

# DIVISION 300 STREETS

## A. GENERAL NOTES

A.1. All work and materials shall conform to the latest edition of the North Carolina Department of Transportation (NCDOT) Standard Specifications for Roads and Structures unless otherwise specified in this manual. In the event of a conflict between NC DOT Standard Specifications and the Manual of Practice, the more stringent shall apply.

A.2. The contractor shall maintain two-way traffic at all times when working within existing streets. The contractor shall place and maintain signs, danger lights, barricades and furnish watchmen or flagmen to direct traffic in accordance with the Manual for Uniform Traffic Control Devices (MUTCD).

A.3. The contractor shall provide all necessary erosion control measures and prevent sedimentation damage to all adjacent properties and streams in accordance with the appropriate City/County Soil Erosion and Sedimentation Control Ordinance. Standing water within the project limits during construction shall not be permitted.

A.4. No work shall begin until construction plans and specifications have been approved by the Engineering Division and Public Utilities as appropriate and a pre-construction conference has been held. All contractors and subcontractors shall have an approved set of plans at the jobsite at all times.

A.5. All testing shall be performed by a certified geotechnical laboratory approved by the City of Hickory. Copies of all test reports shall be signed and sealed by a Professional Engineer licensed in the state of North Carolina. The City of Hickory may choose to change testing requirements based on site conditions, contractor's competence, and actual quality of work performed. Refer to specific testing requirements in the following sections. The City of Hickory reserves the right to select test locations.

## B. STANDARDS OF STREET DESIGN

1. PUBLIC STREETS:	LOCAL			COLLECTOR		
	Level	Rolling	Hilly	Level	Rolling	Hilly
a. Terrain Classification	0-8%	<b>8.1-15%</b>	15%+	0-8%	<b>8.1-15%</b>	15%+
b. Min. Sight Distance (ft.)	200	<b>150</b>	110	250	<b>200</b>	150
c. Maximum Grade	6%	<b>10%</b>	12%	4%	<b>8%</b>	10%
d. Design Speed (mph)	30	<b>25</b>	20	35	<b>30</b>	25
e. Minimum Radius (ft.)	250	<b>150</b>	90	350	<b>250</b>	175
f. Min. Tangent between Reverse Curves	50	<b>50</b>	50	100	<b>100</b>	100
g. K Values (crest/sag)	28/35	<b>20/20</b>	15/20	45/45	<b>28/35</b>	20/20

**Note: Use of Hilly terrain criteria not permitted without prior approval of the City Engineer.**



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## 2. INTERSECTIONS

Intersection Properties	Level	Rolling	Hilly
a. Terrain Classification	0-8%	8.1-15%	15%+
b. Vert. Alignment within 50 ft. (of street intersection)	1%	3%	4%
c. Minimum Angle of Intersection	75°	75°	75°
d. Min. Curb & R/W Radius (ft.)			
1. Local	20	20	20
2. Collector	30	30	30
e. Min. Street Offsets for Adjacent Intersections (ft.)			
1. Local	125	125	125
2. Collector	200	200	200

**Note: Use of Hilly terrain criteria not permitted without prior approval of the City Engineer.**

1. Design criteria for arterial streets shall be established by the City Engineer on a case-by-case basis according to the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets and/or NCDOT Roadway Design Manual.

2. Intersection corner - 10'x 70' sight triangle shall be provided at intersections. Additional sight distance may be required by the NCDOT or the City of Hickory Transportation Division to meet sight conditions.

## C. GRADING

C.1. Proposed street rights-of-way shall be graded to their full width as shown on appropriate cross sections. Roadways shall be constructed to the alignment and grades shown on the construction drawings.

C.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 organic matter, or other unsuitable materials or substances shall be placed in the embankment. Each successive six (6) inch layer shall be thoroughly compacted by a sheepsfoot tamping roller, 10-ton (minimum) power roller, pneumatic-tired roller, or other methods approved by the City Engineer. Embankments over and around all pipe culverts shall be of select material, placed and thoroughly compacted as directed by the City Engineer or his representative. All fill materials within the embankment shall be placed in layers not to exceed six (6) inches in depth and compacted to 95% Standard Proctor. All material to a depth of eight (8) inches below the finished surface of the subgrade shall be compacted to a density equal to at least 98% Standard Proctor.

Compaction test shall be performed for all embankments at a minimum frequency of one (1) passing test per 100 L.F. of roadway per 18" soil depth. A minimum of three (3) passing tests shall be performed for any section of roadway. One (1) passing test shall be provided for each failing test.



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C.3. 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.

C.4. Materials deemed by the Inspector as unsuitable for backfill purposes shall be removed and replaced with select backfill material.

C.5. 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 six (6) to nine (9) inches loose depth and each layer shall be compacted thoroughly.** Compaction tests shall be performed at a minimum of one (1) passing test per 250 L.F. per 18" soil depth. A minimum of three (3) passing tests shall be performed for any single run of trench. Trenches 4' off edge of pavement shall be compacted to 92% standard proctor. Trenches in right-of-way less than 4' from road surface shall be compacted to 95% of standard proctor.

C.6. Under no circumstances shall water be permitted to rise in unbackfilled trenches after the pipe has been placed.

C.7. The finished subgrade shall be proof-rolled before the Engineer certifies the subgrade. The City of Hickory shall witness all proof-rolling operations.

**D. ROADWAY BASE COURSE**

D.1. All roadways shall be improved with a base course to the required pavement width plus six (6) inches beyond each edge of pavement.

D.2. The material for stone base course shall conform to the requirements of Section 1010 of the NCDOT Standard Specifications. Construction methods shall conform to Section 520 of the NCDOT Standard Specifications. Test reports verifying compliance with NCDOT Standard Specifications shall be submitted and approved by the Engineering Division prior to placement of stone base.

D.3. The stone base shall be compacted to 100% of the maximum density as measured by the Modified Proctor Method 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.

D.4. In lieu of a stone base course, a bituminous concrete base course, type HB may be substituted. Construction shall conform to the requirements of Section 640 of the NCDOT Standard Specifications.

D.5. Bituminous concrete base course, type HB, shall be used in widening strips less than five (5) feet in width.

D.6. Engineer shall verify compacted stone base thickness and submit data with Engineer's Certification for Aggregate Base Course. A minimum of one (1) random sample shall be taken at intervals not to exceed 100 L.F. of roadway with a minimum of three (3) samples per single segment of roadway.

**E. ROADWAY SURFACE**

E.1. All roadways shall be improved with a surface course to the required width of the roadway as shown on the roadway typical section.

E.2. Plant mixed asphalt shall conform in all respects to Section 645 of the NCDOT Standard Specifications (9.5 B). A prime coat (tack coat) shall be applied when the base



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has been in place for seven (7) days or more. The compacted surface course shall not be less than two and one-half (2 ½) inches thick.

E.3. Use of recycled asphalt shall be approved by City of Hickory prior to beginning of paving operation.

E.4. All asphalt cuts shall be made with a clean, neat cut when preparing street surfaces for patching or widening strips.

E.5. Paper joints shall be used to seal the ends of an asphalt pour.

E.6. When placing asphalt against existing surfaces, a straight edge shall be used to prevent "humping" at that location.

E.7. Stone shall be primed with a tack coat if paving is not complete within seven days following stone base approval.

E.8. Surfaces shall be tacked when asphalt is being placed over existing asphalt streets and adjoining concrete, storm-drain and sanitary sewer structures.

E.9. In rolling and hilly terrains, sweeping of the stone base and/or application of a tack coat may be required near intersections. These requirements shall be established by the City of Hickory based on field conditions.

E.10. The contractor/developer shall provide core sampling and testing of asphalt by a certified independent testing lab at no cost to the City. Core samples shall be taken at a frequency and location as established by the inspector, but not less than three (3) samples shall be taken. All asphalt shall have a minimum in-place density of 95% using Marshall Method. One (1) passing test shall be provided for each failing test.

E.11. A canvas cover or other suitable cover shall be required for transporting plant mix asphalt during cool weather or when the following conditions are present:

- (a) Air temperature is below 60° 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 ensure proper placement temperature.

E.12. Ambient air temperature must be at least 50° F and rising before asphalt can be placed. Asphalt placement operations shall be suspended when the air temperature is 50° F and descending.

**F. CONCRETE CURB AND GUTTER AND SIDEWALKS**

F.1. All concrete shall have a minimum compressive strength of 3000 PSI at 28 days. The contractor shall prepare concrete test cylinders in accordance with Section 1000 of the NCDOT Standard Specifications at the direction of the project inspector. All testing 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 may be safely transported for testing. Testing for projects shall be performed by an independent testing lab at no cost to the City. The contractor shall provide equipment and perform tests on concrete for a maximum slump and air content as defined in Section 1000 of the NCDOT Standard Specifications. These tests shall be performed at a frequency established by the inspector. Materials failing to meet specifications shall be removed by the contractor.



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F.2. All concrete shall be cured with 100% Resin Base, white pigmented curing compound which meets A.S.T.M. Specification C-309, Type 1, applied within 24 hours of placement of the concrete at a uniform rate at one (1) gallon to 400 square feet.

F.3. Straight forms shall not be used for forming curb and gutter and sidewalks in curves.

F.4. All excess concrete on the front edge (lip) of gutter shall be removed when curb and gutter is machine-extruded.

F.5. All curb and gutter shall be backfilled with soil approved by the Inspector within 72 hours after construction.

F.6. Concrete shall not be placed until the air temperature measured at the location of the concreting operation is at 35° F and rising by 10:00 A.M. Concrete operations should be suspended when the air temperature is 40° F and descending. The contractor shall protect freshly placed concrete in accordance with Section 420 of the NCDOT Standard Specifications when the air temperature is at or below 35° F and the concrete has not obtained an age of 72 hours.

F.7. All soil and mud stains on concrete shall be removed by Contractor after backfilling and seed and strawing operations are finished.

F.8. Concrete wasted during truck or mixer washing shall be placed in a location approved by the City Inspector. In no case shall waste concrete be dumped in or around storm drainage structures, creeks, utility appurtenances, or on asphalt surfaces.

F.9. Where concrete curb and gutter is installed, all water and sewer taps shall be designated by stamping a "W" or "S" respectively in the vertical face of the curb at the location of the tap. The letters shall have a maximum height of three (3) inches and a minimum height of two (2) inches. Minimum depth of letters into the concrete surface shall be 1/2 inch.

**G. ENGINEER'S CERTIFICATIONS**

A Professional Engineer licensed in the State of North Carolina shall provide certifications to the City of Hickory as follows:

1. **Roadway Sub-grade Certification:** Engineer shall certify that all embankments, drainage structures, trenches, slopes, and horizontal and vertical alignment are constructed in accordance with the plans and specifications before authorizing the placement of the Concrete Curb and Gutter or Aggregate Base Course.
2. **Concrete Curb and Gutter (where applicable):** Engineer shall certify that all concrete curb and gutter, sidewalks and handicap accessible ramps are installed in accordance with the plans and specifications before authorizing placement of Aggregate Base Course.
3. **Aggregate Base Course:** Engineer shall certify that aggregate base course is furnished, placed and compacted in accordance with the plans and specifications including but not limited to base course thickness and width, compaction and material specifications prior to authorizing the placement of Asphalt Intermediate and Surface Courses.
4. **Asphalt Intermediate / Surface Course:** Engineer shall certify that the asphalt intermediate / surface courses are furnished, placed, compacted and finished in accordance with the plans and specifications.
5. **Storm Water Certification:** Engineer shall certify that all storm water conveyance structures, retention and detention measures, temporary and permanent erosion control structures and permanent ground cover are installed in accordance with the plans, specifications, erosion control permit and storm water permit as required for this project.

The City of Hickory Engineering Division shall be notified at least 48 hours in advance of the Contractor beginning any roadway construction operations and before the Engineer submits certifications upon completion of construction. The Engineer shall submit each certification listed above on the forms



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included in this document. Engineer shall immediately notify the Engineering Division of any variance in the work from the plans and specifications and before any adjustments to the work are made.

**H. WARRANTY**

All materials, products and workmanship shall be guaranteed against defects in material or workmanship for a minimum period of **one (1) year from date of final acceptance**. The owner/developer responsible for the work shall be responsible for this guarantee.

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**REFERENCES**

1. North Carolina Department of Transportation, Standard Specifications for Roads and Structures, Latest Edition
2. American Association of State Highway and Transportation Officials, 1990, A Policy on Geometric Design of Highways and Streets
3. North Carolina Department of Transportation, Roadway Design Manual, Latest Edition
4. North Carolina Department of Environment, Health, and Natural Resources, Erosion and Sediment Control Planning and Design Manual, Latest Edition
5. City of Hickory Land Development Code.

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Project Name \_\_\_\_\_

**ENGINEER'S CERTIFICATION FOR ROADWAY SUB-GRADE**

\_\_\_\_\_ Partial \_\_\_\_\_ Final

I, \_\_\_\_\_, as a duly registered Professional Engineer in the State of North Carolina, have been authorized by the Permittee to observe (periodically, weekly, full time) the construction of the following project segments:

STREET NAME	BEGINNING STATION	ENDING STATION
	+	+
	+	+
	+	+
	+	+
	+	+
	+	+
	+	+

I hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the referenced approved plans and specifications and other supporting materials.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Note: Additional pages may be used as needed. Seal

The above Engineer's Certification must be completed and submitted to the address below. This project shall not be considered complete until this Engineer's Certification has been submitted. Any work performed prior to completion of this Engineer's Certification shall be at Owner's risk and may affect acceptance of the subdivision final plat.

CITY OF HICKORY  
ENGINEERING DIVISION  
P.O. BOX 398  
HICKORY, NC 28603



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**ENGINEER'S CERTIFICATION FOR CONCRETE CURB AND GUTTER AND  
SIDEWALKS**

\_\_\_\_\_ Partial \_\_\_\_\_ Final

I, \_\_\_\_\_, as a duly registered Professional Engineer in the State of North Carolina, have been authorized by the Permittee to observe (periodically, weekly, full time) the construction of the following project segments:

STREET NAME	BEGINNING STATION	ENDING STATION
	+	+
	+	+
	+	+
	+	+
	+	+
	+	+
	+	+

I hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the referenced approved plans and specifications and other supporting materials.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Note: Additional pages may be used as needed.

Seal

The above Engineer's Certification must be completed and submitted to the address below. This project shall not be considered complete until this Engineer's Certification has been submitted. Any work performed prior to completion of this Engineer's Certification shall be at Owner's risk and may affect acceptance of the subdivision final plat.

CITY OF HICKORY  
ENGINEERING DIVISION  
P.O. BOX 398



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Project Name \_\_\_\_\_

**ENGINEER'S CERTIFICATION FOR AGGREGATE BASE COURSE**

\_\_\_\_\_ Partial \_\_\_\_\_ Final

I, \_\_\_\_\_, as a duly registered Professional Engineer in the State of North Carolina, have been authorized by the Permittee to observe (periodically, weekly, full time) the construction of the following project segments:

STREET NAME	BEGINNING STATION	ENDING STATION
	+	+
	+	+
	+	+
	+	+
	+	+
	+	+

I hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the referenced approved plans and specifications and other supporting materials.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Note: Additional pages may be used as needed. Seal

The above Engineer's Certification must be completed and submitted to the address below. This project shall not be considered complete until this Engineer's Certification has been submitted. Any work performed prior to completion of this Engineer's Certification shall be at Owner's risk and may affect acceptance of the subdivision final plat.

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**ENGINEER'S CERTIFICATION FOR ASPHALT COURSE(S)**

\_\_\_\_\_ Partial \_\_\_\_\_ Final \_\_\_\_\_ Intermediate \_\_\_\_\_ Course Surface

I, \_\_\_\_\_, as a duly registered Professional Engineer in the State of North Carolina, have been authorized by the Permittee to observe (periodically, weekly, full time) the construction of the following project segments:

STREET NAME	BEGINNING STATION	ENDING STATION
	+	+
	+	+
	+	+
	+	+
	+	+
	+	+

I hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the referenced approved plans and specifications and other supporting materials.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Note: Additional pages may be used as needed.

Seal

The above Engineer's Certification must be completed and submitted to the address below. This project shall not be considered complete until this Engineer's Certification has been submitted. Any work performed prior to completion of this Engineer's Certification shall be at Owner's risk and may affect acceptance of the subdivision final plat.

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Project Name \_\_\_\_\_

**ENGINEER'S CERTIFICATION FOR STORM WATER SYSTEM**

\_\_\_\_\_ Partial \_\_\_\_\_ Final

I, \_\_\_\_\_, as a duly registered Professional Engineer in the State of North Carolina, have been authorized by the Permittee to observe (periodically, weekly, full time) the construction of the following project segments:

STREET NAME	BEGINNING STATION	ENDING STATION
	+	+
	+	+
	+	+
	+	+
	+	+
	+	+
	+	+

I hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the referenced approved plans and specifications and other supporting materials.

Signature \_\_\_\_\_

Date \_\_\_\_\_

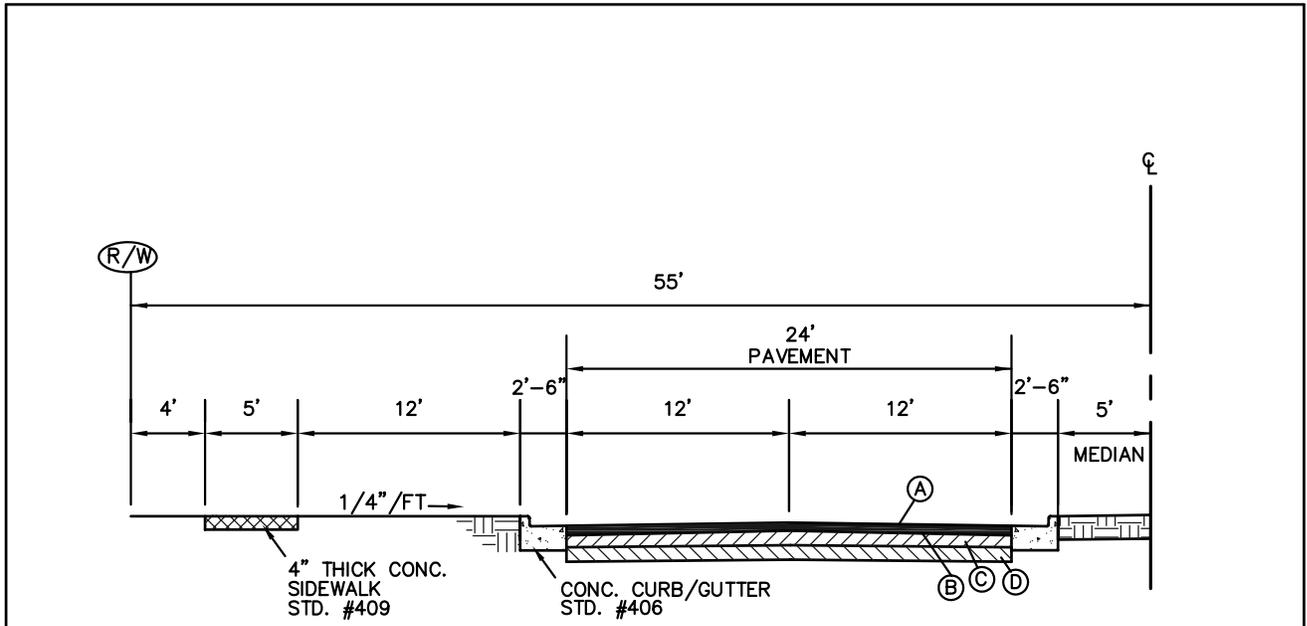
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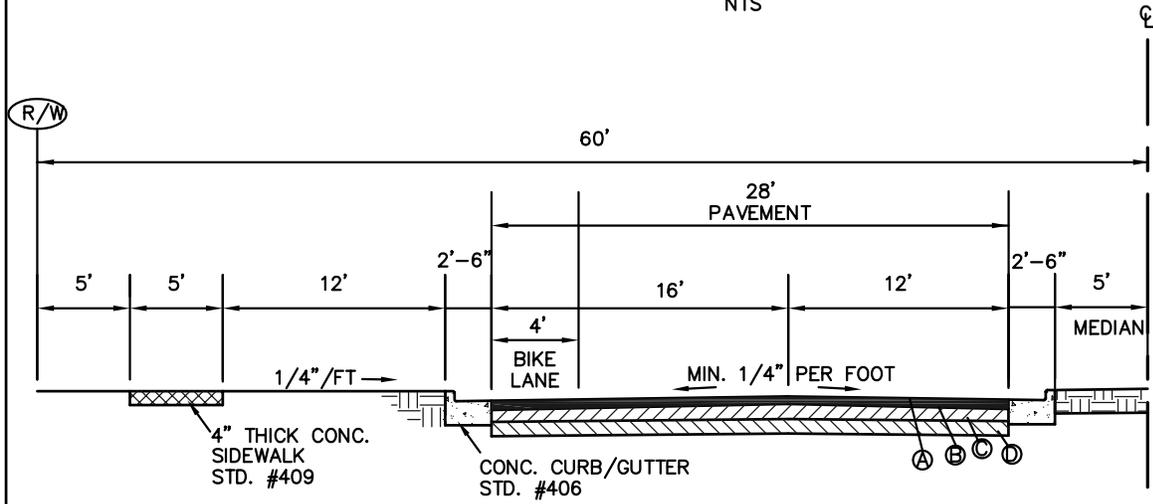
The above Engineer's Certification must be completed and submitted to the address below. This project shall not be considered complete until this Engineer's Certification has been submitted. Any work performed prior to completion of this Engineer's Certification shall be at Owner's risk and may affect acceptance of the subdivision final plat.

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ENGINEERING DIVISION  
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**4-LANE PARKWAY**  
NTS



**4-LANE PARKWAY W/BIKE LANES**  
NTS

**PAVEMENT SCHEDULE**

- Ⓐ 2" BITUMINOUS CONCRETE SURFACE COURSE, TYPE S 9.5 B TO BE PLACED IMMEDIATELY UPON FINAL PREPARATION OF BINDER COURSE.
- Ⓑ FULL COVER TACK COAT
- Ⓒ 2" BITUMINOUS CONCRETE S 12.5 B COURSE TO BE PLACED IMMEDIATELY UPON FINAL PREPARATION OF ABC STONE BASE.
- Ⓓ 8" COMPACTED AGGREGATE BASE COURSE

NOTE: ALL WORK AND MATERIALS SHALL MEET N.C.D.O.T. STANDARDS AND SPECIFICATIONS  
NOTE: CROSS SECTIONS ARE SYMMETRICAL ABOUT THE CENTER LINE

NOT TO SCALE

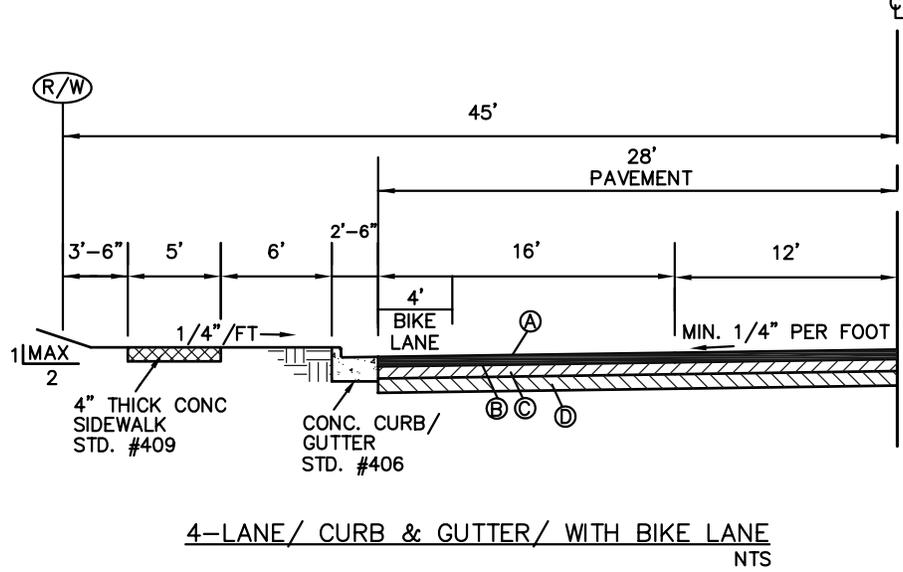
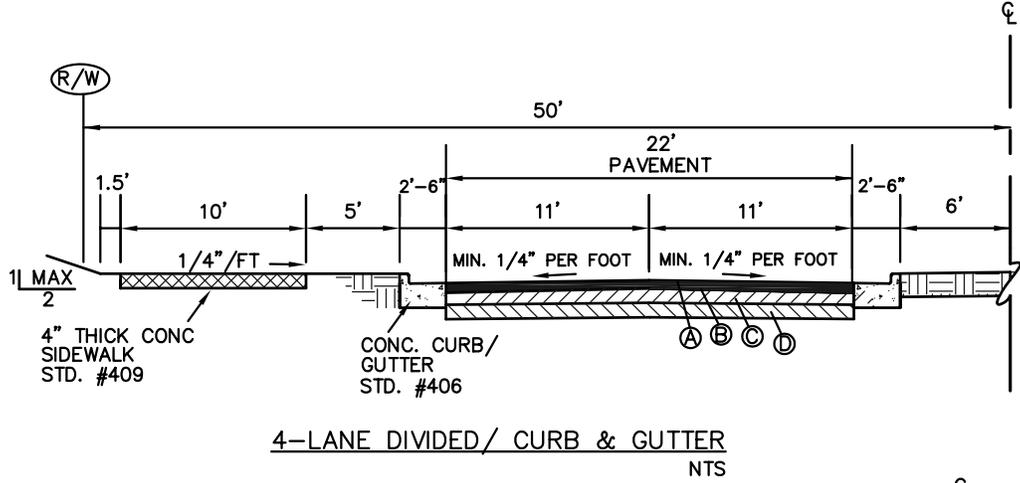
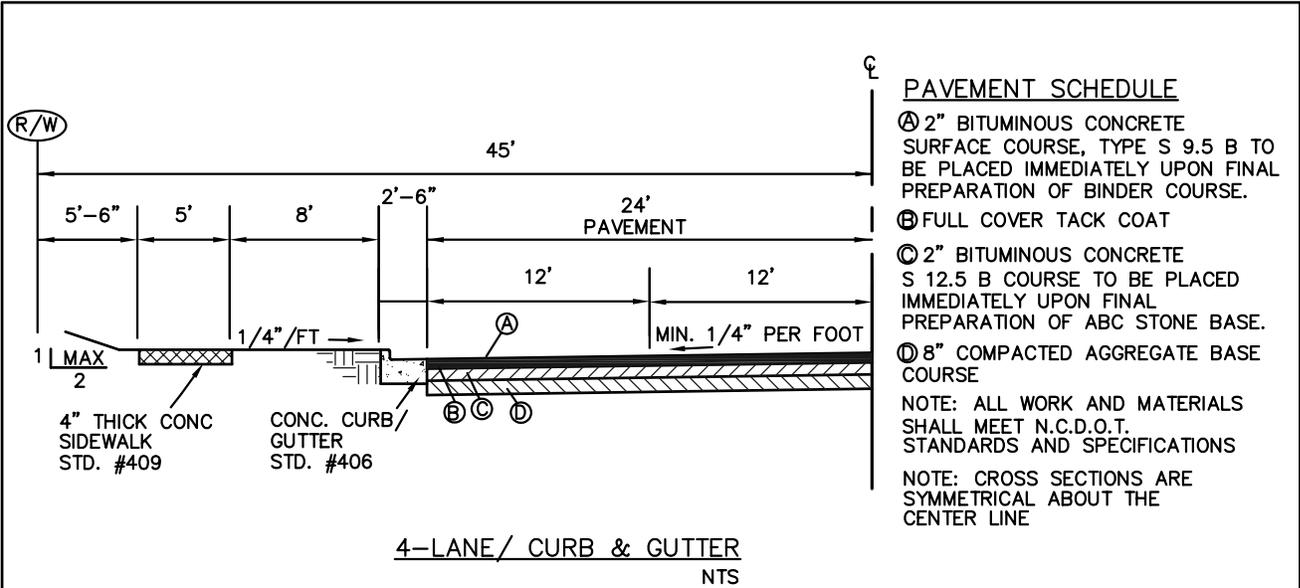


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NOT TO SCALE

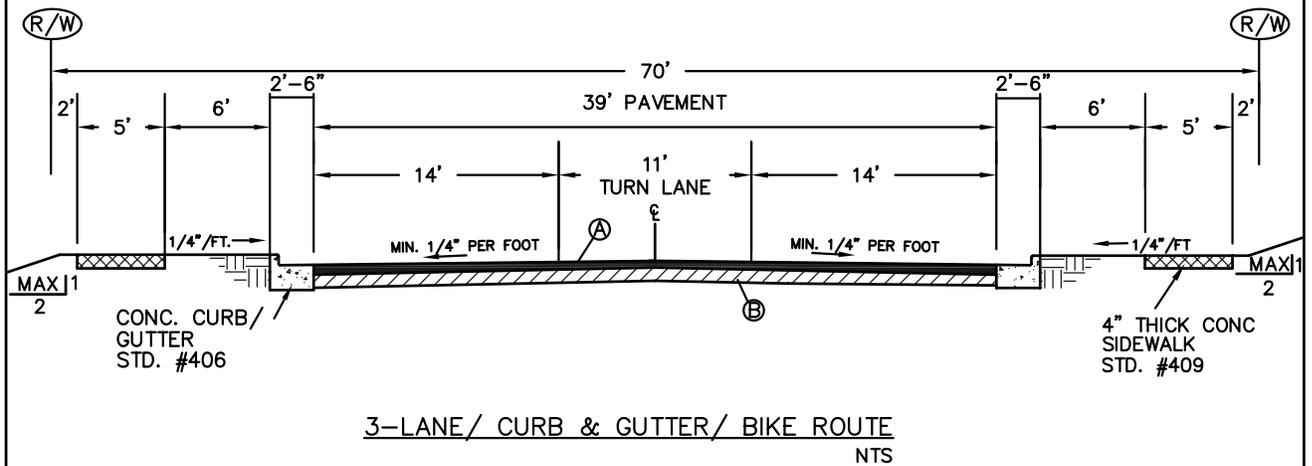
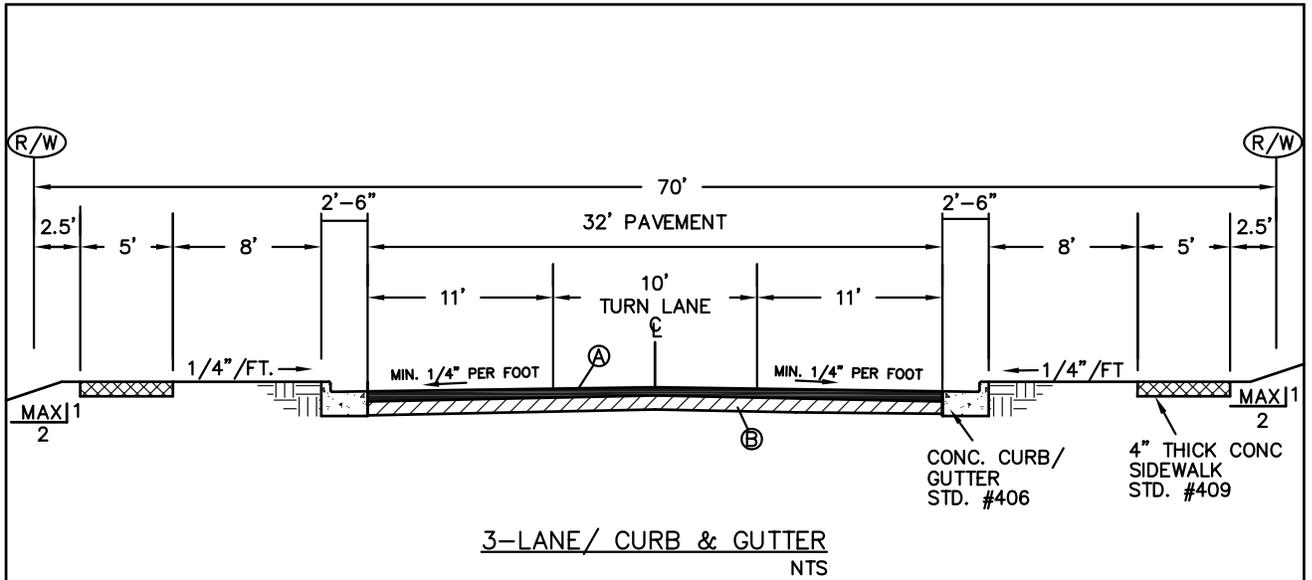


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ARTERIAL STREET CROSS-SECTIONS

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**PAVEMENT SCHEDULE**

- Ⓐ 2 1/2" BITUMINOUS CONCRETE SURFACE COURSE, TYPE S 9.5 B TO BE PLACED IMMEDIATELY UPON FINAL PREPARATION OF ABC STONE BASE.
- Ⓑ 8" COMPACTED AGGREGATE BASE COURSE, COMPACTED TO 100% OF MAXIMUM DENSITY

NOTE: ALL WORK AND MATERIALS SHALL MEET N.C.D.O.T. STANDARDS AND SPECIFICATIONS

NOT TO SCALE

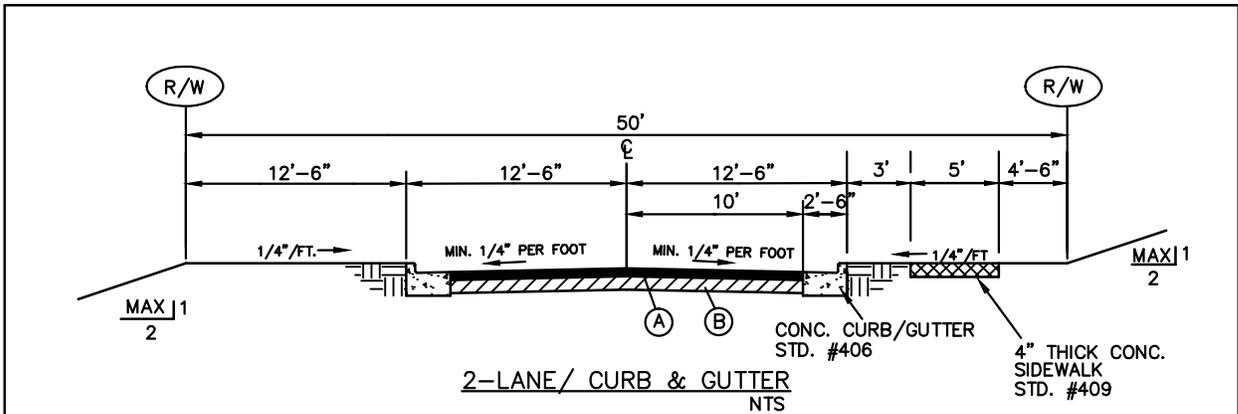


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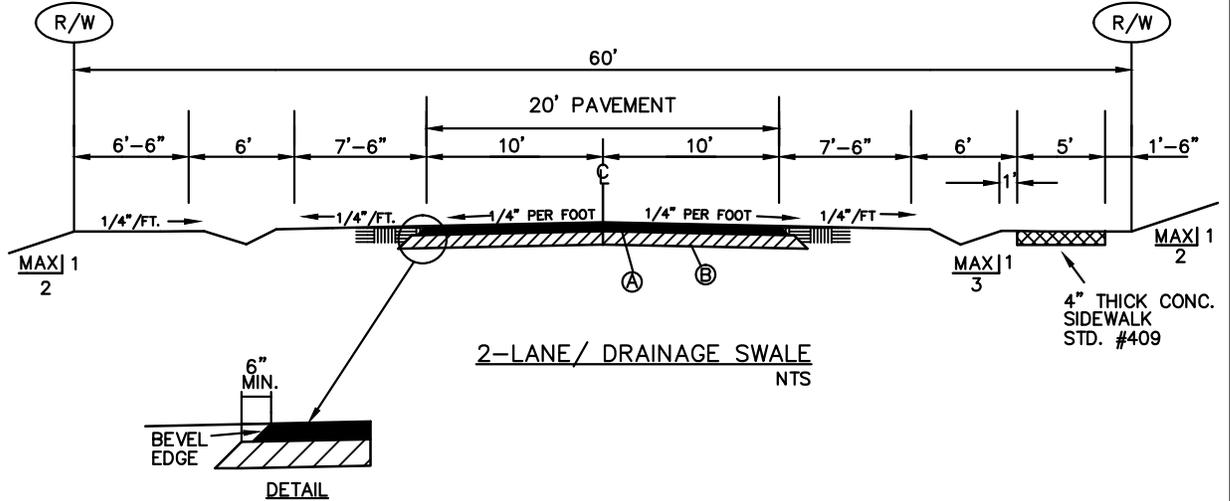
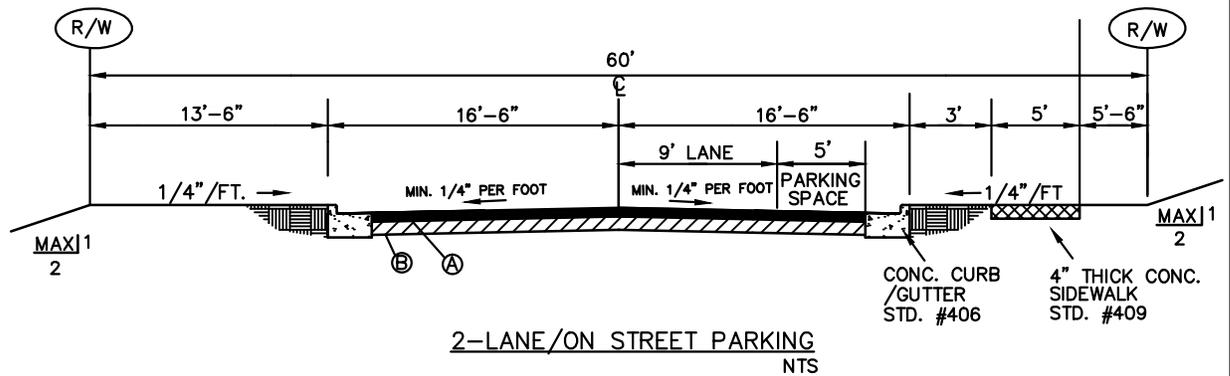
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**COLLECTOR STREET  
CROSS-SECTIONS**

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NOTE: FOR STREETS WITH MORE THAN OR EQUAL TO 13 UNITS.

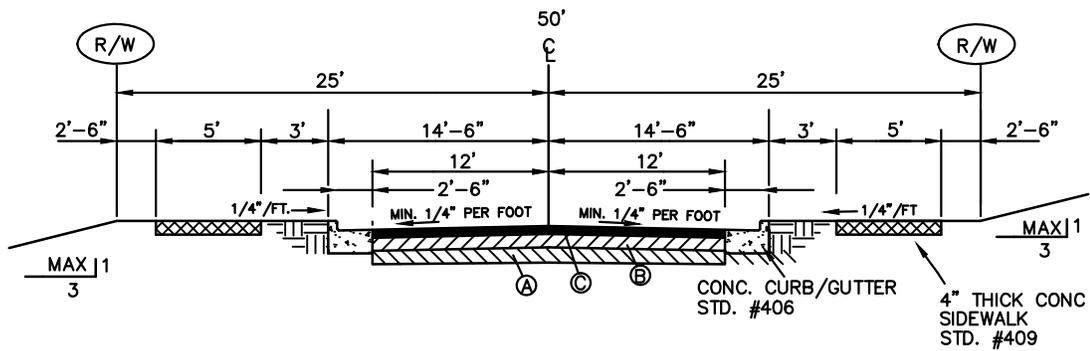


- PAVEMENT SCHEDULE**
- Ⓐ 2 1/2" BITUMINOUS CONCRETE SURFACE COURSE, TYPE S 9.5 B TO BE PLACED IMMEDIATELY UPON FINAL PREPARATION OF ABC STONE BASE.
  - Ⓑ 8" COMPACTED AGGREGATE BASE COURSE, COMPACTED TO 100% OF MAXIMUM DENSITY

NOTE: ALL WORK AND MATERIALS SHALL MEET N.C.D.O.T. STANDARDS AND SPECIFICATIONS

NOT TO SCALE

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2-LANE / CURB & GUTTER  
NTS

NOTE: FOR COMMERCIAL/INDUSTRIAL APPLICATIONS, SIDEWALK SHALL BE PROVIDED ON BOTH SIDES OF THE ROAD.

PAVEMENT SCHEDULE

- Ⓐ 8" COMPACTED AGGREGATE BASE COURSE
- Ⓑ 2" BITUMINOUS CONCRETE S 12.5 B COURSE TO BE PLACED IMMEDIATELY UPON FINAL PREPARATION OF ABC STONE BASE. PLANT MIX TO MEET N.C.D.O.T. SPECIFICATIONS.
- Ⓒ 2" BITUMINOUS CONCRETE SURFACE COURSE, TYPE S 9.5 B TO BE PLACED FOLLOWING PLACEMENT OF H-BINDER COURSE.

NOTE: ALL WORK AND MATERIALS SHALL MEET N.C.D.O.T. STANDARDS AND SPECIFICATIONS

NOT TO SCALE

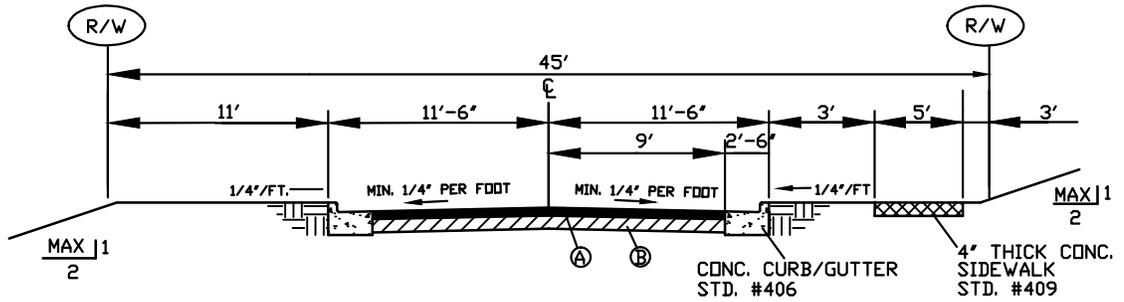


CITY OF HICKORY

REVISIONS		
NO.	DATE	DESCRIPTION

COMMERCIAL / INDUSTRIAL  
STREET CROSS-SECTIONS

DATE: 2-1-07
SHEET 2 of 3
STD. NO. 305.2



**2-LANE/ CURB & GUTTER**  
NTS

NOTE: FOR STREETS WITH LESS  
THAN OR EQUAL TO 12  
UNITS

**PAVEMENT SCHEDULE**

- Ⓐ 2 1/2" BITUMINOUS CONCRETE SURFACE COURSE, TYPE S 9.5 B TO BE PLACED IMMEDIATELY UPON FINAL PREPARATION OF ABC STONE BASE.
- Ⓑ 8" COMPACTED AGGREGATE BASE COURSE, COMPACTED TO 100% OF MAXIMUM DENSITY

NOTE: ALL WORK AND MATERIALS SHALL MEET N.C.D.O.T. STANDARDS AND SPECIFICATIONS

NOT TO SCALE

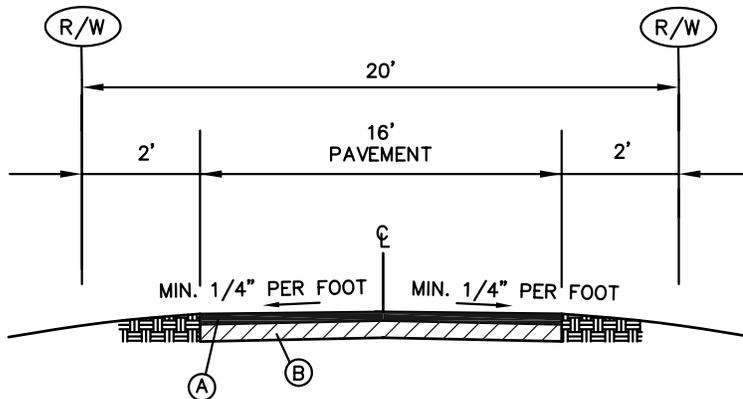


**CITY OF HICKORY**

REVISIONS		
NO.	DATE	DESCRIPTION
1	1/7/10	SIDEWALK (1) SIDE

MINOR LOCAL STREET  
CROSS-SECTIONS

DATE:  
**2-1-07**  
SHEET 3 of 3  
STD. NO.  
**305.3**



ALLEY  
NTS

PAVEMENT SCHEDULE

- Ⓐ 2 1/2" BITUMINOUS CONCRETE SURFACE COURSE, TYPE S 9.5 B TO BE PLACED IMMEDIATELY UPON FINAL PREPARATION OF ABC STONE BASE.
- Ⓑ 8" COMPACTED AGGREGATE BASE COURSE, COMPACTED TO 100% OF MAXIMUM DENSITY

NOTE: ALL WORK AND MATERIALS SHALL MEET N.C.D.O.T. STANDARDS AND SPECIFICATIONS

NOT TO SCALE

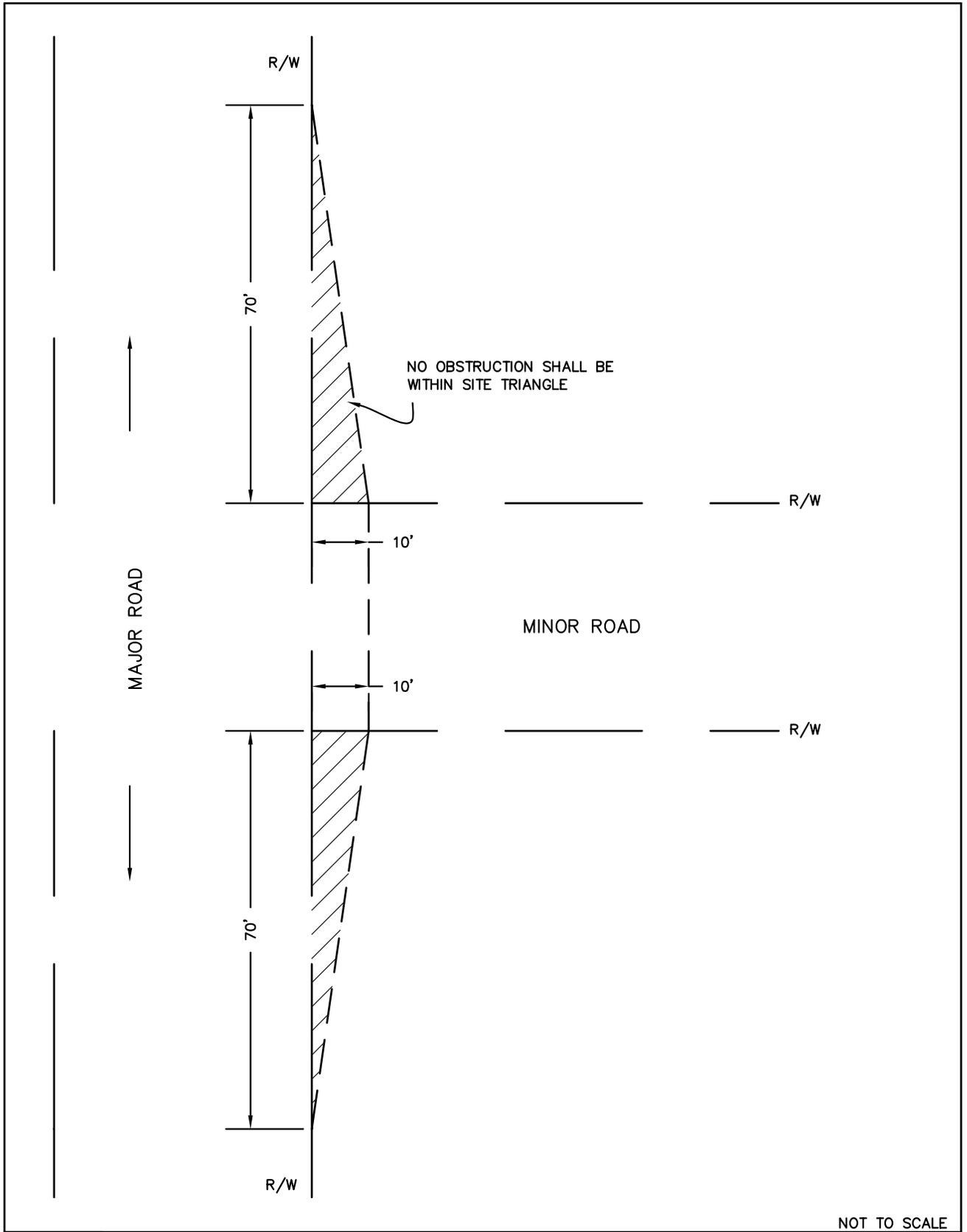


CITY OF HICKORY

NO.	DATE	DESCRIPTION

ALLEY  
CROSS-SECTION

DATE:  
2-1-07  
SHEET 1 OF 1  
STD. NO.  
306



NOT TO SCALE

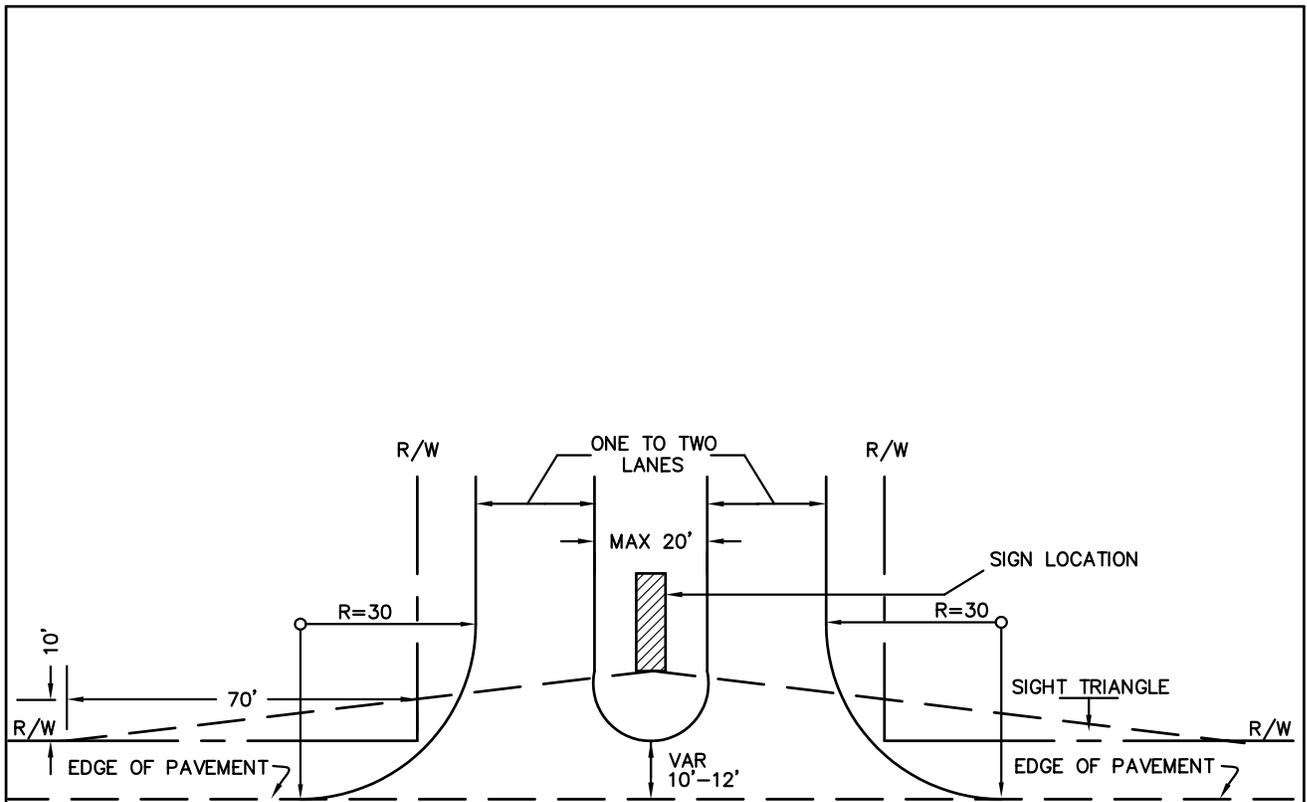


CITY OF HICKORY

REVISIONS		
NO.	DATE	DESCRIPTION

REQUIRED INTERSECTION SITE TRIANGLE

DATE:  
2-1-07  
SHEET 1 OF 1  
STD. NO.  
307



⊕ \_\_\_\_\_ ⊕

\_\_\_\_\_

EXISTING ROAD

\_\_\_\_\_

R/W \_\_\_\_\_ R/W

NOT TO SCALE

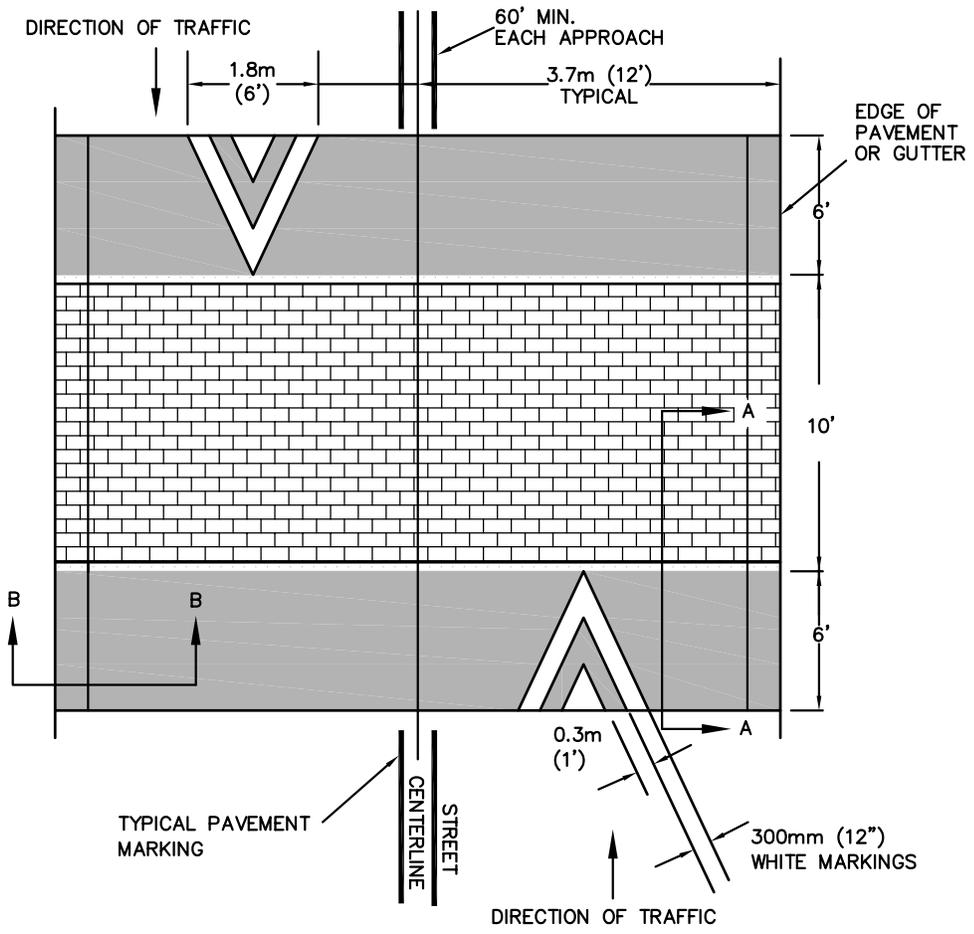


CITY OF HICKORY

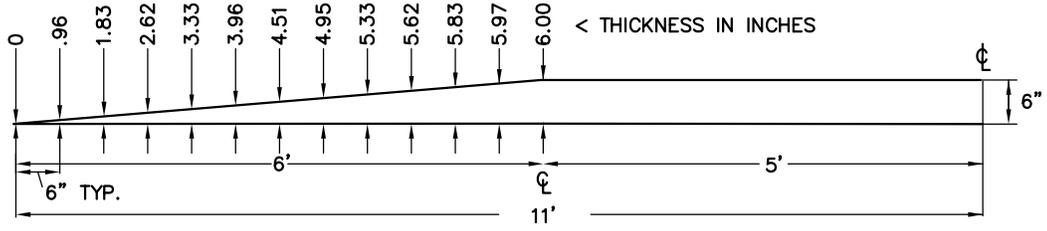
REVISIONS		
NO.	DATE	DESCRIPTION

SIGHT TRIANGLE FOR  
DIVIDED ENTRANCE

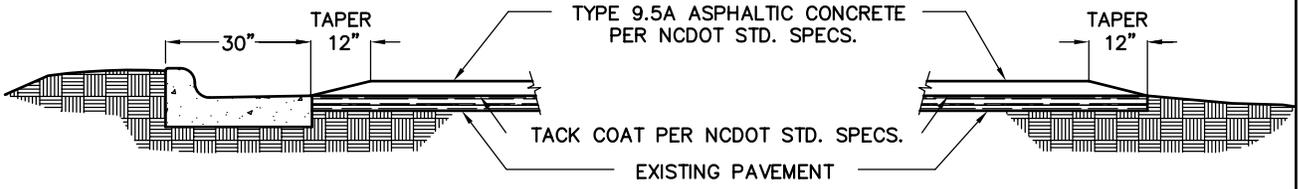
DATE:  
**2-1-07**  
SHEET 1 OF 1  
STD. NO.  
**308**



PLAN VIEW



SECTION A-A



SECTION B-B

FOR STREETS WITH CURB & GUTTER

SECTION B-B

FOR STREETS WITHOUT CURB & GUTTER

NOT TO SCALE

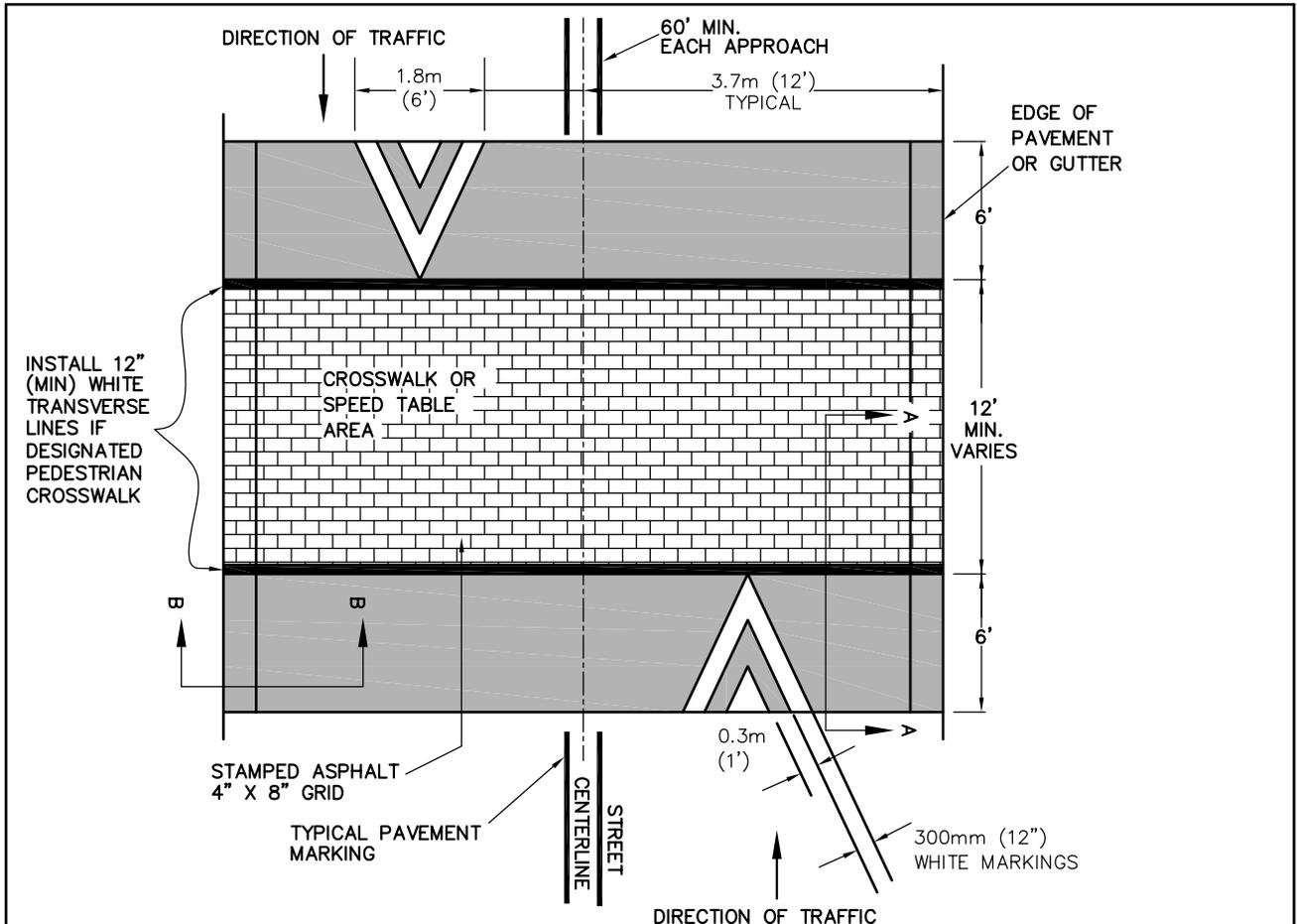


CITY OF HICKORY

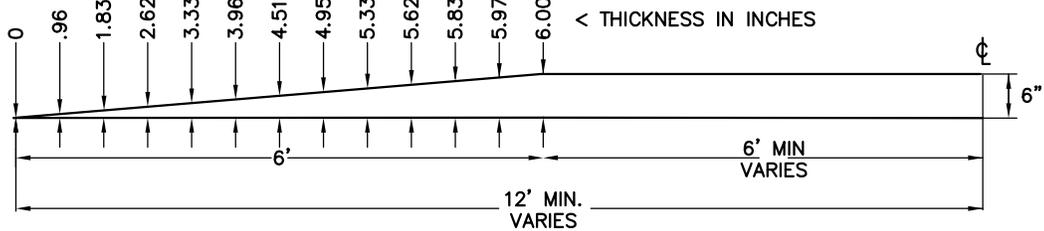
REVISIONS		
NO.	DATE	DESCRIPTION

SPEED HUMP

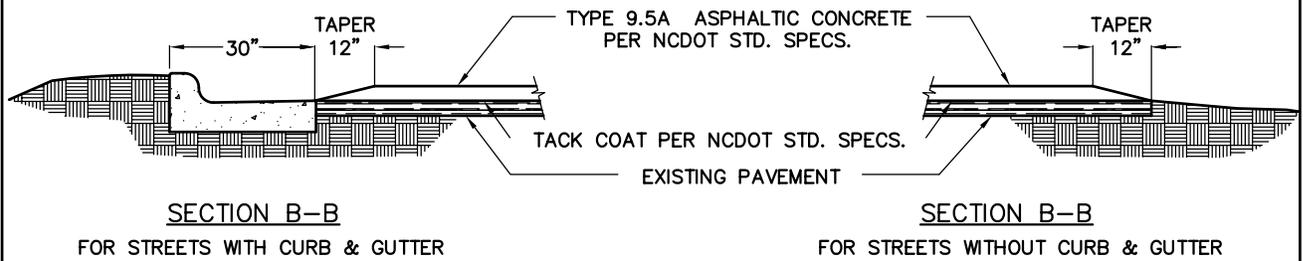
DATE:  
2-1-07  
SHEET 1 OF 2  
STD. NO.  
309



PLAN VIEW



SECTION A-A



NOT TO SCALE

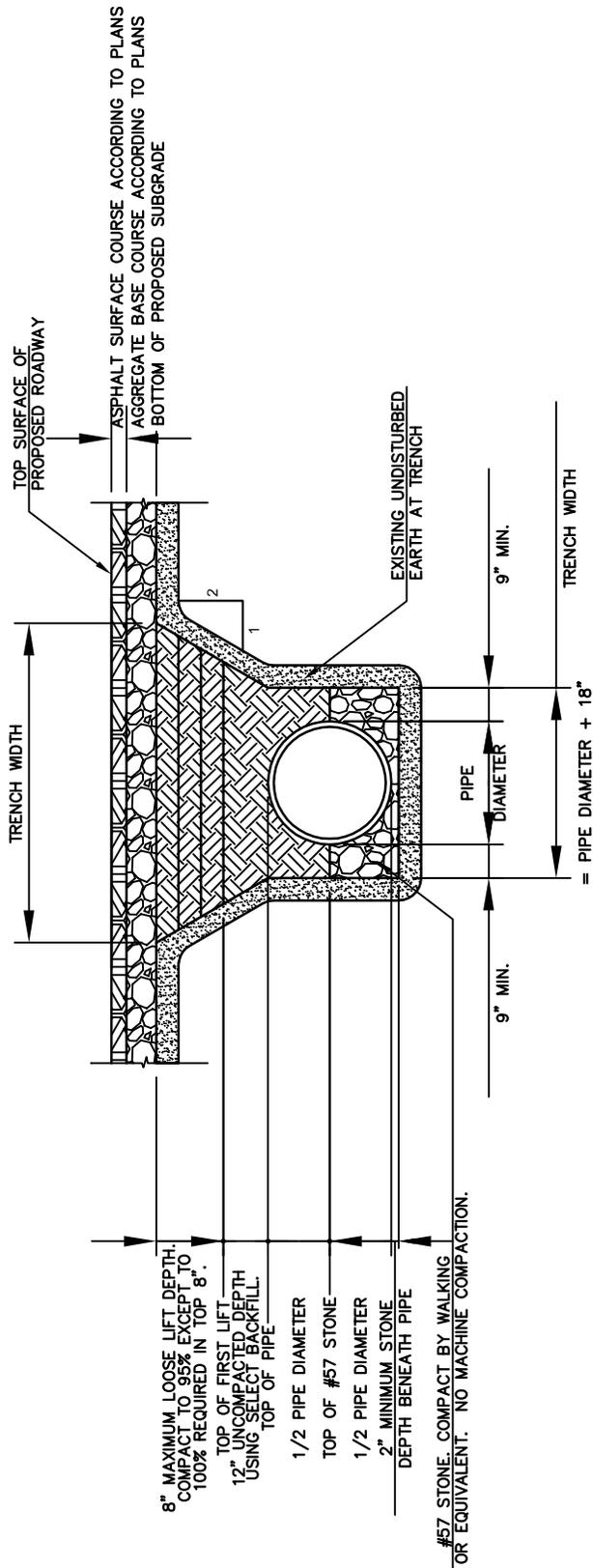


CITY OF HICKORY

REVISIONS		
NO.	DATE	DESCRIPTION

SPEED TABLE  
OR PEDESTRIAN TABLE

DATE: 2-1-07
SHEET 2 OF 2
STD. NO. 310



8" MAXIMUM LOOSE LIFT DEPTH. COMPACT TO 95% EXCEPT TO 100% REQUIRED IN TOP 8".

TOP OF FIRST LIFT 12" UNCOMPACTED DEPTH USING SELECT BACKFILL.

TOP OF PIPE

1/2" PIPE DIAMETER

TOP OF #57 STONE

1/2" PIPE DIAMETER

2" MINIMUM STONE DEPTH BENEATH PIPE

#57 STONE - COMPACT BY WALKING OR EQUIVALENT. NO MACHINE COMPACTION.

SECTION THROUGH TRENCH  
NEW CONSTRUCTION

REFER ALSO TO SECTION 301 GENERAL NOTES FOR STREETS FOR ADDITIONAL REQUIREMENTS

NOT TO SCALE



CITY OF HICKORY

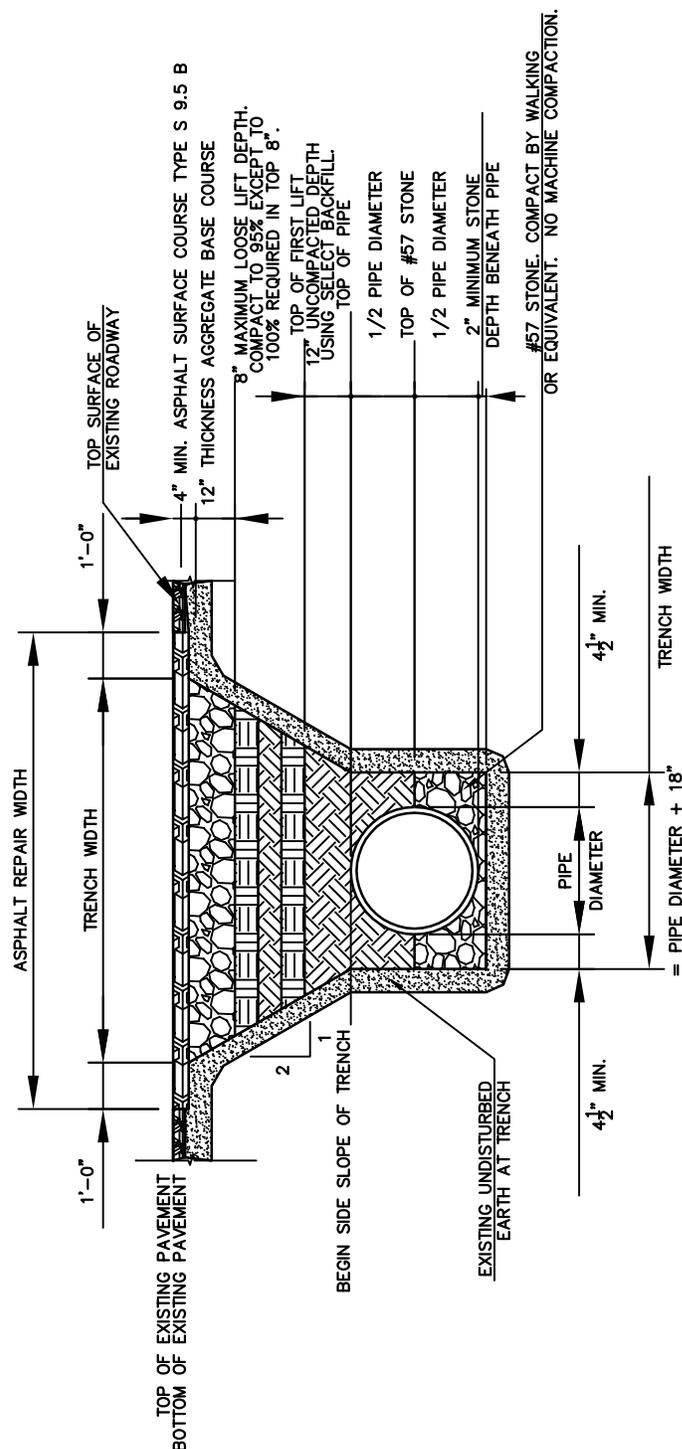
REVISIONS		
NO.	DATE	DESCRIPTION

TRENCH DETAIL FOR  
NEW UTILITY INSTALLATION

DATE:  
**6-1-09**

SHEET: 2 OF 2

STD. NO.  
**311.1**



SECTION THROUGH TRENCH  
REPAIR SECTION

REFER ALSO TO SECTION 301 GENERAL NOTES FOR STREETS FOR ADDITIONAL REQUIREMENTS

NOT TO SCALE

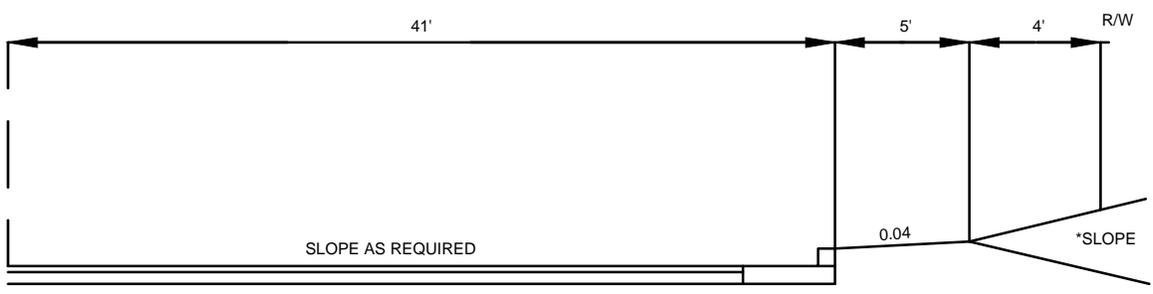
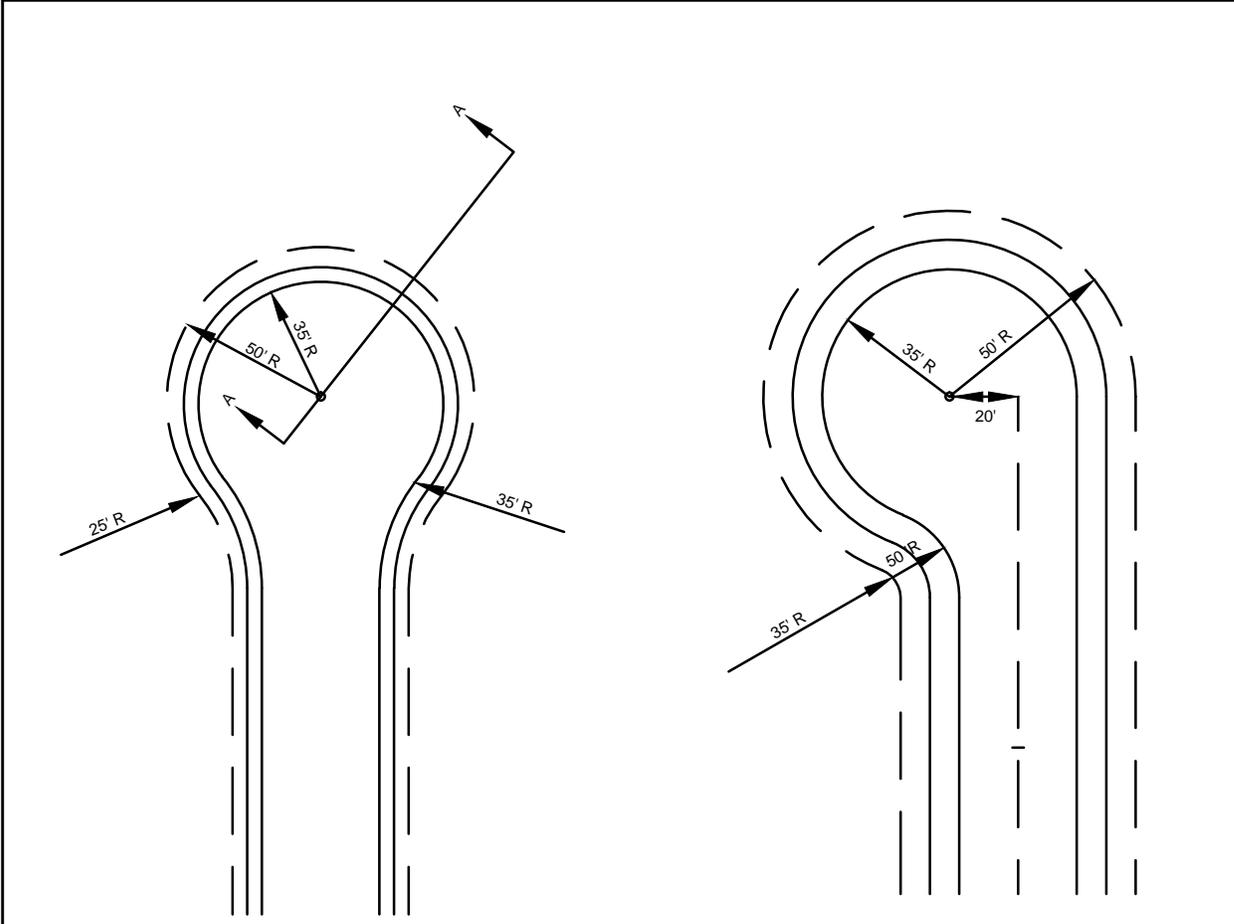


CITY OF HICKORY

REVISIONS		
NO.	DATE	DESCRIPTION

TRENCH DETAIL FOR  
ROAD PATCH AND REPAIR

DATE: 6-1-09
SHEET: 1 OF 2
STD. NO. 311



SECTION AA

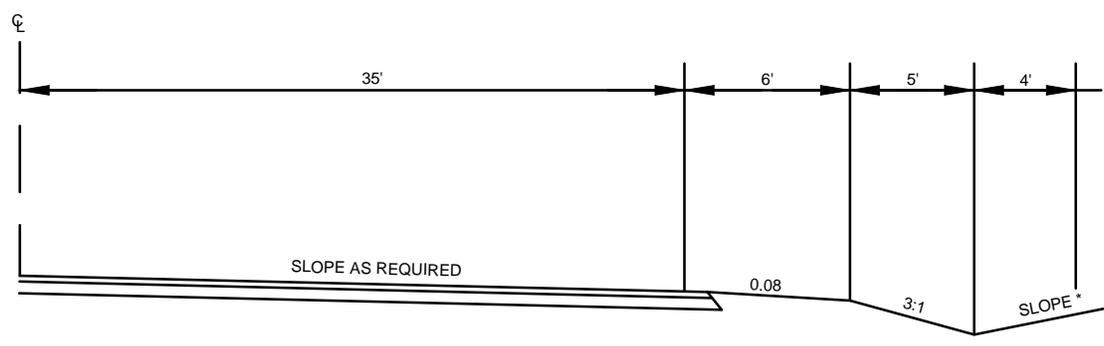
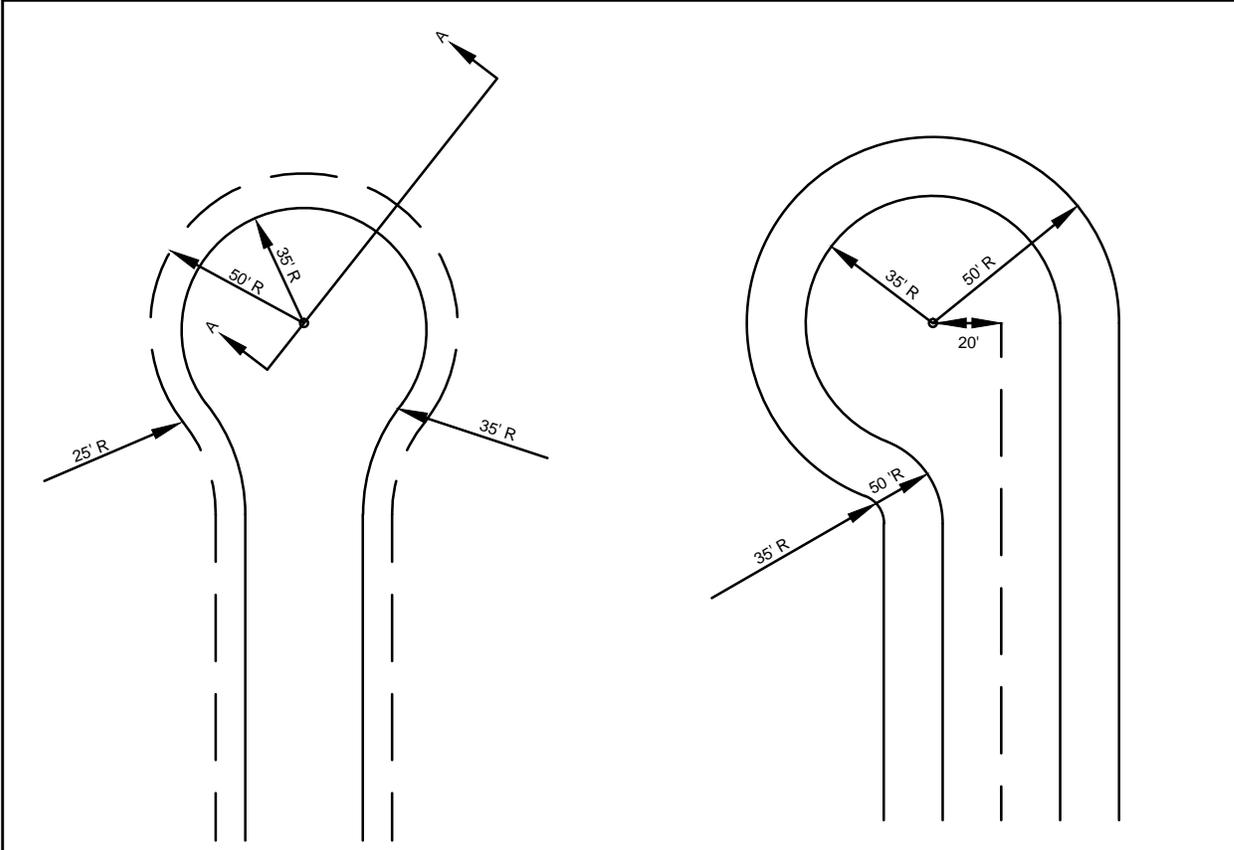
NOT TO SCALE



REVISIONS		
NO.	DATE	DESCRIPTION

CITY OF HICKORY  
 SYMMETRICAL AND OFFSET CUL-DE-SAC  
 WITH CURB AND GUTTER

DATE: 10-3-09  
 SHEET: 2 OF 2  
 STD. NO. 312.1



SECTION AA

NOT TO SCALE



REVISIONS		
NO.	DATE	DESCRIPTION

CITY OF HICKORY  
 SYMMETRICAL AND OFFSET CUL-DE-SAC  
 NO CURB AND GUTTER

DATE: 10-3-09  
 SHEET: 1 OF 2  
 STD. NO. 312