

STIPULATION OF PARTIES
FOR THE CLOSURE OF OLD DIXIE HIGHWAY, CROSSING #272163J
SEBASTIAN, FLORIDA

The Indian River County ("COUNTY"), Florida East Coast Railway L.L.C. ("FECR" or "RAILROAD") and the Florida Department of Transportation ("DEPARTMENT"), each individually referred to as a "Party" or collectively referred to as the "Parties", enter this Stipulation of Parties by and through their undersigned representatives and agree to the following conditions:

1. The COUNTY has filed an application with the DEPARTMENT for the closure of a public railroad-highway grade crossing located at Old Dixie Highway, FDOT Crossing Number 272163J in Indian River County, Florida ("Old Dixie Highway Crossing"), pursuant to Section 335.141(1), Florida Statutes, and Rule 14-57.012, Florida Administrative Code.
2. To offset the proposed two-lane grade separation over FECR's Right-of-Way, the COUNTY applied for the closure of a public highway-rail grade crossing located at Old Dixie Highway, FDOT Crossing Number 272163J. The crossing is further described on the map, attached as EXHIBIT "A."
3. Prior to the start of the Old Dixie Highway Crossing closure, the COUNTY, at its expense, shall provide road closure notification, maintenance of traffic, and shall furnish necessary materials and equipment to remove the rail crossing. The COUNTY, at its expense, shall erect on each side of the crossing, signs and object markers as identified in the DEPARTMENT'S Standard Plans Index 102-600, attached as (EXHIBIT "B"). Work zone signs and object markers will be erected before the work. The COUNTY, at its expense, will remove all evidence of the track crossing and restore the right-of-way for the roadway.

4. The RAILROAD will update the existing U.S. DOT Crossing Inventory Form (OMB 2130-0017, attached as EXHIBIT "C") for the closure of the Old Dixie Highway Crossing. The completed form will be submitted to the DEPARTMENT and the FRA for inventory data entry upon completion of the closure.
5. Prior to the start of the closure of Old Dixie Highway Crossing, the COUNTY, at the COUNTY's expense, shall provide road closure notification and maintenance of traffic, and will erect, on each side of the crossing, permanent closure signs and object markers as identified in the DEPARTMENT'S Standard Plan, Index 700-109, attached as EXHIBIT "D."
6. The COUNTY, at its expense, will remove all crossing warning signs, equipment, and all crossing debris. Following completion of the closure, the DEPARTMENT will perform a quality assurance inspection of the site for compliance with the requirements outlined in this Stipulation of Parties.
7. The COUNTY shall notify the RAILROAD of a minimum of seventy-two (72) hours prior to the start of any work adjacent to the crossings referenced herein, within the RAILROAD property, or as required by the approved permits, except for emergency work, for which immediate notification to the RAILROAD will be provided.
8. All work by the COUNTY will be consistent with the current Manual of Uniform Traffic Control Devices ("MUTCD"); Federal Railroad Administration ("FRA") Rules and Regulations; American Association of State Highway and Transportation Officials ("AASHTO") Policy; the DEPARTMENT's Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways ("Florida's Green Book"); and COUNTY requirements, all incorporated as fully set forth herein.
9. This Stipulation of Parties has been executed by all parties having an interest in this matter. All Parties waive hearing rights provided by Chapter 120, Florida Statutes, for the closure of the

Old Dixie Highway Crossing with this Stipulation of Parties.

10. Upon compliance with the terms of this Stipulation of Parties, the COUNTY, RAILROAD, and DEPARTMENT agree that the Old Dixie Highway Crossing hereafter in fact shall be a closed railroad-highway grade crossing.
11. The terms of this Stipulation of Parties may not be changed, waived, discharged, or terminated orally, but only by an instrument or instruments in writing, signed by RAILROAD, COUNTY, and DEPARTMENT.
12. This Stipulation of Parties is governed by and shall be interpreted and construed in accordance with the laws of the State of Florida. Each Party will bear its own attorney's fees and costs in any disputes, controversies, claims, and/or proceedings that may arise from this Stipulation of Parties.
13. Any failure of any Party to insist upon the strict performance of any terms or provisions of this Stipulation of Parties is not deemed to be a waiver of the terms of this Stipulation.
14. As authorized by Section 335.141, Florida Statutes, and Rule Chapter 14-57, Florida Administrative Code, the DEPARTMENT permits the closure of the Old Dixie Highway Crossing, as evidenced by this Stipulation of Parties, provided all conditions are met and completed within 60 months of the execution of this Stipulation.
15. This Stipulation of Parties may be executed in any number of counterparts, each of which shall be deemed an original, but all of which shall constitute the same instrument. Facsimile, .pdf, and other electronic signatures to this Stipulation of Parties shall have the same effect as original signatures.

SIGNATURE PAGE

Florida East Coast Railway L.L.C. (RAILROAD)

By: _____

Authorized Signature

Date: _____

INDIAN RIVER COUNTY (COUNTY)

By: _____

Chair, Board of County Commissioners

Date: _____

INDIAN RIVER COUNTY LEGAL REVIEW

By: _____

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION (DEPARTMENT)

By: _____

Chief of Modal Development

Date: _____

LEGAL REVIEW

By: _____

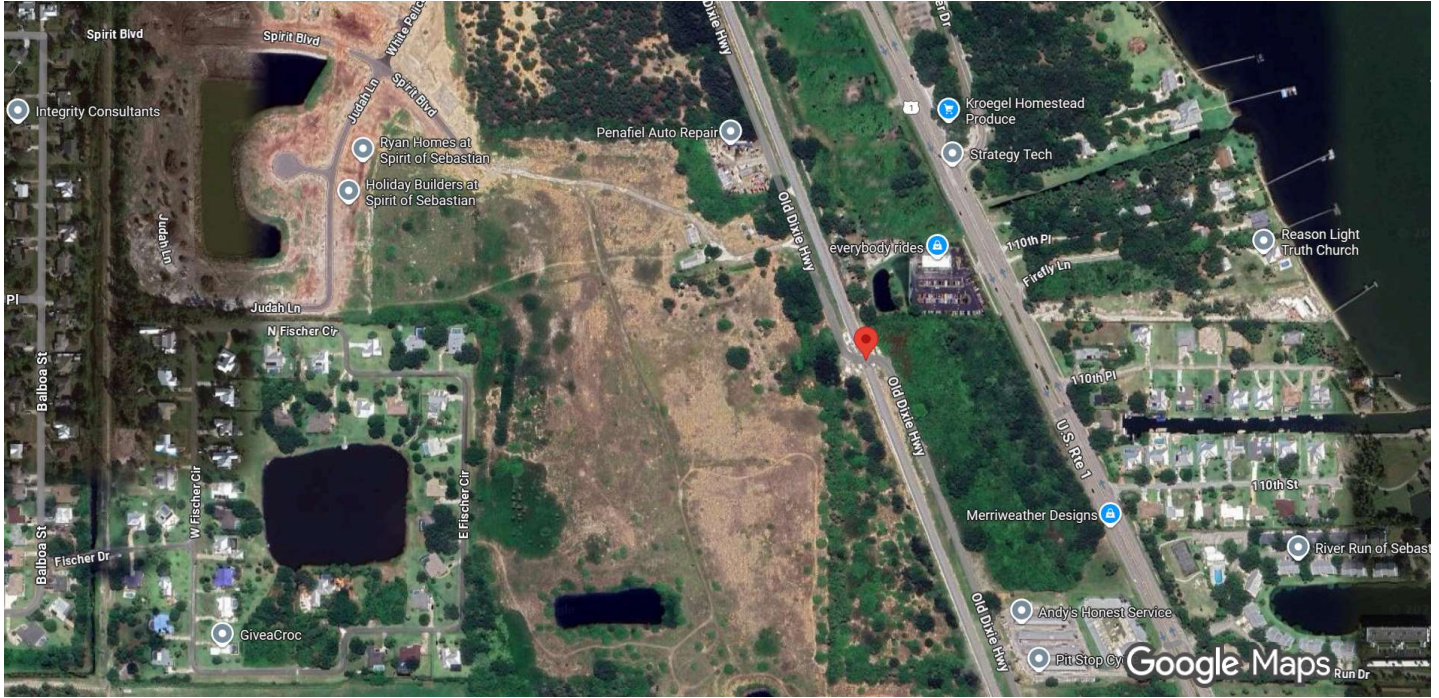
Attorney, FDOT Central Office

Date: _____

Exhibit A

Google Maps

27°47'45.0"N 80°27'40.8"W



Imagery ©2025 Airbus, Maxar Technologies, Map data ©2025 200 ft



27°47'45.0"N 80°27'40.8"W

27.795825, -80.461330



Directions



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Exhibit B

| SHEET | TABLE OF CONTENTS |
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| 1 | General Notes, TTC Tables |
| 2 | Definitions Temporary Traffic Control Devices Overhead Work Railroads Sight Distance Above Ground Hazard |
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| 4 | Flagger Control Survey Work Zones Signs |
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GENERAL NOTES:

1. This Index contains information specific to the Federal and State guidelines and standards for the preparation of traffic control plans and for the execution of traffic control in work zones, for construction and maintenance operations and utility work on highways, roads and streets on the State Highway System. Certain requirements in this Index are based on the high volume nature of State Highways. For highways, roads and streets off the State Highway System, the local agency (City/County) having jurisdiction may adopt requirements based on the minimum requirements provided in the MUTCD.
2. Use this Index in accordance with the Plans and Indexes 102-601 through 102-680. Indexes 102-601 through 102-680 are Department-specific typical applications of commonly encountered situations. Adjust device location or number thereof as recommended by the Worksite Traffic Supervisor and approved by the Engineer. Devices include, but are not limited to, flaggers, portable temporary signals, signs, pavement markings, and channelizing devices. Comply with MUTCD or applicable Department criteria for any changes and document the reason for the change.
3. Except for emergencies, any road closure on State Highway System must comply with Section 335.15, F.S.

| TABLE 1 CHANNELIZING DEVICE SPACING | | | | |
|--|------------------------------------|---------|--|---------|
| Work Zone Speed (mph) | Max. Spacing (feet) | | | |
| | Cones or Temporary Tubular Markers | | Type I Barricades, Type II Barricades, Vertical Panels, or Drums | |
| | Taper | Tangent | Taper | Tangent |
| ≤ 45 | 25 | 50 | 25 | 50 |
| ≥ 50 | 25 | 50 | 50 | 100 |

| TABLE 2 TAPER LENGTH "L" | |
|--|-----------------------|
| Work Zone Speed (mph) | Min. Length (feet) |
| ≤ 40 | $L = \frac{WS^2}{60}$ |
| ≥ 45 | $L = WS$ |
| Where: W = width of offset in feet S = speed in mph | |

| TABLE 3 WORK ZONE SIGN SPACING "X" | |
|---|---------------------|
| Road Type | Min. Spacing (feet) |
| Arterials and Collectors with Work Zone Speed ≤ 40 mph | 200 |
| Arterials and Collectors with Work Zone Speed ≥ 45 mph | 500 |
| Limited Access Roadways * | 1,500 |
| * For Limited access roadways with work zone speed ≤ 55 mph, the minimum spacing may be reduced in accordance with the MUTCD and as approved by the Engineer. | |

| TABLE 4 BUFFER LENGTH "B" | |
|---|--------------------|
| Work Zone Speed (mph) | Min. Length (feet) |
| 25 | 155 |
| 30 | 200 |
| 35 | 250 |
| 40 | 305 |
| 45 | 360 |
| 50 | 425 |
| 55 | 495 |
| 60 | 570 |
| 65 | 645 |
| 70 | 730 |
| Note: When Buffer Length "B" cannot be attained due to geometric constraints, use the greatest length possible, but not less than 155 feet. | |

SYMBOLS:

Work Area

Channelizing Device

Work Zone Sign

Type III Barricade

Lane Identification and Direction of Traffic



FY 2025-26
STANDARD PLANS

GENERAL INFORMATION FOR TRAFFIC
CONTROL THROUGH WORK ZONES

INDEX
102-600

SHEET
1 of 11

LAST
REVISION
11/01/23

REVISION

DESCRIPTION:

DEFINITIONS:

Regulatory Speed (In Work Zones)

The maximum permitted travel speed posted for the work zone is indicated by the regulatory speed limit signs. The work zone speed must be shown or noted in the plans. This speed should be used as the minimum design speed to determine runout lengths, departure rates, flare rates, lengths of need, clear zone widths, taper lengths, crash cushion requirements, marker spacings, superelevation and other similar features.

Advisory Speed

The maximum recommended travel speed through a curve or a hazardous area.

Travel Way

The portion of the roadway for the movement of vehicles. For traffic control through work zones, travel way may include the temporary use of shoulders and any other permanent or temporary surface intended for use as a lane for the movement of vehicular traffic.

- a. *Travel Lane: The designated widths of roadway pavement marked to carry through traffic and to separate it from opposing traffic or traffic occupying other traffic lanes.*
- b. *Auxiliary Lane: The designated widths of roadway pavement marked to separate speed change, turning, passing and climbing maneuvers from through traffic.*

Detour, Lane Shift, and Diversion

A detour is the redirection of traffic onto another roadway to bypass the temporary traffic control zone. A lane shift is the redirection of traffic onto a different section of the permanent pavement. A diversion is the redirection of traffic onto a temporary roadway, usually adjacent to the permanent roadway and within the limits of the right of way.

Aboveground Hazard

An aboveground hazard is any object, material or equipment other than traffic control devices that encroaches upon the travel way or that is located within the clear zone which does not meet the Department's safety criteria, i.e., anything that is greater than 4" in height and is firm and unyielding or doesn't meet breakaway requirements.

TEMPORARY TRAFFIC CONTROL DEVICES:

1. All temporary traffic control devices shall be ON the Department's Approved Products List (APL). Ensure the appropriate APL number is permanently marked on the device in a readily visible location.
2. All temporary traffic control devices shall be removed as soon as practical when they are no longer needed. When work is suspended for short periods of time, temporary traffic control devices that are no longer appropriate shall be removed or covered. Do not store temporary traffic control devices on the shoulder, sidewalk, or other roadway facility not affected by the work when work is suspended.
3. Arrow Boards, Portable Changeable Message Signs, Radar Speed Display Trailer, Portable Regulatory Signs, and any other trailer mounted device shall be delineated with a channelizing device placed at each corner when in use and shall be moved outside the travel way and clear zone or be shielded by a barrier or crash cushion when not in use.

OVERHEAD WORK:

Work is only allowed over a traffic lane when one of the following options is used:

OPTION 1 (OVERHEAD WORK USING A MODIFIED LANE CLOSURE)

Overhead work using a modified lane closure is allowed if all of the following conditions are met:

- a. Work operation is located in a signalized intersection and limited to signals, signs, lighting and utilities.
- b. Work operations are 60 minutes or less.
- c. Speed limit is 45 mph or less.
- d. Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
- e. Aerial lift equipment is placed directly below the work area to close the lane.
- f. Traffic control devices are placed in advance of the vehicle/equipment closing the lane using a minimum 100 foot taper.
- g. Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.

OPTION 2 (OVERHEAD WORK ABOVE AN OPEN TRAFFIC LANE)

Overhead work above a open traffic lane is allowed if all of the following conditions are met:

- a. *Work operation is located on a utility pole, light pole, signal pole, or their appurtenances.*
- b. *Work operations are 60 minutes or less.*
- c. *Speed limit is 45 mph or less.*
- d. *No encroachment by any part of the work activities and equipment within an area bounded by 2 feet outside the edge of travel way and 18 feet high.*
- e. *Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.*
- f. *Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.*
- g. *Adequate precautions are taken to prevent parts, tools, equipment and other objects from falling into open lanes of traffic.*
- h. *Other Governmental Agencies, Rail facilities, or Codes may require a greater clearance. The greater clearance required prevails as the rule.*

OPTION 3 (OVERHEAD WORK ADJACENT TO AN OPEN TRAFFIC LANE)

Overhead work adjacent to an open traffic lane is allowed if all of the following conditions are met:

- a. Work operation is located on a utility pole, light pole, signal pole, or their appurtenances.
- b. Work operations are 1 day or less.
- c. Speed limit is 45 mph or less.
- d. No encroachment by any part of the work activities and equipment within 2 foot from the edge of travel way up to 18' height. Above 18' in height, no encroachment by any part of the work activities and equipment over the open traffic lane (except as allowed in Option 2 for work operations of 60 minutes or less).
- e. Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
- f. Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.
- g. Adequate precautions are taken to prevent parts, tools, equipment and other objects from falling into open lanes of traffic.
- h. Other Governmental Agencies, Rail facilities, or Codes may require a greater clearance. The greater clearance required prevails as the rule.

OVERHEAD WORK: (Cont.)

OPTION 4 (OVERHEAD WORK MAINTAINING TRAFFIC WITH NO
ENCROACHMENT BELOW THE OVERHEAD WORK AREA)

Traffic shall be detoured, shifted, diverted or paced as to not encroach in the area directly below the overhead work operations in accordance with the appropriate index drawing or detailed in the plans. This option applies to, but not limited to, the following construction activities:

- Beam, girder, segment, and bent/pier cap placement.
- Form and falsework placement and removal.
- Concrete placement.
- Railing construction located at edge of deck.
- Structure demolition.

OPTION 5 (CONDUCTOR/CABLE PULLING ABOVE AN OPEN TRAFFIC LANE)

Overhead cable and/or de-energized conductor installations initial pull to proper tension shall be done in accordance with the appropriate Index or temporary traffic control plan.

Continuous pulling operations of secured cable and/or conductors are allowed over open lane(s) of traffic with no encroachment by any part of the work activities, materials or equipment within the minimal vertical clearance above the travel way. The utility shall take precautions to ensure that pull ropes and conductors/cables at no time fall below the minimum vertical clearance.

On Limited Access facilities, a site specific temporary traffic control plan is required. The temporary traffic control plan shall include:

- a. The temporary traffic control set up for the initial pulling of the pull rope across the roadway.
- b. During pulling operations, advance warning consisting of no less than a Changeable Message Sign upstream of the work area with alternating messages, "Overhead Work Ahead" and "Be Prepared to Stop" followed by a traffic control officer and police vehicle with blue lights flashing during the pulling operation.

RAILROADS:


Railroad crossings affected by a construction project should be evaluated for traffic controls to reduce queuing on the tracks. The evaluation should include as a minimum: traffic volumes, distance from the tracks to the intersections, lane closure or taper locations, signal timing, etc.

SIGHT DISTANCE:

1. *Tapers: Transition tapers should be obvious to drivers. If restricted sight distance is a problem (e.g., a sharp vertical or horizontal curve), the taper should begin well in advance of the view obstruction. The beginning of tapers should not be hidden behind curves.*
2. *Intersections: Traffic control devices at intersections must provide sight distances for the road user to perceive potential conflicts and to traverse the intersection safely. Construction equipment and materials shall not restrict intersection sight distance.*

ABOVEGROUND HAZARD:

1. Aboveground hazards (see definitions) are to be considered work areas during working hours and treated with appropriate work zone traffic control procedures. During nonworking hours, all objects, materials and equipment that constitute an aboveground hazard must be stored/placed outside the travel way and clear zone or be shielded by a barrier or crash cushion.
2. For aboveground hazards within a work zone the clear zone required should be based on the regulatory speed posted during construction.

| | | | | | | |
|------------------------------|----------|--------------|---|---|------------------|------------------|
| LAST REVISION 11/01/20 | REVISION | DESCRIPTION: |  FY 2025-26 STANDARD PLANS | GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES | INDEX 102-600 | SHEET 2 of 11 |
|------------------------------|----------|--------------|---|---|------------------|------------------|

CLEAR ZONE WIDTHS FOR WORK ZONES:

The term 'clear zone' describes the unobstructed relatively flat area, impacted by construction, extending outward from the edge of the traffic lane. The table below gives clear zone widths in work zones for medians and roadside conditions other than for roadside canals; where roadside canals are present, clear zone widths are to conform with the distances to canals as described in the FDOT Design Manual 215.2.

| TABLE 5 CLEAR ZONE WIDTHS FOR WORK ZONES | | |
|--|---------------------------------------|--|
| WORK ZONE SPEED (MPH) | TRAVEL LANES & MULTILANE RAMPS (feet) | AUXILIARY LANES & SINGLE LANE RAMPS (feet) |
| 60-70 | 30 | 18 |
| 55 | 24 | 14 |
| 45-50 | 18 | 10 |
| 30-40 | 14 | 10 |
| ALL SPEEDS CURB & GUTTER | 4' BEHIND FACE OF CURB | 4' BEHIND FACE OF CURB |
| NOTE: For temporary conditions where existing curb has been removed but not reconstructed, curb and gutter values may be used. | | |

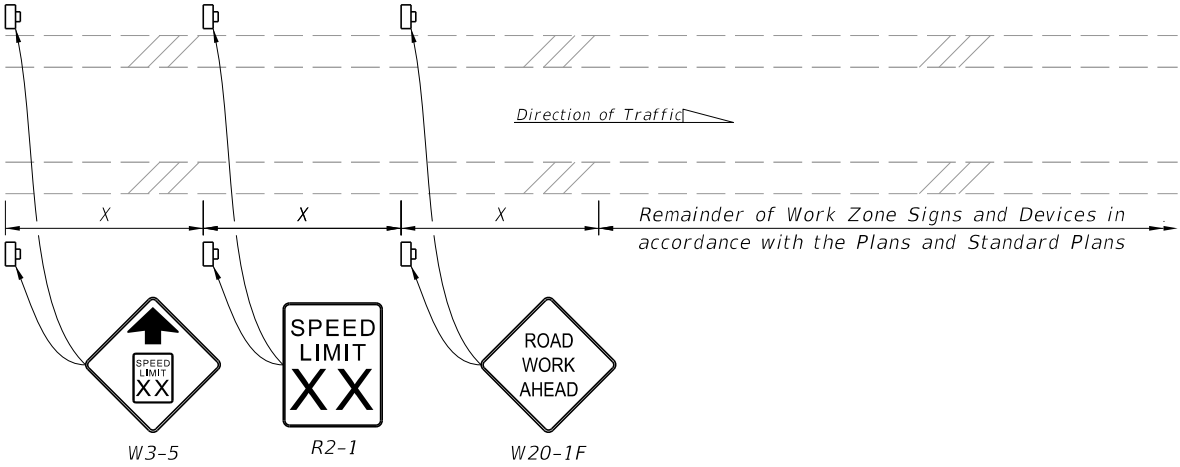
SUPERELEVATION:

Horizontal curves constructed in conjunction with work zone traffic control should have the required superelevation applied to the design radii. Under conditions where normal crown controls curvature, the minimum radii that can be applied are listed in the table below.

| TABLE 6 MINIMUM RADII FOR NORMAL CROWN | |
|---|----------------|
| WORK ZONE POSTED SPEED | MINIMUM RADIUS |
| MPH | feet |
| 70 | 4090 |
| 65 | 3130 |
| 60 | 2400 |
| 55 | 1840 |
| 50 | 1390 |
| 45 | 1080 |
| 40 | 820 |
| 35 | 610 |
| 30 | 430 |
| Superelevate When Smaller Radii is Used | |

LENGTH OF LANE CLOSURES:

For interstates and state highways with a posted speed of 55MPH or greater, lane closures must not exceed 3 miles (includes taper, buffer, and work zone) in any given direction and must not close two consecutive interchanges.



NOTES:

1. X = Work Zone Sign Spacing
2. When called for in the Plans, use this detail in accordance with the Plans and Standard Plans. Place the speed reduction signs (W3-5 and R2-1) in advance of the "Road Work Ahead" sign (W20-1F) as shown.
3. Do not use this detail in conjunction with the Motorist Awareness System.
4. For speed reductions greater than 10 MPH, reduce the speed in 10 MPH increments of 'X' distance. Do not reduce the speed below the minimum statutory speed for the class of facility.
5. Place additional "Speed Limit" signs (R2-1) at intervals of no more than one mile for rural conditions and 1,000 feet for urban conditions.
6. For undivided roadways, omit the signs shown in the median.
7. Remove temporary regulatory speed signs as soon as the conditions requiring the reduced speed no longer exist. Once the work zone regulatory speeds are removed, the regulatory speed existing prior to construction will automatically go back into effect.

SPEED REDUCTION SIGNING

OVERWEIGHT/OVERSIZE VEHICLES:

Restrictions to Lane Widths, Heights or Load Capacity can greatly impact the movement of over dimensioned loads. The Contractor shall notify the Engineer who in turn shall notify the State Permits Office, phone no. (850) 410-5777, at least seven calendar days in advance of implementing a maintenance of traffic plan which will impact the flow of overweight/oversized vehicles. Information provided shall include location, type of restriction (height, width or weight) and restriction time frames. When the roadway is restored to normal service the State Permits Office shall be notified immediately.

LANE WIDTHS:

Lane widths of through roadways should be maintained through work zone travel ways wherever practical. Provide minimum widths for work zone travel lanes as follows: 11' for Interstate with at least one 12' lane provided in each direction, unless formally excepted by the Federal Highway Administration; 11' for all other limited access roadways; and 10' for all other facilities.

HIGH-VISIBILITY SAFETY APPAREL:

All high-visibility safety apparel shall meet the requirements of the International Safety Equipment Association (ISEA) and the American National Standards Institute (ANSI) for "High-Visibility Safety Apparel", and labeled as ANSI/ISEA 107-2015 or newer. The apparel background (outer) material color shall be either fluorescent orange-red or fluorescent yellow-green as defined by the standard. The retroreflective material shall be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and shall be visible at a minimum distance of 1,000 feet. Class 3 apparel may be substituted for Class 2 apparel. Replace apparel that is not visible at 1,000 feet.

WORKERS: All workers within the right-of-way shall wear ANSI/ISEA Class 2 apparel. Workers operating machinery or equipment in which loose clothing could become entangled during operation shall wear fitted high-visibility safety apparel. Workers inside the bucket of a bucket truck are not required to wear high-visibility safety apparel.

UTILITIES: When other industry apparel safety standards require utility workers to wear apparel that is inconsistent with FDOT requirements such as NFPA, OSHA, ANSI, etc., the other standards for apparel may prevail.

FLAGGERS: For daytime activities, Flaggers shall wear ANSI/ISEA Class 2 apparel. For nighttime activities, Flaggers shall wear ANSI/ISEA Class 3 apparel.

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FLAGGER CONTROL:

Regulatory Speed (In Work Zones)

Where flaggers are used, a FLAGGER symbol or legend sign must replace the WORKERS symbol or legend sign.

The flagger must be clearly visible to approaching traffic for a distance sufficient to permit proper response by the motorist to the flagging instructions, and to permit traffic to reduce speed or to stop as required before entering the work site. Flaggers shall be positioned to maintain maximum color contrast between the Flagger's high-visibility safety apparel and equipment and the work area background.

Hand-Signaling Devices

STOP/SLOW paddles are the primary hand-signaling device. The STOP/SLOW paddle shall have an octagonal shape on a rigid handle. If the STOP/SLOW paddle is placed on a rigid staff, the minimum length of the staff, measured from the bottom of the paddle to the end of the staff that rests on the ground, must not be less than 6 ft. STOP/SLOW paddles shall be at least 24 inches wide with letters at least 6 inches high and should be fabricated from light semirigid material. The background of the STOP face shall be red with white letters and border. The background of the SLOW face shall be orange with black letters and border. When used at night-time, the STOP/SLOW paddle shall be retroreflectorized.

Flag use is limited to immediate emergencies, intersections, and when working on the centerline or shared left turn lanes where two (2) flaggers are required and there is opposing traffic in the adjacent lanes. Flags, when used, shall be a minimum of 24 inches square, red or fluorescent orange-red in color, and securely fastened to a staff that is approximately 36 inches in length. When used at nighttime, flags shall be retroreflectorized.

Flashlight, lantern or other lighted signal that will display a red warning light shall be used at night.

Flagger Stations

Flagger stations shall be located far enough in advance of the work area so that approaching road users will have sufficient distance to stop before entering the work area. When used at nighttime, the flagger station shall be illuminated.

SURVEY WORK ZONES:

The SURVEY CREW AHEAD symbol or legend sign shall be the principal Advance Warning Sign used for Traffic Control Through Survey Work Zones and may replace the ROAD WORK AHEAD sign when lane closures occur, at the discretion of the Party Chief.

When Traffic Control Through Work Zones is being used for survey purposes only, the END ROAD WORK sign as called for on certain 102 Series of Indexes should be omitted.

Survey Between Active Traffic Lanes or Shared Left Turn Lanes

The following provisions apply to Main Roadway Traffic Control Work Zones. These provisions must be adjusted by the Party Chief to fit roadway and traffic conditions when the Survey Work Zone includes intersections.

- (A) A STAY IN YOUR LANE (MOT-1-06) sign shall be added to the Advance Warning Sign sequence as the second most immediate sign from the work area.
- (B) Elevation Surveys-Cones may be used at the discretion of the Party Chief to protect prism holder and flagger(s). Cones, if used, may be placed at up to 50' intervals along the break line throughout the work zone.

SURVEY WORK ZONES: (Cont.)

(C) Horizontal Control-With traffic flow in the same direction, cones shall be used to protect the backsight tripod and/or instrument. Cones shall be placed at the equipment, and up to 50' intervals for at least 200' towards the flow of traffic.

(D) Horizontal Control-With traffic flow in opposite directions, cones shall be used to protect the backsight tripod and/or instrument. Cones shall be placed at the equipment, and up to 50' intervals for at least 200' in both directions towards the flow of traffic.

SIGNS:

SIGN MATERIALS

Mesh signs and non-retroreflectice vinyl signs may only be used for daylight operations. Non-retroreflectice vinyl signs must meet the requirements of Specifications Section 994.

Retroreflective vinyl signs meeting the requirements of Specification Section 994 may be used for daylight or night operations not to exceed 1 day except as noted in the Indexes.

Rigid or Lightweight sign panels may be used in accordance with the vendor APL drawing for the sign stand to which they are attached.

INTERSECTING ROAD SIGNING

Signing for the control of traffic entering and leaving work zones by way of intersecting crossroads shall be adequate to make drivers aware of work zone conditions. When Work operations exceed 60 minutes, place the ROAD WORK AHEAD sign on the side street entering the work zone.

ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING

Adjoining work zones may not have sufficient spacing for standard placement of signs and other traffic control devices in their advance warning areas or in some cases other areas within their traffic control zones. Where such restraints or conflicts occur or are likely to occur, one of the following methods will be employed to avoid conflicts and prevent conditions that could lead to misunderstanding on the part of the traveling public as to the intended travel way by the traffic control procedure applied:

- (A) For scheduled projects the engineer in responsible charge of project design will resolve anticipated work zone conflicts during the development of the project traffic control plan. This may entail revision of plans on preceding projects and coordination of plans on concurrent projects.
- (B) Unanticipated conflicts arising between adjoining in progress highway construction projects will be resolved by the Resident Engineer for projects under his residency, and, by the District Construction Engineer for in progress projects under adjoining residencies.

(C) The District Maintenance Engineer will resolve anticipated and occurring conflicts within scheduled maintenance operations.

(D) The Unit Maintenance Engineer will resolve conflicts that occur within routine maintenance works; between routine maintenance work, unscheduled work and/or permitted work; and, between unit controlled maintenance works and highway construction projects.

SIGNS: (Cont.)

SIGN COVERING AND INTERMITTENT WORK STOPPAGE SIGNING

Existing or temporary traffic control signs that are no longer applicable or are inconsistent with intended travel paths shall be removed or fully covered.

Sign blanks or other available coverings must completely cover the existing sign. Rigid sign coverings shall be the same size as the sign it is covering, and bolted in a manner to prevent movement.

Sign covers are incidental to work operations and are not paid for separately.

SIGNING FOR DETOURS, LANE SHIFTS AND DIVERSIONS

Detours should be signed clearly over their entire length so that motorists can easily determine how to return to the original roadway. The reverse curve (W1-4) warning sign should be used for the advanced warning for a lane shift. A diversion should be signed as a lane shift.

EXTENDED DISTANCE ADVANCE WARNING SIGN

Advance Warning Signs shall be used at extended distance of one-half mile or more when limited sight distance or the nature of the obstruction may require a motorist to bring their vehicle to a stop. Extended distance Advanced Warning Signs may be required on any type roadway, but particularly be considered on multilane divided highways where vehicle speed is generally in the higher range (45 MPH or more).

UTILITY WORK AHEAD SIGN

The UTILITY WORK AHEAD (W21-7) sign may be used as an alternate to the ROAD WORK AHEAD or the ROAD WORK XX FT (W20-1) sign for utility operations on or adjacent to a highway.

LENGTH OF ROAD WORK SIGN

The length of road work sign (G20-1) bearing the legend ROAD WORK NEXT _____ MILES is required for all projects of more than 2 miles in length. The number of miles entered should be rounded up to the nearest mile. The sign shall be located at begin construction points.

GROOVED PAVEMENT AHEAD SIGN

The GROOVED PAVEMENT AHEAD sign is required 500 feet in advance of a milled or grooved surface open to traffic. The W8-15P placard shall be used in conjunction with the GROOVED PAVEMENT AHEAD sign.

END ROAD WORK SIGN

The END ROAD WORK sign (G20-2) should be installed on all projects, but may be omitted where the work operation is less than 1 day. The sign should be placed approximately 500 feet beyond the end of a construction or maintenance project unless other distance is called for in the plans. When other Construction or Maintenance Operations occur within 1 mile this sign should be omitted and signing coordinated in accordance with Index 102-600, ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING.

| | | | | | | |
|------------------------------|----------|--------------|--|---|------------------|------------------|
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|------------------------------|----------|--------------|--|---|------------------|------------------|

NOTES:

- All signs shall be post mounted when work operations exceed one day except for:
 - Road closure signs mounted in accordance with the vendor drawing for the Type III Barricade shown on the APL.
 - Pedestrian and bicycle advanced warning or pedestrian regulatory signs mounted on sign supports in accordance with the vendor drawing shown on the APL.
 - Median barrier mounted signs per Index 700-013.
 - Bridge mounted signs per Index 700-012.
- Unless shielded with barrier or outside of the Clear Zone, signs mounted on temporary supports or barricades, and barricade/sign combination must be crashworthy in accordance with NCHRP 350 requirements and included on the Approved Products List (APL).
- Use only approved systems listed on the Department's Approved Products List (APL).
- Manufacturers seeking approval of U-Channel and steel square tube sign support assemblies for inclusion on the Approved Products List (APL) must submit a APL application, design calculations (for square tube only), and detailed drawings showing the product meets all the requirements of this Index.
- Provide 3 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.43 in³ for 60 ksi steel, a minimum section modulus of 0.37 in³ for 70 ksi steel, or a minimum section modulus of 0.34 in³ for 80 ksi steel.
- Provide 4 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.56 in³ for 60 ksi steel, or a minimum section modulus of 0.47 in³ for 70 ksi or 80 ksi steel.
- U-channel posts shall conform with ASTM A 499, Grade 60, or ASTM A 576, Grade 1080 (with a minimum yield strength of 60 ksi). Square tube posts shall conform with ASTM A 653, Grade 50, or ASTM A 1011, Grade 50.
- Sign attachment bolts, washers, nuts, and spacers shall conform with ASTM A307 or A 36.
- Install 4 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.
- The contractor may install 3 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.
- Install all posts plumb.
- The contractor may set posts in preformed holes to the specified depth with suitable backfill tamped securely on all sides, or drive 3 lb/ft sign posts and any size base post in accordance with the manufacturer's detail shown on the APL.

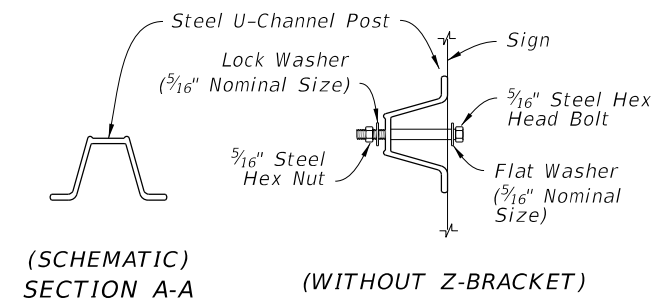
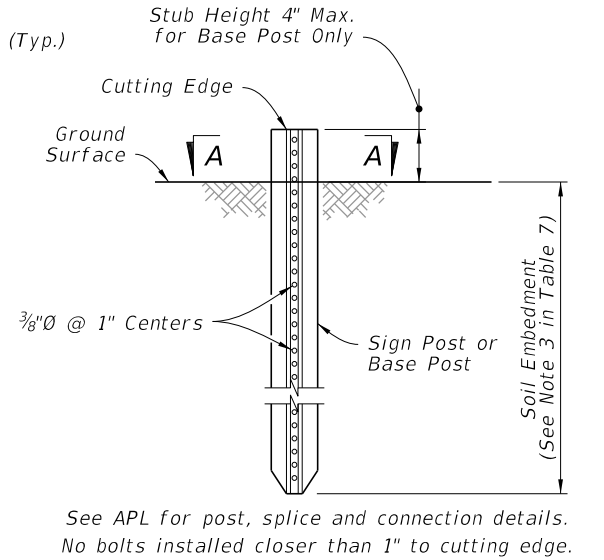
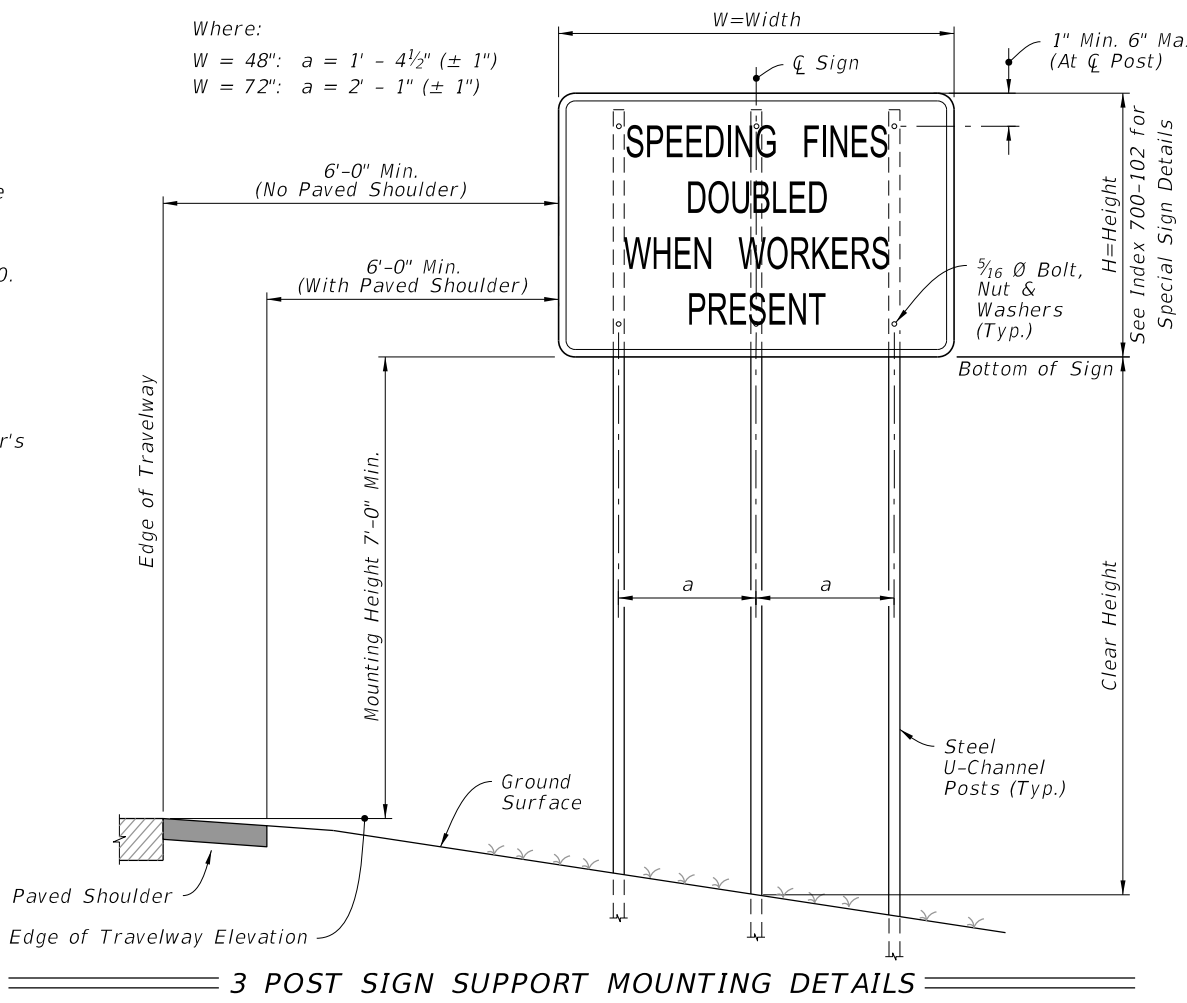
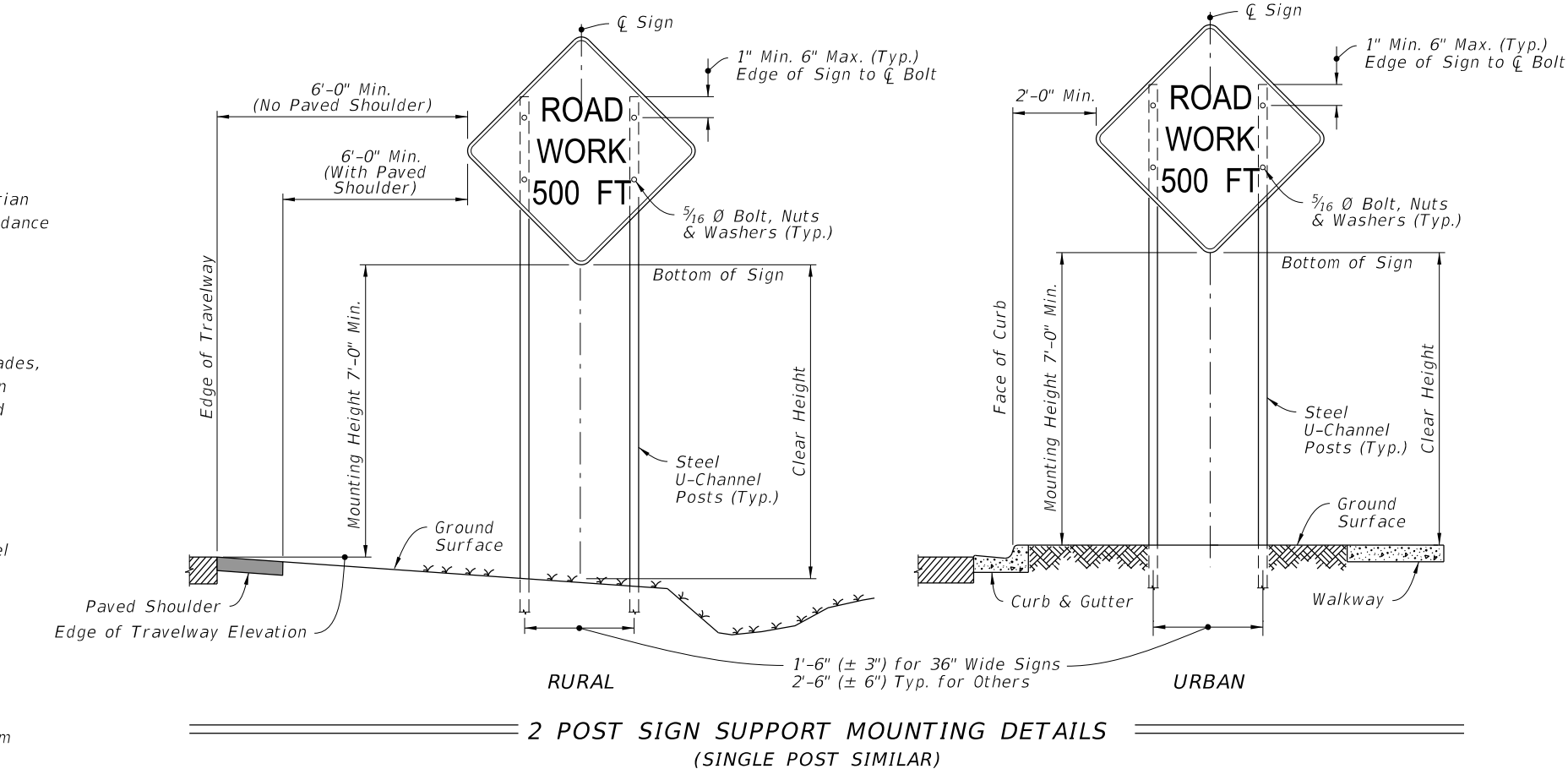



TABLE 7
POST AND FOUNDATION
TABLE FOR
WORK ZONE SIGNS


| SIGN SHAPE | SIGN SIZE (inches) | NUMBER OF STEEL U CHANNEL POSTS |
|-------------------|--------------------|---------------------------------|
| Octagon | 30x30 | 1 |
| | 36x36x36 | 1 |
| | 48x48x48 | 1 |
| Triangle | 48x48x48 | 1 |
| | 60x60x60 | 2 |
| Rectangle (W x H) | 24x18 | 1 |
| | 24x30 | 1 |
| | 30x24 | 1 |
| | 36x18 | 1 |
| | 36x24 | 1 |
| | 48x18 | 1 |
| | 48x24 | 1 |
| | 36x48 | 2 |
| | 48x30 | 2 |
| | 48x36 | 2 |
| | 54x36 | 2 |
| | 48x60 | 3 |
| Square | 72x48 | 3 |
| | 30x30 | 1 |
| | 36x36 | 2 |
| | 48x48 | 2 |
| Diamond | 48x48 | 2 |
| Circle | 36Ø | 2 |

- Notes For Table:
- Use 3 lb/ft posts for Clear Height up to 10' and 4 lb/ft posts for Clear Height up to 12'.
 - Minimum foundation depth is 4.0' for 3 lb/ft posts and 4.5' for 4 lb/ft posts.
 - For both 3 lb/ft and 4 lb/ft base or sign posts installed in rock, a minimum cumulative depth of 2' of rock layer is required.
 - The soil plate as shown on the APL vendor drawing is not required for base posts or sign posts installed in existing rock (as defined in Note 3), asphalt roadway, shoulder pavement or soil under sidewalk.
 - For diamond warning signs with supplement plaque (up to 5 ft² in area), use 4 lb/ft posts for up to 10 ft Clear Height (measure to the bottom of diamond warning sign).

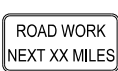
WORK ZONE SIGN SUPPORTS



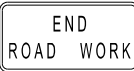
E5-2
B/O




E5-2a
B/O




G20-1
B/O




G20-2
B/O




G20-4
B/O




M4-8
B/O




M4-8A
B/O




M4-9L
B/O




M4-9R
B/O




M4-10L
O/B




M4-10R
O/B




OM-3R
B/Y




R1-1
W/R




R1-2
RW/R




R2-1
B/W




R4-1
B/W




R4-2
B/W




R4-5
B/W




R4-7
B/W




R4-8
B/W




R4-7AL
B/W




R4-7AR
B/W




R4-7BL
B/W




R4-7BR
B/W




R4-11
B/W




R5-1
WR/W




R9-8
B/W




R9-9
B/W




R9-10
B/W




R9-11
B/W




R9-11a
B/W



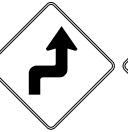
R11-2
B/W



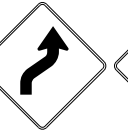
W1-1R
B/O



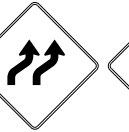
W1-2R
B/O



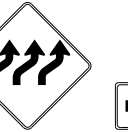
W1-3R
B/O




W1-4R
B/O




W1-4b
B/O




W1-4c
B/O




W1-6
B/O




W1-7
B/O




W1-8
B/O




W3-1
RB/O




W3-2
RB/O




W3-3
B(RYG)/O



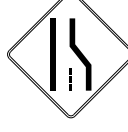
W3-4
B/O




W3-5
BW/O




W4-1
B/O



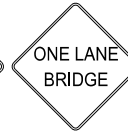
W4-2
B/O



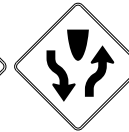
W5-1
B/O



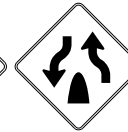
W5-2
B/O



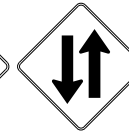
W5-3
B/O



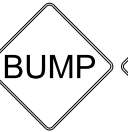
W6-1
B/O



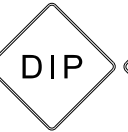
W6-2
B/O




W6-3
B/O



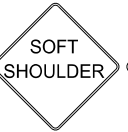
W8-1
B/O




W8-2
B/O




W8-3
B/O




W8-4
B/O




W8-5
B/O




W8-6
B/O




W8-7
B/O




W8-8
B/O




W8-9
B/O




W8-9a
B/O




W8-11
B/O




W8-15P
B/O



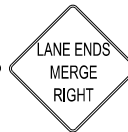
W9-1L
B/O




W9-1R
B/O




W9-2L
B/O




W9-2R
B/O



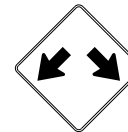
W10-1
B/O



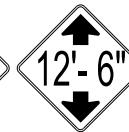
W11-1
B/O



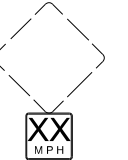
W11-2
B/O




W12-1
B/O




W12-2
B/O




W13-1
B/O




W16-1P
B/O




W16-2P
B/O




W16-7P
B/O




W20-1A
B/O




W20-1B
B/O




W20-1C
B/O




W20-1D
B/O




W20-1E
B/O




W20-1F
B/O




W20-2A
B/O



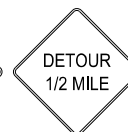
W20-2B
B/O



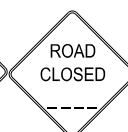
W20-2C
B/O




W20-2D
B/O



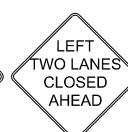
W20-2E
B/O



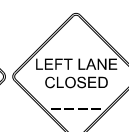
W20-3
B/O



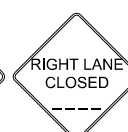
W20-4
B/O



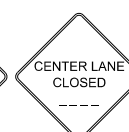
W20-5a
B/O



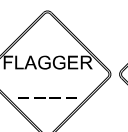
W20-5L
B/O



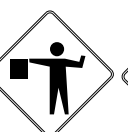
W20-5R
B/O



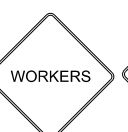
W20-5C
B/O




W20-7A
B/O



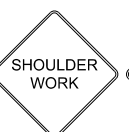
W20-7
B/O




W21-1A
B/O




W21-1
B/O




W21-5
B/O




W21-5a
B/O




W21-6
B/O




W21-7
B/O



W22-1
B/O



W22-2
B/O



W22-3
B/O

NOTES:

- The size of diamond shaped Temporary Traffic Control (TTC) warning signs shall be a minimum of 48" X 48".
- Fluorescent orange shall be used for all orange colored work zone signs.
- The sign shields, symbols and messages contained on this sheet are provided for ready reference to those signs used in the development of the 102 Series of Indexes and are commonly used in the development of traffic control plans. For additional signs and sign detail information refer to the STANDARD HIGHWAY SIGNS MANUAL as specified in the MUTCD. Special signs for traffic control plans will be as approved by the State Traffic Plans Engineer.

The sign codes shown on this sheet are for the purpose of identifying cell names found in the Traffic Control Cell Library (TCZ.Cel).

The STANDARD HIGHWAY SIGNS MANUAL should be referenced for the official sign codes for use in the development of traffic control plans.


See Index 700-102 for MOT sign details.

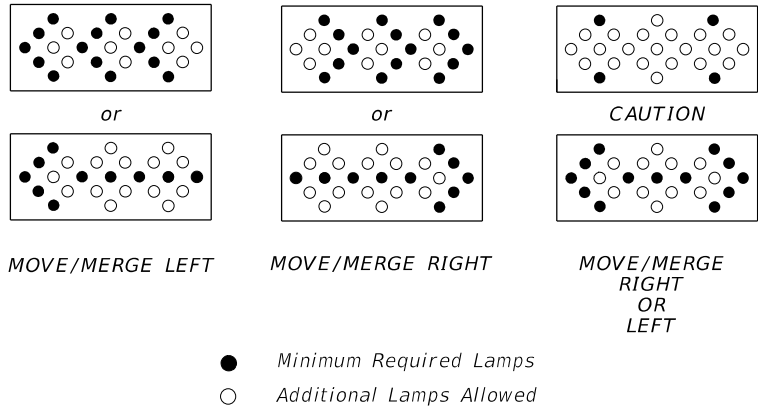
COLOR CODES:

Legend and/or
Symbol Background

R-Red (Reflectorized)
Y-Yellow (Reflectorized)
G-Green (Reflectorized)
O-Orange (Reflectorized)
B-Black (Non-Reflectorized)
W-White (Reflectorized)

COMMONLY USED WARNING AND REGULATORY SIGNS IN WORK ZONES

| | | | | | | |
|------------------------------|----------|--------------|--|---|------------------|------------------|
| LAST REVISION 11/01/24 | REVISION | DESCRIPTION: |  FY 2025-26 STANDARD PLANS | GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES | INDEX 102-600 | SHEET 6 of 11 |
|------------------------------|----------|--------------|--|---|------------------|------------------|



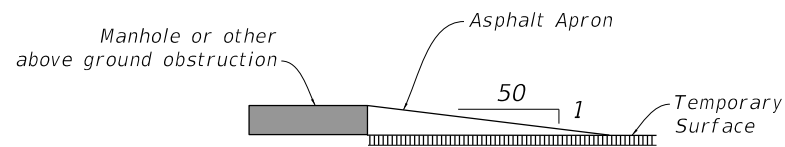
NOTES:
An arrow board in the arrow or chevron mode shall be used only for stationary or moving lane closures on multilane roadways.

For shoulder work, blocking the shoulder, for roadside work near the shoulder, or for temporarily closing one lane on a two-lane, two-way roadway, an arrow board shall be used only in the caution mode.

A single arrow board shall not be used to merge traffic laterally more than one lane. When arrow boards are used to close multiple lanes, a single board shall be used at the merging taper for each closed lane.

When Advance Warning Arrow Boards are used at night, the intensity of the flashers shall be reduced during darkness when lower intensities are desirable.

ADVANCE WARNING ARROW BOARDS

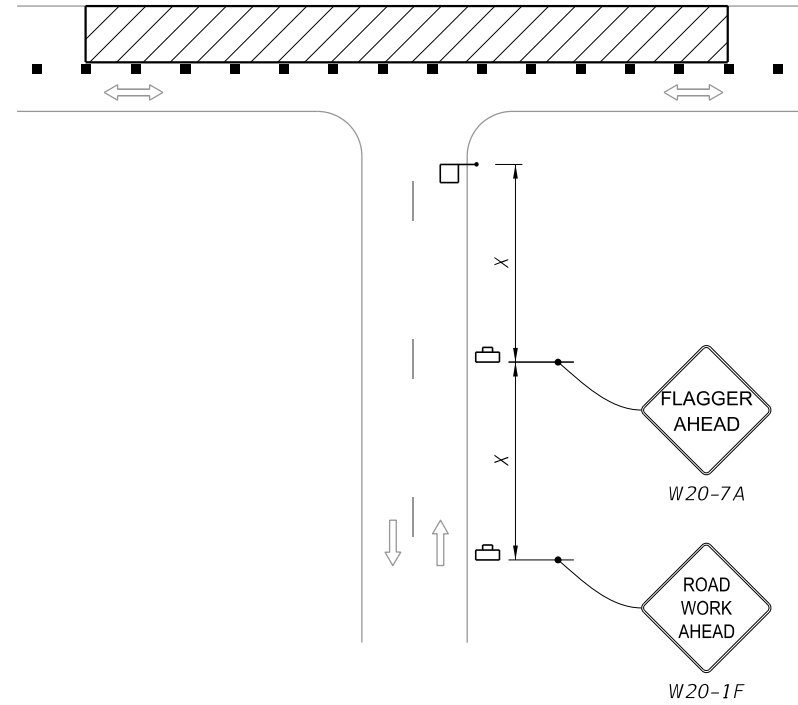


NOTES:
Manholes extending 1" or more above the travel lane and crosswalks having an uneven surface greater than 1/4" shall have a temporary asphalt apron constructed as shown above.

All transverse joints that have a difference in elevation of 1" or more shall have a temporary asphalt apron constructed as shown above.

The apron is to be removed prior to constructing the next lift of asphalt. The cost of the temporary asphalt shall be included in the contract unit price for Maintenance of Traffic, LS.

MANHOLES/CROSSWALKS/JOINTS



NOTE:
Optionally, use "Flagger Ahead" sign with text (W20-7A) instead of "Flagger Ahead" sign with symbol (W20-7).

SIDE ROAD INTERSECTING THE WORK ZONE

SIGNALS:
Existing traffic signal operations that require modification in order to carry out work zone traffic control shall be included in the Plans and be approved by the District Traffic Operations Engineer.


Refer to Specification 102-9 for additional information.

CHANNELIZING DEVICES:
Channelizing devices for work zone traffic control shall be as prescribed in Part VI of the MUTCD, subject to supplemental revisions provided in the contract documents and the 102 Series of Indexes. Lighting Devices must not be used to supplement channelization. Omit tapers and channelizing devices for paved shoulders less than 4' in width.

CHANNELIZING DEVICE CONSISTENCY:
Barricades, vertical panels, cones, tubular markers and drums shall not be intermixed within either the lateral transition or within the tangent alignment.

TRUCK/TRAILER-MOUNTED ATTENUATORS:
Truck/Trailer-mounted attenuators (TMA) can be used for moving operations and short-term stationary operations. For moving operations, see Index 102-607. For short-term, stationary operations, see Part VI of the MUTCD.

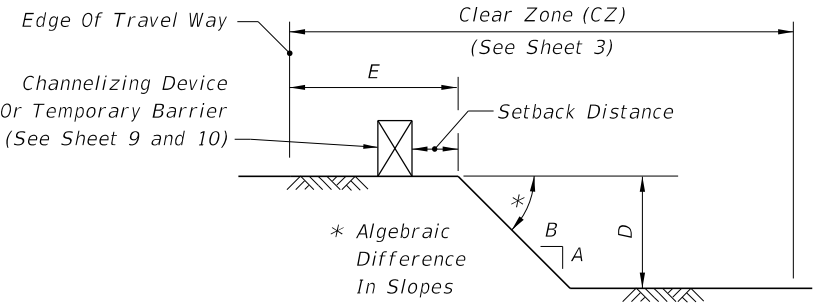
9/10/2024 10:43:33 AM

| | | | | | | |
|------------------------------|----------|--------------|--|---|------------------|------------------|
| LAST REVISION 11/01/21 | REVISION | DESCRIPTION: |  FY 2025-26 STANDARD PLANS | GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES | INDEX 102-600 | SHEET 7 of 11 |
|------------------------------|----------|--------------|--|---|------------------|------------------|

9/10/2024 10:43:40 AM

DROP-OFF CONDITION NOTES

1. These conditions and treatments can be applied only in work areas that fall within a properly signed work zone.
2. When drop-offs occur within the clear zone due to construction or maintenance activities, protection devices are required (See Table 8). A drop-off is defined as a drop in elevation, parallel to the adjacent travel lanes, greater than 3" with slope (A:B) steeper than 1:4. In superelevated sections, the algebraic difference in slopes should not exceed 0.25 (See Drop-off Condition Detail).
3. Drop-offs may be mitigated by placement of slopes with optional base material per Specifications Section 285. Slopes shallower than 1:4 may be required to avoid algebraic difference in slopes greater than 0.25. Include the cost for the placement and removal of the material in Maintenance of Traffic, LS. Use of this treatment in lieu of a temporary barrier is not eligible for CSIP consideration. Conduct daily inspections for deficiencies related to erosion, excessive slopes, rutting or other adverse conditions. Repair any deficiencies immediately.
4. For Setback Distance, refer to the Index or Approved Products List (APL) drawing of the selected barrier.
5. For Conditions 1 and 3 provided in Table 8, any drop-off condition that is created and restored within the same work period will not be subject to use of temporary barriers; however, channelizing devices will be required.
6. When permanent curb heights are ≥ 6", no channelizing device will be required. For curb heights < 6", see Table 8.

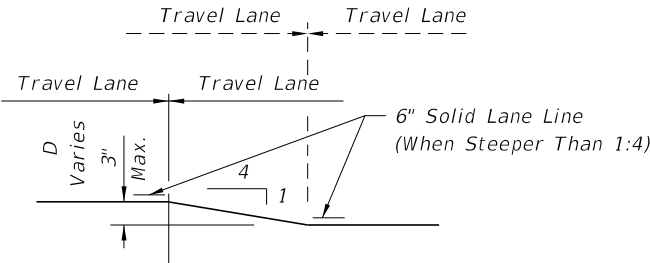


DROP-OFF CONDITION DETAIL

| Table 8 Drop-off Protection Requirements | | | |
|---|---|------------|---------------------|
| Condition | E (ft) | D (in.) | Device Required |
| 1 | 0-12 | > 3 | Temporary Barrier |
| 2 | > 12-CZ | > 3 to ≤ 5 | Channelizing Device |
| 3 | 0-CZ | > 5 | Temporary Barrier |
| 4 | Removal of Bridge or Retaining Wall Barrier | | Temporary Barrier |
| 5 | Removal of portions of Bridge Deck | | Temporary Barrier |

TRAVEL LANE TREATMENT FOR
MILLING OR RESURFACING NOTES

1. This treatment applies to resurfacing or milling operations between adjacent travel lanes.
2. Whenever there is a difference in elevation between adjacent travel lanes, the W8-11 sign with "UNEVEN LANES" is required at intervals of ½ mile maximum.
3. If D is 1½" or less, no treatment is required.
4. Treatment allowed only when D is 3" or less.
5. If the slope is steeper than 1:4 (not to be steeper than 1:1), the R4-1 and MOT-1-06 signs shall be used as a supplement to the W8-11; this condition should never exceed 3 miles in length.



TRAVEL LANE TREATMENT FOR
MILLING OR RESURFACING DETAIL


PEDESTRIAN WAY DROP-OFF CONDITION NOTES

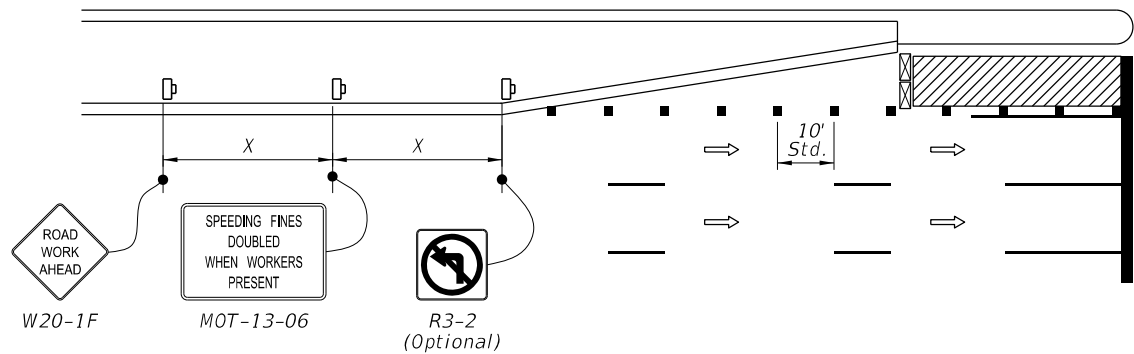
1. A pedestrian way drop-off is defined as:

a. a drop in elevation greater than 10" that is closer than 2' from the edge of the pedestrian way

b. a slope steeper than 1:2 that begins closer than 2' from the edge of the pedestrian way when the total drop-off is greater than 60"
2. Protect any drop-off adjacent to a pedestrian way with pedestrian longitudinal channelizing devices, temporary barrier wall, or approved handrail.

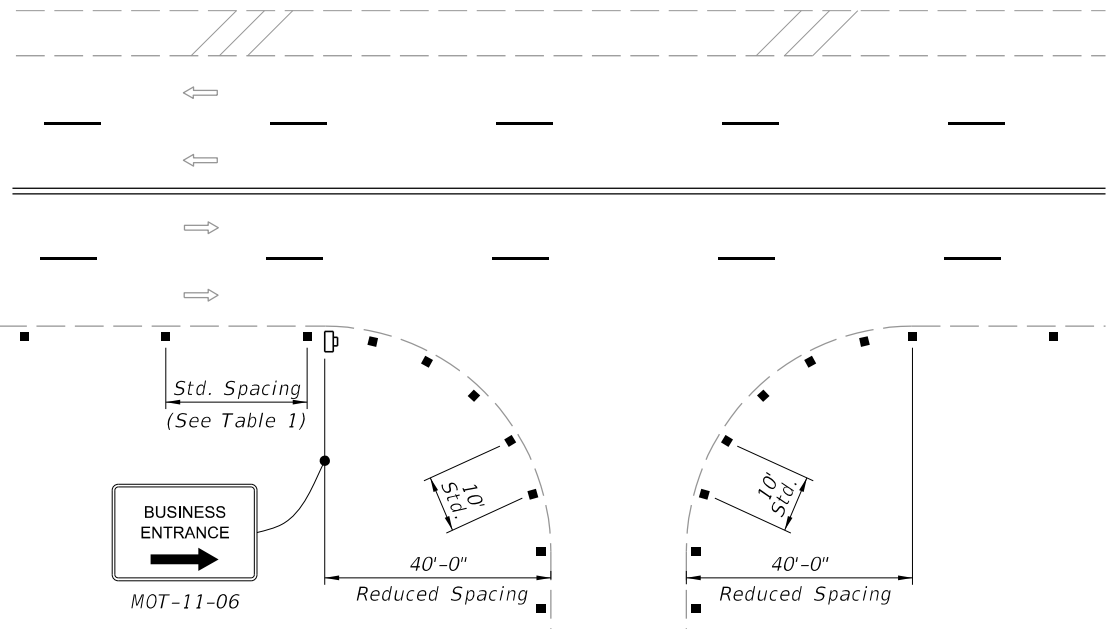
DROP-OFFS IN WORK ZONES

| | | | | | | |
|------------------------------|----------|--------------|--|---|------------------|------------------|
| LAST REVISION 11/01/20 | REVISION | DESCRIPTION: |  FY 2025-26 STANDARD PLANS | GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES | INDEX 102-600 | SHEET 8 of 11 |
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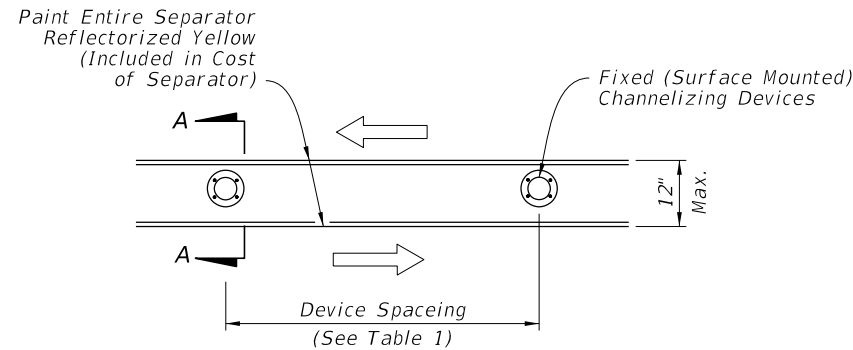
- NOTES:**
1. X = Work Zone Sign Spacing (See Table 3).
 2. The *SPEEDING FINES DOUBLE WHEN WORKERS PRESENT* sign (MOT-13-06) may be omitted when work operation will be in place for 24 hours or less.

AUXILIARY LANE CLOSURE

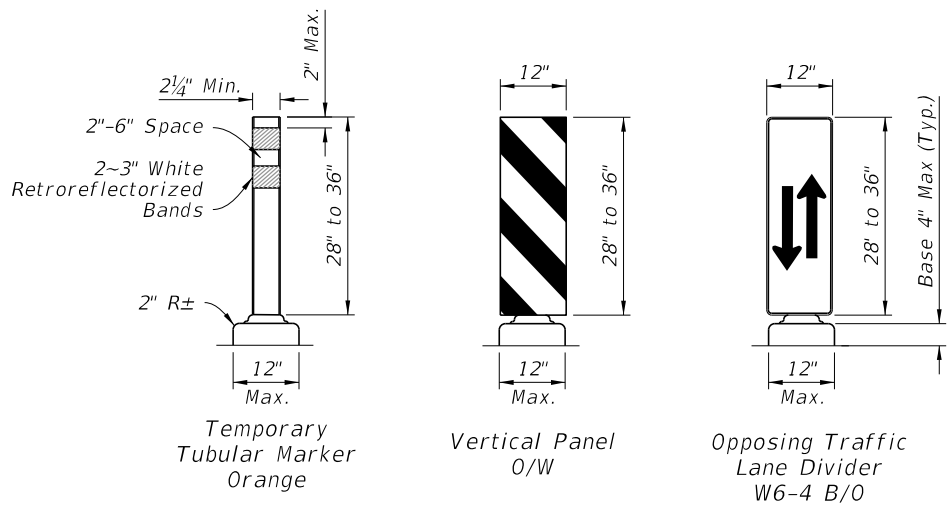


- NOTES:**
1. For single business entrances, place one 24" x 36" *BUSINESS ENTRANCE* sign (MOT-11-06) showing the specific business name for each affected driveway entrance. Logos may be provided by business owners. Standard *BUSINESS ENTRANCE* sign (MOT-11-06) may be used when approved by the Engineer.
 2. When several businesses share a common driveway entrance, place one 24" x 36" standard *BUSINESS ENTRANCE* sign (MOT-11-06) in accordance with Index 700-102 at the common driveway entrance.
 3. Channelizing devices shall be placed at a reduced spacing on each side of the driveway entrance, but shall not restrict sight distance for the driveway users.
 4. Business entrance signs are intended to guide motorist to business entrances moved/modified or disturbed during construction projects. Business entrance signs are not required where there is minimal disruption to business driveways which is often the case with resurfacing type projects.

BUSINESS ENTRANCE SIGNS AND CHANNELIZING DEVICES PLACEMENT AT BUSINESS ENTRANCE



PLAN



SECTION A-A

- NOTES:**
1. Temporary lane separators shall be supplemented with any of the following approved fixed (surface mounted) channelizing devices: temporary tubular markers, vertical panels, or opposing traffic lane divider panels. Opposing traffic lane divider panels (W6-4) shall only be used as center lane dividers to separate opposing vehicular traffic on a two-lane, two-way operation. Temporary Tubular Markers, Vertical Panels and Opposing Traffic Lane Divider panels shall not be intermixed within the limits where the temporary lane separator is used. The connection between the channelizing device and the temporary lane separator curb shall hold the channelizing device in a vertical position.
 2. ReflectORIZED materials shall have a smooth sealed outer surface which will display the same approximate color day and night. Furnish channelizing devices having retroreflective sheeting meeting the requirements of Section 990.
 3. 12" openings for drainage shall be constructed in the asphalt and portable temporary lane separator at a maximum spacing of 25' in areas with grades of 1% or less or 50' in areas with grades over 1% as directed by the Engineer.
 4. Tapered ends shall be used at the beginning and end of each run of the temporary lane separator to form a gradual increase in height from the pavement level to the top of the temporary lane separator.
 5. The Contractor has the option of using portable temporary lane separators containing fixed channelizing devices in lieu of the temporary asphalt separator and channelizing devices detailed on this sheet. The portable temporary lane separator shall come in portable sections that can be connected to maintain continuous alignment between the separate curb sections. Each temporary lane separator section shall be 36 inches to 48 inches in total length. Portable temporary lane separators shall duplicate the color of the pavement marking. Portable temporary lane separators shall be one of those listed on the Approved Products List.

FIXED CHANNELIZING DEVICES (Temporary Lane Separators)



FY 2025-26
STANDARD PLANS

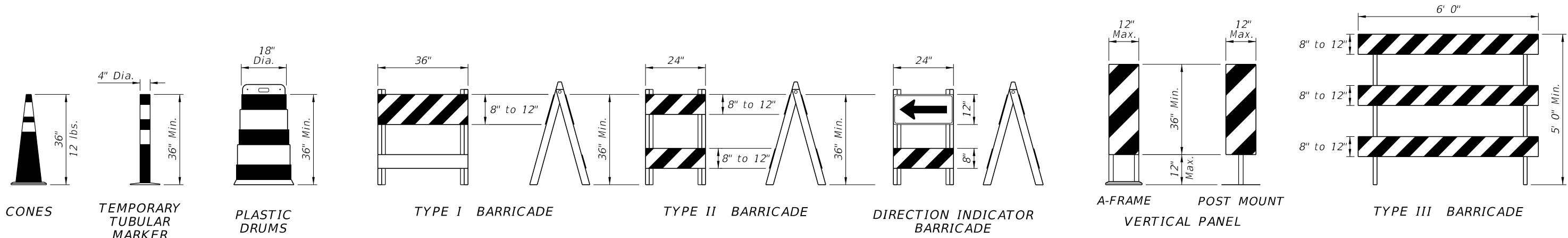
GENERAL INFORMATION FOR TRAFFIC
CONTROL THROUGH WORK ZONES

INDEX
102-600

SHEET
9 of 11

LAST
REVISION
11/01/23

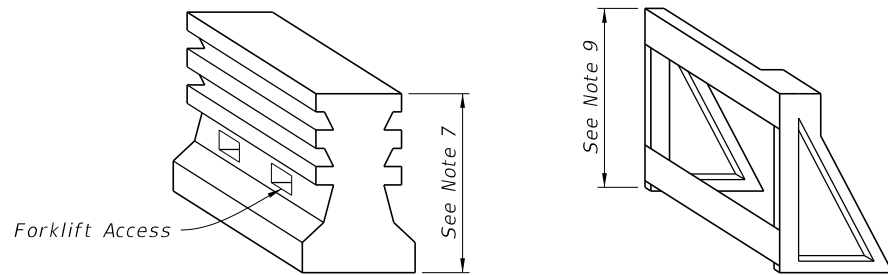
DESCRIPTION:



CHANNELIZING DEVICES

CHANNELIZING DEVICE NOTES:

- The details shown on this sheet are for the following purposes:
 - For ease of identification and
 - To provide information that supplements or supersedes that provided by the MUTCD.
- The Type III Barricade shall have a unit length of 6'-0" only. When barricades of greater lengths are required those lengths shall be in multiples of the 6'-0" unit.
- No sign panel should be mounted on any channelizing device unless the channelizing device/sign combination was found to be crashworthy and the sign panel is mounted in accordance with the vendor drawing for the channelizing device shown on the Approved Products List (APL).
- Ballast shall not be placed on top rails or any striped rails or higher than 13" above the driving surface.
- The direction indicator barricade may be used in tapers and transitions where specific directional guidance to drivers is necessary. If used, direction indicator barricades shall be used in series to direct the driver through the transition and into the intended travel lane.
- The splicing of sheeting is not permitted on channelizing devices or MOT signs.
- For rails less than 3'-0" long, 4" stripes shall be used.
- Cones shall:
 - Be used only in active work zones where workers are present.
 - Be reflectorized as per the MUTCD with Department-approved reflective collars when used at night.
- For pedestrian longitudinal channelizing devices, the device shall have a minimum of 8" continuous detectable edging above the walkway. A gap not exceeding a height of 2" is allowed to facilitate drainage. The top surface of the device shall be a minimum height of 32" and have a 1/8" or less difference in any plane at all connection points between the devices to facilitate hand trailing. The bottom and the top surface of the device shall be in the same vertical plane. If pedestrian drop-off protection is required, the device shall have a footprint or offset of at least 2', otherwise the device must be at least 42" in height above the walkway and be anchored or ballasted to withstand a 200 lb lateral point load at the top of the device.




PEDESTRIAN LONGITUDINAL CHANNELIZING DEVICES

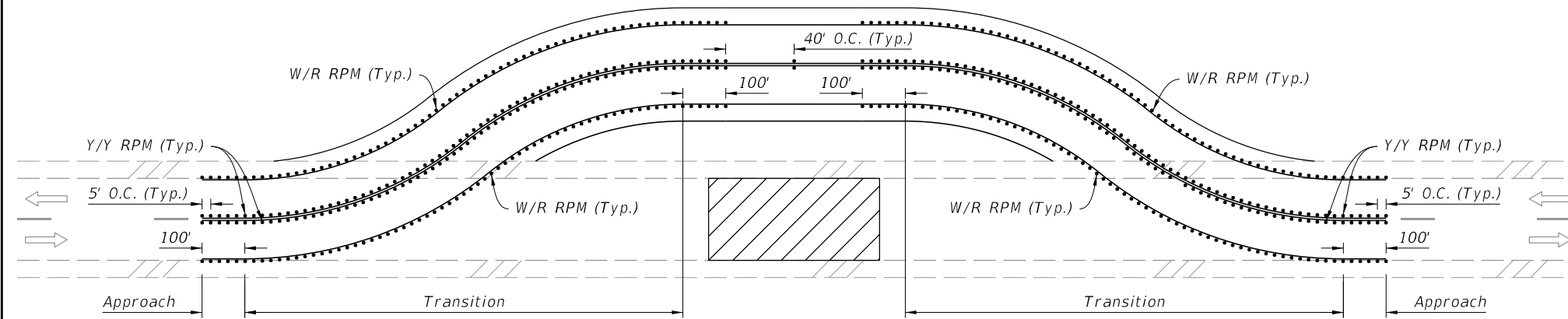
TEMPORARY BARRIER NOTES:

- Where a barrier is specified, any of the types below may be used in accordance with the applicable Index:

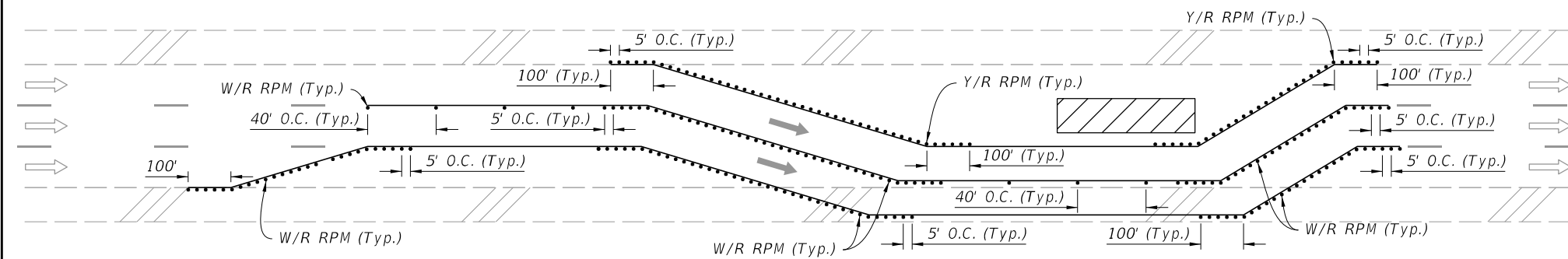
| Index | Description |
|---------|---------------------|
| 102-100 | Temporary Barrier |
| 102-120 | Low Profile Barrier |
| 536-001 | Guardrail |
- Trailer Mounted Barriers may be used to provide positive protection for workers within the work areas. APL drawings may be used as a guide to develop project specific Temporary Traffic Control Plans that are signed and sealed by the Contractor's Engineer.

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|------------------------------|----------|--------------|--|---|-------------------------|--------------------------|
| LAST REVISION 11/01/20 | REVISION | DESCRIPTION: |  FY 2025-26 STANDARD PLANS | GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES | INDEX 102-600 | SHEET 10 of 11 |
|------------------------------|----------|--------------|--|---|-------------------------|--------------------------|



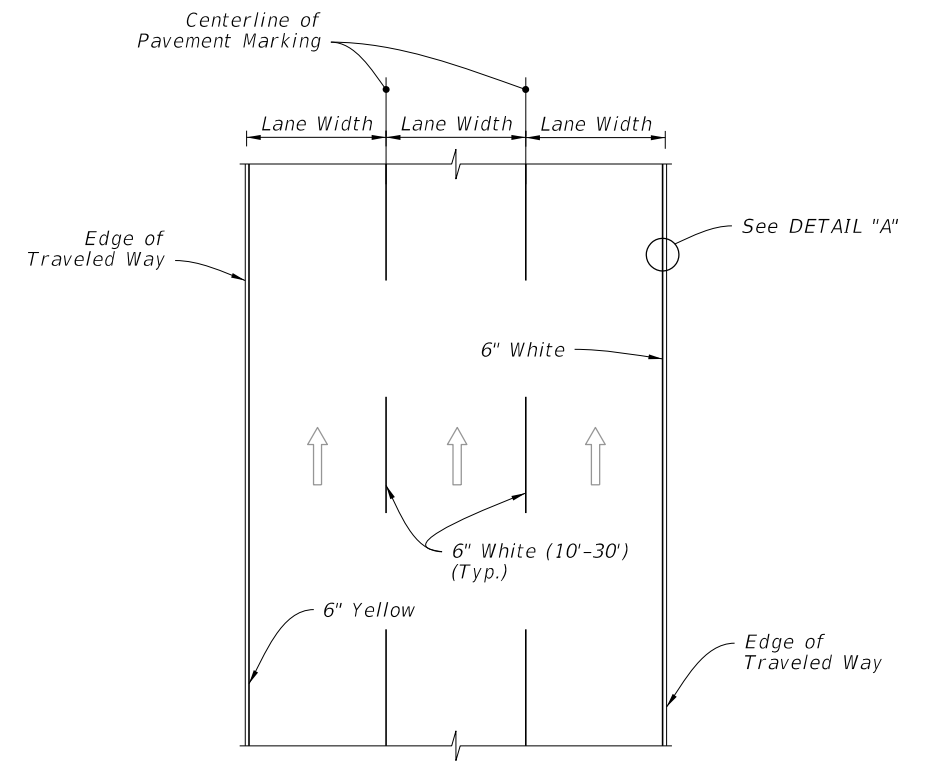
RPM PLACEMENT ON TWO-LANE ROADWAYS



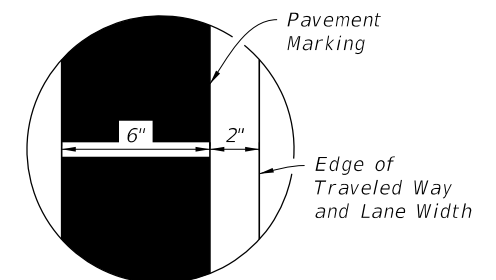
RPM PLACEMENT ON MULTILANE ROADWAYS
(Lane Shift Shown, Other Multilane Typical Applications Similar)

NOTES:

1. Install RPMs as a supplement to:
 - a. All lane lines
 - b. Edge lines in transitions (e.g., merges, diversions, lane shifts)
 - c. Edge lines of gore areas
2. Extend pavement marking and 5' RPM spacing by 100' in each direction for all transitions regardless of the line type.
3. Place RPMs in accordance with this detail and Index 706-001.



PLAN VIEW




DETAIL "A"

RPM PLACEMENT IN WORK ZONES

PAVEMENT MARKINGS PLACEMENT

WORK ZONE PAVEMENT MARKINGS

| | | | | | | |
|------------------------------|----------|--------------|--|---|------------------|-------------------|
| LAST REVISION 11/01/23 | REVISION | DESCRIPTION: |  FY 2025-26 STANDARD PLANS | GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES | INDEX 102-600 | SHEET 11 of 11 |
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U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

EXHIBIT C

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

| | | | |
|---|---|--|---|
| A. Revision Date (MM/DD/YYYY) ____/____/____ | B. Reporting Agency <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input type="checkbox"/> State <input type="checkbox"/> Other | C. Reason for Update (Select only one) <input type="checkbox"/> Change in Data <input type="checkbox"/> New Crossing <input type="checkbox"/> Closed <input type="checkbox"/> Re-Open <input type="checkbox"/> Date Change Only <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction | D. DOT Crossing Inventory Number |
|---|---|--|---|

Part I: Location and Classification Information

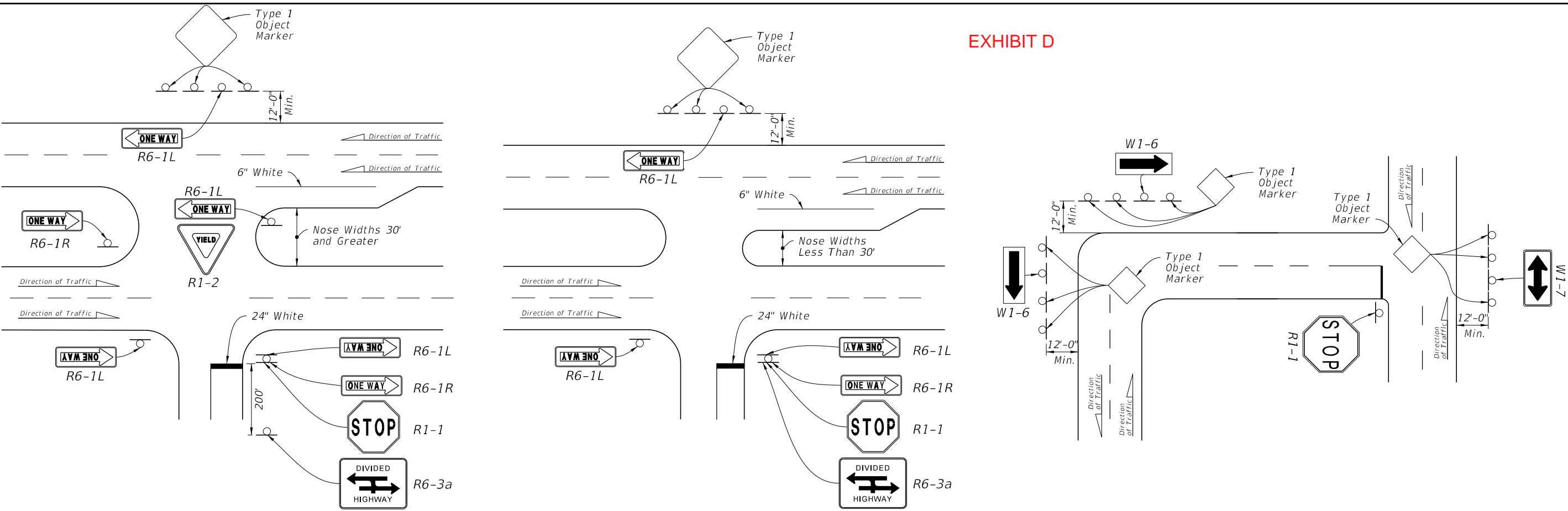
| | | | | | |
|---|---|--|---|--|---|
| 1. Primary Operating Railroad | | 2. State | | 3. County | |
| 4. City / Municipality <input type="checkbox"/> In <input type="checkbox"/> Near _____ | | 5. Street/Road Name & Block Number (Street/Road Name) _____ * (Block Number) _____ | | 6. Highway Type & No. | |
| 7. Do Other Railroads Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Specify RR _____ | | | 8. Do Other Railroads Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Specify RR _____ | | |
| 9. Railroad Division or Region <input type="checkbox"/> None _____ | | 10. Railroad Subdivision or District <input type="checkbox"/> None _____ | | 11. Branch or Line Name <input type="checkbox"/> None _____ | |
| 12. RR Milepost ____ (prefix) (nnnn.nnn) ____ (suffix) | | | | | |
| 13. Line Segment * | | 14. Nearest RR Timetable Station * | | 15. Parent RR (if applicable) <input type="checkbox"/> N/A | |
| 16. Crossing Owner (if applicable) <input type="checkbox"/> N/A | | | | | |
| 17. Crossing Type <input type="checkbox"/> Public <input type="checkbox"/> Private | 18. Crossing Purpose <input type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped. | 19. Crossing Position <input type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over | 20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input type="checkbox"/> No | 21. Type of Train <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter <input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other | 22. Average Passenger Train Count Per Day <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day _____ |
| 23. Type of Land Use <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard | | | | | |
| 24. Is there an Adjacent Crossing with a Separate Number? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Provide Crossing Number _____ | | | 25. Quiet Zone (FRA provided) <input type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established _____ | | |
| 26. HSR Corridor ID <input type="checkbox"/> N/A | 27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) | | 28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) | | 29. Lat/Long Source <input type="checkbox"/> Actual <input type="checkbox"/> Estimated |
| 30.A. Railroad Use * | | | 31.A. State Use * | | |
| 30.B. Railroad Use * | | | 31.B. State Use * | | |
| 30.C. Railroad Use * | | | 31.C. State Use * | | |
| 30.D. Railroad Use * | | | 31.D. State Use * | | |
| 32.A. Narrative (Railroad Use) * | | | 32.B. Narrative (State Use) * | | |
| 33. Emergency Notification Telephone No. (posted) | | 34. Railroad Contact (Telephone No.) | | 35. State Contact (Telephone No.) | |

Part II: Railroad Information

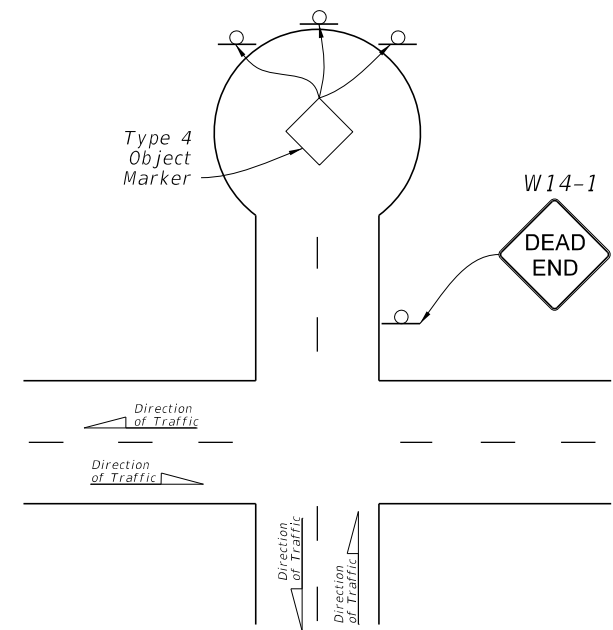
| | | | | |
|--|---|--|----------------------------------|---|
| 1. Estimated Number of Daily Train Movements | | | | |
| 1.A. Total Day Thru Trains (6 AM to 6 PM) | 1.B. Total Night Thru Trains (6 PM to 6 AM) | 1.C. Total Switching Trains | 1.D. Total Transit Trains | 1.E. Check if Less Than One Movement Per Day <input type="checkbox"/> How many trains per week? _____ |
| 2. Year of Train Count Data (YYYY) | | 3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) _____ 3.B. Typical Speed Range Over Crossing (mph) From _____ to _____ | | |
| 4. Type and Count of Tracks Main _____ Siding _____ Yard _____ Transit _____ Industry _____ | | | | |
| 5. Train Detection (Main Track only) <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None | | | | |
| 6. Is Track Signaled? <input type="checkbox"/> Yes <input type="checkbox"/> No | | 7.A. Event Recorder <input type="checkbox"/> Yes <input type="checkbox"/> No | | 7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input type="checkbox"/> No |

U. S. DOT CROSSING INVENTORY FORM

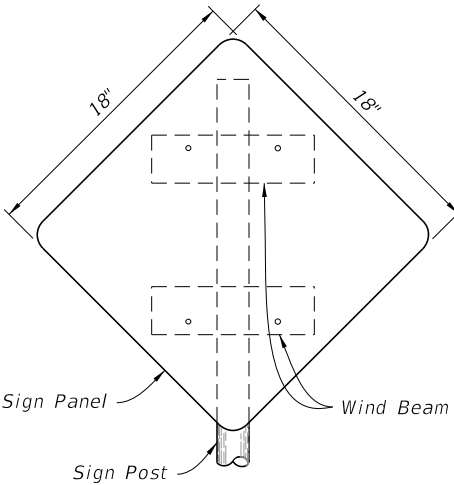
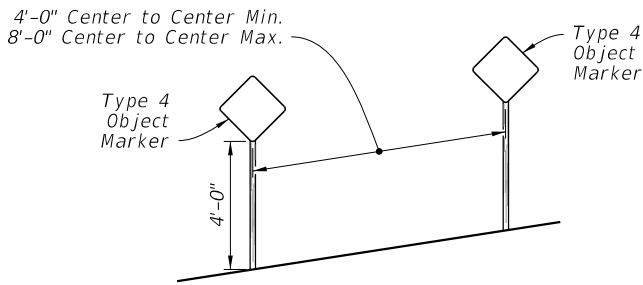
| | | | | | |
|--|--|--|---|--|---|
| A. Revision Date (MM/DD/YYYY) | | PAGE 2 | | D. Crossing Inventory Number (7 char.) | |
| Part III: Highway or Pathway Traffic Control Device Information | | | | | |
| 1. Are there Signs or Signals? <input type="checkbox"/> Yes <input type="checkbox"/> No | | 2. Types of Passive Traffic Control Devices associated with the Crossing | | | |
| 2.A. Crossbuck Assemblies (count) <input type="checkbox"/> Yes <input type="checkbox"/> No | | 2.B. STOP Signs (R1-1) (count) <input type="checkbox"/> Yes <input type="checkbox"/> No | 2.C. YIELD Signs (R1-2) (count) <input type="checkbox"/> Yes <input type="checkbox"/> No | 2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input type="checkbox"/> W10-1 <input type="checkbox"/> W10-3 <input type="checkbox"/> W10-11 <input type="checkbox"/> W10-2 <input type="checkbox"/> W10-4 <input type="checkbox"/> W10-12 | |
| 2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input type="checkbox"/> No | 2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None | | 2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input type="checkbox"/> None | | 2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____ | | | 2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No | 2.L. LED Enhanced Signs (List types) | |
| 3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply) | | | | | |
| 3.A. Gate Arms (count) Roadway _____ Pedestrian _____ | 3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) <input type="checkbox"/> 3 Quad Resistance <input type="checkbox"/> 4 Quad Median Gates | 3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane _____ <input type="checkbox"/> Incandescent Not Over Traffic Lane _____ <input type="checkbox"/> LED | | 3.D. Mast Mounted Flashing Lights (count of masts) _____ <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included | 3.E. Total Count of Flashing Light Pairs |
| 3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input type="checkbox"/> Not Required | | 3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No | | 3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input type="checkbox"/> No | 3.I. Bells (count) |
| 3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None | | | | 3.K. Other Flashing Lights or Warning Devices Count _____ Specify type _____ | |
| 4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input type="checkbox"/> No | 4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs | 4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance | 5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____ | 6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None | |
| Part IV: Physical Characteristics | | | | | |
| 1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes _____ <input type="checkbox"/> Divided Traffic | | 2. Is Roadway/Pathway Paved? <input type="checkbox"/> Yes <input type="checkbox"/> No | 3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input type="checkbox"/> No | | 4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____ | | | | | |
| 6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) _____ | | | 7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90° | | 8. Is Commercial Power Available? * <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Part V: Public Highway Information | | | | | |
| 1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal Aid | | 2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local | | 3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input type="checkbox"/> No 4. Highway Speed Limit _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory | |
| 7. Annual Average Daily Traffic (AADT) Year _____ AADT _____ | | 8. Estimated Percent Trucks _____ % | | 9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day _____ | |
| 10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | |
| Submission Information - This information is used for administrative purposes and is not available on the public website. | | | | | |
| Submitted by _____ Organization _____ Phone _____ Date _____ Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590. | | | | | |



TYPE 1 OBJECT MARKER PLACEMENT



TYPE 4 OBJECT MARKER PLACEMENT



OBJECT MARKER DETAIL

- NOTES:**
- 1. Index applicable to residential and minor streets only. Major streets to be evaluated on a case-by-case basis.
 - 2. Install Object Markers in accordance with Index 700-010
 - 3. See Index 711-001 for pavement markings.
 - 4. Provide sheeting on signs and object markers in accordance with Specification 993.

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| LAST REVISION | DESCRIPTION: | FDOT | FY 2021-22 STANDARD PLANS | TRAFFIC CONTROLS FOR STREET TERMINATIONS | INDEX | SHEET |
|---------------|--------------|------|---------------------------|--|---------|--------|
| 11/01/20 | | | | | 700-109 | 1 of 1 |