

PRE-DESIGN CHECKLIST FOR DRAINAGE STUDY AND HYDRAULIC DESIGN

COMPLETE PRIOR TO PRE-DESIGN MEETING AND PRIOR TO COMPLETION OF FIELD RECONNAISSANCE

TIP/I.D.: _____ PROJECT ENGINEER: _____ DATE: _____

Division: _____ COUNTY: _____

1 Identify Key Drainage Design Dates:

Design Recommendations Plan Set Distribution Date: _____ R/W Date: _____

Drainage Design For Field Inspection Approval Due Date: _____ Let Date: _____

Merger? _____ Estimated 4B Meeting Date: _____

Additional Notes:

2. Identify commitments or requirements which would affect the design from the planning report, Natural Resources Technical Report (NRTR), prior Merger meeting minutes, Preconstruction Site Commitment Tracker, and other available documentation.

3. Identify regulated flood zone areas the project may impact including those at minor crossings, lateral impacts, and any FEMA buy out properties.

4. Identify stream gages in the area and dates and frequencies of major floods.

5. Review completed Preliminary Stormwater Management Plan (pSMP) and identify stormwater goals for the project design. Identify existing stormwater basins that could be impacted by the project.

- 6. Determine possible permit requirements (401 Certification, 404 Permit, Nationwide, Individual, etc).**

- 7. Review information available from others and identify requirements that may affect drainage design (examples include Geotech recommendations for side slopes and boulevard ditches, preliminary traffic phasing plans which may affect constructability of drainage structures and other information on the Preconstruction Site).**

- 8. Identify any hydrologic/hydraulic studies within the project area by others such as The Corps of Engineers, TVA, Cities or Counties. Information may be found through other NCDOT documentation, internet searches, site visits, etc.**

- 9. Identify expectations for future urbanization within the watershed including information source.**

- 10. Review available survey data (FS file, WET file, etc). Identify additional survey needs, survey discrepancies between files, or other issues or concerns.**

- 11. Review Hydraulic Planning Report major structure recommendations and identify any changes in structure number, size, location, upstream and downstream structure information, drainage areas and sources, preliminary design discharges, and estimated proposed structure types and sizes.**