CITY OF DURHAM, NORTH CAROLINA

STREET STANDARD DETAILS

(UPDATED September 24, 2010)

These details apply to all projects in for construction drawing review as of April 19, 2010

PUBLIC WORKS DEPARTMENT: 3rd FLOOR OF CITY HALL
ADDRESS: 101 CITY HALL PLAZA DURHAM, NC 27701
TELEPHONE: (919) 560-4326 FAX: (919) 560-4316
HOMEPAGE: http://durhamnc.gov/671/Construction-Standards
<table>
<thead>
<tr>
<th>ID Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST-1.0</td>
<td>Alley</td>
</tr>
<tr>
<td>ST-2.0</td>
<td>Residential limited street with curb</td>
</tr>
<tr>
<td>ST-2.1</td>
<td>Residential limited street without curb</td>
</tr>
<tr>
<td>ST-2.2</td>
<td>Residential limited street with bay parking (22' B-B width)</td>
</tr>
<tr>
<td>ST-3.0</td>
<td>Residential street with curb</td>
</tr>
<tr>
<td>ST-3.1</td>
<td>Residential street without curb</td>
</tr>
<tr>
<td>ST-3.2</td>
<td>Residential street with bay parking (32' B-B width)</td>
</tr>
<tr>
<td>ST-3.3</td>
<td>Street with wider verge for planting trees</td>
</tr>
<tr>
<td>ST-4.0</td>
<td>Residential local and major local streets with curb (26' B-B width)</td>
</tr>
<tr>
<td>ST-4.1</td>
<td>Residential local street without curb</td>
</tr>
<tr>
<td>ST-4.2</td>
<td>Residential local and major local streets with curb (32' B-B width)</td>
</tr>
<tr>
<td>ST-5.0</td>
<td>Collector street</td>
</tr>
<tr>
<td>ST-6.0</td>
<td>Traffic circle</td>
</tr>
<tr>
<td>ST-6.1</td>
<td>Traffic circle with landscaping</td>
</tr>
<tr>
<td>ST-7.0</td>
<td>Residential cul-de-sac with curb and gutter</td>
</tr>
<tr>
<td>ST-7.1</td>
<td>Residential cul-de-sac without curb and gutter</td>
</tr>
<tr>
<td>ST-7.2</td>
<td>Hammerhead cul-de-sac with curb and gutter</td>
</tr>
<tr>
<td>ST-7.3</td>
<td>Temporary hammerhead turnaround</td>
</tr>
<tr>
<td>ST-8.0</td>
<td>Curb and gutter</td>
</tr>
<tr>
<td>ST-9.0</td>
<td>Driveway for curb and gutter street section</td>
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<tr>
<td>ST-9.1</td>
<td>Driveway construction with roll curb</td>
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<tr>
<td>ST-9.2</td>
<td>Driveway construction with strip pavement</td>
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<tr>
<td>ST-9.3</td>
<td>Durham Driveway Ordinance</td>
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<tr>
<td>ST-10.0</td>
<td>Sidewalk across driveway apron</td>
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<tr>
<td>ST-10.1</td>
<td>Protection of existing tree during sidewalk construction</td>
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<tr>
<td>ST-10.2</td>
<td>Concrete steps</td>
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<tr>
<td>ST-11.0</td>
<td>Mid-block curb cut ramp</td>
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<tr>
<td>ST-11.1</td>
<td>Parallel curb cut ramp</td>
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<tr>
<td>ST-11.2</td>
<td>Parallel curb cut ramp with collar at grade</td>
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<tr>
<td>ST-11.3</td>
<td>Single curb cut ramp at mid-point of radius</td>
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<tr>
<td>ST-11.4</td>
<td>Single curb cut ramp eccentric from mid-point of radius</td>
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<td>ST-11.5</td>
<td>Double curb cut ramp</td>
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<td>Description</td>
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<tr>
<td>ST-11.6</td>
<td>Curb cut ramp transition points</td>
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<td>ST-12.0</td>
<td>Pavement Transition</td>
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<td>SD-1.0</td>
<td>Catch basins general notes</td>
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<tr>
<td>SD-1.1</td>
<td>Catch basins casting specifications</td>
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<tr>
<td>SD-2.0</td>
<td>Type I catch basin with curb inlet</td>
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<tr>
<td>SD-2.1</td>
<td>Casting detail for Type I catch basin</td>
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<tr>
<td>SD-3.0</td>
<td>Type II catch basin with yard inlet</td>
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<tr>
<td>SD-4.0</td>
<td>Type III catch basin with surface inlet</td>
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<tr>
<td>SD-5.0</td>
<td>Type IV catch basin with elongated throat curb inlet (Sheet 1 of 2)</td>
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<tr>
<td>SD-5.0</td>
<td>Type IV catch basin with elongated throat curb inlet (Sheet 2 of 2)</td>
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<tr>
<td>SD-6.0</td>
<td>Precast concrete stormwater manhole for 15” to 42” pipes</td>
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<tr>
<td>SD-6.1</td>
<td>Stormwater manhole ring and cover with 8” depth</td>
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<tr>
<td>SD-6.2</td>
<td>Stormwater manhole ring and cover with 4” depth</td>
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</table>
GENERAL NOTES:

1. ALLEYS SHALL BEGIN AND TERMINATE AT PUBLIC RIGHTS-OF-WAY. ALLEY TRAFFIC FLOW SHALL BE ONE WAY.

2. PAVEMENT DESIGN SHOWN IS MINIMUM, THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.

3. GRAVEL SHOULDER SHALL NOT BE INSTALLED WITHIN THE DOWNTOWN TIER.
NOTES:

1. TYPE OF STREET SECTION SHALL BE CHOSEN ACCORDING TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.

2. PAVEMENT DESIGN SHOWN IS MINIMUM, THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.

3. FOR A 30" ROLL CURB SECTION THE STREET WIDTH SHALL BE 23' BACK-TO-BACK AND THE VERGE WIDTH SHALL BE 3.5'.

4. FOR DELAYED OVERLAY SEE CITY OF DURHAM SPECIFICATIONS.
RESIDENTIAL LIMITED STREET WITHOUT CURB

NOTES:

1. TYPE OF STREET SECTION SHALL BE CHosen ACCORDing TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.

2. PAVEMENT DESIGN SHOWN IS MINIMUM. THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.

3. FOR DELAYED OVERLAY SEE CITY OF DURHAM SPECIFICATIONS.
RESIDENTIAL LIMITED STREET WITH BAY PARKING

50' PUBLIC ROW

12.00'  12.00'

26' BACK-TO-BACK STREET WIDTH

13.00'  13.00'

18'-6" MINIMUM BAY PARKING

6"-6" MINIMUM PRIVATE PARKING EASEMENT

5.00'  7.00'

1" SF9.5A MIN. DELAYED OVERLAY

24" CURB & GUTTER

4'' VALLEY GUTTER OR 24" CURB & GUTTER

24" CURB & GUTTER

8" MINIMUM ABC STONE BASE

1 1/2" S9.5B MINIMUM INITIAL ASPHALT

COMPACTED SUBGRADE 100% STANDARD PROCTOR
(SEE CITY OF DURHAM PAVEMENT DESIGN REQUIREMENTS)

NOTES:

1. TYPE OF STREET SECTION SHALL BE CHOSEN ACCORDING TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.

2. PAVEMENT DESIGN SHOWN IS MINIMUM, THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.

3. FOR A 30' STRAIGHT CURB SECTION THE STREET WIDTH SHALL BE 27' BACK-TO-BACK AND THE VERGE WIDTH SHALL BE 6.5'.

4. FOR DELAYED OVERLAY SEE CITY OF DURHAM SPECIFICATIONS.

5. BAYS ARE LOCATED ON ONE SIDE OF THE STREET ONLY. BAYS MAY ALTERNATE FROM ONE SIDE OF THE STREET TO THE OTHER, BUT CANNOT BE LOCATED ONE BOTH SIDES OF THE STREET AT ANY ONE LOCATION.

6. A 5' TRANSITION IS REQUIRED BETWEEN THE CURB AND GUTTER AND THE VALLEY GUTTER.
RESIDENTIAL STREET WITH CURB

NOTES:

1. TYPE OF STREET SECTION SHALL BE CHOSEN ACCORDING TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.

2. PAVEMENT DESIGN SHOWN IS MINIMUM, THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.

3. FOR A 30" ROLL CURB SECTION THE STREET WIDTH SHALL BE 25' BACK-TO-BACK AND THE VERGE WIDTH SHALL BE 2.5'.

4. FOR DELAYED OVERLAY SEE CITY OF DURHAM SPECIFICATIONS.

RESIDENTIAL STREET
WITH CURB

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE: NTS
DETAIL NO. ST-3.0
RESIDENTIAL STREET WITHOUT CURB

NOTES:

1. TYPE OF STREET SECTION SHALL BE CHOSEN ACCORDING TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.

2. PAVEMENT DESIGN SHOWN IS MINIMUM, THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.

3. FOR DELAYED OVERLAY SEE CITY OF DURHAM SPECIFICATIONS.
RESIDENTIAL STREET WITH BAY PARKING

NOTES:

1. TYPE OF STREET SECTION SHALL BE CHOSEN ACCORDING TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.

2. PAVEMENT DESIGN SHOWN IS MINIMUM, THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.

3. FOR A 30' STRAIGHT CURB SECTION THE STREET WIDTH SHALL BE 33' BACK-TO-BACK AND THE VERGE WIDTH SHALL BE 3.5'.

4. FOR DELAYED OVERLAY SEE CITY OF DURHAM SPECIFICATIONS.

5. BAYS ARE LOCATED ON ONE SIDE OF THE STREET ONLY. BAYS MAY ALTERNATE FROM ONE SIDE OF THE STREET TO THE OTHER, BUT CANNOT BE LOCATED ONE BOTH SIDES OF THE STREET AT ANY ONE LOCATION.

6. A 5' TRANSITION IS REQUIRED BETWEEN THE CURB AND GUTTER AND THE VALLEY GUTTER.
NOTES:

1. TREE VERGE SHALL BE AT LEAST 8’ WIDE.
2. TREES WITHIN THE ROW WILL REQUIRE APPROVAL FROM THE PUBLIC WORKS DIRECTOR.
3. ONLY TREE SPECIES APPROVED BY THE CITY’S ARBORIST SHALL BE ALLOWED WITHIN THE PUBLIC ROW.
4. TYPE OF STREET SECTION SHALL BE CHOSEN ACCORDING TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.
RESIDENTIAL LOCAL AND MAJOR LOCAL STREETS WITH CURB (26' B-B WIDTH)

NOTES:

1. TYPE OF STREET SECTION SHALL BE CHOSEN ACCORDING TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.

2. PAVEMENT DESIGN SHOWN IS MINIMUM, THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.

3. FOR A 30" ROLL CURB SECTION THE STREET WIDTH SHALL BE 27' BACK-TO-BACK AND THE VERGE WIDTH SHALL BE 6.5'.

4. FOR DELAYED OVERLAY SEE CITY OF DURHAM SPECIFICATIONS.
NOTES:

1. TYPE OF STREET SECTION SHALL BE CHOSEN ACCORDING TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.

2. PAVEMENT DESIGN SHOWN IS MINIMUM. THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.

3. FOR DELAYED Overlay SEE CITY OF DURHAM SPECIFICATIONS.
RESIDENTIAL LOCAL AND MAJOR LOCAL
STREETS WITH CURB (32’ B-B WIDTH)

NOTES:
1. TYPE OF STREET SECTION SHALL BE CHOSEN ACCORDING TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.
2. PAVEMENT DESIGN SHOWN IS MINIMUM, THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.
3. FOR A 30” ROLL CURB SECTION THE STREET WIDTH SHALL BE 33’ BACK-TO-BACK AND THE VERGE WIDTH SHALL BE 3.5’.
4. FOR DELAYED OVERLAY SEE CITY OF DURHAM SPECIFICATIONS.
COLLECTOR STREET

NOTES:

1. TYPE OF STREET SECTION SHALL BE CHOSEN ACCORDING TO THE TABLE OF MINIMUM DESIGN REQUIREMENTS FOR PUBLIC AND PRIVATE RESIDENTIAL STREETS IN SECTION 9 OF THE REFERENCE GUIDE FOR DEVELOPMENT.

2. PAVEMENT DESIGN SHOWN IS MINIMUM, THE ENGINEER SHALL EVALUATE EXISTING CONDITIONS AND PAVEMENT CONDITIONS TO DETERMINE THE NEW PAVEMENT DESIGN.

3. FOR DELAYED Overlay SEE CITY OF DURHAM SPECIFICATIONS.
TRAFFIC CIRCLE WITH LANDSCAPING
CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

LANE MARKERS TYPE #2:
1. USE 12 FOR <15' DIA.
2. USE 16 FOR <20' DIA.
3. USE 20 FOR >20' DIA.

THROUGH JOINTS:
1. USE 4 FOR <20' DIA.
2. USE 8 FOR >20' DIA.

2-#3 BARS (TYP. BETWEEN JOINTS)
3-#3 CURB DOWELS (TYP. BETWEEN JOINTS)

CURB, CEMENT CONCRETE MOUNTABLE

PLANT MATERIAL

TREE PLANTING:
1. USE 3 TREES EQUALLY SPACED FOR >15' DIA.
2. USE 1 TREE CENTERED FOR <15' DIA.

OBJECT MARKER, SIGN CODE, W-81(P4-120)
(SEE STD. PLAN NO. 626)

18' DIAMETER

4' TYP.

5'

TYPICAL TRAFFIC CIRCLE

CURB, CEMENT CONC.
MOUNTABLE (DOWELED)

LANE MARKER,
TYPE 2

1" RADIUS

EX. CONC. OR
ASPH./CONC.
PAVEMENT

#3 BARS

#3 CURB DOWEL

TYPICAL SECTION

CURB, CEMENT CONC.
MOUNTABLE (DOWELED)

LANE MARKER,
TYPE 2

CONC. PAVEMENT
TYPE 401A

TYPICAL SECTION

TWO 2" PVC DRAINS AT LOW END OF TRAFFIC CIRCLE

SEE TYP. SECTION ABOVE FOR DIMENSIONS
2% SLOPE

CENTERLINE

INSTALL CITY OF DURHAM CURB CUT (DETAIL ST-11.0)

PC STA. PC STA.

5' WIDE CONCRETE SIDEWALK

B-B WIDTH

ROW WIDTH

ROW

ROW

CURB AND GUTTER

<table>
<thead>
<tr>
<th>ROW</th>
<th>24&quot; STD CURB B-B</th>
<th>A</th>
<th>30&quot; ROLL CURB B-B</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>40'</td>
<td>22'</td>
<td>9'</td>
<td>23'</td>
<td>8.5'</td>
</tr>
<tr>
<td>40'</td>
<td>24'</td>
<td>8'</td>
<td>25'</td>
<td>7.5'</td>
</tr>
<tr>
<td>50'</td>
<td>26'</td>
<td>12'</td>
<td>27'</td>
<td>11.5'</td>
</tr>
<tr>
<td>50'</td>
<td>32'</td>
<td>9'</td>
<td>33'</td>
<td>8.5'</td>
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</tbody>
</table>

HAMMERHEAD CUL-DE-SAC WITH CURB AND GUTTER

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 12/07/2009

SCALE: NTS

DETAIL NO. ST-7.2
TEMPORARY HAMMERHEAD TURNAROUND

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

DURHAM
1869
CITY OF MEDICINE

REVISION DATE: 12/07/2009
SCALE: NTS
DETAIL NO. ST-7.3

10' TEMPORARY CONSTRUCTION EASEMENT
(FOR MAINTENANCE AND FUTURE CONSTRUCTION)

8" ABC STONE BASE W/2 1/2" S9.5A ASPHALT
OR APPROVED EQUAL

PROPERTY LINE

PROPERTY LINE

30" ROLLED CURB & GUTTER

10' RADIUS

SIDEWALK

MATCH EXISTING CURB & GUTTER
WITH HAMMERHEAD IS REMOVED

20'

10'

10'

10'

MATCH EXISTING CURB & GUTTER
WITH HAMMERHEAD IS REMOVED

5" TRANSITION TO ROLLED CURB

B-B WIDTH
(32'-30")

ROW

ROW

50' RIGHT-OF-WAY

NOTE:
SEE CITY OF DURHAM PAVEMENT DESIGN REQUIREMENTS.

TEMPORARY CONSTRUCTION EASEMENT
(FOR MAINTENANCE AND FUTURE CONSTRUCTION)

8" ABC STONE BASE W/2 1/2" S9.5A ASPHALT
OR APPROVED EQUAL

PROPERTY LINE

PROPERTY LINE

30' ROLLED CURB & GUTTER

5'

15'

MATCH EXISTING CURB & GUTTER
WITH HAMMERHEAD IS REMOVED

5" TRANSITION TO ROLLED CURB

B-B WIDTH
(24'-22")

ROW

ROW

40' RIGHT-OF-WAY
18” MOUNTABLE CURB & GUTTER

30” CURB & GUTTER

30” ROLLED CURB & GUTTER

24” CURB & GUTTER

36” OR 48” VALLEY GUTTER

NOTES:
USE NON–REINFORCED, AIR ENTRAINED, CONCRETE
WITH A MINIMUM STRENGTH OF 3000 LBS.
NOTES:
1. CURB AND GUTTER SECTION WILL BE POURED CONTINUOUS THROUGH THE STANDARD AND ALTERNATE DRIVEWAY WITH THE FACE OF CURB DROPPED DOWN AS SHOWN.
2. DRIVEWAY WILL BE CONSTRUCTED AFTER THE CURB FORMS HAVE BEEN REMOVED.
3. CONCRETE SHALL BE NON–REINFORCED, AIR–ENTRAINED WITH A MINIMUM STRENGTH OF 3000 LBS.
PVEMENT

MIN. 5.0', MAX 10.0'

FLOW

REINFORCED CONCRETE
DRIVEWAY PIPE
20 LF MIN.

90'

MIN. 12', MAX 20'

90'

PIPE BELL END

FLOW

MIN. 5.0', MAX 10.0'

6" THICK MINIMUM OF
3,000 PSI CONCRETE

SLOPE MIN 1/4" PER FT.,
MAX 1/2" PER FT.

SLOPE MIN 1/4" PER FT.,
MAX 1/2" PER FT.

REQUIRED TOOL
JOINT OVER PIPE

6" MIN. OR PER ENGINEER

REINFORCED CONCRETE
DRIVEWAY PIPE
(MIN. 15" RCP OR HDPE)

EXPANSION JOINT

PROPERTY LINE

DRIVEWAY CONSTRUCTION WITH
STRIP PAVEMENT

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE:
12/07/09

SCALE: NONE

DETAIL NO.
ST-9.2
EXISTING CURB & GUTTER

EXIST. VERGE WIDTH VARIES

SECTION A-A

SECTION B-B

SECTION C-C

SEE DETAIL ST-9.0 FOR DRIVEWAY APRON DIMENSIONS.

EXISTING CURB & GUTTER

EXIST. VERGE WIDTH VARIES

PLACE ONE SECTION OF 6" CONCRETE SIDEWALK ADJACENT TO THE DRIVE.

PRIVATE GRAVEL OR CONCRETE DRIVE.

PLAN VIEW

4" CONC. SIDEWALK WIDTH VARIES    6" CONC. SIDEWALK WIDTH VARIES    DRIVE IS 6" CONCRETE WIDTH VARIES    6" CONC. SIDEWALK WIDTH VARIES    4" CONC. SIDEWALK WIDTH VARIES

A  B  C

REVISED DATE: 12/07/2009

SIDEWALK ACROSS
DRIVEWAY APRON
CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE: NTS

DETAIL NO. ST-10.0
NOTES:
1. THE CONTRACTOR SHALL BE CAREFUL NOT TO DAMAGE TREES OR ROOTS.
2. EXCAVATION WITHIN A TREE'S DRIPLINE MUST BE APPROVED JOINTLY BY ENGINEERING INSPECTIONS AND THE CITY ARBORIST.
3. REDUCE THE SIDEWALK WIDTH FROM 5' TO 4' WHEN CONSTRUCTION IS WITHIN 7' OF ANY TREE TRUNK.
4. A MINIMUM OF 3" OF #57 STONE SHALL BE PLACED UNDER THE SIDEWALK WITHIN THE DRIPLINE OF ANY TREE.
5. MULCH THE ENTIRE CONSTRUCTION AREA ADJACENT TO THE TREE PROTECTION SIDEWALK CONSTRUCTION.
6. SEED AND MULCH (TYPE I) THE CONSTRUCTION AREA.
CONCRETE STEP VOLUMES (C.Y.)

<table>
<thead>
<tr>
<th>N</th>
<th>W=3'</th>
<th>W=4'</th>
<th>W=5'</th>
<th>W=6'</th>
<th>W=7'</th>
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<td>1.802</td>
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NOTES:
1. VOLUMES GIVEN ARE IN CUBIC YARDS & ARE PAY QUANTITIES FOR CITY PROJECTS.
2. N = NUMBER OF STEPS OR RISERS.
3. W = THE WIDTH OF STEPS.
4. TREAD AND RISER DIMENSIONS MAY VARY TO FIT EXISTING CONDITIONS. WHEN HEIGHT OF A STEP IS LESS THAN 7", PAYMENT WILL BE MADE FOR A 7" STEP.
5. CONCRETE MINIMUM STRENGTH 3000 PSI.
TRUNCATED DOME STRIP TO CONSIST OF PINE HALL BRICK TRUNCATED DOME RED-ADA PAVERS.

6" CONCRETE RETAINING COLLAR

MAINTAIN EXISTING GRADE ALONG BACK OF SIDEWALK

SLOPE VARIES

EX. SIDEWALK WIDTH VARIES

VERGE (GRASS STRIP) VARIES

EX. CURB

1:12 SLOPE

1:12 SLOPE

EX. GUTTER

6"

EX. GUTTER

BRICKS SHOULD BE BUTTED AS CLOSE TOGETHER AS ALLOWS, SWEEP PORTLAND CEMENT/SAND MIX INTO REMAINING CRACKS.

EX. STREET

A

TRUNCATED DOME BRICKS TO BE FLUSH WITH TOP OF TRAY

DEPTH OF TRAY BASED ON HEIGHT OF BRICK

PORTLAND CEMENT/SAND MIX. 50% BY WEIGHT PORTLAND CEMENT, 50% BY WEIGHT SAND.
INSTALL AS DRY MIX, HAND TAMPER FOR COMPACTION AND LEVEL BEFORE SETTING BRICKS.

6" CONCRETE RETAINING COLLAR

TOTAL DEPTH EQUALS 6" PLUS DEPTH OF TRUNCATED DOME TRAY

MAINTAIN 6" OF CONC. BELOW TRUNCATED DOME TRAY

CURB & GUTTER

6"

TRUNCATED DOME TRAY

SECTION A-A

SEE DETAIL ST-11.6 FOR TRANSITION REQUIREMENTS AT LEVEL CHANGES

DURHAM

1869

CITY OF DURHAM, NORTH CAROLINA

DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 9/24/2010

SCALE: NTS

DETAIL NO. ST-11.0

MID-BLOCK CURB CUT RAMP
6" CONCRETE RETAINING COLLAR

1:12 MAX SLOPE, FIT TO SITE.

TRUNCATED DOME STRIP TO CONSIST OF PINE HALL BRICK TRUNCATED DOME RED-ADA PAVERS.

B

EX. STREET

1:12 SLOPE

BRICKS SHOULD BE BUTTED AS CLOSE TOGETHER AS ALLOWS, SWEEP PORTLAND CEMENT/SAND MIX INTO REMAINING CRACKS.

SECTION A-A APPLIES ACROSS ENTIRE FRONT OF TRUNCATED DOMES.

TRUNCATED DOME BRICKS TO BE FLUSH WITH TOP OF TRAY

DEPTH OF TRAY BASED ON HEIGHT OF BRICK

PORTLAND CEMENT/SAND MIX. 50% BY WEIGHT PORTLAND CEMENT, 50% BY WEIGHT SAND. INSTALL AS DRY MIX, HAND TAMPER FOR COMPACTION AND LEVEL BEFORE SETTING BRICKS.

CURB & GUTTER

TRUNCATED DOME TRAY

SEE DETAIL ST-11.6 FOR TRANSITION REQUIREMENTS AT LEVEL CHANGES

SECTION B-B

7"

CURB & GUTTER

TRUNCATED DOME TRAY

MAINTAIN 6" OF CONC. BELOW TRUNCATED DOME TRAY

TOTAL DEPTH EQUALS 6" PLUS DEPTH OF TRUNCATED DOME TRAY

SECTION A-A

6"

CURB & GUTTER

TRUNCATED DOME TRAY

MAINTAIN 6" OF CONC. BELOW TRUNCATED DOME TRAY

SECTION C-C

BACK OF SIDEWALK

TRUNCATED DOME TRAY

MAINTAIN 6" OF CONC. BELOW TRUNCATED DOME TRAY

PARALLEL CURB CUT RAMP

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 9/24/2010

SCALE: NTS

DETAIL NO. ST-11.1
**PARALLEL CURB CUT RAMP WITH COLLAR AT GRADE**

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

**SECTION A-A**
- BRICKS SHOULD BE BUTTED AS CLOSE TOGETHER AS ALLOWS, SWEEP PORTLAND CEMENT/SAND MIX INTO REMAINING CRACKS.
- SECTION A-A APPLIES ACROSS ENTIRE FRONT OF TRUNCATED DOMES.
- TRUNCATED DOME BRICKS TO BE FLUSH WITH TOP OF TRAY.
- DEPTH OF TRAY BASED ON HEIGHT OF BRICK.
- PORTLAND CEMENT/SAND MIX. 50% BY WEIGHT PORTLAND CEMENT, 50% BY WEIGHT SAND. INSTALL AS DRY MIX, HAND TAMPER FOR COMPACTION AND LEVEL BEFORE SETTING BRICKS.
- TOTAL DEPTH EQUALS 6" PLUS DEPTH OF TRUNCATED DOME TRAY.
- MAINTAIN 6" OF CONC. BELOW TRUNCATED DOME TRAY.

**SECTION C-C**
- BACK OF SIDEWALK
- TRUNCATED DOME TRAY
- MAINTAIN 6" OF CONC. BELOW TRUNCATED DOME TRAY

**SECTION B-B**
- SEE DETAIL ST-11.6 FOR TRANSITION REQUIREMENTS AT LEVEL CHANGES.
- CURB & GUTTER
- MAINTAIN 6" OF CONC. BELOW TRUNCATED DOME TRAY.

**EX. STREET**
- EX. GUTTER
- EX. SIDEWALK WIDTH VARIES

**VERGE (GRASS STRIP)**
- VARIES

**1:12 MAX SLOPE, FIT TO SITE.**
- TRUNCATED DOME STRIP TO CONSIST OF PINE HALL BRICK TRUNCATED DOME RED-ADA PAVERS.

**CORNER GRADE MATCHES EX. CURB**
- CURB & GUTTER
- 6" CONCRETE RETAINING COLLAR

**RETAINING COLLAR**
- TRUNCATED DOME TRAY

**REVISION DATE:** 9/24/2010

**SCALE:** NTS

**DETAIL NO.:** ST-11.2
TRUNCATED DOME STRIP TO CONSIST OF PINE HALL BRICK TRUNCATED DOME RED-ADA Pavers.

2' MIN. TO PAINT LINE

6" CONCRETE RETAINING COLLAR

MAINTAIN EXISTING GRADE ALONG BACK OF SIDEWALK

SLOPE VARIES

2' MIN. TO PAINT LINE

VERGE (GRASS STRIP) VARIES

EX. CURB

EX. GUTTER

PEDESTRIAN CROSSING PAINT STRIPES WIDTH VARIES

BRICKS SHOULD BE BUTTED AS CLOSE TOGETHER AS ALLOWS, SWEEP PORTLAND CEMENT/SAND MIX INTO REMAINING CRACKS.

SEE DETAIL ST-11.6 FOR TRANSITION REQUIREMENTS AT LEVEL CHANGES

Curb & Gutter

TRUNCATED DOME TRAY

TRUNCATED DOME BRICKS TO BE FLUSH WITH TOP OF TRAY

DEPTH OF TRAY BASED ON HEIGHT OF BRICK

PORTLAND CEMENT/SAND MIX. 50% BY WEIGHT PORTLAND CEMENT, 50% BY WEIGHT SAND. INSTALL AS DRY MIX, HAND TAMP FOR COMPACTION AND LEVEL BEFORE SETTING BRICKS.

6" CONCRETE RETAINING COLLAR

TOTAL DEPTH EQUALS 6" PLUS DEPTH OF TRUNCATED DOME TRAY

MAINTAIN 6" OF CONC. BELOW TRUNCATED DOME TRAY

SECTION A-A

SINGLE CURB CUT RAMP AT MID-POINT OF RADIUS

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE: NTS

DETAIL NO. ST-11.3

REVISION DATE: 9/24/2010
SINGLE CURB CUT RAMP
ECCENTRIC FROM MID-POINT OF RADIUS

SECTION A–A

CURB & GUTTER

VERGE (GRASS STRIP) VARIES

EX. CURB

EX. GUTTER

EX. SIDEWALK WIDTH VARIES

6" CONCRETE RETAINING COLLAR

MAINTAIN EXISTING GRADE ALONG BACK OF SIDEWALK

SLOPE VARIES

EX. SIDEWALK WIDTH VARIES

VERGE (GRASS STRIP) VARIES

EX. CURB

PEDESTRIAN CROSSING PAINT STRIPES WIDTH VARIES

TRUNCATED DOME STRIP TO CONSIST OF PINE HALL BRICK TRUNCATED DOME RED–ADA PAVERS.

BRICKS SHOULD BE BUTTED AS CLOSE TOGETHER AS ALLOWS, SWEEP PORTLAND CEMENT/SAND MIX INTO REMAINING CRACKS.

SEE DETAIL ST-11.6 FOR TRANSITION REQUIREMENTS AT LEVEL CHANGES

CURB & GUTTER

TRUNCATED DOME TRAY

6" CONCRETE RETAINING COLLAR

TOTAL DEPTH EQUALS 6" PLUS DEPTH OF TRUNCATED DOME TRAY

TRUNCATED DOME BRICKS TO BE FLUSH WITH TOP OF TRAY

DEPTH OF TRAY BASED ON HEIGHT OF BRICK

PORTLAND CEMENT/SAND MIX. 50% BY WEIGHT PORTLAND CEMENT, 50% BY WEIGHT SAND. INSTALL AS DRY MIX, HAND TAMP FOR COMPACTION AND LEVEL BEFORE SETTING BRICKS.
TRUNCATED DOME STRIP TO CONSIST OF PINE HALL BRICK TRUNCATED DOME RED-ADA PAVERS.

MINIMUM 4’

PEDESTRIAN CROSSING PAINT STRIPES WIDTH VARIES

EX. GUTTER

EX. SIDEWALK WIDTH VARIES

GREATER THAN 4’

6.00’

6” CONCRETE RETAINING COLLAR

MAINTAIN EXISTING GRADE ALONG BACK OF SIDEWALK

SLOPE VARIES

2’ MIN. TO PAINT LINE

VERGE (GRASS STRIP) VARIES

EX. Curb

EX. SIDEWALK WIDTH VARIES

2’ MIN. TO PAINT LINE

VERGE (GRASS STRIP) VARIES

EX. GUTTER

BRICKS SHOULD BE BUTTED AS CLOSE TOGETHER AS ALLOWS, SWEEP PORTLAND CEMENT/SAND MIX INTO REMAINING CRACKS.

SEE DETAIL ST–11.6 FOR TRANSITION REQUIREMENTS AT LEVEL CHANGES

CURB & GUTTER

6”

7”

SECTION A–A

TRUNCATED DOME TRAY

TOTAL DEPTH EQUALS 6” PLUS DEPTH OF TRUNCATED DOME TRAY

7”

MAINTAIN 6” OF CONC. BELOW TRUNCATED DOME TRAY

6” CONC. RETAINING COLLAR

PORTLAND CEMENT/SAND MIX. 50% BY WEIGHT PORTLAND CEMENT, 50% BY WEIGHT SAND. INSTALL AS DRY MIX, HAND TAMP FOR COMPACTION AND LEVEL BEFORE SETTING BRICKS.

DEPTH OF TRAY BASED ON HEIGHT OF BRICK

TRUNCATED DOME BRICKS TO BE FLUSH WITH TOP OF TRAY

DOUBLE CURB CUT RAMP

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 9/24/2010

SCALE: NTS

DETAIL NO. ST-11.5
NOTE:

THE TRANSITION BETWEEN THE TRUNCATED DOME TRAY AND THE CURB SHOULD BE MADE TO BE FLUSH. THE TRANSITION BETWEEN THE CURB AND THE GUTTER SHOULD BE SMOOTH OR ROUNDED. IF NEITHER A FLUSH OR SMOOTH TRANSITION CAN BE CONSTRUCTED, AND THE TRANSITIONS CHANGE IN LEVEL, UP TO \( \frac{1}{4} \)”, THEN THE LIP MAY BE VERTICAL AND WITHOUT EDGE TREATMENT. IF THE TRANSITIONS CHANGE IN LEVEL, BETWEEN \( \frac{1}{4} \)” AND \( \frac{1}{2} \)”, THEN THE LIP SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.
NOTES:

1. MILL EXISTING PAVEMENT DOWN PRIOR TO INSTALLING NEW PAVEMENT OVERLAY IN TRANSITION AREA.

2. NEW OVERLAY SHALL BE PLACED SUCH THAT A SMOOTH TRANSITION IS ACHIEVED.

3. MILLED AREA IS TO BE WEDGED IF NOT OVERLAIN THE SAME DAY AS THE MILLING OPERATION.

4. DRAINS IN BRIDGES OR BOX CULVERTS SHALL NOT BE BLOCKED. ALL DRAINS ARE TO BE OPEN.

5. THE ENGINEER WILL FIELD DETERMINE IF BRIDGES AND STRUCTURES ARE TO BE RESURFACED OR ARE TO BE MILLED PRIOR TO BEING RESURFACED.
GENERAL NOTES

1. MORTAR JOINTS 1/2" +/- 1/8" THICK.

2. USE CLASS "A" CONCRETE THROUGHOUT.

3. USE FORMS FOR CONSTRUCTION OF FLOOR SLAB.

4. DEDUCT FROM PIPE(S) FOR TOTAL CU. YDS. OF BRICK MASONRY.

5. USE #4 BAR DOWELS AT 12" O.C.

6. USE BRICK OR CONCRETE BLOCK WHICH COMPLIES WITH THE REQUIREMENTS OF NCDOT SECTION 840 OF THE STANDARD AND SPECIFICATIONS (LATEST REVISION).

7. STEPS SHALL BE INSTALLED IN ALL CATCH BASINS OVER 3'-6" IN DEPTH AT 12" O.C. DEPTH SHALL BE MEASURED FROM THE TOP OF GUTTER TO INVERT. GALVANIZED REINFORCED STEEL SHALL NOT BE USED FOR STEPS. SEE NCDOT STANDARD DRAWING #840.06.

8. A CONCRETE BASE PAD PER NCDOT STANDARD DRAWING #840.00 SHALL BE ADDED FOR REINFORCED CONCRETE PIPES SET AT THE FLOOR SLAB.

9. FOR BASINS 8'-0" IN DEPTH OR LESS USE 8" THICK WALLS. IF DEPTH OF BASIN IS OVER 8'-0", WALL THICKNESS SHALL BE 12" FROM TOP TO 6'-0" IN DEPTH AND 8" FOR THE REMAINING DEPTH OF THE BASIN.

10. CONSTRUCT WITH PIPE CROWNS MATCHING.

11. CHAMFER ALL EXPOSED CORNERS 1".
CASTING SPECIFICATIONS

1. GRAY IRON CONFORMING TO ASTM A48 CL35B.

2. DUCTILE IRON CONFORMING TO ASTM A536 GRADE 80–55–06.

3. CASTINGS TO BE MADE OF RECYCLED MATERIALS, 75% CONSUMER WASTE.

4. CASTINGS SHALL COME FROM A NCDOT APPROVED FOUNDRY.

5. CASTINGS SHALL BE UNIFORM QUALITY, FREE FROM SAND HOLES, GAS HOLES, SHRINKAGE, CRACKS, AND OTHER SURFACE DEFECTS. CASTINGS SHALL BE REASONABLY SMOOTH AND WELL CLEANED BY SHOT BLASTING. SURFACES OF THE CASTINGS SHALL BE FREE FROM BURNED ON SAND AND SHALL BE REASONABLY SMOOTH. RUNNERS, RISERS, FINS AND OTHER CAST-ON PIECES SHALL BE REMOVED FROM CASTINGS AND SUCH AREAS SHALL BE GROUND SMOOTH. BEARING SURFACES BETWEEN MANHOLE RINGS AND COVERS SHALL BE CAST OR MACHINED WITH SUCH PRECISION THAT UNIFORM BEARING SHALL BE PROVIDED THROUGHOUT THE PERIMETER AREA OF CONTACT. NOMINALLY, CASTINGS DIMENSIONAL TOLERANCES SHALL BE +/- 1/16" PER FOOT. ALL CASTING WEIGHTS ARE AVERAGE AND APPROXIMATE VALUES MAY VARY +/- 5%.

6. TRAFFIC SERVICE CASTINGS SHALL MEET OR EXCEED THE LATEST STANDARDS OF AASHTO M36-XX. THE CASTING SHALL BE TESTED ON A SUITABLE AND CALIBRATED LOAD TESTING MACHINE AND THE CASTING SHALL HOLD A 40,000 POUND PROOF LOAD FOR ONE MINUTE WITHOUT EXPERIENCING ANY CRACKS OR DETRIMENTAL PERMANENT DEFORMATION. DUCTILE IRON CONFORMING TO ASTM A536 GRADE 80–55–06.

CLASS "A" CONCRETE GUTTER

PRECAST SLAB MAY BE SUBSTITUTED FOR BRICKWORK.

PAVEMENT

STONE BASE

EXTEND PIPE TO LENGTH OF GUTTER. 4" SCHED. 40 PVC.

STEPS 12" O.C. 2'-6" MIN.

8"

2" DRAIN EACH SIDE

SLOPE OF GUTTER UPPER SIDE 5' TO 10'
SLOPE OF GUTTER LOWER SIDE 2 1/2' TO 10'

FILLET TO 1/2 DIA. OF PIPE

CLASS "A" CONCRETE

CROSS SECTION

VARES

LONGITUDINAL SECTION

SEE GENERAL NOTES DETAIL SD-1.0

SEE CASTING DETAIL SD-2.1
AREA AROUND HANDLE SHALL BE COUNTER SUNK 1" AND HANDLE SHALL BE FREE TO MOVE UP AND DOWN.

#4 REINFORCING BARS 5 3/4" O.C.

1" PIPE SLEEVE 3" LONG

3/4" RADIUS
3/4" SMOOTH STEEL BAR

3" X 1/4" ROUND OR SQ. CUT WASHER

HEX NUT

LIFTING HANDLE

PRECAST CONCRETE COVER

<table>
<thead>
<tr>
<th>INTERIOR SIZE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
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</thead>
<tbody>
<tr>
<td>3'x3'</td>
<td>3'-0&quot;</td>
<td>4'-0&quot;</td>
<td>1'-0&quot;</td>
<td>9&quot;</td>
<td>2'-10&quot;</td>
<td>8&quot;</td>
<td>1'-10&quot;</td>
<td>3&quot;</td>
<td>5</td>
<td>3/4&quot;</td>
<td>4&quot;</td>
<td>1 1/2&quot;</td>
<td>1 1/2&quot;</td>
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<td>3'-10&quot;</td>
<td>8&quot;</td>
<td>2'-4&quot;</td>
<td>3&quot;</td>
<td>5</td>
<td>3/4&quot;</td>
<td>4&quot;</td>
<td>1 1/2&quot;</td>
<td>1 1/2&quot;</td>
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<td>5</td>
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<td>4&quot;</td>
<td>1 1/2&quot;</td>
<td>1 1/2&quot;</td>
</tr>
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</table>

NUMBER OF SIDES WITH A 6" OPENING WILL BE DETERMINED BY THE ENGINEER.

SEE GENERAL NOTES DETAIL SD-1.0

DEPARTMENT OF PUBLIC WORKS

CITY OF DURHAM, NORTH CAROLINA

DURHAM

REVISED DATE: 12/07/2009

SCALE: NTS

DETAIL NO. SD-3.0

TYPE II CATCH BASIN WITH YARD INLET
NOTES:
1. ALL CATCH BASINS OVER 3'-6" IN DEPTH SHALL BE PROVIDED WITH STEPS 1'-2" ON CENTER. STEPS SHALL BE IN ACCORDANCE WITH NCDOT STD. #840.66. PLAIN GALVANIZED STEEL SHALL NOT BE USED.
2. CLASS "A" CONCRETE TO BE USED.
3. OPTIONAL CONSTRUCTION—MONOLITHIC POUR, 2" KEYWAY OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY ENGINEER.
4. FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
5. AT LOCATIONS WHERE THIS CATCH BASIN IS TO BE USED, IT SHALL BE SHOWN AS ELONG. C.B. A NUMERICAL NUMBER DETERMINED BY USING TWO FOOT (2') INCREMENTS ADDED TO THE MINIMUM OPENING SHOWN IN TABLE, SHALL FOLLOW DESIGNATING THE LENGTH OF INLET OPENING.
EXEMPLARY—ELONG. C.B. = 8, IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX ADD TO BASE AS SHOWN IN NCDOT STANDARD DRAWING #840.00.

MINIMUM DIMENSIONS AND QUANTITIES

<table>
<thead>
<tr>
<th>DIMENSIONS OF BOX AND PIPE</th>
<th>QUANTITIES</th>
<th>DEDUCTIONS FOR ONE PIPE</th>
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<tbody>
<tr>
<td>PIPE</td>
<td>SPAN A</td>
<td>SPAN B</td>
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<tr>
<td>DIA.</td>
<td>A</td>
<td>B</td>
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<tr>
<td>54&quot;</td>
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QUANTITY TO BE ADDED FOR EACH 2" INCREMENTS INLET OPENING

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<th>ADD. INLET</th>
<th>QUANTITY</th>
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<td>12'-0&quot;</td>
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REIN. STEEL LBS.

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<th>CONC. CU. UD.</th>
<th>0.467</th>
<th>0.934</th>
<th>1.400</th>
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<td>188.1</td>
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<td>376.1</td>
<td>438.8</td>
<td>501.5</td>
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</tr>
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NOTES:

1. MINIMUM PIPE SIZE SHALL BE 15".
2. ALL PRECAST CONCRETE MANHOLES SHALL CONFORM TO THE LATEST REVISION OF ASTM C478.
3. CONCRETE SHALL BE 4000 PSI AT 28 DAYS, MINIMUM.
4. STEEL REINFORCEMENT SHALL BE GRADE 40 BILLET STEEL CONFORMING TO THE LATEST REVISION OF ASTM-A-185 FOR WALL REINFORCEMENT, AND THE LATEST REVISION ASTM-615 FOR THE BASE REINFORCEMENT.
5. DETAIL SUBJECT TO LATEST REVISION OF NCDOT ROADWAY STANDARD DRAWING #840.52.
6. STEPS SHALL BE INSTALLED IN ALL CATCH BASINS OVER 3'-6" IN DEPTH. DEPTH SHALL BE MEASURED FROM THE TOP OF GUTTER TO INVERT. PLAIN REINFORCED GALVANIZED STEEL SHALL NOT BE USED FOR STEPS.
STORMWATER MANHOLE RING AND COVER WITH 8" DEPTH

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

NOTES:
1. ALL LETTERING SHALL BE CLEAN, CRISP AND CLEARLY LEGIBLE.
2. SEE CASTING SPECIFICATIONS DETAIL SD-1.1.

SECTION OF COVER
WEIGHT OF COVER = 125 LBS.

SECTION OF FRAME
WEIGHT OF FRAME = 153 LBS.
(4) 1" DIA HOLES ON 28 3/4" DIA. B.C. (90° APART)

SECTION OF FRAME
WEIGHT OF FRAME = 100 LBS.

PLAN OF FRAME
1 1/4" LETTERING (RECESSED)

LETTERING/EMBLEM AS MANUFACTURED BY EAST JORDAN IRON WORKS OR EQUAL

PLAN OF COVER
TOP VIEW
STORMWATER
KEEP IT CLEAN
DURHAM
1869
CITY OF MEDICINE

(2) 1" DIA. VENT HOLES
(2) OPEN PICKHOLES
1 1/4" LETTERING (RECESSED)

PLAN OF COVER
BOTTOM VIEW
MD/DAY/YR X

SECTION OF COVER
WEIGHT OF COVER = 125 LBS.

NOTES:
1. ALL LETTERING SHALL BE CLEAN, CRISP AND CLEARLY LEGIBLE.
2. SEE CASTING SPECIFICATIONS DETAIL SD-1.1.

STORMWATER MANHOLE RING AND COVER WITH 4" DEPTH
CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 12/07/2009
DETAIL NO. SD-6.2