

Route Change Specifications 2016 (5/23/16)

DEFINITIONS AND ACRONYMS

AASHTO	-	<u>American Association of State Highway and Transportation Officials</u>
AC	-	<u>Access Control</u>
CFR	-	<u>Code of Federal Regulations</u>
DOT	-	<u>North Carolina Department of Transportation</u>
FC	-	<u>Functional Classification</u>
FHWA	-	<u>Federal Highway Administration</u>
GIS	-	<u>Geographic Information Systems</u>
HO	-	High Order (route)
HPC	-	<u>High Priority Corridors</u>
I	-	Interstate
LO	-	Low Order (route)
LRS	-	Linear Referencing System
LSA	-	Limited Services Agreement
MP	-	Milepost/Mileposting
MPH	-	Miles per Hour
MPO	-	<u>Metropolitan Planning Organization</u>
MSIS	-	<u>Mobility and Safety Information Section</u>
NC	-	North Carolina (primary) route
NCTN	-	<u>North Carolina Truck Network</u>
NHS	-	<u>National Highway System</u>
NN	-	National Network
NTP	-	Notice to Proceed
PO	-	Purchase Order
RPO	-	<u>Rural Planning Organization</u>
RTE	-	<u>Regional Traffic Engineer</u>
SCOH	-	<u>AASHTO's Standing Committee on Highways</u>
SDV	-	Spatial Data Viewer
SHC	-	<u>Strategic Highway Corridor</u>
SHS	-	State Highway System
SL	-	Speed Limit
SR	-	Secondary Route
STE	-	<u>State Traffic Engineer</u>
TEAAS	-	<u>Traffic Engineering Accident Analysis System</u>
TMSD	-	<u>Transportation Mobility and Safety Division</u>
TSU	-	<u>Traffic Safety Unit</u>
URL	-	Uniform Resource Locator
US	-	United States (primary) route
USRN	-	<u>AASHTO's Special Committee on US Route Numbering</u>
WBS	-	Work Breakdown Structure (billing source)

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I. PURPOSE

The purpose of this contract is to investigate and process Interstate and Primary (US and NC) route changes for the North Carolina Department of Transportation's (DOT's) Transportation Mobility and Safety Division (TMSD). Note that this work may also affect some Secondary Roads on a case-by-case basis.

II. REFERENCE

Route change information may be reviewed at the following URL:

<https://connect.ncdot.gov/resources/safety/Pages/Route-Changes.aspx>

Mileposting information may be reviewed at the following URL:

<https://connect.ncdot.gov/resources/safety/Pages/TEAAS%20Information.aspx>

TEAAS information may be reviewed at the following URL:

<https://connect.ncdot.gov/resources/safety/Pages/TEAAS-Crash-Data-System.aspx>

III. CONTRACTOR RESPONSIBILITIES AND REQUIREMENTS

1. All preliminary, draft, interim, and final calculations, notes, drawings, videos, and any other necessary project information prepared by contractors (electronic or hard copy) shall be the property of the DOT and shall be turned over to the DOT upon completion of the work or when requested.
2. Shall be responsible for ensuring that submittals are accurate and in a format compatible with DOT needs.
3. Shall obtain approval prior to making any changes on original requests.

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4. Shall be responsible for ensuring its personnel adhere to applicable state and federal labor laws and regulations regarding work hours, breaks, etc.
5. Shall be responsible for the presentation and explanation of their work at any meetings, hearings, consultations, discussions, and field conferences as requested by DOT.
6. Shall be required to cooperate and coordinate fully with other contractors, municipalities, local officials, as directed by DOT.
7. If the contractor receives instructions or directions that are considered beyond the scope of work as outlined in the specifications then no work shall be performed until the matter is resolved.
8. Shall notify DOT of significant changes with the contractor (e.g., change of address, telephone number, project-related personnel changes, etc.).
9. Shall maintain current qualification/prequalification information with DOT.
10. Shall maintain all books, documents, papers, records, and other information pertaining to work and costs incurred on this project and to make such materials available at its offices at all reasonable times during the contract period and for three (3) years from the date of final payment for inspection by the DOT or its designees.
11. All work performed shall comply with Federal, State and Local statutes, ordinances, and codes.
12. All work performed shall comply with Federal, State and Local safety regulations and procedures. All contractor personnel shall wear high visibility safety vests and other appropriate personal protective equipment (PPE) when conducting field studies in and near roadways.
13. Shall submit an invoice to the DOT on a monthly basis using TMSD's standard invoice form. Shall also indicate on Progress Reports what percent (%) of each invoice should be applied to each route or item worked on in order for TMSD to charge compensation to the correct WBS element(s).
14. Shall have personnel sign waivers of understanding regarding use of TEAAS and Crash Web.
15. Shall prevent personnel using TEAAS or Crash Web for any work other than that defined under this contract (unless another active contract with TSU specifically allows, or requires, use of TEAAS).
16. Shall not use information provided or learned under this contract against DOT.
17. Shall not provide information accessed or learned under this contract to any third party.
18. Shall consider the receipt of a "Route Change Request Form" with initial approval by the State Traffic Engineer as a Notice to Proceed.

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IV. DOT RESPONSIBILITIES AND REQUIREMENTS

1. Shall provide quarterly evaluations to the contractor based on timeliness (adherence to deadlines), responsiveness/cooperation, and quality (completeness and accuracy).
2. Shall make payment to the contractor upon verification of completed work and invoices.
3. Shall provide access to TEAAS and Crash Web to include user names, passwords, and roles that allow Contractor personnel access to information necessary for carrying out the requirements of this contract.
4. Shall provide training specific to this contract on an as needed basis.

V. OTHER REQUIREMENTS AND SPECIAL TERMS

1. DOT shall have the right to approve or reject any contractor personnel on this project, with or without cause or reason.
2. Reasonable extensions to time frames or deadlines may be made by mutual consent by all involved parties.
3. This work does not require sealing or oversight by a professional engineer.

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VI. ROUTE CHANGE PROCESSING

Interstate and primary (US and NC) route numbers affect many aspects of DOT including signs, ordinances, traffic signals, bicycle routes, strategic highway corridors, functional classifications, mobility tiers, the National Network, and the National Highway System. Therefore, adding, deleting, and/or changing Interstate and Primary (US and NC) route numbers requires several steps including various approvals and notifications.

A. *Skill sets and abilities required for this work*

- Read and understand DOT maps and SHS route names
- Calculate distances in both feet and miles
- Understand mileposting
- Understand high order (HO), low order (LO), and coinciding routes
- Understand compass directions
- Understand ordinances
- Understanding TEAAS feature reports and fiche reports
- Using ArcGIS to extract road characteristics information
- Understand roadway and structure plans, stationing, and structure types and numbers
- Calculate weighted averages for average annual daily traffic (AADT) and adjust them for future or past years
- Understand and use “A Policy on Geometric Design of Highways and Streets” (AASHTO Green Book)
- Understand types of access control (AC)
- Understand rules for changing route numbers at the state and federal levels
- Understand processes for authorizing route number changes at the state and federal levels
- Understand types of functional classification (FC)
- Understand Strategic Highway Corridors (SHC)
- Understand the National Highway System (NHS)
- Understand High Priority Corridors (HPC)

B. *Assignments*

Program assignments shall be written (letter, memo, or email) or verbal (if assigned at meetings, etc.). Route assignments shall be in the form of route change request forms that have initial approval from the State Traffic Engineer. Each written assignment shall be considered a notice to proceed for that specific work.

C. *Priorities and Time Frames*

Assignments shall be prioritized by DOT when assigned. Unless specifically listed herein, time frames will be dependent on the type of route being changed (Interstate, US, and/or NC), organization involved in the authorization process (DOT, AASHTO, and/or FHWA), and the anticipated difficulty level of each assignment (re-routing, new alignment, affected intersecting routes, etc.).

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D. Work Processes and Products – Program

The contractor shall provide the following support for the route change program:

1. Work with TMSD's Mobility and Safety Information Engineer to have the proposed route change added to DOT's Route Change web site.
2. Attend all meetings with FHWA, AASHTO, or other individuals or groups as requested by the State Traffic Engineer (or designee), TMSD's Mobility and Safety Information Engineer, TMSD's Ordinance Program Coordinator, or Contract Manager.
3. Develop letters, maps, and other items as directed by the State Traffic Engineer (or designee), TMSD's Mobility and Safety Information Engineer, TMSD's Ordinance Program Coordinator, or Contract Manager.
4. Maintain and provide documentation for all route change investigations, processes, practices, and related material (including request forms, worksheets, checklists, [Ordinance Manual chapter 6](#), and items listed in TEPPL practices [I-05](#), [H-12](#), [N-08](#), and [N-02](#)) and send updates to TMSD's Staff Engineer (carbon copy TMSD's Mobility and Safety Information Engineer and TMSD's Ordinance Program Coordinator).
5. Perform additional items as requested by the State Traffic Engineer (or designee), TMSD's Mobility and Safety Information Engineer, TMSD's Ordinance Program Coordinator, or Contract Manager that may be outside the normal route change process.

E. Work Processes and Products – Routes

The contractor shall review, create, and compile route change information as follows for each route assignment:

1. Work with Regional Traffic Engineers (RTEs) to obtain resolutions from municipalities, MPOs, and RPOs (as appropriate and as required) regarding the proposed route change. Once obtained, an electronic copy of these should be sent to the State Traffic Engineer or designee (carbon copy TMSD's Mobility and Safety Information Engineer and TMSD's Ordinance Program Coordinator).
2. If a project, obtain [project break down maps](#) and send an electronic copy to TMSD's Mobility and Safety Information Engineer (carbon copy TMSD's Ordinance Program Coordinator and appropriate RTEs). Project breakdown maps, or a statement that they do not exist, are due thirty (30) business days after receipt of the NTP unless otherwise specified.
3. If a project, obtain [construction progress reports](#) and send an electronic copy to TMSD's Mobility and Safety Information Engineer (carbon copy TMSD's Ordinance Program Coordinator and appropriate RTEs). Construction progress reports are due thirty (30) business days after receipt of the NTP unless otherwise specified.

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4. If a project, obtain copies of let plans separated into three groups: (a) title sheet, (b) roadway profile sheets (sheets 4+, horizontal profiles only), and (c) structure sheets (only for numbered structures, and only the general drawing sheets for bridges or the location sketch sheets for pipes/culverts). These plan sheets are needed for mileposting (station numbers to calculate mileposts, Y-lines for intersecting features, new service roads or “cut” secondary roads that may need new SR numbers, bridge numbers to add as features, etc.). An electronic copy of these plan sheets should be sent to TMSD’s Mobility and Safety Information Engineer (carbon copy TMSD’s Ordinance Program Coordinator and appropriate RTEs). Let plan sheets are due thirty (30) business days after receipt of the NTP unless otherwise specified.
5. Complete [route change worksheets](#). Note that some items on the worksheets generally necessitate an on-site field investigation. Once completed, an electronic copy of these worksheets should be sent to TMSD’s Mobility and Safety Information Engineer (carbon copy TMSD’s Ordinance Program Coordinator and appropriate RTEs). Worksheets are due thirty (30) business days after receipt of the NTP unless otherwise specified.
6. Perform Interstate scans for any project being opened as an Interstate or any route being elevated to Interstate status. Scans generally include a review of traffic volume, access control, right-of-way, speed, sight distance, roadway geometry, lane and shoulder widths, slopes, medians, clearances, structures, and crashes. Deadlines for completion of scans shall be provided by the State Traffic Engineer (or designee), and field visits may need to be coordinated with RTEs, FHWA personnel, and others. Submittals shall be sent to the State Traffic Engineer or designee (carbon copy TMSD’s Mobility and Safety Information Engineer, TMSD’s Ordinance Program Coordinator, and appropriate RTEs).
7. Create a formal map for each route being changed with segment breaks at municipal limits, major interchanges, and state lines in accordance with AASHTO standards. Maps shall include a title, legend, segment lengths (in tenths of miles), “north” designation, creation date, and appropriate notes. Maps are due thirty (30) business days after receipt of the NTP (unless otherwise specified). Once created, an electronic copy of these should be sent to the State Traffic Engineer or designee (carbon copy TMSD’s Mobility and Safety Information Engineer, TMSD’s Ordinance Program Coordinator, and appropriate RTEs).
8. *[Skip this step for NC routes and routes being designated as “Truck” or “Connector”]* Create preliminary [AASHTO application\(s\)](#) for each route being changed and shall include proposed changes to [AASHTO’s U.S. Route Number Database](#). Once created, an electronic copy of these should be sent to the State Traffic Engineer or designee (carbon copy TMSD’s Mobility and Safety Information Engineer, TMSD’s Ordinance Program Coordinator, and appropriate RTEs). Preliminary applications are due no later than ten (10) business days prior to the US/Interstate Subcommittee meeting.
9. Attend US/Interstate Subcommittee meetings and take minutes. An electronic copy of the minutes should be sent to the State Traffic Engineer or designee (carbon copy TMSD’s Mobility and Safety Information Engineer, TMSD’s Ordinance Program Coordinator, appropriate RTEs, and all other attendees). Minutes are due no later than five (5) business days following the meeting.

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10. Revise formal maps and preliminary AASHTO applications as needed based on comments received at the US/Interstate Subcommittee meeting. Once revised, an electronic copy of these should be sent to the State Traffic Engineer or designee (carbon copy TMSD's Mobility and Safety Information Engineer, TMSD's Ordinance Program Coordinator, and appropriate RTEs). Revisions are due no later than ten (10) business days prior to the US/Interstate Committee meeting.
11. Check [construction progress reports](#) for updates and, if any, send an electronic copy to the State Traffic Engineer or designee (carbon copy TMSD's Mobility and Safety Information Engineer, TMSD's Ordinance Program Coordinator, and appropriate RTEs). Updates, if any, are due no later than ten (10) business days prior to the US/Interstate Committee meeting.
12. Attend US/Interstate Committee meetings and take minutes. An electronic copy of the minutes should be sent to the State Traffic Engineer or designee (carbon copy TMSD's Mobility and Safety Information Engineer, TMSD's Ordinance Program Coordinator, appropriate RTEs, and all other attendees). Minutes are due no later than five (5) business days following the meeting.
13. Revise formal maps and preliminary AASHTO applications as needed based on comments received at the US/Interstate Committee meeting. Once revised, an electronic copy of these should be sent to the State Traffic Engineer or designee (carbon copy TMSD's Mobility and Safety Information Engineer, TMSD's Ordinance Program Coordinator, and appropriate RTEs). Revisions are due no later than ten (10) business days prior to the AASHTO submittal date.
14. [*Skip this step for NC routes and routes being designated as "Truck" or "Connector"*] Review [AASHTO's Special Committee on U.S. Route Numbering web site](#) for route change approvals/denials (usually available around 2-4 weeks following AASHTO's semi-annual meeting) and send an electronic copy to the State Traffic Engineer or designee (carbon copy TMSD's Mobility and Safety Information Engineer, TMSD's Ordinance Program Coordinator, and appropriate RTEs).
15. Request new secondary road (SR) numbers from [DOT's GIS Unit's Data Conversion Group](#) and send an electronic copy to TMSD's Mobility and Safety Information Engineer (carbon copy TMSD's Ordinance Program Coordinator and appropriate RTEs). Requests are due no later than ten (10) business days following formal approval of the number change (US/Interstate Committee approval for NC routes, AASHTO approval for US routes, and AASHTO and/or FHWA approval for Interstate routes).
16. Update the mileposting of all [mainlines and intersecting routes](#) and submit changes to TMSD's Mobility and Safety Information Engineer for review. Use appropriate TEAAS features reports and/or the mileposting "[Short Form](#)" (along with [extra pages](#) as needed), and appropriate TEAAS high order reports and/or the "[High Order Routes Sheet](#)" as needed. Mileposting recommendations are due no later than ten (10) business days following formal approval of the number change (US/Interstate Committee approval for NC routes, AASHTO approval for US routes, and AASHTO and/or FHWA approval for Interstate routes).

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17. Once the mileposting change recommendations have been reviewed and approved by TMSD's Mobility and Safety Information Engineer (or designee), update all mileposting in TEAAS. Once updated, notify TMSD's Mobility and Safety Information Engineer (or designee from previous step) for review. Mileposting updates are due no later than ten (10) business days following approval of mileposting change recommendations.
18. Once the updated mileposting information has been approved, ensure that all routes with number or length changes be added to DOT's ["Exclusion List"](#) by TMSD's Mobility and Safety Information Engineer.
19. Create new Route Change ordinances (ordinance type 22) in TEAAS and send the ordinance numbers to TMSD's Mobility and Safety Information Engineer and TMSD's Ordinance Program Coordinator for review and input of temporary effective dates. Route change ordinances are due no later than five (5) business days following approval of mileposting updates. **NOTE – only create route change ordinances for secondary roads if the secondary road is being upgraded to a primary or if a primary is being downgraded to a secondary road.**
20. Create new National Network (NN), STAA Designation, and STAA Reasonable Access ordinances (ordinance types 40-46) in TEAAS and send the ordinance numbers to TMSD's Mobility and Safety Information Engineer and TMSD's Ordinance Program Coordinator for review and input of temporary effective dates. Also include in the correspondence the ordinance number for any ordinance being repealed by the route change or replaced by the new ordinances so TMSD's Ordinance Program Coordinator can input temporary repeal dates. NN and STAA ordinances are due no later than five (5) business days following approval of mileposting updates.
21. Create other new ordinances (speed limits, no parking, etc.) in TEAAS as needed and send the ordinance numbers to appropriate RTEs for review, approval, and municipal concurrence (as needed). Also include in the correspondence the ordinance number for any ordinance being repealed by the route change or replaced by the new ordinances. Be sure to copy TMSD's Mobility and Safety Information Engineer and TMSD's Ordinance Program Coordinator for input of temporary effective and/or repeal dates. Other ordinances are due no later than five (5) business days following approval of mileposting updates.
22. Perform additional items as requested by the State Traffic Engineer (or designee), TMSD's Mobility and Safety Information Engineer, TMSD's Ordinance Program Coordinator, or Contract Manager that may be outside the normal route change process for the specific route being worked on.