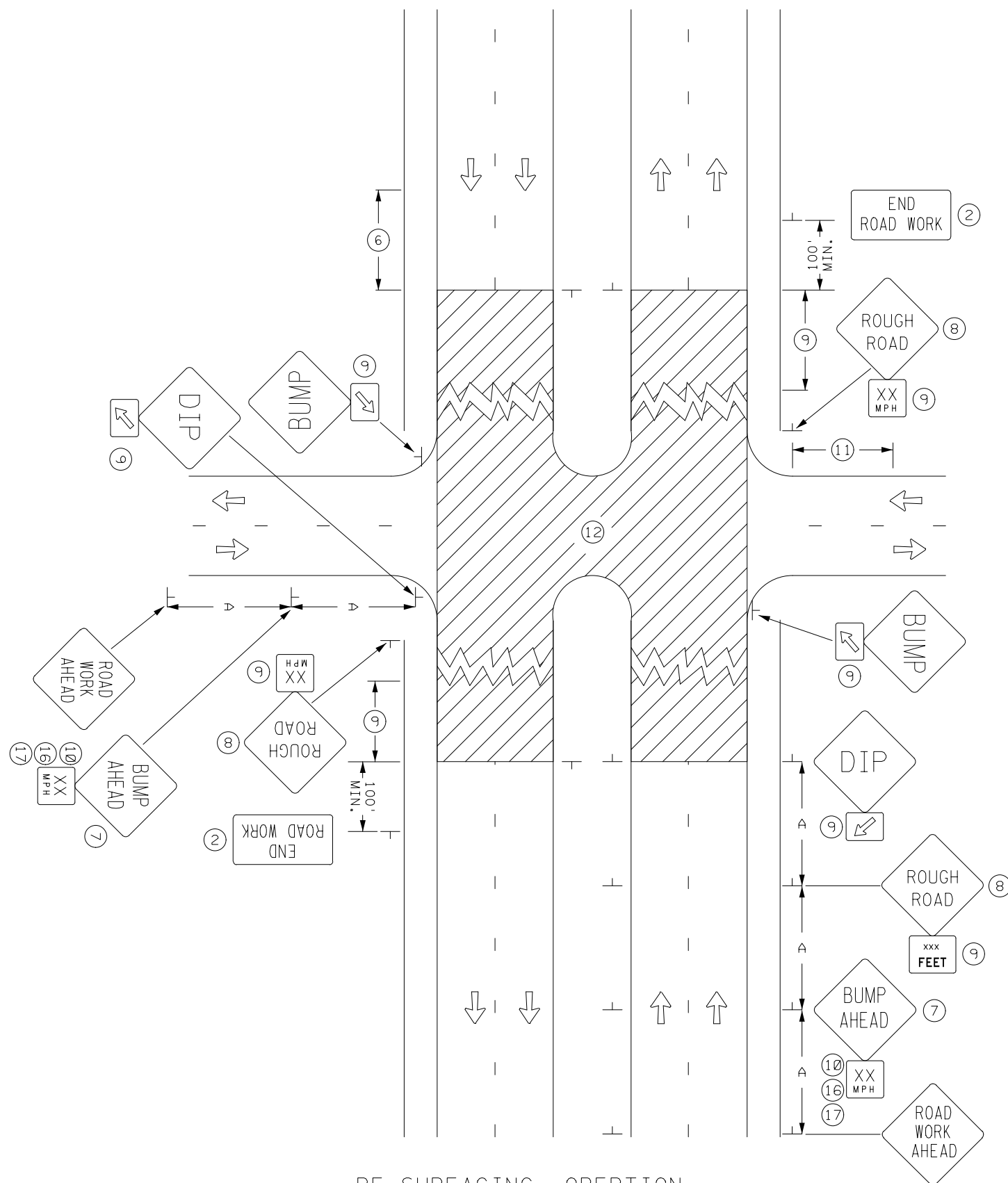


NOT TO SCALE



RE-SURFACING OPERATION
WORK SPACE BEFORE, THROUGH,
AND AFTER INTERSECTION

| POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH) | SPACING OF CHANNELIZING DEVICES (G) FEET | SPACING OF ADVANCE WARNING SIGNS (A) FEET | DECISION SIGHT DISTANCE FEET | TAPER LENGTH (L) FEET | SHIFTING TAPER (L/2) FEET | TYPICAL SHOULDER TAPER (L/3) FEET | BUFFER SPACE (B) FEET |
|---|--|---|------------------------------|-----------------------|---------------------------|-----------------------------------|-----------------------|
| 0 - 30 | 25 | 100 | 550 | 200 | 100 | 75 | 200 |
| 35 - 40 | | 325 | 700 | 325 | 175 | 125 | 305 |
| 45 - 50 | 50 | 600 | 900 | 600 | 300 | 200 | 425 |
| 55 | | 750 | 1200 | 700 | 350 | 250 | 500 |
| 60 - 65 | | 1000 | 1400 | 800 | 400 | 275 | 650 |
| 70 - 75 | | 1200 | 1600 | 900 | 450 | 300 | 820 |

ALL DISTANCES BASED ON 12 FT LANE WIDTHS.

DESIGNER NOTES:

TYPICAL APPLICATION FOR REFERENCE ONLY, NOT TO BE INSERTED INTO PLAN.

1. INSERT SPACING CHART DISTANCES INTO LAYOUTS.
2. DETERMINE IF "END ROAD WORK" SIGNS ARE NEEDED.
3. CONSIDER THE INSTALLATION OF A PCMS AND/OR G20-X2 OR SPECIAL SIGN IF CONGESTION IS EXPECTED, IF ADVANCE SIGNING TO DIVERT TRAFFIC IS NEEDED, OR OTHER CONDITIONS DETERMINED BY THE ENGINEER.
4. CONSIDER THE INSTALLATION OF A PCMS AND/OR G20-X1 SIGN (MODIFIED) OR G20-X2 SIGN FOR SEVEN DAY ADVANCE WARNING OF RESTRICTION.
5. IF 48"x48" ADVANCE WARNING SIGNS WILL NOT FIT ON THE LEFT SIDE BECAUSE OF A NARROW MEDIAN (LESS THAN 6 FT.)
A. REDUCE THE LEFT SIDE SIGN SIZES TO 36"x36" OR
B. ELIMINATE THE LEFT SIDE SIGNING, USE AN ADDITIONAL "RIGHT LANE CLOSED" SIGN ON THE RIGHT, AND DISPLAY THE FLASHING ARROWBOARD ON THE SHOULDER.
6. USE THE SAME WARNING SIGNS AND SPACING'S FOR BOTH APPROACHES TO WORK AREA.
7. THE "BUMP AHEAD" SIGN MAY BE OMITTED IF THE SPEED REDUCTION NEEDED TO NAVIGATE THE BUMP IS 10 MPH OR LESS.
8. USE THE APPROPRIATE WARNING SIGN FOR THE ROADWAY CONDITION, i.e. "GROOVED PAVEMENT, LOOSE GRAVEL, ROUGH ROAD".
9. REFER TO THE CROSSROAD AND CONFIRMATION SIGNING LONG TERM TYPICAL APPLICATION FOR CONFIRMATION SIGNING.
10. CONSIDER THE USE OF THE MOTORCYCLE ADVISORY PLAQUE (W8-15P) WHEN HAZARD IS DIRECTED PRIMARILY TO MOTORCYCLISTS.
11. USE THE SAME WARNING SIGNS AND SPACING'S FOR BOTH APPROACHES TO WORK AREA.
12. CONSIDER DELINEATING RAISED STRUCTURES (MANHOLES COVERS, etc.).
13. CONTACT APPROPRIATE ROAD AUTHORITY FOR SIGNAL TIMING, SIGNAL HEAD LOCATION MODIFICATIONS, AND POSSIBLE TURN RESTRICTIONS BEFORE BEGINNING WORK AT OR NEAR ANY SIGNALIZED INTERSECTION.
14. WHEN IMPACTING PEDESTRIAN FACILITIES, ALTERNATE PEDESTRIAN ACCESS ROUTES MUST BE PROVIDED. SEE LAYOUTS 6J-24 AND 6J-25 IN THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
15. CONTACT APPROPRIATE ROAD AUTHORITY FOR SIGNAL TIMING, SIGNAL HEAD LOCATION MODIFICATIONS, AND POSSIBLE TURN RESTRICTIONS BEFORE BEGINNING WORK AT OR NEAR ANY SIGNALIZED INTERSECTION.
16. CONSIDER THE ADDITION OF A W13-1P ADVISORY SPEED PLAQUE. PLAQUE SHOULD BE PLACED DIRECTLY BELOW OR ON LOWER TRAFFIC SIDE OF THE WARNING SIGN. AVOID PLACING SIGN WITH ADVISORY SPEED PLAQUE NEAR AN INPLACE SPEED LIMIT SIGN. EXPERIENCE AND ENGINEERING JUDGEMENT SHOULD BE USED TO DETERMINE THE APPROPRIATE ADVISORY SPEED AND VERIFIED IN THE FIELD ONCE INSTALLED AND ADJUSTED AS NEEDED.
17. WHEN A W13-1P ADVISORY SPEED PLAQUE IS USED CONSIDER THE ADDITION OF A "VEHICLE SPEED FEEDBACK SYSTEM" LONG TERM TYPICAL APPLICATION 77, OR "VEHICLE SPEED FEEDBACK" TRAFFIC RESPONSIVE SYSTEM TR-7 IN THE IWZ TOOL BOX.