TOWN OF ASHLAND
NEW HAMPSHIRE

TRANSPORTATION ALTERNATIVES PROGRAM PROJECT
MAIN STREET (US ROUTE 3 AND NH ROUTE 25) AND GORDON STREET
STATE PROJECT NUMBER 41370
FEDERAL AID NUMBER X-A004(610)

APRIL 2020
GENERAL NOTES:

1. TURNING SPACE AND CLEAR SPACE NOTES:

BUREAU OF HIGHWAY DESIGN

SHEET NO.

TOTAL SHEETS

22.

21.

20.

17.

15.

14.

13.

10.

9.

6.

4.

3.

2.

1.

GENERAL NOTES:

CURB RAMP NOTES:

DETAILS ON SHEET 7 OF 9.

UNLESS OTHERWISE SHOWN IN THE CONTRACT DOCUMENTS, WHERE GRADING IS NOT FEASIBLE,

RAMP SIDE TREATMENT OPTIONS ARE DETAILED ON SHEET 7 OF 9 FOR USE WITHIN THE

GRADE.

THE CROSS SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS POSSIBLE AND STILL

WHERE EXISTING CONDITIONS DO NOT ALLOW THE CONSTRUCTION OF A CURB RAMP WITH

THE GRADE (RUNNING SLOPE) SHALL BE A MAXIMUM OF 8.3%.

SIGNAL.

PEDESTRIAN ACCESS ROUTE. UNLESS IT IS SERVING AS A LANDING FOR A PEDESTRIAN

WHEN CROSSING DRIVEWAYS, THE WORK SHALL BE IN CONFORMANCE WITH NHDOT

THE SLOPE CRITERIA, SHALL BE PROVIDED AT A MAXIMUM INTERVAL OF 200'. EXISTING

THE CURB. WHEN WALKWAY WIDTHS ARE LESS THAN 5.00', 5.00' x 5.00' PASSING

SHALL NOT BE ROUNDED.

VERTICAL ALIGMENT SHALL BE GENERALLY PLANAR. GRADE BREAKS WITHIN THE

GREATER THAN 5% ARE CONSIDERED CURB RAMPS.

RAMPS. BLENDED TRANSITIONS ARE CONNECTIONS BETWEEN THE SIDEWALK LEVEL AND THE

THAN 2:1. THE BEVEL SHALL BE APPLIED ACROSS THE ENTIRE JOINT. SEE DETAIL ON

DISCONTINUITIES BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NOT STEEPER

FLUSH AND FREE FROM ABRUPT VERTICAL CHANGES GREATER THAN 1/4". VERTICAL SURFACE

JOINTS BETWEEN SIDEWALKS, CURB RAMPS, TURNING SPACES AND ROADWAYS SHALL BE

PERPENDICULAR TO CENTERLINE AT 5.00' TO 10.00' INTERVALS.

SHALL BE AVERAGED. GRADE (RUNNING SLOPE) SHALL BE MEASURED ALONG THE CENTERLINE

LEVEL USING AT LEAST TWO READINGS. WHERE THE READINGS VARY, THE MEASUREMENTS

CONSTRUCTED TO MEET THE STANDARDS TO THE GREATEST EXTENT PRACTICABLE.

NOT ALL FACILITIES CAN BE CONSTRUCTED TO MEET THE DESIGN STANDARDS.

THESE SHEETS ARE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT

TO EQUAL THE STREET OR HIGHWAY GRADE.

PEDESTRIAN ACCESS ROUTE CONTAINED WITHIN A MIDBLOCK CROSSING SHALL BE PERMITTED

WHERE MIDBLOCK PEDESTRIAN CROSSINGS ARE PROVIDED, THE CROSS SLOPE OF A

PEDESTRIAN ACCESS ROUTE (PAR): A CONTINUOUS AND UNOBSTRUCTED PATH OF TRAVEL

ACCESSIBILITY STANDARDS.

TREATMENT KEY LEGEND

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION - DIVISION OF HIGHWAY CONSTRUCTION

DEFINITION OF TERMS:

LENGTH: 4.00' x 4.00' CLEAR SPACE WITH A 2% SLOPE OR LESS IN ALL DIRECTIONS.

MAXIMUM DEVIATION ALONG A CURB RAMP TRANSITION BASED ON THE MINIMUM LENGTH OF CURB RAMP TRANSITION BASED ON THE铰链式曲线的和弧形曲线的。

EXCEPT WHERE THE EXISTING HOE GAP EXCEEDS 2", THE CURB HAT MAY BE KNAPPED ACCORDING TO THE CURB SLOPE OF 3.0% TO 5.0%.

INDEX OF SHEETS

1 OF 9 SHEETS AND GENERAL NOTES

2 OF 9 CURB RAMP CONFIGURATIONS TYPE 1 - 5

3 OF 9 CURB RAMP CONFIGURATIONS TYPE 6 - 10

4 OF 9 CURB RAMP CONFIGURATIONS TYPE 11 - 15

5 OF 9 SLIP RAMPS, SIDEWALK TO SHOULDER TRANSITION, ACCESS ISLAND

6 OF 9 DETECTABLE WARNING FIELD PLACEMENT OPTIONS

7 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

8 OF 9 DETECTABLE WARNING DEVICE PLACEMENT OPTIONS

9 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

10 OF 9 DETECTABLE WARNING DEVICE PLACEMENT OPTIONS

11 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

12 OF 9 DETECTABLE WARNING DEVICE PLACEMENT OPTIONS

13 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

14 OF 9 DETECTABLE WARNING DEVICE PLACEMENT OPTIONS

15 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

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17 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

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27 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

28 OF 9 DETECTABLE WARNING DEVICE PLACEMENT OPTIONS

29 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

30 OF 9 DETECTABLE WARNING DEVICE PLACEMENT OPTIONS

TREATMENT KEY LEGEND (REFLECTING STYLE PROJECTS)

RAMP BACK TREATMENT OPTION - SEE SHEET 7

RAMP SIDE CONFIGURATION - SEE SHEET 8

TREATABLE WALKING DEVICE PLACEMENT - SEE SHEET 9

RAMP CONFIGURATION TYPE - SEE SHEETS 10 - 15 (SHOWN AS OPTION)

SIDEWALK CURB RAMP DETAILS

SHEET 1 OF 9

INDEX OF SHEETS

1 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

2 OF 9 DETECTABLE WARNING DEVICE PLACEMENT OPTIONS

3 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

4 OF 9 DETECTABLE WARNING DEVICE PLACEMENT OPTIONS

5 OF 9 DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS

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TREATMENT KEY LEGEND (REFLECTING STYLE PROJECTS)

RAMP BACK TREATMENT OPTION - SEE SHEET 7

RAMP SIDE CONFIGURATION - SEE SHEET 8

TREATABLE WALKING DEVICE PLACEMENT - SEE SHEET 9

RAMP CONFIGURATION TYPE - SEE SHEETS 10 - 15 (SHOWN AS OPTION)
CURB RAMP CONFIGURATIONS

TYPE 6

TYPE 7
Curb Ramp Configurations

**Type 8**
Mid Block Crossing or T Intersection

**Type 9**
Mid Block Crossing or T Intersection

**Type 10**
Mid Block Crossing or T Intersection

**Type 11**
Mid Block Crossing or T Intersection

Note: All notes referenced on this sheet can be found on Sidewalk Curb Ramp Details, Sheet 1 of 9.
CURB RAMP CONFIGURATIONS

**TYPE 12**
SLIP RAMP

**TYPE 13**
ACCESS ISLAND CURB RAMP

**TYPE 14**
SIDEWALK TO SHOULDER TRANSITION

**NOTE:**
All notes referenced on this sheet can be found on SIDEWALK CURB RAMP DETAILS, SHEET 1 OF 9.
ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSHBUTTON LOCATION

PEDESTRIAN REFUGE ISLANDS

DETECTABLE WARNINGS AT PEDESTRIAN REFUGE ISLANDS

DETECTABLE WARNINGS AT RAILROAD CROSSING

DETECTABLE WARNINGS AT BICYCLE SLIP LANE AT ROUNDABOUTS

NOTE: ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON SIDEWALK CURB RAMP DETAILS, SHEET 1 OF 9.
A = G2 - G1

PART OF RAMPS TEEPEST
8.3% MAX. AT CURB RAMP GRADE

Curb Ramp Grade (8.3% MAX.)

CURB RAMP CROSS SLOPE TRANSITION
REQUIRE TO NOTE 5 FOR CROSS SLOPE REQUIREMENTS

COUNTER SLOPE CONDITION 1

A = G2 - G1
ALGEBRAIC DIFFERENCE (A) BETWEEN ROADWAY CROSS SLOPE
AND CURB RAMP GRADE IS LESS THAN 13.3%.

CLEAR SPACE 4.00'

COUNTER SLOPE CONDITION 2

A = G2 - G1
ALGEBRAIC DIFFERENCE (A) BETWEEN ROADWAY CROSS SLOPE
AND CURB RAMP GRADE IS GREATER THAN 13.3%.

CLEAR SPACE 4.00'

TRANSITION BETWEEN CURB RAMP
AND EXISTING SIDEWALK

USE FOR CROSS SLOPE AND WIDTH TRANSITIONS

VERTICAL SURFACE DECONTINUITIES
SEE NOTE 5

STREET DESIGNATION:
Curb-Ramp-9
MODEL:
REVISION DATE:
6-18-18
STATE PROJECT NO.:
SHEET NO.:
TOTAL SHEETS:
DGN:
9
9
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DESIGN
SIDEWALK CURB RAMP DETAILS
(SHEET 9 OF 9)
CONTINENTAL BLOCK CROSSWALK MARKING
FOR A MID-BLOCK OR NON-STOP CONDITION

STANDARD CROSSWALK MARKING
FOR A STOP OR SIGNAL CONDITION

GENERAL NOTES
1. STOP LINES ARE 18" WIDE SSLW.
2. TRANSVERSE CROSSWALK LINES SHALL BE THERMOPLASTIC,
NOT LESS THAN 4" WIDE AND NOT LESS THAN 6" APART.
3. SPACING FOR THE CONTINENTAL BLOCK MARKINGS SHALL BE
OPTIMUM FOR EASE OF INSTALLATION BUT CAN BE ADJUSTED
FOR THE CROSSWALK AT THE AREA TO ELIMINATE A CROSSWALK
MARKING SPACING IN THE WHEELPATH.
4. CROSSWALKS LOCATED AT A FIELD CONTROLLED SLIP RAMP
SHALL USE CONTINENTAL BLOCK MARKINGS.

CONTINENTAL BLOCK
MARKING DETAIL

STANDARD CROSSWALK
MARKING DETAIL
GENERAL NOTES

1. Painted edgeline required on curbed shoulders greater than 24".
2. Stop lines are 18" wide SSLW(T).
3. Straight through arrows not typically required. See the Pavement Marking Plans for the appropriate layout.
4. Transverse crosswalk lines shall be thermoplastic. Not less than 6" wide and not less than 6" apart.
5. Dimension L calculated based on MUTCD transition taper formulas.
6. All segments A thru L are required to establish turn lanes.
7. Lane use signs (R3-8 series) to be placed at upstream legend arrow. Additional signs may be required for downstream geometric changes.

**SEE NOTE 3**

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**BROKEN LINE/ARROW LAYOUT**

<table>
<thead>
<tr>
<th>POSTED SPEED (mph)</th>
<th>BROKEN LINE LENGTH (ft)</th>
<th>ARROWS (#)</th>
<th>L (ft)</th>
<th>B (ft)</th>
<th>C (ft)</th>
<th>D (ft)</th>
<th>L (ft)</th>
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<tbody>
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<td>0</td>
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</table>

*100' (MIN.) is required in urban areas and 200' (MIN.) is required in rural areas.
**N** is the width of pavement, in feet.
S is the speed of the posted or statutory speed limit, in miles per hour.

Where observed speeds exceed posted or statutory speed limits, longer tapers should be used.

Where offsets are different on either side of centerline, the longer measurement shall govern the length of both tapers.

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Notes and specifications for various elements of the road layout, including crosswalks, edgelines, and speed limits, are provided in detail. The diagram illustrates the typical layout for a turn lane, with dimensions and instructions for placement of various signs and line markings. Detailed notes are provided for the appropriate use of various line layouts and the calculation of taper lengths based on posted speeds.
GENERAL NOTES

1. STOP LINES ARE 18" WIDE SSLW(T).
2. TRANSVERSE CROSSWALK LINES SHALL BE THERMOPLASTIC, NOT LESS THAN 4' WIDE AND NOT LESS THAN 4" APART.
3. SPACING FOR THE CONTINENTAL BLOCK MARKERS SHALL BE OPTIMUM FOR EASE OF PED ESTRIAN CROSSING BUT CAN BE MODIFIED FOR OTHER CROSSWALKS TO THE EXTENT TO EMPLOY A CROSSWALK MARKING DETAIL IN THE大陸 ON THE SITE CONDITIONS.
4. CROSSWALKS LOCATED AT A FIELD CONTROLLED SLIP RAMP SHALL BE CONTINUOUS BLOCK MARKINGS.

CONTINENTAL BLOCK CROSSWALK MARKING DETAIL

FOR A MID-BLOCK OR NON-STOP CONDITION

STANDARD CROSSWALK MARKING DETAIL

FOR A STOP OR SIGNAL CONDITION
**GENERAL NOTES**

1. Painted Edgeline required on curved shoulders greater than 24".
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**BROKEN LINE/ARROW LAYOUT**

<table>
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<th>POSTED SPEED (mph)</th>
<th>TYPICAL B LAYOUT</th>
<th>C (ft)</th>
<th>D (ft)</th>
<th>L (ft)</th>
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<td>6 3 2 0</td>
<td>220 175 100</td>
<td>LWSN</td>
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</tbody>
</table>

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**STATE OF NEW HAMPSHIRE**

**DEPARTMENT OF TRANSPORTATION • BUREAU OF TRAFFIC**

**INTERSECTION DETAILS**