STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

July 12, 2004

U. S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue
Room 208
Asheville, NC 28801-5006

ATTN: Mr. Steve Lund
NCDOT Coordinator

Dear Sir:

Subject: **Nationwide Permit 14 Application and Section 401 Water Quality Certification Application for the proposed widening of NC 274 from US 29/74 to NC 275 in Gaston County**, Federal Project No. STPNHF-274(1), State Project No. 8.1811201, TIP No. U-2408, $475.00 Debit Work Order 8.1811201, WBS Element 34799.3.1

The North Carolina Department of Transportation (NCDOT) proposes to widen NC 274 (Bessemer City Road) between US 29/74 (Franklin Boulevard) and NC 275 (Dallas-Bessemer City Road) to a multi-lane facility under Transportation Improvement Program (TIP) non-design build project U-2408. The proposed improvement will widen the existing NC 274 (Bessemer City Road) to a five lane, 64-feet, face-to-face, curb and gutter facility. All typical sections will include 13-feet outside lanes to accommodate bicycle travel. The project will require 100 feet of right-of-way and has a total proposed project length of approximately 2.8 miles.

U-2408 lies in the Piedmont Physiographic Province in Gaston County in the Catawba River Basin (Hydrologic Cataloging Unit 03050101, Subbasin 03-08-37). Work is scheduled to commence in November 2004. The application package consists of this cover letter, a Pre-Construction Notification (PCN) form, 8 ½ by 11-inch permit drawings, 11 by 17-inch half-size plan sheets, interagency meeting minutes, and a North Carolina Department of Environment and Natural Resources Ecosystem Enhancement Program (EEP) request letter.

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

TELEPHONE: 919-733-3141
FAX: 919-733-9794
WEBSITE: WWW.DOH.DOT.STATE.NC.US

LOCATION:
TRANSPORTATION BUILDING
1 SOUTH WILMINGTON STREET
RALEIGH NC

Summary of Impacts: Impacts to jurisdictional areas under the Clean Water Act (CWA) due to the proposed project footprint include the following.

- 397 linear feet of permanent stream impacts
- No permanent or temporary wetland impacts
- No pond impacts

Summary of Mitigation: NCDOT has avoided and minimized impacts to jurisdictional resources to the greatest extent practicable as described in this permit application and includes the following.

- 282 linear feet of perennial stream impact will be compensated for by EEP (see attached EEP request letter)
- 115 linear feet of intermittent stream impacts will not require compensatory mitigation due to the low quality of the resource

NEPA DOCUMENT STATUS

An Environmental Assessment (EA) was prepared by NCDOT in compliance with the National Environmental Policy Act (NEPA). The EA for this project was approved by the NCDOT Division of Highways and the Federal Highway Administration (FHWA) on November 26, 1997. The Finding of No Significant Impact (FONSI) was approved by NCDOT and FHWA on January 10, 2001. Subsequently the approved documents were circulated to federal, state, and local agencies. Additional copies will be provided upon request.

INDEPENDENT UTILITY

U-2408 is in compliance with 23 CFR Part 771.111(f) which lists the FHWA characteristics of independent utility of a project including the following.

1. The project connects logical termini and is of sufficient length to address environmental matters on a broad scope.
2. The project is usable and a reasonable expenditure, even if no additional transportation improvements are made in the area.
3. The project does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

RESOURCE STATUS

Delineations: Jurisdictional areas within the project corridor were first delineated by NCDOT biologists on January 11, 1995. Jurisdictional area delineations were updated by NCDOT biologists on July 9, 2003 and verified by Steven Lund of the United States Army Corp of Engineers (ACE) on November 13, 2003.

Proposed jurisdictional impacts consist of 282 linear feet of impact to a perennial stream and 115 linear feet of impact to an intermittent stream. Jurisdictional stream impacts are reported in Table 1.

Table 1: Jurisdictional Stream Information for U-2408

Site	Station No.	Structure	Stream	Type	DWQ Best Usage/ Index No.	Impacts (Linear feet)	Mitigation Required (Linear Feet)
1	51+30 to 51+90 –L-	1 ~ 1800 RCP	Blackwood Creek	Perennial	Class C/ 11-135-7	282	282
2	54+50 to 54+90 -L-	1 ~ 1650 RCP	UT to Blackwood Creek	Intermittent *	Class C/ 11-135-7	115	0
Totals						**397**	**282**

*Confirmed intermittent and not important by Steven Lund (ACE) November 13, 2003

Jurisdictional Wetland Impacts: There are no jurisdictional wetland impacts within the project corridor.

Jurisdictional Stream Impacts: Impacts to jurisdictional streams occur within Site 1 to Blackwood Creek and within Site 2 to an unnamed tributary (UT) to Blackwood Creek. Both stream systems occur within the Catawba River Basin (Hydrologic Catalog Unit 03050101, Subbasin 03-08-37). The impact to Blackwood Creek will result from the proposed replacement of the existing box culvert with reinforced concrete pipe to accommodate road widening (see Sheet 4 of the permit drawings). Blackwood Creek is approximately 4 feet wide. The impact to UT to Blackwood Creek will result from installation of a reinforced concrete pipe to accommodate road widening (see Sheet 5 of the permit drawings). UT to Blackwood Creek is approximately 2 feet wide. All standards and methods outlined in "Best Management Practices for Construction and Maintenance" will be strictly adhered to during all phases of installation of the reinforced concrete pipes at Sites 1 and 2.

Water Quality Information: Unnamed tributaries receive the same classification as the streams to which they flow. Blackwood Creek (DWQ Stream Index Number 11-135-7) has a best usage classification of **C,** denoting that appropriate uses include aquatic life propagation and survival, fishing, wildlife, secondary recreation, and agriculture (secondary recreation refers to human body contact with waters on an infrequent or incidental basis). Blackwood Creek has not been given a use support rating by the DWQ.

No water resources classified as High Quality Waters (HQW), Water Supplies (WS-I or WS-II), or Outstanding Resource Waters (ORW) are located within 1.0 mile of the project area.

Blackwood Creek and its tributaries are not listed in any section of the North Carolina 2002 Section 303(d) list.

UTILITY IMPACTS

All potential utility impacts have been evaluated and no utility impacts and/or relocations will result in additional impacts to jurisdictional areas.

ICE STUDY

An Indirect and Cumulative Effects (ICE) study is not proposed for this project due to the low probability of indirect and cumulative effects.

FEMA COMPLIANCE

Executive Order 11988, "Floodplain Management," and DOT Order 5650.2, "Floodplain Management and Protection," were established to avoid adverse impacts due to the occupancy and alteration of the 100-year floodplain unless that location is the only practical alternative. It is required that every effort be made to minimize the potential risks to human safety and property and to minimize negative effects on natural and beneficial floodplain value. This project was designed to comply with these orders and North Carolina Executive Order 123, "Uniform Floodplain Management Policy". Both Gaston County and the City of Gastonia are participants in the National Flood Insurance Regular Program. Blackwood Creek is in a designated flood hazard zone and the crossing is at the upstream limit of the detailed study for Blackwood Creek. The proposed widening and culvert extension will not have any significant adverse impact on the upstream floodplain and floodway nor on the associated flood hazard. Therefore, in accordance with these orders, the project will not create a significant floodplain encroachment.

WILD AND SCENIC RIVERS

The project will not impact any Designated Wild and Scenic Rivers or any rivers included in the list of study rivers (Public Law 90-542, as amended).

ESSENTIAL FISH HABITAT

The project will not impact any Essential Fish Habitat (EFH) afforded protection under the Magnuson-Stevens Act of 1996 (16 USC 1801 *et seq.*).

PROTECTED SPECIES

Plants and animals with a federal classification of Endangered (E) or Threatened (T) are protected under provisions of Section 7 and Section 9 of the Endangered Species Act (ESA) of 1973, as amended. As of January 29, 2003, the United States Fish and Wildlife Service (FWS) lists three federally protected species for Gaston County (Table 2).

Table 2: Federally Protected Species for Gaston County

Scientific Name	Common Name	Status	Biological Conclusion
Haliaeetus leucocephalus	Bald eagle	T	No Effect
Clemmys muhlenbergii	Bog turtle	T(S/A)	N/A
Helianthus schweinitzii	Schweinitz's sunflower	E	May Affect, Not Likely to Adversely Effect

"E" denotes Endangered (a species that is in danger of extinction throughout all or a significant portion of its range)
"T" denotes Threatened (likely to become endangered within the foreseeable future throughout all or a significant portion of its range)
"T(S/A)" denotes Threatened due to similarity of appearance (these species are not biologically endangered or threatened and are not subject to Section 7 consultation)

Species characteristics, distribution, and habitat details, along with survey and biological conclusion information were reported in the previously referenced EA for Schweinitz's sunflower and the bog turtle, and in the FONSI for the bald eagle. Habitat for the bald eagle does not occur within the project area. Bog turtle are not biologically endangered or threatened and are not subject to Section 7 consultation. Suitable habitat exists for Schweinitz's sunflower in the form of open to lightly shaded areas within maintained communities of the project area; however, no flowers were observed during a survey conducted by NCDOT biologists on July 11, 1997. The project area was resurveyed September 24, 2002 by NCDOT biologists for Schweinitz's sunflower in all areas containing potential habitat and no specimens were found.

CULTURAL RESOURCES

Historical Structures: Currently NC 274 passes through Myrtle Mill Village splitting the former Myrtle Textile Mill (Mill) and the Myrtle Village proper. NC 274 crosses I-85 approximately 0.4 miles west of the Mill. Myrtle Mill Village is a district that is considered eligible for listing in the National Register of Historic Places. As the proposed improvements are federally funded and will involve a taking of a National Register eligible property, compliance is required with Section 4(f) of the DOT Act of 1966 (80 Stat., PL 89-670). A survey of historic architectural resources was conducted by the State Historic Preservation Office (SHPO) in the area of potential effect of the project. A finding of adverse effect was determined for the Myrtle Mill Village. In accordance with Section 106 of the National Historic Preservation Act, NCDOT will adhere to stipulations set forth in the 2000 Memorandum of Agreement (MOA) with SHPO, FHWA, and the Advisory Council for Historic Preservation. The MOA (Appendix D of the FONSI) details how the effects of the historic property will be taken into account.

Archaeology: According to the SHPO, there are no known archeological sites within the project area, and it is unlikely any archaeological resources eligible for inclusion in the National Register of Historic Places will be affected by the project. Therefore, SHPO recommended in a

letter dated April 19, 1995 that no archeological investigation be conducted in connection with this project (Appendix B of the EA).

MITIGATION OPTIONS

The ACE has adopted, through the Council on Environmental Quality (CEQ), a wetland mitigation policy that embraces the concept of "no net loss of wetlands" and sequencing. The purpose of this policy is to restore and maintain the chemical, biological, and physical integrity of waters of the United States. Mitigation of wetland and surface water impacts has been defined by the CEQ to include avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts (40 CFR 1508.20). Executive Order 11990 (Protection of Wetlands) and Department of Transportation Order 5660.1A (Preservation of the Nations Wetlands) emphasize protection of the functions and values provided by wetlands. These directives require that new construction in wetlands be avoided as much as possible and that all practicable measures are taken to minimize or mitigate impacts to wetlands.

The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize jurisdictional area impacts, and to provide full compensatory mitigation of all remaining jurisdictional area impacts. Avoidance measures were taken during project planning, and minimization measures were incorporated as part of the project design.

AVOIDANCE: All jurisdictional areas not affected by the project will be protected from unnecessary encroachment.

1. No staging of construction equipment or storage of construction supplies will be allowed in wetlands or near surface waters.
2. Stream crossings at Sites 1 and 2 were designed to prevent the restriction of, and to withstand, expected high flows, and to allow for the movement of aquatic organisms (Sheets 4 and 5 of permit drawings).

MINIMIZATION: Minimization includes the examination of appropriate and practicable steps to reduce the adverse impacts. Minimization techniques implemented include the following.

1. NCDOT has ensured that Best Management Practices (BMPs) for the Protection of Surface Water will be strictly adhered to during the construction phase of the project in order to minimize potential impacts to water resources in the project area.
2. NCDOT has used sedimentation control and BMPs, to avoid and/or minimize non-point source discharges of toxic and harmful materials.
3. The width of fill will be limited to the minimum necessary for the actual crossing.
4. This project was designed to comply with Executive Order 11988, "Floodplain Management," DOT Order 5650.2, "Floodplain Management and Protection," and North Carolina Executive Order 123, "Uniform Floodplain Management Policy" to minimize negative affects on natural and beneficial floodplain values.
5. Standards and methods outlined in "Best Management Practices for Construction and Maintenance" will be strictly adhered to during all phases of installation of the reinforced concrete pipes at Sites 1 and 2 (Sheets 4 and 5 of the permit drawings).

COMPENSATION: The primary emphasis of compensatory mitigation is to reestablish a condition similar to what would have existed if the project was not built. As previously stated, mitigation is limited to reasonable expenditures and practicable considerations related to highway operation. Mitigation is generally accomplished through a combination of methods designed to replace wetland functions and values lost as a result of construction of the project. These methods include restoration of wetlands; enhancement of existing wetlands; and creation of new wetlands from uplands, borrow pits, and other non-wetland areas. Where such options may not be available, or when existing wetlands and wetland-surface water complexes are considered to be important resources worthy of preservation, consideration is given to preservation as at least one component of a compensatory mitigation proposal.

FHWA Step Down Compliance: All compensatory mitigation must be in compliance with 23 CFR Part 777.9, "Mitigation of Impacts," that describes the actions that should be followed to qualify for federal-aid highway funding. This process known as the FHWA "Step Down" procedure includes the following.

1. Consideration must be given to mitigation within the right-of-way and should include the enhancement of existing wetlands and the creation of new wetlands in the highway median, borrow pit areas, interchange areas, and along the roadside.
2. Where mitigation within the right-of-way does not fully offset wetland losses, compensatory mitigation may be conducted outside the right-of-way including enhancement, creation, and preservation.

Based upon agreements stipulated in the "Memorandum of Agreement Among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the United States Army Corps of Engineers, Wilmington District" (MOA), it is understood that EEP will assume responsibility for satisfying the CWA compensatory mitigation requirements for NCDOT projects that are listed in Exhibit 1 of the subject MOA during the EEP transition period which ends on June 30, 2005.

Since the subject project is listed in Exhibit 1 of the MOA, the necessary compensatory mitigation to offset unavoidable impacts to waters that are jurisdictional under the CWA will be provided by the EEP. The offsetting mitigation will derive from an inventory of assets already in existence within the same eight-digit cataloguing unit. The NCDOT has avoided and minimized impacts to jurisdictional resources to the greatest extent practicable as described above. Unavoidable impacts to 282 linear feet of jurisdictional stream requiring mitigation will be offset by compensatory mitigation provided by the EEP.

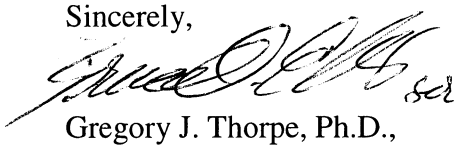
REGULATORY APPROVALS

Application is hereby made for a Department of the Army Section 404 Nationwide Permit 14 for the activities described above. In compliance with Section 143-215.3D(e) of the NCAC, we will provide $475.00 to act as payment for processing the Section 401 Water Quality Certification

application previously noted in this application (see Subject line). Seven copies of this application are provided to DWQ for review.

Thank you for your assistance with this project. If you have any questions or need additional information please do not hesitate to contact Mr. Chris Manley at 919-715-1487 or cdmanley@dot.state.nc.us.

Sincerely,



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

cc:

W/attachment

Mr. John Hennessy, Division of Water Quality (7 copies)
Ms. Marella Buncick, USFWS
Ms. Marla Chambers, NCWRC
Mr. David Chang, P.E., Hydraulics
Mr. Greg Perfetti, P.E., Structure Design
Mr. M.L. Holder, P.E. (Div. 12), Division Engineer
Ms. Trish Simon (Div. 12), DEO

W/o attachment

Mr. Jay Bennett, P.E., Roadway Design
Mr. Omar Sultan, Programming and TIP
Mr. Art McMillan, P.E., Highway Design
Mr. Mark Staley, Roadside Environmental
Mr. David Franklin, USACE, Wilmington (Cover Letter only)
Ms. Beth Harmon, EEP
Mr. Vincent Rhea, P.E., PDEA Project Planning Engineer

Office Use Only: Form Version May 2002

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
   - ☐ Section 10 Permit
   - ☒ 401 Water Quality Certification
   - ☐ Riparian or Watershed Buffer Rules

2. Nationwide, Regional or General Permit Number(s) Requested: NW 14

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 Wetlands Restoration Program (NCWRP) is proposed for mitigation of impacts (verify availability with NCWRP prior to submittal of PCN), 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: NCDOT Project Development & Environmental Analysis Branch
   Mailing Address: North Carolina Department of Transportation
   Project Development & Environmental Analysis Branch
   Attention: Gregory J. Thorpe, Ph.D.
   1548 Mail Service Center
   Raleigh, NC 27699-1548
   Telephone Number: (919) 733-3141 Fax Number: (919) 733-9747
   E-mail Address: _____

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: N/A
   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: Widening of NC 274 (Bessemer City Road) from US 29/74 (Franklin Boulevard) to NC 275 (Dallas-Bessemer City Road)

2. T.I.P. Project Number or State Project Number (NCDOT Only): U-2408

3. Property Identification Number (Tax PIN): N/A

4. Location
   County: Gaston County Nearest Town: Gastonia, NC
   Subdivision name (include phase/lot number): N/A
   Directions to site (include road numbers, landmarks, etc.): From US 29/74 (Franklin Boulevard) in Gastonia travel north on NC 274 (Bessemer City Road) until reaching the end of the project corridor at the intersection of NC 275 (Dallas-Bessemer City Road).

5. Site coordinates, if available (UTM or ***Lat/Long***): Begin project (35.2599°N, 81.2159°W), end project (35.2881°N, 81.2441°W). Site 1 (Blackwood Creek) occurs at approximately 35.2644°N, 81.2182°W and Site 2 (UT to Blackwood Creek) occurs at approximately 35.2129°N, 81.2122°W.
   (Note – If project is linear, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)

6. Property size (acres): N/A

7. Nearest body of water (stream/river/sound/ocean/lake): Blackwood Creek

8. River Basin: Catawba 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: The project area is a mix of various types of land uses with

the majority being commercial businesses and residential lots. The project area is located in the Piedmont physiographic province. This part of Gaston County is generally characterized as gently rolling or hilly. The project area is located approximately 740 feet to 850 feet above sea level.

10. Describe the overall project in detail, including the type of equipment to be used: NCDOT proposes to widen NC 274 (Bessemer City Road) between US 29/74 (Franklin Boulevard) to NC 275 (Dallas-Bessemer City Road) to a multi-lane facility. The proposed improvement will widen the existing NC 274 (Bessemer City Road) to a five lane, 64-feet, face-to-face, curb and gutter facility. A more detailed description can be found in the cover letter as well as on page 1 of the EA. Heavy-duty construction equipment will be used.

11. Explain the purpose of the proposed work: The purpose of this project is to increase the traffic carrying capacity and improve safety along NC 274 (Bessemer City Road). NC 274 (Bessemer City Road) is the major connector linking Bessemer City and West Gastonia. It provides access from both cities to I-85 and the central business district of Gastonia. Currently, the existing facility is near capacity while the traffic demand continues to increase. NC 274 (Bessemer City Road) also has an accident rate higher than average for other similar facilities throughout the state. The proposed widening will reduce the congestion, thereby improving safety and increasing the traffic carrying capacity of the facility.

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. The applicant must also provide justification for these impacts in Section VII below. All proposed impacts, permanent and temporary, must be listed herein, and must be clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) must 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: Impacts to jurisdictional areas under the Clean Water Act (CWA) due to the proposed project footprint include 397 linear feet of permanent impacts to stream. Of the stream impacts 282 linear feet of impact will occur in Site 1 to a perennial stream (Sheet 4 of the permit drawings) and 115 linear feet of stream impact will occur in Site 2 to an unimportant intermittent stream (Sheet 5 of the permit drawings).

2. Individually list wetland impacts below:

Wetland Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Located within 100-year Floodplain** (yes/no)	Distance to Nearest Stream (linear feet)	Type of Wetland***
N/A	N/A	N/A	N/A	N/A	N/A

* List each impact separately and identify temporary impacts. 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.

** 100-Year floodplains are identified through the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM), or FEMA-approved local floodplain maps. Maps are available through the FEMA Map Service Center at 1-800-358-9616, or online at http://www.fema.gov.

*** List a wetland type that best describes wetland to be impacted (e.g., freshwater/saltwater marsh, forested wetland, beaver pond, Carolina Bay, bog, etc.) Indicate if wetland is isolated (determination of isolation to be made by USACE only).

List the total acreage (estimated) of all existing wetlands on the property: N/A
Total area of wetland impact proposed: N/A

3. Individually list all intermittent and perennial stream impacts below:

Stream Impact Site Number (indicate on map)	Type of Impact*	Length of Impact (linear feet)	Stream Name**	Average Width of Stream Before Impact	Perennial or Intermittent? (please specify)
1	Extending Culvert	282	Blackwood Creek	4 feet	Perennial
2	Extending Culvert	115	UT to Blackwood Creek	2 feet	Intermittent (Not Important)

* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: culverts and associated rip-rap, dams (separately list impacts due to both structure and flooding), relocation (include linear feet before and after, and net loss/gain), stabilization activities (cement wall, rip-rap, crib wall, 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.

** Stream names can be found on USGS topographic maps. If a stream has no name, list as UT (unnamed tributary) to the nearest downstream named stream into which it flows. USGS maps are available through the USGS at 1-800-358-9616, or online at www.usgs.gov. Several internet sites also allow direct download and printing of USGS maps (e.g., www.topozone.com, www.mapquest.com, etc.).

Cumulative impacts (linear distance in feet) to all streams on site: 397 linear feet

4. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.) below: N/A

5. 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.): N/A

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

Size of watershed draining to pond: N/A Expected pond surface area: N/A

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 NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize stream impacts, and to provide full compensatory mitigation of all remaining stream impacts. Avoidance measures were taken during project planning, and minimization measures were incorporated as part of the project design. Detailed descriptions of avoidance and minimization measures can be found in the attached cover letter.

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 March 9, 2000, 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 NCWRP 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. Jurisdictional impacts total 397 linear feet of stream impacts to Blackwood Creek and an unnamed tributary (UT) to Blackwood Creek. The impacted UT to Blackwood Creek is considered an unimportant intermittent stream and therefore does not require mitigation. Compensatory mitigation is proposed to consist of mitigation provided by EEP for the remaining 282 linear feet of stream impacts.

2. Mitigation may also be made by payment into the North Carolina Wetlands Restoration Program (NCWRP). Please note it is the applicant's responsibility to contact the NCWRP at (919) 733-5208 to determine availability and to request written approval of mitigation prior to submittal of a PCN. For additional information regarding the application process for the NCWRP, check the NCWRP website at http://h2o.enr.state.nc.us/wrp/index.htm. If use of the NCWRP is proposed, please check the appropriate box on page three and provide the following information:

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

IX. Environmental Documentation (required by DWQ)

Does the project involve an expenditure of public (federal/state) funds or the use of public (federal/state) land?

Yes ☒ No ☐

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 ☐

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.

Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify_____)?

Yes ☐ No ☒ If you answered "yes", provide the following information:

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	N/A	3	N/A
2	N/A	1.5	N/A
Total	N/A		N/A

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

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

XI. Stormwater (required by DWQ)

Describe impervious acreage (both 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. In order to minimize impacts to water resources in the entire impact area, NCDOT's Best Management Practices (BMP's) for the Protection of Surface Waters will be strictly enforced during the entire life of the project. The NCDOT, in cooperation with the DWQ, has developed a sedimentation control program for highway projects which adopts formal BMP's for the protection of surface waters.

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 ☒

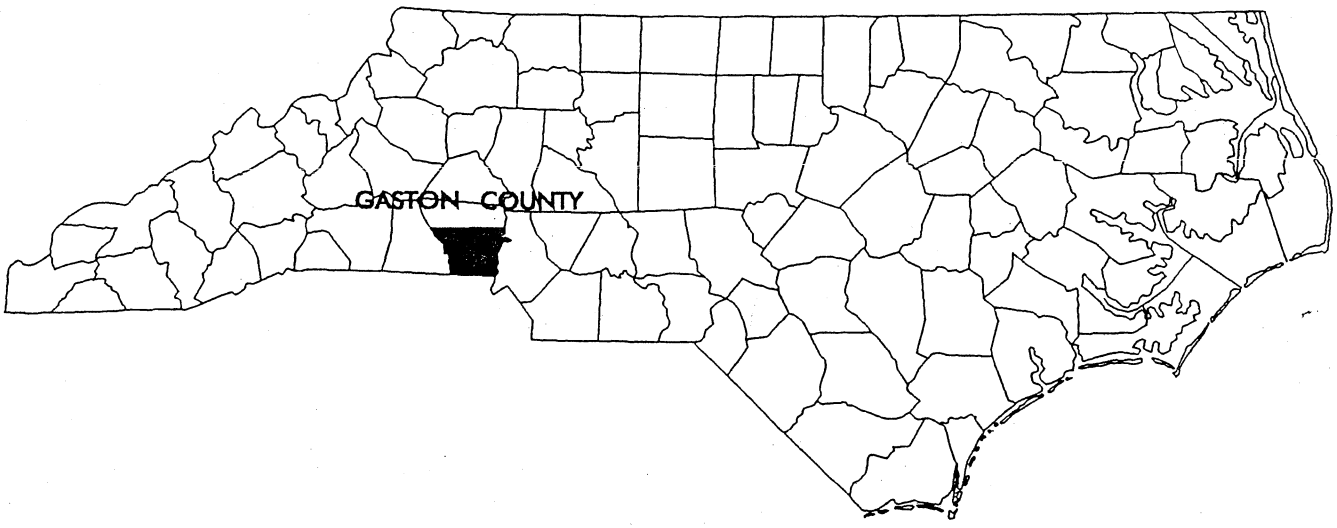
Is this an after-the-fact permit application?
Yes ☐ No ☒

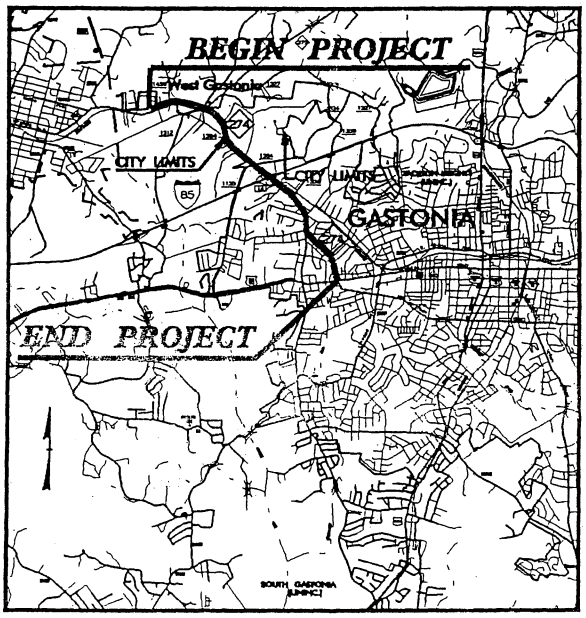
XIV. Other Circumstances (Optional):

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

7/7/04

Applicant/Agent's Signature **Date**
(Agent's signature is valid only if an authorization letter from the applicant is provided.)





VICINITY MAP

VICINITY MAPS

NCDOT

DIVISION OF HIGHWAYS

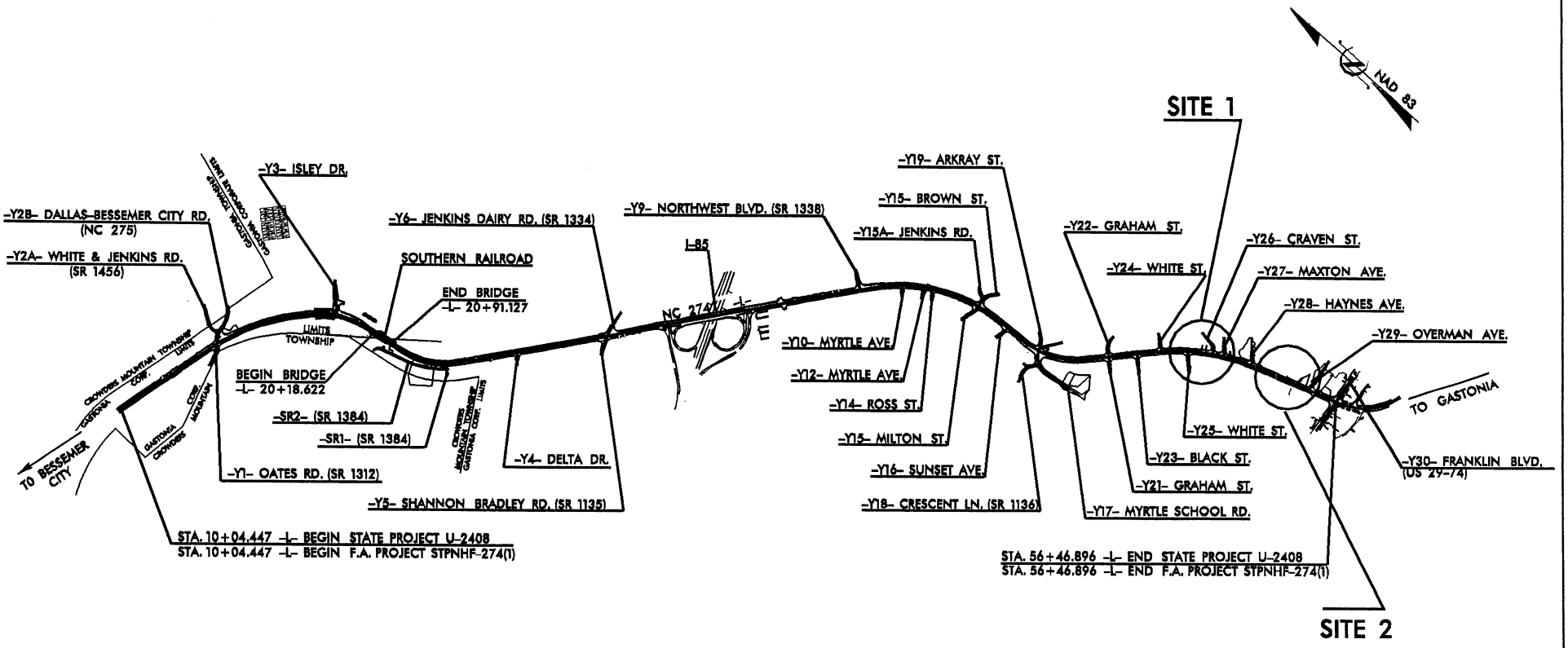
GASTON COUNTY

PROJECT: 8.1811201 (U-2408)

NC 274 FROM

NC 275 TO US29-74

SHEET 1 OF 7 10/10/02



SITE MAP
PLAN VIEW

NCDOT

DIVISION OF HIGHWAYS

GASTON COUNTY

PROJECT: 8.1811201 (U-2408)

NC 274 FROM

NC 275 TO US 29-74

SHEET 2 **OF** 7 **REV** 12/16/03 10/10/02

WETLAND LEGEND

WLB —— WETLAND BOUNDARY

WLB / WLB — WETLAND

F F — DENOTES FILL IN WETLAND

S S — DENOTES FILL IN SURFACE WATER

P P — DENOTES FILL IN SURFACE WATER (POND)

T T — DENOTES TEMPORARY FILL IN WETLAND

E E — DENOTES EXCAVATION IN WETLAND

TS TS — DENOTES TEMPORARY FILL IN SURFACE WATER

DENOTES MECHANIZED CLEARING

FLOW DIRECTION

TB — TOP OF BANK

WE — EDGE OF WATER

C — PROP. LIMIT OF CUT

F — PROP. LIMIT OF FILL

PROP. RIGHT OF WAY

NG — NATURAL GROUND

PL — PROPERTY LINE

TDE — TEMP. DRAINAGE EASEMENT

PDE — PERMANENT DRAINAGE EASEMENT

EAB — EXIST. ENDANGERED ANIMAL BOUNDARY

EPB — EXIST. ENDANGERED PLANT BOUNDARY

WATER SURFACE

LIVE STAKES

BOULDER

CORE FIBER ROLLS

PROPOSED BRIDGE

PROPOSED BOX CULVERT

PROPOSED PIPE CULVERT
12"-48" PIPES
54" PIPES & ABOVE

(DASHED LINES DENOTE EXISTNG STRUCTURES)

SINGLE TREE

WOODS LINE

DRAINAGE INLET

ROOTWAD

RIP RAP

5 — ADJACENT PROPERTY OWNER OR PARCEL NUMBER IF AVAILABLE

PREFORMED SCOUR HOLE

LEVEL SPREADER (LS)

NCDOT

DIVISION OF HIGHWAYS

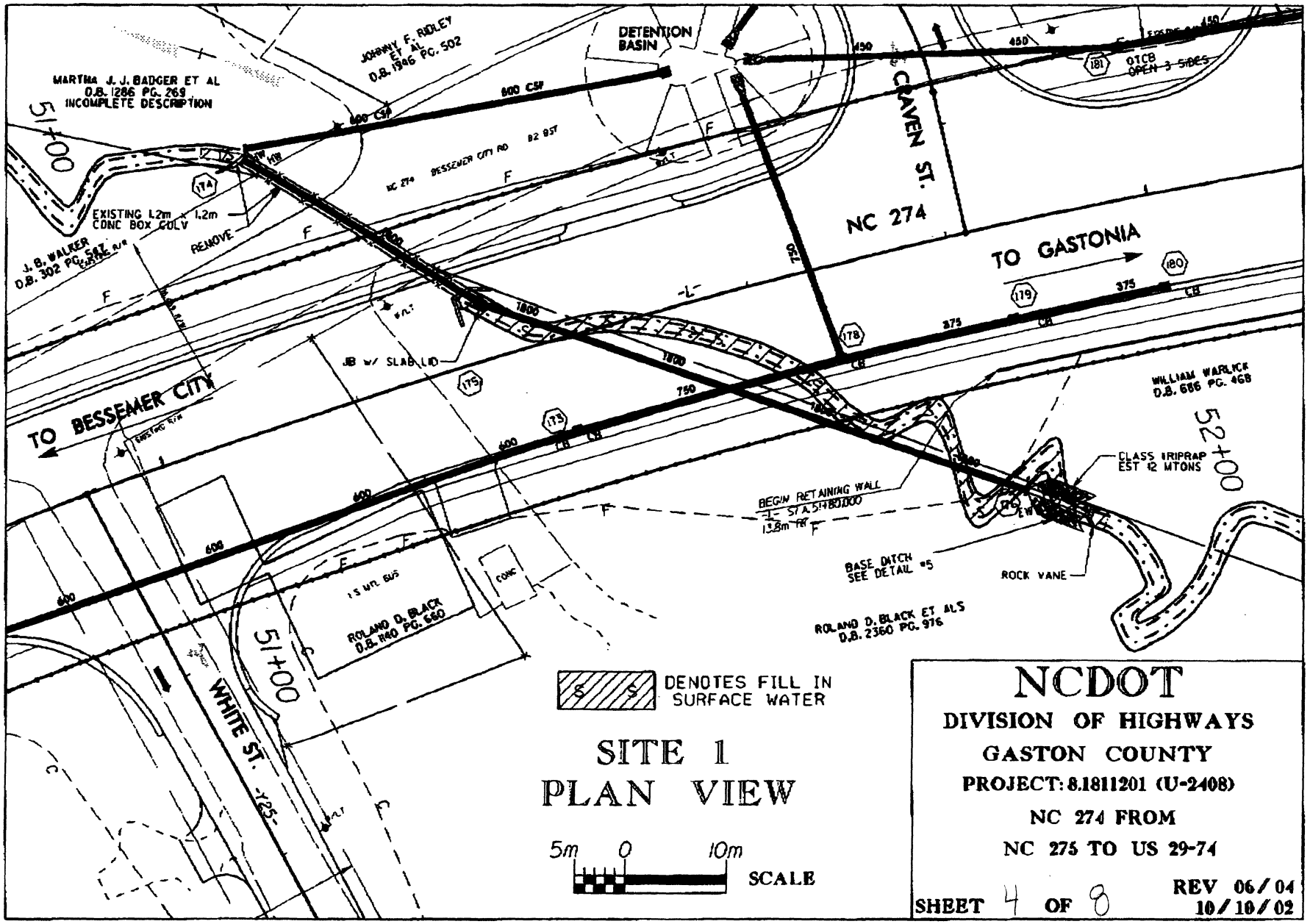
GASTON COUNTY

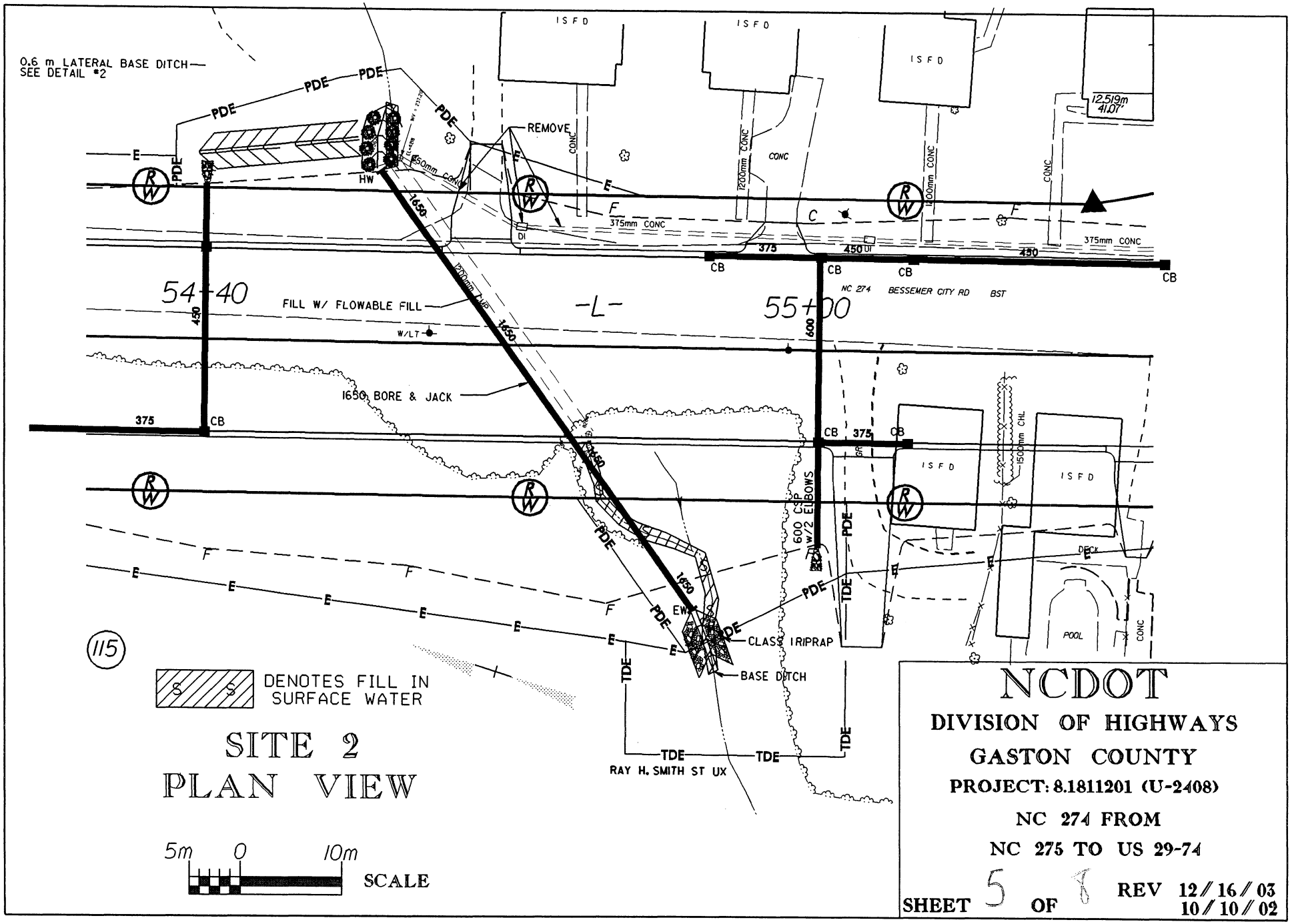
PROJECT: 8.1811201 (U-2408)

NC 274 FROM
NC 275 TO US 29-74

SHEET 3 **OF** 7

10/10/09





NCDOT

DIVISION OF HIGHWAYS

GASTON COUNTY

PROJECT: 8.1811201 (U-2408)

NC 274 FROM

NC 275 TO US 29-74

SHEET 5 **OF** 8 **REV** 12/16/03
10/10/02

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS: Fill In Wetlands (ac)	WETLAND IMPACTS: Temp. Fill In Wetlands (ac)	WETLAND IMPACTS: Excavation In Wetlands (ac)	WETLAND IMPACTS: Mechanized Clearing (Method III) (ac)	SURFACE WATER IMPACTS: Fill In SW (Natural) (ac)	SURFACE WATER IMPACTS: Fill In SW (Pond) (ac)	SURFACE WATER IMPACTS: Temp. Fill In SW (ac)	SURFACE WATER IMPACTS: Existing Channel Impacted (ft)	SURFACE WATER IMPACTS: Natural Stream Design (ft)
1	51+30/51+90 -L-	1 @ 1800 RCP					0.037		0.002	282	
2	54+50/54+90 -L-	1 @ 1650 RCP					0.01			115	
TOTALS:			0.00	0.00	0.00	0.00	0.047	0.00	0.002	397	0.00

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Gaston County
Project 8.1811201 (U-2408)

Rev 6/04

Form Revised 3/22/01

SHEET 6 OF 7

2/4

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS				SURFACE WATER IMPACTS				
			Fill In Wetlands (ha)	Temp. Fill In Wetlands (ha)	Excavation In Wetlands (ha)	Mechanized Clearing (Method III) (ha)	Fill In SW (Natural) (ha)	Fill In SW (Pond) (ha)	Temp. Fill In SW (ha)	Existing Channel Impacted (m)	Natural Stream Design (m)
1	51+30/51+90 -L-	1 @ 1800 RCP					0.015		0.001	86	
2	54+50/54+90 -L-	1 @ 1650 RCP					0.004			35	
TOTALS:			0	0	0	0	0.019	0	0.001	121	0

Form Revised 3/22/01

NCDOT

DIVISION OF HIGHWAYS
GASTON COUNTY
PROJECT 8.1811201 (U-2408)
NC 274 BESSEMER CITY ROAD
FROM NC 275 TO US 29-74

Rev 06/04
Rev 12/16/03
10/10/02

SHEET 7 OF 8

PROPERTY OWNERS

NAMES	ADDRESSES
Martha J. J. Badger et al	1902 Graham Street Gastonia, NC 28052
Roland D. Black et als.	P. O. Box 12874 Gastonia, NC 28053
William Warlick	4295 River Oaks Rd. Lake Wylie, SC 29710
Ray H. Smith	524 W. Airline Avenue Gastonia, NC 28052

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
Gaston COUNTY
PROJECT 8.1811201 (U-2408)
NC 274 FROM
NC 275 TO US 29-74

SHEET 8 OF 8 10/10/2002

November 21, 2002

Subject: Draft Minutes Interagency Hydraulic Design 4B Review Meeting on November 21, 2002, for U-2408, Gaston County.

Team Members:
John Hendrix – USACE (Present)
Cythnia Van Der Wiele – NCDWQ (Present)
Marla Chambers – NCWRC (Present)
Marella Buncick – USFWS (Present)
Chris Militscher – EPA (Present)
Heather Montague – NCDOT PDEA (Present)

Participants:
David Chang – NCDOT Hydraulics
Marshall Clawson – NCDOT Hydraulics
Dan Grisson – NCDOT Division 12
Henry Wells – Sungate Design Group
Josh Dalton – Sungate Design Group
Robert Stroup – NCDOT Design Services
Scott Pridgen – NCDOT Design Services
Anne Gamber – NCDOT Hydraulics

The project consists of the widening of NC 274 (Bessemer City Road) and has one site that impacts a stream. The stream impacted due to the widening is at the existing 1.2m X 1.2m box culvert at station 51+40.

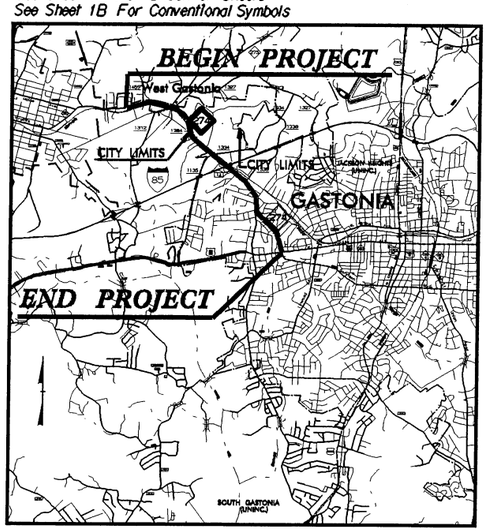
1. Direct stream impacts: The existing box culvert is to be replaced with an 1800mm diameter (72") pipe at a 2% slope. This will result in 78 meters (260 ft) of impact. The land use of the drainage area is mainly residential with some large industrial sites. The outlet banks are to be armored in riprap and a rock vane is to be installed in the streambed to reduce velocity impacts.
2. Dry Detention Basin: It is suggested that a dry detention basin be incorporated in the existing roadway scheduled to be removed.

The meeting adjourned at 2:00pm.

9/09/96

CONTRACT: C201067 T.I.P. PROJECT: U-2408

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GASTON COUNTY

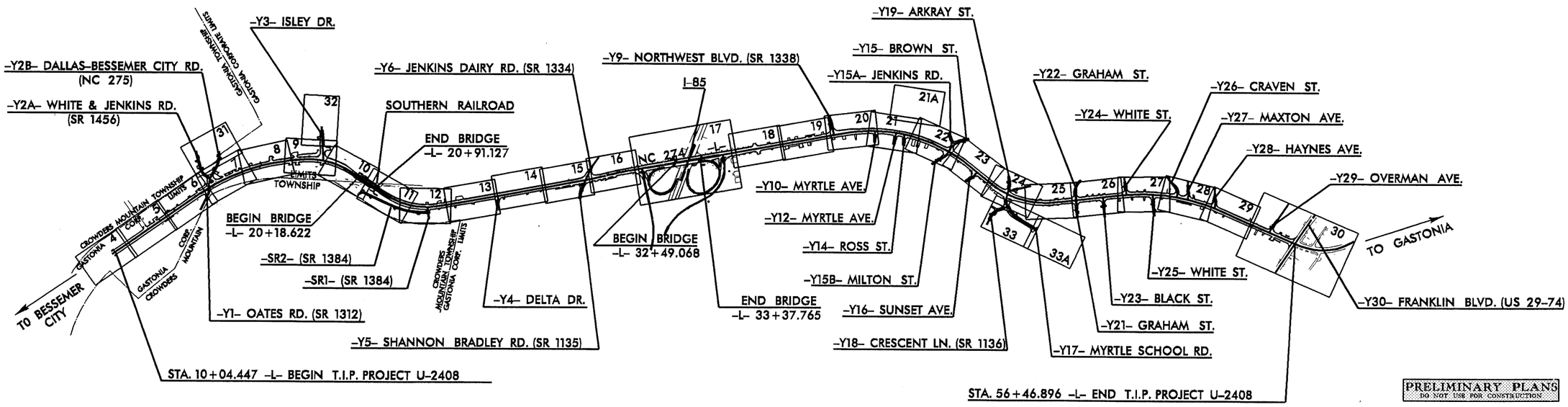
METRIC	STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
ALL DIMENSIONS IN THESE PLANS ARE IN METERS	N.C.	U-2408	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34799.1.1	STPNHF-274(1)	PE
34799.2.1	STP-274(1)	RW, UTL
34799.3.1		CONST.
C201067		CONTRACT

LOCATION: *NC 274 (BESSEMER CITY ROAD) FROM NC 275 (DALLAS-BESSEMER CITY ROAD TO US 29-74 (FRANKLIN BOULEVARD)*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, SIGNALS, GUARDRAIL, CURB AND GUTTER, SIGNING, AND STRUCTURES*

"NC GRID" NAD 83



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

PLANS 2.5 0 5

PROFILE (HORIZONTAL) 2.5 0 5

PROFILE (VERTICAL) 0.5 0 1

DESIGN DATA

ADT 2001 = 20,900
ADT 2030 = 32,400
DHV = 8 %
D = 55 %
T = 7 % *
V = 80 km/h

* TTST 3 % DUAL 4 %

PROJECT LENGTH

LENGTH OF ROADWAY T.I.P. PROJECT U-2408 = 4.481 Km
LENGTH OF STRUCTURE T.I.P. PROJECT U-2408 = 0.161 Km
TOTAL LENGTH OF T.I.P. PROJECT U-2408 = 4.642 Km

NCDOT CONTACT:
CATHY HOUSER, PE
ENGINEERING COORDINATION
PROJECT ENGINEER

Prepared in the Office of:
THE LPA GROUP TRANSPORTATION CONSULTANTS
THE LPA GROUP of North Carolina, p.a.
4904 Professional Court, Suite 201
Raleigh, North Carolina 27609

2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: DECEMBER 20, 2002

LETTING DATE: NOVEMBER 16, 2004

JEFFERY S. DOUGLAS, PE
PROJECT ENGINEER

DAVID W. MARTIN
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER
SIGNATURE: P.E.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA
P.E.
STATE DESIGN ENGINEER

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

22-APR-2004 13:33
R:\Roadway\Proj\U2408.tsh
cstroup

METRIC	PROJECT REFERENCE NO.	SHEET NO.
2.5 0 5	U-2408	4
	R/W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R/W REV.	PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

REVISIONS

CROWDERS MOUNTAIN TOWNSHIP
GASTONIA CORPORATE LIMITS (PB 39 PG 6)
(70.104 (230') OFFSET FROM CENTERLINE NC-274)

"NC GRID" NAD 83

JAMES W. KIRK
DB 1466 PG 190
PB 6 PG 53

JAMES W. KIRK
DB 2234 PG 321

45.732 EIP-EIP
S87°37'40"E

EIP

12.192 DRIVEWAY EASEMENT
DB 2234 PG 321

2

GELSINGER BARKER HOMES, INC.
DB 3140 PG 673
PB 64 PG 103

-LBL- 53 Sta.5+00.000

POT -L- STA.10+04.447 BEGIN STATE PROJECT U-2408
TIE TO FUTURE PROJECT U-3405

IGER BARKER HOMES, INC.
DB 3140 PG 673

GAS REGULATOR

EXIST. R/W

18.288 R/W

50 mm CI

200mm TCP

EXIST. R/W

0.046 R/W-EIP

EIP

+02.133
EXIST. R/W

+99.814 EASEMENT
15.000m 49.2r

+08.000
17.000m
55.77'

U2408 -L- 46EXT

1.5 SIDEWALK

EXISTING R/W

PRESSURE RELEASE VALVE

-L- S 7°57'01.5" E

75 mm STL

300 mm CI

150 mm CI

200mm TC

15.985 EX.R/W

1.5 SIDEWALK

EXISTING R/W

+06.000
17.000m
55.77'

TIE TO EXIST. R/W
+99.987

SOUTHERN RY

2100mm CHL

MATCHLINE -L- STA 10+60 SHEET 5

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "U2408-4" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 1716607.98(m) EASTING: 406739.240(m) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999838033 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U2408-4" TO -L- STATION 10+04.447 IS

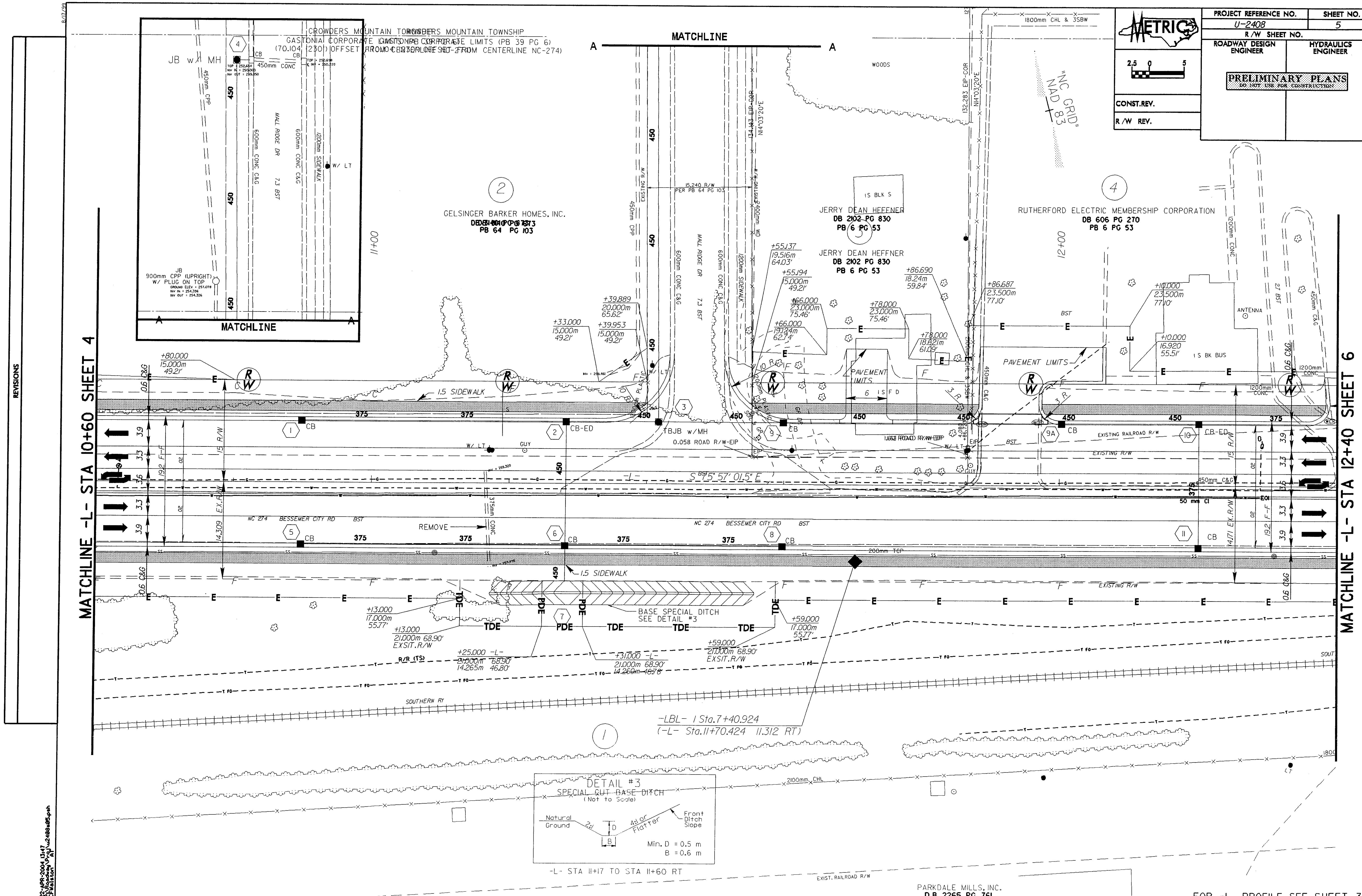
2,117.706m BEARING N 50° 28' 54.3" W

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NGVD 29

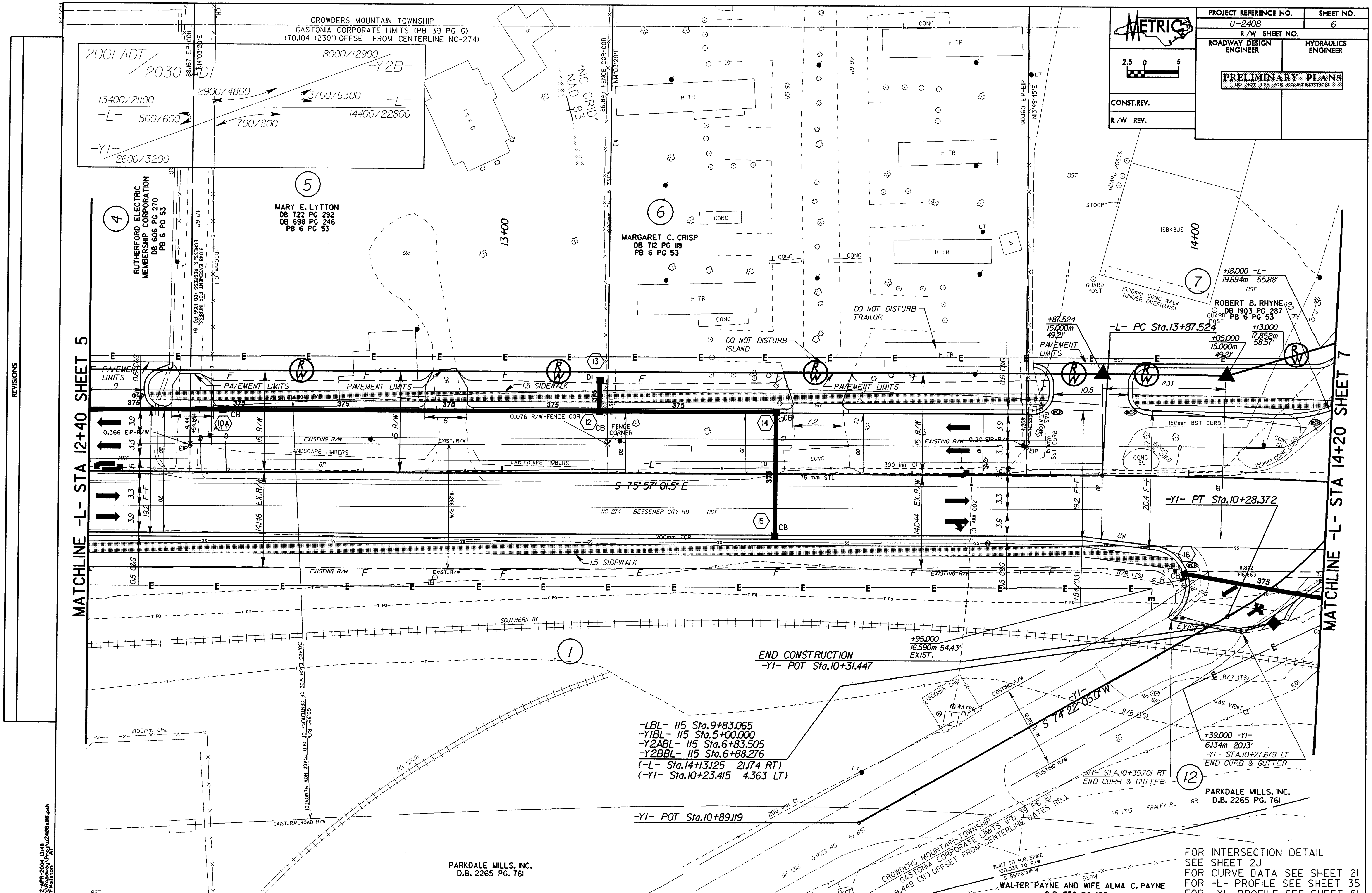
GASTONIA CORPORATE LIMITS (PB 39 PG 6)
(LIMITS = CENTERLINE OF EXISTING TRACK)
CROWDERS MOUNTAIN TOWNSHIP

22-APR-2004 13:46
C:\Roadway\U-2408\sht\u2408sht4.psh

FOR -L- PROFILE SEE SHEET 34



PROJECT REFERENCE NO.
SHEET NO.
U-2408
5
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
METRIC
2.5 0 5
CONST.REV.
R/W REV.
REVISIONS
MATCHLINE
MATCHLINE -L- STA 10+60 SHEET 4
MATCHLINE -L- STA 12+40 SHEET 6
CROWDERS MOUNTAIN TOWNSHIP
GASTONIA CORPORATE LIMITS (PB 39 PG 6)
(70.104 (230)) OFFSET FROM CENTERLINE NC-274)
JB w/ MH
450mm CPP
450mm CONC
MALL RIDGE DR
7.3 BST
600mm CONC C&G
1200mm SIDEWALK
W/ LT
JB
900mm CPP (UPRIGHT)
W/ PLUG ON TOP
GROUND ELEV = 257.078
INV IN = 254.396
INV OUT = 254.326
GELSINGER BARKER HOMES, INC.
PB 64 PG 103
15.240 R/W
PER PB 64 PG 103
EXISTING R/W
2400mm WD
134.143 EIP-COR
N14°03'20"E
132.283 EIP-COR
1800mm CHL & 3SBW
WOODS
"NC GRID" NAD 83
JERRY DEAN HEFFNER
DB 2102 PG 830
PB 6 PG 53
1S BLK S
RUTHERFORD ELECTRIC MEMBERSHIP CORPORATION
DB 606 PG 270
PB 6 PG 53
1S BK BUS
ANTENNA
PAVEMENT LIMITS
1S FD
11+00
12+00
1.5 SIDEWALK
TBJB w/MH
0.058 ROAD R/W-EIP
CB
CB-ED
W/ LT
GUY
EXISTING RAILROAD R/W
EXISTING R/W
S 75° 57' 01.5" E
NC 274 BESSEMER CITY RD BST
REMOVE
375mm CONC
200mm TCP
450mm C&G
50 mm CI
EOI
15 R/W
14.309 EX.R/W
14.171 EX.R/W
19.2 F-F
BASE SPECIAL DITCH
SEE DETAIL #3
TDE
PDE
+13.000 17.000m 55.77'
+13.000 21.000m 68.90' EXSIT.R/W
+25.000 -L- 21.000m 68.90' 14.265m 46.80'
+31.000 -L- 21.000m 68.90' 14.260m 46.78'
+59.000 17.000m 55.77'
+59.000 21.000m 68.90' EXSIT.R/W
+80.000 15.000m 49.21'
+33.000 15.000m 49.21'
+39.889 20.000m 65.62'
+39.953 15.000m 49.21'
+55.137 19.516m 64.03'
+55.194 15.000m 49.21'
+66.000 23.000m 75.46'
+66.000 19.124m 62.74'
+78.000 23.000m 75.46'
+78.000 18.621m 61.09'
+86.690 18.24m 59.84'
+86.687 23.500m 77.10'
+10.000 23.500m 77.10'
+10.000 16.920 55.51'
R/R (TS)
SOUTHERN RY
-LBL- 1 Sta.7+40.924
(-L- Sta.11+70.424 11.312 RT)
2100mm CHL
DETAIL #3
SPECIAL CUT BASE DITCH
(Not to Scale)
Natural Ground
2:1
D
B
4:1 or Flatter
Front Ditch Slope
Min. D = 0.5 m
B = 0.6 m
-L- STA 11+17 TO STA 11+60 RT
EXIST. RAILROAD R/W
PARKDALE MILLS, INC.
D.B. 2265 PG. 761
FOR -L- PROFILE SEE SHEET 35
22-APR-2004 13:47


PROJECT REFERENCE NO.
U-2408
SHEET NO.
6
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
METRIC
CONST. REV.
R/W REV.
REVISIONS
CROWDERS MOUNTAIN TOWNSHIP
GASTONIA CORPORATE LIMITS (PB 39 PG 6)
(70.104 (230') OFFSET FROM CENTERLINE NC-274)
2001 ADT
2030 ADT
8000/12900
-Y2B-
2900/4800
3700/6300
13400/21100
-L-
500/600
700/800
14400/22800
-Y1-
2600/3200
"NC GRID" NAD 83
4
RUTHERFORD ELECTRIC MEMBERSHIP CORPORATION
DB 606 PG 270
PB 6 PG 53
5
MARY E. LYTTON
DB 722 PG 292
DB 698 PG 246
PB 6 PG 53
6
MARGARET C. CRISP
DB 712 PG 118
PB 6 PG 53
7
ROBERT B. RHYNE
DB 1903 PG 287
PB 6 PG 53
1
12
PARKDALE MILLS, INC.
D.B. 2265 PG. 761
WALTER PAYNE AND WIFE ALMA C. PAYNE
D.B. 558 PG. 169
13+00
14+00
DO NOT DISTURB TRAILOR
DO NOT DISTURB ISLAND
-L- PC Sta.13+87.524
-Y1- PT Sta.10+28.372
S 75°57' 01.5" E
NC 274 BESSEMER CITY RD
S 74°22' 05.0" W
SOUTHERN RY
RR SPUR
END CONSTRUCTION
-Y1- POT Sta.10+31.447
-LBL- 115 Sta.9+83.065
-Y1BL- 115 Sta.5+00.000
-Y2ABL- 115 Sta.6+83.505
-Y2BBL- 115 Sta.6+88.276
(-L- Sta.14+13.125 21.174 RT)
(-Y1- Sta.10+23.415 4.363 LT)
-Y1- POT Sta.10+89.119
-Y1- STA.10+27.679 LT
END CURB & GUTTER
-Y1- STA.10+35.701 RT
END CURB & GUTTER
SR 1313 FRALEY RD
SR 1312 OATES RD
CROWDERS MOUNTAIN TOWNSHIP
GASTONIA CORPORATE LIMITS (PB 39 PG 6)
(9.449 (31') OFFSET FROM CENTERLINE OATES RD.)
MATCHLINE -L- STA 12+40 SHEET 5
MATCHLINE -L- STA 14+20 SHEET 7
FOR INTERSECTION DETAIL SEE SHEET 2J
FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 35
FOR -Y1- PROFILE SEE SHEET 51

PROJECT REFERENCE NO.	SHEET NO.
U-2408	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

2001 ADT / 2030 ADT
13400/21100 -L- 500/600
2900/4800 700/800
8000/12900 -Y2B-
3700/6300 -L- 14400/22800
-Y1- 2600/3200

MATCHLINE -Y2A- STA 10+70 SHEET 31

MATCHLINE -Y2B- STA 10+45 SHEET 31

TRUSTEES OF BRIGHT LIGHT BAPTIST CHURCH
DB 806 PG 369
DB 1882 PG 674
DB 1882 PG 676

ROBERT B. RHYNE
DB 1903 PG 287
PB 6 PG 53

GATELINE OIL COMPANY
DB 1032 PG 259

HAYWOOD EQUITY GROUP LIMITED PARTNERSHIP
DB 2877 PG 232

-Y2A- PT Sta.11+00.078

-Y2B- PRC Sta.10+79.964

-Y2A- POT Sta.11+04.376

-Y2B- POC Sta.11+08.100

-LBL- 2 Sta.11+47.602
(-L- Sta.15+75.084 14.042 LT)

-L- POC Sta.14+25.707
-Y1- PC Sta.10+00.000
-Y2B- PT Sta.11+45.616

SPECIAL DITCH -Y2B- STA 10+25 TO 10+60 RT SEE PROFILE

SPECIAL DITCH -Y2B- STA 10+40 TO 10+72 LT SEE PROFILE

TIE TO EXISTING DITCH

TIE TO EXISTING C & G

0.6 MONOLITHIC CONCRETE ISLAND

V-DITCH
EST. DDE = 5 m3
SEE DETAIL 1A

DETAIL #1A
'V' DITCH
(Not to Scale)

Natural Ground — 2:1 — D — 2:1 — Natural Ground

Min. D = 0.5 m

GASTONIA CORPORATE LIMITS (PB 39 PG 6)
(LIMITS = CENTERLINE OF EXIST. TRACK)
CROWDERS MOUNTAIN TOWNSHIP

ALLEN L. MANTOOTH, ET ALS
D.B. 2334 PG. 729

MATCHLINE -L- STA 14+20 SHEET 6

MATCHLINE -L- STA 15+80 SHEET 8

"NC GRID" NAD 83

U/G GAS TANKS
2-30,250 LITERS
3-15,150 LITERS

3-ISL'S
6-GAS PUMPS
UNDER CANOPY

FOR INTERSECTION DETAIL SEE SHEET 2J
FOR CURVE DATA SEE SHEET 2I
FOR -L- PROFILE SEE SHEET 36
FOR -Y2A- PROFILE SEE SHEET 5I
FOR -Y2B- PROFILE SEE SHEET 5I

REVISIONS

8/21/23

23-BPR-2004 DJ46
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PROJECT REFERENCE NO.	SHEET NO.
U-2408	8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R /W REV.

REVISIONS

8/17/99

DETAIL #1
STANDARD BASE DITCH
(Not to Scale)

Natural Ground — 2:1 — D — 2:1 — Natural Ground

B

Min. D = 0.5 m
B = 0.6 m

"NC GRID" NAD 83

I S MTL BUS

I S BK BUS

10
HAYWOOD EQUITY GROUP
LIMITED PARTNERSHIP
DB 2877 PG 232

0.6m BASE DITCH
EST DDE = 210m3
SEE DETAIL #1

CLASS B RIPRAP
4.5 TONS
11.7 S.M.
FILTER FABRIC

13
STANDARD BUSINESS FORMS, INC.
D.B. 798 PG. 449

1800mm CHL

200mm CMP

CONC

BST

16+00

17+00

+95.000 22.000m 72.18'

150mm CONC CURB

+08.500 22.000m 72.18'

+94.951 17.713m 58.1'

+08.533 18.229m 59.81'

+40.000 20.000m 65.62'

+54.664 19.417 LT 63.70'

+53.709 19.569m 64.20'

+60.000 51.000 LT 183.74'

+69.000 62.000 LT 203.42'

+77.000 62.000 LT 203.42'

+77.000 56.000 LT 183.74'

1.5 CONC WW

1.5 CONC HW

+67.000 51.000 LT 167.33'

+64.000 20.000m 65.62' 15.000m 49.21'

+73.000 30.000m 98.42'

+92.000 26.000m 85.30'

+92.000 19.000m 62.34'

+00.000 19.000m 62.34'

+69.000 20.000m 65.62'

PAVEMENT LIMITS

-L- PT Sta.17+36.689

+36.689 15.000m 49.21'

EXISTING R/W

EIP

150mm CONC CURB

375mm CONC

WATER PIT

CAT-1

GRAD-350

200mm TCP

NC 274 BESSEMER CITY RD BST

-L-

100mm STL

1.5 SIDEWALK

17.33

EXISTING R/W

200mm TCP

EXISTING R/W

S 47° 22' 15" E

CB 19 — CB-ED 20 — CB-ED 22 — CB 23 — CB 24 — CB-ED 25

375 — 600

+22.783 EXIST.

+35.000 EXIST.

+89.000 17.000m 55.77'

+35.037 15.000m 49.21'

+34.928 17.000m 55.78'

CLEVELAND MARKETER, INC.
DB 3150 PG 558

R= 586.047
L=288.091

GASTONIA CORPORATE LIMITS (PB 39 PG 6)
(LIMITS = CENTERLINE OF EXIST. TRACK)
CROWDERS MOUNTAIN TOWNSHIP

MATCHLINE -L- STA 15+80 SHEET 7

MATCHLINE -L- STA 17+40 SHEET 9

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 36

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Chaisson

PROJECT REFERENCE NO.	SHEET NO.
U-2408	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2.5 0 5

CONST. REV.

R/W REV.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

2001 ADT / 2030 ADT

-Y3- 6600/9300

-L- 14900/23400 2000/2700 4600/6600 17500/27300

STANDARD BUSINESS FORMS, INC.
D.B. 798 PG. 449
13

"NC GRID" NAD 83

MATCHLINE -Y3- STA 10+60 SHEET 32

-L- POC Sta.18+70.665
-Y3- POT Sta.11+28.021

-LBL- 7 Sta.14+21.953
-Y3BL- 7 Sta.6+40.718
(-L- Sta.18+45.708 10.728 LT)
(-Y3- Sta.11+12.384 22.734 RT)

-L- TS Sta.17+60.113

-L- SC Sta.18+12.113

END CURB & GUTTER -Y3- STA.10+91.863

END CURB & GUTTER -Y3- STA.10+87.399

BEGIN CURB & GUTTER -Y3- STA.10+95.591

+60.000 15.000m 49.21'

+80.000 17.000m 55.77'

+92.000 21.000m 68.90'

+38.000 25.000m 82.02'

+44.843 20.000m 65.62'

+73.000 -Y3- 22.000m 72.18'

+77.000 -Y3- 32.000m 104.99'

+95.000 -Y3- 32.000m 104.99'

+99.000 35.000m 114.83'

+91.000 31.000m 101.71'

+81.000 31.000m 101.70'

+81.000 21.000m 68.90'

+00.000 22.000m 72.18'

+52.000 31.000m 101.70'

+52.000 20.000m 65.62'

+29.000 13.076m 42.90'

+80.317

+95.321

+99.876

+101.214

+89.206

11+00

18+00

19+00

S 45° 42' 42.8" W

S 47° 22' 15.5" E

PAVEMENT UMITS

BST

750MM C&G

150mm CONC CURB

1.5 SIDEWALK

EXISTING R/W

EXISTING R/W TO VARIABLE ACCORDING TO NCDOT PROJECT NO: 8J632901

200mm TCP

300 mm CI

SSMH COVERED OVER WITH BST

GROUT FULL

REMOVE

CLASS B RIPRAP
0.9 TONS
4.2 S.M. FF

RETAIN

450mm CONC

400 CSP w/ ELBOWS 29.53 Ex.R/W

CLARENCE W. SMITH
D.B. 1794 PG. 58

CLEVELAND MARKETER, INC.
DB 3150 PG 558

2-ISL'S 8 GAS PUMPS U/MTL CANOPY

1 S BK BUS

GAS REGULATOR

2400mm BLK WALL

37,850 L U/G TANKS

CAR VACUUM

GUY

SIG LT

CROSSTIES

CONC

SOIL

NC 274 BESSEMER CITY RD

CB 27 375 CB 29

CB 28 375

CB 30 375

CB 31A 375 CB 31

CB 26 375

MATCHLINE -L- STA 17+40 SHEET 8

MATCHLINE -L- STA 19+00 SHEET 10

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 37
FOR -Y3- PROFILE SEE SHEET 52

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PROJECT REFERENCE NO.	SHEET NO.
U-2408	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

"NC GRID" NAD 83

MATCHLINE -L- STA 19+00 SHEET 9

MATCHLINE -L- STA 20+60 SHEET 11

-L- CS Sta.19+53.705

-L- POT Sta.20+57.612

-RR- POT Sta.11+00.894

-LBL- 8 Sta.15+85.172

(-L- Sta.20+06.157 8.260 LT)

BEGIN APPR.SLAB
-L- POT Sta.20+15.006

BEGIN BRIDGE
-L- POT Sta.20+18.622

BEGIN CONSTRUCTION
-SR2- PC Sta.10+12.310

-SR2- PC Sta.10+11.571

-SR2- POT Sta.10+03.980

-L- ST Sta.20+05.705

RR POT Sta.10+00.000

RETAIN EXISTING SYSTEM

RETAIN

EXISTING R/W

EXISTING R/W VARIABLE ACCORDING TO NCDOT PROJECT NOs 8J632901

75 FULL LANE

48.705 TAPER

1.5 SIDEWALK

90 TAPER (BOTH SIDES)

NC 274 BESSEMER CITY RD

BST

CLARENCE W. SMITH
D.B. 1794 PG. 58

JERRY B. MANTOOTH
D.B. 1300 PG. 134
TAX # 11-18-127.02

MABEL MANTOOTH
D.B. 522 PG. 46

ALLEN L. MANTOOTH, ET ALS
D.B. 2293 PG. 159

CLASS B RIPRAP
1.8 TONS
5.9 S.M. FF

TIE TO EXIST DITCH

LATERAL 0.6m BASE DITCH
SEE DETAIL #2

TYPE III

REMOVE

GRAU-350

CB

SOUTHERN RY

60.560 NORFOLK SOUTHERN EASEMENT

R.R. EASEMENT

GASTONIA CORPORATE LIMITS (PB 39 PG 6)
CROWDERS MOUNTAIN TOWNSHIP

BRIDGE SKETCH

BEGIN BRIDGE -L- Sta. 20+18.622
END BRIDGE -L- Sta. 20+91.127

DETAIL #2
LATERAL BASE DITCH
(Not to Scale)

Min. D = 0.5 m
B = 0.6 m
b = 1.5 m

-L- STA 19+20 TO STA 19+86 RT

SEE SHEET S- TO S- FOR STRUCTURE PLANS
FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 37
FOR -SR2- PROFILE SEE SHEET 59

PROJECT REFERENCE NO.	SHEET NO.
U-2408	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC
2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

9-4-03 PARCEL #11 - ADDED "DO NOT DISTURB TREES"
PARCEL #16- CHANGED NAME FROM NELL G.RUSSELL TO THOMAS MURRAY RUSSELL.CHANGED DEED BOOK & PAGE NO.-REVISED R.O.W.SUMMARY SHEET

8/17/99

"NC GRID" NAD 83

RR POT Sta.11+93.343

1800mm CHL & 35BW

11.073 R/W-CBR
SST=9.00 E

600mm CMP

14
CLARENCE W. SMITH
D.B. 1794 PG. 58

-L- TS Sta.21+13.223

21+00

22+00

16
THOMAS MURRAY RUSSELL
D.B. 3462 PG. 728

450mm CONC

CONVERT TO JB WITH MH

38

SOUTHERN RY

R/R (TS)

EXISTING R/W
VARIABLE ACCORDING TO
NCDOT PROJECT NO: 8J632901

REMOVE EXIST

400 CSP W/ 2 ELBOWS

450mm CMP

90 TAPER (BOTH SIDES)

TYPE III

CAT-1

1.5 SIDEWALK

GROUT FULL

CB 37

GRAD-350

REMOVE

S 7°45'23.7" E

NC 274 BESSEMER CITY RD T.O BST

MATCHLINE -L- STA 20+60 SHEET 10

MATCHLINE -L- STA 22+20 SHEET 12

TYPE III

REMOVE

CB 39

END BRIDGE
-L- POT Sta.20+91.27

-LBL- 9 Sta.17+09.446
(-L- Sta.21+29.611 5.588 RT)

END APPR.SLAB
-L- POT Sta.20+96.307

-L- SC Sta.21+65.223

10 TAPER

41

40

43

375

FS 2-GI

SR 1384 46 BST

-SR2-
S 15°50'30.3" E

DO NOT
DISTURB TREES

PAVEMENT
LIMITS

-SR2- PT Sta.10+25.82

+26.000 -SR2-
10.676m 35.03'

+68.000 -SR2-
8.000m 26.25'

EXISTING R/W
VARIABLE ACCORDING TO
NCDOT PROJECT NO: 8J632901

+98.000 -SR2-
9.000m 29.53'

+13.562 -SR2-
6.000m 19.69'

+32.822 -SR2-
6.000m 19.69'

-SR2- PC Sta.11+32.822

+64.000 -SR2-
10.000m 32.81'

15
MABEL MANTOOTH
D.B. 522 PG. 46

CONC

CANOPY

I S F D

EXISTING R/W

11+00

16
THOMAS MURRAY RUSSELL
D.B. 3462 PG. 728

SOIL

GASTONIA CORPORATE LIMITS (PB 39 PG. 6)
CROWDERS MOUNTAIN TOWNSHIP

SEE SHEETS S- TO S- FOR STRUCTURE PLANS
FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 38
FOR -SR2- PROFILE SEE SHEET 59

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REVISIONS

9-4-03 PARCEL #16- CHANGED NAME FROM NELL G.RUSSELL TO THOMAS MURRAY RUSSELL,CHANGED DEED BOOK & PAGE NO.; REVISED R.O.W. SUMMARY SHEET

8/1/03

PROJECT REFERENCE NO.	SHEET NO.
U-2408	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

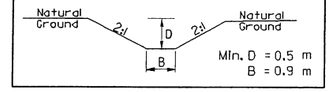
METRIC
2.5 0 5

CONST.REV.

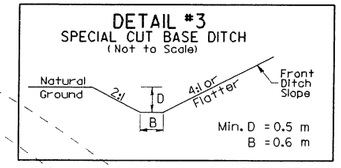
R/W REV.

"NC GRID" NAD 83

DETAIL #4
STANDARD BASE DITCH
(Not to Scale)



DETAIL #3
SPECIAL CUT BASE DITCH
(Not to Scale)



-SR2- STA 12+07.5 TO STA 12+38 RT

-SR2- PT Sta.12+78.605
-SRI- POT Sta.10+20.900

-L- POC Sta.23+03.400
-SRI- POT Sta.10+00.000

-L- CS Sta.23+25.334

-L- STA 22+20 SHEET 11

-L- STA 23+80 SHEET 13

MATCHLINE -L- STA 22+20 SHEET 11

MATCHLINE -L- STA 23+80 SHEET 13

(16) THOMAS MURRAY RUSSELL
D.B. 3462 PG. 728

(17) PATSY MANTOOTH, ET ALS
D.B. 2084 PG. 579

(18) JOHN F. LAIL, JR., ET UX
D.B. 1278 PG. 645

(19) GUTHRIE MACHINE SHOP, INC.
D.B. 756 PG. 508
D.B. 1930 PG. 48

(20) ELSIE H. KENLEY
WILL BK. 80E PG. 435

JAMES R. CONNOR, SR.
D.B. 1997 PG. 636

CROWDERS MOUNTAIN TOWNSHIP
GASTONIA CORPORATE LIMITS (PB 39 PG 6)

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 38
FOR -SRI- PROFILE SEE SHEET 58
FOR -SR2- PROFILE SEE SHEET 59

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PROJECT REFERENCE NO.	SHEET NO.
U-2408	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

MATCHLINE -L- STA 23+80 SHEET 12

MATCHLINE -L- STA 25+60 SHEET 14

"NC GRID" NAD 83

S 37°58'44" E 68.744'

S 40°24'36" E 70.398'

S 44°23'44" E 36.771'

N 60°27'05" E 35.850'

P-K NAIL

EIP

24+00

25+00

LT

GR

S

(19)
GUTHRIE MACHINE SHOP, INC.
D.B. 756 PG. 508
D.B. 1930 PG. 48

(22)
JEJ LIMITED PARTNERSHIP
D.B. 2124 PG. 243
D.B. 2556 PG. 169

1 S BLK BUS

REMOVE

+10.000
20.000m
65.62'

+13.000
24.000m 78.74'

+37.000
24.000m
78.74'

65.62'
PAVEMENT
LIMITS

+47.740
18.100m
59.38'

EXISTING R/W

1.5 SIDEWALK

750mm CMP

450mm CONC

200mm TCP

0.6% C&G

7.2

9

GRATE

CB 55 58 60 68 69

CB-ED 56

CB 59 61 67

CB 62 64 65 66

OTCB OPEN 4 SIDES

OTCB OPEN 3 SIDES

PDE

1500mm RCP

+80.000
18.000m
59.06'

+95.000
18.000m 59.06'
15.000m 49.21'

+89.000
18.000m 59.06'
15.000m 49.21'

+41.000
16.500m
54.134'

+86.000
16.000m
52.493'

+35.000
15.000m
49.21'

DND

+38.000
16.108m
52.85'

S 51°09'37.5" E

-L-

1.459 R/W-EIP

15.559
+40.695

150mm PVC

NC 274 BESSEMER CITY RD 7.0 BST

14.483

14.460 EX. R/W

6.096 AT&T FIBER OPTIC LINE EASEMENT

W/LT

CLEAN-OUT

FES

450mm CONC

600mm CONC C&G

600mm CONC WALK

120mm CONC WALK

PLANTER

PAVEMENT LIMITS

BST

3.9

3.3

19.2 F-F

15 R/W

10.1

14.6 F-F

20.1 mm STL

150 mm STL

146.239

ABANDONED

-LBL- 11 Sta.21+31.233
-Y4BL- 11 Sta.5+00.000
(-L- Sta.25+51.815 4.911 RT)
(-Y4- Sta.10+08.120 13.850 RT)

+24.000 -Y4-
10.496m 34.45'

CLEARED AREA
(UN-IMPROVED)

END CURB & GUTTER
-Y4- STA.10+25.998

18.288 R/

-Y4-
S 51°24'39.9" W

-Y4- POT Sta.10+50.000

(20)
ELSIE H. KENLEY
WILL BK. 80E PG. 435

1 S BK D

3.0 BST

2SFBUS

BK WALL

72.493 EIP-COR
10.500 R/W-COR
S 80°43'10" W

90.526 R/W-COR
S 80°43'10" W

(21)
AEI FRANCHISE COMPANY, INC.
DB 2981 PG 261
PB 59 PG 110

(23)
J.E.J. LIMITED PARTNERSHIP
DB 2124 PG. 243
PB 59 PG 110

DELTA DR

9.5 BST

GASTONIA CORPORATE LIMITS (PB 39 PG 6)
CROWDERS MOUNTAIN TOWNSHIP

FOR INTERSECTION DETAIL SEE SHEET 2K
FOR -L- PROFILE SEE SHEET 39
FOR -Y4- PROFILE SEE SHEET 52

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CStallsworth AM

PROJECT REFERENCE NO.	SHEET NO.
U-2408	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

8/17/99

REVISIONS

"NC GRID" NAD 83

GR

S

N 38°53'55" E 61.40'

600mm BK WALL

RR SPUR

LT

A. BOYDEN HENLEY, JR./NIXON C. HENLEY
D.B. 1328 PG. 579

SOUTHERN RY

26+00

27+00

S 47°39'49" E 33.662

S 49°58'21" E 8.086

S 49°58'15" E 12.945

S 51°42'30" E 26.118

S 52°11'13" E 5.239

S 52°55'45" E 18.898

S 53°51'36" E 6.453

S 53°51'35" E 59.692

-L- POT Sta.25+67.100
-Y4- POT Sta.10+00.000

(22) JEJ LIMITED PARTNERSHIP
D.B. 2124 PG. 243
D.B. 2556 PG. 169

(24) WORTH GAMBLE ET UX
D.B. 544 PG. 061
D.B. 1190 PG. 122
D.B. 1735 PG. 708

(25) GASTONIA INDUSTRIAL REALTY CORP.
D.B. 802 PG. 246
D.B. 852 PG. 201

+45.000 17.000m 55.774'

+64.000 17.000m 55.774'

N 51°58'38" E 14.023

N 51°58'38" E 14.951

MATCHLINE -L- STA 25+60 SHEET 13

MATCHLINE -L- STA 27+40 SHEET 15

0.6 C&G

EXISTING R/W

1.5 SIDEWALK

CB 70

CB 71

CB 72

CB 74

DI 75

200mm TCP

300 mm

600mm CONC

14.446 EX. R/W

14.425 EX. R/W

18.268 R/W

15 R/W

NC 274 BESSEMER CITY RD 107 BST

-L-

S 51°09'37.5" E

W/LT

SOIL & GR

6 PAVEMENT LIMITS

PAVEMENT LIMITS

37 CONC

-Y4-

S 51°24'39.9" W

EXIST

+17.000 -Y4- 10.410m 34.16'

+18.000 -Y4- EXIST. R/W

+28.000 -Y4- EXIST. R/W

+81.887 17.734m 58.18'

+82.500 21.940m 71.98'

+91.500 16.869m 68.87'

+89.000 20.991m 55.34'

BEGIN CURB & GUTTER -Y4- STA.10+25.998

END CONSTRUCTION -Y4- POT Sta.10+26

0.6m BASE DITCH
EST. DDE = 19m3
SEE DETAIL #1

+00.000 15.000m 49.21'

+25.000 18.000m 15.000m 59.06' 49.21'

+36.125 15.000m 49.21'

+35.447 18.000m 59.06'

CLASS B RIPRAP
1.8 TONS
5.9 S.M. FF

+23.000 26.000 RT 85.31'

+10.000 44.000 RT 144.36'

+20.000 46.000 RT 150.93'

P/L 34.000 RT 111.55'

TDE

PDE

(23) JEJ LIMITED PARTNERSHIP
D.B. 2124 PG. 243

(24) WORTH GAMBLE ET UX
D.B. 544 PG. 061
D.B. 1190 PG. 122
D.B. 1735 PG. 708

DETAIL #1
STANDARD BASE DITCH
(Not to Scale)

Natural Ground 2:1 D 2:1 Natural Ground

B

Min. D = 0.5 m
B = 0.6 m

90mm CTL

FOR INTERSECTION DETAIL SEE SHEET 2K
FOR -L- PROFILE SEE SHEET 39
FOR -Y4- PROFILE SEE SHEET 52

22+PR-2004.13.53.01.Roadway.Y4_U-2408x14.pah
CJ Walston AM

PROJECT REFERENCE NO.	SHEET NO.
U-2408	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST. REV.

R/W REV.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

4-14-03 PARCEL #26 - ADDED "DO NOT DISTURB SIGN"

8/17/00

2001 ADT / 2030 ADT

-Y6 3800/8800

800/1800 2500/4900

-L- 18000/28800 20200/32400 -L-

1400/3100 1900/3600

3800/8800 -Y5-

"NC GRID" NAD 83

SOUTHERN BELL TELEPHONE AND TELEGRAPH CO.
D.B. 1306 PG. 482

-LBL- 3 Sta.24+92.430
-Y5BL- 3 Sta.5+00.000
-Y6BL- 3 Sta.6+83.074
(-L- Sta.29+12.876 7.74 RT)
(-Y6- Sta.10+99.202 14.915 LT)

A. BOYDEN HENLEY, JR./NIXON C. HENLEY
D.B. 1328 PG. 579

RR SPUR

RR SWITCH

R.R. EASEMENT

SOUTHERN RY

28+00

29+00

S 53°53'34" E 70.806

S 53°49'14" E 60.273

S 53°52'30" E 54.853

S 23°27'28" W 28.309

60.960 NORFOLK SOUTHERN EASEMENT

REMOVE HEADWALL, PLACE COLLAR & EXTEND

RETAIN

+61.000 -Y6- EXIST.R/W

+85.000 -Y6- EXIST.R/W

+70.000 -Y6- 15.000m 49.21' 11.993m 39.35'

R/R +5.7' PDE

600'

88

25

GASTONIA INDUSTRIAL REALTY CORP.
D.B. 802 PG. 246
D.B. 852 PG. 201

27

CITY OF GASTONIA
D.B. 2343 PG. 139

-L- PC Sta.28+91.542

+50.000 18.000m 59.06'

+65.000 EXIST.R/W

+76.770 16.880m 55.38'

CONC

W/LT

23 R

EXISTING R/W

BROKEN CONC CURB

6.00m CL

4.2 3.6 3.6

0.6 C&G

1.5 SIDEWALK

300 mm CI

375

15 R

CB 82

CB 83

R.R. EASEMENT

REMOVE

10.6

68°28' R/R ST

MATCHLINE -L- STA 27+40 SHEET 14

MATCHLINE -L- STA 29+20 SHEET 16

14.416 EX.R/W

14.399 EX.R/W

NC 274 BESSEMER CITY RD

11.0 BST

3.9 3.3 3.3 3.9

S 51°09'37.5" E

150mm CURB

W/LT

REMOVE

375mm CMP

EXISTING R/W

WV'S & WM'S IN METAL BOX

WATER PIT

78 150mm BST CURB

CB 79

CB 80

81

CB 84

CB 85

CB 86

CB 87

CB 11

CB 76

CB 77

375

600

PAVEMENT LIMITS

1.5 R

FUEL TANKS U/G & CUT-OFF VALVES

FUEL TANKS U/Gas 37,830 L

CONC

81A

DND

0.6 MONOLITHIC CONCRETE ISLAND

0.6 R

TIE TO EXIST.C & G

10.8

+57.000 15.000m 49.21'

+53.000 16.450m 53.97'

+75.000 15.500m 50.85'

-LBL- 12 Sta.23+37.979
(-L- Sta.27+58.558 3.900 RT)

-L- POC Sta.28+99.800
-Y5- POT Sta.10+00.000
-Y6- PT Sta.11+00.123
DO NOT DISTURB SIGN

+64.072 -L- 18.554m 60.87'

+67.000 -L- EXIST.R/W

+12.000 -L- 19.188m 62.96'

+06.000 -L- EXIST.R/W

END C&G +39.564

150mm BST CURB

24" PAPER

SHANNON CHADLEY RD

100 mm ST

-Y5- PC Sta.10+19.556

+41.000 -Y5- 19.000m 62.34'

+61.000 -Y5- EXIST.R/W

FFCA/IP111984 PROPERTY CO.
D.B. 1824 PG. 758

28

BEGIN CURB & GUTTER -Y5- STA.10+39.495

EXIST

26

ACME PROPERTIES LIMITED PARTNERSHIP
D.B. 2431 PG. 292

6-GAS PUMPS 1 KEROSENE PUMP U/MTL CANOPY

6-GAS PUMPS U/MTL CANOPY

24

WORTH GAMBLE ET UX
D.B. 544 PG. 061
D.B. 1190 PG. 122
D.B. 1735 PG. 708

1800 WD

N 68°50'00" E 100.33'

1 S BLK BUS

CONC

BST

-Y5- PT Sta.10+66.59

END CONSTRUCTION
-Y5- POT Sta.10+73.000

+71.000 -Y5- 9.279m 30.44'

MATCHLINE -Y5-

MATCHLINE -Y5-

FOR INTERSECTION DETAIL SEE SHEET 2L
FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 40
FOR -Y5- PROFILE SEE SHEET 52
FOR -Y6- PROFILE SEE SHEET 52

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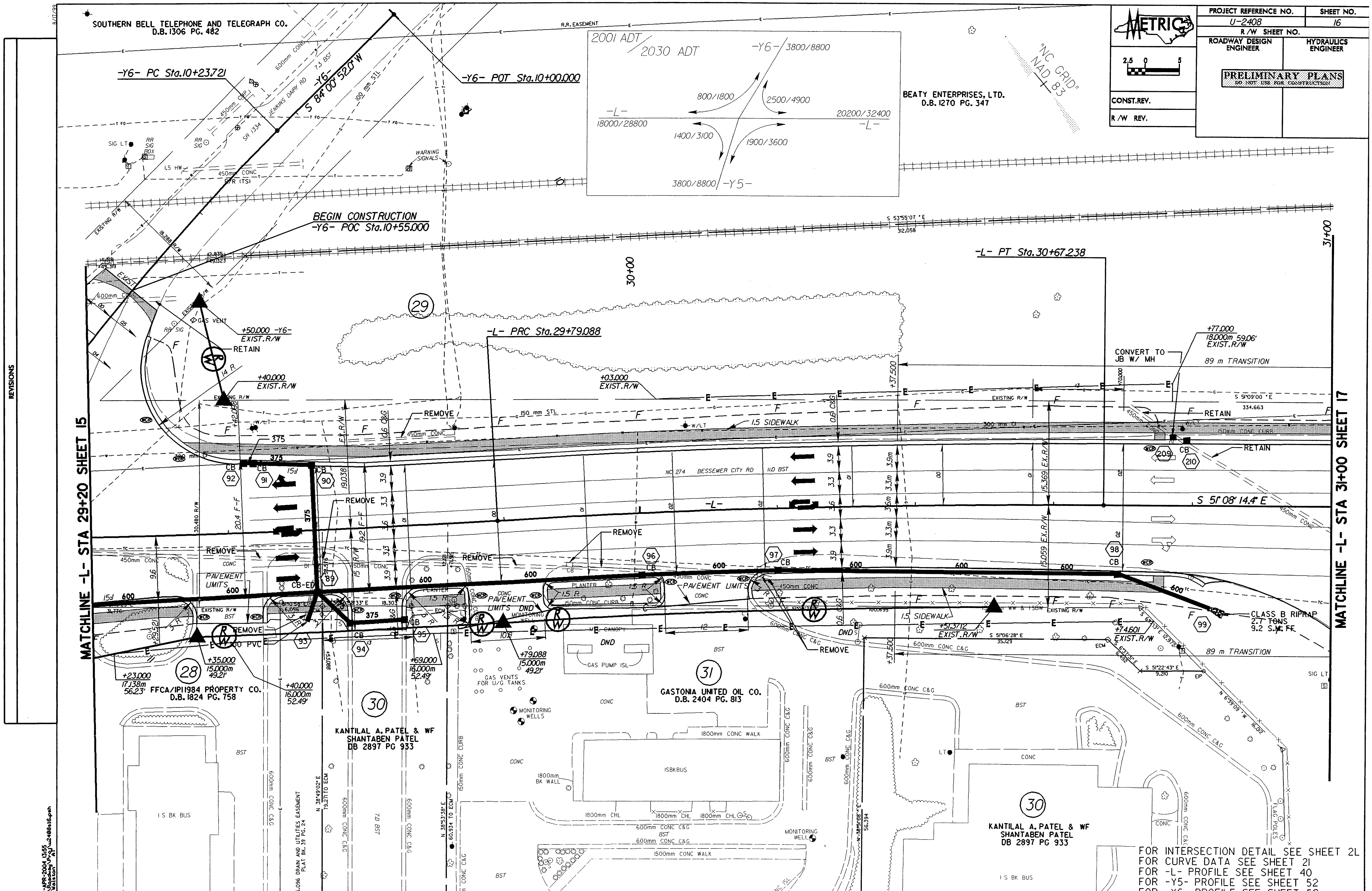
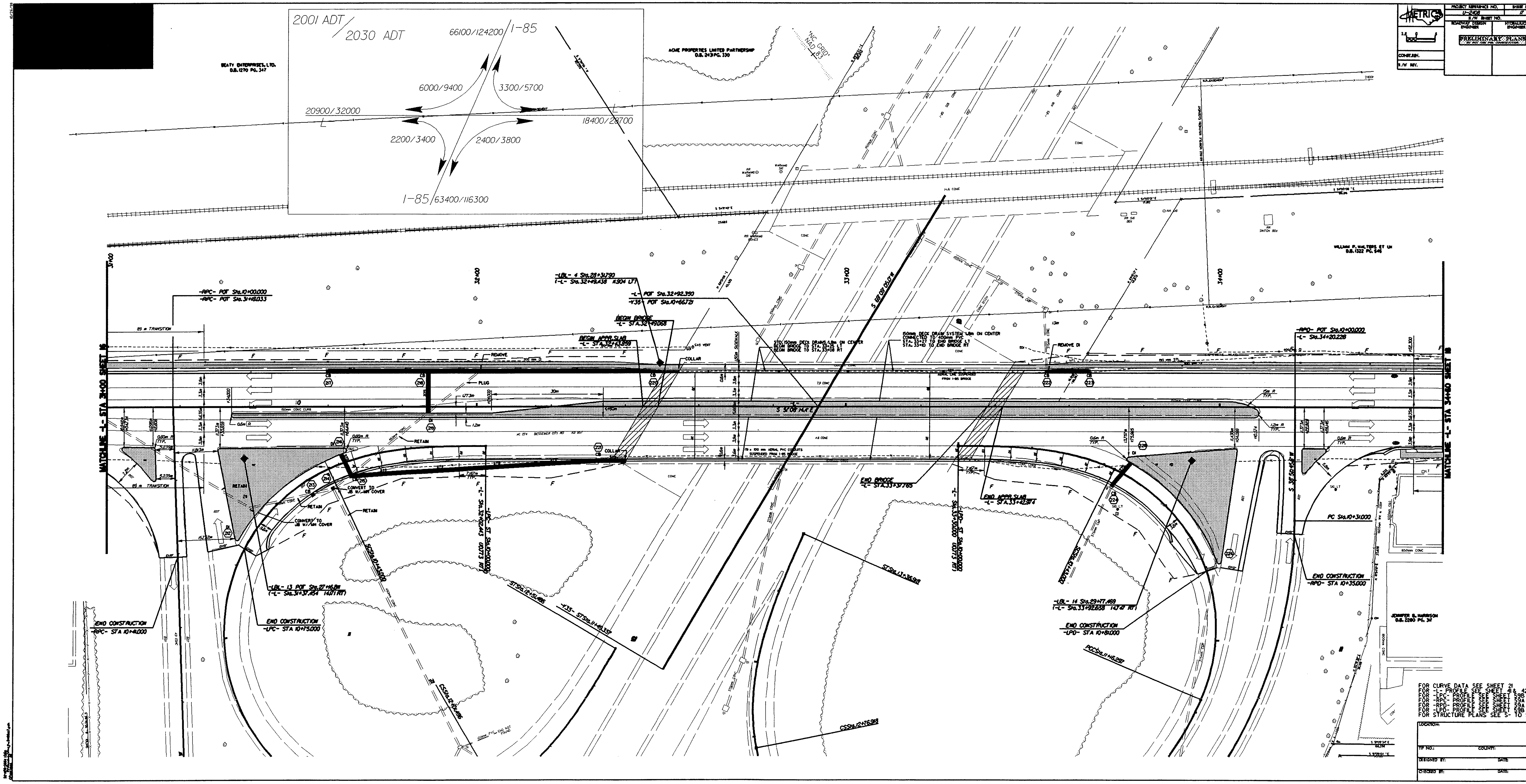
Nelson


PROJECT REFERENCE NO. U-2408
SHEET NO. 16
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
METRIC
CONST.REV.
R/W REV.
"NC GRID NAD 83"
SOUTHERN BELL TELEPHONE AND TELEGRAPH CO.
D.B. 1306 PG. 482
BEATY ENTERPRISES, LTD.
D.B. 1270 PG. 347
2001 ADT/2030 ADT
-Y6- 3800/8800
800/1800
2500/4900
-L- 18000/28800
20200/32400 -L-
1400/3100
1900/3600
3800/8800 -Y5-
R.R. EASEMENT
-Y6- PC Sta.10+23.721
-Y6- POT Sta.10+00.000
-Y6- S 84°00' 52.0" W
JENKINS DAIRY RD
SR 1334
BEGIN CONSTRUCTION
-Y6- POC Sta.10+55.000
30+00
-L- PRC Sta.29+79.088
-L- PT Sta.30+67.238
31+00
NC 274 BESSEMER CITY RD 11.0 BST
S 51°08' 14.4" E
S 53°55'07" E 312.058
S 51°09'00" E 334.663
+50.000 -Y6- EXIST.R/W
+40.000 EXIST.R/W
+03.000 EXIST.R/W
+77.000 18.000m 59.06' EXIST.R/W
CONVERT TO JB W/ MH
89 m TRANSITION
1.5 SIDEWALK
RETAIN
REMOVE
PAVEMENT LIMITS
CLASS B RIPRAP 2.7 TONS 9.2 S.M. FF
+35.000 15.000m 49.21'
+23.000 17.138m 56.23'
+40.000 16.000m 52.49'
+69.000 16.000m 52.49'
+79.088 15.000m 49.21'
+51.3712 EXIST.R/W
+74.601 EXIST.R/W
S 51°06'28" E 35.129
S 51°22'43" E 9.210
N 6°39'09" W 16.012
FFCA/IP11984 PROPERTY CO.
D.B. 1824 PG. 758
KANTILAL A. PATEL & WF
SHANTABEN PATEL
DB 2897 PG 933
GASTONIA UNITED OIL CO.
D.B. 2404 PG. 813
GAS PUMP ISL
GAS VENTS FOR U/G TANKS
MONITORING WELLS
6.096 DRAIN AND UTILITIES EASEMENT PLAT BK. 39 PG. 24
N 38°49'02" E 79.271 TO ECM
N 38°53'38" E 60.934 TO ECM
MATCHLINE -L- STA 29+20 SHEET 15
MATCHLINE -L- STA 31+00 SHEET 17
REVISIONS
FOR INTERSECTION DETAIL SEE SHEET 2L
FOR CURVE DATA SEE SHEET 2I
FOR -L- PROFILE SEE SHEET 40
FOR -Y5- PROFILE SEE SHEET 52
FOR -Y6- PROFILE SEE SHEET 52
22-APR-2004 13:55


[redacted]
2001 ADT/
2030 ADT
66100/124200
I-85
6000/9400
3300/5700
20900/32000
L
18400/28700
2200/3400
2400/3800
I-85
63400/116300
BEATY ENTERPRISES, LTD.
D.B. 1270 PG. 347
ACME PROPERTIES LIMITED PARTNERSHIP
D.B. 2431 PG. 330
"NC GRID" NAD 83
WILLIAM P. WALTERS ET UX
D.B. 1322 PG. 546
JENNIFER B. HARRISON
D.B. 2280 PG. 317
-RPC- POT Sta.10+00.000
-RPC- POT Sta.31+18.033
89 m TRANSITION
-LBL- 4 Sta.28+31.790
-L- Sta.32+49.438 11.904 LT
-L- POT Sta.32+92.350
-Y35- POT Sta.10+66.721
BEGIN BRIDGE
-L- STA.32+91.068
BEGIN APPR.SLAB
-L- STA.32+83.859
STD.150mm DECK DRAINS/1.8m ON CENTER
BEGIN BRIDGE TO STA. 33+25 LT
BEGIN BRIDGE TO STA. 33+08 RT
150mm DECK DRAIN SYSTEM 1.8m ON CENTER
CONNECTED TO 400mm PVC
STA. 33+27 TO END BRIDGE LT
STA. 33+10 TO END BRIDGE RT
-RPD- POT Sta.10+00.000
-L- Sta.34+20.228
MATCHLINE -L- STA 31+00 SHEET 16
MATCHLINE -L- STA 34+60 SHEET 18
S 51°08'14.4" E
S 58°08'05.0" W
NC 274 BESSEMER CITY RD
END BRIDGE
-L- STA.33+37.765
END APPR.SLAB
-L- STA.33+42.974
-LPC- ST Sta.10+00.000
-L- Sta.32+02.443 10.773 RT
-LPD- ST Sta.10+00.000
-L- Sta.33+50.000 10.773 RT
-LBL- 13 POT Sta.27+16.811
(-L- Sta.31+37.454 14.071 RT)
END CONSTRUCTION
-RPC- STA 10+41.000
END CONSTRUCTION
-LPC- STA 10+75.000
-LBL- 14 Sta.29+77.469
(-L- Sta.33+92.658 14.747 RT)
END CONSTRUCTION
-LPD- STA 10+81.000
END CONSTRUCTION
-RPD- STA 10+35.000
PC Sta.10+31.000
ST Sta.12+51.486
-Y35- ST Sta.11+49.357
ST Sta.13+36.918
CS Sta.12+76.918
CS Sta.12+10.486
SC Sta.10+45.000
PCC Sta.11+16.297
CONVERT TO JB W/ MH COVER
RETAIN
PLUG
REMOVE
COLLAR
REMOVE DI
FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 41 & 42
FOR -LPC- PROFILE SEE SHEET 59B
FOR -RPC- PROFILE SEE SHEET 59A
FOR -RPD- PROFILE SEE SHEET 59A
FOR -LPD- PROFILE SEE SHEET 59B
FOR STRUCTURE PLANS SEE S- TO S-
PROJECT REFERENCE NO. U-2408
SHEET NO. 17
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
METRIC
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
CONST.REV.
R/W REV.
LOCATION:
TIP NO.:
COUNTY:
DESIGNED BY:
DATE:
CHECKED BY:
DATE:

PROJECT REFERENCE NO.	SHEET NO.
U-2408	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

4-14-03 PARCEL #32 - CHANGED EASEMENT TO RIGHT OF WAY.
9-4-03 PARCEL #32 - ADDED "DO NOT DISTURB SIGN".

MATCHLINE -L- STA 34+60 SHEET 17

MATCHLINE -L- STA 36+40 SHEET 19

"NC GRID" NAD 83

MT OLIVE CHURCH RD

32
TROY L. DAY ET UX
D.B. 1906 PG. 966

33
TROY L. DAY ET UX
D.B. 2494 PG. 697

34
SGH-MYRTLE BEACH, LLC
DB 9006 PG 868

35
ROBERT L. SHANNON ET UX
D.B. 1218 PG. 546

FFCA ACQUISITION CORPORATION
DB 2599 PG 281

JENNIFER B. HARRISON
D.B. 2280 PG. 317

-L-
S 51° 08' 14.4" E

-LBL- 15 Sta. 31+46.365
-Y7BL- 15 Sta. 5+99.866
-Y8BL- 15 Sta. 5+00.000
(-L- Sta. 35+61.550 13.646 RT)

BEGIN CURB & GUTTER
-L- STA. 35+47.000 LT & RT
+49.056
23.530m
77.20'

BEG. PROP. CHAIN LINK FENCE STA. 35+51.581
19.915m

END PROP. CHAIN LINK FENCE STA. 35+61.937
157.10m

+35.071
21.937m
71.97'

+32.000
14.964m
49.09'

+62.000
15.036m
49.33'

+69.908
15.063m
49.42'

+68.000
16.382m
53.75'

+61.000
EXISTING R/W

+69.000
15.381m
50.48'

DO NOT DISTURB SIGN

BEGIN CURB & GUTTER
-L- STA. 35+71.6 LT & RT

EXIST

RAEFORD COURT

REMOVE

PAVEMENT LIMITS

1.5 SIDEWALK

1800mm CHL & 3SBW

2100mm CHL & 3SBW

1650mm CONC

600mm CONC C&G

600mm C&G

375mm CONC

150mm CONC CURB

89 m TAPER

I S MTL BUS

I S BLK BUS

I S F D

BST

GR

CONC

EXISTING R/W

R.R. EASEMENT

RR SIG

SIG. BOX

NC 274 BESSEMER CITY RD

FOR -L- PROFILE SEE SHEET 43

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PROJECT REFERENCE NO.	SHEET NO.
U-2408	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

8/17/99

"NC GRID" NAD 83

DETAIL #1
STANDARD BASE DITCH
(Not to Scale)

Natural Ground 2:1 D 2:1 Natural Ground

B

Min. D = 0.5 m
B = 0.6 m

MATCHLINE -L- STA 36+40 SHEET 18

MATCHLINE -L- STA 38+20 SHEET 20

1800mm CHL

1800mm CHL GATE

2100mm CHL & 3SBW

2100mm BLK WALL

R.R. EASEMENT

3000mm BK WALL

600mm CONC C&G

1800mm CHL W/ 3SBW

37+00

38+00

+51.500 34.000m 111.55'

+58.000 33.000m 108.27'

TDE

0.6 m BASE DITCH
EST. DDE = 14 C.M.
SEE DETAIL #1

CLASS B RIPRAP
2.7 TONS
8.4 S.M. FF

+45.203 17.500m 57.41'

+61.500 18.000m 59.06' 21.600m 70.87'

+53.000 18.000m 59.06'

+76.500 18.000m 59.06' 21.600m 70.87'

+88.500 18.000m 59.06' 21.600m 70.87'

+05.500 18.000m 59.06' 21.600m 70.87'

+20.000 18.000m 59.06'

+44.828 15.000 49.21'

+53.000 15.000m 49.21'

PAVEMENT LIMITS

1.5 SIDEWALK

EXISTING R/W

W/LT

150 mm STL

CB

RETAIN

COLLAR & EXTEND 450 PIPE

S 51°08'14.4" E

NC 274 BESSEMER CITY RD BST

CB-ED

REMOVE

450mm CONC

150mm CURB

200 X 150 CONC.CURB

+67.500 24.454m 80.23' 17.882m 58.67'

+99.000 19.000m 28.000m 62.34' 91.86'

+19.000 19.000m 28.000m 62.34' 91.86'

+24.500 32.000m 104.99'

+26.000 19.000m 62.34'

+26.000 15.000m

+35.000 15.000m 49.21'

+33.583 26.500m 86.94'

+32.500 33.000m 108.27'

+48.000 18.000m 59.06' 26.500m 86.94'

+44.739 15.000m 49.21'

+48.500 25.628m 84.08' 17.519m 57.48'

+29.522 25.520m 83.73'

BASE DITCH
SEE DETAIL #1

DETAIL #1
STANDARD BASE DITCH
(Not to Scale)

Natural Ground 2:1 D 2:1 Natural Ground

B

Min. D = 0.5 m
B = 0.6 m

PEARSON'S INC.
D.B. 1018 PG. 413
D.B. 1018 PG. 414

GASTON SKILLS, INC.
DB 2777 PG 518

HARRIETT Y. WENZEL
DB 2989 PG 559

1 S BK BUS

4-CAR VACUUMS

1 S BLK STORAGE

CONC

BST

GR

ECM

FLAGPOLE

-LBL- 16 Sta.34+02.242
-YBL- 16 Sta.6+12.729
(-L- Sta.38+17.403 17.167 RT)

+22.000 -Y9- 15.000m 49.21'

+45.615 -Y9- 15.000m 49.21'

+39.000 15.000m 49.21'

+06.000 18.750m 61.52'

+40.000 17.000m 55.77'

+10.953

FOR -L- PROFILE SEE SHEET 43

22-APR-2004 13:57
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PROJECT REFERENCE NO.	SHEET NO.
U-2408	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST.REV.

R/W REV.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

4-14-03 PARCEL #39 - CHANGE OWNER FROM BRANCH BANKING & TRUST TO JAMES K.& RITA V.YELTON

"NC GRID" NAD 83

2001 ADT / 2030 ADT

-Y9- 4200/6300
2000/3100
2200/3200
-L- 19500/29900
19700/30000

BEGIN CONSTRUCTION -Y9- STA.10+00.00

+05.000 -Y9- 9.338m 30.64'

+05.000 -Y9- 8.950m 29.36'

+20.000 -Y9- 14.000m 45.93'

END CURB & GUTTER -Y9- STA.10+37.915

+22.620

BEGIN CURB & GUTTER -Y9- STA.10+41.804

+43.395 28.600 93.83'

+47.664 -Y9- 18.443m 60.51'

-L- POT Sta.38+36.000
-Y9- POT Sta.10+72.476

-L- PC Sta.38+77.153

+68.000 21.311m 69.92'

+77.153 18.600m 61.02'

+96.000 18.600 61.02'

+00.000 22.000 72.18'

+26.000 15.025 49.29'

+40.090 18.372 60.27'

+59.989 18.094 59.36'

+25.070 28.967m 95.04'

+25.300 24.000

+57.842

39+00

S 36°00'19" W 375.19'

S 51°08'14.4" E 240.00'

-L-

-Y9-

-L-

-LBL- 17 Sta.35+52.546
-Y10BL- 17 Sta.5+00.000
(-L- Sta.39+71.686 38.767 RT)
(-Y10- Sta.10+38.998 18.162 RT)

N 50°57'05" E 31.079

N 50°57'05" E 76.008

N 42°27'09" E 60.029 TO R/W
60.229 TO EIP

(37) EXIST 1-STORY BRICK BUILDING

(39) CANOPY

(40) PARK LANE PROPERTIES, LLC
D.B. 2512 PG. 991

(41) AMERICAN & EFIRD, INC.
D.B. 2557 PG. 053
TRACT 6

JAMES K. & RITA V. YELTON
D.B. 1380 PG. 796
D.B. 913 PG. 034

MYRTLE CHAPEL METHODIST CHURCH (TRUSTEES)
D.B. 806 PG. 491
D.B. 440 PG. 324

MATCHLINE -L- STA 38+20 SHEET 19

MATCHLINE -L- STA 39+80 SHEET 21

NORTHWEST BLVD

EXISTING R/W

18.288 R/W

23.029 EX. R/W

108

120 F-F

240 F-F

92 F-F

22.8 F-F

45 FULL LANE

30 TAPER

150mm CURB

1.5 SIDEWALK

GRADE TO DRAIN

PAVEMENT LIMITS

+41.800 16.488m (54.09') (EXIST.R/W)

+49.896 EXISTING R/W

REMOVE

100mm PVC

1800mm CHL & 3SBW

300mm CONC WALL

400 mm CI

300 mm CI

390 mm CI

1800mm RAN

100 mm STL

150mm BST CURB

GAS PUMPS U/MTL CANOPY

I S BK BUS

I S BK D

CANOPY

CONC

BST

WHEEL GUARDS

BEAVER CHK 30L

CB 117 118 119 121 122 123 124 125 126

DI 123 125

SIG LT

GUY

EIP

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 44
FOR -Y9- PROFILE SEE SHEET 53

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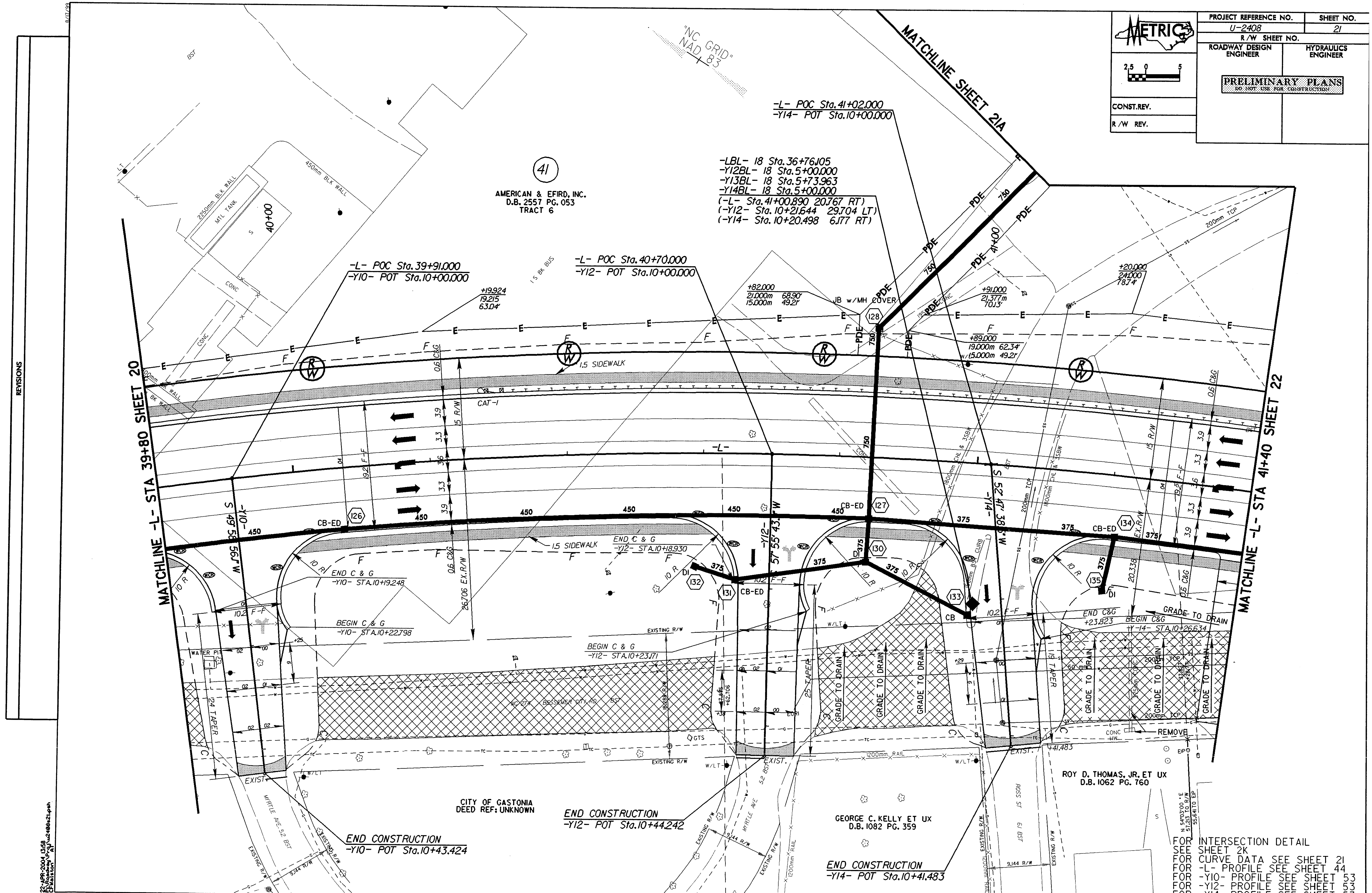
Olmstead, Walt



METRIC
PROJECT REFERENCE NO. U-2408
SHEET NO. 21
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION
CONST. REV.
R/W REV.
REVISIONS
"NC GRID" NAD 83
MATCHLINE SHEET 21A
MATCHLINE -L- STA 39+80 SHEET 20
MATCHLINE -L- STA 41+40 SHEET 22
41
AMERICAN & EFIRD, INC.
D.B. 2557 PG. 053
TRACT 6
-L- POC Sta. 41+02.000
-Y14- POT Sta. 10+00.000
-LBL- 18 Sta. 36+76.105
-Y12BL- 18 Sta. 5+00.000
-Y13BL- 18 Sta. 5+73.963
-Y14BL- 18 Sta. 5+00.000
(-L- Sta. 41+00.890 20.767 RT)
(-Y12- Sta. 10+21.644 29.704 LT)
(-Y14- Sta. 10+20.498 6.177 RT)
-L- POC Sta. 39+91.000
-Y10- POT Sta. 10+00.000
-L- POC Sta. 40+70.000
-Y12- POT Sta. 10+00.000
1.5 SIDEWALK
CAT-1
END C & G
-Y10- STA. 10+19.248
BEGIN C & G
-Y10- STA. 10+22.798
END C & G
-Y12- STA. 10+18.930
BEGIN C & G
-Y12- STA. 10+23.171
END C&G +23.823
BEGIN C&G -Y-14- STA. 10+26.634
GRADE TO DRAIN
REMOVE
CITY OF GASTONIA
DEED REF: UNKNOWN
GEORGE C. KELLY ET UX
D.B. 1082 PG. 359
ROY D. THOMAS, JR. ET UX
D.B. 1062 PG. 760
END CONSTRUCTION
-Y10- POT Sta. 10+43.424
END CONSTRUCTION
-Y12- POT Sta. 10+44.242
END CONSTRUCTION
-Y14- POT Sta. 10+41.483
MYRTLE AVE.
ROSS ST
FOR INTERSECTION DETAIL SEE SHEET 2K
FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 44
FOR -Y10- PROFILE SEE SHEET 53
FOR -Y12- PROFILE SEE SHEET 53
FOR -Y14- PROFILE SEE SHEET 53

PROJECT REFERENCE NO.	SHEET NO.
U-2408	21A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

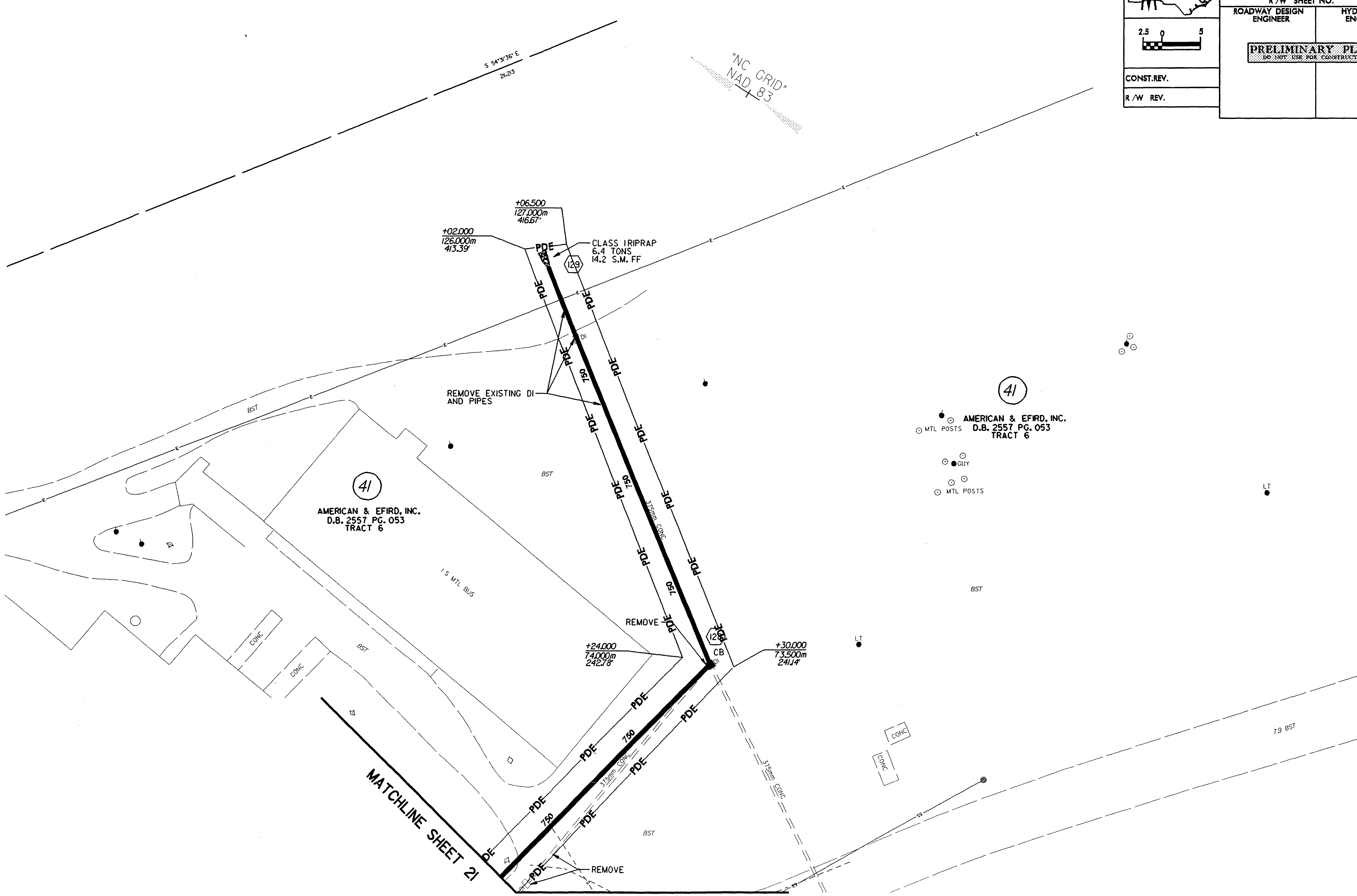
METRIC

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST. REV.

R/W REV.

REVISIONS



22-APR-2004 13:58
CF:Walston AT

PROJECT REFERENCE NO.	SHEET NO.
U-2408	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

4-14-03 PARCEL #46 - ELIMINATE CLAIM

8/17/99

22-APR-2004,13:59
C:\Projects\Proj\u2408s22.pnh
Plotted By: Matthews

FLOYD S. MINCEY, JR.
D.B. 1052 PG. 715
D.B. 1176 PG. 719

43A

+18.168 -Y15-
7.500m 24.61'

RETAIN

1800mm C.M.P. & 1.35%W

750mm CONC C&G

-Y15- N 57°00'45.8" W

BROWN ST

7.6 BST

EXIST

3 R/W

1.5 SIDEWALK

1.5 R

10.2 F-F

+30

MATCHLINE -Y15- STA. 10+30

+18.168 7.500 24.61'

18.168 T. APER

-Y15- PC Sta.10+18.168

+00.000 6.758 22.17'

BEGIN CONSTRUCTION
-Y15- POT Sta.9+90.000

EXIST R/W PER PB 5 PG 21

SOLDIER RUN

900mm CONC

I S F D

54 CONC

4.8 BST EP IRON

S 54°35'52" W 35.460

R/W TIE PENDING ON SURVEYS

S 54°35'52" W 35.460

HAZEL BUMGARDNER HEIRS
DB 908 PG 118
PB 5 PG 21

43A

-Y13BL- 57 Sta.5+00.000
(-Y13- Sta. 10+46.797 6.542 LT)

41

AMERICAN & EFIRD, INC.
D.B. 2557 PG. 053
TRACT 6

42+00

-LBL- 19 Sta.37+97.191
-Y15BL- 19 Sta.5+00.000
(-L- Sta.42+21.371 4.149 LT)
(-Y15- Sta. 10+82.405 58.950 RT)

+60.000 25.000m 82.02'

WD WHEEL GUARDS

+00.000 24.000 78.74'

1500mm BK WALL

1.5 SIDEWALK

REMOVE

375mm CONC

400 mm AC

-L-

EXIST R/W

33.600 EX.R/W

CB 136 375 CB 138

CB 137 375 CB 139

GRADE TO DRAIN

200mm TCP

PAVEMENT UMITS

NEIL YOUNG ET UX
D.B. 1024 PG. 853

THOMAS A. KIBLER
D.B. 1834 PG. 443

MTL CANOPY

I S F D

BST

10 GAS PUMPS U/MTL CANOPY

U/G FUEL TANKS 3 - 37,850 L

KINGSWAY PROPERTIES, LLC
DB 2885 PG 152

44

+29.387 17.882m 58.67' BST END CURB & GUTTER
-Y15- STA.11+15.019

+12.000 -Y15B- 7.500m 24.61'

KEROSENE PUMP

DND

END CONSTRUCTION
Y15B- POT Sta.11+62.000
Y15BL- 38 Sta.5+77.033

+49.805 -Y15B-
EXISTING R/W 4.560m 14.96'
+49.810 -Y15B-
5.245m 17.21'

+62.000 -Y15B-
EXISTING R/W 4.548m 14.92'

+62.000 -Y15B-
EXISTING R/W 4.596m 15.08'

+50.000 -Y15B-
7.000m 22.97'
5.275m 17.31'

150mm BST CURB

MATCHLINE -Y15B-

46

D. WINDELL BURCHFIELD ET UX
D.B. 2046 PG. 745

-Y15B- PT Sta.11+10.579

WILLIAM O. SMITH, JR. ET UX
D.B. 1396 PG. 216
D.B. 2246 PG. 915

45

+41.000 -Y15B-
10.000m 32.81'

+14.000 -Y15B-
12.384m 40.63'

+02.000 -Y15B-
13.493m 44.27'

+05.000 -Y15B-
8.000m 26.25'

-Y15- 5400/17700

2001 ADT
2030 ADT

BEGIN CURB & GUTTER
-Y15- STA.11+18.242

4500/6700

900/1200

-L- 19900/30300

-L- 16300/24800

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 45
FOR -Y15- PROFILE SEE SHEET 54
FOR -Y15A- PROFILE SEE SHEET 54

R/W TIE PENDING ON SURVEYS

-Y15A- POT Sta.10+00.000

BEGIN CONSTRUCTION
-Y15A- Sta.10+10.919

-Y15A- PC Sta.10+20.919

END CURB & GUTTER
-Y15A- STA.10+20.919 LT & RT

+19.000 -Y15A-
EXISTING R/W

+20.000 -Y15A-
8.000m 26.25'

"NC GRID" NAD 83

-Y15- POC Sta.10+50.000
-Y15A- PT Sta.10+52.094

-Y15- PT Sta.10+70.510

-L- POC Sta.42+80.000
-Y15- PC Sta.10+83.546
-Y15B- PC Sta.10+83.546

+34.000 -Y15A-
9.814m 32.20'

+37.186 15.000 49.21'

+40.023 17.000 55.78'

S 38°13'42.7" W

+20.919 -Y15A- 7.500m 24.61'

+39.000 -Y15- 13.000m 42.65'

RETAIN

MATCHLINE -Y15- STA. 10+30

142

143

JB w/ MH

CONVERT TO JB w/ MH

+20.000 11.000 36.09'

+50.000 7.500 24.61'

43

+00

0.6 MONOLITHIC CONC. ISLAND

141 CB

+70

I S BK BUS

S 79°00'15.4" W

MATCHLINE -L- STA 43+00 SHEET 23

MATCHLINE -L- STA 41+40 SHEET 21

140

REMOVE

PAVEMENT UMITS

+49.766

+29.387 17.882m 58.67'

+14.000 -Y15B- 12.384m 40.63'

+12.000 -Y15B- 7.500m 24.61'

+05.000 -Y15B- 8.000m 26.25'

N 72°50'05.3" W

-Y15B-

32' TAPER

EXISTING R/W

WILTON ST

750mm RAIL

+02.000 -Y15B- 13.493m 44.27'

+11+00

+41.000 -Y15B- 10.000m 32.81'

30 CONC

I S F D

EXIST

4-APR-2003 14:59
C:\Projects\Proj\u2408s22.pnh
Plotted By: Matthews

PROJECT REFERENCE NO.	SHEET NO.
U-2408	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST. REV.

R/W REV.

REVISIONS

"NC GRID" NAD 83

MATCHLINE -L- STA 43+00 SHEET 22

MATCHLINE -L- STA 44+80 SHEET 24

43 FLOYD S. MINCEY, JR. ET UX
D.B. 1052 PG. 715
D.B. 1943 PG. 540
D.B. 2402 PG. 890
D.B. 1008 PG. 654
D.B. 1176 PG. 719
PB 5 PG 27

47 SUSAN B. HULL
D.B. 1740 PG. 209

49 PAUL E. SELLERS ET UX
D.B. 736 PG. 537

50 DORIS J. BRADSHAW
D.B. 1442 PG. 225

51 BARBARA A. BROWN
D.B. 1981 PG. 824

53 WILLIAM C. FINISON ET ALS
D.B. 1064 PG. 488

54 VARNEY B. BRIDGES ET UX
D.B. 370 PG. 309

55 J. C. KENLEY ET UX
D.B. 1801 PG. 473

J. C. KENLEY ET UX
D.B. 2381 PG. 102

45A WILLIAM O. SMITH, JR. ET UX
D.B. 1396 PG. 216
D.B. 2246 PG. 915

48 MAX W. WOLFE ET ALS
D.B. 966 PG. 29
D.B. 1262 PG. 825

ROBERT J. BARKER
D.B. 2434 PG. 003

52 RICHARD S. JENKINS
DB 1826/PG. 690
DB 3030/ PG 576

CUSTOM MARKING AND PRINTING, INC.
D.B. 1496 PG. 511

ERNEST E. TRANTHAM ET UX
D.B. 1148 PG. 106

-LBL- 20 Sta. 39+94.605
-Y16BL- 20 Sta. 5+00.000
(-L- Sta. 44+19.460 16.447 RT)
(-Y16- Sta. 10+15.236 8.667 LT)

-L- POT Sta. 44+12.000
-Y16- PC Sta. 10+00.000

-L- TS Sta. 44+62.524

-L- PT Sta. 43+73.178

-Y16- PT Sta. 10+35.389

END CONSTRUCTION
-Y16- POT Sta. 10+53.000

-Y16- POT Sta. 10+57.017

-L- S 1° 42' 39.6" E

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 45
FOR -Y16- PROFILE SEE SHEET 54

22-APR-2004 14:10
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C:\Projects\2408\sht\u2408s23.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-2408	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

4-14-03 PARCEL #24 - CHANGED NAME FROM MILES HEAVENER TO J.C.KENLEY
9-4-03 PARCEL #70 - CHANGED NAME FROM CONNIE BAKER TO PARKS STILES. CHANGED DEED BOOK & PAGE NO

22-APR-2004 14:01
C:\Roadway\Projects\u2408a24.dgn
DWalston

-Y19BL- 41 Sta.5+00.000
POT Sta.9+90.000
-Y19- POT Sta.9+93.379
-Y19- PC Sta.10+08.379
-Y19- POT Sta.10+62.250
-Y20BL- 42 Sta.5+00.000
(-Y20- Sta. 10+43.559 4.777 RT)
-Y20- POT Sta.10+00.000
-L- POC Sta.45+50.000
-Y17- PC Sta.10+00.000
-Y19- POT Sta.10+62.250
-L- SC Sta.45+14.524
PT Sta.10+49.162
-Y19- POT Sta.10+51.322
-Y20- POT Sta.10+86.554
BEGIN CURB & GUTTER -Y19- STA.10+34.971
END CURB & GUTTER -Y19- STA.10+30.861
BEGIN GUARDRAIL
END GUARDRAIL
-LBL- 21 Sta.41+33.930
-Y17BL- 21 Sta.5+00.000
-Y19BL- 21 Sta.5+98.403
-Y20BL- 21 Sta.5+60.628
(-L- Sta. 45+55.776 14.076 RT)
(-Y17- Sta. 10+15.364 2J46 LT)

"NC GRID" NAD 83

MATCHLINE -L- STA 44+80 SHEET 23
MATCHLINE -L- STA 46+40 SHEET 25
MATCHLINE -Y17- STA 10+40 SHEET 33

CAROL F. BRYANT
D.B. 1350 PG. 287

CHARLES C. HALL, ET UX
D.B. 1074 PG. 92

J. C. KENLEY ET UX
D.B. 2381 PG. 102

JAMES K. YELTON & WF.
RITA V. YELTON
DB 3124 PG 197

JACK W. GRIER (1/2)
WALTER & BETTY BOOTH (1/2)
DB 2879 PG 486

JOHN D. MITCHEM ET UX
D.B. 764 PG. 15

CREGG A. BESS ET UX
D.B. 1090 PG. 493
D.B. 1262 PG. 727

PARKS STILES
D.B. 3736 PG. 983

JOHN C. KENLEY
D.B. 858 PG. 361
D.B. 890 PG. 93

G. THOMAS KEENER & WF.
JENNI D. KEENER
DB 3157 PG 532

J. C. KENLEY
D.B. 616 PG. 660

RICHARD W. LITTLEJOHN ET UX
D.B. 2080 PG. 579

JOHN C. KENLEY ET UX
D.B. 806 PG. 193

G. MICHAEL WALTERS, ET AL
DB 2871 PG 331

NC 274 BESSEMER CITY RD BST

BOND AVE

16800/25900 -L- 11900/18200
7300/12000
2400/4300
2001 ADT
2030 ADT
-Y17- 9700/16300

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 46
FOR -Y17- PROFILE SEE SHEET 55
FOR -Y19- PROFILE SEE SHEET 56

PROJECT REFERENCE NO.	SHEET NO.
U-2408	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST.REV.

R/W REV.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

4-14-03 PARCEL #83 - ELIMINATED CLAIM
9-4-03 PARCEL #72 - CHANGED NAME FROM JACK L.HOVIS,III & JANICE F.HOVIS TO LELAND TILSON & SANDRA TILSON.CHANGED DB & PAGE NO.REVISED IN R.O.W.SUMMARY SHEET

8/17/99

"NC GRID" NAD 83

SOIL

71
STILES LANDSCAPING, INC.
D.B. 2336 PG. 753
D.B. 2336 PG. 756

SHEILA LITTLE
WB 99E PG 607
DB 1246 PG. 84

S 88°39'18" E 65.767'

S 47°15'06" E 15.514

S 47°21'40" E 37.832

S 42°06'17" W 45.395 TO R/W 45.720 TO EIP

S 42°06'16" W 45.392 TO EIP 43.577 TO R/W

75
ELSIE KENLEY
(BY WILL) 80E - 435
D.B. 470 PG. 334

77
CHARLES L. RECTOR
ET UX
D.B. 1958 PG. 625

1800mm CHL & 3SBW

1500mm CHL

47+00

48+00

BST

1 S BK BUS

3 - U/G GAS TANKS
1- 37,850 L
1- 30,280 L
1- 22,710 L

CONC

W/LT

LT

-L- CS Sta. 46+96.806

+41.000
17.000 55.77'

+41.000
15.000 49.21'

+96.806
15.000
49.21'

+48.806
15.000
49.21'

+82.000
15.000
49.21'

+95.000 S BK BUS
17.854
58.58'

PAVEMENT UMITS

CHORD

1.5 SIDEWALK

MTL CANOPY

1 S BLK D

1 S F D

MATCHLINE -L- STA 46+40 SHEET 24

MATCHLINE -L- STA 48+00 SHEET 26

S 40°56'26" E 35.154

CB 161

CB 162

CB 163

CB 164

CB 375

375

10.8

7.2

6.0

3.9

3.3

3.6

15' R/W

200mm TCP

1050mm CHL

EXISTING R/W

450mm BK WALL

300mm FCP

300 mm CI

16.330 mm

NC 274 BESSEMER CITY RD BST

S 47°12'50.2" E

50 mph

105.538
98.609

105.538
98.609

19.929
99.378

19.929
99.378

1.789
98.698

1.789
98.698

10.357
+46.000

10.357
+46.000

+74.806

+88.000
17.118m
56.16'

+98.000
18.531m
60.80'

+73.000
15.000m
49.21'

+89.000
16.000m
52.49'

+96.806
15.000m
49.21'

+48.806
15.000m
49.21'

-L- ST Sta. 47+48.806

1.5 SIDEWALK

CHORD

PAVEMENT UMITS

BST

WD

I S F D

I S BK D

S

G. MICHAEL WALTERS, ET AL
DB 2871PG 331

67

68

HELEN H. CHILDERS
D.B. 2410 PG. 798

716.16 R/W-R/W
S66°55'19"W

716.16 R/W-R/W
S66°55'19"W

69
HELEN H. CHILDERS
D.B. 1868 PG. 514

72
LELAND TILSON & SANDRA TILSON
DB 3176 PG 668

73
PROFORMANCE MANAGEMENT GROUP, INC.
DB 3144 PG 145

74
CHARLES A. HILL & WF.
HENRIETTA A. HILL
DB 3026 PG 470

76
CAROLYN B. DAY
WB 94E PG 537
DB 1104 PG. 833

+51.769 -Y21-
8.803m 28.88'
EXISTING R/W

83
JAMES T. MOORE ET UX
D.B. 1002 PG. 438

45.738 EIP-COR
44.238 R/W-COR
S 54°40'16" W

45.556 EIP-COR
44.264 R/W-COR
S 42°59'21" W

50.033 R/W-COR
S 47°17'25" W

S 33°36'05" E
30.480 COR-COR

12.284 COR-COR
S 42°59'21" W

S 47°09'01" E
30.905

S 46°07'06" E
18.024

S 48°02'23" E
19.826 R/W TO EIP
19.334 R/W TO R/W

N 42°39'36" E
45.696 TO EIP

N 42°39'36" E
45.678 TO R/W

AXLE

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 46

22-APR-2004 14:02
C:\Projects\U-2408\dgn\U2408-25.dgn
cfulton

PROJECT REFERENCE NO.	SHEET NO.
U-2408	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2,5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

4-14-03 ELIMINATED PARCELS #83 & #90, PARCEL # 93 REDUCED EASEMENT TO REMOVE HOUSE FROM TAKING.
9-4-03 PARCEL #82- CHANGED NAME FROM PAUL R.BRIDGES TO DOROTHY BRIDGES, REVISED IN R.O.W. SUMMARY SHEET
9-4-03 PARCEL #81-CHANGED NAME FROM HARRY J.PRICE TEXULE COTO PAMELA J.FOX & JEFFERY PRICE, CHANGED DB & PG. NO. REVISED IN R.O.W. SUMMARY SHEET ADDED DR.WAY
9-4-03 PARCEL #81- ADDED RALPH E.MEDLIN & CARLA MEDLIN, DB 2829 PG 848 TO PARCEL. PARCEL #86 -ADDED EXIST DRIVE WAY ENTRANCE

8/17/98

22-APR-2004 14:02
\\Rdwy-proj\u2408\u2408s26.dgn
C.Walston

MATCHLINE -L- STA 48+00 SHEET 25

MATCHLINE -L- STA 49+80 SHEET 27

MATCHLINE -Y22-

MATCHLINE -Y23-

-Y22BL- 44 Sta.5+00.000
(-Y22- Sta.10+05.475 4.375 RT)

-L- POT Sta.49+10.350
-Y23- POT Sta.10+00.000

-L- POT Sta.48+08.500
-Y21- POT Sta.10+00.000
-Y22- POT Sta.10+73.141

-LBL- 22 Sta.43+79.950
-Y21BL- 22 Sta.5+00.000
-Y22BL- 22 Sta.5+73.539
(-L- Sta.47+99.994 4.012 RT)
(-Y21- Sta.10+04.091 8.468 RT)

-LBL- 45 Sta.44+84.919
-Y23BL- 45 Sta.5+00.000
(-L- Sta.49+04.910 7.391 RT)
(-Y23- Sta.10+07.390 5.440 RT)

-Y23BL- 47 Sta.5+66.758

BEGIN CONSTRUCTION
-Y22- POT Sta.9+93.917

END CONSTRUCTION
-Y21- POT Sta.10+60.000

END CONSTRUCTION
-Y23- POT Sta.10+75.000

BEGIN CURB & GUTTER
-Y21- STA.10+28.595

BEGIN CURB & GUTTER
-Y23- STA.10+27.472

END CURB & GUTTER
-Y22- STA.10+43.577

END CURB & GUTTER
-Y23- STA.10+24.000

PT Sta.10+46.946
BEGIN CURB & GUTTER

80 — CONC

77 — CHARLES L. RECTOR ET UX
D.B. 1958 PG. 625

79 — WANDA C. HENDERSON
D.B. 2230 PG. 846

78 — VIEVA P. RABY
D.B. 1310 PG. 266

CLAUDE GOINS
D.B. 2555 PG. 724

91 — NEW MILLS CHAPEL FIRE BAPTIZED HOLINESS CHURCH OF GOD OF THE AMERICA'S
D.B. 1772 PG. 807
ISBK (NEW MILLS CHAPEL CHURCH)
I S BK CHURCH

MARY'S PLAY & LEARN DAY CARE CENTER OF BELMONT, INC.
D.B. 2416 PG. 949

93

85 — DONNA R. RICHARDSON
DB 3158 PG 517

87 — SAM J. AMMONS
D.B. 1166 PG. 391

81 — PAMELA J. FOX & JEFFERY PRICE
D.B. 3546 PG. 35

82 — DOROTHY BRIDGES
D.B. 694 PG. 347

84 — ANGELA L. MILLER
DB 3060 PG 330

86 — JERRY R. DIGH, SR. & WF. MARY F. DIGH
DB 2633 PG 255

88 — CARL E. HAYES ET UX
D.B. 1222 PG. 743

89

92 — FRANK SHUBERT ET UX
D.B. 542 PG. 418

94 — LINDA HART
D.B. 2018 PG. 473

"NC GRID" NAD 83

NC 274 BESSEMER CITY RD BST

S 47°12'50.2" E

S 43°19'00.0" W

S 42°47'09.8" W

FOR INTERSECTION DETAIL SEE SHEET 2M
FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 47
FOR -Y21- PROFILE SEE SHEET 56
FOR -Y22- PROFILE SEE SHEET 56
FOR -Y23- PROFILE SEE SHEET 57

PROJECT REFERENCE NO.	SHEET NO.
U-2408	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

9-4-03 PARCELS • 101 & 102 - REVISED AREAS. R/W SUMMARY SHEET UPDATED

JAMES A. RABB ET UX
D.B. 1144 PG. 856
W.B. 68E PG. 686
D.B. 420 PG. 192

MARY'S PLAY & LEARN DAY CARE CENTER OF BELMONT, INC.
D.B. 2416 PG. 949

JIMMY B. BUMGARDNER ET UX
D.B. 1228 PG. 753

J. B. WALKER
D.B. 302 PG. 547

MARTHA J. J. BADGER ET AL
D.B. 1286 PG. 269
INCOMPLETE DESCRIPTION

JOHNNY F. RIDLEY ET AL
D.B. 1946 PG. 502

RALPH V. WITHERS ET UX
D.B. 1986 PG. 963

J. D. GREGORY ET UX
D.B. 1232 PG. 552
D.B. 1292 PG. 420

ARTHUR V. McCURRY ET UX
D.B. 1370 PG. 143

LINDA HART
D.B. 2018 PG. 473

BOBBY SCALES
D.B. 1512 PG. 350

CAROL C. RHYNE ET UX
D.B. 520 PG. 225

ROLAND D. BLACK
D.B. 1140 PG. 660

ROLAND D. BLACK ET ALS
D.B. 2360 PG. 976

"NC GRID" NAD 83

-Y24- PC Sta.10+00.000

BEGIN CURB & GUTTER
-Y24- STA.10+39.434

BEGIN CONSTRUCTION
-Y24- POT Sta.10+17.000

-Y24- PT Sta.10+24.910

-L- POC Sta.49+97.600
-Y24- POT Sta.10+67.108

-L- POC Sta.50+92.100
-Y25- POT Sta.10+00.000

-LBL- 7092 Sta.47+08.273
(-L- Sta.51+25.974 3.052 LT)

BEGIN CURB & GUTTER
-Y24- STA.10+42.858 F

END CONSTRUCTION
-Y25- POT Sta.10+80.000

-LBL- 23 Sta.45+72.249
-Y24BL- 23 Sta.5+70.524
(-L- Sta.49+90.863 7.653 LT)
(-Y24- Sta. 10+59.316 6.614 RT)

-L- PC Sta.49+83.913

-Y25BL- 48 Sta.6+37.043
(-Y25- Sta. 10+46.682 4.564 RT)

END CURB & GUTTER
-Y25- STA.10+24.000

BEGIN CURB & GUTTER
-Y25- STA.10+27.706

MATCHLINE -L- STA 49+80 SHEET 26

MATCHLINE -L- STA 51+40 SHEET 28

MATCHLINE -Y25-

MATCHLINE -Y25-

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 48
FOR -Y24- PROFILE SEE SHEET 57
FOR -Y25- PROFILE SEE SHEET 57

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PROJECT REFERENCE NO.	SHEET NO.
U-2408	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

4-14-03 PARCEL # 107 - CHANGED OWNER FROM WILLIAM WARLICK TO THERMAN L& LINDA W.POOLE
9-4-03 PARCEL # 106 - ADDED "TREES IN EASEMENT TO BE REMOVED"
9-4-03 PARCEL # 101 - REVISED PARCEL AREA, R.O.M. SUMMARY SHEET UPDATED

-Y26- POT Sta.10+00.000
-Y27- POT Sta.10+00.000
BEGIN CONSTRUCTION -Y26- POT Sta.10+12.000
BEGIN CONSTRUCTION -Y27- POT Sta.10+13.452
-Y27- PC Sta.10+38.452
-Y26- PC Sta.10+49.554
-Y26- PT Sta.10+76.748
-L- POC Sta.51+82.000
-Y26- POT Sta.10+90.921
-L- POC Sta.52+24.000
-Y27- PT Sta.10+69.607
-L- STA 52+48 TO STA 52+80 LT
BEGIN RETAINING WALL -L- STA.51+83 13.8m RT
END RETAINING WALL -L- STA.52+45.000 13.8m RT
END CURB & GUTTER -Y26- STA. 10+54.504
BEGIN CURB & GUTTER -Y26- STA. 10+59.915
END CURB & GUTTER -Y27- STA. 10+35.044
BEGIN CURB & GUTTER -Y27- STA. 10+38.452
-LBL- 24 Sta.48+03.713
-Y25BL- 24 Sta.5+00.000
-Y26BL- 24 Sta.6+05.564
-Y27BL- 24 Sta.5+97.336
(-L- Sta.52+19.362 57.166 LT)
(-Y25- Sta. 10+14.590 28.669 LT)
(-Y26- Sta. 10+76.513 39.204 LT)
(-Y27- Sta. 10+53.244 3.499 RT)

EME REAL ESTATE, LTD., A.N.C. LIMITED PARTNERSHIP DB 2837 PG 69
JOHNNY F. RIDLEY ET AL D.B. 1946 PG. 502
JAMES H. MANEY ET UX D.B. 2088 PG. 012
FRANKLIN G. FULLER ET UX D.B. 1464 PG. 123
LARRY E. STARNES, ET AL D.B. 2188 PG. 368
THERMAN LAMAR POOLE & WF. LINDA WARLICK POOLE DB 2882 PG 878
FREDERICK M. DOW & WF. CAROLYN M. DOW DB 3083 PG 797
WILLIAM WARLICK D.B. 686 PG. 496
ROLAND D. BLACK D.B. 2166 PG. 839
HILLARY M. VESTAL ET UX D.B. 2012 PG. 740

"NC GRID" NAD 83

DETAIL #3
SPECIAL CUT BASE DITCH
(Not to Scale)
Natural Ground, 2:1, 4:1 or Flatter, Front Ditch Slope, B, Min. D = 0.5 m, B = 0.6 m

DETAIL #5
STANDARD BASE DITCH
(Not to Scale)
Natural Ground, RDBW, 2:1, D, B, Natural Ground, Min. D = 0.5 m, B = VARIES 1.8 m TO 1.0 m

MATCHLINE -L- STA 51+40 SHEET 27
MATCHLINE -L- STA 53+00 SHEET 29

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 49
FOR -Y26- PROFILE SEE SHEET 57
FOR -Y27- PROFILE SEE SHEET 58

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PROJECT REFERENCE NO.	SHEET NO.
U-2408	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2.5 0 5

CONST.REV.

R/W REV.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

4-14-03 PARCEL # 112 - ONE STORY FRAME DWELLING HAS BEEN REMOVED

MATCHLINE -L- STA 53+00 SHEET 28

MATCHLINE -L- STA 54+80 SHEET 30

NELLIE M. HAYES MARTIN
D.B. 2482 PG. 742

"NC GRID" NAD 83

DETAIL #2
LATERAL BASE DITCH
(Not to Scale)

Natural Ground 2:1 D 2:1 Fill Slope .08m/m b B

Min. D = 0.5 m
B = 0.6 m
b = 1.5 m

DETAIL #7
STANDARD BASE DITCH
(Not to Scale)

Natural Ground 2:1 D 2:1 Natural Ground B

Min. D = 1.0 m
B = VARIES 1.8 m TO 1.0 m

-Y28- POT Sta.10+00.000

BEGIN CONSTRUCTION
-Y28- POT Sta.10+25.000

END CURB & GUTTER
-Y28- STA. 10+43.672

BEGIN CURB & GUTTER
-Y28- STA. 10+46.868

-Y28- PC Sta.10+52.573

-LBL- 5 Sta.49+44.670
-Y28BL- 5 Sta.5+83.767
(-L- Sta.53+57.517 18.017 LT)
(-Y28- Sta.10+65.855 31.841 LT)

-L- PT Sta.53+42.278

-L- POC Sta.53+28.000
-Y28- PT Sta.10+76.766

S 41°50'23" E
74.487 TO P/K
71.338 TO ISB

S 45°32'18" W

N 83°24'28" E
65.502 TO EIP
64.379 TO R/W

S 17°14'20" E

N 78°37'02" E
68.404 TO R/W
67.106 TO R.R. SPIKE

N 78°37'00" E
23.629

N 78°37'02" E
46.839

S 15°43'14" E
15.291

S 15°43'13" E
106.370

N 39°59'14" E
50.164

N 78°34'45" E
58.721

S 8°27'42" E
66.077

VICKY LYNN INCORPORATED
DB 2626 PG 85

BASE DITCH
EST. DDE 25 C.M.
SEE DETAIL #7
CLASS I RIPRAP
EST. 33 TONS

0.6 m LATERAL BASE DITCH
SEE DETAIL #2

CLASS B RIPRAP
2.7 TONS
8.4 S.M. FF

FILL W/ FLOWABLE FILL

1650 BORE & JACK

1.5 SIDEWALK

PAVEMENT LIMITS

REMOVE

ELMORE M. BRYANT
D.B. 2242 PG. 775
D.B. 2301 PG. 412

MARGARET H. CALDWELL
D.B. 648 PG. 591

JERRY L. HIBBERTS ET UX
D.B. 2353 PG. 680

RAY H. SMITH ST UX
D.B. 2309 PG. 834

2 S BLK D

POOL

I S F D

BESSEMER CITY RD NC 274 8.2 BST

HAWES LAVE

EXISTING R/W

TIE TO EXIST DITCH

+32.000-Y28- EXIST.R/W

+40.000-Y28- 11.000 36.09'

+39.000-Y28- EXIST.R/W

+14.864 22.433 73.60'

+11.000 21.193m 69.53'

+100.000 17.880m 58.43'

+29.560 23.823 78.16'

+57.170 -Y28- 10.498m 34.44'

+46.868

+61.146 18.000 59.06'

+78.000 15.000 49.21'

+37.000 59.06' 18.000

+37.000 49.21' 15.000 LT

+53.000 85.31' 26.000 LT

+59.000 27.000 LT 88.58'

+66.000 20.000 LT 65.62'

+66.000 15.000 LT 49.21'

+25.000 16.500m 54.13'

+42.278 15.000m 49.21'

+64.000 17.500m 57.41'

+17.000 21.000m 68.90'

+77.800 15.000m 49.21'

+37.000 21.000 LT 68.90'

111 112 113 114 115

186 187 188 189 190 191 192 193 194

CB DI HW

375 SYS 6 GRAU-350 1050mm CHL 200mm CHL 150mm CONC 200mm TCP 150mm TCP 200mm CI

15 R/W 10.8 10.4 9.8

3.9 3.3 6

-L- 53+00 54+00

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 50
FOR -Y28- PROFILE SEE SHEET 58

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Preliminary

PROJECT REFERENCE NO.	SHEET NO.
U-2408	30
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
NOT APPROVED FOR CONSTRUCTION

CONSTRUCTION
R/W REV.

"NC GRID" NAD 83

-Y30- POT Sta.10+20.000

-Y30RL- 63 Sta.5+03.000
(-Y30- Sta.10+30.396 10.250 LT)

-129- POT Sta.10+23.38

BEGIN CONSTRUCTION
-129- POT Sta.10+23.38

(121) SOUTHSTAR HOLDINGS-FRANKLIN, LLC
DB 3716 PG 45

(116) MARVIN A. MORRIS, ET UX
D.B. 1067 PG. 429

-L- POT Sta.56+55.84
-Y30- POT Sta.11+29.383

BEGIN CURB & GUTTER
-129- STA.10+10.75

END CURB & GUTTER
-Y30- STA.11+00.30

BEGIN CURB
-L- STA.56+43

END CURB
-L- STA.56+24

200 x 450 CONC CURB

(119) MARVIN A. MORRIS, ET UX
D.B. 1075 PG. 531

REMOVE

MATCHLINE -L- STA. 54+90 SHEET 29

(120) GREAT MEADOWS, INC.
DB 359 PG 452

-L- POT Sta.55+50.900
-129- POT Sta.11+30.226

END CURB & GUTTER
-Y30- STA.11+55.868

(118) CHARLES W. CRAWLEY, ET UX
D.B. 845 PG. 903
D.B. 1092 PG. 512

(115) RAY M. DUFFY, ET UX
D.B. 2308 PG. 634

(117) OSCAR L. FOSTER, ET UX
D.B. 548 PG. 182

CLASS I RIPRAP
SEE DETAIL #7

TDE
TTDE

-Y30RL- 6 Sta.52+56.662
-Y30RL- 8 Sta.5+07.339
(-L- Sta.56+68.07 10.176 RT)
(-Y30- Sta.11+38.251 14.089 LT)

THIS AREA PRESENTLY UNDER CONSTRUCTION

-L- STA.56+46.936 END STATE PROJECT U-2408

PCSta.56+74.452

-Y30- POT Sta.12+20.000

12+00

11+00

DETAIL #7
STANDARD BASE DITCH
(Not to Scale)

Natural Ground — 2 — 2 — Natural Ground
B
Min. D + 1.0 m
VARIES 1.8 m TO 10 m

2001 ADT / 2030 ADT

-Y30- 12100/20900

1300/3200 — 3500/6400

21900/37000 -L- -L- 18500/31700

6200/9200 — 500/1000

13900/21800 -Y30-

FOR CURVE DATA SEE SHEET 21
FOR -L- PROFILE SEE SHEET 50
FOR -129- PROFILE SEE SHEET 58

LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	DATE:
CHECKED BY:	DATE:

PROJECT REFERENCE NO.	SHEET NO.
U-2408	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

8/11/99

"NC GRID" NAD 83

-Y2ABL- 27 Sta.5+00.000

-Y2BBL- 28 Sta.5+00.000

PAUL L. HOLLAND, ET UX
DB 3063 PG 752

84.283 R/W-R/W
S55°01'44"E

98.534 EIP-R/W
S42°24'34"E

CHRISIE DAWN LANCASTER
DB 3073 PG 18

I S F D

71.146 R/W-EIP

71.860 EIP-EIP(& R/W)
S55°30'44"E

EXIST.

+89.949 -Y2A-
57.91m 190.2'

+93.234 -Y2A-
6.406m 21.02'

BEGIN CONSTRUCTION
-Y2A- POT Sta.9+85.000

TIE TO EXISTING DITCH

8
TRUSTEES OF BRIGHT LIGHT BAPTIST CHURCH
DB 3002 PG 41

9
TRUSTEES OF BRIGHT LIGHT BAPTIST CHURCH
DB 806 PG 369
DB 1882 PG 674
DB 1882 PG 676

10
HAYWOOD EQUITY GROUP LIMITED PARTNERSHIP
DB 2877 PG 232

+20.000 -Y2A-
15.000m 49.21'

+20.000 -Y2A-
12.000m 39.37'

-Y2B- POT Sta.10+00.000

-Y2A- PC Sta.10+51.619

S 33°32'32.0"W

-Y2A-

-Y2B-
S 50°56'56.6"W

BEGIN CONSTRUCTION
-Y2B- POT Sta.10+08.951

-Y2B- PC Sta.10+23.951

+24.888 -Y2B-
8.882m 29.14'

+22.802 -Y2B-
9.434m 30.95'

+40.000 -Y2B-
16.000m 52.49'

SPECIAL DITCH
-Y2B- STA 10+25
TO 10+60 RT
SEE PROFILE

SPECIAL DITCH
-Y2B- STA 10+40
TO 10+72 LT
SEE PROFILE

7
ROBERT B. RHYNE
DB 1903 PG 281
PB 6 PG 53

+60.000 -Y2A-
14.000m 45.93'

+60.000 -Y2A-
12.000m 39.37'

TIE TO EXISTING DITCH

PAVEMENT LIMITS

GUARD POST

MATCHLINE -Y2A- STA 10+70 SHEET 7

MATCHLINE -Y2B- STA 10+45 SHEET 7

GAS REGULATOR

S 89°46'56"E
13.055 TO R/W
73.71'TO EIP

GASTONIA TOWNSHIP
GASTONIA CORPORATE LIMITS (PB 39 PG 6)

NC 275 DALLAS-BESSEMER CITY RD

WETLAND

1315mm CONC EXIST R/R

1200mm CONC

1050mm CMP

450 mm CI

375mm CONC

REMOVE

EXIST.

EIP

LT

RT

BST

7.0 BST

7.3 BST

FOR CURVE DATA SEE SHEET 21
FOR -Y2A- PROFILE SEE SHEET 51
FOR -Y2B- PROFILE SEE SHEET 51

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Christon

METRIC	PROJECT REFERENCE NO.	SHEET NO.
2.5 0 5	U-2408	32
	R/W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R/W REV.	PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

REVISIONS

8/17/99

"NC GRID" NAD 83

212.656 COR-R/W S49°17'00"E

311.76 R/W-COR S49°18'00"E

200mm TCP

375mm CONC

-Y3BL- 29 Sta.5+00.000

18.288 R/W

EXISTING R/W

EXISTING R/W

LT

U2408 MODEL 4544

U2408 MODEL 4443

BST

-Y3- POT Sta.10+00.000

BEGIN CONSTRUCTION -Y3- POT Sta.10+15.000

200mm TCP

150mm CONC CURB

CONC

150mm CONC CURB

150mm CONC

13

STANDARD BUSINESS FORMS, INC.
D.B. 798 PG. 449

FLAGPOLE

GUY

EXIST

+26.000 -Y3- EXIST.R/W

ISLEY DR

+28.000 -Y3- EXSIT.R/W

+30

EXIST

DND

CONC

WATER PIT

+40.000 15.000m 49.2'r

3 E

01

02

+39.000 19.000m 62.34'

7.0 BST

+42

02

PAVEMENT UMITS

WATER PIT

CONC

150mm CONC CURB

30 TAPER

S 45° 42' 42.8" W

-Y3-

150 mm STL

10 mm CI

144

3000mm CONC

+59.000 -Y3- 18.000m 59.06'

MATCHLINE -Y3- STA 10+60 SHEET 9

14

CLARENCE W. SMITH
D.B. 1794 PG. 58

FOR CURVE DATA SEE SHEET 21
FOR -Y3- PROFILE SEE SHEET 52

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Preliminary Plans

PROJECT REFERENCE NO.	SHEET NO.
U-2408	33
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC
2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS
5/13/03 RR REVISED PARCELS 62,63,66,67,68,AND 69. UPDATED EXISTING R.O.W. FILE. DATA SHEET UPDATED ACCORDINGLY

8/11/99

"NC GRID" NAD 83

MATCHLINE -Y17- STA 10+40 SHEET 24

MATCHLINE "A"

-Y17- POC Sta.10+48.000
-Y18- POT Sta.10+00.000

-Y17- PT Sta.10+98.499

-Y18- PC Sta.10+32.332

-Y18- PT Sta.10+71.561

-Y17BL- 40 Sta.5+61.373
-Y18BL- 40 Sta.5+00.000
(-Y17- Sta. 10+48.198 44.019 RT)
(-Y18- Sta. 10+43.849 11.90 RT)

-Y18BL- 58 Sta.5+65.867

END CONSTRUCTION
-Y18- Sta.10+86.561

-Y18- POT Sta.11+06.583

END CONSTRUCTION
-Y17- POT Sta.11+88.000

END CURB & GUTTER
-Y17- STA.11+87.292

END CURB & GUTTER
-Y17- STA.11+73.961

JOHN C. KENLEY ET UX
D.B. 806 PG. 193

G. MICHAEL WALTERS, ET AL
DB 2871 PG 331

HELEN H. CHILDERS
D.B. 2410 PG. 798

GREATER MT. ZION BAPTIST CHURCH
DB 1971 PG. 309

RICHARD W. LITTLEJOHN ET UX
D.B. 2080 PG. 579

HINKLE RAYFIELD, SR., ET UX
D.B. 852 PG. 663

THERMAN L. POOLE, ET UX
D.B. 1986 PG. 987, 989

3.658 ALLEY

MYRTLE SCHOOL RD SR 1857

VX 34 GAS
N 170644.68
E 407421.65
EL 252.84m
-L- 45+53.05 14.15 R

VX 38 WATER
N 170657.12
E 407421.78
EL 253.39m
-L- 45+39.07 22.83 R

MAIN AVE SR 1879

EXISTING R/W

FOR CURVE DATA SEE SHEET 21
FOR -Y17- PROFILE SEE SHEET 55
FOR -Y18- PROFILE SEE SHEET 55

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PROJECT REFERENCE NO.	SHEET NO.
U-2408	33A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC
2.5 0 5

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

REVISIONS

8/17/99

MATCHLINE SHEET 33

PROFORMANCE MANAGEMENT GROUP, INC.
DB 3144 PG 145

BETTY JO WALDROP
DB 2192 PG 816

UNITY BAPTIST CHURCH
DB 784 PG 399
DB 930 PG 259

"NC GRID" NAD 83

MYRTLE SCHOOL RD

SPECIAL BASE DITCH SEE DETAIL #3

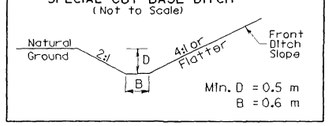
ERNEST E. WILSON
DB 1062 PG 672
DB 1988 PG 642
PB 5 PG 66

ALINE N. WHITESIDES
DB 498 PG 640
PB 5 PG 66

LEWIS YOUNG
DB 1038 PG 256
PB 13 PG 69

JERRY L. FRIDAY
DB 1386 PG 860
PB 13 PG 69

DETAIL #3
SPECIAL CUT BASE DITCH
(Not to Scale)



Min. D = 0.5 m
B = 0.6 m

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