



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

June 20, 2007

U. S. Army Corps of Engineers
Regulatory Field Office
6508 Falls of the Neuse Road, Suite 120
Raleigh, NC 27615

ATTENTION: Mr. Monte Matthews
NCDOT Coordinator

SUBJECT: **Nationwide Permit 33 Application and Notice of Use of NW13** for the proposed replacement of Bridge No. 70 over Big Horse Creek on SR 1366 in Ashe County. Division 11, Federal Aid Project No. BRZ-1366(1), State Project No. 8.2711801, WBS Element 33159.1.1, TIP No. B-3606.

Dear Sir:

Please see the enclosed Pre-Construction Notification (PCN), Categorical Exclusion (CE), permit drawings and design plans for the above referenced project. The North Carolina Department of Transportation (NCDOT) proposes to replace the 81-foot, two-span Bridge No. 70 with a new 130-foot, two-span, pre-stressed concrete box beam bridge that will span Big Horse Creek. The existing bridge will be replaced in place with minor improvements to the alignment as it relates to the intersection. Traffic will be detoured off-site during construction. The rip rap used to stabilize the north bank under the new bridge will permanently impact 50 linear feet of Big Horse Creek. There will also be 0.01 acre of temporary impacts associated with a temporary workpad for pier construction and <0.01 acre of temporary impacts associated with a temporary pipe placed in UT1 during construction. There are no jurisdictional wetlands located within the project area. Per the North Carolina Water Resources Commission (WRC) there is an in-stream work moratorium from October 15 to April 15 to protect the egg and fry stages of trout.

IMPACTS TO WATERS OF THE UNITED STATES

General Description:

The water resources impacted for project B-3606 are Big Horse Creek and one unnamed tributary (UT1). Big Horse Creek is located in the New River Basin (Division of Water Quality (DWQ) subbasin 05-07-02) and is approximately 30 feet wide and 3 feet deep within the project

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1548 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-733-3141
FAX: 919-733-9794
WEBSITE: WWW.NCDOT.GOV

LOCATION:
PARKER LINCOLN BUILDING,
2728 CAPITAL BLVD., SUITE 240
RALEIGH NC 27604

area. UT1 is approximately 2 feet wide and 9 inches deep. The DWQ Index number for this section of Big Horse Creek is 10-2-21-(4.5) and the Hydrological Cataloguing Unit is 05050001. The North Carolina Department of Environment and Natural Resources classifies Big Horse Creek and UT1 as C Tr+. The “+” symbol identifies waters that are subject to a special management strategy in order to protect downstream waters designated as Outstanding Resource Waters (ORW). In this case, waters from Big Horse Creek ultimately flow into the main stem of the New River via North Fork New River. The main stem of the New River is an ORW and is over 20 miles downstream of the project area. There are no High Quality Waters (HQP), Water Supplies (WS-I or WSII), ORW or 303(d) streams within one mile of the project study area.

Permanent Impacts:

There will be 50 linear feet of permanent stream impacts to Big Horse Creek as a result of the placement of rip rap for stabilization purposes along the north bank. Stabilization on this bank is necessary following the removal of the temporary work bridge.

Temporary Impacts:

There will be 0.01 acre of temporary impacts associated with a temporary work pad for pier construction. There will also be 60 feet (<0.01 acre) of temporary impacts due to a 30-inch pipe that will be placed in UT1 during construction. Both the work pad and pipe will be removed once construction is complete.

Utility Impacts:

There will be no jurisdictional impacts associated with relocation of utility lines on the project site. In addition, there will be no relocation of water or sewer lines due to the construction on this project site.

Schedule:

The project schedule calls for a February 19, 2008 LET date with a date of availability on April 1, 2008 and a review date on January 1, 2008.

BRIDGE DEMOLITION

The existing bridge's substructure consists of reinforced concrete abutments and a reinforced concrete interior bent. The superstructure consists of an asphalt-wearing surface and a timber deck on I-beams. The deck of the existing bridge is 16 feet above the stream bed. There is no anticipated fill associated with the removal of the existing bridge. All components of the bridge will be removed without dropping any portion into Waters of the United States. All guidelines for bridge demolition and removal will be followed in addition to Best Management Practices (BMPs) for the Protection of Surface Waters and BMPs for Bridge Demolition and Removal.

FEDERALLY PROTECTED SPECIES

Plants and animals with federal classifications of Endangered (E), Threatened (T), Proposed Endangered (PE) and Proposed Threatened (PT) are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of May 10, 2007, the United States Fish and Wildlife Service (USFWS) lists seven federally protected species for Ashe County (Table 1). Within the project area, there is habitat present for one species, Virginia spiraea. The project was last surveyed for Virginia spiraea on June 7, 2007. No individuals were

found within the project area. Therefore, this project will have No Effect on Virginia spiraea. The biological conclusion for the six remaining species is No Effect due to lack of habitat.

Table 1. Federally Protected Species for Ashe County.

Common Name	Scientific Name	Status	Survey Notes	Biological Conclusion
Bog turtle	<i>Clemmys muhlenbergii</i>	T(S/A)	No Habitat	Not Required
Heller's blazing star	<i>Liatris helleri</i>	T	No Habitat	No Effect
Roan mountain bluet	<i>Hedyotis purpurea</i> var. <i>montana</i>	E	No Habitat	No Effect
Rock gnome lichen	<i>Gymnoderma lineare</i>	E	No Habitat	No Effect
Spreading avens	<i>Geum radiatum</i>	E	No Habitat	No Effect
Swamp pink	<i>Helonias bullata</i>	T	No Habitat	No Effect
Virginia spiraea	<i>Spiraea virginiana</i>	T	Habitat Present	No Effect

AVOIDANCE, MINIMIZATION AND MITIGATION

Avoidance and Minimization:

Avoidance examines all appropriate and practicable possibilities of averting impacts to “Waters of the United States.” The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize jurisdictional stages; minimization measures were incorporated as part of the project design. The use of best management practices for construction should reduce impacts to plant communities.

- The new bridge will be longer than the existing bridge, spanning Big Horse Creek.
- Traffic will be detoured off-site during construction. This eliminates the need for a temporary on-site detour.
- A temporary work pad will be utilized during construction to minimize in-stream activities.
- Water will not be directly discharged into Big Horse Creek via deck drains.
- There is a moratorium on in-stream activities from October 15 to April 15 to protect the egg and fry stages of trout.

In addition, Best Management Practices will be followed as outlined in NCDOT’s “Best Management Practices for Construction and Maintenance Activities” and “Best Management Practices for Bridge Demolition and Removal.”

Mitigation:

No mitigation is proposed for this project because the 50 feet of bank stabilization will not cause an adverse effect or loss of waters of the United States.

REGULATORY APPROVALS

Section 404 Permit:

It is anticipated that the temporary dewatering of Big Horse Creek and UT1 will be authorized under Section 404 Nationwide Permit 33 (Temporary Construction Access and Dewatering). We are, therefore, requesting the issuance of a Nationwide Permit 33 authorizing the temporary dewatering of Big Horse Creek. NCDOT will make use of a Nationwide Permit 13 for 50 feet of

impacts relating to bank stabilization. No written concurrence from the USACE is required for this use of Nationwide Permit 13.

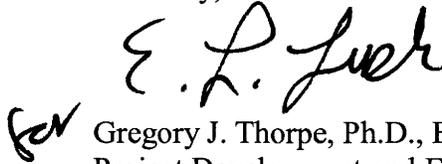
Section 401 Permit:

We anticipate 401 General Certification numbers 3626 and 3634 will apply to this project. In accordance with 15A NCAC 2H .0501(a) we are providing two copies of this application to the North Carolina Department of Environmental and Natural Resources, Division of Water Quality, for their records.

This project is located in a trout county, therefore comments from the North Carolina Wildlife Resources Commission (NCWRC) will be required prior to authorization by the Corps of Engineers. By copy of this letter and attachment, NCDOT hereby requests NCWRC review. NCDOT requests that NCWRC forward their comments to the Corps of Engineers and the NCDOT within 30 calendar days of receipt of this application.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Erin Schubert at ekschubert@dot.state.nc.us or (919) 715-5529.

Sincerely,

A handwritten signature in black ink, appearing to read "G. J. Thorpe". To the left of the signature is a small, handwritten mark that looks like "for".

Gregory J. Thorpe, Ph.D., Environmental Management Director
Project Development and Environmental Analysis Branch

cc:

w/attachment

- Mr. John Hennessy, NCDWQ (2 Copies)
- Ms. Marla Chambers, NCWRC
- Ms. Marella Buncick, USFWS
- Dr. David Chang, P.E., Hydraulics
- Mr. Victor Barbour, P.E., Project Services Unit
- Mr. Mark Staley, Roadside Environmental
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. Michael A. Pettyjohn, P.E. Division 11 Engineer
- Mr. Heath Slaughter, Division 11 Environmental Officer

w/o attachment

- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Majed Alghandour, P. E., Programming and TIP
- Mr. Art McMillan, P.E., Highway Design
- Ms. Natalie Lockhart, PDEA Project Planning Engineer
- Mr. Scott McLendon, USACE, Wilmington

Office Use Only:

Form Version March 05

USACE Action ID No. _____

DWQ No. _____

(If any particular item is not applicable to this project, please enter "Not Applicable" or "N/A".)

I. Processing

1. Check all of the approval(s) requested for this project:

Section 404 Permit

Riparian or Watershed Buffer Rules

Section 10 Permit

Isolated Wetland Permit from DWQ

401 Water Quality Certification

Express 401 Water Quality Certification

2. Nationwide, Regional or General Permit Number(s) Requested: NW 13 and 33

3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here:

4. If payment into the North Carolina Ecosystem Enhancement Program (NCEEP) is proposed for mitigation of impacts, attach the acceptance letter from NCEEP, complete section VIII, and check here:

5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here:

II. Applicant Information

1. Owner/Applicant Information

Name: Gregory J. Thorpe, Ph.D., Environmental Management Director

Mailing Address: 1598 Mail Service Center

Telephone Number: (919) 733-3141 Fax Number: (919) 733-9794

E-mail Address: ekschubert@dot.state.nc.us

2. Agent/Consultant Information (A signed and dated copy of the Agent Authorization letter must be attached if the Agent has signatory authority for the owner/applicant.)

Name: _____

Company Affiliation: _____

Mailing Address: _____

Telephone Number: _____

Fax Number: _____

E-mail Address: _____

III. Project Information

Attach a **vicinity map** clearly showing the location of the property with respect to local landmarks such as towns, rivers, and roads. Also provide a detailed **site plan** showing property boundaries and development plans in relation to surrounding properties. Both the vicinity map and site plan must include a scale and north arrow. The specific footprints of all buildings, impervious surfaces, or other facilities must be included. If possible, the maps and plans should include the appropriate USGS Topographic Quad Map and NRCS Soil Survey with the property boundaries outlined. Plan drawings, or other maps may be included at the applicant's discretion, so long as the property is clearly defined. For administrative and distribution purposes, the USACE requires information to be submitted on sheets no larger than 11 by 17-inch format; however, DWQ may accept paperwork of any size. DWQ prefers full-size construction drawings rather than a sequential sheet version of the full-size plans. If full-size plans are reduced to a small scale such that the final version is illegible, the applicant will be informed that the project has been placed on hold until decipherable maps are provided.

1. Name of project: Bridge No. 70 over Big Horse Creek on SR 1366
2. T.I.P. Project Number or State Project Number (NCDOT Only): B-3606
3. Property Identification Number (Tax PIN): N/A
4. Location
County: Ashe Nearest Town: Husk
Subdivision name (include phase/lot number): N/A
Directions to site (include road numbers/names, landmarks, etc.): _____
5. Site coordinates (For linear projects, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
Decimal Degrees (6 digits minimum): 36°31'54.93" °N -81°31'46.73" °W
6. Property size (acres): N/A
7. Name of nearest receiving body of water: North Fork New River
8. River Basin: New River Basin
(Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at <http://h2o.enr.state.nc.us/admin/maps/>.)
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: 50% wooded, 50% agriculture

10. Describe the overall project in detail, including the type of equipment to be used: _____
Standard construction equipment will be used (backhoes, bulldozers, cranes and/or other heavy machinery)

-
11. Explain the purpose of the proposed work: The purpose of the project is to replace a functionally and structurally obsolete structure (sufficiency rating 28.0 out of 100) and improve the alignment of the road at the bridge crossing.
-

IV. Prior Project History

If jurisdictional determinations and/or permits have been requested and/or obtained for this project (including all prior phases of the same subdivision) in the past, please explain. Include the USACE Action ID Number, DWQ Project Number, application date, and date permits and certifications were issued or withdrawn. Provide photocopies of previously issued permits, certifications or other useful information. Describe previously approved wetland, stream and buffer impacts, along with associated mitigation (where applicable). If this is a NCDOT project, list and describe permits issued for prior segments of the same T.I.P. project, along with construction schedules. N/A

V. Future Project Plans

Are any future permit requests anticipated for this project? If so, describe the anticipated work, and provide justification for the exclusion of this work from the current application.
N/A

VI. Proposed Impacts to Waters of the United States/Waters of the State

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. Each impact must be listed separately in the tables below (e.g., culvert installation should be listed separately from riprap dissipater pads). Be sure to indicate if an impact is temporary. All proposed impacts, permanent and temporary, must be listed, and must be labeled and clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) should be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be included at the applicant's discretion. If this proposed impact is strictly for wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

1. Provide a written description of the proposed impacts: Permanent: 50 linear feet (<0.01 acre) of impact to Big Horse Creek due to bank stabilization with rip rap. Temporary: 0.01 acre of impact due to temporary work pad in Big Horse Creek and 60 linear feet (<0.01 acre) due to temporary 30" pipe in UT1.

2. Individually list wetland impacts. Types of impacts include, but are not limited to mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.

Wetland Impact Site Number (indicate on map)	Type of Impact	Type of Wetland (e.g., forested, marsh, herbaceous, bog, etc.)	Located within 100-year Floodplain (yes/no)	Distance to Nearest Stream (linear feet)	Area of Impact (acres)
No Wetlands					
Total Wetland Impact (acres)					

3. List the total acreage (estimated) of all existing wetlands on the property: N/A

4. Individually list all intermittent and perennial stream impacts. Be sure to identify temporary impacts. Stream impacts include, but are not limited to placement of fill or culverts, dam construction, flooding, relocation, stabilization activities (e.g., cement walls, rip-rap, crib walls, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included. To calculate acreage, multiply length X width, then divide by 43,560.

Stream Impact Number (indicate on map)	Stream Name	Type of Impact	Perennial or Intermittent?	Average Stream Width Before Impact	Impact Length (linear feet)	Area of Impact (acres)
Site 1	Big Horse Creek	Permanent	Perennial	30 ft.	50	<0.01
Site 1	Big Horse Creek	Temporary	Perennial	30 ft.	N/A	0.01
Site 2	UT1	Temporary	Perennial	2 ft.	60	<0.01
Total Permanent Stream Impact (by length and acreage)					50	<0.01

5. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.). Open water impacts include, but are not limited to fill, excavation, dredging, flooding, drainage, bulkheads, etc.

Open Water Impact Site Number (indicate on map)	Name of Waterbody (if applicable)	Type of Impact	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)	Area of Impact (acres)
No open water impacts				
Total Open Water Impact (acres)				

6. List the cumulative impact to all Waters of the U.S. resulting from the project:

Stream Impact (acres):	0.01 (temp) <0.01 (permanent)
Wetland Impact (acres):	0
Open Water Impact (acres):	0
Total Impact to Waters of the U.S. (acres)	0.01 (temp) <0.01 (permanent)
Total Stream Impact (linear feet):	60 (temp) 50 (permanent)

7. Isolated Waters

Do any isolated waters exist on the property? Yes No

Describe all impacts to isolated waters, and include the type of water (wetland or stream) and the size of the proposed impact (acres or linear feet). Please note that this section only applies to waters that have specifically been determined to be isolated by the USACE.

N/A

8. Pond Creation

If construction of a pond is proposed, associated wetland and stream impacts should be included above in the wetland and stream impact sections. Also, the proposed pond should be described here and illustrated on any maps included with this application.

Pond to be created in (check all that apply): uplands stream wetlands

Describe the method of construction (e.g., dam/embankment, excavation, installation of draw-down valve or spillway, etc.):

Proposed use or purpose of pond (e.g., livestock watering, irrigation, aesthetic, trout pond, local stormwater requirement, etc.):

Current land use in the vicinity of the pond:

Size of watershed draining to pond: _____ Expected pond surface area: _____

VII. Impact Justification (Avoidance and Minimization)

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts. The new bridge will span Big Horse Creek. Traffic will be detoured off-site during construction, thus eliminating the need for an on-site detour. No deck drains will be used and NCDOT's Best Management Practices will be followed. A temporary work pad will minimize in-stream activities during construction.

VIII. Mitigation

DWQ - In accordance with 15A NCAC 2H .0500, mitigation may be required by the NC Division of Water Quality for projects involving greater than or equal to one acre of impacts to

freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.

USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on January 15, 2002, mitigation will be required when necessary to ensure that adverse effects to the aquatic environment are minimal. Factors including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

If mitigation is required for this project, a copy of the mitigation plan must be attached in order for USACE or DWQ to consider the application complete for processing. Any application lacking a required mitigation plan or NCEEP concurrence shall be placed on hold as incomplete. An applicant may also choose to review the current guidelines for stream restoration in DWQ's Draft Technical Guide for Stream Work in North Carolina, available at <http://h2o.enr.state.nc.us/ncwetlands/strmgide.html>.

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.

No mitigation is proposed for this project because the 50 feet of bank stabilization will not cause an adverse effect or loss of waters of the United States.

2. Mitigation may also be made by payment into the North Carolina Ecosystem Enhancement Program (NCEEP). Please note it is the applicant's responsibility to contact the NCEEP at (919) 715-0476 to determine availability, and written approval from the NCEEP indicating that they are will to accept payment for the mitigation must be attached to this form. For additional information regarding the application process for the NCEEP, check the NCEEP website at <http://h2o.enr.state.nc.us/wrp/index.htm>. If use of the NCEEP is proposed, please check the appropriate box on page five and provide the following information:

Amount of stream mitigation requested (linear feet): 0
Amount of buffer mitigation requested (square feet): 0
Amount of Riparian wetland mitigation requested (acres): 0
Amount of Non-riparian wetland mitigation requested (acres): 0
Amount of Coastal wetland mitigation requested (acres): 0

IX. Environmental Documentation (required by DWQ)

1. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? Yes No
2. If yes, does the project require preparation of an environmental document pursuant to the requirements of the National or North Carolina Environmental Policy Act (NEPA/SEPA)?
Note: If you are not sure whether a NEPA/SEPA document is required, call the SEPA coordinator at (919) 733-5083 to review current thresholds for environmental documentation.
Yes No
3. If yes, has the document review been finalized by the State Clearinghouse? If so, please attach a copy of the NEPA or SEPA final approval letter. Yes No

X. Proposed Impacts on Riparian and Watershed Buffers (required by DWQ)

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to required state and local buffers associated with the project. The applicant must also provide justification for these impacts in Section VII above. All proposed impacts must be listed herein, and must be clearly identifiable on the accompanying site plan. All buffers must be shown on a map, whether or not impacts are proposed to the buffers. Correspondence from the DWQ Regional Office may be included as appropriate. Photographs may also be included at the applicant's discretion.

1. Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 02B .0243 (Catawba) 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify _____)? Yes No
2. If "yes", identify the square feet and acreage of impact to each zone of the riparian buffers. If buffer mitigation is required calculate the required amount of mitigation by applying the buffer multipliers.

Zone*	Impact (square feet)	Multiplier	Required Mitigation
1		3 (2 for Catawba)	
2		1.5	
Total			

* Zone 1 extends out 30 feet perpendicular from the top of the near bank of channel; Zone 2 extends an additional 20 feet from the edge of Zone 1.

3. If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Riparian Buffer Restoration / Enhancement, or Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0244, or .0260. N/A

XI. Stormwater (required by DWQ)

Describe impervious acreage (existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property. If percent impervious surface exceeds 20%, please provide calculations demonstrating total proposed impervious level. Impervious surfaces will not significantly increase as a result of this project. There will be no deck drains installed.

XII. Sewage Disposal (required by DWQ)

Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.
N/A

XIII. Violations (required by DWQ)

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?
Yes No

Is this an after-the-fact permit application? Yes No

XIV. Cumulative Impacts (required by DWQ)

Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? Yes No
If yes, please submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent North Carolina Division of Water Quality policy posted on our website at <http://h2o.enr.state.nc.us/ncwetlands>. If no, please provide a short narrative description: The new bridge will be constructed in the same location as the old bridge, on a slightly improved alignment.

XV. Other Circumstances (Optional):

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).
N/A

E. L. Lusk

6.19.07

Applicant/Agent's Signature

Date

(Agent's signature is valid only if an authorization letter from the applicant is provided.)

Ashe County
Bridge No. 70 on SR 1366 (Stewart Rd./Anderson Hill Rd)
over Horse Creek
Federal Aid Project No. BRZ-1366(1)
W.B.S. No. 33159.1.1.0
State Project No. 8.2663201
T.I.P. No. B-3606

CATEGORICAL EXCLUSION

& PROGRAMMATIC 4(f)

UNITED STATES DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

2/14/06
DATE

William T. Gooding
for Gregory J. Thorpe, PhD,
Environmental Management Director, PDEA

2/21/06
DATE

John F. Sullivan, III
for John F. Sullivan, III, Division Administrator
Federal Highway Administration

Ashe County
Bridge No. 70 on SR 1366 (Stewart Rd/Anderson Hill Rd)
over Horse Creek
Federal Aid Project No. BRZ-1366(1)
W.B.S. No. 33159.1.1.0
State Project No. 8.2711801
T.I.P. No. B-3606

CATEGORICAL EXCLUSION
& PROGRAMMATIC 4(f)

Documentation Prepared in
Project Development and Environmental Analysis Branch By:

2/13/06

DATE

Natalie Lockhart

Natalie Lockhart
Project Development Engineer

2/13/06

DATE

John L. Williams

John L. Williams, PE, Project Engineer
Bridge Project Development Unit

PROJECT COMMITMENTS:

**Ashe County
Bridge No. 70 on SR 1366
Over Horse Creek
Federal Aid Project No. BRZ-1366 (1)
State Project No. 8.2711801
W.B.S. No. 33159.1.1
T.I.P. No. B-3606**

Division 11 Construction – Coordination with Local officials

In order to allow Emergency Management Services (EMS) and school transportation time to prepare for road closure, the NCDOT Resident Engineer will notify Ashe County EMS and the Ashe County School Transportation Office, thirty days prior to road closure.

Division 11 Construction – School bus turn around

NCDOT will build a turning place near the northeast end of the bridge to assist school buses along the detour route.

Division 11 Construction/NEU – Trout moratorium

Due to the classification of Big Horse Creek as a trout stream, a moratorium prohibiting in-stream work and land disturbance within the 25-foot trout buffer is recommended from October 15 to April 15 to protect the egg and fry stages of trout.

Division 11 Construction- Speed Limit

Division 11 will need to post the speed limit at 25 mph in the vicinity of the bridge.

NEU-Bridge Demolition

There is no anticipated fill for the removal of bridge No.70. All components of the bridge will be removed without dropping any portion into Waters of the United States.

NEU-Minimal Easements

One bar metal rail will be used instead of New Jersey Barrier Rail to minimize impacts that could effect the Grubb-Combs Farm. Construction for the bridge replacement is close to the historical property but will have a “No Adverse Effect” to the historical property.

Ashe County
Bridge No. 70 on SR 1366 (Stewart Rd/Anderson Hill Rd)
over Horse Creek
Federal Aid Project No. BRZ-1366(1)
W.B.S. No. 33159.1.1.0
State Project No. 8.2711801
T.I.P. No. B-3606

INTRODUCTION: Bridge No. 70 is included in the latest approved North Carolina Department of Transportation (NCDOT) Transportation Improvement Program and is eligible for the Federal-Aid Bridge Replacement and Rehabilitation Program. The location is shown in Figure 1. No substantial environmental impacts are anticipated. The project is classified as a Federal "Categorical Exclusion".

I. PURPOSE AND NEED STATEMENT

NCDOT Bridge Maintenance Unit records indicate Bridge No. 70 has a sufficiency rating of 28.0 out of a possible 100 for a new structure. The bridge is considered functionally obsolete due to a geometry appraisal of 2 out of 9 according to Federal Highway Administration (FHWA) standards and therefore eligible for FHWA's Highway Bridge Replacement and Rehabilitation Program.

Bridge No. 70 was built in 1963. It is 81 feet long, 12 feet wide and 16 feet over the streambed. It has a forty-three year old reinforced concrete sub-structure abutments and a reinforced concrete interior bent. The superstructure consists of an asphalt-wearing surface and a timber deck on I-beams. Bridge No. 70 is approaching the end of its useful life.

Bridge No. 70 carries 200 vehicles per day with 400 vehicles per day projected for the year 2030. The substandard deck width is becoming increasingly unacceptable and replacement of the bridge will result in safer traffic operations.

II. EXISTING CONDITIONS

The project is located just north of Tuckerdale (Figure 1). The surrounding area is residential as well as forested.

SR 1366 (Stewart Rd/Anderson Hill Rd) is classified as a Rural Local Route in the Statewide Functional Classification System and it not a National Highway System Route. This route is not a designated bicycle route and there is no indication that an unusual number of bicyclists use this roadway.

In the vicinity of the bridge, SR 1366 varies in width from 10 to 12-foot pavement with grass shoulders that vary from 0 to 6-foot. The roadway grade is in a tangent through the project

area. The existing bridge is on a tangent. The roadway is situated approximately 16.0 feet above the creek bed.

Bridge No. 70 is a two-span structure that consists of a timber floor on I-beams supported by reinforced concrete abutments and a reinforced concrete interior bent. The existing bridge (see Figure 3) was constructed in 1963. The overall length of the structure is 81 feet. The clear roadway width is 12.0 feet. The posted weight limit on this bridge is 20 tons for single vehicles and 25 tons for TTST's.

There are no utilities attached to the existing structure, but there are both aerial power and telephone lines crossing over Big Horse Creek at the location of the bridge. There is also an underground fiber-optic cable along the east side of SR 1366 and SR 1362 crossing under the south approach but not crossing Big Horse Creek. Utility impacts are anticipated to be low.

The current traffic volume of 200 vehicles per day (VPD) is expected to increase to 400 VPD by the year 2030. The projected volume includes one percent truck-tractor semi-trailer (TTST) and two percent dual-tired vehicles (DT). There is no posted speed limit in the vicinity of the bridge; therefore the statutory 55 mph speed limit applies. Two school buses cross the bridge daily on their morning and afternoon routes.

There were no accidents reported in the vicinity of Bridge No. 70 during a recent three-year period.

III. ALTERNATIVES

A. Project Description

The replacement structure will consist of a bridge approximately 130-foot long. The bridge length is based on preliminary design information and is set by hydraulic requirements. The bridge will be of sufficient width to provide for two 9-foot lanes with 2-foot offset on the left side and a 4-foot offset on the right side. The roadway grade of the new structure will be approximately the same as the existing grade.

The existing roadway will be widened to a 18-foot pavement width to provide two 9-foot lanes. Five-foot shoulders will be provided on each side; two feet of which will be paved in accordance with the current NCDOT Design Policy. This roadway will be designed as a rural local route.

B. Reasonable and Feasible Alternatives

One alternative for replacing Bridge No. 70 was studied in detail and is described below.

Alternate 1(Preferred)

Alternate 1 involves replacement of the structure with a 130-foot bridge at approximately the same location with minor improvements to the alignment as it relates to the intersection. Traffic will be detoured offsite during construction.

NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the offsite detour. The offsite detour for this project would utilize NC 194, SR 1367 (Big Tree Rd), SR 1362 (Big Horse Creek Road), and back to SR 1366 (Anderson Hill Road). The detour for the average road user would result in 7.5 minutes additional travel time (3.2 miles additional travel). Up to a ten-month duration of construction is expected on this project. Based on the guidelines, the criteria above require evaluation of alternatives including onsite and offsite detours to determine what is appropriate.

In this case, Ashe County Emergency Services has indicated that an offsite detour is acceptable and would add ten minutes to emergency response time if the road is closed and traffic rerouted during the construction period. This would not create an unworkable situation provided emergency services agencies received advanced closure notice. Ashe County School Transportation Director commented that temporarily closing the road would not present any problems for school buses. The school buses will need a turning place near the northeast end of the bridge during construction. NCDOT Division 11 concurs in these recommendations.

C. Alternatives Eliminated From Further Consideration

The “do-nothing” alternative will eventually necessitate closure of the bridge. This is not acceptable due to the traffic service provided by SR 1366.

“Rehabilitation” of the old bridge is not practical nor economical.

Staged Construction is not feasible for this bridge because the 12-foot deck width and beam configuration will not support removal of a portion and maintenance of traffic on the remaining portion.

Other alternatives were considered but dropped from further study such as new alignment and onsite detour.

D. Preferred Alternative

Bridge No. 70 will be replaced at the existing location as shown by Alternative 1 in Figure 2.

NCDOT Division 11 concurs with the selection of Alternative 1 as the preferred alternative.

IV. ESTIMATED COSTS

The estimated costs for the one alternative are as follows:

	Alternative 1 Preferred
Structure	\$ 401,000
Roadway Approaches	\$ 157,000
Structure Removal	\$ 9,000
Misc. & Mob.	\$ 131,000
Eng. & Contingencies	\$ 102,000
Total Construction Cost	\$ 800,000
Right-of-way Costs	\$ 73,000
Total Project Cost	\$ 873,000

V. NATURAL ENVIRONMENT

Physical Characteristics

Water Resources

Water resources located within the project study area lie in Hydrologic Unit 05050001, Sub basin 05-07-02 of the New River Drainage Basin. Two streams were identified in the project study area. Big Horse Creek and an unnamed tributary (UT) to Big Horse Creek are perennial streams.

The best usage classification of Big Horse Creek (Index Number 10-2-21-(4.5)) is Class C Tr (NCDENR-DWQ, 2004). The best usage classification of an unnamed tributary is the same as the water body to which it is a tributary. No water resources classified as High Quality Waters, Water Supplies (WS-I or WS-II), or Outstanding Resource Waters are located within one mile of the project study area.

Biotic Resources

Two terrestrial communities were identified in the project study area: conifer/hardwood forest and maintained/disturbed land.

Jurisdictional Topics

Surface Waters and Wetlands

Big Horse Creek and UT to Big Horse Creek are considered jurisdictional surface waters under Section 404 of the Clean Water Act (CWA). The field investigation revealed no jurisdictional wetlands within the project area. Coverage area estimates are based on the proposed “bubble study” area and are summarized in the following table.

Anticipated impacts to surface waters.

Surface Water	Length of stream in project study area
Big Horse Creek	2,550
UT Big Horse Creek	1,200

Due to the classification of Big Horse Creek as a trout stream, in-stream work and land disturbance within the 25-foot wide buffer zone will be prohibited during the trout spawning and season of November 1 through April 15 to protect the egg and fry stages of trout.

Permits

In accordance with the Federal Register of January 15, 2002, Part II, Volume 67, Number 10, the project will likely require authorization under a Section 404 Nationwide Permit (NWP) 23 (Approved Categorical Exclusions). However, a CWA Section 404 Individual Permit (IP) may be required, rather than a NWP 23 if impacts from the proposed project exceed the threshold of 300 feet of stream impacts or one half of an acre of fill in Waters of the U.S. The USACE determines final permit requirements, including IP requirements, under the statutory provisions of CWA Section 404. If a temporary causeway is needed and is not specified in the Categorical Exclusion, a Nationwide 33 Permit (Temporary Construction, Access, and Dewatering) will be necessary for this project. A CWA Section 401 Water Quality Certification (WQC) No. 3403 corresponds to NWP 23. Written concurrence from the DWQ will not be required if all General Conditions are met. If the project is authorized under a CWA Section 404 IP, then a CWA Section 401 Major Water Quality Certification from the DWQ will be required.

Mitigation

According to 15A NCAC 2H.0506(h) and 40 CFR 1508.20, mitigation will be required for stream impacts to jurisdictional streams requiring mitigation when these impacts are equal to or greater than 150 linear feet per stream. Because the project will not use the entire “bubble study” area, stream impacts will probably not equal or exceed 150 linear feet. Therefore, no mitigation is anticipated.

Federally Protected Species

Plants and animals with federal classifications of Endangered, Threatened, Proposed Endangered and Proposed Threatened are protected under the provisions of Section 7 and Section 9 of the ESA. As of January 29, 2003 there are seven federally-protected species listed for Ashe County.

Bog Turtle

Biological Conclusion: N/A

The bog turtle is listed as Threatened due to Similarity of Appearance [T(S/A)]. T(S/A) species are not subject to Section 7 consultation and a biological conclusion is not required.

Spreading avens

Biological Conclusion: No Effect

Habitat for this species is at elevations at or above 5,060 ft. The project site is located at an elevation of approximately 2,800 ft. Therefore, habitat for spreading avens does not exist in the project area. It can be concluded that the construction of this project will have no effect on this species.

Swamp pink

Biological Conclusion: No Effect

There are no wetlands associated with the project area that could provide suitable habitat for swamp pink. It can be concluded that the construction of this project will have no effect on this species.

Roan Mountain bluet

Biological Conclusion: No Effect

Habitat for this species is at elevations at or above 4,600 ft. The project site is located at an elevation of approximately 2,800 ft. Therefore, habitat for Roan Mountain bluet does not exist in the project area. It can be concluded that the construction of this project will have no effect on this species.

Heller's blazing star

Biological Conclusion: No Effect

Heller's blazing star is found at elevations at or above 3,500 ft. on ledges of rock outcrops. The project area is located in a valley along a stream crossing at an elevation around 2,800 ft. Habitat does not exist for Heller's blazing star within the project area. It can be concluded that the construction of this project will have no effect on this species.

Virginia spiraea

Biological Conclusion: No Effect

Habitat does exist within the project area for Virginia spiraea. Within the project area, some of the riparian area around Big Horse Creek is open on both sides of the creek. These riparian communities are maintained/disturbed and have no canopy closure. A

systematic survey for this species was conducted on June 24, 2004. No specimens of Virginia spiraea were observed during this survey. Therefore, this project may affect-not likely to adversely affect Virginia spiraea. Concurrence from FWS is required for this biological conclusions.

Rock gnome lichen

Biological Conclusion: No Effect

Rock gnome lichen is found at elevations at or above 5,000 ft on ledges of rock outcrops. The project area is located in a valley along a stream crossing at an elevation around 2,800 ft. Habitat does not exist for rock gnome lichen within the project area. It can be concluded that the construction of this project will have no effect on this species.

VI. HUMAN ENVIRONMENT

Section 106 Compliance Guidelines

This project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, implemented by the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified at Title 36 CFR Part 800. Section 106 requires Federal agencies to take into account the effect of their undertakings (federally funded, licensed, or permitted) on properties included in or eligible for inclusion in the National Register of Historic Places and afford the Advisory Council a reasonable opportunity to comment on such undertakings.

Historic Architecture

A field survey of the area of potential effects (APE) was conducted by an NCDOT staff architectural historian in September 2004. On September 27, 2004, a NCDOT architectural historian and representatives from the North Carolina State Historic Preservation Office (HPO) met to discuss this project and it was decided that report would be needed to evaluate the buildings that make up the Grubb-Combs Farm. A report was prepared by Jennifer Cathey in April 2005 which stated that the Grubb-Combs Farm is eligible for the National Register of Historic Places. The report was forwarded to HPO for their concurrence and they concurred with the findings of the report in a memorandum dated May 16, 2005, a copy of which is located in the appendix. In a meeting between NCDOT, HPO, and FHWA on January 10, 2006 it was determined that the bridge replacement project would have no adverse effect upon Grubb-Combs Farm if NCDOT agreed to use a one-bar metal rail on the new bridge. A copy of the concurrence form signed during the meeting is included in the appendix.

Archaeology

The State Historic Preservation Office (SHPO) reviewed the subject project. There are no known archaeological sites within the proposed project area, and no archaeological investigation needed to be conducted (see letter dated August 12, 2004).

Community Impacts

No adverse impact on families or communities is anticipated. Right-of-way acquisition will be limited. No relocatees are expected with implementation of the proposed alternative.

No adverse effect on public facilities or services is expected. The project is not expected to adversely affect social, economic, or religious opportunities in the area.

The project is not in conflict with any plan, existing land use, or zoning regulation. No change in land use is expected to result from the construction of the project.

The Farmland Protection Policy Act requires all federal agencies or their representatives to consider the potential impact to prime farmland of all land acquisition and construction projects. There are no soils classified as prime, unique, or having state or local importance in the vicinity of the project. Therefore, the project will not involve the direct conversion of farmland acreage within these classifications.

The project will not have a disproportionately high and adverse human health and environmental effect on any minority or low-income population.

Noise & Air Quality

This project is an air quality "neutral" project, so it is not required to be included in the regional emissions analysis and a project level CO analysis is not required. If vegetation is disposed of by burning, all burning shall be done in accordance with applicable local laws and regulations of the North Carolina State Implementation Plan (SIP) for air quality in compliance with 15 NCAC 2D.0520. Noise levels could increase during construction but will be temporary. This evaluation completes the assessment requirements for highway traffic noise of Title 23, Code of Federal Regulation (CFR), Part 772 and for air quality (1990 Clean Air Act Amendments and the National Environmental Policy Act) and no additional reports are required.

VII. GENERAL ENVIRONMENTAL EFFECTS

The project is expected to have an overall positive impact. Replacement of an inadequate bridge will result in safer traffic operations.

The bridge replacement will not have an adverse effect on the quality of the human or natural environment with the use of the current North Carolina Department of Transportation standards and specifications.

The proposed project will require right-of-way acquisition or easement from a property protected under Section 4(f) of the Department of Transportation Act of 1966. (See Historic Architecture)

An examination of records at the North Carolina Department of Environment and Natural Resources, Division of Environmental Management, Groundwater Section and the North Carolina Department of Human Resources, Solid Waste Management Section revealed no underground storage tanks or hazardous waste sites in the project area.

Ashe County is a participant in the National Flood Insurance Program. There are no practical alternatives to crossing the floodplain area. Any shift in alignment will result in an impact area of about the same magnitude. The proposed project is not anticipated to increase the level or extent of upstream flood potential.

VIII. COORDINATION & AGENCY COMMENTS

NCDOT has sought input from the following agencies as a part of the project development: U.S. Army Corps of Engineers, NC Department of Natural Resources, U.S. Fish & Wildlife Service, N.C. Wildlife Resource Commission, North Carolina State Historic Preservation Office, Ashe County Office of Emergency Management, Ashe County School, Office of Human Environment, and Office of Natural Environment.

The N.C. Wildlife Resource Commission and U.S. Fish & Wildlife Service in standardized letters provided a request that they prefer any replacement structure to be a spanning structure. A moratorium prohibiting in stream work and land disturbance within the 25-foot trout buffer is recommended from October 15 to April 15 to protect the egg and fry staged of trout. Sediment and erosion control measures should adhere to the design standards for sensitive watersheds. As recommended, Bridge No. 70 will be replaced with a new bridge. The moratorium and sediment erosion control measures will be followed.

The N.C. Division of Water Quality, the Army Corps of Engineers, the Division of Coastal Management, and N.C. Marine Fisheries had no special concerns for this project.

IX. PUBLIC INVOLVEMENT

A letter was sent by the Location & Surveys Unit to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

A newsletter has been sent to all those living along SR 1366 on July 19, 2005 describing the upcoming project and requesting any comments. Two residents replied stating they had no problems with the bridge replacement.

Based on *responses to the newsletter*, a Citizen's Informational Workshop was determined unnecessary.

There is not substantial controversy on social, economic, or environmental grounds concerning the project.

X. PROGRAMMATIC 4(f)

NORTH CAROLINA DIVISION
FINAL NATIONWIDE SECTION 4(f) EVALUATION AND APPROVAL
FOR FEDERALLY-AIDED HIGHWAY PROJECTS WITH MINOR INVOLVEMENTS
WITH HISTORIC SITES

F. A. PROJECT BRZ-1366(1)

STATE PROJECT 8.2711801

T. I. P. NO. B-3606

Description: Replacement of Bridge No.70 over Big Horse Creek on SR 1366 in Ashe County. Bridge No. 70 carries 200 vpd with 400 vpd projected for the future. Bridge No. 70 was built in 1963. It is 81 feet long, 12 feet wide and 16 feet over the streambed.

	<u>YES</u>	<u>NO</u>
1. Is the proposed project designed to improve the operational characteristics, safety, and/or physical condition of the existing highway facility on essentially the same alignment?	<u> x </u>	<input type="checkbox"/>
2. Is the project on new location?	<input type="checkbox"/>	<u> x </u>
3. Is the historic site adjacent to the existing highway?	<u> x </u>	<input type="checkbox"/>
4. Does the project require the removal or alteration of historic buildings, structures, or objects?	<input type="checkbox"/>	<u> x </u>

5. Does the project disturb or remove archaeological resources which are important to preserve in place rather than to recover for archaeological research? x
6. a. Is the impact on the Section 4(f) site considered minor (i.e. no effect, no adverse effect)? x
- b. If the project is determined to have "no adverse effect" on the historic site, does the Advisory Council on Historic Preservation object to the determination of "no adverse effect"? x
7. Has the SHPO agreed, in writing, with the assessment of impacts and the proposed mitigation? x
8. Does the project require the preparation of an EIS? x

ALTERNATIVES CONSIDERED AND FOUND NOT TO BE FEASIBLE AND PRUDENT

The following alternatives were evaluated and found not to be feasible and prudent:

- | 1. <u>Do nothing</u> | <u>Yes</u> | <u>No</u> |
|---|--------------------------|------------------|
| Does the "do nothing" alternative: | | |
| (a) correct capacity deficiencies? | <input type="checkbox"/> | <u> x </u> |
| or (b) correct existing safety hazards? | <input type="checkbox"/> | <u> x </u> |
| or (c) correct deteriorated conditions? | <input type="checkbox"/> | <u> x </u> |
| and (d) create a cost or impact of extraordinary measure? | <input type="checkbox"/> | <u> x </u> |

2. Improve the highway without using the adjacent historic site

(a) Have minor alignment shifts, changes in standards, use of retaining walls, etc., or traffic management measures been evaluated?

x

(b) The items in 2(a) would result in: (circle, as appropriate)

x

(i) substantial adverse environmental impacts

or (ii) substantial increased costs

or (iii) unique engineering, transportation, maintenance, or safety problems

or (iv) substantial social, environmental, or economic impacts

or (v) a project which does not meet the need

or (vi) impacts, costs, or problems which are of extraordinary magnitude

3. Build an improved facility on new location without using the historic site.

(a) An alternate on new location would result in: (circle, as appropriate)

(i) a project which does not solve the existing problems

or (ii) substantial social, environmental, or economic impacts

or (iii) a substantial increase in project cost or engineering difficulties

and (iv) such impacts, costs, or difficulties of truly unusual or unique or extraordinary magnitude

MINIMIZATION OF HARM

- | | <u>Yes</u> | <u>No</u> |
|--|------------|--------------------------|
| 1. The project includes all possible planning to minimize harm necessary to preserve the historic integrity of the site. | <u>x</u> | <input type="checkbox"/> |
| 2. Measures to minimize harm have been agreed to, in accordance with 36 CFR Part 800, by the FHWA, the SHPO, and as appropriate, the ACHP. | <u>x</u> | <input type="checkbox"/> |
| 3. Specific measures to minimize harm are described as follows: | | |

NCDOT has agreed to use the centerline of the road and to use a one bar metal rail instead of New Jersey Barrier Rail to minimize impacts to the historic site.

COORDINATION

The proposed project has been coordinated with the following (attach correspondence):

- | | |
|--|----------------|
| a. State Historic Preservation Officer | see attachment |
| b. Advisory Council on Historic Preservation | N/A |
| c. Property owner | N/A |
| d. Local/State/Federal Agencies | N/A |
| e. US Coast Guard | not applicable |
- (for bridges requiring bridge permits)

SUMMARY AND APPROVAL

The project meets all criteria included in the programmatic 4(f) evaluation approved on December 23, 1986.

All required alternatives have been evaluated and the findings made are clearly applicable to this project. There are no feasible and prudent alternatives to the use of the historic site.

The project includes all possible planning to minimize harm, and the measures to minimize harm will be incorporated in the project.

All appropriate coordination has been successfully completed with local and state agencies.

Approved:

2/14/06
Date

William T. Harding
Manager, Planning & Environmental Branch, NCDOT

2/24/06
Date

John D. Rygh
Division Administrator, FHWA

for

XI. CONCLUSION

On the basis of the above discussion, it is concluded that no substantial adverse environmental impacts will result from implementation of the project. The project is therefore considered to be a federal "Categorical Exclusion" due to its limited scope and lack of substantial environmental consequences.



 NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS BRANCH

Ashe County
Replacement Bridge No. 70 on SR 1366
Over Horse Creek
B-3606

Figure2



CB FACING EAST



CB FACING NORTH

B-3606

FIGURE 3A



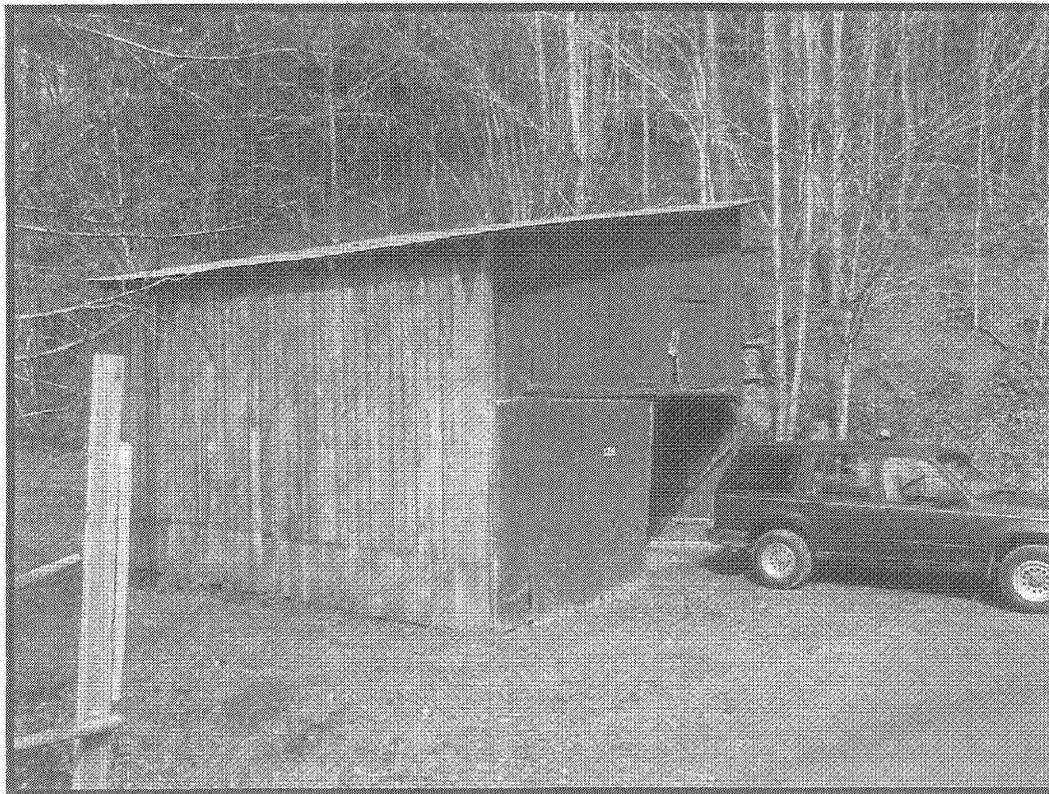
CB FACING SOUTH



CB FACING WEST



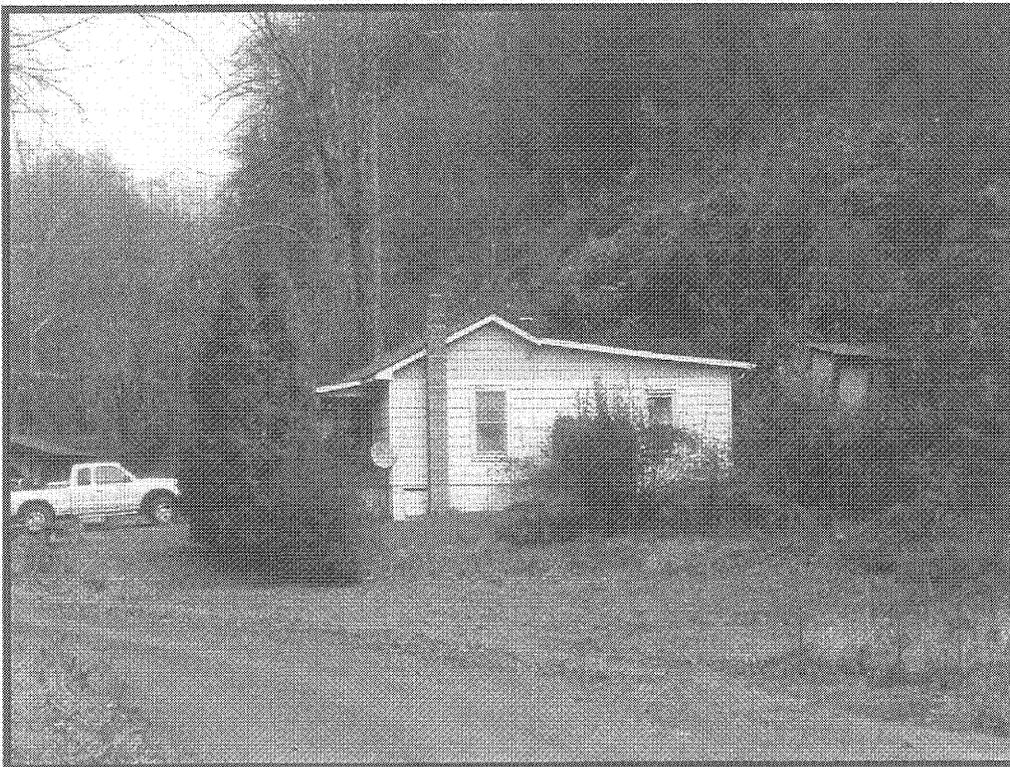
**HISTORIC STRUCTURE 1
WEST FACE OF BRIDGE**



**HISTORIC STRUCTURE 2
BARN AT NORTHWEST QUAD**



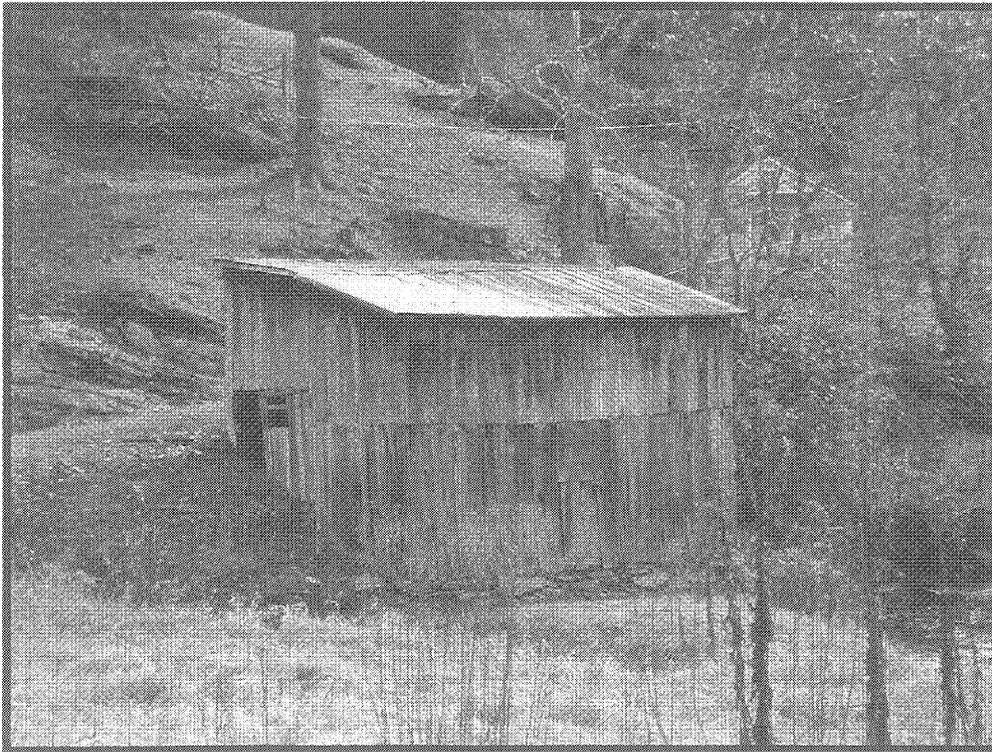
HISTORIC STRUCTURES 3,4 & 5



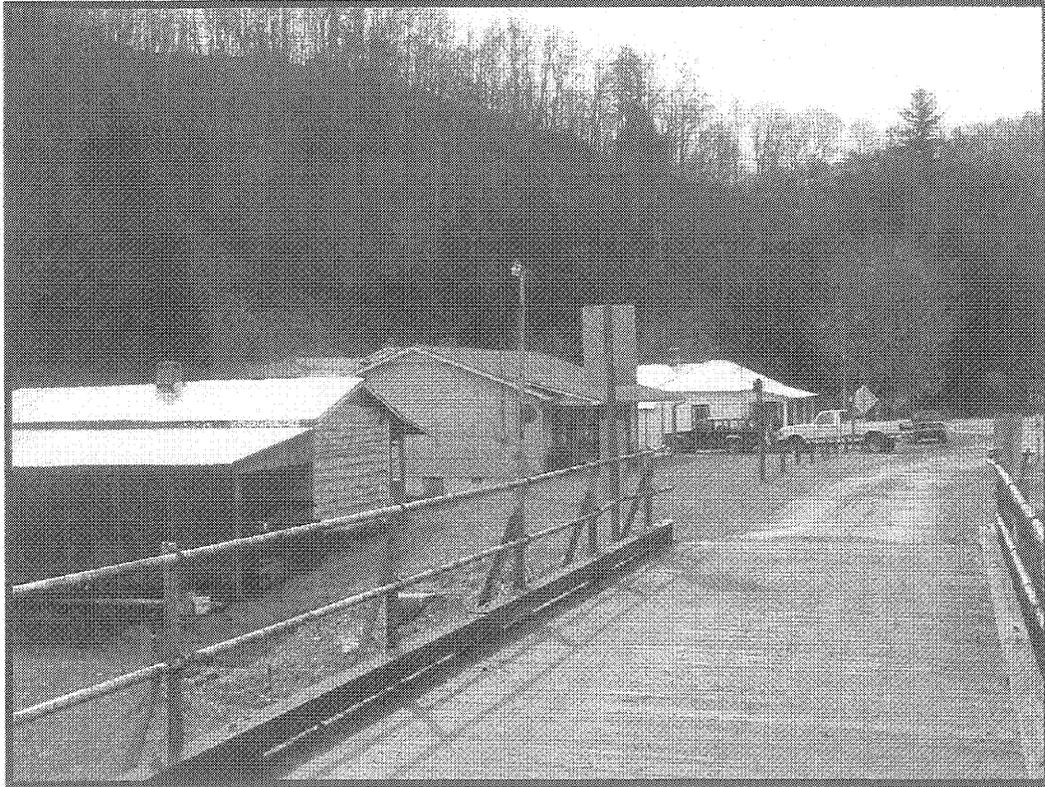
**HISTORIC STRUCTURE 6
HOUSE NE QUAD**



**HISTORIC STRCUTURE 7
HOUSE NE QUAD**



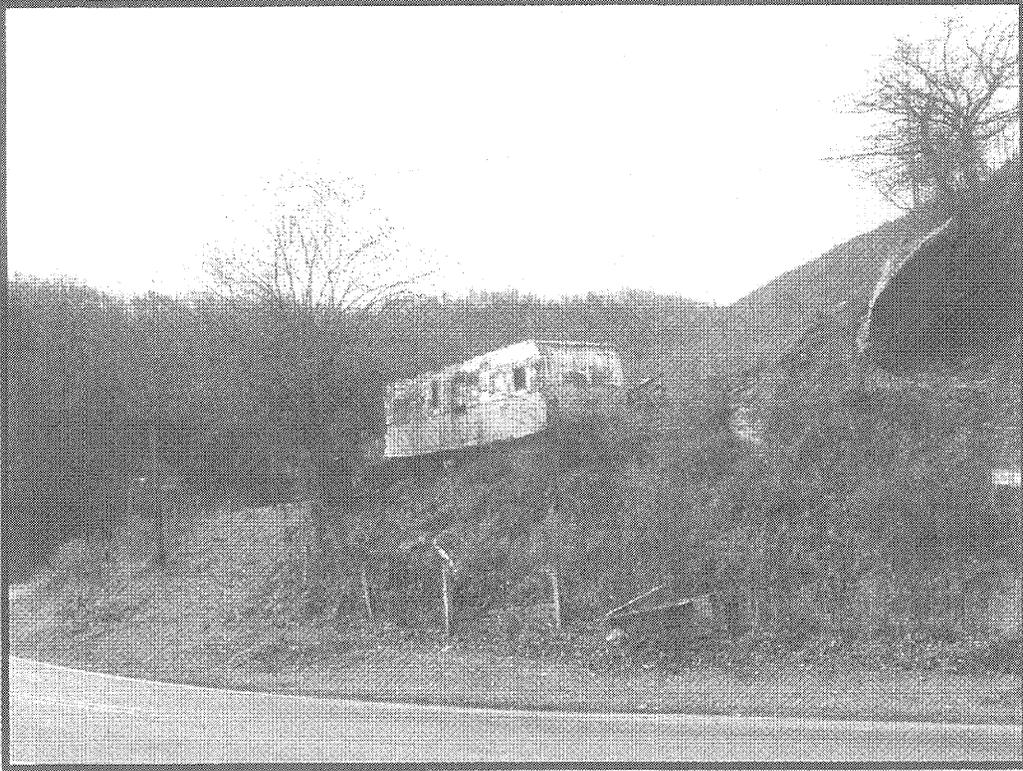
**HISTORIC STRUCTURE 8
BARN**



**HISTORIC STRUCTURES 9, 10 & 11
HOUSES ON SE QUAD**



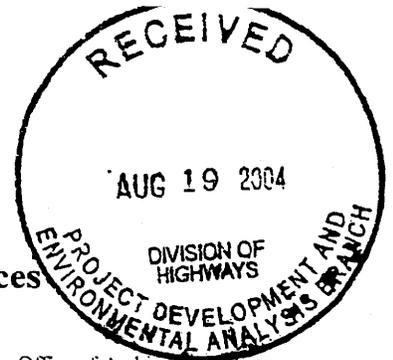
**HISTORIC STRUCTURE 12
BUILDNG ON SE QUAD**



**HISTORIC STRUCTURE 13
MOBILE HOME ON HILL SOUTH**



**HISTORIC STRUCTURE 14
BARN ON OFFSITE DETOUR**



North Carolina Department of Cultural Resources
State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

August 12, 2004

MEMORANDUM

TO: Gregory Thorpe, Ph.D., Director
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: Peter B. Sandbeck *PBS for Peter Sandbeck*

SUBJECT: 2004 Bridge Projects, including B-3492, B-4408, B-4409, B-4410, B-4446, B-4466, B4469, B-4518, B-4545, B-4573, B-4631, B-4423, B-4424, B-4454, B-4520, B-4538, B-4540, B-4548, B-4549, B-4567, B-4578, B-4648, B-4664, B-4665, B-4504, B-4560, B-4587, B-4618, B-4644, B-4649, B-4651, B-4658, B-4671, B-3624, B-3819, B-3911, B-4404, B-4552, B-4613, B-4646, B-4675, B-3169, B-3606, B-3802, B-3803, B-3804, B-4523, B-4524, B-4525, B-4526, Multi-county, ER 04-1280-ER 04-1330

On July 28, 2004, Sarah McBride, our preservation specialist for transportation projects, met with the North Carolina Department of Transportation (NCDOT) staff for a meeting of the minds concerning the above projects. We reported on our available information on historic architectural and archaeological surveys and resources along with our recommendations. NCDOT provided project descriptions, area photographs, and aerial photographs at the meeting.

Based on our review of the photographs and the information discussed at the meeting, we have included our comments for each bridge project on a spreadsheet attached to this letter. These comments are provided for each project as proposed.

If an archaeological survey is requested on the spreadsheet, a separate memorandum from the Office of State Archaeology, explaining whether a general survey is required or if the survey is predicated upon an off-site detour or new location, is attached.

Having provided this information, we look forward to receipt of either a Categorical Exclusion or Environmental Assessment which indicates how NCDOT addressed our comments.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-4763/733-8653
RESTORATION	515 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6547/715-4801
SURVEY & PLANNING	515 N. Blount Street, Raleigh, NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6545/715-4801

Thank you for your cooperation and considerations. If you have any questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

PBS:w

Attachments

1 Spreadsheet

16 Memos

cc: Matt Wilkerson, NCDOT
Mary Pope Furr

	TIP	BRIDGE	COUNTY	DIVISION	BUILT	PDE	Architecture	Archaeology
ER04	1314	B-3492	580056 McDOWELL	13	1962	Hancock	Yes	No
ER04	1285	B-4408	030265 ANSON	10	1961	Hancock	No	No
ER04	1286	B-4409	030308 ANSON	10	1922	Hancock	No	No
ER04	1287	B-4410	030307 ANSON	10	1931	Hancock	Yes	No
ER04	1301	B-4446	100227 BUNCOMBE	13	1956	Hancock	No	No
ER04	1290	B-4466	210004 CLAY	14	1952	Hancock	No	No
ER04	1291	B-4469	220219 CLEVELAND	12	1952	Hancock	No	No
ER04	1281	B-4518	350110 GASTON	12	1962	Hancock	No	No
ER04	1307	B-4545	440072 HENDERSON	14	1963	Hancock	No	No
ER04	1300	B-4573	540183 LINCOLN	12	1965	Hancock	No	No
ER04	1306	B-4631	800526 RUTHERFORD	13	1970	Hancock	No	No
ER04	1329	B-4423	060067 BEAUFORT	2	1965	Capps	No	No
ER04	1330	B-4424	060068 BEAUFORT	2	1966	Capps	No	No
ER04	1302	B-4454	150043 CARTERET	2	1963	Capps	No	No
ER04	1293	B-4520	360032 GATES	1	1952	Capps	Yes	No
ER04	1280	B-4538	410025 HALIFAX	4	1965	Capps	No	No
ER04	1281	B-4540	410142 HALIFAX	4	1962	Capps	Yes	Yes
ER04	1308	B-4548	450002 HERTFORD	1	1960	Capps	No	Yes
ER04	1309	B-4549	450042 HERTFORD	1	1960	Capps	Yes	Yes
ER04	1294	B-4567	530069 LENOIR	2	1971	Capps	Yes	Yes
ER04	1298	B-4578	570008 MARTIN	1	1974	Capps	No	No
ER04	1325	B-4648	880017 TYRRELL	1	1977	Capps	No	No
ER04	1317	B-4664	920025 WARREN	5	1957	Capps	Yes	Yes
ER04	1318	B-4665	920036 WARREN	5	1955	Capps	No	Yes
ER04	1305	B-4504	320052 EDGEcombe	4	1964	Johnson	No	Yes
ER04	1312	B-4560	500102 JOHNSTON	4	1956	Johnson	Yes	Yes
ER04	1297	B-4587	630082 NASH	4	1961	Johnson	No	Yes
ER04	1325	B-4618	770445 ROBESON	6	1955	Johnson	Yes	No
ER04	1284	B-4644	830057 STANLY	10	1961	Johnson	No	No
ER04	1324	B-4649	890377 UNION	10	1962	Johnson	No	No
ER04	1323	B-4651	890251 UNION	10	1957	Johnson	No	No
ER04	1315	B-4658	910345 WAKE	5	1960	Johnson	No	No
ER04	1313	B-4671	950035 WAYNE	4	1961	Johnson	No	Yes
ER04	1327	B-3624	130190 CALDWELL	11	1981	Pipkin	No	No
ER04	1328	B-3819	130184 CALDWELL	11	1962	Pipkin	No	No
ER04	1321	B-3911	850038 SURRY	11	1923	Pipkin	Yes	No
ER04	1283	B-4404	000102 ALAMANCE	7	1968	Pipkin	Yes	No
ER04	1310	B-4552	480100 IREDELL	12	1963	Pipkin	Yes	No
ER04	1295	B-4613	750415 RANDOLPH	8	1959	Pipkin	No	Yes
ER04	1294	B-4646	850132 SURRY	11	1962	Pipkin	Yes	No
ER04	1311	B-4675	960034 WILKES	11	1960	Pipkin	No	No
ER04	1293	B-3169	310158 DURHAM	5	1960	Williams	Yes	No
ER04	1303	B-3606	040070 ASHE	11	1963	Williams	Yes	No
ER04	1282	B-3802	040229 ASHE	11	1960	Williams	No	No
ER04	1304	B-3803	040334 ASHE	11	1966	Williams	Yes	No
ER04	1283	B-3804	040296 ASHE	11	1964	Williams	Yes	No
ER04	1319	B-4523	380164 GRANVILLE	5	1955	Williams	No	Yes
ER04	1320	B-4524	380193 GRANVILLE	5	1956	Williams	No	Yes
ER04	1321	B-4525	380133 GRANVILLE	5	1960	Williams	No	Yes
ER04	1322	B-4526	380200 GRANVILLE	5	1957	Williams	No	Yes



North Carolina Department of Cultural Resources
State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

May 16, 2005

MEMORANDUM

TO: Gregory Thorpe, Ph.D., Director
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: Peter B. Sandbeck *for Peter Sandbeck*

SUBJECT: Historic Architectural Resources Survey Report, Replace Bridge No.70 on SR 1366 over Big Horse Creek, B-3606, Ashe County, ER 04-1303

Thank you for your letter of April 13, 2005, transmitting the survey report by Jennifer Cathey.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following property is eligible for listing in the National Register of Historic Places under the criterion cited:

- ◆ Grubbs-Combs Farm, near the intersection of SR 1362 and SR 1366, Tuckerdale vicinity, is eligible for the National Register under Criteria A and C, as representative of the small-scale agricultural operations that appeared near Ashe County's railroad station towns. The farm exemplifies a local economy in transition, as many Ashe families worked concurrently on farms and for the railroad and its related industries. Further, the farmhouse's rusticated metal siding is a significant architectural feature that evokes a strong association with railroad-related structures in Ashe County's station towns.

The farm complex includes the house, barn, garage, 'Can House,' pavilion, well house, root cellar, and unpaved lane. We concur with the proposed National Register boundaries as defined and delineated in the survey report.

We appreciate this most interesting and well-written survey report.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-4763/733-8653
RESTORATION	515 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6547/715-4801
SURVEY & PLANNING	515 N. Blount Street, Raleigh, NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6545/715-4801

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT
Jennifer Cathey, NCDOT

CONCURRENCE FORM FOR ASSESSMENT OF EFFECTS

Project Description: Replace Bridge No. 70 on SR 1366 over Big Horse Creek Creek, Ashe County

On January 10, 2005 representatives of the

- North Carolina Department of Transportation (NCDOT)
- Federal Highway Administration (FHWA)
- North Carolina State Historic Preservation Office (HPO)
- Other

Reviewed the subject project and agreed

- There are no effects on the National Register-listed property/properties located within the project's area of potential effect and listed on the reverse.
- There are no effects on the National Register-eligible property/properties located within the project's area of potential effect and listed on the reverse.
- There is an effect on the National Register-listed property/properties located within the project's area of potential effect. The property/properties and the effect(s) are listed on the reverse.
- There is an effect on the National Register-eligible property/properties located within the project's area of potential effect. The property/properties and effect(s) are listed on the reverse.

Signed:

Jennifer Cather 1/10/06
 Representative, NCDOT Date

[Signature] 1.30.06
 FHWA, for the Division Administrator, or other Federal Agency Date

[Signature] 1/10/06
 Representative, HPO Date

Renee Medhill-Early 1-10-06
 State Historic Preservation Officer Date

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

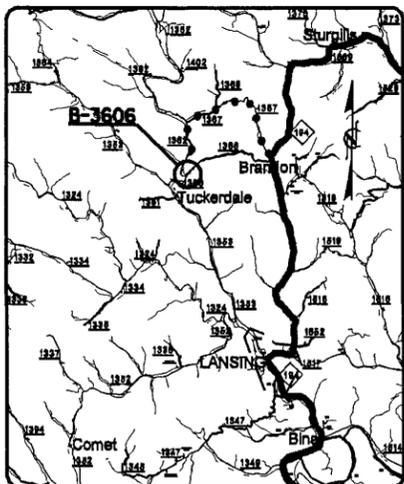
ASHE COUNTY

LOCATION: BRIDGE 70 OVER BIG HORSE CREEK
ON SR 1366 (ANDERSON HILL ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, & STRUCTURE

WETLAND/SURFACE WATER PERMIT DWGS.

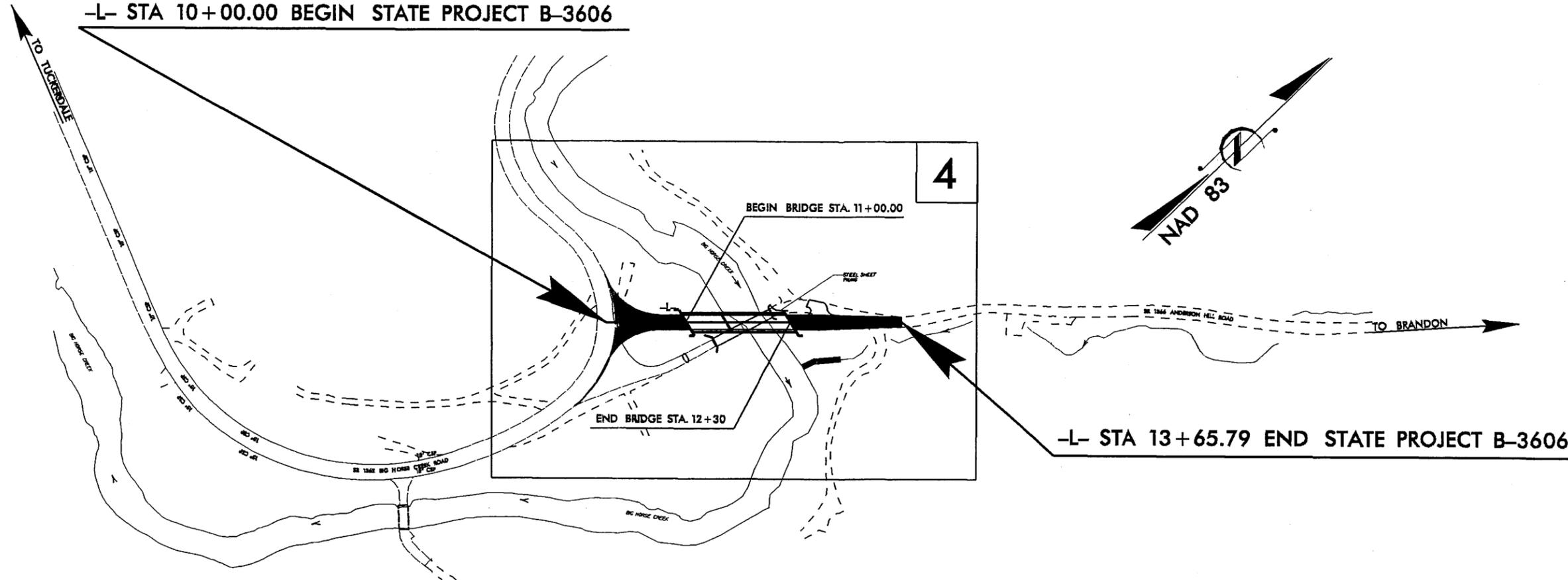
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3606	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33159.1.1	BRZ-1366(1)	PE	
33159.2.1	BRZ-1366(1)	R/W, UTIL.	



VICINITY MAP

--- DETOUR ROUTE

-L- STA 10+00.00 BEGIN STATE PROJECT B-3606



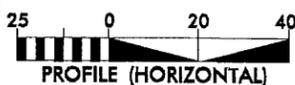
-L- STA 13+65.79 END STATE PROJECT B-3606

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES
CLEARING LIMITS ON THIS PROJECT SHALL BE ESTABLISHED BY METHOD III.

Permit Drawing
Sheet 1 of 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES



DESIGN DATA

ADT 2005 = 208
ADT 2030 = 400
DHV = 12 %
D = 60 %
T = 3 % *
V = 30 MPH
FUNC CLASS = RURAL LOCAL
* TTST 1 DUAL 2

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-3606 = 0.044 mi
LENGTH OF STRUCTURE TIP PROJECT B-3606 = 0.025 mi
TOTAL LENGTH OF TIP PROJECT B-3606 = 0.069 mi

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
SEPTEMBER 15, 2006

LETTING DATE:
FEBRUARY 19, 2008

JIMMY GOODNIGHT
PROJECT ENGINEER

MARK HUSSEY
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN
ENGINEER

SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



STATE HIGHWAY DESIGN ENGINEER P.E.

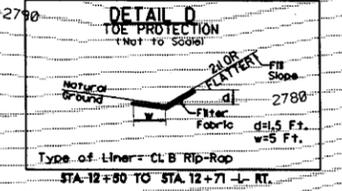
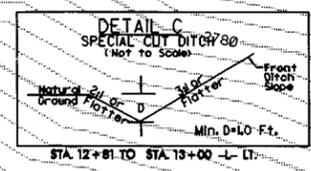
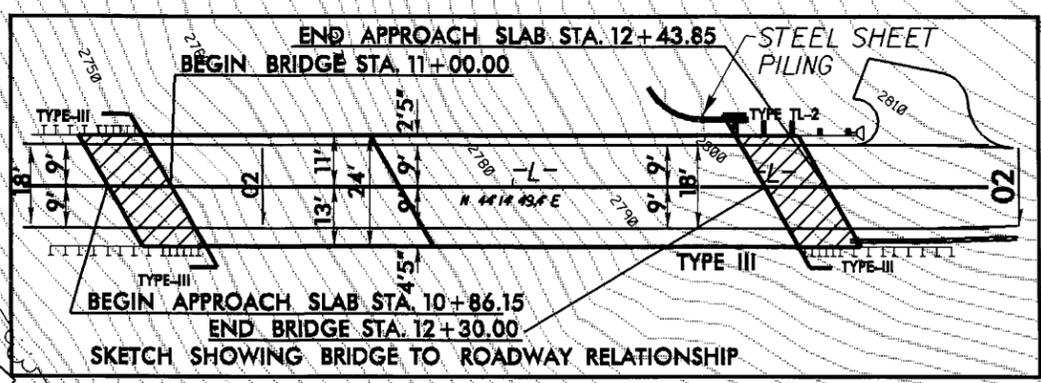
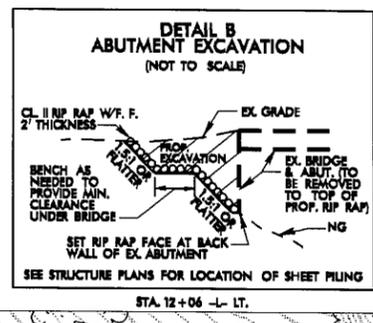
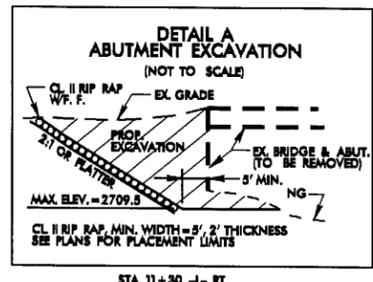
RECEIVED
100 10 2007
DIVISION OF HIGHWAYS
PDEA-OFFICE ENVIRONMENT

TIP PROJECT: B-3606

CONTRACT:

29-MAR-2007 08:25
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potkinson A1 HY221543

PROJECT REFERENCE NO. B-3606	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



REVISIONS
R/W REVISION - MARCH 30, 2007 - REVISED DESIGN FOR BETTER ACCESS TO PARCEL 5

BEGIN PROJECT B-3606
-L- STA 10+00.00

SITE 1 ABUTMENT RIP RAP
END PROJECT B-3606
-L- STA 13+65.79

SUGGS, GAIL COMBS, JOSHUA AARON, AND MARK FRANKLIN
DB 317 PG 1614

CAUDILL, WILLIAM JACK
DB I35 PG I137
DB H4 PG 300
DB P4 PG 496
DB Y5 PG 20

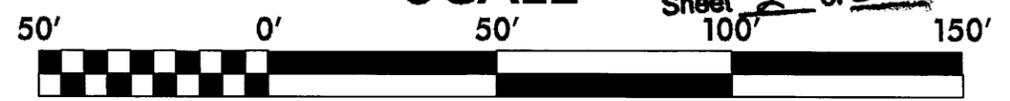
CAUDILL, WILLIAM JACK
DB I35 PG I137
DB H4 PG 300
DB P4 PG 496
DB Y5 PG 20

TAYLOR, DANFORD & WILLARD
DB 280 PG 2003

TESTERMAN (HEIRS) (BLANCHE), REECE
DB X-3 PG 179

WETLAND/SURFACE WATER PERMIT DWG.

- DENOTES FILL IN SURFACE WATER
- DENOTES TEMPORARY FILL IN SURFACE WATER



19-APR-2007 13:14 C:\hyd\aut\loc\3606\hgd\p\m.dgn

PROPERTY OWNERS

NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
3	ANGELA B. & EDDIE D. STANSBERRY	3340 East Little Horse Creek Rd. Lansing, NC 28643

NCDOT

DIVISION OF HIGHWAYS

ASHE COUNTY

PROJECT: 33159.1.1 (B-3606)

**REPLACEMENT OF BR. NO. 70 OVER
BIG HORSE CREEK ON SR 1366**

Permit Drawing
Sheet 5 of 5

SHEET

OF

3 / 29 / 07

09/08/99

See Sheet 1-A For Index of Sheets

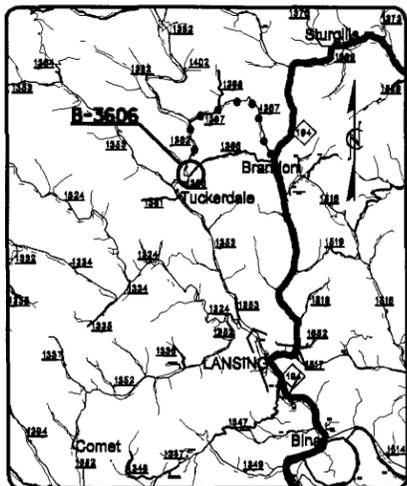
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ASHE COUNTY

LOCATION: BRIDGE 70 OVER BIG HORSE CREEK
ON SR 1366 (ANDERSON HILL ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, & STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3606	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33159.1.1	BRZ-1366(1)	PE	
33159.2.1	BRZ-1366(1)	RAW, UTIL.	

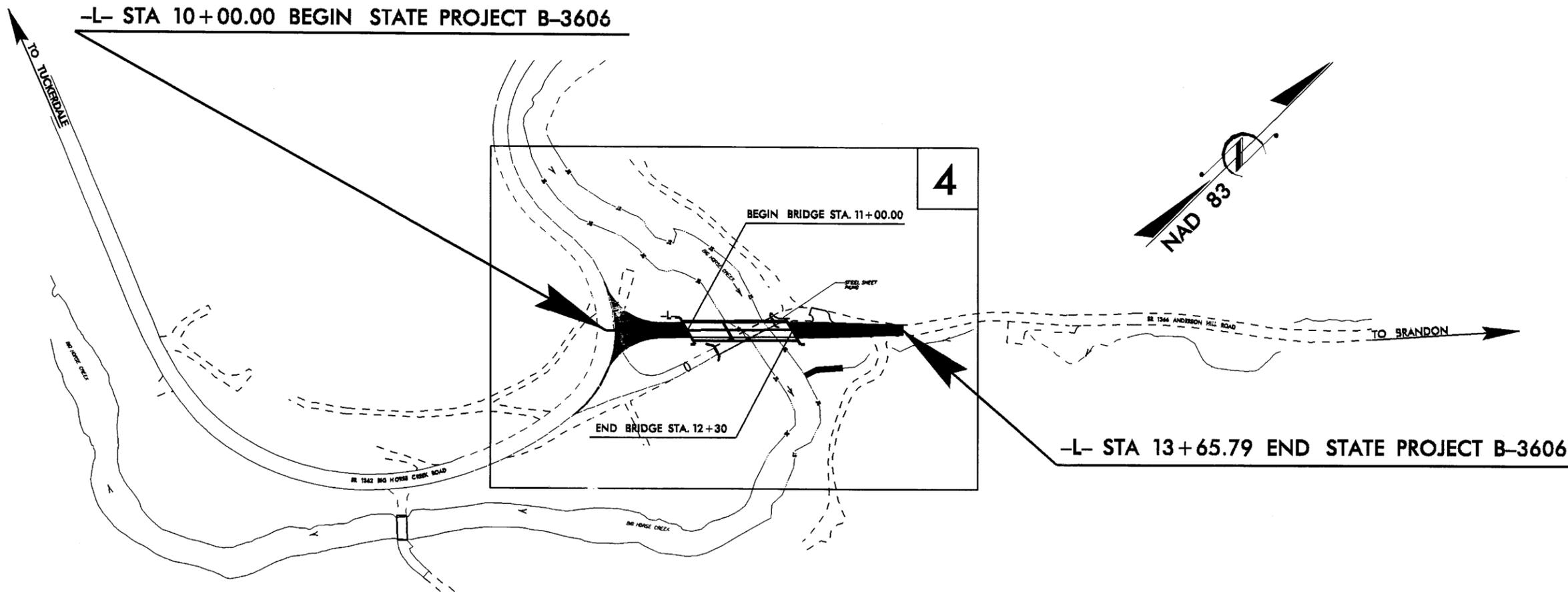


VICINITY MAP

--- DETOUR ROUTE

TIP PROJECT: B-3606

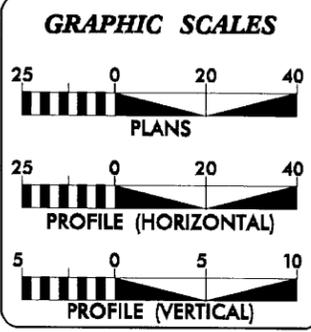
-L- STA 10+00.00 BEGIN STATE PROJECT B-3606



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES
CLEARING LIMITS ON THIS PROJECT SHALL BE ESTABLISHED BY METHOD III.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:



DESIGN DATA

ADT 2005 =	208
ADT 2030 =	400
DHV =	12 %
D =	60 %
T =	3 % *
V =	30 MPH
FUNC CLASS =	RURAL LOCAL
* TTST 1	DUAL 2

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-3606	=	0.044 mi
LENGTH OF STRUCTURE TIP PROJECT B-3606	=	0.025 mi
TOTAL LENGTH OF TIP PROJECT B-3606	=	0.069 mi

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
SEPTEMBER 15, 2006

LETTING DATE:
FEBRUARY 19, 2008

JIMMY GOODNIGHT
PROJECT ENGINEER

MARK HUSSEY
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

05-APR-2007 08:03
F:\V\ogdcy\p\01\B3606_rdy_tsh.dgn
\$\$\$USERNAME\$\$\$

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○
Property Corner	⊗
Property Monument	□
Parcel/Sequence Number	(123)
Existing Fence Line	-----
Proposed Woven Wire Fence	-----
Proposed Chain Link Fence	-----
Proposed Barbed Wire Fence	-----
Existing Wetland Boundary	-----
Proposed Wetland Boundary	-----
Existing High Quality Wetland Boundary	-----
Existing Endangered Animal Boundary	-----
Existing Endangered Plant Boundary	-----

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	-----
River Basin Buffer	-----
Flow Arrow	-----
Disappearing Stream	-----
Spring	-----
Swamp Marsh	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	-----
Switch	-----
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	-----
Proposed Control of Access	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Utility Easement	-----

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Wheel Chair Ramp	-----
Curb Cut for Future Wheel Chair 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:

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	-----
Recorded U/G Power Line	-----
Designated U/G Power Line (S.U.E.*)	-----

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Booth	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	⊕
Recorded U/G Telephone Cable	-----
Designated U/G Telephone Cable (S.U.E.*)	-----
Recorded U/G Telephone Conduit	-----
Designated U/G Telephone Conduit (S.U.E.*)	-----
Recorded U/G Fiber Optics Cable	-----
Designated U/G Fiber Optics Cable (S.U.E.*)	-----

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	-----

TV:

TV Satellite Dish	⊕
TV Pedestal	⊕
TV Tower	⊕
U/G TV Cable Hand Hole	⊕
Recorded U/G TV Cable	-----
Designated U/G TV Cable (S.U.E.*)	-----
Recorded U/G Fiber Optic Cable	-----
Designated U/G Fiber Optic Cable (S.U.E.*)	-----

GAS:

Gas Valve	⊕
Gas Meter	⊕
Recorded U/G Gas Line	-----
Designated U/G Gas Line (S.U.E.*)	-----
Above Ground Gas Line	-----

SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

MISCELLANEOUS:

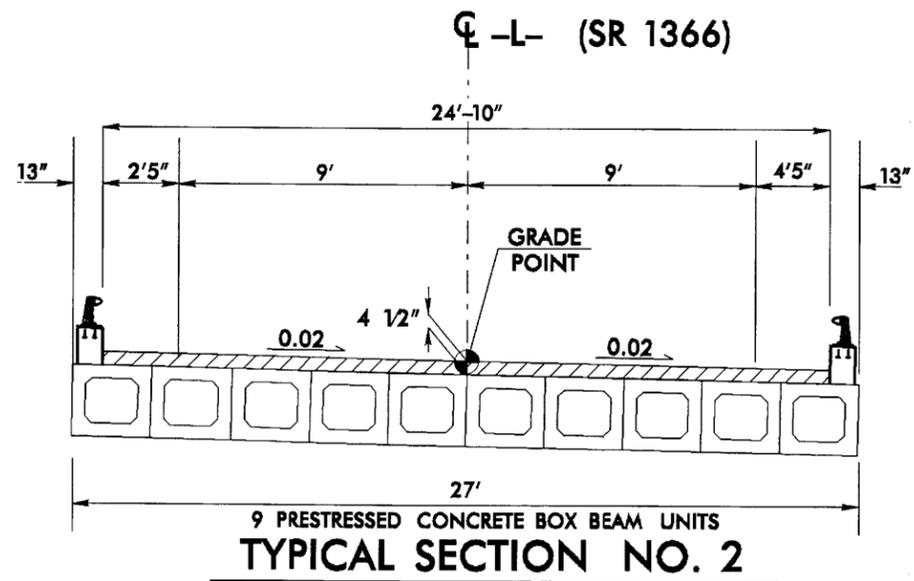
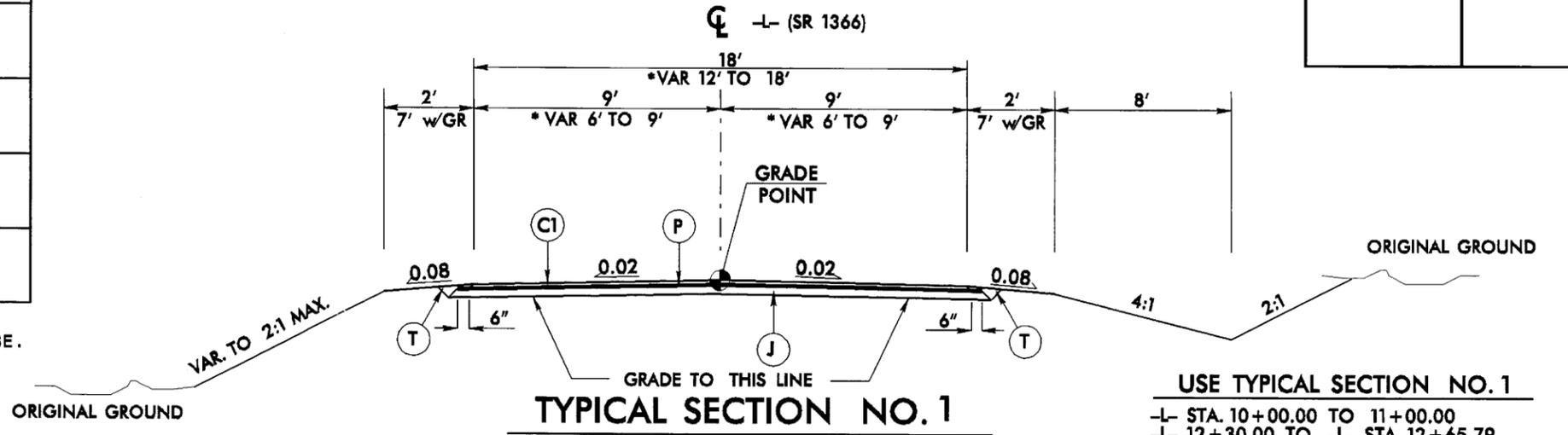
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	-----
U/G Tank; Water, Gas, Oil	□
A/G Tank; Water, Gas, Oil	□
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

8/17/99

PROJECT REFERENCE NO. B-3606	SHEET NO. 2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE SF0.5A, AT AN AVERAGE RATE OF 165.0 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF0.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.
J	PROP. 6" AGGREGATE BASE COURSE.
P	PRIME COAT
T	EARTH MATERIAL.

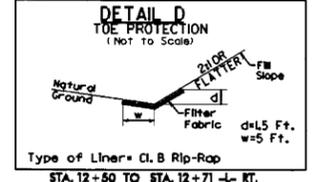
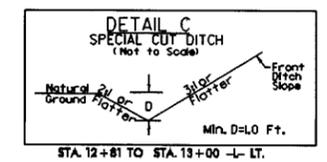
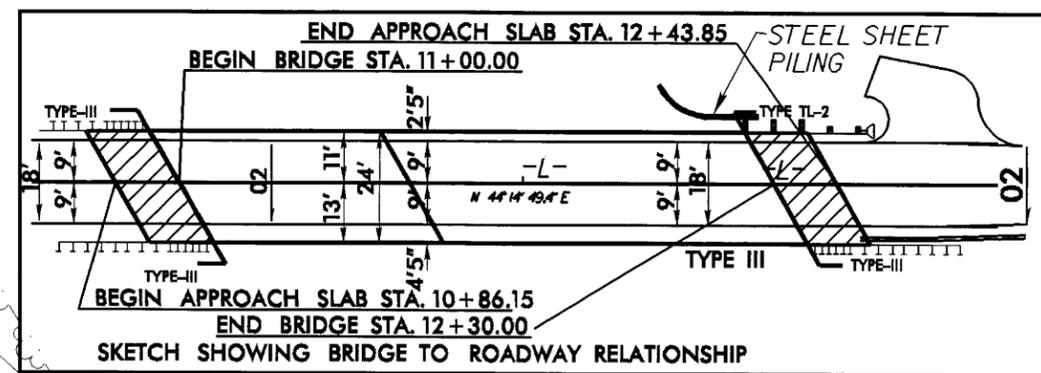
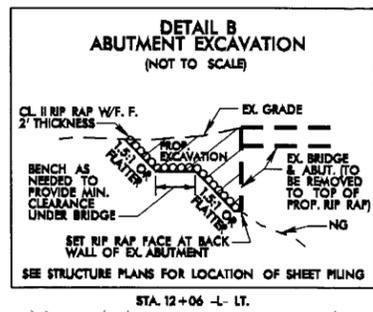
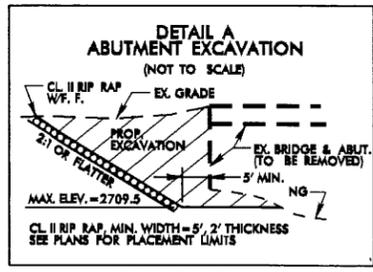
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



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PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

PROJECT REFERENCE NO. B-3606	SHEET NO. 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



END PROJECT B-3606
-L- STA 13+65.79

SUGGS, GAIL COMBS, JOSHUA AARON, AND MARK FRANKLIN
DB 317 PG 1614

5

BEGIN PROJECT B-3606
-L- STA 10+00.00

GPS B3606-1 5+00.00 POT
7+94.17 PINC
-L- STA 10+15.96 11.0304 LT

CAUDILL, WILLIAM JACK
DB I35 PG 1137
DB H4 PG 300
DB P4 PG 496
DB Y5 PG 20

TAYLOR, DANFORD & WILARD
DB 280 PG 2003

TESTERMAN (HEIRS) (BLANCHE), REECE
DB Y-3 PG 179

CAUDILL, WILLIAM JACK
DB I35 PG 1137
DB H4 PG 300
DB P4 PG 496
DB Y5 PG 20

PAVEMENT REMOVAL
SEE SHEET 5 FOR -L- PROFILE

R/W REVISION - MARCH 30, 2007 - REVISED DESIGN FOR BETTER ACCESS TO PARCEL 5

05-APR-2007 08:04
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B/17/99

5/14/99

BEGIN GRADE STA 10+10.00
EL 2719.84

END GRADE STA 13+65.79
EL 2718.75

STRUCTURE HYDRAULIC DATA	
DRAINAGE STRUCTURE NO.	
DRAINAGE AREA	= 0.4 AC
DESIGN FREQUENCY	= 25 YRS
DESIGN DISCHARGE	= 0.5 CFS
DESIGN HW ELEVATION	= <2716.5FT
100 YEAR DISCHARGE	= 0.6 CFS
100 YEAR HW ELEVATION	= <2716.5FT
OVERTOPPING FREQUENCY	= 500 YRS ⁺
OVERTOPPING DISCHARGE	= 0.8 CFS ⁺
OVERTOPPING ELEVATION	= 2717.9 FT

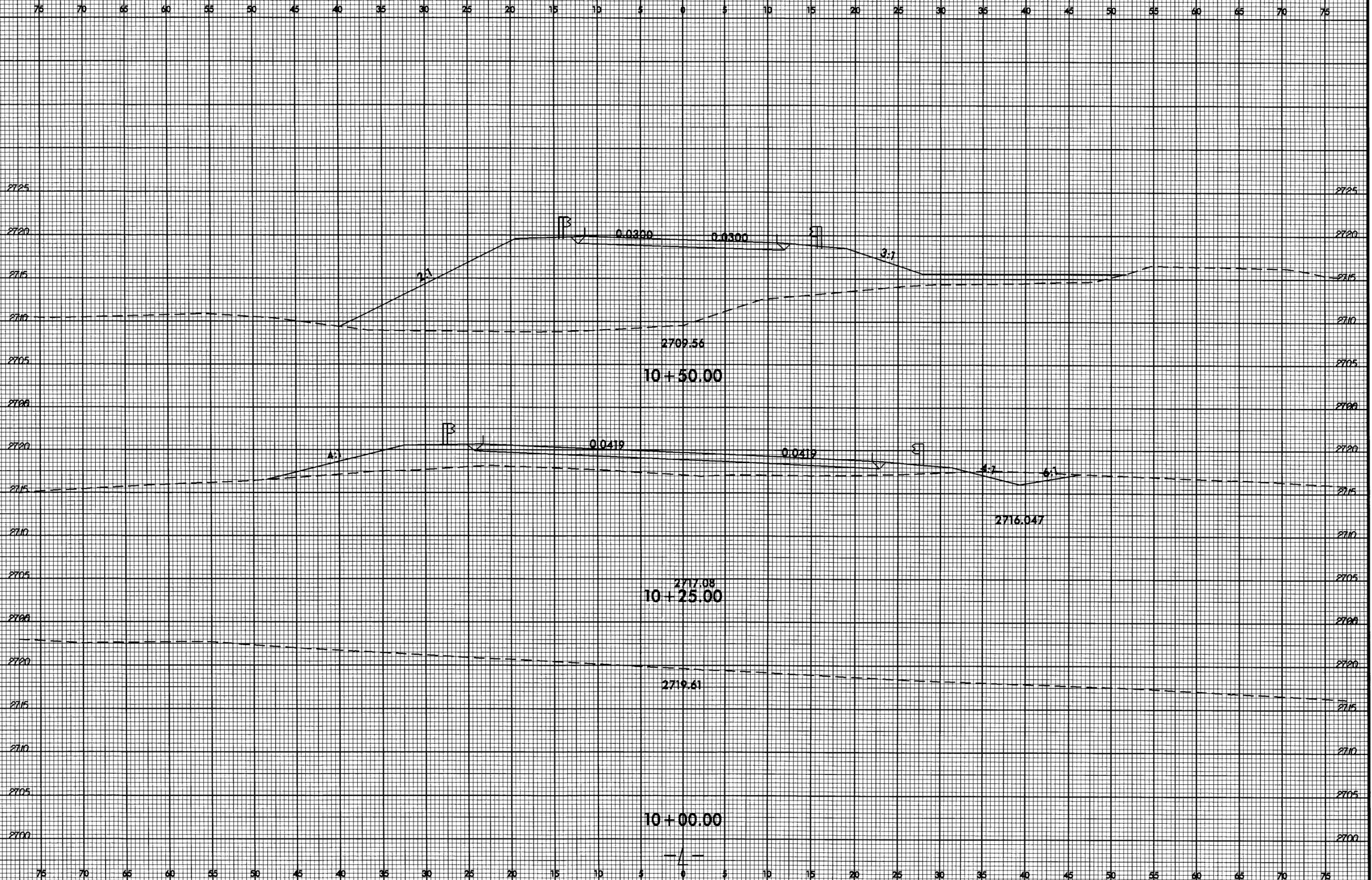


PI = 13+10.00
EA = 2717.70
VG = 100
K = 34
V = 29

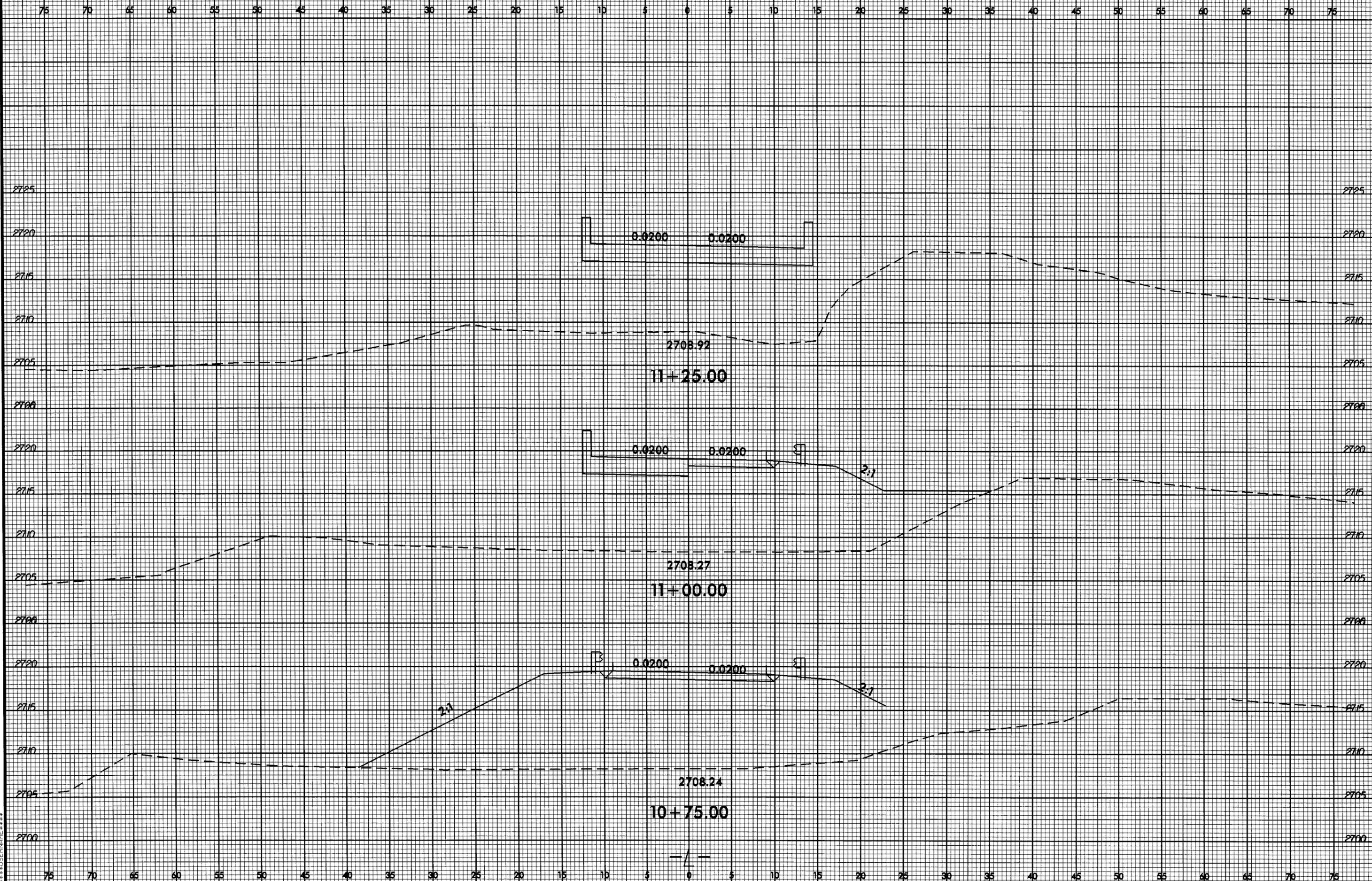
BM1 ELEVATION = 2714.98
N 1022075 E 1256763
-BL- STATION 7+58 97' RIGHT
8" SPIKE IN 36" RED OAK

SEE SHEET 4 FOR -L- ALIGNMENT

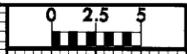
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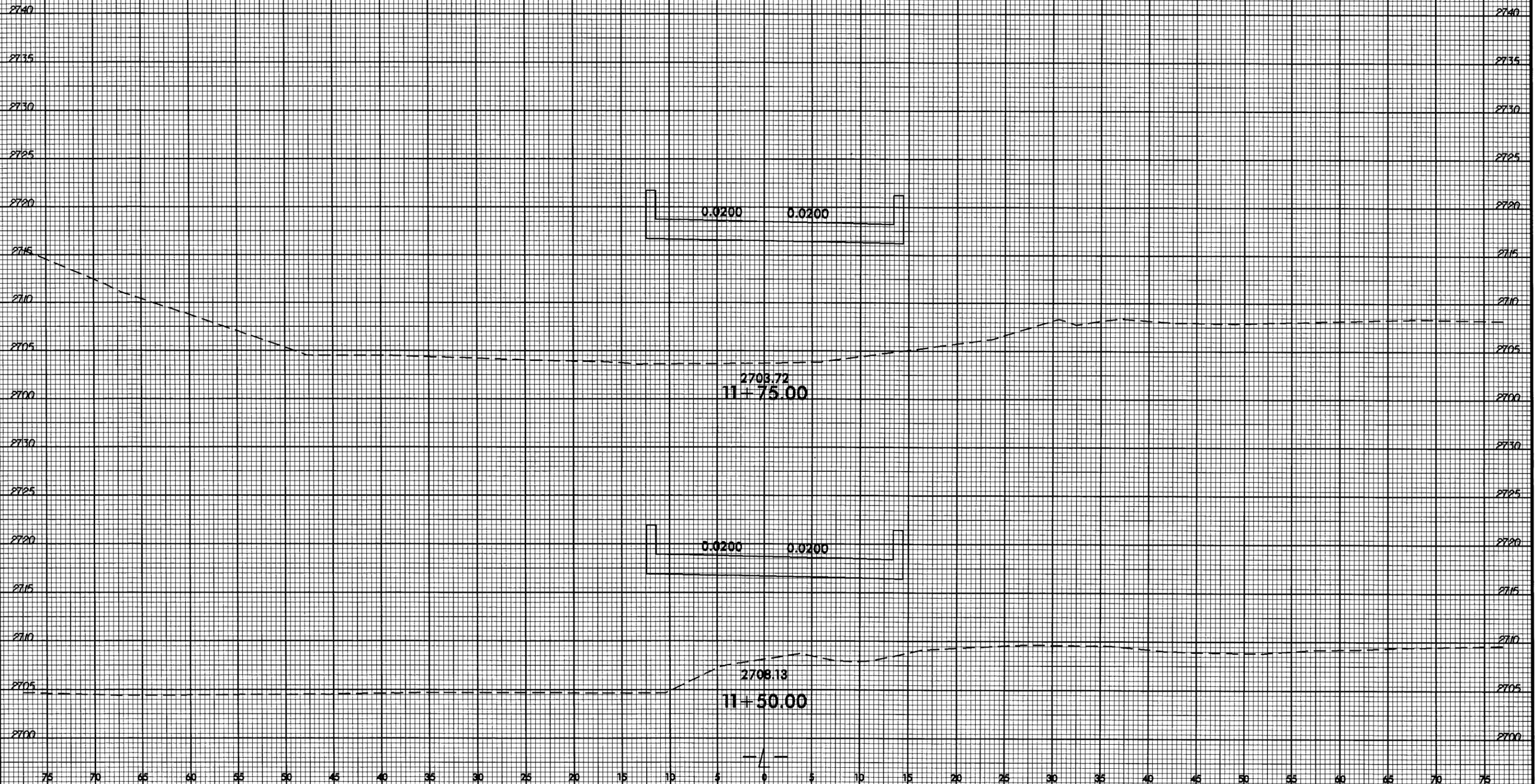
8/23/99



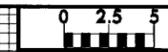
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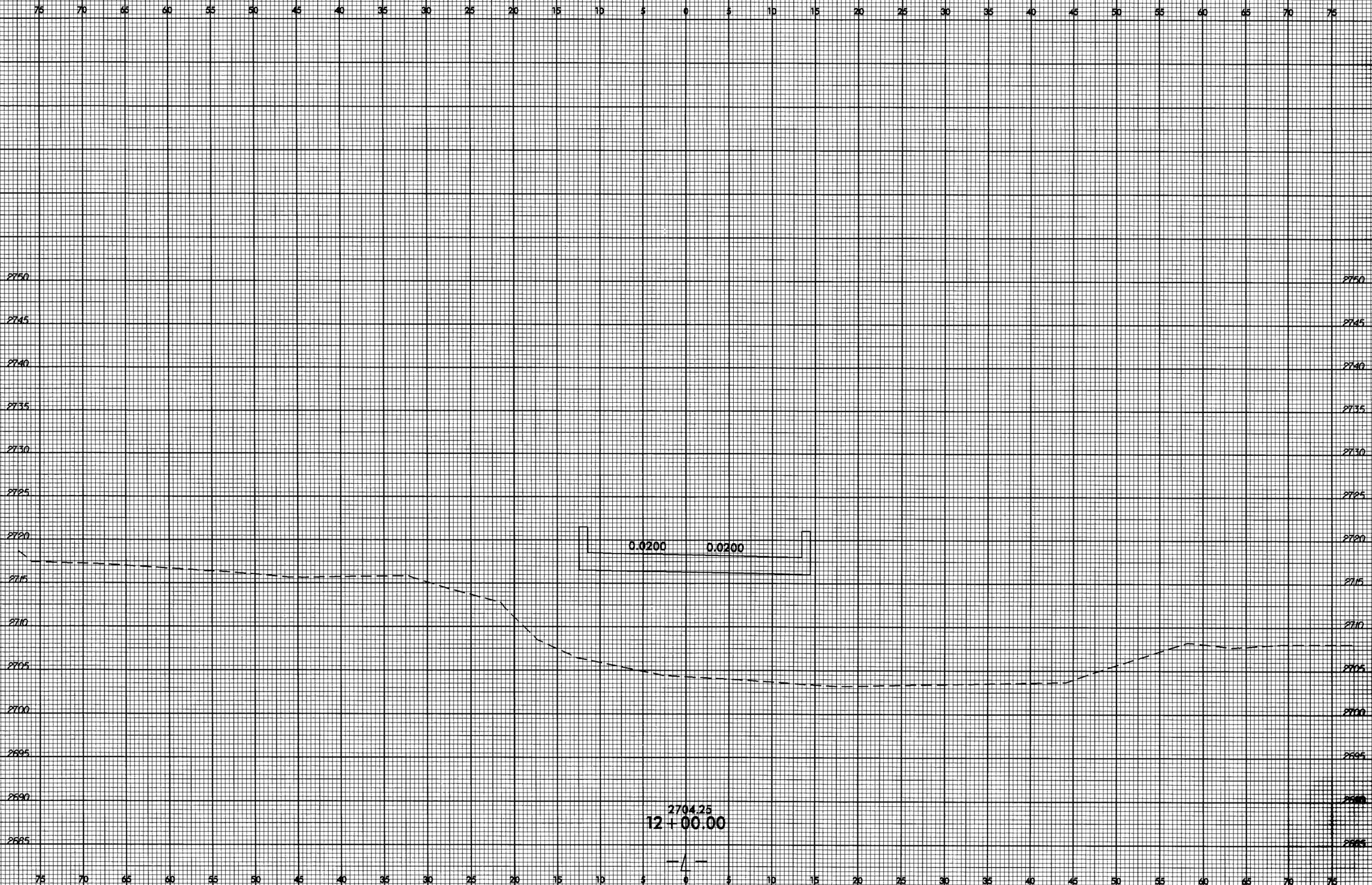


8/23/99



PROJ. REFERENCE NO.
B-3606

SHEET NO.
X-5

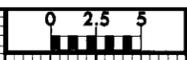


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2704.25
12+00.00

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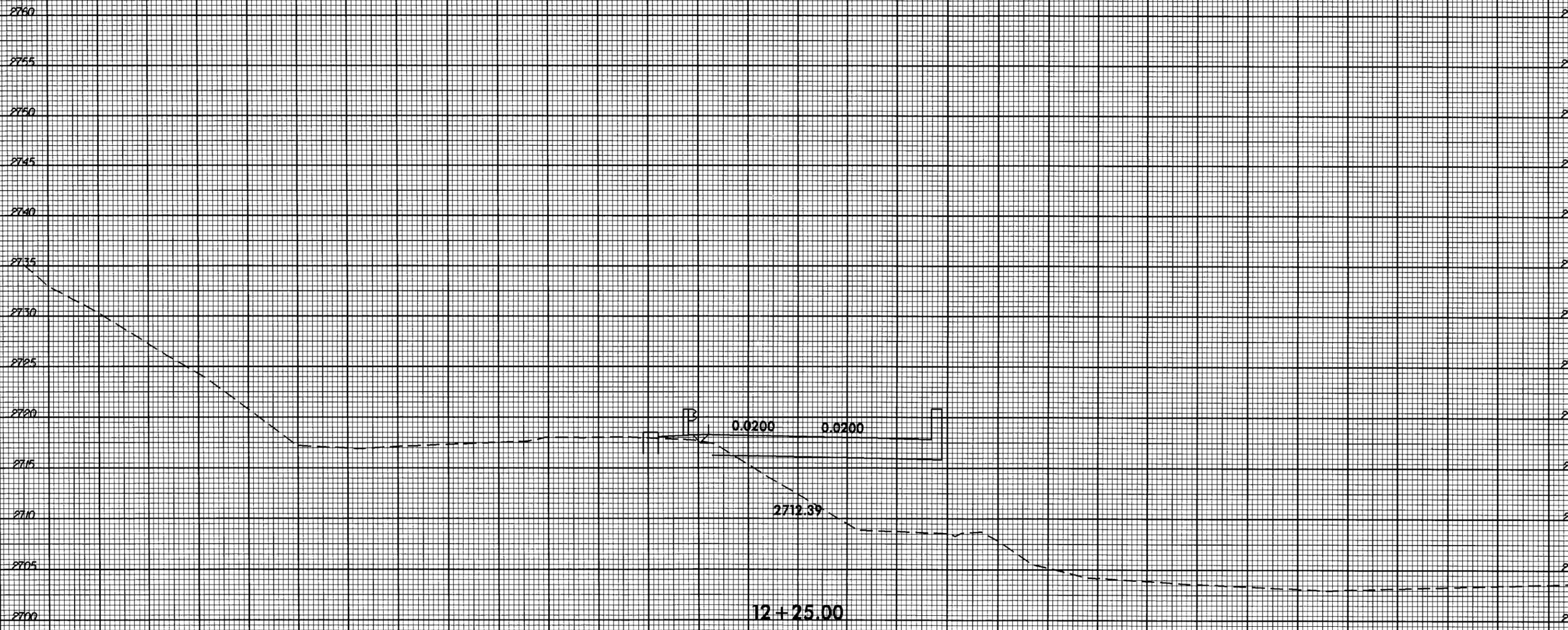
8/23/99



PROJ. REFERENCE NO.
B-3606

SHEET NO.
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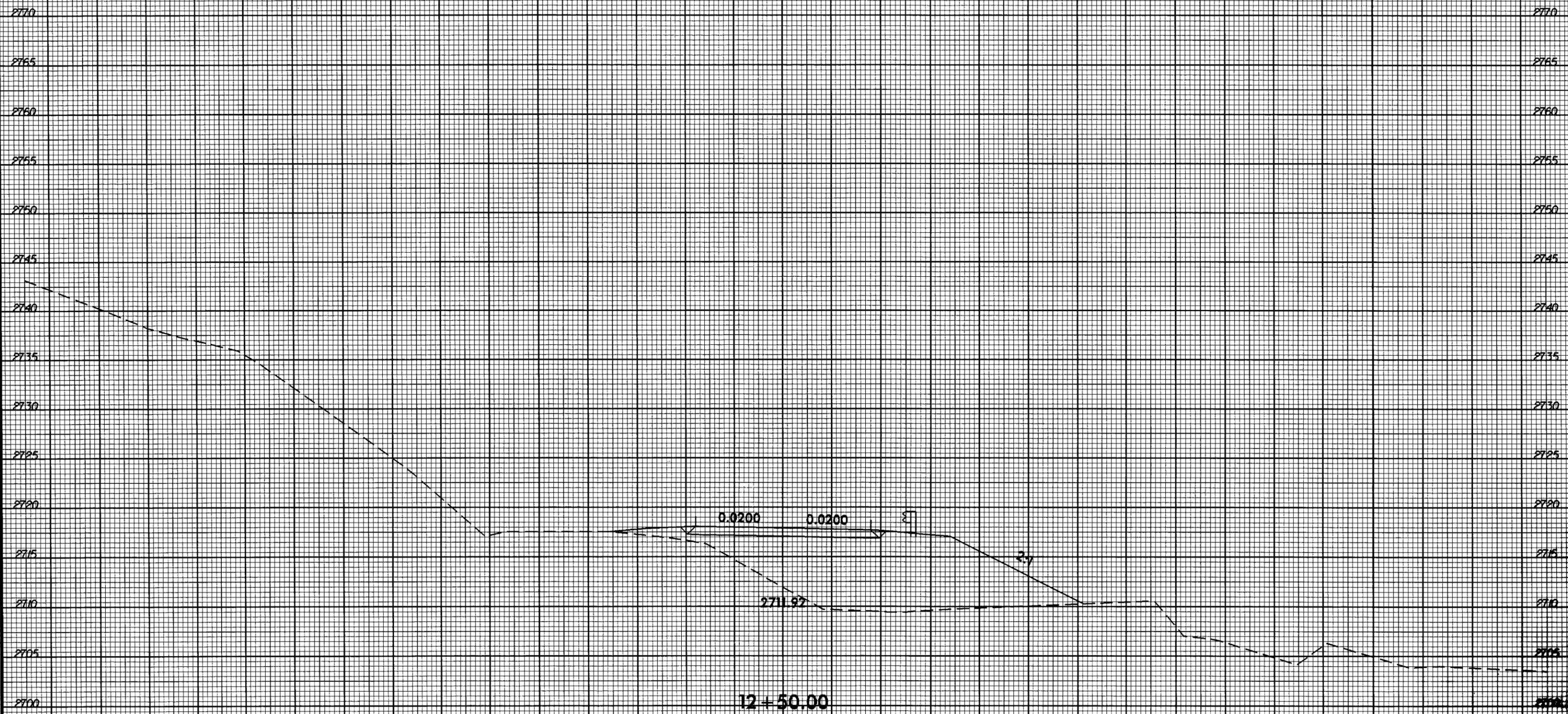
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05-APR-2007 08:12
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8/23/99

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75



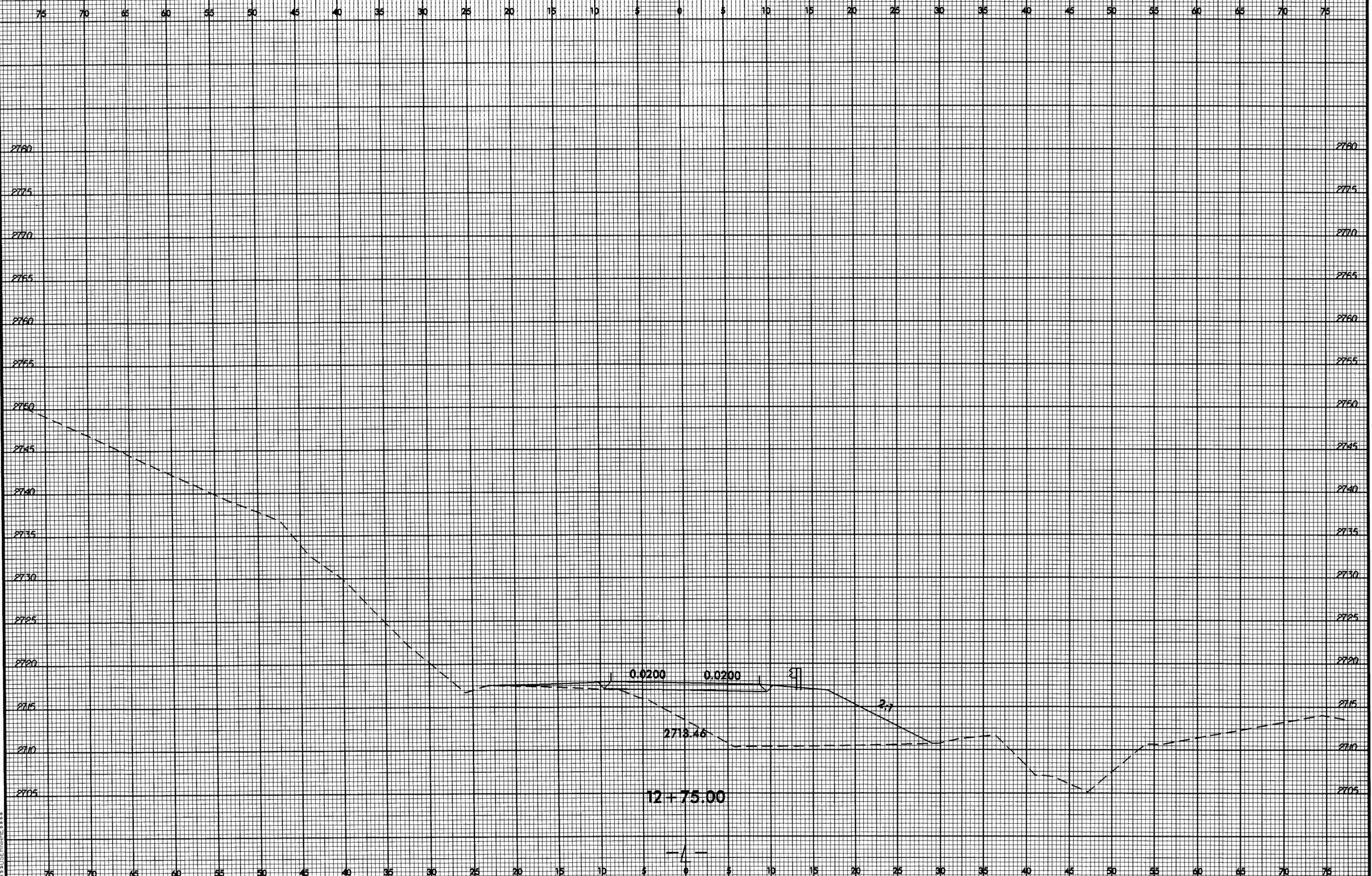
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12+50.00

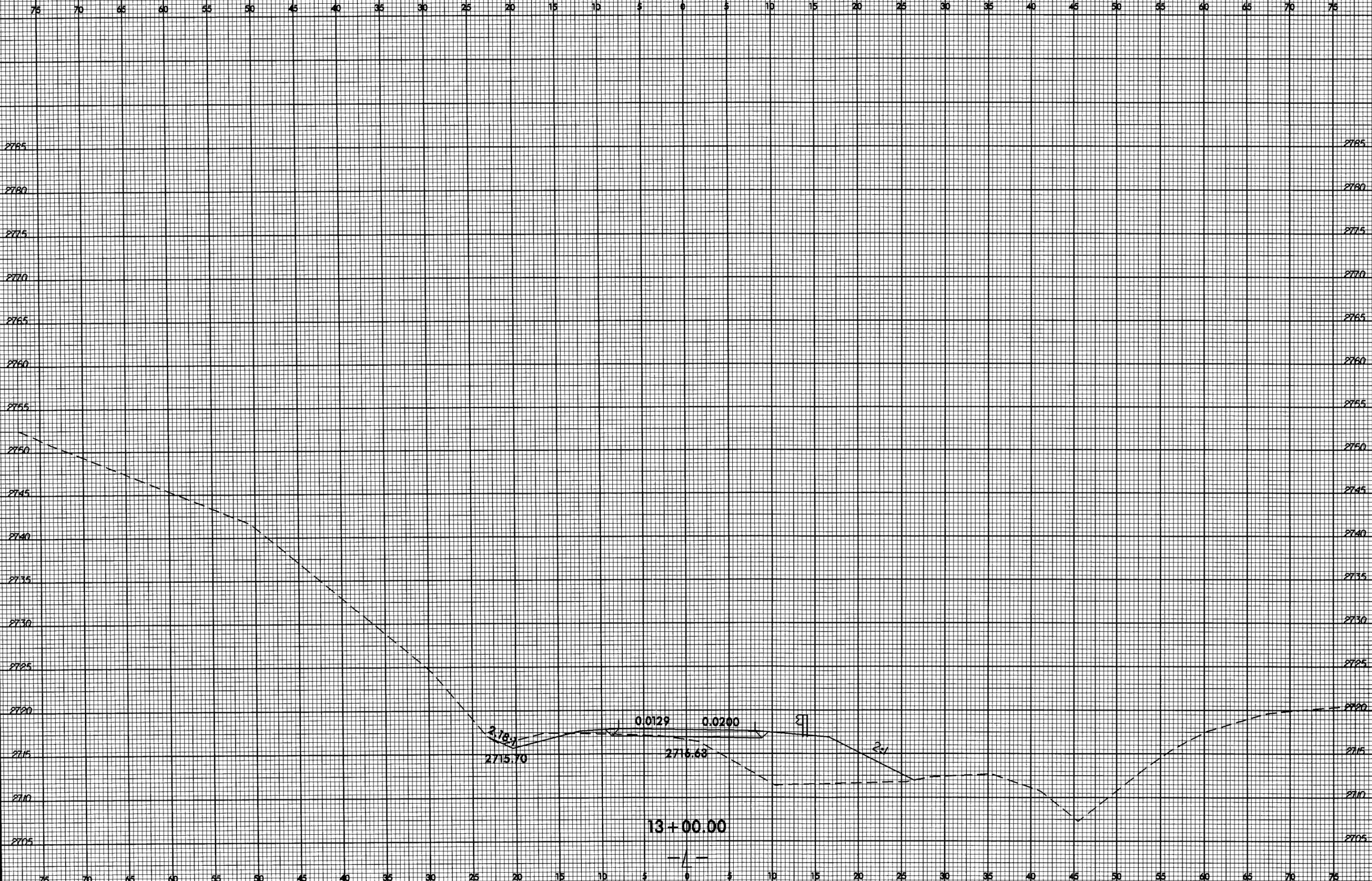
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8/23/99



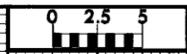
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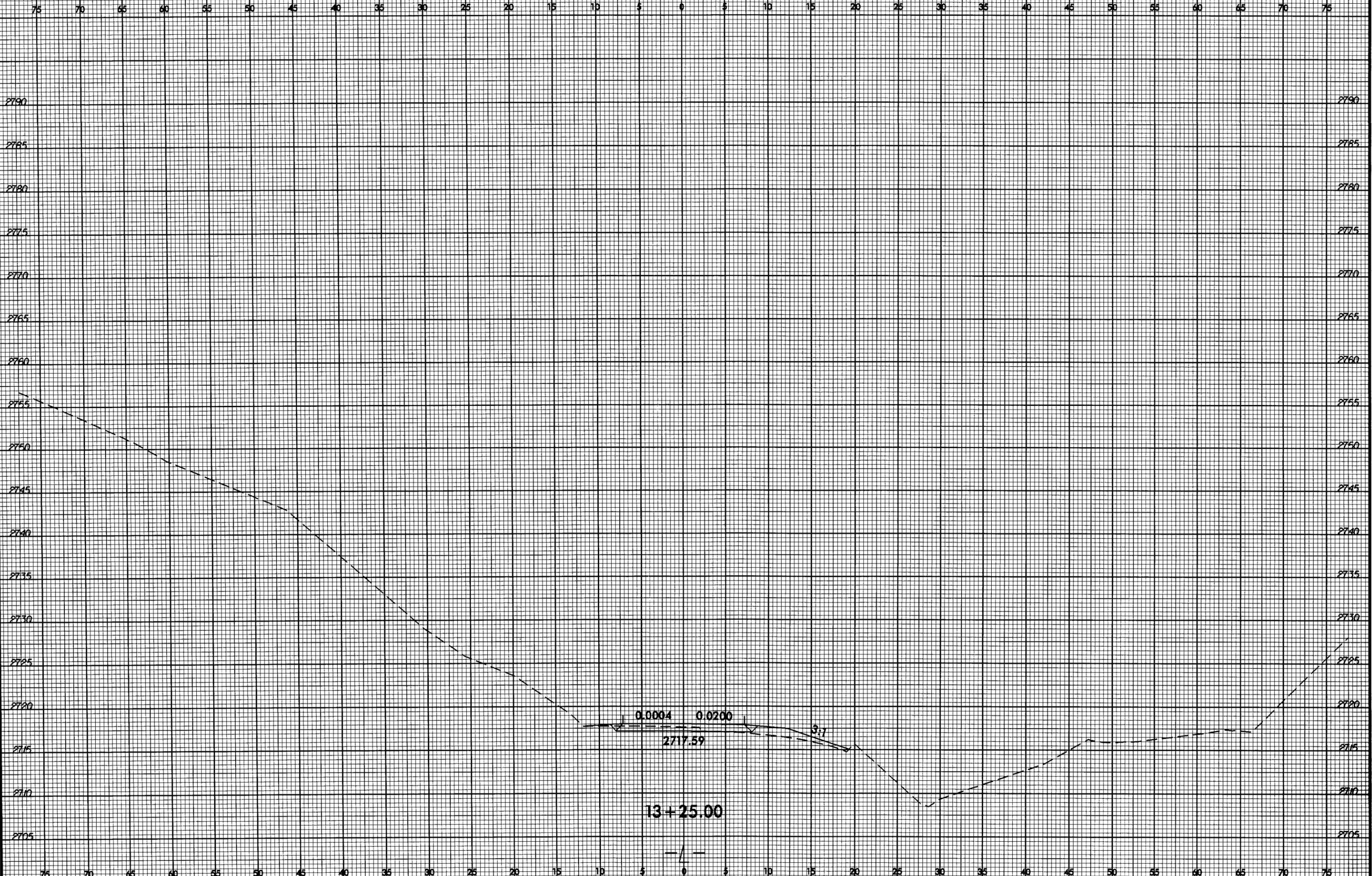
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PROJ. REFERENCE NO.
B-3606

SHEET NO.
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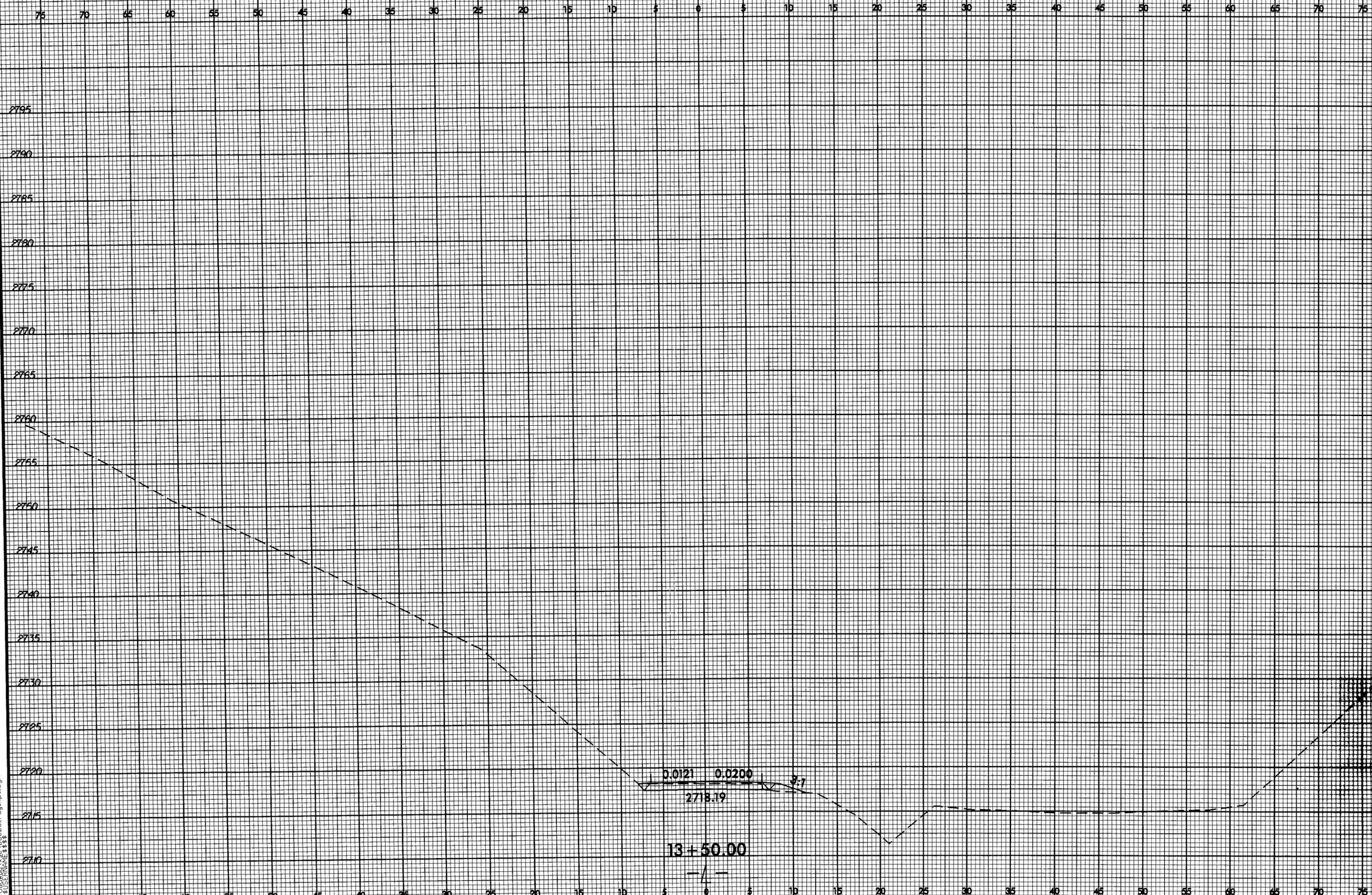
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8/23/99



PROJ. REFERENCE NO.
B-3606

SHEET NO.
X-11



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