



MEMORANDUM

TO: Individuals Performing Work in the City Right-of-Way

FROM: James Wright, P.E., City Engineer

DATE: September 2020

SUBJECT: **Engineering Standards for Work in City of Portsmouth Right-of-Way**

This document has been updated to reflect the most current city standards and new policy mandates. The City of Portsmouth Construction Standards and Specifications include the most recent editions of the Hampton Roads Planning District Commission (HRPDC) Regional Construction Standards, the City of Portsmouth Special Provisions to the HRPDC Regional Construction Standards, the Virginia Department of Transportation (VDOT) Road and Bridge Specifications, the VDOT Road and Bridge Standards and the Virginia Work Area Protection Manual (VAWAPM).

One objective of this document is to describe the means and methods by which franchise or legislatively empowered utility companies will be permitted to work within the right-of-way of the City of Portsmouth and to set standards and guidelines for all other contractors performing work in the right-of-way.

The placement of utilities in the City's right-of-way is at the discretion of the City Council under Chapter 32-56 through 32-71, 32-346 and 32-368 of the Portsmouth City Code. While it is recognized that there is a need to accommodate utility companies in their provision of public services, the city must ensure that the primary purpose of the roadway, movement of people and goods, is maintained to the greatest extent possible. The use of roadway corridors by utility companies is secondary. It is the intent of the Department of Engineering and Technical Services (Engineering Department) to strike a balance between the public need for efficient, safe transportation routes and utility services within these routes. The term contractor shall be used to describe those entities permitted to perform work within the city right-of-way.

The objectives, herein, are threefold:

1. To ensure that public safety is maintained and that public inconvenience is minimized.
2. To protect the City's infrastructure investment.
3. To facilitate utility work and other infrastructure within the right-of-way.

TIME CONSTRAINTS

Work Within the Pavement

1. Arterial Streets

Arterial streets are roadways in the City designated as "major thoroughfares". These streets are essential to the safe movement of the majority of citizens; these streets require stricter regulation to maintain orderly and safe flow of traffic. Therefore, no work will be performed on arterial streets during peak traffic hours of 7:00-9:00 AM and 3:00-6:00 PM, except for emergency work to restore services. Because of higher traffic volumes, no new major work will be started on Fridays or days preceding holidays. Work on weekends and holidays is not permitted.

Lane closures will be restricted to the working lane only, and two-way traffic will be maintained at all times. Arterials shall be opened to traffic each night with all openings covered by a steel road plate or an asphalt patch. The permanent asphalt patch shall be placed within ten (10) calendar days of the work being completed. When notified by the City of an unsafe opening, the responsible contractor shall respond and repair said patch within six (6) hours.

Emergencies and special situations may require some deviation from the aforementioned standards. These cases require approval of the City Engineer or his designee. Note that the requirements in this section will also apply to high-volume collectors as determined by the City Engineer or his designee.

2. Collector Streets

Collector streets connect residential streets to arterial rights-of-way with two lanes of alternating traffic with parking on both sides or four lanes on alternating traffic. Generally, there will be no restriction on work hours or workdays. However, work in residential areas on Sundays is discouraged. Two-way traffic shall be maintained at all times unless approved by the City Engineer or his designee.

Excavations and pavement cuts on collector streets shall be closed each night and covered by a steel road plate or surfaced with a temporary asphalt patch if completed too late for a permanent asphalt repair. The repair shall receive a permanent asphalt patch within ten (10) calendar days after completion of the work. When notified by the city of an unsafe opening, the contractor shall respond and make the opening safe within six (6) hours and repair said patch within twenty-four (24) hours.

3. Residential Streets

Residential streets are streets and cul-de-sacs that provide direct access to adjacent property or individual homes (normally two alternating lanes in a 50' right-of-way with parking on both sides). Construction hours shall be limited – 7 AM to dusk – to be sensitive to noise impacts on surrounding properties (emergency work excluded). At minimum, a single lane shall be provided for two-way traffic with a flagger available for control. Weekend work is not allowed unless permission is granted by the City Engineer or his designee.

Excavations on residential streets shall be protected each night; this may be achieved temporarily with an asphalt cold mix to grade and reflective drums and fencing. The permanent asphalt repair shall be made within seven (7) calendar days after completion of the work. When notified by the City of an unsafe opening, the responsible contractor shall respond and make the opening safe within six (6) hours and repair said patch within twenty-four (24) hours.

Work Outside the Pavement

All work outside the pavement shall be restored to its original condition after completion of the work. All pits/trenches remaining open overnight shall be barricaded or fenced on all sides to ensure pedestrian and motorist safety. Work adjacent to roadways shall be protected by reflective barricades meeting current city standards.

Where work is interrupted longer than a week, temporary repairs (i.e. stone backfill to grade) shall be maintained daily or the work resumed within seventy-two (72) hours. When notified of a failure in the work area (i.e. cave-in), the responsible contractor shall respond and repair said work within twenty-four (24) hours.

Work Areas Generally

Disturbed areas shall be limited to no more than 300 linear feet of open trench before temporary repairs are initiated. Excavated materials shall not be stored or piled on pavement except with the express written consent of the City Engineer or his designee. No work will be permitted (except for emergencies) on certain streets during special City events, such as the Seawall Festival, etc.

Care shall be taken on job site parking to avoid damage to sidewalks and landscaping. Equipment that must pass across or sit on sidewalk shall have heavy boards placed upon the sidewalk prior to the activity to prevent cracking or other damage. Work areas that require closing city sidewalks shall be clearly identified with the appropriate signage. If required, an ADA accessible detour shall be provided to accommodate pedestrian movements until the work is complete. Parked vehicles and equipment shall not restrict private property access, hinder sight distances, or other features. Any damage resulting from such must be repaired as listed herein.

Erosion and sediment control surrounding work sites shall be in accordance with the Virginia Erosion and Sediment Control Handbook. If required, the project shall adhere to the best management practices in its stormwater pollution prevention plan. Inlet protection shall be provided and maintained at curb inlets, drop inlets, and yard drains. Silt fencing and other protective measures shall be provided to keep sediment out of the City storm system, ditches, natural water bodies, wetlands, etc. Under no circumstances shall material be washed and/or swept into storm drains. Concrete operations shall have an approved concrete wash out area. Excess material/sediment shall be allowed to dry, and then it must be removed by a vacuum sweeper or shoveling, and hauled away. Street washing shall be allowed only after sediment is removed in this manner. Effluent from dewatering operations shall be filtered and/or passed through an approved sediment-trapping device and discharged in a manner that does not adversely affect adjacent property. Portable toilets shall not be located near stormwater inlets. Additional erosion and sediment control measures shall be employed as necessary at the direction of the Engineering Department.

Maintenance of Traffic

The Contractor is responsible for maintaining traffic in and around the construction area with proper barricades, lights, directional signs, and other necessary warning devices as specified in the Manual of Uniform Traffic Control Devices (MUTCD), the VAWAPM and as directed by the Engineering Department. All work within the roadway must have a project specific traffic control plan approved by the Engineering Department. No right of way permit will be issued without an approved MOT plan as required. The traffic control plan must include street names, number of lanes, location of the work and all necessary devices and measures as listed above. Note the following conditions associated with all lane closures.

- When one-way traffic is being maintained, it shall be flagged at all times. Flaggers must possess a valid Virginia State Flagging Certification card and abide by State flagging regulations. Hours for flagging operations will be determined at the time of MOT review by this Department.

- Blocking of entrances will be permitted only when determined to be absolutely necessary by the Engineering Inspector, and provisions for safe ingress and egress to adjoining properties have been provided. The contractor shall notify all affected parties a minimum of forty-eight (48) hours prior to construction operations.
- Contractors shall notify the Engineering Department of all planned lane and street closures a minimum of seventy-two (72) hours in advance, unless in the case of an emergency. Notification provided to the Department with less than a seventy-two (72) hour notice may not be approved in time for the contractor's anticipated schedule.
- It shall be the responsibility of the contractor to furnish, install, properly light and maintain all detour signs, warning signs and other necessary traffic control devices on all roads. Detours on all roadways must be approved by the Engineering Department with the MOT plan. The MOT plan shall include the duration of the lane closure. Note that there is a fee associated with all lane closures.
- Street closures associated with excavations shall also include a description of the means and methods by which the work zone will be made safe at the end of each working day.
- Additional permit fees are required for lane closures.

Traffic control devices damaged during construction are the responsibility of the contractor and must be replaced as necessary at the Contractor's expense. If existing pavement markings are eradicated, the contractor must supply "unmarked pavement" signs at the discretion of the Traffic Engineering Department. The signs must remain until pavement markings are replaced.

A traffic flow shall be maintained in accordance with the approved MOT plan during construction and shall be maintained as necessary, or required, by the City Engineer. Note that the City Engineer or his designee must approve any deviation from the approved traffic control plan, and may direct changes deemed necessary to ensure the safe flow of traffic.

For any planned work zone exceeding fourteen (14) consecutive days, metal sign panels shall be installed on fixed sign posts conforming to the requirements of *AASHTO's Standards Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals*. For daily operations or work zones not exceeding fourteen (14) consecutive days, roll-up signs and portable sign supports shall be used. Roll-up sign panels shall be in accordance with the latest VDOT standards. Portable sign supports shall conform to the requirements of NCHRP 350, Test Level 3.

Temporary signs will be considered unsatisfactory and replaced by the Contractor at his own expense if the City Engineer or his designee determines that the sign has deteriorated to the extent that the intended message is ineffective when viewed from a moving vehicle under normal driving conditions.

PROTECTING PUBLIC INFRASTRUCTURE

Inspection

The inspection process is the primary means by which the City seeks to protect the public investment in its infrastructure. The goal of the City's inspection effort is to ensure that the City infrastructure attains its maximum useful life and utility restoration callbacks are minimized.

To obtain a right-of-way permit from this Department, the contractor must have a valid contractor's and City business license. Note that a Class "A" Contractor's License from the Commonwealth of Virginia will be required for most types of work within the right of way. A bond in the amount of the proposed right of way improvements will be required from the contractor prior to receiving a permit. Franchise utilities will be required to post a \$100,000 bond or letter of credit (renewable annually). For other utility companies and contractors, a bond for the estimated cost of the work will be required. The minimum right of way bond is \$5,000 per City code. Note that all bonds are posted in addition to the associated right-of-way fees, and any fees associated with lane closures if applicable.

Inspection of the right-of-way is conducted through the Engineering Department. The engineering staff will advise the contractor on construction standards and the extent of restoration. Contractors are expected to be (or make themselves) familiar with the City of Portsmouth Standards (*specifically the latest edition of the Hampton Roads Regional Construction Standards as amended by the City of Portsmouth Special Provisions*). All contractors who fail to comply with these standards and specifications risk penalties, which may include temporary suspensions from performing any future right-of-way work. The permit holder will be the party ultimately responsible for all repair work. **The Contractor shall provide all material tickets for the job and material test results (as required) to the Engineering Department prior to scheduling a final inspection.**

Inspection services are provided by the City as necessary, and upon request by the contractor. Twenty-four (24) hour notification is required in advance of all inspections, unless previously arranged with the Engineering Inspector (city projects and subdivisions). In some cases, due to the scope, location or duration of the work, it is necessary to notify the inspector forty-eight (48) hours prior to the start of work. These cases will usually be noted at the time of permit issuance. A site meeting shall be scheduled with engineering staff to discuss the construction

process and to ensure that the contractor is aware of right-of-way restoration requirements. For projects where it has been determined that inspectors from other departments or third-party inspections will be used for the right of way work, the project inspector will be required to notify the Engineering Department of scheduled inspections as a matter of record. Should a conflict arise as a result of this type of inspection, the City Engineer will have final authority. It is strongly encouraged that inspectors outside this Department coordinate inspections for the right-of-way with inspectors from this Department from project start to finish. **If it is determined that such inspectors fail to adequately perform inspections in accordance with Engineering standards and protocols, the individuals associated with these inspections risk revocation of certain privileges within the right-of-way as determined by the City Engineer.**

The inspector shall be focused on the restoration of the right-of-way, proper traffic control, work zone safety, repair of damaged infrastructure and good environmental housekeeping measures. Inspections shall include monitoring of backfilling, compaction, hazard protection and re-paving, as well as the determination of the extent of restoration required. Some inspections may be ongoing throughout the course of the job where as other inspections will be made only after completion of the work. Consideration should be given to the location of the work, duration of the work and the size of the area being disturbed. When a Stormwater Pollution Prevention Plan (SWPPP) has been issued for a project, the Contractor and his Responsible Land Disturber shall execute the activities and practices specified therein, and shall maintain all records as required by the VSMP. The SWPPP shall be present on the jobsite at all times.

Public Utilities

- Contractors who do not possess a valid Class "A" Contractors license in the Commonwealth of Virginia will be not be allowed to work on water and sanitary sewer facilities owned by the City of Portsmouth.
- Water and sanitary sewer service lines not meeting current standards, as deemed by the Department of Public Utilities, shall be replaced by the Contractor with city standard services at his expense.
- Generally, water meters shall be located between the back of curb and the sidewalk, and sanitary sewer cleanouts shall be located at the property line.
- Unauthorized work on DPU facilities will result in a stop work order and shall have an adverse impact on the permittee's status.

Restoration of Disturbed Areas

Restoration of all disturbed areas shall result in a condition equal to or better than that, which existed prior to construction.

1. Pavement (detail from HRPDC attached)

All pavement patches shall be a minimum of 5-ft by 5-ft, except for test holes. Tie-ins for curb and gutter shall be a minimum of 24-inches wide, unless a detailed design with sufficient proposed grades has been approved by the Engineering Department. Pavement patches involving concrete surface or base layers shall match existing pavement section. All concrete shall be doweled into existing concrete at 12" OC with #5 bars.

Pavement cuts shall be filled with compacted select material. Existing material may not be used as backfill unless approved by the Engineering Inspector. Either concrete or asphalt patches will be placed to match the existing street cross-section unless otherwise approved by the Engineering Department. Select material shall include select fill or stone (VDOT 26 or 57). Where temporary patches are needed within a bike lane, cold mix asphalt shall be used. Prior to final pavement patch, all edges must be neatly sawcut.

Select fill shall be placed in an excavation in 8" lifts and compacted with a vibratory plate compactor (for small openings), "jumping jack" (alongside pipelines) or with a static roller (for large openings). Compaction by backhoe bucket is not acceptable. Where ground water (or "a wet condition") is present, stone shall be substituted for select fill.

Select fill shall be compacted to achieve a minimum 20 CBR, or to the degree specified in the plans. Select fill shall be placed up to the level of the base of the subgrade stone, concrete or asphalt, whichever is lowest. In no case shall the soil fill extend closer than 8" to the surface.

Once the backfill has been placed and approved, the asphalt cutback shall be made. The cutback shall extend 12" minimum on each side of the opening and will be over undisturbed pavement material (1 ½" deep – minimum). All edges of the opening shall be neatly cut and uniformly tacked.

The new stone shall be placed in lifts, minimum depth 6" and compacted as required above. The new asphalt shall be placed in lifts (3" max) and compacted upon placement. Asphalt depths shall be governed by the existing cross section of the street but, in no case, shall it be less than 2" depth.

Concrete edges shall be saw cut and new concrete placed with adequate protection during its curing. Concrete shall be "hi-early", air entrained, class A, 3000 psi at a minimum. Hand mixed concrete is not acceptable. Prepackaged mixes, such as Quickcrete or Sacrete, are not acceptable.

Concrete batches shall be tested at the contractor's expense. Concrete cylinders are required when at least 25 cubic yards are required for a job. Concrete testing cylinders shall be made from each batch of concrete and kept for thirty (30) days after the concrete is poured. The Contractor shall provide the results of the 7-day, 14-day and 28-day tests to the Engineering Department. Any concrete not having the required properties shall be removed and replaced at the direction of the inspector at no expense to the City. Specifically, if concrete or asphalt is installed without being inspected, this Department may require that it be removed and replaced at no cost to the City.

When it is necessary to use cold patch in an opening due to the unavailability of plant mix material, the cold patch will be applied in one lift, approximately 2-inches thick. Patches will be approved based on the general appearance (including finish) as well as their "rideability". Rideability is defined as a leveling tolerance to within one-quarter inch (1/4") at any point across a patch as it relates to the surrounding street surface.

In cases where construction operations cause the disturbance of more than 30% of a street or intersection, the City shall require the contractor to overlay an area larger than their work area to ensure a smooth, rideable surface. Overlays shall be a minimum of 1 ½" in thickness. If non-emergency work occurs on a street that has been paved within the last calendar year and the party had prior notice of the paving, then the portion of the street where the work occurred will be required to be repaved.

Site clean-up is required in all instances. Please note:

- *In no case shall a contractor cut into the pavement of a signalized intersection without having contacted Traffic Engineering 48 hours prior. Traffic Engineering will locate buried loop detection devices so as to protect them from damage. Detection devices, which must be cut or destroyed as part of the construction, shall be replaced or repaired to the satisfaction of the Traffic Engineering Department.*
- Lane striping or other painted and affixed delineators, which may be removed by utility companies, shall be replaced by the contractor before restoration will be considered complete. The inspector will notify the contractor of the product (traffic paint, thermoplastic, raised pavement markers, lane tape) and applications. The Department of Traffic Engineering will be the governing authority.
- Adjustment rings (mandatory) shall be used to level structures with proposed new pavement surfaces.

2. Concrete Repairs

All concrete to be repaired within the right-of-way shall be removed and replaced to the nearest joint. Patching is not acceptable. Generally, all concrete repairs shall be completed within fourteen (14) calendar days of being removed. **All concrete to be removed shall be inspected beforehand by the Engineering Department to determine the extent of removal.**

Sidewalks damaged during construction shall be removed and replaced in full sections. The size of the repair shall be determined by the Engineering Inspector. **Where more than 30% of the sidewalk in a 200-foot long area is damaged, the entire 200-foot long area of sidewalk shall be replaced with minimum 5-ft wide sections.** Sidewalk shall match adjacent sections with regards to material type.

All sidewalk damaged or removed shall be made safe at the end of the day by placing #10 or 26A screenings in the excavation to a level matching the adjoining sidewalk, and by the placement of lighted or reflective barricades. Dirt fill will not be acceptable. Temporary screening shall be maintained until permanent repairs are made.

All edges of concrete to be removed shall be sawcut and then formed from construction (or dummy) joint to joint. Any sidewalk that is undermined due to construction activities shall be cut out and suitable backfill tamped in place prior to replacement. Expansion joints shall be installed between existing concrete and new concrete.

Generally, no vehicles shall be allowed to park on City sidewalks. Should damage (related to construction) be observed after the work has been completed, the contractor shall be notified to perform the necessary repairs at no expense to the City. Where sidewalk sections are removed at street corners, the sidewalk and adjacent curb shall be restored with ADA accessible ramps that meet current VDOT standards.

Driveway aprons shall not be "patched" following construction operations, but shall be removed and replaced in their entirety with matching materials. Very old, broken driveways shall be replaced. **The contractor shall notify the inspector when a concrete apron is to be disturbed; they will agree on the extent and method of restoration.** In all cases, the edges of the concrete repair shall be sawcut and the property owner shall be provided sufficient access to his/her property. Aprons shall be removed and replaced back to the joint in the curb at the return.

Where driveway aprons must be disturbed, the utility company or the contractor shall hand deliver written notification to the affected resident or business a minimum of forty-eight (48) hours prior to the disturbance. Notifications shall

include a contact person and telephone number of the utility company or contractor for the residents and businesses to call with questions.

New aprons shall be 7" thick, air entrained, class A, 3000 psi concrete from the curb to either the property line, or back 15 feet, whichever is the least, and shall be constructed in accordance with the applicable standard detail. Where there is no curb and gutter at the proposed location of the apron, the owner shall contact the Engineering Department for the driveway specifications. All utility appurtenances that are located in the existing apron shall be relocated out of the new apron at the property owner's expense as required by the utility company.

When curbing, or curb and gutter is replaced, it will be restored in full ten-foot (10') sections and shall be sawcut at the nearest joint, at a minimum. ***Match existing curb elevations and ensure positive drainage. Note that additional curb and gutter removal may be required to ensure positive drainage. It is not permissible to tie into existing broken or settled curbing.*** Curb and gutter is to be installed over 6" crushed stone base and shall match adjacent curb section materials. Expansion material shall be used at joints and at the intersection of new and existing work. If the work includes the removal of a section that was finished with a dummy joint, the contractor will sawcut the joint prior to forming and pouring the new section.

Tunneling under curb and gutter for utility services is not allowed.

3. Street/Road Crossings

The approved method of crossing an arterial street in the City of Portsmouth will be by jacking or boring the new pipe, service line or system extension under the street crossed. Any infrastructure that is undermined or damaged by these methods is the responsibility of the utility company or contractor.

At no time should it be assumed that the City would permit an open pavement cut on an arterial street; these may be permitted but only as considered on a case-by-case basis.

4. Bridge Attachments

Any proposed attachments require the submittal of detailed plans and specifications with the permit application for approval on a case-by-case basis.

5. Utility Markings

The contractor shall call Miss Utility (1-800-552-7001) to locate all existing utilities. Utility markings by the contractor shall be large enough and frequent enough so as to be seen by the contractor but not as to become "graffiti" on the pavement,

curbs and sidewalks. Marking of valve boxes and service locations shall be made neatly and less than 4" square. Note that the State of Virginia's Uniform Marking code required proposed construction be marked in white paint, never in color (i.e. even if the proposed construction is for gas work, it should be marked in white, for proposed; not yellow for gas).

6. Grassy Areas and Trees

All grassed areas disturbed during construction shall be cleaned of debris, graded and re-seeded within 5 calendar days after work is complete. A minimum of 4" of topsoil shall be installed prior to seeding.

Contractors shall minimize the parking of any equipment or material storage on turf areas. Where rutting has occurred on the turf and soil, the disturbed area shall be restored as previously described. Contractors shall plant grass seed to match existing grass at the site – fescue with fescue, Bermuda with Bermuda, etc. No more than 10% annual rye shall be allowed in any case.

No permits shall be released until at least 75% of re-growth has occurred. Seed placed after June 15th may require reseeded in the fall if no substantial re-growth occurs. In areas that have been previously sodded by the City, sod may be considered for the appropriate restoration.

Trees shall not be removed or pruned in the course of programmed utility work without approval from the Department of Parks and Recreation (393-8481). Trees in the work area shall be protected to the specifications set in the Virginia Erosion and Sediment Control Handbook.

Cutting of tree roots, compressing of soil around the tree and mounding dirt around the base of a tree can kill a tree. Such practices will not be permitted. If a tree dies as result of the work, the contractor shall be remove the damaged tree and replace it with a new planting that meets city standards for street trees as required. The contractor shall contact the Department of Parks and Recreation prior to commencing any work that occurs within five feet (5') of a tree or group of plantings.

7. Landscaped Areas Generally

When work is planned in any planted areas, the contractor shall contact the Department of Parks and Recreation two (2) working days prior to the start of work for consultation and to determine the possible removal/replacement of planting. The Contractor shall document by video the existing conditions. The Department of Parks and Recreation shall determine procedures to be followed for the maintenance of plantings, and their policies shall govern.

Where above ground work needs to be screened or where existing plant materials must be replaced, the utility company shall install landscaping material in accordance to a landscape plan approved by the Department of Parks and Recreation.

8. Olde Towne and Other Areas Paved with Brown River Rock

Restoration will not be considered complete until the disturbed area has been surface treated with stone as necessary.

Note that all work shall be guaranteed for a period of eighteen (18) months. Ten percent of the original bond will be held until end of the warranty period for all work in excess of \$5,000. Should any defects appear in the restored area prior to the end of this period, the contractor that performed said work would be responsible for its repair. Each separate repair shall have its own 18-month warranty period. Failure to perform work in the right of way in accordance with these standards will require that the right-of-way bond on file be held for an additional period until the work is satisfactorily completed. If the Contractor refuses to perform work to these standards, the City will be compelled to use the bond to have the work performed by a third-party.

FACILITATION OF RIGHT-OF-WAY WORK

The City monitors work through the right of way permitting process. This process allows the City to coordinate activities between City staff and other utility companies, to maintain street cuts and patches and to identify specific City requirements.

Any work within the right-of-way that disturbs the pavement, curb and gutter, driveway entrances, sidewalk, landscaping or grassed areas requires a permit from the Engineering Department. This work may include, but is not limited to, general roadwork; pavement and concrete repairs; drainage improvement and repairs; utility main and/or lateral replacement and repair; valve replacement and repair, installation of new underground mains or laterals, structures or accessories; splices, buried drops (under pavement or sidewalks); installation of new poles and pole replacement; cathodic protection; boxes and vault installation and jacking or boring under the right-of-way.

Prior to commencing work within the right-of-way, the necessary permit shall be obtained from the Engineering Department. Note that for certain work in the city right-of-way, the contractor performing the work shall have a Class "A" Contractors license issued by the Commonwealth of Virginia. This Department also issues permits for land disturbing activities in accordance with the Virginia Stormwater Management regulations.

Any cutting or pruning of trees, or construction within the drip line of a tree in the right-of-way requires a permit from the Department of Parks and Recreation.

Three copies of the proposed plan or map showing the work area(s) shall be submitted for the permit along with two copies of the appropriate traffic control plan. Emergency work requires that a permit be obtained no later than 48 hours after the onset of work. Permits are generally issued on the same day of application. Permits generally expire within six (6) months, but may be extended with proper notification prior to the expiration date. If the original permit expires and work has not begun or an extension has not been requested, the permit will be cancelled and a new permit will be required to work.

Contractors shall contact the permit coordinator in the Engineering Department (393-8592) the day prior to performing work in the right-of-way so that the schedule can be confirmed with the inspector. It is strongly recommended that the contractor contact the Engineering Department at a minimum of seventy-two (72) hours prior to the start of work to arrange a "walkthrough" with an inspector. The intent of this meeting is to determine the extent of restoration, existing site deficiencies (cracked concrete, etc.) for which the contractor will not be responsible, and potential conflicts. Note that the Engineering Department will ultimately decide on the extent of the restoration required. A mandatory pre-construction meeting is required for all work affecting more than one City block. The scope of this meeting (field or office) shall be determined when the permit is issued.

In addition to the notification required above, utility companies shall send a summary of work areas to the Engineering Department at the beginning of each month.

When working in residential areas or in front of businesses, the contractor shall provide written notice to the owner/resident a minimum of forty-eight (48) hours prior to work. This notice shall include the name of the company, contact person with phone number and the name and number of the job supervisor. The contractor shall keep one copy for his records and provide a copy for the inspector.

RELOCATION OF UTILITIES FOR CITY PROJECTS

Note that relocation of said utilities for City projects shall be at the sole expense of the utility company, given that the placement of utilities within the City right-of-way is at the City's discretion.

ABOVE GROUND MARKERS FOR UNDERGROUND UTILITIES

The Engineering Department has set forth the following guidelines for the use of above ground markers to indicate the location of underground facilities:

- If a utility company wishes to indicate the location of underground utilities by using markers, the Engineering Department will only permit the use of flush ground mounted medallions level with the surface of the adjacent ground. The Engineering Department must approve the type and size of all markers.
- No utility company may install an above ground utility marker without first receiving a permit from the Engineering Department.

City Code (Section 32-127) states that: No person shall erect a post or pole in any of the city's streets or rights-of-way unless he first obtains a permit therefore from the city engineer as required by section 32-58.

- Utility markers shall be issued under a separate permit from the permit for the actual utility installation. The permit application shall include a drawing indicating the exact location of the markers in the right-of-way as well as a scaled drawing of the proposed marker. Non-permitted markers will be removed from the City right-of-way at the expense of the utility company.

WORK STOPPAGE

The Engineering Department may, at its discretion, issue stop work orders in the following situations:

- Performing non-emergency work without a permit.
- Failure to comply with OSHA standards (specifically Subpart P).
- Inadequate traffic control.
- Inadequate erosion and sediment control measures, especially where work is adjacent to wetlands or other sensitive areas.
- Failure to adhere to previous warnings (erosion and sediment control notices, maintenance of traffic control, etc.).
- Failure to schedule inspections as indicated in this memo
- Working in the right-of-way without a Class "A" Contractors License, as required
- Failure to perform work in accordance with the standards listed herein
- Misrepresentation on a permit application, during an inspection for construction operations, etc.

For inspections in the right-of-way that are performed outside of the Engineering Department, The inspecting department/agency shall provide an inspection/activity log to the Engineering Department on a bi-weekly basis. The log shall include the following information:

1. The address/location of the work being inspected,
2. The type of work, and
3. The status of the work being inspected.

Should the Engineering Department discover issues with the inspections recorded in the log, the inspector associated with the log will be required to review inspection procedures and coordinate inspections with the Engineering Superintendent until such time as the issues associated with the log are corrected to the satisfaction of the City Engineer. If it is determined that these issues are systemic, the project or department/agency in question shall be subject to revocation of the ability to perform inspections outside of the Engineering Department and/or revocation of the associated right-of-way permit.

WORK AT SIGNALIZED INTERSECTIONS

When the work zone is within one hundred (100) feet of a signalized intersection or on an arterial roadway where additional measures are necessary for the safety of the traveling public, the Contractor shall be required to obtain the services of off-duty Portsmouth Police officer(s) at their sole expense to assist with the flow of traffic to ensure the safety and expeditious travel of pedestrians, bicyclists and motorists within the City of Portsmouth. The services of the Portsmouth Police officer(s) will be approved, determined and coordinated through Portsmouth Police Traffic Unit Commander or designee at least seventy-two (72) hours in advance of the work beginning. Instances where emergency work has to be completed will be handled on a case by case basis by the Traffic Unit Commander or designee. The Contractor will be solely responsible for ensuring that their traffic control is in accordance with the approved MOT plan for the work area. The Contractor shall be responsible for the set up, maintenance and breakdown of all traffic control devices, i.e. barricades, fencing, railways, lights, or any other safety equipment.

The Engineering Department will notify the Police Department of all work on arterial roads and determine if PPD assistance is necessary prior to issuing any permits.

Americans with Disabilities Act Requirements of Maintenance and Operational Projects

- See attachment

VIRGINIA DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING DIVISION
MEMORANDUM

GENERAL SUBJECT: Americans with Disabilities Act Requirements of Maintenance and Operational Projects	NUMBER: TE-376.0
	TO SUPERSEDE: N/A
SPECIFIC SUBJECT: Roles and Responsibilities for Compliance with the Americans with Disabilities Act, Curb Ramp Assessment, Curb Ramp Improvement	DATE: August 6, 2014
	SUNSET DATE: N/A
DIRECTED TO: District Administrators District Maintenance Managers District Infrastructure Managers District Pavement Managers District Construction Engineers District Location & Design Engineers Regional Operations Directors Regional Traffic Engineers	APPROVAL: /original signed/ Raymond J. Khoury, P.E. State Traffic Engineer Approved: August 6, 2014

EFFECTIVE DATE

The requirements established herein is effective for all maintenance and operational projects planned for advertisement on or after September 1st, 2014 until rescinded or superseded.

PURPOSE AND NEED

This technical memorandum provides requirements for compliance with the Americans with Disabilities Act of 1990 (ADA) when developing and delivering maintenance and operational projects. These requirements were developed in collaboration with Location & Design and Maintenance Divisions.

For new construction and reconstruction projects, refer to the most recent version of IIM-LD-55 "Guidelines for the Placement of Curb Ramps for Pedestrian Access Routes".

BACKGROUND

Title II of the Americans with Disabilities Act of 1990 (ADA) requires that state and local governments ensure that persons with disabilities have access to pedestrian routes in the public

right-of-way (ROW). An important part of this requirement is the obligation whenever streets, roadways, or highways are altered to provide curb ramps where street level pedestrian walkways cross curbs.

STANDARDS

This memorandum establishes VDOT’s requirements for compliance with the requirements of the ADA when developing and delivering maintenance and operational projects. Specifically, this memorandum:

1. Provides the ADA requirements for “Maintenance” and “Alteration” projects;
2. Defines a Curb Ramp Functional Condition Assessment Protocol;
3. Establishes a Curb Ramp Improvement Prioritization Methodology; and
4. Outlines General Responsibilities for delivery of priority curb ramp improvements.

Section 1 – Maintenance and Alteration Project Requirements

In July 2013, the U.S. Department of Justice (DOJ) and U.S. Department of Transportation (DOT) issued a Joint Technical Assistance document (available at: <http://www.ada.gov/doj-fhwa-ta.htm>) clarifying what activities are considered “alterations” which would trigger the requirements of the ADA.

1.1 – Classification of Typical Maintenance and Operational Activities

Based on the DOJ/DOT Joint Technical Assistance document, Table 1 classifies common VDOT maintenance activities as either “Alterations” or “Maintenance”. Note that not all activities in Table 1 are found in the DOJ/DOT Joint Technical Assistance document.

Activity Type	Maintenance	Alteration
Pavement Activities	Crack filling and sealing Surface sealing Fog seals Chip seals Slurry seals Joint seals and repairs Dow bar retrofit Spot high-friction treatments Diamond grinding Patching	Open-graded surface courses Cape seals Hot in-place recycling Latex overlays / Microsurfacing Thin lift overlays Overlays Mill & fill / mill & overlay Rehabilitation Major Rehabilitation* Reconstruction*
Other Activities	Signal operational adjustment Sidewalk repair Sign repair Sign replacement	Signal install/replacement Pedestrian signal install/replace Sidewalk replacement

* require compliance with PROWAG Standards for all ADA features within project limits (PROWAG features and standards are included in supplemental information developed by TED)

Table 1 – Alteration vs. Maintenance Activities

1.2 – “Maintenance” Requirements

There are no requirements for ADA assessments or improvements when executing “Maintenance” activities.

1.3 – “Alteration” Requirements

Within the limits of an “Alteration” project, the functional condition shall be assessed of each location where a pedestrian walkway (sidewalk) crosses a curb (this includes median and island crossings).

Note: major rehabilitation or reconstruction projects require full compliance of ADA features within the project limits. Traffic Engineering publishes supplemental guidance on the full requirements of current ADA standards.

The assessment shall be executed and recorded per the protocol established in Section 2 of this Memorandum and the results prioritized for improvement by the methodology established in Section 3 of this Memorandum. These procedures are applicable to all sidewalk-curb crossings, including but not limited to, all curb ramps, median crossings and pedestrian refuge islands. For simplicity, this document uses the term “curb ramps” in reference to all sidewalk-curb crossings.

Section 2 – Functional Condition Assessment Protocol

This section defines the protocol by which the functional condition of any sidewalk-curb crossing can be assessed. It is intended for use in the identification and documentation of priority curb ramp improvements when planning an “Alteration” project.

2.1 – Components of a Typical Curb Ramp

A typical curb ramp installation is shown in Figure 1. The primary components of a curb ramp are the ramp, detectable warning surface at the bottom of the ramp, landing at the top of the ramp, flares between the ramp and the approaches and approaches to the ramp along the pedestrian access route.

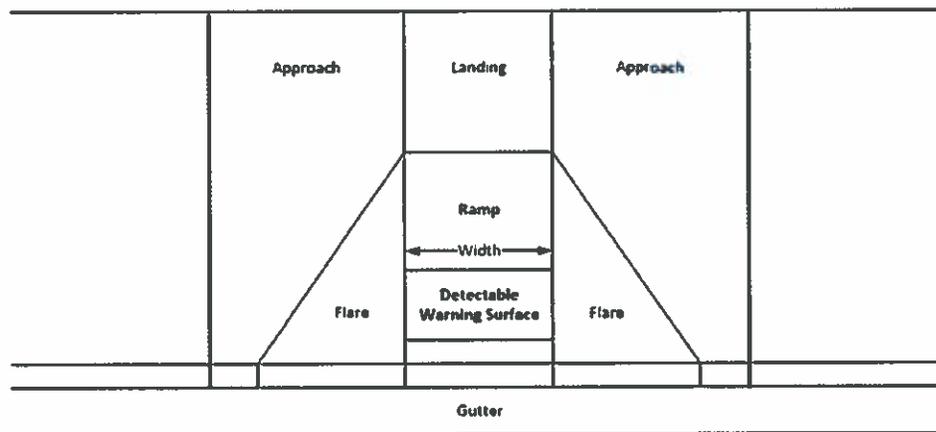


Figure 1 – Typical Curb Ramp Installation

2.2 – Curb Ramp Attributes Informing Functional Condition Rating Protocol

The functional condition rating protocol characterizes ramp condition through three key attributes:

1) Ramp Width

Ramp width was selected as a focus of the protocol because the minimum ramp width required by the VDOT Standards has increased over time.

2) Material Condition

When a curb ramp and/or adjacent surfaces have deteriorated significantly, the curb ramp may no longer adequately function to provide access across the curb crossing. For this reason, the material condition of the curb ramp (and adjacent surfaces) is included within the functional condition rating protocol.

See TED's Curb Ramp Material Condition Assessment Guidance for details of rating.

3) Type of Detectable Warning Surface

The detectable warning surface is included within the protocol because a comparison of the current ADA curb ramp standard with VDOT's curb ramp standards showed that the Department has historically met or exceed the current ADA standard with the exception of the requirement for a Truncated Dome detectable warning surface. Truncated Dome detectable warning surfaces were not required by the VDOT Standards until 2002. Prior to 2002, with the understanding and approval of the Federal Highway Administration, VDOT required an Exposed Aggregate detectable surface for curb ramp installations.

4) Other Physical Attributes

Both VDOT and ADA standards exist for other physical aspects of a curb ramp (such as the slope and grade of the ramp and slope of flares) but those standards have remained constant over time and have always been met or exceeded by VDOT designs. As a result, these attributes were not selected for inclusion in the functional condition rating protocol.

Where significant, obvious deficiencies in these other physical attributes exist, they should be noted during the evaluation and the functional condition grade may be adjusted accordingly.

5) Other Pedestrian Crossing Concerns

Beyond the physical characteristics of a curb ramp (listed above), there are other factors which can contribute to accessibility of sidewalk-curb crossings. These factors include the alignment and orientation of the curb ramps relative to existing roadway and pavement markings (such as stop bars), signal timing and phasing and other operational components of the intersection.

Although not a part of the rating criteria, the following characteristics of the curb ramp should be noted during the assessment for consideration by a design engineer:

- Ramp aligned with the logical direction of pedestrian travel (Yes/No?)
 - If No, is there a 4' maneuvering area provided at the bottom of the ramp?
- Ramp located in potential conflict with existing pavement markings (Yes/No?)

Note that VDOT curb ramp and detectable warning surface standards can be found in Section 200 of the VDOT Road and Bridge Standards (R&B Standards).

R&B Standards are available at <http://www.virginiadot.org/business/locdes/LDPPQ.asp>.

2.3 – Functional Condition Assessment Protocol

The following protocol is applicable to all locations where a pedestrian walkway (sidewalk) crosses a curb, regardless of whether a curb ramp exists at the location.

Through this protocol, the location is assigned a functional condition rating (Grade A through Grade D) based on the:

- **Ramp Width** (measured to the nearest inch);
- **Material Condition** (visual inspection per curb ramp material assessment guidance);
- **Detectable Warning Surface** (visual inspection).
 - Note: Detectable Warning Surface requirements do not apply for curb ramp crossings at driveways (unless there is heavy truck traffic)

Grade N/A may be assigned if a curb ramp is not needed at the location under evaluation.

Further details of each functional grade are provided below:

Grade A: The curb ramp is evaluated to be fully functional, meeting current VDOT and 2010 ADA Standards. The curb ramp shall be rated as Grade A if **all** of the following characteristics are documented:

- **Ramp Width:** 48" or greater
- **Detectable Warning Surface:** Truncated Dome
 - Does not apply to curb ramps at driveway crossings (unless heavy truck traffic)
- **Material Condition:** Fair or better condition, characterized by:
 - Limited or tight cracking, faulting (<1/4") and isolated spalling
 - See TED's "Curb Ramp Material Condition Assessment Guidance" for further detail

Grade B: The curb ramp is evaluated to be adequately functional under a majority of circumstances though it may not meet all current VDOT and 2010 ADA Standards. The curb ramp shall be rated no better than Grade B if **one or more** of the following characteristics are documented:

- **Ramp Width:** > 36" to < 48"
- **Detectable Warning Surface:** Exposed Aggregate surface
 - Does not apply to curb ramps at driveway crossings (unless heavy truck traffic)
- **Material Condition:** Poor condition, characterized by:
 - Moderate cracking, faulting (1/4"-3/4"), moderate spalling

- See TED's "Curb Ramp Material Condition Assessment Guidance" for further detail

Grade C: The curb ramp is evaluated to provide some functionality though it may not meet all current VDOT and 2010 ADA Standards. The curb ramp shall be rated no better than Grade C if **one or more** of the following characteristics are documented:

- **Ramp Width:** 36" or less
- **Detectable Warning Surface:** No detectable warning surface
 - Does not apply to curb ramps at driveway crossings (unless heavy truck traffic)
- **Material Condition:** Very Poor, characterized by:
 - Severe cracking, faulting (>3/4"), extensive spalling
 - See TED's "Curb Ramp Material Condition Assessment Guidance" for further detail

Grade D: A curb ramp is needed but does not exist at the location under evaluation. A Grade D should be assigned where a curb ramp is needed to access an existing sidewalk where it crosses a curb. This includes locations where a median crossing is necessary (but not provided) to allow for the most direct pedestrian street crossing.

Grade N/A: A curb ramp (or proposed curb ramp) is not needed at the location under evaluation. A Grade N/A should typically be assigned where a sidewalk does not exist or there is no curb to act as a barrier between the street and the sidewalk.

Table 2 provides a summary of the detailed requirements listed above.

Grade	Ramp Width	Detectable Warning Surface	Material Condition
A (rated only if all listed conditions exist)	48" or greater	Truncated Dome	<u>Fair or Better Condition</u> Limited or tight cracking, faulting (<1/4"), isolated spalling
B (maximum rating if any of the listed condition exists)	>36" to <48"	Exposed Aggregate Surface	<u>Poor Condition</u> Moderate cracking, faulting (1/4"-3/4"), moderate spalling
C (maximum rating if any of the listed condition exists)	36" or less	No detectable warning surface	<u>Very Poor Condition</u> Severe cracking, faulting (>3/4"), extensive spalling
D	A curb ramp is needed but does not exist at the location to access an existing sidewalk where it crosses a curb.		
N/A	A curb ramp is NOT needed at the location (typically because either a sidewalk does not exist or there is no curb at this location).		

Table 2 – Summary of Functional Condition Grade Criteria

Section 3 – Curb Ramp Improvement Prioritization Methodology

Due to limited funding for ADA improvements associated with “Alteration” projects, a methodology to prioritize curb ramp installations, replacements and retrofits is needed. This section defines the methodology by which curb ramp improvement should be prioritized.

The methodology below is based on the functional condition of the curb ramp, however it is acceptable to further prioritize investments by population density, proximity to pedestrian attractors (e.g. transit stops, hospital or civic centers) or other similar factors.

Regardless of existing priorities, in no case shall immediate investment be required beyond the funding allocated by Central Office for District ADA improvements. Additionally a portion of these funds may be dedicated to address pedestrian accessibility concerns reported by the local community.

3.1 – Priorities for Curb Ramp Improvement

Curb ramp improvement priorities (from Highest to Lowest) are as follows:

- 1) Installation of curb ramps where needed but do not currently exist (Grade D)
- 2) Retrofit and/or replacement of Grade C curb ramps
- 3) Retrofit and/or replacement of Grade B curb ramps (particularly retrofits to replace exposed aggregate surfaces with truncated domes)

Investment of ADA Improvement Funds should not be made in improvements or proposed installations where the curb ramp will not serve an existing sidewalk (Grade N/A).

Note: The ADA Improvement Funds are intended for investment in lower cost, high benefit improvements. If an individual location poses significant constraints to improvement (such as the acquisition of right-of-way or significant utility relocation), improvements may be deferred to a future project, regardless of priority.

Section 4 – General Responsibilities

The following section provides details on the responsibilities of District and Regional staff to implement the requirements described herein as well as the support that will be provided from the Central Office.

4.1 – District and/or Regional Responsibilities

It is the responsibility of each District/Region to modify their maintenance and operational project delivery process to comply with the requirements established herein. While flexibility is afforded to each District/Region, the following distribution of responsibilities is recommended.

Alteration Project Developers (District Maintenance or Regional Operations)

- Identify proposed maintenance or operational project locations
- Screen the proposed locations for potential ADA requirements
 - Identify scope of work as “Alteration” or “Maintenance”
 - Review right-of-way within “Alteration” project limits for pedestrian walkways requiring field investigation
- Conduct & record Curb Ramp Functional Condition Assessments

- Record Ramp Width, Detectable Warning Surface type and Material Condition
 - Provide photographs of all assessed locations
- Review & fund priority curb ramp improvements (investment is not required beyond allocated funding)
 - Dedication of a portion of the funds to address documented pedestrian accessibility priorities of the local community (at the discretion of the District)
- Prepare and issue curb ramp improvement Task Orders
 - Ensure efficient delivery of improvements (quantity, location selection, etc.)
 - Deliver improvements prior to associated "Alteration" project where possible
- Administer On-Call Curb Ramp Improvement Contract
- Track condition assessments and improvements
 - Ensure reporting of location, quantity and results of assessments and improvements is possible

Designers (District Location & Design or Regional Traffic Engineering)

- Review functional condition assessment results, other pedestrian crossing concerns (and assessment/site pictures) at priority locations and screen improvement recommendations
 - Ensure appropriate engineering and operational considerations are made prior to task order development
 - Provide engineering support to maintenance and operational project developers as needed to refine improvement recommendations
 - Note: PE Sign and Seal is not required

Civil Rights

- Document pedestrian accessibility concerns of the local community

4.2 – Central Office Responsibilities

The Central Office will provide programmatic oversight and assistance in the delivery of these ADA requirements. There are numerous stakeholder Divisions involved at the Central Office level, responsibilities are as follows:

Civil Rights Division

- Administrative oversight of Agency ADA Compliance
- Public outreach

Traffic Engineering Division

- Develop and maintain Design Guidance, Specifications and Standards (in cooperation with L&D)
- Development of On Call Curb Ramp Improvement Contract template and procurement assistance to Districts
- ADA Improvement Fund distribution recommendations
- Incorporation of ADA requirements within Operational project development process
- Training (in cooperation with Maintenance)

Location & Design Division

- Develop and maintain Curb, Median and Entrance Standards
- Develop and maintain Design Guidance and Requirements (in cooperation with TED)

Maintenance Division

- Incorporation of requirements within Maintenance project development process
- Training (in cooperation with Maintenance)

REFERENCE

- Americans with Disabilities Act of 1990
- VDOT Road and Bridge Standards, Section 200 – Curbs, Medians and Entrances

CC: Mr. Charles A. Kilpatrick, P.E.
Mr. Quintin D. Elliott
Mr. Garrett W. Moore, P.E.
Mr. Mohammad Mirshahi, P.E.
Ms. Irene Rico
Division Administrators