

## CITY OF RALEIGH

### RIGHT OF WAY

#### DRY UTILITY PLAN SUBMITTAL GUIDELINES

The **Right of Way Dry Utility Plan Submittal Guideline** ensures that the installation, modification, or maintenance of utilities (telecommunications, electrical, gas) within City of Raleigh and NCDOT streets complies with relevant city, NCDOT, and federal standards. It aims to safely and efficiently manage utility work, minimizing disruption to traffic and pedestrians while maintaining the integrity of the city's infrastructure.

Similarly, the **Right of Way Traffic Control and Pedestrian Plan Submittal Guideline** is essential for managing safe traffic flow during utility or construction projects within the ROW. It ensures compliance with City of Raleigh and NCDOT traffic control standards, protecting workers, motorists, and pedestrians while reducing traffic disruptions.

#### **The Right of Way Dry Utility Plan Submittal Guideline**

- All plans are to be designed in accordance with the City of Raleigh Specifications and Right of Way Provisions and submitted in PDF format not to exceed 10,000 linear feet per submittal within a single City of Raleigh inspector assigned territory.

#### **GENERAL REQUIREMENTS FOR ALL PLANS:**

- **1<sup>st</sup> Page:**
  - Cover page
  - Utility company name/project name/contact information (Utility permitting applicant and plan designer)
  - Route vicinity map (print overlay/page numbers)
  - Total installation footage proposed
  - Size/quantity of conduits/number of proposed vaults and bore pit locations
- **2<sup>nd</sup> Page:**
  - Route Map
  - Legend
  - Summary of proposed work
- **3<sup>rd</sup> Page:**
  - Continuation of prior page as needed
- **4<sup>th</sup> Page:**
  - Continuation of prior page as needed
  - City of Raleigh Specifications and Right of Way Provisions General Notes
  - NCDOT General Notes – if applicable
  - Warranty Statement
  - Asbuilt Statement
- **5<sup>th</sup> Page:**
  - Continuation of prior page as needed
  - Material Description
  - Handholes & Vaults description / type
  - Conduit or wire material description / type
  - Pole types
  - Cabinet description/ type

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- **6<sup>th</sup> Page:**
  - Continuation of prior page as needed
  - Installation Details/Typical (see attached samples- All **diagrams must be legible.**
  - Bore details if applicable
  - Repair methods for soft scape installations if applicable
  - Repair methods for hard scape installations if applicable
- **7<sup>th</sup> Page:**
  - Continuation of prior page as needed
  - City of Raleigh Standard Detail T-10.29 – Standard Utility Location in Street [T-10.29-Default](#)
  - City of Raleigh Standard Detail T-10.30 – Standard Utility Location with Bikeway [T-10.30-Default](#)
  - City of Raleigh Standard Detail T-10.05.1 – Asphalt Pavement Patch [T-10.05.1.pdf](#)
  - City of Raleigh Standard Detail T-10.05.2 – Asphalt Pavement Patch [T-10.05.2.pdf](#)
  - City of Raleigh Standard Detail T-40.01.1 – Steel Road Plates [T-40.01.1.pdf](#)
  - City of Raleigh Standard Detail T-40.01.2 – Steel Road Plates [T-40.01.2.pdf](#)
  - City of Raleigh Standard Detail TPP-01 [TPP-01-Default](#)
  - City of Raleigh Standard Detail TPP-04 [TPP-04-Default](#)
- **8<sup>th</sup> Page:**
  - Traffic Control and Pedestrian Plan













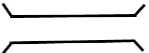

**DRY UTILITY PLAN SUBMITTALS WILL INCLUDE THE FOLLOWING INFORMATION:**

- **Color Legend and Descriptions**
  - Measurement of proposed running line from back of curb or edge of pavement every 100’.
  - All right-of-way lines to be shown in **bold black line** and marked R/W.
  - Existing conduit, vaults, HH, poles etc. to be shown in **black**.
  - Label/Show all ADA ramps, street names, property lines, addresses, edge of pavement, curb/gutter, stormdrain pipes, catch basins, utilities, planting strips & sidewalks are to be outlined in solid **black**.
  - Label all existing edge of pavement (EOP), Back of Curb (BOC), planting strips (P/S), sidewalks (S/W) and driveways (D/W) in **black**.
  - When changing construction method, running line must be changed to show a **black dividing line** to separate the two different construction installation methods.
- **All proposed underground running lines to be shown per the colors below**
  - Telephone, internet, communication, fiber (orange) -----
  - Gas (yellow) -----
  - Electrical (red) -----

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- Water (blue) 
- Sewer (green) 
- Water Reuse (purple) 
  
- All new/replacement pole installations are to be shown as a **orange dot** (Poles = )
- All proposed aerial installations with new attachments are to be shown in a **dashed line of the corresponding color above** (-----) add **A or Aerial** (-----) add **A or Aerial**
  - Call out install type (New Aerial, overlashing)
- Trees 
- Bore pits 
  
- Culvert crossings all storm structures 36" and larger in **Magenta** 
- Proposed vaults/handholes
  - Handholes =  Drop Vault =  Small Vault =  Large Vault = 
  - Extra Large = 
  
- Railroad crossings, CATS streetcar and light rails
- Bridge:  

- Creek crossings  

- Utility poles, down guys, and anchors
- When placing new or replacement poles in areas with sidewalk, a measurement must be provided showing a minimum ADA required 48" clearance (back of pole to back of sidewalk). When the 48" ADA required space is not attainable, additional sidewalk installation will be required.
- Bore depth required under all city-maintained streets shall be a minimum of 4' cover from top of pipe.
- Bore depth required underneath softscapes and sidewalks shall be a minimum of 3' from top of pipe.
- Bore depth required underneath the bottom of stormdrain pipes or culverts 36" or larger, shall be a minimum of 2' vertical separation from the existing pipe.
- Partial replacement of an HC ramp or sidewalk panel is not allowed and will require replacement of the entire ramp or sidewalk panel.
- Connection/ attachment to an existing City of Raleigh or NCDOT maintained bridge or culvert must be approved prior to permit issuance.
- **Warranty Statement:** A warranty period of 24 months for all work shall begin on the date the permit is closed out. The warranty is inclusive of all asphalt, striping, curb, sidewalk, concrete work, landscape restorations & utility potholes. Upon notification the contractor will begin repairs within 72hrs for non-emergency repairs. For repairs deemed safety hazards, the contractor will perform repairs upon notification.
- **Asbuilt Statement:** Asbuilts of the utility installed will be provided to the City prior to closeout of the permit. Asbuilts are required for all underground installations within the Public Right of Way.

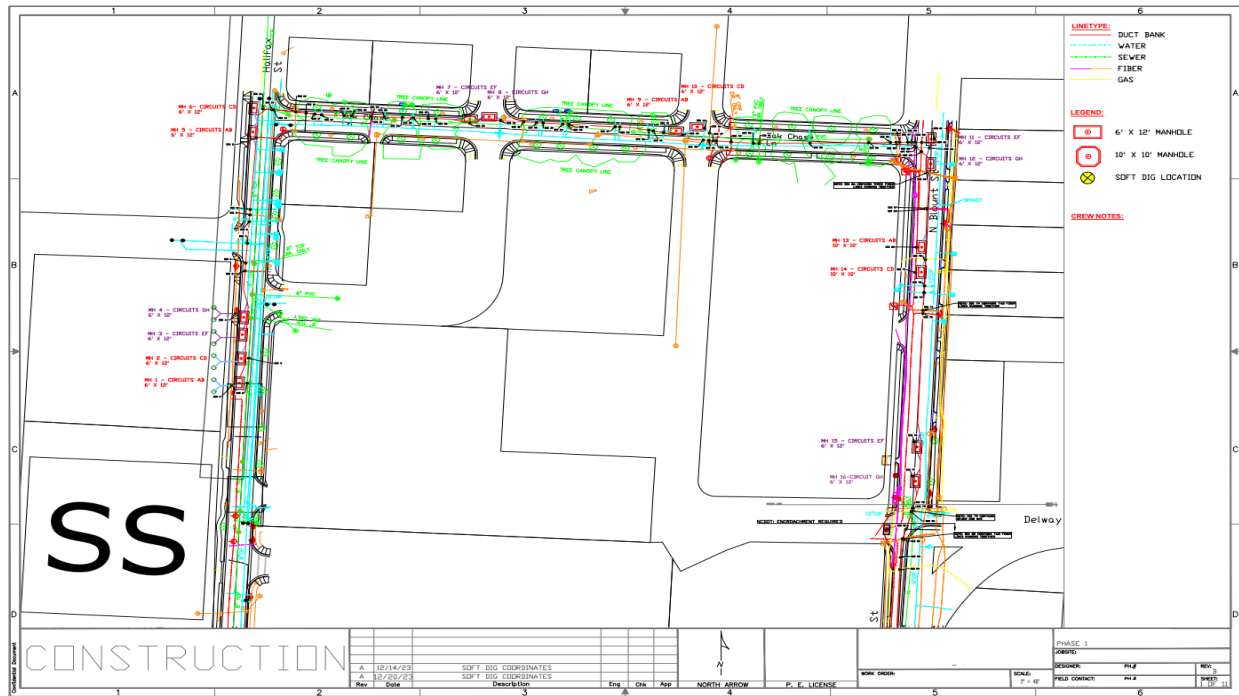
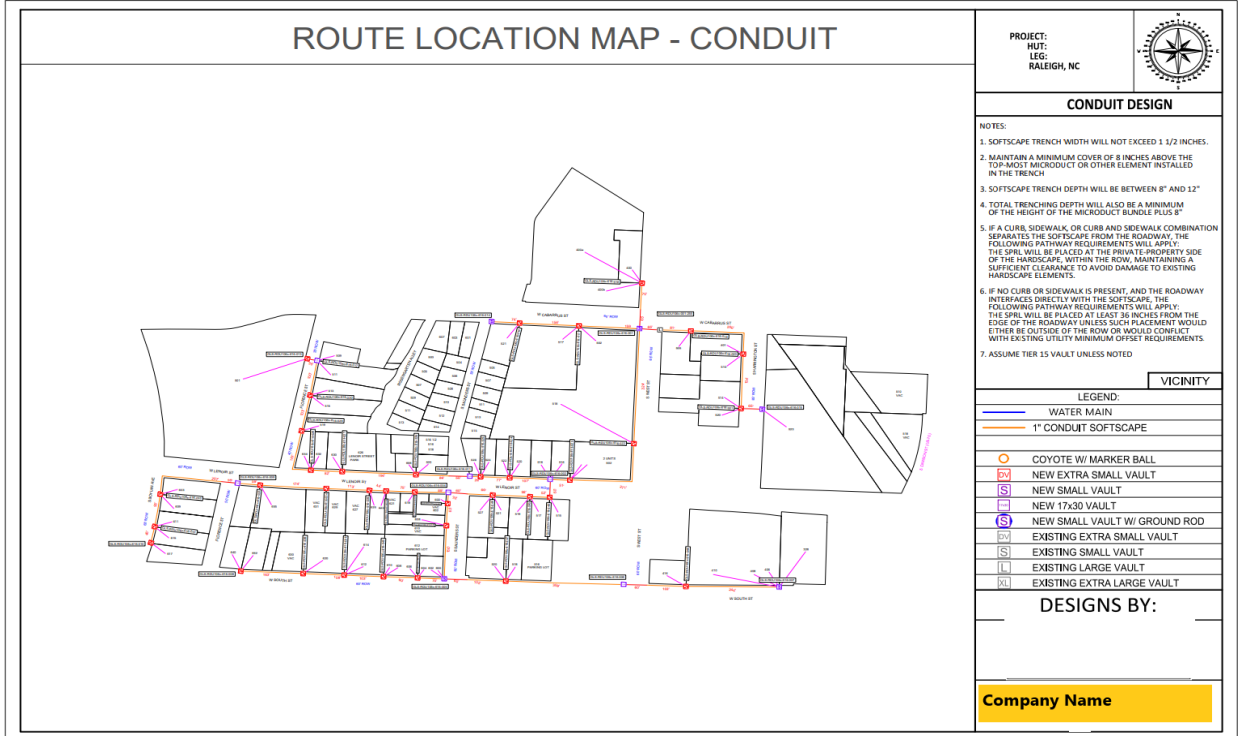


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### DRY UTILITY PLAN SUBMITTAL GUIDELINES

- 2<sup>nd</sup> Page & 3<sup>rd</sup> Page Examples:



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## RIGHT OF WAY

### DRY UTILITY PLAN SUBMITTAL GUIDELINES

○ 4<sup>th</sup> Page Example:

#### NCDOT GENERAL NOTES

**3.4.1 Underground Utilities**  
Placement of underground facilities varies from site to site because of the different types of geographical features, either natural or manmade, at each site. The location and placement of underground facilities are of major importance to preserving a safe traffic environment, the appearance of the highway, and the efficiency and economy of highway maintenance and reconstruction.

Underground utility design and construction shall:

- conform to all applicable local, state, and federal codes, standards, and specifications;
- support existing and future traffic loads;
- minimize the adverse effects on government, base, and other transportation facilities or other utility installations.

**3.4.1.1 Location and Alignment**

**3.4.1.1.1 Criteria**  
The following criteria shall apply to the design and placement of underground utilities in NCDOT right of way:

- On longitudinal installations, the utilities shall be on a uniform alignment at, or adjacent to, the right of way line to avoid interference with highway drainage, the structural integrity of the traveled way, shoulders and embankment, the safe operation of the highway, and maintenance of the right of way.
- Longitudinal locations of utilities under pavement should be avoided. Where impracticable, the utility owner shall provide justification for accommodation under pavement.
- Utility crossings of the highway are preferred to be as near perpendicular (90 degrees) to the highway alignment as practical.
- Conditions that are generally unsuitable or undesirable for underground crossings shall be avoided. These include locations such as in deep cuts, near footings of structures, across intersections at grade or ramp terminals, at cross drains where flow of water, drift, or stream bed may be obstructed, within basins of an underpass drained by a pump, and in wet or rocky stream where it will be difficult to attain minimum bury.
- Crossings of traffic circles and roundabouts shall be done in a way to avoid crossing the circle or roundabout itself and minimize the amount of facilities under pavement.
- Service connection points placed by the utility shall be at or beyond the right of way line to prevent the utility's customer from entering the NCDOT right of way to make a connection.

**3.4.1.2 Private Utilities**  
Generally, private utilities should follow the same location and alignment guidance as public utilities with the exception of private sewers. Private sewer crossings of the highway shall be as near perpendicular (90 degrees) to the highway alignment as practical. Longitudinal locations of private sewers along the right of way are not permitted.

**3.4.1.3 Trenchless Methods**  
The minimum depth of bury will vary depending on the casing pipe and drill hole diameter and the method of trenchless installation. Trenchless methods include bore and jack, HDD, pipe ramming, and tunneling (see Section 3.4.4 for additional information on these methods). The minimum bury depths are shown in Table 3.1.

Method	Minimum Depth of Cover
Bore and Jack or Auger**	3 feet
HDD** (longitudinal and transverse installations)	5 feet
Drilled/ream hole diameter (inches)	2.6
>6-15	5 feet
>15-36**	12 times hole diameter
Pipe ramming	4 feet
Pipe or casing diameter (inches)	2.6
>6-14	6 times pipe diameter
>14-72	8 feet
Driving/Blowing/Pneumatic Hammer	3 feet or 10 times the diameter, whichever is greater
Tunneling	5 feet or 1.5 times the diameter of the bore, whichever is greater.

\* Auger is limited to 6" or less in diameter.  
\*\* These minimum cover depths apply to HDD installations on roadways with limited controlled access. The minimum cover depth for HDD installation of any size on fully controlled access roadways is 15 feet.  
\*\*\* The minimum cover depth for HDD installations of pipe greater than 36 inches in diameter shall be 15 feet and may be greater. These large HDD installations will be reviewed on a case by case basis.

Regardless of which trenchless method is used, the minimum depth for crossing under ditches is 2 feet.

**3.4.2 Acceptable Pipe Materials**

**3.4.2.1 Conduit**  
All conduit material shall be of a strength adequate to withstand the loads it will be subject to.

**3.4.2.2 Undergrounds Electric and Communication Lines**  
There is a wide variation in the techniques and practices used for installing electric power and communication lines underground because of differences in factors such as water conditions, type of soil, and facility congestion. Accepted methods for the underground installation include trenching for conduit or duct construction or for uncoated buried cable. Direct burial for allowed or buried cable, jacking, or pushing of pipe conduit on highway crossings where soil conditions permit. Any concrete foundations or slabs required for a cabinet, pedestal, or other appurtenance shall not protrude more than 8 inches above the surrounding ground surface.

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**Traffic Control and Pedestrian Plan (TCPED) Notes:**

- Prior to any work that impacts the right-of-way, closing or detouring of any street, lane, or sidewalk, the contractor must apply for a permit with Right-of-Way Services. Please direct any questions to rightofwayservices@raleighnc.gov.
- The City of Raleigh requires an approved Right-of-Way Permit for work on any public street or sidewalk and NCDOT road within Raleigh's Jurisdiction.
- A permit request with a TCPED Plan shall be submitted to Right-of-Way Services through the City of Raleigh Permit and Development Portal.
- Prior to the start of work, the Client shall schedule a Pre-Construction meeting with the Engineering Inspections Coordinator to review the specific components of the approved plan, and ensure all permits are issued.
- All TCPED Plans shall comply with all Local, State, and Federal requirements and standards, including but not limited to:
  - Manual on Uniform Traffic Control (MUTCD);
  - Public Rights-of-Way Accessibility Guidelines (PROWAG);
  - American Disability Act (ADA) requirements;
  - Raleigh Street Design Manual (RSDM).
- All public sidewalks must be accessible to pedestrians who are visually impaired and/or people with mobility concerns. Existing and alternative pedestrian routes during construction shall be required to be compliant with the Public Rights of Way Accessibility Guidelines (PROWAG), the ADA Standards for Accessible Design and the Manual on Uniform Traffic Control Devices (MUTCD).
- All permits must be available and visible on site during the operation.

#### WARRANTY STATEMENT

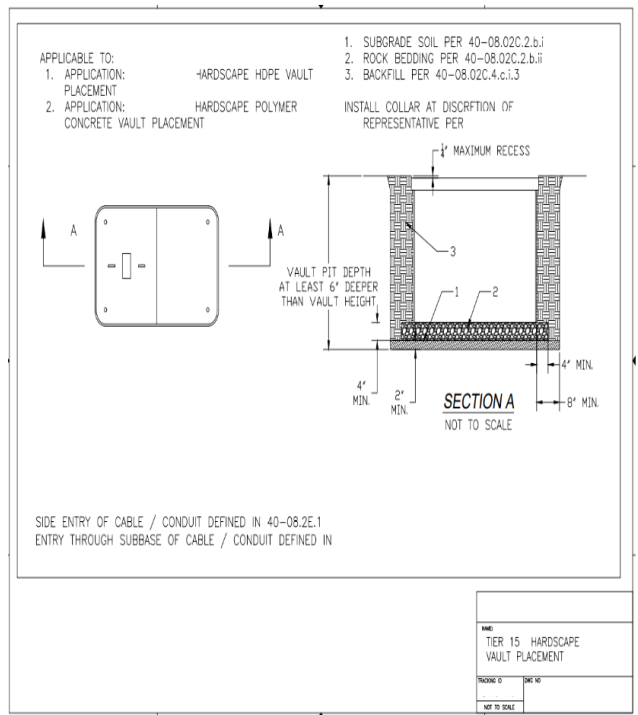
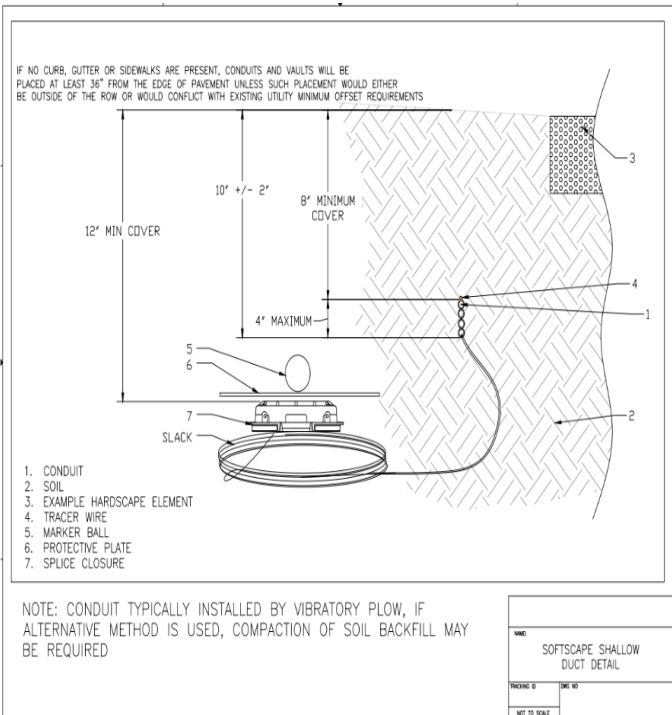
A warranty period of 24 months for all work shall begin on the date the permit is closed out. The warranty is inclusive of all asphalt, striping, curb, sidewalk, concrete work, landscape restorations, utility potholes. Upon notification the contractor will begin repairs within 72hrs for non-emergency repairs. For repairs deemed safety hazards, the contractor will perform repairs upon notification.

#### ASBUILT STATEMENT

Asbuilts of the utility installed will be provided to the City prior to closeout of the permit.

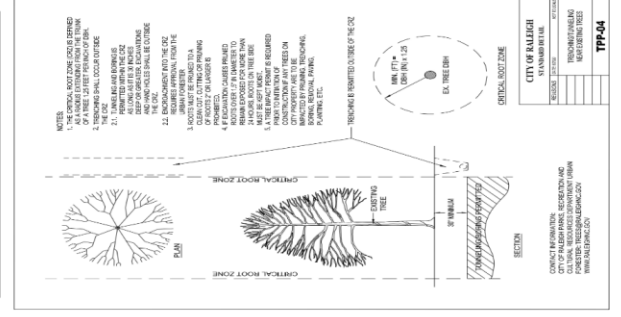
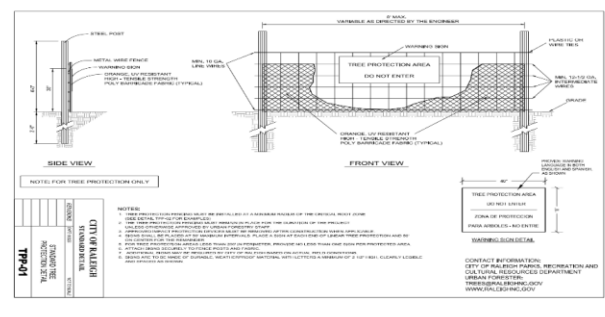
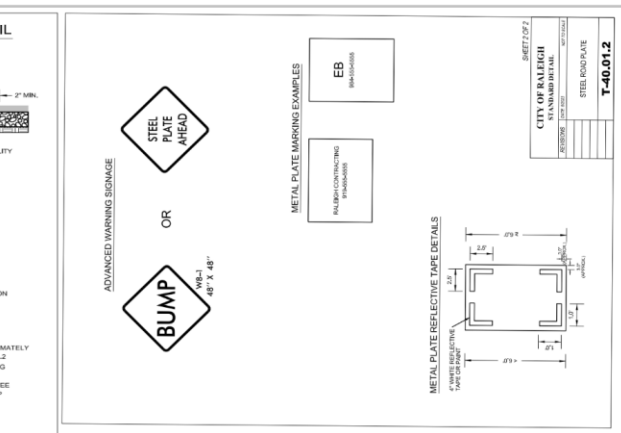
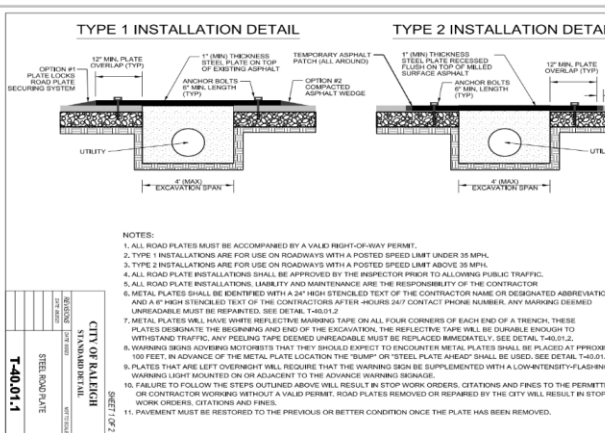
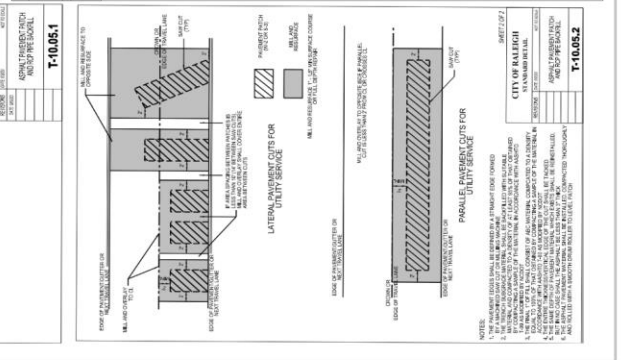
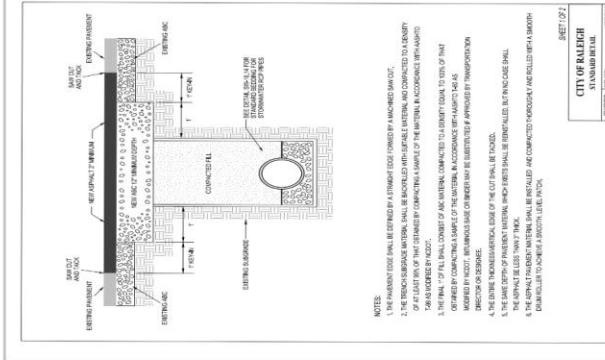
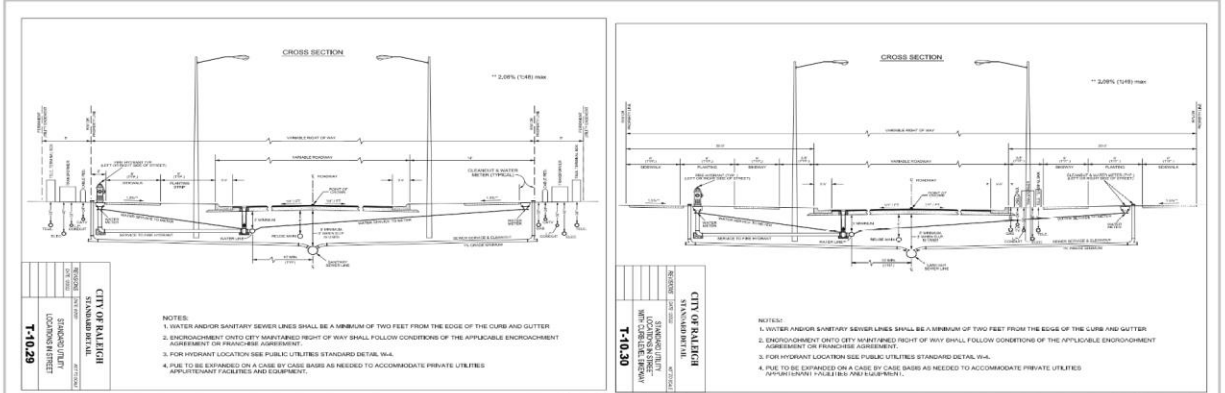
#### ALL WORK MUST COMPLY WITH THE CITY OF RALEIGH RIGHT OF WAY PROVISIONS

○ 5<sup>th</sup> Page & 6<sup>th</sup> Page Examples:



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o 7th Page Examples:



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- **Sample Notification Letter & Door Hanger**

DEVELOPER/CONTRACTOR COMPANY LETTERHEAD

DATE

SUBJECT

PROJECT NAME

Dear Sir/Ma'am,

[Developer Name] is currently developing the [Project Name] which has been approved by the City of Raleigh and is located at [Address]. The company and its contractors are working diligently to complete the project in a timely, efficient, and clean manner; however, the activities associated with construction of this project may cause some disruptions and inconveniences. These construction activities are set to begin on [Date] and hopefully conclude by [Date].

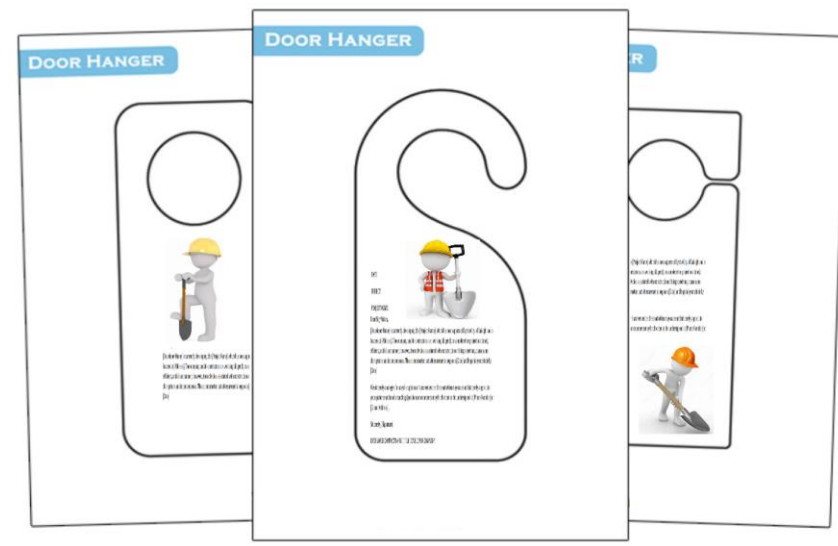
We sincerely apologize for any disruptions or inconveniences these activities may cause and sincerely appreciate your patience and understanding. Questions or comments may be directed to the undersigned at [Phone Number] or [E-mail Address].

Sincerely, [Signature]

DEVELOPER CONTACT NAME TITLE DEVELOPER COMPANY

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- **Door Hanger Examples**



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**TRAFFIC CONTROL and PEDESTRIAN PLAN SUBMITTAL GUIDELINE**

A **Right of Way Traffic Control, Pedestrian (and Bike) Plan** is a critical document that ensures safe traffic management during utility or construction projects within the right-of-way (ROW) of City OF Raleigh and NCDOT streets. All traffic control measures must comply with City of Raleigh Specifications and Right of Way Provisions, NCDOT Work Zone Traffic Control Standards, and the Manual on Uniform Traffic Control Devices (MUTCD). The traffic control plan is designed to protect workers, motorists, and pedestrians while minimizing traffic disruptions.

- **1<sup>st</sup> Page:**
  - Cover page
  - General Contractors name / Project name / Contact information or
  - Utility Company name / Project name / Contact information or
  - Traffic Control Company name / Project name / Contact information
  - Work vicinity map
  - Total anticipated days of operation
  - Hour of Operation
- **2<sup>nd</sup> Page:**
  - Route Map
  - Legend
  - Summary / illustration of proposed roadwork, detours, closures
  - Notes regarding any staged/ phased hours of operation
- **3<sup>rd</sup> Page:**
  - Continuation of prior page as needed
  - City of Raleigh, NCDOT, or MUTCD standard work zone details applicable to the proposed traffic control setup
- **4<sup>th</sup> Page:**
  - Continuation of prior page as needed
  - Copy of NCDOT Encroachment or NCDOT permit if applicable
  - City of Raleigh Specifications and Right of Way Provisions General Notes -  
**Traffic Control and Pedestrian Plan (TCPED) Notes:** • Prior to any work that impacts the right-of-way, closing or detouring of any street, lane, or sidewalk, the contractor must apply for a permit with Right-of-Way Services. Please direct any questions to [rightofwayservices@raleighnc.gov](mailto:rightofwayservices@raleighnc.gov). • The street, lane, sidewalk, closure permit is required for any closure on city streets and all NCDOT streets within Raleigh's Jurisdiction.  
• A permit request with a TCPED Plan shall be submitted to Right-of-Way Services through the City of Raleigh Permit and Development Portal. • Prior to the start of work, the Client shall schedule a Pre-Construction meeting with the Engineering Inspections Coordinator to review the specific components of the approved plan, and ensure all permits are issued. • All TCPED Plans shall comply with all Local, State, and Federal requirements and standards, including but not limited to: Manual on Uniform Traffic Control (MUTCD); Public Rights-of-Way Accessibility Guidelines (PROWAG); American Disability Act (ADA) requirements; Raleigh Street Design Manual (RSDM). • All public sidewalks must be accessible to pedestrians who are visually impaired and/or people with mobility concerns. Existing and alternative pedestrian routes during construction shall be required to be compliant with the Public Rights of Way Accessibility Guidelines (PROWAG), the ADA Standards for Accessible Design and the Manual on Uniform Traffic Control Devices (MUTCD). • All permits must be available and visible on site during the operation.

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- **5<sup>th</sup> Page:**
  - City of Raleigh Standard Detail T-10.05.1 – Asphalt Pavement Patch [T-10.05.1.pdf](#)
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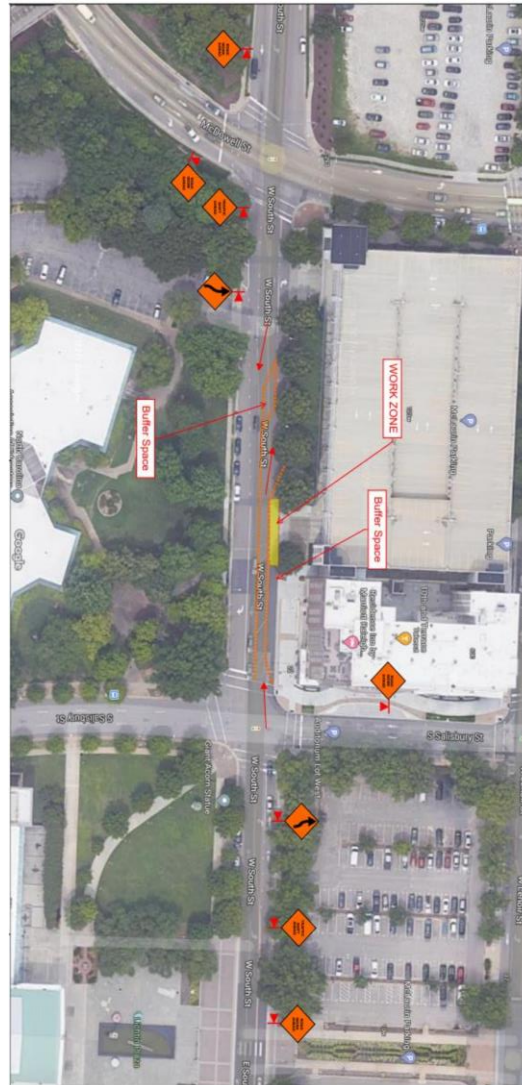
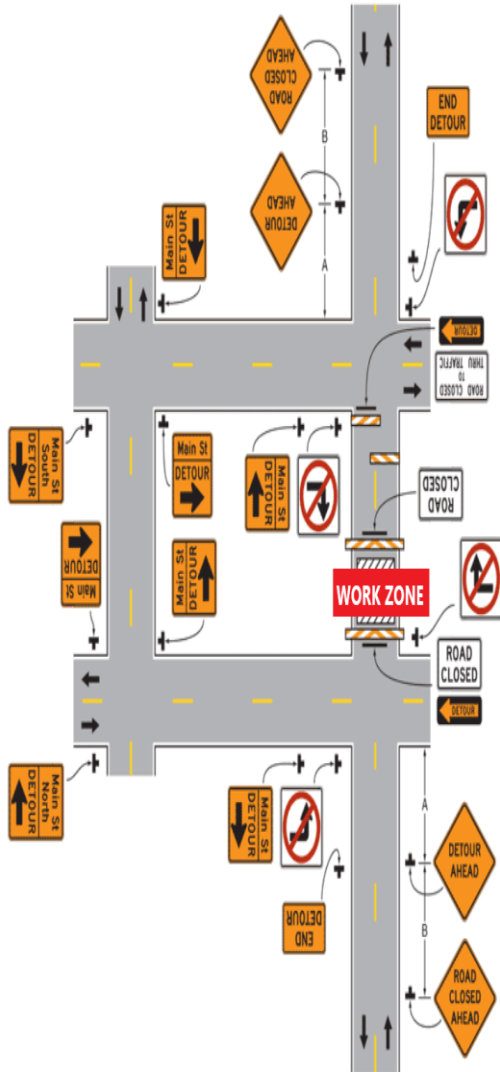
**TCPED Plan** is required to meet the following elements:

- **Emergency Vehicle Access:** Plans must ensure that emergency vehicles have clear access to all areas of the work zone. In addition, temporary / detour signage should direct emergency vehicles to alternate routes during the work zone period, if necessary.
- **Bus /Transit Stops:** Plans must illustrate all existing Bus and Public Transit Stops within the work zone or within a 1-mile radius of the work zone.
- **Parking Spaces:** Plans must illustrate all existing Parking Spaces within the work zone.
- **Loading Zones:** Plans must illustrate all Loading Zones within the work zone with and illustrate alternate locations to accommodate loading for the affected businesses.
- **Employee Parking:** If the work zone cannot contain the anticipated number of employee/work vehicles, the plan must illustrate and alternate proposed location to accommodate the vehicles.
- **Work Hours:** The times during which traffic control measures will be in effect.
- **Traffic Signs Recommended for Use:**
  - **Road Work Ahead (W20-1)**
  - **Lane Closed Ahead (W20-4)**
  - **Detour (D4-1)**
  - **Flagger Symbol (W20-7)**
  - **Speed Limit Reduction (R2-1)**
  - All temporary signs must meet MUTCD standards for size, color, and placement.
  - Traffic control measures must be regularly checked and adjusted as needed based on real-time conditions and the progress of the work
- **Barricades and Barriers:** All work zones should be properly delineated using barriers and barricades (MUTCD Section 6F) to protect both workers and drivers. This may include traffic cones, drums, or vertical barriers.
  - **Type 1 Barricade:** For low-volume traffic areas.
  - **Type 2 Barricade:** For higher-volume traffic areas.
- **Flashing Lights:** Flashing lights should be used at night or during poor visibility conditions to increase the visibility of traffic control devices (MUTCD Section 6D).
- **Pavement Markings:** Temporary pavement markings may be used in work zones to guide vehicles around lane closures and detours.
- **Temporary Lane Lines** (MUTCD Section 6D) must be placed if lanes are shifted.

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**Work Zone Layout Diagrams** should be provided, showing:

- **Traffic Flow:** Illustrate how traffic will be rerouted or diverted. Signage in the proposed locations with proper wording or arrows must be depicted on the submittal.
- **Lane Closures:** Ensure proper lane shifts or closures are planned and **clearly marked** with the appropriate signs, such as **Lane Closed Ahead (W20-4)** and **Right Lane Closed Ahead (W20-5)**. Work zones requiring lane closures must allow for adequate advance notice to drivers. See examples below.



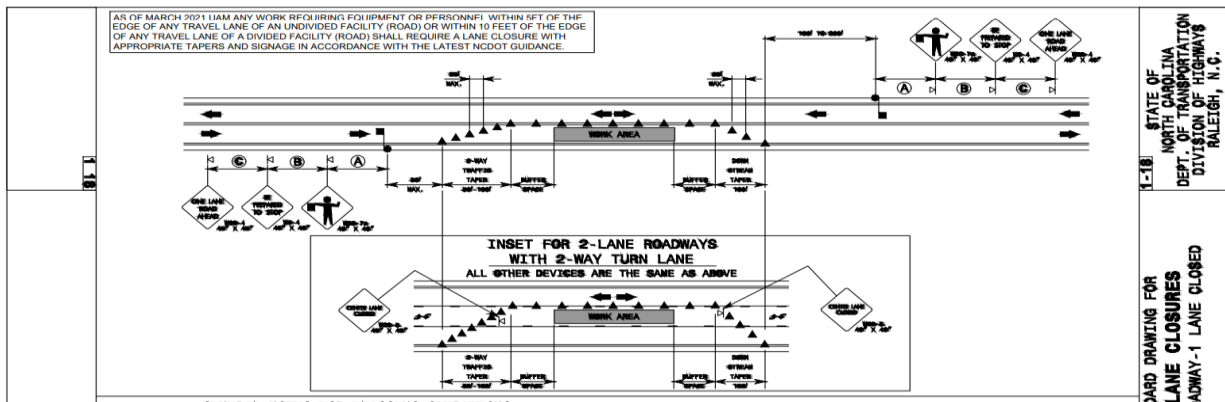
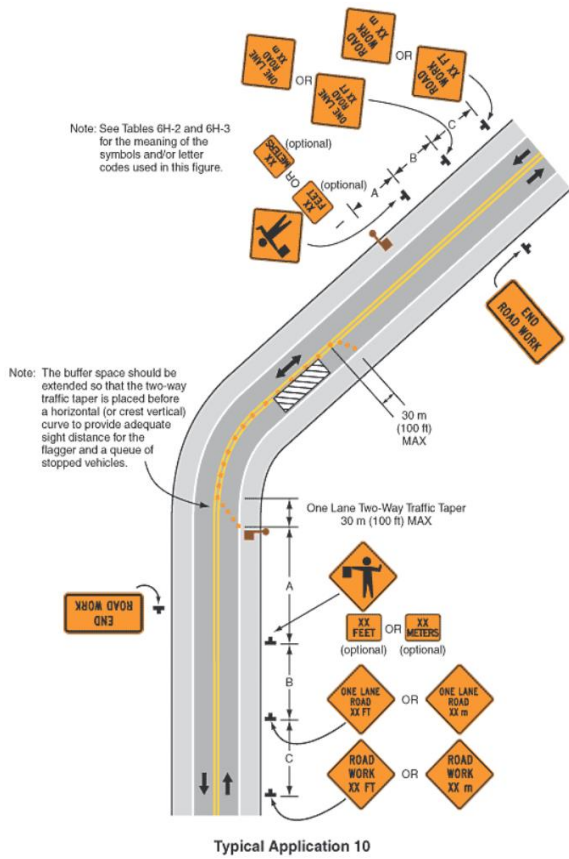


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- Flaggers:** If flaggers are required, the Flagger Symbol (W20-7) signs should be placed in advance of their locations, and flagger stations should be carefully positioned to maximize visibility and effectiveness. Flagger stations should be established at appropriate intervals depending on traffic volume. Please see examples below.

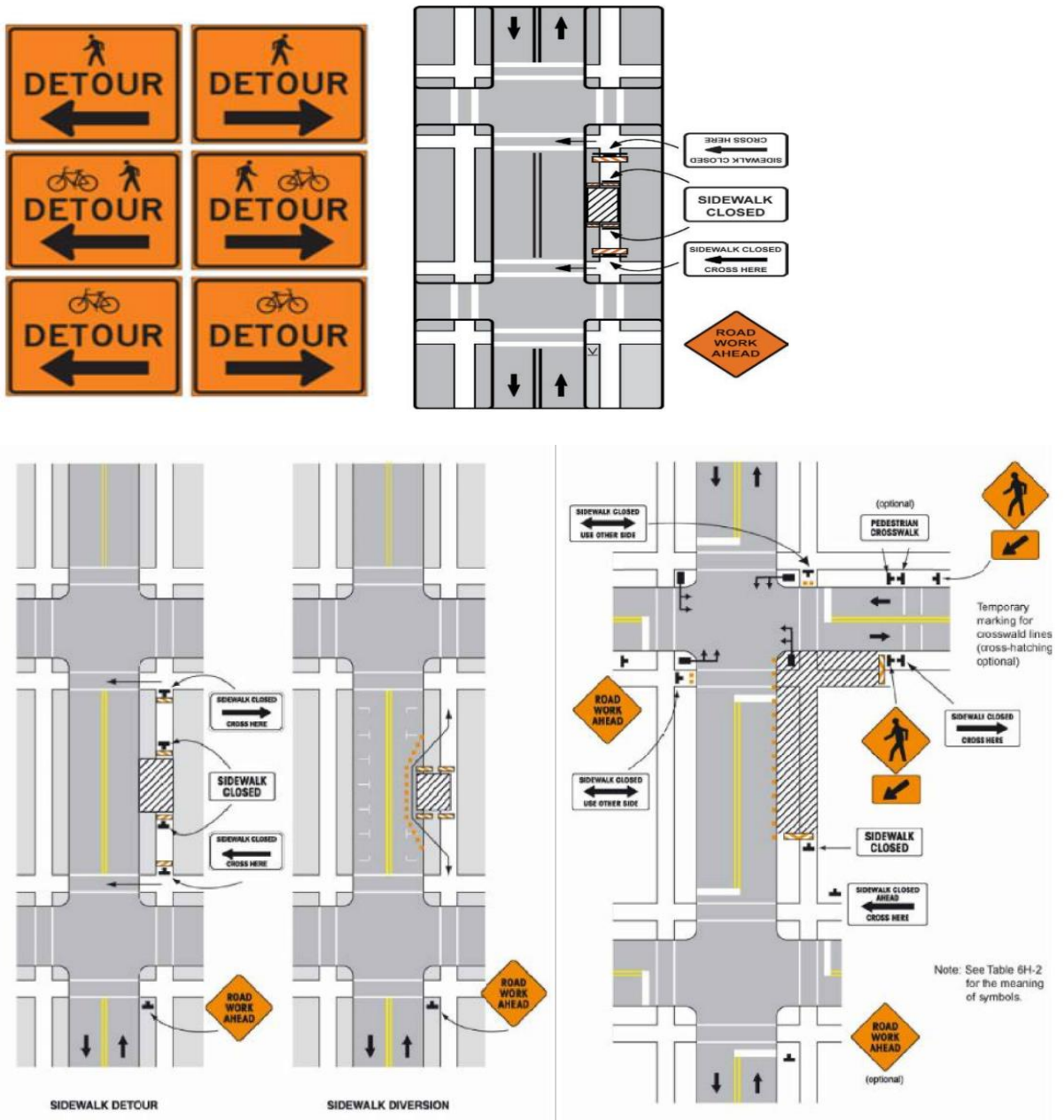


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- Pedestrian and Bike Detour:** Pathways for pedestrian and bike reroutes must be marked, ensuring continuous and safe access around any closures. If sidewalk closures are necessary, a pedestrian / bike detour must be established in accordance with regulatory guidelines. Detour signs should be used to redirect pedestrians and bicyclist around the work zone. Temporary walkways must be constructed if needed to maintain pedestrian access during the project. Use pedestrian/ bike detour signs (e.g., **W11-2** or **M4-9c**) to guide users to safe passageways, especially around high-traffic construction zones. Ensure that all detour routes for pedestrians are ADA-compliant with appropriate ramps and clearances.



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**Traffic Control Plan Submittal Process**


- **PDF Format:** All plans must be submitted in **PDF format**.
- **Review and Approval:** The City will review the plan for compliance with local regulations, MUTCD standards, and the project's specific requirements. The plan must be approved and preconstruction meeting held before work begins.

**NOTE:**

All permits that have been correctly submitted into Energov, are subject to a 4- 5 business day review period by COR ROW plan reviewers. After successfully submitting the application, you will receive a COR ROW permit number.

## *How to Submit for A Permit with the City of Raleigh*

1. Apply for a permit here: <https://raleighnc-energovpub.tylerhost.net/apps/selfservice#/home>
  - Create a login
  - Click on Apply
  - Click on PERMITS
  - Apply for a 'Temporary Street, Lane, and Sidewalk Closures and Dumpster or POD placement' permit

	<b>Temporary Street, Lane, and Sidewalk Closures and Dumpster or POD placement</b> Category Name: Right-of-Way	Description: Application for Temporary Street, Lane, and Sidewalk Closures and placing dumpsters and/or PODs in the street within Raleigh's Jurisdiction, this includes NCDOT maintained streets.	<a href="#">Apply</a>
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2. Enter all information.
  - Under Contacts enter in the general contractor
  - Attachments:
    - Plan of Proposed Work
    - Traffic Control Plan
    - Performance Bond
    - Certificate of Insurance
    - Proof of Encroachment (If work is within NCDOT ROW or dry utility companies without agreements with Raleigh)
  - Submit
3. Once submitted a review will occur. If additional information or a revision of plans is requested, you will get a notification.

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