MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS
SPECIFICATIONS AND SPECIAL PROVISION NOTES

The following specifications and special provisions are intended to be used in conjunction with Mecklenburg County Land Development Standard Drawings, NCDOT Roadway Standard Drawings, and NCDOT Standard Specifications for Roads and Structures for all development within the Mecklenburg County and the Town ETJ unless otherwise directed by the Town Engineer.

I. STREETS

A. GENERAL NOTES

1. All work and materials shall conform to the latest edition of the North Carolina Department of Transportation Standard Specifications for Roads and Structures *unless otherwise specified in this manual.*

2. All asphalt cuts shall be made with a saw when preparing street surfaces for patching or widening strips.

3. Paper joints shall be used to seal the ends of an asphalt pour so that future extensions can be made without causing rough joints.

4. When placing asphalt against existing surfaces, a straight edge shall be used to prevent "humping" at that location.

5. Stone shall be primed if paving is not complete within seven days following stone base approval.

6. Surfaces shall be tacked when asphalt is being placed over existing asphalt streets or adjoining concrete, storm drain and sanitary sewer structures.

7. In rolling and hilly terrains, sweeping of the stone base and/or application of a tack coat may be required near intersections. These requirements will be established by the County/NCDOT Inspector based on field conditions.

8. ALL concrete used for streets, curb and gutter, sidewalks and drainage structures, etc. shall have a minimum compressive strength of 3600 PSI at 28 days. This requirement shall be provided regardless of any lesser compressive strength specified in the North Carolina Department of Transportation Standard Specifications for Roads and Structures. The contractor shall prepare concrete test cylinders in accordance with Section 1000 of the North Carolina Department of Transportation Standard Specifications for Roads and Structures at the direction of the project inspector. All equipment and cylinder molds shall be furnished by the contractor. It shall be the responsibility of the contractor to protect the cylinders until such time as they are transported for testing. Testing for projects shall be performed by an independent testing lab, at no cost to the County. The contractor shall provide equipment and perform tests on concrete for a maximum slump and air content as defined in Section 1000 of the North Carolina Department of Transportation Standard Specifications for Roads and Structures. These tests shall be performed at a frequency established by the inspector. Materials failing to meet specifications shall be removed by the contractor.

9. All concrete shall be cured with 100% Resin Base, white pigmented curing compound which meets ASTM Specifications C309, Type 1, applied at a uniform rate at one (1) gallon to 400 square feet within 24 hours of placement of the concrete.

10. All curb and gutter shall be backfilled with soil approved by the Inspector within 48 hours after construction to prevent erosion.

11. All backfill shall be non-plastic in nature, free from roots, vegetative matter, waste, construction material or other objectionable material. Said material shall be capable of being compacted by mechanical means and the material shall have no tendency to flow or behave in a plastic manner under the tamping blows or proof rolling.

12. Materials deemed by the Inspector as unsuitable for backfill purposes shall be removed and replaced with select backfill material.

13. All trenches in the street right-of-way shall be backfilled with suitable material immediately after the pipe is laid. The fill around all pipe shall be placed in layers not to exceed six (6) inches and each layer shall be compacted thoroughly.

14. Under no circumstances shall water be permitted to rise in un-backfilled trenches after the pipe has been placed.

15. Compaction requirements shall be attained by the use of mechanical compaction methods. Each six (6) inch layer of backfill shall be placed loose and thoroughly compacted into place.

16. Straight forms shall not be used for forming curb and gutter in curves.

17. All excess concrete on the front edge (lip) of gutter shall be removed when curb and gutter is poured with a machine.

18. All subgrade shall be compacted to 100% of the maximum density obtainable with the Standard Proctor Test to a depth of eight (8) inches, and a density of 95% Standard Proctor for depths greater than eight (8) inches. All tests shall be performed by developer at no cost to the County.

19. A canvas cover or other suitable cover shall be required for transporting plant mix asphalt during cool weather when the following conditions are present:

    a. Air temperature is below 60 degrees F.
    b. Length of haul from plant to job is greater than five (5) miles.
    c. Other occasions at the Inspector's discretion when a combination of factors indicates that material should be covered in order to assure proper placement temperature.

20. Concrete or asphalt shall not be placed until the air temperature measured at the location of the paving operation is at 35 degrees F and rising by 10:00 a.m. Concrete or paving operations should be suspended when the air temperature is 40 degrees F and descending. The contractor shall protect freshly placed concrete or asphalt in accordance with Sections 420 (Concrete Structures), 600 (Asphalt Bases And Pavements), and 700 (Concrete Pavements And Shoulders) of the North Carolina Department of Transportation Standard Specifications when the air temperature is at or below 35 degrees F and the concrete has not obtained an age of 72 hours. (Exception: asphalt concrete surface course placed on paved surfaces. See the most current NCDOT Superpave Manual for minimum air temperature requirements.)

21. The contractor shall maintain two-way traffic at all times when working within existing streets. The contractor shall place and maintain signs, danger lights, and barricades and furnish watchmen or flagmen to direct traffic in accordance with the latest edition Work Area Traffic Control Handbook (WATCH). Work in the right-of-way of state system streets may require additional traffic control provisions, refer to NCDOT Work Zone Traffic Control Program and/or MUTCD.

22. The contractor shall do that which is necessary to control erosion and to prevent sedimentation damage to all adjacent properties and streams in accordance with the appropriate Mecklenburg County Erosion and Sedimentation Control Ordinance.

23. Roadside ditches shall conform to NCDOT standards unless otherwise specified by Town along Town maintained roads.

24. A Professional Engineer (PE) certification of roadway construction will be required, stating construction was performed in accordance with the design standards.

B. STANDARDS OF STREET DESIGN

Note: Use of Hilly Terrain criteria is NOT permitted without PRIOR approval of the County Engineer.
Note: Design standards that apply for the ETJ are taken from the January 1, 2000, edition of the NCDOT design manual *Subdivision Roads*. Any revisions to *Subdivision Roads* will supersede the design standards given in the Mecklenburg County Land Development Standards for ETJ streets. However, under no circumstances shall an NCDOT/ETJ standard be less restrictive than what is required by the Mecklenburg County.

1. PUBLIC STREETS:

		Level	Rolling	Hilly
a. Minimum Sight Distance	Local	----------See AASHTO----------		
	Collector	----------See AASHTO----------		
b. Maximum Grade (%)	Local	6	**10**	12
	Collector	4	**8**	10
c. Minimum Radius (ft)	Local	250	**See Town**	90
	Collector	350	**See Town**	175
d. Design Speed	Local	25	**25**	20
	Collector	30	**30**	25
e. K Values (Crest/Sag)	Local	28/35	**20/20**	15/20
	Collector	40/45	**28/35**	20/20
f. Minimum tangent between Horizontal curves (NO REVERSE CURVES)	Local	50	**50**	50
	Collector	100	**100**	100

Note: Provisions of adequate stopping sight distance may require use of larger K values than the minimums listed above. Mecklenburg County and/or the town reserves the right to prescribe more stringent sight distance standards and/or means to achieve adequate sight distance than these listed above.

2. INTERSECTIONS:

Criteria is for any proposed street (public or private) that ties into public streets

	Level/Rolling	Hilly
a. Terrain Classification	0-15%	15% + (Existing Land Grades)

b. Vertical Alignment is 5% maximum within 100 feet of intersection.

c. Minimum Angle of Intersection is 75 degrees.

d. Min. Curb & R/W Radius (when intersecting streets have different classification, use the more restrictive)

	Level/Rolling	Hilly
Local	25*	25*
Collector	30*	30*

*-See Town for additional requirements

e. Minimum Intersection Separation.

Along local streets 125 feet .
Along collector streets 200 feet
Along thoroughfares to be determined by NCDOT

Intersection offsets/separation from a thoroughfare, at signalized intersections, or at intersections that may become signalized in the future may need to be greater that these minimums and will be determined by NCDOT on a case by case basis.

3. Design criteria for arterial streets shall be established jointly by the County Engineer and the North Carolina Department of Transportation on a case by case basis using the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) A

Policy on Geometric Design of Highway and Streets and/or NCDOT Roadway Design Manual.

4. Intersection corner – A minimum 35' x 35' sight triangle easement (measured along right-of-way lines) shall be provided at each intersection corner of roads. An additional 10' x 70' sight triangle easement shall be provided at intersections of roads connecting to NCDOT maintained roadways (measured along right-of-way lines). Driveways (no formal right of way) to serve a single project may be required to provide sight triangle easements as determined on a case by case basis. Other sight distance requirements may be required by NCDOT, the Town or Mecklenburg County at all intersections. Sight lines will be based on NCDOT or AASHTO guidelines.

5. Refer to the NCDOT Subdivision Roads Minimum Construction Manual for development criteria for sites located within the Town's Extraterritorial Jurisdiction (ETJ) within these areas governed by Mecklenburg County Land Development Standards Manual and the NCDOT Subdivision Roads Minimum Construction Standards Manual. The more restrictive standard shall apply.

C. GRADING

1. Proposed street rights-of-way shall be graded to their full width for ditch type streets. Proposed street rights-of-way shall be graded to a minimum of eight (8) feet behind the curb for curb and gutter sections.

2. Fill embankments shall be formed of suitable material placed in successive layers not to exceed more than six (6) inches in depth for the full width of the cross-section, including the width of the slope area. No stumps, trees, brush, rubbish or other unsuitable materials or substances shall be placed in the embankment. Each successive six (6) inch layer shall be thoroughly compacted by the sheepsfoot tamping roller, 10-ton power roller, pneumatic-tired roller, or other methods approved by the County Engineer. Embankments over and around all pipe culverts shall be of select material, placed and thoroughly tamped and compacted as directed by the County Engineer or his representative.

D. ROADWAY BASE

1. All roadways shall be constructed with a base course as described on the appropriate Mecklenburg County Land Development Standard Detail Drawing.

2. The material for stone base course shall conform to the requirements of Section 1010, Aggregate for Non-Asphalt Flexible Type Base, and Section 520, Aggregate Base course of the North Carolina Department of Transportation Standard Specifications for Roads and Structures.

3. The stone base shall be compacted to 100% of the maximum density obtainable with the Modified Proctor Test (AASHTO-T180) by rolling with ring or tamping roller or with a pneumatic tired roller with a minimum weight of ten tons. When completed, the base course shall be smooth, hard, dense, unyielding and well bonded.

4. An asphalt concrete base course, as specified on the Standard Detail Drawing may be substituted in lieu of a stone base course.

5. Asphalt base course will only be allowed within widening strips less than five (5) feet in width.

E. ROADWAY INTERMEDIATE AND SURFACE COURSE

1. All public roadways shall be constructed with an intermediate and surface course as described on the appropriate Mecklenburg County Land Development Standard Detail Drawing.

2. Density tests will be required every 200 feet with a minimum of 3 tests for each roadway. Electronic density testing reports are required to be provided to the County, emailed to the Town Public Works Director, and maintained by the County in the Electronic Plans Management system.

3. Plant mixed asphalt shall conform in all respects to Section 610 of the North Carolina Department of Transportation Standard Specifications for Roads and Structures.

4. The final lift of asphalt surface course for Residential/Commercial Subdivision Streets shall be installed no later than (1) one year after all of the base course has been accepted on a plat or when the development has met the required percentage development occupancy according to Town requirements, whichever comes first. Development occupancy means a certificate of occupancy has been issued. All known base failures shall be repaired prior to application of the final lift of asphalt surface course.

5. The County inspector shall be given a twenty-four (24) hour notification to inspect the intermediate course deficiencies. All deficiency repairs are to be monitored by a County Inspector and accepted prior to application of final layer.

6. County inspectors shall be notified prior to using recycled plant mixes.

7. Failure to meet the above requirements may result in the delay or prevention of street acceptance by the Town or NCDOT.

F. SIDEWALKS AND DRIVEWAYS

1. Sidewalks shall be constructed of not less than 3600 P.S.I. concrete and shall be four (4) inches thick or where a sidewalk crosses a driveway it shall be six (6) inches thick and constructed on an adequately graded base. Subgrade shall be compacted to 95% of the maximum density obtainable with the Standard Proctor Test. The surface of the sidewalk shall be steel trowel and light broom finished and cured with an acceptable curing compound. Tooled joints shall be provided at intervals of not less than five (5) feet and expansion joints at intervals of not more than forty-five (45) feet. The sidewalk shall have a lateral slope of one-quarter (1/4) inch per foot (min).

2. Planting strip adjacent to sidewalk shall be graded to ¼ inch per foot (min.) up to 1 ¼ inch per foot (max.), except where excessive natural grades make this requirement impractical. In such cases, the County Engineer may authorize a suitable grade.
3. Sidewalk widths shall be a minimum of five (5) feet unless otherwise specified.

4. Approval of sidewalk construction plans must be obtained as part of the plan review process. A recorded public sidewalk easement is required for all sidewalk located outside public right-of-way; the width shall be specified by the town. The sidewalk easement must be recorded with the Mecklenburg County Register of Deeds prior to issuance of a certificate of occupancy for the corresponding building(s).

5. Accessible ramps are required where sidewalks intersect curbing at any street intersection and curbed driveway connections.

G. BASE COURSE STREET REPAIR

1. Structural repair areas must encompass the full travel lane of roadways.

2. Minimum base course repair patch size is 10 ft. by 10 ft.

3. Structural repairs to a road failure cannot be within 10 feet of each other, else the entire area requires structural repair.

H. SURFACE COURSE STREET REPAIR

1. Overlay patch area must encompass the full travel lane of roadways.

2. Minimum surface course patch size is 10 ft. by 10 ft.

3. Overlay patch area cannot be any closer than 150 feet of each other, else the entire area requires mill and replace.

4. Require placement of final overlay (last 1.5 inch of asphalt) one year after base course is placed for the entire plat map or when a town-determined percent built-out occurs, whichever comes first. The County will keep track of the base course placement date by using the base course proof roll date.

II. **STORM DRAINAGE**

A. GENERAL NOTES

1. All work and materials shall conform to the latest edition of the NCDOT Standard Specifications *unless otherwise specified in this manual*. ALL concrete used for drainage structures shall have a minimum compressive strength of 3600 PSI at 28 days. This requirement shall be provided regardless of any lesser compressive strength specified in the North Carolina Department of Transportation Standard Specifications for Roads and Structures.

2. Reinforced concrete pipe may be used in all storm drain applications. High Density Polyethylene Pipe (HDPE) may be substituted for pipe diameters of 48 inches or less as approved by Mecklenburg County and/or the Town. Culverts 60 inches in diameter or greater may be Corrugated Aluminized Metal Pipe (CAMP) or aluminum with a minimum 14 gauge metal, subject to approval of County Engineer.

3. All pipe shall be laid with the bell or groove upgrade and the joint entirely interlocking.

4. The minimum cover for all pipes is two (2) feet measured from the final surface. Special applications for less than two (2) feet of cover will be reviewed and approved by the County Engineer individually. The maximum cover for storm drainage pipes shall at a minimum comply with the requirements of the North Carolina Department of Transportation Highway Design Branch Roadway Design Manual, Part I, Section 5, and "Drainage Design". Storm pipe design that exceeds these criteria may be approved at the discretion of the County Engineer.

5. All pipes in storm drain structures shall be flush with the inside wall.

6. All storm drain structures over three (3) feet and six (6) inches in height must have steps in accordance with standard details set forth in this manual.
7. The interior surfaces of all storm drainage structures shall be pointed up and smoothed to an acceptable standard using mortar mixed to manufacturer's specifications.

8. All frames, grates, rings, covers, etc., must conform to the standards set forth in this manual.

9. All graded creek banks and slopes shall be at a maximum of two (2) feet horizontal to one (1) foot vertical (2:1) and not to exceed 10' without terracing or the slopes shall be designed by a Professional Geotechnical Engineer and approved by the County Engineer on a case by case basis.

B. HIGH DENSITY POLYETHYLENE PIPE (HDPE)

1. Any installation within the maintenance limits of the town is subject to the approval of the town engineer/public works director.

2. The Product used shall be corrugated exterior/smooth interior pipe (Type S), conforming to the requirements of AASHTO Specification M294 (latest edition) for Corrugated Polyethylene Pipe.

3. Bell and spigot joints shall be required on all pipes inside the right-of-way. Bells shall cover at least two full corrugations on each section of pipe. The bell and spigot joint shall have an "O" ring rubber gasket meeting ASTM F477 with the gasket factory installed, placed on the spigot end of the pipe. Pipe joints shall meet all requirements of AASHTO M294.

4. All HDPE pipe installed must be inspected and approved by the County's Inspector prior to any backfill being placed. The County inspector must be present during the backfilling operation as well.

5. Backfill material used to install HDPE pipe within the street right-of-way shall be Select Material, Class II-IV, as defined by Section 1016-3 of the North Carolina Department of Transportation Standard Specifications for Roads and Structures. Upon submittal of written certification of material suitability by a licensed geotechnical engineer, NCDOT Class I Select Material may be used. All backfill material shall be approved by the County inspector prior to placement of the material within the town street right-of-way.

6. The minimum length of HDPE pipe permitted for use shall be four (4) feet. HDPE flared end sections are not allowed.

7. All HDPE pipe installed shall be third party certified and shall bear the Plastic Pipe Institute's (PPI) certificate sticker.

C. REINFORCED CONCRETE.

1. All concrete shall be at least 3600 PSI. Prior approval shall be obtained in order to use pre-cast storm drainage structures in any street right-of-way by County Engineer.

2. Concrete pipe used within the street right-of-way shall be a minimum of Class III Reinforced Concrete Pipe, with a minimum diameter of fifteen (15) inches (eighteen (18) inches minimum on cross drain culverts). Installation of Class IV or higher concrete pipe shall be identified on the As-Built Plan and the County inspector shall be given documentation and notification of this information prior to construction.

3. Concrete mortar joints shall be used for joining all concrete pipes. The pipe shall be clean and moist when mortar is applied. The lower portions of the bell or groove shall be filled with mortar sufficient to bring the inner surface flush and even when the next joint is fitted into place. The remainder of the joint shall then be filled with mortar and a bead or ring of mortar formed around the outside of the joint. The application of mortar may be delayed until fill is completed when the pipe is larger than thirty (30) inches.

4. Performed joint sealer, which conforms to AASHTO specification M-198 for Type B flexible plastic gaskets, may be used in lieu of the mortar joining method.

D. INSTALLATION OF REINFORCED CONCRETE AND CORRUGATED METAL PIPE.

1. All backfill shall be non-plastic in nature, free from roots, vegetative matter, waste, construction material or other objectionable material. Said material shall be capable of being compacted by mechanical means and shall have no tendency to flow or behave in a plastic manner under the tamping blows or proof rolling.

2. Materials deemed by the Engineer as unsuitable for backfill purposes shall be removed and replaced with select backfill material.

3. Backfilling of trenches shall be accomplished immediately after the pipe is laid. The fill around the pipe shall be placed in layers not to exceed eight (8) inches, each layer shall be thoroughly compacted to 95% of the maximum density obtainable with the Standard Proctor Test (a density of 100% Standard Proctor is required for the top eight (8) inches).

4. Compaction requirements shall be attained by the use of mechanical compaction methods. Each layer of backfill shall be placed loose and thoroughly compacted in place.

5. Under no circumstances shall water be permitted to rise in un-backfilled trenches after the pipe has been placed.

E. STANDARDS FOR DESIGN

1. All storm drainage design shall conform to the standards and specifications as provided in the Charlotte-Mecklenburg Storm Water Design Manual, North Carolina Department of Transportation Standards Specifications for Roads and Structures, Mecklenburg County Land Development Standards Manual, or the more restrictive of any standards that conflict.

2. Adequate storm drainage shall be provided throughout the development by means of storm drainage pipes or properly graded channels. All pipes shall be of adequate size and capacity, as approved by the County Engineer, to carry all storm water in its drainage area.

3. In accordance with County Zoning Ordinance, the County Engineer shall review the drainage plan for compliance with the standards contained in the current edition of the Mecklenburg County Land Development Standards Manual and the Charlotte-Mecklenburg Storm Water Design Manual and all other relevant and appropriate standards established by the County Engineering Department.

4. Sub-surface drainage shall be provided where the ground water level is likely to be near the surface. In capillary soils, the water level should be four (4) to six (6) feet below the surface to prevent the rise of moisture into the subgrade. Four (4) inch PVC or HDPE pipe with open joints or perforations shall be used to lower ground water in low areas in the street.

5. The NCDOT Standard Drawings have been accepted as approved standards to be specified for land development projects in the County. See standard #20.00 A, B and C of this manual for a table listing the standards accepted. These standard drawings shall be referenced by NCDOT number or shown on all plans submitted to the County for approval.

III. PLAN REQUIREMENTS

A. GENERAL NOTES

1. All erosion control measures shall conform to the standards set forth in the Mecklenburg County Land Development Standards Manual, North Carolina Erosion and Sediment Control Planning and Design Manual, or the more restrictive of any standards that conflict.

2. All storm drainage design shall conform to the standards and specifications as provided in the Charlotte-Mecklenburg Storm Water Design Manual, Mecklenburg County Land Development Standards Manual, or the more restrictive of any standards that conflict.

3. In areas where the Floodway Regulations are applicable, the Future Conditions Flood Fringe Line, FEMA Flood Fringe Line, Community Encroachment Line, and FEMA Encroachment Line shall be shown on the concept plan, preliminary plan and the final plat. An application for a Floodlands Development Permit shall be submitted to Mecklenburg County Engineering in accordance with the requirements set forth in the City/County Floodway Regulations.

4. Cite all appropriate standard detail numbers for any structures or specifics used within the plans in reference to the most current copy of the Mecklenburg County Land Development Standards Manual.

B. SUBDIVISION PRELIMINARY PLAN

1. The preliminary plan must include, at a minimum, the information described in each Town's Subdivision Ordinance or other applicable ordinance.

2. Storm Drainage Easements shall be provided for all storm drainage pipes and shown on site plans, construction plans and plats with widths as specified by detail #20.30. The following note shall be placed on all grading plans and plats; "The purpose of the storm drainage easement (SDE) is to provide storm water conveyance. Buildings are not permitted in the easement area. Any other objects which impede storm water flow or system maintenance are also prohibited."

3. A Storm Drainage Easements must extend down stream of flared end sections to an appropriate property line or buffer. Overlapping of storm drainage easements shall be approved by the County Engineer.

C. BOND POLICY – SUBDIVISION IMPROVMENTS.

1. Release of the final subdivision plat will not occur until the improvements required for the area of the final plat are constructed and a final inspection has been performed and found to be in conformance with the plans approved by the Town and Mecklenburg County, or a security has been posted with the Land Development Bond Coordinator of the applicable department and all required documents are received in their entirety.

2. Securities shall be posted for a minimum of six months with a two year maximum. The security shall remain in force until the construction is complete and found to be in conformance with plans approved by the Town and Mecklenburg County. The security will be reevaluated when an extension to the security is being considered.

3. A final inspection will be made by the county engineer to check completeness of the project upon receipt of a notice.

4. One type of security may be replaced by another type of security in certain situations. The amount of the replacement security will be based on the County's estimate of the work remaining. If the estimate of work results in a lower amount, the replacement security will be treated as a reduction. Certain situations will require an increase in a security and in such cases the replacement security shall be required to equal the higher amount.

5. If Mecklenburg County and the Town have different security requirements, the more restrictive shall apply.

6. A one-time reduction in security will be allowed if requested in writing by the principal party of the security. Additional reductions may be approved at the discretion of the County Engineer. However, the security shall never be less than 15% of the total bond or $20,000 for the County unless approved by the County Engineer.

7. Securities in the form of a Letter of Credit must be drawn on a full service bank in Mecklenburg County.

8. The applicant will be required to post a maintenance bond per Town requirements before the security for completion of subdivision is released.

REFERENCES

1. North Carolina Department of Transportation, most recent edition, Standard Specifications for Roads and Structures.

2. North Carolina Department of Transportation, most recent edition, Roadway Standards Drawings.

3. City of Charlotte Department of Transportation, most recent edition, Work Area Traffic Control Handbook (WATCH)

4. City of Charlotte Storm Water Services-Mecklenburg County Storm Water Services most recent edition, Charlotte-Mecklenburg Storm Water Design Manual

5. American Association of State Highway and Transportation Officials most recent edition, A Policy on Geometric Design of Highways and Streets

6. North Carolina Department of Transportation, Roadway Design Manual, latest edition

7. North Carolina Department of Environment and Natural Resources most recent edition, Erosion and Sediment Control Planning and Design Manual

8. Charlotte-Mecklenburg BMP Design Manual, latest edition.

9. Mecklenburg County Storm Water Services, most recent edition, Administrative Manual for Implementation of the Post-Construction Storm Water Ordinance

10. Mecklenburg County Board of County Commissioners, most recent edition, Mecklenburg County Soil and Sedimentation Control Ordinance

11. Manual of Uniform Traffic Control Devices for Streets and Highways, Federal Highway Administration, latest edition.

MCLDS Revision Log

Revisions Effective November 1, 2016

Standard No.	Name	Description of Revision
11.01	Local Residential Street Typical Section	Revised surface course thickness and elevation change at center line chart
11.03	Divided Residential Street Typical Sections	Revised surface course thickness
11.04	Local Limited Residential Street Typical Section	Revised surface course thickness
11.06	Residential Collector Street Typical Sections	Revised surface course thickness and elevation change at center line charts
11.08	Limited Residential Collector Street Typical Section	Revised surface course thickness and elevation change at center line chart
11.11	Commercial Street Typical Section	Revised intermediate and base course thicknesses
11.12	Commercial Street Divided Typical Section	Revised intermediate and base course thicknesses
11.13	Typical Sections Private Street	Revised surface course thickness
11.50	Cornelius, Davidson and Huntersville Typical Section Residential Street	Revised surface course thickness
11.51	Matthews Typical Section Local Residential Street	Revised surface course thickness and revised notes 1 & 2 under pavement notes
11.52	Pineville Typical Section Local Residential Street	Removed the detail from the Mecklenburg County Land Development Standards because the Town of Pineville has their own details at this time.
11.54	Matthews Typical Section Local Limited Residential Street	Revised surface course thickness and revised pavement notes 1 & 2.
11.55	Matthews Typical Section Residential Collector Street	Revised surface course thickness and revised pavement notes 1 & 2.
11.58	Pineville Residential Cul-De-Sac Detail	Removed the detail from the Mecklenburg County Land Development Standards because the Town of Pineville has their own details at this time.

Revisions Effective November 1, 2016

Additions made to Mecklenburg County Land Development Standards Specifications and Special Provision Notes

Page	Specifications & Special Provisions:	Description of Revision
11	I. Streets: A. General Notes	Added note 24 about needing to have a Professional Engineer (PE) certification of roadway construction
14	I. Streets: E. Roadway Intermediate and Surface Course	Added note 2 about Density testing required and note 4 about the final lift of asphalt added.
15	I. Streets: G. Base Course Street Repair	Added this new section and 3 notes giving specifics.
15 & 16	I. Streets: H. Surface Course Street Repair	Added this new section and 4 notes giving specifics.