



# Outsource Inspections

All work on MoDOT right of way to be in accordance with the following:

- The latest editions of MoDOT's Standard Drawings, MoDOT's Standard Specifications for Highway Construction and the Manual for Uniform Traffic Control Devices (MUTCD).
- Permit Plans stamped – "Permit Plans (Date) MODOT District 6".
- For material testing, follow Addendum A.

The duties (not inclusive) of an Outsource Inspector will be as follows:

## 1. Communication

- Work closely with MoDOT's Permit Inspector.
  - i. Attend any preconstruction meetings.
  - ii. Keep Permit Inspector informed by e-mail, phone, fax, daily log, etc.
  - iii. Submit a daily log to the Permit Inspector within 48 hours.
  - iv. Submit copies of the certifications and test results that are required and/or requested to the Permit Inspector.
  - v. Inform the Permit Inspector of any proposed changes (They **must** approve any construction changes).
  - vi. Keep Permit Inspector advised of any controversial issue that arises during the permit work.
  - vii. Notify Permit Inspector of any changes in Outsource Inspector for vacations, etc.

## 2. MoDOT's Permit Plans

- Review plans to become familiar with the work that has been approved.
- Check the contractor's construction layouts to ensure they are not deviating from the approved plans.

## 3. Project File (*to contain items below*)

- Copy of Permit
- Permit Plans
- Daily Log (*to contain items below*)
  - i. Weather
  - ii. Major operation of the day
  - iii. Conversations pertaining to the work
  - iv. Comments as to how work is progressing
  - v. Note anything that might be pertinent after job is complete or might cause a future problem for MoDOT

4. **Traffic Control** (Standard Specifications-*Section 1063 and MUTCD Manual-Part VI*)

- Verify that a MoDOT Workzone Verification Number has been given for any lane closures.
- Compare the Traffic Control Plan with the current conditions to see if any adjustments are needed.
- Submit Daily Workzone Inspection Form.
- When not in use, ensure all traffic control devices are located in an area that will not cause a hazard to the traveling public.
- Make sure all traffic control devices are removed as soon as practical when they are no longer needed.

5. **Grading** (Standard Specifications-*Division 200*)

- Make sure the contractor is following MoDOT spec's concerning cuts and fills when doing grading.

6. **Erosion Control** (Standard Specifications-*Section 806*)

- Check that the silt fence, ditch checks, etc. are in place and working (if required on right of way).
- Check periodically for any breaches.

7. **Pipes** (Standard Specifications-*Sections 725-730 & 732*)

- Check trench width, check pipe placement and see that backfill material is free of large rocks, and debris.
- Check size, length, condition and type of pipes.
- Ensure flow lines are correct.
- Check concrete pipe joints to ensure that they are sealed. Also, check that the concrete pipes are installed with the bells in the correct direction.
- Check corrugated metal pipes to ensure they are banded together properly.

8. **Drainage Structures** (Standard Specifications-*Sections 731-733*)

- Check to ensure that the correct inlets are being used and built with the correct materials and that the flow lines are correct.
- If the structure is cast in place, make sure all support materials are removed.
- Inlets and manholes located in the pavement (roadway surface) must have locking lids.

9. **Base for Pavements** (Standard Specifications-*Division 300*)

- Make sure of correct grade and correct material.
- Check thickness and compaction of each lift (requiring certifications where necessary).

10. **Pavements** (Standard Specifications-*Divisions 400 & 500*)

- **Concrete**

- i. Check joint spacing, use of dowel baskets and/or tie bars and type of finish.
- ii. Test air, slump and cylinders to ensure minimum requirements are met.
- iii. Check cores for thickness and the time of placement so that placement is done uninterrupted. Paver should proceed as continuously as possible.
- iv. Monitor or perform surface smoothness tests with profilograph.
- v. Monitor timing of texturing and curing and surface texture test.
- vi. Check joint sawing for time of sawing, spacing, depth, width, curing and sealing (if necessary).

- **Asphalt**

- i. Check that loads are covered and that temperature is of acceptable range for mix.
- ii. Check for segregation, separation and tack (if needed).
- iii. Check that paver maintains a speed that will minimize stop and start operations.
- iv. Check cores and density tests to ensure compaction.
- v. Check surface with profilograph or straightedge for ride quality.

11. **ADA Pedestrian Facilities**

- See the attached ADA Post Inspection Checklist for inspection checks.

12. **Signing** (Standard Specifications-*Section 903 and Addendum A, Section 1-3*)

- Check signing for size, reflectivity (NCHRP 350 compliant), and that the message matches what is shown on the plans.
- Check location of sign and make sure correct sign support is being used.
- Check to ensure sign is placed at the correct height above the ground or pavement.
- Check overhead sign trusses and provide certifications.

13. **Striping** (Standard Specifications-*Section 1048*)
  - Follow striping plan to ensure work is being done as planned.
  - Check that removal of any existing striping is done by a mechanical device (grinder, sander, etc) or by sandblasting. It cannot be covered with oils, paint, etc.
  - Check reflectivity of new striping.
  - Check mil thickness.
  - Use MoDOT's Traffic Striping Manual or Policy to insure that materials, locations and procedures are followed.
  
14. **Lighting & Signals** (Standard Specifications-*Sections 901 & 902*)
  - Use the attached sheet and checklist to ensure ALL work has been completed and inspected.
  
15. **Earthwork** (Standard Specifications-*Division 800*)
  - Curbs are to be backfilled to top of the back of curb.
  - Manholes and inlets are to be at ground level, sloped if necessary to match the surrounding earth.
  - All earth areas should be graded, seeded and mulched with straw or sod.
  
16. **Guardrail** (Standard Specifications-*Section 606*)
  - Check for correct type.
  - Check for correct end treatment.
  - Check for correct installation.
  
17. **Authority to Suspend Work**
  - Failing Test Results
    - i. Reject if not passing and notify MoDOT
  - Unsafe Conditions
    - i. Inform contractor to correct before continuing work and notify MoDOT
  - Requirements of Permit not met
    - i. Not following plans
    - ii. Not submitting lane closure requests
  - Changes to Plans
    - i. MoDOT permit inspector has to approve any changes of plans, whether verbal or written
  - Non-Compliance of Contractor
    - i. Job should be shut down if contractor does not comply with any of the above and MoDOT should be notified

**18. Semi-Final Inspection**

- Check to ensure that no silt has collected in any pipes, inlets or manholes.
- Inspect inlets and manholes in the pavement (roadway surface) to ensure they have locked lids.
- Make a general inspection of the work area.
  - i. Make sure everything is in place that is called for in the permit.
  - ii. Make sure the work area has been cleared of all excess items (signs, cones, lumber, forms, etc.).
  - iii. Make sure that the paving surface is free of dirt, mud, rocks and other debris.
  - iv. Make sure the MoDOT right of way has been policed with no debris being left.

**19. Final Inspection**

- Contact Permit Inspector
  - i. Walk project
  - ii. Make a punch list of any items that need attention.
  - iii. Notify Developer (or developer's representative) of any items that need attention.

**20. NOTIFY PERMIT INSPECTOR WHEN ALL FINAL INSPECTION ITEMS HAVE BEEN COMPLETED.**



## Work Zone Inspection Form

### Work Zone Information

District \_\_\_\_\_ County \_\_\_\_\_ Designation/Route/Direction \_\_\_\_\_ Project # \_\_\_\_\_ Work Zone # \_\_\_\_\_  
 Route/Intersection \_\_\_\_\_ (Beginning) \_\_\_\_\_ Route/Intersection \_\_\_\_\_ (Ending)  
 Weather: Clear \_\_\_\_\_ Cloudy \_\_\_\_\_ Rain \_\_\_\_\_ Snow \_\_\_\_\_ Ice \_\_\_\_\_ Windy \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM/PM \_\_\_\_\_ Reviewer User ID: \_\_\_\_\_

### Yes/No/Not Applicable Items Reported

Does this work zone present an immediate danger to the traveling public or workers and need to be addressed immediately?

### Warning

- |            |  |
|------------|--|
| Y / N / NA | 3. The CMS/DMS has an acceptable lateral clearance from the roadway.             |
| Y / N / NA | 4. All signs were present and in proper sequence.                                |
| Y / N / NA | 5. Signs are free from obstructions (vegetation, traffic control devices, etc.). |

### Signing - Vision

- |            |  |
|------------|--|
| Y / N / NA | 1. The CMS/DMS has the proper light intensity for the work zone conditions.          |
| Y / N / NA | 2. Sign(s) location and placement is appropriate for field and geometric conditions. |
| Y / N / NA | 3. The arrow board is aligned with the road user's line of vision.                   |

### Signing - Message

- |            |  |
|------------|--|
| Y / N / NA | 1. The CMS and/or (DMS) is reporting the proper message. |
| Y / N / NA | 2. The CMS/DMS display is understandable.                |
| Y / N / NA | 3. The work zone signs convey the proper message.        |
| Y / N / NA | 4. There was appropriate sign coverage, when required.   |

### Personnel

- |            |  |
|------------|--|
| Y / N / NA | 1. The flagger was using proper safety attire and equipment for the work zone activity.                                    |
| Y / N / NA | 2. The flagger is in a safe and appropriate location in relation to the work zone activity, equipment, and travel roadway. |
| Y / N / NA | 3. If more than one flagger is present, they are communicating properly with each other.                                   |

### Channelizing Devices/Barricades

- |            |  |
|------------|--|
| Y / N / NA | 1. Channelizer location and placement is appropriate for field and geometric conditions.                     |
| Y / N / NA | 2. The work zone uses appropriate transition (taper).<br>If no, is it too long or too short (please circle)? |
| Y / N / NA | 3. The pavement markings are complete and appropriate for the work zone activity.                            |

### Speed

- |            |   |
|------------|---|
| Y / N / NA | 1. The appropriate speed limit is set for the work zone. If no, was it too high or too low (please circle)? |
|------------|---|

- |            |  |
|------------|--|
| Y / N / NA | 4. The pavement markings are installed and removed properly and are not in conflict with other markings. |
| Y / N / NA | 5. The pavement markings are visible in current environmental conditions.                                |
| Y / N / NA | 6. The barricade(s) have appropriate striping for work zone usage.                                       |
| Y / N / NA | 7. The barricade location and placement is appropriate for field and geometric conditions.               |

Yes/No/Not Applicable **Items Reported**

**Timeliness**

- |            |  |            |   |
|------------|--|------------|---|
| Y / N / NA | 1. Lane closures are appropriate for the work performed. | Y / N / NA | 4. The temporary traffic signal(s) is operating at an appropriate timing to accommodate traffic queues. |
| Y / N / NA | 2. Traffic flow did not slow or stop unnecessarily.      | Y / N / NA | 5. If a detour was used, the length of the detour was acceptable.                                       |
| Y / N / NA | 3. The traffic queue is not unnecessarily excessive.     |            |   |

**Cleanliness**

- |            |  |
|------------|--|
| Y / N / NA | 1. Sign(s) are clean, visible, and suitable for work zone conditions.        |
| Y / N / NA | 2. Channelizer(s) are clean, visible, and suitable for work zone conditions. |
| Y / N / NA | 3. Barricade(s) are clean, visible, and suitable for work zone conditions.   |

**Safety**

- |            |   |            |   |
|------------|---|------------|---|
| Y / N / NA | 1. The traffic queue is within the work zone signs.   | Y / N / NA | 9. Work zone lighting location, placement, and intensity is appropriate for the field and geometric conditions. |
| Y / N / NA | 2. The arrow board lateral clearance is at an acceptable distance from the roadway.                                     | Y / N / NA | 10. Fleet lighting location, placement, and intensity is appropriate for the field and geometric conditions.    |
| Y / N / NA | 3. The channelizers use proper and approved ballasts.   | Y / N / NA | 11. Equipment and/or vehicles are moving in the same direction as traffic flow.                                 |
| Y / N / NA | 4. The barricades use proper and approved ballasts.   | Y / N / NA | 12. Edge drop-off is appropriate for the field and geometric conditions.  |
| Y / N / NA | 5. The signs use proper and approved ballasts.  | Y / N / NA | 13. There were no unnecessary adverse pavement conditions (e.g., ruts, pot holes, bumps, debris, etc.).         |
| Y / N / NA | 6. The temporary traffic signal is operating correctly.   |            |   |
| Y / N / NA | 7. The Automatic Flagger Assistance Device is operating correctly.  |            |   |
| Y / N / NA | 8. The Truck or Trailer Mounted Attenuators were located properly within the stationary or moving operation work zones. |            |   |

**Provide necessary detail on "No" ratings:**

Reviewer shall convey any comment(s) to appropriate district staff. The above comment(s) were conveyed to

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date and Time of Review: / / : : a.m./p.m.

**If necessary, immediate feedback given to :**

Phone Numbers for Work Zone Issues		
D1	816.387.2350	D6 314.340.4100
D2	660.385.3176	D7 417.629.3300
D3	573.248.2490	D8 417.895.7600
D4	816.622.6500	D9 417.469.3134
D5	573.751.3322	D10 573.472.5333

# Addendum A

## 1. MATERIALS TESTING

1. Job control samples and tests shall be run by an independent inspection company as the work progresses to assure that the project is constructed in compliance with applicable specifications. All project sampling and testing of materials shall be performed by the independent inspection company's personnel.

The independent inspection company shall have adequate equipment to perform all required tests and personnel capable of properly operating the equipment.

Test reports or certifications are necessary for all materials incorporated into the work. The test report or certification must show the quantity of material being reported and if it meets the specifications.

Actual test results of materials tested are preferred, although certifications from the supplier are acceptable on certain items. The independent inspection company should contact MoDOT district personnel for guidelines.

2. In order to facilitate the acceptance of small quantities of materials with a minimum of inspection and testing, MoDOT has approved a schedule of materials quantities which may be accepted without complying with the sampling and testing requirements noted above. This schedule is listed in Section 2 of this addendum. Any major deviation from this schedule should be cleared through MoDOT.

3. The following procedures have been established for the acceptance of structural steel. Shop drawings shall be submitted to the engineer for review and approval. The approval will cover only the general design features, and in no case shall this approval be considered to cover errors or omissions in the shop drawings. The contractor shall utilize a fabricator who is currently certified for Category III by the American Institute of Steel Construction (AISC). All welding operations, including material and personnel, shall meet the American Welding Society (AWS) specifications. The consultant has the option of inspecting the steel units during fabrication or requiring the fabricator to furnish a certification of contract compliance and substantiating test reports. In addition, the following reports will be required.

- (a) Certified mill test reports, including results of chemical and physical tests on all structural steel as furnished.
- (b) Non-destructive testing reports.

The consultant must verify and document that dimensions of the units were checked at the job and found to be in compliance with the shop drawings.

## 2. ACCEPTANCE OF SMALL QUANTITIES OF MATERIALS

The following guidelines may be used to reduce the amount of engineering control and sampling and testing for relatively small quantities of materials. These guidelines are intended for use on materials that will not adversely affect the traffic carrying capacity of the completed facility, and are not to be used for concrete in major structures, permanent mainline or ramp pavements or other structurally critical items.

### 1. Sampling and Testing of Small Quantities of Miscellaneous Materials

Samplings and testing of small quantities of miscellaneous materials may be waived by the project engineer and the material accepted on the basis of one of the two following methods.

- (a) Acceptance on the basis of visual examination, provided the source has recently furnished similar material found to be satisfactory under the state's normal sampling and testing procedures.
- (b) Acceptance on the basis of certification by the producer or supplier stating that the material complies with the specification requirements.

The primary documentation of acceptance of material under either of these two methods should be provided by the project engineer or individual approving the material. The documentation may consist of a daily inspector's report with a statement as to the basis of acceptance of the material and the approximate quantity of material covered by the acceptance.

The following quantities of material may be accepted under the methods indicated above.

- (a) Aggregate - Not to exceed approximately 100 tons per day nor more than approximately 500 tons per project.
- (b) Bituminous Mixtures - Not to exceed approximately 50 tons per day nor more than approximately 250 tons per project.
- (c) Bituminous Material – Not to exceed approximately 100 gallons per project.
- (d) Paint - Not to exceed approximately 20 gallons per project - acceptance to be based on weights and analysis on the container label.
- (e) Lumber - Recognized commercial grades only may be used.
- (f) Masonry Items - Subject to checking for nominal size and visual inspection -not to exceed approximately 100 pieces.
- (g) Plain concrete or clay pipe - 100 feet.

## 2. Portland Cement Concrete

Concrete for the following items may be accepted on the basis of occasional conventional field sampling and testing for characteristics such as slump and air, where specified, and test cylinders, with only intermittent or random plant inspection as deemed necessary for control by the project engineer. Under this system, arrangements should be made for the producer to state the following on the delivery ticket accompanying each load of concrete: name of concrete plant, serial number of the ticket, date and truck number, name of contractor, specific project, route and county designation, specific class of concrete and quantity of concrete in cubic yards. Only concrete that meets MoDOT's requirements shall be used.

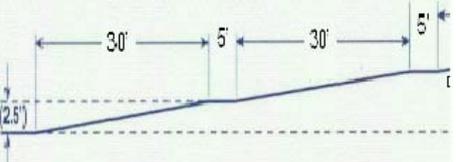
- (a) Sidewalk
- (b) Curb and/or gutter
- (c) Concrete base course
- (d) Pavement repair
- (e) Median barrier or strip
- (f) Slope protection
- (g) Paved ditch
- (h) Ditch liner
- (i) Guardrail anchorage
- (j) Fence posts
- (k) Pipe headwalls and collars
- (l) Manholes
- (m) Drop inlets
- (n) Lighting, signal and sign bases
- (o) Pull boxes
- (p) Grout
- (q) Flowable fill

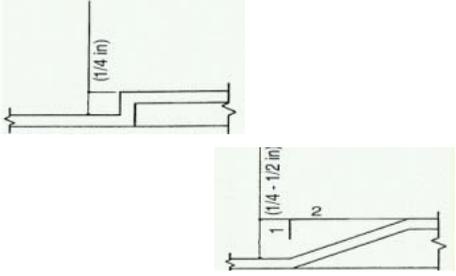
# ADA CHECKLIST

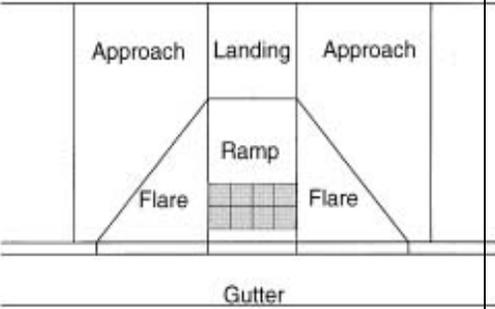
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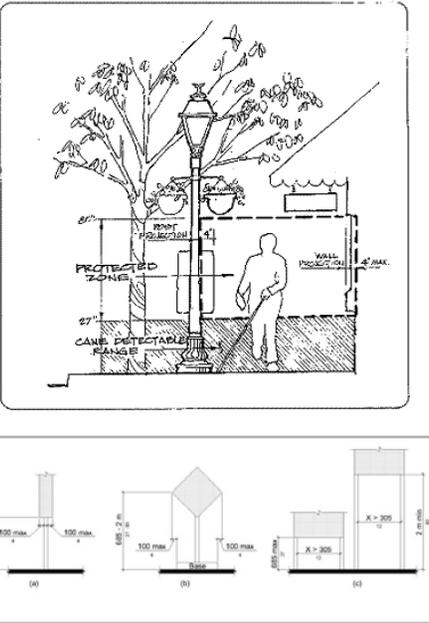
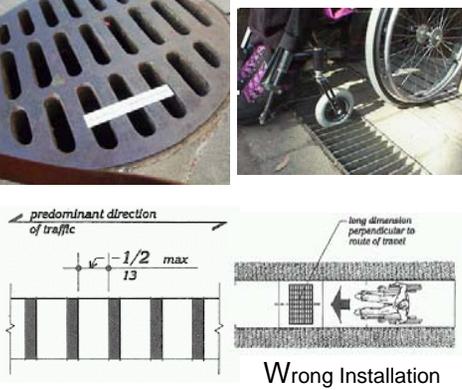
Job No. \_\_\_\_\_ Route \_\_\_\_\_ County \_\_\_\_\_ Location \_\_\_\_\_

<b>Pedestrian Access Route (PROWAG R204)</b>				
<b>Figures/Examples</b>	<b>Requirements<sup>1</sup></b>	<b>YES</b>	<b>NO</b>	<b>NA</b>
<p><b>Sidewalk Width</b></p> 	<ul style="list-style-type: none"> <li>• The minimum continuous and unobstructed clear width of a pedestrian access route shall be 4.0 feet, exclusive of the width of the curb.</li> <li>• The continuous clear width of pedestrian access routes for medians and pedestrian refuge islands must be 5 feet minimum in order to allow for passing space.</li> <li>• MoDOT Sidewalks shall be 5 feet wide minimum.<sup>2</sup></li> <li>• MoDOT Sidewalks located within 2 feet of the back of curb are to be constructed 6 feet wide minimum and constructed adjacent to the back of the curb.<sup>2</sup></li> <li>• Exception: an unaltered, existing sidewalk shall be 3 feet wide minimum and shall provide 5 foot x 5 foot passing spaces at intervals of 200 feet maximum.<sup>2</sup></li> <li>• Detectable warning surfaces shall be provided, where a curb ramp, landing, or blended transition connects to a street. Where commercial driveways are provided with traffic control devices or otherwise are permitted to operate like public streets, detectable warnings should be provided at the junction between the pedestrian route and the street.</li> <li>• Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.</li> <li>• Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.</li> </ul>			
<p><b>Passing Spaces</b></p>	<ul style="list-style-type: none"> <li>• Walkways in pedestrian access routes that are less than 5 feet in clear width shall provide passing spaces at intervals of 200 feet maximum.</li> <li>• Pedestrian access routes at passing spaces shall be 5 feet wide for a distance of 5 feet.</li> </ul>			
<p><b>Sidewalk Running Slope</b> The grade that is parallel to the direction of travel, expressed as a ratio of rise to run or as a percent.</p>	<ul style="list-style-type: none"> <li>• The running slope of a pedestrian access route shall be 5 percent maximum.</li> <li>• <b>Roadway Grade Exception:</b> Where pedestrian access routes are contained within a street or highway right-of-way, the grade of the pedestrian access route is permitted to equal the general grade established for the adjacent street or highway.</li> <li>• Running Slopes shall be measured using a calibrated 2 foot long digital level.</li> </ul>			

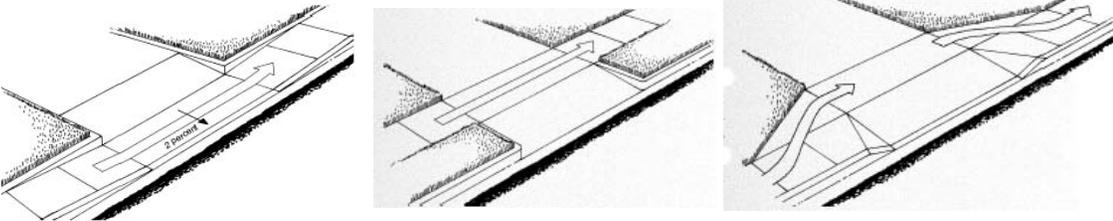
Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
<p><b>Sidewalk Cross Slope</b> The grade that is perpendicular to the direction of accessible pedestrian travel, measured perpendicular to the curb line or edge of the street or highway, or measured perpendicular to the running grade.</p>	<ul style="list-style-type: none"> <li>• The cross slope of the walkway of a pedestrian access route shall be 2 percent maximum. (Roadway Grade Exception may be considered)</li> <li>• 2010 ADA/ABA allows for cross slopes of up to ¼ inch per foot (2.08 percent).</li> <li>• In either case, a cross slope measurement of 2.1 percent or greater is not ADA compliant.</li> <li>• Cross Slopes shall be measured using a calibrated 2 foot long digital level.</li> </ul>			
<p><b>Sidewalk Ramps</b></p> <p>For example, a ramp segment with the maximum allowed running slope of 8.33% would require 5' x 5' landing after every 30' of run.</p>  <p>The diagram illustrates a sidewalk ramp segment. It starts with a 30-foot horizontal run that rises 2.5 inches. This is followed by a 5-foot horizontal landing. The second 30-foot horizontal run also rises 2.5 inches. The total length of the ramp segment is 65 feet, with a total rise of 5 inches.</p>	<ul style="list-style-type: none"> <li>• A sidewalk segment (not contained within a street or highway border) with a running grade in excess of 5 percent but less than 8.33 percent is by definition a sidewalk ramp.</li> <li>• The clear width of landings, blended transitions, and curb ramps, excluding flares, shall be 4.0 feet minimum.</li> <li>• Cross slope of ramp runs shall be 2 percent maximum.</li> <li>• The rise for any ramp run shall be 30 inches maximum.</li> <li>• Ramps shall have landings at the top and the bottom of each ramp run.</li> <li>• Ramp runs with a rise greater than 6 inches shall have handrails.</li> <li>• Handrails shall be provided on both sides of stairs and ramps.</li> <li>• Edge protection shall be provided on each side of ramp runs.</li> <li>• Detectable warning surfaces shall be provided, where a curb ramp, landing, or blended transition connects to a street.</li> <li>• Gratings, access covers, and other appurtenances shall not be located on ramps, landings, blended transitions, and gutters within the pedestrian access route.</li> <li>• Grade breaks shall not be permitted on the surface of ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.</li> </ul>			

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
Vertical Alignment	<ul style="list-style-type: none"> <li>Vertical alignment shall be planar within curb ramp runs, blended transitions, landings, and gutter areas within the pedestrian access route, and within clear spaces required for accessible pedestrian signals, street furniture, and operable parts.</li> <li>Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route.</li> <li>Grade breaks shall be flush.</li> <li>Running Slopes and Cross Slopes shall be measured using a calibrated 2 foot long digital level.</li> <li>Where the pedestrian access route crosses rail tracks at grade, the surface of the pedestrian access route shall be level and flush with the top of the rail at the outer edges of the rail. The surface between the rails shall be aligned with the top of the rail.</li> </ul>			
Changes in Level  	<ul style="list-style-type: none"> <li>Changes in level at grade breaks shall be flush.</li> <li>Changes in level of ¼ inch high maximum shall be permitted to be vertical.</li> <li>Changes in level between ¼ inch high maximum and ½ inch high maximum shall be beveled with a slope not steeper than 1v:2h.</li> <li>The bevel shall be applied across the entire level change.</li> <li>Changes in level greater than ½ inch high shall be ramp grade or flatter, a slope of 8.33 percent or less.</li> </ul>			

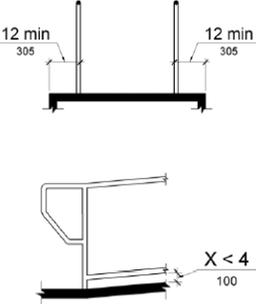
Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
<p><b>Landing</b> A required level space required at both ends of a ramp. An area 5' x 5' with no slope greater than 2 percent. This space can be used as a place to rest, turn or pass another user.</p> <p>Landings that are contained within a street or highway border are permitted to use the Roadway Grade Exception for running slopes or cross slopes in the direction of the roadway travel being matched.</p>  <p>The diagram shows a cross-section of a roadway. From left to right, it is divided into sections: Approach, Landing, Ramp, Flare, and another Approach. The Ramp is a shaded rectangular area. The Flare areas are triangular shapes on either side of the Ramp. Below the Ramp and Flare areas is a horizontal line labeled Gutter.</p>	<ul style="list-style-type: none"> <li>The landing clear width shall be at least as wide as the widest ramp run leading to the landing.</li> <li>The clear width of landings, blended transitions, and curb ramps, excluding flares, shall be 4 feet minimum.</li> <li>The landing clear length shall be 5 feet long minimum.</li> <li>Landing slopes shall be 2 percent maximum.</li> <li>Changes in level at grade breaks shall be flush.</li> <li>Detectable warning surfaces shall be provided, where a curb ramp, landing, or blended transition connects to a street. Detectable warning shall be located on the landing or blended transition at the back of curb.</li> <li>Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.</li> <li>Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.</li> </ul> <p><b>Roadway Grade Exception:</b> The grade of pedestrian access routes within sidewalks is permitted to equal the general grade established for the adjacent street or highway. The cross slope of curb ramps, blended transitions, landings, and turning spaces at pedestrian street crossings without yield or stop control where vehicles can proceed through the intersection without slowing or stopping, and at midblock pedestrian street crossings are permitted to equal the street or highway grade.</p> <ul style="list-style-type: none"> <li>Running Slopes and Cross Slopes shall be measured using a calibrated 2 foot long digital level.</li> </ul>			

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
	<ul style="list-style-type: none"> <li>• Protruding objects on sidewalks and other pedestrian circulation paths shall not reduce the clear width required for pedestrian accessible routes.</li> <li>• Objects with leading edges more than 27 inches and not more than 80 inches above the finish floor or ground shall protrude 4 inches maximum horizontally into the circulation path.</li> <li>• Free-standing objects mounted on posts or pylons shall overhang circulation paths 4 inches maximum measured horizontally from the post or pylon base when located 27 inches minimum and 80 inches maximum above the finish floor or ground. The base dimension shall be 2.5 inches thick minimum. (2011 PROWAG R402.3)</li> <li>• Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches, the lowest edge of such sign or obstruction shall be 27 inches maximum or 80 inches minimum above the finish floor or ground.</li> <li>• Vertical clearance shall be 80 inches high minimum. Guardrails or other barriers shall be provided where the vertical clearance is less than 80 inches high. The leading edge of such guardrail or barrier shall be located 27 inches maximum above the finish floor or ground.</li> <li>• Guardrails or other barriers shall be provided where the vertical clearance is less than 80 inches high. The leading edge of such guardrail or barrier shall be located 27 inches maximum above the finish surface or ground.</li> </ul>			
	<ul style="list-style-type: none"> <li>• Openings in floor and ground surfaces shall not allow passage of a sphere more than ½ inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.</li> <li>• Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.</li> <li>• Lift holes for manhole/utility covers shall not have an opening greater than ½ inch. Plugging of holes greater than ½ inch with a material approved by the engineer is acceptable as long as it complies with the changes in level requirements.</li> </ul>			

### ENTRANCES (PROWAG R301)

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
	<ul style="list-style-type: none"> <li>The minimum continuous and unobstructed clear width of a pedestrian access route provided across commercial and residential entrances shall be 4 feet minimum.</li> <li>Cross slope shall be 2 percent maximum.</li> <li>Be cautious with the transition from the driveway to the roadway to avoid grade combinations that will cause vehicles to bottom out when driving over the transition.<sup>2</sup></li> </ul> 			

### EDGE PROTECTION (PROWAG R406.8)

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
	<ul style="list-style-type: none"> <li>Edge protection shall be provided on each side of ramp runs and at each side of ramp landings.</li> <li>A curb or barrier shall be provided that prevents the passage of a 4 inch diameter sphere, where any portion of the sphere is within 4 inches of the finish floor or ground surface.</li> <li>Edge-protection shall not be required when the floor or ground surface of the ramp run or landing extends 12 inches minimum beyond the inside face of a handrail.</li> <li>Edge protection shall not be required on curb ramps and their landings.</li> <li>Edge protection shall not be required on ramps that are not required to have handrails and have flares not steeper than 1:10.</li> <li>Edge protection shall not be required on the sides of ramp landings having a vertical drop-off of ½ inch maximum within 10 inches horizontally of the minimum landing area.</li> </ul>			

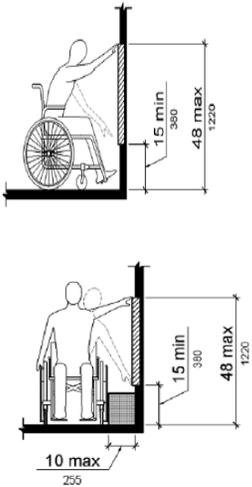
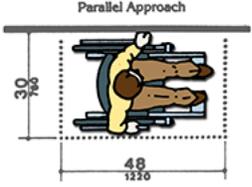
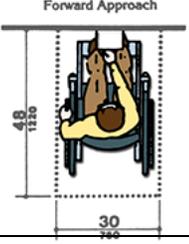
## HANDRAIL AND PEDESTRIAN GUARDRAIL (PROWAG R408)

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
	<ul style="list-style-type: none"> <li>The clear width of walking surfaces shall be 4.0 feet minimum.</li> <li>Handrails are required on ramp runs with a rise greater than 6 inches and on certain stairways. Handrails are not required on walking surfaces with running slopes less than 1:20. Where required, handrails shall be provided on both sides of stairs and ramps.</li> <li>Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs.</li> <li>Top of gripping surfaces of handrails shall be 34 inches minimum and 38 inches maximum vertically above walking surfaces, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above walking surfaces, stair nosings, and ramp surfaces.</li> <li>Clearance between handrail gripping surfaces and adjacent surfaces shall be 1 1/2 inches minimum.</li> <li>Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1 1/4 inches minimum and 2 inches maximum.</li> <li>Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6 1/4 inches maximum, and a cross-section dimension of 2 1/4 inches maximum.</li> <li>Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges.</li> <li>Handrails shall not rotate within their fittings.</li> <li>Ramp handrails shall extend horizontally above the landing for 12 inches minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.</li> <li>At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.</li> <li>At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.</li> <li>See Edge Protection section above (also PROWAG 406.8) for additional details.</li> </ul>			

## STAIRWAYS (PROWAG R407)

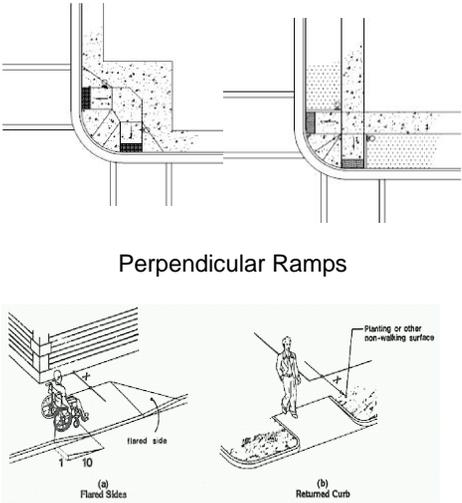
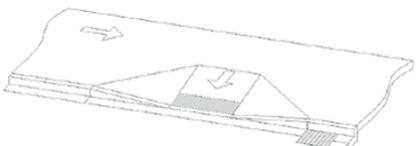
Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
	<ul style="list-style-type: none"> <li>All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches high minimum and 7 inches high maximum. Treads shall be 11 inches deep minimum.</li> <li>Open risers are not permitted.</li> <li>The radius of curvature at the leading edge of the tread shall be 1/2 inch maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall extend 1 1/2 inches maximum over the tread below.</li> <li>Stairs shall have handrails complying with PROWAG 2005 R408.</li> </ul>			

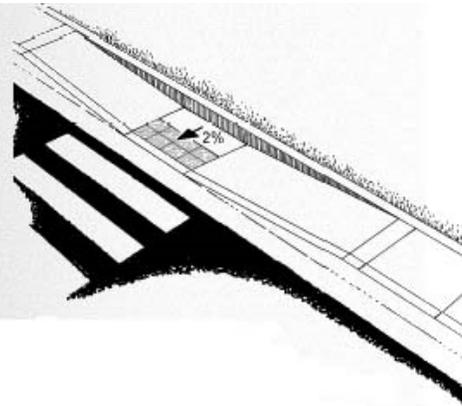
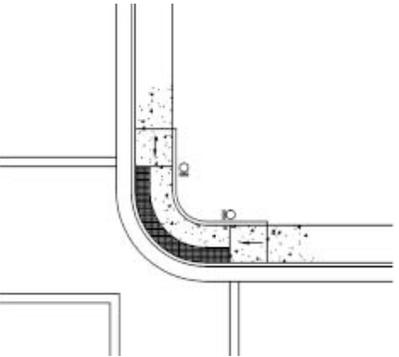
## UNOBSTRUCTED REACH RANGES (PROWAG R404)

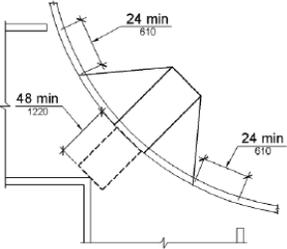
Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
	<p><b>Forward Reach</b></p> <ul style="list-style-type: none"> <li>Where a forward reach is unobstructed, the high forward reach shall be 48 inches maximum and the low forward reach shall be 15 inches minimum above the finish floor or ground.</li> </ul> <p><b>Side Reach</b></p> <ul style="list-style-type: none"> <li>Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches maximum and the low side reach shall be 15 inches minimum above the finish floor or ground.</li> <li><b>EXCEPTION:</b> An obstruction shall be permitted between the clear floor or ground space and the element where the depth of the obstruction is 10 inches maximum. (2011 PROWAG R406.3)</li> </ul> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Parallel Approach</p>  </div> <div style="text-align: center;"> <p>Forward Approach</p>  </div> </div>			

## CURB RAMPS (PROWAG R303)

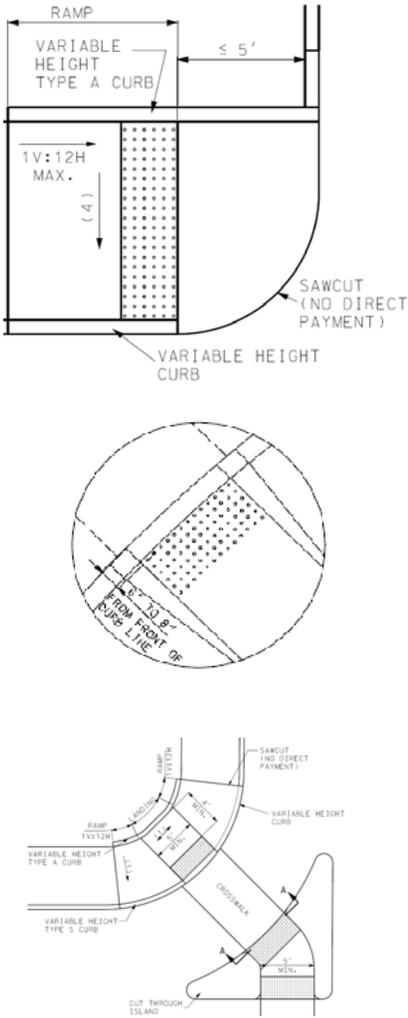
Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
<p>A curb ramp, blended transition, or a combination of curb ramps and blended transitions shall connect the pedestrian access routes at each pedestrian street crossing.</p> <p><b>15 Foot Rule:</b> For a compliant curb ramp to exceed 8.33 percent running grade, its constructed length must exceed 15.0 feet.</p>	<ul style="list-style-type: none"> <li>• The clear width of ramps, excluding the flares, shall be 4.0 feet minimum.</li> <li>• Ramp runs shall have a running slope between 5 percent minimum and 8.33 percent maximum but shall not require the ramp length to exceed 15.0 feet.</li> </ul> <p><b>Exception: 15 Foot Rule:</b> The running slope for a curb ramp is not limited to 8.33 percent maximum if the constructed curb ramp length exceeds 15 feet in length.</p> <ul style="list-style-type: none"> <li>• Cross slope of ramp runs shall be 2 percent maximum. (Roadway Grade Exception may be considered)</li> <li>• The cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.</li> <li>• Ramps shall have landings at the top and the bottom of each ramp run.             <ul style="list-style-type: none"> <li>- The landing clear width shall be at least as wide as the widest ramp run leading to the landing.</li> <li>- The landing clear length shall be 5.0 feet long minimum.</li> <li>- Ramps that change direction between runs at landings shall have a clear landing 5.0 feet minimum by 5.0 feet minimum.</li> </ul> </li> <li>• Handrails and Edge protection shall not be required on curb ramps and their landings.</li> <li>• Curb height = 0 inches within curb ramp spaces. 2</li> <li>• Curb ramps must be flush with street.</li> <li>• The counter slope of the gutter or street at the foot of a curb ramp, landing, or blended transition shall be 5 percent maximum. (R303.3.5)</li> <li>• The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.</li> <li>• Flared sides with a slope of 10 percent maximum, measured parallel to the curb line, shall be provided where a pedestrian circulation path crosses the curb ramp.             <ul style="list-style-type: none"> <li>- In alterations, where there is no landing at the top of curb ramps, curb ramp flares shall be provided and shall not be steeper than 1:12.</li> </ul> </li> <li>• Detectable warning surfaces shall be provided, where a curb ramp, landing, or blended transition connects to a street.</li> <li>• Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.</li> <li>• Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.</li> <li>• Grade Breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run.</li> </ul>			

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
 <p>Perpendicular Ramps</p> <p>(a) Flared Sides X = 4' Min. Flared Sides in Pathway    Flared Sides Not in Pathway</p> <p>(b) Returned Curb Planting or other non-walking surface</p> <p><b>Roadway Grade Exception:</b> Where curb ramps, landings and blended transitions are contained within a street or highway right-of-way, the grade of the pedestrian access route is permitted to be modified to equal the general grade established for the adjacent street or highway.</p> 	<ul style="list-style-type: none"> <li>Perpendicular curb <b>ramps</b> shall have a running slope that cuts through or is built up to the curb at right angles or meets the gutter grade break at right angles.</li> <li>The clear width of landings, blended transitions, and curb ramps, excluding flares, shall be 4.0 feet minimum.</li> <li>The running slope shall be 5 percent minimum and 8.33 percent maximum but shall not require the ramp length to exceed 15.0 feet.</li> <li>The cross slope at intersections shall be 2 percent maximum. (Roadway Grade Exception may be considered)</li> <li>The cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.</li> </ul> <p><b>Roadway Grade Exception:</b> The grade of pedestrian access routes within sidewalks is permitted to equal the general grade established for the adjacent street or highway. The cross slope of curb ramps, blended transitions, landings, and turning spaces at pedestrian street crossings without yield or stop control where vehicles can proceed through the intersection without slowing or stopping, and at midblock pedestrian street crossings are permitted to equal the street or highway grade.</p> <ul style="list-style-type: none"> <li>A landing 4.0 feet minimum by 4.0 feet minimum shall be provided at the top of the curb ramp and shall be permitted to overlap other landings and clear space.</li> <li>Flared sides with a slope of 10 percent maximum, measured parallel to the curb line, shall be provided where a pedestrian circulation path crosses the curb ramp.</li> <li>If the flared sides are not in the pathway (grass next to ramp), then there is no maximum slope and can be vertical curbs. (See adjacent figure for further explanation.)</li> <li>Detectable warning surfaces shall be provided, where a curb ramp, landing, or blended transition connects to a street.</li> <li>Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.</li> <li>Grade breaks at the top and bottom of perpendicular curb ramps shall be perpendicular to the direction of ramp run. At least one end of the bottom grade break shall be at the back of curb.</li> <li>Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.</li> <li>Where both ends of the bottom grade break are 5.0 feet or less from the back of curb, the detectable warning shall be located on the ramp surface at the bottom grade break. Where either end of the bottom grade break is more than 5.0 feet from the back of curb, the detectable warning shall be located on the lower landing.</li> </ul>			

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
 <p data-bbox="94 625 556 803">Curb Ramps and landings that are contained within a street or highway border may use the Roadway Grade Exception for slopes or cross slopes in the direction of the roadway travel being matched.</p>	<ul data-bbox="588 138 1722 406" style="list-style-type: none"> <li>• <b>Parallel curb ramps</b> shall have a running slope that is in-line with the direction of sidewalk travel.</li> <li>• The clear width of landings, blended transitions, and curb ramps, excluding flares, shall be 4.0 feet minimum.</li> <li>• The running slope shall be 5 percent minimum and 8.33 percent maximum but shall not require the ramp length to exceed 15.0 feet.</li> <li>• The cross slope shall be 2 percent maximum. (Roadway Grade Exception may be considered)</li> </ul> <p data-bbox="630 430 1743 633"><b>Roadway Grade Exception:</b> The grade of pedestrian access routes within sidewalks is permitted to equal the general grade established for the adjacent street or highway. The cross slope of curb ramps, blended transitions, landings, and turning spaces at pedestrian street crossings without yield or stop control where vehicles can proceed through the intersection without slowing or stopping, and at midblock pedestrian street crossings are permitted to equal the street or highway grade.</p> <ul data-bbox="588 657 1722 1063" style="list-style-type: none"> <li>• A landing 4.0 feet minimum by 4.0 feet minimum shall be provided at the bottom of the ramp run and shall be permitted to overlap other landings and clear floor or ground space.</li> <li>• Where a parallel curb ramp does not occupy the entire width of a sidewalk, drop-offs at diverging segments shall be protected.</li> <li>• Detectable warning surfaces shall be provided, where a curb ramp, landing, or blended transition connects to a street.</li> <li>• Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.</li> <li>• Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.</li> </ul>			
	<ul data-bbox="588 1079 1743 1485" style="list-style-type: none"> <li>• <b>Blended Transitions</b> shall have a running slope of 5 percent maximum and cross slope shall be 2 percent maximum.</li> <li>• The clear width blended transitions, excluding flares, shall be 4.0 feet minimum.</li> <li>• Detectable warning surfaces shall be provided where a blended transition connects to a street.</li> <li>• Gratings, access covers, and other appurtenances shall not be located on blended transitions within the pedestrian access route.</li> <li>• Grade breaks at the top and bottom of perpendicular curb ramps shall be perpendicular to the direction of ramp run. At least one end of the bottom grade break shall be at the back of curb. Grade breaks shall not be permitted on the surface of blended transitions and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.</li> </ul>			

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
 	<ul style="list-style-type: none"> <li>• <b>Diagonal Curb Ramps or corner type curb ramps are no longer preferred design types. A design that provides individual ramps for each crossing direction is recommended by the US Access Board.</b></li> <li>• Diagonal Curb Ramps or corner type curb ramps with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow.</li> <li>• The bottom of diagonal curb ramps shall have a clear space 48 inches minimum outside active traffic lanes of the roadway.</li> <li>• Diagonal curb ramps provided at marked crossings shall provide the 48 inches minimum clear space within the markings.</li> <li>• Diagonal curb ramps with flared sides shall have a segment of curb 24 inches long minimum located on each side of the curb ramp and within the marked crossing.</li> </ul> <p><b><u>Roadway Grade Exception:</u></b> The grade of pedestrian access routes within sidewalks is permitted to equal the general grade established for the adjacent street or highway. The cross slope of curb ramps, blended transitions, landings, and turning spaces at pedestrian street crossings without yield or stop control where vehicles can proceed through the intersection without slowing or stopping, and at midblock pedestrian street crossings are permitted to equal the street or highway grade.</p> <ul style="list-style-type: none"> <li>• Detectable warning surfaces shall be provided, where a curb ramp, landing, or blended transition connects to a street.</li> <li>• Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.</li> <li>• Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.</li> <li>• Running and cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.</li> </ul>			

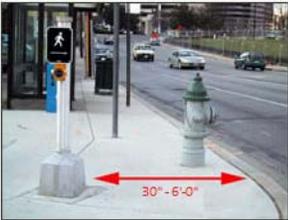
**DETECTABLE WARNINGS DEVICES (TRUNCATED DOMES) (PROWAG R304)**

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
<p>A surface feature of truncated dome material built in or applied to the walking surface to advise of an upcoming change from pedestrian to vehicular way.</p> 	<ul style="list-style-type: none"> <li>• Detectable warnings shall consist of a surface of truncated domes aligned in a square or radial grid pattern complying with 2010 ADA Standards. Detectable warning surfaces shall contrast visually with adjacent gutter, street or highway, or walkway surfaces, either light-on-dark or dark-on-light.</li> <li>• Detectable warning surfaces shall extend 24 inches minimum in the direction of travel and the full width of the curb ramp (exclusive of flares), the landing, or the blended transition. Detectable warning surfaces are required where curb ramps, blended transitions, or landings provide a flush pedestrian connection to the street.</li> <li>• Sidewalk crossings of residential driveways should not generally be provided with detectable warnings, since the pedestrian right-of-way continues across most driveway aprons and overuse of detectable warning surfaces should be avoided in the interests of message clarity. However, where commercial driveways are provided with traffic control devices or otherwise are permitted to operate like public streets, detectable warnings should be provided at the junction between the pedestrian route and the street.</li> <li>• Perpendicular Curb Ramps: Where both ends of the bottom grade break are 5 feet or less from the back of curb, the detectable warning shall be located on the ramp surface at the bottom grade break. Where either end of the bottom grade break is more than 5 feet from the back of curb, the detectable warning shall be located on the lower landing.</li> <li>• Landings and Blended Transitions: The detectable warning shall be located on the landing or blended transition at the back of curb.</li> <li>• Rail Crossings: The detectable warning surface shall be located so that the edge nearest the rail crossing is 6 feet minimum and 15 feet maximum from the centerline of the nearest rail. The rows of truncated domes in a detectable warning surface shall be aligned to be parallel with the direction of wheelchair travel.</li> <li>• Detectable warnings at cut-through islands shall be located at the curb line in-line with the face of curb and shall be separated by a 2.0 foot minimum length of walkway without detectable warnings. Where the island has no curb, the detectable warning shall be located at the edge of roadway.</li> <li>• Exception, when detectable warnings are required by a manufacturer's installation specifications to be embedded into concrete with a surrounding edge, domes may be installed at less than the required full width. Under this exception, the detectable warning surface shall never be more than 2 inches from the edge of the curb ramp, the landing, or the blended transition.<sup>2</sup></li> <li>• Detectable warnings shall not be stamped into concrete.</li> </ul>			

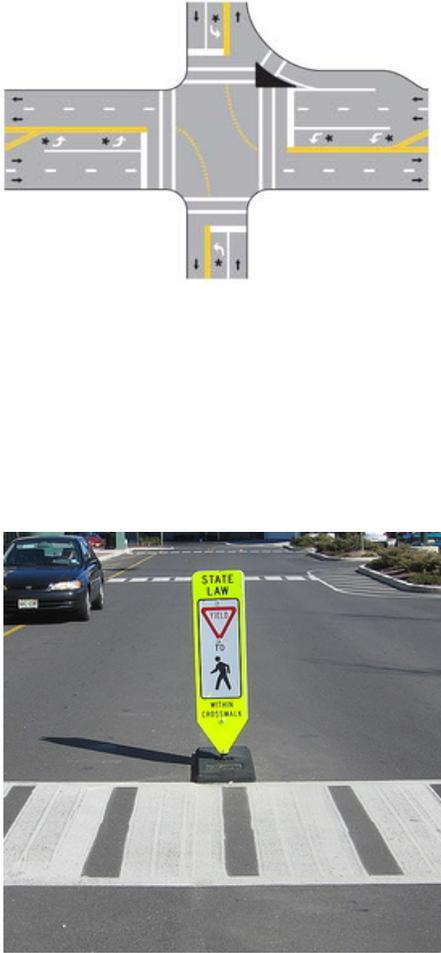
**ISLANDS AND MEDIANS (PROWAG R305.4)**

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
	<ul style="list-style-type: none"> <li>• Medians and pedestrian refuge islands in crosswalks shall contain a pedestrian access route, including passing space and connecting to each crosswalk.</li> <li>• Raised islands in crossings shall be cut through level with the street or have curb ramps and required landings at both sides.</li> <li>• All median island passage spaces shall provide a clear width of 5 feet minimum.<sup>2</sup></li> <li>• Medians and pedestrian refuge islands shall be 6.0 feet minimum in length in the direction of pedestrian travel.</li> </ul> <p><b>Roadway Grade Exception:</b> The grade of pedestrian access routes within sidewalks is permitted to equal the general grade established for the adjacent street or highway. The cross slope of curb ramps, blended transitions, landings, and turning spaces at pedestrian street crossings without yield or stop control where vehicles can proceed through the intersection without slowing or stopping, and at midblock pedestrian street crossings are permitted to equal the street or highway grade.</p> <ul style="list-style-type: none"> <li>• Each curb ramp shall have a level area 48 inches long minimum by 36 inches wide minimum at the top of the curb ramp in the part of the island intersected by the crossings.</li> <li>• Each 48 inch minimum by 36 inch minimum area shall be oriented so that the 48 inch minimum length is in the direction of the running slope of the curb ramp it serves. The 48 inch minimum by 36 inch minimum areas and the accessible route shall be permitted to overlap.</li> <li>• Detectable warning surfaces shall be provided, where a curb ramp, landing, or blended transition connects to a street. Medians and pedestrian refuge islands shall have detectable warnings at curb ramps and blended transitions.</li> <li>• Detectable warnings at cut-through islands shall be located at the curb line in-line with the face of curb and shall be separated by a 2.0 foot minimum length of walkway without detectable warnings. Where the island has no curb, the detectable warning shall be located at the edge of roadway.</li> <li>• Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.</li> <li>• Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.</li> </ul>			

## ACCESSIBLE PEDESTRIAN SIGNALS (PUSHBUTTONS) (PROWAG R306)

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
    	<ul style="list-style-type: none"> <li>• Each crosswalk with pedestrian signal indication shall have an accessible pedestrian signal which includes audible and vibrotactile indications of the WALK interval. Where a pedestrian pushbutton is provided, it shall be integrated into the accessible pedestrian signal. <b>← ON HOLD waiting for MoDOT Specs and APL</b></li> <li>• Accessible pedestrian signals shall be located so that the vibrotactile feature can be contacted from the level landing serving a curb ramp, if provided, or from a clear floor or ground space that is in line with the crosswalk line adjacent to the vehicle stop line.</li> <li>• Accessible pedestrian pushbuttons shall be located within a reach range complying with PROWAG 2005 R404.</li> <li>• A clear floor or ground space shall be provided at the pushbutton and shall connect to or overlap the pedestrian access route.</li> </ul> <p><b><u>Roadway Grade Exception:</u></b> Clear spaces required at accessible pedestrian signals and pedestrian pushbuttons and at other accessible elements are permitted to have a running slope or cross slope consistent with the grade of the adjacent pedestrian access route.</p> <ul style="list-style-type: none"> <li>• Pedestrian signals shall comply with PROWAG 2005 R306.             <ul style="list-style-type: none"> <li>- Pushbuttons are a minimum 2 inches across in one dimension, raised (not recessed), contrast visually with the housing or mounting, and have a maximum force of 5 pounds to activate operable parts.</li> <li>- The control face of the pushbuttons is installed parallel to the direction of the crosswalk it serves.</li> <li>- The location of pushbuttons for new construction are within a longitudinal distance of 5 feet maximum from the crosswalk line, and 30 inches minimum to 6 feet maximum from the curb line.</li> <li>- For audible pedestrian signal devices only, pushbuttons are a minimum 10 feet apart at crossings and a minimum 5 feet apart at islands or medians. This minimum distance may be waived for audible pushbuttons in medians and islands with the use of voice commands.</li> <li>- Pushbuttons are located no higher than 42 inches from the ground and within 10 inch reach from a level paved landing with minimum dimensions of 48 inches x 30 inches positioned for a parallel approach to the pushbutton. For a forward approach space (30 x 48 inches) the allowed reach range is 0 inches.</li> <li>- Where pushbuttons for the visually impaired are installed, tactile signs are to be provided that meet ADA requirements.</li> </ul> </li> </ul>			

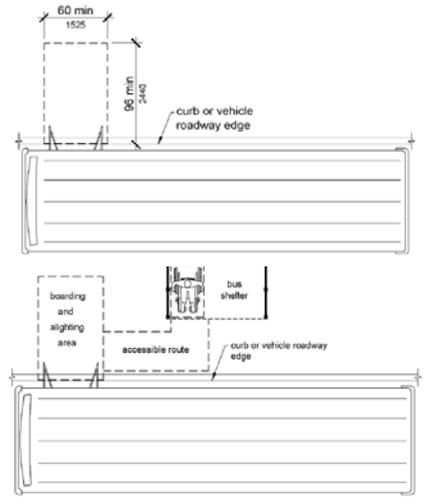
**PEDESTRIAN STREET CROSSINGS (PROWAG R305)**

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
	<ul style="list-style-type: none"> <li>• Crosswalks shall contain a pedestrian access route that connects to departure and arrival walkways through any median or pedestrian refuge island.</li> <li>• Marked crosswalks shall be 6 feet wide minimum.</li> <li>• The grade of the pedestrian access route is permitted to equal the general grade established for the adjacent street or highway, except that where pedestrian access routes are contained within pedestrian street crossings a maximum grade of 5 percent is required.</li> <li>• A 5 percent maximum cross slope is specified for pedestrian access routes contained within pedestrian street crossings without yield or stop control.</li> <li>• Crossings with Stop Control: The cross slope shall be 2 percent maximum.</li> <li>• The cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.</li> <li>• The running slope shall be 5 percent maximum, measured parallel to the direction of pedestrian travel in the crosswalk.</li> <li>• Where pedestrian signals are provided at pedestrian street crossings, they shall include accessible pedestrian signals and pedestrian pushbuttons complying with sections 4E.08 through 4E.13 of the MUTCD. Operable parts shall comply with R403. (2011 PROWAG R209.1) <b>← ON HOLD waiting for MoDOT Specs and APL</b></li> <li>• Crosswalk pavement marking is 6 inches wide white.</li> <li>• Stop bar is at minimum 4 feet from the crosswalk.</li> <li>• Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.</li> <li>• Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.</li> <li>• Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.</li> <li>• Beyond the curb face, a clear space of 4.0 feet minimum by 4.0 feet minimum shall be provided within the width of the crosswalk and wholly outside the parallel vehicle travel lane.</li> </ul>			

**ALTERNATE CIRCULATION PATH (PROWAG R302)**

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
	<ul style="list-style-type: none"> <li>• Alternate circulation paths shall contain a pedestrian access route.</li> <li>• To the maximum extent feasible, the alternate circulation path shall be provided on the same side of the street as the disrupted route.</li> <li>• Where the alternate circulation path is exposed to adjacent construction, excavation drop-offs, traffic, or other hazards, it shall be protected with a pedestrian barricade or channelizing device complying with MUTCD 6F-58, 6F-63, and 6F-66.</li> <li>• Pedestrian barricades and channelizing devices shall be continuous, stable, and non-flexible and shall consist of a wall, fence, or enclosures specified in section 6F-58, 6F-63, and 6F-66 of the MUTCD (incorporated by reference; see PROWAG 2005 R104.2.4).</li> <li>• A detectable continuous bottom edge shall be provided 2 inches maximum above the ground or walkway surface.</li> <li>• Devices shall provide a continuous surface or upper rail at 3.0 feet minimum above the ground or walkway surface.</li> <li>• Support members shall not protrude into the alternate circulation path.</li> </ul>			

**BUS BOARDING AND ALIGHTING AREAS (PROWAG R410)**

Figures/Examples	Requirements <sup>1</sup>	YES	NO	NA
	<ul style="list-style-type: none"> <li>• Bus stop boarding and alighting areas shall have a firm, stable surface.</li> <li>• Bus stop boarding and alighting areas shall provide a clear length of 8 feet minimum, measured perpendicular to the curb or vehicle roadway edge, and a clear width of 5 feet minimum, measured parallel to the vehicle roadway.</li> <li>• Bus stop boarding and alighting areas shall be connected to streets, sidewalks, or pedestrian paths by an accessible route.</li> <li>• Parallel to the roadway, the slope of the bus stop boarding and alighting area shall be the same as the roadway, to the maximum extent practicable. Perpendicular to the roadway, the slope of the bus stop boarding and alighting area shall not be steeper than 2 percent.</li> <li>• Bus shelters shall provide a minimum 30 inch by 48 inch clear floor or ground space entirely within the shelter.</li> <li>• Bus shelters shall be connected by an accessible route to a boarding and alighting area.</li> </ul>			

<sup>1</sup> Any “NO” answer means that location is ADA non-compliant and needs to be corrected before final acceptance of the work, except as follows. Although exceptions listed in the above requirements may not meet MoDOT current policy standards, work that does meet the minimum ADA standards will be accepted as ADA compliant. Where it is technically infeasible to correct deficiencies as part of the current work, those locations will be labeled as non-compliant and marked “NO”. These items will be added to the Transition Plan Inventory for correction at a later date. (Guidance is provided in ADA documents and in the EPG on what may be considered as technically infeasible.)

<sup>2</sup> A MoDOT requirement.

**Unless otherwise noted, all notes on this form are direct ADA requirements as published in either the PROWAG dated November 23, 2005 or ADA/ABA Standards from 2010.**

All exceptions and technically infeasible locations should be discussed with the project manager and/or area engineer prior to acceptance of the work. All exceptions and technically infeasible locations will need to be thoroughly documented by the engineer, and that documentation will be attached to this form and retained as part of the final acceptance records.

All slope and grade measurements for ADA compliance will be made using a calibrated 2 foot long digital level.

**US Access Board PROWAG**

**R202.3.1 Prohibited Reduction in Required Access.** An alteration shall not decrease or have the effect of decreasing the accessibility of a facility or an accessible connection to an adjacent building or site below the requirements for new construction in effect at the time of the alteration.

<b>Inspector Name:</b> _____ <b>Inspector Signature:</b> _____	<b>Date:</b>
<b>Resident Engineer or Area Engineer Name:</b> _____ <b>Resident Engineer or Area Engineer Signature:</b> _____	<b>Date:</b>
<b>Distribution:</b> <input type="checkbox"/> Project Office <input type="checkbox"/> District Permit Office	

# ***SAMPLE***

## **ADA EXCEPTIONS DOCUMENTATION**

Job No. \_\_\_\_\_ Route \_\_\_\_\_ County \_\_\_\_\_ Location \_\_\_\_\_

<u>Item</u>	<u>Location</u>	<u>Standard</u>	<u>As Built</u>	<u>Discussion</u>
Sidewalk Width	Third Street Sta 3+00 to 7+00 RT	5' wide	Exist 3' wide	Required 5' x 5' Passing Space added at 5+00
Curb Ramp Grade	SE Quad of Main & First	8.33%	11.2%	As-built Curb Ramp is 16.0' long
Parallel Ramp Landing running grade (turning space)	Sta 35+20 to 35+25 Rt Rte 14	2.00%	2.6%	Landing running grade matches existing roadway grade
Sidewalk Grade	Sta 23+45 to 23+52	5.0%	8.4%	Match existing floor at two exist doorways, Straight grade between fixed elevations

Inspector Name: _____	
Inspector Signature: _____	<b>Date:</b>
Resident Engineer or Area Engineer Name: _____	
Resident Engineer or Area Engineer Signature: _____	<b>Date:</b>
<b>Distribution:</b> <input type="checkbox"/> Project Office <input type="checkbox"/> District Permit Office	

# Signals and Lighting

## **1.0 Description.**

Traffic signal and lighting work for this project shall be in accordance with Sections 902, 1061, 1062, 1063, 1091, and 1092 of the Standard Specifications, and specifically as follows.

## **2.0 Starting Work.**

2.1 The contractor must notify the engineer or authorized representative at least 1 working day prior to starting actual construction work.

2.2 Before starting any work, the contractor shall submit in writing to the engineer or authorized representative the contractor's service technician contact information as detailed in 902.21.1. This letter shall also include language from the contractor stating their acknowledgement that this technician shall be available as stated in both 902.21.1 and in paragraph 4 below until the project has undergone Final Acceptance by the Commission.

## **3.0 Existing Traffic Signals.**

3.1 Once any part of an existing traffic signal or its controller has been modified or adjusted by the contractor, or the contractor makes any roadway changes to reduce the traffic capacity through a signal on the project, the contractor shall be responsible for all maintenance as specified in 902.2 and 902.3 (except for power costs) until Final Acceptance.

3.2 All programming changes to the controller(s) within the limits of the project shall be the responsibility of the contractor. The contractor will notify the engineer of the changes no later than 1 working day after changes are programmed if unable to provide advance notice as specified in 902.2.

3.3 The engineer shall provide to the contractor at the start of the project a detailed report on the existing phasing and timing of each traffic signal, and shall be available to the contractor before any changes are made to a signal or controller to answer any questions about the report. Once the contractor has modified a signal or controller for any reason, the contractor shall be solely responsible for the existing timing plans and all subsequent timing changes.

3.4 All modifications to existing signal equipment not detailed in the plans to make it compatible with the proposed signal work is to be performed by the applicant's contractor only after they receive written approval of these modification by the engineer or authorized representative.

#### **4.0 Existing Traffic Signal Maintenance and Response.**

Once a signal has been modified as noted in paragraph 3.0 above, the contractor shall respond to any signal timing complaints or malfunction complaints as specified in 902.21.1. Response time shall be 1 hour for complaints received by the engineer between 6 AM and 6 PM on non-holiday weekdays, and 2 hours for all other times. For some cases (due to travel times or other extenuating circumstances) additional time may be acceptable within reason, but must be approved by the engineer. These timeframes will replace the '24 hour' response time in Section 105.14 for any signal-related incidents, where the entire cost of the work, if performed by MoDOT personnel or a third party, will be computed as described in Sec 108.9 and deducted from the payments due the contractor.

#### **5.0 New Traffic Signal Equipment and Test Periods.**

5.1 In order to satisfy the provisions of 902.2, the contractor shall, at least 5 working days prior to possible activation, request in writing to the engineer a list of new equipment which will be ready for operation and a proposed start date of the 15-day test period. This date will not be authorized until all signal work has been completed and approved by the engineer.

5.2 No signal will be turned on to full operation prior to the signing and striping being in place and turn on approval being given by the engineer or authorized representative.

5.3 Upon experiencing any failure or malfunction, the 15-day test period will be terminated. The 15-day test period will start over at day one (1) once the malfunction or failure has been corrected to the satisfaction of the engineer.

5.4 Test periods for signal interconnection equipment shall remain at 30 days. The signal contractor is responsible for any work incidental to assuring the interconnected signals work as a unit. This is to include but not to be exclusive of an interconnect panel, interconnect conduit, POTS telephone conduit, proper "D" plug configuration, grading or trenching where applicable. Malfunctions of the interconnect system will be treated as stated in paragraph 5.3.

5.5 Completion of any test period will not relieve the contractor from maintenance of the equipment until the contractor receives Final Acceptance from the engineer.

## **6.0 New Traffic Signal Programming.**

6.1 At least 2 working days before a new controller turn-on, the engineer will provide to the contractor a signal programming report. The contractor may use all or part of this report when programming the signal, but providing this report in no way waives the contractor's responsibility for the programming.

6.2 Any changes to the controller programming or other items during the test period are the responsibility of the Contractor.

6.3 Any complaints or malfunctions due to programming during the test period shall remain the responsibility of the Contractor as detailed in paragraph 3.0.

6.4 A programming change during the test period should not be considered grounds to restart the test period unless the cause of the malfunction is due to the equipment.

# MODOT SIGNAL INSPECTION CHECKLIST

Permit # / Project: \_\_\_\_\_

Site Inspector: \_\_\_\_\_

<b>CHECK CABINET FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
CC-1	24" concrete pad for doorway in place and cabinet not buried with sloppy grading		
CC-2	Concrete bases finished and all forms removed		
CC-3	Caulking around cabinet		
CC-4	Cabinet installed so door opens away from traffic		
CC-5	Cabinet door opens easily		
CC-6	Cabinet interior light works and switch is located on door and labeled "Light"		
CC-7	Excessive scraps of wiring and signal items removed		
CC-8	Conduit openings sealed with perm-a-gum		
CC-9	Conduit properly stubbed above cabinet floor to prevent back-drainage		
CC-10	Wires/cables labeled with metal tags attached with copper wire		
CC-11	Ground wire included with all PVC pipe including service		
CC-12	Ground rod inside controller with proper connection to all ground wires (2 rods for double cabinets)		
CC-13	No splices of signal wires, all are to be continuously run		
CC-14	Proper slack and neatness of wiring in cabinet		
CC-15	Fiber jumpers (orange or yellow if used) not pinched or tightly coiled		
CC-16	All required fiber equipment present		
CC-17	Cabinet has detector and pedestrian test call buttons that can be pushed on the cabinet door		
CC-18	Detector card label for identifying detector cards (if used) in place below detector card rack		
CC-19	Controllers anchored with adequate nuts and washers		
CC-20	Cabinet components working and neatly placed on adjustable shelving, not stacked on each other		

<b>CHECK POWER SUPPLY SIGNAL SERVICE FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
PS-1	Location is accessible, practical and no threat of flooding		
PS-2	Proper type and proper meter box (aluminum and NEMA 3R or 4)		
PS-3	Service grounded properly		
PS-4	Lighting arrestor in place		
PS-5	Conduit installed properly, clamps installed at required spacing from enclosures		
PS-6	Old power supply removed, if applicable		

<b>CHECK TRENCHING AND BACKFILLING FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
TB-1	Burial tape is used		
TB-2	Proper fall and depth of conduit		
TB-3	Conduit is proper size with correct size and number of wire		

## MODOT SIGNAL INSPECTION CHECKLIST

<b>CHECK PULLBOXES FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
PB-1	Boxes proper size and type		
PB-2	Spaced properly (metal wires - 250' apart, fiber optic cable only - 1000' apart)		
PB-3	Only concrete pull boxes in travel way, auxiliary lanes and shoulders		
PB-4	Proper excavation depth		
PB-5	Rock drain field installed beneath box (2' min. depth)		
PB-6	Proper coil amount/bending radius (metal wire-6' slack, fiber-10' coiled-mid-block & 60'-boxes next to cabinet)		
PB-7	Ground bonding conductors - ground rods and clamps installed		
PB-8	Holes for conduit cut properly		
PB-9	Installation of conduit sealed at pull box		
PB-10	Cable hooks installed according to standards		
PB-11	Cables and wires labeled with metal tags		
PB-12	Proper backfill		
PB-13	Concrete apron with no concrete on lids or bolts		
PB-14	Lid embossed with "State Signals" and secured with stainless steel or brass penta head bolts		

<b>CHECK SIGNAL ARM &amp; UPRIGHTS FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
SP-1	Signal/Walk heads at correct height and aligned with traffic lanes		
SP-2	Cover and/or turn all signal indications not in use upon installation		
SP-3	Optically limiting signal heads are masked		
SP-4	All indications are LED		
SP-5	Street names appropriately labeled and located 1 foot from signal pole or not hidden from view		
SP-6	Signal head signing matches street striping and lane use		
SP-7	Ped push buttons place a call on the street and are ADA wheelchair accessible		
SP-8	Pedestrian informational signs installed with push buttons		
SP-9	Cover plates on top of upright & mast arm ends (not taped on)		
SP-10	Check standard 1-1/2" pipe bracket. Don't extend over 3" beyond slip fitting		
SP-11	Bare neutral grounding in mast post on lugs and signal or lighting post lugs		
SP-12	Setscrews in place and tight for signal hardware and at mast arm couplings		
SP-13	Upright hand-hole cover is in place		
SP-14	Nut covers installed on all mast base plates		
SP-15	Grout between post base plate and post base		
SP-16	Concrete bases adequately finished and all forms removed		
SP-17	No splattered concrete on existing signing or posts		

## MODOT SIGNAL INSPECTION CHECKLIST

<b>CHECK INDUCTION LOOP DETECTORS FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
LD-1	Separate lead in slot for each loop		
LD-2	Separate lead in cable for each loop		
LD-3	Loop detector conductor wire is type XHHW insulation in-duct		
LD-4	Slots are cut at proper depth		
LD-5	Proper loop wire installation (leads require 3 turns per foot)		
LD-6	Proper epoxy seal (proper cover)		
LD-7	Loop wire lead-in splice properly soldered and encapsulated with corrosion inhibitor		
LD-8	No-splicing from pull box to controller or from loop to pull box		
LD-9	Proper connection in controller		
LD-10	Minimum megohms resistance (manufacturer recommendation) to ground reading at the controller cabinet prior to seal of slot		
LD-11	Loop wires tagged with metal tags		

<b>CHECK VIDEO DETECTION FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
VD-1	Location and mounting according to plans (camera posts to be plumb, not leaning)		
VD-2	Exposed cables form "drip loops" to prevent moisture running into arms		
VD-3	Installation to particular video detection's manufacturer's specifications		
VD-4	Power to cameras (if needed) is run from a separate outlet or power strip NOT mounted to door		
VD-5	Color monitor and all camera views are color		
VD-6	Cameras zoomed tight around desired detector zones with no horizon in background or images skewed		
VD-7	Monitor turns on when cabinet door is open and off when closed by a push button toggle usually mounted in top right corner of doorframe		
VD-8	All cameras viewable without swaping cables to the monitor		
VD-9	Video detection system is placing calls to the right phases once configured		
VD-10	A trackball (not standard mouse) installed and tested to navigate video detection processor on-screen menus		
VD-11	Camera EMI / surge unit installed and cables attached to correct sides		
VD-12	Camera cables tagged with metal tags		

## MODOT SIGNAL INSPECTION CHECKLIST

<b>CHECK FIBER OPTICS FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
FO-1	Fiber optic cable must NEVER be pinched, bent or tightly coiled		
FO-2	Fiber distribution unit secured to cabinet		
FP-3	Proper numbers of fiber strands in fiber distribution unit are terminated to plugs and are ready to use		
FO-4	Unused plugs and jumper ends capped		
FO-5	Fiber distribution unit labeled for color of cables and strands and direction of cable		
FO-6	Proper fiber jumpers used (orange=multi-mode; yellow=single mode, CANNOT interchange these!)		
FO-7	Fiber jumpers not pinched or tightly coiled		
FO-8	Fiber communication working (flashing green lights where jumpers are connected to signal controller)		

**ALL APPLICABLE ITEMS ON APPROVED PRODUCTS LIST (APL)**

[http://www.modot.mo.gov/business/contractor\\_resources/documents/APL-Internet.pdf](http://www.modot.mo.gov/business/contractor_resources/documents/APL-Internet.pdf)

**\*\*\* REFER TO THE STANDARD SPECS AND DRAWINGS FOR SPECIFIC DETAILS THAT APPLY TO EACH APPLICATION \*\*\***  
**SECTIONS 707, 901, 902, 1060, 1061, 1062, 1091, 1092**

# MODOT LIGHTING INSPECTION CHECKLIST

Permit # / Project: \_\_\_\_\_

Site Inspector: \_\_\_\_\_

<b>CHECK CABINET FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
CC-1	Correct cabinet size and is aluminum or stainless steel		
CC-2	Concrete "footpad" apron present and dimensions met per plan specs		
CC-3	Caulking around cabinet		
CC-4	Ground at final grade		
CC-5	Conduit openings sealed with pliable putty		
CC-6	Conduit properly stubbed above cabinet floor (1" max above finished concrete) to prevent back-drainage		
CC-7	Wires/cables identified with round aluminum ID tag		
CC-8	Proper cabinet wiring and breaker size and type		
CC-9	Cabinet grounding circuit		
CC-10	If more than one circuit, a pull box is installed for the control station		
CC-11	Circuits pass 10 meg ohm min test		
CC-12	Photo control is time delay		
CC-13	All cabinet equipment installed is on Approved Product List and working properly		

<b>CHECK POWER SUPPLY FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
PS-1	Service is grounded		
PS-2	Lighting arrestor installed		
PS-3	Disconnect breaker rated as per design		
PS-4	Conduit from Utility Company is rigid steel		
PS-5	I.D. labels installed		
PS-6	All equipment on the Approved Product List		
PS-7	Ground at final grade		

<b>CHECK PULL BOXES FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
PB-1	Rock drain field installed beneath box (2' min. depth)		
PB-2	Conduit has no kinks		
PB-3	No splices except in pole or pull box. 3-way splices in pole or pull box and in-line splices only in poles		
PB-4	Correct fused slip connectors (Approved Product List)		
PB-5	Conduit enters box as per standard plans (placement and sizing)		
PB-6	Conduit ends are sealed with pliable sealant		
PB-7	Meg circuits and document readings and passed test		
PB-8	Hooks installed in sidewalls and wires secured neatly to hooks		
PB-9	Circuit I.D. tags installed		
PB-10	Concrete apron installed around pull box		
PB-11	Lid embossed with "State Lighting" and secured with 5pt. Stainless steel Penta head bolts		
PB-12	Ground at final grade		

## MODOT LIGHTING INSPECTION CHECKLIST

<b>CHECK POLES FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
LP-1	1" pipe nipple in bracket arm		
LP-2	Conduit extends min. 6" above foundation plate		
LP-3	Conduit ends sealed with pliable sealant		
LP-4	Grounds attached to "transformer base" grounding lug		
LP-5	Hinged plastic door on transformer base with "Warning High Voltage" label		
LP-6	Fused disconnect devices installed		
LP-7	Lock & flat washers used for all attachments		
LP-8	Bolt covers installed (external) at pole to base connection		
LP-9	Cap installed at top of pole		
LP-10	No photo cell (jumper plug if required)		
LP-11	Luminaire is correct type (glass globe, wattage, design) and on Approved Product List		
LP-12	Luminaire at proper mounting height		
LP-13	Luminaire at proper angle (level for 30' M.H. or 15 for 45' M.H.)		
LP-14	Pole is plumb after fully loaded		
LP-15	Foundations flush with ground with proper backfill		
LP-16	Ground at final grade		

<b>CHECK UNDERPASS FOR THE FOLLOWING:</b>		<b>YES</b>	<b>NO</b>
UP-1	Conduit secured properly (max hanger spacing)		
UP-2	Conduit has weep holes to remove moisture		
UP-3	Grounds attached		
UP-4	Correct fixture type (glass globe, wattage, design) and on Approved Product List		
UP-5	Fused disconnect devices installed when specified		
UP-6	Lock & flat washers used for all attachments		

**ALL APPLICABLE ITEMS ON APPROVED PRODUCTS LIST (APL)**

[http://www.modot.mo.gov/business/contractor\\_resources/documents/APL-Internet.pdf](http://www.modot.mo.gov/business/contractor_resources/documents/APL-Internet.pdf)

\* \* \* REFER TO THE STANDARD SPECS AND DRAWINGS FOR SPECIFIC DETAILS THAT APPLY TO EACH APPLICATION \* \* \*  
**SECTIONS 707, 901, 902, 1060, 1061, 1062, 1091, 1092**

# Outsource Inspector Evaluation Form

Inspector (name/company): \_\_\_\_\_  
Address/Phone #: \_\_\_\_\_  
Permit # / Project Name: \_\_\_\_\_ Rte/Co: \_\_\_\_\_

1) **Preconstruction Meeting**

Did the Outsource Inspector attend the meeting(s)?  yes  no  
Was the Outsource Inspector given the Outsource Inspection packet?  yes  no

2) **Daily Reports**

Were the reports completed with adequate information?  yes  no  
Were the reports received within 48 hours?  yes  no

3) **Test Results**

Were there any failing tests?  yes  no If yes, how were they resolved? \_\_\_\_\_  
\_\_\_\_\_  
Were the test results received within 48 hours?  yes  no

4) **Questions pertaining to Project**

Did the Outsource Inspector ask the questions?  yes  no If no, who? \_\_\_\_\_  
Could the answers have been easily found in spec book?  yes  no

5) **Traffic Control**

Was the lane closure request sent in?  yes  no  
Were there any problems with the traffic control?  yes  no

6) **Signals and Lighting**

Were there any complaints from the signal shop?  yes  no  n/a  
Were there any complaints from the lighting shop?  yes  no  n/a

7) **Final Inspection**

Did the Outsource Inspector conduct a semi-final inspection and do a punchlist?  yes  no  
Did the Outsource Inspector attend the final inspection?  yes  no

8) **Recommendation**

Would you recommend this inspector for future outsource inspection?  yes  no  
Why or Why Not? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\* If any no's are checked, please explain on the back of this sheet and attach supporting documentation

Evaluation Done By MoDOT Permit Inspector, \_\_\_\_\_ Date: \_\_\_\_\_

