



Florida Department of Transportation

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ROADWAY DESIGN BULLETIN 21-05

(FHWA Approval: 5/3/21)

DATE: *May 14, 2021*

TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Construction Engineers, District Structures Design Engineers, District Maintenance Engineers, District Consultant Project Management Engineers, District Roadway Design Engineers, District Traffic Operations Engineers, Program Management Engineers, District Materials Engineers, District Specifications Engineers, District Estimates Engineers

FROM: Michael Shepard, P.E., State Roadway Design Engineer

DocuSigned by:
Michael Shepard
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SUBJECT: ***Developmental Standard Plans: Index D102-690 (Temporary Traffic Control for Roundabouts)***

This bulletin introduces new ***Developmental Standard Plans, Index D102-690, (Temporary Traffic Control for Roundabouts)*** and associated ***Developmental Standard Plans Instructions (DSPI)***.

COMMENTARY

This ***Developmental Standard Plan*** covers Temporary Traffic Control (TTC) for work in a roundabout. ***Index D102-690*** establishes the minimal requirements for the layout of the work zone, signage, and flagging operation.

IMPLEMENTATION

Index D102-690 is available for immediate use on applicable projects. ***Developmental Standard Plans*** are found on the Department's website using the following link:

<https://www.fdot.gov/design/standardplans/dev.shtm>

Roadway Design Bulletin 21-05
Developmental Standard Plans, Index D102-690 (*Temporary Traffic Control for Roundabouts*)
Page 2 of 2

Follow the *Developmental Standard Plans Usage Process* as outlined in **FDM 115** and insert ***Index D102-690*** in the Plans as described in **FDM 302**.

See Attachment 'A' for ***Index D102-690*** and Attachment 'B' for ***DSPI-102-690***.

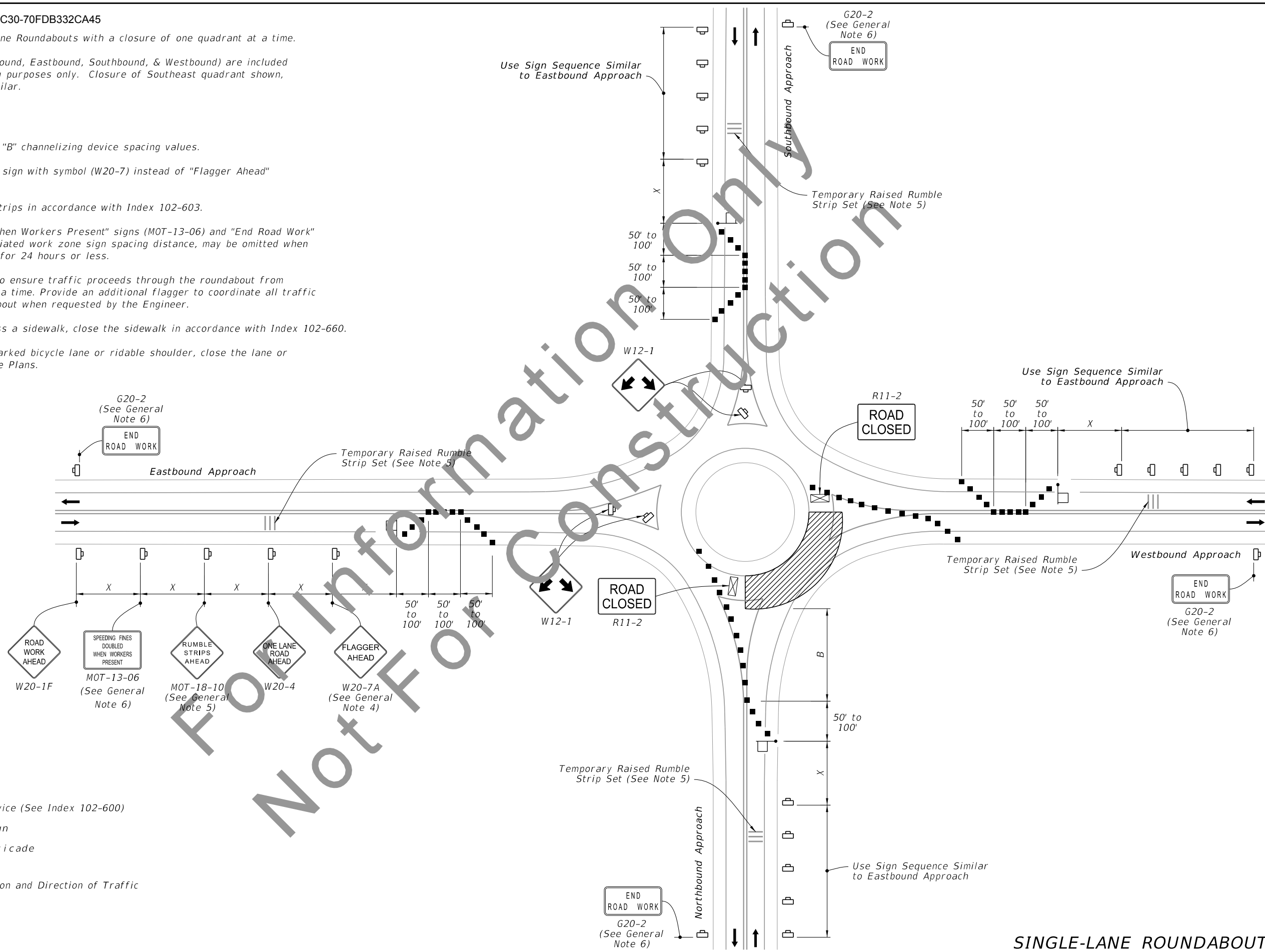
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ATTACHMENT 'A'

1. This Index applies to Single-Lane Roundabouts with a closure of one quadrant at a time.
2. Cardinal directions (i.e., Northbound, Eastbound, Southbound, & Westbound) are included for illustrative and referencing purposes only. Closure of Southeast quadrant shown, closure of other quadrants similar.
3. L = Taper Length
B = Buffer Length
X = Work Zone Sign Spacing
See Index 102-600 for "X" and "B" channelizing device spacing values.
4. Optionally, use "Flagger Ahead" sign with symbol (W20-7) instead of "Flagger Ahead" sign with text (W20-7A).
5. Use temporary raised rumble strips in accordance with Index 102-603.
6. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign spacing distance, may be omitted when the work zone will be in place for 24 hours or less.
7. Coordinate flagging operation to ensure traffic proceeds through the roundabout from only one approach direction at a time. Provide an additional flagger to coordinate all traffic movements through the roundabout when requested by the Engineer.
8. If the work area extends across a sidewalk, close the sidewalk in accordance with Index 102-660.
9. If the work encroaches on a marked bicycle lane or rideable shoulder, close the lane or shoulder in accordance with the Plans.



SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Type III Barricade
- Flagger
- Lane Identification and Direction of Traffic

SINGLE-LANE ROUNDABOUT

LAST REVISION	DESCRIPTION:
05/14/21	

DEVELOPMENTAL STANDARD PLANS

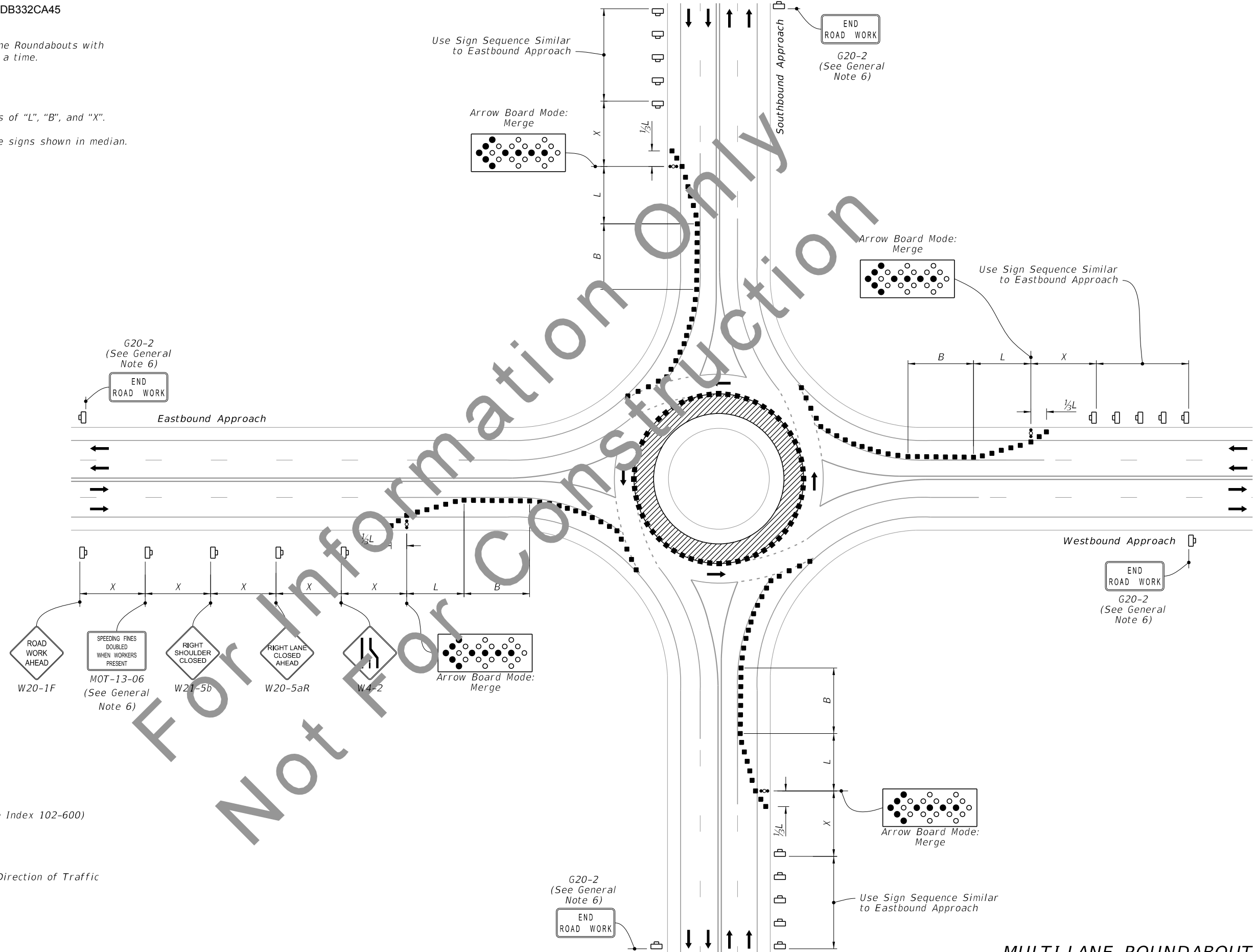
WORK WITHIN THE ROUNDABOUT

INDEX	SHEET
D102-690	1 of 2

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NOTES:

1. This Index applies to Two-Lane Roundabouts with a closure of one quadrant at a time.
2. L = Taper Length
B = Buffer Length
X = Work Zone Sign Spacing
See Index 102-600 for values of "L", "B", and "X".
3. On divided roadways duplicate signs shown in median.



- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Arrow Board
- Lane Identification and Direction of Traffic

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LAST REVISION 05/14/21	REVISION	DESCRIPTION:	DEVELOPMENTAL STANDARD PLANS	WORK WITHIN THE ROUNDABOUT	INDEX D102-690	SHEET 2 of 2
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MULTI-LANE ROUNDABOUT

ATTACHMENT 'B'

Index D102-690 Temporary Traffic Control for Roundabouts

Design Criteria

FDOT Design Manual (FDM), Manual on Uniform Traffic Control Devices (MUTCD), and Standard Plans 102-600.

Design Assumptions and Limitations

This *Developmental Standard Plans Instructions* covers *Standard Plans, Index D102-690 (Temporary Traffic Control for Roundabouts)*.

The rudimentary TTC layouts shown in this index may not be adequate for all work operations within or adjacent to a roundabout.

Many roundabouts, particularly multilane roundabouts, have unique surrounding site constraints and design elements that will require site specific TTC plans to address lane closures. It is likely that closures of the outside lanes of a multilane roundabout will require site specific detours and road closures.

See the following *Standard Plans Instructions* for additional TTC information:

- *Index 102-600 (102 Series) - Temporary Traffic Control*
- *Indexes 102-660 and 102-661 - Sidewalk and Bicycle Lane Closures*

Accommodations for the turning radius of wider heavy commercial vehicles should be considered. Since geometrics of the roundabout will temporarily be altered, consider establishing a truck detour for the duration of the project if accommodations cannot be made.

Install temporary pavement markings for work operations that are anticipated to be in place for more than three days.

See **Figure 1** through **Figure 4** below for flagging operation traffic flow paths through the roundabout.

Temporary traffic signals may be used as an alternative to flaggers for site specific long-term closure of a roundabout with the use of appropriate signal timing and phasing plans.

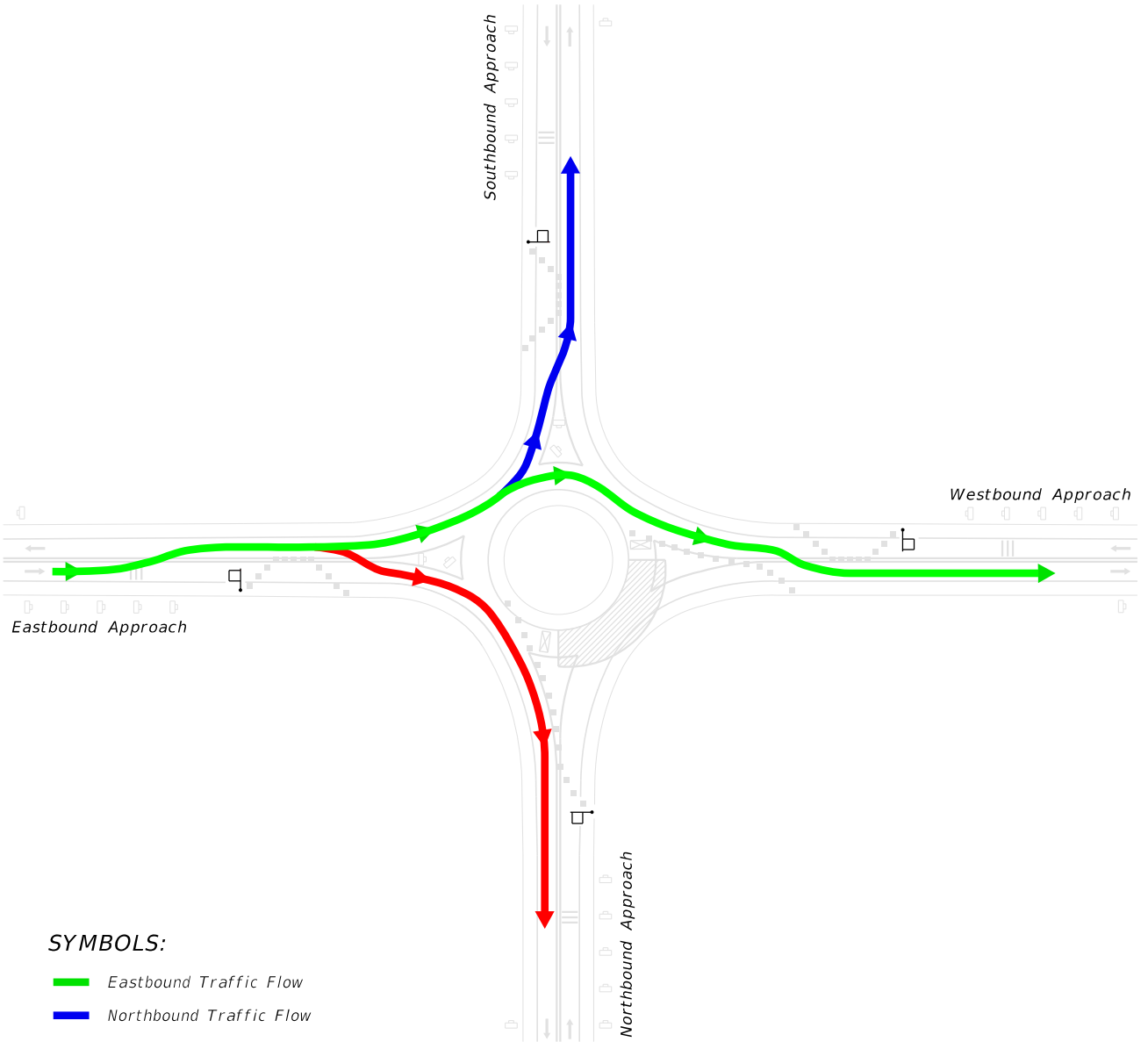
Plan Content Requirements

Follow the *Developmental Standard Plans Usage Process* as outlined in **FDM 115** and insert **Index D102-690** in the Plans as described in **FDM 302**.










See **FDM 321** for additional requirements.

Payment

See the **BOE** and **Specifications 102** for information on payment, pay item use, and compensation.

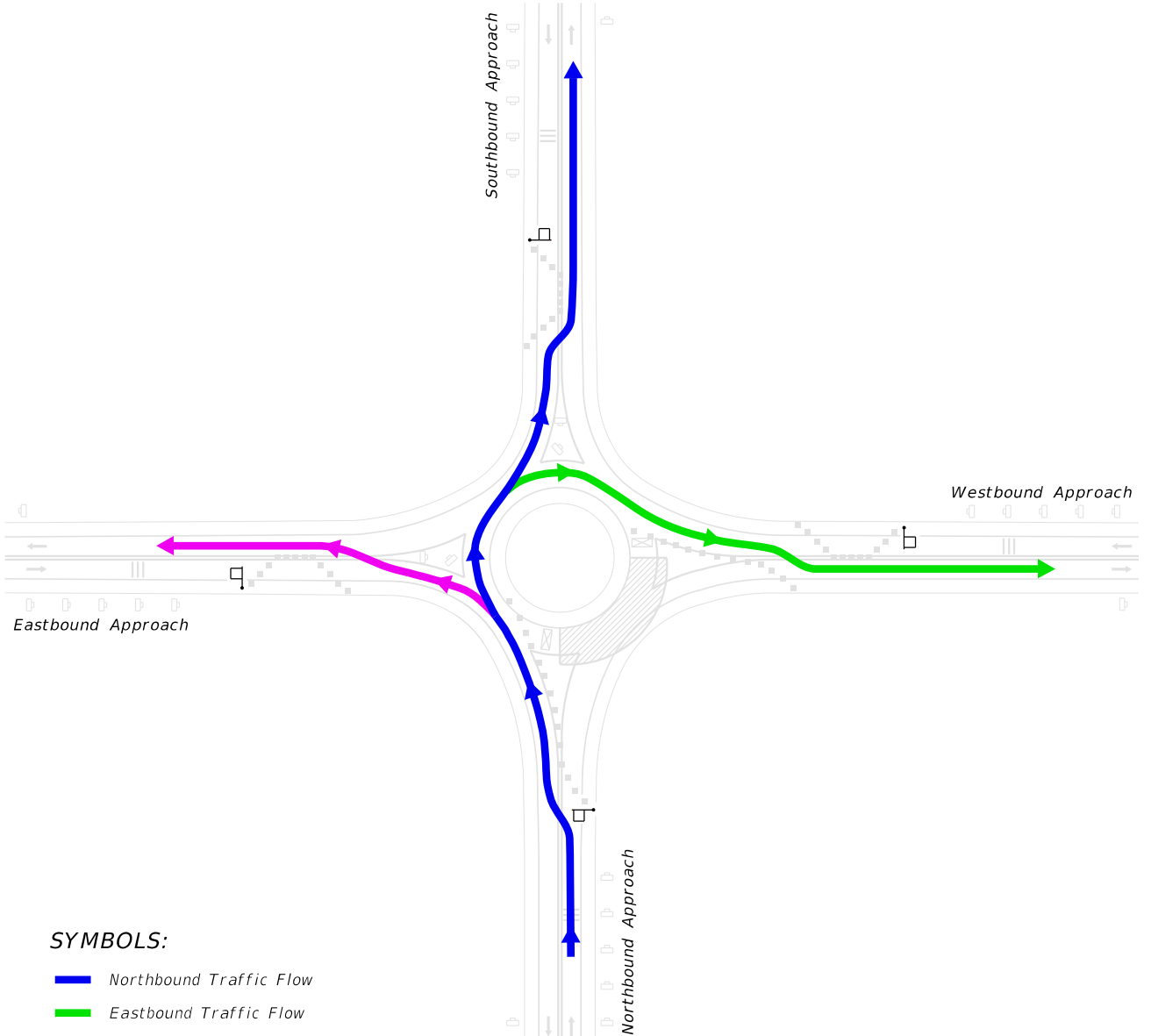


SYMBOLS:










-  Eastbound Traffic Flow
-  Northbound Traffic Flow
-  Southbound Traffic Flow
-  Work Area
-  Channelizing Device (See Index 102-600)
-  Work Zone Sign
-  Type III Barricade
-  Flagger
-  Lane Identification and Direction of Traffic

TRAFFIC FROM EASTBOUND APPROACH

FIGURE 1

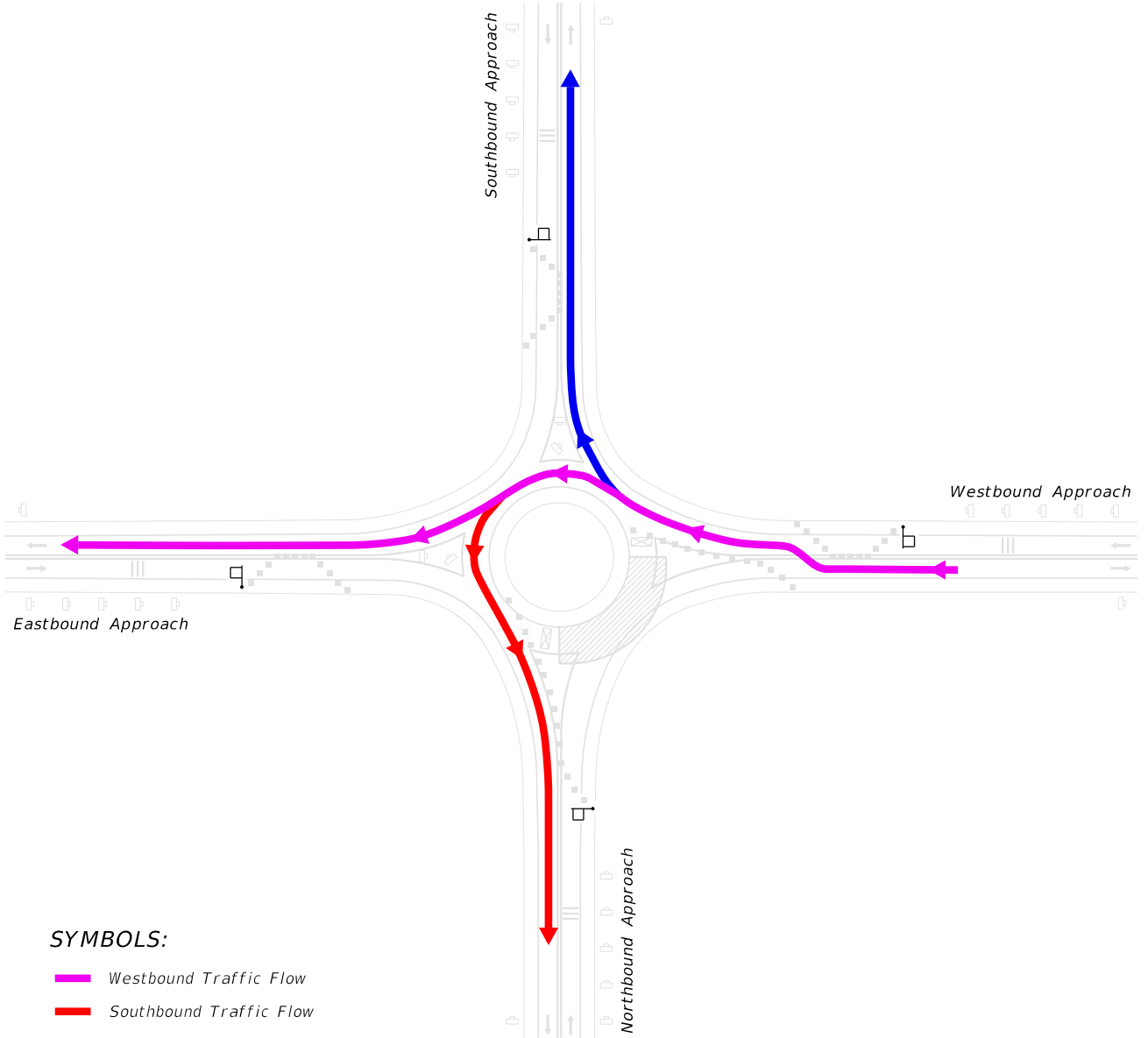


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


-  Northbound Traffic Flow
-  Eastbound Traffic Flow
-  Westbound Traffic Flow
-  Work Area
-  Channelizing Device (See Index 102-600)
-  Work Zone Sign
-  Type III Barricade
-  Flagger
-  Lane Identification and Direction of Traffic

TRAFFIC FROM NORTHBOUND APPROACH

FIGURE 2

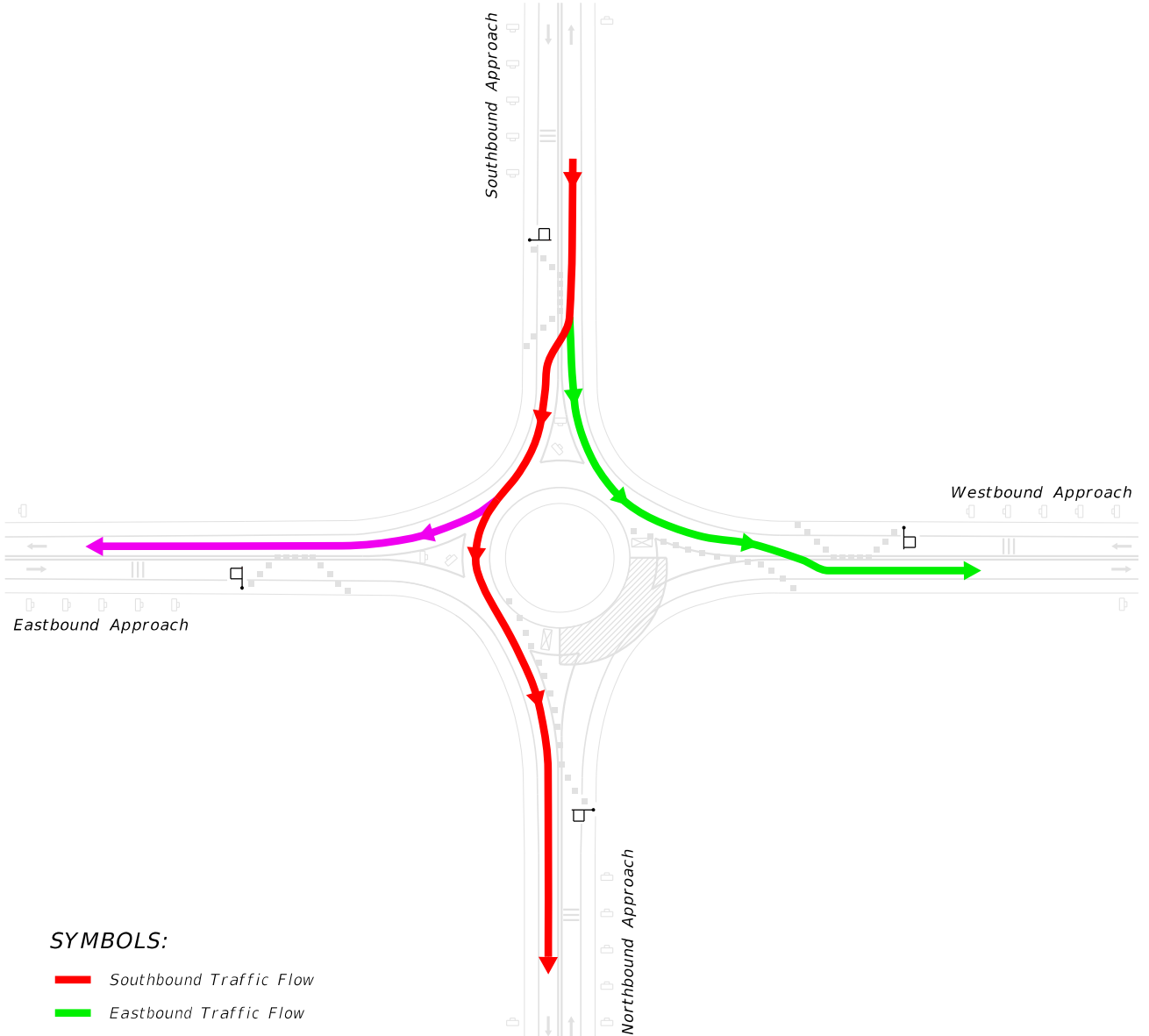


SYMBOLS:










-  Westbound Traffic Flow
-  Southbound Traffic Flow
-  Northbound Traffic Flow
-  Work Area
-  Channelizing Device (See Index 102-600)
-  Work Zone Sign
-  Type III Barricade
-  Flagger
-  Lane Identification and Direction of Traffic

TRAFFIC FROM WESTBOUND APPROACH

FIGURE 3



SYMBOLS:

-  Southbound Traffic Flow
-  Eastbound Traffic Flow
-  Westbound Traffic Flow
-  Work Area
-  Channelizing Device (See Index 102-600)
-  Work Zone Sign
-  Type III Barricade
-  Flagger
-  Lane Identification and Direction of Traffic

TRAFFIC FROM SOUTHBOUND APPROACH

FIGURE 4