTROL:

Description

Furnish the labor, materials, tools and equipment necessary to move personnel, equipment, and supplies to the project necessary for the pursuit of any or all of the following work as shown herein, by an approved subcontractor.

Section	Erosion Control Item	Unit
1605	Temporary Silt Fence	LF
1606	Special Sediment Control Fence	LF/TON
1615	Temporary Mulching	ACR
1620	Seed - Temporary Seeding	LB
1620	Fertilizer - Temporary Seeding	TN
1631	Matting for Erosion Control	SY
SP	Coir Fiber Mat	SY
1640	Coir Fiber Baffles	LF
SP	Permanent Soil Reinforcement Mat	SY
1660	Seeding and Mulching	ACR
1661	Seed - Repair Seeding	LB
1661	Fertilizer - Repair Seeding	TON
1662	Seed - Supplemental Seeding	LB
1665	Fertilizer Topdressing	TON
SP	Safety/Highly Visible Fencing	LF
SP	Response for Erosion Control	EA

Construction Methods

Provide an approved subcontractor who performs an erosion control action as described in the NPDES Inspection Form SPPP30. Each erosion control action may include one or more of the above work items.

MINIMIZE REMOVAL OF VEGETATION:

The Contractor shall minimize removal of vegetation within project limits to the maximum extent practicable. Vegetation along stream banks and adjacent to other jurisdictional resources outside the construction limits shall only be removed upon approval of Engineer. No additional payment will be made for this minimization work.

STOCKPILE AREAS:

The Contractor shall install and maintain erosion control devices sufficient to contain sediment around any erodible material stockpile areas as directed.

ACCESS AND HAUL ROADS:

At the end of each working day, the Contractor shall install or re-establish temporary diversions or earth berms across access/haul roads to direct runoff into sediment devices. Silt fence sections that are temporarily removed shall be reinstalled across access/haul roads at the end of each working day.

CONSTRUCTION MATERIALS MANAGEMENT

(3-19-19) (rev. 04-27-20)

Description

The requirements set forth shall be adhered to in order to meet the applicable materials handling requirements of the NCG010000 permit. Structural controls installed to manage construction materials stored or used on site shall be shown on the E&SC Plan. Requirements for handling materials on construction sites shall be as follows:

Equipment Fluids

Fuels, lubricants, coolants, and hydraulic fluids, and other petroleum products shall be handled and disposed of in a manner so as not to enter surface or ground waters and in accordance with applicable state and federal regulations. Equipment used on the site must be operated and maintained properly to prevent discharge of fluids. Equipment, vehicle, and other wash waters shall not be discharged into E&SC basins or other E&SC devices. Alternative controls should be provided such that there is no discharge of soaps, solvents, or detergents.

Waste Materials

Construction materials and land clearing waste shall be disposed of in accordance with North Carolina General Statutes, Chapter 130A, Article 9 - Solid Waste Management, and rules governing the disposal of solid waste (15A NCAC 13B). Areas dedicated for managing construction material and land clearing waste shall be at least 50 feet away from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. Paint and other liquid construction material waste shall not be dumped into storm drains. Paint and other liquid construction waste washouts should be located at least 50 feet away from storm drain inlets unless there is no alternative. Other options are to install lined washouts or use portable, removable bags or bins. Hazardous or toxic waste shall be managed in accordance with the federal Resource Conservation and Recovery Act (RCRA) and NC Hazardous Waste Rules at 15A NCAC, Subchapter 13A. Litter and sanitary waste shall be managed in a manner to prevent it from entering jurisdictional waters and shall be disposed of offsite.

Herbicide, Pesticide, and Rodenticides

Herbicide, pesticide, and rodenticides shall be stored and applied in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act, North Carolina Pesticide Law of 1971 and labeling restrictions.

Concrete Materials

Concrete materials onsite, including excess concrete, must be controlled and managed to avoid contact with surface waters, wetlands or buffers. No concrete or cement slurry shall be discharged from the site. (Note that discharges from onsite concrete plants require coverage under a separate NPDES permit – NCG140000.) Concrete wash water shall be managed in accordance with the *Concrete Washout Structure* provision. Concrete slurry shall be managed and disposed of in accordance with *NCDOT DGS and HOS DCAR Distribution of Class A Residuals Statewide* (Permit No. WQ0035749). Any hardened concrete residue will be disposed of, or recycled on site, in accordance with state solid waste regulations.

Earthen Material Stock Piles

Earthen material stock piles shall be located at least 50 feet away from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available.

SAFETY FENCE AND JURISDICTIONAL FLAGGING:

Description

Safety Fence shall consist of furnishing materials, installing and maintaining polyethylene or polypropylene fence along the outside riparian buffer, wetland, or water boundary, or other boundaries located within the construction corridor to mark the areas that have been approved to infringe within the buffer, wetland, endangered vegetation, culturally sensitive areas or water. The fence shall be installed prior to any land disturbing activities.

Interior boundaries for jurisdictional areas noted above shall be delineated by stakes and highly visible flagging.

Jurisdictional boundaries at staging areas, waste sites, or borrow pits, whether considered outside or interior boundaries shall be delineated by stakes and highly visible flagging.

Materials

(A) Safety Fencing

Polyethylene or polypropylene fence shall be a highly visible preconstructed safety fence approved by the Engineer. The fence material shall have an ultraviolet coating.

Either wood posts or steel posts may be used. Wood posts shall be hardwood with a wedge or pencil tip at one end, and shall be at least 5 ft. in length with a minimum nominal 2" x 2" cross section. Steel posts shall be at least 5 ft. in length, and have a minimum weight of 0.85 lb/ft of length.

(B) Boundary Flagging

Wooden stakes shall be 4 feet in length with a minimum nominal 3/4" x 1-3/4" cross section. The flagging shall be at least 1" in width. The flagging material shall be vinyl and shall be orange in color and highly visible.

Construction Methods

No additional clearing and grubbing is anticipated for the installation of this fence. The fence shall be erected to conform to the general contour of the ground.

(A) Safety Fencing

Posts shall be set at a maximum spacing of 10 ft., maintained in a vertical position and hand set or set with a post driver. Posts shall be installed a minimum of 2 ft. into the ground. If hand set, all backfill material shall be thoroughly tamped. Wood posts may be sharpened to a dull point if power driven. Posts damaged by power driving shall be removed and replaced prior to final

acceptance. The tops of all wood posts shall be cut at a 30-degree angle. The wood posts may, at the option of the Contractor, be cut at this angle either before or after the posts are erected.

The fence geotextile shall be attached to the wood posts with one 2" galvanized wire staple across each cable or to the steel posts with wire or other acceptable means.

Place construction stakes to establish the location of the safety fence in accordance with Article 105-9 or Article 801-1 of the *Standard Specifications*. No direct pay will be made for the staking of the safety fence. All stakeouts for safety fence shall be considered incidental to the work being paid for as "Construction Surveying", except that where there is no pay item for construction surveying, all safety fence stakeout will be performed by state forces.

The Contractor shall be required to maintain the safety fence in a satisfactory condition for the duration of the project as determined by the Engineer.

(B) Boundary Flagging

Boundary flagging delineation of interior boundaries shall consist of wooden stakes on 25 feet maximum intervals with highly visible orange flagging attached. Stakes shall be installed a minimum of 6" into the ground. Interior boundaries may be staked on a tangent that runs parallel to buffer but must not encroach on the buffer at any location. Interior boundaries of hand clearing shall be identified with a different colored flagging to distinguish it from mechanized clearing.

Boundary flagging delineation of interior boundaries will be placed in accordance with Article 105-9 or Article 801-1 of the *Standard Specifications*. No direct pay will be made for delineation of the interior boundaries. This delineation will be considered incidental to the work being paid for as *Construction Surveying*, except that where there is no pay item or construction surveying the cost of boundary flagging delineation shall be included in the unit prices bid for the various items in the contract. Installation for delineation of all jurisdictional boundaries at staging areas, waste sites, or borrow pits shall consist of wooden stakes on 25 feet maximum intervals with highly visible orange flagging attached. Stakes shall be installed a minimum of 6" into the ground. Additional flagging may be placed on overhanging vegetation to enhance visibility but does not substitute for installation of stakes.

Installation of boundary flagging for delineation of all jurisdictional boundaries at staging areas, waste sites, or borrow pits shall be performed in accordance with Subarticle 230-4(B)(5) or Subarticle 802-2(F) of the *Standard Specifications*. No direct pay will be made for this delineation, as the cost of same shall be included in the unit prices bid for the various items in the contract.

The Contractor shall be required to maintain alternative stakes and highly visible flagging in a satisfactory condition for the duration of the project as determined by the Engineer.

COIR FIBER WATTLES WITH POLYACRYLAMIDE (PAM):

Description

Coir Fiber Wattles are tubular products consisting of coir fibers (coconut fibers) encased in coir fiber netting. Coir Fiber Wattles are used on slopes or channels to intercept runoff and act as a velocity break. Coir Fiber Wattles are to be placed at locations shown on the plans or as directed. Installation shall follow the detail provided in the plans and as directed. Work includes furnishing materials, installation of coir fiber wattles, matting installation, PAM application, and removing wattles.

Materials

Coir Fiber Wattle shall meet the following specifications:

100% Coir (Coconut) Fibers	
Minimum Diameter	12 in.
Minimum Density	3.5 lb/ft ³ +/- 10%
Net Material	Coir Fiber
Net Openings	2 in. x 2 in.
Net Strength	90 lbs.
Minimum Weight	2.6 lbs./ft. +/- 10%

Anchors: Stakes shall be used as anchors.

Wooden Stakes:

Provide hardwood stakes a minimum of 2-ft. long with a 2 in. x 2 in. nominal square cross section. One end of the stake must be sharpened or beveled to facilitate driving down into the underlying soil.

Matting shall meet the requirements of Article 1060-8 of the *Standard Specifications*, or shall meet specifications provided elsewhere in this contract.

Provide staples made of 0.125" diameter new steel wire formed into a *u* shape not less than 12" in length with a throat of 1" in width.

Polyacrylamide (PAM) shall be applied in powder form and shall be anionic or neutrally charged. Soil samples shall be obtained in areas where the wattles will be placed, and from offsite material used to construct the roadway, and analyzed for the appropriate PAM flocculant to be utilized with each wattle. The PAM product used shall be listed on the North Carolina Department of Environmental Quality Division of Water Resources web site as an approved PAM product for use in North Carolina.

Construction Methods

Coir Fiber Wattles shall be secured to the soil by wire staples approximately every 1 linear foot and at the end of each section of wattle. A minimum of 4 stakes shall be installed on the downstream side of the wattle with a maximum spacing of 2 linear feet along the wattle, and according to the detail. Install a minimum of 2 stakes on the upstream side of the wattle according to the detail provided in the plans. Stakes shall be driven into the ground a minimum of 10 in. with no more than 2 in. projecting from the top of the wattle. Drive stakes at an angle according to the detail provided in the plans.

Only install coir fiber wattle(s) to a height in ditch so flow will not wash around wattle and scour ditch slopes and according to the detail provided in the plans and as directed. Overlap adjoining sections of wattles a minimum of 6 in.

Installation of matting shall be in accordance with the detail provided in the plans, and in accordance with Article 1631-3 of the *Standard Specifications*, or in accordance with specifications provided elsewhere in this contract.

Apply PAM over the lower center portion of the coir fiber wattle where the water is going to flow over at a rate of 2 ounces per wattle, and 1 ounce of PAM on matting on each side of the wattle. PAM applications shall be done during construction activities after every rainfall event that is equal to or exceeds 0.50 in.

The Contractor shall maintain the coir fiber wattles until the project is accepted or until the wattles are removed, and shall remove and dispose of silt accumulations at the wattles when so directed in accordance with the requirements of Section 1630 of the *Standard Specifications*.

COIR FIBER WATTLE BARRIER:

(5-20-13)

1630

Description

Coir fiber wattle barriers are tubular products consisting of coir fibers (coconut fibers) encased in coir fiber or synthetic netting and used at the toe of fills or on slopes to intercept runoff. Coir fiber wattle barriers are to be placed at locations shown on the plans or as directed. Installation shall follow the detail provided in the plans and as directed. Work includes furnishing materials, installation, maintenance and removing coir fiber wattle barriers.

Materials

Coir fiber wattle shall meet the following specifications:

Inner Material	100% Coir (Coconut) Fibers
Minimum Diameter	18"
Minimum Length	10 ft.
Minimum Density	5 lb./c.f. $\pm$ 10%
Net Material	Coir (Coconut) or Synthetic
Net Openings	2" x 2"
Net Strength	90 lb.
Minimum Weight	10 lb./ft. $\pm$ 10%

Stakes shall be used as anchors. Provide hardwood stakes a minimum of 2-ft long with a 2" x 2" nominal square cross section. One end of the stake shall be sharpened or beveled to facilitate driving down into the underlying soil.

Provide staples made of 0.125" diameter new steel wire formed into a U-shape not less than 12" in length with a throat of 1" in width.

Construction Methods

Align coir fiber wattle barriers in an overlapping and alternating pattern. Excavate a trench the entire length of each wattle with a depth of 2" to 3" for the wattle to be placed. Secure coir fiber wattle barriers to the soil by wire staples approximately every linear foot and at the end of each wattle. Install at least 4 stakes on the downslope side of the wattle with a maximum spacing of 2 linear feet and according to the detail. Install at least 2 stakes on the upslope side of the coir fiber wattle barriers according to the detail provided in the plans. Drive stakes into the ground at least 10" with no more than 2" projecting from the top of the wattle. Drive stakes at an angle according to the detail provided in the plans.

For coir fiber wattle barriers used to reduce runoff velocity for large slopes, use a maximum spacing of 25 ft. for the barrier measured along the slope.

Maintain the coir fiber wattle barriers until the project is accepted or until the coir fiber wattle barriers are removed, and remove and dispose of silt accumulations at the coir fiber wattle barriers when so directed in accordance with Section 1630 of the *Standard Specifications*.

TEMPORARY ROCK SILT CHECK TYPE A WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM):

Description

Temporary Rock Silt Checks Type A with Excelsior Matting and Polyacrylamide (PAM) are devices utilized in temporary and permanent ditches to reduce runoff velocity and incorporate PAM into the construction runoff to increase settling of sediment particles and reduce turbidity of runoff. Temporary Rock Silt Checks Type A with Excelsior Matting and PAM are to be placed at locations shown on the plans or as directed. Installation shall follow the detail provided in the plans and as directed. Work includes furnishing materials, installation of Temporary Rock Silt Checks Type A, matting installation, PAM application, and removing Temporary Rock Silt Checks Type A with Excelsior Matting and PAM.

Materials

Structural stone shall be class B stone that meets the requirements of Section 1042 of the *Standard Specifications* for Stone for Erosion Control, Class B.

Sediment control stone shall be #5 or #57 stone, which meets the requirements of Section 1005 of the *Standard Specifications* for these stone sizes.

Matting shall meet the requirements of Excelsior Matting in Subarticle 1060-8(B) of the *Standard Specifications*, or shall meet specifications provided elsewhere in this contract.

Polyacrylamide (PAM) shall be applied in powder form and shall be anionic or neutrally charged. Soil samples shall be obtained in areas where the Temporary Rock Silt Checks Type A with Excelsior Matting and PAM will be placed, and from offsite material used to construct the roadway, and analyzed for the appropriate PAM flocculant to be utilized with each Temporary Rock Silt Check Type A. The PAM product used shall be listed on the North Carolina Department of Environmental Quality Division of Water Resources web site as an approved PAM product for use in North Carolina.

Construction Methods

Temporary Rock Silt Checks Type A shall be installed in accordance with Subarticle 1633-3(A) of the *Standard Specifications*, Roadway Standard Drawing No. 1633.01 and the detail provided in the plans.

Installation of matting shall be in accordance with the detail provided in the plans, and anchored by placing Class B stone on top of the matting at the upper and lower ends.

Apply PAM at a rate of 4 ounces over the center portion of the Temporary Rock Silt Checks Type A and matting where the water is going to flow over. PAM applications shall be done during construction activities and after every rainfall event that is equal to or exceeds 0.50 in.

The Contractor shall maintain the Temporary Rock Silt Checks Type A with Excelsior Matting and PAM until the project is accepted or until the Temporary Rock Silt Checks Type A with Excelsior Matting and PAM are removed, and shall remove and dispose of silt accumulations at the Temporary Rock Silt Checks Type A with Excelsior Matting and PAM when so directed in accordance with the requirements of Section 1630 of the *Standard Specifications*.

CULVERT DIVERSION CHANNEL:

Description

This work consists of providing a *Culvert Diversion Channel* to detour the existing stream around the culvert construction site at locations shown on the plans. Work includes constructing the diversion channel, disposing of excess materials, providing and placing geotextile liner, maintaining the diversion area in an acceptable condition, removing geotextile liner, backfilling diversion channel area with suitable material, and providing proper drainage when diversion channel area is abandoned.

Materials

Refer to Division 10

Item	Section
Geotextile for Soil Stabilization, Type 4	1056

Construction Methods

Grade channel according to the plans with channel surface free of obstructions, debris, and pockets of low-density material. Utilize suitable material and provide disposal area for unsuitable material.

Line channel with geotextile unrolled in the direction of flow and lay smoothly but loosely on soil surface without creases. Bury top of slope geotextile edge in a trench at least 5" deep and tamp securely. Make vertical overlaps a minimum of 18" with upstream geotextile overlapping the downstream geotextile.

Secure geotextile with eleven gauge wire staples shaped into a *u* shape with a length of not less than 6" and a throat not less than 1" in width. Place staples along outer edges and throughout the geotextile a maximum of 3 ft. horizontally and vertically.

IMPERVIOUS DIKE:

(9-9-11)(Rev. 11-15-22)

Description

This work consists of furnishing, installing, maintaining, pumping and removing an *Impervious Dike* for the purpose of diverting normal stream flow around the construction site. The Contractor shall construct an impervious dike in such a manner approved by the Engineer. The impervious dike shall not permit seepage of water into the construction site or contribute to siltation of the stream. The impervious dike shall be constructed of an acceptable material in the locations noted on the plans or as directed by the Engineer.

Materials

Acceptable materials shall include but not be limited to sheet piles, sandbags, and/or the placement of an acceptable size stone lined with polypropylene or other impervious geotextile.

Earth material shall not be used to construct an impervious dike when it is in direct contact with the stream unless vegetation can be established before contact with the stream takes place.

Construction Methods

Where impervious dikes are shown on the plans and used to dewater or lower the water elevation, construct in accordance with Article 410-4 and 410-5.

COIR FIBER MAT:

Description

Furnish material, install and maintain coir fiber mat in locations shown on the plans or in locations as directed. Work includes providing all materials, excavating and backfilling, and placing and securing coir fiber mat with stakes, steel reinforcement bars or staples as directed.

Materials

Item	Section
Coir Fiber Mat	1060-14

Anchors: Stakes, reinforcement bars, or staples shall be used as anchors.

Wooden Stakes:

Provide hardwood stakes 12"- 24" long with a 2" x 2" nominal square cross section. One end of the stake must be sharpened or beveled to facilitate driving through the coir fiber mat and down into the underlying soil. The other end of the stake needs to have a 1"- 2" long head at the top with a 1"- 2" notch following to catch and secure the coir fiber mat.

Steel Reinforcement Bars:

Provide uncoated #10 steel reinforcement bars 24" nominal length. The bars shall have a 4" diameter bend at one end with a 4" straight section at the tip to catch and secure the coir fiber mat.

Staples:

Provide staples made of 0.125" diameter new steel wire formed into a *u* shape not less than 12" in length with a throat of 1" in width.

Construction Methods

Place the coir fiber mat immediately upon final grading. Provide a smooth soil surface free from stones, clods, or debris that will prevent the contact of the mat with the soil. Unroll the mat and apply without stretching such that it will lie smoothly but loosely on the soil surface.

For stream relocation applications, take care to preserve the required line, grade, and cross section of the area covered. Bury the top slope end of each piece of mat in a narrow trench at least 6 in. deep and tamp firmly. Where one roll of matting ends and a second roll begins, overlap the end of the upper roll over the buried end of the second roll so there is a 6 in. overlap. Construct check trenches at least 12 in. deep every 50 ft. longitudinally along the edges of the mat or as directed. Fold over and bury mat to the full depth of the trench, close and tamp firmly. Overlap mat at least 6 in. where 2 or more widths of mat are installed side by side.

Place anchors across the mat at the ends approximately 1 ft. apart. Place anchors along the outer edges and down the center of the mat 3 ft. apart.

Adjustments in the trenching or anchoring requirements to fit individual site conditions may be required.

CONCRETE WASHOUT STRUCTURE:

(8-17-23)

Description

Concrete washout structures are enclosures above or below grade to contain concrete waste water and associated concrete mix from washing out ready-mix trucks, drums, pumps, or other equipment. Concrete washouts must collect and retain all the concrete washout water and solids, so that this material does not migrate to surface waters or into the ground water. These enclosures are not intended for concrete waste not associated with wash out operations.

The concrete washout structure may include constructed devices above or below ground and or commercially available devices designed specifically to capture concrete wash water.

Materials

Item

Temporary Silt Fence

Section

1605

Safety Fence shall meet the specifications as provided elsewhere in this contract.

Geomembrane basin liner shall meet the following minimum physical properties for low permeability; it shall consist of a polypropylene or polyethylene 10 mil thick geomembrane. If the minimum setback dimensions can be achieved the liner is not required. (5 feet above groundwater, 50 feet from top of bank of perennial stream, other surface water body, or wetland.)

Construction Methods

Build an enclosed earthen berm or excavate to form an enclosure in accordance with the details and as directed.

Install temporary silt fence around the perimeter of the enclosure in accordance with the details and as directed if structure is not located in an area where existing erosion and sedimentation control devices are capable to containing any loss of sediment.

Post a sign with the words "Concrete Washout" in close proximity of the concrete washout area, so it is clearly visible to site personnel. Install safety fence as directed for visibility to construction traffic.

Alternate details for accommodating concrete washout may be submitted for review and approval.

The alternate details shall include the method used to retain and dispose of the concrete waste water within the project limits and in accordance with the minimum setback requirements. (5 feet above groundwater, 50 feet from top of bank of perennial stream, other surface water body, or wetland.)

Maintenance and Removal

Maintain the concrete washout structure(s) to provide adequate holding capacity plus a minimum freeboard of 12 inches. Remove and dispose of hardened concrete and return the structure to a functional condition after reaching 75% capacity.

Inspect concrete washout structures for damage and maintain for effectiveness.

Remove the concrete washout structures and sign upon project completion. Grade the earth material to match the existing contours and permanently seed and mulch area.

TACK FOR MULCH FOR EROSION CONTROL:

(07-19-22)

Description

This work consists of supplying and installing of an approved material for binding mulch for erosion control in accordance with Section 1060-5, Section 1615 and Section 1660 of the *Standard Specifications*. This provision defines acceptable materials and rates for tacking material for holding mulch in place.

Materials

(a) Emulsified Asphalt

Asphalt emulsion tack shall conform to the requirements of AASHTO M 140, Specification for Emulsified Asphalt. The emulsified asphalt may be rapid setting, medium setting, or slow setting. Apply emulsified asphalt tackifier at a rate of 0.10 gallons per square yard (approximately 484 gallons per acre).

(b) Cellulose Hydromulch

Cellulose hydromulch products shall be non-toxic, weed-free, prepackaged cellulose fiber (pulp) material containing no more than 3% ash or other inert materials. Cellulose hydromulches may contain dyes or binders specifically formulated to enhance the adhesive qualities of the hydromulch. Apply cellulose hydromulches at a rate of 1000 pounds (dry weight) per acre.

Wood fiber or wood fiber blend hydromulches may be substituted for cellulose hydromulch at the same application rate.

(c) Other tackifiers

Other approved materials, specifically designed and manufactured for application as a straw mulch tacking agent, may be used at the manufacturer's recommended rate.

Construction Methods

Apply the Tack for Mulch for Erosion Control uniformly across straw mulch per Section 1615 and Section 1660 of the *Standard Specifications*.

PROJECT SPECIAL PROVISIONS**Culvert****Town of Harrisburg, From Carl Parmer Dr. to Cambridge Dr. and Davis Greenway****Double 8'x7' RCBC, Sta. 11+84.17 -L-****Table of Contents**

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PROJECT SPECIAL PROVISIONS

CULVERT

FALSEWORK AND FORMWORK

(2-14-22)

DESCRIPTION

Use this Special Provision as a guide to develop temporary works submittals required by the Standard Specifications or other provisions; no additional submittals are required herein. Such temporary works include, but are not limited to, falsework and formwork.

Falsework is any temporary construction used to support the permanent structure until it becomes self-supporting. Formwork is the temporary structure or mold used to retain plastic or fluid concrete in its designated shape until it hardens. Access scaffolding is a temporary structure that functions as a work platform that supports construction personnel, materials, and tools, but is not intended to support the structure. Scaffolding systems that are used to temporarily support permanent structures (as opposed to functioning as work platforms) are considered to be falsework under the definitions given. Shoring is a component of falsework such as horizontal, vertical, or inclined support members. Where the term “temporary works” is used, it includes all of the temporary facilities used in bridge construction that do not become part of the permanent structure.

Design and construct safe and adequate temporary works that will support all loads imposed and provide the necessary rigidity to achieve the lines and grades shown on the plans in the final structure.

MATERIALS

Select materials suitable for temporary works; however, select materials that also ensure the safety and quality required by the design assumptions. The Engineer has authority to reject material on the basis of its condition, inappropriate use, safety, or nonconformance with the plans. Clearly identify allowable loads or stresses for all materials or manufactured devices on the plans. Revise the plan and notify the Engineer if any change to materials or material strengths is required.

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DESIGN REQUIREMENTS

Working Drawings

Provide working drawings for items as specified in the contract, or as required by the Engineer, with design calculations and supporting data in sufficient detail to permit a structural and safety review of the proposed design of the temporary work.

On the drawings, show all information necessary to allow the design of any component to be checked independently as determined by the Engineer.

When concrete placement is involved, include data such as the drawings of proposed sequence, rate of placement, direction of placement, and location of all construction joints.

When required, have the drawings and calculations prepared under the guidance of, and sealed by, a North Carolina Registered Professional Engineer who is knowledgeable in temporary works design.

If requested by the Engineer, submit with the working drawings manufacturer's catalog data listing the weight of all construction equipment that will be supported on the temporary work. Show anticipated total settlements and/or deflections of falsework and forms on the working drawings. Include falsework footing settlements, joint take-up, and deflection of beams or girders.

As an option for the Contractor, overhang falsework hangers may be uniformly spaced, at a maximum of 36 inches, provided the following conditions are met:

Member Type (PCG)	Member Depth, (inches)	Max. Overhang Width, (inches)	Max. Slab Edge Thickness, (inches)	Max. Screed Wheel Weight, (lbs.)	Bracket Min. Vertical Leg Extension, (inches)
II	36	39	14	2000	26
III	45	42	14	2000	35
IV	54	45	14	2000	44
MBT	63	51	12	2000	50
MBT	72	55	12	1700	48

Overhang width is measured from the centerline of the girder to the edge of the deck slab. For Type II, III & IV prestressed concrete girders (PCG), 45-degree cast-in-place half hangers and rods must have a minimum safe working load of 6,000 lbs.

For MBT prestressed concrete girders, 45-degree angle holes for falsework hanger rods shall be cast through the girder top flange and located, measuring along the top of the member, 1'-2 ½" from the edge of the top flange. Hanger hardware and rods must have a minimum safe working load of 6,000 lbs.

ST-4

For links slabs, the tops of girders directly beneath the link slab shall be free of overhang falsework attachments or other hardware. Submit calculations and working drawings for overhang falsework in the link slab region.

The overhang bracket provided for the diagonal leg shall have a minimum safe working load of 3,750 lbs. The vertical leg of the bracket shall extend to the point that the heel bears on the girder bottom flange, no closer than 4 inches from the bottom of the member. However, for 72-inch members, the heel of the bracket shall bear on the web, near the bottom flange transition.

Provide adequate overhang falsework and determine the appropriate adjustments for deck geometry, equipment, casting procedures and casting conditions.

If the optional overhang falsework spacing is used, indicate this on the falsework submittal and advise the girder producer of the proposed details. Failure to notify the Engineer of hanger type and hanger spacing on prestressed concrete girder casting drawings may delay the approval of those drawings.

Falsework hangers that support concentrated loads and are installed at the edge of thin top flange concrete girders (such as bulb tee girders) shall be spaced so as not to exceed 75% of the manufacturer's stated safe working load. Use of dual leg hangers (such as Meadow Burke HF-42 and HF-43) are not allowed on concrete girders with thin top flanges. Design the falsework and forms supporting deck slabs and overhangs on girder bridges so that there will be no differential settlement between the girders and the deck forms during placement of deck concrete.

When staged construction of the bridge deck is required, detail falsework and forms for screed and fluid concrete loads to be independent of any previous deck pour components when the mid-span girder deflection due to deck weight is greater than $\frac{3}{4}$ ".

Note on the working drawings any anchorages, connectors, inserts, steel sleeves or other such devices used as part of the falsework or formwork that remains in the permanent structure. If the plan notes indicate that the structure contains the necessary corrosion protection required for a Corrosive Site, epoxy coat, galvanize or metalize these devices. Electroplating will not be allowed. Any coating required by the Engineer will be considered incidental to the various pay items requiring temporary works.

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Design falsework and formwork requiring submittals in accordance with the 1995 AASHTO *Guide Design Specifications for Bridge Temporary Works* except as noted herein.

Wind Loads

Table 2.2 of Article 2.2.5.1 is modified to include wind velocities up to 110 mph. In addition, Table 2.2A is included to provide the maximum wind speeds by county in North Carolina.

Table 2.2 - Wind Pressure Values

Height Zone feet above ground	Pressure, lb/ft ² for Indicated Wind Velocity, mph				
	70	80	90	100	110
0 to 30	15	20	25	30	35
30 to 50	20	25	30	35	40
50 to 100	25	30	35	40	45
over 100	30	35	40	45	50

Time of Removal

The following requirements replace those of Article 3.4.8.2.

Do not remove forms until the concrete has attained strengths required in Article 420-16 of the Standard Specifications and these Special Provisions.

Do not remove forms until the concrete has sufficient strength to prevent damage to the surface.

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Table 2.2A - Steady State Maximum Wind Speeds by Counties in North Carolina

COUNTY	25 YR (mph)	COUNTY	25 YR (mph)	COUNTY	25 YR (mph)
Alamance	70	Franklin	70	Pamlico	100
Alexander	70	Gaston	70	Pasquotank	100
Alleghany	70	Gates	90	Pender	100
Anson	70	Graham	80	Perquimans	100
Ashe	70	Granville	70	Person	70
Avery	70	Greene	80	Pitt	90
Beaufort	100	Guilford	70	Polk	80
Bertie	90	Halifax	80	Randolph	70
Bladen	90	Harnett	70	Richmond	70
Brunswick	100	Haywood	80	Robeson	80
Buncombe	80	Henderson	80	Rockingham	70
Burke	70	Hertford	90	Rowan	70
Cabarrus	70	Hoke	70	Rutherford	70
Caldwell	70	Hyde	110	Sampson	90
Camden	100	Iredell	70	Scotland	70
Carteret	110	Jackson	80	Stanley	70
Caswell	70	Johnston	80	Stokes	70
Catawba	70	Jones	100	Surry	70
Cherokee	80	Lee	70	Swain	80
Chatham	70	Lenoir	90	Transylvania	80
Chowan	90	Lincoln	70	Tyrell	100
Clay	80	Macon	80	Union	70
Cleveland	70	Madison	80	Vance	70
Columbus	90	Martin	90	Wake	70
Craven	100	McDowell	70	Warren	70
Cumberland	80	Mecklenburg	70	Washington	100
Currituck	100	Mitchell	70	Watauga	70
Dare	110	Montgomery	70	Wayne	80
Davidson	70	Moore	70	Wilkes	70
Davie	70	Nash	80	Wilson	80
Duplin	90	New Hanover	100	Yadkin	70
Durham	70	Northampton	80	Yancey	70
Edgecombe	80	Onslow	100		
Forsyth	70	Orange	70		

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Review and Approval

The Engineer is responsible for the review and approval of temporary works' drawings.

Submit the working drawings sufficiently in advance of proposed use to allow for their review, revision (if needed), and approval without delay to the work.

The time period for review of the working drawings does not begin until complete drawings and design calculations, when required, are received by the Engineer.

Do not start construction of any temporary work for which working drawings are required until the drawings have been approved. Such approval does not relieve the Contractor of the responsibility for the accuracy and adequacy of the working drawings.

CONSTRUCTION REQUIREMENTS

All requirements of Section 420 of the Standard Specifications apply.

Construct temporary works in conformance with the approved working drawings. Ensure that the quality of materials and workmanship employed is consistent with that assumed in the design of the temporary works. Do not weld falsework members to any portion of the permanent structure unless approved. Show any welding to the permanent structure on the approved construction drawings.

Provide tell-tales attached to the forms and extending to the ground, or other means, for accurate measurement of falsework settlement. Make sure that the anticipated compressive settlement and/or deflection of falsework does not exceed 1 inch. For cast-in-place concrete structures, make sure that the calculated deflection of falsework flexural members does not exceed $1/240$ of their span regardless of whether or not the deflection is compensated by camber strips.

Maintenance and Inspection

Inspect and maintain the temporary work in an acceptable condition throughout the period of its use. Certify that the manufactured devices have been maintained in a condition to allow them to safely carry their rated loads. Clearly mark each piece so that its capacity can be readily determined at the job site.

Perform an in-depth inspection of an applicable portion(s) of the temporary works, in the presence of the Engineer, not more than 24 hours prior to the beginning of each concrete placement. Inspect other temporary works at least once a month to ensure that they are functioning properly. Have a North Carolina Registered Professional Engineer inspect the cofferdams, shoring, sheathing, support of excavation structures, and support systems for load tests prior to loading.

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Foundations

Determine the safe bearing capacity of the foundation material on which the supports for temporary works rest. If required by the Engineer, conduct load tests to verify proposed bearing capacity values that are marginal or in other high-risk situations.

The use of the foundation support values shown on the contract plans of the permanent structure is permitted if the foundations are on the same level and on the same soil as those of the permanent structure.

Allow for adequate site drainage or soil protection to prevent soil saturation and washout of the soil supporting the temporary works supports.

If piles are used, the estimation of capacities and later confirmation during construction using standard procedures based on the driving characteristics of the pile is permitted. If preferred, use load tests to confirm the estimated capacities; or, if required by the Engineer conduct load tests to verify bearing capacity values that are marginal or in other high risk situations.

The Engineer reviews and approves the proposed pile and soil bearing capacities.

REMOVAL

Unless otherwise permitted, remove and keep all temporary works upon completion of the work. Do not disturb or otherwise damage the finished work.

Remove temporary works in conformance with the contract documents. Remove them in such a manner as to permit the structure to uniformly and gradually take the stresses due to its own weight.

METHOD OF MEASUREMENT

Unless otherwise specified, temporary works will not be directly measured.

BASIS OF PAYMENT

Payment at the contract unit prices for the various pay items requiring temporary works will be full compensation for the above falsework and formwork.

SUBMITTAL OF WORKING DRAWINGS

(2-14-22)

GENERAL

Submit working drawings in accordance with Article 105-2 of the *Standard Specifications* and this provision. For this provision, “submittals” refers to only those listed in this provision. The list of submittals contained herein does not represent a list of required

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submittals for the project. Submittals are only necessary for those items as required by the contract. Make submittals that are not specifically noted in this provision directly to the Engineer. Either the Structures Management Unit or the Geotechnical Engineering Unit or both units will jointly review submittals.

If a submittal contains variations from plan details or specifications or significantly affects project cost, field construction or operations, discuss the submittal with and submit all copies to the Engineer. State the reason for the proposed variation in the submittal. To minimize review time, make sure all submittals are complete when initially submitted. Provide a contact name and information with each submittal. Direct any questions regarding submittal requirements to the Engineer, Structures Management Unit contacts or the Geotechnical Engineering Unit contacts noted below.

To facilitate in-plant inspection by NCDOT and approval of working drawings, provide the name, address and telephone number of the facility where fabrication will actually be done if different than shown on the title block of the submitted working drawings. This includes, but is not limited to, precast concrete items, prestressed concrete items and fabricated steel or aluminum items.

ADDRESSES AND CONTACTS

For submittals to the Structures Management Unit, use the following addresses:

Via Email: SMU-wdr@ncdot.gov (do not cc SMU Working Drawings staff)

Via US mail:

Mr. B. C. Hanks, P. E.
State Structures Engineer
North Carolina Department
of Transportation
Structures Management Unit
1581 Mail Service Center
Raleigh, NC 27699-1581

Attention: Mr. J. L. Bolden, P. E.

Via other delivery service:

Mr. B. C. Hanks, P. E.
State Structures Engineer
North Carolina Department
of Transportation
Structures Management Unit
1000 Birch Ridge Drive
Raleigh, NC 27610

Attention: Mr. J. L. Bolden, P. E.

For submittals to the Geotechnical Engineering Unit, use the following addresses:

For projects in Divisions 1-7, use the following Eastern Regional Office addresses:

Via Email: EastGeotechnicalSubmittal@ncdot.gov

Via US mail:

Mr. David Hering, L.G., P. E.
Assistant State Geotechnical

Via other delivery service:

Mr. David Hering, L.G., P. E.
Assistant State Geotechnical

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Engineer – Eastern Region
North Carolina Department
of Transportation
Geotechnical Engineering Unit
Eastern Regional Office
1570 Mail Service Center
Raleigh, NC 27699-1570

Engineer – Eastern Region
North Carolina Department
of Transportation
Geotechnical Engineering Unit
Eastern Regional Office
3301 Jones Sausage Road, Suite 100
Garner, NC 27529

For projects in Divisions 8-14, use the following Western Regional Office addresses:

Via Email: WestGeotechnicalSubmittal@ncdot.gov

Via US mail or other delivery service:

Mr. Eric Williams, P. E.
Assistant State Geotechnical
Engineer – Western Region
North Carolina Department
of Transportation
Geotechnical Engineering Unit
Western Regional Office
5253 Z Max Boulevard
Harrisburg, NC 28075

The status of the review of structure-related submittals sent to the Structures Management Unit can be viewed from the Unit's website, via the "[Drawing Submittal Status](#)" link.

The status of the review of geotechnical-related submittals sent to the Geotechnical Engineering Unit can be viewed from the Unit's website, via the "[Geotechnical Construction Submittals](#)" link.

Direct any questions concerning submittal review status, review comments or drawing markups to the following contacts:

Primary Structures Contact: James Bolden (919) 707 – 6408
jlbolden@ncdot.gov

Secondary Structures Contacts: Emmanuel Omile (919) 707 – 6451
eomile@ncdot.gov

Madonna Rorie (919) 707 – 6508
mrorie@ncdot.gov

Eastern Regional Geotechnical Contact (Divisions 1-7):
David Hering (919) 662 – 4710
dthering@ncdot.gov

Western Regional Geotechnical Contact (Divisions 8-14):

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Eric Williams (704) 455 – 8902
ewilliams3@ncdot.gov

SUBMITTAL COPIES

Furnish one complete copy of each submittal, including all attachments, to the Engineer. At the same time, submit a copy of the same complete submittal directly to the Structures Management Unit and/or the Geotechnical Engineering Unit as specified in the tables below.

The first table below covers “Structure Submittals.” The Engineer will receive review comments and drawing markups for these submittals from the Structures Management Unit. The second table in this section covers “Geotechnical Submittals.” The Engineer will receive review comments and drawing markups for these submittals from the Geotechnical Engineering Unit.

Unless otherwise required, submit one set of supporting calculations to either the Structures Management Unit or the Geotechnical Engineering Unit unless both units require submittal copies in which case submit a set of supporting calculations to each unit. Provide additional copies of any submittal as directed.

STRUCTURE SUBMITTALS

Submittal	Submittal Required by Structures Management Unit?	Submittal Required by Geotechnical Engineering Unit?	Contract Reference Requiring Submittal ¹
Arch Culvert Falsework	Y	N	Plan Note, SN Sheet & “Falsework and Formwork”
Box Culvert Falsework ⁷	Y	N	Plan Note, SN Sheet & “Falsework and Formwork”
Cofferdams	Y	Y	Article 410-4
Foam Joint Seals ⁶	Y	N	“Foam Joint Seals”
Expansion Joint Seals (hold down plate type with base angle)	Y	N	“Expansion Joint Seals”
Expansion Joint Seals (modular)	Y	N	“Modular Expansion Joint Seals”
Expansion Joint Seals (strip seals)	Y	N	“Strip Seal Expansion Joints”

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Falsework & Forms ² (substructure)	Y	N	Article 420-3 & “Falsework and Formwork”
Falsework & Forms (superstructure)	Y	N	Article 420-3 & “Falsework and Formwork”
Girder Erection over Railroad	Y	N	Railroad Provisions
Maintenance and Protection of Traffic Beneath Proposed Structure	Y	N	“Maintenance and Protection of Traffic Beneath Proposed Structure at Station ____”
Metal Bridge Railing	Y	N	Plan Note
Metal Stay-in-Place Forms	Y	N	Article 420-3
Metalwork for Elastomeric Bearings ^{4,5}	Y	N	Article 1072-8
Miscellaneous Metalwork ^{4,5}	Y	N	Article 1072-8
Disc Bearings ⁴	Y	N	“Disc Bearings”
Overhead and Digital Message Signs (DMS) (metalwork and foundations)	Y	N	Applicable Provisions
Placement of Equipment on Structures (cranes, etc.)	Y	N	Article 420-20
Prestressed Concrete Box Beam (detensioning sequences) ³	Y	N	Article 1078-11
Precast Concrete Box Culverts	Y	N	“Optional Precast Reinforced Concrete Box Culvert at Station ____”
Prestressed Concrete Cored Slab (detensioning sequences) ³	Y	N	Article 1078-11
Prestressed Concrete Deck Panels	Y	N	Article 420-3
Prestressed Concrete Girder (strand elongation and detensioning sequences)	Y	N	Articles 1078-8 and 1078- 11
Removal of Existing Structure over Railroad	Y	N	Railroad Provisions
	Y	N	Article 420-3

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Revised Bridge Deck Plans (adaptation to prestressed deck panels)			
Revised Bridge Deck Plans (adaptation to modular expansion joint seals)	Y	N	“Modular Expansion Joint Seals”
Sound Barrier Wall (precast items)	Y	N	Article 1077-2 & “Sound Barrier Wall”
Sound Barrier Wall Steel Fabrication Plans ⁵	Y	N	Article 1072-8 & “Sound Barrier Wall”
Structural Steel ⁴	Y	N	Article 1072-8
Temporary Detour Structures	Y	Y	Article 400-3 & “Construction, Maintenance and Removal of Temporary Structure at Station _____”
TFE Expansion Bearings ⁴	Y	N	Article 1072-8

FOOTNOTES

1. References are provided to help locate the part of the contract where the submittals are required. References in quotes refer to the provision by that name. Articles refer to the *Standard Specifications*.
2. Submittals for these items are necessary only when required by a note on plans.
3. Submittals for these items may not be required. A list of pre-approved sequences is available from the producer or the Materials & Tests Unit.
4. The fabricator may submit these items directly to the Structures Management Unit.
5. The two sets of preliminary submittals required by Article 1072-8 of the *Standard Specifications* are not required for these items.
6. Submittals for Fabrication Drawings are not required. Submittals for Catalogue Cuts of Proposed Material are required. See Section 5.A of the referenced provision.
7. Submittals are necessary only when the top slab thickness is 18” or greater.

GEOTECHNICAL SUBMITTALS

Submittal	Submittals Required by Geotechnical Engineering Unit	Submittals Required by Structures Management Unit	Contract Reference Requiring Submittal ¹
Drilled Pier Construction Plans ²	Y	N	Subarticle 411-3(A)
Crosshole Sonic Logging (CSL) Reports ²	Y	N	Subarticle 411-5(A)(2)
Pile Driving Equipment Data Forms ^{2,3}	Y	N	Subarticle 450-3(D)(2)
Pile Driving Analyzer (PDA) Reports ²	Y	N	Subarticle 450-3(F)(3)
Retaining Walls ⁴	Y; drawings and calculations	Y; drawings	Applicable Provisions
Temporary Shoring ⁴	Y; drawings and calculations	Y; drawings	“Temporary Shoring” & “Temporary Soil Nail Walls”

FOOTNOTES

- References are provided to help locate the part of the contract where the submittals are required. References in quotes refer to the provision by that name. Subarticles refer to the *Standard Specifications*.
- Submit one hard copy of submittal to the Engineer. Submit a second copy of submittal electronically (PDF via email), US mail or other delivery service to the appropriate Geotechnical Engineering Unit regional office. Electronic submission is preferred.
- The Pile Driving Equipment Data Form is available from:
https://connect.ncdot.gov/resources/Geological/Pages/Geotech_Forms_Details.aspx
See second page of form for submittal instructions.
- Electronic copy of submittal is required. See referenced provision.

CRANE SAFETY**(6-20-19)**

Comply with the manufacturer specifications and limitations applicable to the operation of any and all cranes and derricks. Prime contractors, sub-contractors, and fully operated rental companies shall comply with the current Occupational Safety and Health Administration (OSHA) regulations.

Submit all items listed below to the Engineer prior to beginning crane operations. Changes in personnel or equipment must be reported to the Engineer and all applicable items listed below must be updated and submitted prior to continuing with crane operations.

CRANE SAFETY SUBMITTAL LIST

- A. **Competent Person:** Provide the name and qualifications of the “Competent Person” responsible for crane safety and lifting operations. The named competent person will have the responsibility and authority to stop any work activity due to safety concerns.
- B. **Riggers:** Provide the qualifications and experience of the persons responsible for rigging operations. Qualifications and experience should include, but not be limited to, weight calculations, center of gravity determinations, selection and inspection of sling and rigging equipment, and safe rigging practices.
- C. **Crane Inspections:** Inspection records for all cranes shall be current and readily accessible for review upon request.
- D. **Certifications:** Crane operators shall be certified by the National Commission for the Certification of Crane Operators (NCCCO) or the National Center for Construction Education and Research (NCCER). Other approved nationally accredited programs will be considered upon request. In addition, crane operators shall have a current CDL medical card. Submit a list of crane operator(s) and include current certification for each type of crane operated (small hydraulic, large hydraulic, small lattice, large lattice) and medical evaluations for each operator.

GROUT FOR STRUCTURES**(12-1-17)****1.0 DESCRIPTION**

This special provision addresses grout for use in pile blockouts, grout pockets, shear keys, dowel holes and recesses for structures. This provision does not apply to grout placed in post-tensioning ducts for bridge beams, girders, decks, end bent caps, or bent caps. Mix and place grout in accordance with the manufacturer’s recommendations, the applicable sections of the Standard Specifications and this provision.

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2.0 MATERIAL REQUIREMENTS

Unless otherwise noted on the plans, use a Type 3 Grout in accordance with Section 1003 of the Standard Specifications.

Initial setting time shall not be less than 10 minutes when tested in accordance with ASTM C266.

Construction loading and traffic loading shall not be allowed until the 3 day compressive strength is achieved.

3.0 SAMPLING AND PLACEMENT

Place and maintain components in final position until grout placement is complete and accepted. Concrete surfaces to receive grout shall be free of defective concrete, laitance, oil, grease and other foreign matter. Saturate concrete surfaces with clean water and remove excess water prior to placing grout.

4.0 BASIS OF PAYMENT

No separate payment will be made for "Grout for Structures". The cost of the material, equipment, labor, placement, and any incidentals necessary to complete the work shall be considered incidental to the structure item requiring grout.

OPTIONAL PRECAST REINFORCED CONCRETE BOX CULVERT AT STATION 11+84.17 -L-

(10-31-24)

GENERAL

This Special Provision covers the design, fabrication and construction of precast reinforced concrete box culverts intended for the conveyance of storm water.

The option for a precast reinforced box culvert, in lieu of a cast-in-place culvert, is permitted only when indicated on the plans. When the precast option is selected, provide the size and number of barrels as indicated on the plans. Detail the culvert with cast-in-place wings walls and footings. Precast wing walls and footings will not be allowed. Provide a precast box culvert that meets the requirements of Section 1077 and any other applicable parts of the *Standard Specifications*.

The Contractor shall be responsible for the design and load rating of the precast culverts, as well necessary cast-in-place elements. Design the precast culvert sections in accordance with ASTM C1577 or the current edition of the *AASHTO LRFD Bridge Design Specifications*. Regardless of size, load rate precast reinforced concrete box culverts in accordance with the current edition of the *AASHTO Manual for Bridge Evaluation* for the AASHTO design load, the applicable North Carolina legal loads, and Fixing America's Surface Transportation (FAST) Act's emergency vehicles (EV). Refer to the section on North Carolina's Legal Loads for the load rating vehicle configurations.

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Submit, to the Engineer, a set of detailed plans and load rating sheets for review and approval. Show all structural details in the plans, including the size and spacing of the required reinforcement necessary to build the precast box and cast-in-place members. The plans, load rating sheets, and design calculations shall be sealed by a North Carolina Registered Professional Engineer.

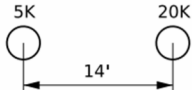
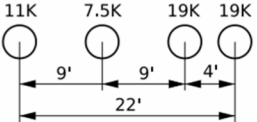
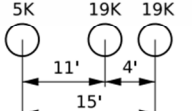
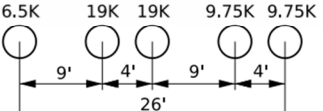
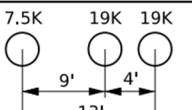
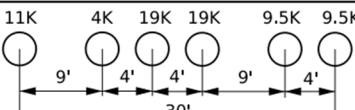
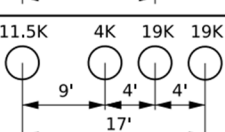
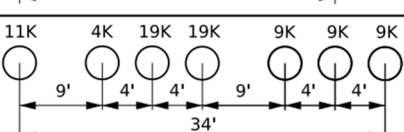
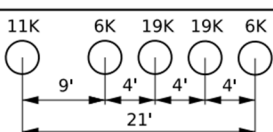
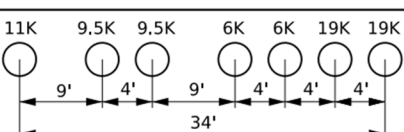
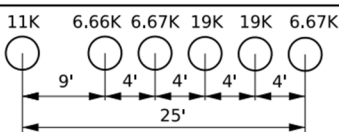
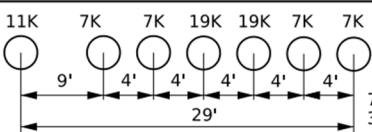
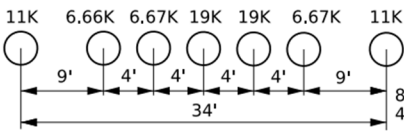
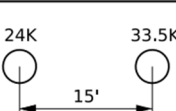
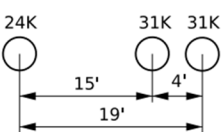
If the span, rise and design earth cover for the precast reinforced concrete box culvert are identical to a previously approved submittal, the Contractor may request the previously approved design calculations and plans be considered as the submittal for review and approval. However, a set of plans and rating sheets will need to be submitted to become part of the contract plans.

After the plans, rating sheets and design calculations are approved, submit a finalized complete set of plans, including the load rating sheets in 22" x 34" (ANSI D) format plan sheets to incorporate into the contract plans.

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NORTH CAROLINA'S LEGAL LOADS

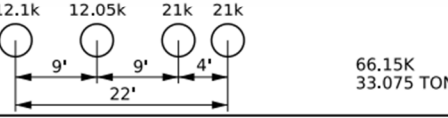
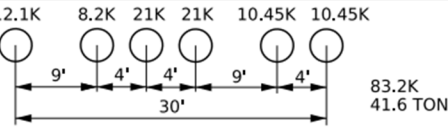
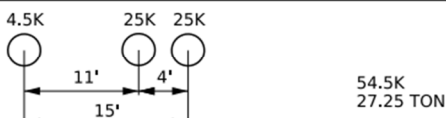
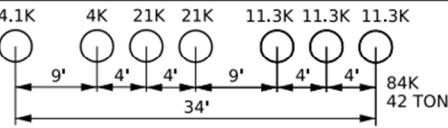
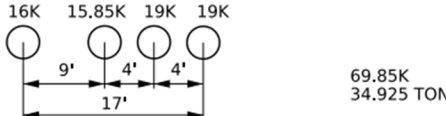
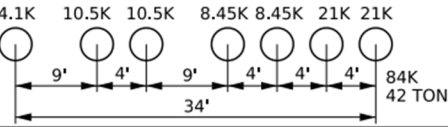
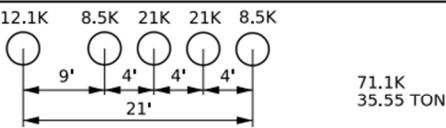
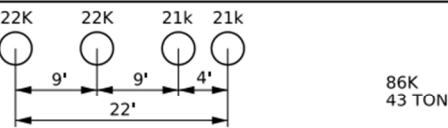
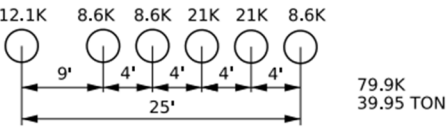
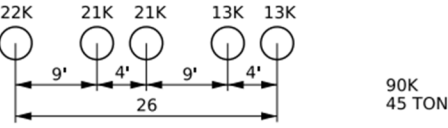
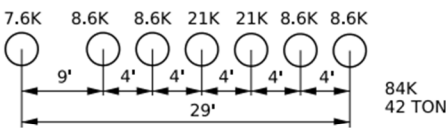
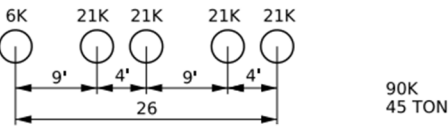
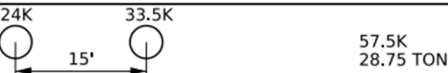
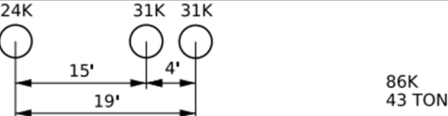
Legal loads for structures carrying interstate traffic:

NORTH CAROLINA LEGAL LOADS			
SINGLE VEHICLE (SV)		TRUCK TRACTOR SEMI-TRAILER (TTST)	
*REF.#	SCHEMATIC	*REF.#	SCHEMATIC
SH (I01)	 25K 12.5 TON	T4A (I09)	 56.5K 28.25 TON
S3C (I02)	 43K 21.5 TON	T5B (I10)	 64K 32 TON
S3A (I03)	 45.5K 22.75 TON	T6A (I11)	 72K 36 TON
S4A (I04)	 53.5K 26.75 TON	T7A (I12)	 80K 40 TON
S5A (I05)	 61K 30.5 TON	T7B (I13)	 80K 40 TON
S6A (I06)	 69K 34.5 TON	FAST ACT EMERGENCY VEHICLES	
S7B (I07)	 77K 38.5 TON		
S7A (I08)	 80K 40 TON		
EV2	 57.5K 28.75 TON	EV3	 86K 43 TON

* () = NC LEGAL LOAD CODE FOR THE SPECIFICATIONS FOR
THE NATIONAL BRIDGE INVENTORY (SNBI) ITEM ID B.EP.01

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Legal loads for structures carrying non-interstate traffic:

NORTH CAROLINA LEGAL LOADS					
SINGLE VEHICLE (SV)			TRUCK TRACTOR SEMI-TRAILER (TTST)		
* REF.#	SCHEMATIC		* REF.#	SCHEMATIC	
SNSH (N01)			TNAGRIT3 (N09)		
SNGARBS2 (N02)			TNT4A (N10)		
SNAGRIS2 (N03)			TNT6A (N11)		
SNCOTTS3 (N04)			TNT7A (N12)		
SNAGGRS4 (N05)			TNT7B (N13)		
SNS5A (N06)			TNAGRIT4 (N14)		
SNS6A (N07)			TNAGT5A (N15)		
SNS7B (N08)			TNAGT5B (N16)		
* () = NC LEGAL LOAD CODE FOR THE SPECIFICATIONS FOR THE NATIONAL BRIDGE INVENTORY (SNBI) ITEM ID B.EP.01			FAST ACT EMERGENCY VEHICLES		
			REF.#	SCHEMATIC	
			EV2		
			EV3		

* () = NC LEGAL LOAD CODE FOR THE SPECIFICATIONS FOR THE NATIONAL BRIDGE INVENTORY (SNBI) ITEM ID B.EP.01

PRECAST REINFORCED CONCRETE BOX SECTIONS

The precast reinforced concrete box culvert sections shall match the size and hydraulic opening indicated in the contract plans.

(A) Design

- (1) Design Fill – The design earth cover is reported on the plans as the elevation difference between the point of maximum fill and the bottom of the top slab.
- (2) Placement of Reinforcement – Provide a 1-inch concrete cover over the reinforcement subject to the provisions of Section E. Extend the inside reinforcement into the tongue portion of the joint and the outside reinforcement into the groove portion of the joint. Detail the clear distance of the end wires so it is not less than ½ inch or more than two (2) inches from the ends of the box section. Assemble reinforcement per the requirements of ASTM C1577 or the approved design. The exposure of the ends of the wires used to position the reinforcement is not a cause for rejection.
- (3) Laps and Spacing – Use lap splices for the transverse reinforcement. Detail the transverse wires so that the center to center spacing is not less than two (2) inches or more than four (4) inches. Do not detail the longitudinal wires with a center to center spacing of more than 8 inches.

(B) Joints

- (1) Produce the precast reinforced concrete box section with tongue and groove ends. Design and form these ends of the box section so, when the sections are laid together, they make a continuous line of box sections with a smooth interior free of appreciable irregularities in the flowline, all compatible with the permissible variations given in Section F. The internal joint formed at the tongue and groove ends of the precast units shall be sealed with either bitumen/butyl sealant or closed-cell neoprene material. The internal joint material shall be installed in accordance with the manufacturer's recommendations. The material shall be shown on the shop drawings when they are submitted for review.
- (2) Seal the external joint with an outside sealer wrap conforming to ASTM C877 that is at least 12 inches wide and covers the joint on both the sides and the top of the box section. Use ConWrap CS-212 from Concrete Sealants, Inc., EZ-Wrap from Press-Seal Gasket Corporation, Seal Wrap from Mar-Mac Manufacturing Co., Inc., Cadilloc External Pipe Joint from Cadilloc, or an approved equal for the outside sealer wrap. If the outside sealer wrap is not applied in a continuous strip along the entire joint, a 12 inch minimum lap of the outside sealer wrap is permitted. Before placing the outside sealer wrap, clean and prime the area receiving the outside sealer wrap in accordance with the sealer wrap manufacturer recommendations. The joint wrap manufacturer installation recommendations shall be included with shop drawings submitted for review. The external joint wrap shall be installed in pieces, as indicated on Figure 1 below:

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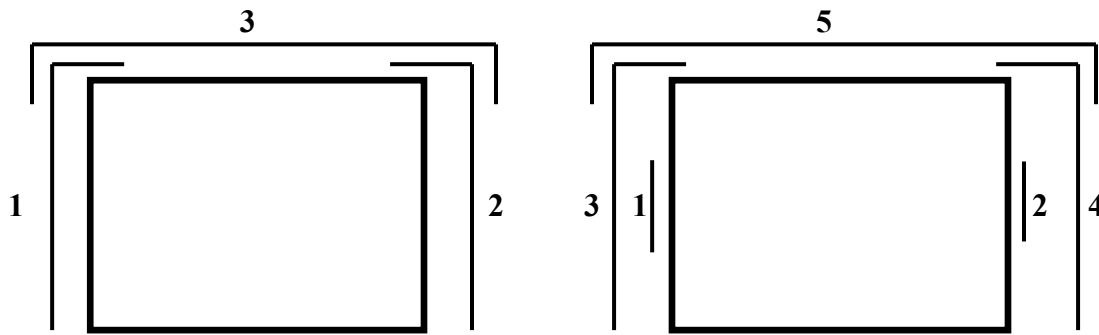


Figure 1

Cover the external joint sealer with a 3 foot strip of filter fabric conforming to Type 4 requirements in Section 1056 of the *Standard Specifications*.

Place multiple lines of a precast reinforced concrete box culvert such that the longitudinal joint between the sections has a minimum width of three (3) inches. Fill the joint between multiple lines of precast box sections with Class A concrete. Use Class A concrete that meets the requirements listed in the *Standard Specifications* except that Field Compressive Strength Specimens are not required.

(C) Manufacture

Manufacture precast reinforced concrete box culvert sections by either the wet cast method or dry cast method.

- (1) Mixture – In addition to the requirements of Section 1077 of the *Standard Specifications*, do not proportion the mix with less than 564 lb/yd³ of Portland cement. When a flowable concrete consistency is required, refer to Section 1077-5(B) of the *Standard Specifications* for the use of Self-Consolidating Concrete (SCC) and Intermediate Flow Concrete.
- (2) Strength – Concrete shall develop a minimum 28-day compressive strength of 5,000 psi. Movement of the precast sections should be minimized during the initial curing period. Any damage caused by moving or handling during the initial curing phase will be grounds for rejection of that precast section.
- (3) Air Entrainment – Air entrain the concrete in accordance with Section 1077 – 5(A) of the *Standard Specifications*. For dry cast manufacturing, air entrainment is not required.
- (4) Testing – Test the concrete in accordance with the requirements of Section 1077 – 5(C) of the *Standard Specifications*.
- (5) Handling – Handling devices or holes are permitted in each box section for the purpose of handling and placing. Submit details of handling devices or holes for approval and do not cast any concrete until approval is granted. Remove all handling devices flush with

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concrete surfaces as directed. Fill holes in a neat and workmanlike manner with an approved non-metallic non-shrink grout, concrete, or hole plug.

(D) Physical Requirements

Acceptability of precast culvert sections is based on concrete cylinders made and tested in accordance with ASTM C31 and ASTM C39.

(E) Permissible Variations

- (1) Flatness – All external surfaces shall be flat, true, and plumb. Irregularities, depressions, or high spots on all external surfaces shall not exceed $\frac{1}{2}$ inch in 8 feet.
- (2) Internal Dimensions – Produce sections so that the internal and haunch dimensions do not vary more than $\frac{1}{4}$ inch from the plan dimensions.
- (3) Adjacent Sections - Internal, external, and haunch dimensions for connecting sections shall not vary more than $\frac{1}{2}$ inch.
- (4) Length of Tongue and Groove – The minimum length of the tongue shall be four (4) inches. The minimum length of the groove shall be four (4) inches. The dimensions of the tongue and groove shall not vary more than $\frac{1}{4}$ inch from the plan dimensions.
- (5) Slab and Wall Thickness – Produce sections so that the slab and wall thickness are not less than that shown on the plans by more than 5% or $\frac{3}{16}$ inch, whichever is greater. A thickness more than that required on the plans is not a cause for rejection.
- (6) Length of Opposite Surfaces – Produce sections so that variations in laying lengths of two (2) opposite surfaces of the box section meet the requirements of ASTM C1577, Section 11.3.
- (7) Length of Section – Produce sections so that the underrun in length of a section is not more than $\frac{1}{2}$ inch in any box section.
- (8) Position of Reinforcement – Produce sections so that the maximum variation in the position of the reinforcement is $\pm \frac{3}{8}$ inch for slab and wall thicknesses of five (5) inches or less and $\pm \frac{1}{2}$ inch for slab and wall thicknesses greater than five (5) inches. Produce sections so that the concrete cover is never less than $\frac{5}{8}$ inch as measured to the internal surface or the external surface. The preceding minimum cover limitations do not apply at the mating surfaces of the joint.
- (9) Area of Reinforcement – Use the design steel shown on the plans for the steel reinforcement. Steel areas greater than those required are not cause for rejection. The permissible variation in diameter of any wire in finished fabric is prescribed for the wire before fabrication by either AASHTO M32 or M225.

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(F) Marking

- (1) Each section shall be match-marked in order of intended installation as indicated on the approved shop drawings. Ensure that pieces fit together neatly and in a workmanlike manner. In order to ensure a good, neat field fit, the Department will verify assembly of the first five (5) adjacent sections or 20% of the total culvert length, whichever is greater, at the producer's facility and match-mark the pieces. This will require that a minimum of three (3) adjacent sections of the culvert be fitted at the production yard at a time and then match-marked. Once three (3) sections have been match-marked, the first section may be removed for shipment and a fourth section set for marking. Continue in a progressive manner until all sections have been properly match-marked. The producer shall document the GO-NO-GO dimensional measurements of each box culvert section produced through the post-pour inspection process.
- (2) Clearly mark each section of the box culvert in accordance with ASTM C1577, Section 15. The information requirements of Section 15.1 shall be clearly marked on the inner surface of each section.

(G) Construction

- (1) Pre-installation Meeting – A pre-installation meeting is required prior to installation. Representatives from the Contractor, the precast box manufacturer, and the Department should attend this meeting. The precast box manufacturer's representative shall be on site during installation.
- (2) Foundation – Foundation for precast box culvert shall meet the requirements of Section 414 of the *Standard Specifications*. In addition, Type VI foundation material shall be encapsulated in filter fabric conforming to Type 4 requirements in Section 1056 of the *Standard Specifications*. The filter fabric shall be placed perpendicular to the culvert barrel. Provide sufficient overhang beyond the excavation to allow a minimum lap of three (3) feet when the foundation material is placed, and fabric wrapped on top. Perpendicular sections of fabric shall be continuous. A minimum lap of two (2) feet shall be provided between sections of fabric.
- (3) Installation – Sections shall be placed at the beginning of the outlet end of the culvert with the groove end being laid up grade. Tongue sections shall be laid into the groove sections. Positive means shall be provided to pull each section firmly into the previously placed section so that the joints are tightly homed. Use a "come-along" box pullers or other approved methods to create a positive means of joining box sections. Construction equipment shall not have direct contact with the box section. The load of the box shall be suspended by lifting device during joining procedure.
- (4) Backfill – Complete backfill in accordance with Section 414 of the *Standard Specifications*.

MEASUREMENT AND PAYMENT

Payment for the Precast Reinforced Concrete Box Culvert will be a lump sum amount equal to the payment that would be allowed for construction of a Cast-in-Place Box Culvert, except for Foundation Conditioning Material and Culvert Excavation. Plan quantities and unit bid prices will be used to compute the lump sum amount. Such price and payment will be full compensation for all work covered by this Special Provision, the plans and applicable parts of the Standard Specifications and will include, but not be limited to, furnishing all labor, materials (including all filter fabric), equipment and other incidentals necessary to complete this work. Such price and payment will also be full compensation for concrete, reinforcing steel, labor, equipment, and all other related materials necessary for the completion of the barrel section, and the construction of the headwalls, leveling pad, end curtain walls, wings, and wing footings. The cost of designing, load rating, and plan preparation for the optional Precast Reinforced Concrete Box Culvert will be paid for by the Contractor and will not be reimbursed by the Department.



BID FORM

PROPOSAL FORM
PROPOSAL TO THE TOWN OF HARRISBURG, NORTH CAROLINA

Town Center Roadway Extension & Davis Creek Greenway Project

Brian Lee
Finance Director
Town of Harrisburg
4100 Main Street, Suite 101
Harrisburg, North Carolina 28075

Mr. Lee,

Please find enclosed the proposal of Performance Managed Const., Inc. (BIDDER), organized and existing under the laws of the State of North Carolina and doing business as Performance Managed Const., Inc. (COMPANY NAME), to the Town of Harrisburg (hereinafter called "Owner").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of the Cambridge Drive Extension Project in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submitting this BID, the BIDDER, or in the case of a joint BID, each party thereto, certifies as to its own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

The undersigned have full knowledge of the project site and the conditions of the proposal. The undersigned also, hereby agrees to furnish all the services, labor, materials and equipment necessary to complete these projects according to the Specifications and to accept as full compensation the lump sum or unit prices stated in the Bid Schedule for the work and for use when calculating the price of a deduction or an increase in quantities.

BIDDER hereby agrees to commence WORK under this Contract on or after a date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT within the period stipulated in the INSTRUCTIONS TO BIDDERS. BIDDER further agrees to pay liquidated damages as required and that the OWNER may retain liquidated damages from monies that are, or which may become due. The amount of such liquidated damages shall be as stipulated in the CONTRACT AGREEMENT FORM.

{Continued on the following page}



HARRISBURG, NORTH CAROLINA
TOWN CENTER ROADWAY EXTENSION & DAVIS CREEK GREENWAY PROJECT - BID

The Bidder hereby acknowledges receipt of the following addenda:

ADDENDUM NO.

DATE

We further agree that the Owner may reject any or all bids.

SUBMITTED BY:

Performance Managed Construction, Inc.

Firm, Corporation or Individual

P.O. Box 501, CONCORD, NC 28026

Address

704-786-6040

Telephone Number

70731

Contractor License Number

Kenneth W. Beckwith

Signature:

Date: 05/27/2025

{Continued on the following page}



Line	NCDOT Item Number	DOT Sec No.	Description	Quantity	Unit	UNIT BID	AMOUNT BID
1	0000100000-N	800	MOBILIZATION	1.00	LS	72,000. ⁰⁰	72,000. ⁰⁰
2	0000400000-N	800	CONSTRUCTION SURVEYING	1.00	LS	20,000. ⁰⁰	20,000. ⁰⁰
3	0008000000-E	200	SUPPLEMENTAL CLEARING AND GRUBBING	0.25	ACRES	4. ⁰⁰	1. ⁰⁰
4	0036000000-E	225	UNDERCUT EXCAVATION	1,700.00	CY	10. ⁰⁰	17,000. ⁰⁰
5	0043000000-N	226	GRADING	1.00	LS	535,575. ⁰⁰	535,575. ⁰⁰
6	0134000000-E	240	DRAINAGE DITCH EXCAVATION	115.00	CY	6. ⁰⁰	690. ⁰⁰
7	0192000000-N	260	PROOF ROLLING	1.00	HR	250. ⁰⁰	250. ⁰⁰
8	0195000000-E	265	SELECT GRANULAR MATERIAL	2,500.00	CY	17. ⁰⁰	42,500. ⁰⁰
9	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	2,700.00	SY	2. ⁰⁰	5,400. ⁰⁰
10	0354000000-E	310	15" RC PIPE CULVERTS, CLASS V	44.00	LF	125. ⁰⁰	5,500. ⁰⁰
11	0354000000-E	310	24" RC PIPE CULVERTS, CLASS V	72.00	LF	175. ⁰⁰	12,600. ⁰⁰
12	0354000000-E	310	48" RC PIPE CULVERTS, CLASS V	8.00	LF	500. ⁰⁰	4,000. ⁰⁰
13	0366000000-E	310	15" RC PIPE CULVERTS, CLASS III	36.00	LF	100. ⁰⁰	3,600. ⁰⁰
14	0402000000-E	310	48" RC PIPE CULVERTS, CLASS III	24.00	LF	400. ⁰⁰	9,600. ⁰⁰
15	1121000000-E	520	AGGREGATE BASE COURSE	700.00	TON	40. ⁰⁰	28,000. ⁰⁰
16	1503000000-E	610	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE II19.0B	140.00	TON	150. ⁰⁰	21,000. ⁰⁰
17	1519000000-E	610	ASPHALT CONCRETE SURFACE COURSE, S9.5B	180.00	TON	150. ⁰⁰	27,000. ⁰⁰
18	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	20.00	TON	650. ⁰⁰	13,000. ⁰⁰
19	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	1,450.00	LF	3. ⁰⁰	4,350. ⁰⁰
20	2352000000-N	840	FRAME WITH GRATE, STD. 840.19 OR 840.28	1.00	EACH	1,500. ⁰⁰	1,500. ⁰⁰
21	2366000000-N	840	FRAME WITH TWO GRATES, STD. 840.24	1.00	EACH	1,500. ⁰⁰	1,500. ⁰⁰
22	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)	2.00	EACH	1,500. ⁰⁰	3,000. ⁰⁰
23	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)	2.00	EACH	1,500. ⁰⁰	3,000. ⁰⁰
24	2396000000-N	840	FRAME WITH COVER, STD 840.54	1.00	EACH	1,500. ⁰⁰	1,500. ⁰⁰
25	2286000000-N	840	MASONRY DRAINAGE STRUCTURES 1	6.00	EACH	500. ⁰⁰	3,000. ⁰⁰
26	2308000000-E	840	MASONRY DRAINAGE STRUCTURES 2	1.80	LF	200. ⁰⁰	360. ⁰⁰
27	2209000000-E	838	ENDWALLS	0.70	CY	5,000. ⁰⁰	3,500. ⁰⁰
28	2542000000-E	846	2'-0" CONCRETE CURB & GUTTER	840.00	LF	35. ⁰⁰	29,400. ⁰⁰
29	2591000000-E	848	4" CONCRETE SIDEWALK	250.00	SY	70. ⁰⁰	17,500. ⁰⁰
30	2605000000-N	848	CONCRETE CURB RAMPS	2.00	EA	3,000. ⁰⁰	6,000. ⁰⁰
31	PSP	SP	GUARDRAIL	1.00	LS	35,000. ⁰⁰	35,000. ⁰⁰
32	3635000000-E	876	RIP RAP, CLASS II	88.00	TON	70. ⁰⁰	6,160. ⁰⁰
33	3649000000-E	876	RIP RAP, CLASS B	75.00	TON	70. ⁰⁰	5,250. ⁰⁰



HARRISBURG, NORTH CAROLINA

TOWN CENTER ROADWAY EXTENSION & DAVIS CREEK GREENWAY PROJECT - BID

Line	NCDOT Item Number	DOT Sec No.	Description	Quantity	Unit	UNIT BID	AMOUNT BID
34	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	300.00	SY	3.00	900.00
35	PSP	SP	SIGN ERECTION	1.00	LS	5,000.00	5,000.00
36	PSP	SP	EROSION CONTROL - GENERAL	1.00	LS	60,000.00	60,000.00
37	6123000000-E	1670	REFORESTATION	0.20	ACRES	30,000.00	6,000.00
38	8126000000-N	414	CULVERT EXCAVATION, STA ***** (11+84.00 -L-)	1.00	LS	93,000.00	93,000.00
39	8133000000-E	414	FOUNDATION CONDITIONING MATERIAL, BOX CULVERT	107.00	TON	70.00	7,490.00
40	PSP	SP	GREENWAY FENCE	160.00	LF	100.00	16,000.00
PLEASE BID EITHER ITEMS 41 AND 42 FOR A CIP CULVERT, OR ITEM 43 FOR A PRECAST CULVERT. PLEASE DO NOT INCLUDE BID COSTS FOR BOTH OPTIONS.							
ALTERNATE 01 - CAST-IN-PLACE CULVERT							
41	8245000000-E	425	REINFORCING STEEL (CULVERT)	23,106	LB	1.50	34,659.00
42	8826000000-E	420	CLASS AA CONCRETE (CULVERT)	166	CY	1,450.00	240,700.00
ALTERNATE 02 - PRECAST CULVERT							
43	PSP	SP	PRECAST REINFORCED BOX CULVERT	1	LS	No Bid	No Bid
						SUBTOTAL	1,429,485.00
						10% CONTINGENCY	142,948.50
TOTAL BID FOR PROJECT.....							1,572,433.50

Contractor Name	Performance Managed Const, Inc.
Contact Person Name	Kenneth Blackwelder
Contact Email	performanceme501@yahoo.com
Contact Phone	704-786-6040



INSTRUCTIONS TO BIDDERS

TOWN OF HARRISBURG **Town Center Roadway Extension & Davis Creek Greenway Project**

I. GENERAL INFORMATION REGARDING THE WORK:

1. Scope of Work

New roadway section connecting the existing intersection of Carl Parmer Drive and Main Street to recently constructed Cambridge Drive. The roadway will consist of two travel lanes with curb and gutter and cross Davis Creek via dual box culverts. The greenway portion of the project will begin at the Cambridge Drive intersection and run along Davis Creek for approximately 1,000 Linear Feet.

2. Town of Harrisburg Requirements/NCDOT Requirements

The Contractor shall comply with the Town of Harrisburg's Unified Development Ordinance. All work and materials shall meet North Carolina Department of Transportation Quality Management System specifications. The January 2024 North Carolina Department of Transportation (NCDOT) Standard Specifications for Roads and Structures, herein referred to as the "NCDOT Standard Specifications," is part of the Contract Documents and incorporated herein by reference and can be found online at: 2024 Standard Specifications for Roads and Structures.pdf (ncdot.gov)

3. Permits

The Contractor shall take out all necessary permits from the Town or other public authorities and shall give all notices required by law or Town ordinance. The charge or fee for any permit issued by the Owner shall be borne by the Contractor and shall be presumed to be included in the price bid.

4. Taxes

The Contractor is responsible for any and all taxes and fees associated with this project

5. Schedule/Liquidated Damages

The work is to be ready for final payment by June 30, 2026. Failure to do so shall subject the Contractor to an assessment of liquidated damages of Five Hundred Dollars (\$500.00) per calendar day.

The Town reserves the right to cancel the remainder of the contract if work is not completed and accepted by June 30, 2026.

These times may be extended with a timely request subject to approval by the Town



Engineer. Unless so extended, failure to comply with the prescribed timeline shall subject the Contractor to liquidated damages as described above.

II. INSTRUCTIONS REGARDING PRE-BID ACTIVITIES

1. The bidding for and the performance of the resulting Contract will be governed by this document in its entirety, as modified by Addenda that may be issued during the bidding period. Therefore, all interested parties should obtain copies of the Contract Documents in accordance with the procedures noted in the Notice to Bidders.

2. Pre-Bid Meeting: N/A

3. Examination of the Contract Materials and Site

It is the responsibility of each plan holder, whether a potential bidder or a potential supplier or subcontractor, to do the following during the period prior to bid opening:

Examine the Contract Documents and other materials provided by the Owner.

Visit and examine the site where the work is to be performed to become familiar with local conditions that may affect cost, progress, performance or furnishing of the work.

Consider federal, state and local laws and regulations that may affect the cost, progress, performance or furnishing of the work. Study and carefully correlate observations made with the requirements of the Contract Documents and Drawings.

Notify the Owner or the Owner's representative, in writing, of any conflicts, errors, discrepancies, omissions, or matters otherwise in need of clarification, interpretation or revision.

4. Bidder Evaluation of Potential Equipment, and Material Suppliers and Subcontractors

The successful bidder shall be responsible for the acceptability of the equipment, materials to be incorporated into the work, as well as any and all subcontractors to be used in performing the work. Equipment and materials which do not conform with the Contract requirements and subcontractors who are rejected are to be replaced by the Contractor at no additional cost to the Owner.

Various specifications reference "brand name" equipment. These are descriptive references to the general nature and quality of the equipment or materials required by the Specifications.

Bidders may not rely on these "brand references" as a representation that the named equipment will be approved for incorporation into the work. Approval of all equipment matters, regardless whether named or proposed equal, will depend on the conformance with the technical requirements of the specifications. Therefore, bidders, are required and shall be presumed to have to determine for themselves the merits of all equipment and materials upon



which the submitted bid is based.

Similarly, bidders are expected and presumed to have made the necessary evaluation of the subcontractors upon which the submitted bid is based. Such an evaluation can include, among other things, the capabilities, solvency, and performance records of potential subcontractors.

5. Planholder Comments and Addenda

As noted in the Instructions To Bidders, Section II, Subsection 3, each planholder has an obligation to give the Owner or its representative notice of observations made for which addition, modification, clarification or interpretation which benefit the planholders' understanding of the work. The response to such items will be made in Addenda distributed to all planholders. Planholders cannot rely on any oral clarification or interpretation of the Contract Documents and/or Drawings made by representatives of the Owner or the Consulting Engineer.

Matters which a planholder wishes to have included in an Addenda shall be submitted to the Engineer at the planholder's earliest convenience, but not later than May 16, 2025. Such matters should be presented in writing and can be "E-Mailed" to Devin Huston at dhuston@harrisburgnc.org.

Any and all Addenda will be E-Mailed to all planholders who attended the mandatory pre-bid meeting. E-Mailing will be by regular e-mail service or other file share program made available to the bidder.

Any and all Addenda that may be issued shall become a part of these Bidding Documents and Specifications and must be attached to each proposal as provided below. Failure of any bidder to receive any Addenda does not relieve the bidder from any obligation under the bid as submitted.

III. INSTRUCTIONS REGARDING SUBMISSION OF THE BID

1. Submission of Bid

All bids are due by May 27, 2025, at 11:00 AM. Sealed bids may be sent to:

Brian Lee Finance Director
Harrisburg Town Hall
4100 Main Street, Suite 101
Harrisburg, North Carolina 28075

Bidders may drop off bids to the customer service desk at Town Hall. Bids will be opened on May 27, 2025, at 11:00 AM. No late bids will be accepted.

The party submitting a bid is solely responsible for delivery of the bid at the specified location prior to the deadline for receipt of bids



2. Bid Form – Proposal Sheet

The Proposal sheet is the only form upon which the proposed bid price can be offered. Bidder's quote sheets, letters, or other materials cannot be used in lieu of the Proposal Sheet. When descriptive literature is included with the bid submittal, they shall be considered only for informational purposes. Payment, warranty and other terms that may appear on such forms that vary from the terms of these Contract Documents shall be considered null and void. All sections of the bid form should be completed and turned in prior to the close of bidding.

3. Withdrawal of Bids After Bid Opening

A bidder may withdraw its bid after bid opening for any one of the following reasons:

The price bid was substantially lower than other bids due to clerical error, provided notice is given in writing to the Owner by the end of the second business day after the bids were opened and read.

Any other reasons permitted by law.

IV. EVALUATION AND AWARD OF BIDS

1. Opening and Evaluation of Bids

The Town will evaluate the bids and award the contracts on the basis of the lowest and best bid. The primary basis of award shall be price. However, the Town will also consider all relevant aspects, including the resources, reputation, and performance record of the bidder in determining the lowest and best bid.

The Town shall be the sole judge of the effect of bid irregularities upon acceptance or rejection on a bid and reserves the right to waive any such irregularities and to require the correction of a waived irregularity. The Town reserves the right to reject any or all bids and or increase or decrease quantities in order to meet the proposed budget.

2. Notice and Award of Contract

Award of Contract will be made when the Owner notifies, in writing, the successful bidder, of its intent to execute this Contract with the bidder, pursuant to authorizing legislation.

3. Bid Tabulations

Bid tabulations are available upon request.

In tabulating the bids, the actual sum of the "Total Price for Item" will supersede a conflicting total written as the "Unofficial Total for Bid". The pre-printed quantity times



the unit price written in words will supersede a conflicting "Total Price for Item". Similarly, the unit price written in words will supersede a conflicting set of material/labor prices or unit price written in numbers. These general rules shall apply unless a different intent can unambiguously be determined from the materials submitted.

4. MBE/WBE Requirements

Compliance with the Town of Harrisburg Outreach Plan and Guidelines For Recruitment And Selection Of Minority Businesses is required on this contract. Stated Goal for MWBE participation is 10%. Please refer to the Special Instructions to Bidders section contained in the Proposal.

Bidders may utilize minority businesses that are listed on either of the following minority business registries:

1. NC Department of Administration Historically Underutilized Business (HUB) <https://www.ips.state.nc.us/vendor/searchvendor.aspx>
2. Charlotte Business INClusion (CBI) Program.
<https://charlottenc.gov/finance/procurement/cbi/Pages/vendors.aspx>

Contractors listed must be listed on the CBI Vendor list as one of the following Certification types: MBE, WBE. Contractors listed as SBE (Small Business) only, will not count toward the participation total.

Please complete and return Affidavits A and B with the bid.

5. Bid Security

In accordance with NCGS 143-129, a Bid must be accompanied by Bid security made payable to Owner in an amount of five (5) percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety that is duly licensed or authorized in the jurisdiction in which the project is located to issue bonds in the required amounts.

The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.

The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 91 days after the Bid opening, whereupon Bid security



furnished by such Bidders will be released.

Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

If contractor has failed to obtain a required bond, Owner may exclude the Contractor from the site and exercise Owner's termination rights.

V. EXECUTION OF DOCUMENTS

1. Execution of Contract Documents

The Town will provide the successful bidder with the appropriate number of Contract Documents for execution within a reasonable amount of time following award of the Contract. A bidder to whom a contract award is made will be required to execute a written contract and other required documents, within five (5) days from the date of service of notice to that effect. If a bidder to whom a contract award is made is unable to meet this requirement, he shall forfeit his bid.

2. Insurance Certificate

An insurance certificate shall be provided evidencing, with such supplemental notes as may be necessary, that the required insurance is in full force and effect.

3. Workers Compensation Certificate

A certificate shall be provided evidencing the availability of the benefits of the workers compensation program for persons employed by the Contractor.

4. Bonds and Insurance

When the successful bidder delivers the executed agreement, it shall be accompanied by the performance and payment bonds and insurance documentation.

Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the contract price, as security for the faithful performance and payment of Contractor's obligations under the contract. These bonds shall remain in effect until one year after the date when final payment becomes due. Contractor shall obtain required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the project is located to issue bonds in the required amounts.

Before starting Work, Contractor shall furnish evidence of insurance from companies that are duly licensed or authorized for business in the state of North Carolina with a minimum AM Best rating of A- or better. Contractor shall provide insurance in accordance with the following:



1. Contractor shall provide coverage for not less than the following amounts, or greater where required by Laws and Regulations:

- a. Workers' Compensation:

State:	<u>Statutory</u>
Employer's Liability:	
Bodily Injury, each Accident	\$ <u>1,000,000</u>
Bodily Injury By Disease, each Employee	\$ <u>1,000,000</u>
Bodily Injury/Disease Aggregate	\$ <u>1,000,000</u>

- b. Commercial General Liability:

General Aggregate	\$ <u>2,000,000</u>
Products - Completed Operations Aggregate	\$ <u>1,000,000</u>
Personal and Advertising Injury	\$ <u>1,000,000</u>
Each Occurrence (Bodily Injury and Property Damage)	\$ <u>1,000,000</u>

- c. Automobile Liability herein:

Combined Single Limit of:	\$ <u>1,000,000</u>
Annual Aggregate:	\$ <u>1,000,000</u>

Include coverage on all owned, hired, and non-owned automobiles.

- d. Builders Risk

Contractor to decide amount of coverage needed for the project materials.

5. Vendor Participation Form and E-Verify Affidavit

When the successful bidder delivers the executed agreement, it shall be accompanied by the vendor participation form and E-Verify Affidavit.

6. Notice to Proceed

Following execution of the Contract by both parties, the Town will issue a Notice To Proceed. All time periods for performance will be determined in accordance with the Notice to Proceed, unless otherwise specified.



APPENDICES

Zoning / Compliance Certificate
Cabarrus County, NC (704) 920-2137
Date: 7/25/2023



Application #: ZNHA2023-00357
Parcel Number: 0000

Fees: TOTAL

Project Name: TOWN CENTER ROADWAY EXTENSION

Applicant:	HODGSON	Work Location:	HAGLER ST AND CAMBRIDGE DR
		Phone:	7042068779
Property Owner:		Owner Phone:	
Contractor:		Proposed use:	
		Previous use:	

Setback Information

Front Corner Lot:	Front Local Road:	Front Minor Collector:
Side Yard:	Side Yard Accessory:	Max Impermeable Surface%:
Rear Yard:	Rear Yard Accessory Setback 15ft or less:	

Subdivision and Lot Number:

Total Lot Area: **Number Of Dwelling Units:**

Max Height (Principal/Acc):	Project Description:	CONSTRUCT APPROX 400 LF EXTENSION OF CAMBRIDGE DR ACROSS A TRIBUTARY OF ROCKY RIVER WITH TWO 8X7 CONCRETE BOX CULVERTS CREATING A ROADWAY CONNECTION BETWEEN TOWN CENTER AND DAVIS CREEK. APPROX 950 LF GREENWAY AND TRAILHEAD WILL BE ADDED
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Zone:

Development of this property will also involve:

☐ Approve Site Plan	☐ Accessory / Building / Structure Signs	☐ Watershed Overlay District
☐ Fence / Screen / Buffer Yard	☐ Flood Damage Prevention Ordinance	

Comments: MUST OBTAIN ALL APPLICABLE TRADE PERMITS PRIOR TO CONSTRUCTION

Zoning Staff Signature:

I, the undersigned, certify that all work designated on this application and on approved attached plans (if any) will be performed as indicated, and arrangement of land and / or structures will conform to all information presented herein and to all regulations of the zoning ordinance. No structures will be used or occupied other than in compliance with a valid certificate of zoning compliance / occupancy issued.

Signature of Owner or Applicant as Owners' Authorized Agent:

Certificate of Coverage

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES

GENERAL PERMIT NO. NCG010000

NC Reference No. NCG01-2024-0761
Certificate of Coverage No. NCC240761

STORMWATER DISCHARGES

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

Town of Harrisburg

is hereby authorized to discharge stormwater associated with CONSTRUCTION ACTIVITIES to surface waters of North Carolina from a site located at:

Town Center Roadway Connection and Davis Creek Greenway Project
Corner of Hagler Street and Cambridge Drive
Harrisburg
Cabarrus County

in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in N.C. General Permit No. NCG010000.

This Certificate of Coverage is affiliated with **E&SC Plan Project No.** CABAR-2024-007

This Certificate of Coverage shall become effective 4/10/2024.

This Certificate of Coverage shall remain in effect until rescinded or expired.

This Certificate of Coverage will expire on the anniversary of its effective date unless it is renewed by payment of the annual administration and compliance fee.



William E. Vinson, Jr., PE, CPESC, CPM, Interim Director
Division of Energy, Mineral, and Land Resources
By the Authority of the Environmental Management Commission

CERTIFICATE OF PLAN APPROVAL



The posting of this certificate certifies that an erosion and sedimentation control plan has been approved for this project by the North Carolina Department of Environmental Quality in accordance with North Carolina General Statute 113A – 57 (4) and 113A – 54 (d) (4) and North Carolina Administrative Code, Title 15A, Chapter 4B.0107 (c). This certificate must be posted at the primary entrance of the job site before construction begins and until establishment of permanent groundcover as required by North Carolina Administrative Code, Title 15A, Chapter 4B.0127 (b).

Town Center Roadway Connection and Davis Creek Greenway Project – Hagler Street – Harrisburg – Cabarrus County

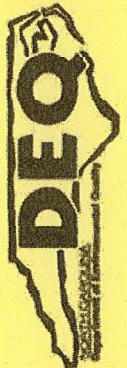
Project Name and Location

CABAR-2024- 007

October 4, 2023

Date of Plan Approval

Project Number



NCG01 Certificate of Coverage #

Meng Lu, P.E.

Asst. Regional Engineer



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT
WILMINGTON REGULATORY OFFICE
69 DARLINGTON AVENUE
WILMINGTON NORTH CAROLINA 28403

November 3, 2023

Regulatory Program/Division
Wilmington District
Charlotte Regulatory Office
SAW-2023-00409

Clay Heath, P.E.
Town of Harrisburg
4100 Main Street
Harrisburg, North Carolina 28075
Via Email: cheath@harrisburgnc.org

Dear Mr./Ms. Heath, P.E.:

This letter is in response to the Pre-Construction Notification (PCN) you submitted to the Wilmington District, Charlotte Regulatory Office on July 14, 2023, for a Department of the Army Nationwide permit (NWP) verification. This project has been assigned the file number SAW-2023-00409 and is known as None. This file number should be referenced in all correspondence concerning this project.

A review of the information provided indicates that the proposed work would include the construction of a new alignment roadway connecting Hagler Street and Cambridge Drive, and the construction of a segment of the Davis Creek greenway project. The project area for this determination includes an approximately 0.25 acre area which is illustrated on the enclosed site plans/maps. The project/review area is located along and across Davis Creek between Hagler Street and Cambridge Drive, at Latitude 35.324748 and Longitude -80.642430; in Harrisburg, Cabarrus County, North Carolina.

We have determined that the proposed work would be authorized by Nationwide Permit 14 pursuant to authorities under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403), **and/or** Section 404 of the Clean Water Act (33 U.S.C. § 1344) **and** Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 408). The proposed work must be accomplished in strict accordance with the general permit conditions, any regional conditions, the special conditions listed in this letter, the application materials, and the enclosed plans "Town of Harrisburg Cabarrus County From Carl Parmer Drive to Cambridge Drive and Davis Greenway" (four pp). If the extent of the project area and/or nature of the authorized impacts to waters are modified, a revised PCN must be submitted to this office for written approval before work is initiated. Any violation of permit conditions or deviation from your submitted plans may subject the permittee to enforcement action.

This verification is valid until March 14, 2026, unless prior to this date the subject NWP(s) is suspended, revoked, or is modified such that the activity no longer complies with the terms and conditions of this NWP. If you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

Project Specific Special Conditions:

1. The information provided indicates that suitable forage and/or roosting habitat for the proposed endangered tricolored bat (*Perimyotis subflavus*) may occur within the proposed action area. To avoid impacts to this species, we highly encourage project proponents to accomplish any necessary tree clearing outside of the "active season" for this animal. The active season for tricolored bat occurs during the warmer time of year from April 1 - October 15. Although this species is not currently afforded legal protection under Section 7 of the Endangered Species Act (ESA), this impact minimization measure would support our concurrence with a "may affect, not likely to adversely affect" determination from the appropriate action agency should this species become listed in the future. If the proposed action would not affect suitable habitat for this animal, we would not object to a "no effect" determination from the appropriate action agency.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management in Wilmington, NC, at (910) 796-7215.

This NWP verification does not preclude the necessity to obtain any other Federal, State, or local permits, licenses, and/or certifications, which may be required.

General Conditions (33 CFR PART 320-330):

1. The time limit for completing the work authorized ends on **March 14, 2026.**
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit you must obtain the signature of the new owner on a transfer form as described in General Condition 29 and forward a copy to this office to validate the transfer of this authorization.
5. A conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.
6. You must allow a representative from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Compliance Certification Form

Action ID Number: SAW-2023-00409

County: Cabarrus

Permittee: Town of Harrisburg, Clay Heath, P.E.

Project Name: None

Date Verification Issued: 11/3/2023

Project Manager: Krysta Stygar

Within 30 days of completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

**US ARMY CORPS OF ENGINEERS
Wilmington District
Attn: Krysta Stygar
Charlotte Regulatory Office
8430 University Executive Park Drive, Suite 615
Charlotte, North Carolina 28262
or
krystynka.b.stygar@usace.army.mil**

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the Corps suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

I hereby certify that the work, and mitigation (if applicable), authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit including any general or specific conditions.

Date Authorized Work Started: _____ Completed: _____

Describe any deviations from permit (attach drawing(s) depicting the deviations):

***Note: The description of any deviations on this form does not constitute approval by the Corps.**

Signature of Permittee

Date

Nationwide Permit 14
Linear Transportation Projects

Effective Date: February 25, 2022 / Expiration Date: March 14, 2026

Authority: Sections 10 and 404

Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge of dredged or fill material in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges of dredged or fill material for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include 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, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no

more than minimal individual and cumulative adverse environmental effects (see general condition 23).

GENERAL CONDITIONS

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation.

(a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.
6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).
7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.
8. **Adverse Effects from Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.
9. **Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).
10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.
11. **Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.
12. **Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.
13. **Removal of Structures and Fills.** Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.
14. **Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.
15. **Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. **Wild and Scenic Rivers.**

(a) No NWP activity may 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, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity 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, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: <http://www.rivers.gov/>.

17. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. **Endangered Species.**

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of “effects of the action” for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding “activities that are reasonably certain to occur” and “consequences caused by the proposed action.”

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed

endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have “no effect” on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take” means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their worldwide Web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.nmfs.noaa.gov/pr/species/esa/> respectively.

19. **Migratory Birds and Bald and Golden Eagles**. The permittee is responsible for ensuring that an action authorized by NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are

necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. **Historic Properties.**

(a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is

required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 5258 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (*i.e.*, on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 1/103/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 1/103/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWP, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee- responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to an herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality.

(a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFF 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a

coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance

standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

- (a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
- (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
- (c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an 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 (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification.

(a) *Timing.* Where required by the terms of the NWP, the permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

- (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or
- (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no

effect” on listed species or “no potential to cause effects” on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee’s right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the pr set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification:* The PCN must be in writing and include the following information:

- (1) Name, address and telephone numbers of the prospective permittee;
- (2) Location of the proposed activity;
- (3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;
- (4)
 - (i) A description of the proposed activity; the activity’s purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and 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, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and 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 other mitigation measures.
 - (ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project and does not change those non-PCN NWP activities into NWP PCNs.
 - (iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans).

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required 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. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate.

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act.

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act.

(9) For an 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, the PCN must identify the Wild and Scenic River or the “study river” (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, 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, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification:* The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination:*

(1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for:

(i) All NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States;

(ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and

(iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or email that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so, contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

DISTRICT ENGINEER'S DECISION

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the

prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either:

(a) That the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit;

(b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or

(c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

FURTHER INFORMATION

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

DEFINITIONS

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for

the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term “discharge” means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent

utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance but are still reasonably foreseeable.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non- tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has surface water flowing continuously year-round during a typical year.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre- construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-

construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: Re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a

single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of “independent utility”). Single and complete non-linear projects may not be “piecemealed” to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: (1) Held in trust by the United States for the benefit of any Indian tribe or individual; or (2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign

authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWP, a waterbody is a “water of the United States.” If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

REGIONAL CONDITIONS:

The following Regional Conditions have been approved by the Wilmington District for the Nationwide Permits (NWP) published in the January 13, 2021, and December 27, 2021, *Federal Register* (86 FR 2744 and 86 FR 73522) announcing the reissuance of 52 existing (NWP) and five new NWPs, as well as the reissuance of NWP general conditions and definitions with some modifications.

A. EXCLUDED WATER AND/OR AREAS

The Corps has identified waters that will be excluded from the use of all NWP's during certain timeframes. These waters are:

1. **Anadromous Fish Spawning Areas.** Work in waters of the U.S. designated by either the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) as anadromous fish spawning areas are prohibited from February 15th through June 30th, without prior written approval from the Corps and the appropriate wildlife agencies (NCDMF, NCWRC and/or the National Marine Fisheries Service (NMFS)). Work in waters of the U.S. designated by NCWRC as primary nursery areas in inland waters are prohibited from February 15th through September 30th, without prior written approval from the Corps and the appropriate wildlife agencies. Work in waters of the U.S. designated by NCDMF as primary nursery areas shall be coordinated with NCDMF prior to being authorized by this NWP. Coordination with NCDMF may result in a required construction moratorium during periods of significant biological productivity or critical life stages.
2. **Trout Waters Moratorium.** Work in waters of the U.S. in the designated trout watersheds of North Carolina are prohibited from October 15th through April 15th without prior written approval from the NCWRC, or from the Eastern Band of Cherokee Indians (EBCI) Fisheries and Wildlife Management (FWM) office if the project is located on EBCI trust land. (See Section C.3. below for information on the designated trout watersheds).
3. **Sturgeon Spawning Areas.** No in-water work shall be conducted in waters of the U.S. designated by the National Marine Fisheries Service as Atlantic sturgeon critical habitat from February 1st through June 30th. No in-water work shall be conducted in waters of the U.S. in the Roanoke River designated as Atlantic sturgeon critical habitat from February 1st through June 30th, and August 1st through October 31st, without prior written approval from NMFS.
4. **Submerged Aquatic Vegetation.** Impacts to Submerged Aquatic Vegetation (SAV) are not authorized by any NWP, except NWP 48, NWP 55 and NWP 56, unless Essential Fish Habitat (EFH) consultation has been completed pursuant to the Magnuson-Stevens Fisheries Conservation and Management Act (Magnuson-Stevens Act). Permittees shall submit a PCN (See NWP General Condition 32) to the District Engineer prior to commencing the activity if the project would affect SAV. The permittee may not begin work until notified by the Corps that the requirements of the Magnuson-Stevens Act have been satisfied and that the activity is verified.

B. REGIONAL CONDITIONS APPLICABLE TO ALL NWP's

1. **Critical Habitat in Western NC.** For proposed activities within waters of the U.S. that require a Pre-Construction Notification (PCN) and are located in the thirteen counties listed below, permittees must provide a copy of the PCN to the U.S. Fish and Wildlife Service (USFWS), 160 Zillicoa Street, Asheville, North Carolina 28801 and the Corps Asheville Regulatory Field Office. Please see General Condition 18 for specific PCN requirements

related to the Endangered Species Act and the below website for information on the location of designated critical habitat.

Counties with tributaries that drain to designated critical habitat that require notification to the Asheville U.S. Fish and Wildlife Service: Avery, Cherokee, Graham, Haywood, Henderson, Jackson, Macon, Mecklenburg, Mitchell, Swain, Transylvania, Union and Yancey.

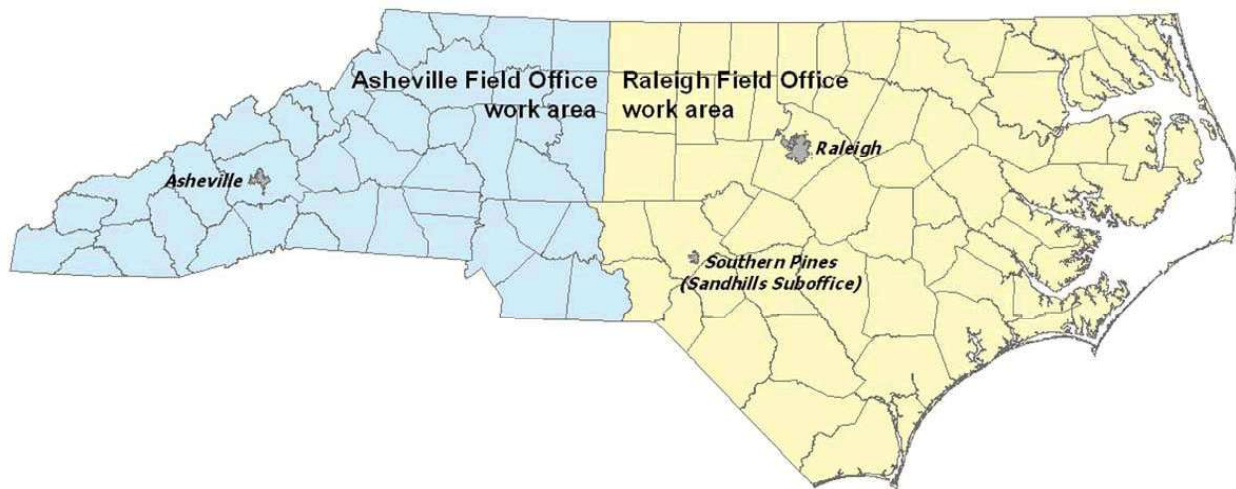
Website and office addresses for Endangered Species Act Information:

The Wilmington District has developed the following website for permittees which provides guidelines on how to review linked websites and maps in order to fulfill NWP General Condition 18 (Endangered Species) requirements:

<http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram/AgencyCoordination/ESA.aspx>.

Permittees who do not have internet access may contact the appropriate U.S. Fish and Wildlife Service offices listed below or Corps at (910) 251-4850.

Below is a map of the USFWS Field Office Boundaries:



Asheville U.S. Fish and Wildlife Service Office counties: All counties west of and including Anson, Stanly, Davidson, Forsythe and Stokes Counties.

U.S. Fish and Wildlife Service
Asheville Field Office
160 Zillicoa Street
Asheville, NC 28801
Telephone: (828) 258-3939

Raleigh U.S. Fish and Wildlife Service Office counties: All counties east of and including Richmond, Montgomery, Randolph, Guilford, and Rockingham Counties.

U.S. Fish and Wildlife Service
Raleigh Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Telephone: (919) 856-4520

2. **Special Designation Waters.** Prior to the use of any NWP that involves a discharge of dredged or fill material in any of the following identified waters and/or adjacent wetlands in North Carolina, permittees shall submit a PCN to the District Engineer prior to commencing the activity (see General Condition 32). The North Carolina waters and wetlands that require additional PCN requirements are:

“Primary Nursery Areas” (PNA), including inland PNA, as designated by the North Carolina Marine Fisheries Commission and/or the North Carolina Wildlife Resources Commission. The definition of and designated PNA waters can be found in the North Carolina State Administrative Code at Title 15A, Subchapters 3R and 10C (15A NCAC 03R .0103; 15A NCAC 10C .0502; and 15A NCAC 10C .0503) and at the following web pages:

- <http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2003%20-%20marine%20fisheries/subchapter%20r/15a%20ncac%2003r%20.0103.pdf>
- <http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2010%20-%20wildlife%20resources%20and%20water%20safety/subchapter%20c/15a%20ncac%2010c%20.0502.pdf>
- <http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2010%20-%20wildlife%20resources%20and%20water%20safety/subchapter%20c/15a%20ncac%2010c%20.0503.pdf>

3. **Trout Waters.** Prior to any discharge of dredge or fill material into streams, waterbodies or wetlands within the 294 designated trout watersheds of North Carolina, the permittee shall submit a PCN (see General Condition 32) to the District Engineer prior to commencing the activity. The permittee shall also provide a copy of the PCN to the appropriate NCWRC office, or to the EBCI FWM Office (if the project is located on EBCI trust land), to facilitate the determination of any potential impacts to designated Trout Waters.

NCWRC and NC Trout Watersheds:

NCWRC Contact**	Counties that are entirely within Trout Watersheds*	Counties that are partially within Trout Watersheds*
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Mountain Coordinator 645 Fish Hatchery Rd., Building B Marion, NC 28752 828-803- 6054 For NCDOT Projects: NCDOT Coordinator 12275 Swift Rd. Oakboro, NC 28129 704-984- 1070	Alleghany Ashe Avery Graham Haywood	Jackson Macon Swain Transylvania Watauga	Burke Buncombe Caldwell Cherokee Clay Henderson Madison	McDowell Mitchell Polk Rutherford Surry Wilkes Yancey
EBCI Contact**	Counties that are within Trout Watersheds*			
Office of Natural Resources P.O. Box 1747, Cherokee, NC 28719 (828) 359-6113	Qualla Boundary and non- contiguous tracts of trust land located in portions of Swain, Jackson, Haywood, Graham and Cherokee Counties.			

*NOTE: To determine PCN requirements, contact the Corps Asheville Regulatory Field Office at (828) 271-7980 or view maps showing trout watersheds in each County at the following webpage: <http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout/>.

**If a project is located on EBCI trust land, submit the PCN in accordance with Regional Condition C.16. Contact the Corps Asheville Regulatory Field Office at (828) 271-7980 with questions.

4. **Western NC Waters and Corridors.** The permittee shall submit a PCN (see General Condition 32) to the District Engineer prior to commencing the activity in waters of the U.S. if the activity will occur within any of the following identified waters in western North Carolina, within 0.5 mile on either side of these waters, or within 0.75 mile of the Little Tennessee River, as measured from the top of the bank of the respective water (i.e., river, stream, or creek):

Brasstown Creek
Burningtown Creek

Cane River
Caney Fork
Cartoogechaye Creek
Chattooga River
Cheoah River
Cowee Creek
Cullasaja River
Deep Creek
Ellijay Creek
French Broad River
Garden Creek
Hiwassee River
Hominy Creek
Iotla Creek
Little Tennessee River (within the river or within 0.75 mile on either side of this river)
Nantahala River
Nolichucky River
North Fork French Broad River
North Toe River
Nottley River
Oconaluftee River (portion not located on trust/EBCI land)
Peachtree Creek
Shooting Creek
Snowbird Creek
South Toe River
Stecoah Creek
Swannanoa River
Sweetwater Creek
Tuckasegee River (also spelled Tuckaseegee or Tuckaseigee)
Valley River
Watauga Creek
Watauga River
Wayah Creek
West Fork French Broad River

To determine PCN requirements, contact the Corps Asheville Regulatory Field Office at (828) 271-7980 or view maps for all corridors at the following webpage:

<http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Designated-Special-Waters.aspx>.

5. **Limitation of Loss of Stream Bed.** NWP's may not be used for activities that may result in the loss of more than 0.05 acres of stream bed, except for NWP 32.

6. **Pre-Construction Notification for Loss of Stream Bed Exceeding 0.02 acres.** The permittee shall submit a PCN to the District Engineer prior to commencing the activity (see General Condition 32) prior to the use of any NWP for any activity that results in the loss of more than 0.02 acres of stream bed. This applies to NWP's that do not have PCN requirements as well as those NWP's that require a PCN.

7. **Mitigation for Loss of Stream Bed.** For any NWP that results in a loss of more than 0.02 acres of stream bed, the permittee shall provide a mitigation proposal to compensate for more than minimal individual and cumulative adverse impacts to the aquatic environment, unless the

District Engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal. For stream bed losses of 0.02 acres or less that require a PCN, the District Engineer may determine, on a case-by-case basis, that compensatory mitigation is required to ensure that the activity results in minimal adverse effect on the aquatic environment.

8. **Riprap.** For all NWP's that allow for the use of riprap material for bank stabilization, the following conditions shall be applied:

a. Filter cloth must be placed underneath the riprap as an additional requirement of its use in North Carolina waters. The placement of filter fabric is not required if the riprap will be pushed or "keyed" into the bank of the waterbody. A waiver from the specifications in this Regional Condition must be requested in writing.

b. Riprap shall be placed only on the stream banks, or, if it is necessary to be placed in the stream bed, the finished top elevation of the riprap should not exceed that of the original stream bed.

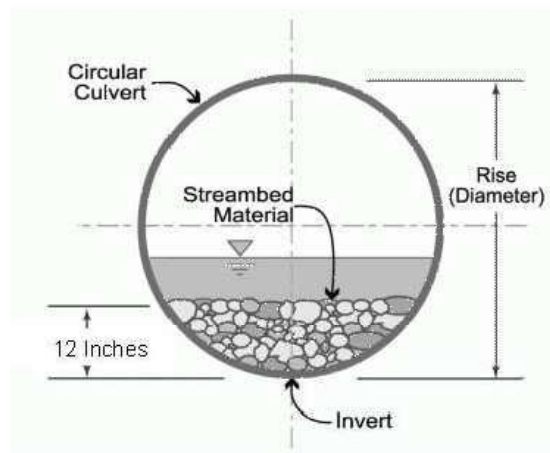
9. **Culvert Placement.** For all NWP's that allow for culvert placement, the following conditions shall be applied:

a. For all NWP's that involve the construction/installation of culverts, measures shall be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms

Placement of culverts and other structures in streams shall be below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20% of the culvert diameter for culverts having a diameter less than or equal to 48 inches. If the culvert outlet is submerged within a pool or scour hole and designed to provide for aquatic passage, then culvert burial into the streambed is not required.

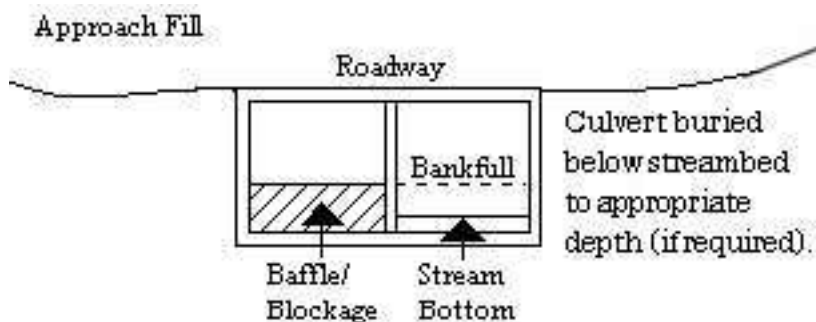
Culvert burial is not required for structures less than 72 inch diameter/width, where the slope of the culvert will be greater than 2.5%, provided that all alternative options for flattening the slope have been investigated and aquatic life movement/connectivity has been provided when possible (e.g., rock ladders, cross vanes, sills, baffles etc.). Culvert burial is not required when bedrock is present in culvert locations.

Installation of culverts in wetlands shall ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. When roadways, causeways, or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges shall be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.



A waiver from the depth specifications in this condition may be requested, in writing, by the permittee and issued by the Corp. This waiver request must be specific as to the reasons(s) for the request. The waiver will be issued if it can be demonstrated that the proposed design would result in less impacts to the aquatic environment. Culverts placed across wetland fills purely for the purposes of equalizing surface water do not have to be buried, but the culverts must be of adequate size and/or number to ensure unrestricted transmission of water.

b. Bank-full flows (or less) shall be accommodated through maintenance of the existing bank-full channel cross sectional area. Additional culverts or culvert barrels at such crossings shall be allowed only to receive bank-full flows.



c. Culverts shall be designed and installed in such a manner that the original stream profiles are not altered and allow for aquatic life movement during low flows. The dimension, pattern, and profile of the stream above and below a pipe or culvert shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed culvert shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. If the width of the culvert is wider than the stream channel, the culvert shall include multiple boxes/pipes, baffles, benches and/or sills to maintain the natural width of the stream channel. If multiple culverts/pipes/barrels are used, low flows shall be accommodated in one culvert/pipe and additional culverts/pipes shall be installed such that they receive only flows above bankfull.

10. **Utility Lines.** For all NWP's that allow for the construction and installation of utility lines, the following conditions shall be applied:

a. Utility lines consisting of aerial electric power transmission lines crossing navigable waters of the U.S. (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).

b. The work area authorized by this permit, including temporary and/or permanent fills, will be minimized to the greatest extent practicable. Justification for work corridors exceeding forty (40) feet in width is required and will be based on pipeline diameter and length, size of equipment required to construct the utility line, and other construction information deemed necessary to support the request. The permittee is required to provide this information to the Corps with the initial PCN package.

c. A plan to restore and re-vegetate wetland areas cleared for construction must be submitted with the required PCN. Cleared wetland areas shall be re-vegetated, as appropriate, with species of canopy, shrub, and herbaceous species. The permittee shall not use fescue grass or any other species identified as invasive or exotic species by the NC Native Plant Society (NCNPS): <https://ncwildflower.org/invasive-exotic-species-list/>.

d. Any permanently maintained corridor along the utility right of way within forested wetlands shall be considered a loss of aquatic function. A compensatory mitigation plan will be required for all such impacts associated with the requested activity if the activity requires a PCN and the cumulative total of permanent conversion of forested wetlands exceeds 0.1 acres, unless the District Engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal.

Where permanently maintained corridor within forested wetlands is 0.1 acres or less, the District Engineer may determine, on a case-by-case basis, that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment.

e. When directional boring or horizontal directional drilling (HDD) under waters of the U.S., including wetlands, permittees shall closely monitor the project for hydraulic fracturing or “fracking.” Any discharge from hydraulic fracturing or “fracking” into waters of the U.S., including wetlands, shall be reported to the appropriate Corps Regulatory Field Office within 48 hours. Restoration and/or compensatory mitigation may be required as a result of any unintended discharges.

11. **Temporary Access Fills.** The permittee shall submit a PCN to the District Engineer prior to commencing the activity if the activity will involve the discharge of dredged or fill material into more than 0.1 acres of wetlands or 0.02 acres of stream channel for the construction of temporary access fills and/or temporary road crossings. The PCN must include a restoration plan that thoroughly describes how all temporary fills will be removed, how pre-project conditions will be restored, and include a timetable for all restoration activities.

12. **Federal Navigation Channel Setbacks.** Authorized structures and fills located in or adjacent to Federally authorized waterways must be constructed in accordance with the latest setback criteria established by the Wilmington District Engineer. You may review the setback policy at <http://www.saw.usace.army.mil/Missions/Navigation/Setbacks.aspx>. This general permit does not authorize the construction of hardened or permanently fixed structures within the Federally Authorized Channel Setback, unless the activity is approved by the Corps. The permittee shall submit a PCN (see General Condition 32) to the District Engineer to obtain a written verification prior to the construction of any structures or fills within the Federally Authorized Channel Setback.

13. **Northern Long-eared Bat – Endangered Species Act Compliance.** The Wilmington District, U.S. Army Corps of Engineers has consulted with the United States Fish and Wildlife

Service (USFWS) in regard to the threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*) and Standard Local Operating Procedures for Endangered Species (SLOPES) have been approved by the Corps and the USFWS. This condition concerns effects to the NLEB only and does not address effects to other federally listed species and/or federally designated critical habitat.

a. Procedures when the Corps is the lead federal* agency for a project:

The permittee must comply with (1) and (2) below when:

- the project is located in the western 41 counties of North Carolina, to include non-federal aid North Carolina Department of Transportation (NCDOT) projects, OR;
- the project is located in the 59 eastern counties of North Carolina and is a non-NCDOT project.

*Generally, if a project is located on private property or on non-federal land, and the project is not being funded by a federal entity, the Corps will be the lead federal agency due to the requirement to obtain Department of the Army authorization to impact waters of the U.S. If the project is located on federal land, contact the Corps to determine the lead federal agency.

(1) A permittee using an NWP must check to see if their project is located in the range of the NLEB by using the following website:

<http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>. If the project is within the range of the NLEB, or if the project includes percussive activities (e.g., blasting, pile driving, etc.), the permittee is then required to check the appropriate website in the paragraph below to discover if their project:

- is located in a 12-digit Hydrologic Unit Code area ("red HUC" - shown as red areas on the map), AND/OR;
- involves percussive activities within 0.25 mile of a red HUC.

Red HUC maps - for the western 41 counties in NC (covered by the Asheville Ecological Services Field Office), check the project location against the electronic maps found at: http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html. For the eastern 59 counties in NC (covered by the Raleigh Ecological Services Field Office), check the project location against the electronic maps found at: https://www.fws.gov/raleigh/NLEB_RFO.html.

(2) A permittee must submit a PCN to the District Engineer, and receive written verification from the District Engineer, prior to commencing the activity, if the activity will involve any of the following:

- tree clearing/removal and/or, construction/installation of wind turbines in a red HUC, AND/OR;
- bridge removal or maintenance, unless the bridge has been inspected and there is no evidence of bat use, (applies anywhere in the range of the NLEB), AND/OR;
- percussive activities in a red HUC, or within 0.25 mile of a red HUC.

The permittee may proceed with the activity without submitting a PCN to either the Corps or the USFWS, provided the activity complies with all applicable NWP terms and general and regional conditions, if the permittee's review under A.(1) and A.(2) above shows that the project is:

- located outside of a red HUC (and there are no percussive activities), and the activity will NOT include bridge removal or maintenance, unless the bridge has been inspected and there is no evidence of bat use, OR;
- located outside of a red HUC and there are percussive activities, but the percussive activities will not occur within 0.25-mile of a red HUC boundary, and the activity will NOT include bridge removal or maintenance, unless the bridge has been inspected and there is no evidence of bat use, OR;
- located in a red HUC, but the activity will NOT include tree clearing/removal; construction/installation of wind turbines; bridge removal or maintenance, unless the bridge has been inspected and there is no evidence of bat use, and/or; any percussive activities.

b. Procedures when the USACE is not the lead federal agency:

For projects where another federal agency is the lead federal agency - if that other federal agency has completed project-specific ESA Section 7(a)(2) consultation for the NLEB, and has (1) determined that the project would not cause prohibited incidental take of the NLEB, and (2) completed coordination/consultation that is required by the USFWS (per the directions on the respective USFWS office's website), that project may proceed without PCN to either the USACE or the USFWS, provided all General and Regional Permit Conditions are met.

The NLEB SLOPES can be viewed on the USACE website at:

<http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/ESA/>. Permittees who do not have internet access may contact the USACE at (910) 251- 4633.

14. West Indian Manatee Protection. In order to protect the endangered West Indian manatee (*Trichechus manatus*) the Permittee shall implement the USFWS' Manatee Guidelines, and strictly adhere to all requirements therein. The guidelines can be found at <https://www.fws.gov/raleigh/pdfs/ManateeGuidelines2017.pdf>.

15. ESA Programmatic Biological Opinions. The Wilmington District, USFWS, NCDOT, and the FHWA have conducted programmatic Section 7(a)(2) consultation for a number of federally listed species and designated critical habitat (DCH), and programmatic consultation concerning other federally listed species and/or DCH may occur in the future. The result of completed programmatic consultation is a Programmatic Biological Opinion (PBO) issued by the USFWS. These PBOs contain mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" of whichever species or critical habitat is covered by a specific PBO. Authorization under NWPs is conditional upon the permittee's compliance with all the mandatory terms and conditions associated with incidental take of the applicable PBO (or PBOs), which are incorporated by reference in the NWPs. Failure to comply with the terms and conditions associated with incidental take of an applicable PBO, where a take of the federally listed species occurs, would constitute an unauthorized take by the permittee, and would also constitute permittee non-compliance with the authorization under the NWPs. If the terms and conditions of a specific PBO (or PBOs) apply to a project, the Corps will include this/these requirements in any NWP verification that may be issued for a project. For an activity/project that does not require a PCN, the terms and conditions of the applicable PBO(s) also apply to that non-notifying

activity/project. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO and the ESA. All PBOs can be found on our website at: <https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/ESA/>.

16. **Work on Eastern Band of Cherokee Indian Land.**

Notifying NWPs - All PCNs submitted for activities in waters of the U.S. on Eastern Band of Cherokee Indians (EBCI) trust land (i.e., Qualla Boundary and non-contiguous tracts of trust land located in portions of Swain, Jackson, Haywood, Graham and Cherokee Counties), must comply with the requirements of the latest MOU between the Wilmington District and the EBCI.

Non-notifying NWPs - Prior to the use of any non-notifying NWP for activities in waters of the U.S. on EBCI trust land (i.e., Qualla Boundary and non-contiguous tracts of trust land located in portions of Swain, Jackson, Haywood, Graham and Cherokee Counties), all prospective permittees must comply with the requirements of the latest MOU between the Wilmington District and the EBCI; this includes coordinating the proposed project with the EBCI Natural Resources Program and obtaining a Tribal Approval Letter from the Tribe.

The EBCI MOU can be found at the following URL: <http://saw-reg.usace.army.mil/FO/Final-MOU-EBCI-USACE.pdf>

17. **Sedimentation and Erosion Control Structures and Measures.**

All PCNs will identify and describe sedimentation and erosion control structures and measures proposed for placement in waters of the U.S. The structures and measures should be depicted on maps, surveys or drawings showing location and impacts to jurisdictional wetlands and streams.

C. REGIONAL CONDITIONS APPLICABLE TO NWP 14

a. If appropriate, permittees shall employ natural channel design (see definition below and NOTE below) to the maximum extent practicable for stream relocations. All stream relocation proposals shall include a Relocation and Monitoring Plan and a functional assessment of baseline conditions (e.g., use of the North Carolina Stream Assessment Methodology). Compensatory mitigation may be required for stream relocations.

Natural Channel Design means a geomorphologic approach to stream restoration based on an understanding of valley type, general watershed conditions, dimension, pattern, profile, hydrology and sediment transport of natural, stable channels (reference condition) and applying this understanding to the reconstruction of a stable channel.

NOTE: For more information on Natural Channel Design, permittees should reference North Carolina Stream Mitigation Guidance on the Corps RIBITS (Regulatory In-lieu Fee and Bank Information Tracking System) website or at the following World Wide Web Page:

<https://ribits.ops.usace.army.mil/ords/f?p=107:2>

b. In designated trout watersheds, a PCN is not required for impacts to a maximum of 0.007 acres (0.02 acres for temporary dewatering). In designated trout waters, the permittee shall submit a PCN (see Regional Conditions C.3. above and General Condition 32) to the District Engineer prior to commencing the activity if 1) impacts (other than temporary dewatering to work in dry conditions) to jurisdictional aquatic resources exceed 0.007 acres; 2) temporary

impacts to streams or waterbodies associated with dewatering to work in dry conditions exceed 0.02 acres; 3) the project will involve impacts to wetlands; 4) the primary purpose of the project is for commercial development; 5) the project involves the replacement of a bridge or spanning structure with a culvert or non-spanning structure in waters of the United States; or 6) the activity will be constructed during the trout waters moratorium (October 15 through April 15).

D. SECTION 401 WATER QUALITY CERTIFICATION (WQC) AND/OR COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY DETERMINATION SUMMARY AND APPLICABLE CONDITIONS

The CZMA Consistency Determination and all Water Quality Certifications for the NWP's can be found at: <https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Permits/2017-Nationwide-Permits/>

ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

RICHARD E. ROGERS, JR.
Director



August 17, 2023

Mr. Clay Heath, P.E.
Town of Harrisburg
4100 Main Street
Harrisburg, NC 28075
cheath@harrisburgnc.org

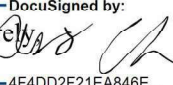
Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with
ADDITIONAL CONDITIONS for Proposed Town Center Roadway Connection, Davis Creek Greenway;
NCDWR Project No. 20230981; WQC No. 006092

Dear Mr. Heath:

Attached hereto is a copy of Certification No. 006092 issued to you dated August 17, 2023.

This approval is for the purpose and design described in your application dated July 14, 2023. The plans and specifications for this project are incorporated by reference as part of this Water Quality Certification. If you change your project, you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)]. This Certification does not relieve the permittee of the responsibility to obtain all other required Federal, State, or Local approvals before proceeding with the project, including those required by, but not limited to, Sediment and Erosion Control, Non-Discharge, Water Supply Watershed, and Trout Buffer regulations.

This letter completes the review of the Division under section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Dave Wanucha at 336-403-5655 or dave.wanucha@deq.nc.gov if you have any questions or concerns.

DocuSigned by:
Sincerely, 
4F4DD2F21EA846E...

Richard E. Rogers Jr., Director
Division of Water Resources

Electronic copy only distribution:

Krysta Stygar, US Army Corps of Engineers
Rebekah Reid, US Fish and Wildlife Service
David McHenry, NC Wildlife Resources Commission
Chris Rivenbark, RK&K (crivenbark@rkk.com)

File Copy



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

**Individual 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act
with ADDITIONAL CONDITIONS**

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the Town of Harrisburg to impact 211 linear feet of jurisdictional streams and 0.084 acres in Cabarrus County. The project shall be constructed pursuant to your application dated July 14, 2023. The authorized impacts are as described below:

Stream Impacts (Fill) in the Yadkin PeeDee River Basin (linear feet).

Site	Perennial Stream			Impacts Requiring Mitigation
	Permanent		Temporary	
	Culvert	Bank Stabilization	Dewatering	
1	68	76	67	-
Total	68	76	67	-

Total Stream Impacts for Project: 211 linear feet

Wetland Impacts (acres) in the Yadkin PeeDee River Basin (riverine).

Site	Fill	Temporary Fill	Excavation	Mechanized Clearing	Hand Clearing	Total Wetland Impact
1	0.065	--	0.019	-	-	0.084
Total	0.065	--	0.019	-	-	0.084

Total Wetland Impact for Project: 0.084 acres

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future) exceed one tenth acre, or of total impacts to streams (now or in the future) exceed 300 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed in the attached certification(s) and any additional conditions listed below.

Condition(s) of Certification:

Project Specific Conditions

1. All work in or adjacent to stream waters shall be conducted per approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual. [15A NCAC 02H.0506(b)(3) and (c)(3)]
2. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507 (c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
3. Placement of culverts and pipes in open waters and streams, shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert



diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and downstream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by the NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NCDWR for guidance on how to proceed and to determine whether a permit modification will be required. [15A NCAC 02H.0506(b)(2)]

4. For the segments of streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species. [15A NCAC 02H.0506(b)(2)]

General Conditions

1. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills. [15A NCAC 02B.0200]
2. The dimension, pattern, and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions. [15A NCAC 02H.0506(b)(2)]
3. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage. [15A NCAC 02H.0506(b)(2)]
4. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
5. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]
6. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
7. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If the NCDWR determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]
8. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
9. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification, and all subsequent modifications, if any, shall be maintained with the Town Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
10. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]



11. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e., local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
12. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]
13. Upon completion of the project (including any impacts at associated borrow or waste sites), the Town Engineer (or appointee) shall complete and return the enclosed "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]
14. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction. [15A NCAC 02H.0506(b)(3) and (c)(3)]
15. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities. [15A NCAC 02H.0506(b)(3) and (c)(3)]
16. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface water standards [15A NCAC 02H.0506(b)(3) and (c)(3)]:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
17. Where placement of sediment and erosion control devices in wetlands and/or waters is unavoidable, they shall be removed, and the natural grade restored upon completion of the project. [15A NCAC 02H.0506(b)(3) and (c)(3)]

This approval and its conditions are final and binding unless contested [G.S. 143-215.5]. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) within sixty (60) calendar days. Requirements for filing a Petition are set forth in Chapter 150B of the North



Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at <http://www.ncoah.com/> or by calling the OAH Clerk's Office at (919) 431-3000.

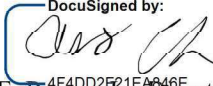
A party filing a Petition must serve a copy of the Petition on:

William F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

If the party filing the Petition is not the permittee, then the party must also serve the recipient of the Certification in accordance with N.C.G.S 150B-23(a).

This the 17th of August 2023

DIVISION OF WATER RESOURCES

DocuSigned by:


Richard E. Rogers Jr., Director

WQC No. 006092



ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director

NORTH CAROLINA
Environmental Quality

NCDWR Project No.: _____

County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, **or** the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____

Completed hard copies can be emailed to kristilynn.carpenter@deq.nc.gov or mailed to:
NCDEQ Transportation Permitting
1617 Mail Service Center
Raleigh NC 27699-1617



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

State of North Carolina AFFIDAVIT A – Listing of Good Faith Efforts

County of Cabarrus

(Name of Bidder)

Affidavit of Performance Managed Construction, Inc.

I have made a good faith effort to comply under the following areas checked:

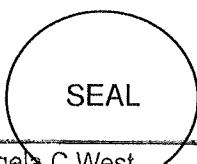
Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

- ☒ **1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- ☒ **2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- ☒ **3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- ☐ **4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- ☐ **5 – (10 pts)** Attended prebid meetings scheduled by the public owner.
- ☐ **6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- ☐ **7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- ☐ **8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- ☐ **9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- ☒ **10 - (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: 05/27/25 Name of Authorized Officer: Kenneth W. Blackwelder
 Signature: Kenneth W. Blackwelder
 Title: President



State of North Carolina, County of Cabarrus
 Subscribed and sworn to before me this 27th day of May, 2025
 Notary Public Angela C West
 My commission expires 12/24/2025

Angela C West
 NOTARY PUBLIC
 Rowan County
 North Carolina
 My Commission Expires October 24, 2025

July 2010

**State of North Carolina --AFFIDAVIT B-- Intent to Perform Contract
with Own Workforce.**

County of _____

N/A

Affidavit of _____

(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the _____

_____ contract.
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

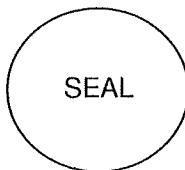
The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____



OUTREACH PLAN AND GUIDELINES FOR RECRUITMENT AND SELECTION OF MINORITY BUSINESSES FOR PARTICIPATION IN TOWN OF HARRISBURG BUILDING CONSTRUCTION OR REPAIR CONTRACTS

In accordance with G.S. 143-128.2, these guidelines establish goals for minority participation in single-prime bidding, separate-prime bidding, construction manager at risk, and alternative contracting methods, on Town of Harrisburg building construction or repair projects in the amount of \$300,000 or more. The outreach plan shall also be applicable to the selection process of architectural, engineering, and Construction Manager-at-Risk services.

Town of Harrisburg has a current verifiable goal of 10% percent for minority participation for building construction or repair projects. The goal will be reviewed at least every 5 years.

SECTION A: INTENT

It is the intent of these guidelines that Town of Harrisburg, as awarding authority for building construction or repair projects, and the contractors and subcontractors performing the construction contracts awarded shall cooperate and in good faith do all things legal, proper, and reasonable to achieve the goal of 10% percent for participation by minority businesses in each building construction or repair project as required by GS 143-128.2. Nothing in these guidelines shall be construed to require contractors or awarding authorities to award contracts or subcontracts to or to make purchases of materials or equipment from minority-business contractors or minority-business subcontractors who do not submit the lowest responsible, responsive bid or bids.

SECTION B: DEFINITIONS

1. Minority - a person who is a citizen or lawful permanent resident of the United States and who is:
 - a. Black, that is, a person having origins in any of the black racial groups in Africa;
 - b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Islands, regardless of race;
 - c. Asian American, that is, a person having origins in any of the original peoples of the Far East, Southeast Asia and Asia, the Indian subcontinent, the Pacific Islands;
 - d. American Indian, that is, a person having origins in any of the original peoples of North America; or
 - e. Female
2. Minority Business (MBE) - means a business:
 - a. In which at least fifty-one percent (51%) is owned by one or more minority persons, or in the case of a corporation, in which at least fifty-one percent (51%) of the stock is owned by one or more minority persons or socially and economically disadvantaged individuals; and
 - b. Of which the management and daily business operations are controlled by one or more of the minority persons or socially and economically disadvantaged individuals who own it.

3. Socially and economically disadvantaged individual - means the same as defined in 15 U.S.C. 637: Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities. Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged.

4. Owner – Town of Harrisburg.

5. Designer – Any person, firm, partnership, or corporation which has contracted with Town of Harrisburg to perform architectural or engineering work.

6. Bidder - Any person, firm, partnership, corporation, association, or joint venture seeking to be awarded a public contract or subcontract.

7. Contract - A mutually binding legal relationship or any modification thereof obligating the seller to furnish equipment, materials, or services, including construction, and obligating the buyer to pay for them.

8. Contractor - Any person, firm, partnership, corporation, association, or joint venture which has contracted with Town of Harrisburg to perform building construction or repair work.

9. Subcontractor - A firm under contract with the prime contractor or construction manager at risk for supplying materials or labor and materials and/or installation. The subcontractor may or may not provide materials in his subcontract.

SECTION C: MINORITY OUTREACH PLAN AND GUIDELINES

Owner

Town of Harrisburg will employ the following strategies to encourage participation from MBEs.

1. Work with minority-focused and small business groups that support MBE inclusion in the solicitation of bids. These groups include North Carolina Small Business Center Network, North Carolina Small Business Development Center – Charlotte, Business Link North Carolina, Charlotte Business Resources, NC@yourservice, and Small Business and Technology Center Development.
2. Place emphasis on the importance of soliciting certified MBE firms for subcontracting opportunities at pre-bid conferences and in the bid documents. Examine specifications to identify special subcontracting opportunities and strongly encourage prime contractors to solicit bids for subcontracts from MBE firms.
3. Provide detailed information to majority contractors concerning the bidding and good faith efforts requirements by holding meetings with the contractors.
4. Assess the effectiveness of the MBE program, and identify opportunities to enhance it by evaluating MBE participation and compliance and reviewing the good faith efforts provided in bid packages.
5. Build new and strengthen existing business relationships through networking. Continue communicating with other North Carolina public agencies to find out how their MBE outreach programs are working and to share “best practices” and ideas to improve programs.
6. Be visible through participation in trade shows and business organizations of interest to MBE firms, majority contractors, and small businesses, and provide information to the general public about the MBE program, and continue outreach efforts to the business community.
7. Enhance Town of Harrisburg web page by including the outreach plan and guidelines, listing good faith efforts, creating links to MBE resources, and creating awareness of specific subcontracting opportunities.

8. Maintain or continue to maintain a database specifically for MBE firms and majority contractors to ensure those firms wishing to do business with Town of Harrisburg have access to up-to-date information.
9. Advertise upcoming bid opportunities in minority-focused media.
10. Work with architects and engineers to make subcontracting opportunities more noticeable and more easily understood by potential contractors and subcontractors.

Designer

Under the single-prime bidding, separate prime bidding, construction manager at risk, or alternative contracting method, the designer will:

1. Attend the scheduled pre-bid conference to explain minority business requirements to the prospective bidders.
2. Assist the owner to identify and notify prospective minority business prime and subcontractors of potential contracting opportunities.
3. Maintain documentation of any contacts, correspondence, or conversation with minority business firms made in an attempt to meet the goals.
4. Review jointly with the owner, all requirements of G.S. 143-128.2(c) and G.S.143-128.2(f) – (i.e. bidders’ proposals for identification of the minority businesses that will be utilized with corresponding total dollar value of the bid and affidavit listing good faith efforts, or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) - prior to recommendation of award.
5. During construction phase of the project, review documentation for contract payment to MBEs (e.g. state form “Appendix E: MBE Documentation for Contract Payment” <http://interscope2.doa.state.nc.us/Guidelines/MBE/MBGuidelines2002R.pdf>) for compliance with minority business utilization commitments. Submit this form with monthly pay applications to the Owner.

Prime Contractor(s), CM at Risk, and Its First-Tier Subcontractors

Under the single-prime bidding, the separate-prime bidding, construction manager at risk, and alternative contracting methods, contractor(s) will:

1. Attend the scheduled pre-bid conference.
2. Identify or determine those work areas of a subcontract where minority businesses may have an interest in performing subcontract work.
3. During the bidding process, comply with the owner’s requirements listed in the proposal for minority participation.
4. Identify on the bid the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit listing good faith efforts as required by G.S. 143-128.2(c) and G.S. 143-128.2(f).
5. Make documentation showing evidence of implementation of Prime Contractor, CM-at-Risk and First-Tier Subcontractor responsibilities available for review by Town of Harrisburg, upon request.
6. Upon being named the apparent low bidder, the bidder shall provide one of the following: (1) an affidavit that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal; or (2) if the percentage is not equal to the applicable goal, then documentation of all good faith efforts taken to meet the goal. The documentation must include evidence of all good faith efforts that were implemented including any advertisements, solicitations, and evidence of other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract. Failure

to comply with these requirements is grounds for rejection of the bid and award to the next lowest responsible and responsive bidder.

7. The contractor(s) shall identify the name(s) of minority business subcontractor(s) and corresponding dollar amount of work on the schedule of values.
8. The contractor(s) shall submit with each monthly pay request(s) and final payment(s) documentation for contract payment to MBEs (e.g. state form "Appendix E: MBE Documentation for Contract Payment" <http://interscope2.doa.state.nc.us/Guidelines/MBE/MBGuidelines2002R.pdf>) for designer's review.
9. During the construction of a project, at any time, if it becomes necessary to replace a minority business subcontractor, immediately advise the owner in writing, of the circumstances involved. The prime contractor shall make a good faith effort to replace a minority business subcontractor with another minority business subcontractor.
10. If during the construction of a project additional subcontracting opportunities become available, the contractor shall make a good faith effort to solicit sub-bids from minority businesses.

Minority Business Responsibilities

Certification

While minority businesses are not required to become certified in order to participate in Town of Harrisburg building construction or repair projects, it is recommended that they become certified and take advantage of appropriate technical assistance that is made available. Certification can be obtained from the following agencies:

North Carolina Department of Administration Historically Underutilized Business (HUB) certification
North Carolina Department of Transportation Minority/Disadvantaged/Women-owned Business certification
Small Business Administration 8(a) certification
Other governmental agencies on a case-by-case basis

Other Responsibilities

Minority businesses that are contacted by owners or bidders must respond promptly whether or not they wish to submit a bid.

SECTION D: MINIMUM COMPLIANCE REQUIREMENTS

All written statements or affidavits made by the bidder shall become a part of the agreement between the Contractor and Town of Harrisburg for performance of the contract. Failure to comply with any of these statements, affidavits, or with the minority business guidelines shall constitute a breach of the contract. A finding by Town of Harrisburg that any information submitted either prior to award of the contract or during the performance of the contract is inaccurate, false, or incomplete shall also constitute a breach of the contract. Any such breach may result in termination of the contract in accordance with the termination provisions contained in the contract. It shall be solely at the option of Town of Harrisburg whether to terminate the contract for breach.

In determining whether a contractor has made good faith efforts, Town of Harrisburg will evaluate all efforts made by the Contractor and will determine compliance in regard to quantity, diligence, and results of these efforts. Contractors are required to earn at least 50 points for good faith efforts. Failure to file a required affidavit or documentation demonstrating that the contractor made the required good faith effort, is grounds for rejection of the bid. Good faith efforts include:

1. Contacting minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor or available on State or local government maintained lists at least 10 days

before the bid or proposal date and notifying them of the nature and scope of the work to be performed. (10 points)

2. Making the construction plans, specifications, and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bid or proposals are due. (10 points)
3. Breaking down or combining elements of work into economically feasible units to facilitate minority participation. (15 points)
4. Working with minority trade, community, or contractor organizations identified by the Office for Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses. (10 points)
5. Attending any pre-bid meetings scheduled by the public owner. (10 points)
6. Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors. (20 points)
7. Negotiating in good faith with interested minority businesses and not rejecting them as unqualified without sound reasons based on their capabilities. Reasons for rejection of a minority business based on lack of qualification should be documented in writing. (15 points)
8. Providing assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisting minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit. (25 points)
9. Negotiating joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible. (20 points)
10. Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash flow demands. (20 points)

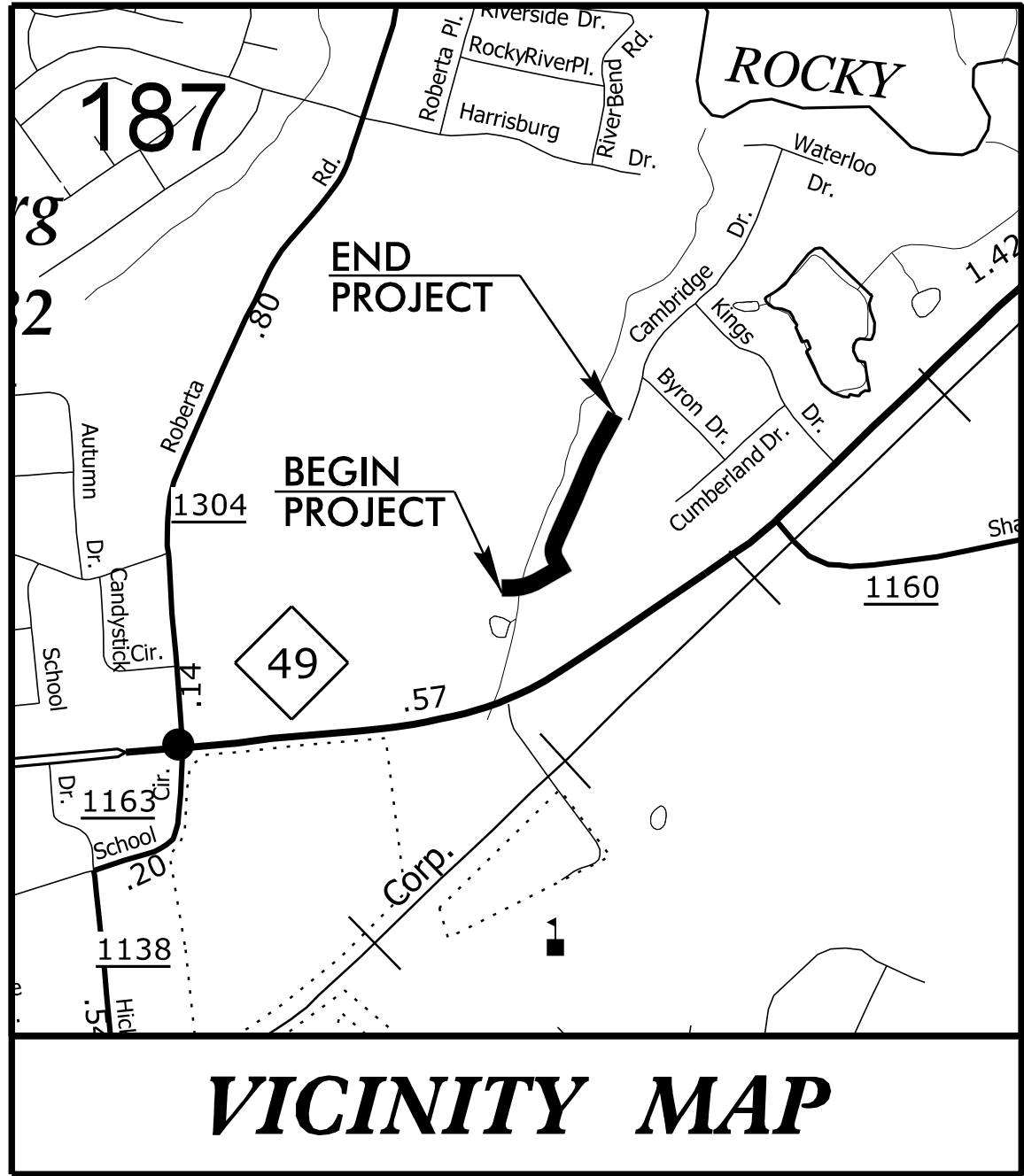
SECTION E: DISPUTE RESOLUTION PROCEDURES

Pursuant to G.S. 143-128 (f1), all disputes involving contractors on a building construction or repair project with Town of Harrisburg shall be resolved pursuant to State of North Carolina Policy G.S. 143-135.26(11).

SECTION F: In addition to these guidelines, there will be issued with each construction bid package provisions for providing minority business participation in the Town of Harrisburg projects.

09/08/19

PROJECT: 22199



VICINITY MAP

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols

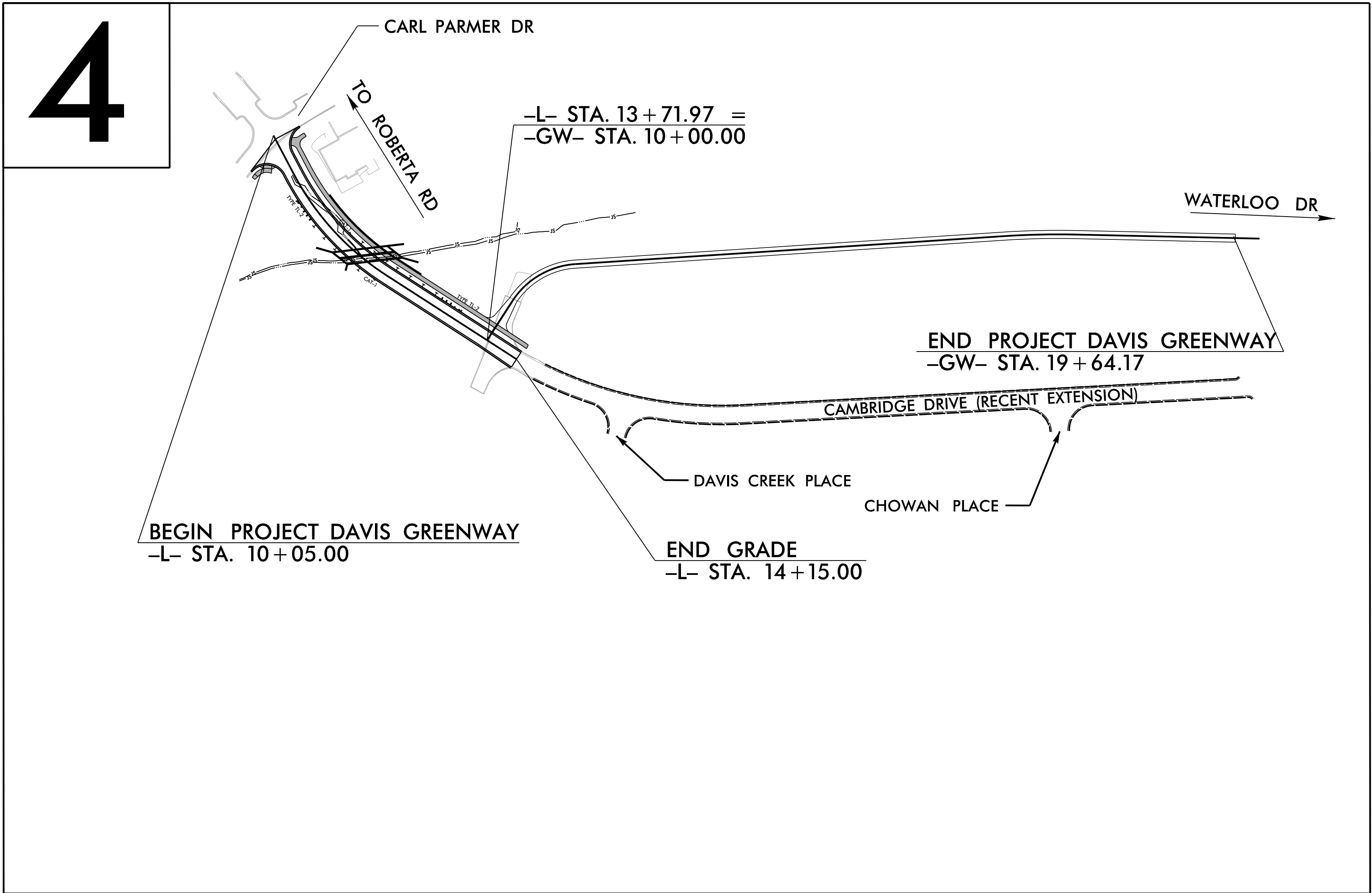
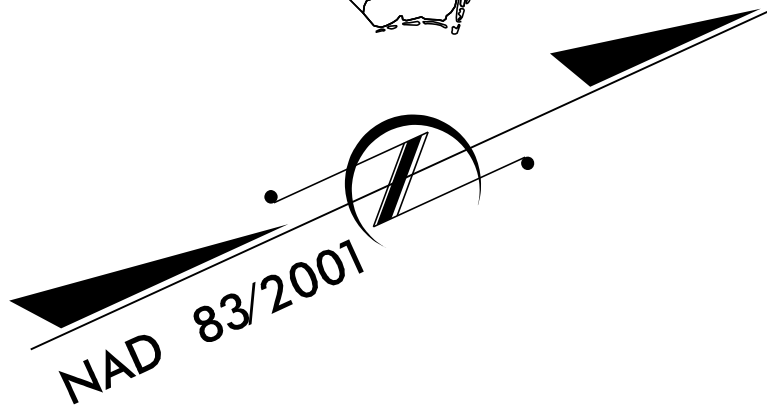
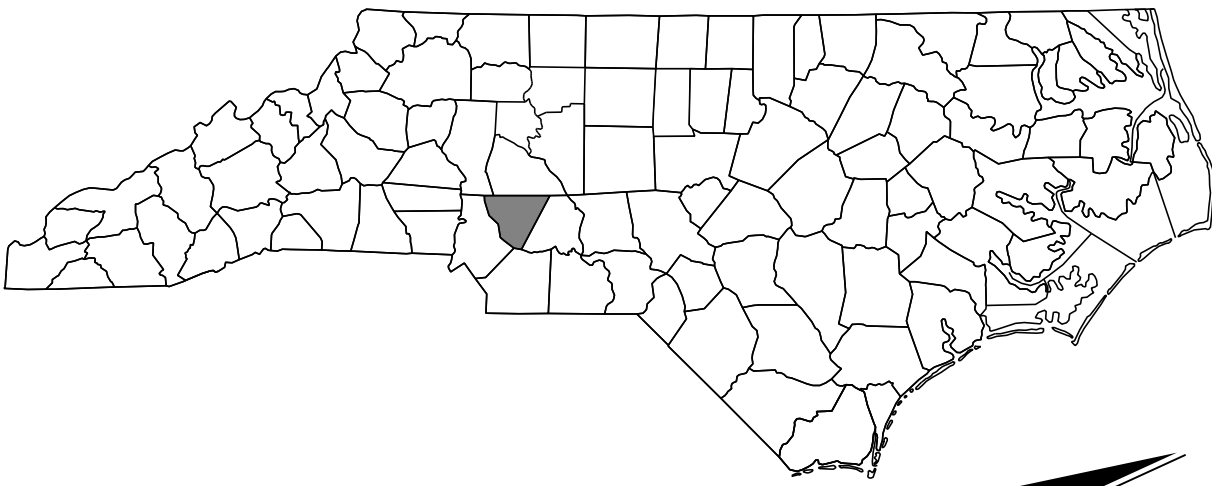
TOWN OF HARRISBURG

CABARRUS COUNTY

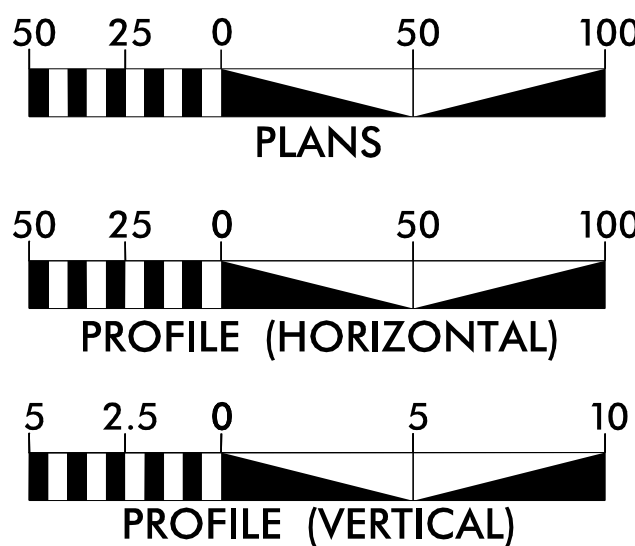
LOCATION: FROM CARL PARMER DR TO
CAMBRIDGE DR AND DAVIS GREENWAY

TYPE OF WORK: SIDEWALK, GRADING, DRAINAGE, STRUCTURES,
SIGNING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	22199	1	40
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	



GRAPHIC SCALES



DESIGN DATA

ADT 2022 = < 800
FUNC CLASS = LOCAL

PROJECT LENGTH

LENGTH ROADWAY PROJECT DAVIS CREEK GREENWAY = 0.078 MILES
LENGTH GREENWAY PROJECT DAVIS CREEK GREENWAY = 0.183 MILES
TOTAL LENGTH OF DAVIS CREEK GREENWAY = 0.261 MILES

PLANS PREPARED BY:
RK&K
124 Floyd Smith Office Park Drive, Suite 240
CHARLOTTE, NORTH CAROLINA 28262
NC LICENSE NO. F-0112
919-878-9560
FOR TOWN OF HARRISBURG

2024 STANDARD SPECIFICATIONS

ROMAN PROKOPOVYCH, PE
PROJECT ENGINEER

TANNER BOLES, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

DocuSigned by:
Douglas Keller
11/6/2024
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

DocuSigned by:
Roman Prokopovych
11/5/2024
SIGNATURE: P.E.



11/5/2024
R:\Roadway\Proj\DavisGwWay_RDY_TSH.dgn
TBoles

8/17/99

11/5/2024
R:\Roadway\Proj\DavisCway_RDY_PSH01A.dgn
tboles

INDEX OF SHEETS	
SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	TYPICAL SECTIONS
2B-1	CURB RAMP DETAILS
2C-1	CURB RAMP STANDARD
2C-2	GREENWAY FENCE DETAIL
2D-1	DRAINAGE SUMMARY & DRAINAGE DETAILS
4	PLAN AND PROFILE SHEET
SIGN-1 THRU SIGN-2	SIGNING PLANS
X-0	CROSS-SECTION SUMMARY SHEET
X-1 THRU X-6	CROSS-SECTIONS
EC-1 THRU EC-5	EROSION CONTROL PLANS
CU 1-1 THRU CU 1-10	STRUCTURE PLANS

EFF. 06-19-2023
REV.
2024 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2024 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
240.01	Guide for Berm Ditch Construction
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.02	Parallel Pipe End Section - Precast Concrete Section for 15" to 24" Pipe
310.03	Cross Pipe End Section - Precast Concrete Section for 18" to 30" Pipe
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.21	Reinforced Concrete Endwall - for Single 54" Pipe 90 Skew
838.28	Reinforced Concrete Endwall - for Double and Triple 60" Pipes 90 Skew
838.33	Reinforced Concrete Endwall - for Single 66" Pipe 90 Skew
838.39	Reinforced Concrete Endwall - for Single 72" Pipe 90 Skew
838.45	Notes for Reinforced Concrete Endwall - Std. Dwg 838.21 thru 838.40
838.51	Reinforced Brick Endwall - for Single 54" Pipe 90 Skew
838.57	Reinforced Brick Endwall - for Single 60" Pipe 90 Skew
838.63	Reinforced Brick Endwall - for Single 66" Pipe 90 Skew
838.69	Reinforced Brick Endwall - for Single 72" Pipe 90 Skew
838.75	Notes for Reinforced Brick Endwall - Std. Dwg 838.51 thru 838.70
838.80	Precast Endwalls - 12" thru 72" Pipe 90 Skew
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.04	Concrete Open Throat Catch Basin - 12" thru 48" Pipe
840.05	Brick Open Throat Catch Basin - 12" thru 48" Pipe
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.15	Brick Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.17	Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.19	Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.24	Frames and Narrow Slot Sag Grates
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.26	Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.28	Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.36	Traffic Bearing Grated Drop Inlet - for Steel (840.37) Double Frame and Grates
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.71	Concrete and Brick Pipe Plug
846.01	Concrete Curb, Gutter and Curb & Gutter
846.02	Drop Inlet Installation in Expressway Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
848.04	Street Turnout
848.05	Curb Ramps
850.01	Concrete Paved Ditches
850.11	Guide for Berm Drainage Outlet - 24" and 30" Pipe
852.01	Concrete Islands
857.01	Precast Reinforced Concrete Barrier - 41" Single Faced
862.01	Guardrail Placement
862.02	Guardrail Installation
862.04	Anchoring End of Guardrail - B-77 and B-83 Anchor Units
866.01	Chain Link Fence - 4', 5' and 6' High Fence
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets
876.03	Drainage Ditches with Class 'A' Rip Rap
876.04	Drainage Ditches with Class 'B' Rip Rap

STANDARD NOTES:

1. ALL STREET DESIGN SHALL MEET NCDOT STANDARDS AT A MINIMUM.
2. ALL COMPACTED ABC MUST BE COVERED WITH INTERMEDIATE ASPHALT WITHIN 5 DAYS.
3. ALL ROADWAYS TO HAVE SILT FENCE PLACED AT BACK OF CURB THROUGHOUT PROJECT ONCE PROOF-ROLL OF SUBGRADE IS COMPLETE.
4. ALL PIPES SHALL INCLUDE TRACE SAFE WATER BLOCKING TRACER OR APPROVED EQUAL.
5. ALL PIPES SHALL BE BED IN ACCORDANCE WITH NCDOT SCD 300.01.

PROJECT REFERENCE NO.	SHEET NO.
22199	1A
	ROADWAY DESIGN ENGINEER
	NORTH CAROLINA PROFESSIONAL SEAL 048576 ENGINEER Roman Prokopych 2024
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

Note: Not to Scale

BOUNDARIES AND PROPERTY:

State Line	
County Line	
Township Line	
City Line	
Reservation Line	
Property Line	
Existing Iron Pin (EIP)	
Computed Property Corner	
Existing Concrete Monument (ECM)	
Parcel/Sequence Number	
Existing Fence Line	
Proposed Woven Wire Fence	
Proposed Chain Link Fence	
Proposed Barbed Wire Fence	
Existing Wetland Boundary	
Proposed Wetland Boundary	
Existing Endangered Animal Boundary	
Existing Endangered Plant Boundary	
Existing Historic Property Boundary	
Known Contamination Area: Soil	
Potential Contamination Area: Soil	
Known Contamination Area: Water	
Potential Contamination Area: Water	
Contaminated Site: Known or Potential	

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	
Sign	
Well	
Small Mine	
Foundation	
Area Outline	
Cemetery	
Building	
School	
Church	
Dam	

HYDROLOGY:

Stream or Body of Water	
Hydro, Pool or Reservoir	
Jurisdictional Stream	
Buffer Zone 1	
Buffer Zone 2	
Flow Arrow	
Disappearing Stream	
Spring	
Wetland	
Proposed Lateral, Tail, Head Ditch	
False Sump	

RAILROADS:

Standard Gauge	
RR Signal Milepost	
Switch	
RR Abandoned	
RR Dismantled	

RIGHT OF WAY & PROJECT CONTROL:

Primary Horiz Control Point	
Primary Horiz and Vert Control Point	
Secondary Horiz and Vert Control Point	
Vertical Benchmark	
Existing Right of Way Monument	
Proposed Right of Way Monument (Rebar and Cap)	
Proposed Right of Way Monument (Concrete)	
Existing Permanent Easement Monument	
Proposed Permanent Easement Monument (Rebar and Cap)	
Existing C/A Monument	
Proposed C/A Monument (Rebar and Cap)	
Proposed C/A Monument (Concrete)	
Existing Right of Way Line	
Proposed Right of Way Line	
Existing Control of Access Line	
Proposed Control of Access Line	
Proposed ROW and CA Line	
Existing Easement Line	
Proposed Temporary Construction Easement	
Proposed Temporary Drainage Easement	
Proposed Permanent Drainage Easement	
Proposed Permanent Drainage/Utility Easement	
Proposed Permanent Utility Easement	
Proposed Temporary Utility Easement	
Proposed Aerial Utility Easement	

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	
Existing Curb	
Proposed Slope Stakes Cut	
Proposed Slope Stakes Fill	
Proposed Curb Ramp	
Existing Metal Guardrail	
Proposed Guardrail	
Existing Cable Guiderail	
Proposed Cable Guiderail	
Equality Symbol	
Pavement Removal	

VEGETATION:

Single Tree	
Single Shrub	
Hedge	

Woods Line	
Orchard	
Vineyard	

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	
Bridge Wing Wall, Head Wall and End Wall	
MINOR:	
Head and End Wall	
Pipe Culvert	
Footbridge	
Drainage Box: Catch Basin, DI or JB	
Paved Ditch Gutter	
Storm Sewer Manhole	
Storm Sewer	

UTILITIES:

* SUE – Subsurface Utility Engineering
LOS – Level of Service – A,B,C or D (Accuracy)

POWER:	
Existing Power Pole	
Proposed Power Pole	
Existing Joint Use Pole	
Proposed Joint Use Pole	
Power Manhole	
Power Line Tower	
Power Transformer	
U/G Power Cable Hand Hole	
H-Frame Pole	
U/G Power Line Test Hole (SUE – LOS A)*	
U/G Power Line (SUE – LOS B)*	
U/G Power Line (SUE – LOS C)*	
U/G Power Line (SUE – LOS D)*	

TELEPHONE:

Existing Telephone Pole	
Proposed Telephone Pole	
Telephone Manhole	
Telephone Pedestal	
Telephone Cell Tower	
U/G Telephone Cable Hand Hole	
U/G Telephone Test Hole (SUE – LOS A)*	
U/G Telephone Cable (SUE – LOS B)*	
U/G Telephone Cable (SUE – LOS C)*	
U/G Telephone Cable (SUE – LOS D)*	
U/G Telephone Conduit (SUE – LOS B)*	
U/G Telephone Conduit (SUE – LOS C)*	
U/G Telephone Conduit (SUE – LOS D)*	
U/G Fiber Optics Cable (SUE – LOS B)*	
U/G Fiber Optics Cable (SUE – LOS C)*	
U/G Fiber Optics Cable (SUE – LOS D)*	

WATER:

Water Manhole	
Water Meter	
Water Valve	
Water Hydrant	
U/G Water Line Test Hole (SUE – LOS A)*	
U/G Water Line (SUE – LOS B)*	
U/G Water Line (SUE – LOS C)*	
U/G Water Line (SUE – LOS D)*	
Above Ground Water Line	

TV:

TV Pedestal	
TV Tower	
U/G TV Cable Hand Hole	
U/G TV Test Hole (SUE – LOS A)*	
U/G TV Cable (SUE – LOS B)*	
U/G TV Cable (SUE – LOS C)*	
U/G TV Cable (SUE – LOS D)*	
U/G Fiber Optic Cable (SUE – LOS B)*	
U/G Fiber Optic Cable (SUE – LOS C)*	
U/G Fiber Optic Cable (SUE – LOS D)*	

GAS:

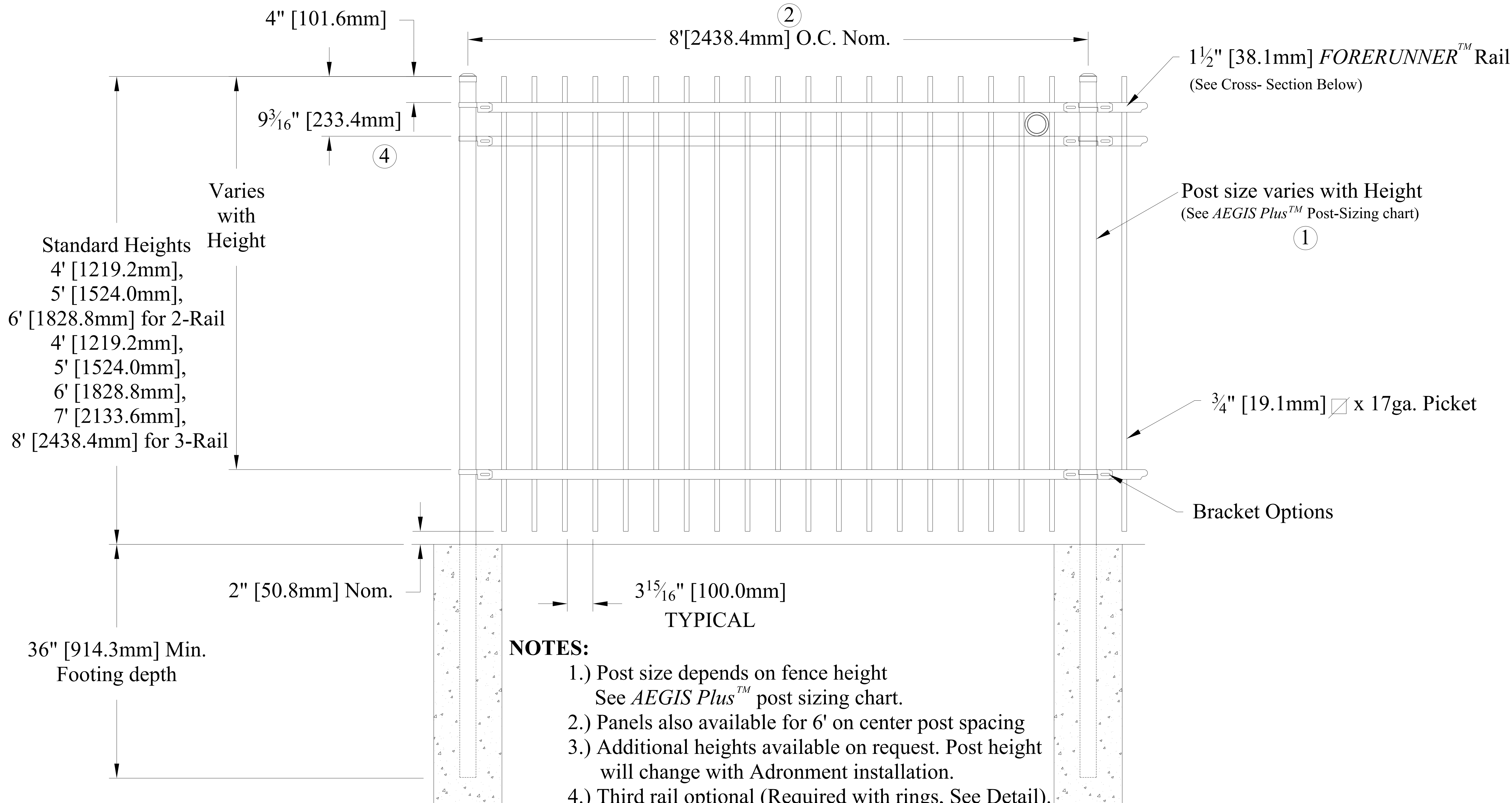
Gas Valve	
Gas Meter	
U/G Gas Line Test Hole (SUE – LOS A)*	
U/G Gas Line (SUE – LOS B)*	
U/G Gas Line (SUE – LOS C)*	
U/G Gas Line (SUE – LOS D)*	
Above Ground Gas Line	

SANITARY SEWER:

Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Force Main Line Test Hole (SUE – LOS A)*	
SS Force Main Line (SUE – LOS B)*	
SS Force Main Line (SUE – LOS C)*	
SS Force Main Line (SUE – LOS D)*	

MISCELLANEOUS:

Utility Pole	
Utility Pole with Base	
Utility Located Object	
Utility Traffic Signal Box	
Utility Unknown U/G Line (SUE – LOS B)*	
U/G Tank; Water, Gas, Oil	
Underground Storage Tank, Approx. Loc.	
A/G Tank; Water, Gas, Oil	
Geoenvironmental Boring	
Abandoned According to Utility Records	
End of Information	



- NOTES:**
- 1.) Post size depends on fence height
See *AEGIS Plus™* post sizing chart.
 - 2.) Panels also available for 6' on center post spacing
 - 3.) Additional heights available on request. Post height will change with Adronment installation.
 - 4.) Third rail optional (Required with rings, See Detail).

GREENWAY FENCE

MFG: AMERISTAR
1555 N. MINGO
TULSA, OK. 74116
www.ameristarfence.com
OR EQUIVALENT

PHONE: 1-888-333-3422
TYPE: AEGIS PLUS
STYLE: GENESIS WITH BALLCAP POST TOP
48", 3-RAIL x 8' NOMINAL PANEL
COLOR: BLACK

**RAIL SHALL BE AMERISTAR AEGIS PLUS
GENESIS TYPE
DECIDED BY THE TOWN OF HARRISBURG.
MATERIALS FOR POSTS, RAILS, AND BASES
SHALL CONFORM TO THE MANUFACTURER'S
SPECIFICATIONS.**

COMMERCIAL STRENGTH STEEL		
Title: AEGIS PLUS GENESIS 2/3-RAIL W/RING OPTION		
DR: KMc	SH . 1 of 1	SCALE: DO NOT SCALE
CK:	Date 04/20/2015	REV: F
 AMERISTAR		1555 N. Mingo Tulsa, OK 74116 1-888-333-3422 www.ameristarfence.com

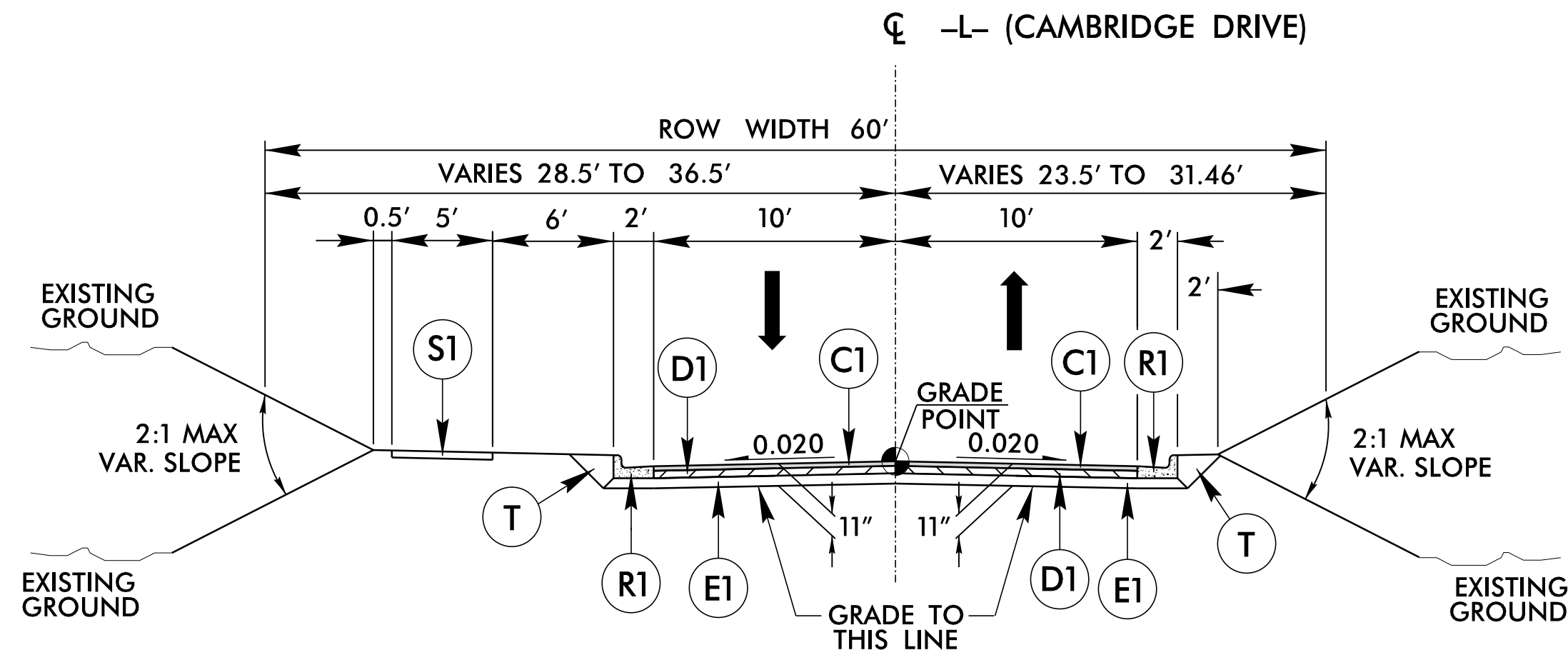
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Howerton AT USU-252595

6/2/99

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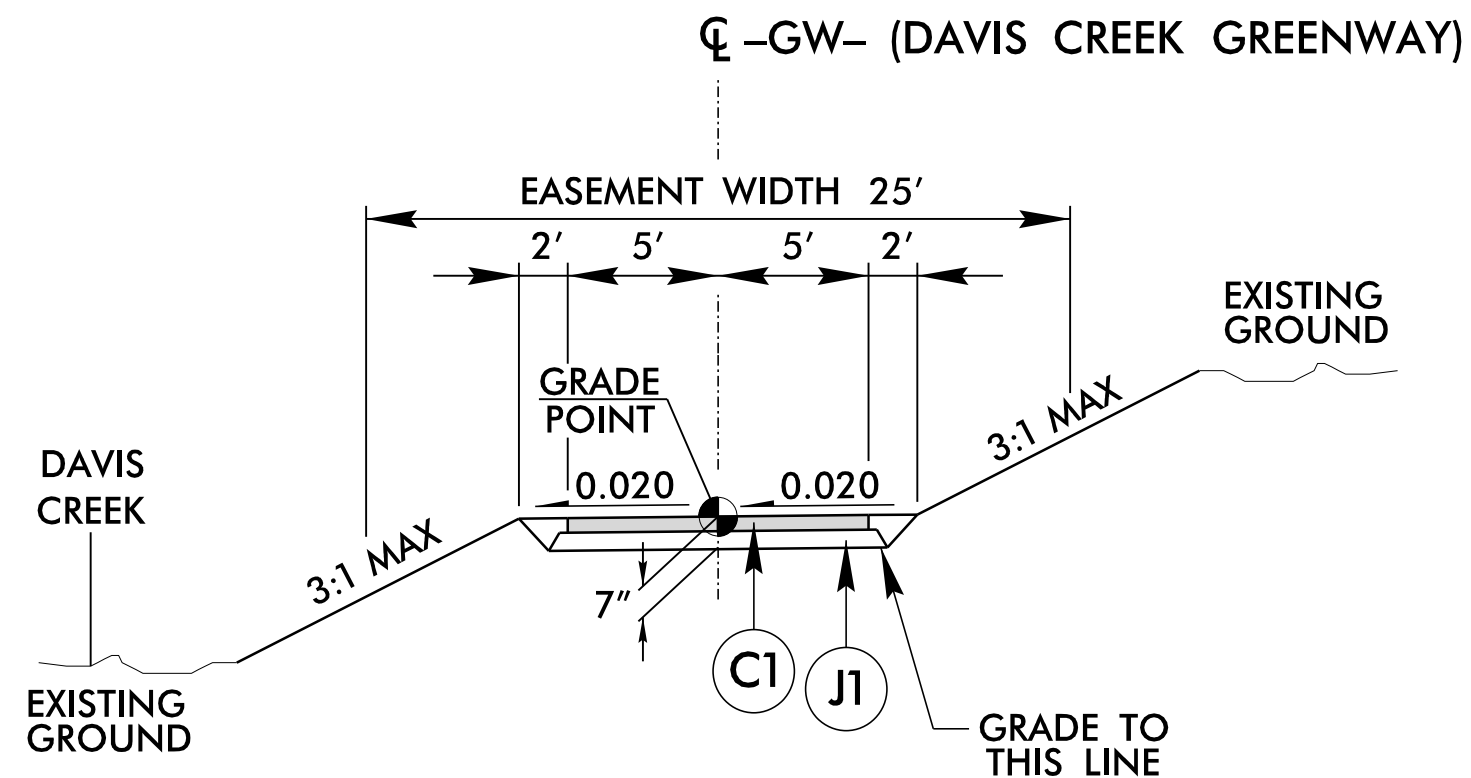
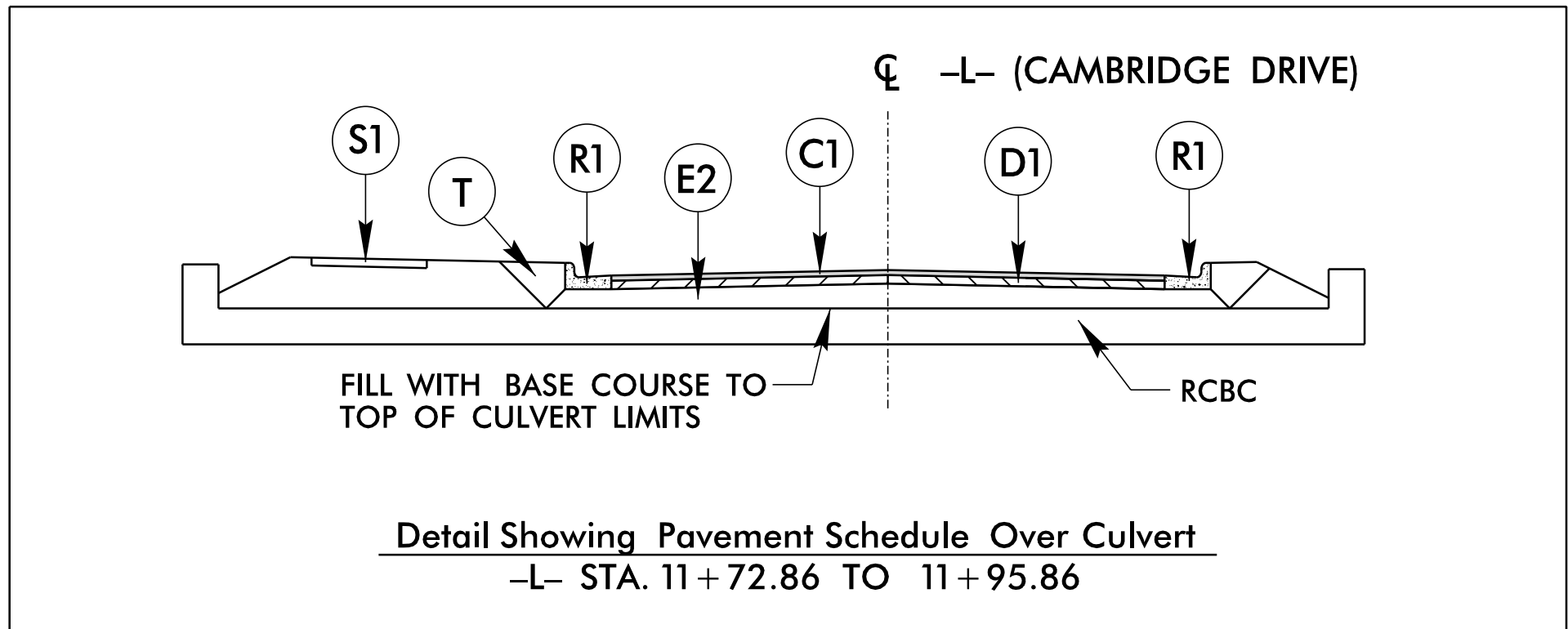
FINAL PAVEMENT SCHEDULE			
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	J1	4" AGGREGATE BASE COURSE
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I1.9B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	R1	2' CONCRETE CURB AND GUTTER
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	S1	4" CONCRETE SIDEWALK
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" IN DEPTH OR GREATER THAN 4.0" IN DEPTH	T	EARTH MATERIAL

NOTE: PAVEMENT EDGES ARE 1:1 UNLESS SHOWN OTHERWISE.



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1
-L- STA. 10+05.00 TO STA. 14+15.00



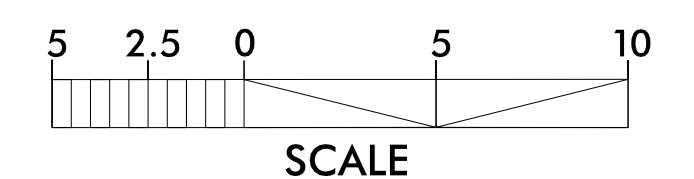
TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2
-GW- STA. 10+21.50 TO STA. 19+64.17

PROJECT REFERENCE NO. 22199		SHEET NO. 2A-1	
ROADWAY DESIGN ENGINEER ROMAN P. PROKOPCH SEAL 048576 NORTH CAROLINA PROFESSIONAL ENGINEER DocuSign Envelope ID: 65B2B5C6-6688-44C2-95B9-3D704A4054D7		PAVEMENT DESIGN ENGINEER GREGORY K. GONS SEAL 041709 NORTH CAROLINA PROFESSIONAL ENGINEER DocuSign Envelope ID: 4736B6D7-304A-4054-D07	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

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Responsive People | Creative Solutions

CURB RAMP DETAILS

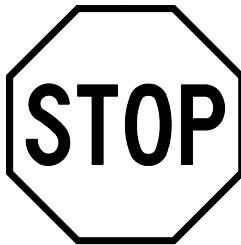


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401 QUANTITY REQ'D 1



30" X 30"
R1-1

ONE "U" POST PER SIGN

402 QUANTITY REQ'D 2



24" X 12"
W4-4P

MOUNT BELOW SIGN NO. 401
IN TWO INSTALLATIONS

SIGNING AND PAVEMENT MARKING PLAN

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
- L -	THERMOPLASTIC	NONE

B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

D) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

E) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

F) SEE ROADWAY PLANS FOR ALTERNATE CURB RAMP DESIGNS WHEN INDICATED ON PAVEMENT MARKING DETAIL SHEETS.

G) SIGNS FURNISHED BY CONTRACTOR

H) IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.

I) WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER

J) ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.

K) THE BACKGROUND FOR TYPE E SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.

L) SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

PAVEMENT MARKING SCHEDULE

THERMOPLASTIC LINES

T61 WHITE STOPBAR (24", 90 MIL)

PROJECT REFERENCE NO.

SHEET NO.

22199

SIGN - 1

APPROVED: *David T. Seaks*

DATE: 11/5/2024

SEAL



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

TYPE "E" SIGNS, GENERAL NOTES,
ROADWAY STANDARDS,
AND PAVEMENT MARKING SCHEDULE



P: (919) 878-9560
8601 Stk Forks Road, Forum 1 Suite 700
Raleigh, North Carolina 27615-3960
NC License No. F-0112

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PROJECT REFERENCE NO.
22199

SHEET NO.
SIGN-2

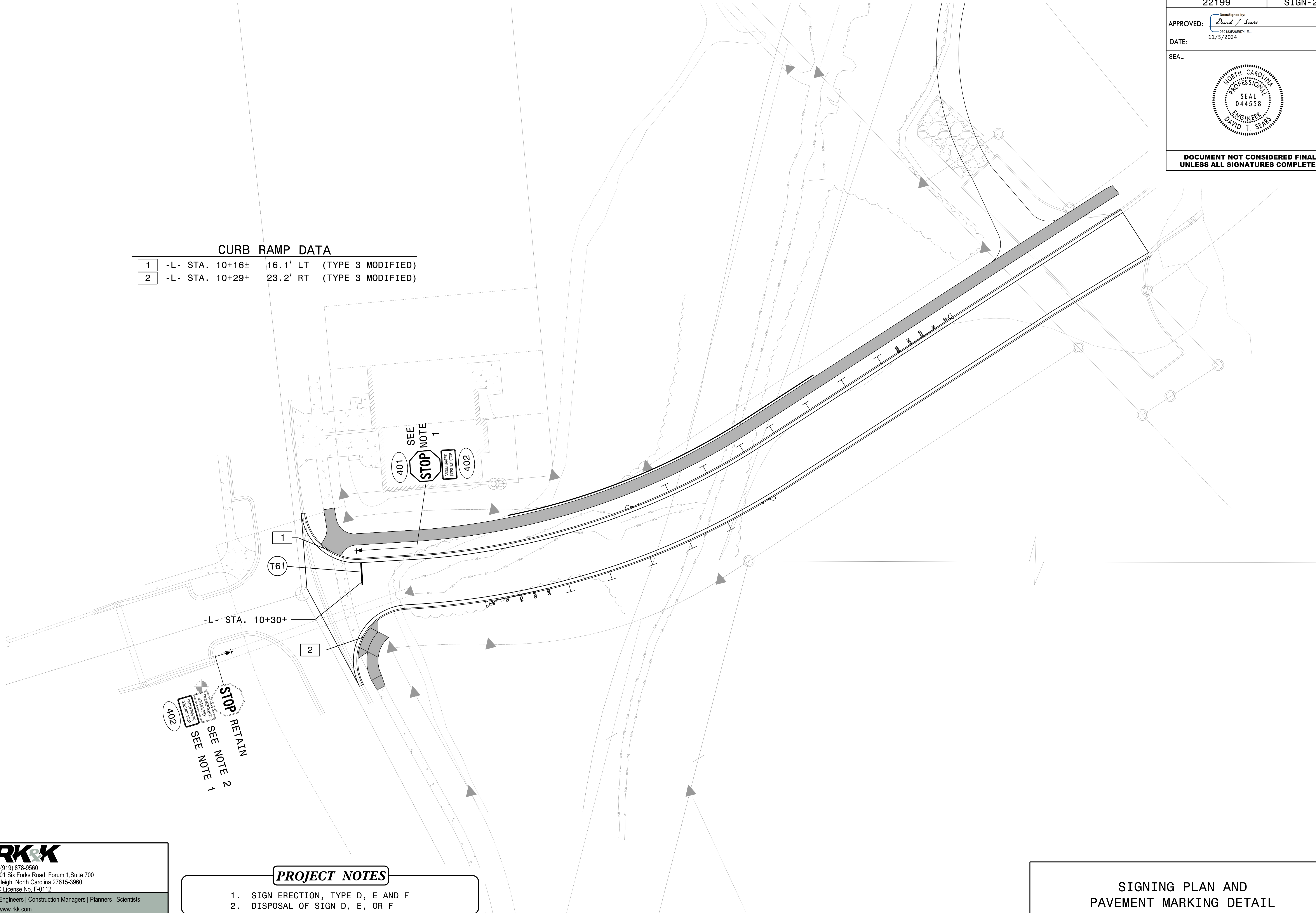
APPROVED: *David T. Sears*

DATE: 11/5/2024

SEAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CURB RAMP DATA			
1	-L- STA. 10+16±	16.1' LT	(TYPE 3 MODIFIED)
2	-L- STA. 10+29±	23.2' RT	(TYPE 3 MODIFIED)



11/4/2024
R:\Traffic\DavisCreek_Sign_PMP.dgn
Tools



P: (919) 878-9560
8601 Six Forks Road, Forum 1 Suite 700
Raleigh, North Carolina 27615-3960
NC License No. F-0112

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PROJECT NOTES

1. SIGN ERECTION, TYPE D, E AND F
2. DISPOSAL OF SIGN D, E, OR F

**SIGNING PLAN AND
PAVEMENT MARKING DETAIL**

DAVIS GREENWAY
CABARRUS COUNTY

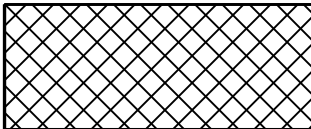
PROJ. REFERENCE NO.	SHEET NO.
22199	X-0

LINE

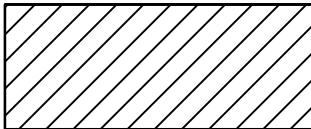
SHEET NO.

-L-
-GW-

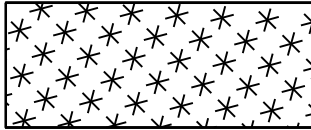
X-1 THRU X-3
X-4 THRU X-6



UNDERCUT EXCAVATION

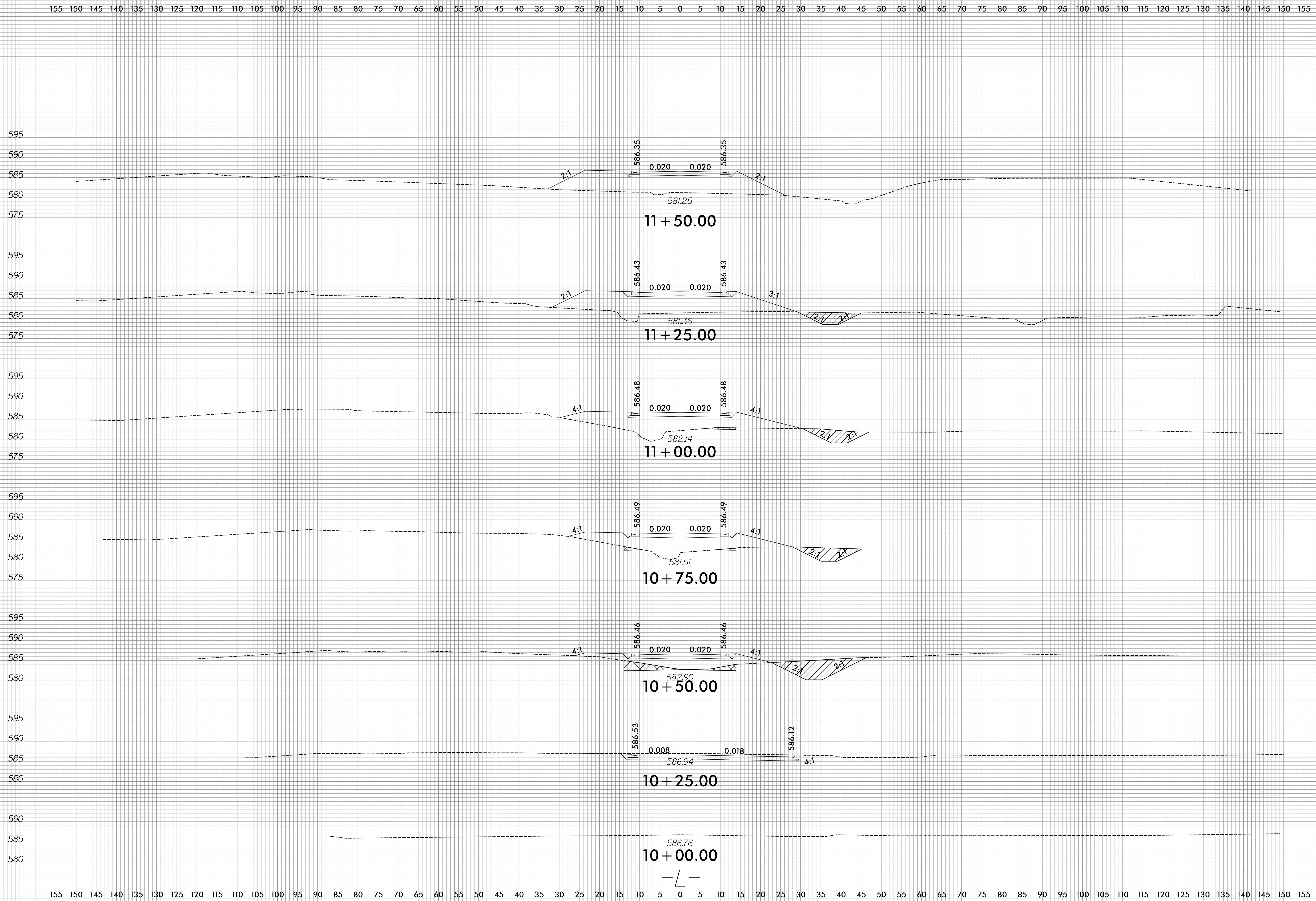


SHALLOW UNDERCUT EXCAVATION

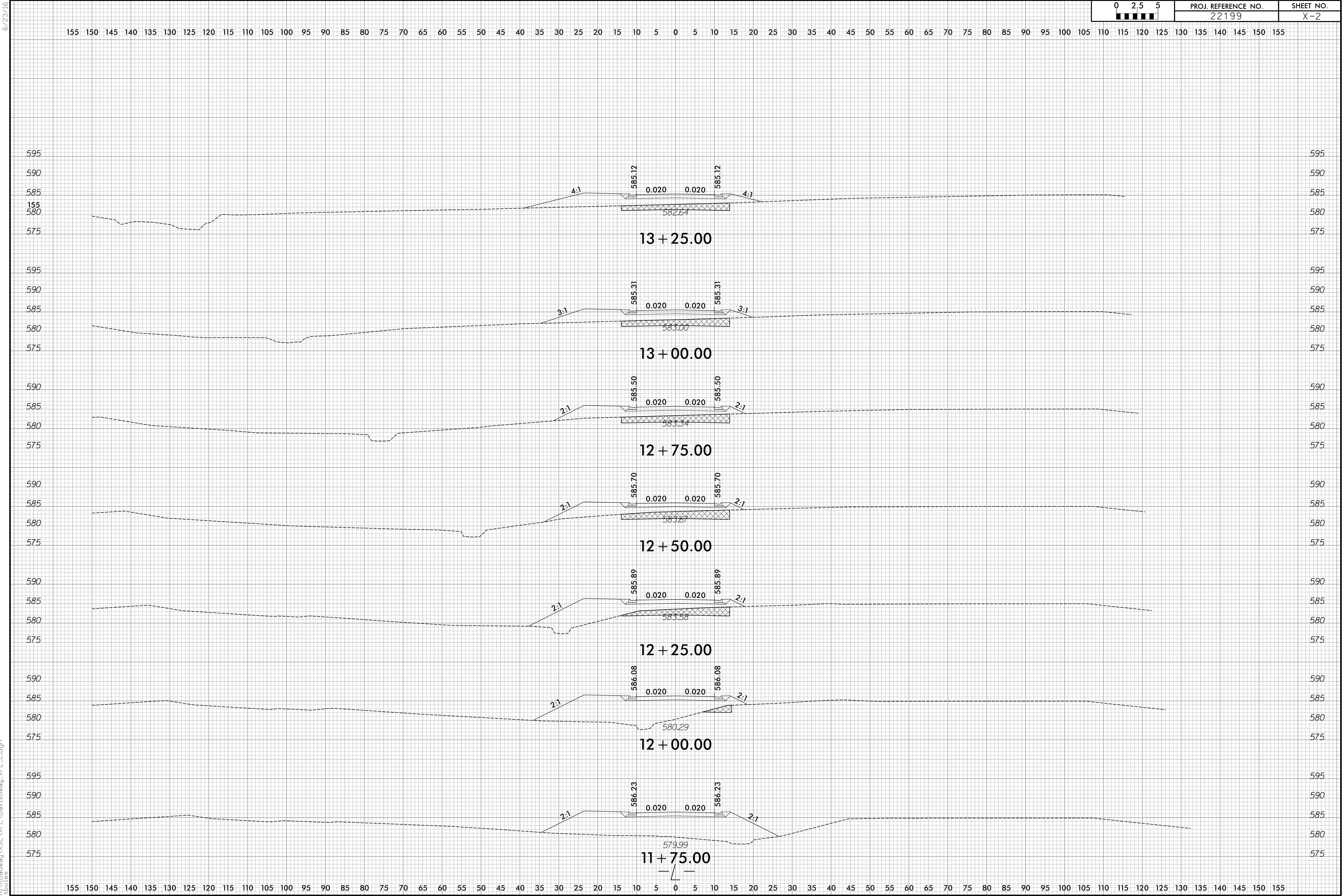


ACCEPTABLE EXCAVATION – NOT TO BE USED IN TOP 3 FEET OF FILL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

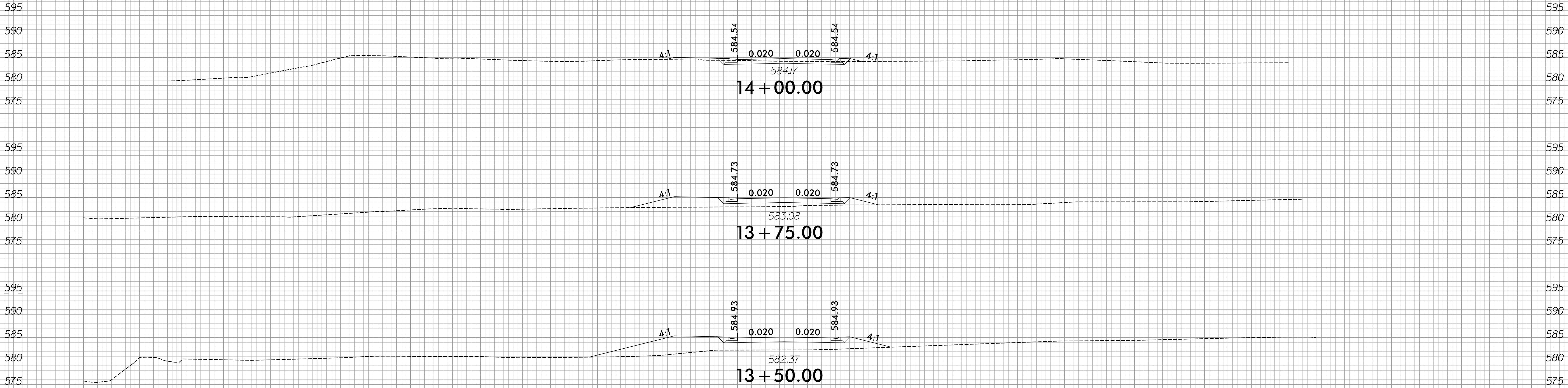


6/23/16

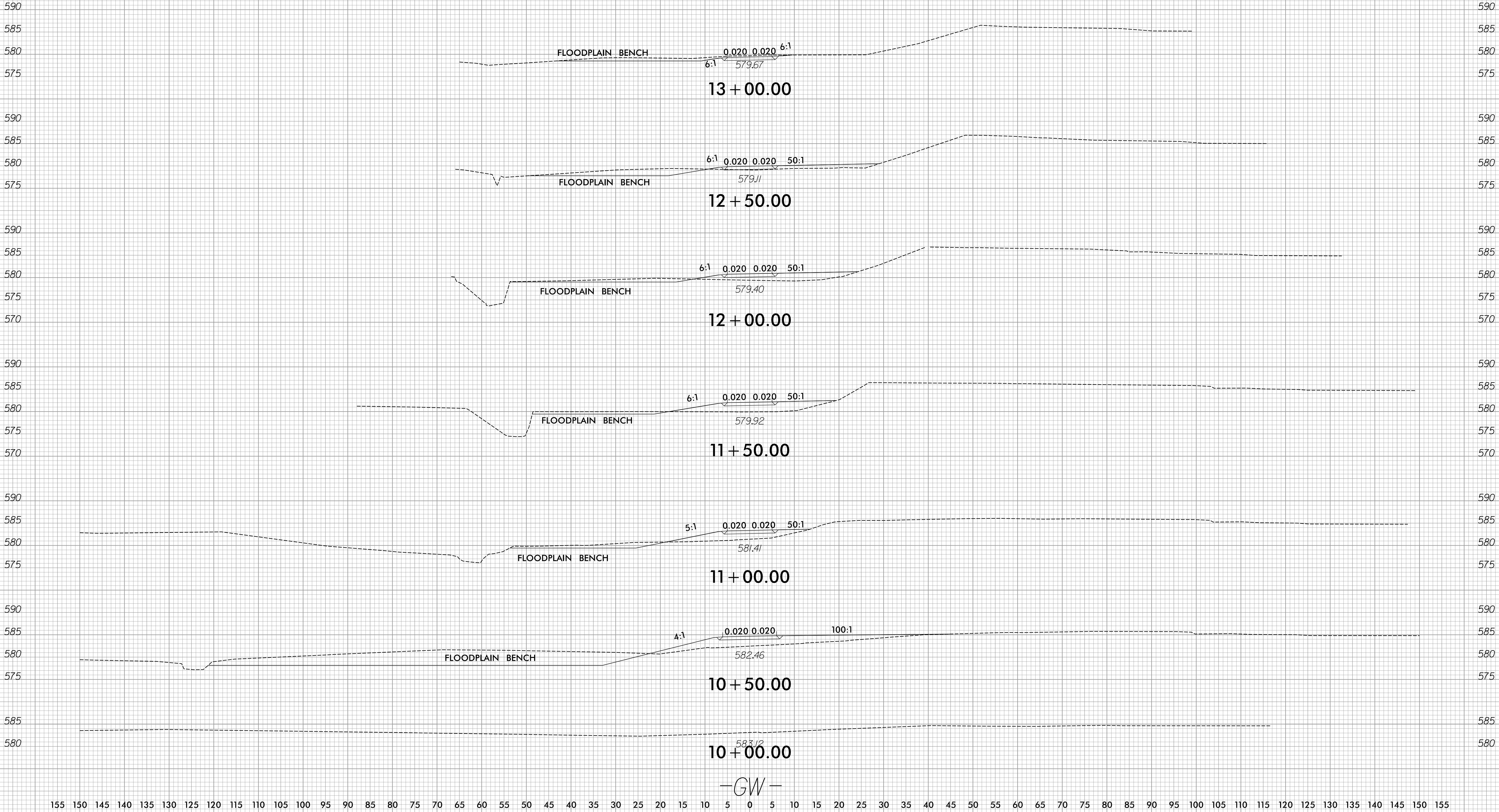


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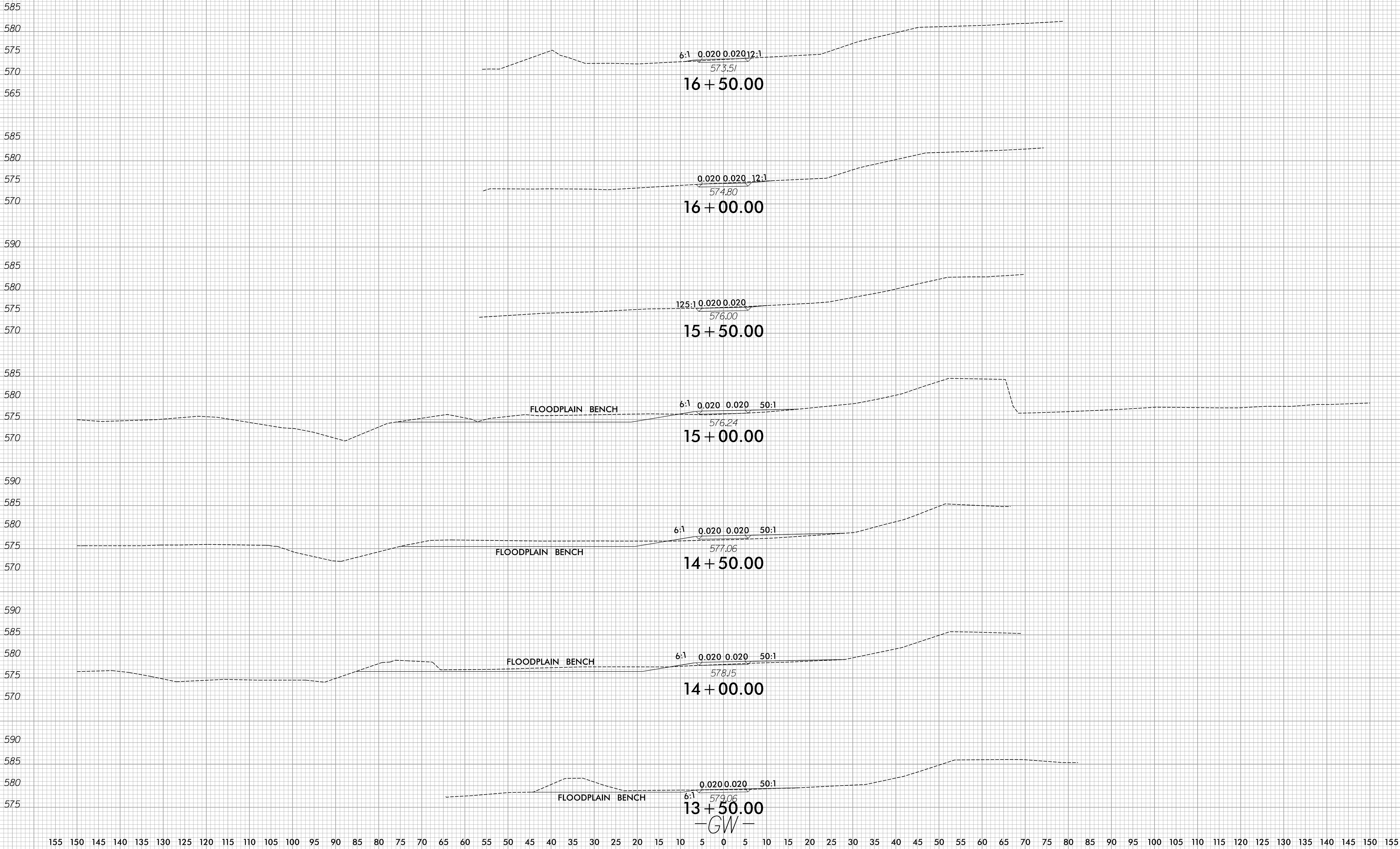
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6/23/16



6/23/16



6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	22199	X-6

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125:1 0.020 0.020 195:1
571.73
19 + 50.00

0.020 0.020 12:1
572.06
19 + 00.00

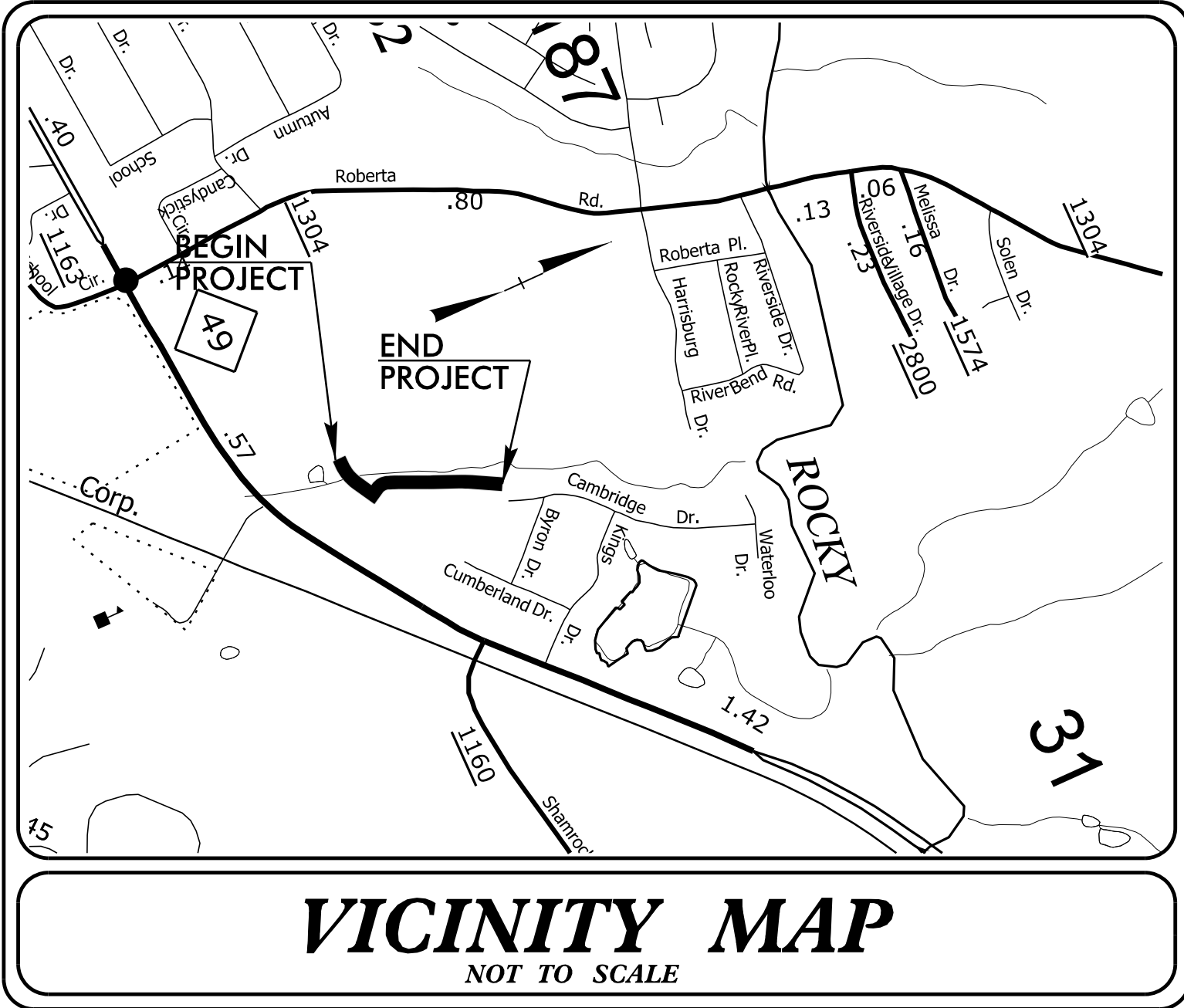
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573.07
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0.020 0.020 12:1
573.06
17 + 00.00

-GW-



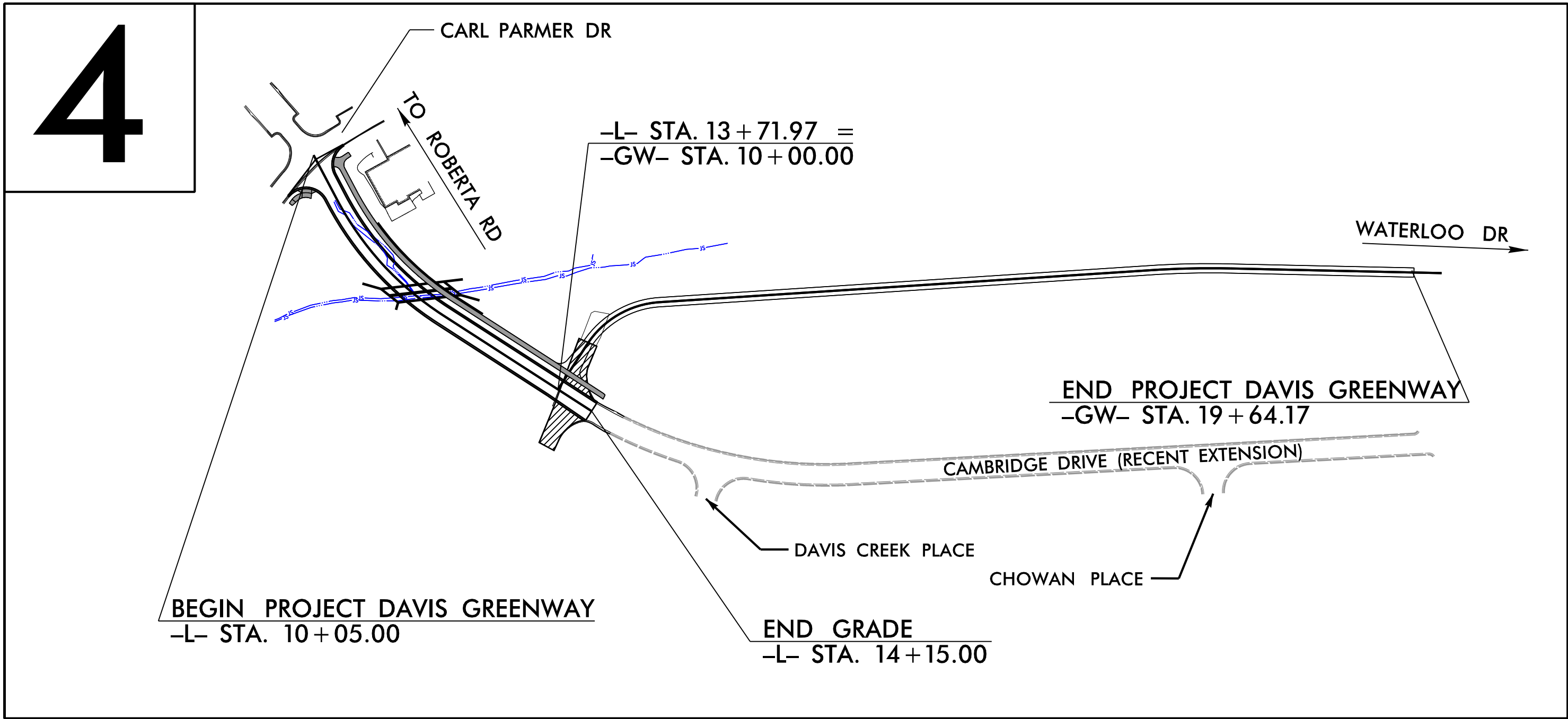
STREAM NAME:	DAVIS BRANCH
RIVER BASIN:	YADKIN-PEE DEE
CLASSIFICATION:	UNCLASSIFIED*
TOTAL DISTURBED AREA:	2.2 ACRES
*DRAINS TO ROCKY RIVER (13-17)	
CLASSIFICATION:	C

TOWN OF HARRISBURG

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

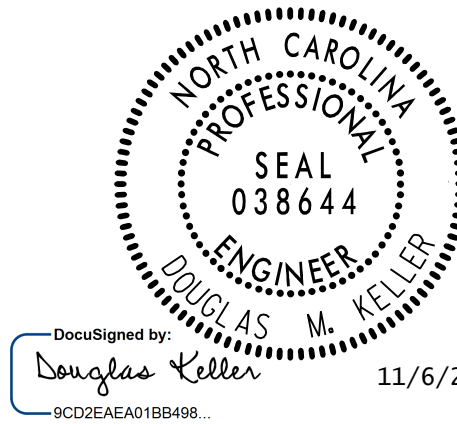
LOCATION: FROM CARL PARMER DR TO
CAMBRIDGE DR AND DAVIS GREENWAY

TYPE OF WORK: SIDEWALK, GRADING, DRAINAGE STRUCTURES



- Clearing and Grubbing Phase
- Final Phase
- Both Phases

THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR CLEARING AND
GRUBBING PHASE OF
CONSTRUCTION.



GRAPHIC SCALE



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH
THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000
GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019
AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF
ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.



Prepared in the Office of:

RK&K, LLP

8601 SIX FORKS ROAD, SUITE 700
RALEIGH, NORTH CAROLINA 27609
NC LINCENSE NO. F-0112
1-888-521-4455 OR 919-878-9560

Designed by:

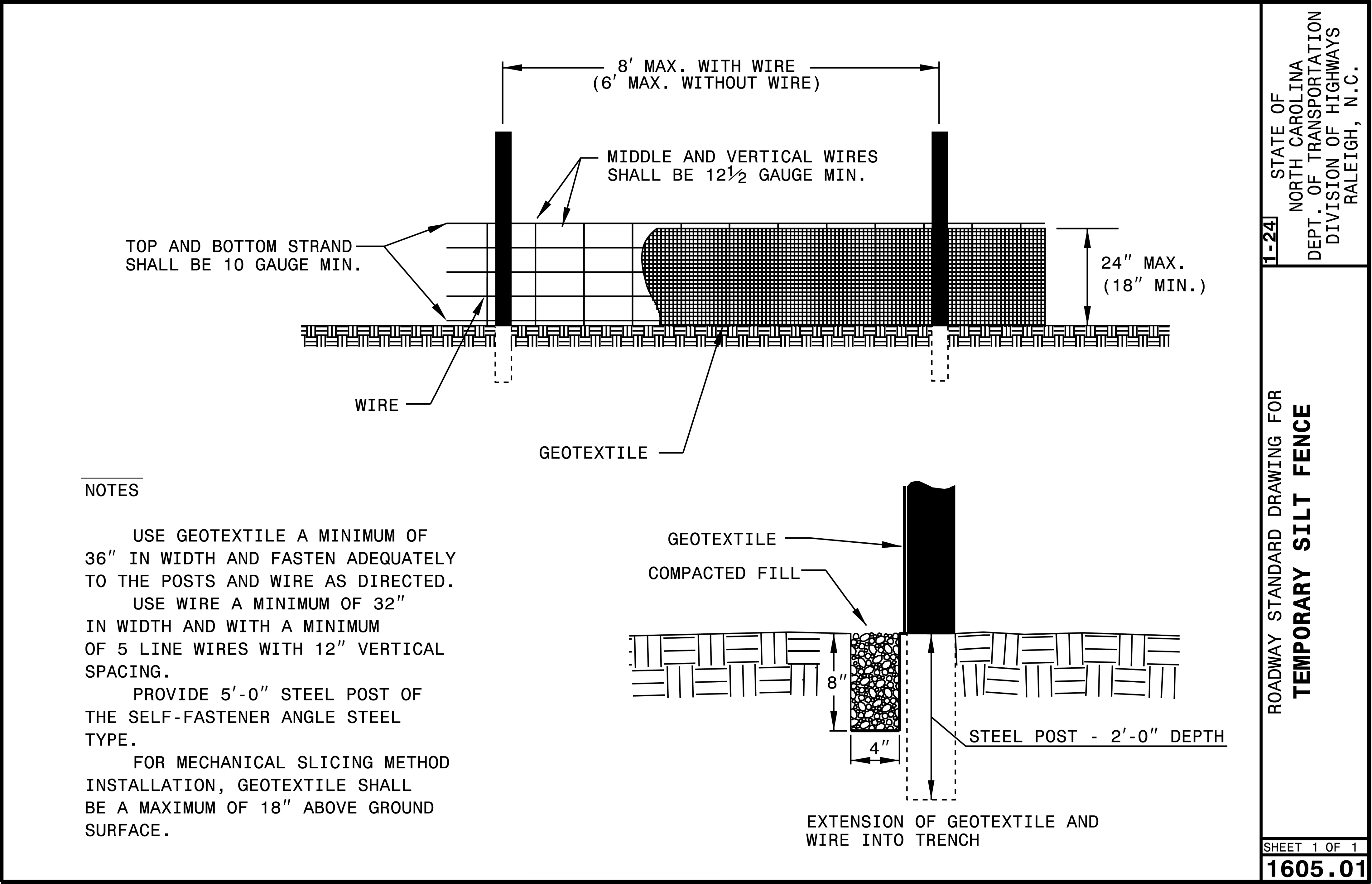
SETH JONES, EI
NAME

4183
LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	



PROJECT REFERENCE NO.	SHEET NO.
22199	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
<i>Roman Prokopyev</i>	<i>Douglas N. Keller</i>
6E878C55836A4F3	9CD25AEAD1BB408

NOTES

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

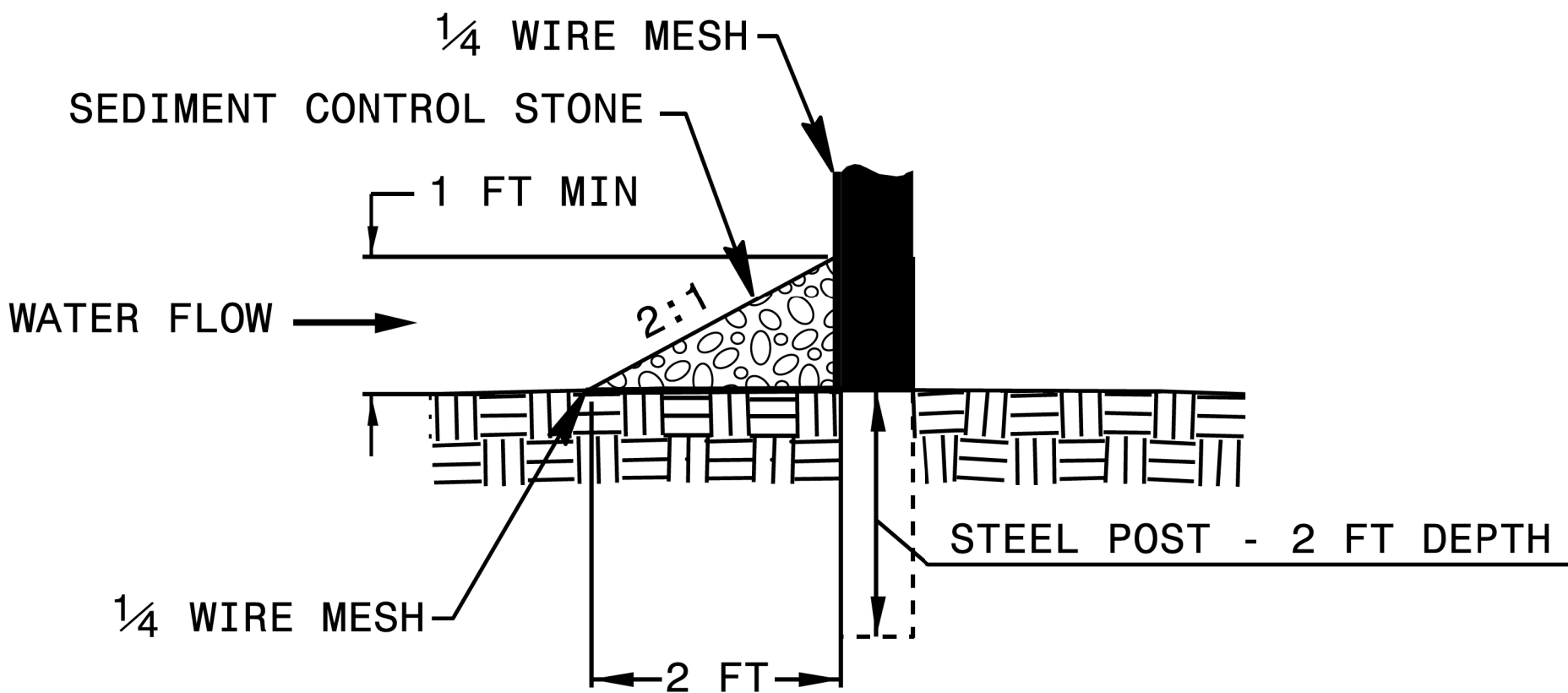
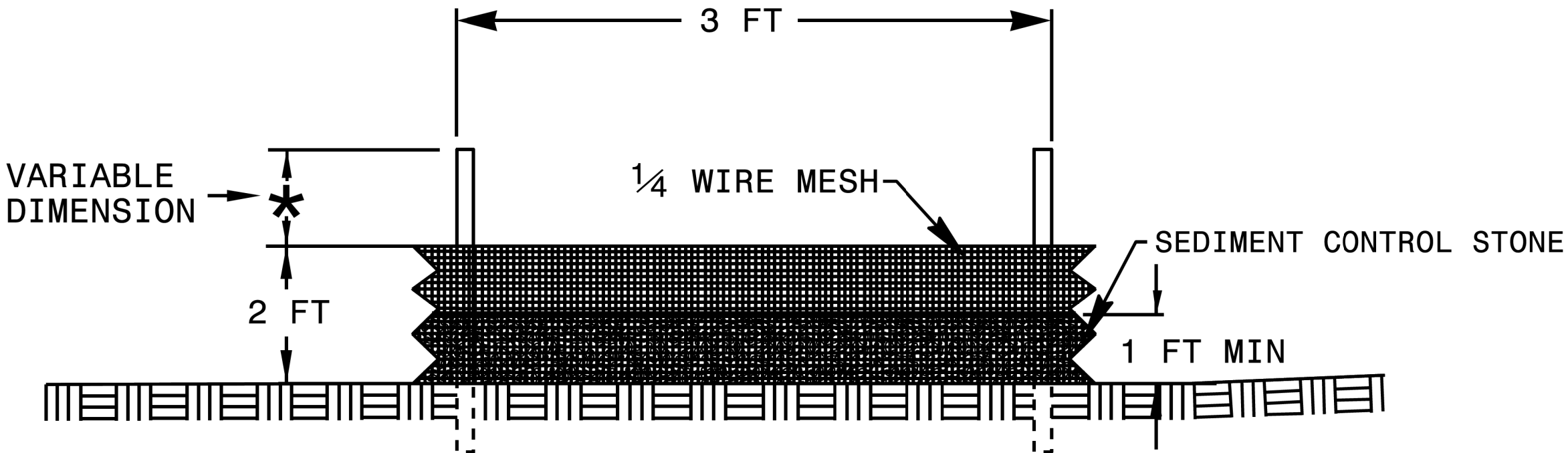
USE HARDWARE CLOTH 24 GAUGE WIRE MESH WITH 1/4 INCH MESH OPENINGS.

INSTALL 5 FT. SELF FASTENER ANGLE STEEL POST 2 FT. DEEP MINIMUM.

ATTACH HARDWARE CLOTH TO POSTS WITH WIRE STAPLE OR OTHER ACCEPTABLE METHODS.

SPACE POSTS A MAXIMUM OF 3 FT.

FOR INSTALLATION BETWEEN SECTIONS OF SILT FENCE, EXTEND SEDIMENT CONTROL STONE A MINIMUM OF 12" ON EACH SIDE OF SPECIAL SEDIMENT CONTROL FENCE SECTION.

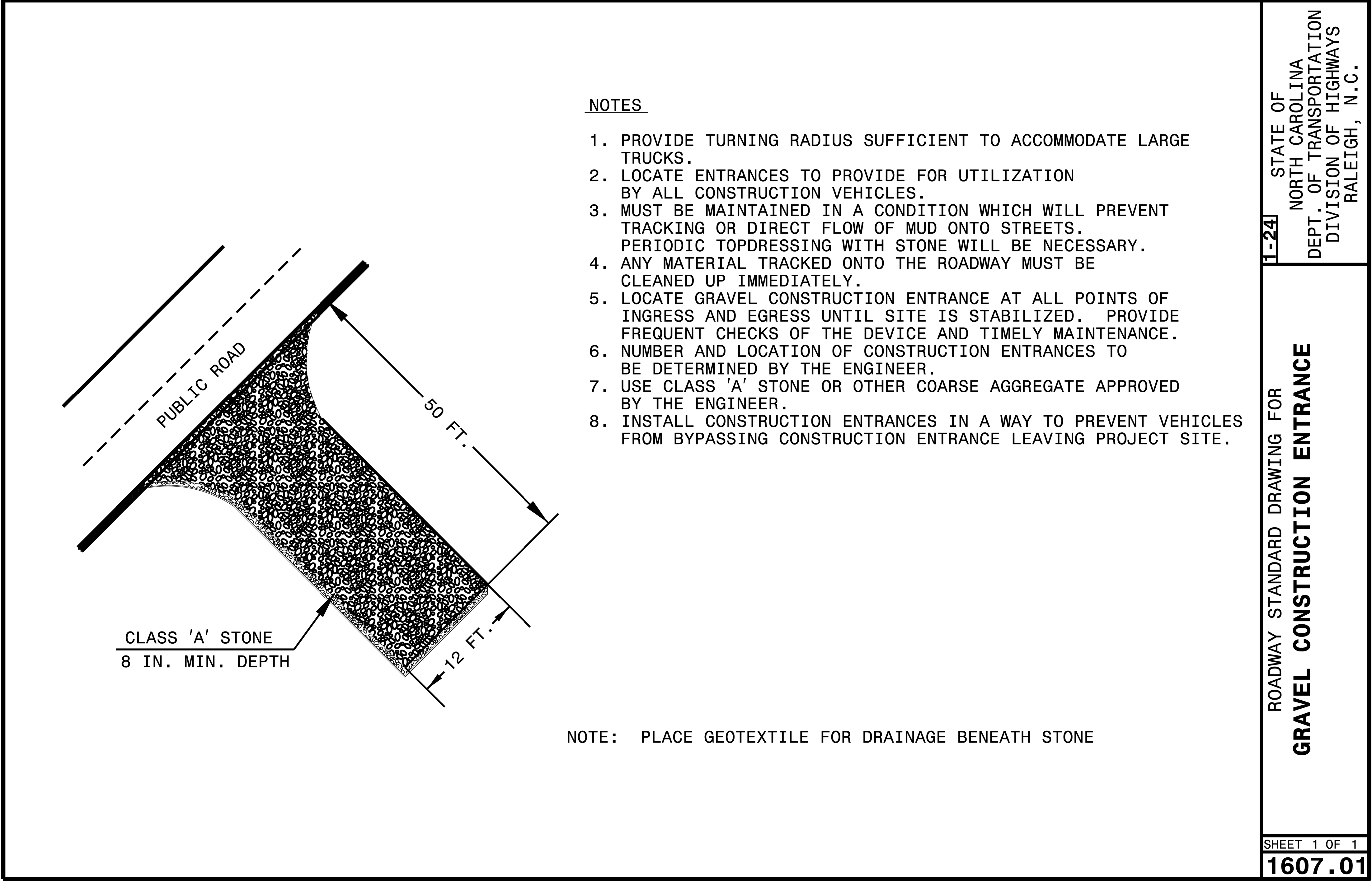


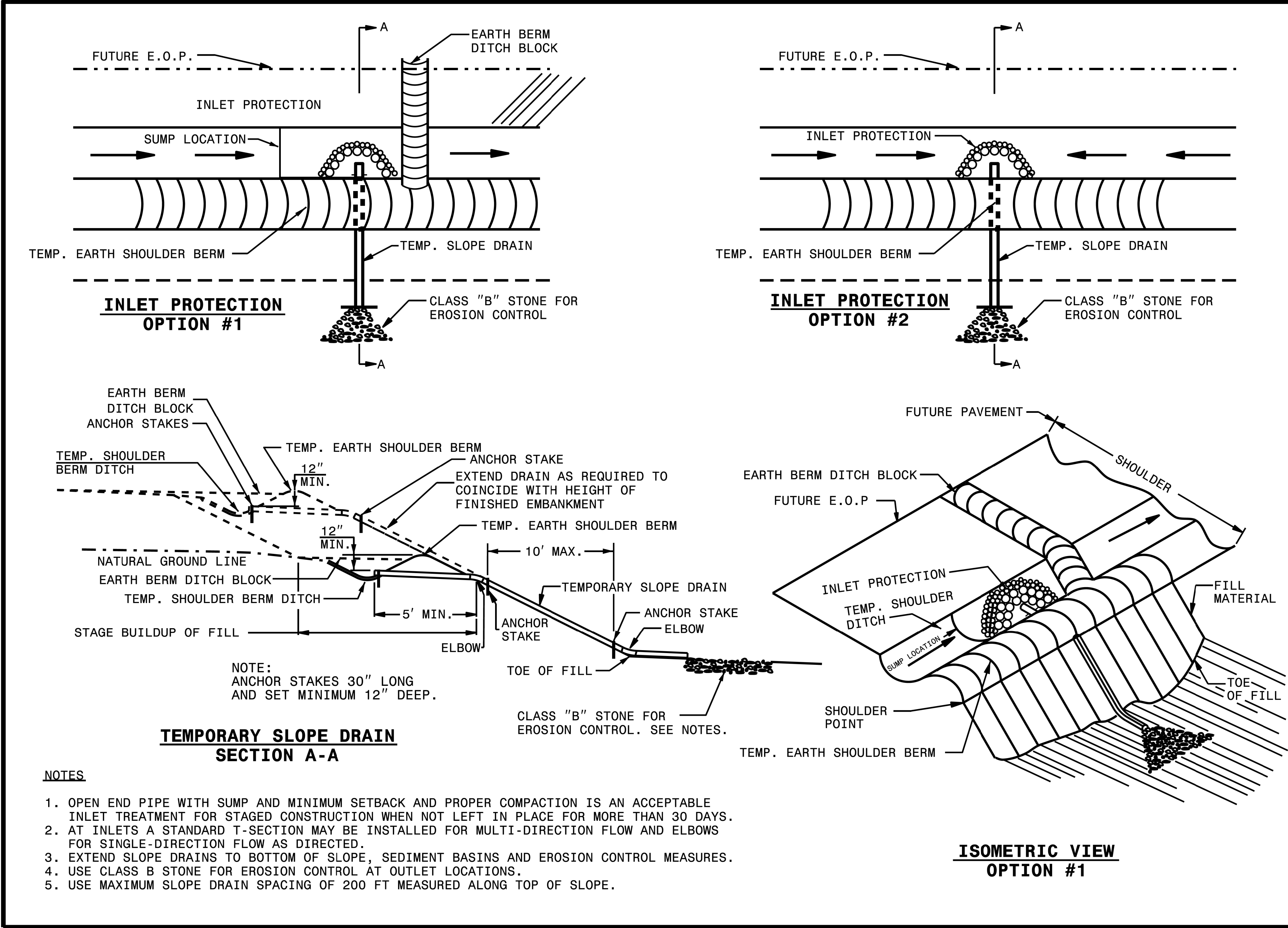
1-24 STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
SPECIAL SEDIMENT CONTROL FENCE

SHEET 1 OF 1

1606.01



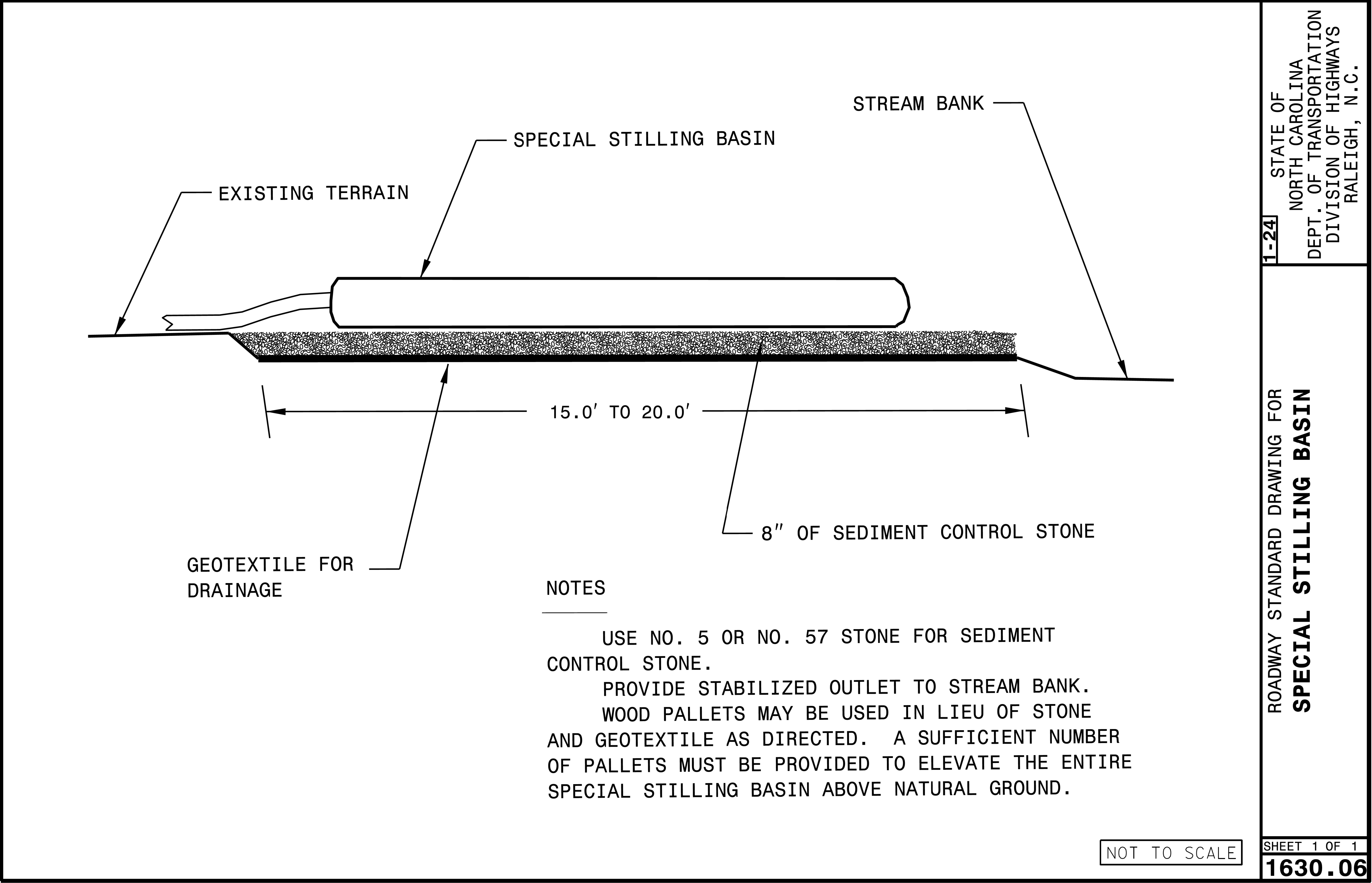


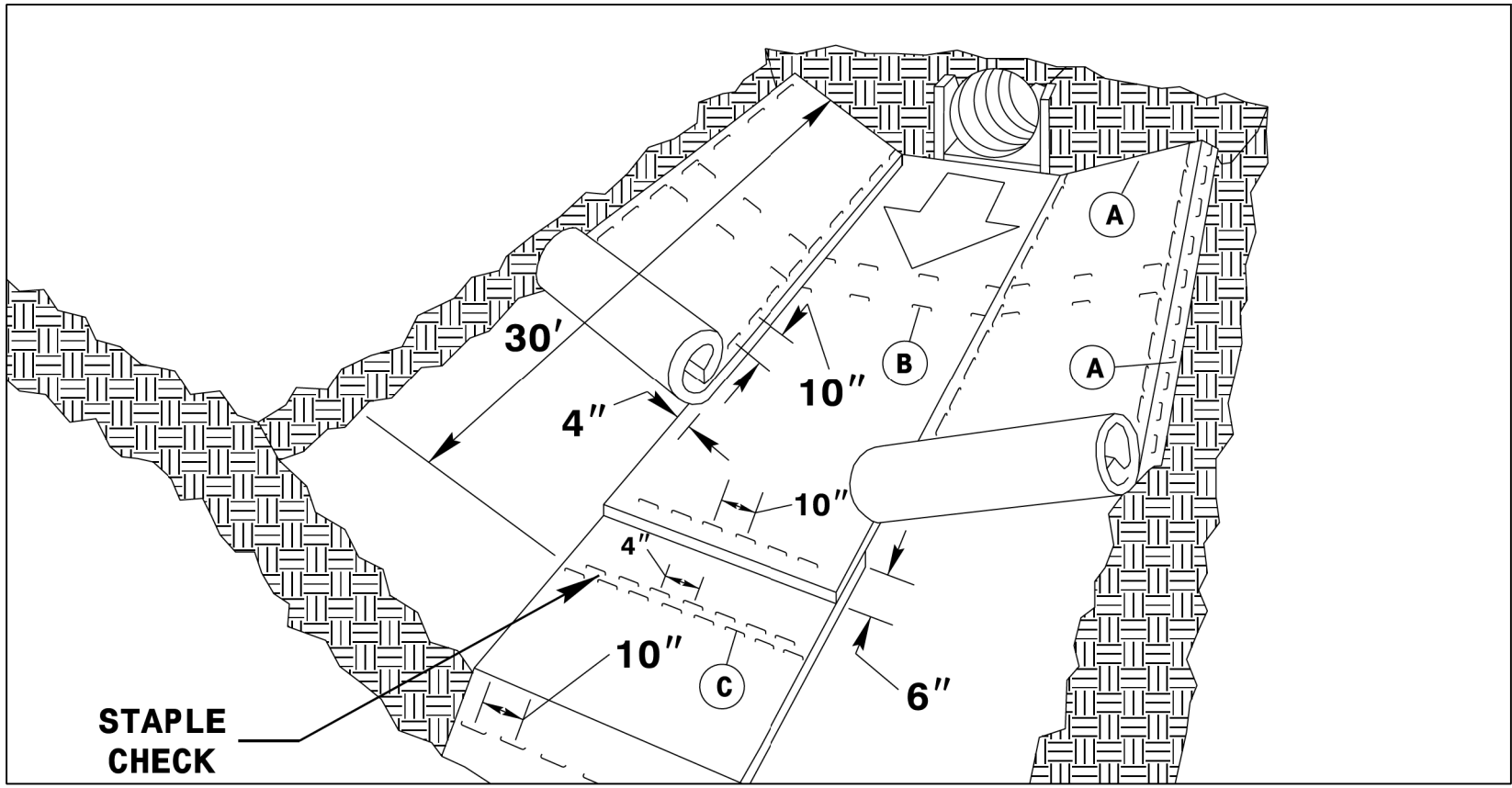
1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
GUIDE FOR TEMPORARY BERMS AND SLOPE DRAIN

SHEET 1 OF 1
1622.01

PROJECT REFERENCE NO.		SHEET NO.	
22199		EC-2D	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			
Roman Prokhorov		Douglas N. Keller	
6E87EC55836A4F3		9CD2EAEAD1BB408	





MATTING IN DITCHES

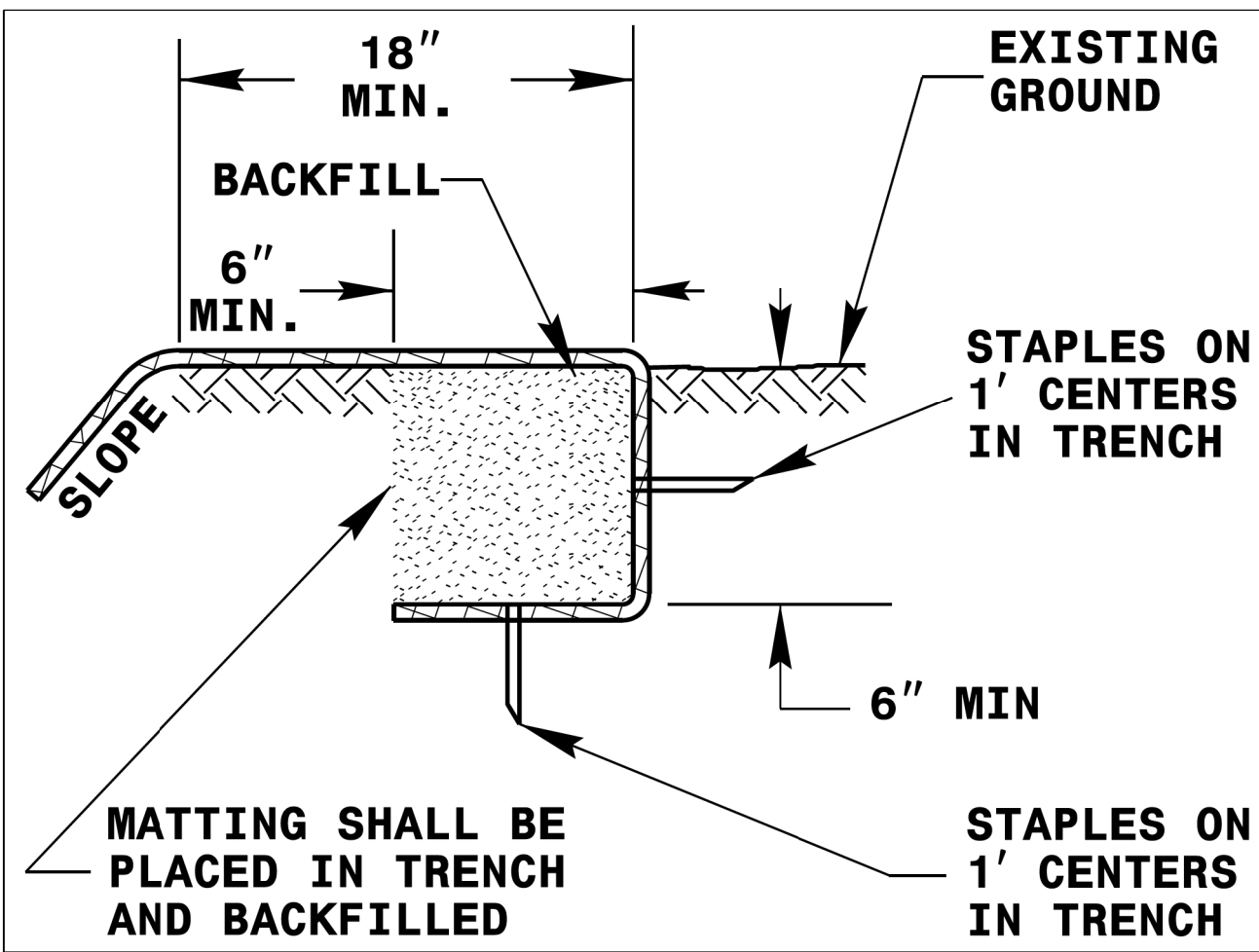
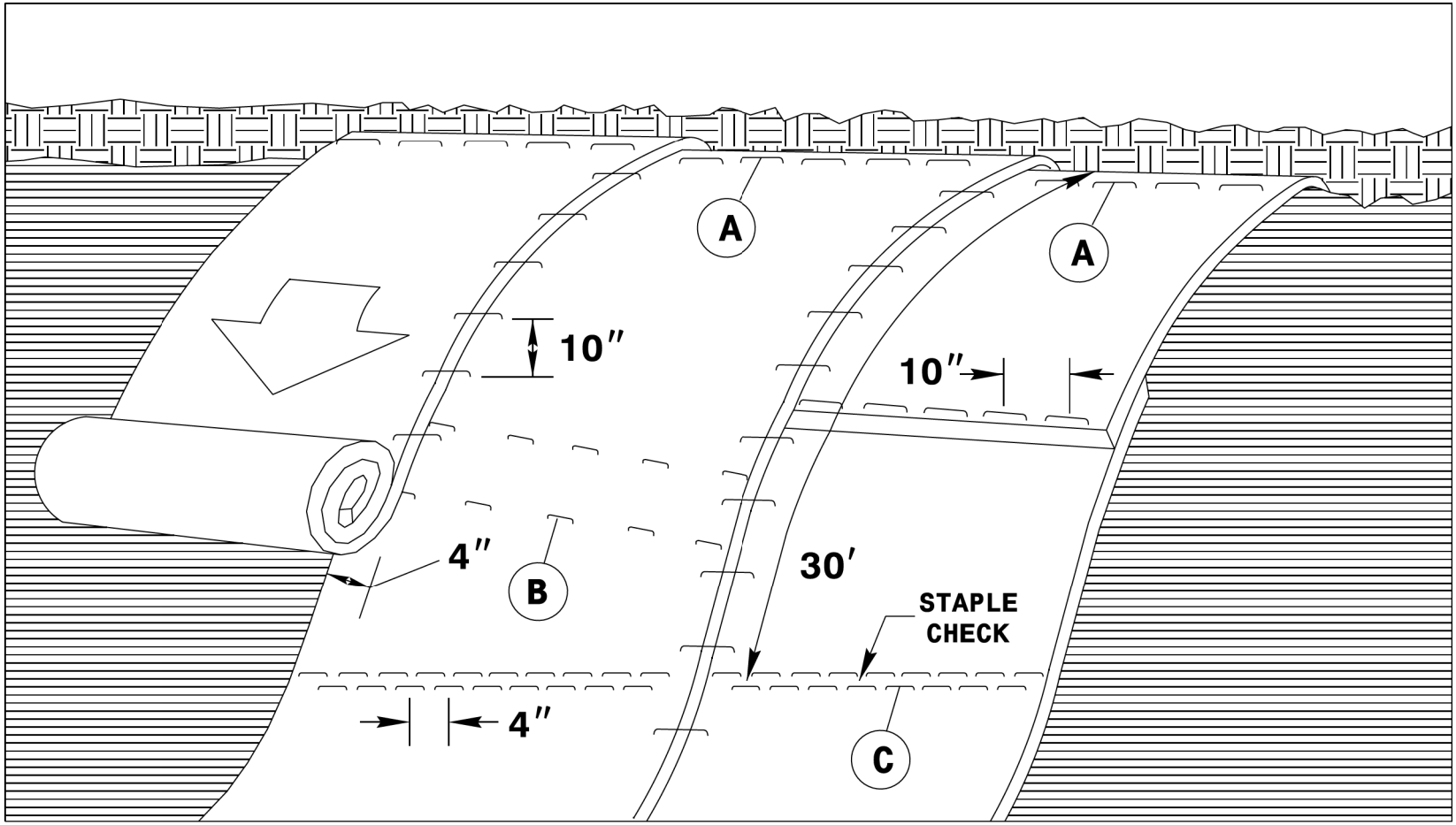


DIAGRAM A



MATTING ON SLOPES

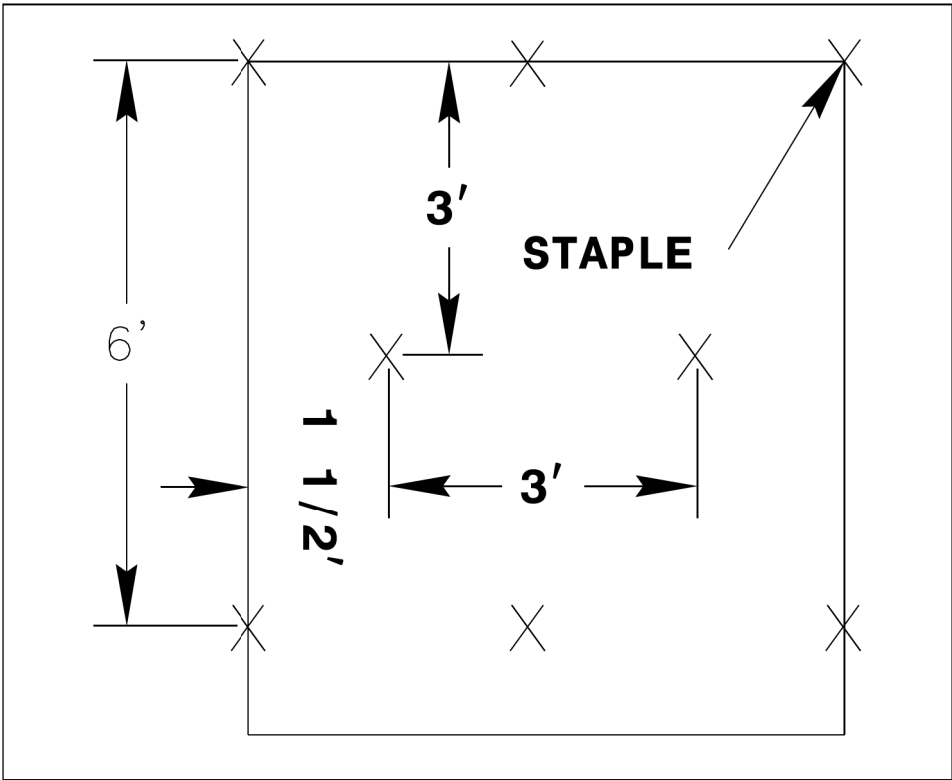


DIAGRAM B

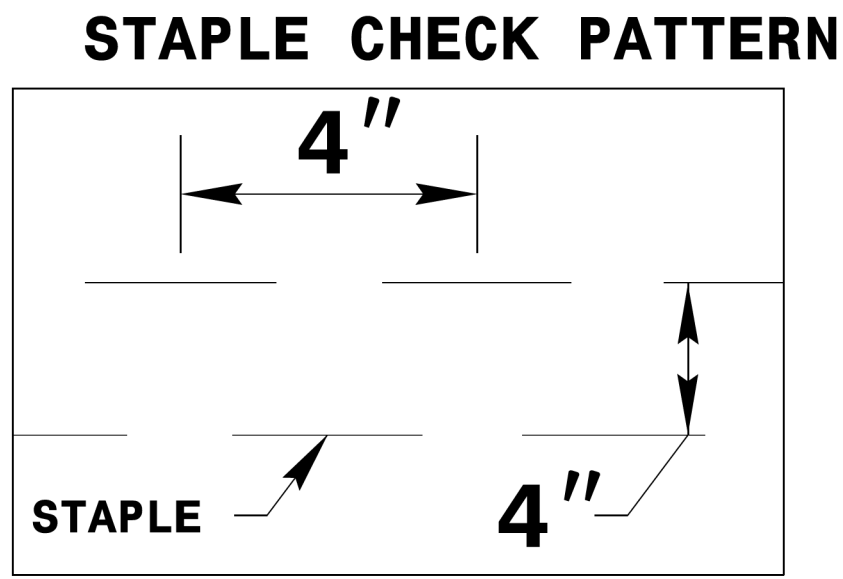


DIAGRAM C

NOTES

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, COIR FIBER MAT AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION AND AS DIRECTED.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

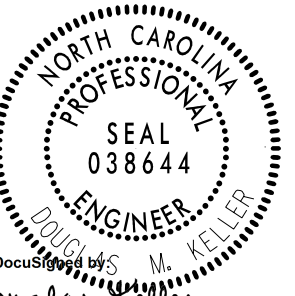
TRENCH ALL UPSLOPE EDGES OF MATTING THAT ARE NOT OVERLAPPED BY ANOTHER SECTION OF MATTING.

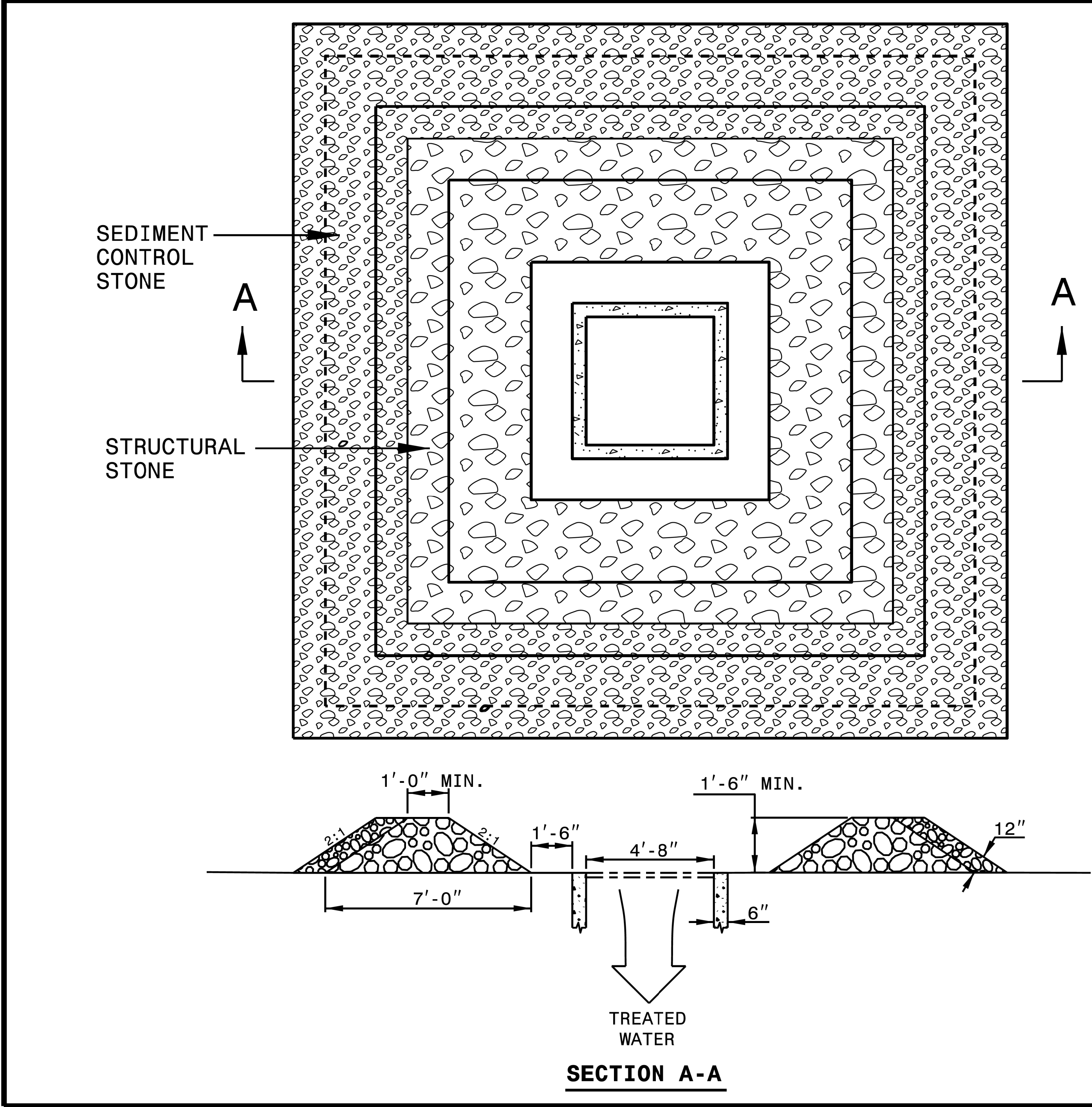
NOT TO SCALE

1-24 STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
MATTING INSTALLATION

SHEET 1 OF 1
1631.01

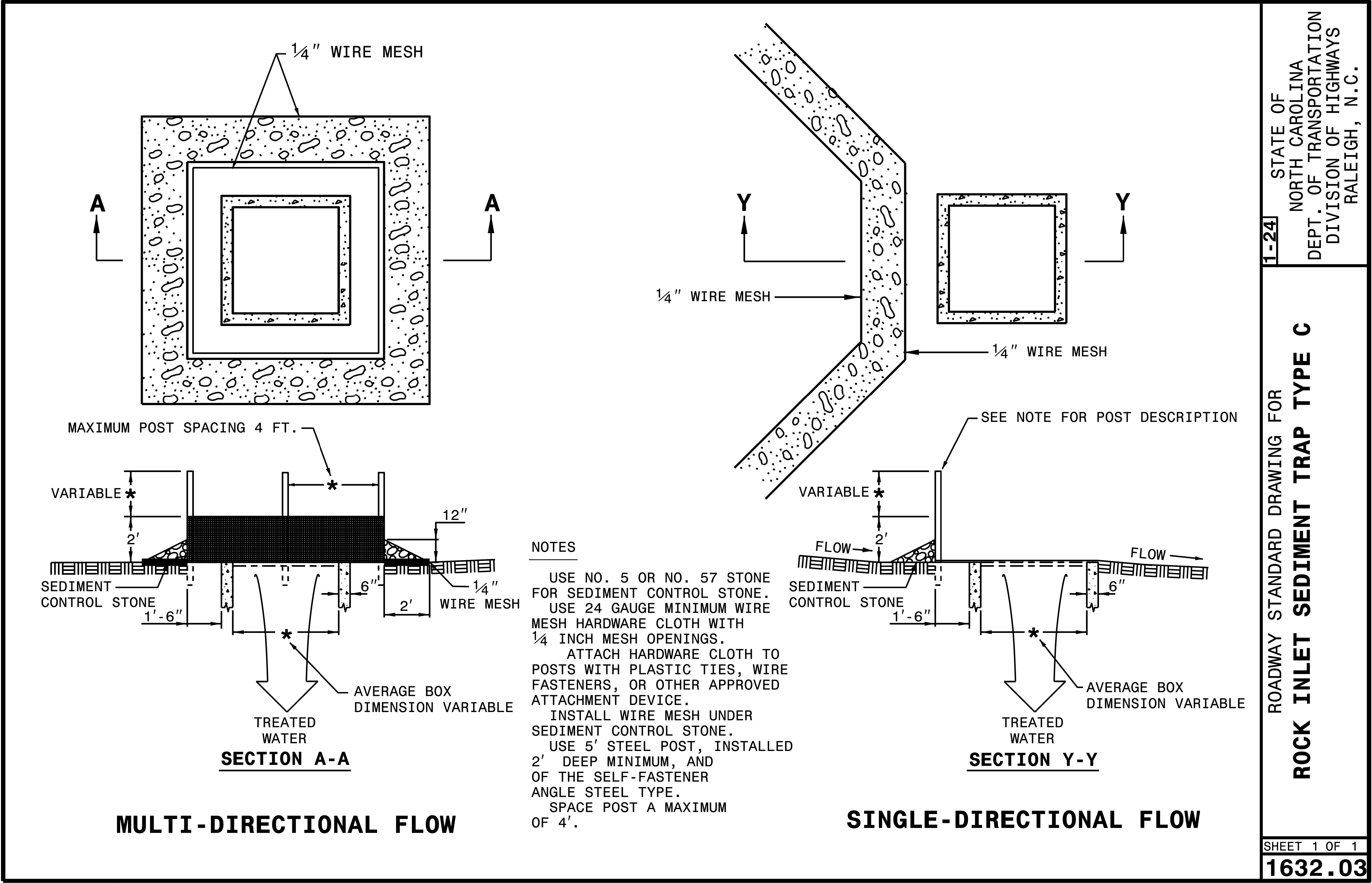
PROJECT REFERENCE NO.	SHEET NO.
22199	EC-2F
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
Roman Prokopyev	Douglas N. Keller
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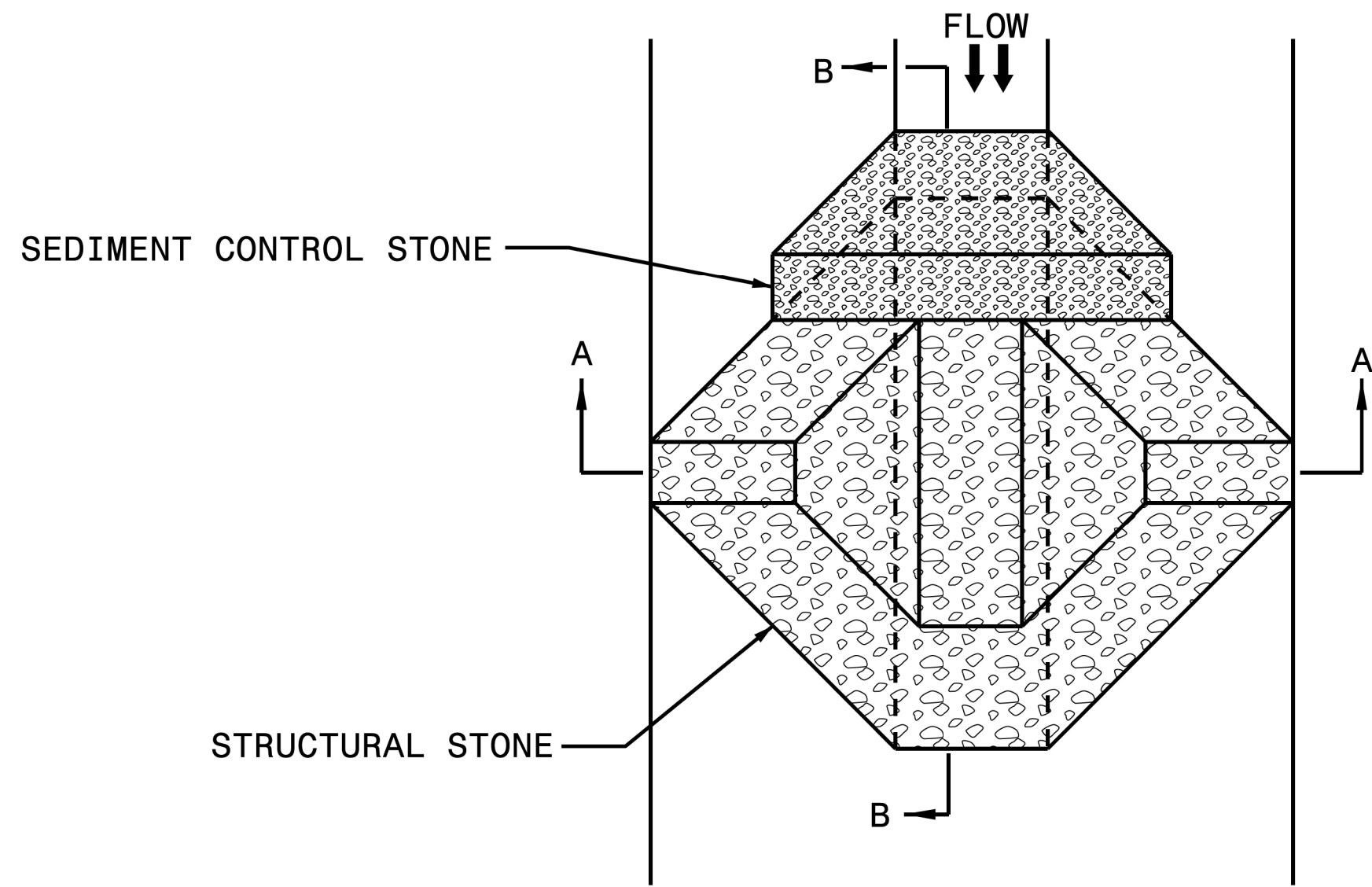
NOTES

CLEAN SEDIMENT WHEN
1/2 FULL AND AS DIRECTED.
USE NO. 5 OR NO. 57 STONE
FOR SEDIMENT CONTROL STONE.
USE CLASS A STONE FOR
STRUCTURAL STONE.
CONSTRUCT TOP OF BERM
A MINIMUM OF ONE FOOT
BELOW THE SHOULDER OR
ANY DIVERSION POINT.

1-24	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY STANDARD DRAWING FOR ROCK INLET SEDIMENT TRAP TYPE B	
SHEET 1 OF 1	
1632.02	



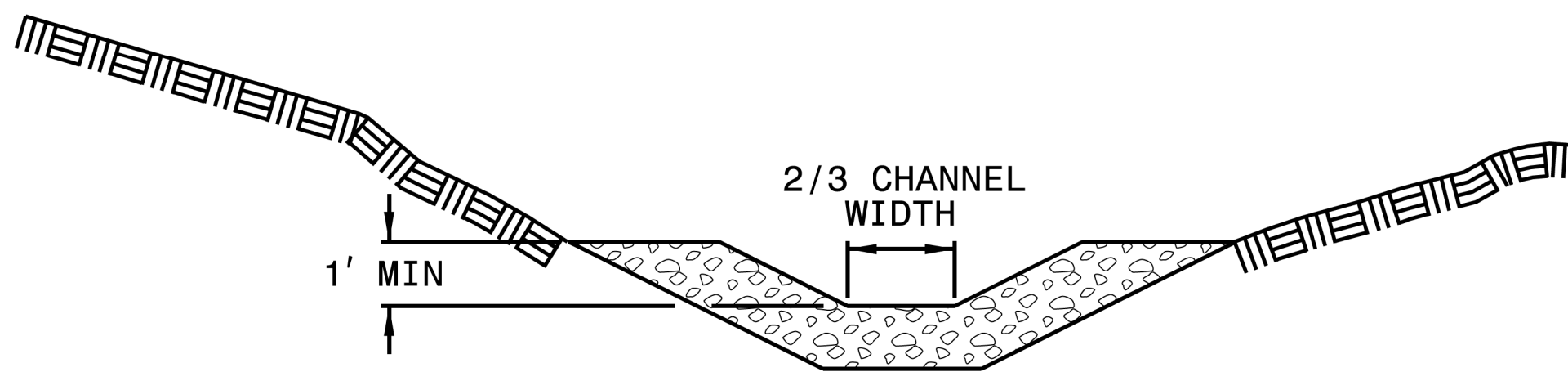
PROJECT REFERENCE NO.		SHEET NO.	
22199		EC-2H	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			
Roman Prokopyev		Douglas N. Meyer	
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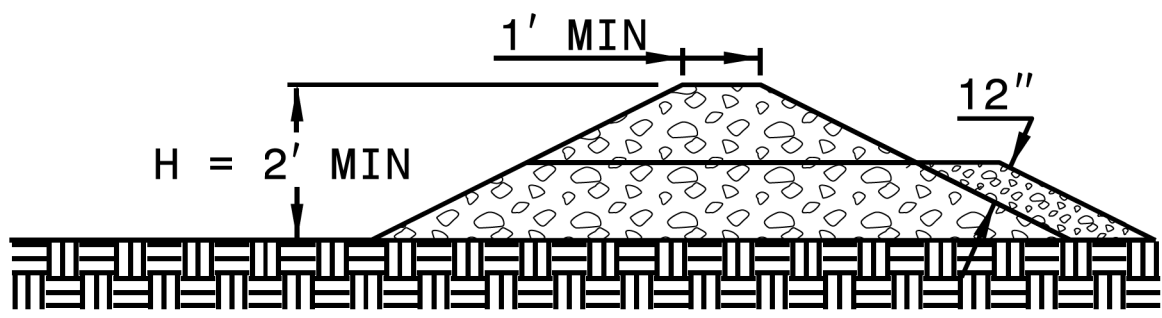
PLAN

NOTES

- USE CLASS B EROSION CONTROL STONE FOR STRUCTURAL STONE.
- USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.



SECTION A-A



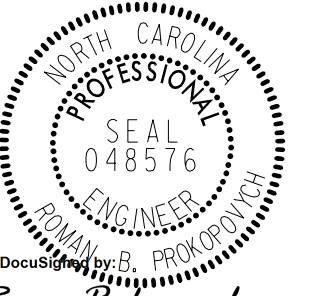
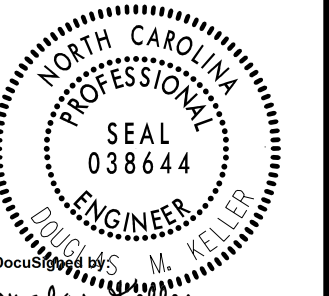
SECTION B-B

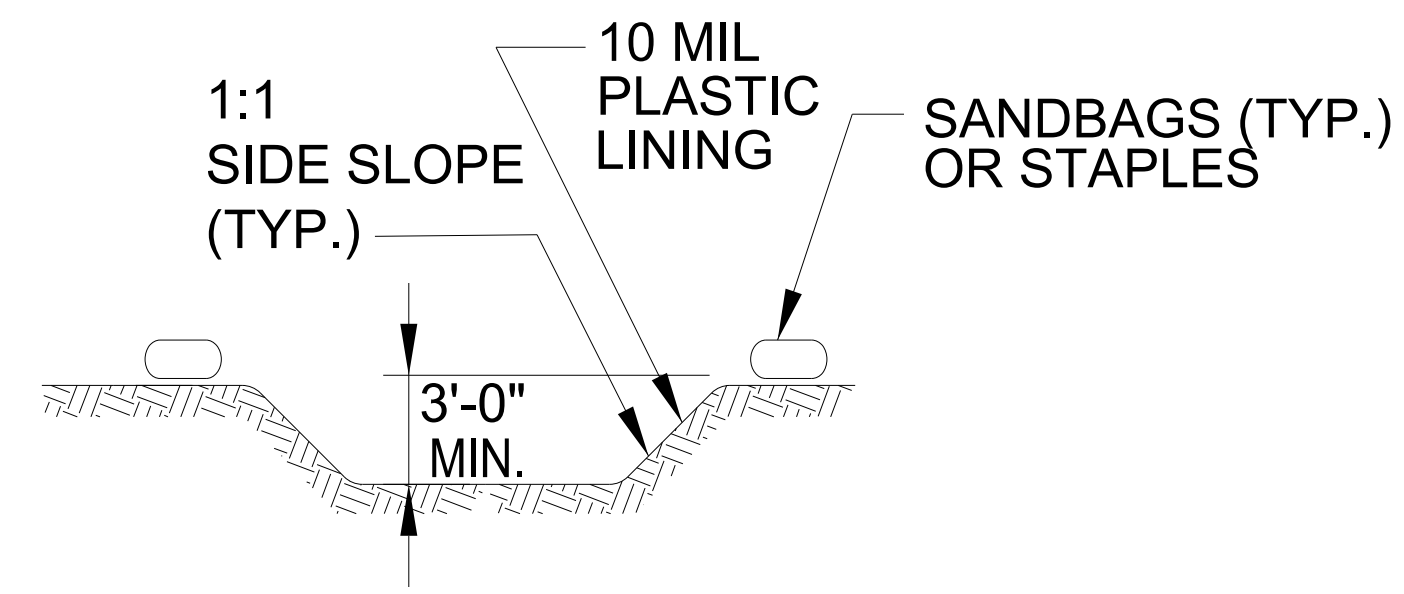
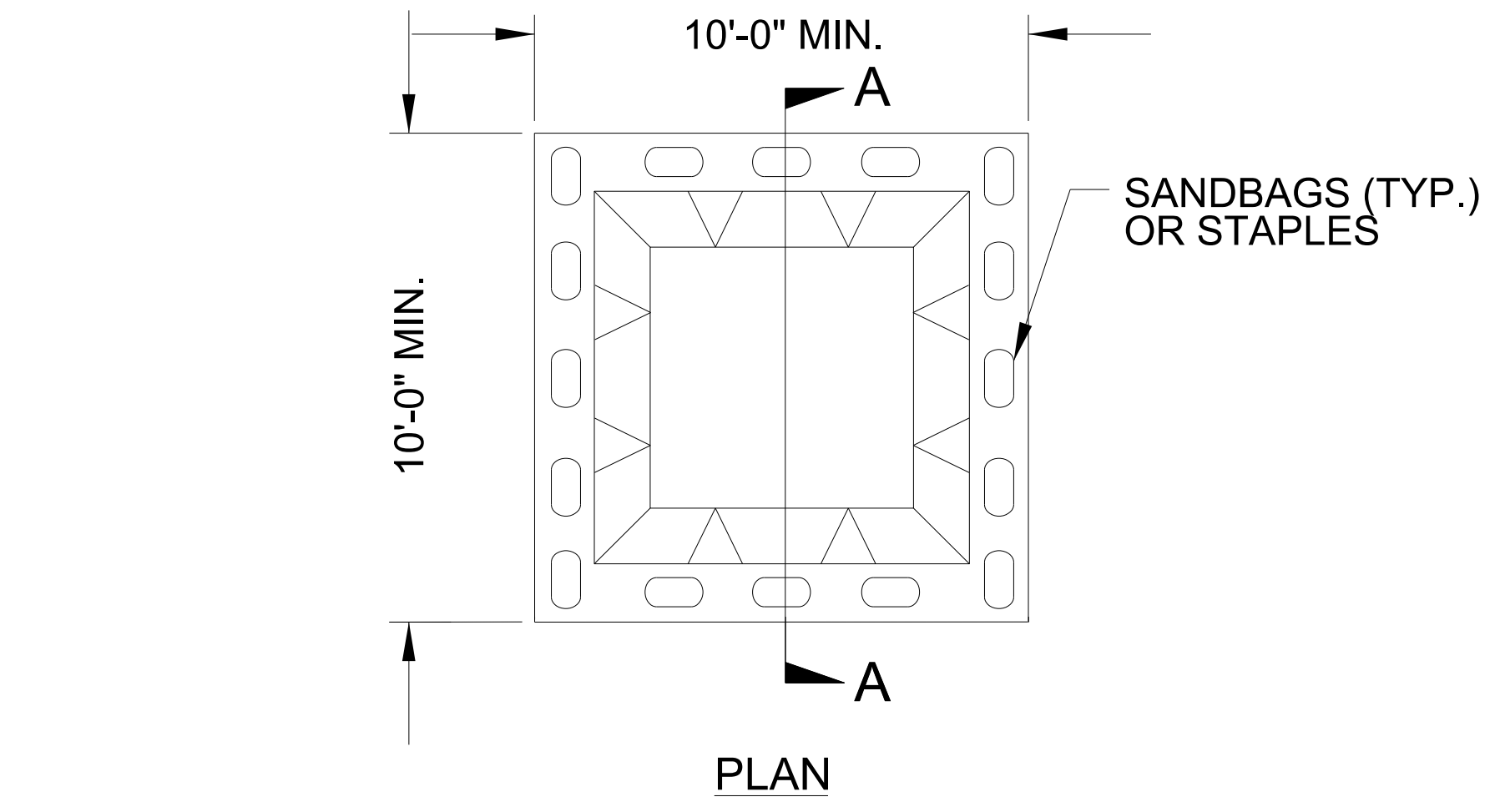
1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
TEMPORARY ROCK SILT CHECK TYPE A

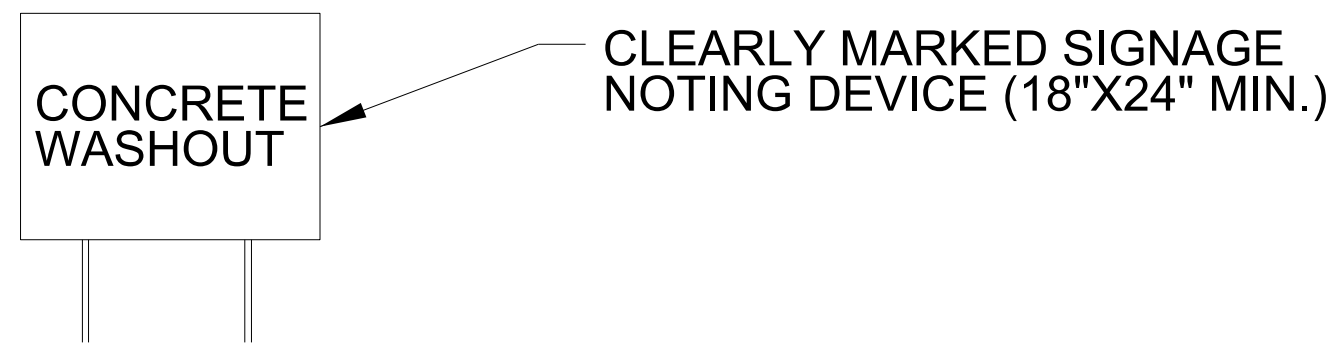
SHEET 1 OF 1
1633.01

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

PROJECT REFERENCE NO.	SHEET NO.
22199	EC-21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
<i>Roman Prokopyev</i>	<i>Douglas N. Keller</i>

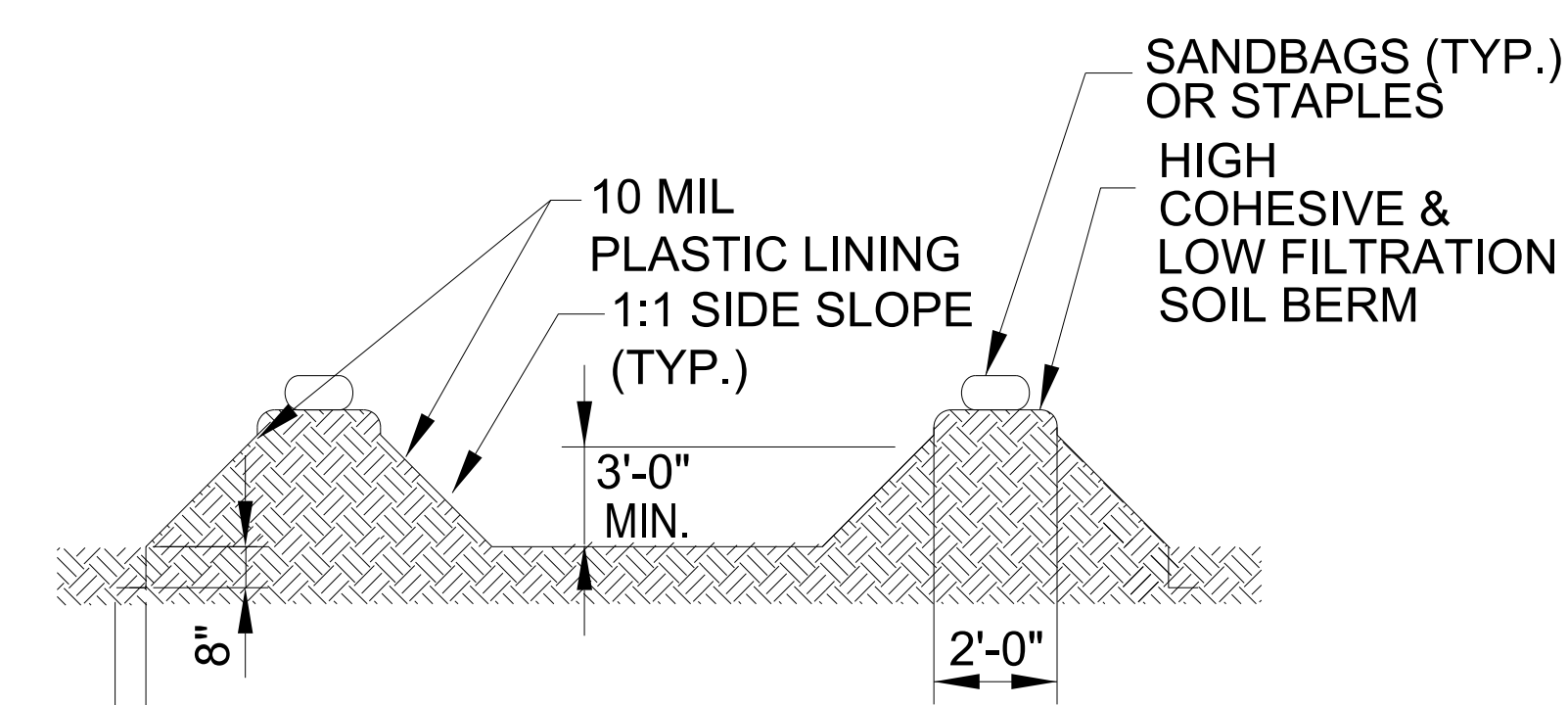
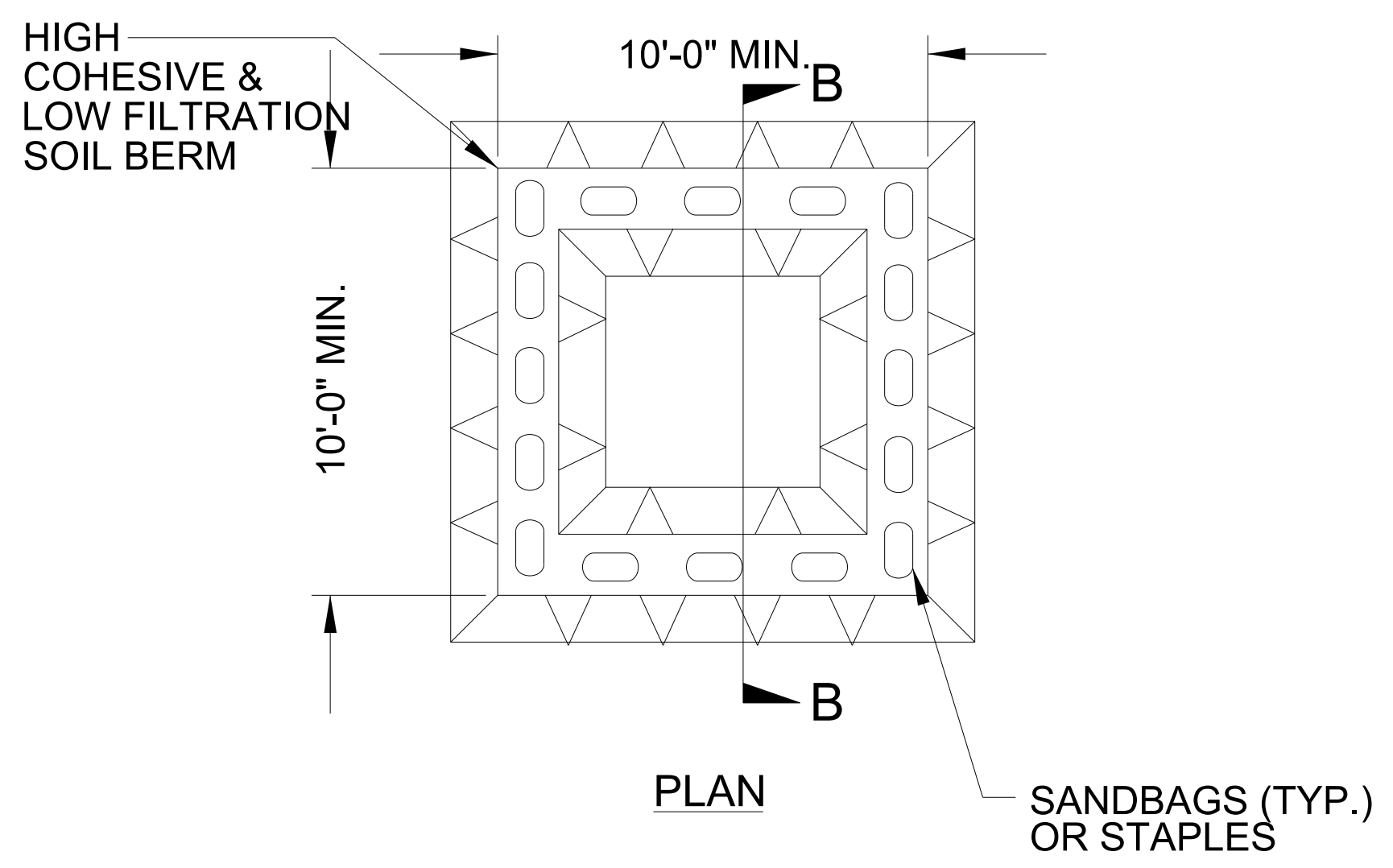


SECTION A-A

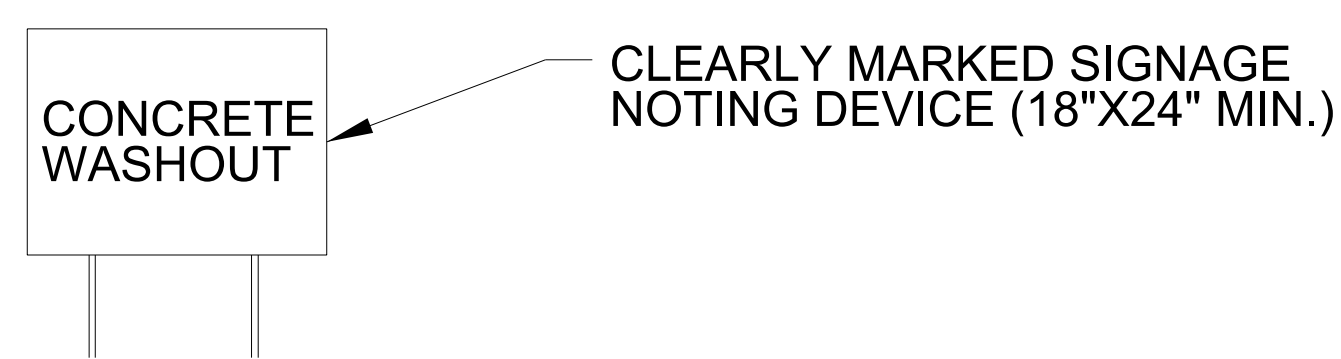


BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.



SECTION B-B



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

EROSION CONTROL GENERAL NOTES

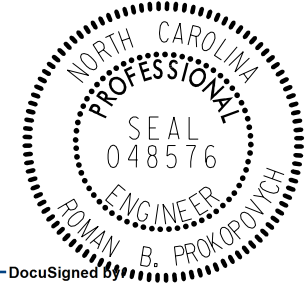
1. THESE EROSION CONTROL PLANS ARE ONLY FOR DISTURBED AREAS DELINEATED ON THE PLANS. EROSION CONTROL PLANS FOR ANY STOCKPILE LOCATIONS, MATERIAL LAY-DOWN AREAS, STAGING AREAS, DIRT OR WASTE PILES, BORROW AREAS, CONTRACTOR OFFICE TRAILER OR ANY OTHER DISTURBED AREA NOT SHOWN ON THESE PLANS ARE THE RESPONSIBILITY OF THE CONTRACTOR, PER NPDES PERMIT CONDITIONS, NO SOIL STOCKPILE LOCATIONS, MATERIAL LAY-DOWN AREAS, STAGING AREAS, DEMOLITION OR CONSTRUCTION WASTE PILES, CONCRETE WASHOUTS SHOULD BE WITHIN 50' OF ANY DRAINAGE STRUCTURE, TEMPORARY DIVERSIONS, CHANNELS, OR SURFACE WATER BODIES. OFFSITE BORROW OR WASTE SHOULD BE FROM A PERMITTED SITE.
2. GROUND COVER DEADLINES AND STABILIZATION REQUIREMENTS SHALL BE ESTABLISHED IN ACCORDANCE WITH THE NPDES GENERAL PERMIT- NCG 010000, OR IN CRITICAL AREAS SUCH AS DITCH OUTFALLS OR STREAM CROSSINGS, AT DAY'S END FOR CONSTRUCTION ACTIVITIES (SEE PERMIT FOR DETAILS). ALL EXPOSED SLOPES AND OTHER DISTURBED AREAS SHALL BE VEGETATED AS NOTED ON SHEET 3A. THE VEGETATION REQUIREMENTS ALSO APPLY TO NEWLY CONSTRUCTED EROSION CONTROL MEASURES (TEMPORARY DIVERSIONS, PERIMETER DITCHES, BASIN SLOPES, ETC.) ALL STOCKPILE/LAYDOWN AREAS SHALL BE GRADED PER PLAN AFTER USE AND STABILIZED AS NOTED ON SHEET 3A.
3. ALL SEDIMENT LADEN RUNOFF SHALL BE DIRECTED TO AN APPROVED EROSION CONTROL DEVICE. THE CONTRACTOR SHALL USE ASPHALT BERMS OR OTHER METHODS TO ENSURE SEDIMENT LADEN RUNOFF DOES NOT ENTER OR CROSS ROADS AND DRIVEWAYS. ADDITIONALLY, ALL HANDLING OF MATERIAL WASTE SUCH AS CONCRETE AND MORTOR SHALL OCCUR WITHIN THE LIMITS OF DISTUBURNACE SHOWN ON THE CONSTRUCTION DRAWINGS. ALL CONCRETE AND MORTOR WASTE SHALL BE DISPOSED OF WITH THE USE OF A CONCRETE WASHOUT. SPILLS ON PAVED SURFACES MUST BE CLEANED WITH A SPILL KIT AND PROPERLY DISPOSED OF.
4. ALL CONSTRUCTION TRAFFIC LEAVING THE SITE AND ENTERING ANY PUBLIC ROADWAY MUST UTILIZE A GRAVEL CONSTRUCTION ENTRANCE. ADDITIONAL ENTRANCES BEYOND THOSE SHOWN ON THE PLANS WILL BE REQUIRED. THE CONTRACTOR SHALL COORDINATE THE LOCATIONS OF CONSTRUCTION ENTRANCES WITH THE TRAFFIC CONTROL PLANS. IF CONSTRUCTION ENTRANCES ARE INEFFECTIVE, THEN A TIRE WASH STATION SHALL BE ESTABLISHED AND DEWATERED TO A SILT BAG.
5. MAINTAIN ALL EROSION CONTROL DEVICES AS PER THE PLANS AND SPECIFICATIONS FOR THE DURATION OF CONSTRUCTION. INSPECT ALL DEVICES AT THE END OF EACH DAY AND AFTER ALL RAINFALL EVENTS. ALL SEDIMENT CONTAINMENT MEASURES MUST BE MAINTAINED UNTIL ALL UPGRADE DRAINAGE AREAS HAVE BEEN STABILIZED WITH THE ESTABLISHMENT OF PERMANENT VEGETATION.
6. INLET PROTECTION SHOWN ON THE PLANS MAY BE EITHER BLOCK AND GRAVEL DROP INLET PROTECTION OR STANDARD CATCH BASIN YARD INLET PROTECTION AT THE DISCRETION OF THE CONTRACTOR. STANDARD CATCH BASIN YARD INLET PROTECTION MUST BE USED IN LOCATIONS WITHIN 30 FT OF AN ACTIVE LANE OF TRAFFIC NOT SEPARATED BY GUARDRAIL OR CONCRETE BARRIER.
7. UTILIZE STANDARD PIPE INLET PROTECTION AT THE ENTRANCE OF ALL PIPES BEING INSTALLED AT THE END OF EACH DAY OR BEFORE THE ONSET OF RAIN.
8. DISTURBED AREA = 2.2 ACRES
9. THESE EROSION AND SEDIMENT CONTROL PLANS SHOW DEVICES REQUIRED FOR CLEARING AND GRUBBING PHASE AND FINAL GRADING. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR TRANSITION BETWEEN THE PHASES AND MAKING SURE ALL SEDIMENT LADEN RUNOFF IS TREATED BY AN APPROVED DEVICE BEFORE LEAVING THE SITE. THERE MAY BE INTERMEDIATE GRADES IN WHICH ADDITIONAL TEMPORARY DIVERSIONS, NOT SHOWN ON THE PLANS, ARE REQUIRED TO DIRECT RUNOFF TO BASINS OR ADDITIONAL SILT FENCE TO KEEP SEDIMENT ON SITE.
10. A RAIN GAUGE SHALL BE INSTALLED ON THE SITE AS WELL AS AN APPROVED COPY OF THE EROSION AND SEDIMENT CONTROL PLAN WITH A PLACARD. THE EROSION AND SEDIMENT CONTROL PLAN APPROVAL LETTER, 401/404 DOCUMENTATION AND A COPY OF THE NPDES PERMIT SHALL ALSO BE INCLUDED WITH A MINIMUM OF 30 DAYS SELF-INSPECTION REPORTS WILL BE KEPT ONSITE UNTIL PROJECT CLOSEOUT.
11. SELF INSPECTION MUST BE CONDUCTED AND DOCUMENTED IN THE INSPECTION & MONITORING FORM PROVIDED BY NCDENR: <https://www.deq.nc.gov/about/divisions/energy-mineral-and-land-resources/erosion-and-sediment-control/erosion-and-sediment-control-forms> (PER STORMWATER GENERAL PERMIT NCG010000) MEASURES & STORMWATER DISCHARGE OUTFALLS MUST BE INSPECTED AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL EVENT GREATER THAN 0.5 INCH PER 24 HOUR PERIOD. ADDITIONALLY, GROUND STABILIZATION MUST BE RECORDED AFTER EACH PHASE OF GRADING. A RECORD COPY OF EACH INSPECTION & MONITORING A MINIMUM OF 30 DAYS OF REPORTS MUST BE KEPT ON SITE UNTIL PROJECT CLOSURE.
12. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
13. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
14. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
15. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. COIR FIBER WATTLE BARRIERS TO REMAIN THROUGH FINAL GRADING.
16. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE TOWN OF HARRISBURG ENGINEERING DEPARTMENT.
17. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. FILL SLOPES GREATER THAN 2:1 REQUIRE ADEQUATE TERRACING.
18. DRIVEWAY PERMIT FOR CONSTRUCTION ENTRANCES IN NCDOT RIGHT OF WAY MUST BE PRESENTED AT PRE-CONSTRUCTION MEETING.

CONSTRUCTION NARRATIVE

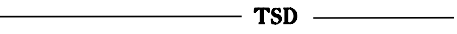
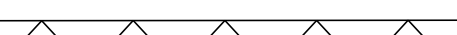
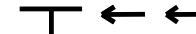
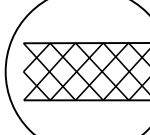
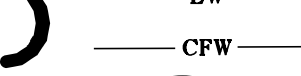
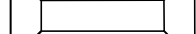
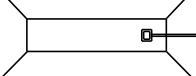
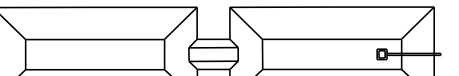
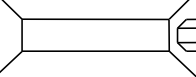
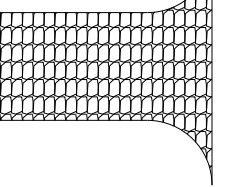
THE TOWN OF HARRISBURG PLANS TO EXTEND HAGLER STREET FROM CARL PARMER DRIVE TO CAMBRIDGE DRIVE. THIS PROJECT ALSO INCLUDES THE CONSTRUCTION OF AN APPROXIMATELY 965' SEGMENT OF THE PROPOSED DAVIS GREENWAY, RUNNING NORTH-NORTHEAST ALONG DAVIS BRANCH, FROM THE ROUGH LOCATION OF THE EXISTING TURNAROUND TO THE LIMITS OF THE DAVIS CREEK SUBDIVISION. TO FACILITATE THE EXTENSION OF HAGLER STREET OVER DAVIS BRANCH, A 28'X7' REINFORCED CONCRETE BOX CULVERT PROPOSED ALONG WITH ROADWAY DRAINAGE INLETS, PIPES, AND DITCHES.

GENERAL EROSION CONTROL CONSTRUCTION PHASING NOTES

1. THE CONTRACTOR SHALL NOTIFY NCDENR DIVISION OF LAND QUALITY OR APPROPRIATE INSPECTING AGENCY AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK ON THE SITE. ALSO, CONTACT THE HARRISBURG ENGINEERING DEPARTMENT THE CONTRACTOR SHALL SUBMIT DOCUMENTATION REQUIRED UNDER THE NPDES (NCG010000) TO STORMWATER SERVICES THROUGHOUT THE PROJECT.
2. PRIOR TO BEGINNING CONSTRUCTION, SCHEDULE A PRECONSTRUCTION CONFERENCE WITH NCDENR AND TOWN INSPECTOR.
3. CALL FOR ON-SITE INSPECTION BY NCDENR ENVIRONMENTAL INSPECTOR TO OBTAIN APPROVAL. ALSO CALL THE CHARLOTTE-MECKLENBURG STORM WATER SERVICES NUMBER 704-336-7600 TO SCHEDULE A STORMWATER SITE INSPECTIONS. CONTACT THE LAND QUALITY SECTION INSPECTOR AT 704-663-1699 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. IF STATE EROSION CONTROL PLAN REQUIRED.
4. INSTALL GRAVEL CONSTRUCTION ENTRANCE(S) AT ALL POINTS WHERE CONSTRUCTION TRAFFIC WILL ENTER PAVED STREETS.
5. INSTALL PERIMETER EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLANS PRIOR TO CLEARING GRUBBING OTHER AREAS.
6. AS WORK TRANSITIONS FROM CLEARING AND GRUBBING PHASE TO FINAL GRADING PHASE REMOVE CLEARING AND GRUBBING EROSION CONTROL DEVICES AND INSTALL FINAL GRADE EROSION CONTROL DEVICES. AREAS THAT GRADING IS NOT SPECIFICALLY DEFINED BY THE DRAINAGE PLANS MUST BE GRADED TO DRAIN. ALL DE-WATERING SHALL OCCUR THROUGH A SPECIAL STILLING BASIN.
7. UPON FINAL STABILIZATION OF CONTRIBUTORY DRAINAGE AREA, REMOVE EROSION CONTROL DEVICES, PERFORM FINISH GRADING AND PERMANENTLY SEED THE AREA FORMERLY OCCUPIED BY THE EROSION CONTROL DEVICE.
8. SEE INDIVIDUAL PLAN SHEETS FOR ADDITIONAL SPECIFIC PHASING NOTES.
9. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR. THE COC CAN BE OBTAINED BY FILLING OUT THE ELECTRONIC NOTICE OF INTENT (E-NOI) FORM AT DEQ.NC.GOV/NCGOI. PLEASE NOTE, THE E-NOI FORM MAY BE ONLY BE FILLED OUT ONCE THE PLANS HAVE BEEN APPROVED. A COPY OF THE E&SC PERMIT, THE COC, AND A HARD COPY OF THE PLAN MUST BE KEPT ON SITE, PREFERABLY IN A PERMITS BOX, AND ACCESSIBLE DURING INSPECTION.
10. WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&SC PLAN. AFTER DEMLR INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITTEE SHALL VISIT DEQ.NC.GOV/NCGOI TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A \$100 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN FILLED OUT.

PROJECT REFERENCE NO.	SHEET NO.
22199	EC-3
RW SHEET NO.	
 DocuSign Roman Prokopowicz 11/16/2024 NCDOT/ECARLSDENR	 DocuSign Douglas Kellie 11/16/2024 NCDOT/ECARLSDENR

EROSION CONTROL LEGEND

NCDOT Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	
1630.05	Temporary Diversion	
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	
1632.02	Type B	
1632.03	Type C	
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	
	Clean Water Diversion	
	Construction Entrance	

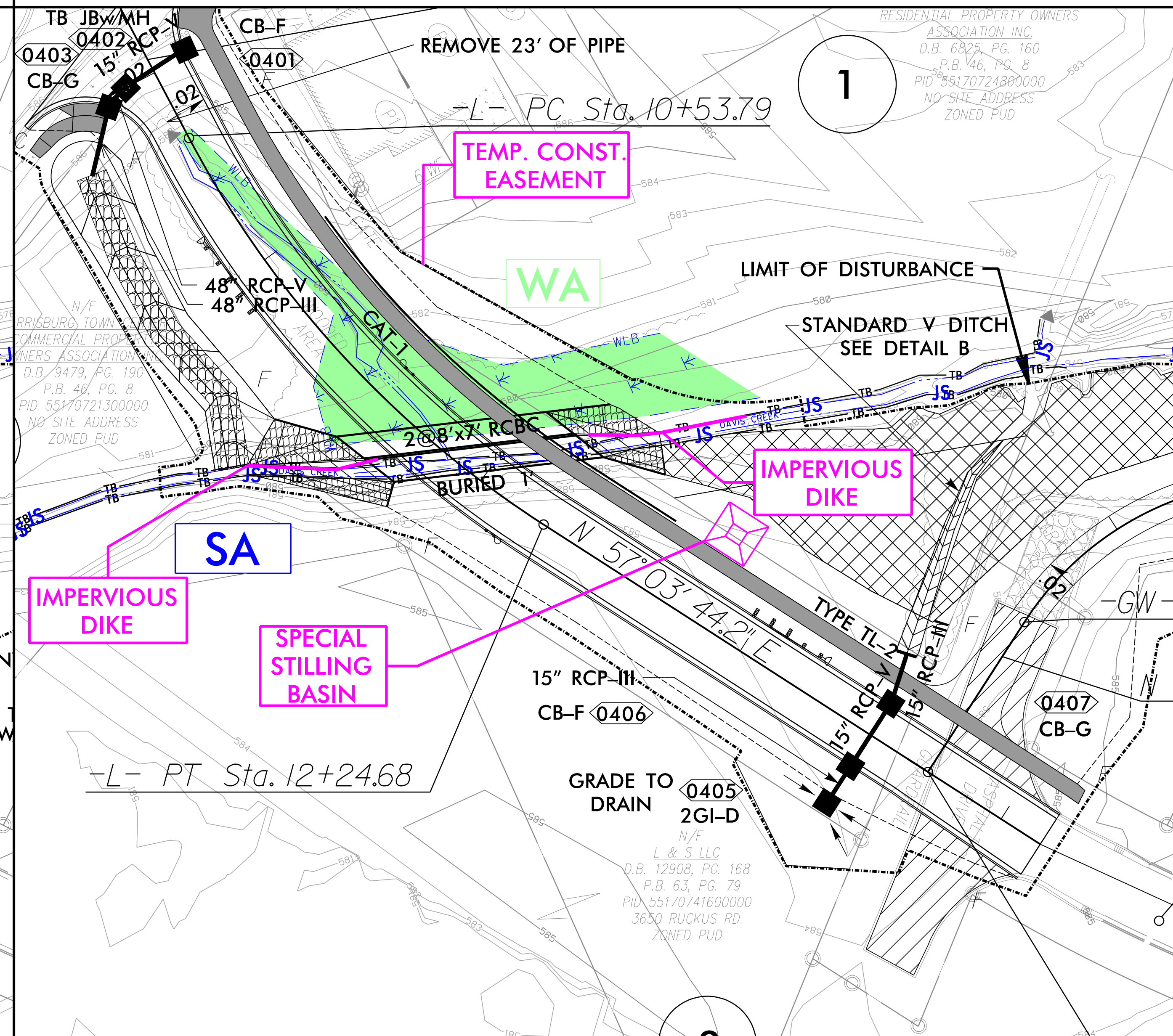
SOIL STABILIZATION TIMEFRAMES

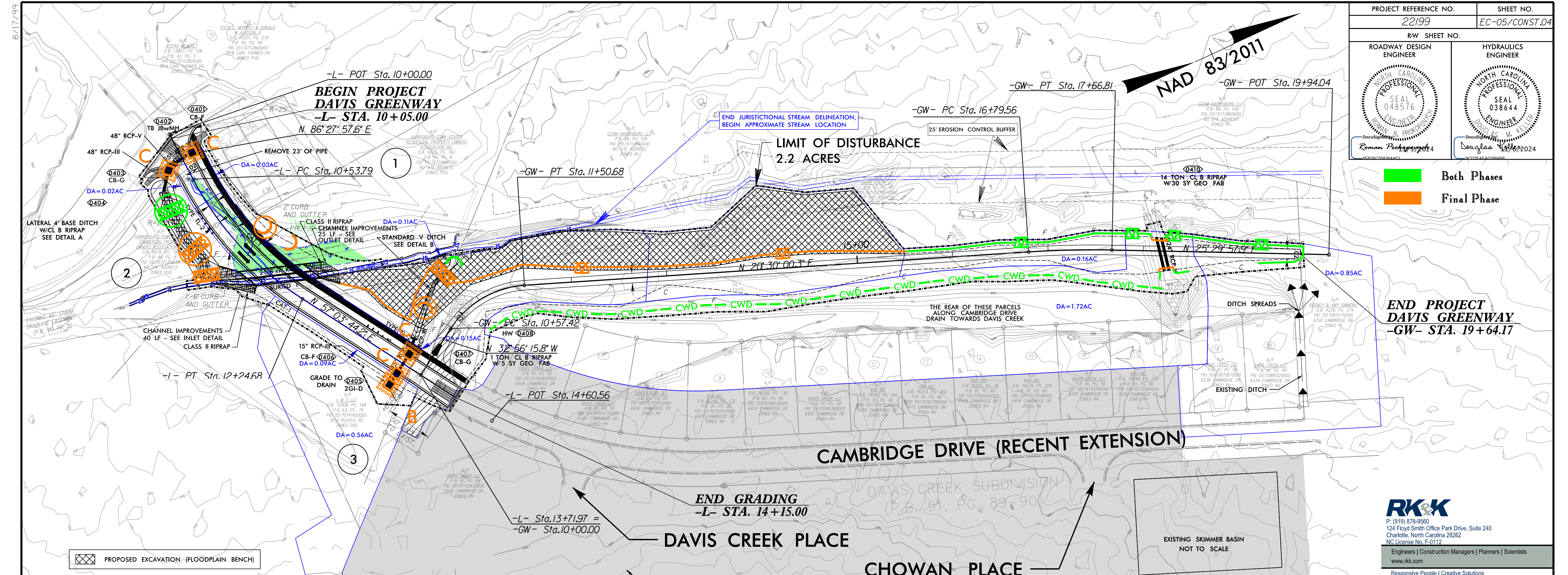
SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10’ OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50’ IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
22199	EC-04A/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Document by: <i>Roman Pokorski</i> Roman Pokorski, P.E. 06/26/2024	Document by: <i>Douglas E. Hinkle</i> Douglas E. Hinkle, P.E. 06/26/2024
06/26/2024 09:47:03 AM	06/26/2024 09:47:03 AM

PHASE II

1. RESET IMPERVIOUS DIKES TO ROUTE FLOW THROUGH LOW FLOW (RT) BARREL.
2. REMOVE TEMPORARY CHANNEL CHANGE. COMPLETE WORK ON PROPOSED BASE DITCH.
3. CONSTRUCT NORTHWESTERN (DOWNSTREAM LT) WINGWALL. COMPLETE ANY REMAINING CHANNEL WORK.
4. COMPLETE ROADWAY GRADING AND EXCAVATION FOR FLOODPLAIN BENCH. PLANT AND STABILIZE EX. DITCH AT 15" OUTFALL.
5. REMOVE IMPERVIOUS DIKES AND SPECIAL STILLING BASIN(S).



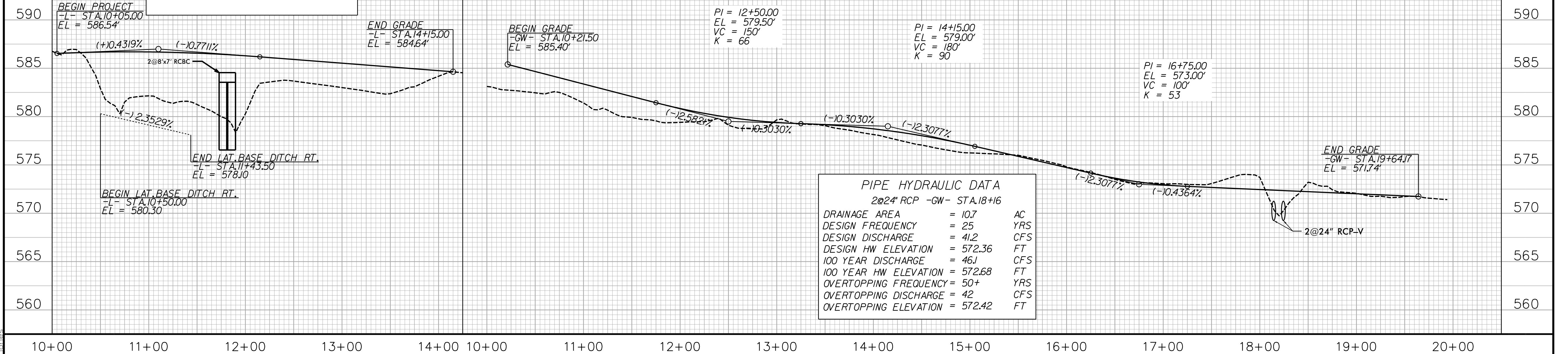


PROJECT REFERENCE NO.		SHEET NO.	
22199		EC-05/CONST.04	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 Document No. _____ Roman Pokorski 4 CEP220/CE368A/CE3		 Document No. _____ Douglas Keller 2024 CEP220/CE368A/CE3	

HYDRAULIC DATA	
DESIGN DISCHARGE	= 321 C.F.S.
FREQUENCY OF DESIGN FLOOD	= 25 YRS.
DESIGN HIGH WATER ELEVATION	= 582.27 FT.
DRAINAGE AREA	= 0.29 SQ. MI.
BASIC DISCHARGE (Q100)	= 442 C.F.S.
BASIC HIGH WATER ELEVATION	= 583.20 FT.

OVERTOPPING FLOOD DATA	
OVERTOPPING DISCHARGE	= 891 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD	= 500+ YRS.
OVERTOPPING FLOOD ELEVATION	= 585.0 FT. *

* STATION 16 + 91 -L-

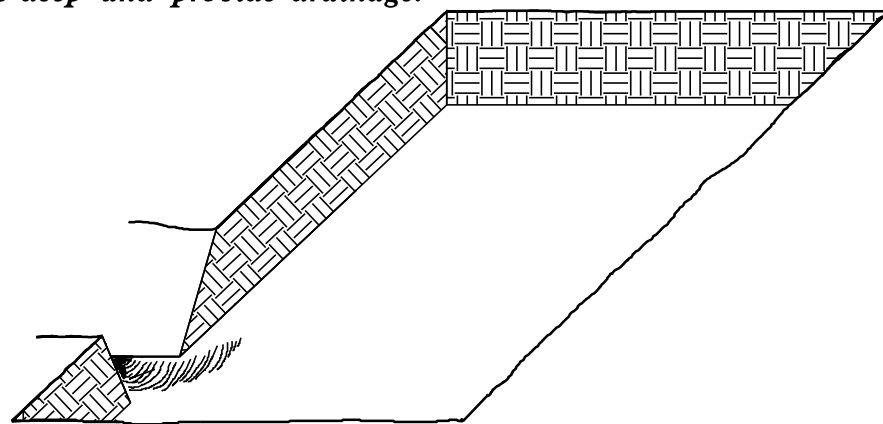


PIPE HYDRAULIC DATA		
2@24" RCP -GW- STA.18+16		
DRAINAGE AREA	= 10.7	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 41.2	CFS
DESIGN HW ELEVATION	= 572.36	FT
100 YEAR DISCHARGE	= 46J	CFS
100 YEAR HW ELEVATION	= 572.68	FT
OVERTOPPING FREQUENCY	= 50+	YRS
OVERTOPPING DISCHARGE	= 42	CFS
OVERTOPPING ELEVATION	= 572.42	FT

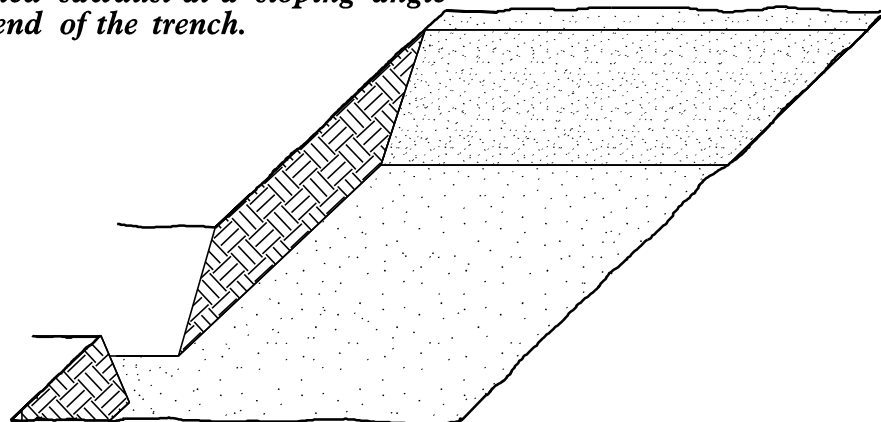
PLANTING DETAILS
SEEDLING / LINER BAREROOT PLANTING DETAIL

HEALING IN

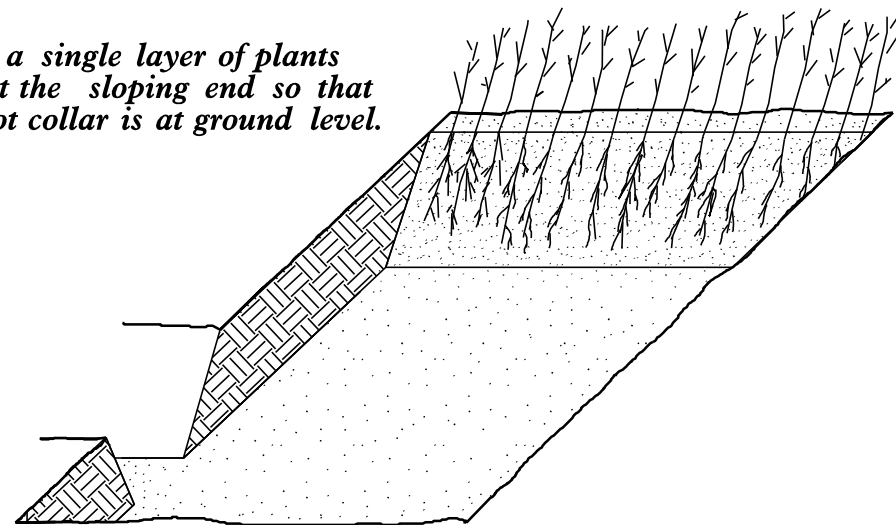
1. Locate a healing-in site in a shady, well protected area.
2. Excavate a flat bottom trench 12 inches deep and provide drainage.



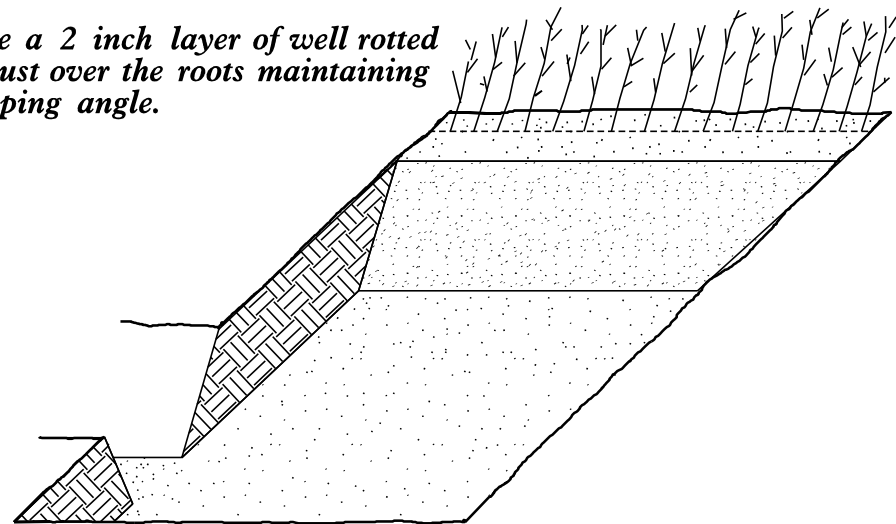
3. Backfill the trench with 2 inches well rotted sawdust. Place a 2 inch layer of well rotted sawdust at a sloping angle at one end of the trench.



4. Place a single layer of plants against the sloping end so that the root collar is at ground level.

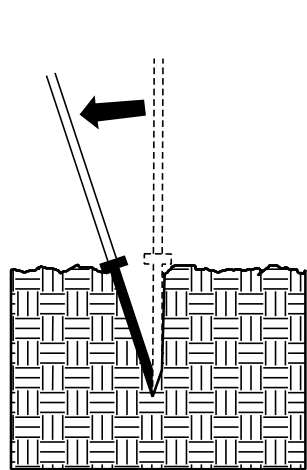


5. Place a 2 inch layer of well rotted sawdust over the roots maintaining a sloping angle.

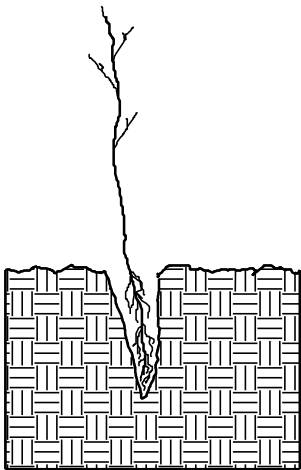


6. Repeat layers of plants and sawdust as necessary and water thoroughly.

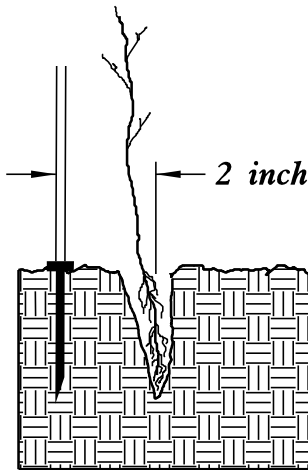
DIBBLE PLANTING METHOD
USING THE KBC PLANTING BAR



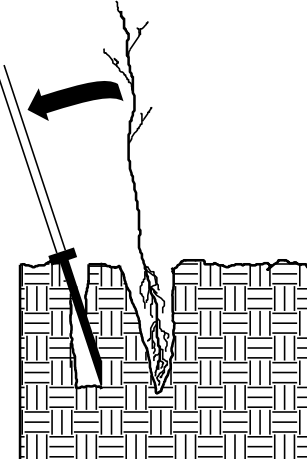
1. Insert planting bar as shown and pull handle toward planter.



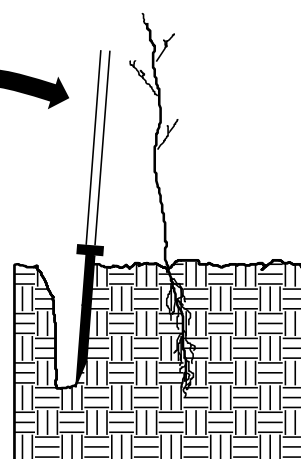
2. Remove planting bar and place seedling at correct depth.



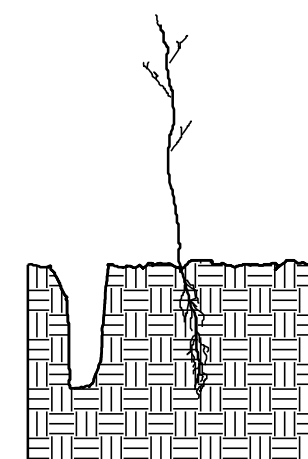
3. Insert planting bar 2 inches toward planter from seedling.



4. Pull handle of bar toward planter, firming soil at bottom.



5. Push handle forward firming soil at top.



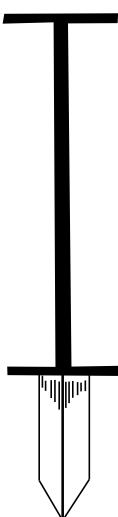
6. Leave compaction hole open. Water thoroughly.

PLANTING NOTES:

PLANTING BAG
During planting, seedlings shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.



KBC PLANTING BAR
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.



ROOT PRUNING
All seedlings shall be root pruned, if necessary, so that no roots extend more than 10 inches below the root collar.

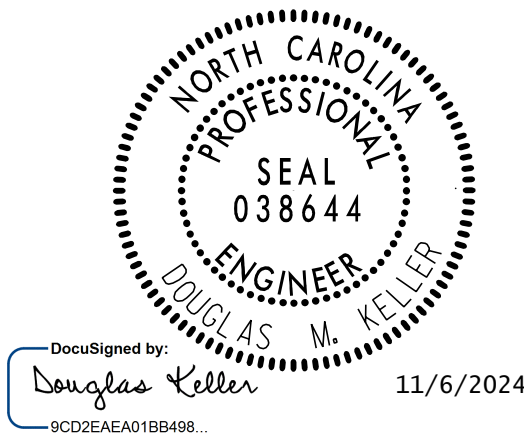
REFORESTATION

- TREE REFORESTATION SHALL BE PLANTED 6 FT. TO 10 FT. ON CENTER, RANDOM SPACING, AVERAGING 8 FT. ON CENTER, APPROXIMATELY 680 PLANTS PER ACRE.

REFORESTATION

MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

25%	LIRIODENDRON TULIPIFERA	TULIP POPLAR	12 in – 18 in BR
25%	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	12 in – 18 in BR
25%	NYSSA SYLVATICA	BLACK GUM	12 in – 18 in BR
25%	BETULA NIGRA	RIVER BIRCH	12 in – 18 in BR



11/6/2024

REFORESTATION DETAIL SHEET

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

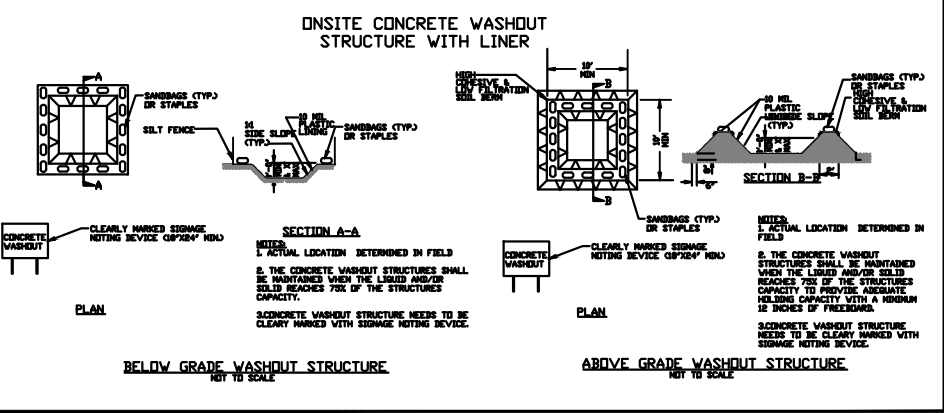
1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

PART III		
SELF-INSPECTION, RECORDKEEPING AND REPORTING		
SECTION A: SELF-INSPECTION		
Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.		
Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDCs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING
1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- (a) This General Permit as well as the Certificate of Coverage, after it is received.
- (b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported
 Permittees shall report the following occurrences:
 (a) Visible sediment deposition in a stream or wetland.
 (b) Oil spills if:
 • They are 25 gallons or more,
 • They are less than 25 gallons but cannot be cleaned up within 24 hours,
 • They cause sheen on surface waters (regardless of volume), or
 • They are within 100 feet of surface waters (regardless of volume).
 (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
 (d) Anticipated bypasses and unanticipated bypasses.
 (e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements
 After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

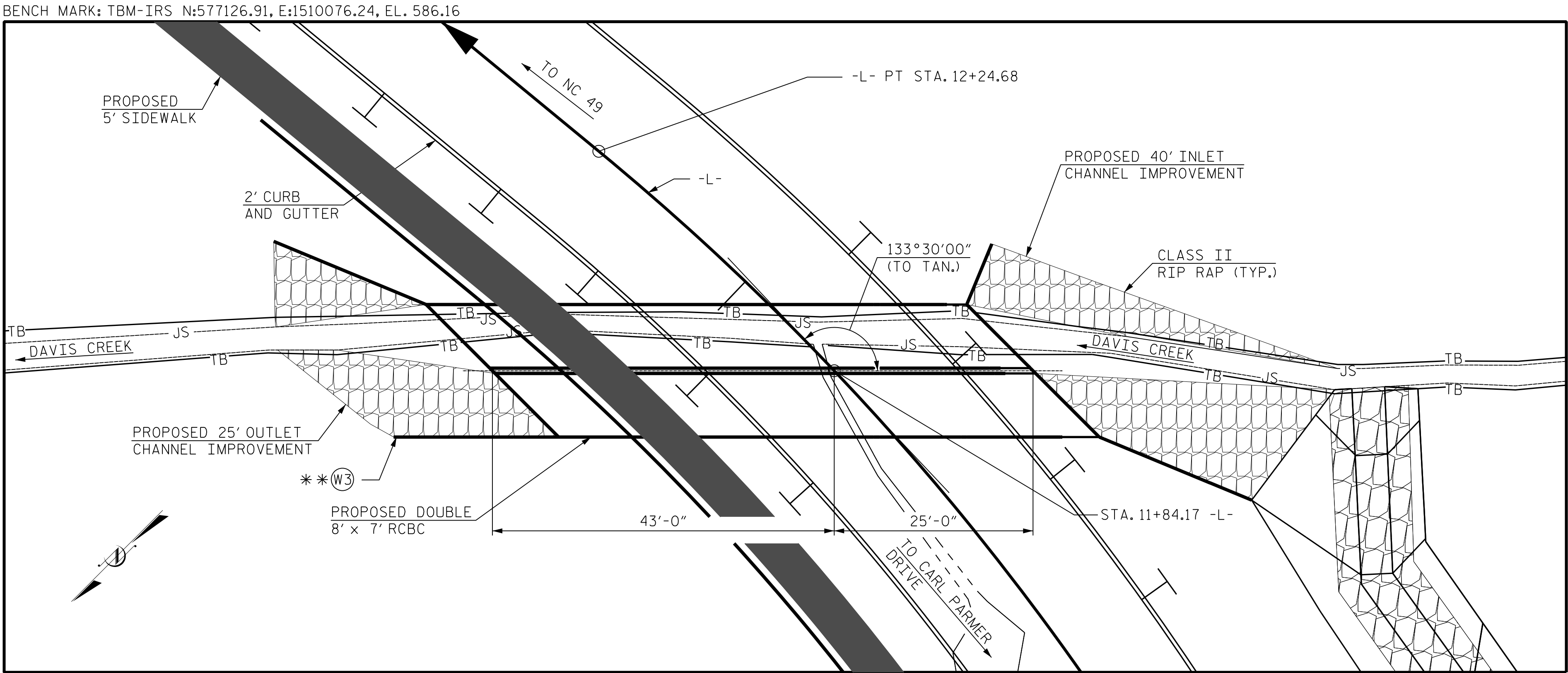
Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

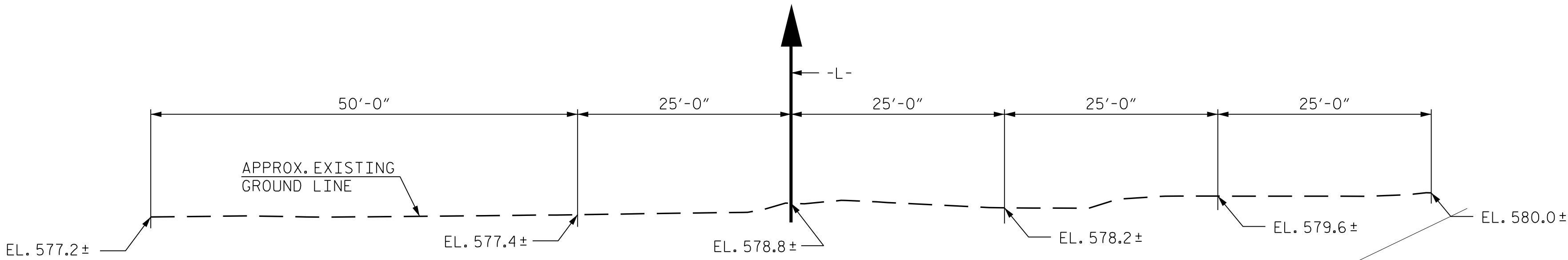
- (a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
- (b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
- (c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
- (d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
- (e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- (f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.





LOCATION SKETCH

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS
GRADE POINT ELEVATION AT STA. 11+84.17 = 586.39
INVERT ELEVATION AT STA. 11+84.17 = 576.73
ROADWAY SLOPES = 2:1



PROFILE ALONG CULVERT

TOTAL STRUCTURE QUANTITIES			
CLASS AA CONCRETE			
BARREL @	1.97	CY/FT	134 C.Y.
SILLS	1.8		C.Y.
WING ETC.	29.8		C.Y.
TOTAL	165.6		C.Y.
REINFORCING STEEL			
BARREL	21,314		LBS.
WINGS ETC.	1,792		LBS.
TOTAL	23,106		LBS.
CULVERT EXCAVATION ----- LUMP SUM			
FOUNDATION CONDITIONING MATERIAL --- 107 TONS			

HYDRAULIC DATA

DESIGN DISCHARGE----- 321 C.F.S.
FREQUENCY OF DESIGN FLOOD----- 25 YRS.
DESIGN HIGH WATER ELEVATION----- 582.27
DRAINAGE AREA----- 0.29 SQ. MI.
BASE DISCHARGE (Q100)----- 442 C.F.S.
BASE HIGH WATER ELEVATION----- 583.17

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE----- 903 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD----- 500 YR. +
OVERTOPPING FLOOD ELEVATION----- 585.0
OVERTOPPING-----@ STA. 16+91 -L-

WS EL. TAKEN AT RIVER STATION 3395.

NOTES:

ASSUMED LIVE LOAD ----- HL-93 OR ALTERNATE LOADING.

DESIGN FILL----- 1.72 FT. (MAX.), 1.12 FT. (MIN.)

3"Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

FOR OTHER DESIGN DATA AND NOTES, SEE STANDARD NOTES SHEET.

CONCRETE IN CULVERTS TO BE POURED IN THE FOLLOWING ORDER:

1. WING FOOTINGS, CURTAIN WALL, AND FLOOR SLAB INCLUDING 4" OF ALL VERTICAL WALLS.
2. THE REMAINING PORTIONS OF THE WALLS AND WINGS FULL HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS.

** WING W3 ON THE LEFT SIDE OF THE OUTLET END OF THE CULVERT IS TO BE CONSTRUCTED IN PHASE II. SEE EROSION CONTROL PLANS FOR CULVERT CONSTRUCTION SEQUENCE.

THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE STAKING IT OUT TO MAKE CERTAIN IT WILL PROPERLY TAKE CARE OF THE FILL.

DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.

AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF THE EXTERIOR WALLS, AND EACH FACE OF THE INTERIOR WALL ABOVE THE LOWER WALL CONSTRUCTION JOINT. THE SPLICE LENGTH SHALL BE AS PROVIDED IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WINGS COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

AT THE CONTRACTOR'S OPTION HE MAY SUBMIT, TO THE ENGINEER FOR APPROVAL, DESIGN AND DETAIL DRAWINGS FOR A PRECAST REINFORCED CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE CULVERT SHOWN ON THE PLANS. THE DESIGN SHALL PROVIDE THE SAME SIZE AND NUMBER OF BARRELS AS USED ON THE CAST-IN-PLACE DESIGN. FOR OPTIONAL PRECAST REINFORCED CONCRETE BOX CULVERT, SEE SPECIAL PROVISIONS.

FOR CULVERT DIVERSION DETAILS AND PAY ITEM, SEE EROSION CONTROL PLANS.

STEEL IN THE BOTTOM SLAB MAY BE SPLICED AT THE PERMITTED CONSTRUCTION JOINT AT THE CONTRACTOR'S OPTION. EXTRA WEIGHT OF STEEL DUE TO SPLICES WILL BE PAID FOR BY THE CONTRACTOR.

EXCAVATE 1 FOOT BELOW CULVERT BEARING ELEVATION AND REPLACE WITH FOUNDATION CONDITIONING MATERIAL (SELECT MATERIAL, CLASS VI).

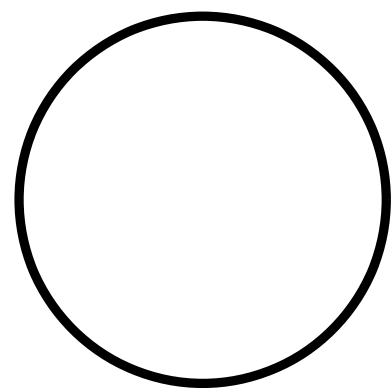
UNDERCUT SOFT/LOOSE ALLUVIAL SOILS THAT MAY BE ENCOUNTERED BENEATH THE BOTTOM OF THE FOUNDATION CONDITIONING MATERIAL. BACKFILL UNDERCUT AREAS WITH FOUNDATION CONDITIONING MATERIAL IN ACCORDANCE WITH SECTION 414 OF THE STANDARD SPECIFICATIONS.

FOR "WEEP HOLES" IN CULVERT WALLS AND WING WALLS, SEE SECTION 414-8 AND 420-11 OF THE 2024 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

FOR "AIR ENTRAINMENT", SEE SECTION 1000-3(B) OF THE STANDARD SPECIFICATIONS.

FOR "PLACING CONCRETE IN COLD WEATHER", SEE SECTION 420-7 OF THE STANDARD SPECIFICATIONS.

I HEREBY CERTIFY THESE
PLANS ARE THE AS-BUILT PLANS



PROJECT NO. 22199
CABARRUS COUNTY
STATION: 11+84.17 -L-

SHEET 1 OF 10

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DOUBLE 8 FT. X 7 FT.
CONCRETE BOX CULVERT



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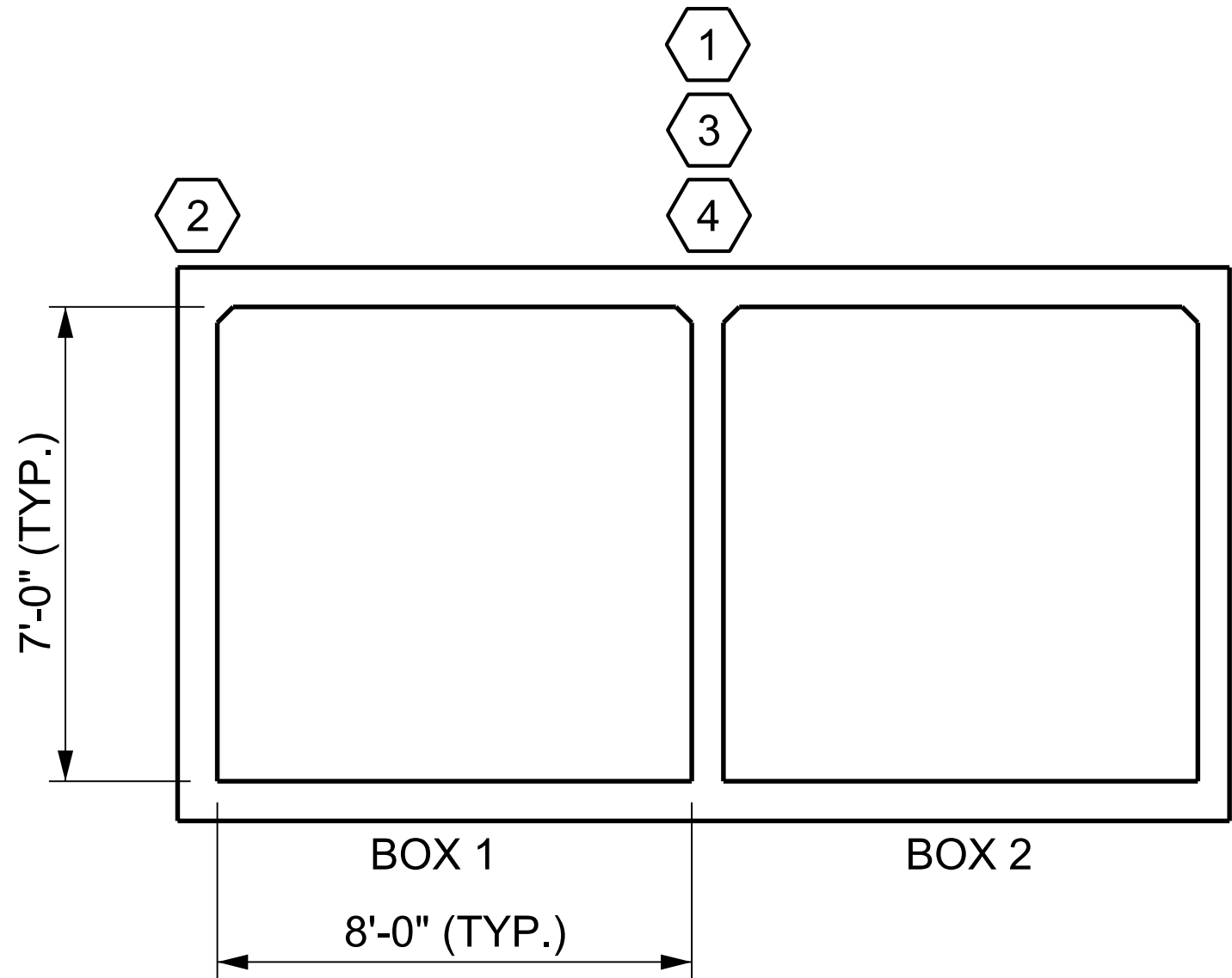
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REVISIONS						SHEET NO. CU.1-1
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 10
2			4			

bgonfa 3/5/2025 R:\Structures\DCN\22199_SMU_CU.1-2.120001.dgn

DRAWN BY : B. H. GONFA DATE : FEB 2024
CHECKED BY : J. W. GENTRY DATE : FEB 2024
DESIGN ENGINEER OF RECORD : J. W. GENTRY DATE : FEB 2024

LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR REINFORCED CONCRETE BOX CULVERTS																
LOAD TYPE		VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING ⬡	MINIMUM RATING FACTORS (RF)	TONS = W x RF	STRENGTH I LIMIT STATE								COMMENT NUMBER	
							LIVE-LOAD FACTORS (γ LL)	MOMENT				SHEAR				
								RATING FACTOR	BOX NO.	ELEMENT TYPE	DISTANCE FROM LEFT END OF ELEMENT (ft)	RATING FACTOR	BOX NO.	ELEMENT TYPE		DISTANCE FROM LEFT END OF ELEMENT (ft)
DESIGN LOAD		HL-93 (INVENTORY)	N/A	⬡1	1.32	--	1.75	1.32	1	INT. WALL	6.9	1.52	2	TOP SLAB	7.9	
		HL-93 (OPERATING)	N/A		1.71	--	1.35	1.71	1	INT. WALL	6.9	1.97	2	TOP SLAB	7.9	
		HS-20 (INVENTORY)	36.000	⬡2	1.55	55.8	1.75	1.62	1	INT. WALL	6.9	1.55	1	TOP SLAB	0.1	
		HS-20 (OPERATING)	36.000		2.01	72.3	1.35	2.11	1	INT. WALL	6.9	2.01	1	TOP SLAB	0.1	
LEGAL LOAD	SINGLE VEHICLE (SV)	SNSH	13.500		2.48	33.4	1.40	2.48	1	INT. WALL	6.9	2.94	1	TOP SLAB	0.1	
		SNGARBS2	20.000		2.32	46.4	1.40	2.32	1	INT. WALL	6.9	2.67	1	TOP SLAB	0.1	
		SNAGRIS2	22.000		2.48	54.5	1.40	2.48	1	INT. WALL	6.9	2.94	1	TOP SLAB	0.1	
		SNCOTTS3	27.250	⬡3	1.38	37.6	1.40	1.38	1	INT. WALL	6.9	1.62	2	TOP SLAB	7.9	
		SNAGGRS4	34.925		1.82	63.5	1.40	1.82	1	INT. WALL	6.9	2.40	2	TOP SLAB	7.9	
		SNS5A	35.550		1.65	58.6	1.40	1.65	1	INT. WALL	6.9	2.13	2	TOP SLAB	7.9	
		SNS6A	39.950		1.65	65.9	1.40	1.65	1	INT. WALL	6.9	2.12	2	TOP SLAB	7.9	
		SNS7B	42.000		1.98	83.1	1.40	1.98	1	INT. WALL	6.9	2.76	2	TOP SLAB	7.9	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		2.48	81.8	1.40	2.48	1	INT. WALL	6.9	2.93	1	TOP SLAB	0.1	
		TNT4A	33.075		1.65	54.5	1.40	1.65	1	INT. WALL	6.9	2.09	2	TOP SLAB	7.9	
		TNT6A	41.600		1.65	68.6	1.40	1.65	1	INT. WALL	6.9	2.18	2	TOP SLAB	7.9	
		TNT7A	42.000		1.65	69.3	1.40	1.65	1	INT. WALL	6.9	2.16	2	TOP SLAB	7.9	
		TNT7B	42.000		1.65	69.3	1.40	1.65	1	INT. WALL	6.9	2.09	2	TOP SLAB	7.9	
		TNAGRIT4	43.000		1.65	70.9	1.40	1.65	1	INT. WALL	6.9	2.09	2	TOP SLAB	7.9	
		TNAGT5A	45.000		1.65	74.2	1.40	1.65	1	INT. WALL	6.9	2.14	2	TOP SLAB	7.9	
		TNAGT5B	45.000		1.65	74.2	1.40	1.65	1	INT. WALL	6.9	2.08	2	TOP SLAB	7.9	
EMERGENCY VEHICLE (EV)		EV2	28.750		1.59	45.7	1.30	1.63	1	INT. WALL	6.9	1.59	1	TOP SLAB	0.1	
		EV3	43.000	⬡4	1.12	48.1	1.30	1.12	1	INT. WALL	6.9	1.18	2	TOP SLAB	7.9	



LRFR SUMMARY
(LOOKING DOWNSTREAM)

LOAD FACTORS:

DESIGN LOAD RATING FACTORS		
LOAD TYPE	MAX FACTOR	MIN FACTOR
DC	1.25	0.90
DW	1.50	0.65
EV	1.30	0.90
EH	1.35	0.90
ES	1.35	0.90
LS	1.75	--
WA	1.00	--

NOTES:

RATING FACTORS ARE BASED ON THE STRENGTH I LIMIT STATES.

COMMENTS:

- LEFT END OF WALL TAKEN AT BOTTOM.
-
-
-

⬡	CONTROLLING LOAD RATING
⬡1	DESIGN LOAD RATING (HL-93)
⬡2	DESIGN LOAD RATING (HS-20)
⬡3	LEGAL LOAD RATING **
⬡4	EMERGENCY VEHICLE LOAD RATING **
** SEE CHART FOR VEHICLE TYPE	

PROJECT NO. 22199
CABARRUS COUNTY
STATION: 11+84.17 -L-

SHEET 2 OF 10

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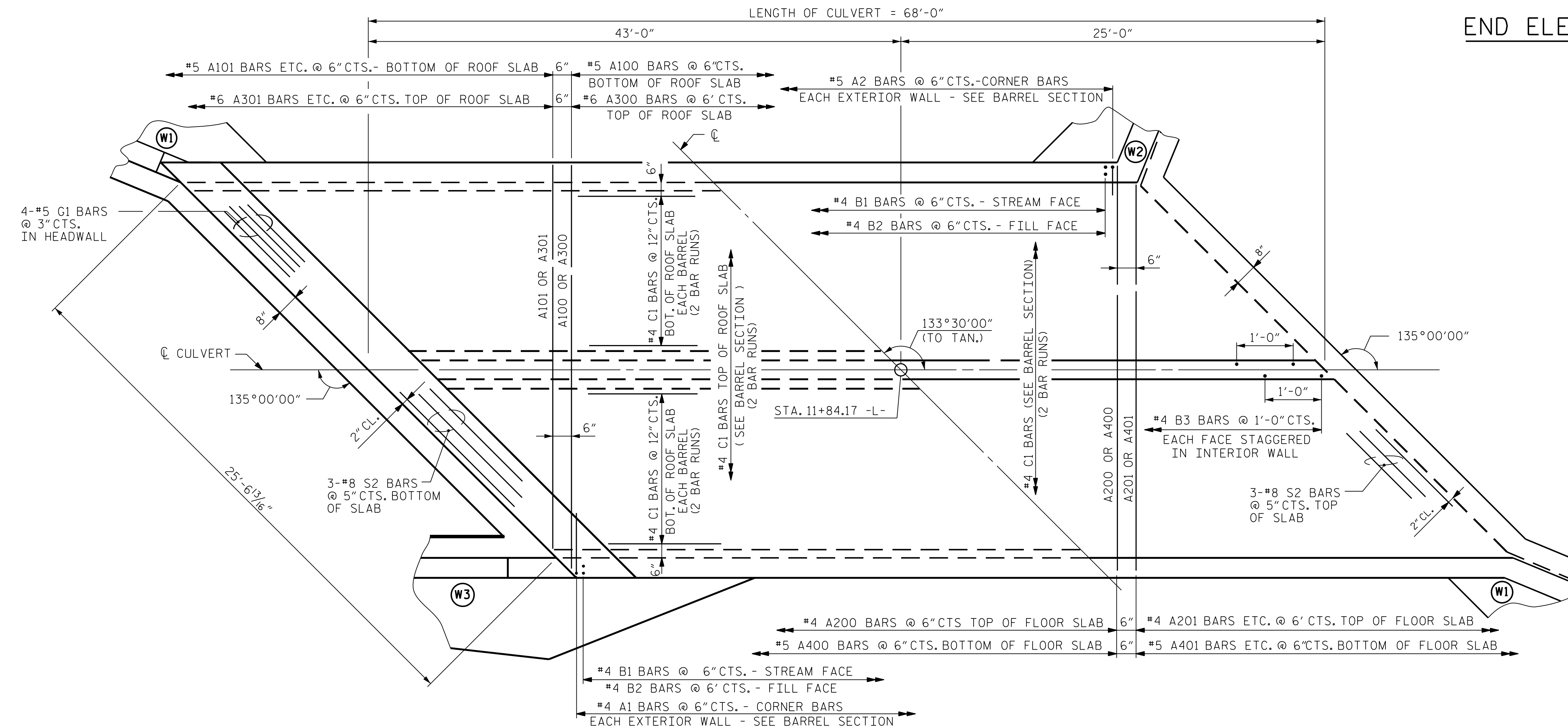
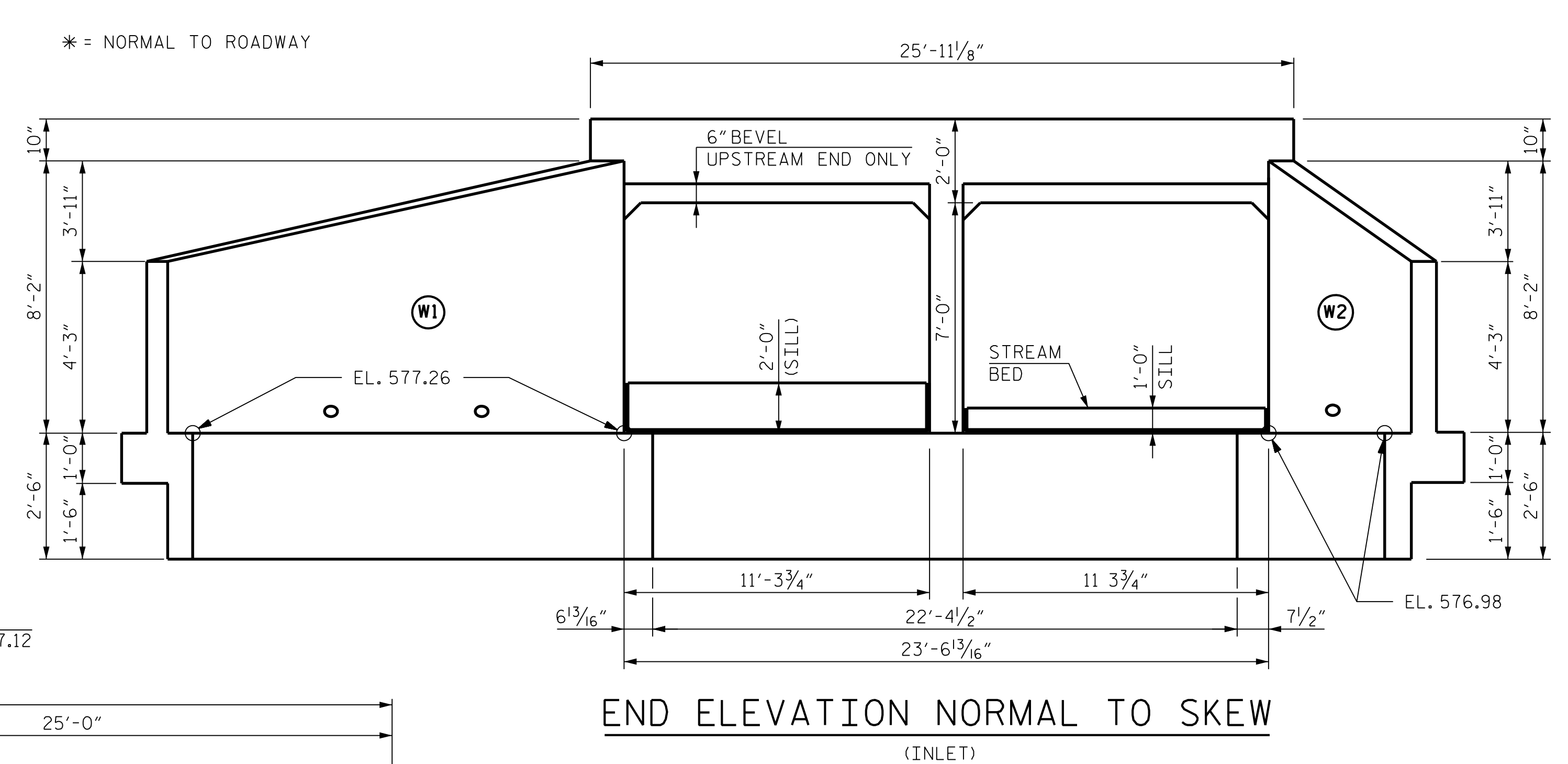
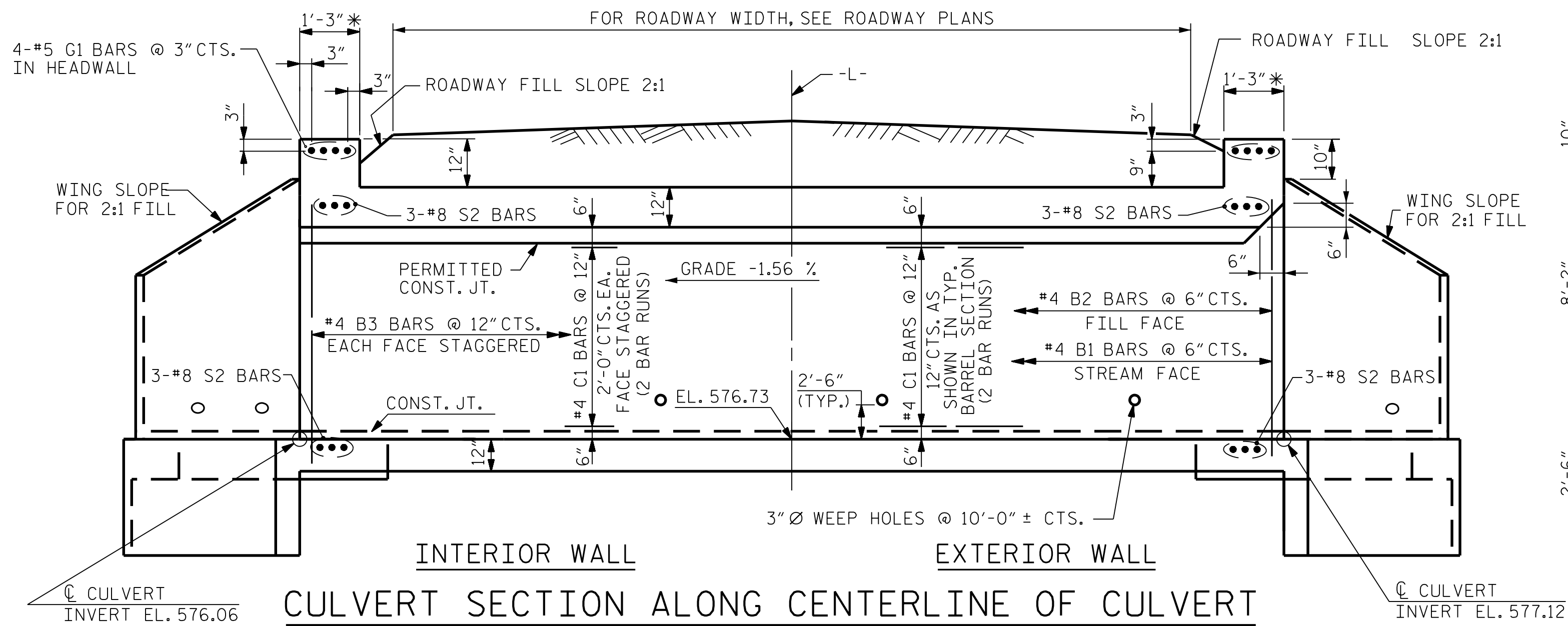
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NORTH CAROLINA
PROFESSIONAL
ENGINEER
JOSUW W. GENTRY
3/5/2025

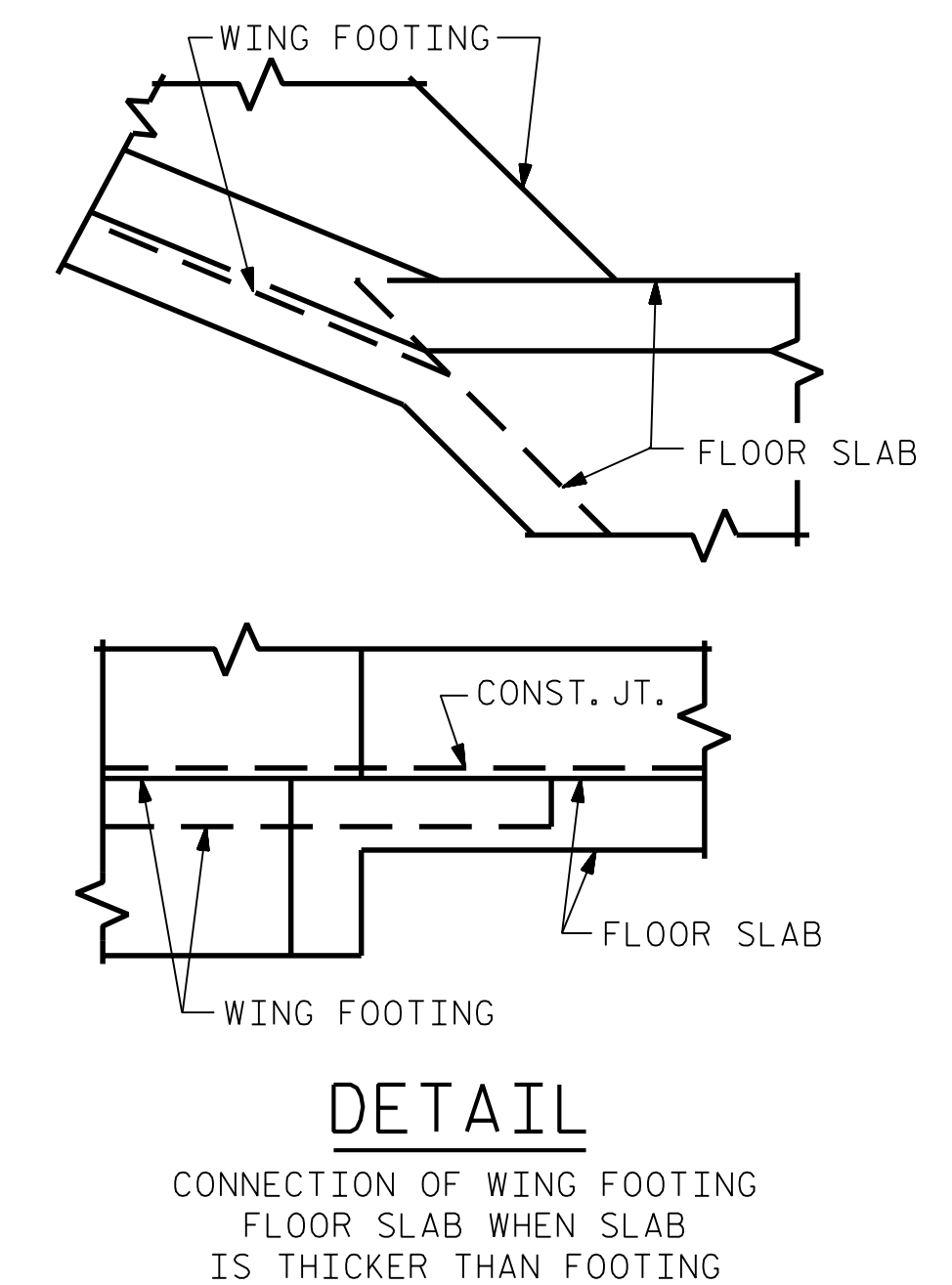
SEAL
DESIGNED BY
JOSUW W. GENTRY
3/5/2025

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
**STANDARD
LRFR SUMMARY FOR
REINFORCED CONCRETE
BOX CULVERT
(NON-INTERSTATE TRAFFIC)**

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1			3			TOTAL SHEETS
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PART PLAN - FLOOR SLAB

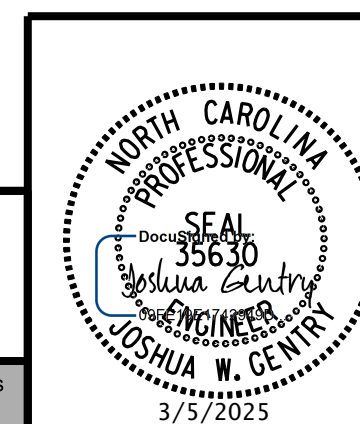


PROJECT NO. 22199
CABARRUS COUNTY
STATION: 11+84.17 -L-

SHEET 3 OF 10

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DOUBLE 8 FT. X 7 FT.
CONCRETE BOX CULVERT



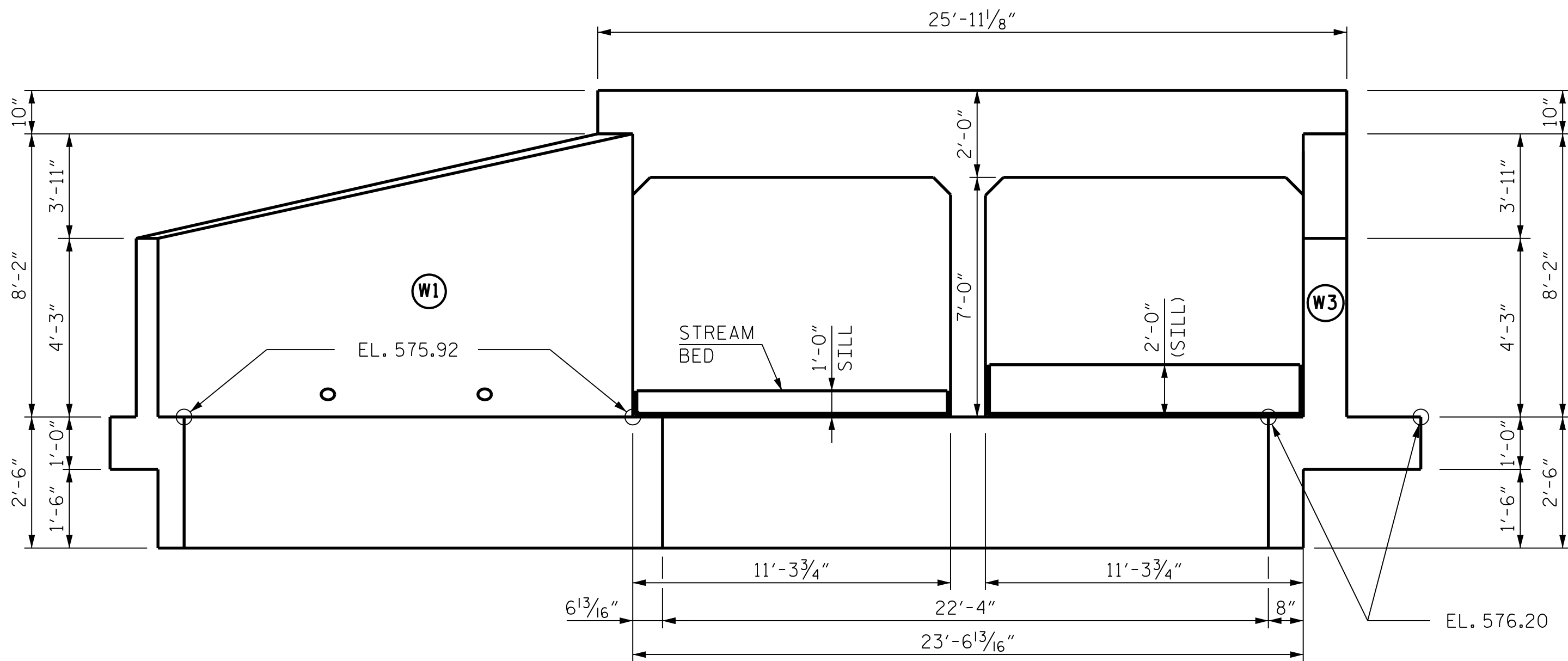
DRAWN BY : B. H. GONFA DATE : FEB 2024
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DESIGN ENGINEER OF RECORD : J. W. GENTRY DATE : FEB 2024

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TOTAL SHEETS
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DRAWN BY : B. H. GONFA DATE : FEB 2024
CHECKED BY : J. W. GENTRY DATE : FEB 2024
DESIGN ENGINEER OF RECORD : J. W. GENTRY DATE : FEB 2024



END ELEVATION NORMAL TO SKEW
(OUTLET)

PROJECT NO. 22199
CABARRUS COUNTY
STATION: 11+84.17 -L-

SHEET 4 OF 10

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

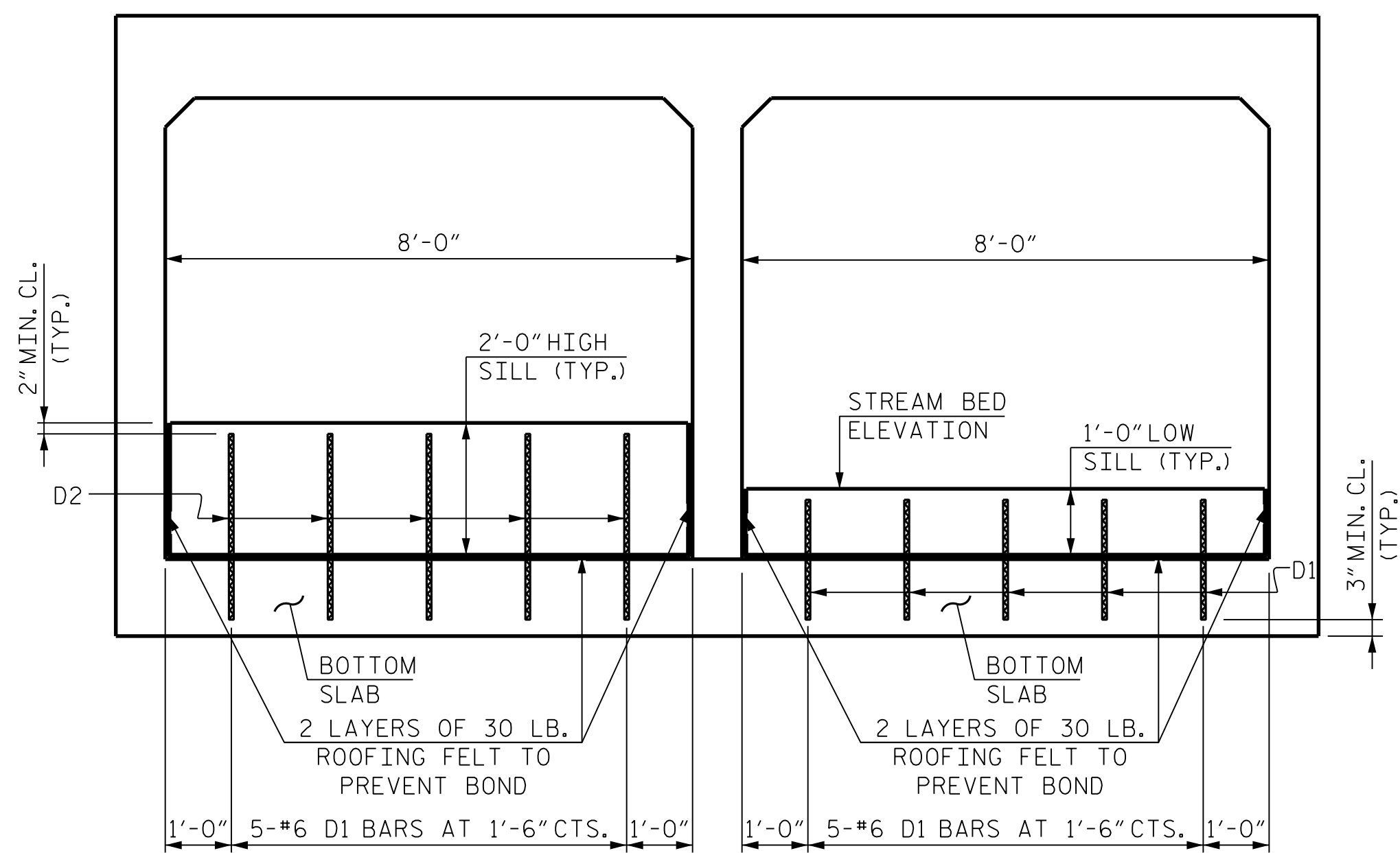
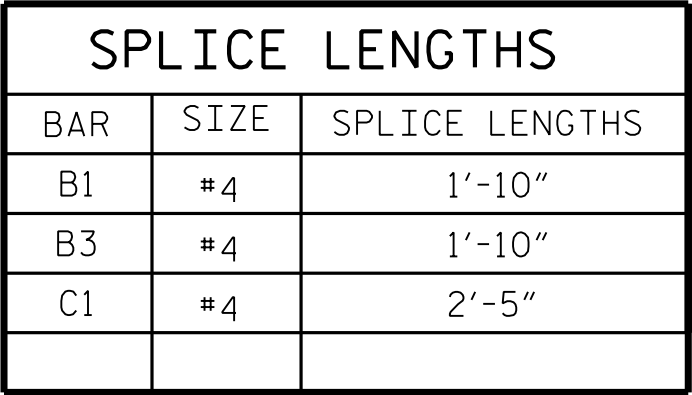
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JOSHUA W. GENTRY
ENGINEER
3/5/2025

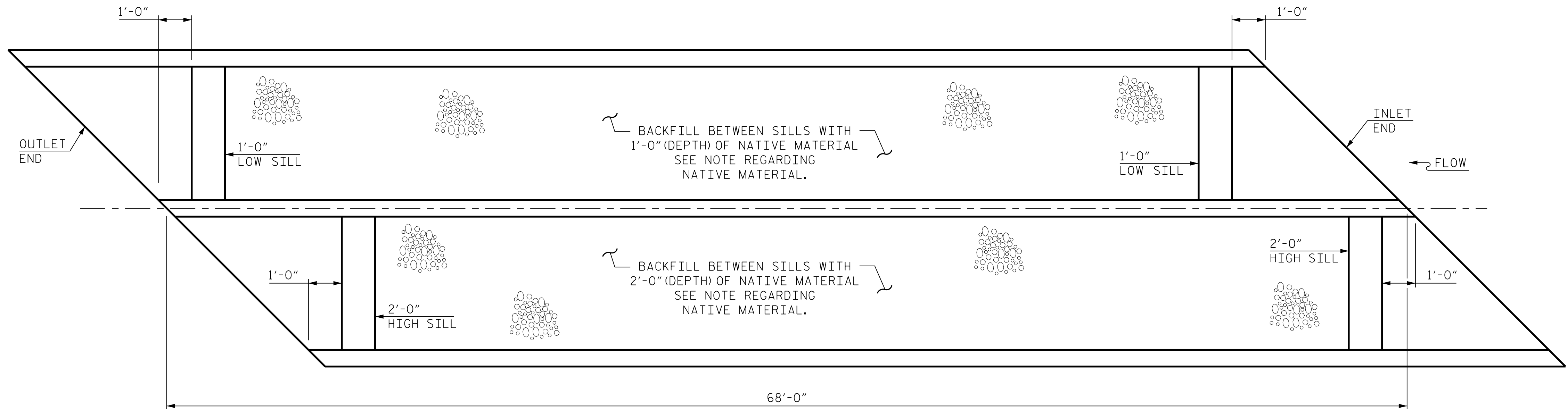
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DOWEL SPACING SHOWN PERPENDICULAR TO CULVERT BARREL
LOOKING DOWNSTREAM

THERE ARE 69 "C" BARS IN SECTION OF BARREL.

***STEEL IN THE BOTTOM SLAB MAY BE SPLICED AT THE PERMITTED CONSTRUCTION JOINT AT THE CONTRACTOR'S OPTION. EXTRA WEIGHT OF STEEL DUE TO SPLICES WILL BE PAID FOR BY THE CONTRACTOR.



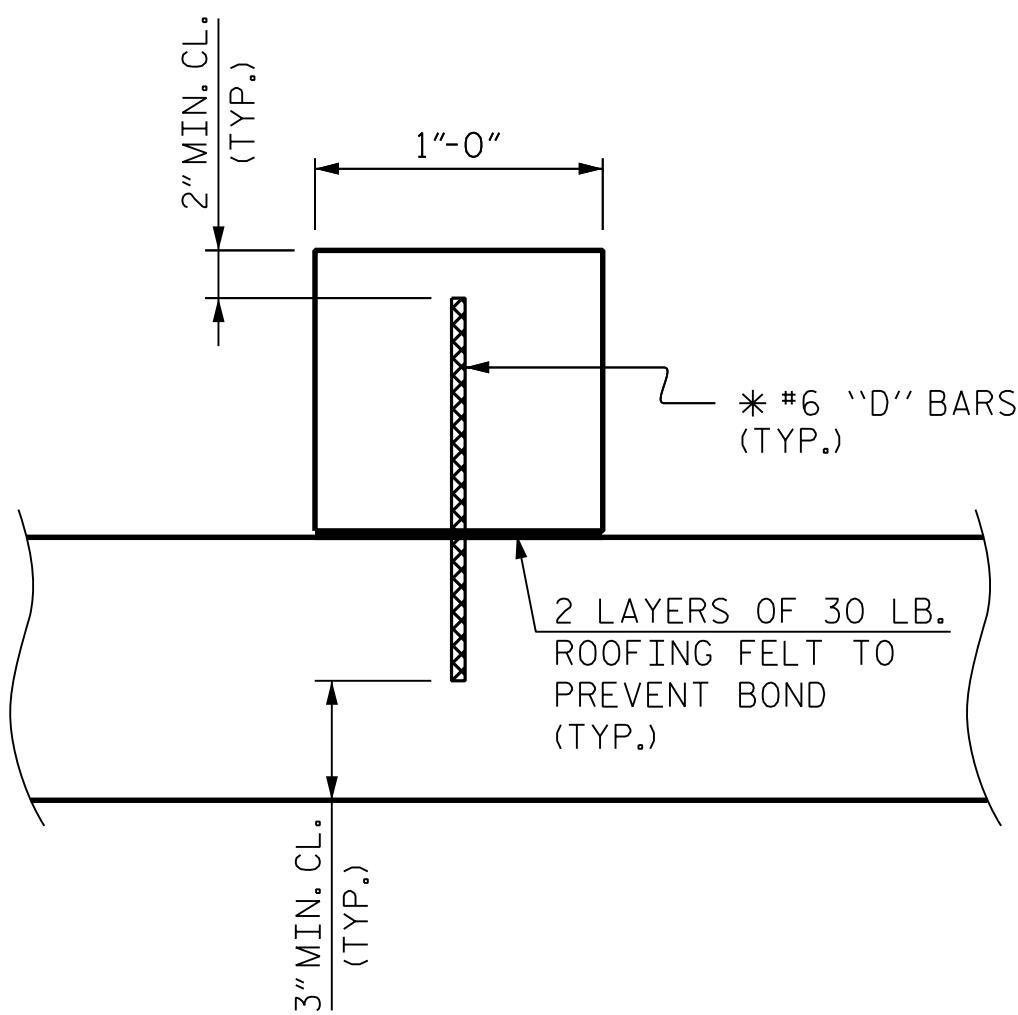
NOTE:

NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAM BED OR FLOODPLAIN AT THE PROJECT SITE DURING CULVERT CONSTRUCTION ONLY. MATERIAL THAT IS EXCAVATED FROM THE STREAMBED MAY BE USED TO LINE THE LOW FLOW, BARREL RIP RAP MAY BE USED TO SUPPLEMENT THE NATIVE MATERIAL IN THE HIGH FLOW CULVERT BARREL.

IF RIP RAP IS USED TO LINE THE HIGH FLOW BARREL, NATIVE MATERIAL SHOULD BE PLACED ON TOP TO FILL VOIDS AND PROVIDE A FLAT SURFACE FOR ANIMAL PASSAGE.

NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.

THE ENTIRE COST OF WORK REQUIRED TO PLACE EXCAVATED OR SUPPLEMENTAL MATERIAL AS SHOWN ON THE PLANS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR CULVERT EXCAVATION.



* DOWELS MAY BE PUSHED INTO GREEN CONCRETE AFTER SLAB HAS BEEN FLOAT FINISHED.

PROJECT NO. 22199
CABARRUS COUNTY
 STATION: 11+84.17 -L-

SHEET 5 OF 10

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DOUBLE 8 FT. X 7 FT.
CONCRETE BOX CULVERT

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2			4			

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**DOCUMENT NOT CONSIGNED
UNLESS ALL SIGNATURE**

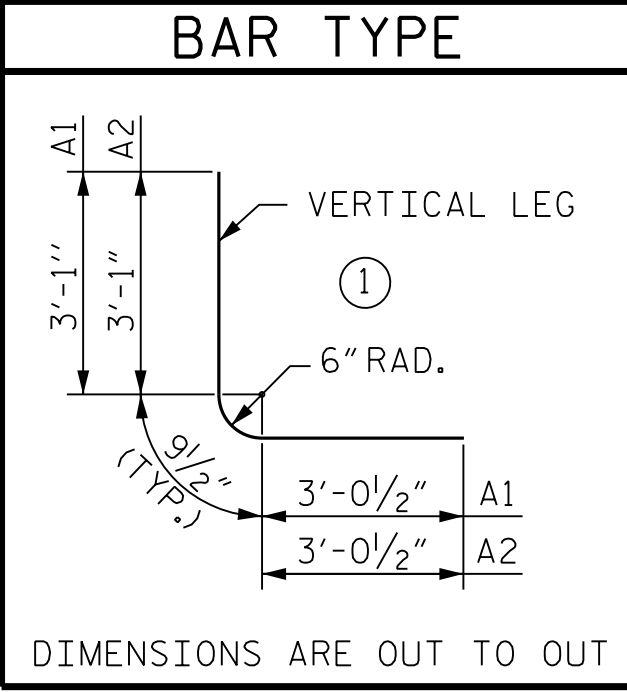
A circular professional engineer seal for the State of North Carolina. The outer ring contains the text "NORTH CAROLINA" at the top and "PROFESSIONAL" at the bottom. Inside the ring, the word "SEAL" is at the top, "DOCUMENT NO." is above the license number "35630", and "EXPIRES" is above the date "3/5/2025". The name "JOSHUA W. GENTRY" is written in a large, stylized font across the center of the seal.

3/5/2025
bgonfa
R:\Structures\DGN\22199-SMU-CU-1-5-120001.dgn

Page 202 of 220

3/5/2025 R:\Structures\CON\22199_SMU_CU_1-6.120001.dgn bgonfa

DRAWN BY : B. H. GONFA DATE : FEB 2024
CHECKED BY : J. W. GENTRY DATE : FEB 2024
DESIGN ENGINEER OF RECORD : J. W. GENTRY DATE : FEB 2024



BILL OF MATERIAL																					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT				
A1	264	#4	1	6'-11"	1,220	A300	100	#6	STR.	18'-0"	2,704		C1	138	#4	STR.	35'-3"	3,249			
A2	264	#5	1	6'-11"	1,905	A301	2	#6	STR.	17'-7"	53										
						A302	2	#6	STR.	17'-1"	51		D1	10	#6	STR.	1'-7"	24			
A100	100	#5	STR.	18'-0"	1,877	A303	2	#6	STR.	16'-7"	50		D2	10	#6	STR.	2'-7"	39			
A101	2	#5	STR.	17'-7"	37	A304	2	#6	STR.	16'-1"	48										
A102	2	#5	STR.	17'-1"	36	A305	2	#6	STR.	15'-7"	47		G1	8	#5	STR.	25'-7"	213			
A103	2	#5	STR.	16'-7"	35	A306	2	#6	STR.	15'-1"	45										
A104	2	#5	STR.	16'-1"	34	A307	2	#6	STR.	14'-7"	44		S2	12	#8	STR.	25'-7"	820			
A105	2	#5	STR.	15'-7"	33	A308	2	#6	STR.	14'-1"	42										
A106	2	#5	STR.	15'-1"	31	A309	2	#6	STR.	13'-7"	41										
A107	2	#5	STR.	14'-7"	30	A310	2	#6	STR.	13'-1"	39										
A108	2	#5	STR.	14'-1"	29	A311	2	#6	STR.	12'-7"	38		REINFORCING STEEL						21,314 LBS.		
A109	2	#5	STR.	13'-7"	28	A312	2	#6	STR.	12'-1"	36										
A110	2	#5	STR.	13'-1"	27	A313	2	#6	STR.	11'-7"	35										
A111	2	#5	STR.	12'-7"	26	A314	2	#6	STR.	11'-1"	33										
A112	2	#5	STR.	12'-1"	25	A315	2	#6	STR.	10'-7"	32										
A113	2	#5	STR.	11'-7"	24	A316	2	#6	STR.	10'-1"	30										
A114	2	#5	STR.	11'-1"	23	A317	2	#6	STR.	9'-7"	29										
A115	2	#5	STR.	10'-7"	22	A318	2	#6	STR.	9'-1"	27										
A116	2	#5	STR.	10'-1"	21	A319	2	#6	STR.	8'-7"	26										
A117	2	#5	STR.	9'-7"	20	A320	2	#6	STR.	8'-1"	24										
A118	2	#5	STR.	9'-1"	19	A321	2	#6	STR.	7'-7"	23										
A119	2	#5	STR.	8'-7"	18	A322	2	#6	STR.	7'-1"	21										
A120	2	#5	STR.	8'-1"	17	A323	2	#6	STR.	6'-7"	20										
A121	2	#5	STR.	7'-7"	16	A324	2	#6	STR.	6'-1"	18										
A122	2	#5	STR.	7'-1"	15	A325	2	#6	STR.	5'-7"	17										
A123	2	#5	STR.	6'-7"	14	A326	2	#6	STR.	5'-1"	15										
A124	2	#5	STR.	6'-1"	13	A327	2	#6	STR.	4'-7"	14										
A125	2	#5	STR.	5'-7"	12	A328	2	#6	STR.	4'-1"	12										
A126	2	#5	STR.	5'-1"	11	A329	2	#6	STR.	3'-7"	11										
A127	2	#5	STR.	4'-7"	10	A330	2	#6	STR.	3'-1"	9										
A128	2	#5	STR.	4'-1"	9	A331	2	#6	STR.	2'-7"	8										
A129	2	#5	STR.	3'-7"	7	A332	2	#6	STR.	2'-1"	6										
A130	2	#5	STR.	3'-1"	6																
A131	2	#5	STR.	2'-7"	5	A400	100	#5	STR.	18'-0"	1,877										
A132	2	#5	STR.	2'-1"	4	A401	2	#5	STR.	17'-7"	37										
						A402	2	#5	STR.	17'-1"	36										
A200	100	#4	STR.	18'-0"	1,202	A403	2	#5	STR.	16'-7"	35										
A201	2	#4	STR.	17'-7"	23	A404	2	#5	STR.	16'-1"	34										
A202	2	#4	STR.	17'-1"	23	A405	2	#5	STR.	15'-7"	33										
A203	2	#4	STR.	16'-7"	22	A406	2	#5	STR.	15'-1"	31										
A204	2	#4	STR.	16'-1"	21	A407	2	#5	STR.	14'-7"	30										
A205	2	#4	STR.	15'-7"	21	A408	2	#5	STR.	14'-1"	29										
A206	2	#4	STR.	15'-1"	20	A409	2	#5	STR.	13'-7"	28										
A207	2	#4	STR.	14'-7"	19	A410	2	#5	STR.	13'-1"	27										
A208	2	#4	STR.	14'-1"	19	A411	2	#5	STR.	12'-7"	26										
A209	2	#4	STR.	13'-7"	18	A412	2	#5	STR.	12'-1"	25										
A210	2	#4	STR.	13'-1"	17	A413	2	#5	STR.	11'-7"	24										
A211	2	#4	STR.	12'-7"	17	A414	2	#5	STR.	11'-1"	23										
A212	2	#4	STR.	12'-1"	16	A415	2	#5	STR.	10'-7"	22										
A213	2	#4	STR.	11'-7"	15	A416	2	#5	STR.	10'-1"	21										
A214	2	#4	STR.	11'-1"	15	A417	2	#5	STR.	9'-7"	20										
A215	2	#4	STR.	10'-7"	14	A418	2	#5	STR.	9'-1"	19										
A216	2	#4	STR.	10'-1"	13	A419	2	#5	STR.	8'-7"	18										
A217	2	#4	STR.	9'-7"	13	A420	2	#5	STR.	8'-1"	17										
A218	2	#4	STR.	9'-1"	12	A421	2	#5	STR.	7'-7"	16										
A219	2	#4	STR.	8'-7"	11	A422	2	#5	STR.	7'-1"	15										
A220	2	#4	STR.	8'-1"	11	A423	2	#5	STR.	6'-7"	14										
A221	2	#4	STR.	7'-7"	10	A424	2	#5	STR.	6'-1"	13										
A222	2	#4	STR.	7'-1"	9	A425	2	#5	STR.	5'-7"	12										
A223	2	#4	STR.	6'-7"	9	A426	2	#5	STR.	5'-1"	11										
A224	2	#4	STR.	6'-1"	8	A427	2	#5	STR.	4'-7"	10										
A225	2	#4	STR.	5'-7"	7	A428	2	#5	STR.	4'-1"	9										
A226	2	#4	STR.	5'-1"	7	A429	2	#5	STR.	3'-7"	7										
A227	2	#4	STR.	4'-7"	6	A430	2	#5	STR.	3'-1"	6										
A228	2	#4	STR.	4'-1"	5	A431	2	#5	STR.	2'-7"	5										
A229	2	#4	STR.	3'-7"	5	A432	2	#5	STR.	2'-1"	4										
A230	2	#4	STR.	3'-1"	4																
A231	2	#4	STR.	2'-7"	3	B1	264	#4	STR.	8'-7"	1,514										
A232	2	#4	STR.	2'-1"	3	B2	264	#4	STR.	6'-10"	1,205										
						B3	138	#4	STR.	8'-7"	791										

PROJECT NO. 22199
CABARRUS COUNTY
STATION: 11+84.17 -L-

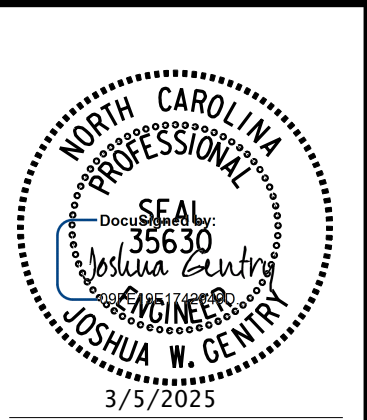
SHEET 6 OF 10

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

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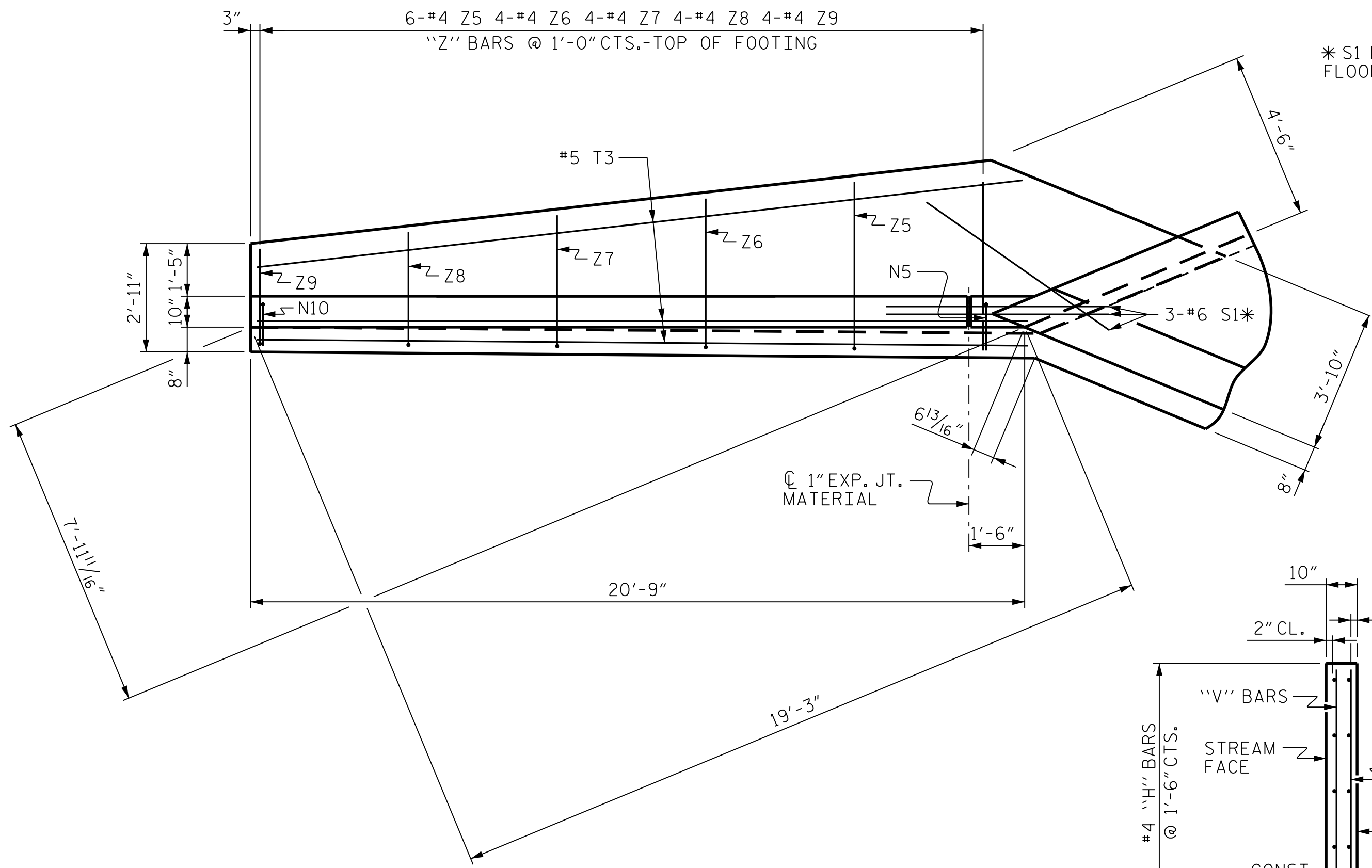
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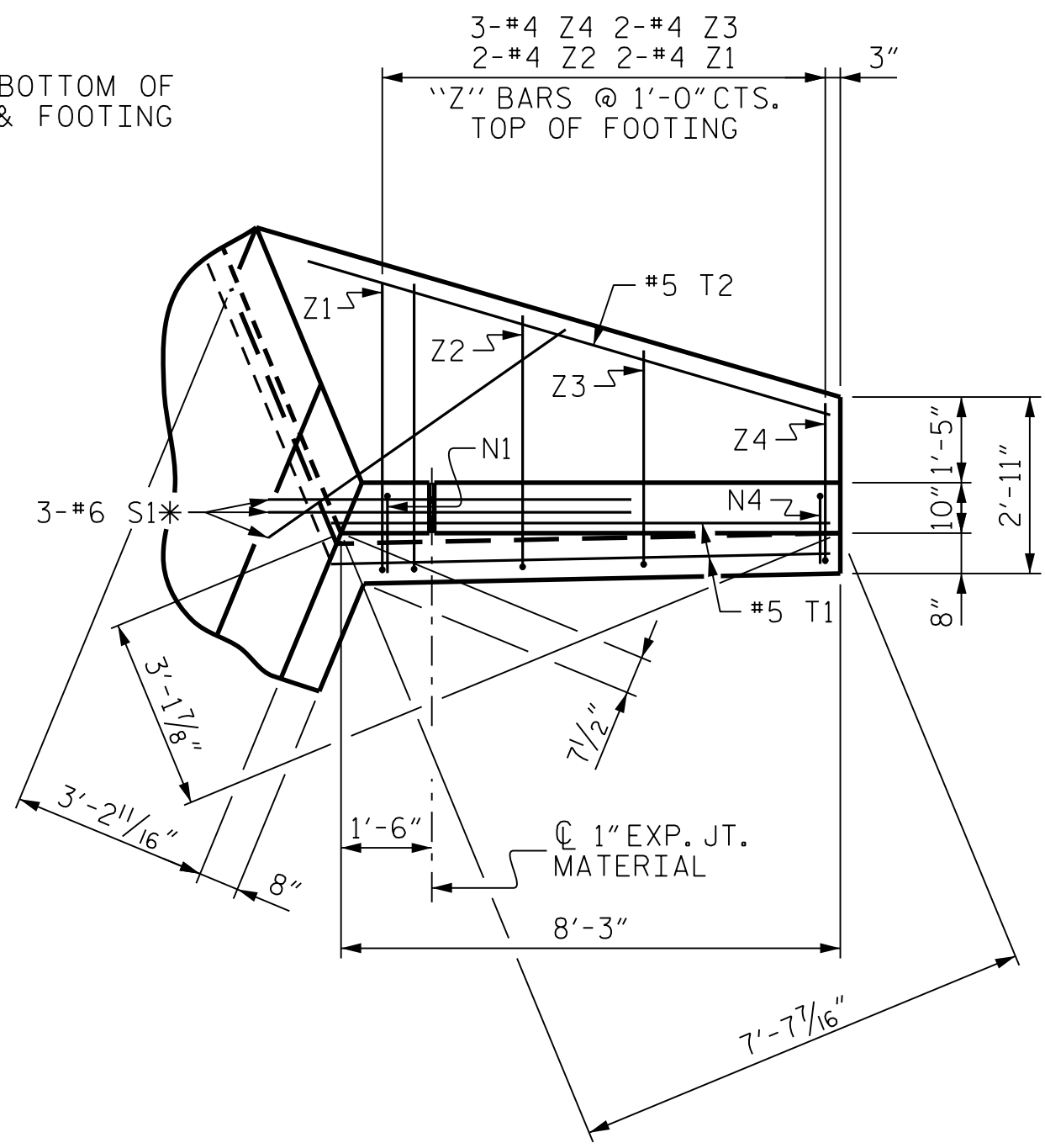
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NO.	BY:	DATE:	NO.	BY:	DATE:	CU.1-6	
1			3			TOTAL SHEETS 10	
2			4				

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3/5/2025 bgonfa

DRAWN BY : B. H. GONFA
CHECKED BY : J. W. GENTRY
DESIGN ENGINEER OF RECORD : J. W. GENTRY
DATE : FEB 2024
DATE : FEB 2024
DATE : FEB 2024

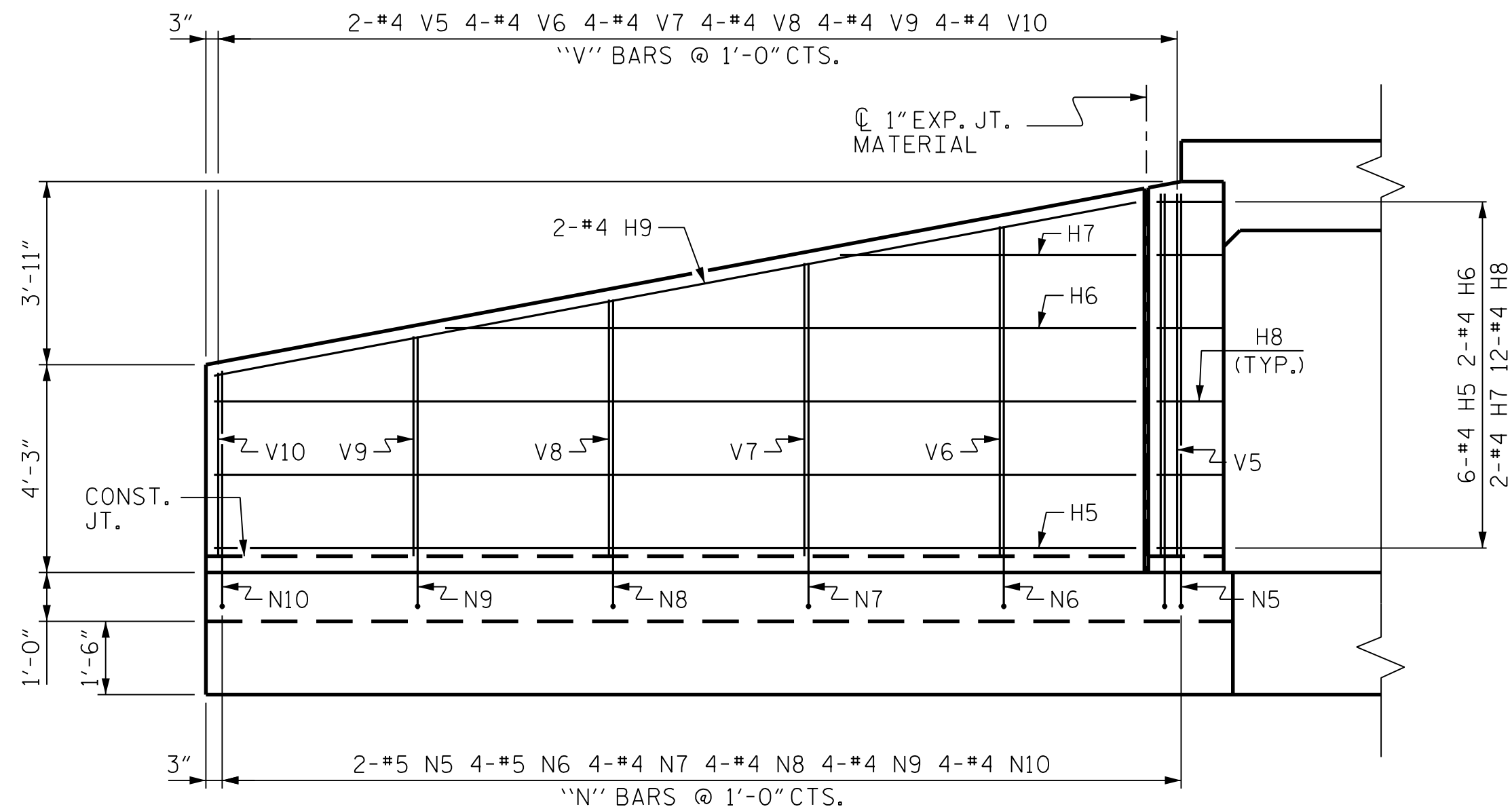


PLAN W1

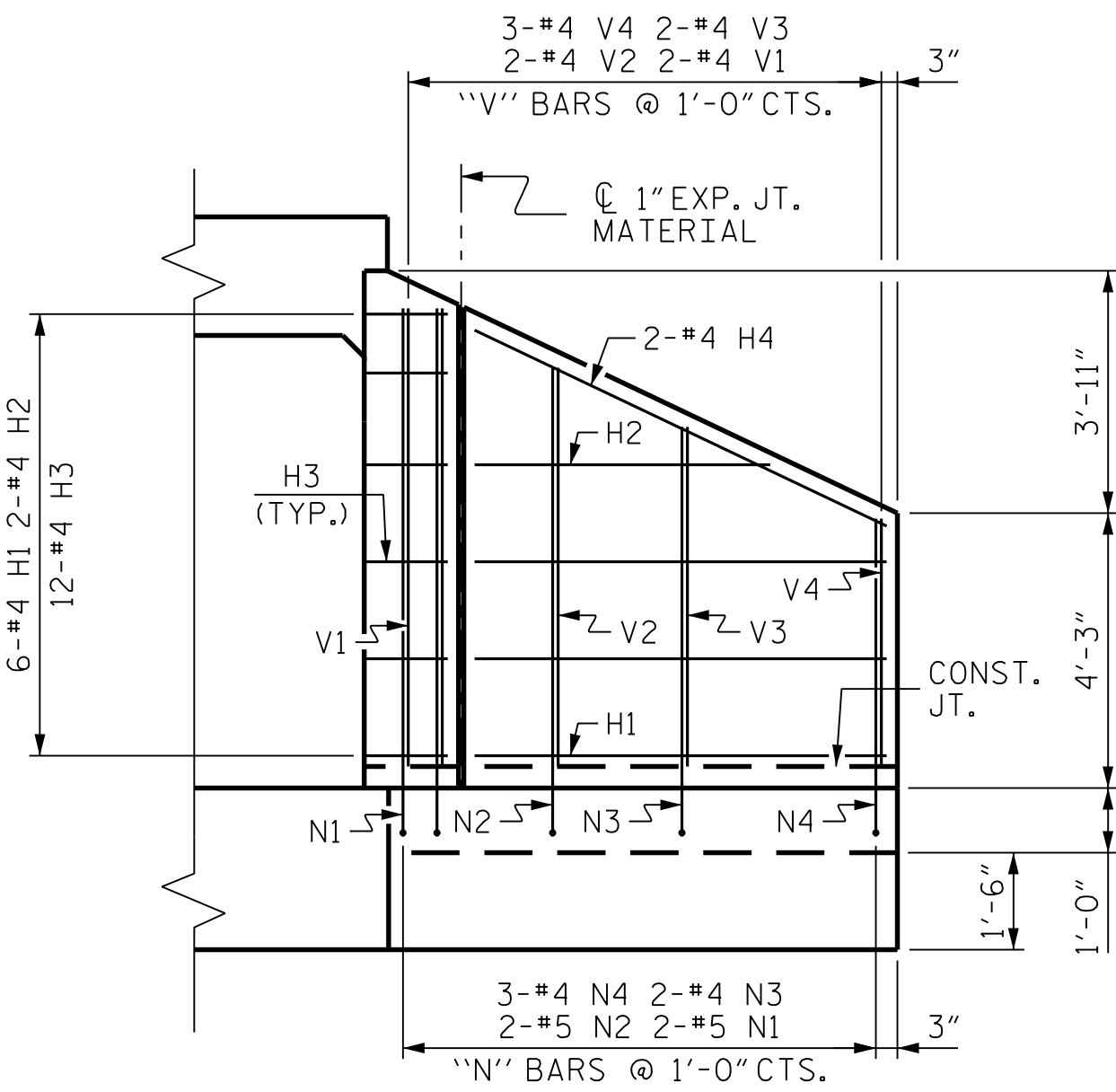


PLAN W2

TYPICAL WING SECTION



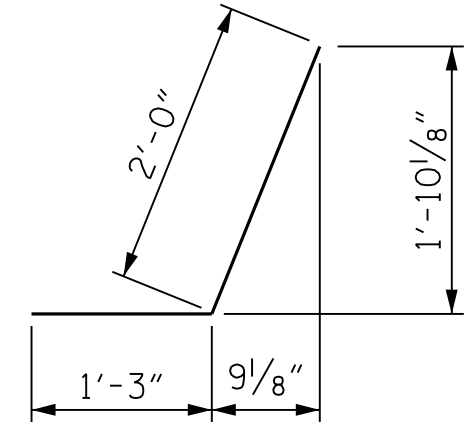
ELEVATION W1



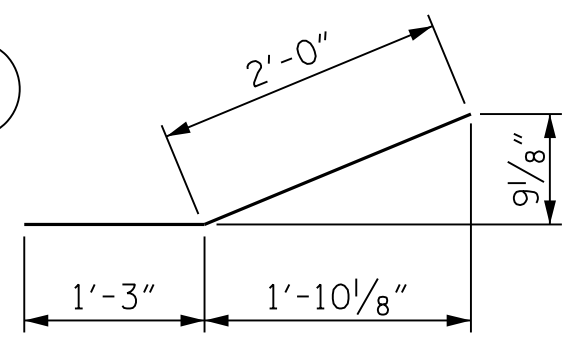
ELEVATION W2

BAR TYPES

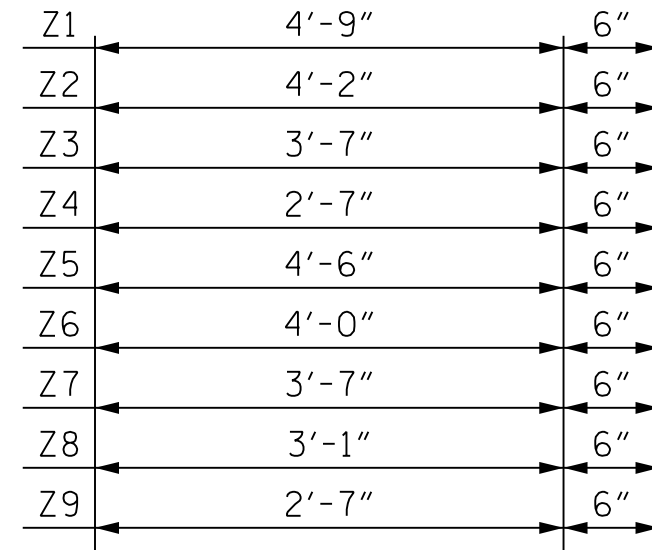
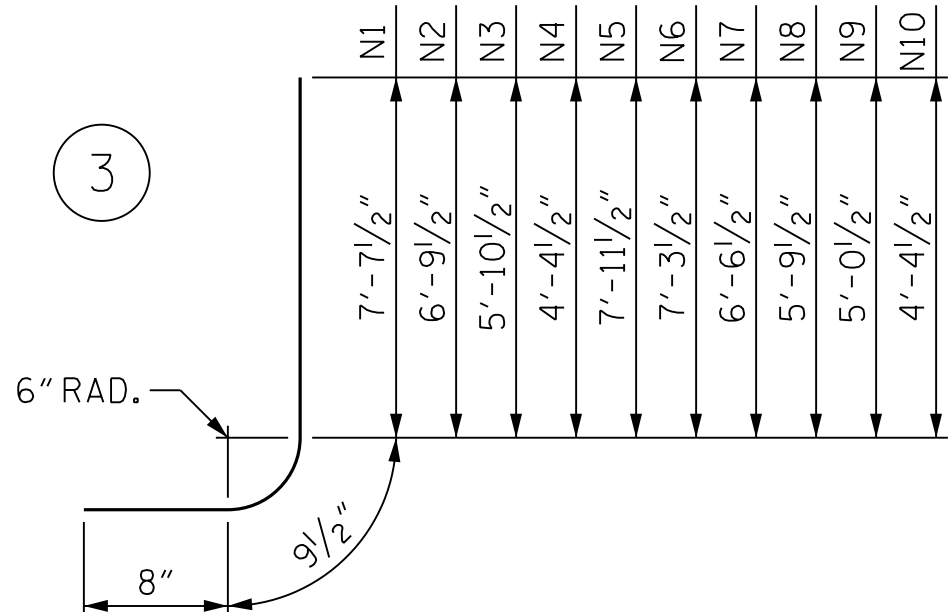
1



2



3



4

ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
H1	6	#4	STR	6'-4"	25
H2	2	#4	STR	4'-6"	6
H3	12	#4	1	3'-3"	26
H4	2	#4	STR	7'-0"	9
H5	6	#4	STR	18'-10"	75
H6	2	#4	STR	14'-1"	19
H7	2	#4	STR	6'-0"	8
H8	12	#4	2	3'-3"	26
H9	2	#4	STR	19'-2"	26
N1	2	#5	3	9'-1"	19
N2	2	#5	3	8'-3"	17
N3	2	#4	3	7'-4"	10
N4	3	#4	3	5'-7"	11
N5	2	#5	3	9'-5"	20
N6	4	#5	3	8'-9"	37
N7	4	#4	3	8'-0"	21
N8	4	#4	3	7'-3"	19
N9	4	#4	3	6'-6"	17
N10	4	#4	3	5'-10"	16
S1	6	#6	STR	6'-0"	54
T1	2	#5	STR	8'-3"	17
T2	1	#5	STR	9'-0"	9
T3	3	#5	STR	20'-9"	65
V1	2	#4	STR	7'-1"	9
V2	2	#4	STR	6'-2"	8
V3	2	#4	STR	5'-3"	7
V4	3	#4	STR	3'-9"	8
V5	2	#4	STR	7'-4"	10
V6	4	#4	STR	6'-9"	18
V7	4	#4	STR	6'-0"	16
V8	4	#4	STR	5'-3"	14
V9	4	#4	STR	4'-6"	12
V10	4	#4	STR	3'-9"	10
Z1	2	#4	4	5'-3"	7
Z2	2	#4	4	4'-8"	6
Z3	2	#4	4	4'-1"	5
Z4	3	#4	4	3'-1"	6
Z5	6	#4	4	5'-0"	20
Z6	4	#4	4	4'-6"	12
Z7	4	#4	4	4'-1"	11
Z8	4	#4	4	3'-7"	10
Z9	4	#4	4	3'-1"	8
REINFORCING STEEL FOR 2 WINGS				749	LBS
CLASS AA CONCRETE					
2 WINGS				11.8	CY
1 HEADWALLS				1.2	CY
1 END CURTAIN WALLS				0.9	CY
TOTAL				13.9	CY

PROJECT NO. 22199
CABARRUS COUNTY
STATION: 11+84.17 -L-

SHEET 7 OF 10

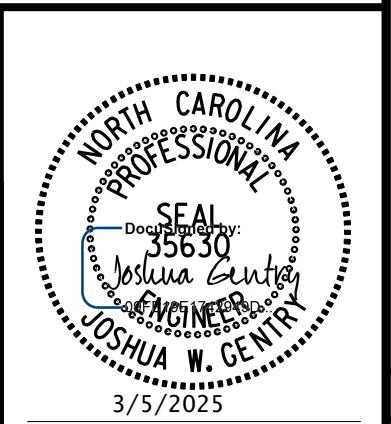
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

INLET WINGS
FOR
CONCRETE BOX CULVERT
H = 7'-0" SLOPE = 2:1
135° SKEW

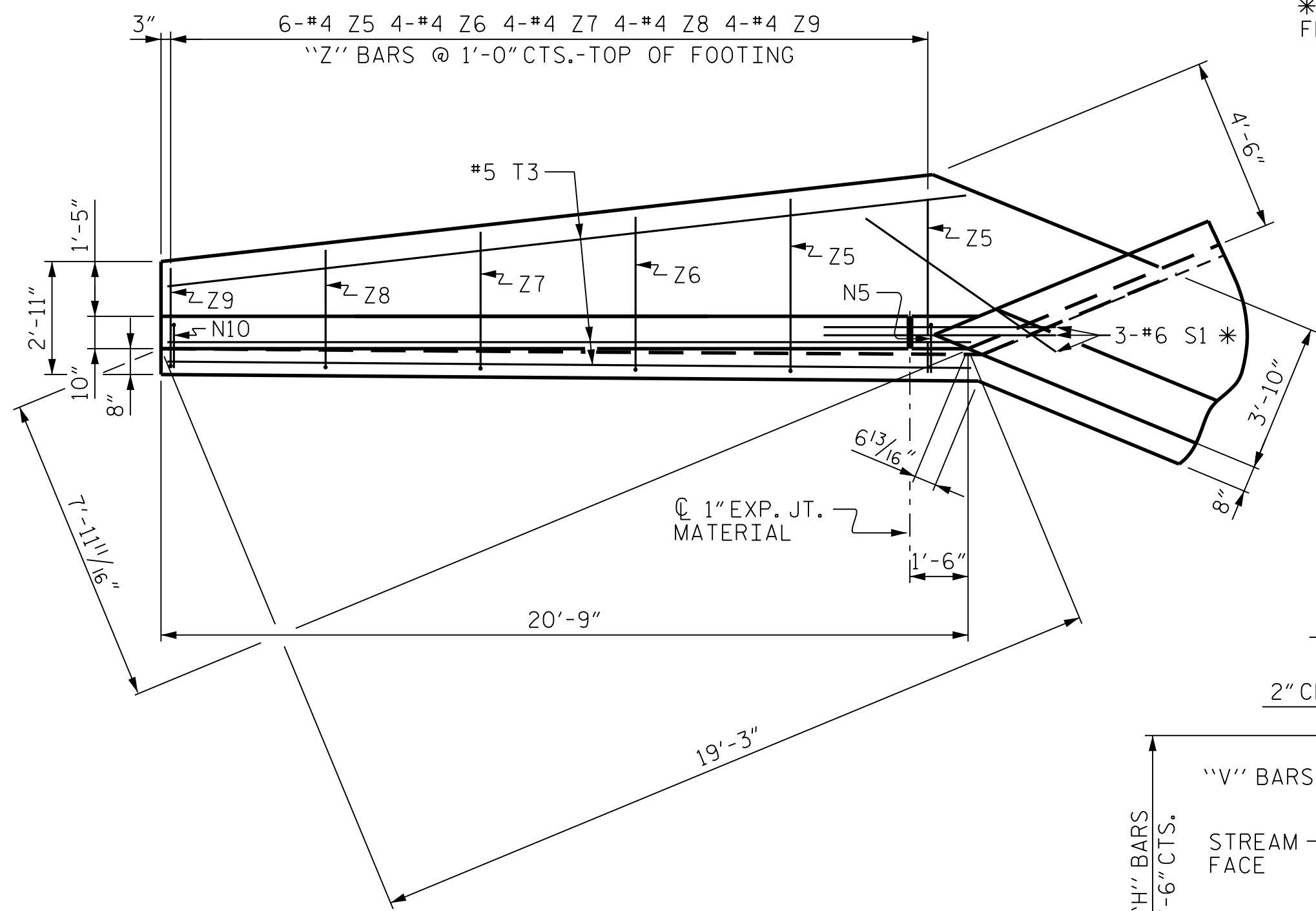
REVISIONS			SHEET NO.		
NO.	BY:	DATE:	NO.	BY:	DATE:
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2			4		
TOTAL SHEETS			10		

STD. NO. CW13507

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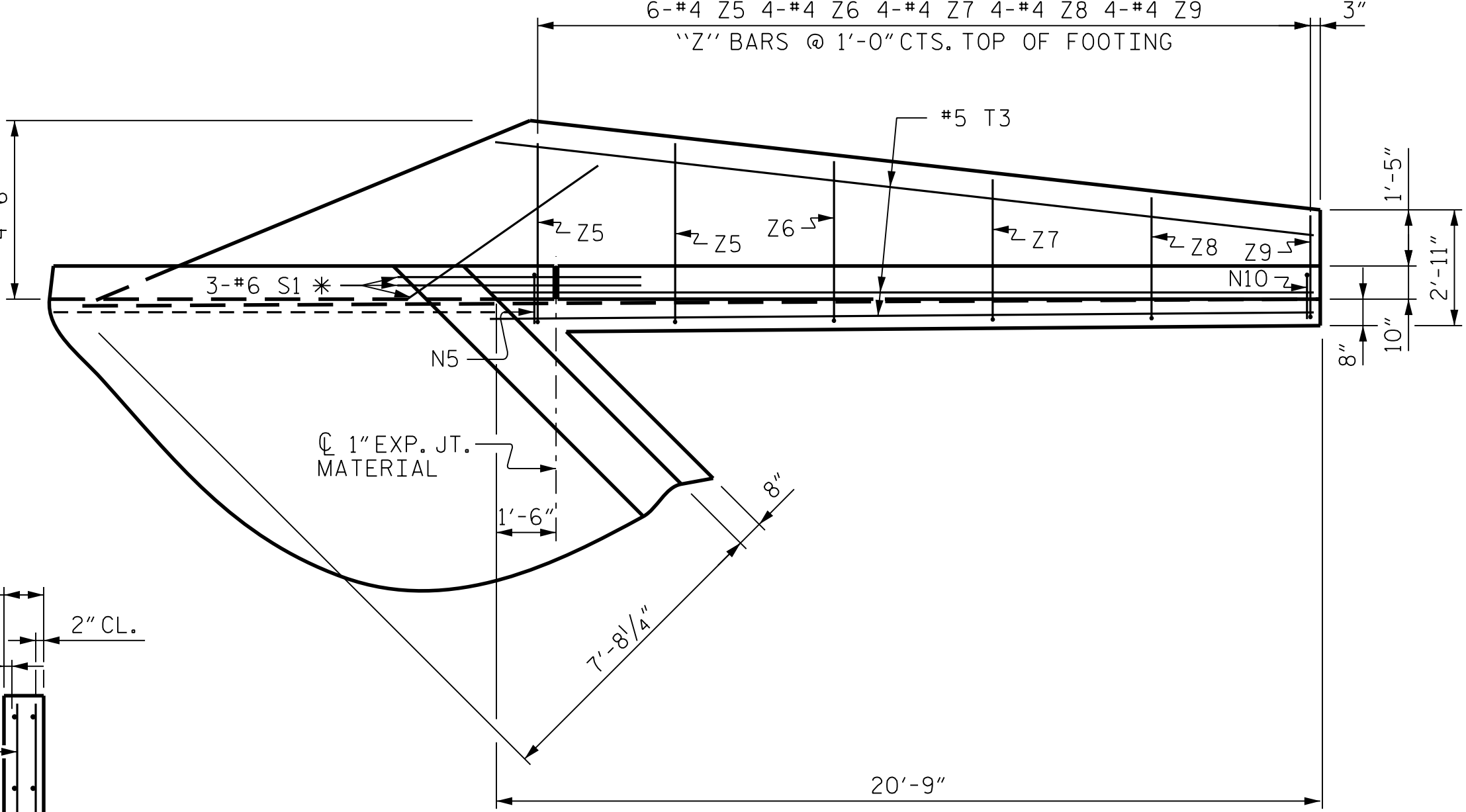


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3/5/2025 bgonfa

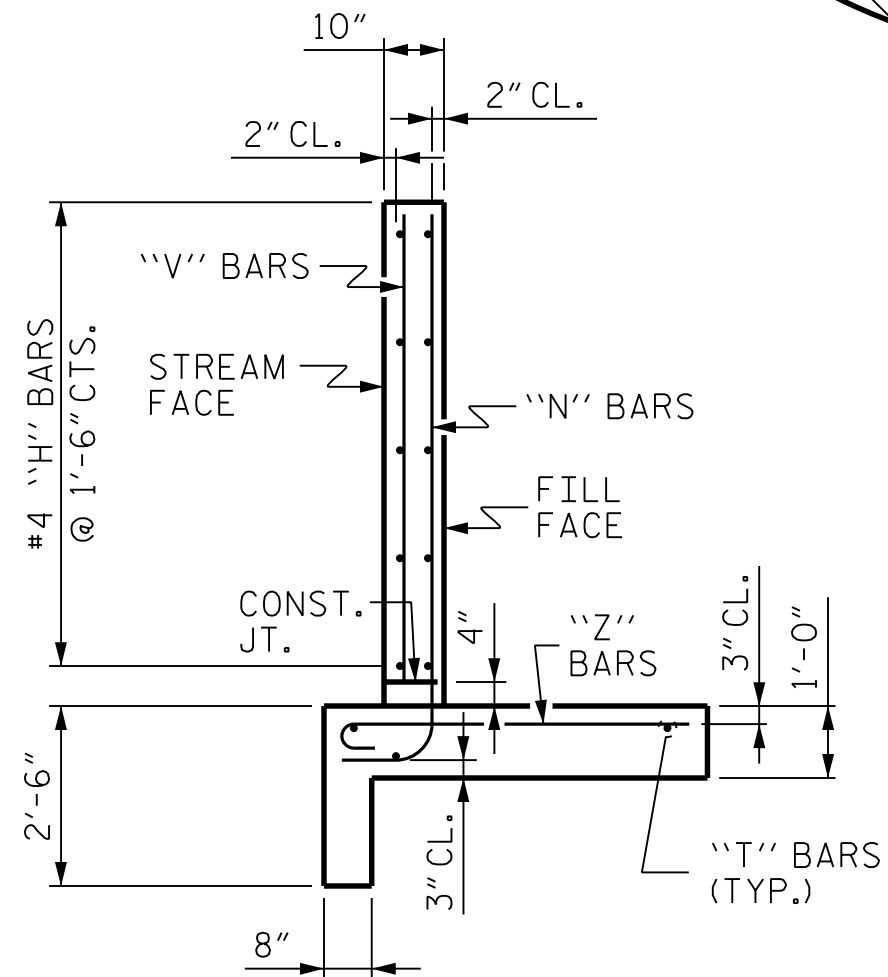


PLAN W1

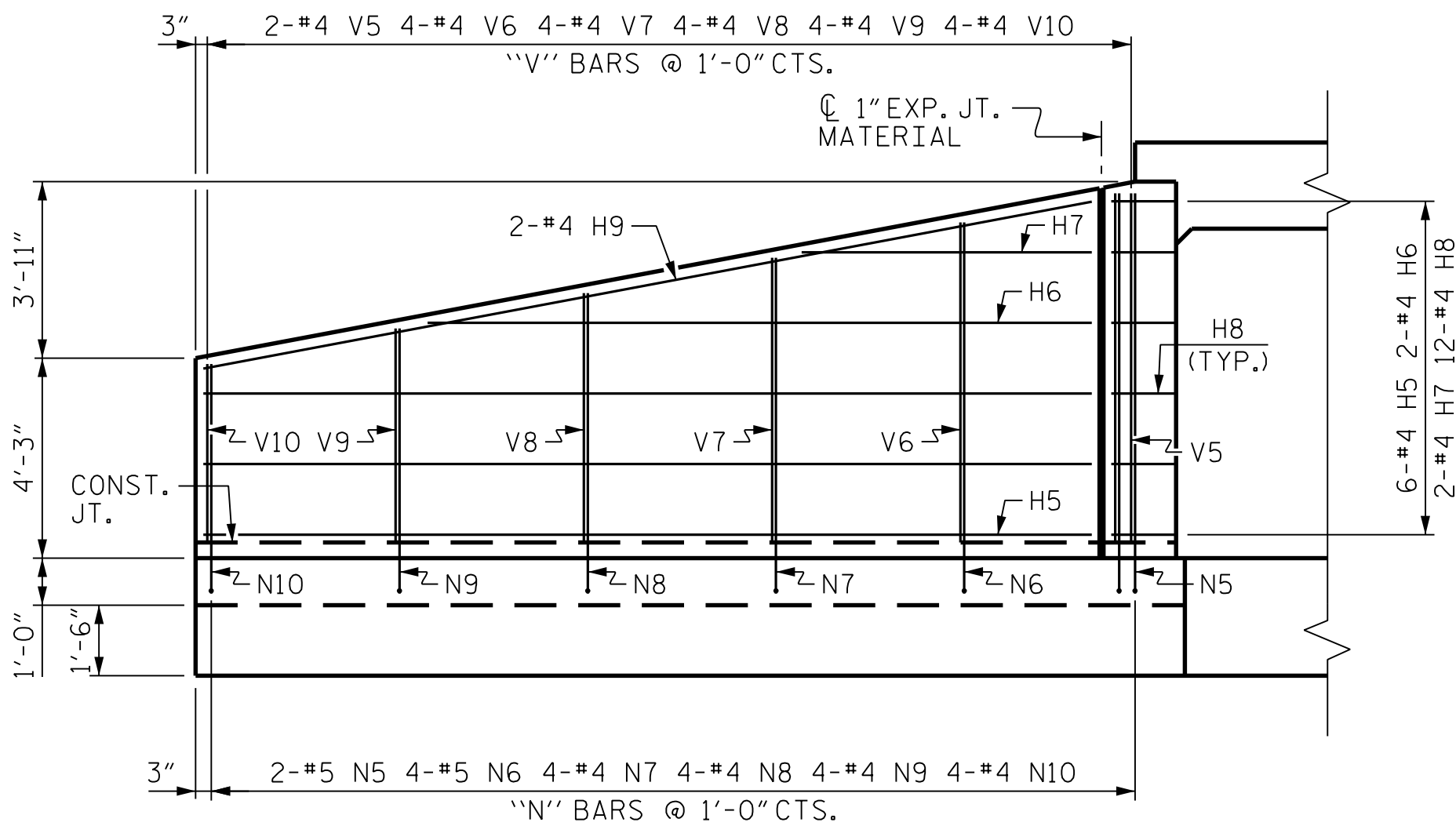
* S1 BARS @ BOTTOM OF FLOOR SLAB & FOOTING



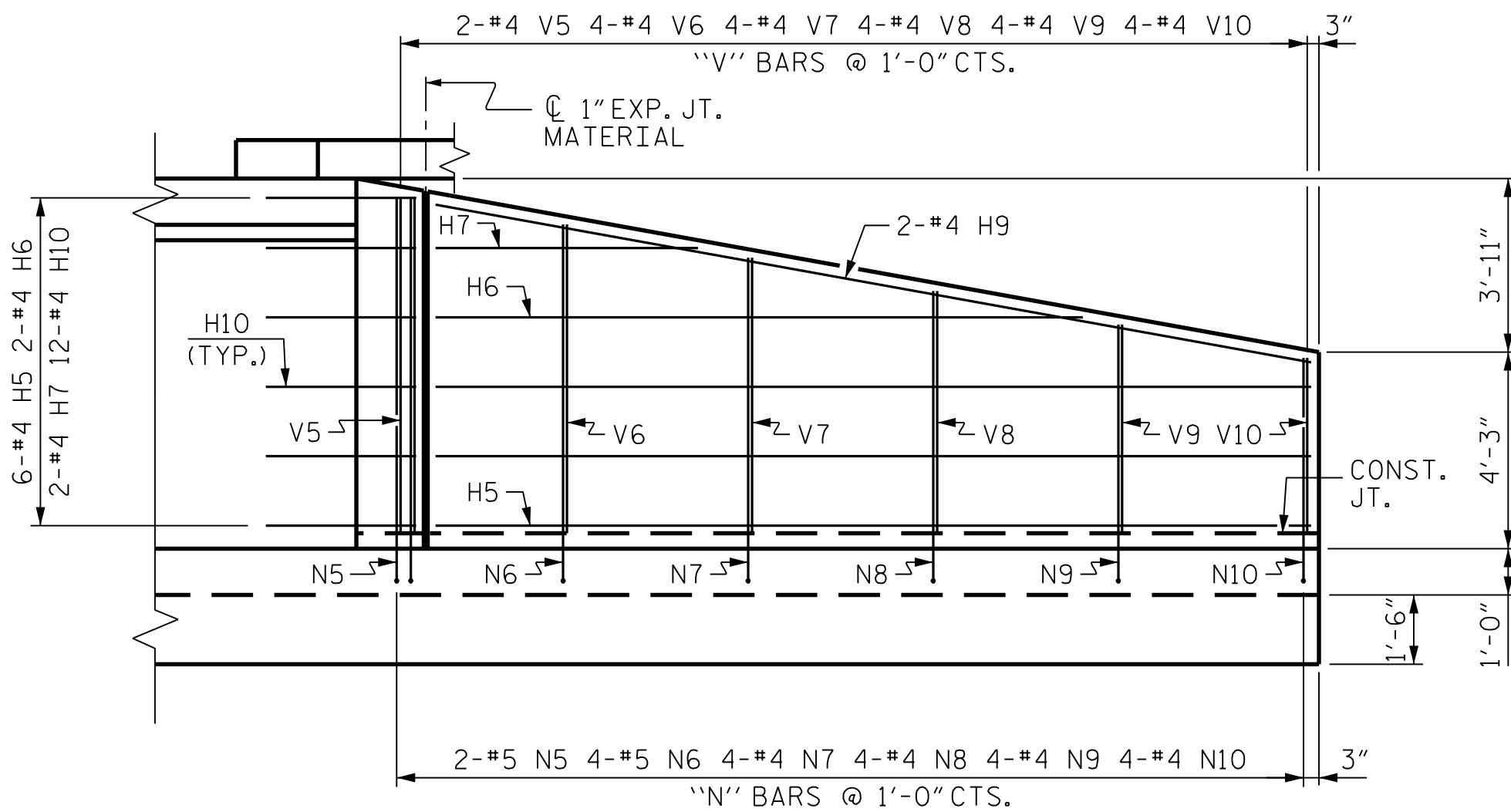
PLAN W3



TYPICAL WING SECTION

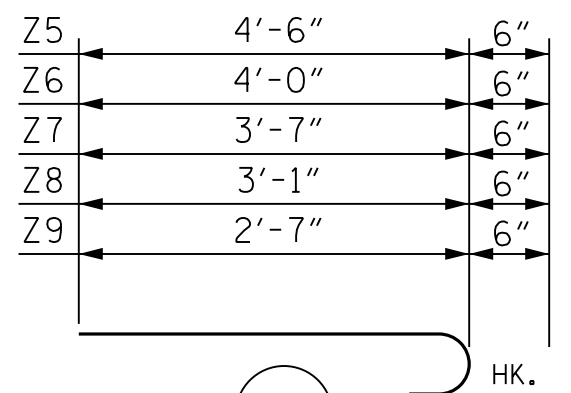
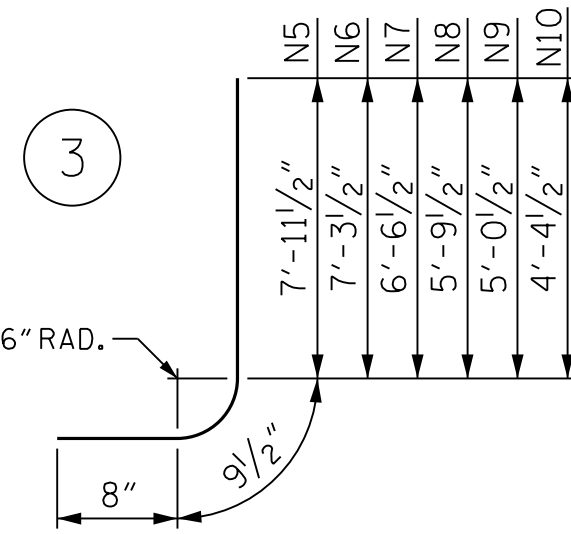
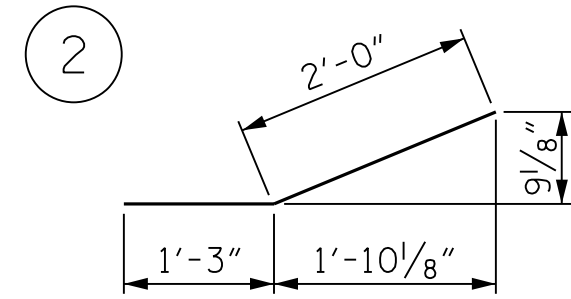


ELEVATION W1



ELEVATION W3

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
H5	12	#4	STR	18'-10"	151
H6	4	#4	STR	14'-1"	38
H7	4	#4	STR	6'-0"	16
H8	12	#4	2	3'-3"	26
H9	4	#4	STR	19'-2"	51
H10	12	#4	STR	3'-3"	26
N5	4	#5	3	9'-5"	39
N6	8	#5	3	8'-9"	73
N7	8	#4	3	8'-0"	43
N8	8	#4	3	7'-3"	39
N9	8	#4	3	6'-6"	35
N10	8	#4	3	5'-10"	31
S1	6	#6	STR	6'-0"	64
T3	6	#5	STR	20'-9"	130
V5	4	#4	STR	7'-4"	20
V6	8	#4	STR	6'-9"	36
V7	8	#4	STR	6'-0"	32
V8	8	#4	STR	5'-3"	28
V9	8	#4	STR	4'-6"	24
V10	8	#4	STR	3'-9"	20
Z5	12	#4	4	5'-0"	40
Z6	8	#4	4	4'-6"	24
Z7	8	#4	4	4'-1"	22
Z8	8	#4	4	3'-7"	19
Z9	8	#4	4	3'-1"	16
REINFORCING STEEL FOR 2 WINGS				1043 LBS	
CLASS AA CONCRETE					
2 WINGS				13.8	CY
1 HEADWALLS				1.2	CY
1 END CURTAIN WALLS				0.9	CY
TOTAL				15.9	CY

PROJECT NO. 22199
CABARRUS COUNTY
STATION: 11+84.17 -L-

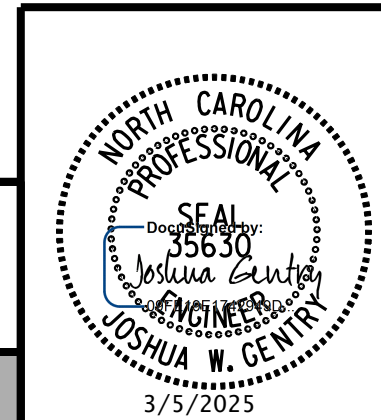
SHEET 8 OF 10

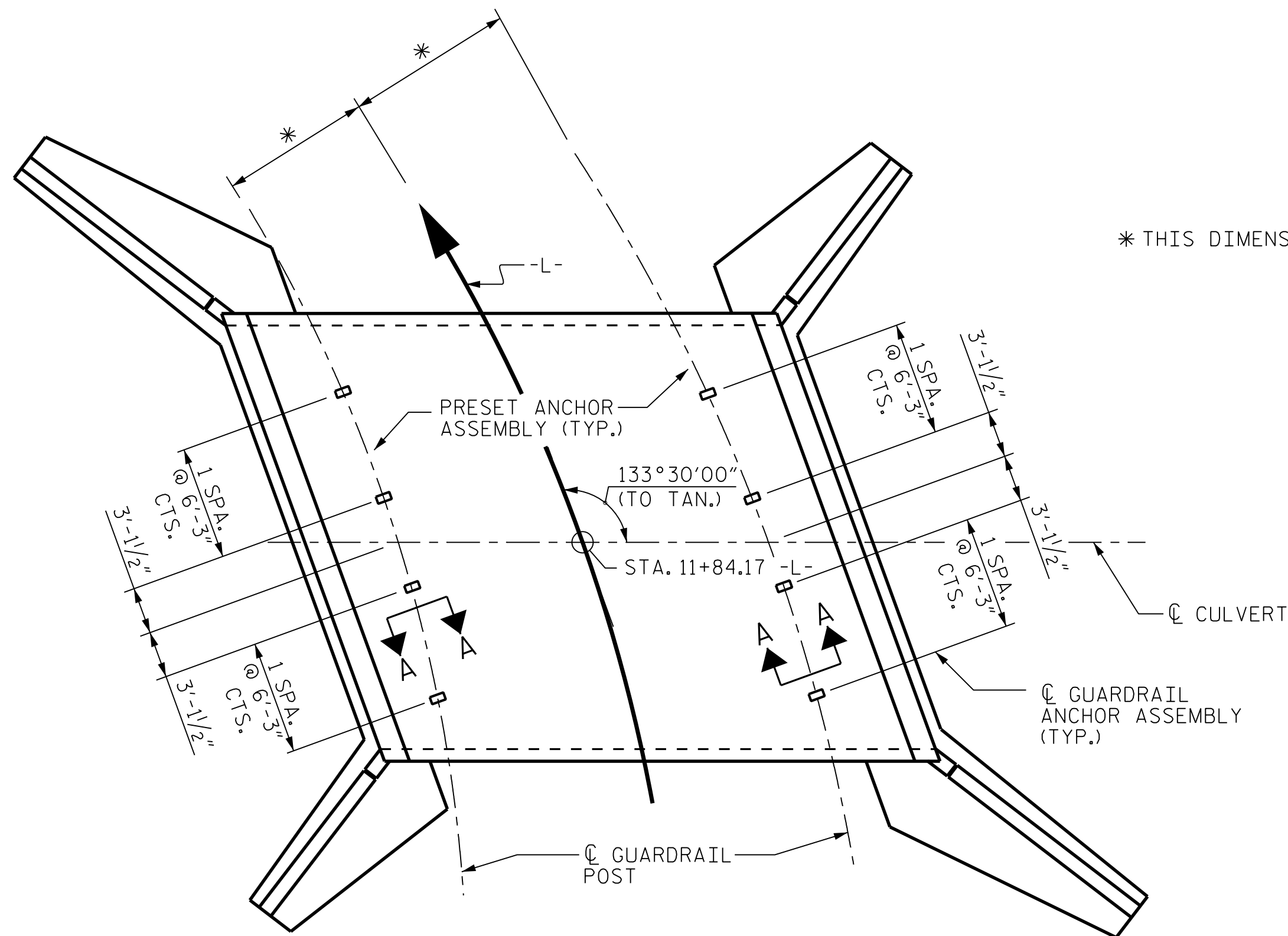
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

OUTLET WINGS
FOR
CONCRETE BOX CULVERT
H = 7'-0" SLOPE = 2:1
135° SKEW

REVISIONS			SHEET NO.		
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS			CU.1-8		
10					

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* THIS DIMENSION TO BE FURNISHED BY THE ENGINEER.

PLAN OF CULVERT GUARDRAIL ANCHOR ASSEMBLY SPACING

NOTES:

THE GUARDRAIL ANCHOR ASSEMBLY FOR CULVERTS SHALL CONSIST OF THE FOLLOWING COMPONENTS:

- A. FERRULES SHALL BE MADE FROM STEEL MEETING THE REQUIREMENTS OF AASHTO M169, GRADE 12L14 AND SHALL HAVE A MINIMUM LENGTH OF THREADS OF 2 1/2".
- B. 4 - 1" Ø X 2 1/4" BOLTS WITH WASHERS, BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307. BOLTS AND WASHERS SHALL BE GALVANIZED. (AT THE CONTRACTOR'S OPTION, STAINLESS STEEL BOLTS AND WASHERS MAY BE USED AS AN ALTERNATE FOR THE 1" Ø X 2 1/4" GALVANIZED BOLTS AND WASHERS. THEY SHALL CONFORM TO OR EXCEED THE MECHANICAL REQUIREMENTS OF ASTM A307. THE USE OF THIS ALTERNATE SHALL BE APPROVED BY THE ENGINEER.)
- C. WIRE STRUTS SHOWN IN THE GUARDRAIL ANCHOR ASSEMBLY FOR CULVERTS DETAIL ARE MINIMUM ALLOWABLE SIZE AND SHALL HAVE A MINIMUM TENSILE STRENGTH OF 100,000 P.S.I. AS AN OPTION, A 7/16" Ø WIRE STRUT WITH A MINIMUM TENSILE STRENGTH OF 90,000 PSI IS ACCEPTABLE.

GUARDRAIL ANCHOR ASSEMBLY WITH BOLTS SHALL BE ASSEMBLED IN THE SHOP. BOLT THREADS MAY BE RECUT AS NECESSARY TO INSURE FIT.

THE COST OF THE GUARDRAIL ANCHOR ASSEMBLY FOR CULVERTS COMPLETE IN PLACE, SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR CLASS "A" CONCRETE.

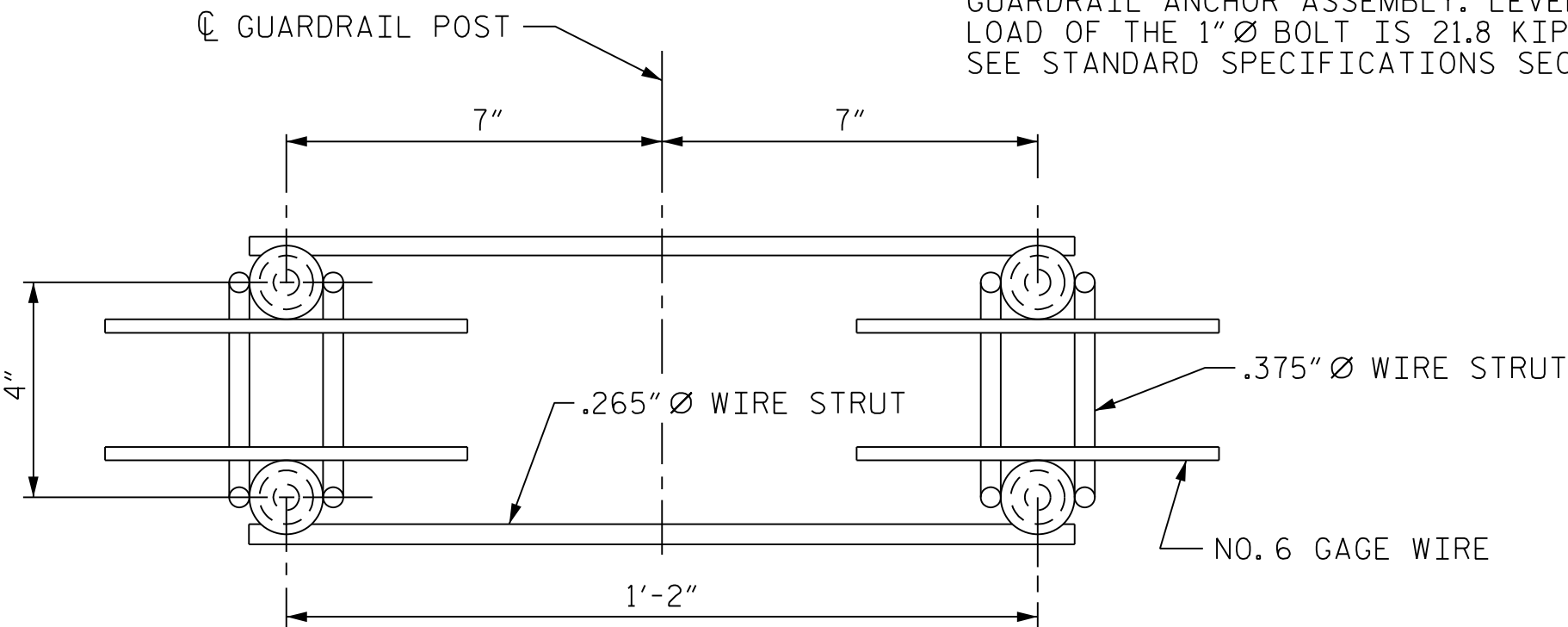
FERRULES TO BE PLUGGED DURING POURING OF SLAB AS RECOMMENDED BY THE MANUFACTURER.

AT THE CONTRACTOR'S OPTION, FERRULES WITH OPEN OR CLOSED ENDS MAY BE USED.

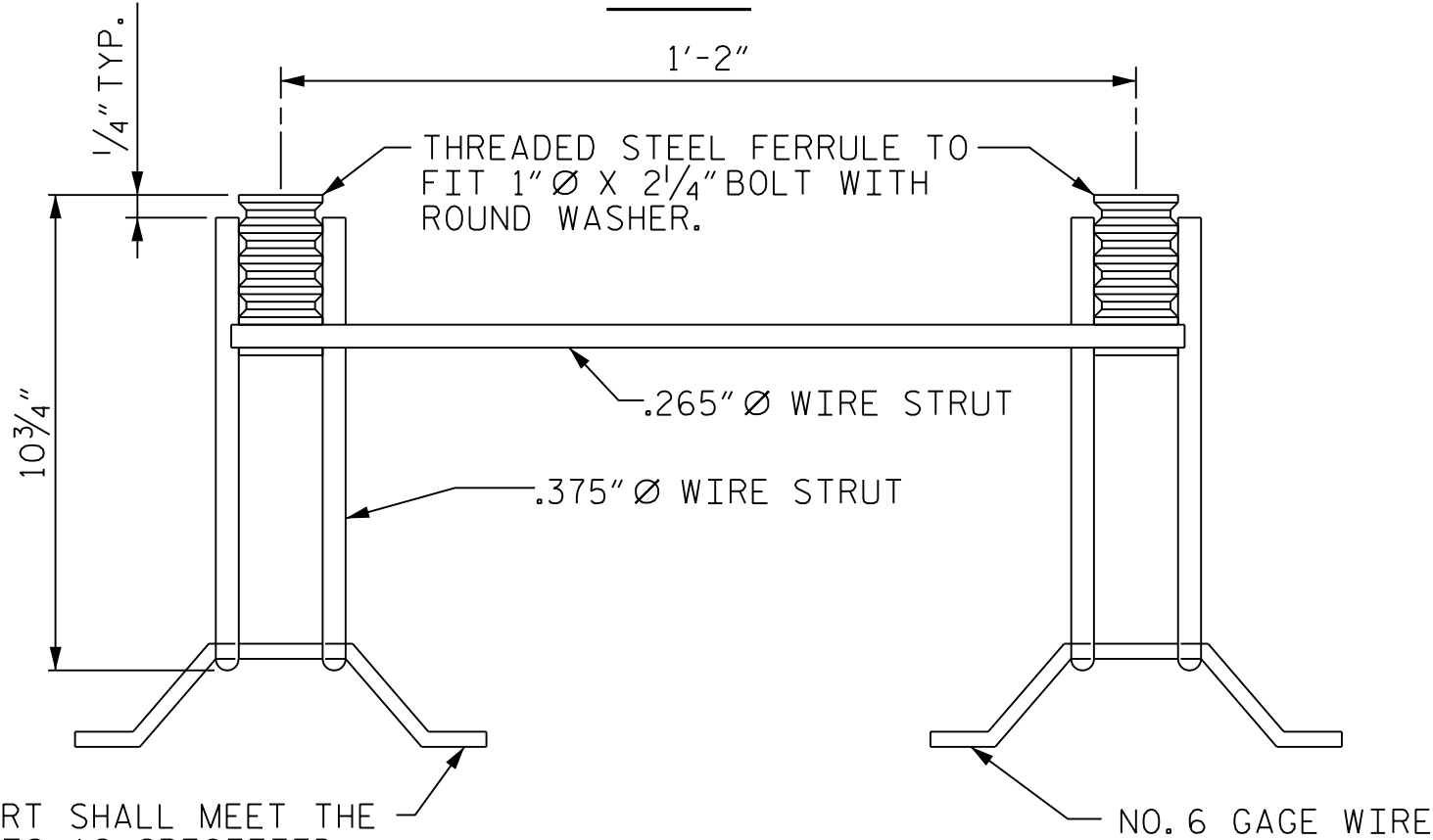
PAYMENT FOR GUARDRAIL, POSTS, AND POST BASE PLATES IS INCLUDED IN ROADWAY PAY ITEMS.

SLAB REINFORCING STEEL MAY BE SHIFTED AS NECESSARY TO CLEAR GUARDRAIL ANCHOR ASSEMBLY. CARE SHOULD BE TAKEN TO KEEP THE SHIFTING OF REINFORCING STEEL TO A MINIMUM.

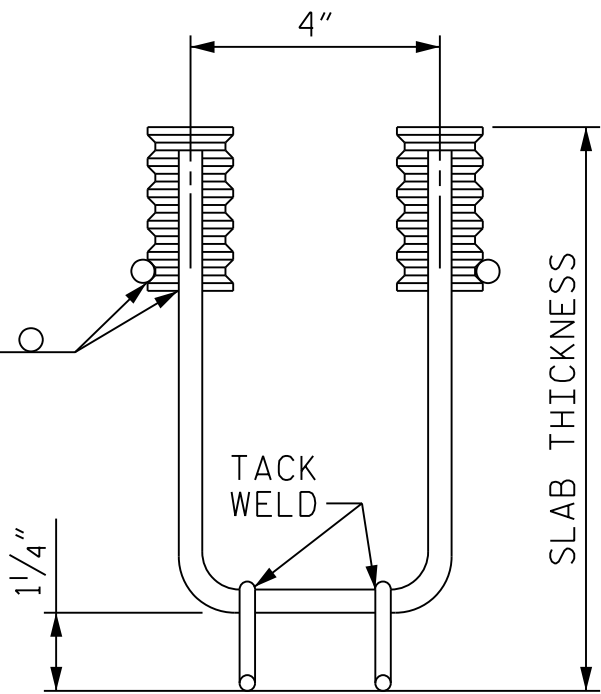
THE CONTRACTOR MAY USE DRILLED IN ADHESIVELY ANCHORED ANCHOR BOLTS IN PLACE OF GUARDRAIL ANCHOR ASSEMBLY. LEVEL TWO FIELD TESTING IS REQUIRED, AND THE YIELD LOAD OF THE 1" Ø BOLT IS 21.8 KIPS. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE STANDARD SPECIFICATIONS SECTION 420-13.



PLAN

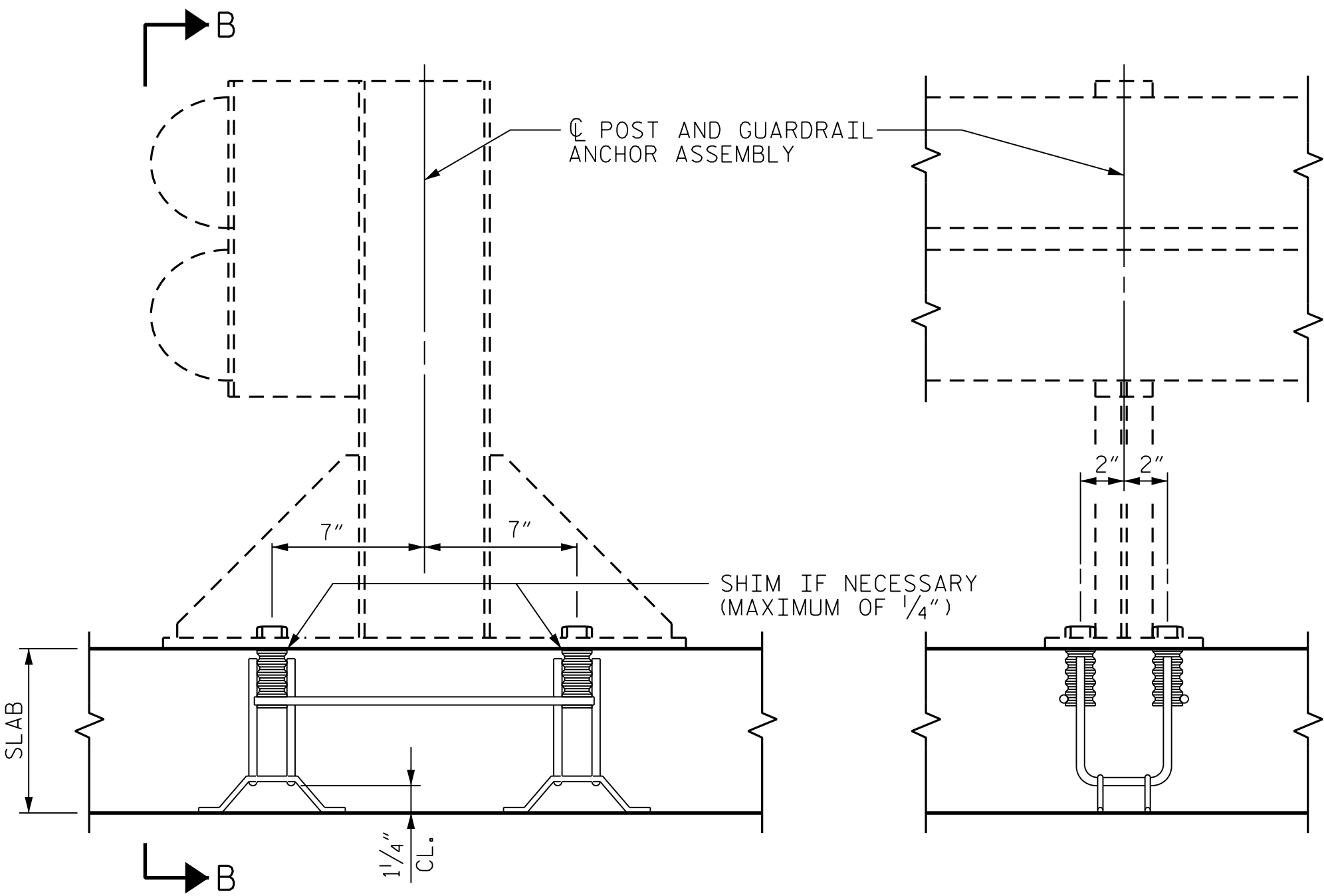


SIDE VIEW



ELEVATION

GUARDRAIL ANCHOR ASSEMBLY FOR CULVERT



SECTION A-A

SECTION B-B

PROJECT NO. 22199
CABARRUS COUNTY
STATION: 11+84.17 -L-

SHEET 9 OF 10

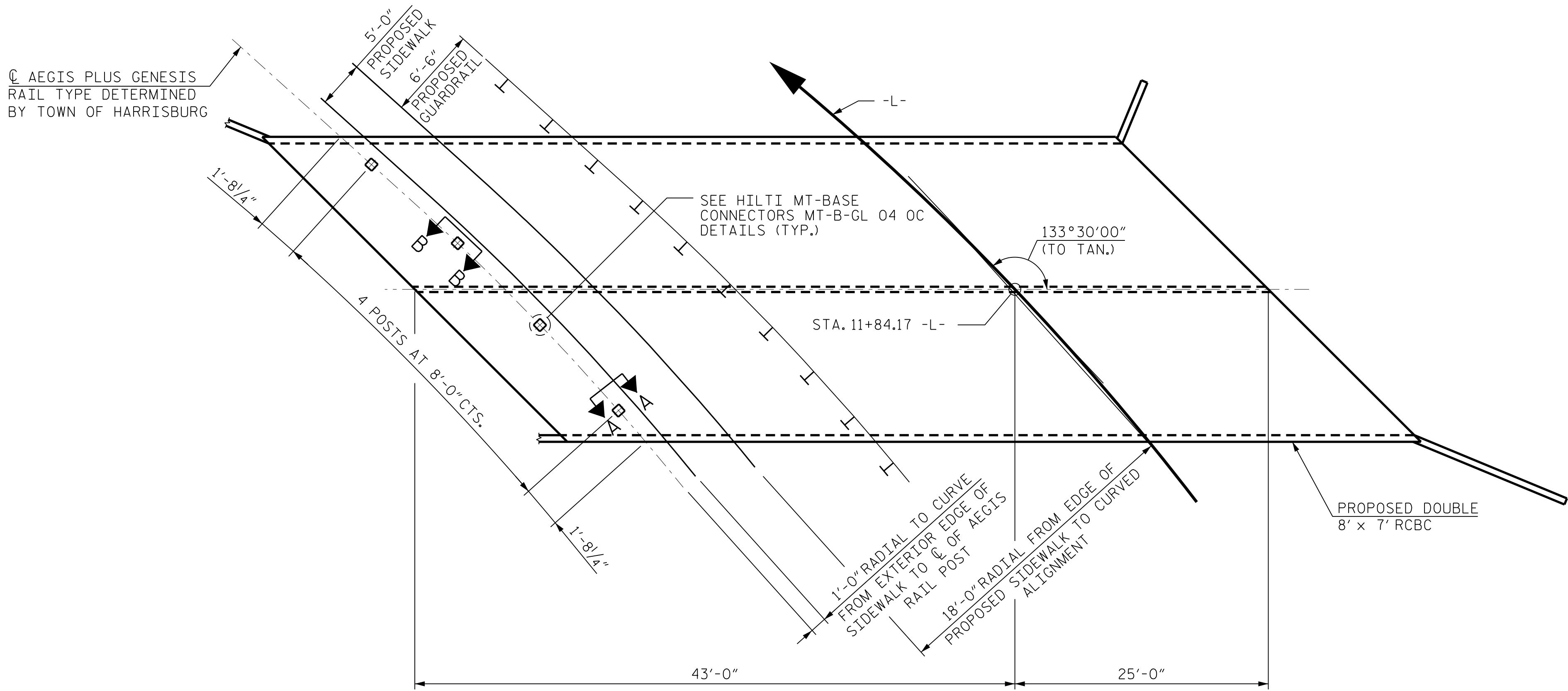
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
ANCHORAGE DETAILS FOR
GUARDRAIL ANCHOR ASSEMBLY
FOR CULVERTS

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	CU.1-9	
1			3			TOTAL SHEETS 10	
2			4				

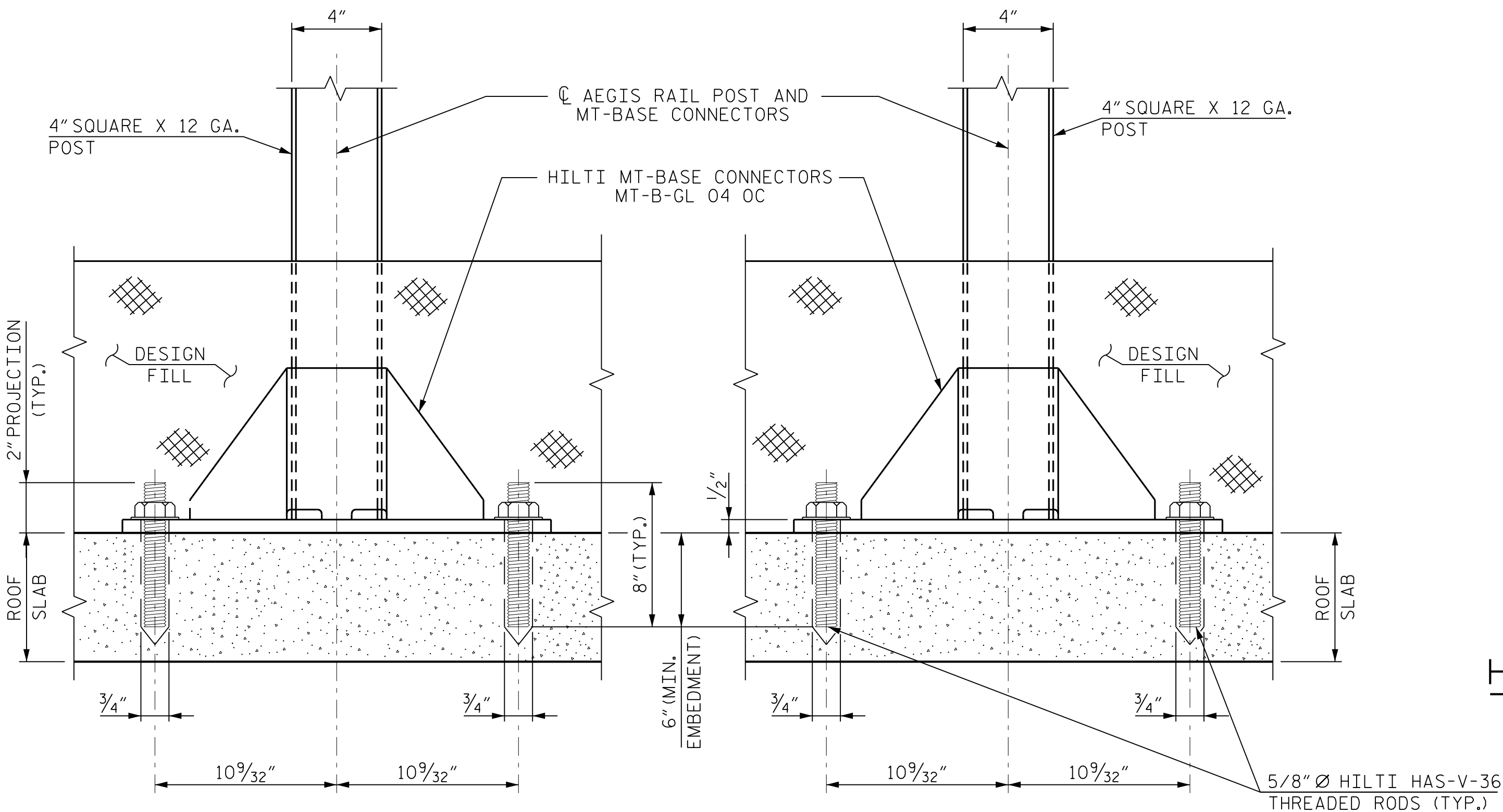
RK&K
P: (919) 878-9560
8601 Six Forks Road, Forum 1 Suite 700
Raleigh, North Carolina 27615 | NC License No. F-0112
Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

NORTH CAROLINA
PROFESSIONAL
SEAL
JOSHUA W. GENTRY
ENGINEER
3/5/2025



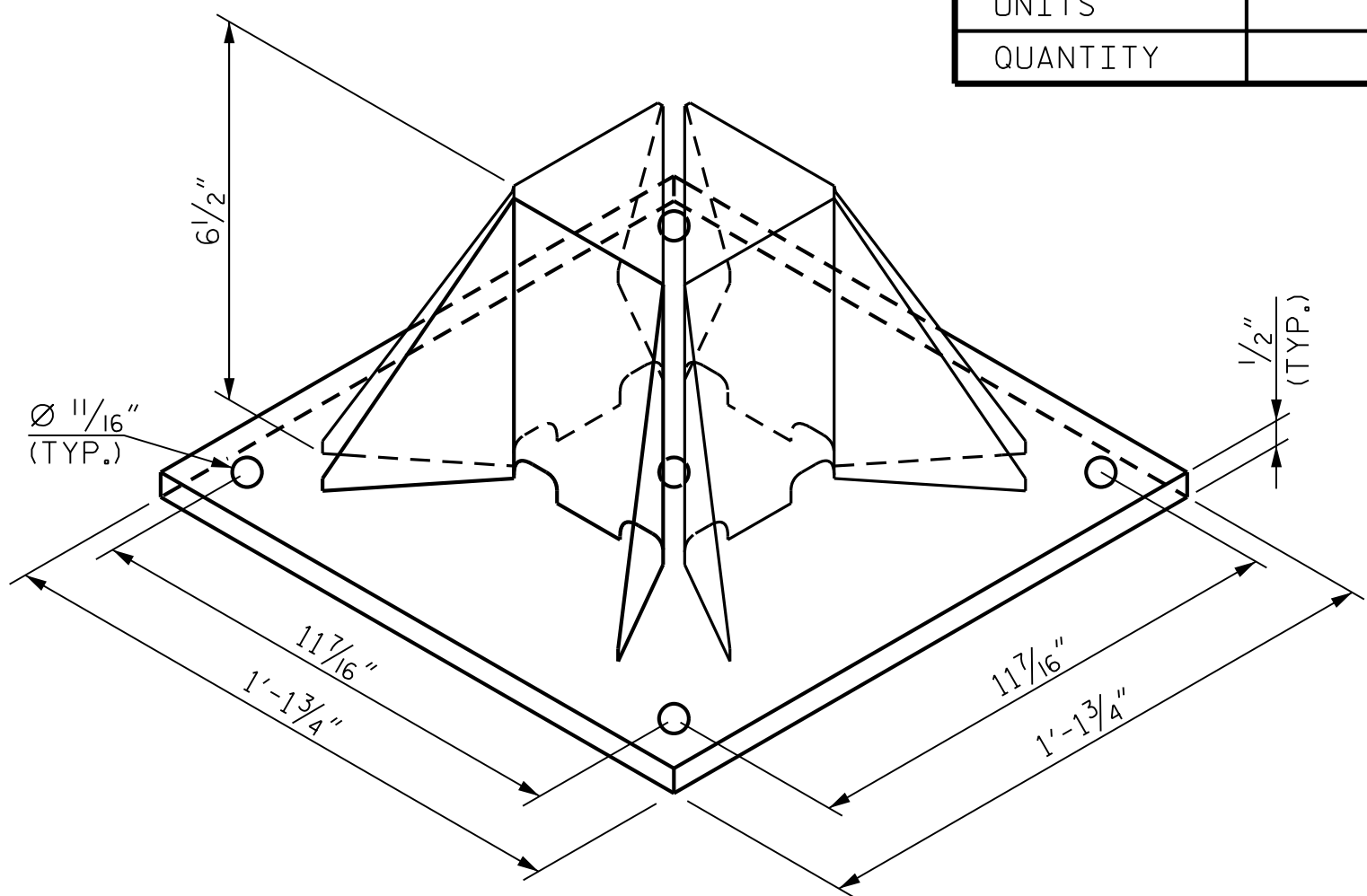
PLAN OF CULVERT AEGIS RAIL ANCHOR ASSEMBLY SPACING



SECTION A-A

SECTION B-B

POST ANCHOR ASSEMBLY FOR CULVERT



HILTI MT-BASE CONNECTORS MT-B-GL 04 OC

(FOR HILTI MT-BASE CONNECTORS MT-B-GL 04 OC DETAILS, SEE HILTI MANUFACTURER MODULAR SYSTEMS PRODUCT TECHNICAL GUIDE)

NOTES:

THE AEGIS POST RAIL ASSEMBLY FOR CULVERTS SHALL CONSIST OF THE FOLLOWING COMPONENTS:

- A. (4) HILTI MT-BASE CONNECTORS MT-B-GL 04 OC FROM HILTI PRODUCT TECHNICAL GUIDES UNDER MODULAR SYSTEM PRODUCT CATEGORY, MEET OR EXCEED THE MECHANICAL PROPERTIES OF ASTM A1011 SS GRADE 50.
- B. (16) - 5/8" Ø HILTI HAS-V-36 THREADED ROD (4 FOR EACH POST) WITH (32) WASHERS (2 WASHERS PER THREADED ROD), THREADED ROD SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554 GRADE 36 CARBON STEEL WITH MINIMUM 80 KSI ULTIMATE STRENGTH. HAS-V-36 THREADED ROD SHALL BE EMBEDDED A MINIMUM OF 6" INTO CONCRETE TOP SLAB. NUTS SHALL CONFORM TO ASTM 563-15 GRADE A HEX (ZINC) AND WASHERS SHALL CONFORM TO ASTM F436 TYPE 1.

- C. HILTI HIT-HY 200 V3 ADHESIVE OR EQUIVALENT APPROVED BY THE ENGINEER.

PAYMENT FOR AEGIS RAIL, POSTS AND POST ANCHOR ASSEMBLIES IS INCLUDED IN ROADWAY PAY ITEMS.

THE CONTRACTOR SHALL USE DRILLED IN ADHESIVELY ANCHORED ANCHOR BOLTS. LEVEL TWO FIELD TESTING IS REQUIRED, AND THE YIELD LOAD OF THE 5/8" Ø HILTI HAS-V-36 IS 11.4 KIPS. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE STANDARD SPECIFICATIONS SECTION 420-13.

RAIL SHALL BE AMERISTAR AEGIS PLUS GENESIS TYPE DECIDED BY THE TOWN OF HARRISBURG. MATERIALS FOR AEGIS POSTS, AEGIS RAILS AND HILTI BASES SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.

ALL RAIL POSTS ARE TO BE VERTICALLY PLUMB.

AEGIS PLUS GENESIS STEEL RAIL SHALL USE:

- (3) 4 FEET TALL PANELS ITEM #1GB20468
-(4) 4" SQUARE POSTS ITEM #PB40072P
-(4) 4" BALL CAPS ITEM #AB517

AEGIS PLUS STEEL RAIL ITEMS
ANCHORED TO CULVERT TOP SLAB

ITEM	#1GB20468	#PB40072P	#AB517
UNITS	EA	EA	EA
QUANTITY	3	4	4

ANCHORAGE ITEMS FOR AEGIS PLUS STEEL RAIL

ITEM	HILTI MT-BASE CONNECTORS MT-B-GL 04 OC	5/8" Ø HILTI HAS-V-36 THREADED ROD	HILTI HIT-HY 200 V3	WASHERS	NUTS
UNITS	EA	EA	LS	EA	EA
QUANTITY	4	16	1	32	16

PROJECT NO. 22199
CABARRUS COUNTY
STATION: 11+84.17 -L-

SHEET 10 OF 10

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

ANCHORAGE DETAILS FOR
AEGIS RAIL ALONG
SIDEWALK

REVISIONS						SHEET NO. CU-1-10
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 10
2			4			

RK&K
P: (919) 878-9560
8601 Six Forks Road, Forum 1 Suite 700
Raleigh, North Carolina 27615 | NC License No. F-0112
Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions



DRAWN BY : B. H. GONFA DATE : FEB 2024
CHECKED BY : J. W. GENTRY DATE : FEB 2024
DESIGN ENGINEER OF RECORD : J. W. GENTRY DATE : FEB 2024

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS	- - - - -	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	- - - - -	SEE PLANS
IMPACT ALLOWANCE	- - - - -	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF STRUCTURAL STEEL - AASHTO M270 GRADE 36	- -	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	- -	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	- -	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION - GRADE 60	- - -	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	- - - - -	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	- - - - -	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR UNTREATED EXTREME FIBER STRESS	- - -	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	- - - - -	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	- - - - -	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2024 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N.C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1 1/2" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8" Ø SHEAR STUDS FOR THE 3/4" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8" Ø STUDS ALONG THE BEAM AS SHOWN FOR 3/4" Ø STUDS BASED ON THE RATIO OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 3/16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16" INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINIS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

Document A310™ – 2010

Conforms with The American Institute of Architects AIA Document 310

Bid Bond

CONTRACTOR:

(Name, legal status and address)

Performance Managed Construction, Inc.
P O Box 501
Concord, NC 28026-0501

SURETY:

(Name, legal status and principal place of business)

Merchants National Bonding, Inc.
P.O. Box 14498
Des Moines, IA 50306-3498

OWNER:

(Name, legal status and address)

Town of Harrisburg
4100 Main Street, Suite 101
Harrisburg, NC 28075

Mailing Address for Notices

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification. Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

BOND AMOUNT: Five Percent of Amount Bid (5% of Bid)

PROJECT:

(Name, location or address, and Project number, if any)

Town Center Roadway Extension & Davis Creek Greenway Project, Harrisburg, NC

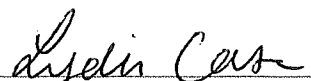
The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

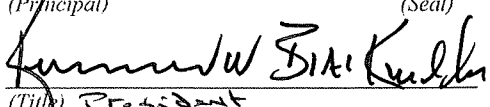
If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

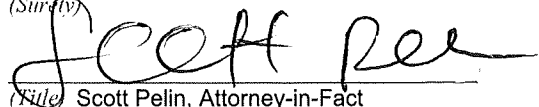
When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 27th day of May, 2025.


(Witness)


(Witness) Lydia Case

Performance Managed Construction, Inc.
(Principal) 
(Title) President

Merchants National Bonding, Inc.
(Surety) 
(Title) Scott Pelin, Attorney-in-Fact

MERCHANTS
BONDING COMPANYTM
POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa, d/b/a Merchants National Indemnity Company (in California only) (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,

Beverly B Ivey; Brett Branton; Della B Case; Jimmy Sousa; Matthew Rose; Michele Miller; Scott Pelin; Tyler Turnbull

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and April 27, 2024 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015 and amended on April 27, 2024.

"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 12th day of May, 2025.



MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.
d/b/a MERCHANTS NATIONAL INDEMNITY COMPANY

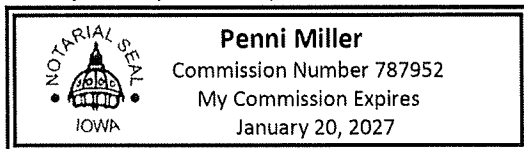
By

Larry Taylor

President

STATE OF IOWA
COUNTY OF DALLAS ss.

On this 12th day of May, 2025, before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.



Penni Miller
Notary Public

(Expiration of notary's commission does not invalidate this instrument)

I, Elisabeth Sandersfeld, Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 27th day of May, 2025.



Elisabeth Sandersfeld
Secretary



EXHIBIT B

(E-Verify Affidavit)



EXHIBIT C

(Tax Forms)



EXHIBIT D

(Certificate of Insurance)



EXHIBIT E

(Bond Forms)



EXHIBIT F

(Notice to Proceed)



Notice to Proceed

TO: Performance Managed Construction, LLC
FROM: Town of Harrisburg
DATE: XXXX XX, 2025
SUBJECT: Notice to Proceed with Construction Services for Cambridge Drive Ext. & Davis Creek Greenway

On behalf of the Town of Harrisburg, I am happy to provide Performance Managed Construction, LLC this Notice to Proceed with construction services for Cambridge Drive Ext. & Davis Creek Greenway in accordance with the executed contract.

Performance Managed Construction shall commence services on or before XXXX XX, 2025 and proceed according to the schedule outlined in the contract documents.

The Town of Harrisburg looks forward to working with Performance Managed Construction on this project.

Sincerely,

Devin Huston
Town Engineer
Town of Harrisburg

Acceptance of Notice

Receipt of the above Notice to Proceed is hereby acknowledged by Performance Managed Construction, this _____ day of _____, 2025.

BY: _____

TITLE: _____



Cambridge Drive Extension and Davis Creek Greenway

Bid Tabulation

Tuesday, May 27, 2025, 11:00 am

Engineer's Estimate = \$1,572,087

						Carolina Siteworks, Inc.		Performance Managed Construction, Inc.	
Line	NCDOT Item Number	DOT Sec No.	Description	Quantity	Unit	UNIT BID	AMOUNT BID	UNIT BID	AMOUNT BID
1	0000100000-N	800	MOBILIZATION	1	LS	\$94,452.00	\$94,452.00	\$72,000.00	\$72,000.00
2	0000400000-N	800	CONSTRUCTION SURVEYING	1	LS	\$22,464.00	\$22,464.00	\$20,000.00	\$20,000.00
3	0008000000-E	200	SUPPLEMENTAL CLEARING AND GRUBBING	0.25	ACRES	\$1.00	\$0.25	\$4.00	\$1.00
4	0036000000-E	225	UNDERCUT EXCAVATION	1,700.00	CY	\$10.00	\$17,000.00	\$10.00	\$17,000.00
5	0043000000-N	226	GRADING	1	LS	\$261,152.00	\$261,152.00	\$535,575.00	\$535,575.00
6	0134000000-E	240	DRAINAGE DITCH EXCAVATION	115	CY	\$22.00	\$2,530.00	\$6.00	\$690.00
7	0192000000-N	260	PROOF ROLLING	1	HR	\$152.00	\$152.00	\$250.00	\$250.00
8	0195000000-E	265	SELECT GRANULAR MATERIAL	2,500.00	CY	\$49.60	\$124,000.00	\$17.00	\$42,500.00
9	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	2,700.00	SY	\$2.17	\$5,859.00	\$2.00	\$5,400.00
10	0354000000-E	310	15" RC PIPE CULVERTS, CLASS V	44	LF	\$148.00	\$6,512.00	\$125.00	\$5,500.00
11	0354000000-E	310	24" RC PIPE CULVERTS, CLASS V	72	LF	\$217.00	\$15,624.00	\$175.00	\$12,600.00
12	0354000000-E	310	48" RC PIPE CULVERTS, CLASS V	8	LF	\$637.00	\$5,096.00	\$500.00	\$4,000.00
13	0366000000-E	310	15" RC PIPE CULVERTS, CLASS III	36	LF	\$128.00	\$4,608.00	\$100.00	\$3,600.00
14	0402000000-E	310	48" RC PIPE CULVERTS, CLASS III	24	LF	\$426.00	\$10,224.00	\$400.00	\$9,600.00
15	1121000000-E	520	AGGREGATE BASE COURSE	700	TON	\$66.35	\$46,445.00	\$40.00	\$28,000.00
16	1503000000-E	610	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B	140	TON	\$116.00	\$16,240.00	\$150.00	\$21,000.00
17	1519000000-E	610	ASPHALT CONCRETE SURFACE COURSE, S9.5B	180	TON	\$107.00	\$19,260.00	\$150.00	\$27,000.00
18	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	20	TON	\$942.00	\$18,840.00	\$650.00	\$13,000.00
19	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	1,450.00	LF	\$35.60	\$51,620.00	\$3.00	\$4,350.00
20	2352000000-N	840	FRAME WITH GRATE, STD. 840.19 OR 840.28	1	EACH	\$1,450.00	\$1,450.00	\$1,500.00	\$1,500.00
21	2366000000-N	840	FRAME WITH TWO GRATES, STD. 840.24	1	EACH	\$1,347.00	\$1,347.00	\$1,500.00	\$1,500.00
22	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)	2	EACH	\$1,450.00	\$2,900.00	\$1,500.00	\$3,000.00
23	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)	2	EACH	\$1,450.00	\$2,900.00	\$1,500.00	\$3,000.00
24	2396000000-N	840	FRAME WITH COVER, STD 840.54	1	EACH	\$1,087.00	\$1,087.00	\$1,500.00	\$1,500.00
25	2286000000-N	840	MASONRY DRAINAGE STRUCTURES 1	6	EACH	\$4,313.00	\$25,878.00	\$5,000.00	\$30,000.00
26	2308000000-E	840	MASONRY DRAINAGE STRUCTURES 2	1.8	LF	\$725.00	\$1,305.00	\$200.00	\$360.00
27	2209000000-E	838	ENDWALLS	0.7	CY	\$4,058.00	\$2,840.60	\$5,000.00	\$3,500.00
28	2542000000-E	846	2'-0" CONCRETE CURB & GUTTER	840	LF	\$30.10	\$25,284.00	\$35.00	\$29,400.00
29	2591000000-E	848	4" CONCRETE SIDEWALK	250	SY	\$84.30	\$21,075.00	\$70.00	\$17,500.00
30	2605000000-N	848	CONCRETE CURB RAMPS	2	EA	\$2,730.00	\$5,460.00	\$3,000.00	\$6,000.00
31	PSP	SP	GUARDRAIL	1	LS	\$39,420.00	\$39,420.00	\$35,000.00	\$35,000.00
32	3635000000-E	876	RIP RAP, CLASS II	88	TON	\$114.00	\$10,032.00	\$70.00	\$6,160.00
33	3649000000-E	876	RIP RAP, CLASS B	75	TON	\$92.00	\$6,900.00	\$70.00	\$5,250.00
34	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	300	SY	\$2.17	\$651.00	\$3.00	\$900.00
35	PSP	SP	SIGN ERECTION	1	LS	\$3,986.00	\$3,986.00	\$5,000.00	\$5,000.00
36	PSP	SP	EROSION CONTROL - GENERAL	1	LS	\$63,847.00	\$63,847.00	\$60,000.00	\$60,000.00
37	6123000000-E	1670	REFORESTATION	0.2	ACRES	\$14,500.00	\$2,900.00	\$30,000.00	\$6,000.00
38	8126000000-N	414	CULVERT EXCAVATION, STA ***** (11+84.00 -L-)	1	LS	\$125,261.00	\$125,261.00	\$93,000.00	\$93,000.00
39	8133000000-E	414	FOUNDATION CONDITIONING MATERIAL, BOX CULVERT	107	TON	\$73.00	\$7,811.00	\$70.00	\$7,490.00
40	PSP	SP	GREENWAY FENCE	160	LF	\$181.00	\$28,960.00	\$100.00	\$16,000.00
41	8245000000-E	425	REINFORCING STEEL (CULVERT)	23,106.00	LB	\$1.57	\$36,276.42	\$1.50	\$34,659.00
42	8826000000-E	420	CLASS AA CONCRETE (CULVERT)	166	CY	\$2,492.00	\$413,672.00	\$1,450.00	\$240,700.00
43	PSP	SP	PRECAST REINFORCED BOX CULVERT	1	LS	NO BID	NO BID	NO BID	NO BID
						SUBTOTAL			\$1,553,321.27
						10% CONTINGENCY			\$155,332.13
TOTAL BID FOR PROJECT.....						\$1,708,653.40		\$1,572,433.50	



AN ORDINANCE AMENDING THE 2025-2026 BUDGET ORDINANCE OF THE TOWN OF HARRISBURG, NORTH CAROLINA

Be it ordained by the Town Council of the Town of Harrisburg, North Carolina, that the following amendment be made to the annual budget ordinance for the fiscal year ending June 30, 2026:

Section 1. Amend the Capital Reserve Fund - Recreation to account for the Davis Creek Greenway project.

Section 2. To amend the Capital Reserve Fund - Recreation, the appropriations are to be changed as follows:

Increase line item 250-8500-59200	\$ 300,000
Transfers Out – Capital Project Fund - Transportation	

Section 3. To amend the Capital Reserve Fund - Recreation, the revenues are to be changed as follows:

Increase line item 250-48599	\$ 300,000
Appropriated Fund Balance	

Section 4. Copies of this budget amendment shall be furnished to the Clerk of the Town Council, and to the Budget Officer and the Finance Officer for their direction.

Section 5. That this ordinance shall be effective upon its passage. Adopted this 14th day of July, 2025.

Jennifer Teague, Mayor

ATTEST:

Janet Rackley, Town Clerk



AN ORDINANCE AMENDING THE 2018-2025 CAPITAL PROJECTS ORDINANCE OF THE TOWN OF HARRISBURG, NORTH CAROLINA

Be it ordained by the Town Council of the Town of Harrisburg, North Carolina, that the following amendment be made to the Capital Projects Fund – Transportation ordinance for the fiscal years beginning July 1, 2018 and ending June 30, 2025:

- Section 1.** To amend the dates of the Capital Projects Fund – Transportation to the fiscal year beginning July 1, 2018 and ending June 30, 2027 for the following projects:
- 2019-3001-001 through 2019-3001-007 Transportation Bond Projects
- Section 2.** To amend the Capital Projects Fund – Transportation, the appropriations are to be changed as follows:
- | | |
|---|--------------|
| Line item 319-3001-56310
Professional Services | \$ 713,600 |
| Line item 319-3001-57100
Construction | \$ 3,911,400 |
- Section 3.** To amend the Capital Projects Fund – Transportation, the estimated revenues are to be changed as follows:
- | | |
|---|--------------|
| Line item 319-49597
Proceeds from Financing | \$ 4,000,000 |
| Line item 319-49900
Transfers In – General Fund Capital Reserve Fund | \$ 325,000 |
| Line item 319-49911
Tranfers In – Recreation Capital Reserve Fund | \$ 300,000 |
- Section 4.** Copies of this budget amendment shall be furnished to the Clerk of the Town Council, and to the Budget Officer and the Finance Officer for their direction.
- Section 5.** That this ordinance shall be effective upon its passage. Adopted this 14th day of July, 2025.

ATTEST:

Jennifer Teague, Mayor

Janet Rackley, Town Clerk



TOWN OF HARRISBURG, NORTH CAROLINA

DECLARATION OF OFFICIAL INTENT TO REIMBURSE

This declaration (the "Declaration") is made pursuant to the requirements of the United States Treasury Regulations Section 1.150-2 and is intended to constitute a Declaration of Official Intent to Reimburse under such Treasury Regulations Section.

The undersigned is authorized to declare the official intent of the Town of Harrisburg, North Carolina (the "borrower") with respect to the matters contained herein.

1. **Expenditures to be Incurred.** The Borrower anticipates incurring expenditures (the "Expenditures") for the Traffic Mitigation Project (Cambridge Dr. and Davis Creek Greenway), referred to as the "Project."
2. **Plan to Finance.** The Borrower intends to finance the costs of the Project with the proceeds of debt to be financed with a financial institution (the "Borrowing"), the interest on which is to be excluded from gross income for Federal Income tax purposes.
3. **Maximum Principal Amount of Debt to be Borrowed.** The maximum principal amount of the Borrowing to be incurred by the Borrower to finance the Project is not to exceed \$2,350,000, the total construction and issuance costs for the combined transportation projects.
4. **Declaration of Official Intent to Reimburse.** The Borrower hereby declares its official intent to reimburse itself with the proceeds of the Borrowing for any of the Expenditures incurred by it prior to the issuance of the Borrowing.

This resolution is effective upon its adoption this 14th day of July, 2025.

The motion to adopt this resolution was made by Councilmember _____, seconded by Councilmember _____ and passed by a vote of _____ to _____.

Jennifer Teague, Mayor

ATTEST:

Janet Rackley, Town Clerk

This is to certify that this is a true and accurate copy of Resolution No. _____ adopted by the Harrisburg Town Council on the 14th day of July, 2025.

[Clerk]

Date