TYPICAL SECTIONS
Boulevard

NOTES:
1. 7" COMBINATION CURB AND GUTTER.
2. 4" CONCRETE SIDEWALK.
3. TRAFFIC BARRIER W–BEAM AS REQUIRED (SEE DESIGN MANUAL VOLUME II).
4. USE PAVING SECTION P–6.
5. PROVIDE 11'–0" LEFT TURN LANE AS REQUIRED.
TOWN CENTER CONNECTOR WITH PARKING

TOWN CENTER CONNECTOR NO PARKING

NOTES:
1. 7" COMBINATION CURB AND GUTTER.
2. 4" CONCRETE SIDEWALK.
3. TRAFFIC BARRIER W–BEAM AS REQUIRED (SEE DESIGN MANUAL VOLUME III).
4. USE PAVING SECTION P–5.
5. MOUNTABLE MEDIAN MAY BE PROVIDED WHERE TURN LANE IS NOT NEEDED. MEDIAN MUST BE STABILIZED FOR VEHICLE LOADING (75,000 POUNDS PER INTERNATIONAL FIRE CODE) AND REMAIN PERVERSIVE TO THE MAXIMUM EXTENT POSSIBLE.
TOWN CENTER STREET WITH PARKING

TOWN CENTER STREET NO PARKING

NOTES:
1. TYPE OF CURB VARIES (MODIFIED COMBINATION CURB & GUTTER OR COMBINATION CURB & GUTTER – SEE DESIGN MANUAL VOLUME III).
2. 4" CONCRETE SIDEWALK.
3. TRAFFIC BARRIER W-BEAM AS REQUIRED (SEE DESIGN MANUAL VOLUME III).
4. USE PAVING SECTION P-3.
PARKWAY (6 LANES)

PARKWAY (4 LANES)

NOTES:
1. 7" COMBINATION CURB AND GUTTER.
2. TRAFFIC BARRIER W-BEAM AS REQUIRED (SEE DESIGN MANUAL VOLUME III).
3. USE PAVING SECTION P-5.
4. NORMAL CROWN SECTIONS ARE SHOWN, SEE DESIGN MANUAL VOLUME III FOR SUPERELEVATION REQUIREMENTS.
5. PROVIDE ONE OR TWO 11"-0" LEFT TURN LANES AS REQUIRED.
NEIGHBORHOOD CONNECTOR WITH PARKING

NEIGHBORHOOD CONNECTOR NO PARKING

NOTES:
1. TYPE OF CURB VARIES (MODIFIED COMBINATION CURB & GUTTER OR COMBINATION CURB & GUTTER — SEE DESIGN MANUAL VOLUME III). MEDIAN CURB SHALL BE MODIFIED COMBINATION CURB & GUTTER.
2. TRAFFIC BARRIER W–BEAM AS REQUIRED (SEE DESIGN MANUAL VOLUME III).
3. USE PAVING SECTION P–5.
4. NORMAL CROWN SECTIONS ARE SHOWN. SEE DESIGN MANUAL VOLUME III FOR SUPERELEVATION REQUIREMENTS.
5. PROVIDE 11'-0" LEFT TURN LANE AS REQUIRED.
6. MEDIAN MUST BE STABILIZED FOR VEHICLE LOADING (75,000 POUNDS PER INTERNATIONAL FIRE CODE) AND REMAIN PERVIOUS TO THE MAXIMUM EXTENT POSSIBLE.
NEIGHBORHOOD STREET 1 WITH PARKING

NEIGHBORHOOD STREET 1 NO PARKING

NOTES:
1. TYPE OF CURB VARIES (MODIFIED COMBINATION CURB & GUTTER OR COMBINATION CURB & GUTTER — SEE DESIGN MANUAL VOLUME III).
2. 4" CONCRETE SIDEWALK.
3. TRAFFIC BARRIER W-BEAM AS REQUIRED (SEE DESIGN MANUAL VOLUME III).
4. USE PAYING SECTION P-4.
NEIGHBORHOOD STREET 2 WITH PARKING

NEIGHBORHOOD STREET 2 NO PARKING

NOTES:
1. TYPE OF CURB VARIES (MODIFIED COMBINATION CURB & GUTTER OR COMBINATION CURB & GUTTER – SEE DESIGN MANUAL VOLUME III).
2. 4" CONCRETE SIDEWALK.
3. TRAFFIC BARRIER W-BEAM AS REQUIRED (SEE DESIGN MANUAL VOLUME III).
4. USE PAVING SECTION P-4.

Howard County, Maryland
Department of Public Works

TYPICAL SECTIONS
Neighborhood Street 2

Detail
R-1.07
### Typical Sections

**Neighborhood Yield Street**

#### Housing Type

<table>
<thead>
<tr>
<th>Housing Type</th>
<th>Average Daily Traffic</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Paving Section</th>
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<tr>
<td>Single Family Detached</td>
<td>&lt; 2,000 Vehicles</td>
<td>12'</td>
<td>6'</td>
<td>24'</td>
<td>13'</td>
<td>P-2</td>
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<tr>
<td>Single Family Detached</td>
<td>≥ 2,000 Vehicles</td>
<td>13'</td>
<td>6'</td>
<td>26'</td>
<td>12'</td>
<td>P-3</td>
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<tr>
<td>Townhomes / Apartments / Mobile Homes</td>
<td>&lt; 1,000 Vehicles</td>
<td>13'</td>
<td>6'</td>
<td>26'</td>
<td>12'</td>
<td>P-3</td>
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<tr>
<td>Townhomes / Apartments / Mobile Homes</td>
<td>≥ 1,000 Vehicles</td>
<td>14'</td>
<td>5'</td>
<td>28'</td>
<td>11'</td>
<td>P-3</td>
</tr>
</tbody>
</table>

#### Notes:

1. Type of curb varies (modified combination curb & gutter or combination curb & gutter – see Design Manual Volume II).
2. 4" concrete sidewalk.
3. Traffic barrier W-beam as required (see Design Manual Volume II).

---

Howard County, Maryland
Department of Public Works

Approved: [Signature]
Chief, Bureau of Engineering

Detail
R-1.08
24' RIGHT OF WAY

2' CONSTRUCTION

10' TRAVEL LANE

10' TRAVEL LANE

3% PGL

ALLEY

NOTES:
1. USE PAVING SECTION P-2.
COUNTRY ROAD

NOTES:
1. TRAFFIC BARRIER W—BEAM AS REQUIRED (SEE DESIGN MANUAL VOLUME III).
2. DITCH CROSS SECTION SLOPE MAY BE FLATTENED TO PROVIDE A SWALE AT OR NEAR THE CREST OF VERTICAL CURVES WHERE QUANTITY OF SWALE FLOW IS SMALL, AS APPROVED BY DPW.
3. USE PAVING SECTION P—4.
4. NORMAL CROWN SECTIONS ARE SHOWN. SEE DESIGN MANUAL VOLUME III FOR SUPERELEVATION REQUIREMENTS.
RURAL DEVELOPMENT STREET

NOTES:
1. DITCH CROSS SECTION SLOPE MAY BE FLATTENED TO PROVIDE A SWALE AT OR NEAR THE CREST OF VERTICAL CURVES WHERE QUANTITY OF SWALE FLOW IS SMALL, AS APPROVED BY DPW.
2. USE PAVING SECTION P-3.
MODIFIED COMBINATION CONCRETE CURB AND GUTTER
(SEE DETAIL R-3.01)

3" HOT MIX ASPHALT CONCRETE BASE COURSE
4" CRUSHER RUN BASE COURSE

3%  
2'-0"
5'-0"

VARIES
NOTES:
1. WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE CONTRACTOR SHALL REMOVE A MINIMUM OF 1" FULL DEPTH OF THE EXISTING ROADWAY. IF CURB AND GUTTER IS INSTALLED, PROVIDE A MINIMUM OF 4" OF WIDENING FROM FACE OF GUTTER PAN.

2. THE EXISTING PAVEMENT TO BE RESURFACED SHALL BE MILLED AT DEPTH OF 1 1/2" (MINIMUM).

3. THE RESURFACING SHALL BE PLACED TO THE CENTERLINE OF THE ROADWAY.

4. RESURFACING COURSE TO BE EQUAL TO THE SURFACE COURSE OF THE TYPICAL PAVEMENT SECTION.
**NOTES**

1. Slope Protection using 4" to 7" stone shall be used. The width of stone protection to be 2'.

2. With the approval of the Engineer, the dimensions shown may be varied where underdrain discharged into an inlet or where other unusual conditions prevail. See specifications pertaining to payment for extra trench depth.

3. Underdrain shall be laid on a minimum 1.0% grade unless otherwise approved by the Engineer.

4. Underdrains shall be discharged into inlets and manholes where possible and shall be discharged onto the roadway slopes only where no inlets or manholes are available for connection.

5. For joints, refer to specifications.

6. Wrap #57 aggregate with geotextile fabric. See detail in this sheet. Geotextile class shall be specified in plans.

---

**GEOTEXTILE FABRIC**

---

Howard County, Maryland
Department of Public Works

Approved: Thomas A. Butler
Chief, Bureau of Engineering

Detail R-1.15
8.0" RED DECORATIVE PORTLAND CEMENT CONCRETE — MIX #7, STAMPED RUNNING BOND BRICK PATTERN

6.0" GRADED AGGREGATE BASE

7" COMBINATION CURB AND GUTTER (SEE DETAIL R-3.01)

3% OR VARIES

2%

VARES 1'-8" VARES 1'-8"

NOTES
1. FOR DISCUSSION OF APPROPRIATE APPLICATIONS FOR TRUCK APRONS, SEE VOLUME III OF THE DESIGN MANUAL.
<table>
<thead>
<tr>
<th>SECTION</th>
<th>ROAD AND STREET CLASSIFICATION / TYPE</th>
<th>CALIFORNIA BEARING RATIO (CBR)</th>
<th>PAVEMENT MATERIAL (INCHES)</th>
<th>MIN. SUPERPAVE ASPHALT MIX WITH GAB</th>
<th>SUPERPAVE ASPHALT MIX WITH CONSTANT GAB</th>
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<tr>
<td></td>
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<td>3 TO &lt;5</td>
<td>5 TO &lt;7</td>
<td>≥ 7</td>
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<td>P-1</td>
<td>PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY</td>
<td>SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-22S, LEVEL 1 (ESAL)</td>
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<td>RURAL DEVELOPMENT STREET NEIGHBORHOOD YIELD STREET EXCEPT SINGLE FAMILY DETACHED ADT &lt; 2,000 TOWN CENTER STREET</td>
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<td>NEIGHBORHOOD STREET 1 NEIGHBORHOOD STREET 2 INDUSTRIAL STREET COUNTRY ROAD</td>
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**NOTES**

1. HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.
2. SUPERPAVE ASPHALT MIX LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2.0" MIN. TO 4.0" MAX.), 12.5 MM SURFACE (1.5" MIN. TO 3.0" MAX.), AND 9.5 MM SURFACE (1.0" MIN. TO 2.0" MAX.).
3. GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 6" MAX. COMPACTED THICKNESS LAYERS.
4. THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.
5. IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYER FOR COMMERCIAL/INDUSTRIAL ENTRANCE APRONS WITHIN THE COUNTY RIGHT-OF-WAY WHERE AUXILIARY LINES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.
6. THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

Howard County, Maryland
Department of Public Works

Paving Sections
P-1 to P-4

Detail
R-2.01

Approved: Thomas L. Smith
Chief, Bureau of Engineering
<table>
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<tr>
<th>SECTION NUMBER</th>
<th>ROAD AND STREET CLASSIFICATION / TYPE</th>
<th>CALIFORNIA BEARING RATIO (CBR)</th>
<th>PAVEMENT MATERIAL (INCHES)</th>
<th>MIN. SUPERPAVE ASPHALT MIX WITH GAB</th>
<th>SUPERPAVE ASPHALT MIX WITH CONSTANT GAB</th>
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<tr>
<td>P-5</td>
<td>NEIGHBORHOOD CONNECTOR TOWN CENTER CONNECTOR</td>
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<td>BOULEVARD PARKWAY</td>
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<td>PAVED SHOULDER: UNDIVIDED INTERMEDIATE ARTERIAL DIVIDED INTERMEDIATE ARTERIAL SIDEWALK AND PARKING AREAS (PRIVATE)</td>
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**NOTES**

1. HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.
2. SUPERPAVE ASPHALT MIX LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2.0" MIN. TO 4.0" MAX.), 12.5 MM SURFACE (1.5" MIN. TO 3.0" MAX.), AND 9.5 MM SURFACE (1.0" MIN. TO 2.0" MAX.)
3. GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 6" MAX. COMPACTED THICKNESS LAYERS.
4. THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.
6. THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

**Howard County, Maryland Department of Public Works**

**Chief, Bureau of Engineering**

**PAVING SECTIONS**

**P-5 to P-8**

**Detail**

R-2.02
NOTES:

1. SIDEWALK TO BE Scribed IN 5'-0" MAXIMUM SQUARES.
2. EXPANSION JOINTS ACROSS THE SIDEWALK NOT TO BE MORE THAN 15' APART, OR 16' FOR 4' WIDE SIDEWALK.
3. 1/2" PREFORMED EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT 1/4" BELOW SURFACE OF SIDEWALK.
4. CONCRETE TO BE MIX #3.
5. WHEN SIDEWALK ABUTS CURB, SIDEWALK SHALL BE 1/4" ABOVE CURB WITH 1/2" PREFORMED EXPANSION JOINT BETWEEN SIDEWALK AND CURB.
6. ON LONGITUDINAL SIDEWALK GRADES OF 5% OR GREATER, A CONCRETE HEADER, 6" THICK AND 6" DEEP BELOW THE NORMAL 4" SIDEWALK THICKNESS SHALL BE CONSTRUCTED FOR THE FULL WIDTH OF THE SIDEWALK AT INTERVALS OF 48 FEET. THE HEADERS SHALL BE PLACED AT THE EXPANSION JOINT LOCATIONS AND SHALL BE MONOLITHIC WITH THE SIDEWALK.
NOTES:

2. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.
3. SIDEWALK LESS THAN 5'–0" REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.
4. 7" COMBINATION CURB AND GUTTER IS SHOWN. DETAILS TO BE SIMILAR FOR MODIFIED CURB AND GUTTER AND HOT MIX ASPHALT CURB.
5. SEE DETAIL R–4.07 FOR DETECTABLE WARNING SURFACE REPLACEMENT GUIDELINES.

PLAN

SECTION A–A

Howard County, Maryland
Department of Public Works

SIDEWALK RAMP
Type A

Detail
R–4.01

Approved
Chief, Bureau of Engineering
 NOTES:
2. GRASS AREA ADJACENT TO SIDEWALK SHALL BE SLOPED TO MEET RAMP.
3. SEE DETAIL T-7.03 FOR CROSSWALK MARKING DETAILS.
4. SEE DETAIL R-4.07 FOR DETECTABLE WARNING SURFACE PLACEMENT GUIDELINES.
5. SIDEWALK LESS THAN 5'-0" REQUIRE APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.

PLAN

SECTION A-A

NORMAL CURB HEIGHT

DETECTABLE WARNING SURFACE TRUNCATED DOMES SEE DETAIL R-4.07

1/2" PREFORMED EXPANSION JOINT

COMBINATION CURB AND GUTTER (DEPRESSED WITH NO LIP)

2' 8.33% MAX.

2% MAX.

3' 5' LANDING AREA TYP.

VARES

5' MIN.

GRASS AREA

8' CROSSWALK

SIDWALK

TAPER FACE OF THE CURB HEIGHT TYP.

NO LIP AT STREET

DETECTABLE WARNING SURFACE TRUNCATED DOMES AS APPLICABLE

COMBINATION CURB AND GUTTER
1. SIDEWALK LESS THAN 5'0" REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.
2. THE WIDTH OF THE RAMP SHALL NOT BE LESS THAN THE WIDTH OF THE ADJACENT SIDEWALK, SHARED USE PATH, AND/OR SEPARATED BIKEWAY.

**NOTES:**

- EXPANSION JOINT
- FULL HEIGHT CURB
- DETECTABLE WARNING SURFACE TRUNCATED DOMES AS APPLICABLE
- 8.33% MAX.
- 5"X5" MIN. LANDING AREA TYP. MAX. 2% SLOPE ANY DIRECTION
- TAPER FACE OF THE CURB HEIGHT TYP.
- GRASS AREA
- COMBINATION CURB AND GUTTER
- 1/2" PREFORMED EXPANSION JOINT
- COMBINATION CURB AND GUTTER (DEPRESSED WITH NO LIP)

**PLAN**

**SECTION A–A**
NORMAL CURB HEIGHT
DETECTABLE WARNING SURFACE TRUNCATED DOMES SEE DETAIL R-4.07

SECTION A-A △

1/2" PREFORMED EXPANSION JOINT
COMBINATION CURB AND GUTTER (DEPRESSED WITH NO LIP)

5' x 5' MIN. LANDING AREA TYP.

△ PLAN

NOTES:
1. TYPE C SIDEWALK RAMP IS TO BE USED AT LOCATIONS WHERE THE SIDEWALK MUST BE PLACED IMMEDIATELY ADJACENT TO THE BACK OF THE CURB. THE SIDEWALK SHALL BE AT LEAST 5'-0" IN WIDTH.
2. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH OF THE RAMP. SEE DETAIL R-4.07.
3. 7" COMB. CURB AND GUTTER IS SHOWN. DETAILS TO BE SIMILAR FOR MOD. CURB AND GUTTER AND BIT. CURB.
4. SIDEWALK LESS THAN 5'-0" REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.
5. SEE DETAIL R-4.07 FOR DETECTABLE WARNING SURFACE PLACEMENT GUIDELINES.

NORMAL TOP OF CURB

8.33% MAX.

2'  5'-0"  2'

LANDING AREA

2/7/2022
Revised
5/30/2017
Revised
5/7/2007
Approved
Howard County, Maryland
Department of Public Works
Approved
Thomas LeBlanc
Chief, Bureau of Engineering

SIDEWALK RAMP
Type C

Detail
R-4.04
**RAMP PERPENDICULAR TO CURB**

- **NOTES:**
  1. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH OF RAMP. SEE DETAIL R-4.07.
  2. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.
  3. SIDEWALK LESS THAN 5'-0" REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.
  4. THE WIDTH OF THE RAMP SHALL NOT BE LESS THAN THE WIDTH OF THE ADJACENT SIDEWALK, SHARED USE PATH, AND/OR SEPARATED BIKEWAY.
NOTES:

1. ALL RAMPS SHALL HAVE DETECTABLE WARNING SURFACES. SEE DETAIL R-4.07.

2. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.

3. THE WIDTH OF THE RAMP THRU MEDIAN SHALL NOT BE LESS THAN THE WIDTH OF THE ADJACENT SIDEWALK, SHARED USE PATH, AND/OR SEPARATED BIKEWAY.
SECTION A-A

NOTES:
1. SEE DETAIL R-3.01 FOR 7" COMBINATION CURB AND GUTTER.
2. SEE DETAIL R-4.07 FOR DETECTABLE WARNING SURFACE.
3. SEE DETAIL R-3.03 FOR CONCRETE BARRIER CURB.
4. SEE DETAIL T-7.03 FOR PEDESTRIAN CROSSWALK DETAIL.
5. CLEAR PASSAGE BETWEEN THE MEDIAN ISLAND AND THE OUTSIDE CURB SHALL BE 12'-0" MINIMUM.
6. THE SLOPE WITHIN THE PEDESTRIAN ROUTE IN THE MEDIAN SHALL NOT EXCEED 2% IN ANY DIRECTION.
NOTES:
1. CURB EXTENSION WIDTH IS 1.5 FEET LESS THAN THE WIDTH OF THE PARKING LANE.
2. THE DISTANCE BETWEEN THE CROSSWALK AND THE RETURN VARIES, COORDINATE WITH THE DRAINAGE, STREETSCAPE, OR OTHER DESIGN STANDARDS.
3. THE BEGINNING OF THE PARKING LANE IS 20' MIN. BEHIND THE STOP BAR AND 30' MIN. BEHIND STOP SIGN, OR YIELD SIGN.
4. CURB EXTENSIONS MAY BE PRESENT ON BOTH SIDES OF THE CORNER (A) OR ON ONLY ONE SIDE (B).
5. CURB RADIUS MUST ACCOMMODATE THE DESIGN VEHICLE AND CONTROL VEHICLE PER VOLUME III OF THE DESIGN MANUAL.
1. REFER TO R-3.05 FOR NOTES
2. DRIVEWAY APRON MAY BE USED IN PLACE OF PASSING AREA
   IF DESIGN SHOWS ALL OF THE REQUIREMENTS ARE MET.
3. SIDEWALK LESS THAN 5'-0" REQUIRES APPROVAL THROUGH
   THE EXCEPTIONS PROCESS; SEE VOLUME III.

Howard County, Maryland
Department of Public Works

SIDEWALK
Passing Area

Revised
2/1/2022
5/30/2017

Approved:
Chief, Bureau of Engineering

R-4.11
NOTES:
1. THIS TRAFFIC CALMING MEASURE IS RESTRICTED TO USE ON ROADWAYS WITH A 30 M.P.H. MAXIMUM POSTED SPEED LIMIT.
2. APPROVED DECORATIVE PAVEMENTS CAN BE USED TO INCREASE VISIBILITY AND AESTHETIC QUALITY.
3. IF CROSSWALKS ARE USED, TRAPEZOIDAL RAMP MUST BE OUTSIDE OF THE CROSSWALK.
4. THE LIMITS OF THE INTERSECTION TABLE WILL BE DETERMINED ON A CASE BY CASE BASIS.
5. PROVIDE DRAINAGE INLETS ON UPHILL SIDE OF INTERSECTION TO PREVENT PONDING WHERE REQUIRED.
NOTES:
1. WIDTH OF PAVEMENT THROUGH CHOKER IS 16' FOR A ONE LANE CHOKER AND 22' FOR A TWO LANE CHOKER.
2. PROVIDE PEDESTRIAN CROSSING WITH SIDEWALK RAMPS, WHERE DESIRED.
3. ADVANCED WARNING SIGNS NECESSARY ONLY FOR ONE-LANE CHOKER, PLACE SIGNS PER MNUOTCD TABLE 2C-4.
1. 7° COMBINATION CURB & GUTTER SHALL BE USED ON DOWNGRADE CUL-DE-SACS.

2. THE MAXIMUM GRADE OF THE CIRCULAR AREA IN ANY DIRECTION SHALL NOT EXCEED 6%.

3. A PROFILE SHALL BE PROVIDED ALONG THE TOP OF CURB FROM POINT P TO POINT Q.

4. SIDEWALK LESS THAN 5’-0” REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.

5. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH OF THE RAMP.

### CURVE DATA

<table>
<thead>
<tr>
<th>COMMERCIAL—INDUSTRIAL (40’ APPROACH)</th>
<th>RESIDENTIAL (24’ APPROACH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X=61.70’, Y=-3.11’</td>
<td>L.P.=286.25’</td>
</tr>
<tr>
<td>CURVE 1 &amp; 3</td>
<td>CURVE 2</td>
</tr>
<tr>
<td>A</td>
<td>42° 10’06”</td>
</tr>
<tr>
<td>R</td>
<td>25.00’</td>
</tr>
<tr>
<td>L</td>
<td>18.40’</td>
</tr>
<tr>
<td>T</td>
<td>9.64’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESIDENTIAL (26’ APPROACH)</th>
<th>RESIDENTIAL (28’ APPROACH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X=64.00’, Y=3.64’</td>
<td>L.P.=289.74’</td>
</tr>
<tr>
<td>CURVE 1 &amp; 3</td>
<td>CURVE 2</td>
</tr>
<tr>
<td>A</td>
<td>51° 19’04”</td>
</tr>
<tr>
<td>R</td>
<td>25.00’</td>
</tr>
<tr>
<td>L</td>
<td>22.39’</td>
</tr>
<tr>
<td>T</td>
<td>12.01’</td>
</tr>
</tbody>
</table>

Howard County, Maryland
Department of Public Works

CUL-DE-SAC without Island

Detail R-5.01

2/7/2022
Revised

5/30/2017
Approved

5/7/2007
Approved

Chief, Bureau of Engineering

Thomas R. Smuth
NOTES:

1. 7” COMBINATION CURB & GUTTER SHALL BE USED ON DOWN
   GRADE CUL-DE-SAC.

2. THE MAXIMUM GRADE OF THE CIRCULAR AREA IN ANY
   DIRECTION SHALL NOT EXCEED 6%.

3. A PROFILE SHALL BE PROVIDED ALONG THE TOP OF THE
   CURB FROM POINT P TO POINT Q.

4. THIS CUL-DE-SAC TO BE USED IN RESIDENTIAL AREAS ONLY.

5. SIDEWALK LESS THAN 5’-0” REQUIRES APPROVAL THROUGH
   THE EXEMPTIONS PROCESS; SEE VOLUME III.

6. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE
   FULL WIDTH OF THE RAMP.

---

**RESIDENTIAL (24’ APPROACH)**

<table>
<thead>
<tr>
<th>X = 73.21’, Y = 4.47</th>
<th>L.P. = 337.38’</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CURVE 1&amp;3</strong></td>
<td><strong>CURVE 2</strong></td>
</tr>
<tr>
<td>53° 58’05”</td>
<td>287° 56’10”</td>
</tr>
<tr>
<td>R 25.00’</td>
<td>60.00’</td>
</tr>
<tr>
<td>L 23.55’</td>
<td>301.53’</td>
</tr>
<tr>
<td>T 12.73’</td>
<td>19.12’</td>
</tr>
<tr>
<td>L.C. 22.69’</td>
<td>33.56’</td>
</tr>
</tbody>
</table>

| **CURVE 4&6**        | **CURVE 5**    |
| 57° 18’03”          | 294° 36’05”   |
| 35.00’              | 52.00’        |
| 35.00’              | 267.37’       |
| 19.12’              |                |
| 33.56’              |                |

**RESIDENTIAL (28’ APPROACH)**

<table>
<thead>
<tr>
<th>X = 72.56’, Y = 3.82</th>
<th>L.P. = 334.99’</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CURVE 1&amp;3</strong></td>
<td><strong>CURVE 2</strong></td>
</tr>
<tr>
<td>53° 58’05”</td>
<td>287° 56’10”</td>
</tr>
<tr>
<td>R 25.00’</td>
<td>60.00’</td>
</tr>
<tr>
<td>L 23.55’</td>
<td>301.53’</td>
</tr>
<tr>
<td>T 12.73’</td>
<td>18.61’</td>
</tr>
<tr>
<td>L.C. 22.69’</td>
<td>33.14’</td>
</tr>
</tbody>
</table>

| **CURVE 4&6**        | **CURVE 5**    |
| 56° 30’53”          | 293° 01’45”   |
| 34.52’              | 265.94’       |
| 18.61’              |                |
| 33.14’              |                |

| **CURVE 1&3**        | **CURVE 2**    |
| 53° 58’05”          | 287° 56’10”   |
| R 25.00’            | 60.00’        |
| L 23.55’            | 301.53’       |
| T 12.73’            | 18.50’        |
| L.C. 22.69’         | 32.71’        |

| **CURVE 4&6**        | **CURVE 5**    |
| 55° 43’17”          | 291° 26’34”   |
| 34.04’              | 264.50’       |
| 18.50’              |                |
| 32.71’              |                |

---

Howard County, Maryland
Department of Public Works

CUL-DE-SAC
with Island

Detail

R - 5.02

2/7/2022
5/30/2017
5/7/2007

Approved
Approved
Approved

Chief, Bureau of Engineering
NOTES:
1. 7" COMBINATION CURB & GUTTER SHALL BE USED ON DOWNGRADE CUL-DE-SACS.
2. THE MAXIMUM GRADE OF THE CIRCULAR AREA IN ANY DIRECTION SHALL NOT EXCEED 6%.
3. A PROFILE SHALL BE PROVIDED ALONG THE TOP OF CURB FROM POINT X TO POINT Y.
4. SIDEWALK LESS THAN 5'-0" REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.
5. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH OF THE RAMP.

<table>
<thead>
<tr>
<th>ZONING DISTRICTS</th>
<th>A</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>I</th>
<th>J</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM. &amp; IND.</td>
<td>40'</td>
<td>47'</td>
<td>61'</td>
<td>14'</td>
<td>78.46'</td>
<td>68.66'</td>
<td>76'</td>
</tr>
<tr>
<td>RESIDENTIAL</td>
<td>28'</td>
<td>45'</td>
<td>55'</td>
<td>10'</td>
<td>77.95'</td>
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<td>50'</td>
</tr>
<tr>
<td>RESIDENTIAL</td>
<td>24'</td>
<td>45'</td>
<td>55'</td>
<td>10'</td>
<td>78.77'</td>
<td>62.61'</td>
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**CURVE DATA**

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<tr>
<th>COMMERCIAL - INDUSTRIAL 40' APPROACH</th>
<th>RESIDENTIAL 28' APPROACH</th>
<th>RESIDENTIAL 26' APPROACH</th>
<th>RESIDENTIAL 24' APPROACH</th>
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</thead>
<tbody>
<tr>
<td>L.P. = 327.39'</td>
<td>L.P. = 326.83'</td>
<td>L.P. = 329.31'</td>
<td>L.P. = 331.73'</td>
</tr>
<tr>
<td>CURVE 1</td>
<td>CURVE 2</td>
<td>CURVE 3</td>
<td>CURVE 4</td>
</tr>
<tr>
<td><strong>A</strong></td>
<td><strong>R</strong></td>
<td><strong>L</strong></td>
<td><strong>T</strong></td>
</tr>
<tr>
<td>37°58'45&quot;</td>
<td>44°24'55&quot;</td>
<td>200°50'17&quot;</td>
<td>65°15'13&quot;</td>
</tr>
<tr>
<td>127.50'</td>
<td>75.00'</td>
<td>61.00'</td>
<td>25.00'</td>
</tr>
<tr>
<td>84.51'</td>
<td>58.14'</td>
<td>213.82'</td>
<td>28.47'</td>
</tr>
<tr>
<td>43.88'</td>
<td>30.62'</td>
<td>16.00'</td>
<td>25.47'</td>
</tr>
<tr>
<td>82.88'</td>
<td>56.69'</td>
<td>26.96'</td>
<td>41.95'</td>
</tr>
<tr>
<td>CURVE 5</td>
<td>CURVE 6</td>
<td>CURVE 1</td>
<td>CURVE 2</td>
</tr>
<tr>
<td><strong>Δ</strong></td>
<td><strong>Δ</strong></td>
<td><strong>R</strong></td>
<td><strong>L</strong></td>
</tr>
<tr>
<td>43°22'31&quot;</td>
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<tr>
<td>44°09'34&quot;</td>
<td>76°59'50&quot;</td>
<td>256°59'50&quot;</td>
<td>76°59'50&quot;</td>
</tr>
<tr>
<td>85.92'</td>
<td>21.12'</td>
<td>234.38'</td>
<td>33.60'</td>
</tr>
<tr>
<td>45.14'</td>
<td>10.60'</td>
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<td>27.84'</td>
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<tr>
<td>83.89'</td>
<td>21.08'</td>
<td>31.12'</td>
<td>43.57'</td>
</tr>
<tr>
<td>CURVE 5</td>
<td>CURVE 6</td>
<td>CURVE 1</td>
<td>CURVE 2</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td><strong>L</strong></td>
<td><strong>T</strong></td>
<td><strong>L.C.</strong></td>
</tr>
<tr>
<td>44°24'55&quot;</td>
<td>17°08'46&quot;</td>
<td>239°51'03&quot;</td>
<td>76°59'50&quot;</td>
</tr>
<tr>
<td>112.00'</td>
<td>100.00'</td>
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</tr>
<tr>
<td>86.82'</td>
<td>29.93'</td>
<td>230.24'</td>
<td>33.60'</td>
</tr>
<tr>
<td>45.72'</td>
<td>15.08'</td>
<td>19.88'</td>
<td>28.58'</td>
</tr>
<tr>
<td>84.66'</td>
<td>29.81'</td>
<td>31.12'</td>
<td>44.27'</td>
</tr>
<tr>
<td>CURVE 6</td>
<td>CURVE 5</td>
<td>CURVE 4</td>
<td>CURVE 3</td>
</tr>
<tr>
<td><strong>Δ</strong></td>
<td><strong>Δ</strong></td>
<td><strong>R</strong></td>
<td><strong>L</strong></td>
</tr>
<tr>
<td>45°27'50&quot;</td>
<td>21°02'22&quot;</td>
<td>100.00'</td>
<td>55.00'</td>
</tr>
<tr>
<td>236°41'30&quot;</td>
<td>76°59'50&quot;</td>
<td>259°55'17&quot;</td>
<td>79°55'17&quot;</td>
</tr>
<tr>
<td>87.68'</td>
<td>36.72'</td>
<td>227.21'</td>
<td>33.60'</td>
</tr>
<tr>
<td>46.30'</td>
<td>18.57'</td>
<td>19.88'</td>
<td>29.33'</td>
</tr>
<tr>
<td>85.40'</td>
<td>36.52'</td>
<td>31.12'</td>
<td>44.96'</td>
</tr>
</tbody>
</table>

Howard County, Maryland
Department of Public Works

CUL-DE-SAC
Offset
without Island

Detail
R-5.03
NOTES:
1. 7” COMBINATION CURB & GUTTER SHALL BE USED ON DOWN GRADE CUL-DE-SACS.
2. MAXIMUM GRADE OF THE CIRCULAR AREA IN ANY DIRECTION SHALL NOT EXCEED 6%.
3. A PROFILE SHALL BE PROVIDED ALONG THE TOP OF CURB FROM POINT X TO POINT Y.
4. THIS CUL-DE-SAC TO BE USED IN RESIDENTIAL AREAS ONLY.
5. SIDEWALK LESS THAN 5’-0” REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.
6. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH OF THE RAMP.
7. BACK OF CURB NOT SHOWN HERE FOR CLARITY PURPOSES.

<table>
<thead>
<tr>
<th>CURVE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESIDENTIAL 24&quot; APPROACH L.P.=379.75&quot;</th>
<th>RESIDENTIAL 26&quot; APPROACH L.P.=362.23&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURVE 1</td>
<td>CURVE 2</td>
</tr>
<tr>
<td>Δ 49'31&quot;28&quot;</td>
<td>25'57&quot;18&quot;</td>
</tr>
<tr>
<td>R 114.00'</td>
<td>100.00'</td>
</tr>
<tr>
<td>L 98.54'</td>
<td>50.54'</td>
</tr>
<tr>
<td>T 52.58'</td>
<td>25.82'</td>
</tr>
<tr>
<td>L.C. 95.50'</td>
<td>50.00'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESIDENTIAL 28&quot; APPROACH L.P.=360.48&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURVE 1</td>
</tr>
<tr>
<td>Δ 47'31&quot;45&quot;</td>
</tr>
<tr>
<td>R 117.00'</td>
</tr>
<tr>
<td>L 97.06'</td>
</tr>
<tr>
<td>T 51.52'</td>
</tr>
<tr>
<td>L.C. 94.30'</td>
</tr>
</tbody>
</table>

Howard County, Maryland
Department of Public Works
CUL-DE-SAC
Offset with Island
Detail
R-5.04
NOTES:

1. PERMANENT TEE SHALL ONLY BE INSTALLED ON RESIDENTIAL STREETS WITH LESS THAN 200 ADT.

2. THE LENGTH OF THE BARRICADE IS TO EQUAL THE WIDTH OF THE ROADWAY.

3. INSTALL SIGNS R7-1 (1) "NO PARKING", R7-4 "NO STANDING", R7-4 (1) "NO STOPPING" AS DIRECTED BY DPW.

4. INSTALL SIGNS OM-1 (2) "END OF ROAD BARRIER" BEHIND BARRICADE. SIGNS TO BE INSTALLED 12' APART. MINIMUM 2 SIGNS PER TEE TURN-AROUND.

⚠️ 5. THERE SHALL BE NO DRIVEWAYS ALONG THE 60'-0" EDGE OF THE TEE TURN-AROUND. ONE DRIVEWAY IS PERMITTED AT EACH 24'-0" END OF THE TEE TURN-AROUND.
NOTES:

1. A TEE TURN-AROUND SHALL BE USED IN LIEU OF A CUL-DE-SAC ONLY IF THE STREET IS TO BE EXTENDED IN THE FUTURE.

2. HMA CURB SHALL EXTEND AROUND THE TEE TURN-AROUND IF AND AS REQUIRED TO CONTROL CURB DRAINAGE FROM THE ROADWAY SECTION.

3. REFER TO DETAIL R-5.08 FOR TYPICAL ROADWAY PROFILE TEMPORARY LIMIT OF PAVING.

4. PROVIDE REVERSIBLE EASEMENT FOR CONSTRUCTION AND RESTRICTED AREA (INCLUDING PLACEMENT OF DEAD END BARRICADE).

5. GRADING WITHIN 5’ OF PERIMETER OF THE CURB AND PAVEMENT SHALL NOT EXCEED 3% IN ANY DIRECTION AND NO OBSTRUCTIONS (FENCE, PLANTINGS) ARE PERMITTED IN REVERSIBLE EASEMENT.

6. PROVIDE POSITIVE DRAINAGE FOR THE TEMPORARY TEE TURN-AROUND INTO A SUITABLE OUTFALL.

7. INSTALL SIGNS R7-1 "NO PARKING", R7-4 "NO STANDING", R7-4(1) "NO STOPPING" AS PER DIRECTED BY DPW.

8. INSTALL SIGNS GM-1(2) "END OF ROAD MARKED" BEHIND BARRICADE. SIGN TO BE INSTALLED 12’ APART. MINIMUM 2 SIGNS PER TEE-TURN-AROUND.

9. DEAD END BARRICADE (TYPE A OR B AS DIRECTED BY DPW) SEE DETAIL R-5.09 FOR PLACEMENT OF BARRICADE.

10. 4’-0” SIDEWALK REQUIRES A PASSING AREA (SEE DETAIL R-4.01).

11. THERE SHALL BE NO DRIVEWAYS ALONG THE 60’-0” EDGE OF THE TEE TURN-AROUND. ONE DRIVEWAY IS PERMITTED AT EACH 24’-0” END OF THE TEE TURN-AROUND.
NOTES:

1. PRIVATE DRIVEWAY (IF CONC, 1/2" PREFORMED EXP JT IS TO BE PROVIDED AT R/W LINE.)

2. TIE-IN GRADE OF PRIVATE DRIVEWAY SHALL NOT EXCEED 15%.

3. ALL RAMPS SHALL HAVE A TEXTURE EXTENDING THE FULL WIDTH AND DEPTH OF THE RAMP. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.

4. SIDEWALK LESS THAN 5'-0" REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.

5. THE WIDTH OF THE ADJACENT SIDEWALK, SHARED USE PATH, AND/OR SEPARATED BIKEWAY SHALL BE CONTINUED ACROSS THE DRIVEWAY.
NOTES:

1. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH OF THE RAMP.
2. TIE-IN GRADE OF PRIVATE DRIVEWAY SHALL NOT EXCEED 15%.
3. PRIVATE DRIVEWAY PAVING (IF CONC, 1/2" PREFORMED EXP JT IS TO BE PROVIDED AT R/W LINE.)
4. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.

Howard County, Maryland
Department of Public Works

RESIDENTIAL DRIVEWAY ENTRANCE
7" Combination Curb and Gutter
Sidewalk Abutting Curb

Detail
R-6.02
NOTES:

1. ALL RAMPS SHALL HAVE A TEXTURE EXTENDING THE FULL WIDTH AND DEPTH OF THE RAMP.

2. PRIVATE DRIVEWAY (IF CONC, 1/2" PREFORMED EXPANSION JOINT IS TO BE PROVIDED AT THE RIGHT OF WAY LINE.)

3. TIE-IN GRADE OF PRIVATE DRIVEWAY SHALL NOT EXCEED 15%.

4. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.

5. SIDEWALK LESS THAN 5'-0" REQUIRE APPROVAL THROUGH THE EXCEPTION PROCESS; SEE VOLUME III.

6. THE WIDTH OF THE ADJACENT SIDEWALK, SHARED USE PATH, AND/OR SEPARATED BIKEWAY SHALL BE CONTINUED ACROSS THE DRIVEWAY.
NOTES:

1. ALL RAMPS SHALL HAVE A TEXTURE EXTENDING THE FULL WIDTH AND DEPTH OF THE RAMP.

2. PRIVATE DRIVEWAY (IF CONC., 1/2" PREFORMED EXP. JOINT FILLER IS TO BE PROVIDED AT THE RIGHT OF WAY LINE.)

3. TIE-IN GRADE OF PRIVATE DRIVEWAY SHALL NOT EXCEED 15%.

4. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.

5. SIDEWALK LESS THAN 5'-0" REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.

6. THE WIDTH OF THE ADJACENT SIDEWALK, SHARED USE PATH, AND/OR SEPARATED BIKEWAY SHALL BE CONTINUED ACROSS THE DRIVEWAY.

Howard County, Maryland
Department of Public Works

RESIDENTIAL DRIVEWAY ENTRANCE
Hot Mix Asphalt Curb
Sidewalk Setback from Curb

R-6.04
NOTES:
1. ALL RAMP'S SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH OF THE RAMP.
2. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.
3. SIDEWALK LESS THAN 5'-0" REQUIRE APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.
4. THE WIDTH OF THE ADJACENT SIDEWALK, SHARED USE PATH, AND/OR SEPARATED BIKEWAY SHALL BE CONTINUED ACROSS THE DRIVEWAY.

Howard County, Maryland
Department of Public Works

COMMERICAL—INDUSTRIAL—APARTMENT
Entrance Concrete Apron

Detail
R-6.07
NOTES:

1. ENTRANCE TO BE USED ONLY IF AUXILIARY Lanes ARE NOT REQUIRED IN ACCORDANCE WITH DESIGN MANUAL VOL. III SECTION 2.5.B.6 AND SECTION 2.5.G.

2. WHEN PROPOSED ENTRANCE IS CONSTRUCTED ON AN EXISTING STREET WITH COMBINATION CURB OR CURB & GUTTER, THE CURB OR CURB & GUTTER SHALL BE REMOVED TO THE FIRST EXISTING JOINT ON EITHER SIDE OF THE PROPOSED ENTRANCE AND REPLACED BY NEW CONSTRUCTION.

3. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.

4. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH OF THE CURB RAMP.

5. SIDEWALK LESS THAN 5'-0" REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.

6. THE WIDTH OF THE ADJACENT SIDEWALK, SHARED USE PATH, AND/OR SEPARATED BIKEWAY SHALL BE CONTINUED ACROSS THE DRIVEWAY.
NOTES:

1. ENTRANCE TO BE USED ONLY IF AUXILIARY LANES ARE NOT REQUIRED IN ACCORDANCE WITH DESIGN MANUAL VOL III SECTION 2.4.B.6 AND SECTION 2.5.G.

2. PAVING SECTION FOR ENTRANCE WITHIN THE PUBLIC RIGHT OF WAY WILL BE AS REQUIRED FOR PUBLIC ROAD.

3. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.

4. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH OF THE RAMP.

5. SIDEWALK LESS THAN 5'0" REQUIRES APPROVAL THROUGH THE EXCEPTIONS PROCESS; SEE VOLUME III.

6. THE WIDTH OF THE ADJACENT SIDEWALK, SHARED USE PATH, AND/OR SEPARATED BIKEWAY SHALL BE CONTINUED ACROSS THE DRIVEWAY.

Howard County, Maryland
Department of Public Works

COMMERCIAL—INDUSTRIAL—APARTMENT
Entrance on Open Section Roadway
(<200 V.P.H.)

Detail

R-6.10
NOTES:

1. ALL RAMPS SHALL HAVE A TEXTURE EXTENDING THE FULL WIDTH AND DEPTH OF THE RAMP.
2. PRIVATE DRIVEWAY (IF CONC. 1/2" PREFORMED EXPANSION JOINT IS TO BE PROVIDED AT THE RIGHT OF WAY LINE)
3. TIE-IN GRADE OF PRIVATE DRIVEWAY SHALL NOT EXCEED 15%.
4. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.
5. THE WIDTH OF THE ADJACENT SIDEWALK, SHARED USE PATH, AND/OR SEPARATED BIKEWAY SHALL BE CONTINUED ACROSS THE DRIVEWAY.