



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

April 7, 2014

Wilmington Regulatory Field Office
US Army Corps of Engineers
69 Darlington Avenue
Wilmington, North Carolina 28403

ATTN: Ms. Liz Hair
NCDOT Coordinator

Dear Madam:

Subject: **Application for a Section 404 Nationwide Permit 23** for the proposed widening of SR 1121 (Ray Rd) from NC 210 to SR 1120 (Overhills Rd) in Harnett Co. TIP No. U-3465; Federal Aid Project No. STP-1121(9); WBS 39017.1.1

The North Carolina Department of Transportation (NCDOT) proposes to widen SR 1121 (Ray Road) from NC 210 to SR 1120 (Overhills Road), with intersection improvements at the intersection of Ray Road and Overhills Road in Harnett County. The widening will convert Ray Road from its current two-lane configuration to a four-lane, median-divided facility. Traffic will remain on-site during construction.

Please see enclosed copies of the Pre-Construction Notification (PCN), Preliminary Jurisdictional Determination Form, permit drawings, stormwater management plan, and roadway plans for the above referenced project. The Categorical Exclusion (CE) was completed in April 2009 and distributed shortly thereafter. Subsequently, a FHWA Right-of-Way Consultation was signed April 27, 2012.

This project calls for a letting date of November 18, 2014 and a review date of September 30, 2014. The project schedule may be advanced if funding becomes available.

Regulatory Approvals

Section 404 Permit: All aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR 771.115(b). The NCDOT requests that the project be authorized by NW 23 for bridge construction.

Section 401 Permit: We anticipate 401 General Certification number 3891 will apply to this project. All general conditions of the Water Quality Certification will be met and therefore NCDOT is not requesting written approval.

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

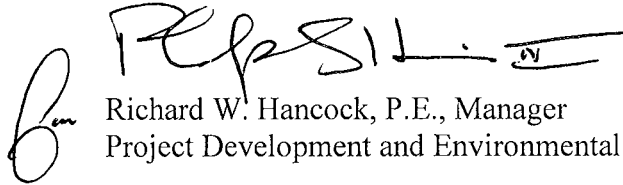
TELEPHONE: 919-707-6000
FAX: 919-250-4224

WEBSITE: WWW.NCDOT.GOV/DOH/PRECONSTRUCT/PE/

LOCATION:
CENTURY CENTER, BUILDING A
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

A copy of this permit application and its distribution list will be posted on the NCDOT Website at <https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>, under *Quick Links > Permit Applications*. A copy of the CE is also available at the above website address under *Quick Links > Environmental Documents*. Thank you for your assistance with this project. If you have any questions or need additional information, please contact Tyler Stanton at tstanton@ncdot.gov or (919) 707-6156.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard W. Hancock". The signature is written in a cursive style with a horizontal line extending to the right.

Richard W. Hancock, P.E., Manager
Project Development and Environmental Analysis Unit

cc: NCDOT Permit Application Standard Distribution List



Office Use Only:
 Corps action ID no. _____
 DWQ project no. _____
 Form Version 1.3 Dec 10 2008

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 23 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Project Information

2a. Name of project:	Proposed widening of SR 1121 (Ray Rd) from NC 210 to SR 1120 (Overhills Rd)
2b. County:	Harnett
2c. Nearest municipality / town:	Spring Lake
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	U-3465

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6156
3g. Fax no.:	(919) 250-4224
3h. Email address:	tstanton@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	<i>not applicable</i>
4c. Business name (if applicable):	
4d. Street address:	
4e. City, state, zip:	
4f. Telephone no.:	
4g. Fax no.:	
4h. Email address:	
5. Agent/Consultant Information (if applicable)	
5a. Name:	<i>not applicable</i>
5b. Business name (if applicable):	
5c. Street address:	
5d. City, state, zip:	
5e. Telephone no.:	
5f. Fax no.:	
5g. Email address:	

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.2370 (DD.DDDDDD) Longitude: - 78.9674 (-DD.DDDDDD)
1c. Property size:	70 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Jumping Run Creek
2b. Water Quality Classification of nearest receiving water:	C
2c. River basin:	Cape Fear
3. Project Description	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: Existing conditions at the site include maintained/disturbed roadside shoulder and forested areas. Land use in the project vicinity is predominantly residential and forested, with some agriculture and commercial development.	
3b. List the total estimated acreage of all existing wetlands on the property: 0.25	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 0	
3d. Explain the purpose of the proposed project: improve the traffic carrying capacity of SR 1121 (Ray Road).	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves widening SR 1121 (Ray Road) from NC 210 to SR 1120 (Overhills Road), with intersection improvements at the intersection of Ray Road and Overhills Road in Harnett County. The widening will convert Ray Road from its current two-lane configuration to a four-lane, median-divided facility. Traffic will remain on-site during construction. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input checked="" type="checkbox"/> Preliminary <input type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Tyler Stanton	Agency/Consultant Company: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. A site visit occurred on May 6, 2008, no JD was ever provided; therefore, an updated preliminary JD form is attached with this application	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

C. Proposed Impacts Inventory						
1. Impacts Summary						
1a. Which sections were completed below for your project (check all that apply):						
<input checked="" type="checkbox"/> Wetlands		<input type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers		
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction				
2. Wetland Impacts						
If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.						
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)	
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Fill	Non-Riverine	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.05	
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Excavation	Non-Riverine	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	< 0.01	
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Mech. Clear.	Non-Riverine	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.03	
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
2g. Total wetland impacts					0.08 Perm	
2h. Comments: *There will be 0.01 ac of hand clearing in wetlands and proposed temporary impacts to wetlands of <0.01 acre of temporary fill in wetlands in the hand clearing areas for the installation of erosion control measures, including temporary silt fence and/or special sediment control fence.						
3. Stream Impacts						
If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.						
3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
3h. Total stream and tributary impacts						
3i. Comments:						

4. Open Water Impacts

If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
4f. Total open water impacts				

4g. Comments:

5. Pond or Lake Construction

If pond or lake construction proposed, then complete the chart below.

5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
5f. Total								

5g. Comments:

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, permit ID no:
5i. Expected pond surface area (acres):	
5j. Size of pond watershed (acres):	
5k. Method of construction:	

6. Buffer Impacts (for DWQ)

If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you **MUST** fill out Section D of this form.

6a. Project is in which protected basin?		<input type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input type="checkbox"/> Catawba <input type="checkbox"/> Randleman			
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
6h. Total buffer impacts					
6i. Comments:					

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. 3:1 fill slopes will be constructed in the wetland. Energy dissipator basins to be employed to slow velocities of stormwater runoff.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. Best Management Practices for the Protection of Surface Waters, as well as, Best Management Practices for Construction and Maintenance Activities will be implemented.		
2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, explain: Due to minimal impacts, compensatory mitigation is not proposed	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
4. Complete if Making a Payment to In-lieu Fee Program		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	
4h. Comments:		
5. Complete if Using a Permittee Responsible Mitigation Plan		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?

Yes No

6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.



Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
6f. Total buffer mitigation required:				

6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).

6h. Comments:

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If not, explain why. Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See attached permit drawings and stormwater management plan.	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input checked="" type="checkbox"/> DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No N/A

F. Supplementary Information	
1. Environmental Documentation (DWQ Requirement)	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Violations (DWQ Requirement)	
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
3. Cumulative Impacts (DWQ Requirement)	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description. Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.	
4. Sewage Disposal (DWQ Requirement)	
4a. 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. not applicable	

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input type="checkbox"/> Raleigh <input type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? NCNHP, USFWS website, field surveys		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
 Richard W. Hancock, P.E. Applicant/Agent's Printed Name	 Applicant/Agent's Signature <small>(Agent's signature is valid only if an authorization letter from the applicant is provided.)</small>	04/07/2014 Date

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input type="checkbox"/> Raleigh	<input type="checkbox"/> Asheville
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? NCNHP, USFWS website, field surveys		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
<u>Richard W. Hancock, P.E.</u> Applicant/Agent's Printed Name	_____ Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	_____ Date

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: U-3465 City/County: Harnett Sampling Date: 11/7/2012
 Applicant/Owner: NCDOT State: NC Sampling Point: WA-Wet
 Investigator(s): Stanton, Merritt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 3
 Subregion (LRR or MLRA): P Lat: 35.233165 Long: -78.965653 Datum: NAD83
 Soil Map Unit Name: Bibb (Bb) NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: Harnett Co. has been under drought to abnormally dry conditions for close to 2 years (source: US Drought Monitor)			

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Marl Deposits (B15) (LRR U)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Water-Stained Leaves (B9)		<p><u>Secondary Indicators (minimum of two required)</u></p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Surface Soil Cracks (B6)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Drainage Patterns (B10)</td> </tr> <tr> <td><input type="checkbox"/> Moss Trim Lines (B16)</td> </tr> <tr> <td><input type="checkbox"/> Dry-Season Water Table (C2)</td> </tr> <tr> <td><input type="checkbox"/> Crayfish Burrows (C8)</td> </tr> <tr> <td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Geomorphic Position (D2)</td> </tr> <tr> <td><input type="checkbox"/> Shallow Aquitard (D3)</td> </tr> <tr> <td><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</td> </tr> <tr> <td><input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)</td> </tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)
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<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>15</u></p>	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: **Water table was observed at 1" below surface during April 2008 site visit**

VEGETATION – Use scientific names of plants

Sampling Point: WA-Wet

Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Liriodendron tulipifera</i></u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>
2. <u><i>Nyssa biflora</i></u>	<u>10</u>	<u>Yes</u>	<u>OBL</u>
3. <u><i>Acer rubrum</i></u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
4. <u><i>Salix nigra</i></u>	<u>2</u>	<u>No</u>	<u>OBL</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>26</u> 20% of total cover: <u>10.4</u>			

Sapling/Shrub Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Liriodendron tulipifera</i></u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>
2. <u><i>Acer rubrum</i></u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>
3. <u><i>Magnolia virginiana</i></u>	<u>5</u>	<u>No</u>	<u>FACW</u>
4. <u><i>Alnus serrulata</i></u>	<u>5</u>	<u>No</u>	<u>OBL</u>
5. <u><i>Persea palustris</i></u>	<u>5</u>	<u>No</u>	<u>FACW</u>
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>			

Herb Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Arundinaria gigantea</i></u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>
2. <u><i>Osmunda cinnamomea</i></u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>
3. <u><i>Osmunda regalis</i></u>	<u>10</u>	<u>No</u>	<u>OBL</u>
4. <u><i>Woodwardia areolata</i></u>	<u>10</u>	<u>No</u>	<u>OBL</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>35</u> 20% of total cover: <u>14</u>			

Woody Vine Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Smilax rotundifolia</i></u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>25</u> 20% of total cover: <u>10</u>			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	<u>8</u>	(A)
Total Number of Dominant Species Across All Strata:	<u>7</u>	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>88</u>	(A/B)

Prevalence Index worksheet:

Total % Cover of :	Multiply by:
OBL species <u>5</u>	x1 = <u>5</u>
FACW species <u>4</u>	x2 = <u>8</u>
FAC species <u>3</u>	x3 = <u>9</u>
FACU species <u>1</u>	x4 = <u>4</u>
UPL species <u>0</u>	x5 = <u>0</u>
Column Totals: <u>13</u> (A)	<u>26</u> (B)
Prevalence Index = B/A = <u>2</u>	

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0¹
- Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes No

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

SOIL

Sampling Point: WA-Wet

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/1	100					loam	
6-15	10YR 2/1	70	10YR 4/1	30	D	M	loamy	coarse sand
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

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

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

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soils Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: U-3465 City/County: Harnett Sampling Date: 11/7/2012
 Applicant/Owner: NCDOT State: NC Sampling Point: WA-Up
 Investigator(s): Stanton, Merritt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 2
 Subregion (LRR or MLRA): P Lat: 35.23299 Long: -78.965653 Datum: NAD83
 Soil Map Unit Name: Candor (CaB) NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Harnett Co. has been under drought to abnormally dry conditions for close to 2 years (source: US Drought Monitor)		

HYDROLOGY

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

Remarks:

SOIL

Sampling Point: WA-Up

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>0-8</u>	<u>10YR 3/3</u>	<u>100</u>	_____	_____	_____	_____	<u>coarse sand</u>	_____
<u>8-20</u>	<u>10YR 4/3</u>	<u>100</u>	_____	_____	_____	_____	<u>fine sand</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

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

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

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soils Present? Yes No

Remarks:

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD):

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
Tyler Stanton, NCDOT, 1598 Mail Service Center, Raleigh, NC 27699-1598

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: CESAW-RG-L

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
TIP: U-3465 Description: PROPOSED WIDENING OF SR 1121 (RAY RD) FROM NC 210 TO SR 1120 (OVERHILLS RD)
(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: NC County/parish/borough: Harnett City:
Center coordinates of site (lat/long in degree decimal format):
Lat. 35.2370°**N**, Long. -78.9674° **W**
Universal Transverse Mercator:
Name of nearest waterbody: Jumping Run Creek

Identify (estimate) amount of waters in the review area:
Non-wetland waters: linear feet: width (ft) and/or acres.
Cowardin Class:
Stream Flow:
Wetlands: 0.25 acres.
Cowardin Class: Forested

Name of any water bodies on the site that have been identified as Section 10 waters:
Tidal: N/A
Non-Tidal: N/A

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- Office (Desk) Determination Date:
- Field Determination Date(s):

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this

preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring “pre-construction notification” (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant’s acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there “*may be*” waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply)

- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

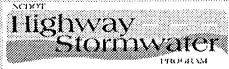
- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant
- Data sheets prepared/submitted by or on behalf of the applicant/consultant
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24000;
- USDA Natural Resources Conservation Service Soil Survey Citation:
- National wetlands inventory map(s). Cite name:
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): or Other (Name & Date):
- Previous determination(s). File no. and date of response letter:
- Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory Project Manager
(REQUIRED)

Dylan Stutz 2/5/2014
Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining
the signature is impracticable)

Site Name	Latitude	Longitude	Cowardin Class	Estimated amount of aquatic resource in review area	Class of aquatic resource
Wet A	35.2370°N	-78.9674°W	PFO	0.25 acre(s)	non-section 10 – wetland
	°N	- °W		acre(s)	section 10 – tidal
	°N	- °W		acre(s)	section 10 – tidal
	°N	- °W		acre(s)	section 10 – tidal
	°N	- °W		acre(s)	section 10 – tidal
	°N	- °W		acre(s)	section 10 – tidal
	°N	- °W		acre(s)	section 10 – tidal



North Carolina Department of Transportation
 Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
 FOR LINEAR ROADWAY PROJECTS



(Version 1.2; Released September 2011)

Project/TIP No.: 39017.1.1

County(ies): Harnett

Page 1 of 2

General Project Information

Project No.:		39017.1.1		Project Type: Roadway Widening		Date: 12/10/2013	
NCDOT Contact:		Randy Henegar, P.E.		Contractor / Designer:			
Address:		1020 Birch Ridge Dr. Raleigh, N.C. 27610		Address:			
Phone:		919-707-6700		Phone:			
Email:		rhenegar@ncdot.gov		Email:			
City/Town:		Anderson Creek		County(ies):		Harnett	
River Basin(s):		Cape Fear		CAMA County?		No	
Primary Receiving Water:		Little River		NCDWQ Stream Index No.:			
NCDWQ Surface Water Classification for Primary Receiving Water		Primary:					
		Supplemental:					
Other Stream Classification:							
303(d) Impairments:							
Buffer Rules in Effect							

Project Description

Project Length (lin. Miles or feet):	3.8 Miles	Surrounding Land Use:	Compact Mixed Use; Rural Development
Project Built-Up Area (ac.)		Proposed Project	Existing Site
		34.50 ac.	14.70 ac.
Typical Cross Section Description:	SR 1121 (Ray Road) will become a 4-lane facility with curb and gutter, consisting of a 23-foot raised median, 12-foot inside lanes, and 14-foot outside lanes.		SR 1121 (Ray Road) is currently a two-lane facility with 10-foot lanes and 4 to 6-foot shoulders, 2-feet of which are paved.
Average Daily Traffic (veh/hr/day):	Design/Future: 21700	Existing:	9300

General Project Narrative: The North Carolina Department of Transportation (NCDOT), in consultation with the Federal Highway Administration (FHWA), proposes to widen SR 1121 (Ray Road) from NC 210 to SR 1120 (Overhills Road), with intersection improvements at the intersection of SR 1121 (Ray Road) and SR 1120 (Overhills Road) in Harnett County (see Figures 1 and 2). The widening will convert SR 1121 (Ray Road) from its current two-lane configuration to a four-lane, median-divided facility. The proposed facility will have 12-foot inside lanes, 14-foot outside lanes, and a 23-foot raised grass median with curb and gutter (see Figure 3). The project will also include 10-foot grass berms to allow for any future sidewalks. The project also proposes the realignment of SR 1120 (Overhills Road) at its intersection with SR 1121 (Ray Road), to address safety concerns at this intersection. The total length of the project is 3.8 miles. Existing drainage patterns are being maintained to the extent practicable. No jurisdictional streams are being impacted by this project. Energy dissipators were added throughout the project where needed to decrease water velocity.

References

See Sheet 1-A For Index of Sheets
 See Sheet 1-B For Symbology Sheet
 See Sheet 1-C thru 1-F for Survey Sheets

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

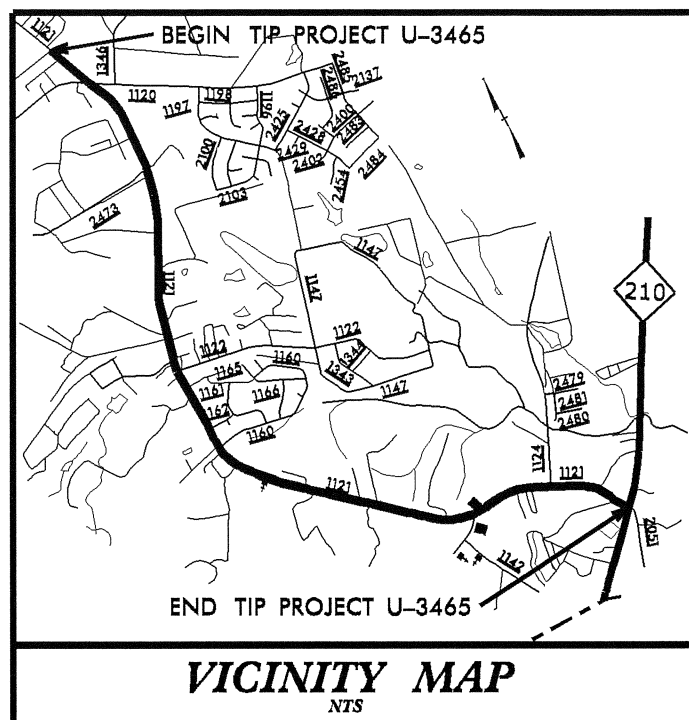
HARNETT COUNTY

LOCATION: SR 1121 (RAY ROAD) FROM NC 210 TO
 SR 1120 (OVERHILLS ROAD)
 TYPE OF WORK: GRADING, DRAINAGE, PAVING
 AND SIGNALS

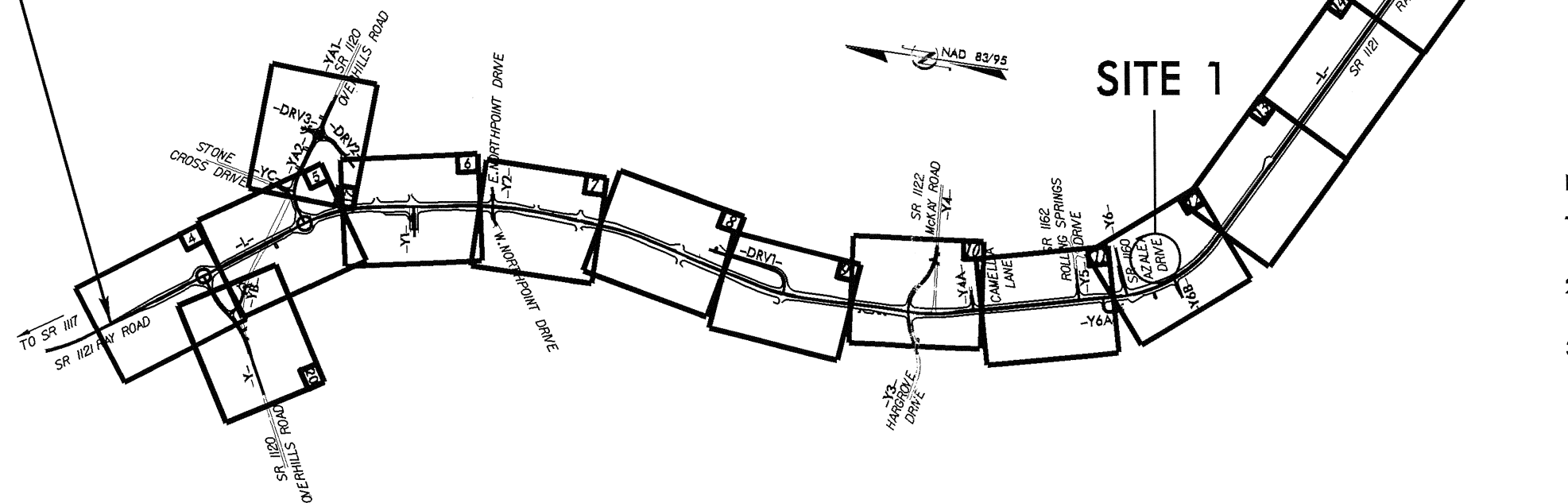
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3465	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
39017.1.1	STP-1121(9)	PE	
39017.2.1	STP-1121(9)	ROW & UTIL	

PERMIT DRAWING
 SHEET 1 OF 6

TIP PROJECT: U-3465



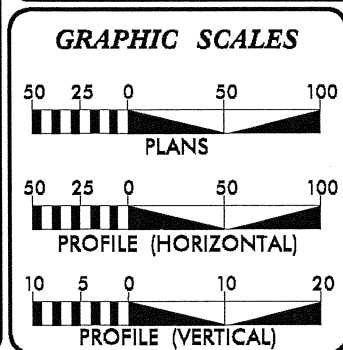
BEGIN TIP PROJECT U-3465
 -L- STA 21+00.00



- NOTE:
1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
 2. THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
 3. THIS PROJECT HAS NO CONTROL OF ACCESS EXCEPT AT SPECIFIC ROUNDABOUT LOCATIONS ONLY.

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

CONTRACT:



DESIGN DATA

ADT 2014 =	13434
ADT 2034 =	23767
DHV =	9 %
D =	65 %
T =	4 % *
V =	50 MPH
* TTST =	1% DUAL 3%
FUNC CLASS =	URBAN COLLECTOR
REGIONAL TIER	

PROJECT LENGTH

TOTAL ROADWAY TIP PROJECT U-3465 =	3.797 MILES
TOTAL TIP PROJECT U-3465 =	3.797 MILES

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
 NOVEMBER 16, 2012

LETTING DATE:
 NOVEMBER 18, 2014

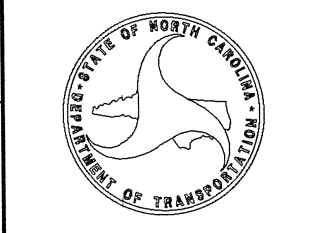
REKHA PATEL, PE
 PROJECT ENGINEER

BRIAN ROBINSON
 PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

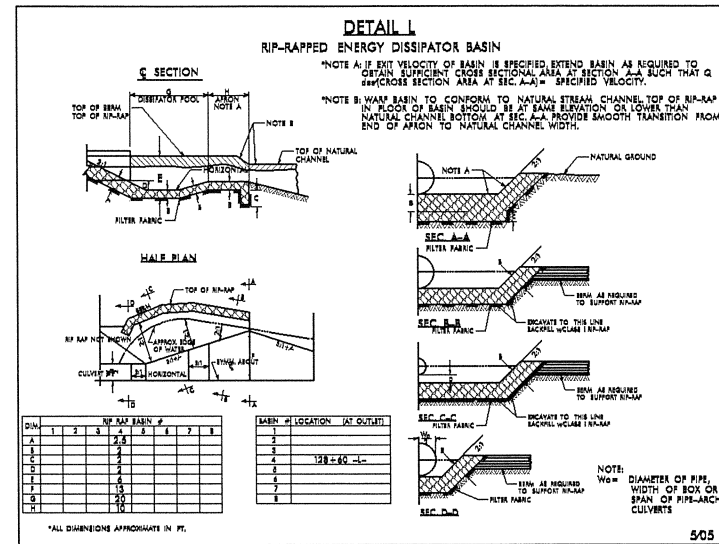
SIGNATURE: _____ P.E.
 ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



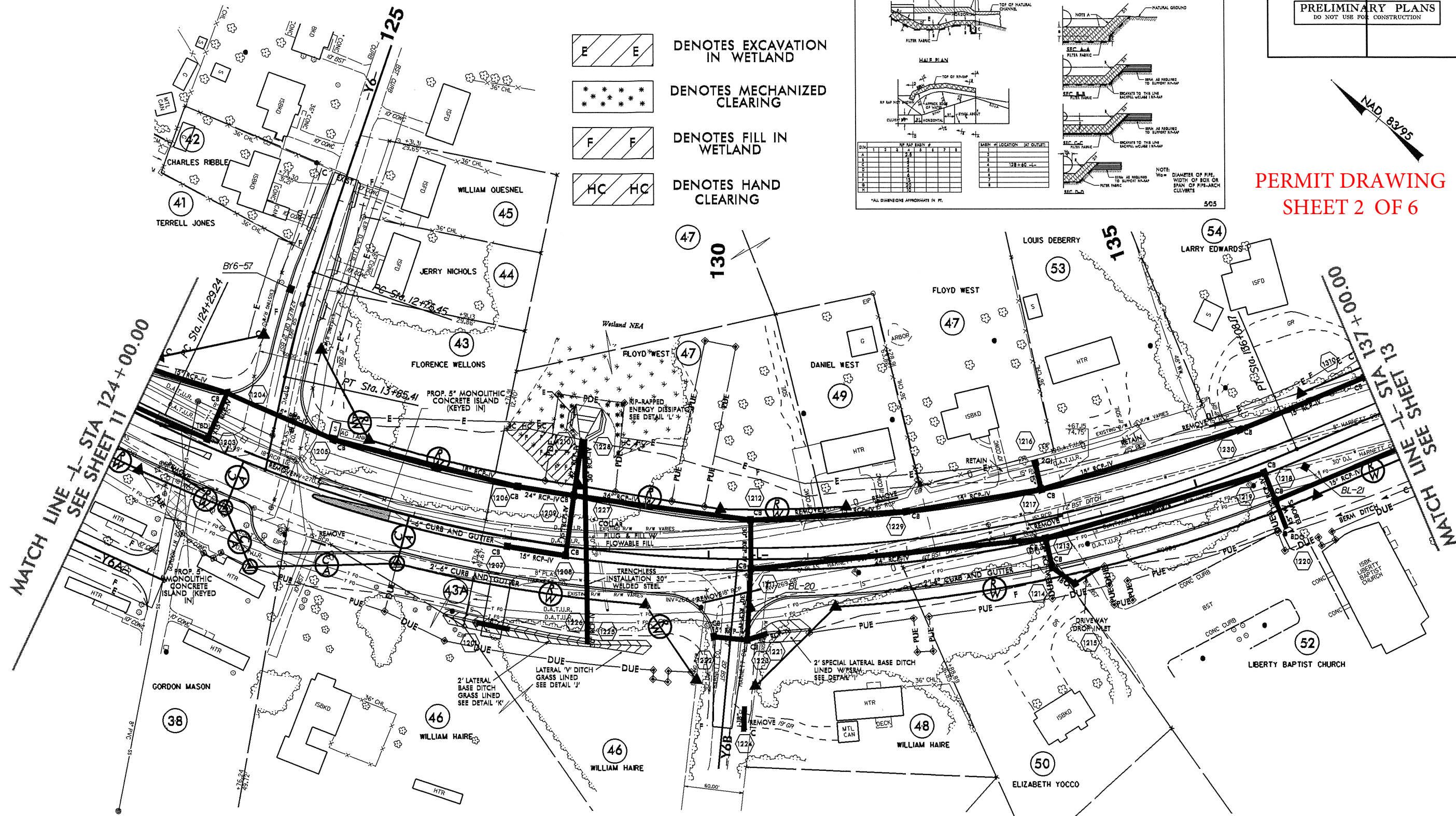
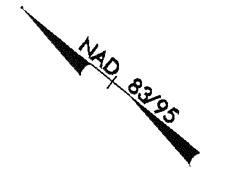
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 \$\$\$DGN\$\$\$\$\$
 \$\$\$DUSERNAME\$\$\$\$\$

SITE I

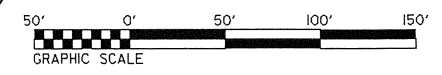
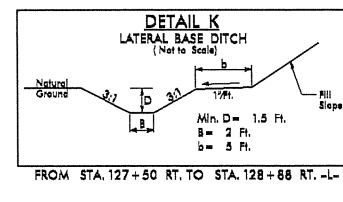
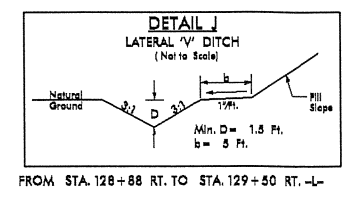
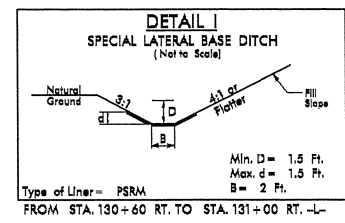


- DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 2 OF 6

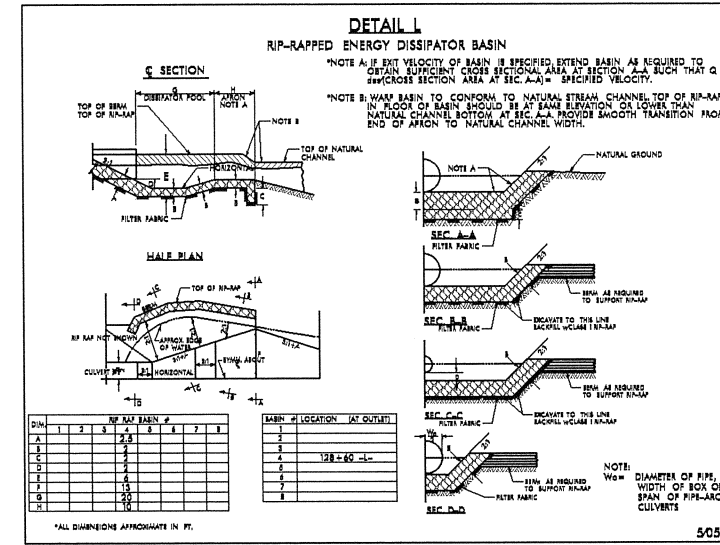


REVISIONS
 05/29/13 R/W REVISION: ADDED PARCEL 43A (FLORENCE WELLONS ESTATE), MID
 05/29/13 DESIGN REVISION: REMOVED DRIVEWAY ON PARCEL 43A AND ADDED DRIVEWAY TO PARCEL 46 STA 128+00.00 RIGHT, MID
 11/22/13 R/W REVISIONS: COMBINED PARCEL 51 WITH 47, DELETED PARCEL 51 (MID)



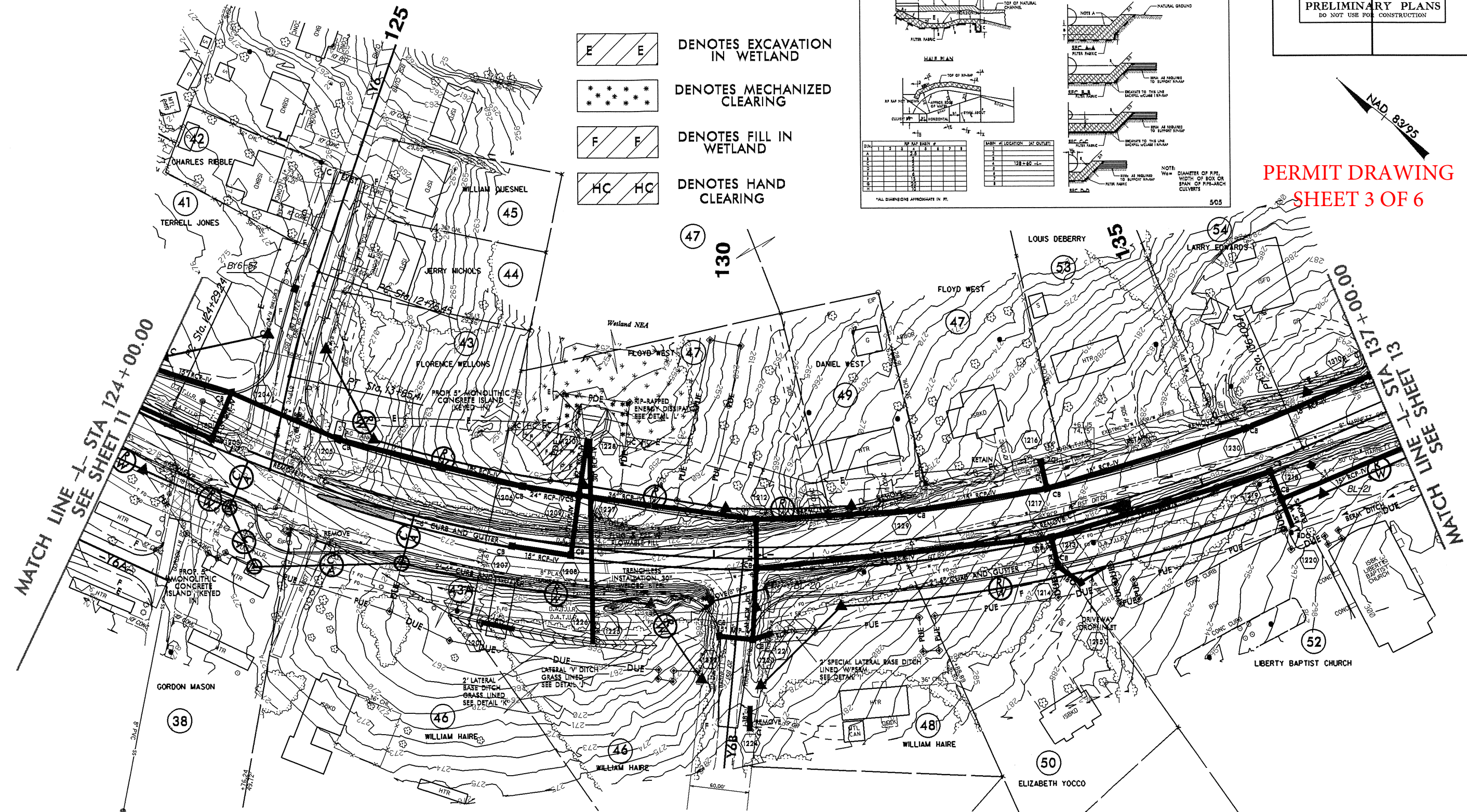
FOR -L- PROFILE, SEE SHEET 26
 FOR -Y6- PROFILE, SEE SHEET 32
 FOR -Y6A- PROFILE, SEE SHEET 32
 FOR -Y6B- PROFILE, SEE SHEET 32

SITE I

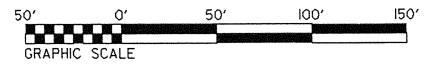
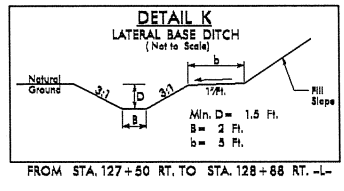
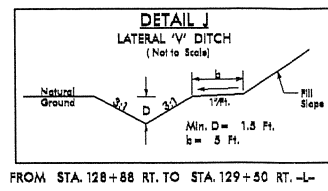
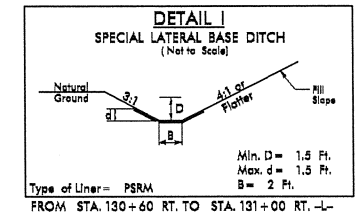


- DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 3 OF 6



REVISIONS
 05/29/13 R/W REVISION: ADDED PARCEL 43A (FLORENCE WELTONS ESTATE). MJD
 05/29/13 DESIGN REVISION: REMOVED DRIVEWAY ON PARCEL 43A AND ADDED DRIVEWAY TO PARCEL 46 STA 128+00.00 RIGHT. MJD
 11/22/13 R/W REVISIONS: COMBINED PARCEL 51 WITH 47. DELETED PARCEL 51 (MJD)

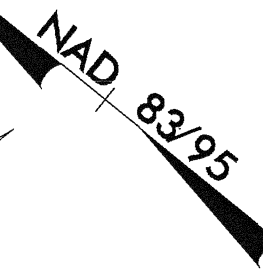


FOR -L- PROFILE, SEE SHEET 26
 FOR -Y6- PROFILE, SEE SHEET 32
 FOR -Y6A- PROFILE, SEE SHEET 32
 FOR -Y6B- PROFILE, SEE SHEET 32

PROJECT REFERENCE NO. U-3465	SHEET NO. 12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

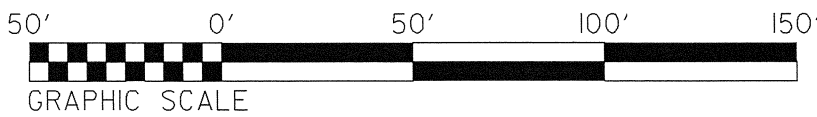
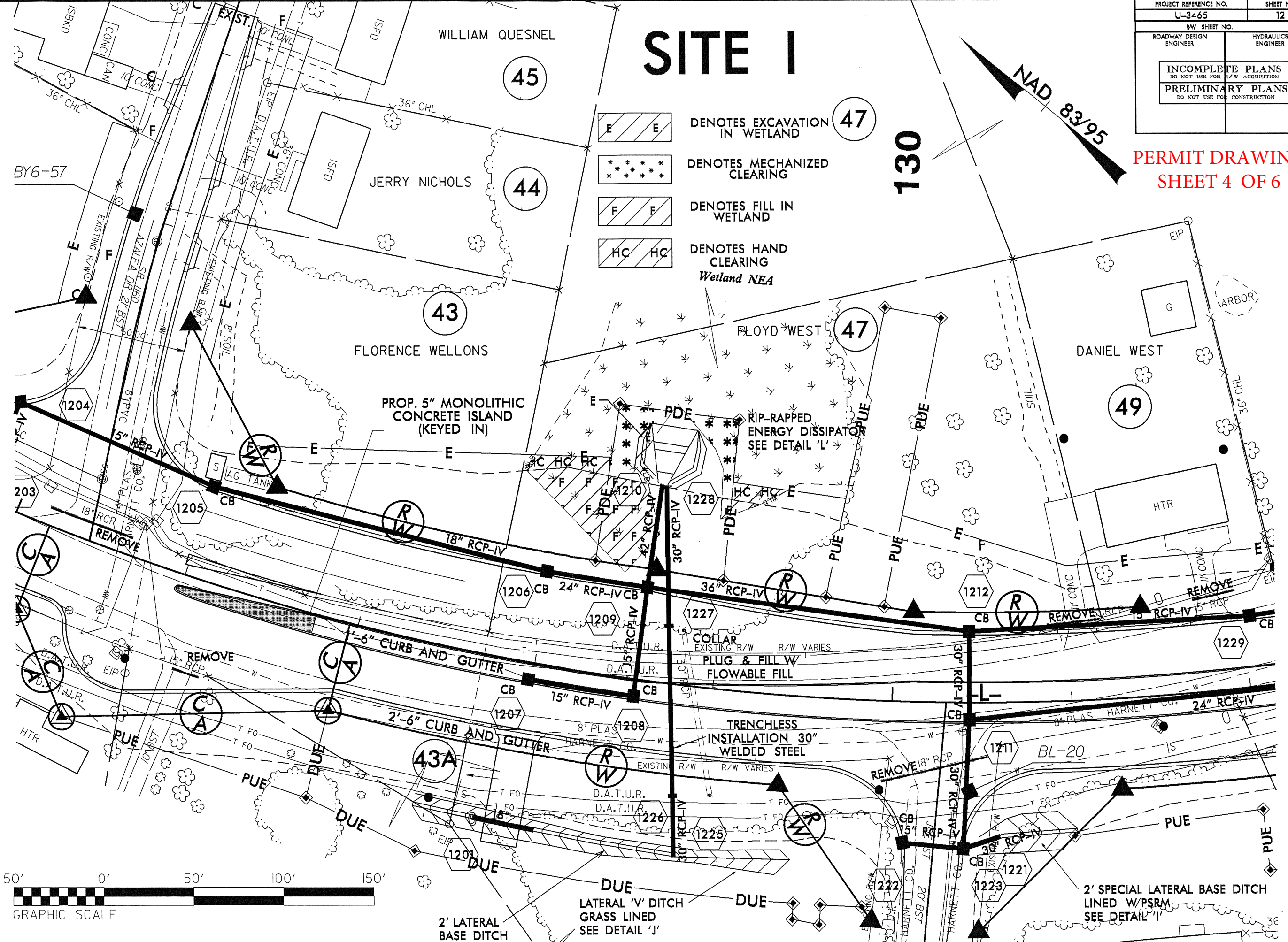
SITE I

130



PERMIT DRAWING
SHEET 4 OF 6

- DENOTES EXCAVATION IN WETLAND 47
- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
Wetland NEA



REVISIONS

8/17/99
SYSTEMS DESIGN
CONSTRUCTION
SERVICES

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
I	128+60 -L-	42" RCP-IV	0.05	<0.01	<0.01	0.03	0.01					
		30" RCP-IV										
		Rip-Rapped										
		Energy Dissipator										
TOTALS:			0.05	<0.01	<0.01	0.03	0.01					

<0.01 acre of Temporary Fill in Wetlands in the Hand Clearing areas for erosion control measures.

**PERMIT DRAWING
SHEET 6 OF 6**

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

HARNETT COUNTY
WBS - 39017.1.1 (U-3465)

SHEET 1 OF 1 4/1/2014

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

04/16/11

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Property Corner	-----
Property Monument	□ ECM
Parcel/Sequence Number	②③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	MLB
Proposed Wetland Boundary	MLB
Existing Endangered Animal Boundary	EAB
Existing Endangered Plant Boundary	EPB
Known Soil Contamination: Area or Site	☠ ☠
Potential Soil Contamination: Area or Site	☠ ?

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	W
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	□
Building	□
School	□
Church	□
Dam	▬

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	JS
Buffer Zone 1	BZ 1
Buffer Zone 2	BZ 2
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	✱
Proposed Lateral, Tail, Head Ditch	▬
False Sump	▽

RAILROADS:

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

RIGHT OF WAY:

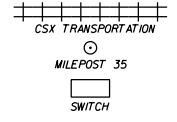
Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	○
Proposed Right of Way Line with Concrete or Granite R/W Marker	△
Proposed Control of Access Line with Concrete C/A Marker	○
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	E
Proposed Temporary Construction Easement	E
Proposed Temporary Drainage Easement	TDE
Proposed Permanent Drainage Easement	PDE
Proposed Permanent Drainage / Utility Easement	DUE
Proposed Permanent Utility Easement	PUE
Proposed Temporary Utility Easement	TUE
Proposed Aerial Utility Easement	AUE
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	C
Proposed Slope Stakes Fill	F
Proposed Curb Ramp	CR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	▬

VEGETATION:

Single Tree	○
Single Shrub	○
Hedge	-----
Woods Line	-----



Orchard	-----
Vineyard	-----

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	CONC
Bridge Wing Wall, Head Wall and End Wall	CONC WW
MINOR:	
Head and End Wall	CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	Ⓢ
Storm Sewer	S

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	Ⓟ
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	□
H-Frame Pole	●
Recorded U/G Power Line	P
Designated U/G Power Line (S.U.E.*)	P

TELEPHONE:

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

WATER:

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

TV:

TV Satellite Dish	Ⓟ
TV Pedestal	Ⓟ
TV Tower	⊗
U/G TV Cable Hand Hole	□
Recorded U/G TV Cable	TV
Designated U/G TV Cable (S.U.E.*)	TV
Recorded U/G Fiber Optic Cable	TV FO
Designated U/G Fiber Optic Cable (S.U.E.*)	TV FO

GAS:

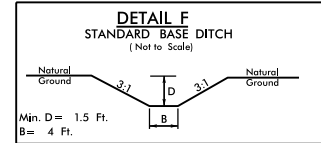
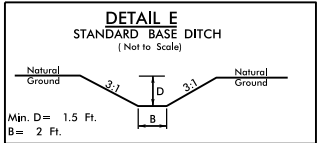
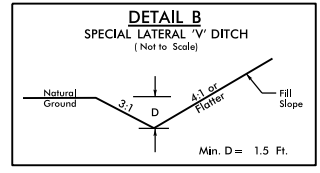
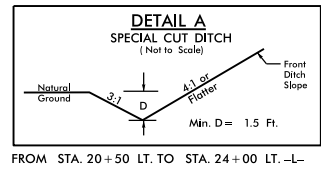
Gas Valve	◇
Gas Meter	⊕
Recorded U/G Gas Line	G
Designated U/G Gas Line (S.U.E.*)	G
Above Ground Gas Line	A/G Gas

SANITARY SEWER:

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

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	Ⓟ
Utility Unknown U/G Line	TU/L
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	UST
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.



20

25

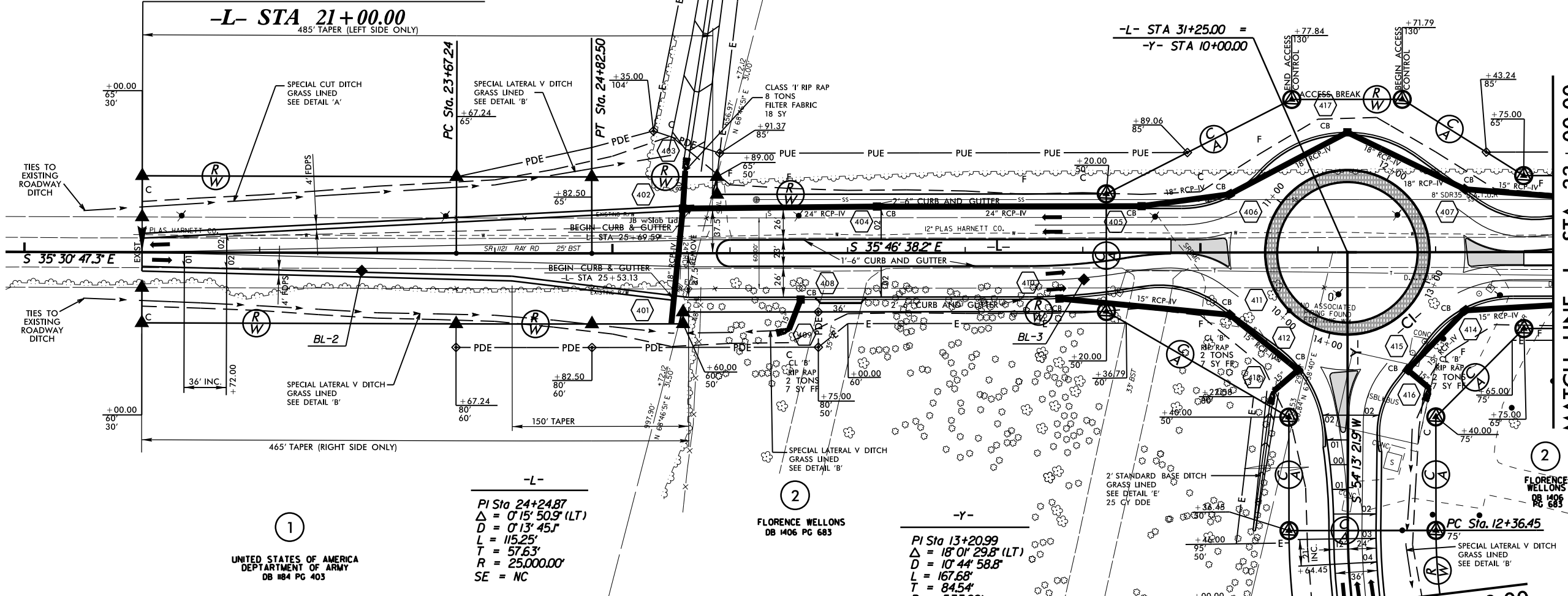
3

30

UNITED STATES OF AMERICA
DEPARTMENT OF ARMY
DB #84 PG 403

ANDERSON CREEK PARTNERS LLC
DB 1546 PG 98

BEGIN TIP PROJECT U-3465



-L- STA 21+00.00
485' TAPER (LEFT SIDE ONLY)

-L- STA 31+25.00 =
-Y- STA 10+00.00

MATCH LINE -L- STA 33+00.00
SEE SHEET 5

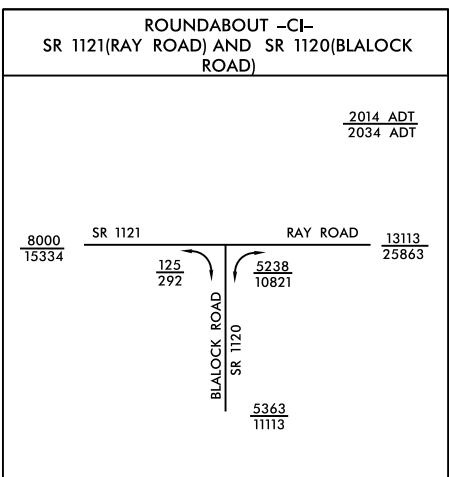
MATCH LINE -Y- STA 13+00.00
SEE SHEET 20

-L-
PI Sta 24+24.87
 $\Delta = 0' 15' 50.9''$ (LT)
 $D = 0' 13' 45.1''$
 $L = 115.25'$
 $T = 57.63'$
 $R = 25,000.00'$
 $SE = NC$

2
FLORENCE WELLONS
DB 1406 PG 683

-Y-
PI Sta 13+20.99
 $\Delta = 18' 01' 29.8''$ (LT)
 $D = 10' 44' 58.8''$
 $L = 167.68'$
 $T = 84.54'$
 $R = 533.00'$
 $SE = SEE PLANS$

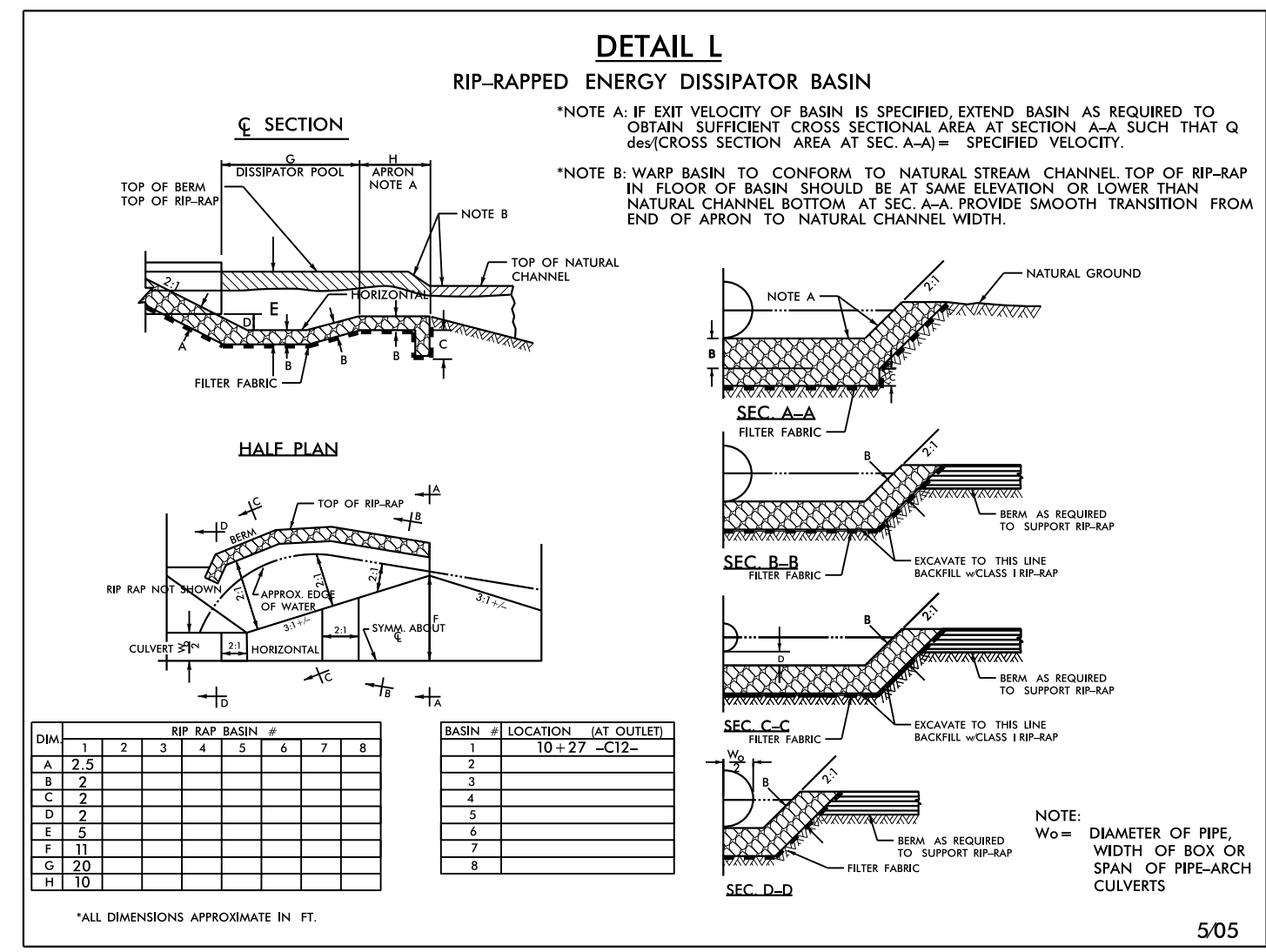
UNITED STATES OF AMERICA
DEPARTMENT OF ARMY
DB #84 PG 403



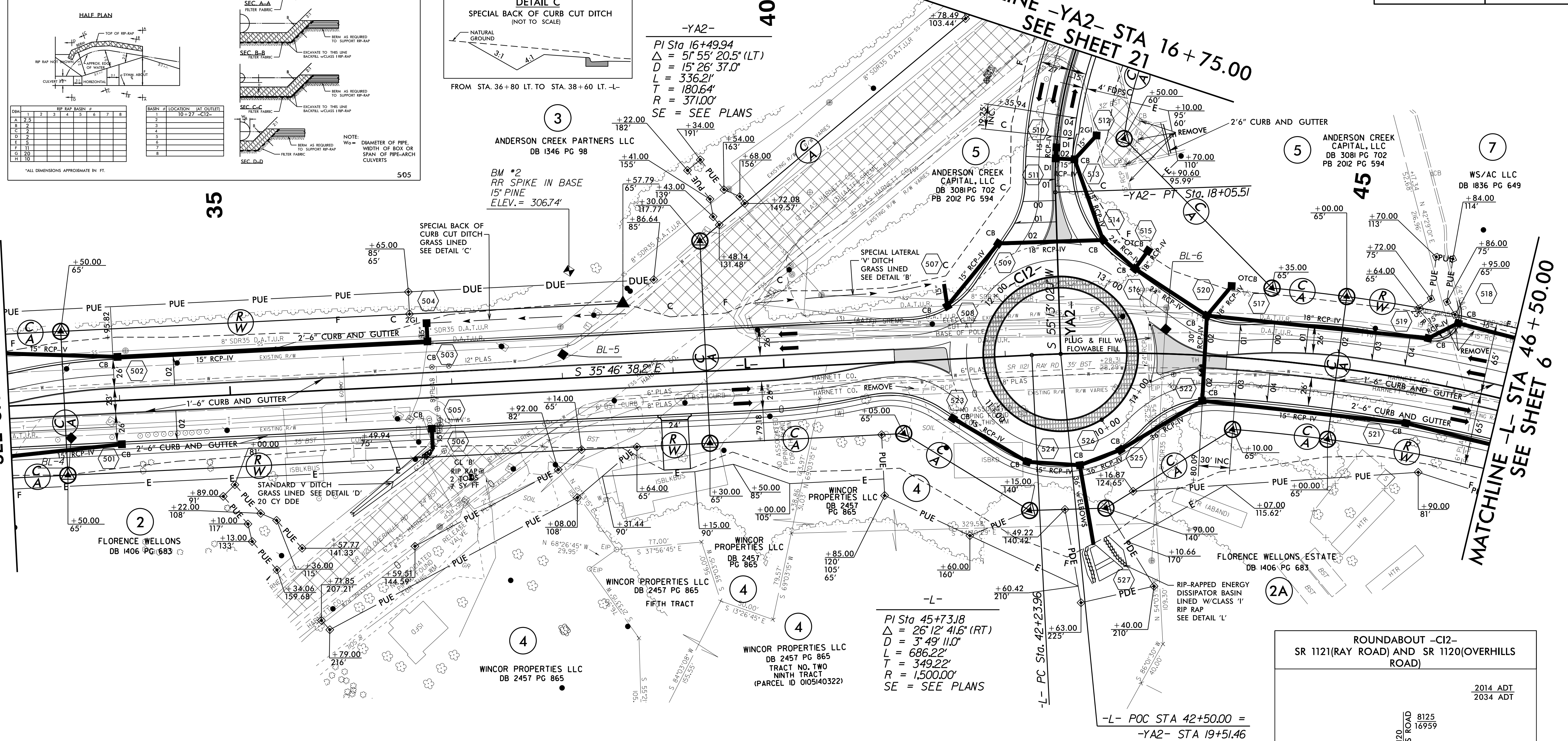
FOR -L- PROFILE, SEE SHEET 22
FOR -Y- PROFILE, SEE SHEET 30
FOR -CI- PROFILE, SEE SHEET 33
FOR -CI- ROUNDABOUT DETAIL, SEE SHEET 2-E

8/17/99
P7-NOV-2012 17:24
U:\3465_rdy_psh.dgn
\$\$\$\$\$\$

REVISIONS
 03/20/13 R/W REVISION: DIVIDED PARCEL 2 (FLORENCE WELLONS) AND PARCEL 2A (FLORENCE WELLONS ESTATE) COMBINED PARCEL 6 WITH PARCEL 4. BPR
 05/29/13 DESIGN REVISION: REDUCED THE ROUNDABOUT AT -YA2- INTERSECTION TO A SINGLE LANE LEFT TURN. MJD
 11/07/13 R/W REVISION: ADDED 24" DRIVEWAY AND REVISED -TCE- ON PARCEL 4 AT -L- STA 39+00+/-, MJD
 01/27/14 R/W REVISION: REVISED PROPERTY LINE AND DEED BOOK INFORMATION FOR PARCEL 5 DUE TO PROPERTY CONVEYANCE FROM PARCEL 7. MJD



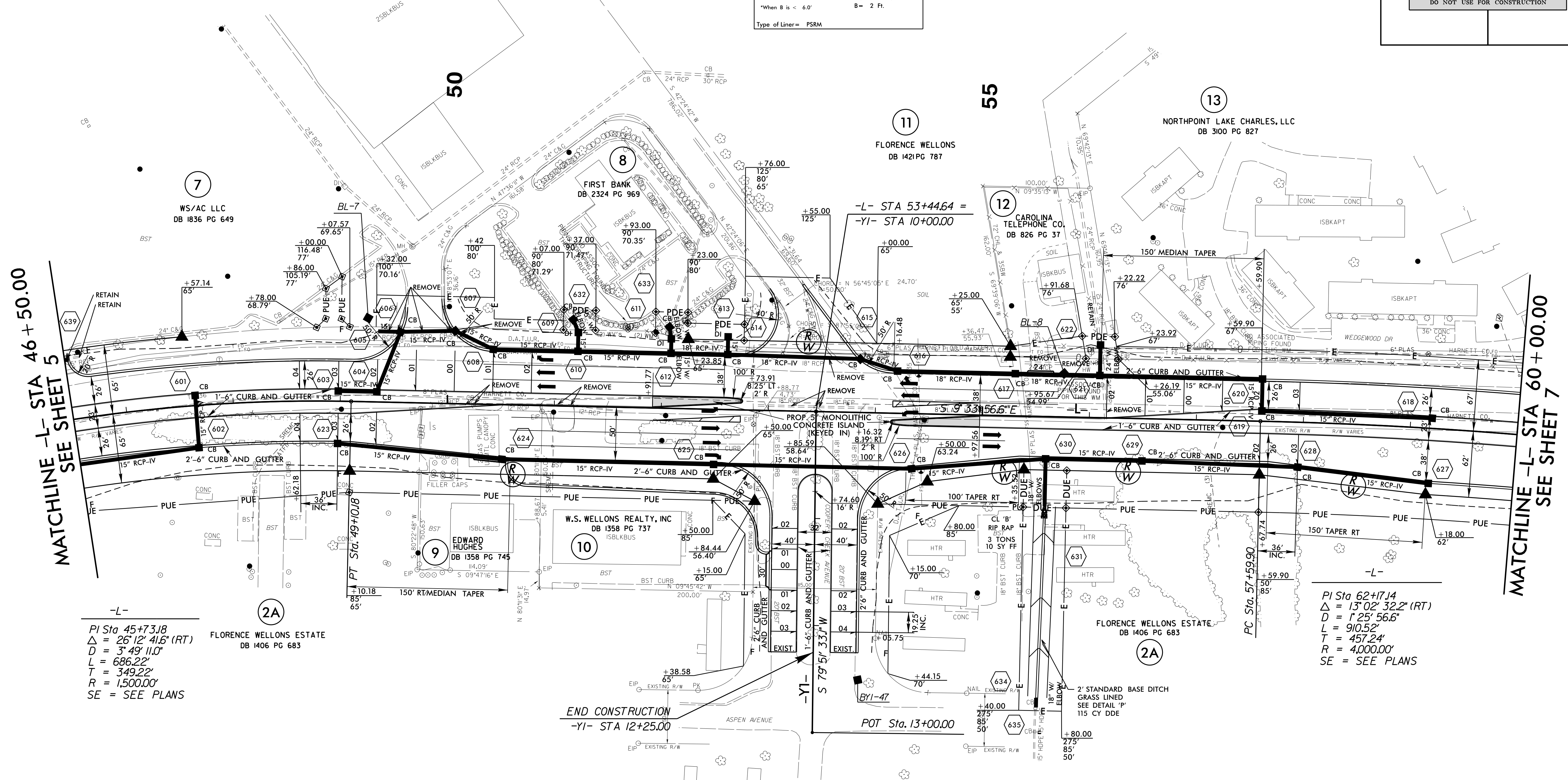
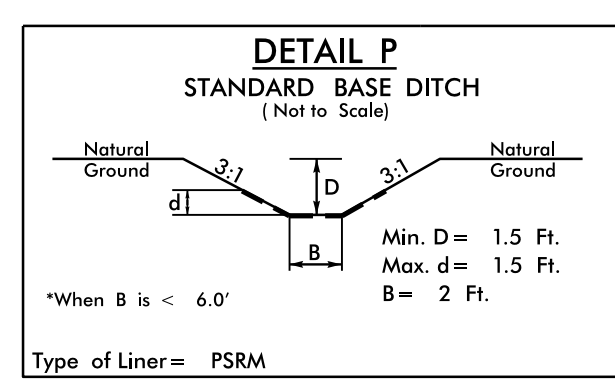
MATCHLINE -L- STA 33+00.00
 SEE SHEET 4



MATCHLINE -L- STA 46+50.00
 SEE SHEET 6

FOR -L- PROFILE, SEE SHEET 22
 FOR -YA2- PROFILE, SEE SHEET 30
 FOR -C12- PROFILE, SEE SHEET 33
 FOR -C12- ROUNDABOUT DETAIL, SEE SHEET 2-F

PROJECT REFERENCE NO.	SHEET NO.
U-3465	6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



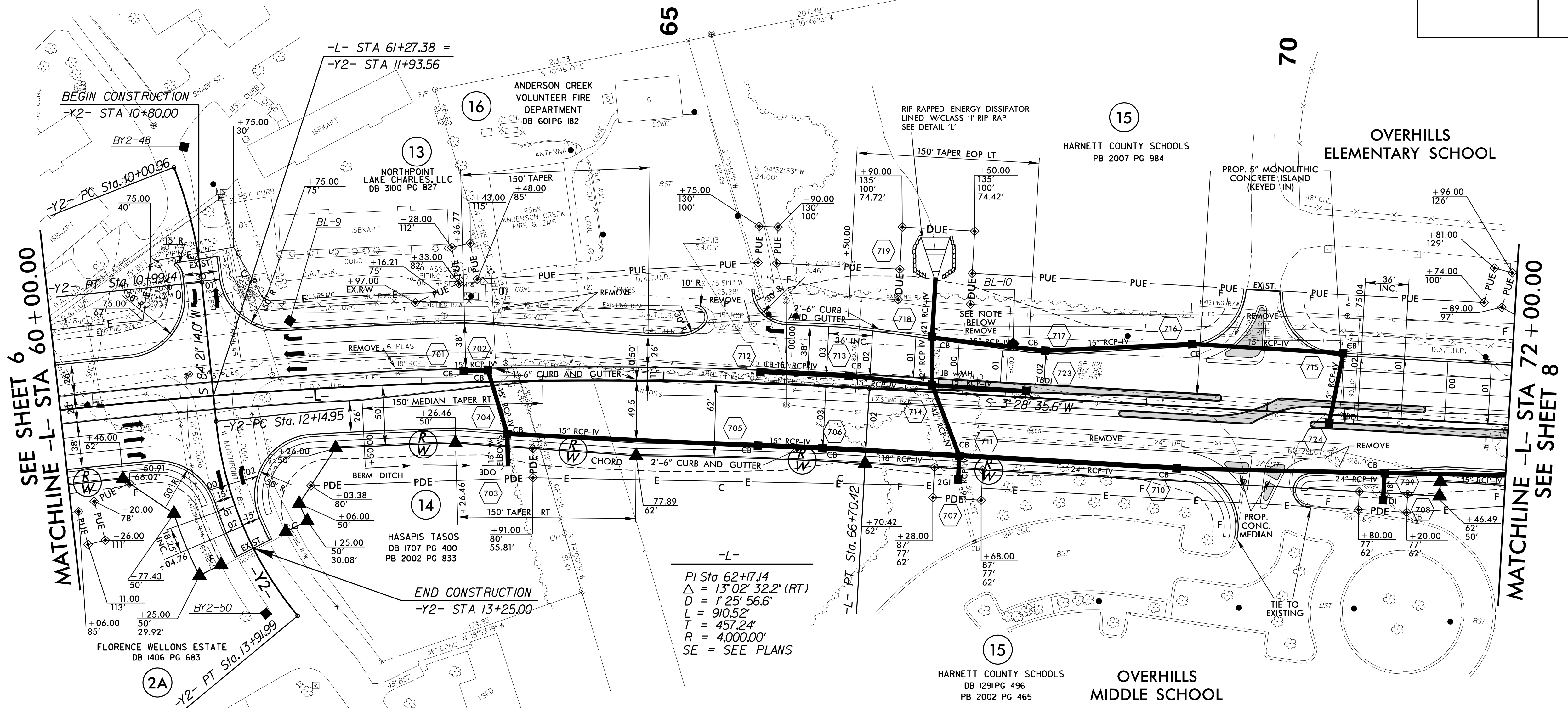
REVISIONS
 03/20/2013 R/W REVISION: DIVIDED PARCEL 2 INTO PARCEL 2 (FLORENCE WELLONS) AND PARCEL 2A (FLORENCE WELLONS ESTATE), BPP
 11/07/2013 R/W REVISIONS: 1. ADD EXISTING RIGHT OF WAY AND REVISED PROPOSED RIGHT OF WAY FOR -YI- (COOPER'S CREEK AVENUE), (MJD)
 2. REVISED NAME AND DEED BOOK INFORMATION FOR PARCEL 13, (MJD)

8/17/99

07-NOV-2013 15:23 3465.rdy-p.shb.dgn
 3465.DWG

FOR -L- PROFILE, SEE SHEET 23
 FOR -YI- PROFILE, SEE SHEET 31

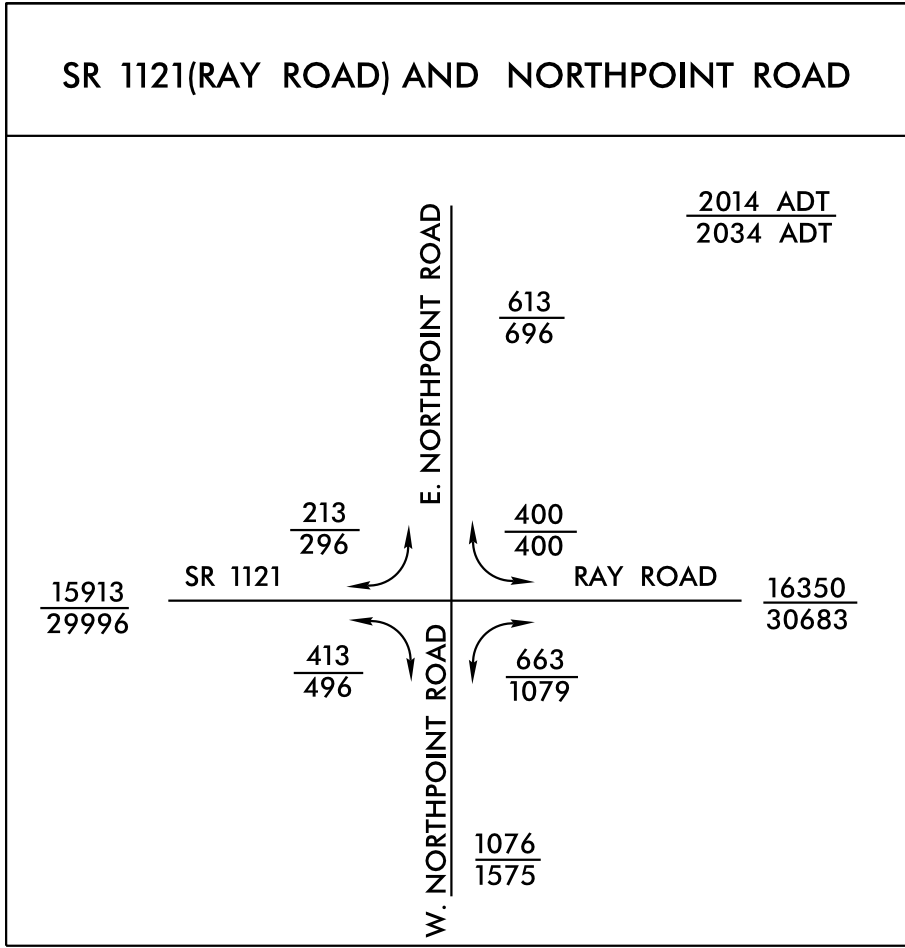
NAD 83/95



SEE SHEET 6
MATCHLINE -L- STA 60+00.00

MATCHLINE -L- STA 72+00.00
SEE SHEET 8

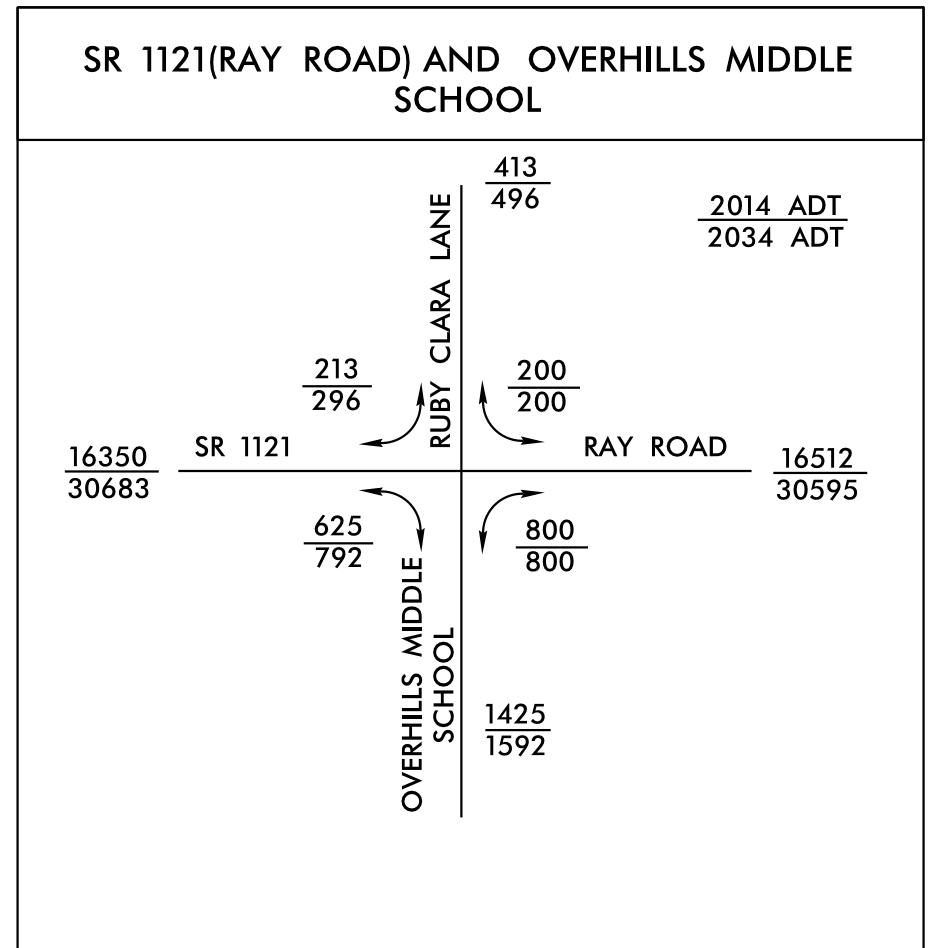
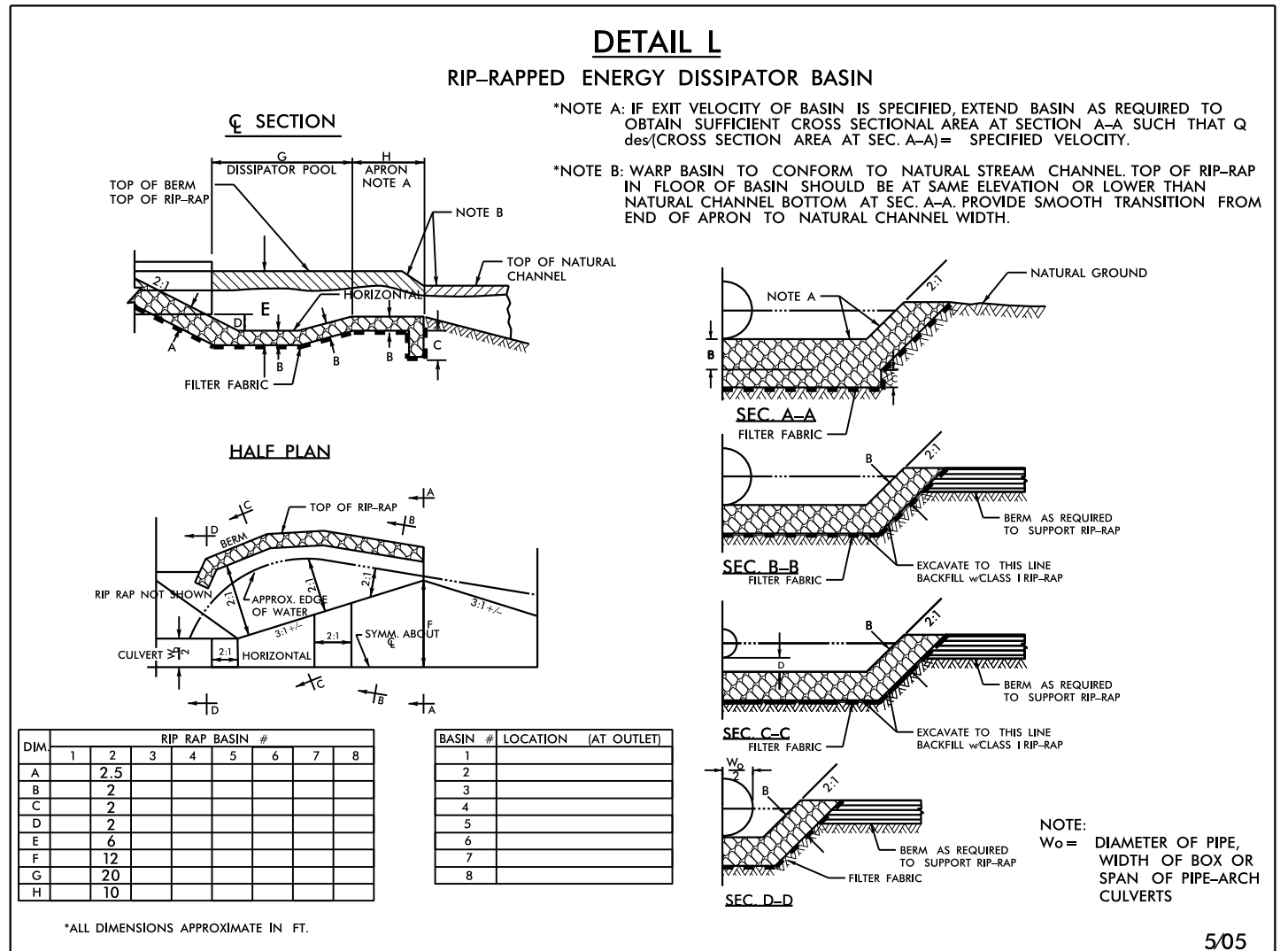
REVISIONS
 03/20/13 R/W REVISION: DIVIDED PARCEL 2 INTO PARCEL 2 (FLORENCE WELLONS) AND 2A (FLORENCE WELLONS ESTATE). BPR
 05/29/13 DESIGN REVISION: ADDED MEDIAN LEFTOVERS AT -L- STA 70+00.00, ADDED A RIGHT TURN LANE AND REMOVED PROPOSED MEDIAN BREAK FOR PARCEL 16. MJD
 09/10/13 R/W REVISION: REVISED -DUE- AT DRAINAGE STRUCTURE 719 PER HYDRAULIC REVISIONS. MJD
 11/07/2013 R/W REVISION: REVISED NAME AND DEED BOOK INFORMATION FOR PARCEL 13 (MJD)
 01/27/14 DESIGN REVISION: ADDED RIGHT TURN LANE BACK FOR ACCESS TO PARCEL 16 AFTER DELETION ON 09/10/13. MJD



-Y2-

PI Sta 10+50.36	PI Sta 13+06.13
$\Delta = 15^{\circ} 37' 34.0''$ (RT)	$\Delta = 33^{\circ} 48' 39.8''$ (LT)
$D = 15^{\circ} 54' 55.8''$	$D = 19^{\circ} 05' 54.9''$
$L = 98.18'$	$L = 177.03'$
$T = 49.40'$	$T = 91.18'$
$R = 360.00'$	$R = 300.00'$
SE = SEE PLANS	SE = SEE PLANS

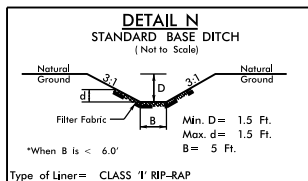
NOTE: RETAIN 30" RCP AT -L- STA 67+22 WHILE THE WESTERNMOST LANES ARE BEING CONSTRUCTED. ONCE TRAFFIC IS SWITCHED TO NEW WESTERNMOST LANES, THEN REMOVE 30" RCP AND INSTALL PROPOSED 42" RCP.



FOR -L- PROFILE, SEE SHEET 23
 FOR -Y2- PROFILE, SEE SHEET 31
 FOR INTERSECTION DETAIL AT -L- STA 70+00, SEE SHEET 2-H

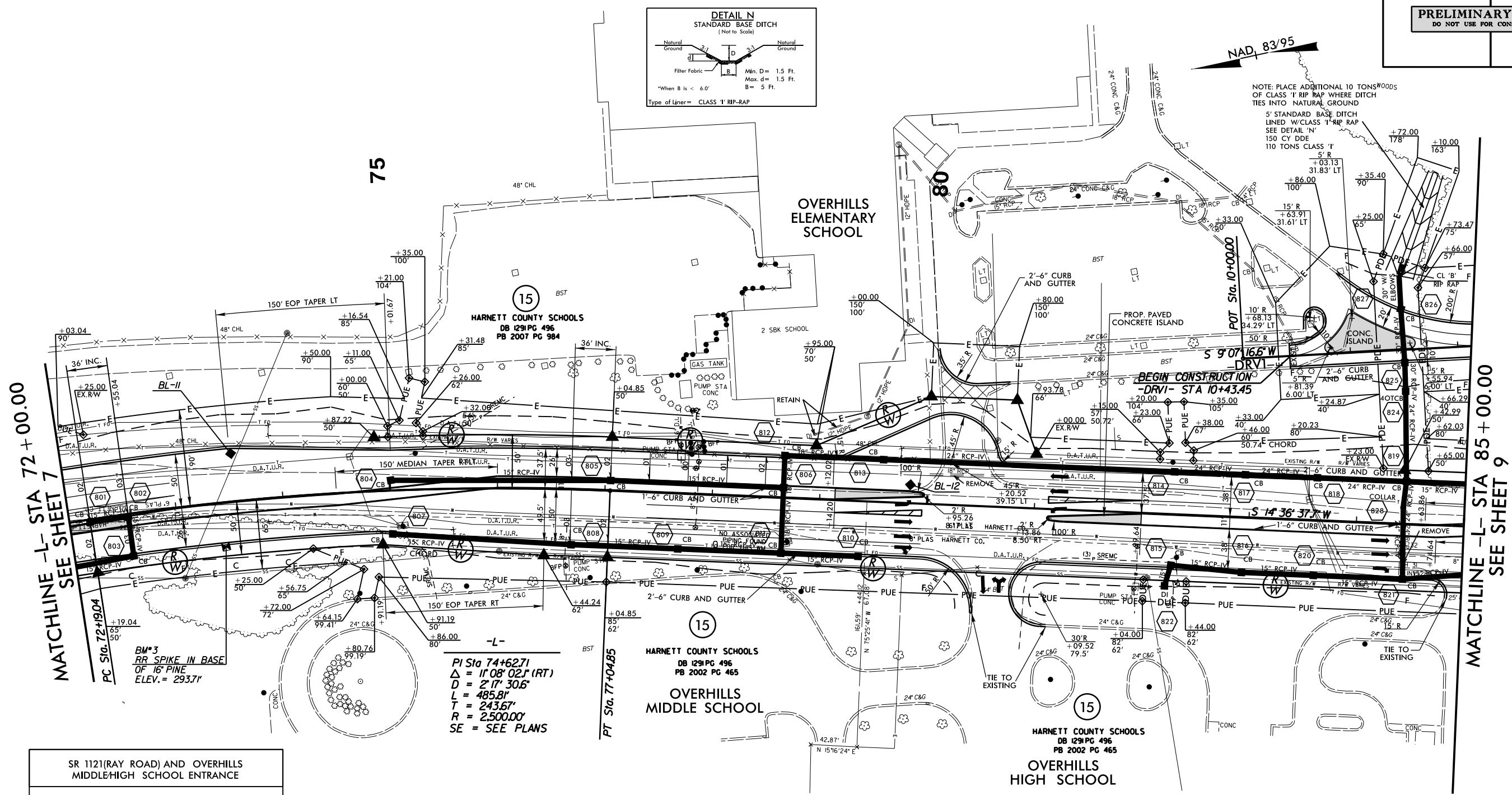
8/17/99

24 JAN 2014 14:15 N:\3465_rdy-psn.7.dgn
 S:\ASSETMANAGEMENT\3465



NAD, 83/95

NOTE: PLACE ADDITIONAL 10 TONS WOODS OF CLASS 'I' RIP RAP WHERE DITCH TIES INTO NATURAL GROUND
5' STANDARD BASE DITCH LINED W/CLASS 'I' RIP RAP SEE DETAIL 'N'
150 CY DDE
110 TONS CLASS 'I' RIP RAP



MATCHLINE -L- STA 72 + 00.00
SEE SHEET 7

MATCHLINE -L- STA 85 + 00.00
SEE SHEET 9

REVISIONS
05/29/13 DESIGN REVISION: ADDED A LEFT TURN LANE AND A U-TURN BULB AT -L- STA 80+00.00 LEFT. MJD
05/29/13 R/W REVISION: REVISED THE R/W AND TCE ON PARCEL 15 AT -L- STA 80+00.00 LEFT. MJD

SR 1121 (RAY ROAD) AND OVERHILLS MIDDLE/HIGH SCHOOL ENTRANCE			
2014 ADT		2034 ADT	
16512	30595	16313	28899
312	395	113	196
1725	1982	425	592
313	396	2038	2288
OVERHILLS MIDDLE SCHOOL		OVERHILLS HIGH SCHOOL	

PI Sta 74+62.71
Δ = 11° 08' 02" (RT)
D = 2' 17' 30.6"
L = 485.81'
T = 243.67'
R = 2,500.00'
SE = SEE PLANS

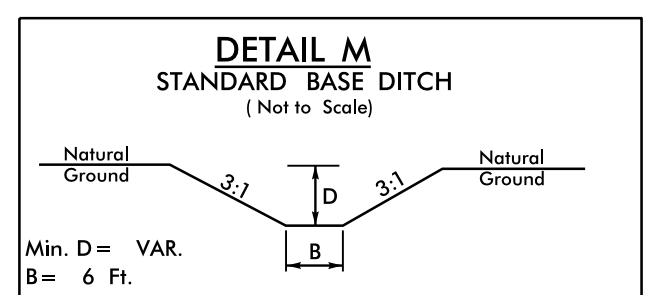
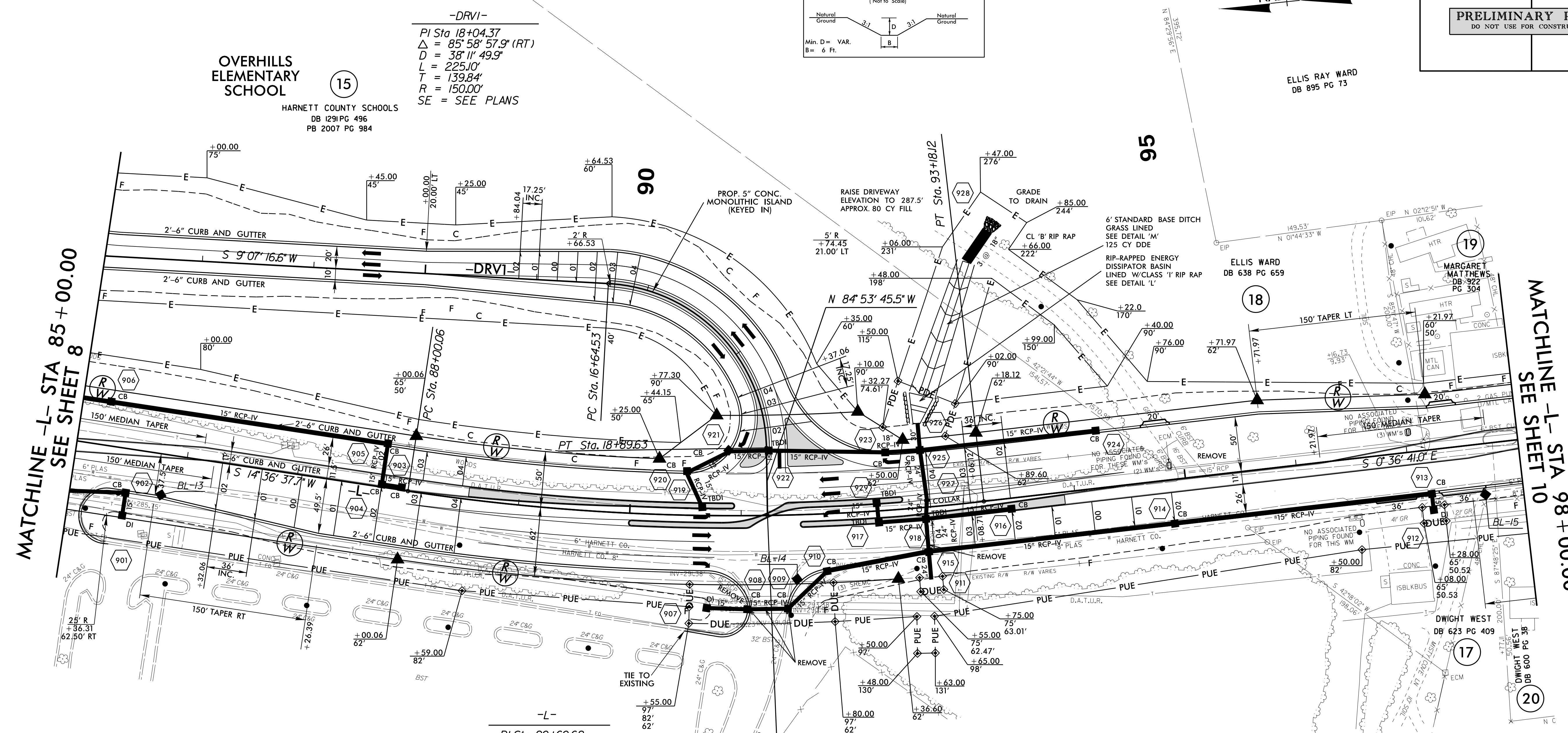
NOTE: COLLAR AND EXTEND EXISTING 24" RCP WHILE EASTERMOST LANES ARE BEING CONSTRUCTED. WHEN TRAFFIC IS SHIFTED ONTO THOSE EASTERMOST LANES, REMOVE THE EXISTING 24" RCP AND TIE THE PROPOSED PIPE TO THE COLLAR.

FOR -L- PROFILE, SEE SHEET 24
FOR -DRV1- PROFILE, SEE SHEET 34

20 MAY 2013 09:49
R:\Roadway\3465_rdy_psh8.dgn
\$\$\$\$\$

REVISIONS
 05/29/13 DESIGN REVISION: ADDED MEDIAN LEFTOVERS AT -L- STA 91+00.00 AND REVISED CONFIGURATION OF -DRVI- TO ELIMINATE LEFT TURN. MJD
 05/29/13 R/W REVISION: REVISED R/W AND TCE ON PARCEL 15 AT -L- STA 91+00.00 LEFT. MJD
 10/15/13 R/W REVISIONS: PROPERTY LINE CHANGE PER DIVISION 6 LOCATION AND SURVEYS SHOWING PROPERTY LINE ADJUSTMENT BETWEEN PARCELS 19 AND 21. MJD

8/17/99

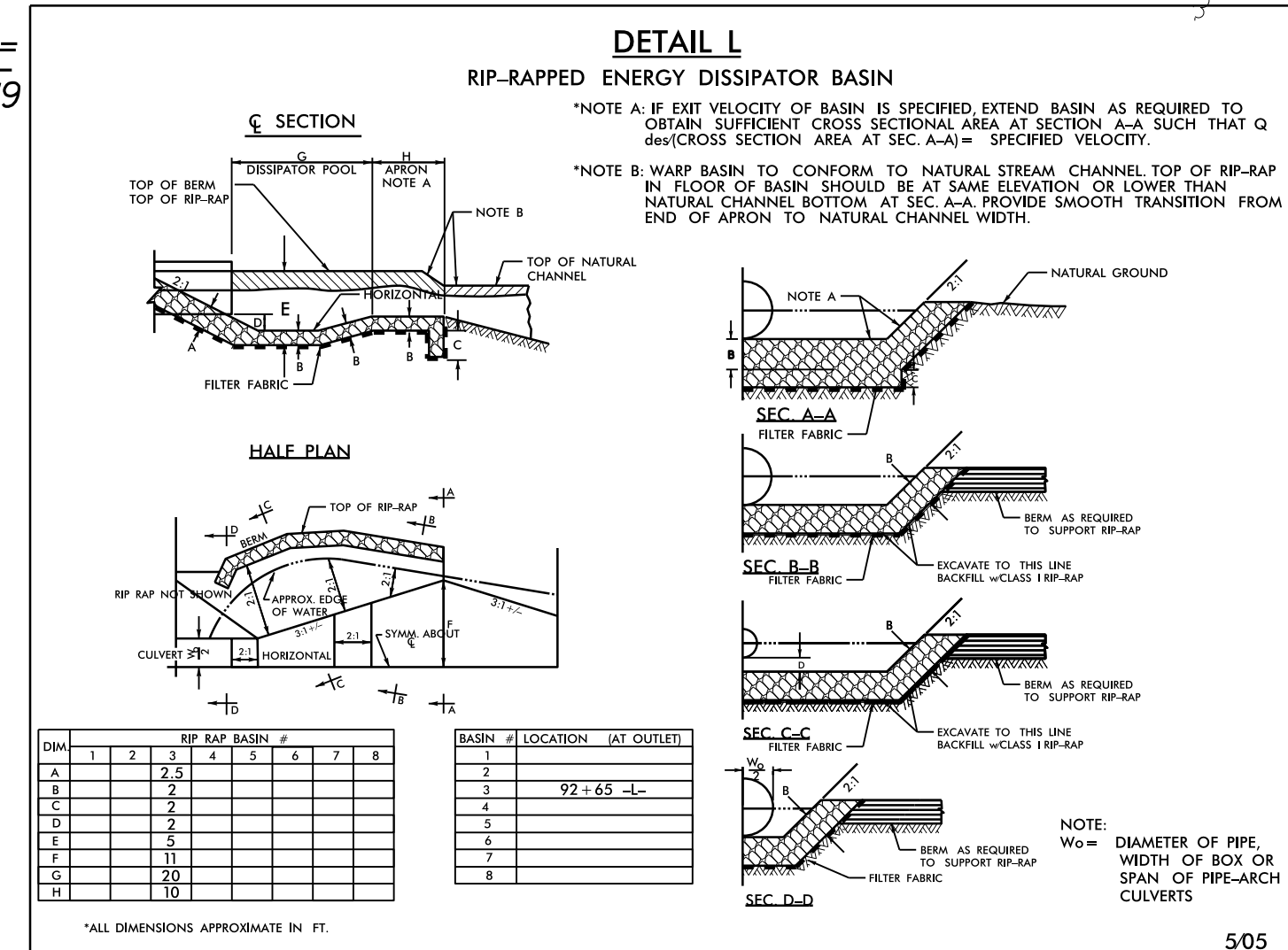
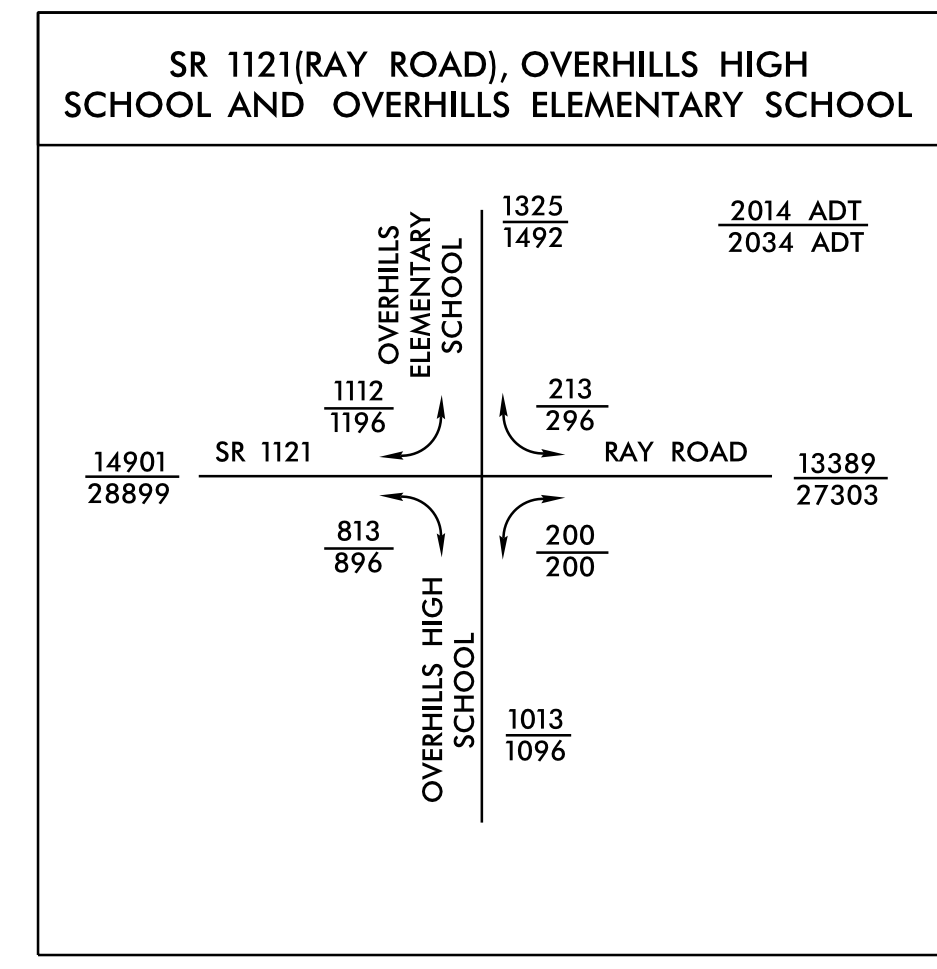


-DRVI-
 PI Sta 18+04.37
 $\Delta = 85^\circ 58' 57.9''$ (RT)
 $D = 38' 11'' 49.9''$
 $L = 225.10'$
 $T = 139.84'$
 $R = 150.00'$
 SE = SEE PLANS

OVERHILLS ELEMENTARY SCHOOL
 HARNETT COUNTY SCHOOLS
 DB 1291 PG 496
 PB 2007 PG 984

-L-
 PI Sta 90+60.62
 $\Delta = 15^\circ 13' 18.7''$ (LT)
 $D = 2' 56' 17.7''$
 $L = 518.06'$
 $T = 260.56'$
 $R = 1,950.00'$
 SE = SEE PLANS

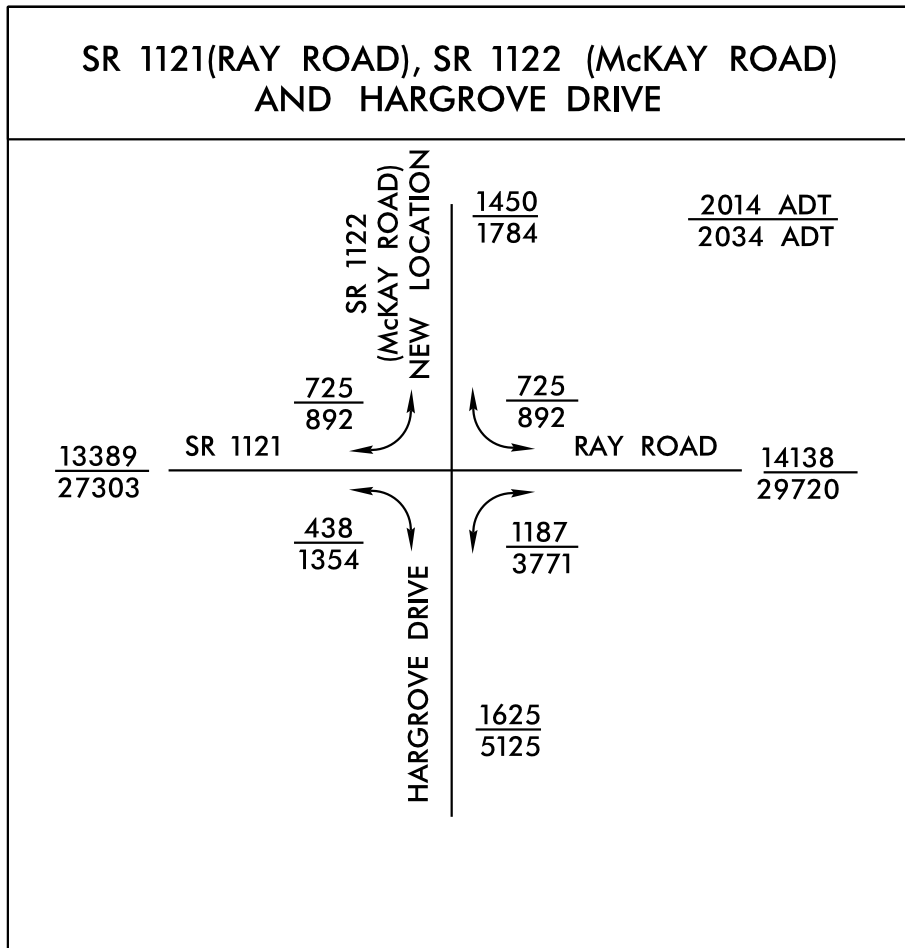
OVERHILLS HIGH SCHOOL
 HARNETT COUNTY SCHOOLS
 DB 1291 PG 496
 PB 2002 PG 465



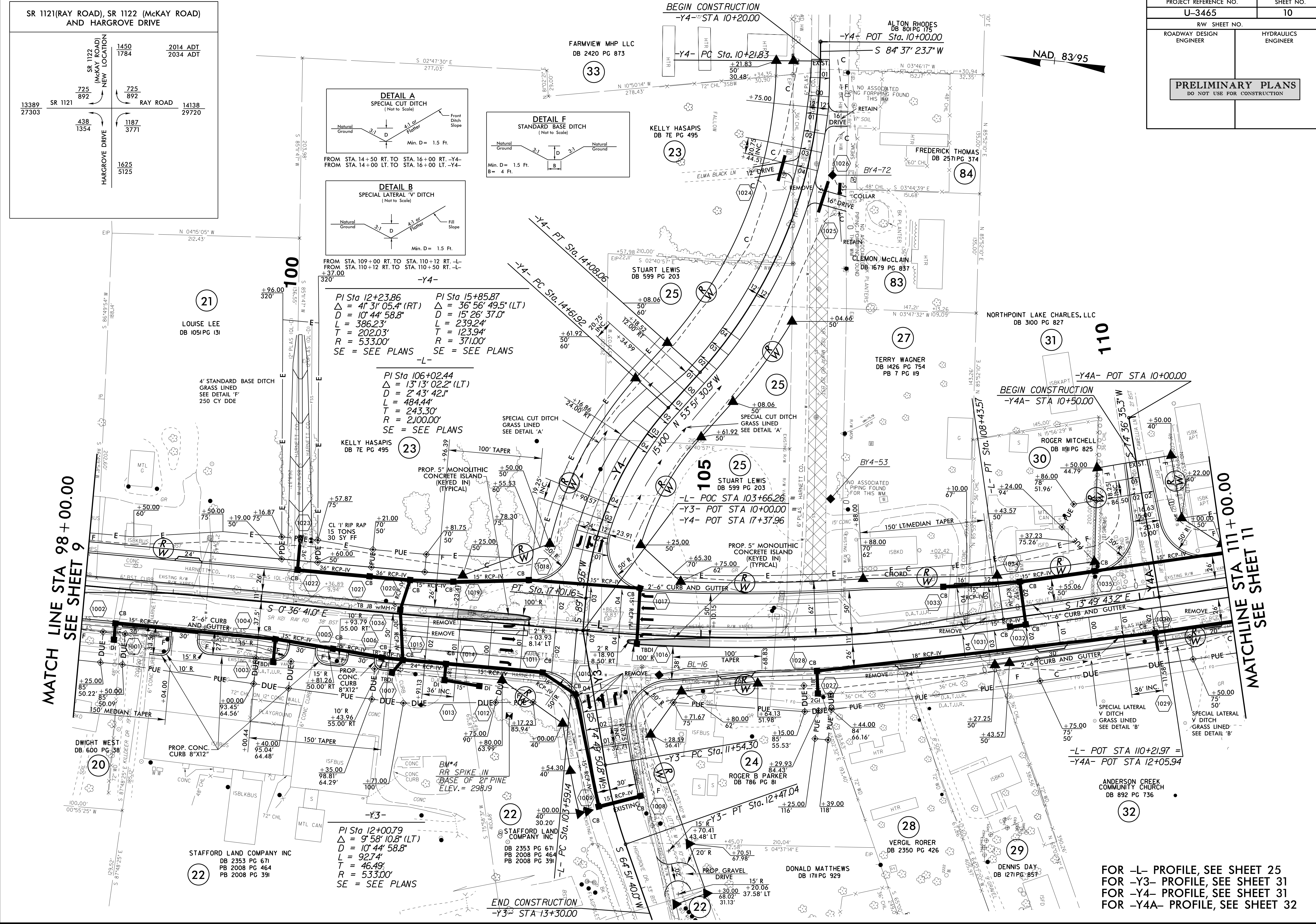
FOR -L- PROFILE, SEE SHEET 24
 FOR -DRVI- PROFILE, SEE SHEET 34
 FOR INTERSECTION DETAIL, SEE SHEET 2-I

15-OCT-2013 08:38 3465_rdy-up-sh-9.dgn
 9:55:00 AM

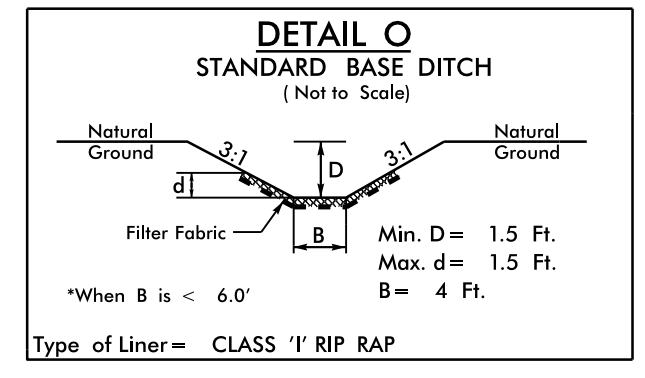
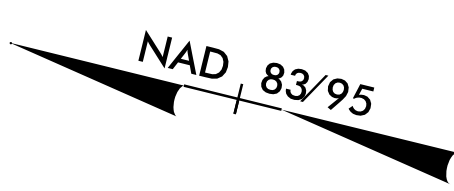
PROJECT REFERENCE NO.	SHEET NO.
U-3465	10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS	
DO NOT USE FOR CONSTRUCTION	



REVISIONS
 10/15/13 R/W REVISIONS: 1. PROPERTY LINE CHANGE PER DIVISION 6 LOCATION AND SURVEYS SHOWING PROPERTY LINE ADJUSTMENT BETWEEN PARCELS 19 AND 21.MJD
 2. ADDED DRIVEWAY TO PARCEL 32 -L- STA 108+90.MJD
 11/07/13 R/W REVISION: REVISED NAME AND DEED BOOK INFORMATION FOR PARCEL 31. MJD
 01/27/14 R/W REVISION: REVISED R/W ON PARCELS 22 AND 24 TO PROVIDE ACCESS TO THE PROPERTY OF DONALD MATTHEWS. MJD

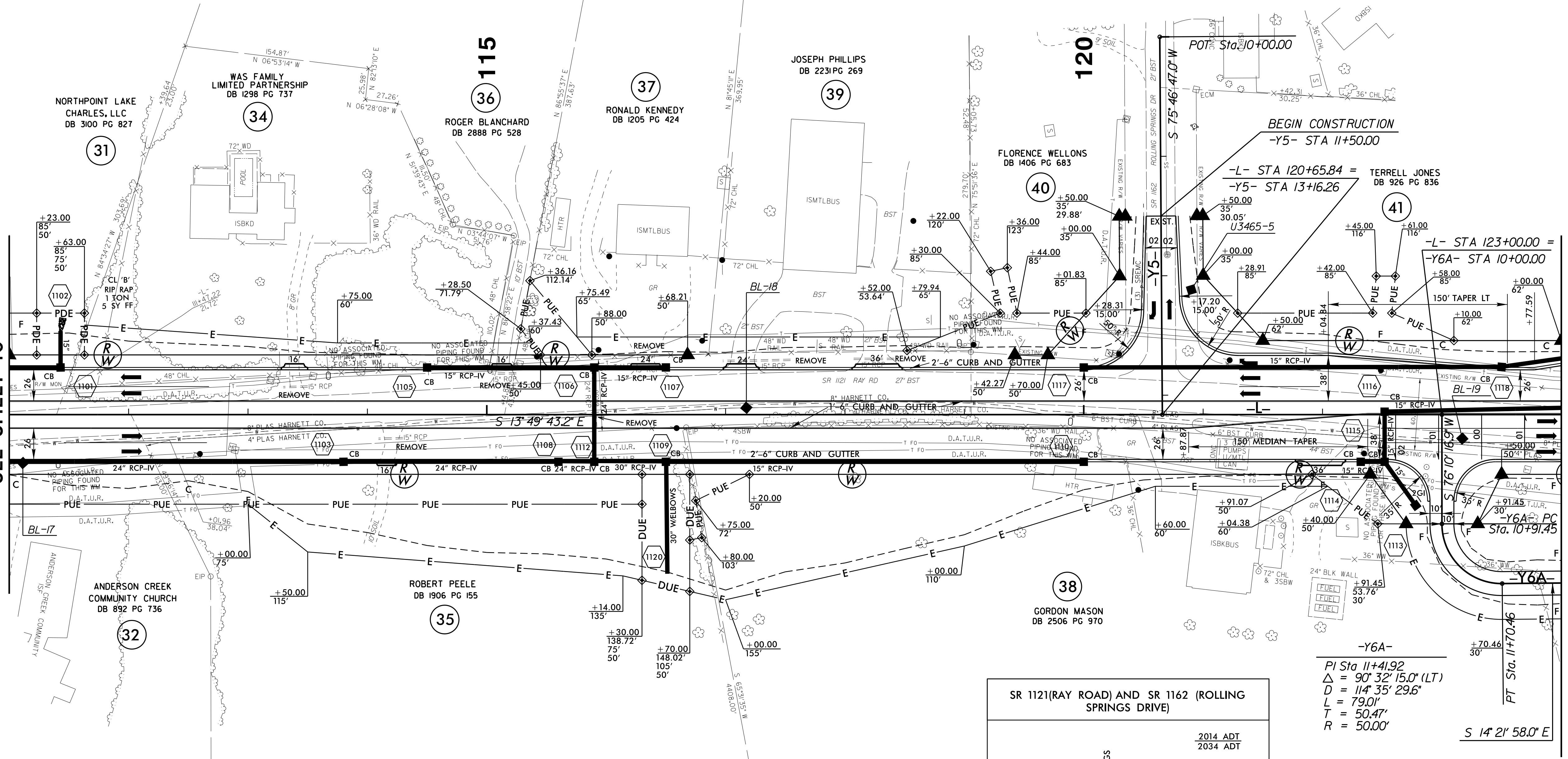


FOR -L- PROFILE, SEE SHEET 25
 FOR -Y3- PROFILE, SEE SHEET 31
 FOR -Y4- PROFILE, SEE SHEET 31
 FOR -Y4A- PROFILE, SEE SHEET 32

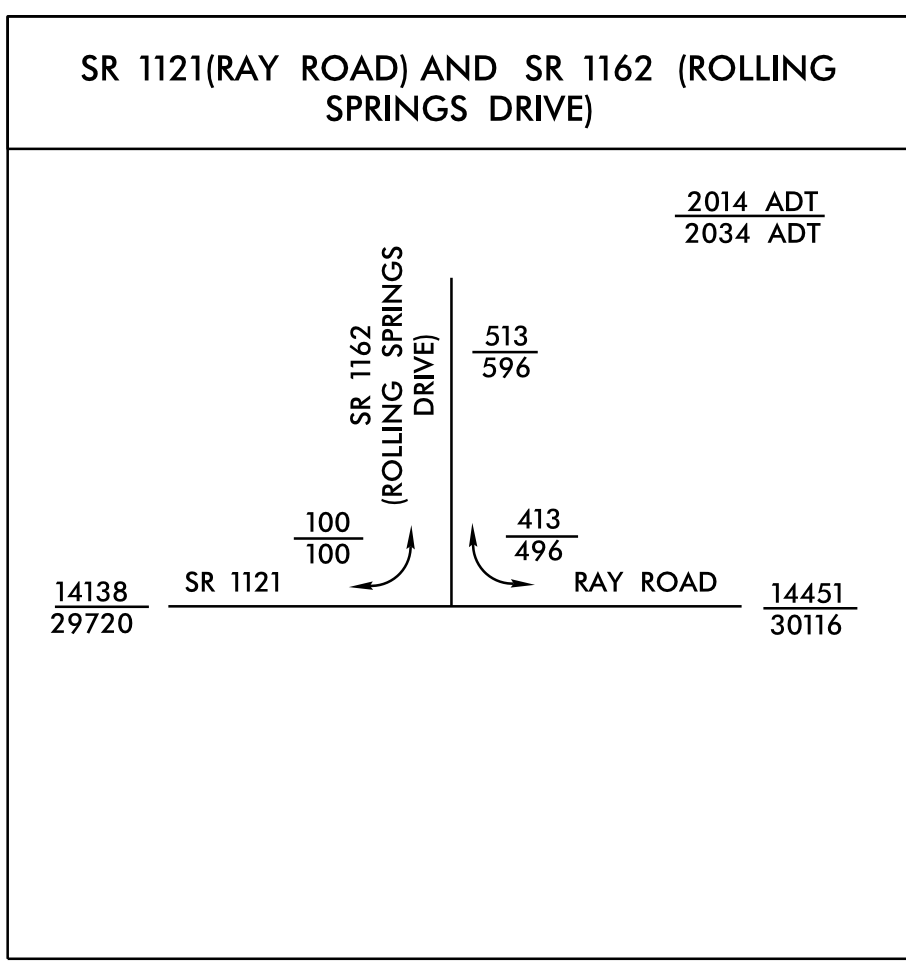


REVISIONS
 11/07/13 R/W REVISIONS: 1. REVISED THE PROPERTY LINES OF PARCEL 36, 37 AND 39. REVISED PUE - ON PARCEL 37. (MJD)
 2. REVISED NAME AND DEED BOOK INFORMATION FOR PARCEL 31. (MJD)
 3. REVISED DRAINAGE DESIGN BETWEEN -L- STA 113+80+/- TO -L- STA 116+50+/-, REVISED -DUE-, PUE- AND -TCE- FOR PARCEL 35. (MJD)

MATCH LINE -L- STA 111+00.00
 SEE SHEET 10



MATCH LINE -L- STA 124+00.00
 SEE SHEET 12



-Y6A-

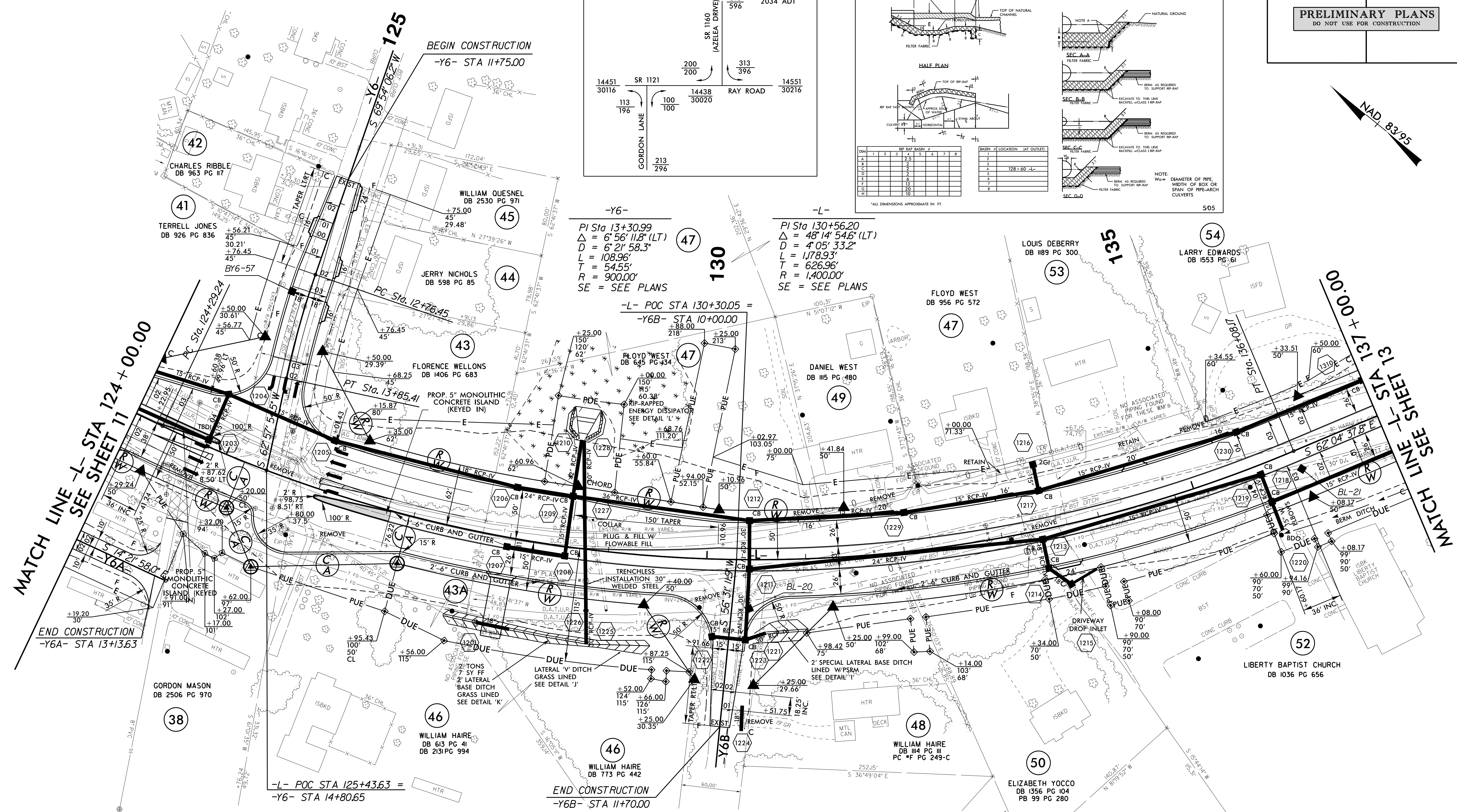
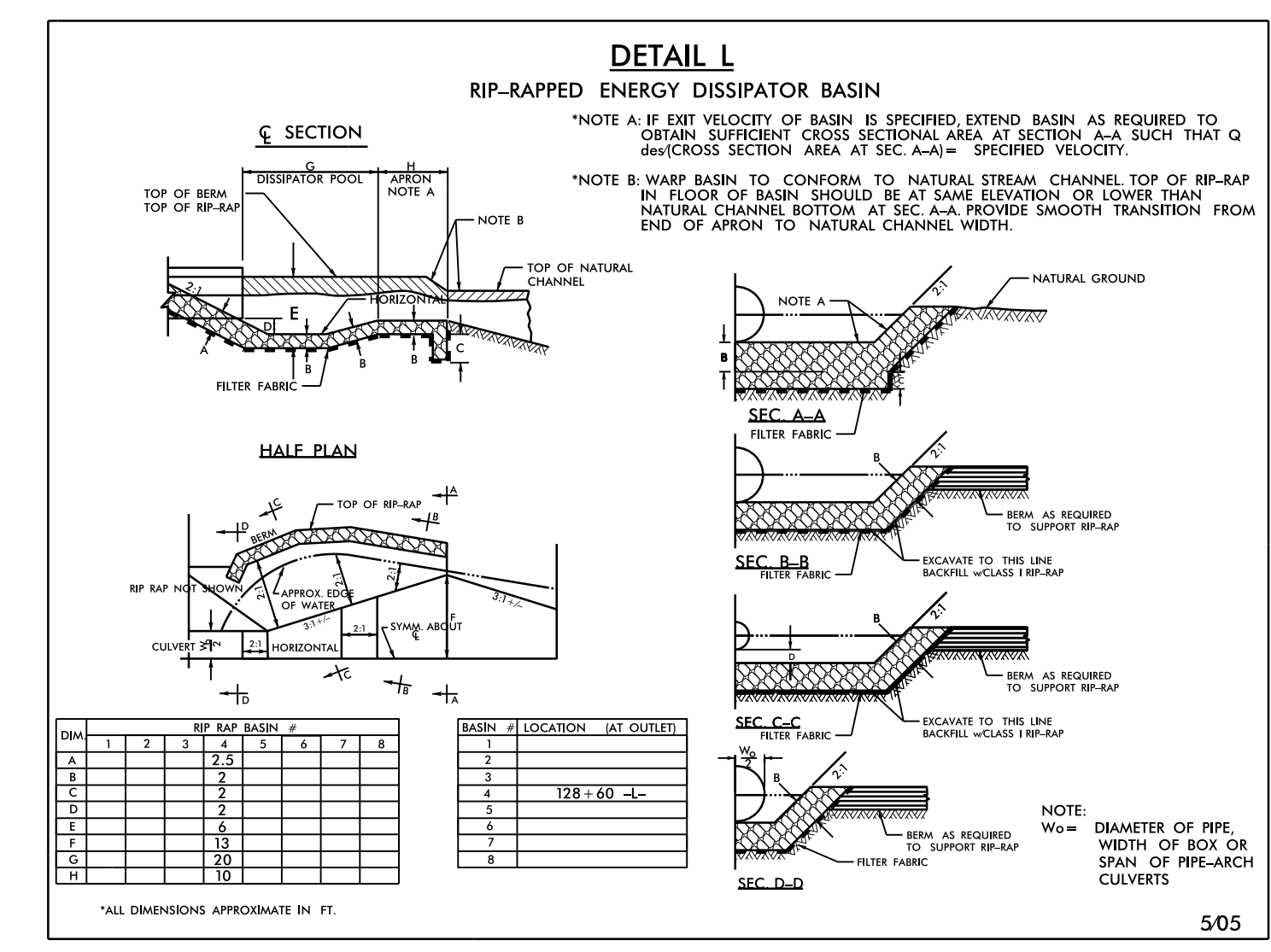
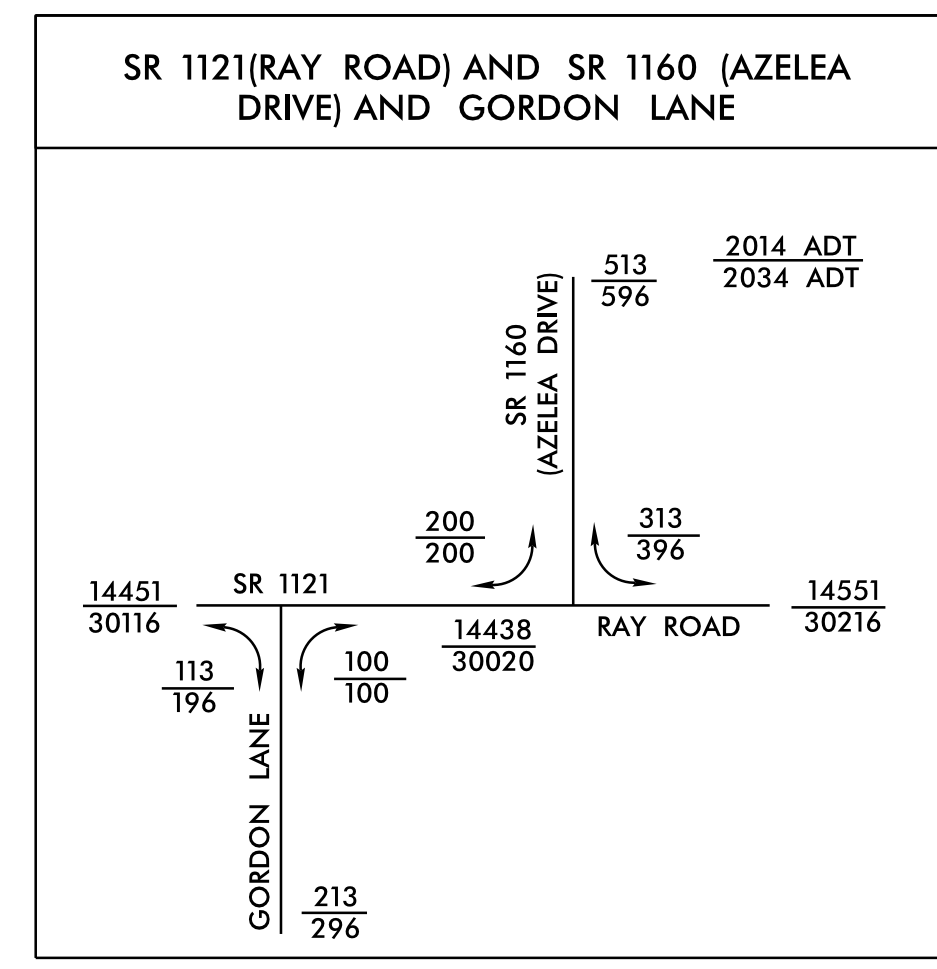
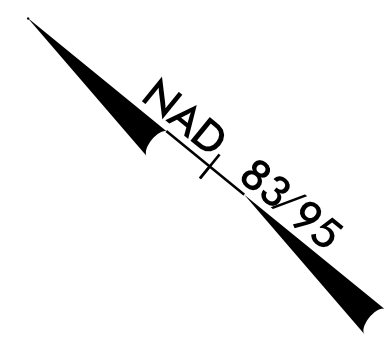
PI Sta 11+41.92
 $\Delta = 90^\circ 32' 15.0''$ (LT)
 $D = 114^\circ 35' 29.6''$
 $L = 79.01'$
 $T = 50.47'$
 $R = 50.00'$

S 14° 21' 58.0" E

FOR -L- PROFILE, SEE SHEET 25
 FOR -Y5- PROFILE, SEE SHEET 32
 FOR -Y6A- PROFILE, SEE SHEET 32

8/17/99

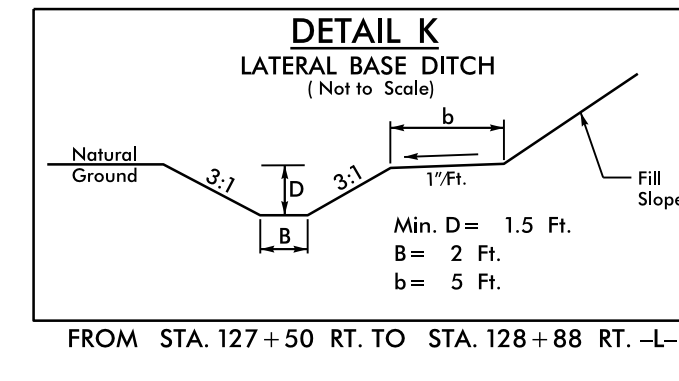
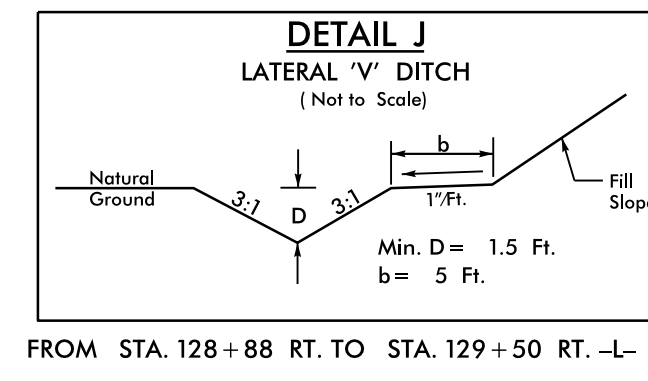
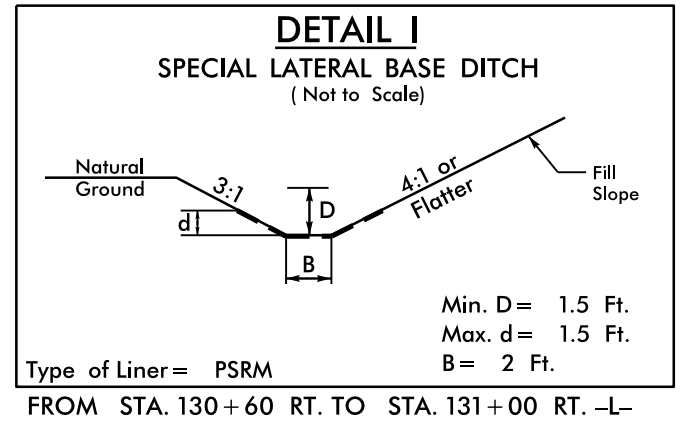
07-NOV-2013 15:29 3465.rdy.psh11.dgn
 3465.DWG



-Y6-
 $PI Sta 13+30.99$
 $\Delta = 6' 56'' 11.8'' (LT)$
 $D = 6' 21'' 58.3''$
 $L = 108.96'$
 $T = 54.55'$
 $R = 900.00'$
 SE = SEE PLANS

-L-
 $PI Sta 130+56.20$
 $\Delta = 48' 14'' 54.6'' (LT)$
 $D = 4' 05'' 33.2''$
 $L = 1,178.93'$
 $T = 626.96'$
 $R = 1,400.00'$
 SE = SEE PLANS

-L- POC STA 130+30.05 =
 -Y6B- STA 10+00.00



FOR -L- PROFILE, SEE SHEET 26
 FOR -Y6A- PROFILE, SEE SHEET 32
 FOR -Y6B- PROFILE, SEE SHEET 32

REVISIONS
 05/29/13 R/W REVISION: ADDED PARCEL 43A (FLORENCE WELLONS ESTATE), M.D.
 05/29/13 DESIGN REVISION: REMOVED DRIVEWAY ON PARCEL 43A AND ADDED DRIVEWAY TO PARCEL 46 STA 128+00.00 RIGHT, M.D.
 11/22/13 R/W REVISIONS: COMBINED PARCEL 51 WITH 47, DELETED PARCEL 51 (M.D.)

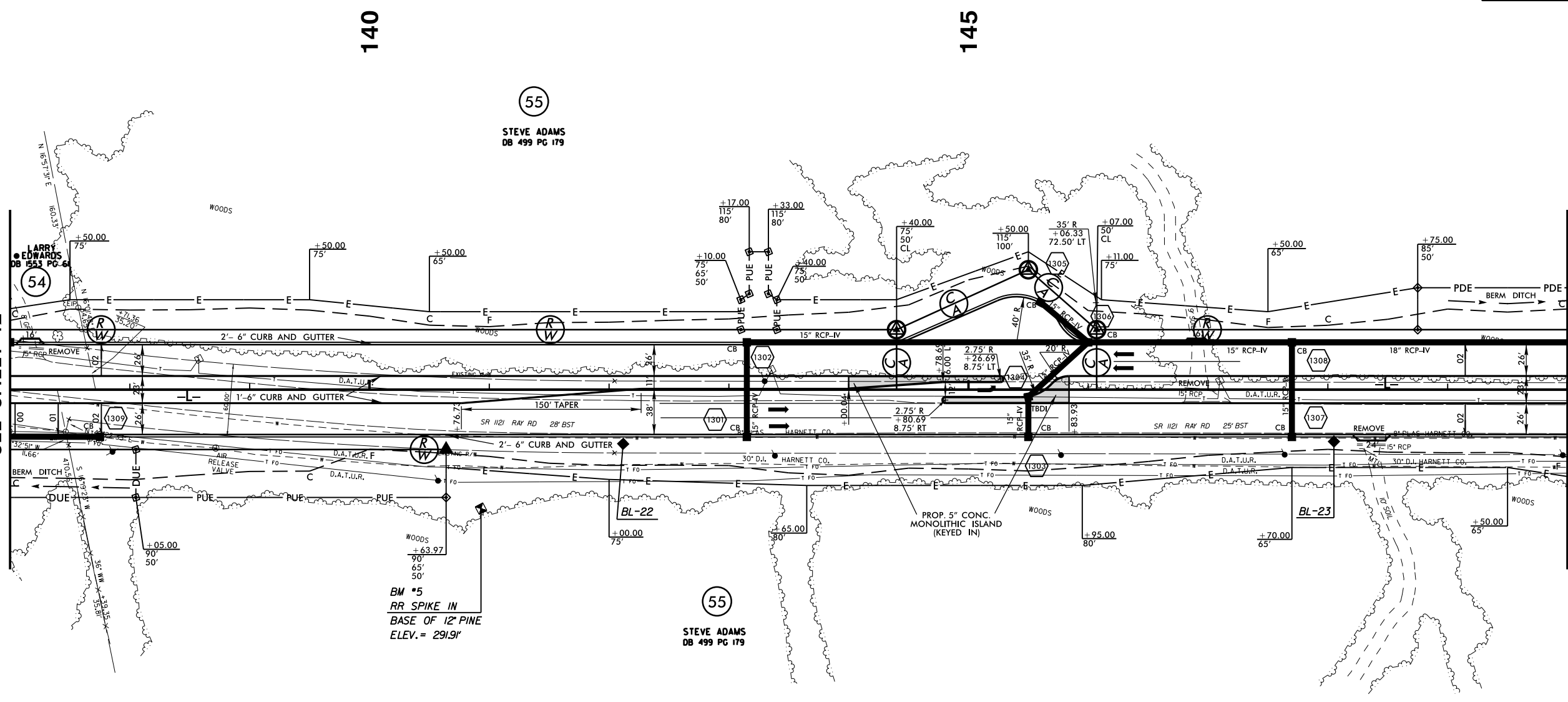
25-NOV-2013 08:02 3465_rdy-upsh12.dgn
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PROJECT REFERENCE NO. U-3465	SHEET NO. 13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



MATCH LINE -L- STA 137 + 00.00
SEE SHEET 12

MATCH LINE -L- STA 150 + 00.00
SEE SHEET 14



140

145

55

STEVE ADAMS
DB 499 PG 179

55

STEVE ADAMS
DB 499 PG 179

LARRY EDWARDS
DB 1553 PG 64

54

BM *5
RR SPIKE IN
BASE OF 12' PINE
ELEV. = 291.91'

BL-22

BL-23

PROP. 5" CONC.
MONOLITHIC ISLAND
(KEYED IN)

PROJECT REFERENCE NO. U-3465		SHEET NO. 14	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			



155

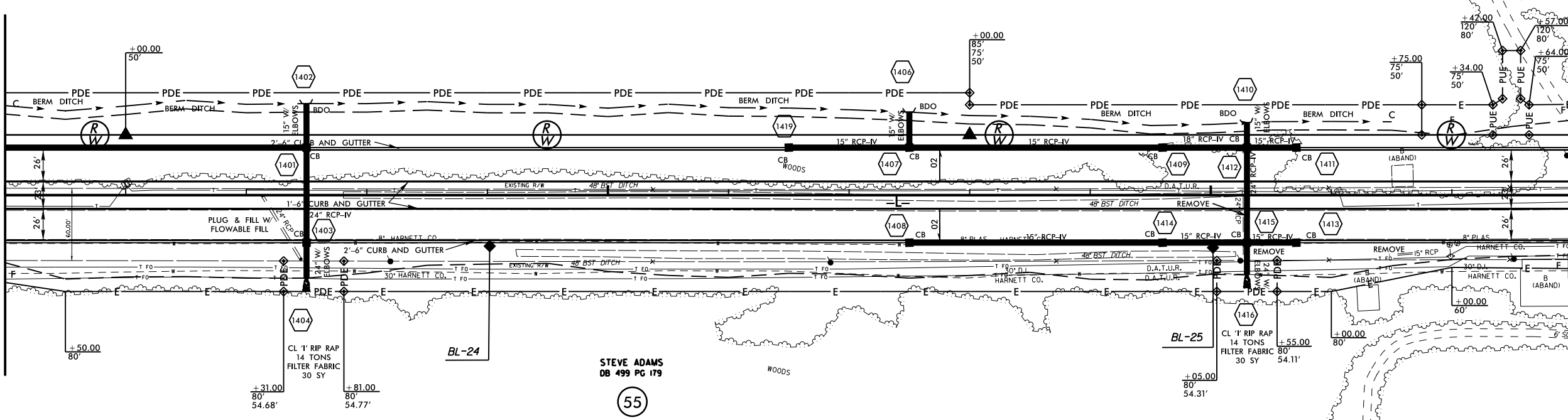
160

(55)

STEVE ADAMS
DB 499 PG 179

MATCH LINE -L- STA 150 + 00.00
SEE SHEET 13

MATCH LINE -L- STA 163 + 00.00
SEE SHEET 15



(55)

STEVE ADAMS
DB 499 PG 179

BL-24

BL-25

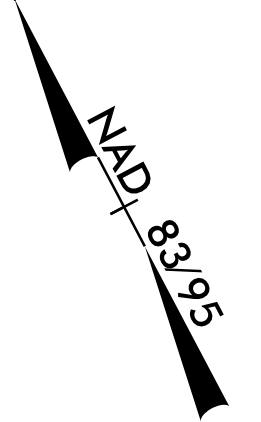
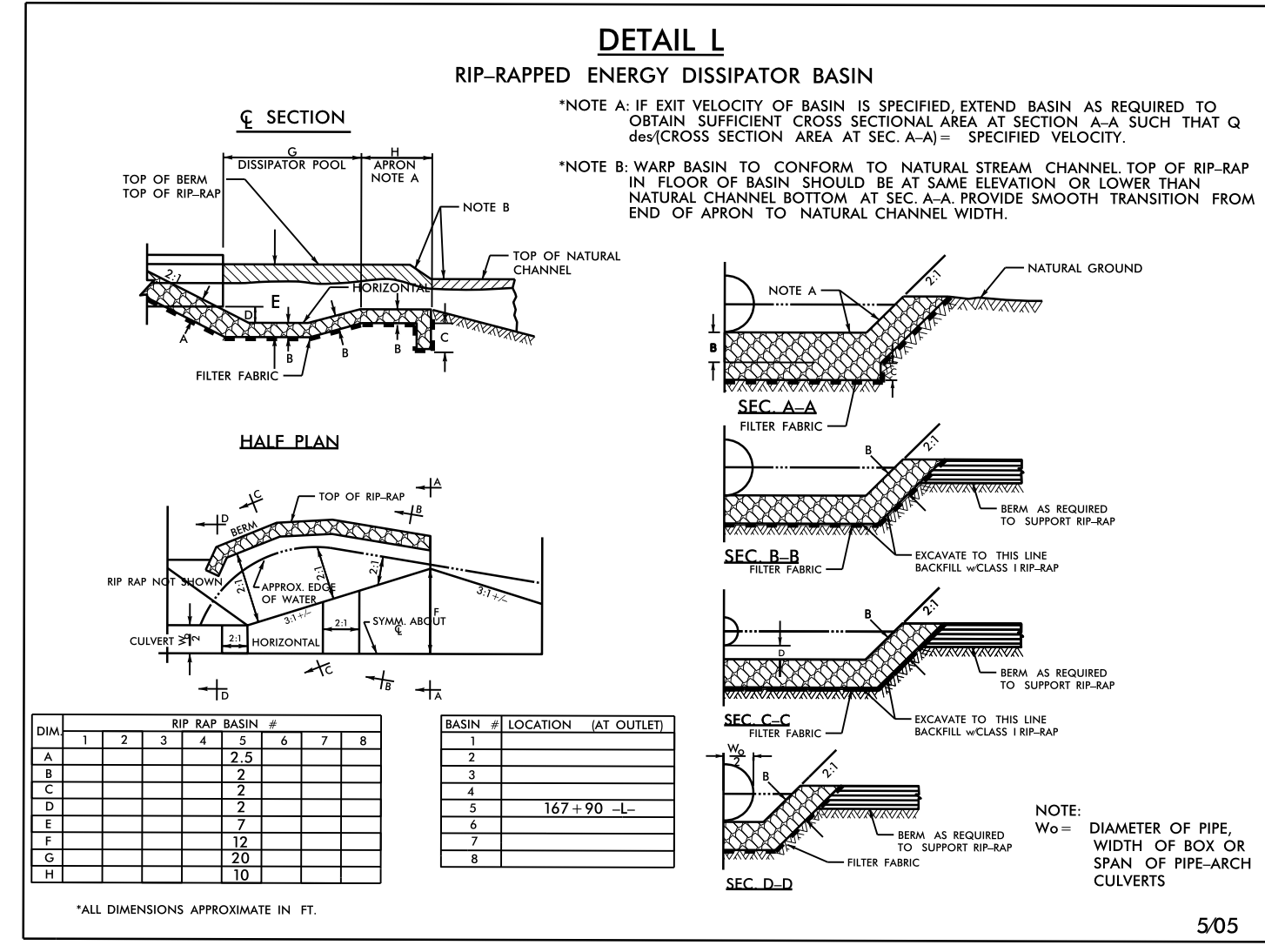
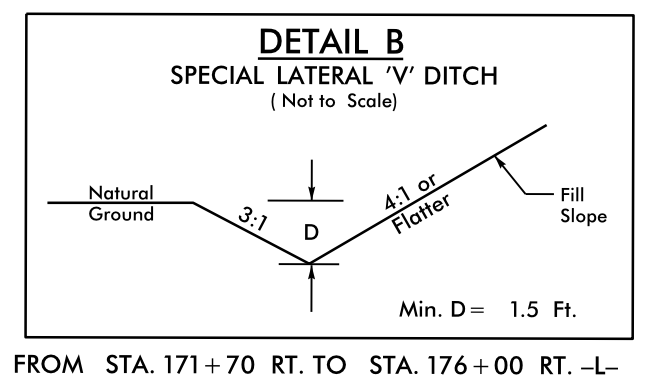
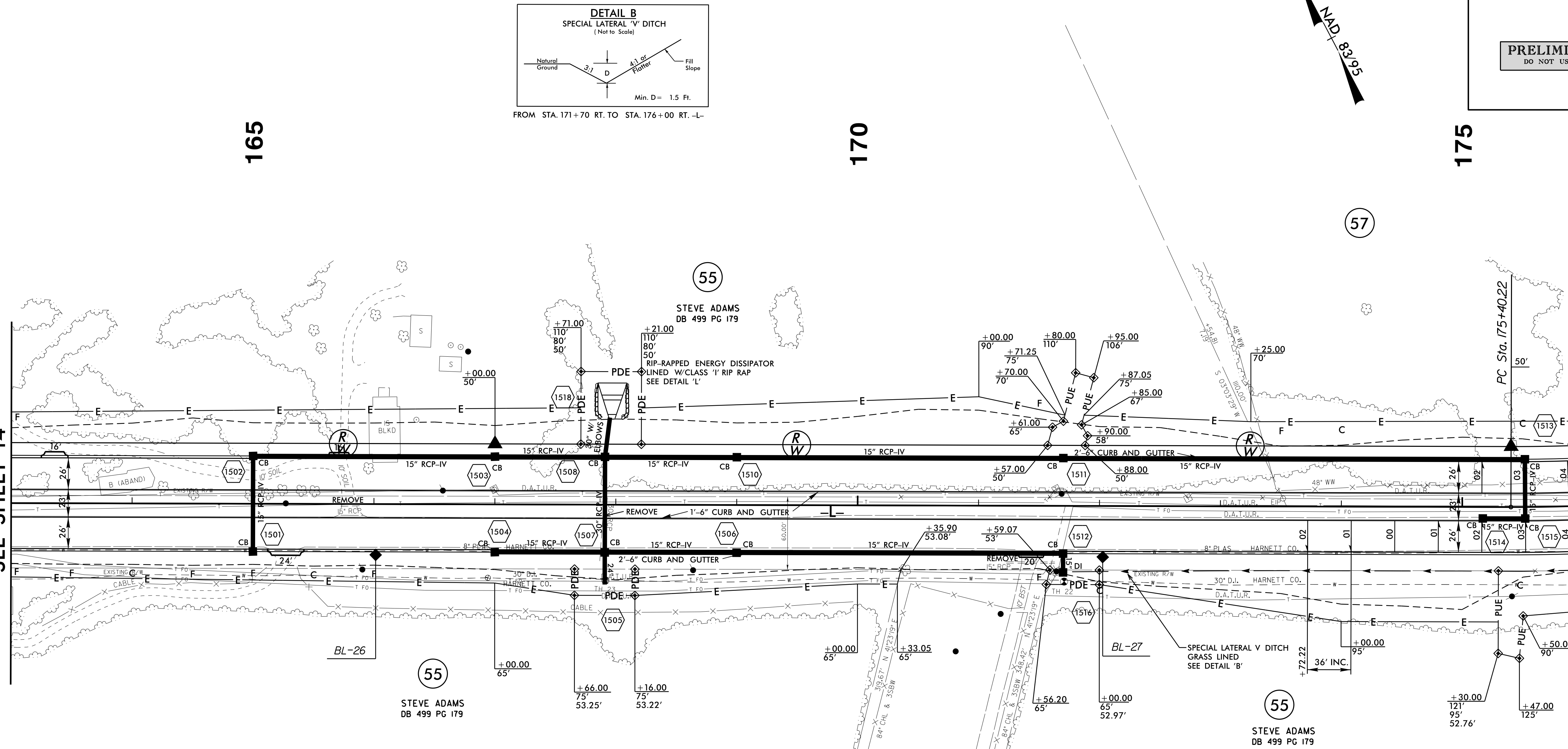
REVISIONS
11/07/13 R/W REVISIONS-ELIMINATED CLAIM BY REDUCING IMPACTS ON PARCEL 56 (UNITED STATES OF AMERICA AND UNITED STATES AIR FORCE PROPERTY).MJD

8/17/99

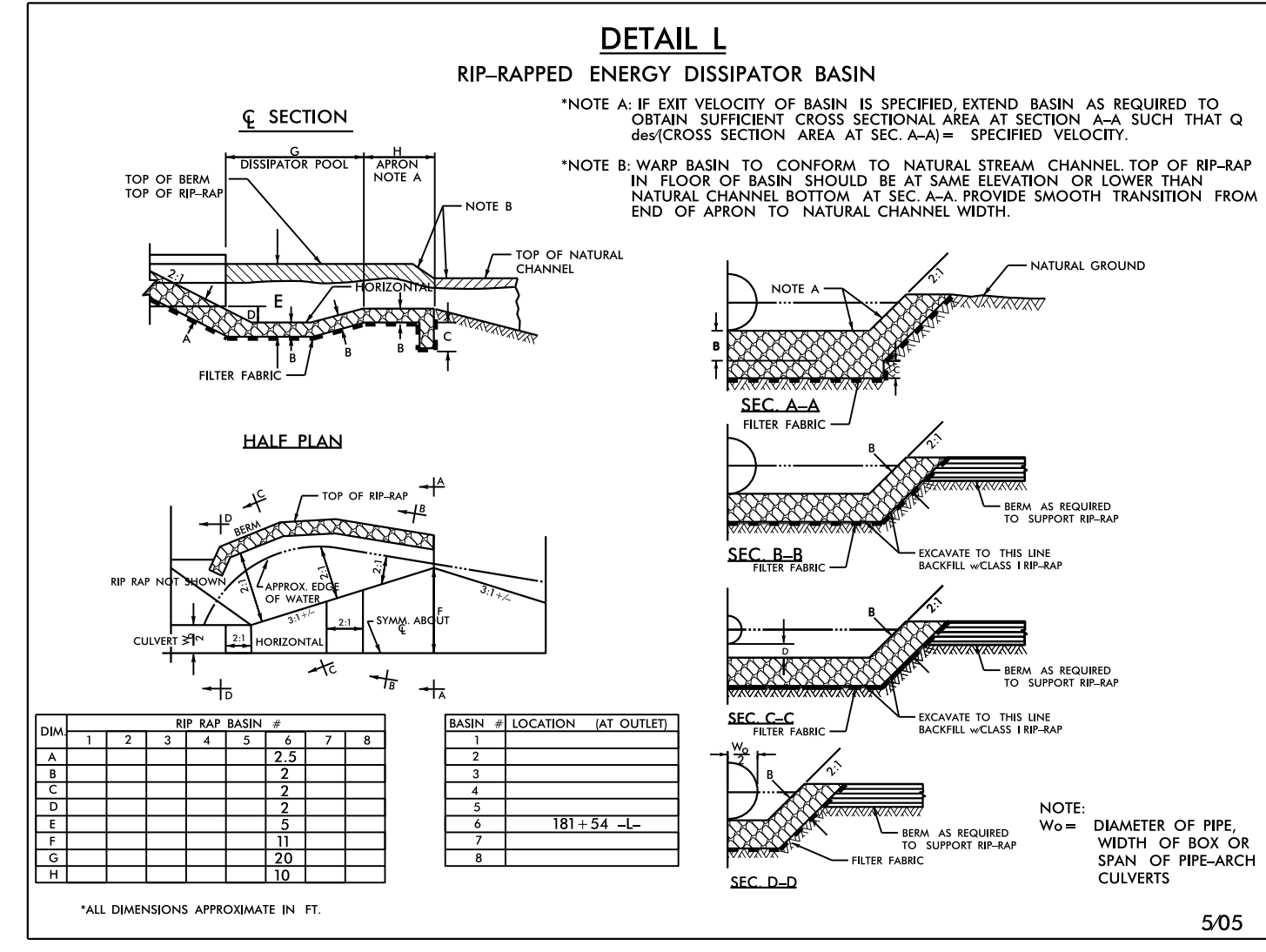
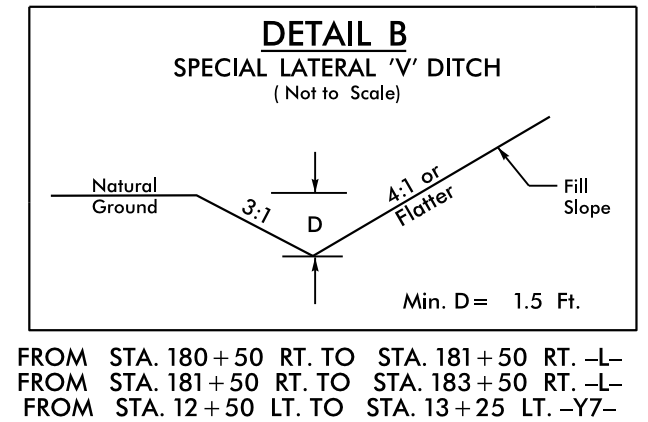
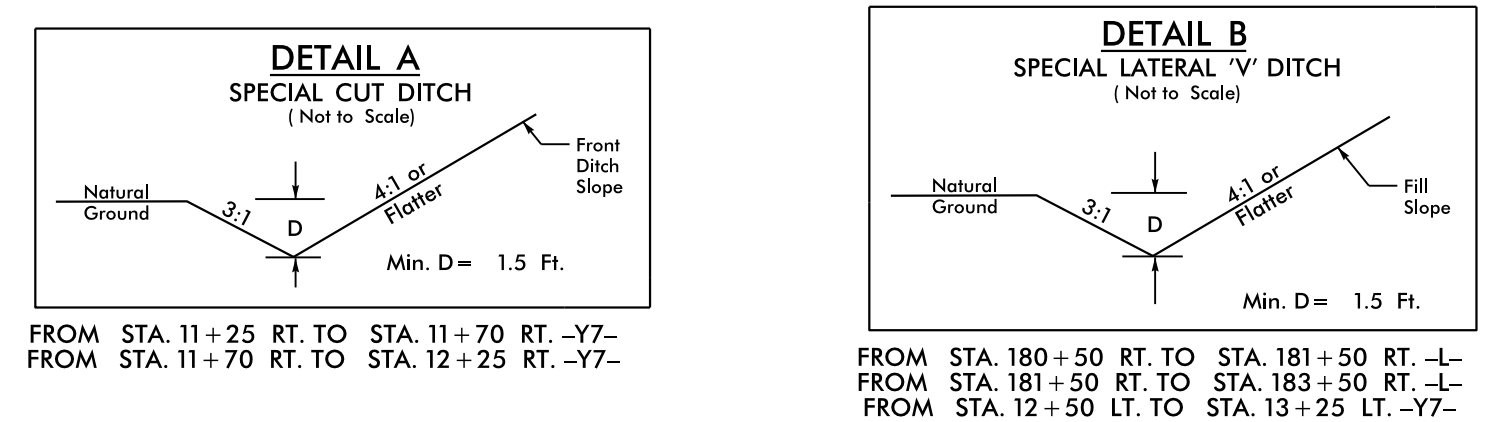
07-NOV-2013 15:32 3465-rdy-psh15.dgn
3465-PLAN-15.dwg

MATCH LINE -L- STA 163+00.00
SEE SHEET 14

MATCH LINE -L- STA 176+00.00
SEE SHEET 16



NAD 83/95

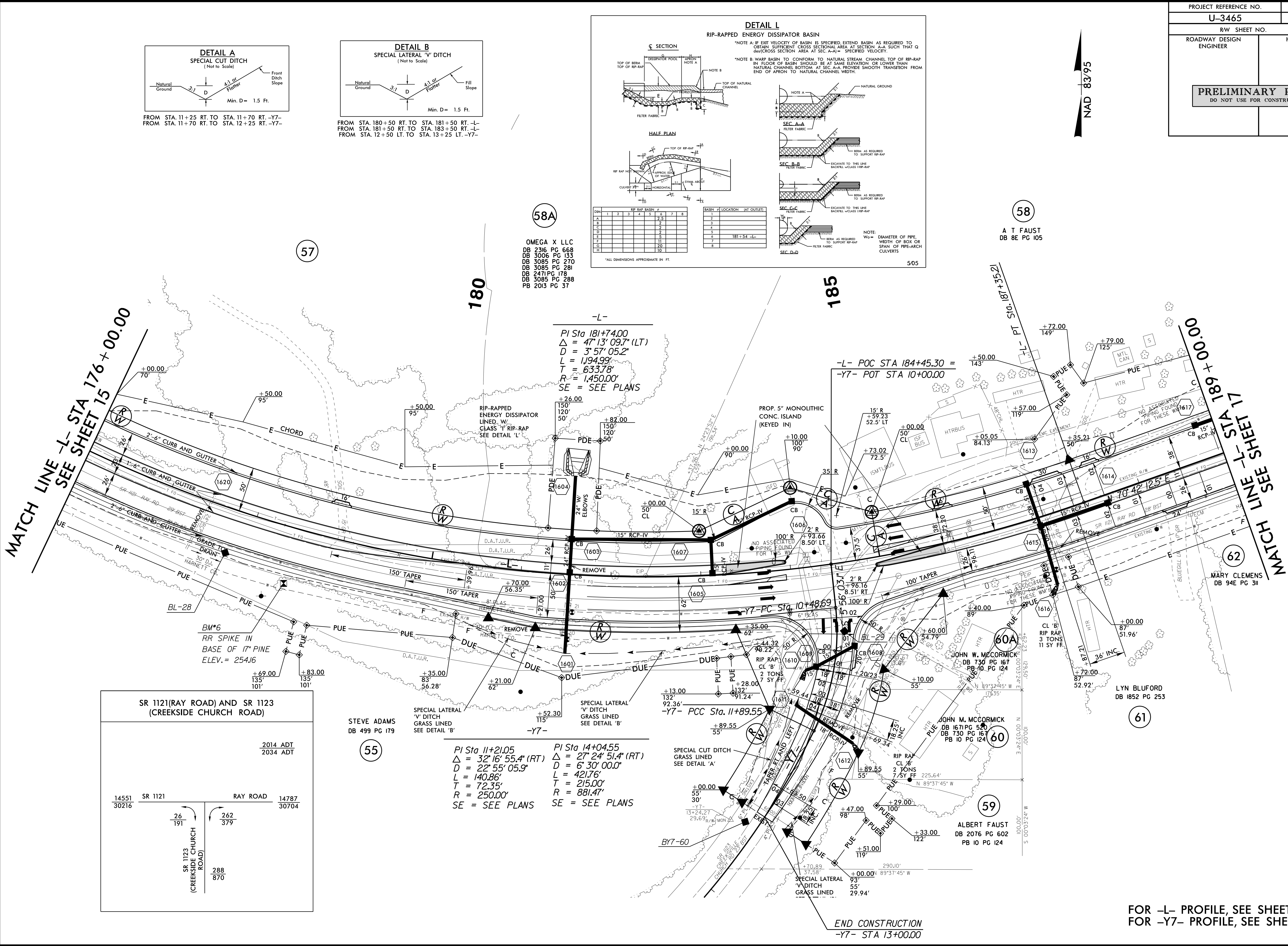


58A

OMEGA X LLC
DB 2316 PG 668
DB 3006 PG 133
DB 3085 PG 270
DB 3085 PG 281
DB 2471 PG 178
DB 3085 PG 288
PB 2013 PG 37

58

A T FAUST
DB 8E PG 105



FOR -L- PROFILE, SEE SHEET 28
FOR -Y7- PROFILE, SEE SHEET 32

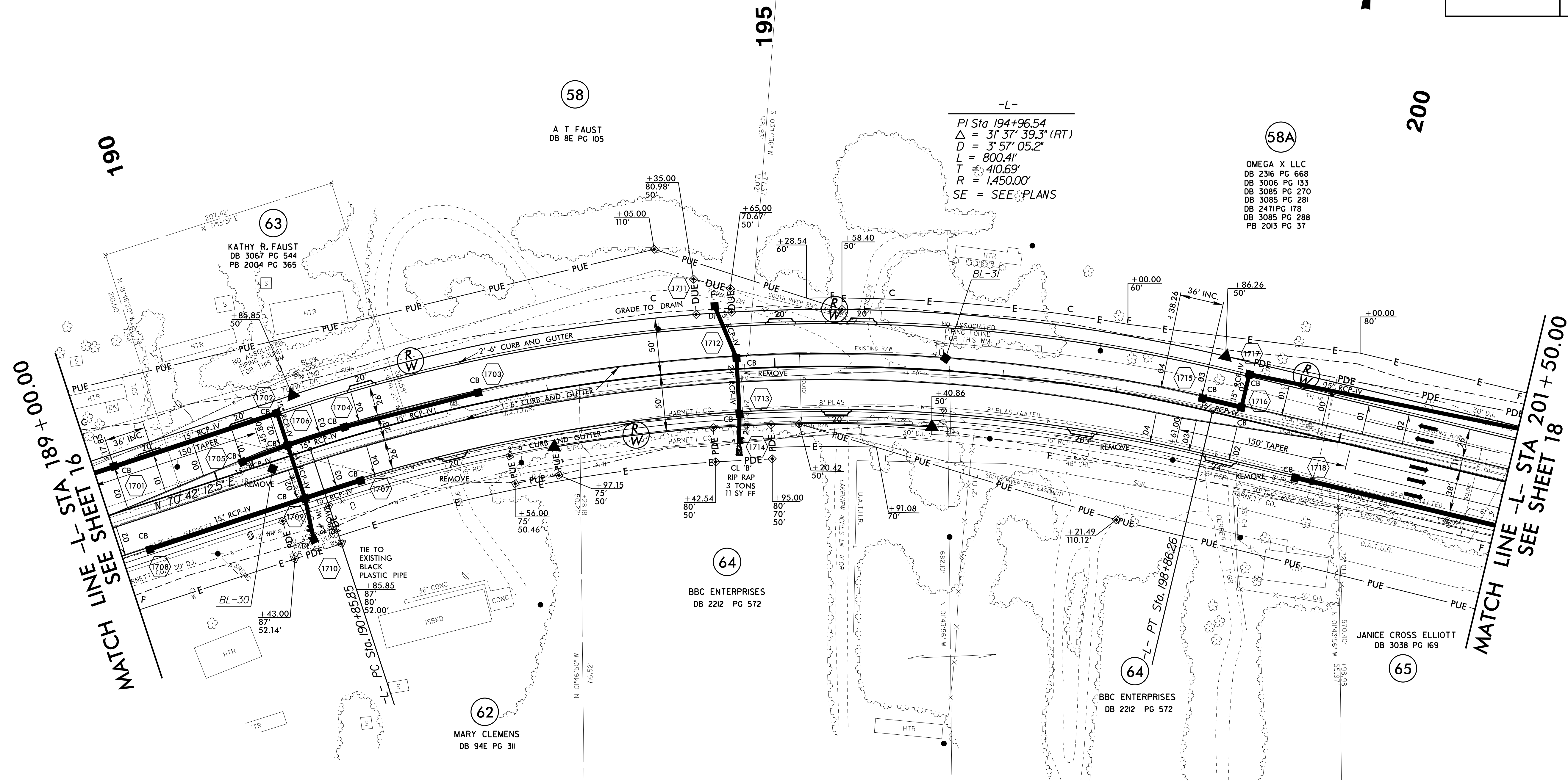
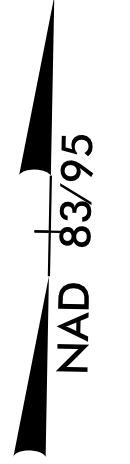
8/17/99

REVISIONS

01/27/14 R/W REVISION: ADDED NEW PARCEL 58A AFTER PROP. OWNER SOLD FOUR TRACTS OF LAND & ADDED NEW PARCEL 60A AFTER PARCEL 60 WAS SEPARATED INTO TWO PARCELS, M.I.D.

24 JAN 2014 10:30 U-3465-rdy-upsh16.dgn

PROJECT REFERENCE NO. U-3465	SHEET NO. 17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



MATCH LINE -L- STA 189 + 00.00
SEE SHEET 16

MATCH LINE -L- STA 201 + 50.00
SEE SHEET 18

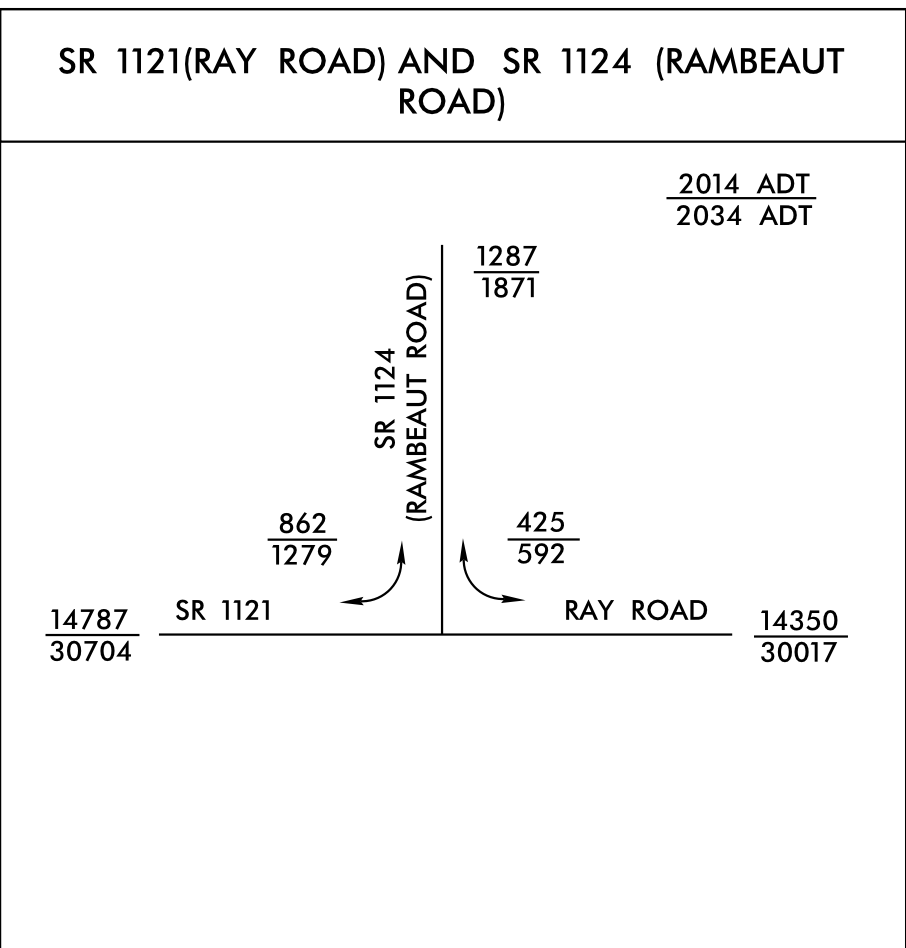
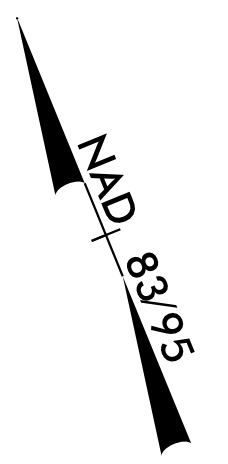
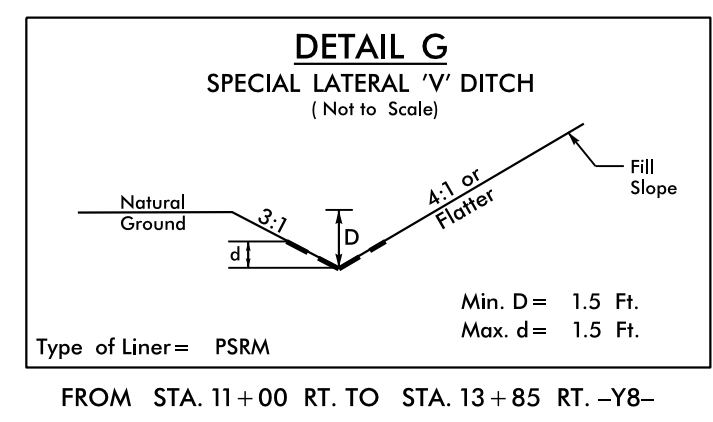
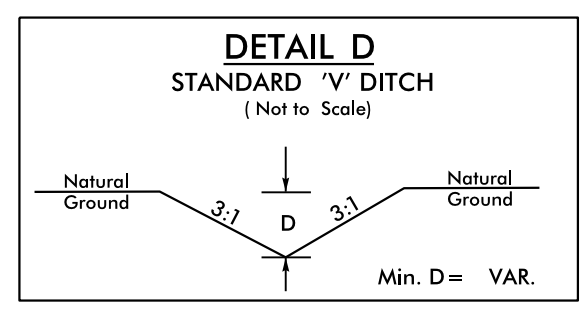
REVISIONS

01/27/14 R/W REVISION: ADDED NEW PARCEL 58A AFTER PROPERTY OWNER ON PARCEL 58 SOLD FOUR TRACTS OF LAND. MJD

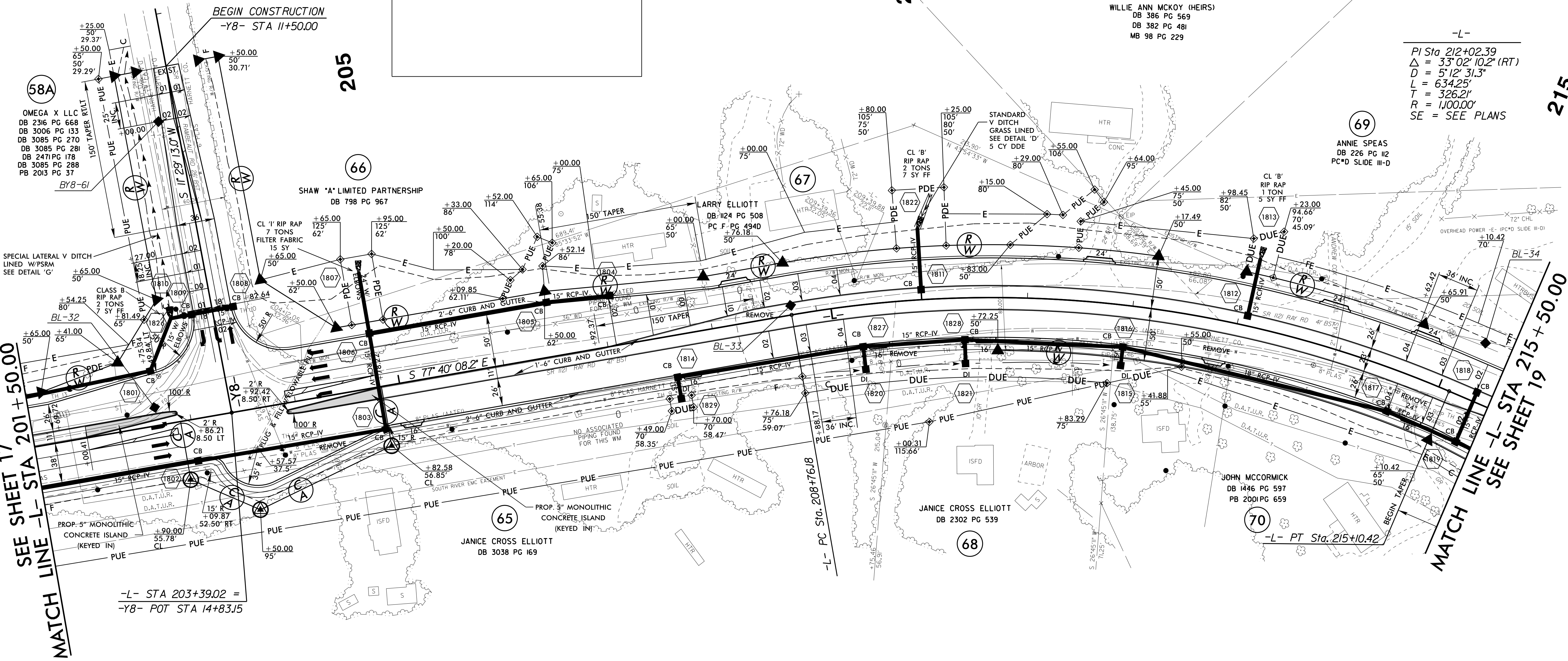
24 JAN 2014 10:25 3465.rdy.psh17.dgn
3465.DWG

FOR -L- PROFILE, SEE SHEET 28

PROJECT REFERENCE NO.	SHEET NO.
U-3465	18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



REVISIONS
 02/06/13 R/W REVISION: ADDED PROPERTY LINE TO SHOW BOUNDARIES FOR PARCELS 66 AND 69 AND REVISED R/W AND DUE ON PARCEL 69. SCL
 01/27/14 R/W REVISION: ADDED NEW PARCEL 58A AFTER PROPERTY OWNER ON PARCEL 58 SOLD FOUR TRACTS OF LAND. MJD



-L-
 PI Sta 212+02.39
 $\Delta = 33^{\circ}02'10.2"$ (RT)
 $D = 5^{\circ}12'31.3"$
 $L = 634.25'$
 $T = 326.21'$
 $R = 1,100.00'$
 SE = SEE PLANS

-L- PT Sta. 215+10.42

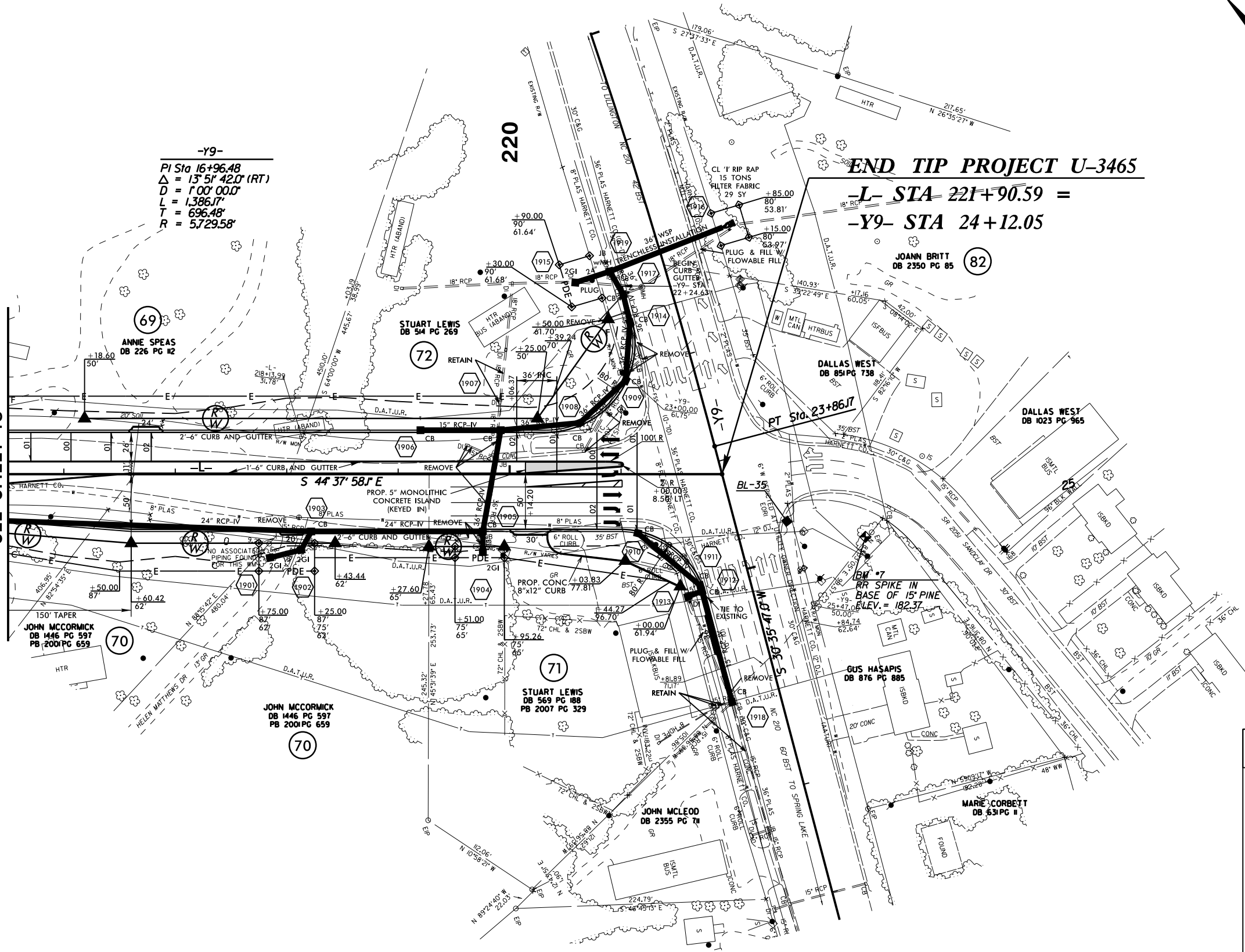
FOR -L- PROFILE, SEE SHEET 29
 FOR -Y8- PROFILE, SEE SHEET 33

24 JAN-2014 10:28
 S:\PROJECTS\U-3465-rdy-ph18.dgn
 3465-18.dwg

PROJECT REFERENCE NO.	SHEET NO.
U-3465	19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS	
DO NOT USE FOR CONSTRUCTION	



MATCH LINE -L- STA 215+50.00
SEE SHEET 18



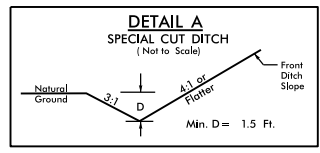
-Y9-
 PI Sta 16+96.48
 $\Delta = 13^\circ 51' 42.0''$ (RT)
 $D = 1^\circ 00' 00.0''$
 $L = 1,386.17'$
 $T = 696.48'$
 $R = 5,729.58'$

END TIP PROJECT U-3465

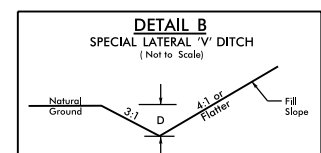
-L- STA 221+90.59 =
-Y9- STA 24+12.05

SR 1121(RAY ROAD) AND NC 210			
			2014 ADT 2034 ADT
	1688 5604	413 496	
14350 30017	SR 1121 RAY ROAD	SR 2051 SANDCLAY DRIVE	2262 3346
	10913 21663	100 100	
		22012 38763	

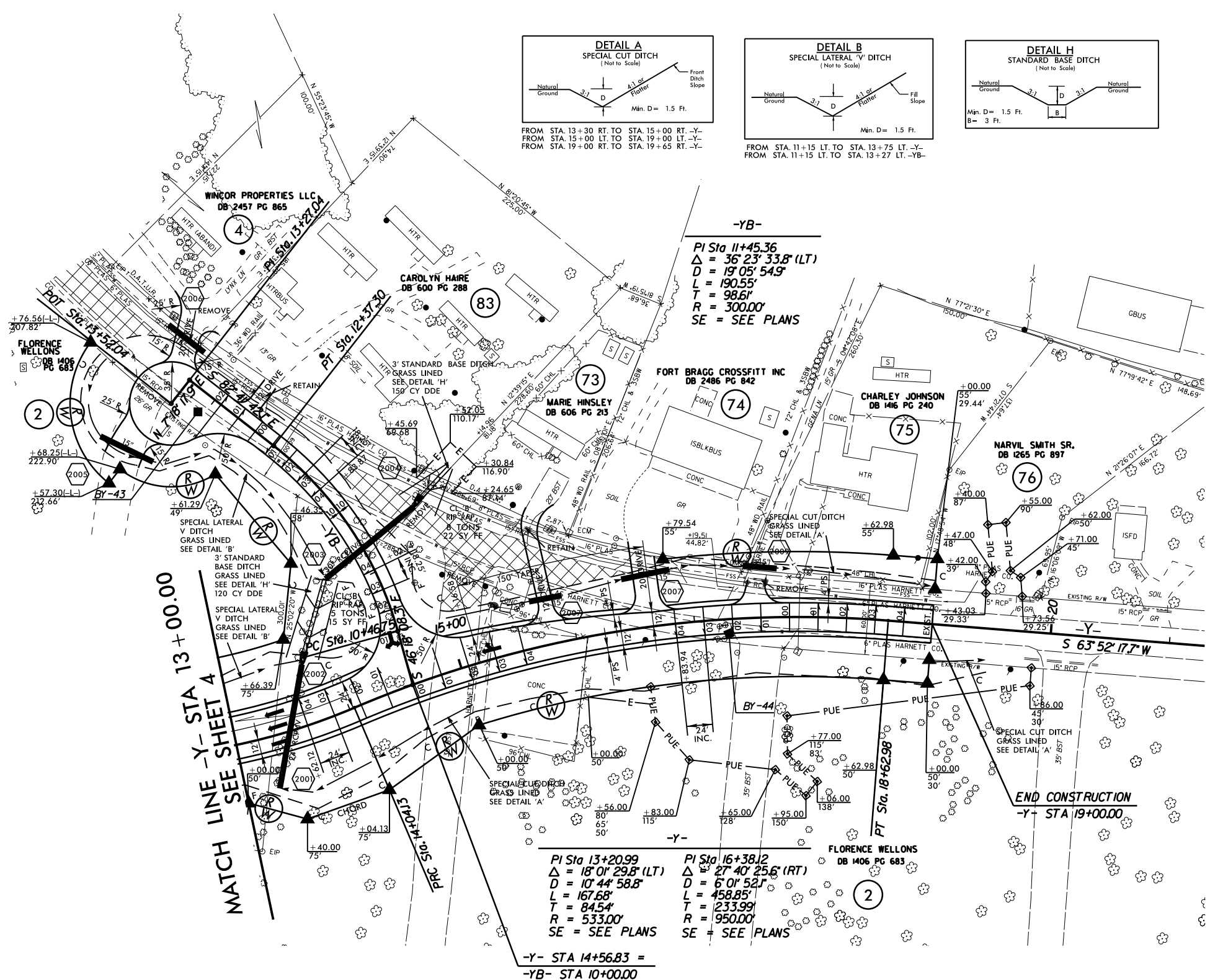
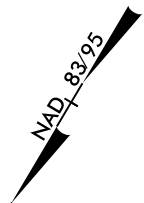
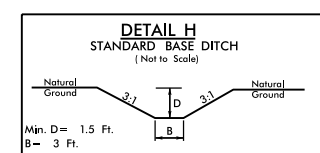
FOR -L- PROFILE, SEE SHEET 29



FROM STA. 13+30 RT. TO STA. 15+00 RT. -Y-
FROM STA. 15+00 LT. TO STA. 19+00 LT. -Y-
FROM STA. 19+00 RT. TO STA. 19+65 RT. -Y-



FROM STA. 11+15 LT. TO STA. 13+75 LT. -Y-
FROM STA. 11+15 LT. TO STA. 13+27 LT. -YB-



-YB-
PI Sta 11+45.36
 $\Delta = 36' 23'' 33.8''$ (LT)
 $D = 19' 05'' 54.9''$
 $L = 190.55'$
 $T = 98.6'$
 $R = 300.00'$
SE = SEE PLANS

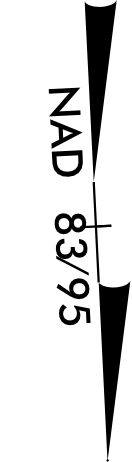
PI Sta 13+20.99
 $\Delta = 18' 01'' 29.8''$ (LT)
 $D = 10' 44'' 58.8''$
 $L = 167.68'$
 $T = 84.54'$
 $R = 533.00'$
SE = SEE PLANS

PI Sta 16+38.12
 $\Delta = 27' 40'' 25.6''$ (RT)
 $D = 6' 01'' 52.1''$
 $L = 458.85'$
 $T = 233.99'$
 $R = 950.00'$
SE = SEE PLANS

MATCH LINE -Y- STA 13+00.00
SEE SHEET 4

END CONSTRUCTION
-Y- STA 19+00.00

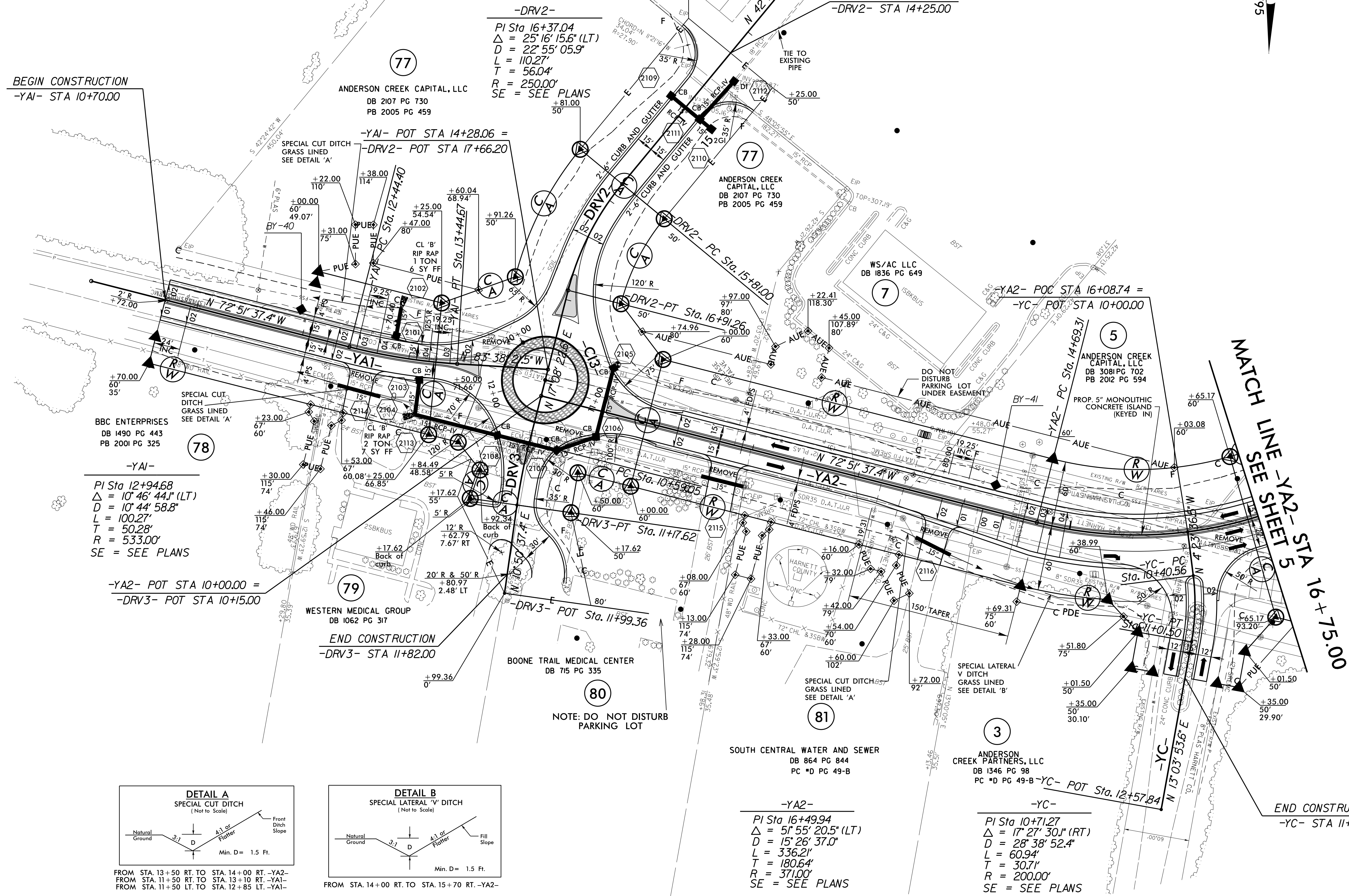
PROJECT REFERENCE NO.	SHEET NO.
U-3465	21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



BEGIN CONSTRUCTION
-YAI- STA 10+70.00

BEGIN CONSTRUCTION
-DRV2- STA 14+25.00

END CONSTRUCTION
-YC- STA 11+35.00

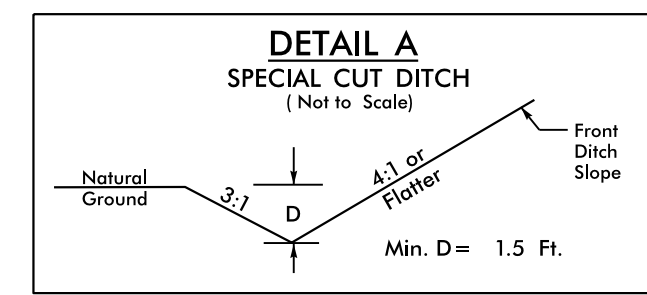


-YAI-
PI Sta 12+94.68
 $\Delta = 10' 46' 44.1''$ (LT)
 $D = 10' 44' 58.8''$
 $L = 100.27'$
 $T = 50.28'$
 $R = 533.00'$
SE = SEE PLANS

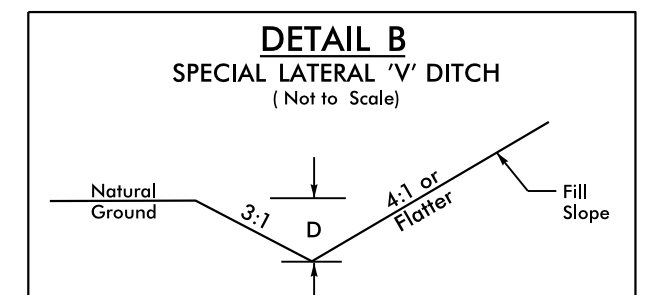
-DRV2-
PI Sta 16+37.04
 $\Delta = 25' 16' 15.6''$ (LT)
 $D = 22' 55' 05.9''$
 $L = 110.27'$
 $T = 56.04'$
 $R = 250.00'$
SE = SEE PLANS

-YA2-
PI Sta 16+49.94
 $\Delta = 5' 55' 20.5''$ (LT)
 $D = 15' 26' 37.0''$
 $L = 336.21'$
 $T = 180.64'$
 $R = 371.00'$
SE = SEE PLANS

-YC-
PI Sta 10+71.27
 $\Delta = 17' 27' 30.1''$ (RT)
 $D = 28' 38' 52.4''$
 $L = 60.94'$
 $T = 30.71'$
 $R = 200.00'$
SE = SEE PLANS



FROM STA. 13+50 RT. TO STA. 14+00 RT. -YA2-
FROM STA. 11+50 RT. TO STA. 13+10 RT. -YAI-
FROM STA. 11+50 LT. TO STA. 12+85 LT. -YAI-



FROM STA. 14+00 RT. TO STA. 15+70 RT. -YA2-

NOTE: DO NOT DISTURB
PARKING LOT

MATCH LINE -YAI- STA 16+75.00
SEE SHEET 5

REVISIONS
01/27/14 R/W REVISION: REVISED PROPERTY LINE AND DEED BOOK INFORMATION FOR PARCEL 5 DUE TO PROPERTY CONVEYANCE FROM PARCEL 7. MUD

8/17/99

24 JAN-2014 10:26
U:\PROJECTS\U-3465-rdw-up-sh-21.dgn
3465-21-21-1.dwg

FOR -YAI- PROFILE, SEE SHEET 30
FOR -YA2- PROFILE, SEE SHEET 30
FOR -YC- PROFILE, SEE SHEET 31
FOR -DRV2- PROFILE, SEE SHEET 34
FOR -DRV3- PROFILE, SEE SHEET 34
FOR -CI3- ROUNDABOUT DETAIL, SEE SHEET 2-G
FOR -CI3- PROFILE, SEE SHEET 33