Temporary Traffic Control (MOT)

Presented By: Mark DiPiero
Scott Porter
Keith Farrell
Where does it come from?

FHWA - Part 6, MUTCD 2009
ODOT - OMUTCD 2012 Part 6
DPS - CMSC Item 614
- Plans, Permits
Maintenance of Traffic
Standard Drawings 1500-1550

- MOT - Standard drawings signed 09/15/2015
- Std Dwg 1500 - Notes, Tables, Legend, and Components of a Temporary Traffic Control Zone
- Std Dwg 1510 – Lane Closures
- Std Dwg 1511 – Dynamic Closure
- Std Dwg 1520 – Lane Closures at Intersections
- Std Dwg 1530 – Lane Closures (Downtown)
- Std Dwg 1540 – Street Closures
- Std Dwg 1550 – Flagging Operations
- **Future Drawings** - Pedestrian Detours/Sidewalk Closures and Bike Lane Closures
- City Website- [https://columbus.gov/standarddrawings](https://columbus.gov/standarddrawings)
Permit

903 - Excavation Permit
ROW, Sidewalk and Street

50 West Gay Street, Columbus, Ohio 43215 Phone: 614-645-7497

Status: Issued     Status Date: 01/11/2018     Permit Number: EP-18-00270

Issued to: Contact Person / Email: MILLER PIPELINE

264-Phone Number: 614-777-5227

For Organization:

LOCATION/ADDRESS OF PROPOSED WORK OR EVENT
503 E MOUND ST

Purpose: OPEN CUT TO INSTALL NEW SERVICE

Parking Meter Numbers to be Ranged. For issues with meter readings, please contact the Permit Office at 614-645-7497 during Mon.-Fri. between hours of 7:30 a.m. to 5:00 p.m. After hours or weekends, contact 614-297-4835 or 614-500-0044.

No Meters

This permit shall be valid between hours of: 8AM - 6PM for a maximum period of 90 consecutive days from 01/11/2018 to 4/10/2018

SPECIAL INSTRUCTIONS:

MUST CALL FOR INSPECTION 645-5500 BACKFILL, PAYMENT RESTORATION, OR CONCRETE FORMS

MUST CALL 645-5500 TO REPORT PLACEMENT OF STEEL PLATES - LEAVE STREET NAME, PERMIT # AND EXACT LOCATION OF PLATES ON VOICE MAIL

Application Fee: $0.00

Significance of work:

This work has a significant traffic impact. Two notification calls required before work starts.

NOTIFICATION NUMBERS ON BACK OF PERMIT: Construction Coordinator: Paying the Way

ALL WORK PERFORMED UNDER THIS PERMIT SHALL BE DONE AS DESCRIBED UNDER COLUMBUS CITY CODE TITLE 9, CHAPTERS 903 and 905, AND ALL APPLICABLE SPECIFICATIONS AND STANDARD DRAWINGS (available upon request)

APPLICATION FEE, PROCESSING FEE, REISSUE FEE, AND INSPECTION FEES ARE NON-REFUNDABLE

UTILITY LOCATIONS REQUIRED: Forty-eight (48) hours prior to commencing any excavation, permit holders are required to contact the Ohio Utilities Protection Service (OUPS), and non-OUPS member City Divisions, to request the location of underground utilities within their proposed work limits. OUPS may be reached at (800) 362-2764, or by dialing 811.

REQUIRED INSPECTION: The City reserves the right to require on-site inspections of backfill operations and pavement restorations. Additional fees may apply for work requiring above average inspections levels. Anticipated inspection requirements and associated fees are delineated on your permit, see reverse side.

Excavation, and/or placement of materials, (whether new, replacement, or restoration) associated to this permit must be pre-approved by the City's designated Inspector(s) overseeing this permit's work. Any work performed, or materials installed, without pre-approved by the Inspector(s), shall be subject to removal at no cost to the City. In addition, fines and/or penalties may be imposed, as described under City Code Title 9. Any clarification regarding the inspection process can be obtained by calling our Permit Office at 645-645-5500.

PROPOSED CHANGES TO SCOPE OF WORK FOR PREVIOUSLY ISSUED PERMITS: Permit holders may not make changes to the scale, scope and/or location of their work without specific pre-approval by the Permit Section.

ROAD CLOSURE NOTIFICATION REQUIREMENTS: Seventy Two (72) hours (3 days) prior to commencing any roadway lane closure, and 120 hours (5 days) prior to any full roadway closures. PERMIT HOLDERS ARE REQUIRED TO CONTACT THE CITY OF COLUMBUS, TEMPORARY TRAFFIC CONSTRUCTION COORDINATOR AT (614) 645-6260 OR (614) 645-5845. THEY MUST ALSO CONTACT THE CITY’S PAYING THE WAY OFFICE AT (614) 645-6260 TUESDAY ON THIS SAME SCHEDULE. Approved traffic control devices shall be furnished, erected, maintained, and removed by the permit holder in accordance with the latest edition of the Ohio Manual of Uniform Traffic Control Devices. Emergency No Parking Signs are to be posted 72 hours (3 days) prior to commencement of lane or roadway closures.

A Columbus Law Enforcement Officer(s) (LEO) is required when working at signalized intersections, or as directed by the City of Columbus as a part of this permit, or the inspection thereof. To schedule an officer, call (614) 645-4755 at Columbus Police Department’s Special Duty Office.

PARKING METERS: Any work proposed that may impact parking meters, must be pre-approved and specifically described and itemized within this permit wording. Otherwise any associated parking meter occupancy shall be considered a parking violation in accordance with onsite signage and subject to fine. When permitted to occupy a hooded parking meter location, the permit holder must have a copy of their valid permit on visible display on the front dash of each vehicle.

NOTES:

- This permit is not valid within “NO STOPPING” zones, except when within a full closure area that has been approved as a part of this permit.
- When wheelchair ramp construction will be required, contact the City of Columbus ADA Coordinator at (614) 645-0085 for a determination of the type and location of ramp(s) prior to commencing that construction.
- When City-owned trees may be, or are impacted by your construction activities, contact the City of Columbus Forester at (614) 645-6640 before cutting any part of the tree, or the tree’s roots.
- City of Columbus Chapter 905 Sidewalk and Driveway permits are valid for 90 days from the date of issuance. All other permits are as designated thereon.
- Permits are non-transferable.

The original of this form must be at the job site. Must contact OUPS-PERMIT OFFICE 24 HOURS PRIOR TO EVIDENCE (614-466-7189)

See reverse side for additional instructions.

DC0378 - 201-006-062-5007-1211
Pavingtheway.org

3000 e-mail update subscribers, 100,000 + visitors

We can contact the media 24 hours a day, 7 days a week

614-645-PAVE

pavingtheway@morpc.org
When to Call Freeways and Arterials

- Full closure of either direction for even a brief time.
  - Restricting lanes for more than 3 hours.
  - Any restriction occurs or lasts during peak.

Collector Streets

- Restricting traveled lanes during peak.
- Restricting traveled lanes for more than 6 hours.

Residential Streets

- Closing the street for more than half a day.
- Restricting traffic for longer than one week.
Duration of Work

Short Duration:

- **0 – 15 minutes.** Rotating beacon or strobe lights.
  - Cones behind truck to warn motorists.
- **15 – 60 minutes.**
  - Rotating beacon/strobe, correct size and amount of cones placed around work zone and a minimum of one correctly placed advanced warning sign.

*Arrow board strongly recommended if working in the City of Columbus – consider the location, crew/public safety, traffic volume etc....*
Duration of Work

**Short Term Stationary:**
- More than 1 hour less than 12 hours. Daylight only
- Rotating beacon/strobe
- Correct size and amount of cones placed in tapers and around work zone.
- All advance warning signs spaced properly.
- Arrow board for all lane closures.
Duration of Work

Intermediate Term:

- Any nighttime work (over 1 hour) up to 3 days
- Rotating beacon/strobes
- Correct size and amount of channelizing devices
- 42” cones/drums with steady burn lights
- Correctly placed advanced warning signs on all affected streets.
- Arrow board in all lane closures
Duration of Work

**Long Term:**
- Beyond 3 days.
- Rotating beacons/strobes, lights
- Drums with lights for all tapers and tangents
- Permanently mounted, correct advanced warning signs, with lights, on all affected streets.
- Arrow board for all lane closures
Devices
Flashing Arrow Panels
A police cruiser is NOT a traffic control device.
What are the parts of a Traffic Control Zone?
Advance Warning Area

Advance Warning Signs:
- Warning
- Information
- Regulatory
Advance Warning Area

Competing with:
- Cell Phones
- Texting
- Radio
- Advertisements
- Other signage...
# Advance Warning Signs

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Sign A</th>
<th>Sign B</th>
<th>Sign C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban (Low Speed)</td>
<td>100'</td>
<td>100'</td>
<td>100'</td>
</tr>
<tr>
<td>Urban (High Speed)</td>
<td>350'</td>
<td>350'</td>
<td>350'</td>
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<tr>
<td>Rural</td>
<td>500'</td>
<td>500'</td>
<td>500'</td>
</tr>
<tr>
<td>Expressway/Freeway</td>
<td>1000'</td>
<td>1500'</td>
<td>2640'</td>
</tr>
</tbody>
</table>

Low Speed < 45 M.P.H.
High Speed > 45 M.P.H.
Transition Area

- Drums
- Cones
- Arrow Boards
# Device Spacing Chart

<table>
<thead>
<tr>
<th>Speed Limit</th>
<th>Minimum Taper Length (Lane Width in Feet)</th>
<th>Minimum Number of Devices (Lane Width in Feet)</th>
<th>Maximum Device Spacing</th>
<th>Speed Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPH</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
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<tr>
<td>25 or below</td>
<td>94</td>
<td>105</td>
<td>115</td>
<td>125</td>
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<td>30</td>
<td>135</td>
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<td>65</td>
<td>585</td>
<td>650</td>
<td>715</td>
<td>780</td>
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</tbody>
</table>
Lane Closure

SCD 1500 NOTES

1A. SEE SCD 1530 NOTE 3. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FROM THE SCD 1500 TABLE 1. TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES.

NOTES

1. FOR ADDITIONAL NOTES, TABLES, AND SYMBOL LEGEND SEE CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 1500.
Lane Closure
Lane Closure
Lane Shift

SCD 1500 NOTES
1. SEE SCD 1500 NOTE 1. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FROM THE SCD 1500, TABLE 1. TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES.

NOTES
1. IF TANGENT DISTANCE ALONG THE TEMPORARY DIVISION IS LESS THAN 540', A DOUBLE REVERSE CURVE SIGN (W23-1) SHOULD BE USED IN PLACE OF INITIAL REVERSE CURVE SIGN AND THE SECOND REVERSE CURVE SIGN SHALL BE OMITTED.
2. FOR ADVANCE WARNING SIGN ON SIDE STREET APPLICATION, PLACE SIGN A MAXIMUM OF 300' FROM STOP LINE OR TRAFFIC CONTROL.
Lane Shift
Lane Shift
Lane Closure With A Shift

SCD 1500 NOTES:
1A. SEE SCD 1500 NOTE 3. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FROM THE SCD 1500, TABLE 1. TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES.

NOTES:
1. IF TANGENT DISTANCE ALONG THE TEMPORARY DIVERSION IS LESS THAN 540', A DOUBLE REVERSE CURVE SIGN (W27-1) SHOULD BE USED IN PLACE OF INITIAL REVERSE CURVE SIGN AND THE SECOND REVERSE CURVE SIGN SHALL BE OMITTED.
2. FOR ADVANCE WARNING SIGN ON SIDE STREET APPLICATION PLACE SIGN A MAXIMUM OF 200' FROM STOP LINE OR TRAFFIC CONTROL.
3. PLACE TEMPORARY STOP SIGN ON STAND AND MOVE FORWARD.
Road Closure

1. The contractor shall install temporary "EMERGENCY NO STOPPING ANYTIME" signs mounted on existing utility poles or sign posts, drums or 42" cones. Signs shall have the installation date, working dates, and hours of restriction. Signs can be obtained through public service permit offices and must be posted 72 hours prior to any vehicle being towed.

If a drive falls within the solid barricade, the contractor shall work with the property owner to provide access.

Detours shall be required for all total closures on arterial and collector streets. Residential streets do not require a detour unless otherwise directed by the engineer.

2. For advance warning signs on side street application place signs a maximum of 200 feet in front of stop line or traffic control.
Road Closure
Road Closure
Road Closure
Flagging

WORK ZONE NOT TO EXCEED 20 FT.
ON HUMD INTERSECTION WITHIN ZONE.
ALL DRIVEWAYS WITHIN ZONE SHALL BE
MONITORED OR CONTROLLED BY FLAGGER

TAPE END / TANGENT STARTS

NOTE:
1. FOR ADDITIONAL NOTES, TABLES, AND SYMBOL LEGEND SEE CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 1550.
2. ON STRAIGHT ROADWAYS WITH SHORT WORK ZONES (50 FT) LOW VOLUME SITUATIONS, WHERE THE FLAGGER IS VISIBLE TO ROAD USERS FROM BOTH DIRECTIONS, A SINGLE FLAGGER VISIBLY POSITIONED TO ROAD USERS APPROACHING FROM BOTH DIRECTIONS MAY BE USED.
3. NO SYMBOLS, TEXT ONLY.
4. FLAGGER USING STOP/PELLO PADDLE - SEE MUTCD SECTION H-63.

TWO-WAY, ONE-LANE

FLAGGING OPERATIONS

CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC SERVICE
DEPARTMENT OF DESIGN AND CONSTRUCTION

1550

9/15/2015

SHT 1 OF 3
Flagging
Flagging Procedure

- Use flags when working in a STOP controlled intersection. Not a Stop/Slow paddle.

- When flagging on a Residential street, a self regulating operation may be used. Yield signs and “One Lane Road Ahead” signs must be used.
Private Development

Long Term – 1-2 Years
Separate Permit
Separate MOT

Things to think about...
- pavement markings, peds, bicyclists, barrier wall, attenuators, fencing, bus stops, signals, fire connection
Law Enforcement Officers

- **L.E.O.’s**
  - **Special Duty**
    - Can be used for Flagging
    - Required within any signalized intersection
    - Required within City of Columbus for 2-way, 1-lane flagging on arterial roadways
    - A cruiser is not always needed, and usually not recommended
    - In downtown as directed by permit
Parking Meters

- Have parking meters bagged if area needed for work
- May not tow vehicle that has paid for a meter
- Submit application 48 hours in advance
- Pay fees at 50 W Gay St.
Un-metered Parking

- Obtained from permit office at 50 W Gay St.
- Must have permit
- Post signs 72 hours in advance
- State dates and hours of parking restriction
- Submit photos of posted signs to permit office
- Recommend posting on drums
Cover/Align Signal Heads
Concrete Barrier

NOTES:
1. Attenuators shall be installed per the manufacturer's specifications.

2. Recovery area shall have slopes 3:1 or flatter and be free of rocks, hazards, equipment, drop-offs, and material storage.

3. The Contractor shall select one of the three acceptable options for installing portable barriers:
   a) Terminate stored section of portable barrier outside clear zone with tapered and only where cross slopes are 3:1 or flatter.
   b) Terminate portable barrier with an impact attenuator. A non-galvanized attenuator may be included in the length of non-recovery zone.
   c) Flare a section of portable barrier to the length of need control zone and terminate with an impact attenuator. A non-galvanized impact attenuator may be included in the flared section of portable barrier.

4. The Contractor shall submit documentation to the Engineer 2 weeks prior to implementation, for acceptance when:
   a) Deviating from the three acceptable options for installing portable barriers.

   Documentation shall explain any deviations and verify that the recovery area fulfills the manufacturer's specifications and Note 2.

   b) Using a galvanized impact attenuator in lieu of a non-galvanized impact attenuator.

   The galvanized impact attenuator length shall not be included as part of the length of need or recovery area requirements. Additional portable barrier will need to be added. The additional cost for the additional barrier required for a galvanized impact attenuator shall be included in the cost of the galvanized impact attenuator.

   Documentation shall verify that the extended recovery area fulfills the manufacturer's specifications and Note 2.

5. Galvanized impact attenuators shall not be used in pure left-turns or within the clear zone between bi-directional traffic.

<table>
<thead>
<tr>
<th>SPEED LIMIT (MPH)</th>
<th>IMPACT ATTENUATOR RATE (MPH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>80</td>
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<tr>
<td>30</td>
<td>80</td>
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<td>60</td>
<td>160</td>
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<tr>
<td>65</td>
<td>180</td>
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<tr>
<td>70</td>
<td>200</td>
</tr>
</tbody>
</table>

LEGEND
- Recovery Area
- Portable Barrier
- Non-Galvanized Impact Attenuator
- Direction of Travel
Impact Attenuator
Pedestrians

The need and control of all road users, motorists, bicyclist, and pedestrians... through a temporary Traffic Control zone shall be an essential part of the highway construction, utility work, or maintenance operations....

- Must maintain access for pedestrians
- Must be a hard smooth surface (temporary asphalt)
- Must use sidewalk closed signs in accordance with the OMUTCD posted on Type I barricades
Pedestrians

- Must maintain access for pedestrians
- Must be a hard smooth surface (temporary asphalt)
- Existing dirt/grass footpath can be maintained in stone
- Must use sidewalk closed signs in accordance with the OMUTCD
- Signs need to be posted on Type I barricades
- Temporary ramps need to be ADA compliant
Sidewalk Closure
Sidewalk Closure

- SIDEWALK CLOSED USE OTHER SIDE – In advance of actual closure at nearest ADA crossing
- SIDEWALK CLOSED – At actual closure point
Temporary Barrier
Defined Walkway
Temporary Ramp
Temporary Surface
Bicycle Facilities
Bike Lane Closure With Lane Closure
Multi-lane Roadway

1. ROAD WORK AHEAD
2. BIKE LANE CLOSED AHEAD
3. SHARE THE ROAD
4. Right turn arrow
5. BIKE LANE CLOSED
   On 6' Type III Barricade
6. RIGHT LANE CLOSED AHEAD
7. Sharrows required if project is longer than 30 days. They shall not be placed on top of existing markings.
Have a clear message
Have a clear message
Contact Numbers

City of Columbus Police Department

- 614-645-4545 – CPD Non-emergency
- 614-645-4795 – Special Duty Office

Mark DiPiero

- 614-332-7472 – Cell
- 614-645-5845 – Office

Scott Porter

- 614-554-8138 – Cell
- 614-645-0355 – Office

Keith Farrell

- 614-949-0217 – Cell
- 614-645-6269 – Office
Remember...

Ohio Law **requires** you to move over or slow down when approaching vehicles with flashing warning lights!