

Appendix L

Design Assumptions for Environmental Consequences Impact Analysis

APPENDIX L ASSUMPTIONS FOR ENVIRONMENTAL CONSEQUENCES IMPACT ANALYSES

Calculations for the impact analyses for the floodplains, GAP land cover types, Waters of the U.S., and EFH sections of Chapter 4: Environmental Consequences were made in GIS using a Limits of Construction (LOC) for each alternative. The Alternative 1 LOC were provided by Palmetto Railways, and were based on construction design files. LOC for Alternatives 2 through 7 were created by Atkins using the assumptions below.

Alternatives 2, 3 and 4 used the LOC boundary from Alternative 1 for the Navy Base ICTF site. Alternatives 5, 6 and 7 used a buffer of 35 feet around the River Center ICTF Site design area.

All roads were buffered 25 feet from the limits of the design files to create the LOC. All rail tracks (including rail bridges) were buffered 43.9 feet from the limits of design files to create the LOC. These buffer distances were calculated to match the buffer distances provided by Palmetto Railways in the Alternative 1 LOC for each feature type (road/rail) as closely as possible.

Each alternative's LOC polygon was divided and classified by impact area. The inclusion of impact areas varies among alternatives. Additionally, some impact areas vary in size and location between alternatives. For example, the CSX Connection for Alternative 3 is shorter than the CSX Connection for Alternative 1 due to differences between the Kingsworth / Milford alignments. Another example is that the Southern Track Lead for Alternatives 3 and 6 passes to the west of Cooper Yard, and to the east for all other alternatives.

Table L-1 shows each alternative's impact areas with shaded cells, and explains how the impact areas were combined to report impacts within Chapter 4.

Impact Area	Alternative 1 (Proposed Project)	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Cosgrove McMillan Hobson							
Cosgrove McMillan Overpass							
CSX Connection ¹							
CSX NS Connection ²							
CSX Related Activity							
Drayage Road							
Drayage Road Bridge							
Hobson Bainbridge							

Impact Area	Alternative 1 (Proposed Project)	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
ICTF ³							
ICTF Access Road							
Noisette Bridge ⁴							
Northern Track Lead ⁵							
NS Related Activity ⁶							
Southern Track Lead ¹							
St. Johns Cul-de-sac							
Substation							

1 – Impacts for the CSX Connection and Southern Track Lead were referred to collectively in Alternatives 1-3 and 5-6 as the "Southern Connection"

2 – Called the "Southern Connection" in the impacts analysis for Alternatives 4 and 7

3 - Navy Base ICTF Site for Alternatives 1-4; River Center ICTF Site for Alternatives 5-7

4 - The Noisette Bridge for Alternative 2 differs in size and location from the Noisette Bridge in Alternatives 1-3 and 5-6

5 - Called "Northern Connection" in the impacts analysis for Alternatives 1-3 and 5-6.

6 - Combined with CSX Related Activity under Alternative 2; collectively referred to as "Related Activity"; impacts reported collectively