1. Normal crown (reverse crown for alleys) of 1/4 inch per foot shall be used unless otherwise directed by town engineer.

2. Water and sewer utilities shall not be served from the alley right of way.

3. Rural residential street may be used where permitted by the UDO.

4. Grasped swales shall meet the applicable design requirements set forth in the DWQ BMP Manual.

5. Grasped swales may be subject to the requirements set forth in UDO Section 6.1.12.
Note:
1. Pavement design shown is the minimum for the respective typical section. Calculated pavement design may differ.
2. Normal crown of 1/4 inch per foot shall be used unless otherwise directed by town engineer.
3. Roadside/streetscape treatments are context sensitive. Refer to advance APEX: The 2045 Transportation Plan for appropriate context, and bicycle and pedestrian planned facilities map.

Pavement design:
- 3" asphalt concrete surface course
- 4" asphalt concrete intermediate course
- 10" aggregate base course

- Roadside/streetscape treatments are context sensitive. Refer to advance APEX: The 2045 Transportation Plan for appropriate context, and bicycle and pedestrian planned facilities map.

Minor Collector Street
- Right of Way: 60'
- Roadway: 27'
- Pavement Design: 3" asphalt concrete surface course, 4" asphalt concrete intermediate course, 10" aggregate base course

Major Collector Street / 2-Lane Urban Thoroughfare
- Right of Way: 60'
- Roadway: 35'
- Pavement Markings to include centerline and edge lines offset 4' from edge of pavement

2-Lane Rural Thoroughfare
- Right of Way: 110'
- Pavement Markings to include centerline and edge lines offset 4' from edge of pavement
NOTE:
1. PAVEMENT DESIGN SHOWN IS THE MINIMUM FOR THE RESPECTIVE TYPICAL SECTION. CALCULATED PAVEMENT DESIGN MAY DIFFER.
2. NORMAL CROWN OF 1/4 INCH PER FOOT SHALL BE USED UNLESS OTHERWISE DIRECTED BY TOWN ENGINEER.
3. LANE WIDTHS SHALL BE MARKED PER THE DIMENSIONS SHOWN.
4. ROADSIDE/STREETSCAPE TREATMENTS ARE CONTEXT SENSITIVE. REFER TO ADVANCE APEX: THE 2045 TRANSPORTATION PLAN FOR APPROPRIATE CONTEXT, AND BICYCLE AND PEDESTRIAN PLANNED FACILITIES MAP.
NOTE:
1. PAVEMENT DESIGN SHOWN IS THE MINIMUM FOR THE RESPECTIVE TYPICAL SECTION. CALCULATED PAVEMENT DESIGN MAY DIFFER.
2. NORMAL CROWN OF 1/4 INCH PER FOOT SHALL BE USED UNLESS OTHERWISE DIRECTED BY TOWN ENGINEER.
3. LANE WIDTHS SHALL BE MARKED PER THE DIMENSIONS SHOWN.
4. APEX PEAKWAY SHALL UTILIZE THE 4-LANE MEDIAN-DIVIDED THOROUGHFARE WITH MULTI-USE PATH TYPICAL.
5. ROADSIDE/STREETSCAPE TREATMENTS ARE CONTEXT SENSITIVE. REFER TO ADVANCE APEX: THE 2045 TRANSPORTATION PLAN FOR APPROPRIATE CONTEXT, AND BICYCLE AND PEDESTRIAN PLANNED FACILITIES MAP.
6. A MINIMUM 4-FOOT WIDE BIKE LANE CAN BE USED IN TOWN CENTER AND TRANSIT-ORIENTED DEVELOPMENT CONTEXT AREAS IF ADJACENT TO A STANDARD CURB AND GUTTER SECTION AND WITHOUT A PARKING LANE.
SECTION "A-A"

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>R1</th>
<th>R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESIDENTIAL</td>
<td>37.5'</td>
<td>47&quot;</td>
</tr>
<tr>
<td>NON-RESIDENTIAL</td>
<td>45'</td>
<td>55'</td>
</tr>
</tbody>
</table>

RIGHT OF WAY
BACK OF CURB

R1
R2

25' R

32.5' R
NOTES:
1. CONCRETE SHALL BE 3000 PSI.
2. CONTRACTION JOINTS SHALL BE SPACED AT 10' INTERVALS OR 15' INTERVALS WHEN A MACHINE IS USED.
3. EXPANSION JOINTS SHALL BE SPACED AT 50' INTERVALS.
4. FINISH ALL CONCRETE WITH CURING COMPOUND.
5. FOLLOW ALL APPLICABLE ACI REQUIREMENTS.
6. VALLEY CURB SHALL ONLY BE USED FOR APPROVED APPLICATIONS.

TOWN OF APEX
STANDARDS
EFFECTIVE: NOVEMBER 19, 2019

STD. NO. 300.03
SHEET 1 OF 1

CONCRETE CURB AND GUTTER
A 3" deep curb cut shall be made perpendicular to the back of curb and then vertically down the back of curb to the bottom of the curb.

NOTES:
1. If perpendicular curb cut is within 5' from a joint, then the parallel cut shall be made to that joint.
2. For repairs to curb, a 5' minimum section must be removed and replaced (joint to joint.)
SCORE FULL WIDTH OF CURB & GUTTER TO 1'6" DEEP

PLAN

2'  
6"  1'6"

FRONT

2'6"  2'0"  6"

END

METHOD OF ENDING CURB
NOTES:

1. CURB DRAINS SHALL NOT BE CONSTRUCTED WITHIN 18" OF CONTRACTION OR EXPANSION JOINTS.

2. OPENING GRADE MAY VARY BETWEEN A MAXIMUM SLOPE OF 1/2" PER FOOT AND A MINIMUM OF 1/4" PER FOOT.

3. MORE THAN ONE HOLE MAY BE INSTALLED PROVIDED THE HOLES ARE LOCATED WITH 18" MINIMUM SPACING.

3" DIAMETER SCHEDULE 40 PVC PIPE THROUGH CURB. THE EDGES OF THE DRAIN HOLE MUST BE ROUNDED AND FINISHED SMOOTH AT THE FACE OF THE CURB.
NOTES:

1. RESIDENTIAL DRIVEWAYS TO BE 12' TO 24' WIDTH.
   2-CAR GARAGE - 18' DRIVEWAY
   3-CAR GARAGE - 24' DRIVEWAY

2. COMMERCIAL & INDUSTRIAL DRIVEWAYS TO BE 18' TO 30' WIDTH.

3. ALLEY CONNECTIONS TO BE 16' WIDTH.

4. ALL CONCRETE SHALL BE 3000 PSI.

5. IF CURB CUT IS WITHIN 5' FROM A JOINT, THEN THE CUT SHALL BE MADE AT THAT JOINT.

6. ALL DRIVEWAYS SHALL BE INSTALLED WITH A SIDEWALK SECTION AND UTILITY STRIP AS SHOWN. SIDEWALK SECTIONS SHALL HAVE 1/4" PER FOOT FALL TOWARDS THE STREET.

7. LOCATE DRIVEWAYS A MINIMUM OF 3 FEET FROM SEWER SERVICE LINES.
NOTES:

1. TRANSVERSE EXPANSION JOINTS SHALL BE SPACED 50' MAXIMUM.
2. CONTRACTION JOINTS SHALL BE SPACED 5' MAXIMUM.
3. ALL CONCRETE TO BE FINISHED WITH CURING COMPOUND.
4. ALL CONCRETE SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF THE ACI.
5. SIDEWALK EASEMENT REQUIRED WHEN SIDEWALK IS OUTSIDE PUBLIC RIGHT OF WAY.
NOTES:
1. RAMPS WITH FLARED SIDES WILL BE USED WHEN NEEDED FOR PEDESTRIAN CIRCULATION (SEE DETAIL ABOVE).
2. RAMPS WITH RETURNED CURB WILL BE USED WHEN FLARED SIDES ARE NOT NEEDED FOR PEDESTRIAN CIRCULATION (SEE DETAIL BELOW).
3. DETECTABLE WARNING DOMES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR.
4. DETECTABLE WARNING DOMES WILL CONTRAST VISIBILITY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT SEQUENCE.
DETAIL SHOWING TYPICAL LOCATION OF WHEELCHAIR RAMPS, PEDESTRIAN CROSSWALKS, & STOP LINES

RESIDENTIAL STREETS

COLLECTORS & THOROUGHFARES

4'x4' CLEAR SPACE MUST FALL WITHIN CROSSWALK LIMITS (TYP.)

4' STOPBAR

6'

4'

CROSSWALK LINES SHALL BE OFFSET 4' MINIMUM FROM THE NEAREST PARALLEL EDGE OF TRAVEL LANE

PEDESTRIAN CROSSWALK

SEE SHEET 3

PEDESTRIAN CROSSWALK

2' CURB MIN. BETWEEN RAMPS

STOPBAR

TOWN OF APEX STANDARDS

EFFECTIVE: DECEMBER 18, 2012

CURB RAMP

STD. NO.

300.09

SHEET 2 OF 3
NOTES:

1. FOR RAMPS WITH RETURNED CURB, PLACE DETECTABLE WARNING DOMES ON RAMP IF LEVEL LANDING IS LESS THAN 5 FEET DEEP. PLACE DETECTABLE WARNING DOMES ON LEVEL LANDING IF LANDING IS MORE THAN 5 FEET DEEP.

2. CROSSWALK WIDTHS AND CONFIGURATION VARY BUT MUST CONFORM TO TRAFFIC DESIGN STANDARDS.

3. USE CLASS "B" CONCRETE WITH A SIDEWALK FINISH IN ORDER TO OBTAIN A ROUGH NON-SKID TYPE SURFACE.

4. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.

5. THE CURB CUT AND THE PEDESTRIAN CROSSWALK LINES SHALL BE COORDINATED SO THAT A 4'X4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.

6. STOP LINES, NORMALLY PERPENDICULAR TO THE LANE LINES, SHALL BE USED WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL, STOP SIGN, OR OTHER LEGAL REQUIREMENT. AN UNUSUAL APPROACH SKEW MAY REQUIRE THE PLACEMENT OF THE STOP LINE TO BE PARALLEL TO THE INTERSECTING ROADWAY. REFER TO THE PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, LOCATE AS DIRECTED BY THE ENGINEER.

7. TERMINATE PARKING A MINIMUM OF 20' BACK OF A PEDESTRIAN CROSSWALK.

8. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION AND THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD.
NOTE:
THERE SHALL BE AN 18" VERTICAL SEPARATION BETWEEN WATER LINES, SEWER LINES, & OTHER UTILITIES
NOTE:
CONDUITS SHALL BE INSTALLED IN ASSOCIATION WITH ALL NEW RESIDENTIAL / COMMERCIAL DRIVEWAY AND SIDEWALK INSTALLATIONS.
SHOULDER SECTION WITHOUT SIDEWALK

8' MIN - ONE SIDE ONLY
GRADE TO R/W ON
OPPOSITE SIDE

ROADWAY

SLOPE 5' PER FOOT

R/W

NATURAL GROUND

CUT OR FILL SLOPE
SHALL NOT EXCEED
2:1

NATURAL GROUND
NOTES:

1. ALL PAVEMENT CUTS SHALL BE REPAIRED WITHIN A MAXIMUM OF SEVEN (7) DAYS FROM THE DATE THE CUT IS MADE.

2. IF CONDITIONS DO NOT PERMIT A PERMANENT REPAIR WITHIN THE GIVEN TIME LIMIT, PERMISSION TO MAKE A TEMPORARY REPAIR MUST BE OBTAINED FROM THE TOWN ENGINEER.

MIN: PIPE OUTSIDE DIAMETER + 8" EACH SIDE
MAX: PIPE OUTSIDE DIAMETER +12" EACH SIDE

BACKFILL
6" MAX. LIFTS
COMPACTION; 95% MAX. DRY DENSITY (STD. PROCTOR)
<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>DESIGN SPEED (MPH)</th>
<th>MAX. GRADE (%)</th>
<th>HORIZONTAL CURVE CONTROLS</th>
<th>VERTICAL CURVE CONTROLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>MAX. SUPER ELEVATION (%)</td>
<td>MIN. CL RADIUS (FT)</td>
</tr>
<tr>
<td>THOROUGHFARE</td>
<td>50</td>
<td>7</td>
<td>4</td>
<td>926</td>
</tr>
<tr>
<td>MAJOR COLLECTOR</td>
<td>35</td>
<td>10</td>
<td>4</td>
<td>371</td>
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<tr>
<td>MINOR COLLECTOR RESIDENTIAL STREET</td>
<td>25</td>
<td>10</td>
<td>NC</td>
<td>198</td>
</tr>
<tr>
<td>ALLEY</td>
<td>---</td>
<td>10</td>
<td>RC</td>
<td>50</td>
</tr>
</tbody>
</table>

**NOTES:**

1. A = ALGEBRAIC DIFFERENCE IN GRADES

2. NC / RC = NORMAL CROWN / REVERSE CROWN

3. THIS TABLE OUTLINES MINIMUMS FOR ROADWAY DESIGN. SOUND ENGINEERING JUDGEMENT SHOULD BE EXERCISED WHEN USING MINIMUM DESIGN STANDARDS FOR ROADS.

4. ALTERNATE DESIGNS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION PUBLISHED BY AASHTO: A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS.

5. GRADES SHALL NOT EXCEED 5% WITHIN 100 FEET OF STOP OR YIELD CONDITION.
NOTES:

1. BARRICADE(S) TO BE ERECTED ACROSS ENTIRE ROADWAY INCLUDING CURB & GUTTER.

2. ADVANCE WARNING SIGN W14-1 (DEAD END) SHALL BE PLACED JUST AFTER LAST INTERSECTING STREET.

3. MARKINGS FOR BARRICADE RAILS SHALL BE REFLECTIVE AND ALTERNATE RED AND WHITE STRIPS.

4. "ROAD CLOSED" SIGN SHALL MEET SPECIFICATIONS OF MUTCD R11-2, AND BE REQUIRED ATOP EACH BARRICADE USED.

1" X 12" TREATED LUMBER RED & WHITE REFLECTORIZED PANELS TO MEET NCDOT STANDARDS AND SPECIFICATIONS.

PANELS TO BE NAILED TO POST WITH 16 PENNY GALVANIZED NAILS.
A. Bottom edge of delineator 4’ above roadway.

B. The delineator stripes shall slope upward.

C. Delineators to be spaced on centers at 1/3 of the distance D shown below for new asphalt widths < 15 ft. or at 1/4 of D for new asphalt widths > 15 ft.

D. Delineators shall be mounted on breakaway posts.

E. Delineators shall be reflectorized.

NOTES:
1. Taper on both ends of roadway widening shall be a minimum 4:1. The town engineer and/or NCDOT reserve the right to require a longer taper if deemed necessary for the safety of the public.

2. A solid white edge marking shall be extended along widening at existing pavement.

3. Delineators shall only be required at taper from curb to existing pavement in direction of travel.

4. Delineators shall be oriented such that the face of the sign is perpendicular to travel lane.
NOTES:

1. EXISTING ROADWAY SHALL BE CLEARED FREE OF ALL LOOSE DEBRIS; AREA TO BE SURFACED WITH SPEED HUMPS SHALL BE COATED WITH TACK PRIOR TO PAVING OPERATIONS.

2. SPEED HUMPS SHALL BE CONSTRUCTED WITH ASPHALT.

3. ROADSIDE, EACH DIRECTION:
   W17-1 "SPEED BUMP" YELLOW 30" x 30"
   W13-1P "20 MPH" YELLOW 18" x 18"

TOWN OF APEX STANDARDS
EFFECTIVE: JANUARY 20, 2015

SPEED HUMP

STD. NO. 300.17
SHEET 1 OF 1
NOTES:

1. EXISTING ROADWAY SHALL BE CLEARED FREE OF ALL LOOSE DEBRIS; AREA TO BE SURFACED WITH SPEED HUMPS SHALL BE COATED WITH TACK PRIOR TO PAVING OPERATIONS.

2. SPEED TABLES SHALL BE CONSTRUCTED WITH ASPHALT.

3. HANDICAP RAMPS THAT CONNECT TO CROSSWALKS SHALL HAVE DETECTABLE WARNINGS AS SHOWN IN THE CURRENT ADA REQUIREMENTS.

4. W11-2 & W16-7P AT CROSSWALK ON EACH APPROACH (2X2)

5. 100' IN ADVANCE (EACH APPROACH):
   W17-1 "SPEED BUMP"
   W13-1 "20 MPH"
NOTES:

1. CROSSWALK MARKINGS ARE 10' IN LENGTH, 2' WIDE AND 4' ON CENTER (WHITE THERMOPLASTIC).

2. CROSSWALK IS NOT PROTECTED BY STOP CONTROL.

3. W11-2 & W16-7P SIGNS AT CROSSWALK ON EACH APPROACH (2X2).
NOTES:
1. PARKING PAD IS 6" CONCRETE SLAB. SIZE SHOWN IS 4'X6' MIN. PAD FOR SINGLE RACK AND 2'-6" ADDITIONAL WIDTH PER RACK FOR RACKS TO BE SPACED 2'-6" O.C. IF MORE THAN ONE.
2. 5' WIDE UNOBSREDIC MANEUVERING AREA IS REQUIRED BEHIND RACKS WHEN ORIENTED PARALLEL TO A SIDEWALK AS SHOWN; REQUIRES 4'X11' MIN. PAD.
3. RACKS SHALL BE FLANGE MOUNTED AND SHALL HAVE BLACK POLYESTER POWDER COAT. OTHER PLACEMENTS SHALL MEET MINIMUM SIZE REQUIREMENTS.
4. BICYCLE PARKING SHALL NOT ENCROACH ON ACCESSIBLE PATHS.
5. DESIGNATED PLACEMENT WITHIN PARKING LOTS MAY ALSO BE ACCEPTABLE.
NOTES:
1. NOT FOR USE WITHIN 300 FEET OF HORIZONTAL CURVES UNDER 300-FOOT RADIUS OR WITHIN 50 FEET OF AN INTERSECTION.

2. PLACE R4-7 KEEP RIGHT SIGNS ON EACH END OF MEDIAN.

3. OPTIONAL: 10' BREAK (SHOWN ABOVE) FOR MID-BLOCK PEDESTRIAN CROSSING.

4. PLANTINGS MAY INCLUDE GRASS, FLOWERS, OR SHRUBS UNDER 30" MATURE HEIGHT IN OPTIONAL 2' PLANTING STRIP. MAINTENANCE OF ANY PLANTINGS IS THE RESPONSIBILITY OF THE HOA.

5. DRIVEWAYS SHALL NOT BE LOCATED WITHIN 25 FEET OF THE MEDIAN.
NOTES:

1. NOT FOR USE WITHIN 50 FEET OF HORIZONTAL CURVES, ADJACENT TO CURVES UNDER 300-FOOT RADIUS, OR WITHIN 50 FEET OF AN INTERSECTION.

2. W5-1 "ROAD NARROWS" 100' IN ADVANCE FOR EACH APPROACH (2).

3. R8-3 "NO PARKING" EACH END OF NECKDOWN ON BOTH SIDES OF THE STREET (4).

4. MAY BE USED TO REDUCE ENVIRONMENTAL IMPACTS OVER LONGER DISTANCES WHERE DRIVEWAYS ARE NOT PRESENT, INCLUDING STREAM OR WETLAND CROSSINGS.

5. DRIVEWAYS SHALL NOT BE LOCATED WITHIN THE LIMITS OF THE NECKDOWN DEVICE.
NOTES:

1. ROADWAY: MINIMUM STREET WIDTH IS 27' BACK-TO-BACK OR 22' EDGE-TO-EDGE; MAXIMUM CIRCULATING LANE WIDTH IS 18'; LANE WIDTH WILL VARY FOR SKEWED INTERSECTIONS AND INTERSECTIONS INVOLVING WIDER STREETS.

2. CENTER ISLAND TO BE HOA MAINTAINED; LARGE SHRUBS AND TREES ARE NOT PERMITTED. LANDSCAPING SUBJECT TO STAFF REVIEW AND APPROVAL.

3. SIGNS: YIELD SIGN (R1-2) AND CIRCULAR INTERSECTION SIGN (R6-5P) ON EACH APPROACH AT CIRCLE.

4. PAVEMENT MARKING: PAINTED SPLITTER ISLANDS ARE 4" DOUBLE YELLOW WITH 8" ANGLE MARKING AT 2:1.

TOWN OF APEX STANDARDS
EFFECTIVE: MARCH 6, 2018

NEIGHBORHOOD TRAFFIC MINI-CIRCLE

STD. NO. 300.23
SHEET 1 OF 1
NOTES:

1. "NO PARKING-FIRE LANE" LETTER MARKINGS SHALL BE YELLOW.

2. LETTERS SHALL BE A MINIMUM OF 8" HIGH AND SPACED 8" FROM THE EDGE OF PAVEMENT.

3. LETTER MARKING SHALL BE PLACED EVERY 40' AND AT EVERY FIRE HYDRANT.

4. SOLID 4" WIDE YELLOW LINE SHALL BE PLACED 2" FROM THE EDGE OF PAVEMENT.
**TYPICAL REGULATORY SIGNS**

<table>
<thead>
<tr>
<th>SIGN SIZES</th>
<th>SINGLE LANE</th>
<th>MULTI-LANE</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1-1 (STOP)</td>
<td>30&quot; x 30&quot;</td>
<td>36&quot; x 36&quot;</td>
</tr>
<tr>
<td>R1-2 (YIELD)</td>
<td>36&quot; x 36&quot; x 36&quot;</td>
<td>48&quot; x 48&quot; x 48&quot;</td>
</tr>
<tr>
<td>R5-1 (DO NOT ENTER)</td>
<td>30&quot; x 30&quot;</td>
<td>36&quot; x 36&quot;</td>
</tr>
<tr>
<td>R2-1 (SPEED LIMIT)</td>
<td>24&quot; x 30&quot;</td>
<td>30&quot; x 36&quot;</td>
</tr>
</tbody>
</table>

* FOR OTHER TYPES OF REGULATORY SIGNS CONSULT THE MUTCD

**CROSSWALK SIGNS**

- W11-2 (PEDESTRIAN)
- S1-1 (SCHOOL)
- W16-7P (ARROW PLAQUE)
- R1-5 (YIELD HERE TO PEDS)
- R1-6/R1-6B (IN-STREET CROSSING)

**POST-MOUNTED STREET NAME SIGN (D3-1)**

<table>
<thead>
<tr>
<th>SIGN DIMENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGN TYPE</td>
</tr>
<tr>
<td>STANDARD</td>
</tr>
<tr>
<td>MULTI-LANE (&gt; 40 MPH)</td>
</tr>
</tbody>
</table>

**NOTES:**

1. SHEETING MATERIAL FOR ALL SIGNS SHALL BE HIGH INTENSITY PRISMATIC (HIP) TYPE IV MULTI-LAYER SHEETING.

2. ALL STREET NAME SIGNS INSTALLED IN RESIDENTIAL AREAS SHALL COMPLY WITH STANDARD DIMENSIONS. STREET NAME SIGNS SHALL BE GREEN WITH WHITE LEGEND AND BORDER. LETTERING SHALL BE COMPOSED OF UPPER AND LOWER-CASE LETTERS. LOWER-CASE LETTERS SHALL BE 75% THE HEIGHT OF UPPER-CASE LETTERS. STREET SUFFIXES SHALL BE UPPER-CASE LETTERS. FONT TYPE SHALL BE HIGHWAY GOTHIC SERIES C. 36-INCH BLADES SHALL BE STANDARD FOR STREET NAMES, WITH 15 CHARACTERS OR LESS.

3. STREET NAME SIGNS SHALL BE FABRICATED USING WHITE (HIP) SHEETING AS A BASE LAYER WITH GREEN (HIP) SHEETING OVERLAYED. THE LEGEND SHALL BE DIGITALLY CUT OR PRINTED FROM THE OVERLAY LAYER.

4. SCHOOL CROSSING SIGNS SHALL HAVE A FLUORESCENT YELLOW-GREEN BACKGROUND WITH BLACK LEGEND AND BORDERS.

5. IF IN-STREET CROSSING SIGNS ARE USED IN SCHOOL AREAS, R1-6B SIGN SHALL BE USED INSTEAD OF R1-6 SIGN.

6. REFER TO MUTCD FOR ALL OTHER GUIDANCE.
**NOTES:**

1. MINIMUM LATERAL OFFSET FROM EDGE OF TRAVELED WAY SHOULD BE 12 FEET.
2. ON CURB SECTIONS PROVIDE A MINIMUM VERTICAL CLEARANCE OF 7 FEET FROM EDGE OF TRAVELED WAY. WHERE SIDEWALKS ARE PRESENT PROVIDE A MINIMUM VERTICAL CLEARANCE OF 7 FEET FROM EDGE OF TRAVELED WAY OR TOP OF SIDEWALK, WHICHEVER IS HIGHER.
3. WHERE CROSSWALKS EXIST, SIGNS SHOULD BE PLACED WITHIN 4 FEET IN ADVANCE OF THE CROSSWALK. STREET NAME SIGNS MAY BE PLACED ABOVE A REGULATORY STOP OR YIELD SIGN WITH NO REQUIRED VERTICAL SEPARATION.
4. ALL NEW SIGNS SHALL BE POSTED ON 14 GAUGE, 2" PERFORATED SQUARE SIGN POSTS. ALL STREET NAME SIGNS RETROFITTED TO EXISTING U-CHANNEL SHALL BE POSTED ON 1.5" SQUARE SIGN POSTS. SIGN RETOROFITTING SHALL BE FOR TOWN USE ONLY.
5. ON ALL ROADWAYS EXCEPT STREETS WITH STANDARD CURB AND GUTTER AND SPEED LIMITS EQUAL TO OR LESS THAN 25 MPH, ALL SIGNS WITHIN CLEAR ZONE SHALL BE OF A BREAKAWAY DESIGN THAT COMPLIES WITH THE LATEST EDITION OF AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) AND NCHRP REPORT 350.
STREET SIGNS
3/8" BOLT HOLES

TOWN OF APEX
STANDARDS
EFFECTIVE: NOVEMBER 19, 2019

STANDARD NO. 300.26
SHEET 3 OF 4
**STREET SIGNS**

**BREAKAWAY SIGN INSTALLATION**

---

**BREAKEWAY SIGN PLACEMENT**

**POST INSTALLATION**

---

**ANCHOR INSTALLATION**

**NOTES:**

1. ON ALL ROADWAYS EXCEPT STREETS WITH STANDARD CURB AND GUTTER AND SPEED LIMITS EQUAL TO OR LESS THAN 25 MPH, ALL SIGNS WITHIN CLEAR ZONE SHALL BE OF A BREAKAWAY DESIGN THAT COMPLIES WITH THE LATEST EDITION OF AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) AND NCHRP REPORT 350.

2. DRIVE ANCHOR MINIMUM 26 INCHES INTO THE GROUND. LEAVE 2 INCHES MINIMUM TO 4 INCHES MAXIMUM TO PROTRUDE ABOVE SURFACE.

3. FIT POST INTO ANCHOR. FASTEN CORNER BOLT THROUGH THE FOURTH HOLE ON THE POST AND THE FIRST HOLE ON THE ANCHOR.
NOTES:

1. MOUNT SIGN 1 AND 2 ON SAME POST WITH STOP SIGN ON TOP.
2. ON ROADWAYS WITH NO STANDARD CURB AND GUTTER PAVEMENT WIDTH SHALL BE 16 FEET FROM EDGE OF PAVEMENT TO CONCRETE MEDIAN ISLAND AT THE TURNOUTS.
3. PLACE LEFT TURN RESTRICTION SIGN AT A 45-DEGREE ANGLE FACING OPPOSING TRAFFIC ON A BREAKAWAY POST SYSTEM.
DRIVEWAY GRADES

CROSS SECTION WITH SIDEWALK

CROSS SECTION WITHOUT SIDEWALK
NOTES:
1. PROVIDE SIGNING AND PAVEMENT MARKINGS ON EACH LEG OF THE APPROACH.
2. INSTALL WARNING SIGN IF POSTED SPEED LIMIT IS 40 MPH OR HIGHER. PLACE WARNING SIGN TO PROVIDE 180 FEET MINIMUM VISIBILITY DISTANCE. IF SIGN VISIBILITY IS OBSTRUCTED, PLACE SIGN IN ADVANCE OF OBSTRUCTION.
3. CONTRACTION JOINTS SHALL BE EQUALLY SPACED, WITH MAX OUTSIDE CHORD SPACING OF 15 FEET.
4. REFER TO NCDOT STANDARD DRAWINGS 700.01 FOR TRANSVERSE CONTRACTION JOINT DETAIL.
1. UNDERDRAINS ARE REQUIRED WHERE DETERMINED BY THE ENGINEER.
2. CONNECT UNDERDRAIN PIPE TO STORM DRAIN CATCH BASIN.
3. BACKFILL MATERIAL SHALL BE APPROVED SUITABLE MATERIAL.
NOTES:

1. MEDIAN REQUIRED FOR MAIN ENTRANCE TO DEVELOPMENTS WITH MORE THAN 50 LOTS.
2. FOR ENTRANCE WITHOUT MEDIAN, USE 35' B-B WIDTH FOR FIRST BLOCK OF DEVELOPMENT OR AS OTHERWISE APPROVED.