American Tobacco Trail NCDOT Rail Corridor

Proposed 12" Pipeline Installation





Project Purpose

- To provide safe and reliable Natural Gas service to existing customers as well as future customers due to the rapid residential and commercial development in the Triangle Area.
- Provide a safe and effective means to comply with current and pending state and federal regulations.
 - This new pipeline will provide sufficient capacity to allow PSNC Energy to downgrade or reduce the pressure of approximately 75 miles of existing high pressure transmission pipelines in Orange, Chatham, Lee, and Wake Counties.
 - Reducing the pressure in these pipelines will reduce the internal stress levels of the pipes and significantly improve the overall safety of the pipelines.





Project Purpose

- This reduction will eliminate the need for significant pipeline integrity measures that would otherwise be necessary to meet current Pipeline and Hazardous Materials Safety Administration (PHMSA) regulations.
 - The integrity measures that would be required on the existing transmission pipelines without this new proposed pipeline would include:
 - Installing multiple above ground facilities to regularly inspect the lines, thereby impacting private property owners and the general public every 7 years at a minimum.
 - Replacing 1,000's of feet of existing pipelines and fittings, many of which are located along or under existing roadways such as US-15/501 resulting in significant traffic impacts to the public at large along these major roadways.
 - Many of these existing pipelines and fittings are located in large population centers such as Chapel Hill, Pittsboro, Sanford, Apex, Holly Springs, and Fuquay Varina.
 - These integrity measures would only allow for us to inspect the pipelines for compliance with Transmission integrity standards, if it is discovered that these standards are not met then these impacts described above could be exponentially multiplied as the pipelines may need to be replaced completely.



Background

- This is one section of a larger project to expand service from southern Wake County to Durham County.
- Original route evaluated was within NCDOT R/W along Hwy 751.
- That route required several crossings of Jordan Lake and other United States Army Corp of Engineers (USACE) land.
- The majority of land adjacent to Hwy 751 is not "predisturbed".





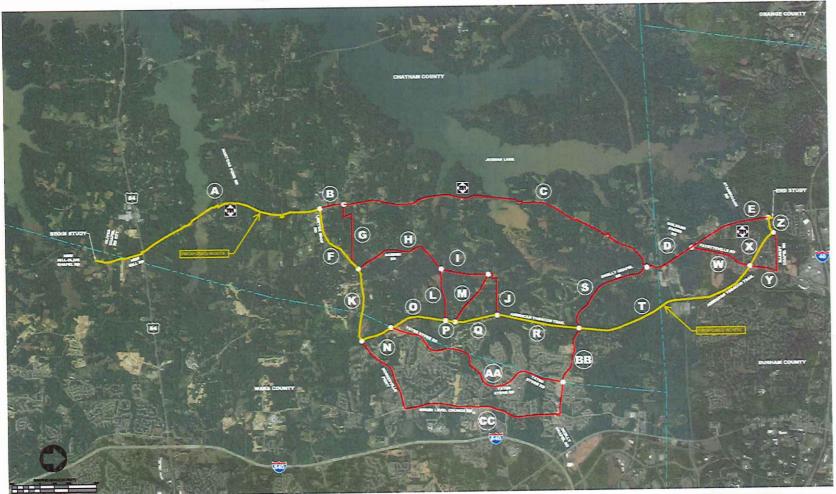
Background

- In order to minimize and/or avoid impacts to USACE land, more than 20 other routes were investigated, including those using other roadway rights-of-way, private easements, and combinations of both.
- Due to the availability of other identified routes, it is highly unlikely the USACE will allow the Jordan Lake crossings along Hwy 751.
- The American Tobacco Trail Rail Corridor was identified as a possible option.
 - It is an existing, pre-established right-of-way that has been there since the 1970's.
 - It is "pre-disturbed".





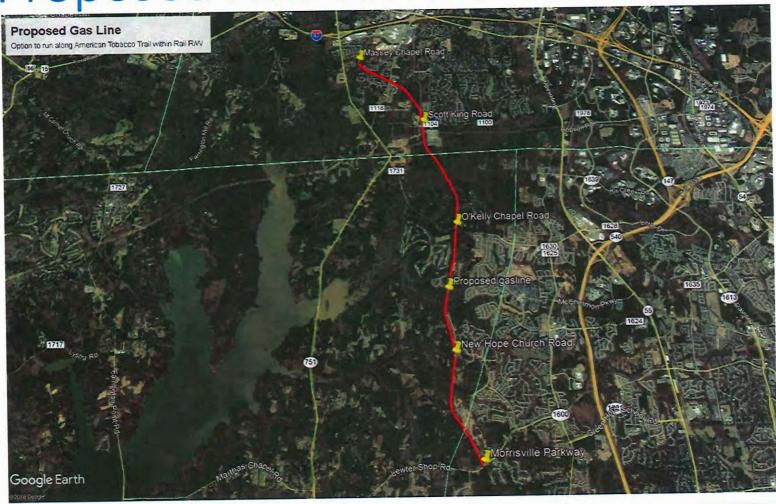
Route Study Map







Proposed Rail Corridor Route







Benefits of Using Rail Corridor

- Uses pre-existing R/W, already "pre-disturbed"
 - Alleviates USACE issues
 - Environmentally sensitive
- Is not on the road shoulder
 - Avoids traffic control issues
 - Safer for public and crews during construction
 - Reduces construction duration
 - Work along DOT R/W restricted to 9 am 4 pm
 - Eliminates future third-party dig-ins





Benefits of Using Rail Corridor

- Is not on other private R/W
 - No additional, new R/W to be disturbed
 - New R/W would be 50' wide
 - Some additional temporary construction R/W would be necessary
 - Avoids landowner issues, potential litigation
- Shorter route than other alternatives
 - Shorter distance = less disturbance
 - Less invasive to the environment as a whole





Project Overview-Typical Sections





Project Overview—Typical Sections







Project Overview-Typical Sections

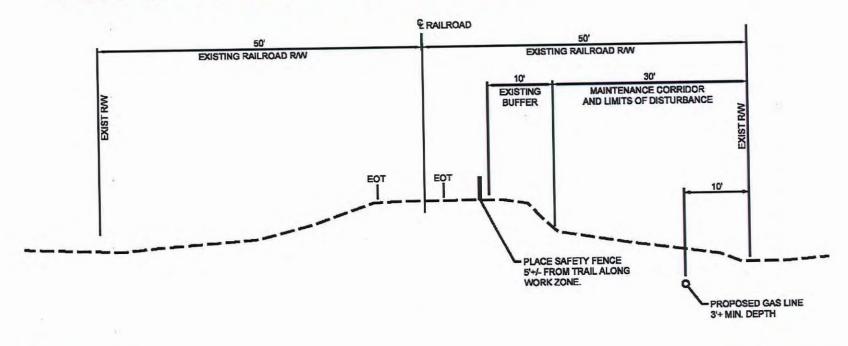






Open Cut Trench Typical Section 1

 Reflects trail in relation to typical open cut installation within 30' corridor.







Open Cut Trench Restored Typical Section 1

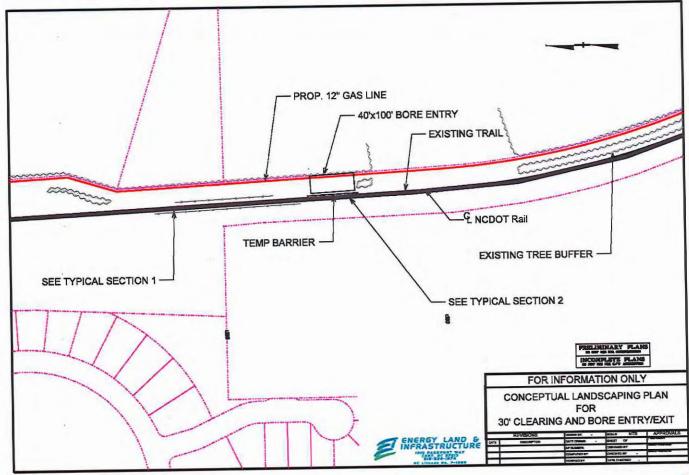
 Reflects trail in relation to typical open cut installation within 30' corridor.







Open Cut Trench & Bore Entry/Exit Plan View – Typical Section 2

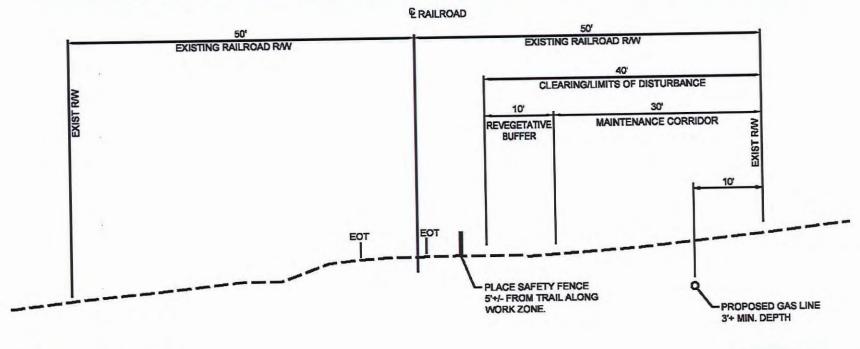






Open Cut Trench & Bore Entry/Exit Typical Section 2

 Reflects trail in relation to typical bore entry or exit point or for arduous open cut trench terrain.

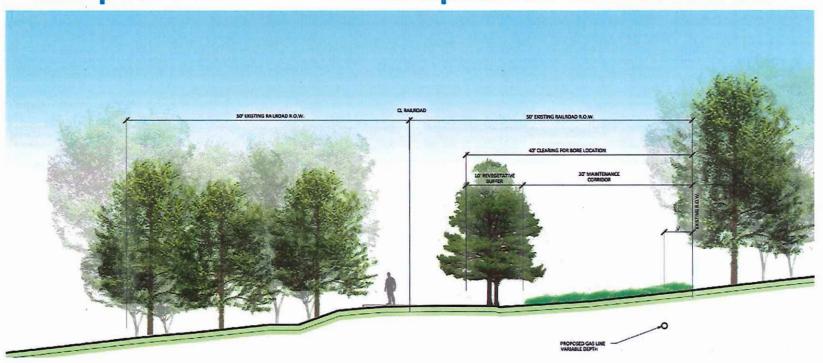






Open Cut Trench & Bore Entry/Exit Restored Typical Section 2

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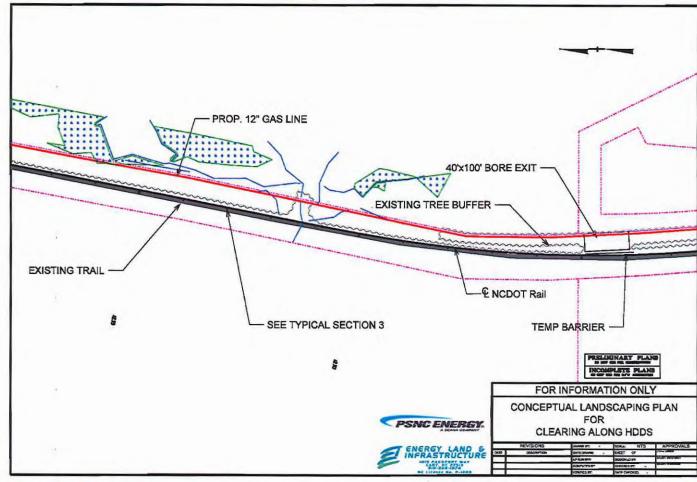


Open Cut Trench & Bore Entry/Exit Restored Typical Section 2





Corridor Over Bore Plan View – Typical Section 3

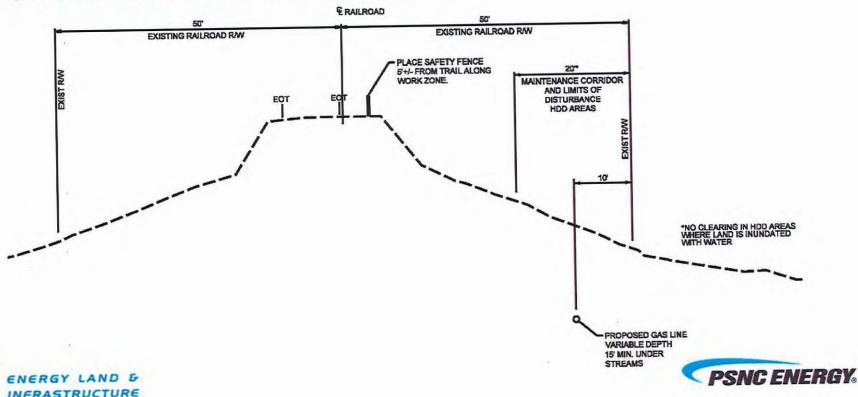






Corridor Over Bore **Typical Section 3**

 Reflects trail in relation to typical corridor over directional bore installation.





Corridor Over Bore Restored Typical Section 3

 Reflects trail in relation to typical corridor over directional bore installation.

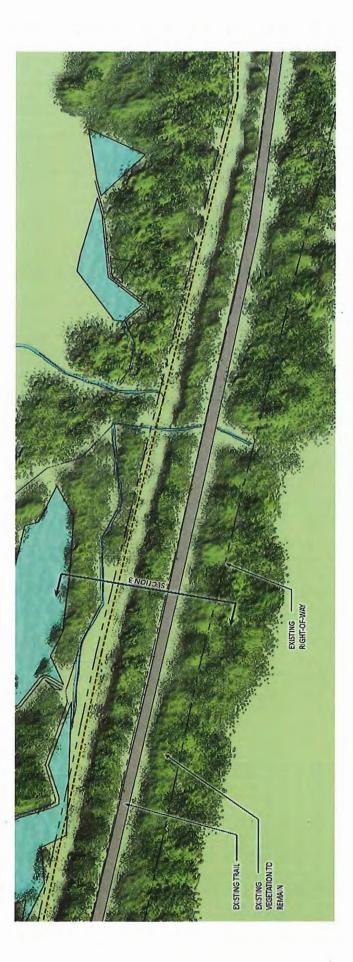






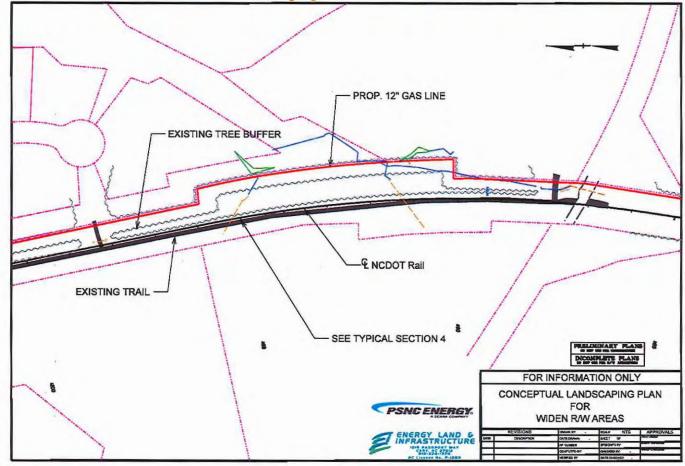
PSNC ENERGY

Corridor Over Bore Restored Typical Section 3





Widened R/W Area
Plan View – Typical Section 4

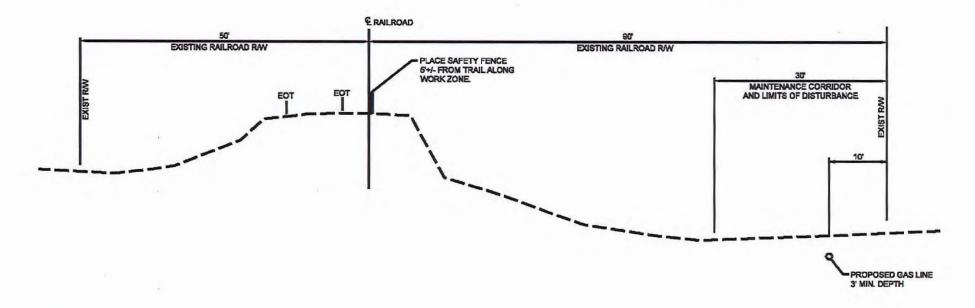






Widened R/W Area Typical Section 4

 Reflects trail in relation to typical corridor where railroad R/W is greater than 50' standard.







Widened R/W Area Restored Typical Section 4

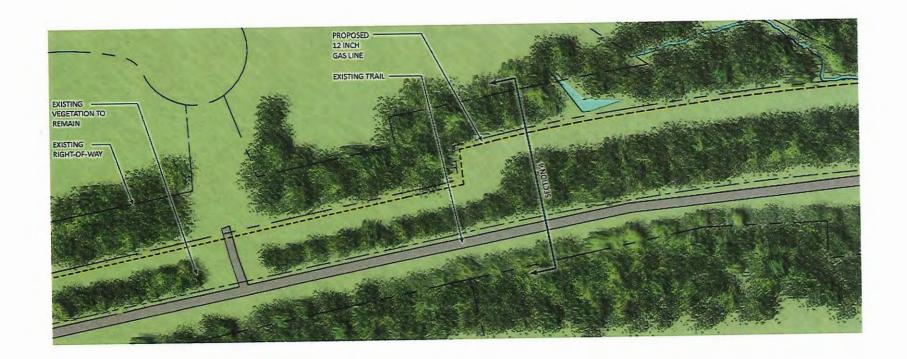
 Reflects trail in relation to typical corridor where railroad R/W is greater than 50' standard.







Widened R/W Area Restored Typical Section 4







Street View





BEFORE

AFTER



Rail Corridor Work

- Replant native trees and shrubs.
- Bore entire length of USACE lands.
- No clearing above directional bores when in area of land inundated with water.
- Install safety fence when needed.
- Keep the American Tobacco Trail open during construction as much as possible.





Rail Corridor Work

- Reasons for temporary closure
 - Clearing and removal of trees
 - Mobilizing equipment
 - Other times when user safety may be an issue
- Repair trail damage caused by construction





Communication

- Beginning of construction
 - Stakeholder webpages
 - Signage along trail
 - Flyers
- Planned trail closures
 - Stakeholder webpages
 - Signage along trail
 - Flyers
- Unplanned trail closures
 - Stakeholder webpages
 - Signage along trail





Questions



