LEGEND

- Sign on portable or permanent support
- Temporary portable rumble strip array
- Direction of traffic
- Work area
- Flagger, equipped with stop/slow paddle fastened on support staff

GENERAL NOTES

- Details of traffic control devices and installation not shown on this drawing shall conform to the pertinent requirements of the standard specifications, the special provisions, and the manual on uniform traffic control devices.
- All signs are 48" x 48" unless otherwise noted.
- "WO" signs are the same as "W" signs except the background is orange.
- The exact number, location, and spacing of all signs, devices, and location of all flaggers shall be adjusted to fit field conditions as approved by the engineer.
- The first advance warning sign should typically be located in advance of the anticipated traffic backup or queue.
- When a side road or ramp intersects the facility on which the work is being performed, additional traffic controls shall be provided as specified in the plans and/or the special provisions or as approved by the engineer.
- Use of W03-4 sign is optional. When used, this sign shall be located between the W02-7A and W02-4A signs, using spacing "A".
- Place advance signing prior to installing temporary rumble strips.
- Do not install temporary portable rumble strips on gravel, milled surfaces, or asphalt that has been paved less than 12 hours.
- Each temporary portable rumble strip array consists of three rumble strips placed transverse across the lane at the locations shown. Spacing between rumble strips shall be 15 feet on center.
- Only use temporary portable rumble strips from the approved products list.
- Install temporary rumble strips per manufacturer's recommendations.
- Utilize temporary portable rumble strips on all flagging operations.
- Each temporary portable rumble strip array shall be installed on all flagging operations.
- Use of W03-4 sign is optional. When used, this sign shall be located between the W02-7A and W02-4A signs, using spacing "A".

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

<table>
<thead>
<tr>
<th>SPEED LIMIT</th>
<th>SPACING &quot;A&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-30 MPH</td>
<td>200'</td>
</tr>
<tr>
<td>35-40 MPH</td>
<td>300'</td>
</tr>
<tr>
<td>45-55 MPH</td>
<td>300'</td>
</tr>
</tbody>
</table>

FLAGGING

- Flaggers shall be in sight of each other or in direct communication at all times. They shall be equipped with stopslow paddles fastened on support staffs. When the flagging operation is not in effect remove temporary portable rumble strips prior to covering or removing all advance signing.
- For moving work operations, post additional W02-7A flagger signs at approximately 1,080 intervals in the moving work operation or as approved by the engineer.
- Sign not required if flagging operation occurs within a signed road work zone area.
- When the distance between flaggers exceeds 2 miles, a pilot car is required. When curves reduce sight distance below 400', a pilot car is required.

TEMPORARY PORTABLE RUMBLE STRIPS

- Utilize temporary portable rumble strips on all flagging operations.
- Each temporary portable rumble strip array consists of three rumble strips placed transverse across the lane at the locations shown. Spacing between rumble strips shall be 15 feet on center.
- Only use temporary portable rumble strips from the approved products list.
- Install temporary rumble strips per manufacturer's recommendations.
- Place advance signing prior to installing temporary rumble strips.
- Do not install temporary portable rumble strips on gravel, milled surfaces, or asphalt that has been paved less than 12 hours.
### Sign and Temporary Rumble Strip Array Spacing Table

<table>
<thead>
<tr>
<th>Speed Limit</th>
<th>Spacing &quot;A&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-25 MPH</td>
<td>200'</td>
</tr>
<tr>
<td>25-30 MPH</td>
<td>200'</td>
</tr>
<tr>
<td>30-35 MPH</td>
<td>350'</td>
</tr>
<tr>
<td>35-40 MPH</td>
<td>500'</td>
</tr>
<tr>
<td>40-45 MPH</td>
<td>500'</td>
</tr>
</tbody>
</table>

### General Notes

Details of traffic control devices and installation NOT shown on this drawing shall conform to the pertinent requirements of the standard specifications, the special provisions, and the manual on uniform traffic control devices. ALL SIGNS ARE 96" X 96" UNLESS OTHERWISE NOTED.

- "RT" SIGNS ARE THE SAME AS "R" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR DELAY.
- WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS IN THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.
- THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.
- WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.
- IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS.
- WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVAL TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.
- WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.
- IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.
- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.
- EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN ON THE DRAWING. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.

### Temporary Portable Rumble Strips

Utilize temporary portable rumble strips on all flagging operations. Only use temporary portable rumble strips from the approved products list. Place advance signing prior to installing temporary rumble strips. Do not install temporary portable rumble strips on gravel, milled surfaces, or asphalt that has been paved less than 12 hours. Each temporary portable rumble strip array consists of three rumble strips placed transversely at the locations shown on the drawing. Spacing between rumble strips shall be 15 feet on center.
References:

FDM 11-50-20
Part VI from the Wisconsin Manual on Uniform Traffic Control Devices (WMUTCD)
Wisconsin Flagging Handbook

Bid items associated with this drawing:

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
</tr>
</thead>
</table>

Standardized Special Provisions associated with this drawing:

<table>
<thead>
<tr>
<th>STSP NUMBER</th>
<th>TITLE</th>
</tr>
</thead>
</table>

Other SDDs associated with this drawing:
NONE

Design Notes:

Costs for flagging, AFADs, and associated signs are incidental to the contract as per Standard Spec 104.6.1 (4).

Provide appropriate details and/or special provisions to delineate drop-offs or open trenches adjacent to one lane traffic operations.

TPRS have the potential to shift a couple inches throughout the day, therefore they require daily placement, removal, and extra monitoring.

The use of AFADs is optional.

Contact Person:
Andrew Heidtke (414) 220-6802