

CECIL COUNTY

DEPARTMENT OF PUBLIC WORKS



ROAD CODE AND STANDARD SPECIFICATIONS

August 19, 2008



CECIL COUNTY

DEPARTMENT OF PUBLIC WORKS

ROAD CODE AND STANDARD SPECIFICATIONS

Board of Commissioners of Cecil County

William C. Manlove

Mark H. Guns

Brain Lockhart

Wayne L. Tome

Rebecca J. Demmler

Director of Public Works

Scott Flanigan, P.E.

Aug 19, 2008

ORDINANCE 2008-

BE IT ENACTED AND ORDAINED by the Board of County Commissioners of Cecil County that Chapter 242 of the Code of Ordinances and Resolutions of the Board of County Commissioners of Cecil County, being Division 2 of the Cecil County Code, at Part 3, Administrative Legislation, entitled "Road Standard Specifications", is hereby revised and incorporated by reference as follows:

CHAPTER 242

Section 242

- A) Pursuant to the powers and authority vested in the Board of County Commissioners of Cecil County under Article 25, Section 2 of the Annotated Code of Maryland, the Board of Commissioners has adopted revisions to the regulations known as the "Cecil County Road Code and Standard Specifications", for roads in the County.**
- B) A copy of the regulations will be kept at all times in the office of the Board of County Commissioners, Suite 2100, County Administrative Building, Elkton, MD. Copies of such regulations can be purchased at the price of \$40.00 from the Department of Public Works.**

Introduced at a public meeting of the Board of Commissioners this 22nd day of

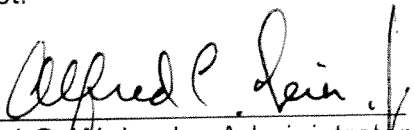
July, 2008.

Adopted at a public meeting of the Board of Commissioners this 19th day


of August, 2008.

BOARD OF COUNTY COMMISSIONERS FOR CECIL COUNTY

Attest:




Alfred C. Wein, Jr., Administrator



William C. Manlove, President



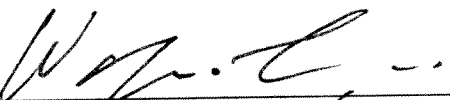
Mark H. Guns, Vice President



Rebecca J. Demmler, Commissioner



Brian Lockhart, Commissioner



Wayne H. Tome, Sr., Commissioner

CECIL COUNTY BOARD OF

COUNTY COMMISSIONERS

Ordinance No. 2010-03

AMENDMENT TO THE CECIL COUNTY CODE OF PUBLIC LAWS
CECIL COUNTY ROAD CODE AND STANDARD SPECIFICATIONS, CHAPTER 242

WHEREAS, by virtue of Chapter 242 of the Cecil County Code of Public Laws, the Board of County Commissioners of Cecil County may establish standards specifications and details for Cecil County roadways; and

WHEREAS, the existing Cecil County Road Code & Standard Specification was adopted on August 19, 2008 by the Board of County Commissioners; and

WHEREAS, the Department of Public Works is charged with administering and enforcing said ordinance, and;

WHEREAS, the Department of Public Works has recommended an amendment to Section 11.02 of the Code of Cecil County Road Code and Standard Specifications; and

WHEREAS, the Board of County Commissioners of Cecil County and the Department of Public Works conducted a public hearing regarding said amendment on March 2, 2010 (said hearing having been duly advertised).

NOW THEREFORE, BE IT HEREBY ENACTED AND ORDAINED, by the Board of County of County Commissioners of Cecil County, State of Maryland that the Cecil County Road Code and Standard Specifications is hereby amended replacing all versions and adopted by reference, within Chapter 242 of the Code of Cecil County.

Introduced at a public meeting of the Board of County Commissioners for Cecil County, this 2nd day of March, 2010.

Adopted at a public meeting of the Board of County Commissions for Cecil County, this 16th day of March, 2010.

BOARD OF COUNTY COMMISSIONERS FOR CECIL COUNTY

Attest:

Alfred C. Lewis, Jr.

Brian L. Lockhart
Brian L. Lockhart, President

Rebecca J. Dommier
Rebecca J. Dommier, Vice President

Wayne T. Tome
Wayne T. Tome, Commissioner

Robert J. Hodge
Robert J. Hodge, Commissioner

James T. Mullin
James T. Mullin, Commissioner

CECIL COUNTY

DEPARTMENT OF PUBLIC WORKS

ROAD CODE AND STANDARD SPECIFICATIONS

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PART I GENERAL PROVISIONS

1.01 DEFINITIONS AND TERMS

Any terms, except as defined hereafter, which are used in this Code shall conform to the definition of terms given in the current edition of the Maryland Department of Transportation, State Highway Administration, Standard Specifications for Construction and Materials, and Interim Specification Addenda as defined therein, hereafter collectively referred to as SHA Specifications, or as given in other SHA Publications referred to in this Code.

AASHTO – American Association of State Highway and Transportation Officials.

AASHTO Policy – Most current edition of AASHTO’s Publication: A Policy on Geometric Design of Highways and Streets.

ADT – Average Daily Trips.

ASTM – American Society for Testing and Materials.

Administration – For any Section of SHA Specifications and other SHA Publications referred to in this Code, the term Administration shall be construed to be the Cecil County Department of Public Works instead of the Maryland Department of Transportation, State Highway Administration.

Approved Plans – Construction drawings for private or public roads and their appurtenances, prepared in accordance with this Code and approved by the Department of Public Works.

Closed Drainage System – A system consisting of pipes, catch basins and manholes, by which stormwater runoff is collected and directed to a specific destination.

Commercial Road – Any road which lies within or is contiguous to any area which has been recommended or approved for any class of commercial use in any zoning or master highway plan approved by the County Commissioners of Cecil County.

Commissioners – The Board of County Commissioners of Cecil County.

Consultant – An engineer or engineering company responsible for preparing the road construction Plans.

Contractor – The party of the second part to the Contract; the individual, partnership, firm or corporation undertaking the execution of the work under the terms of the Contract and acting directly or through his, their, or its agents or employees.

County – Cecil County, Maryland.

County Commissioners – The Board of County Commissioners of Cecil County

Cul-de-sac Road – A dead end road provided with a cul-de-sac at the end to facilitate turnaround of traffic.

Dedication Plat – Any plat conforming to law, duly recorded among the land records of the County which describes one or more rights-of-way intended to be dedicated to public use.

Department – The Cecil County Department of Public Works.

Design Storm Frequency – Time interval in years at which a storm occurrence has a chance to exceed or equal the storm of specific duration and intensity used in design or drainage facilities.

Developer – The person or organization proposing to develop, developing, or obtaining a building permit for a previously undeveloped parcel of property.

Director – Director of the Cecil County Department of Public Works or his duly authorized agents.

Drainage Area – The delineated areas that currently contribute or are proposed to contribute runoff to a specific location or point.

Drainage Structure – Includes culverts, bridges, storm sewers, catch basins, canals, ditches, sub-surface drains and any structures or water-courses designed to carry off surface or other water.

Dual Lane Road – Any road which has two separate roadways divided by an island or grass plot, and designated for one-way traffic in each roadway.

Easement – A right acquired by public authority to use or control property for a designated public purpose.

Emergency Overtime Inspection – Inspection of work that, in the sole determination of the Department, must continue beyond normal inspection hours to avoid substantial inconvenience, provide for safety of the public, or provide for a substantially better work product.

Engineer – Director of the Cecil County Department of Public Works or his duly authorized agent representative.

Federal Road – A road that is operated and maintained by the Federal Government.

Fee Simple – All road right of way shall be deeded fee simple (at no cost to the County) to the Board of County Commissioners.

Freeboard – Vertical elevation between the design high water level and top of bank.

Groundwater – Water constrained in soil or rocks below the ground surface.

Industrial Road – Any road which lies within or is contiguous to any area which has been recommended or approved for any class of industrial use in any zoning or master highway plan approved by the County Commissioners of Cecil County.

Inspector – A representative of the Department authorized to make any or all necessary inspections of work performed and material furnished by the Contractor.

Inundated – Submerged under water.

MD E&S Manual – Most current edition of Maryland Standards and Specifications for Erosion and Sediment Control.

Maintenance – To preserve roadways and related facilities in a safe and workable condition.

Maintenance Agreement – Agreement executed between an Owner and The Board of County Commissioners of Cecil County covering terms and conditions related to post-construction maintenance of private roads by the Developer.

Maintenance Bond – A financial guarantee posted by the Developer with the County Commissioners for a road that has been completed in accordance with the approved plans and so certified by the Department, that guarantees the road will be maintained by the Developer for a period of one year.

Major Collector Road – Any road which serves to carry traffic to or from several minor roads and connects them to other collector roads or to arterial highways, usually does not serve the primary function of providing access to abutting properties, and serves more than 300 but not more than 500 residential lots, or handles a traffic volume of more than 3,000 ADT but not more than 5,000 ADT.

Median Lot Frontage – The lot frontage which is in the middle of the group, i.e., has as many lot frontages larger as it has lot frontages smaller than itself. Distinguished from average or mean.

Mini-Road – A road serving not more than 5 interior lots or not more than 7 lots if a maximum of two corner lots have frontage on State or County maintained roads. All lots, including corner lots, must access the Mini-Road.

Minor Collector Road – Any road which serves to carry traffic to or from arterial highways, and serves 50 to 300 residential lots or handles a traffic volume of 500 to 3,000 ADT.

Minor Road – Any road which is primarily used to serve local traffic, and serves a maximum of 50 Residential lots or handles a traffic volume of less than 500 ADT.

Open Drainage System – A system of drainage ditches or swales by which stormwater runoff is directed to a specific location.

Permanent Maintenance Easement – An easement providing permanent right to the Department and other applicable agencies for maintenance of adjacent road and other facilities located in the easement.

Permittee – A person, firm or corporation who has applied for and holds a valid permit in full force and effect, issued by the Director of the Department of Public Works, authorizing construction in a public or private right-of-way.

Person – Includes an individual, association, firm, partnership, or corporation but does not include any governmental agency, whether County, Federal, State or Municipal.

Plans – The drawings or reproductions thereof, pertaining to the construction of the road and its appurtenances.

Plans, As-built – Plans prepared by a surveyor or professional engineer after construction confirming or specifying changes to dimensions, elevations, and other aspects shown on the original plans.

Private Road – Roads intended to provide access to newly developed subdivision lots, constructed to standards established in this Code and intended to be maintained by residents of the served subdivision with no assistance or funds from the tax revenues generated by the State or County.

Professional Engineer – As defined by the State of Maryland, Department of Labor, Licensing and Regulations, Division of Occupational and Professional Licensing.

Public Works Agreement – Agreement executed between Developer and The Board of County Commissioners of Cecil County covering terms and conditions related to construction of roads in approved developments.

Residential, Detached Lots Road – A road serving traffic from primarily residential detached lots.

Residential, Townhouse Road – A road serving traffic primarily from townhouse lots.

Right-of-Way – A general term denoting land, property, or interest therein, usually in a strip acquired for or devoted to a highway and usually intended for fee-simple ownership.

Road – Includes street, highway, avenue, lane, alley and viaduct, or any segment or part of the length thereof and is a general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

Road Class – Road class to be determined as either mini, minor, minor collector, or major collector in accordance with the respective definitions given in this section.

Road Type – Road type to be determined as residential (townhouse or detached), commercial, industrial, or dual lane roads in accordance with the respective definitions given in this section.

SHA Drainage Design Manual – Most current edition of the Maryland SHA Drainage Design Manual.

SHA Specification – Maryland SHA, Standard Specifications for Construction and Materials (most current edition) and interim specification addenda as specified therein.

SHA Standards – Most current edition of the Maryland SHA Book of Standards, Highway and Incidental Structures.

SHA State Highway Administration – The Maryland Department of Transportation.

Sight Distance, Intersection – The distance required to allow a driver traveling at the design speed to stop before coming upon an observed object. It is assumed the driver's eyes are 3.50 feet above the roadway and the object observed is at a height of 4.25 feet or as revised in the latest AASHTO Revision.

Sight Distance, Passing- Length of a roadway ahead necessary to pass a vehicle without meeting an oncoming vehicle. It is applicable only two-lane, two-way highways.

Sight Distance, Stopping – Length of a roadway ahead necessary to pass at the design speed, a vehicle without meeting an oncoming vehicle. It is applicable only to two-lane, two-way highways. It is assumed the driver's eyes are 3.5 feet above the roadway and the object observed is at a height of 2.0 feet or as revised in the latest AASHTO Revision.

Specification – Specifications for construction and material is included in this Code.

Standards – Design and construction standards as included in this Code.

State – State of Maryland.

State Road – A road that is operated and maintained by the State.

Subdivision – A division of land as defined in the Cecil County Subdivision Regulations.

Sump – A point of comparatively low elevation which cannot be drained by means of surface flow.

Superelevation – Roadway banking to counter the effects of centrifugal force when a vehicle travels in a curved path.

Travel Lane – The portion of the roadway for the primary movement of vehicles, exclusive of shoulders, acceleration and deceleration lanes.

Variance – A modification of the requirements of this Code granted by the Director or duly authorized agent.

Warping – Minor modification of pavement grades in isolated instances such as at intersections, around structures, etc.

1.02 APPLICABILITY

- A. This Code shall apply to all roads, including private roads, within the County handling a traffic volume of not more than 5,000 ADT or traffic from not more than 500 residential lots other than: 1) roads lying within the limits of any incorporated city, town or village of the County or which may hereafter be created, insofar as the city, town, village or taxing area has the authority to enact or adopt regulations on the subject matter of this Code; 2) State roads; and 3) Federal roads. The design of roads intended to serve more than 500 lots or 5000 ADT shall be done in accordance with the applicable AASHTO & SHA standards in lieu of the standards set forth in this Code.

- B. Land owners may deed to themselves, their parents, grandparents, children or grandchildren, approved parcels of ground for the purpose of building a structure to be used as this family's primary residence without road frontage on a State or County road or a road constructed to County standards. The right-of-way used for ingress and egress to the parcel must be recorded in the Land Records of Cecil County and meet or exceed the requirements of Section 3.03 and Section 3.07.14 of the Cecil County Road Code and Standard Specifications. If an existing access point is to be used, full compliance with Section 3.03 and 3.07.14 will not be required. However reasonable improvements may be requested by the Department in an effort to improve the sight distance. Said right-of-way is to serve a maximum of two lots. Perpetual maintenance of the right-of-way is to be provided by the lot owners; the instrument used to establish the perpetual maintenance program is to be a standard document developed by Cecil County, executed by the landowners, and recorded in the Land Records of Cecil County. After the new parcel has been created, the owner of the new parcel cannot sell or transfer the parcel for a period of five (5) years.

1.03 PURPOSE

The purpose of this Code is to establish design and construction criteria for the planning, designing, construction, improvement, reconstruction, and repair of roads and related appurtenance, for roads falling under the jurisdiction of this code pursuant to Section 1.02.

1.04 AUTHORITY

The Authority for this Code is set forth under Article 25, Part 2 of the Annotated Code of Maryland.

1.05 GENERAL PROVISIONS

- A. Where a drainage study indicates that a minimum right-of-way width as established in this Code is inadequate for proper drainage of a particular road, the County Commissioners may require such additional right-of-way as is found necessary for such drainage purposes; provided, that such requirement is made prior to the final approval and recording of a dedication plat among the land records of Cecil County.
- B. Whenever drainage structures are required for any particular class of road, such drainage shall be installed or constructed as found by the County Commissioners to be necessary or appropriate after a preliminary drainage study has been approved by the Department of Public Works in accordance with design standards and all applicable specifications.
- C. Where this Code is silent, design may be based upon AASHTO's Policy on Geometric Design of Highways & Streets (latest edition) and construction details shall be governed by SHA's Standard Specifications for Construction & Materials (latest edition).

1.06 VARIANCES

- A. A variance of the requirements of this Code shall only be granted upon demonstration by the applicant that exceptional circumstances exist that were not the result of actions taken by the applicant which preclude the applicant from adhering to the requirements of this Code, or where the granting of the variance will contribute to a better overall design of a road or other facilities subject to the requirements of this code. A variance request shall be submitted in writing and shall be accompanied by any evidence, data or any other material that may be required by the Director or duly authorized agent for consideration of the variance. The burden of presenting sufficient evidence remains with the applicant seeking the variance.
- B. In the granting of the variance, the Director or duly authorized agent may prescribe such conditions or safeguards as he deems necessary and appropriate to comply with the provisions of this Code. Violations of such conditions or safeguards when made a condition of the granting of the variance shall be deemed a violation of this Code and shall be punishable as provided herein.
- C. Any party aggrieved by the decision of the Director or duly authorized agent regarding a variance may appeal said decisions to the Cecil County Circuit Court.

1.07 PENALTY

- A. Any person, firm or corporation intentionally violating any provisions of this Code shall be guilty of a misdemeanor and upon conviction thereof shall be liable to a fine not exceeding \$500 or imprisonment for a period not exceeding thirty (30) days in the Cecil County jail or to both fine and imprisonment for each offense; and it shall be the duty of the State's Attorney of the County to prosecute all persons accused of violating the provisions of this Code. Each day such violation shall be permitted to exist shall constitute a separate offence. The Director shall note all violation of, or failure to abide by, the terms of this Code by Service of a Stop Work Order on any person, firm or corporation in violation.
- B. In addition to other remedies, the Commissioners may institute injunction, mandamus, abatement or other appropriate action or proceedings to compel compliance with the provisions of this Code.

1.08 STOP WORK ORDER

Upon notice of the Director of Public Works or his designee that the work on any premises is being performed contrary to the provisions of this chapter or in an unsafe and dangerous manner, all work authorized or permitted by the Department shall be immediately stopped. The stop work order may be orally issued, but in all such cases must thereafter be confirmed in writing either by letter or posting the property. The Director or his designee shall endeavor to notify the owner of the property involved, or owner's agent or to the person doing the work; and shall state the conditions under which work will be permitted to resume.

1.09 CONFLICT OF LAW

If provisions of this Code conflict with any other ordinance, code, regulation or rule, promulgated by the County or another governmental body having jurisdiction on the subject matter of this Code, the more restrictive or higher standards shall prevail.

1.10 ALTERNATE STANDARDS

Upon findings by the Director that the Standards and Specifications contained in this Code are not feasible or practical for a particular project, he may require such alternate or additional Standards and Specifications in accordance with good engineering principles as may be deemed necessary.

1.11 INTERPRETATIONS AND CLARIFICATION

- A. The Director or duly authorized agent shall make all necessary interpretations as to the meaning and intent of the standards contained in this Code and the Approved Plans, and shall give all advice and assistance as contemplated therein or thereby, or in every case in which a difficult or unforeseen condition arises during the prosecution of the work. Should there be any discrepancies in or between, or should any misunderstanding arise as to the import of anything contained in the standards and the Approved Plans, the interpretation of the Director or duly authorized agent shall be final and binding. Any errors or omissions in the standards contained in this Code or on the Approved Plans may be corrected by the Director or duly authorized agent when such corrections are necessary for the proper fulfillment of their intent. The Director or duly authorized agent may, where appropriate, refer questions to the Designer of record.
- B. The Director or duly authorized agent shall in all cases determine the amount, quality and acceptability of the work and shall decide all questions in relation to said work. His decision and estimate shall be final and conclusive.
- C. Interpretations will be rendered by the Director or duly authorized agent as promptly as possible but should delay occur for any reason, the Contractor shall have thereby no claim for damages.

1.12 AMENDMENTS

Any amendments to the provisions of this Code, except for the variances or alternate standards for a specific project as discussed in Sections 1.06 and 1.10, respectively, must be approved by the Commissioners by means of adopting a resolution. Prior to making a decision, the County Commissioners shall hold a public hearing regarding the proposed amendment. The date and place of all public hearings shall be advertised for two (2) consecutive weeks, at least fifteen (15) days prior to the hearing in at least one (1) newspaper of general circulation.

1.13 AVAILABILITY OF CODE

- A. A copy of this Code and the publications referred to in this Code will be kept at all times at the office of the Commissioners, and at the office of the Director.
- B. Copies of this Code can be purchased at a price established by the Director. Copies of this Code may also be made available on the County's internet website at the discretion of the Director.

- C. Copies of the Publications referred to in this Code shall be purchased from the agencies who are responsible for selling them.

1.14 SEVERABILITY

- A. If any portion of this Code is held invalid or unconstitutional by a court of competent jurisdiction, such portion shall not affect the validity of the remaining portions of this Code. It is the intent of the Board of County Commissioners of Cecil County that this Code shall stand, even if a section, subsection, sentence, clause, phrase, or portion may be found invalid.
- B. If provisions of this Code conflict with any other ordinance, code, regulation or rule promulgated by the County or another governmental body having jurisdiction on the subject matter of this Code, the more restrictive or higher standards shall prevail.

1.15 EFFECTIVE DATE

This Code shall become effective 90 days after its adoption by the Commissioners. Administratively complete plans submitted in that 90 day time frame will be governed by the Cecil County Road Code dated April 25, 2002 (as amended), provided such plans are approved within 270 days of adoption of this Code.

PART 2 RIGHT-OF-WAY

2.01 STANDARD REQUIREMENTS

The right-of-way required for a road depends on its class and type, and shall meet the minimum requirements specified in Table 2.01.01 below and as depicted in the standard cross-section Standard Details R-1 through R-12 and R-35 (table). All right-of-ways shall be dedicated to the Cecil County Board of Commissioners in fee simple.

**Table 2.01.01
Minimum Right-of-Way Requirements**

Road Use and Type/Road Class	Minimum Right-of Way Width (Feet)				
	Residential		Commercial	Industrial	Dual Lane/Divided (All Uses)
	Detached Lots	Townhouses			
Mini	36 ⁽¹⁾	N/A	N/A	N/A	N/A
Minor	50 ⁽²⁾	34 ⁽⁵⁾ /30 ⁽⁵⁾	60 ⁽²⁾	N/A	N/A
Minor Collector	60 ⁽²⁾	38 ⁽⁵⁾	60 ⁽²⁾	60 ⁽²⁾	76 ⁽²⁾
Major Collector	60 ^{(3),(4)}	⁽⁴⁾ 60 ⁽³⁾	60 ^{(3), (4)}	60 ^{(3), (4)}	80 ^{(3), (4)}

- (1) Dedication of reservation of wider right-of-way may be required or permitted to accommodate future expansion if applicable.
- (2) Right-of-Way width can be reduced by 10-feet for curbed streets, upon approval by the Department, as shown on applicable detail sheets.
- (3) Direct access to subdivided lots prohibited.
- (4) For traffic volumes exceeding 5,000 ADT, right-of-way width to be increased as necessary to accommodate additional through lanes based on a design prepared by a Professional Engineer and approved by the Department. The design of such roads shall be done in accordance with all applicable AASHTO and SHA Standards in lieu of standards set for in this Code.
- (5) Permanent maintenance easements of appropriate widths, as depicted on Standard Details R-2, 3, 4 and R-5 shall be provided on both sides for construction and maintenance of road, utilities, sidewalks, parking, etc. by the Department, utility companies, Homeowner’s Association, etc. as applicable.

2.02 STANDARD REQUIREMENTS (CUL-DE-SAC ROADS)

- A. The maximum length of cul-de-sac roads shall be established by the Cecil County Subdivision Regulations, or as modified by the Planning Commission.
- B. For roads serving residential areas, the right-of-way width and configuration within the area of influence of cul-de- sac and intermediate turnaround shall meet the design standards shown on Standard Details R-13 through R-17.

- C. For roads serving non-residential areas, the right-of-way width and configuration shall be determined based on a design prepared by the consultant and approved by the Department. The design shall adequately accommodate turning movements of the type of vehicles anticipated to use the road.

2.03 TEMPORARY TURNAROUNDS

For dead-end roads that are intended to be extended in the future, there shall be a temporary turnaround area with reflective barricade in accordance with the detail shown on Standard Detail R-18. Dead-end roads shall only be permitted in accordance with the Cecil County Subdivision Regulations. The length of a deadend road shall not exceed the maximum length of cul-de-sac street as permitted by the Cecil County Subdivision Regulations except where the dead-end road is part of a phased road network consistent with the Subdivision Regulations.

2.04 STANDARD REQUIREMENTS (INTERSECTIONS)

The right-of-way width and configuration within the area of influence of road intersections shall be determined based on a design prepared by the Consultant and approved by the Department. The design shall adequately accommodate all necessary auxiliary lanes, turning movements of the type of vehicles anticipated to use the road, and to accommodate minimum radii as specified in Section 3.07(A), measured to the inner edge of the pavement of the intersecting roads.

2.05 ADDITIONAL DEDICATIONS ALONG EXISTING ROADS

Projects abutting existing roads having right(s)-of-way less than the standard requirements and specified in Sections 2.01 through 2.03 shall dedicate additional fee-simple rights-of-way for those roads as necessary to meet the standard requirements. If the project owner has control over land abutting only one side of a road, then dedication shall be based on the standard requirements for the half right-of-way width. Applicants shall bear all costs associated with obtaining rights-of-way or easements necessary to accommodate required off-site improvements.

2.06 MAINTENANCE

After acceptance of the right-of-way and roads constructed therein, the Department shall be responsible for its maintenance with the exception of private roads. The responsibility of the Department shall, however, be limited to maintenance of pavement, curbs, drainage systems in their entirety, utilities owned and operated by the County, road signs, other appurtenances related to operation of the roads and grass surfaces. Snow plowing will not commence until the road is deeded to, and accepted by, the County.

Maintenance of any facilities located outside of the right-of-way or county easement will not be the responsibility of the Department. When maintenance of these facilities becomes necessary and the party responsible for the maintenance upon notification by the Department does not complete the work necessary, the Department may complete the work and bill the cost to the party responsible for maintenance.

The utilities and facilities that are located within the right-of-way with the Department's permission, but are not owned and/or operated by the County, shall be maintained by the parties who own and operate them. Any damage occurring to other utilities and/or facilities resulting from such maintenance shall be promptly repaired by the responsible party to the satisfaction of the Department and/or other parties as applicable.

2.07 MINIMUM CRITERIA FOR NON-CURBED ROAD

Non-curbed roads shall only be permitted where the minimum lot frontage of the lots served by the road is 75 feet. This provision does not apply to lots on miniroads or cul-de-sacs, or pan handle lots.

2.08 STANDARD CROSS-SECTION DETAILS

The grading within the right-of-ways and construction of roads shall be completed in accordance with the applicable standard cross-section details, as depicted on Standard Details R-1 through R-17.

2.09 INTERSECTION SEPARATION

Intersection spacing between new roads constructed per this Code, or between a new road constructed per this Code and an existing road, shall be governed by the Cecil County Subdivision Regulations.

2.10 ACCESS POLICY

The following access requirements apply to new commercial or industrial uses which are subject to Site Plan review per the Cecil County Zoning Ordinance and which proposed access onto a County roadway. More specifically, the access requirements apply to the distance between commercial and industrial access points, or the distance between a commercial and industrial access point and a County Road intersection.

Intersection spacing should provide sufficient distance to allow for the proper development of all necessary turning lanes, bypass lanes, and, if signalized, proper signal coordination. At a minimum, the following separation distances shall apply:

On other than Major Collector Roads - 150 feet
On Major Collector Roads - 200 feet

Driveways serving residential lots shall be located as far from existing intersections as possible, but in no case shall driveways be less than 75' from an intersection.

In addition to the above requirements, all proposed access facilities shall also meet the minimum sight distance requirements as specified for intersections in the AASHTO Policy. Further, no access shall be allowed on an acceleration or deceleration lane.

Exception(s) to the above standards may be considered by the Department if strict adherence to these standards will result in a land-locked existing parcel. However, before approval of an exception, the possibility of combining access of adjacent parcels may need to be evaluated by the applicant to the satisfaction of the Department.

2.11 SIGHT DISTANCE EASEMENTS

Sight distance easements shall be established by all new projects over areas as necessary to provide a clear line of sight in accordance with the minimum requirements specified in the AASHTO Policy for stopping sight distance on and distance for crossing/turning maneuvers on intersections. At road intersections, the sight distance easement at minimum shall include in all quadrants a triangular area formed by the intersection of two curbs (or edge of pavement) lines and a line joining the respective points on each of these lines distanced 25 feet from the point of intersection of minor roads, 40 feet from the point of intersection of two collector roads, and 40 feet from the point of intersection of collector and minor roads. See Standard Detail R-34.

These requirements shall not be considered to reduce any of the AASHTO requirements as mentioned before.

The placement of shrubbery or plant materials or other visual barriers is prohibited in sight distance easements. Violations shall be removed by the party responsible for placement or the Department shall have full authority to remove them. The maintenance of the easement area such as grass cutting, etc. shall be the responsibility of the owner of the land on which the easement is located. Grading within sight distance easements shall allow for 18" growth of grass to allow for delinquent maintenance.

- 2.12 Permanent maintenance easements shall be established by all new projects, as necessary, to allow maintenance by the Department without any hindrance of the roads and facilities that are to be maintained by the Department and are located either outside the right-of-way or along the right-of-way line. All permanent maintenance easements for sanitary sewers, storm sewers, drainage ditches or water mains shall be a minimum of 20 feet in width and shall extend at least 10 feet on either side beyond the location of the facility to be maintained. Additional width may be required at the discretion of the Department. The general maintenance of the easement such as grass cutting, snow removal, etc. shall be the responsibility of the owner of the land on which the easement is located.

2.13 ADDITIONAL REQUIREMENTS FOR PRIVATE ROADS

- A. All private roads intended to serve newly subdivided lots in Cecil County are prohibited, except those approved, designed and constructed in accordance with the criteria and specifications for Private Mini Road.
- B. Road rights-of-way are to remain in a single ownership and deeded to the legally established Homeowner's Association at the time of approval by the County.
- C. In order to provide through traffic patterns with adjoining parcels of land, private roads, where required by the Planning Commission, must remain open at all times to the general public. All private roads must remain open at all times for service and emergency vehicles.
- D. Deed restrictions to be applied to each lot in the proposed subdivision, which must be submitted to and approved by the County Attorney, are to provide for perpetual maintenance of the roads and drainage system in the subdivision by the homeowners Said deed restrictions are to be recorded at the same time the final plat is recorded. The Developer must maintain the roads including snow removal until ownership of the roads have been transferred to the Homeowner's Association.

- E. A statement clearly outlining the responsibilities of homeowners in the maintenance of roads and storm drainage systems must be approved by the Planning Commission and placed on the final plat.
- F. Any private mini-road greater than 5% slope shall be paved with two (2) inches of Base-Fine Hot Mix Asphalt and one (1) inch of Surface-Fine Hot Mix Asphalt to the crest of the road. All portions of private mini-roads located within the County right-of-way shall be paved.
- G. No private road may be deeded to the County unless it is improved to meet the applicable Road Code Standards at the owner's sole cost. The transfer may occur only if the Commissioners approve the deed in public session.
- H. Proposed Private Roads must be denoted as such on subdivision plats.
- I. For future public roads, and Developer must maintain the roads including snow removal until ownership of the roads have been transferred to the County.

2.14 STRUCTURES WITHIN RIGHT-OF-WAY

- A. No structures are permitted in the right-of-way without prior approval of the Department. Mailboxes are allowed in the right-of-way provided they are mounted on a traditional post (4" x 4" timber, steel pipe < 1 1/2" o.d. or approved equal.) No bricked or other rigid structures are allowed.
- B. Traffic barriers, guardrails and other such structures shall be designed and constructed in accordance with the SHA Standards.

PART 3 GEOMETRICS

The geometric design of roads is to be done in accordance with the standards contained in the AASHTO Policy, and the standards contained in this Code as described below. Where conflicts exist, the standards of this Code are to take precedence for roads with traffic volumes less than 5,000 ADT. The design of roads with heavier traffic volumes shall be in strict accordance with AASHTO standards and SHA design standards as applicable. The definition of the terms and explanation of abbreviations used in this Code, but not described, shall be understood as defined and explained in the above referenced Publications.

3.01 DESIGN SPEED

The Design speed used in determining the required “Sight Distance” shall be calculated by adding five (5) miles per hour (mph) to the speed limits posted or to be posted on the road. The design speed used in determining the required minimum centerline road radius shall be the speed limits posted or to be posted on the road. The posted speed limits on new roads constructed per the requirements of this code depends on the road class, and shall be 15 mph, 25 mph, 30mph, and 40 mph for mini road, minor road, minor collector road , and major collector road respectability.

3.02 MINIMUM AND MAXIMUM GRADES

Minimum limit on the longitudinal grade is necessary to ensure proper drainage of surface runoff and is to be 0.5% for all roads. The limit on maximum longitudinal grade is established considering operating characteristics of the vehicles anticipated to use the road. Those limits are 10% for mini and minor roads; 8% for minor collector roads; and 7% for major collector roads and all commercial and industrial roads.

Usually roads should be designed with grades much flatter than the maximum limits specified to ensure comfortable driving experience by most drivers.

On an individual basis, the Department may also consider modification of the limits on the maximum grades depending on the engineering judgment with respect to the severity of the topography.

3.03 STOPPING DISTANCE

Stopping Sight Distance shall be measured using a height of eye of three and one half feet (3.5’) and a height of object of two (2) feet.

Considering the local and low speed nature of the roads intended to be covered by the design criteria of this Code, the sight distance consideration should include only the stopping site distance, except for intersections for which requirements are covered in Section 3.07.14. The minimum requirements for the sight distance shall be based on the design speed as specified in Section 3.01 and shall be determined from the design values given for the “Stopping Sight Distance, Wet Pavement Conditions” in the AASHTO Policy. The design values are usually given as a range based on the design speed values. The lower limit of the range shall be the minimum sight distance required, but designers shall try to provide sight distances corresponding to the upper limit of the range or better whenever possible. As of the 2001 Edition, the minimum requirements are as follows:

STOPPING SIGHT DISTANCE UNDIVIDED ROADS	
Design Speed	Stopping Design Distance
25	155'
30	200'
35	250'
40	305'
45	360'
50	425'

3.04 HORIZONTAL CURVATURE

- 1) Design Speed Minimum Radii: When selecting the alignment for a given roadway classification, the design speed and minimum radii of horizontal curves shall be limited as shown on Plate R-35 of the manual. This manual establishes the minimum design requirements and the designer is encouraged to use professional skill, experience and judgment to develop the most feasible and practical design for the planned roadway.
- 2) Curve Data: Horizontal curve data shall be computed in the arc definition of circular curve.
- 3) Minimum Curve Length: The minimum length of a horizontal curve shall be one hundred feet (100').
- 4) Reverse Curves: A tangent length of one hundred feet (100') minimum shall be used between reverse curves; minor roads and minor townhouse roads are excluded.
- 5) Compound Curves: Compound curves may be used when horizontal curves are super elevated and the compound curves are used to transition into and out of the super elevation section. The radius of the flatter curve shall not be more than one and one-half (1.5) times greater than the radius of the sharper curve.
- 6) Curve Widening: Horizontal curves with radii of five hundred feet (500') or less need to be widened on the inside edge of minor and townhouse minor roads when the pavement width is less than thirty six feet (36') and the lot size is less than 30,000 square feet.

The adjacent property line shall be cut back to maintain the standard edge of pavement to property line width.

Widening shall be accomplished at the midpoint on the curve and shall conform with the method shown on Plate R-36

3.05 VERTICAL CURVES

Parabolic, vertical curves meeting the following minimum criteria shall be used as a fillet between the two intersecting tangent grades.

A. Rate of Vertical Curvature (k)

The minimum values of “k” necessary for an acceptable vertical curvature shall be determined from tables given in the AASHTO policy for the design controls or crest or Sag vertical curves based on the stopping sight distance requirements and headlight sight distance requirements, as appropriate. From these tables, rounded values of k, not the computed values, shall be extracted. The lower limit of the applicable range of rounded values shall be considered as the minimum required value, but designers shall try to accommodate the largest value practically feasible. The minimum stopping sight distance requirements and design speed limits necessary for using the above referenced tables shall be determined as discussed in Sections 3.01 and 3.03. For identifying the type of a curve as Crest or Sag, the figure given in the AASHTO Policy for types of vertical curves can be used.

B. Length of Vertical Curves

The minimum length of curve for an acceptable vertical curvature shall be calculated using the following formula:

$$L = kA$$

where k = Minimum required rate of vertical curvature as discussed in the preceding section.

A = Algebraic difference of the two intersecting tangent grades in percent

L = Minimum length in feet of the vertical curve

The minimum length of the curve calculated above shall be rounded to the next multiple of 25 feet. Alternatively, the length of curves can be determined from the figures given in the AASHTO Policy, using values of A and k.

C. Other Requirements

Reverse Curves: Reverse vertical curves without a tangent between them shall not be used unless no other feasible design alternative exists. This provision does not apply for minor roads or private mini-roads. Curves Separation: All vertical curves shall be separated by a tangent grade of at

least 100 feet unless no other feasible design alternative exists. This provision does not apply for minor roads or mini- roads.

3.06 COMBINATION OF HORIZONTAL AND VERTICAL ALIGNMENT

- A. Horizontal and vertical alignments should not be designed independently. Proper combination of horizontal alignment and vertical profile will increase usefulness and safety, encourage uniform speed, and improve appearance. Consultants should refer to the discussions on the subject matter included in the Chapter; “Elements of Design” included in the AASHTO policy. Horizontal and vertical curves shall not overlap unless approved by the Department.
- B. Horizontal and Vertical Curves shall not overlap without approval of the Department.

3.07 INTERSECTIONS

All intersections including entrance/exit facilities for proposed developments, except for driveways for residential lots, shall be designed to meet the following minimum criteria as applicable:

- 1) Intersection Radii: Radii of the fillet curve between the intersecting edge of pavement lines shall not be less than the minimum values specified below:

INTERSECTION TYPE	FILLET RADII (FEET)
Mini Road/Minor Road	25
Minor Road/Minor Road	25
Minor Road/ Minor Collector Road	35
Minor Road/ Major Collector Road	40
Minor Collector Road/ Minor Collector Road	35
Minor Collector Road/ Major Collector Road	40
Major Collector/Major Collector	40
Commercial or Industrial Roads	50
All Others	25

- 2) Additional Paving/Lane Width: Additional lane and paving width may be necessary at intersections to accommodate turning maneuvers of heavy vehicles such as buses, trucks, etc., without interfering with each other. It is therefore required that all intersections involving either major roads and/or commercial or industrial roads shall be checked for the need of additional lane and paving widths. The procedure for determining these additional requirements will be as follows:

- a) Determine track width (u) and width of front overhang (F_A) based on the type of turning vehicle from the applicable figures given in the AASHTO Policy. The type of vehicle considered should be “BUS” for roads serving primarily residential areas, and a WB40 Semi-Trailer Combination for roads serving commercial or industrial areas.

The turning radius of outer front wheels (R_T) for use in the above figures must not be less than the minimum turning radii of 42 feet and 40 feet for BUS and WB40 Trailer, as given in AASHTO Policy for the minimum turning paths of these vehicles. For preliminary analyses, $R_T=60$ can be used, but it may have to be revised in final design as necessary to meet the minimum pavement width requirements as well as the minimum radii at the pavement edge requirements. A revised value of R_T would obviously require re-determination of values of U and F_A for finalizing the design.

The value of F_A for BUS may fall outside the figure given in the AASHTO Policy for small turning radii. In such cases, $F_A=5.0$ feet can be used.

- b) Minimum width of the pavement required to accommodate the two turning vehicles moving side by side in opposite directions can then be calculated using the following formula as given in the AASHTO Policy:

$$W=2 (U+C) + F_A + F_B + Z$$

Where U and F_A have already been discussed and other parameters are as follows:

$$C = \text{Total lateral clearance per vehicle} \\ = 4.0 \text{ feet}$$

$$Z = \text{Extra width allowance due to difficulty of driving on curves} \\ = 2.0 \text{ feet}$$

$$F_B \\ = \text{Width of rear overhang} \\ = 0 \text{ (for buses and trucks)}$$

So above formula will reduce to:

$$W = 2 (U+4.0) + F_A + 0 + 2.0$$

$$= 2U + F_A + 10$$

The calculated value of W shall be the minimum pavement width required at intersection of roadways.

- 3) Grades: Grades of roadways within the area formed by intersecting rights-of-way shall not exceed 8% for entrance/exit facilities for commercial sites and 5% for county road intersections.
- 4) Intersection Angles: Intersection angles should be preferably 90° but shall not be less than 70°. Justification for angles other than 90° must be made to the satisfaction of the Department.
- 5) Roadway Crowns: The roadway crown of the major roads shall be maintained and the roadway crown of the minor road should be removed by uniformly eliminating them over such a distance from the intersection that will not change the relative slope between the profile of the edge of pavement and centerline to exceed 1 foot in a 150 feet slope.
- 6) Decelerations/ Right Turn Lanes: A deceleration or right turn lane serves as a speed change lane for vehicles leaving the through traffic stream to slow down to a comfortable speed for making a right turn either onto an intersecting highway or into a roadside establishment. Based on the right turn ADT, highway ADT in one direction, posted speed limits of highway, and the turning radius measured to the inside edge of the paving, the minimum length of the right turn lane required shall be determined from the Warrants for Right Turn Table 3.07.01 or Table 3.07.02, is applicable. The taper length included in these tables represents the length of the taper marking. The pavement width in the taper area shall be the same as the rest of the turn lane. When no right turn lane is warranted a minimum 50 feet long deceleration lane with a 50 feet long lane with taper marking shall be provided unless waived by the Department. Standard Detail R-19 provides details about the layout of a right turn lane. The shoulder area can be used for right turn lanes, but the minimum width of the lane shall not be less than 10 feet.
- 7) Acceleration Lane: An Acceleration lane serves as a speed change lane for vehicles entering a highway and for speeding up to a comfortable merge with the through traffic on the highway. An acceleration shall be warranted when turning volume is more than 100 vehicles per hour (VPH), and its minimum required length can be determined from the Warrants for Acceleration Lane, Table 3.07.03 and the layout details are shown on the Standard Detail R-19. Shoulder area can be used for acceleration lane but width of the lane shall not be less than 10 feet. For turning traffic volumes not exceeding 100 VPH, minimum length of 50' feet long acceleration lane with a 50 feet long lane with taper marking shall be provided as an acceleration lane unless waived by the Department.

- 8) Bypass Lanes: A bypass lane allows through traffic to bypass a left turning vehicle which is stopped on the travel lane. The required length of bypass lanes shall be determined from Table 3.07.04, and the layout details are shown on Standard Detail R-19. Shoulder area can be used for bypass lane, but width of the lane shall not be less than 10 feet.

Table 3.07.01
Warrants Right Turn Lane
Stop Condition
(R=50' or Less)

Highway ADT < 2,000 Vehicles

Right Turn ADT	Assume Speed Change on Through Lane	Highway Posted Speed							
		25 MPH		35 MPH		50 MPH		55 MPH	
		Taper	Decel	Taper	Decel	Taper	Decel	Taper	Decel
0-100	Full Reduction	-	-	-	-	-	-	-	-
100-200	Full Reduction	-	-	-	-	-	-	-	-
Over 200	25 MPH	-	-	-	-	50	200	-	-

Highway ADT 2,000 to 4,000 Vehicles

0-100	Full Reduction	-	-	-	-	-	-	-	-
100-200	25MPH	-	-			50	200	-	-
200-300	20 MPH	Engineer Judgment				90	235	-	-
300-400	15 MPH					140	275	-	-
Over 400	10 MPH			50	200	190	315	-	-

Highway ADT 4,000 to 10,000 Vehicles

0-50	Full Reduction	-	-	-	-	-	-	-	-
50-100	20PH	-	-			90	235	-	-
100-200	15PH	Engineer Judgment				140	275	-	-
200-400	10 MPH					50	200	190	315
Over 400	5MPH			90	235	210	375	-	-

**Table 3.07.02
Warrants Right Turn Lane
15 MPH
(R=50' or Greater)**

Highway ADT < 2,000 Vehicles

Right Turn ADT	Assume Speed Change on Through Lane	Highway Posted Speed							
		25 MPH		35 MPH		50 MPH		55 MPH	
		Taper	Decel	Taper	Decel	Taper	Decel	Taper	Decel
0-100	Full Reduction	-	-	-	-	-	-	-	-
100-200	Full Reduction	-	-	-	-	-	-	-	-
Over 200	25 MPH	-	-	-	-	50	150	-	-

Highway ADT 2,000 to 4,000 Vehicles

0-100	Full Reduction	-	-	-	-	-	-	-	-
100-200	25MPH	-	-			50	150	-	-
200-300	20 MPH	Engineer Judgment				90	200	-	-
300-400	15 MPH					140	250	-	-
Over 400	10 MPH					50	150	190	300

Highway ADT 4,000 to 10, 000 Vehicles

0-50	Full Reduction	-	-	-	-	-	-	-	-		
50-100	20PH	-	-			90	200	-	-		
100-200	15PH	Engineer Judgment				140	250	-	-		
200-400	10 MPH					50	150	190	300	-	-
Over 400	5MPH					90	200	210	350	-	-

**Table 3.07.03
Length of Acceleration Lanes**

Highway	L3= Acceleration Length – Feet			
	For Entrance Curve Design Speed, MPH			
Design Speed, MPH	Stop Condition	15	20	25
30	190			
35	285	240	190	170
40	380	320	250	220
45	570	510	440	400
50	760	700	630	580
55	965	910	850	790

**Table 3.07.04
Required Length of Bypass Lanes
for Two Lane Highways**

Highway ADT < 2,000 Vehicles

Left Turn ADT	Storage Length (Ft.)	Taper Length (Ft.)			Assumed Speed Change on Through Lane
		Highway Posted Speed			
		25 MPH	35 MPH	50 MPH	
0-50	-	-	-	-	-
50-200	-	-	-	-	-
Over 200	40	50	50	75	25

Highway ADT 2,000 to 4,000 Vehicles

0-100	-	-	-	-	-
100-200	40	50	50	75	25
200-300	60	50	50	100	20
300-400	80	50	50	125	15
Over 400	Consider Separate Left Turn				

Highway ADT Over 4,000 Vehicles

0-50	-	-	-	-	-
50-100	20	50	50	100	20
100-200	40	50	50	125	15
200-400	80	50	75	150	10
Over 400	Consider Separate Left Turn				

Storage Length = $\frac{ADT \times 2.0}{30} \times 20 \text{ ft.} \times 1.5$

- 9) Separate Left Turn Lanes: Bypass lanes are sufficient for accommodating small left turn volumes on relatively less busy highways. Based on the traffic volumes, it shall always be checked using the Table 3.07.01: Warrants for Left Turn Lanes, if a separate left turn lane needs to be provided. If one is required, it shall be designed based on the information provided on the Standard Detail R-20.
- 10) Signing: Traffic control signs such as “STOP”, “KEEP RIGHT”, “NO PARKING”, Speed Limits, etc., as necessary, must be included in the plans in accordance with the Manual of Uniform Traffic Control Devices (MUTCD), or SHA Standards.

- 11) **Pavement Markings:** A pavement marking plan may be required by the Department if a project meets warrants for right turn lanes, bypass lanes, or other situations as determined by the Department. When required, such a plan shall be in accordance with the requirements found in the most current edition of the MUTCD, or SHA Standards.
- 12) **Traffic Signals:** The need for installation of new traffic control signals and/or the modification of existing traffic control signals to accommodate traffic from the proposed developments will be determined by the Department in accordance with the warrants prescribed by the most current edition of MUTCD. All costs, basic or incidental, to the construction and initial operation of the signal will be borne by the Developer.
- 13) **Alignment:** Roads on both sides of the intersecting roads shall be across from each other to form a fully aligned intersection.
- 14) **Intersection Sight Distance:** Adequate sight distance shall be made available for all turning maneuvers. Intersection sight distance shall be measured using a height of eye of three and one half feet (3.5') and a height of object of four and one quarter feet (4.25'). The distance shall be measured from a point (14.4') from the edge of the travel lane or the flow line of the main street. The following chart is predicated upon flat grades and right angle intersections. Intersections displaying special characteristics (i.e. grades greater than three percent (3%), skew greater than seventy five degrees (75°), super-elevations on the priority roadway, etc.) shall refer to the most recent edition of AASHTO for design guidance.

INTERSECTION SIGHT DISTANCE UNDIVIDED HIGHWAYS	
Design Speed	Stopping Design Distance
25	280'
30	335'
35	390'
40	445'
45	500'
50	555'

- 15) Existing roadways shall be reconstructed for a minimum of 100 feet on either side of the point of intersection (total distance of 200 feet). Roadways are to be built to current standards for the appropriate road classification. If the road is built to current standards, no road improvements are required.

- 16) In addition to the Maintenance of Traffic plan required in Part 8 of this code, a sequence of construction shall also be provided.

3.08 RESIDENTIAL ACCESS

- a. The design of residential driveways shall be in accordance with the detail shown on Standard Details R-21 and 22. The minimum sight distance requirements, as specified in Section 3.07(14), shall be applicable to residential driveways to the maximum extent possible.
- b. Driveways shall be located as far away from intersection as possible, but in no case shall driveways be less than 75' from the edge of the driveway to flowline or edge of pavement of the intersection.
- c. All driveways must be paved to the limits specified on the Standard Details R-21 and 22, and proposed paving should be flush with the edge of existing roadway as specified on Standard Detail R-21 and R-22.
- d. Driveways that slope to a County road at a slope of greater than 5% must be paved to the crest.
- e. Driveway entrances shall not be permitted within five (5') feet of the closest edge of any inlet.
- f. Panhandle driveways in excess of one hundred feet (100') in length shall not be permitted to access open section County roads at the top of a "T" intersection. A minimum offset of fifty feet (50') from the P.I. of the "T" to the P.I. of the panhandle driveway shall be provided.
- g. Maintenance of sight distance outside the County right of way or prescriptive easement shall be the responsibility of the lot owners.

PART 4 PAVEMENTS, CURBS, SIDE PATH

4.01 ROADWAY PAVEMENT DESIGN

- A. Design of a pavement is highly dependent upon the quality of the foundation or subgrade soils. The designer shall either assume that the subgrade soils are of poor quality or perform a detailed soil investigation as discussed in the following section to verify if subgrade soils are of good quality. The pavements can then be designed to meet the minimum

structural number requirements as specified in Table 4.01.01. The design can be based on the criteria for good subgrade soils only upon approval of the Department.

B. Soil/Foundation Investigations

For a pavement design based on the subgrade soils of good quality, the designer shall propose a soil investigations program including boring locations, sampling procedures, and method of testing. The program will be prepared by a Professional Engineer, licensed in Maryland, specializing in geotechnical work. Upon approval of the program by the Department, soil investigations shall be performed onsite by the engineer or qualified soils technician to obtain information necessary to classify the soils in accordance with the “Guide to Classification for Soils and Soils-Aggregate Mixtures”, included in the SHA Standards. Based on the soil classification, quality of the subgrade soils can then be determined in accordance with the SHA Standards for Soils and Soil Aggregate Mixtures, characteristic and performance. The soil types thus determined as excellent or good can be considered as good soils and all other soils shall be considered poor soils for the purposes of designing a pavement. The results of the soil investigation program including qualifications of participating personnel, all bore logs, particle analysis, and other test results, along with classification of soils and determination about quality of subgrades shall be submitted to the Department for review and approval. Upon approval by the Department, design of the pavement can be based on good quality of the subgrade. The investigation and design must take place and be complete before construction begins.

C. Structural Number Requirements

All roadway pavements shall be designed to meet the following minimum requirements for the structural number (SN):

**Table 4.01.01
Required Structural Number**

Road Type	Minimum SN	
	Good Soils	Poor Soils
	2.10	2.90
1. Townhouse Parking		
2. Minor Roads		
a. Residential	2.40	3.20
b. Commercial/Industrial	N/A	N/A

3. Minor Collector Road		
a. Residential	3.35	4.15
b. Commercial/Industrial	6.10	6.90
4. Major Collector Roads		
a. Residential	4.70	5.50
b. Commercial/Industrial	6.90	7.70

The structural number of a proposed section shall be calculated using the following equation:

$$SN = A_1D_1 + A_2D_2 + A_3D_3$$

Where A_1 , A_2 , A_3 = layer coefficients, representative of surface course, base course, and subbase respectively.

D_1 , D_2 , D_3 = actual thickness, in inches, of surface course, base course, and subbase respectively.

The layer coefficient to be used in the above equation shall have values given in the following table, and the proposed thickness of a lift in each layer shall be within the respective range given in the table:

**Table 4.01.02
Layer Coefficients and Thickness of Lift**

Layer Type	Layer Coefficient	Lift Thickness (Inches)
1. Surface Course, HMA	0.40	1.0 to 2.0
2. Base Course, HMA	0.40	1.5 to 6.0
3. Subbase	0.14	4.0 to 8.0
a. Graded Aggregate (GA)		

ⁱHMA = Hot Mix Asphalt

Notwithstanding the above calculations, the minimum and maximum lift thickness shall be consistent with the State Highway Administration's Pavement Design Guide" for the HMA mixtures in Standard R-23.

D. Minimum Pavement Sections Standards

The pavement sections based on the design described in Standard Detail R-23 can be proposed without providing any backup design information to the Department. These designs are based on structural number

requirements for subgrade soils of poor quality. The paving for all mini roads shall be constructed in accordance with the detail shown on Standard Detail R-1.

- E. **Materials, Construction and Testing**
Materials, construction and testing for embankments, subgrade, aggregate base courses and hot mix asphalt shall meet the applicable SHA Specification unless otherwise noted by this Code. Compaction for HMA shall be in accordance with Part 9 of this Code.
- F. **Under Drains**
Structural strength and life of a pavement structure is highly dependent on proper drainage of the pavement structure and the subgrade soils. Underdrains will therefore be required at the Department's discretion. Underdrains shall be constructed at a minimum slope of 1% and shall be a minimum of 6" diameter perforated PVC Schedule 80 pipe encased in at least 6 inches of #57 stone all around.
- G. **Structures Located Within Paved Section**
Asphalt shall be placed one-quarter inch higher than the top of structures such as manholes, inlets, valve boxes, etc., located within paved sections.

4.02 CURBS

- A. All curbs shall be of standard or modified type, as shown on Standard Detail R-26 and the type of the curbs proposed shall be in accordance with the street cross-sectional details, as shown in Standard Details R-1 through R-17. Expansion joints shall be constructed every 40 feet and at points of curves and tangents. Expansion joints shall also be constructed for the full depth ten (10) feet on either side of stationary structures, such as inlets, at the end of a taper and 25 feet beyond the end of the taper. Expansion joints are not required when adjacent to flexible pavement.
- B. Joints shall be sawcut and placed every 10 feet, except where shorter spacing is necessary for closures. No joint spacing shall be less than 4 feet.

4.03 SHOULDERS

All shoulders shall be stabilized shoulders, consisting of compacted gravel or crusher run covered with topsoil, stabilized by seed and mulch, as shown in the Standard Details R-1 through R-17.

4.04 SIDEWALKS

All sidewalks for pedestrians shall be constructed as shown in Standard Detail R-24. Where sidewalk, intersect driveways, Standard Detail R-22 shall apply. Maintenance of the sidewalks shall be the responsibility of the Homeowner or property Owner/ and or Home Owner's Association on whose property the sidewalk fronts.

4.05 BIKE PATHS/COMBINED SIDE PATHS

All bike paths or side paths for combined use by pedestrians and bike riders shall be 6 feet wide and shall be constructed to meet the requirements established for sidewalks in Section 4.04. Said width may be modified by the Planning Commission. The 4" thick concrete layer can, however, be replaced with 2" Hot Mix Asphalt Base-Course (BC) and 6" of gravel or crushed stone on compacted subgrade if desired. Such paths may be constructed inside or outside of the right-of-way. When constructed outside the right-of-way, said paths shall be maintained by a Homeowners' Association or other entity acceptable to the Department.

4.06 HOLD ON FINAL COURSE

The Developer will be required to pave all subdivision roads by placing the curb, gutter and base course blacktop as soon as is practicable, then using the base course paving during the construction of buildings. Should it become impractical to construct the base coarse blacktop, the Developer shall be permitted to use the stone subbase during the construction of the buildings. This use shall be conditional on the submittal of a geotechnical report prior to the placing of the base course blacktop, stating that the stone subbase meets or exceeds the County's Compaction Standards. Any portion of the subbase not meeting County Compaction Standards shall be removed and replaced at the Developer's expense. The surface (final) course will only be placed when all other road construction is completed and a minimum of eighty percent of the houses have been issued certificates of occupancy. An inspection will be made by the Department to determine if any repairs are needed to the base course prior to the final course being placed. For private mini-roads, certificates of occupancy shall not be approved by the Department until the base coarse and black top (if applicable) have been completed to the satisfaction of the Department.

4.07 DRIVEWAY PAVING

Except where sidewalks are used, all driveways to individual lots must be paved within the limits of the County road right-of-way. The minimum paving section is eight inches (8") of crusher run or gravel base and two inches (2") of surface course bituminous concrete. Proposed paving shall be flush with the existing edge of the roadway per Standard Detail R-21 and Appendix B. When sidewalks are used, Standard Detail R-22 shall be used.

PART 5 DRAINAGE AND EROSION & SEDIMENT CONTROL

An adequate drainage system shall be provided to collect all runoff from the contributory drainage areas, and transport it to an existing watercourse or pipe system of adequate capacity to accommodate the peak rate of Stormwater flow for the design storm of the drainage areas. The drainage system may be of closed type (a storm sewer system) or of open type (open channels, or a combination of the two) as appropriate.

5.01 DESIGN STANDARDS

All drainage systems shall be designed to handle peak flows from the design storm as defined in the SHA Highway Drainage Manual.

5.02 PEAK FLOW CALCULATIONS

Peak rate of flows for a designated design storm shall be calculated either using Rational Method as described in the SHA Drainage Design Manual (SHA Manual), or using TR-55 (Technical Release 55) Method, as described in the related publication of the Soil Conservation Service. The calculations shall make use of only those charts and nomographs which are included in the respective publications.

5.03 CAPACITY DESIGN METHODS

- A. The capacity design of open channels and pipes shall be completed using Manning's Equation, as described in the SHA Drainage Design Manual.
- B. Capacity design of all culverts shall be completed considering both inlet and outlet controls in accordance with the methods included in the SHA Drainage Design Manual. The design storm shall be the twenty-five (25) year storm for minor and major collector roads and the ten (10) year storm

for minor roads. Depending on flooding concerns the Department may require a capacity analysis based on the fifty (50) or 100 year storm.

- C. Except as noted below, the capacity design of catch basins shall be in accordance with the SHA Highway Drainage Manual and otherwise completed in accordance with the methods included in the SHA Drainage Design Manual. Inlets must be designed on a two year frequency storm. The spread of water shall be permitted as follows:

- 1) Minor Road:
 - a. For a 24 feet closed section road, the maximum six (6') feet spread on each side of the road, leaving a minimum twelve feet (12') dry travel way.
 - b. For a 28 feet closed section townhouse road, the maximum eight (8') feet spread on each side of the road, leaving a minimum twelve feet (12') of dry travel way.
 - c. For a 30 feet closed section road, the maximum eight (8') feet spread on each side of the road.
- 2) Minor Collector Road (Closed Section): Maximum six (6') feet spread on each side of the road, leaving a minimum of 20 feet dry travel way.
- 3) Major Collector Road: Maximum six (6') feet spread on each side of road, leaving a minimum 24 feet dry travel way.
- 4) Commercial or Industrial Road, Minor Collector: Maximum six (6') feet spread on each side of road, leaving a minimum 20 feet dry travel way.
- 5) Commercial or Industrial Road, Major Collector: Maximum six (6') feet spread on each side of road, leaving a minimum 24 feet dry travel way.
- 6) Dual Lane Road, Minor Collector: Maximum four (4') feet spread on either side, leaving a minimum 8 feet dry travel way in each of the dual lanes.
- 7) Dual Lane Road, Major Collector: Maximum four (4') feet spread on either side, leaving a minimum 10 feet dry travel way in each of the dual lanes.
- 8) Up to 15% inlet bypass is allowed, provided it is captured at the sump inlet, at a (100% interception including bypass).

5.04 OTHER REQUIREMENTS

In addition to, or in lieu of, the requirements of the SHA Highway Drainage Manual, the proposed drainage system shall meet the following requirements:

1) OPEN CHANNELS

- a. The seasonal high water table elevation shall be at least two feet (2') below invert of the channel. A non-compliance with this condition may necessitate consideration of additional flows in the capacity design due to the groundwater contribution and/or the provision of an under drain system to avoid permanent soggy invert condition.
- b. Channels shall be triangular, trapezoidal or parabolic in shape. In each case, accessibility for maintenance shall be considered in the design. Roadside swales shall be in accordance with the street cross-sectional details given on Standard Details R-1 through R-17. Trapezoidal swales, as depicted in detail on Standard Detail R-27, shall be considered wherever possible in lieu of the triangular swales. These types of swales may also qualify the development for certain stormwater management credits.
- c. The minimum bottom width and maximum side slopes shall be in accordance with the cross-sectional details shown on the above mentioned standard sheets.
- d. Minimum design velocity shall be in accordance with the SHA Highway Drainage Manual, unless the open channel is designed as a water quality feature in accordance with Cecil County Stormwater Management Requirements.
- e. The maximum design velocity in a grassed channel or ditch shall not exceed the permissible values stated in the SHA Highway Design Manual Table SHA-61.1-405.0. Current edition.
- f. If designed with a paved bottom, the bottoms shall be reinforced portland cement concrete with a minimum 6" thickness. This applies to valley gutters.
- g. A backwater analysis may be required by the Department if apparent constrictions or high tailwater conditions exist downstream.

2) STORM SEWER SYSTEM

- a. Pipes shall either be reinforced concrete pipes (RCP) or aluminum pipes. Aluminized steel corrugated metal pipe is also acceptable, but must be free of damage to the coating to the satisfaction of the Inspector at the time of installation and backfill. High Density Polyethylene (HDPE) pipes are permitted within the road right of

way but shall not be installed under the County Road bed without special permission from the Department of Public Works.

- b. The Manning's "n" value shall be based on the data published by the pipe manufacturers.
- c. Rock outlet protection, designed per MD E&S Manual.
- d. A backwater analysis may be required by the Department if apparent constrictions or high tailwater conditions exist downstream.
- e. Maximum full flow velocity in the pipe shall be 15 feet per second.
- f. Minimum pipe diameter shall be 15 inches or an equivalent non-circular shape.
- g. Minimum pipe cover shall be per the manufacturer's specifications for the type of loading proposed and in no case shall the cover be less than one foot.
- h. Storm manholes or junction boxes shall be used for changes in the direction of flow when an inlet is not provided. The maximum deflection shall be 90 degrees.
- i. All pipe outlets shall be provided with either SHA Standard End Walls or Standard End Sections. The dimensions of the rock outlet protection aprons shall be chosen accordingly, but shall not be less than those required by the design per MD E&S Manual.
- j. All inlets and storm manholes shall be backfilled with #57 stone two feet around the structures to the top of subgrade elevation. The stone envelope shall be drained into the structure at the top of the bench by use of a 6" perforated PVC pipe extended 12" into the stone, capped and wrapped in filter cloth.
- k. All backfilled trenches shall be maintained in an acceptable condition by and at the expense of the Contractor for a period of twelve (12) months following the date of conditional acceptance of the work.
- l. If the Contractor fails to fill depressions in the backfilled trench within 24 hours after the receipt of notice from the County, the County may refill said depressions and the Contractor shall reimburse the County for all costs incurred. In case of emergency, the County may refill any dangerous depression or protect with

lights wherever necessary without giving previous notice to the Contractor; and the Contractor shall reimburse the County for all costs incurred.

3) CULVERTS

- a. Culverts shall either be reinforced concrete pipes (RCP) or aluminum pipes. Aluminized steel corrugated metal pipe is also acceptable, but must be free of damage to the coating to the satisfaction of the Inspector at the time of installation and backfill. Galvanized and bituminous-coated galvanized corrugated metal pipe and high density polyethylene (HDPE) pipe is prohibited. High density polyethylene, (HDPE) pipe shall not be installed under the County road bed without permission from the Department of Public Works.
- b. Head walls/wing walls or flared sections, as applicable shall be provided at both ends.
- c. Culverts shall be installed per manufacture's recommendations. Regardless of pipe material, all pipes shall be backfilled to the midpoint with # 57 stone.
- d. Adequate erosion protection treatment shall be provided at both ends.
- e. All new culverts inclusive of residential and commercial driveway culverts shall have a minimum cover of 1'-0" from top of pipe to top of paving.

4) Inlets

All precast inlets require knockouts installed at the factory during inlet construction.

5.05 STORM SEWER SYSTEM DETAILS

Storm drain inlets and other structural specifications shall conform to SHA Standards.

5.06 EROSION AND SEDIMENT CONTROL

- A. All erosion control plans shall be prepared in accordance with the requirements of the Soil Conservation District having jurisdiction, and in accordance with the standards included in the MD E&S Manual.
- B. The erosion and sediment control plans shall be submitted to the Soil Conservation District having jurisdiction for review and approval, and a copy of the plans bearing original approval stamps of SCS shall be furnished to the

Department prior to requesting final approval of the road construction plan.

5.07 SUBMISSION AND APPROVAL

All drainage plans and calculations completed in accordance with the requirements of this Code shall be submitted to the Department for review and approval along with the rest of the road construction plans, as required by this Code. All drainage components shall be considered an integral part of the road construction plans.

PART 6 UTILITY CONSTRUCTION

Utilities can be constructed in a public right of way or in an easement controlled by the Department only after receiving plan approval and the issuance of a Utility Permit by the Department of Public Works Roads Division. The preferred locations of the road paving shall be in accordance with Standard Details R-29, R30 and R-31. The permit request and construction plans shall be in accordance with Appendix A titled “Rules and Regulations for Utility Construction Permits.”

PART 7 SIGNS AND PAVEMENT MARKINGS

- A. Street name and other roadway signs and pavement markings shall be installed in accordance with the requirements of the most current edition of MUTCD, and in accordance with the SHA Standards at the expense of the Developer. Temporary street signs (including private blue street name signs, stop and speed limit signs) shall be required if buildings are proposed for occupancy prior to dedication of the internal roads. Permanent signs will not be installed until the County has taken ownership of the road. Roadway signs and pavement markings, including striping, shall be included as part of the construction drawings, and must be approved by the Cecil County Roads Division.
- B. Except as approved by the Department, roadside parking shall be prohibited on County Roads. A sign shall be posted at subdivision entrances by the Developer stating “No Parking on or along County Roads.”

PART 8 MAINTENANCE OF TRAFFIC

- A. A “maintenance of traffic” plan prepared in accordance with SHA Standards shall accompany all applications submitted to the Department for construction activities on existing roads. This plan will be considered an integral part of the permit, and no construction activities shall commence until this plan has been implemented for safety of the workers and drivers, to the satisfaction of the Department. Notices regarding road closures shall be placed in local newspapers and other media, as well as on the road to be closed at least 30 days prior to the date of starting the closure. All components of the traffic maintenance plan including signs shall be removed promptly after completion of the work.
- B. Approval of maintenance of traffic plan, and/or additional suggestions or requirements by an inspector, does not imply any liability on the part of the Department. The contractor is solely responsible for safety of its employees as well as the public-at-large.
- C. Where the maintenance of traffic plan includes a local road closure, the emergency management agency and the Board of Education of the county shall be notified at least 5 working days in advance of said closure.

PART 9 TECHNICAL SPECIFICATIONS

- A. All material, construction, and testing shall conform to applicable sections of the SHA Specifications, unless approved otherwise by the Department on an individual basis.
- B. With regard to compaction of Hot Mix Asphalt (HMA), compaction shall be required in accordance with Section 504.03.06 of the January 2001 version of the SHA Specifications. The Inspector may modify the in-place density requirement of 92.0 to 97.0 percent of the maximum density, if the Inspector determines that the Contractor has achieved maximum compaction and any further attempt at compaction will result in damage to the HMA.

PART 10 CONSTRUCTION PLANS

10.01 PLAN APPROVAL PROCESS

- A. Construction of private mini-roads or public roads and/or their appurtenances shall not commence until the Cecil County Department of Public Works has approved engineered plans for the work. Said approval shall be evidenced by the signature of the Director of the Department of Public Works or duly authorized agent upon the Construction Drawings, thereafter known as the Approved Construction Drawings or Approved Plans. The Standards contained in this Code shall govern except where specifically noted otherwise on the Approved Plans.
- B. Design and construction drawings and specifications shall be prepared by a Professional Engineer licensed in the State of Maryland and submitted to the Department for review. Unless directed otherwise, only one copy of the submittal is required. The Department's Plans Reviewers will review the submittal and respond with required revisions, questions, and recommendations. Upon resolution of all Departmental questions and requirements, the Designer will be instructed to submit take-off quantity estimates to enable the preparation of a Public Works Agreement(s) between the Developer and the Board of County Commissioners of Cecil County. Upon execution of the Public Works Agreement(s), payment of all required fees, and posting of required financial assurances, the Designer will be instructed to submit final copies of the Construction Drawings, bearing the signature and seal of the licensed Professional Engineer, for signature by the Director or duly authorized agent. Upon distribution, the signed drawings will be considered the Approved Construction Drawings.
- C. The preparation of the Construction Drawings and their submission to the Department for review and approval shall be in accordance with the applicable policies and procedures of the Department. The Department may require revision to the Approved Plans if required by field conditions.
- D. The Contractor shall keep a set of the Approved Plans bearing an approval stamp of the Department at the site during all construction phases, and shall make them available to the Inspector when asked by him. Failure to maintain an approved set of Approved Plans on site, provide and maintain adequate site controls/stakeout and/or provide adequate supervisory personnel may result in a stop work order being issued by the Department.

- E. As-built plans shall indicate red line confirmation of the horizontal and vertical alignment of all roads, the location and rim/invert elevations of all utility structures (inlets, manholes, storm drain pipes and vaults), sidewalks, and other pertinent features. Confirmation of width for all roads shall be noted every 100 linear feet, at the centers of all intersections, and all Points of Curvature.

10.02 DESIGNER'S RESPONSIBILITY FOR CORRECT SUBMITTAL

- A. The Department's Plans Reviewers' role is to verify the suitability of the proposed design to the satisfaction of the Department so that a positive recommendation for approval can be made to the Director. Review of submittals by the Department of Public Works does not constitute a "check" of the design; the accuracy of existing conditions and adequacy of design remain the responsibility of the Designer.
- B. If, in the course of review, the Plans Reviewer determines that substantial omissions, inconsistencies, inaccuracies, or non-compliance with the standards contained in this Code is evident in a submittal such that productive comments cannot be made, the submittal shall be returned as Administratively Incomplete. Because of the substantial delay that this may cause a project, Designers are strongly encouraged to ensure that their submittals are Administratively Complete.

10.03 FEES

- A. Fees for Plans Review and Inspection of proposed roads shall be established from time to time by resolution of the Board of County Commissioners of Cecil County. Said fees shall be intended to cover the cost of all plans review and inspection staff, together with administrative support, overhead costs, incidental costs, and supervision of the Director or duly authorized agent.
- B. A non-refundable Base Plans Review Fee shall be payable upon initial submittal of the proposed plans. This fee shall not be refunded if the project does not continue forward; however, it will be credited to the final Plans Review and Inspection Fee.
- C. Plans Review and Inspection Fees anticipate an initial review and one re-submittal. If additional re-submittals (does not include administrative requirements, such as Public Works Agreements or minor corrections) are required, an additional submittal review fee will be required.

10.04 INTERPRETATION OF APPROXIMATE QUANTITIES AND ESTIMATES

Developers and Contractors are cautioned any estimates of quantities on the approved construction plans or executed instruments with the County are for estimating purposes only and shall not relieve the Developer or Contractor from constructing the designed infrastructure in a complete and thorough manner, as detailed on the approved construction drawings and as directed by the Inspector.

10.05 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE

It shall be the Developer and Contractor's responsibility, jointly and separately, to make personal examination of the location of the approved work and the surroundings thereof; to thoroughly acquaint themselves with the details of the work to be performed and all the conditions and obstacles likely to be encountered in the performance and completion of the work; to inform themselves as to the facilities for the transportation, handling, and storage of equipment and materials; and to carefully study the plans, specifications, and binding agreements. Contractors are encouraged to test pit areas where certified as-built representations are unavailable and it shall be understood that the County makes no warranty or guarantees as to the location, nature, or limits of infrastructure or conditions for construction.

10.06 MODIFICATIONS TO APPROVED PLANS

The Developer and Contractor are required to affect the construction in strict conformance with the Approved Plans. Minor field adjustments may be made with the approval of the Inspector, although documentation of any such approval, including the name of the Inspector who granted the change, shall be the responsibility of the Developer and Contractor. Any substantial changes to alignment, elevation, or materials shall require the engineer of record to submit revised plans for review and approval by the Director or duly authorized agent.

PART 11 IMPROVEMENTS GUARANTEE

11.01 IMPROVEMENTS PRIOR TO APPROVAL

- A. All Construction Plans for the improvements which a permittee will be required to construct or enter into agreement to construct shall be prepared in full compliance with the requirements, standards and specifications as contained in the Cecil County Road Code. In the case of major subdivisions, these plans shall be approved by the Department prior to final plat review by the Planning Commission. For Construction Plans associated with Site

Plans required by the Cecil County Zoning Ordinance said plans shall be submitted along with the Site Plan submitted to the Department. In the case of minor subdivisions, the Construction Plans shall be submitted along with the minor subdivision plan submitted to the Department.

- B. All of the improvements required for a major subdivision shall be completed in accordance with the standards and specifications as contained in the Cecil County Road Code to the satisfaction of the Department prior to recordation. All improvements required for a Site Plan or minor subdivision shall be completed to the satisfaction of the Department prior to approval by the Department of the Site Plan or minor subdivisions.

11.02 IMPROVEMENTS AFTER APPROVAL

- A. If a Subdivider desires approval of a Final Plat for the recording thereof prior to the completion of, or acceptance by the County of the required improvements, a Public Works Agreement shall be executed by the Subdivider, as provided in the Cecil County Subdivision Regulations.
- B. In lieu of completing the improvements as required, the Subdivider may proceed under the following two options:

- a. **Option One: Post Bond or Letter of Credit**
[Amended 03/16/2010]

- 2) Deliver to the County a corporate bond or acceptable letter of credit in such amount as is estimated to be 120% of the total cost of the project. such corporate bond or acceptable letter of credit shall run to the County, and be conditioned as follows:
 - a. That the permittee, his agents and servants, will comply with all the applicable terms, conditions, provisions, requirements, standards, and specifications of this Code.
 - b. That the permittee, his agents and servants, will faithfully complete the work for which the permit is issued.
 - c. That the permittee, his agents and servants, will save harmless the County from any expense incurred through the failure of the permittee, his agents and servants, to complete the work as required by this Code, or from any damages growing out of the negligence of the permittee or his agents or servants.

- 3) Before acceptance, the bond or acceptable letter of credit shall be approved by the County Commissioners and the County Attorney. The bond or acceptable letter of credit shall be executed by a surety or guaranty company approved by the County and qualified to transact business in the State. All corporate bonds or acceptable letters of credit filed hereunder shall be released upon, but not before, acceptance of the completed roads and improvements by the County in accordance with Part 18.
- 4) In the case of multi-phased projects, a corporate bond or acceptable letter of credit may be posted for each phase of the project consistent with the Final Plat approvals being sought from the Planning Commission; however, the corporate bond or acceptable letter of credit and accompanying Public Works Agreement shall provide for the base-course pavement and surface course pavement, at the discretion of the Department, for each individual phase.
- 5) A corporate bond or acceptable financial surety may also be posted per the requirements of this part for improvements for a Site Plan or minor subdivision. Said corporate bond or acceptable financial surety shall be posted per the requirements of this part prior to the Department's approval of the Site Plan or minor subdivision.

b. Option Two: Execute and Record a Subdivision Agreement

- 1) **Deliver to the County a Subdivision Agreement executed by the Subdivider and record in the Clerk of the Circuit Court's Office and to be conditioned as follows:**
 - a. **That the permittee, his agents and servants, will comply with all the applicable terms, conditions, provisions, requirements, standards and specifications of this Code.**
 - b. **That the permittee, his agents and servants will faithfully complete the work for which the permit is issued.**
 - c. **That the permittee, his agent and servants, will save harmless the County from any expense incurred through the failure of the permittee, his agents and servants, to complete the work as required by this code, or from any damages growing out of the negligence of the permittee or his agents or servants.**

- 2) **Before acceptance, the Subdivision Agreement shall be approved by the County Attorney and the County Administrator.**
 - 3) **No building permits will be issued for the lots recorded on the plat until the Developer has posted the appropriate securities for the roads and storm drain. The amount of the security shall be for the remaining construction. [Amended 03/16/2010]**
- C. Before any road, sidewalk, curb and gutter, or drainage project may begin on a road or within the boundaries of a dedication to public use, the applicant for a permit to undertake any such project shall pay to the County a plans review, inspection, engineering and maintenance fee. The amount of said fee shall be determined from time to time by resolution of the Commissioners. In determining the fee, the Director will use either an estimated cost, the cost as specified in the Public Works Agreement. If the fee is based on estimated project cost, the Director shall determine estimated cost by reviewing Published data such as R.S. Means, and/or by using the average costs submitted on recent bids received by the County and State for comparable work. The method of fee determination shall be at the discretion of the Director.

PART 12 CONSTRUCTION PERMITS

- A. No person shall construct any road, sidewalks, curb and gutter or drainage structure, or begin any of such construction, without first obtaining a permit therefore. Applications for such permits shall be made to the Director on such forms as he shall prescribe, and shall be accomplished, in each case, by detailed plans and specifications and location and right-of-way plats bearing the tentative approval of the Planning Commission, and the Department of Public Works. Approval by the State Highway Administration shall also be required as to matters within its jurisdiction.
- B. No person, including any utility corporation or governmental agency, shall open cut any County road without first obtaining a permit from the Director, or his designee. All backfilling and repaving of such utility trenches shall be under the supervision of the Director according to Standard Detail R-31 and all applicable specifications.
- C. No person shall construct sidewalks, driveway entrances, retaining walls, or stops, or cut curbs or construct or place any temporary or

permanent structure within a County right-of-way without first obtaining a permit therefore from the Director.

- D. In the case of a subdivision, the signature of the Director of Public Works on the approved construction plans shall constitute a permit to perform all items appearing on these plans.
- E. The routine maintenance of utilities and other facilities not involving construction, reconstruction or open cuts of a roadway shall be exempt from the requirements of the above Part A.

PART 13 CONDITIONS OF PERMITS

Construction permits shall be issued upon the following conditions which shall be specified therein:

- A. Irrespective of the plans and specifications accompanying the application, the actual construction shall conform to law and to the minimum requirements for a road of its class.
- B. Such permit shall be transferable upon application to the Department of Public Works by the successor in title.
- C. Such permit shall automatically expire one year after its issuance unless extended in writing by the Director stating the reasons for the extension. No extension shall be granted unless the bond filed with the permit by its term continues in full force and effect or a new bond is filed or the consent of the surety of the extension is obtained.
- D. The permittee and his agents, servants and subcontractors shall comply with all written requirements of the Department of Public Works directed to the permittee, which are deemed necessary in the interest of public safety or for the avoidance of unnecessary inconvenience to the public during such grading or construction, either before or during the course of grading or construction.
- E. The construction work, materials, plans and specifications shall at all times be open to and available for inspection by duly authorized officials and employees of the County. Permittees shall give notice to the Department of Public Works at least forty-eight hours in advance prior to commencing any construction for which the permit is issued. Failure to provide notice may result in a Stop Work Order by the Department.

- F. No permit for paving shall be issued unless there has been a final inspection including approval of grading by the Inspector.
- G. The permittee shall have available at all times on each project a copy of the permit for inspection by the representative of the Department of Public Works. If such permit is lost or destroyed, the permittee shall cause such permit to be replaced within twenty-four hours, excluding Saturdays and Sundays. The Department of Public Works shall issue new permits upon request to replace any which are damaged, lost or destroyed.
- H. No permit shall be issued for construction unless the right-of-way has been acquired by the County or shown on an approved plat.
- I. Whenever, in the opinion of the Director, the conditions of any permit are being violated, the Director or duly authorized agent may issue a Stop Work Order under the provisions of this Code. The willful refusal of any permittee to stop construction after receiving notice of a Stop Work Order shall be deemed a violation per Part 1.08 of this Code.
- J. Whenever, in the opinion of the Director, or duly authorized agent the work is being performed improperly or the work performed is faulty, he may cause the permit to be revoked, or order that portion of the work performed to be corrected.

PART 14 CONSTRUCTION IN EASEMENTS AND RIGHTS-OF-WAY

- A. Perpetual easements or rights-of-way shall be secured by the Developer without cost to the County. The Developer shall also obtain permission from any property to be occupied during construction or temporary construction easements outside the limits of these perpetual easements or rights-of-way.
- B. The Developer shall be responsible for confirming all necessary easements or rights-of-way and his Contractor's respect for their limits.
- C. The Contractor shall so conduct his work in the easements and rights-of-way that there will be a minimum of disturbance of the properties crossed. Fences shall be disturbed as little as possible and if damaged or removed shall be replaced or restored at least equal to their original condition at the expense of the Contractor.
- D. Upon completion of the work, the Contractor shall, at his own expense, clean up within the easements and rights-of-way and shall restore them at least to their original condition. Any damage to

property outside the limits of the easements or rights-of-way shall be repaired or replaced by the Contractor at his own expense.

- E. No arrangements will be made for any means of access to the perpetual easements, rights-of-way or construction easements by the County; the Contractor shall therefore be required to make his own arrangements for access to the work within these points.
- F. Any damage alleged by an affected third party shall be considered a civil matter between the Developer, the Contractor, and the third party. The County shall bear no responsibility for the alleged damage, nor shall it be considered as adjudicator body therein.

PART 15 CONTROL OF WORK AND MATERIALS

15.01 RELATIONSHIP BETWEEN THE COUNTY, THE PROJECT OWNER, AND THE CONTRACTOR

The Contractor (and his subcontractors) shall be contracted directly with the Developer and shall have no relationship with the County. The County, in the course of inspection or directing corrections to work, shall not be liable to the Contractor for any payments or other liabilities. The County shall view the Contractor as the Developer's agent, unless directed in writing to do otherwise, and direction given to the Contractor shall therefore be considered as having been given to the Developer.

15.02 SUPERVISION AND DIRECTION OF WORK

- A. The contractor shall supervise and direct the work efficiently using his best skill and attention. He shall be solely responsible for the techniques and sequences of construction. The work shall be prosecuted by the Contractor in such a manner, and with sufficient materials, equipment and labor, as is considered necessary to insure completion on or before the time specified.
- B. The contractor shall keep a competent supervisory staff on the work site at all times during its progress, to the satisfaction of the Director. The superintendent and his designers shall be identified to the Inspectors at the beginning of the work and as those persons may change.
- C. The Director shall not be responsible for the acts or omissions of the Contractor, or any subcontractor, or any of his or their superintendents, or employees.

- D. The Contractor shall maintain a local telephone at which a competent representative can be reached at all times, 7 days a week, 24 hours a day. This authorized representative shall have the capability of responding with positive corrective action to emergency calls from local officials (Sheriff's Dept., State Police and Department of Public Works personnel).

15.03 COMPETENCE OF LABOR

Only competent labor shall be used. Any employee of the Contractor who shall use profane or abusive language to the Inspector or other employees of the County, or is otherwise disorderly and interferes with him in the performance of his duties, or who is careless and incompetent, shall be discharged on the request of the Director and shall not again be employed the work site except with the Director's consent.

15.04 NOTICES TO CONTRACTORS

All notices and instructions to the Contractor shall be given by the Director or his Designee.

15.05 DEFECTIVE WORK AND DEFECTIVE MATERIALS

- A. No inspection and no failure to inspect, nor the presence of any employees of the County during the execution of the work, and no approval or acceptance of any part of the work herein contracted for or of the materials and equipment used therein shall relieve the Contractor of any of his obligations to fulfill the requirements of the Approved Plans, or shall prevent the rejection of said work, materials and equipment, in whole or in part, at anytime thereafter, should said work, materials and equipment be subsequently found by the Director to be defective or not in accordance with the requirements of the contract documents.
- B. All materials not conforming to the requirements of the Approved Plans shall be considered as defective and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the site of the work, unless otherwise permitted by the Director. No rejected material, the defects of which having been subsequently corrected, shall be used until approval has been given.

15.06 ALTERATIONS OF PLANS OR OF CHARACTER OF WORK

- A. The Director reserves the right to change the alignment, elevation, grade, form, length, dimensions or materials of the work under the contract, whenever any conditions or obstructions are met that render such changes necessary.
- B. Any changes and/or alteration to the approved contract documents shall be submitted and approved by the Director prior to beginning work on that item. Minor alterations may be noted on the as-built drawings if approved by the Director.

15.07 UNAUTHORIZED MODIFICATION OF THE WORK

Work done without lines and grades being given, work done without field stakeout and cut sheets, work done without required supervision, work done without required inspection, or work done beyond the lines and grades shown on the plans shall be considered as unauthorized and/or unapproved. Work so done may be ordered by the County to be removed and replaced at the Developer's expense.

15.08 SOURCE OF SUPPLY AND QUALITY OF MATERIALS

- A. The source of supply of each of the material shall be approved before the delivery is started. Representative preliminary samples of the character and quantity prescribed shall be submitted by the Contractor or producer, said samples being taken under the observation of the Director, for examination, and tested in accordance with the methods referred to herein. Only materials conforming to the requirements of standards contained in this Code and approved by the Director shall be used in the work. No materials which, after approval, have in any way become unfit for use, shall be used.
- B. Unless a material has a satisfactory record of performance, the Director reserves the right to withhold approval of a new source of supply, even though it meets the specification requirements, until its qualities have been verified and proved in actual service.
- C. Tests of all materials specified will be made in accordance with the latest official approved methods. When A.S.T.M., A.A.S.H.T.O., A.S.A., A.W.W.A., or Federal Specification standard specifications and serial numbers are stipulated, the reference shall be construed to be the latest effective specification. If material previously certified is subsequently declared substandard or unfit for the intended use by the certifying agency, the Director may declare the unused materials unsatisfactorily or unfit for use.

- D. The Contractor shall furnish every facility for the verification of all scales, measures and other devices which he operates.

15.09 STORAGE OF MATERIALS

Materials shall be stored so as to insure the preservation of their quality and fitness of the work.

15.10 CLEANING UP

- A. The Contractor shall, at his own expense, keep the site of his operations clean during the construction and remove all rubbish as it accumulates.
- B. On or before the completion of the work, the Contractor shall tear down and remove all temporary structures built by him, shall remove rubbish of any kind from any grounds which he has occupied, and shall restore the site to a clean and neat condition.

15.11 WATER SUPPLY

The Contractor shall provide, at his expense, such quantities of clean water as may be required for any and all purposes under the standards contained in this Code. He shall take particular care to furnish his employees with potable drinking water.

15.12 SANITARY ARRANGEMENTS

Approved sanitary conveniences for the use of laborers and others employed on the work, properly secluded from public observation, shall be constructed and maintained by the Contractor, at his own expense, in such manner and at such points as are appropriate for the work.

15.13 CARE AND PROTECTION OF WORK

From the commencement of the work until its completion and acceptance by the County, the Contractor shall be solely responsible for the care of the work, and all injury or damage to the same, from whatever cause, shall be repaired or replaced at the Contractor's expense. The County reserves the right to direct the Contractor to repair or replace said items. He shall provide suitable means of protection for all materials intended to be used in the work in progress, as well as for completed work.

15.14 PRESERVATION AND RESTORATION OF PROPERTY, TREES, MONUMENTS, ETC.

The Contractor shall not enter upon private property for any purpose without obtaining permission, and shall be responsible for the preservation of all public and private property, trees, monuments, etc., along and adjacent to the work and shall use every precaution necessary to prevent damage or injury there to. He shall use adequate precautions to prevent damage to tracks or pipes, conduits and other underground structures, and shall protect carefully from disturbance or damage all land monuments and property markers until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed, and replacement of same shall be borne by the Contractor. The Contractor shall not willfully or maliciously injure or destroy trees or shrubs and he shall not remove or cut them without proper authority. He shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission or misconduct in his manner or method of executing said work or due to the non-execution thereof on the part of the Contractor; he shall restore, at his own expense, such property to a condition at least equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring, as may be directed, or he shall make good such damage or injury, in an acceptable manner. Mail service shall be maintained at all times.

15.15 INDEMNIFICATION OF THE COUNTY

The Contractor shall indemnify and save harmless (including, but not limited to, compensation of attorney fees) the County and its officers, agents, and employees from all suits, actions, or claims of any character, name and description brought for or on behalf of persons or property due to any neglect in safeguarding the work, the use of unacceptable or defective material in the construction of the work, or on account of any act or omission, neglect, or misconduct of the Contractor, its agents, employees, or subcontractors.

PART 16 SURVEY CONTROLS

- A. Any road constructed under the provisions of this Code shall require the Developer or Contractor to have a Maryland Registered Land Surveyor to establish the basic survey controls needed for the construction. These controls shall be maintained through all construction phases. All damaged or lost controls shall be restored promptly.

- B. Roads constructed under the provisions of this Ordinance shall be staked at 50-foot intervals on tangents and at 25-foot intervals on curves along with all points of curve, tangent and intersections.
- C. When survey stakes have been disturbed and/or removed during the construction of a road, the road shall be restaked in accordance with the above prior to final grading or final paving.

PART 17 CONSTRUCTION INSPECTIONS

- A. All construction activities shall be coordinated with the Department for inspection of materials, construction, and testings by the Inspector, in accordance with the Department's applicable policies and procedures. The degree to which Inspectors must be on-site for various activities of a given project will be determined by the Department on a project-specific basis.
- B. Construction of residential, commercial, or industrial roads may not be carried out without inspection from the Department. Inspection will normally be available, with the 48-hour advance notice required by the code, Monday through Friday between 7:30 a.m. and 4:00 p.m. A contractor may request inspection beyond these hours in accordance with the following:
 - 1) Contractor's request must be made in writing to the Supervisor of Construction Inspections at least five business days in advance. The written request must detail the additional times requested (including a one hour travel time for Saturdays or Holidays) and the activity to take place.
 - 2) The Contractor must agree to pay, in advance, if the overtime is approved by the Director, a fee reflective of the Inspector's salary, plus a fringe cost and an administrative fee (to be specified by the Director). Fee must be paid 3 working days prior to the overtime and shall be non-refundable.
 - 3) The Supervisor of Construction Inspections shall determine whether the work is being otherwise conducted in a manner that such overtime inspection is necessary.
 - 4) The Supervisor of Construction Inspections shall determine whether an Inspector is available for the time requested.

- 5) Upon recommendation from the Supervisor of Construction Inspections, the Director may approve the overtime, at his/her sole discretion, considering such factors as the nature of the work, the availability of the inspection staff, and other Departmental demands. The Director shall render his/her decision in writing.
 - 6) In the event of Emergency Overtime Inspection, the advance arrangements noted above will be waived. Instead, the inspection staff shall notify the Director of the need as soon as possible. Payment of inspection fees will also apply to Emergency Overtime Inspection.
- C. No materials shall be stored at the site or used in construction until the tickets for those materials have been reviewed and approved by the Inspector for verifying their suitability. The inspector shall also be provided ample opportunity to observe all construction and testing procedures as required by the plans, SHA specifications or any other applicable specifications, Department's policies and procedure, and as found necessary by him to verify their proper execution. The reports of all tests shall also be furnished to the inspector in a timely manner.
 - D. All compaction and testing shall be overseen by a professional engineer, licensed in Maryland, specializing in geotechnical work or a qualified soils technician. Reports shall be submitted to the Department on a weekly basis.
 - E. Prior to issuance of the construction permit, the Developer shall pay to the County the fees specified in Part 11 of this Code. The estimated cost of construction for this calculation shall be the same as that used in calculating the amount of the performance bond.
 - F. Testing technicians shall remain on site at all times during the work that they are monitoring.

PART 18 ACCEPTANCE BY COUNTY

- A. All permittees and their agents and servants shall comply with all applicable provisions of this Code, and until a road constructed under the provisions of this Code is accepted for maintenance by the County, the permittees, their agents and servants, and the bond given under this Code shall remain liable for the faithful performance of the provisions. After completion and upon receipt of a written request of the permittee a final inspection shall be made of the road within fifteen (15) days, and the County

Commissioners shall either accept such road upon a finding that the construction of same has complied with this Code, and release the bond; or they shall reject the road by written notification to the permittee and his surety, where a corporate bond has been posted, specifying the reasons for such rejection by reference to the particular provision of this Code which has been violated, and allow a reasonable time, to be specified therein, for such permittee or his surety to comply with the provisions of this Code. If the permittee or his surety does not thereafter, within the time specified, complete the construction according to the provisions of this Code, then the County Commissioners shall forthwith proceed to do whatever is necessary to cause the construction to comply with this Code and the permittee and his bond shall thereupon be liable for any expense incurred thereby. When a road has been completed in accordance with approved plans and so certified by the Department of Public Works, the Developer shall be responsible for maintenance and repair of the road (excluding grass mowing and snow removal) for a period of one year. The Developer shall post an acceptable guarantee with the County to insure that this maintenance responsibility is fulfilled. Any acceptance of a road by the County Commissioners shall be on behalf of the County by their written order, full identifying the road and shall only be done upon receipt of the previously mentioned maintenance guarantee.

- B. Prior to acceptance by the County, the Developer shall submit two (2) copies of as-built plans. The Department shall review these plans to assure that the road has been constructed in accordance with the previously approved plans.
- C. The Department shall not accept private right-of-ways and roads constructed therein for maintenance. All mini-roads shall be located in private right-of-ways and shall be the responsibility of the Developer or the Homeowner's Association without any help financially or otherwise from the Department.

PART 19 STANDARD DETAILS

- A. All construction shall be completed in accordance with the applicable Standard Details R-1 through R-34 included herein.
- B. Where the details and specifications herein do not address necessary design elements, the details and specifications contained in the Maryland State Highway Administration Book of Standards, Highway and Incidental Structures and

the Maryland State Highway Administration Standard Specifications for Construction and Materials shall apply, except as noted below:

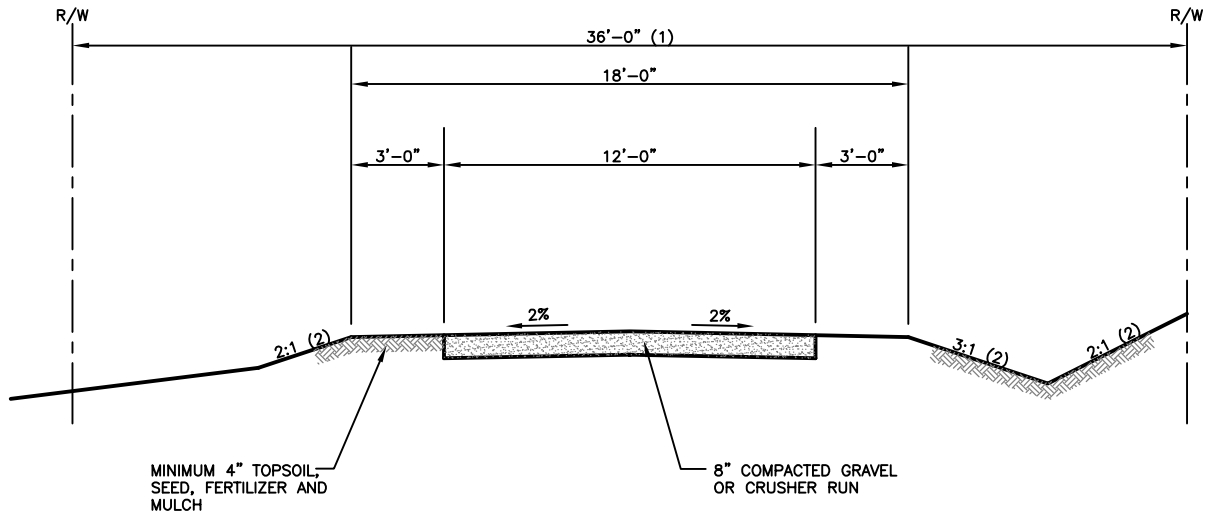
- 1) NR Inlets shall not exceed four (4) feet in depth.

STANDARD DETAILS

R-1	Private Mini Road (36' R/W)
R-2	Residential (Townhouse) Road without Perpendicular Parking – 34' R/W Minor Road)
R-3	Residential (Townhouse) Road with Perpendicular Parking – 34' R/W (Minor Road)
R-4	Residential (Townhouse) Road without Perpendicular Parking – 38' R/W (Minor Collector)
R-5	Townhouse Road with Perpendicular Parking – 38' R/W (Minor Collector)
R-6	Residential (Detached Lots) Road (Minor Road) – 50' R/W, Lots \geq 30,000SF
R-6A	Residential (Detached Lots) Road (Minor Road) – 50' R/W, 10,000SF < Lots < 30,000SF
R-6B	Residential (Detached Lots) Road (Minor Road) – 50' R/W, Lots \leq 10,000 SF
R-7	Residential (Detached Lots) Road (Minor Collector Road) – 60' R/W, Lots \geq 30,000SF
R-7A	Residential (Detached Lots) Road (Minor Collector Road) – 60' R/W, 10,000SF < Lots < 30,000SF
R-7B	Residential (Detached Lots) Road (Minor Collector Road) – 60' R/W, Lots \leq 10,000SF
R-8	Residential Major Collector Road – 60' R/W
R-9	Commercial or Industrial Road – 60' R/W (Minor Collector Road)
R-10	Commercial or Industrial Road – 60' R/W (Major Collector Road)

R-11	Dual Lane Road (Minor Collector Road, 76' R/W)
R-12	Dual Lane Road (Major Collector Road, 80' R/W)
R-13	Cul-de-sac Road Schematic
R-14	Residential Cul-de-sac Road Cul-de-sac Detail
R-14A	Residential Rectangular Cul-de-sac Detail
R-15	Residential Cul-de-sac Road (Mini Road) Cul-de-sac Detail
R-16	Residential Intermediate Turnaround and Pull-off Details
R-17	Residential Cul-de-sac and Intermediate Turnaround Cross Sections
R-18	Tee Turnaround and Barricade
R-19	Typical Right Turn Lane and By-pass Details
R-20	Acceleration Lane, Deceleration Lane, and Left Turn Lane on a Two Lane, Two Way Roadway
R-21	Typical Driveway Entrance from Road with Drain Pipe
R-22	Typical Driveway Entrance Sidewalk Abutting Standard Combination Curb and Gutter
R-22A	Monumental Entrance (Minor Collector Road) – 76' R/W
R-22B	Monumental Entrance (Major Collector Road) – 80' R/W
R-23	Minimum Pavement Section Standards
R-24	Standard 4' Sidewalk
R-25	Sidewalk Corner Ramp
R-26	Curb Details
R-27	Grassed Roadside Channel for Stormwater Management Credit
R-28	Valley Gutter for 90° Intersection
R-29	Normal Location of Public Utility Closed Section

- R-30 Normal Location of Public Utility Open Section
- R-31 Method of Cutting and Repairing Opening in Existing Roadways
- R-32 Sidewalk Frame and Cover
- R-33 24" Heavy Traffic Manhole Frame and Cover
- R-34 Sight Distance Easement
- R-35 Minimum Road Design Standards
- R-36 Widening Computations

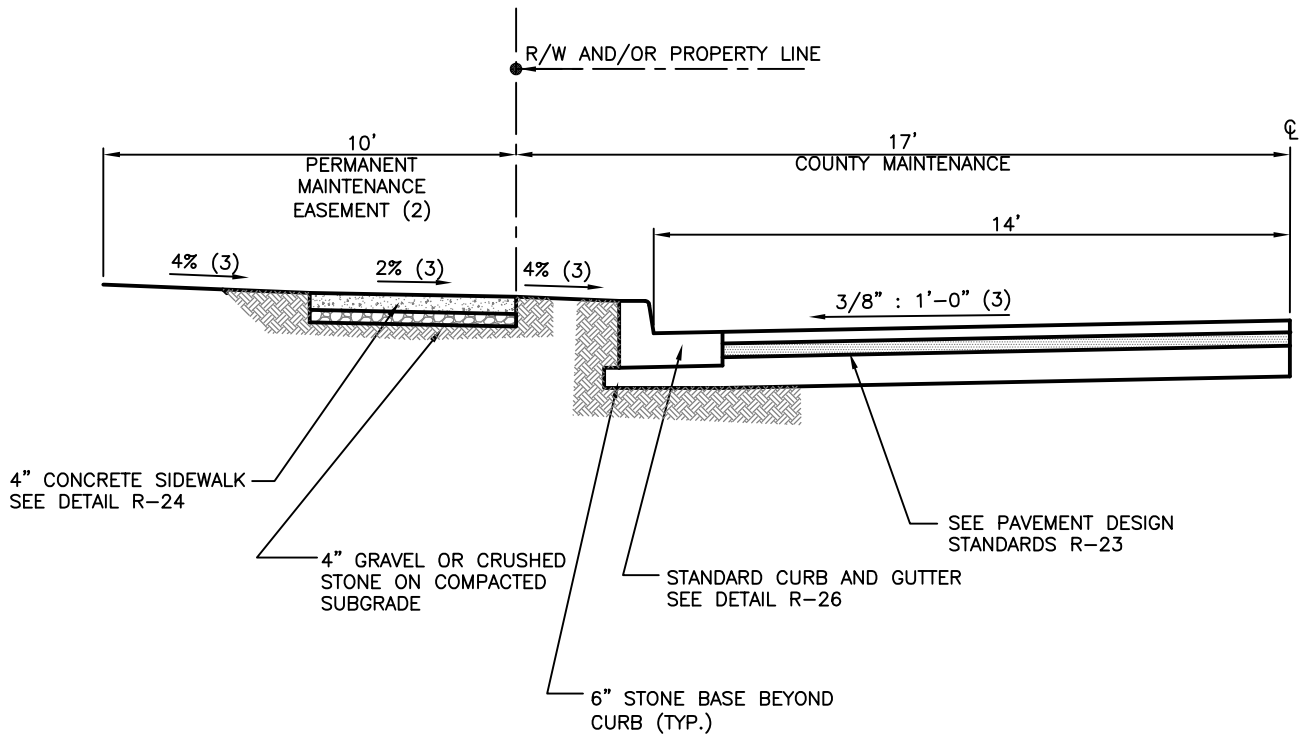


- (1) INCREASE R.O.W. WIDTH AS NECESSARY TO ALLOW FOR ROADSIDE SWALE AND ACCOMMODATE FUTURE EXPANSION IF APPLICABLE.
- (2) SLOPES SHOWN ARE THE STEEPEST SLOPE ALLOWED.
- (3) USE OF THIS STANDARD WILL ELIMINATE ANY POSSIBLE CONVERSION OF THE ROAD TO A COUNTY MAINTAINED MINOR ROAD STANDARD WITHOUT DEDICATION OF ADDITIONAL RIGHT-OF-WAY BY ALL NEIGHBORING RESIDENTS.

CECIL
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STANDARD ROAD & STREET DETAILS
 PRIVATE MINI ROAD
 (36' R/W)

REVISED	
05/07	
R-1	



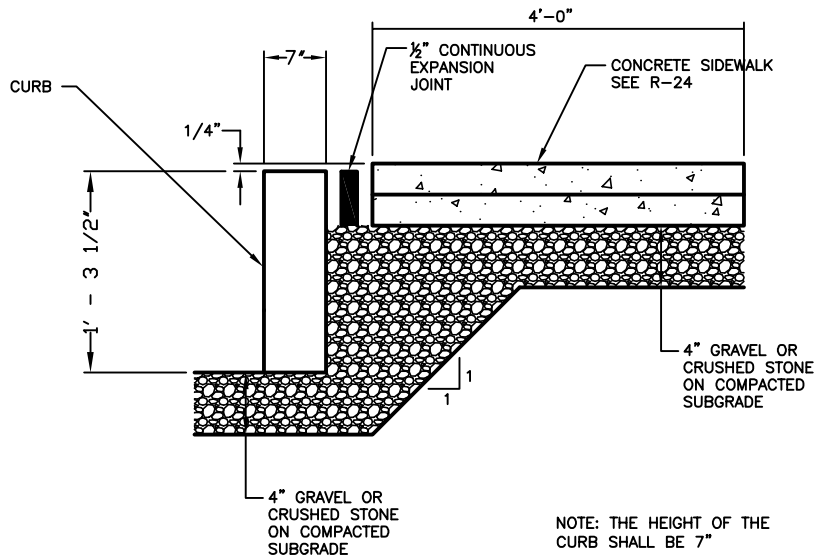
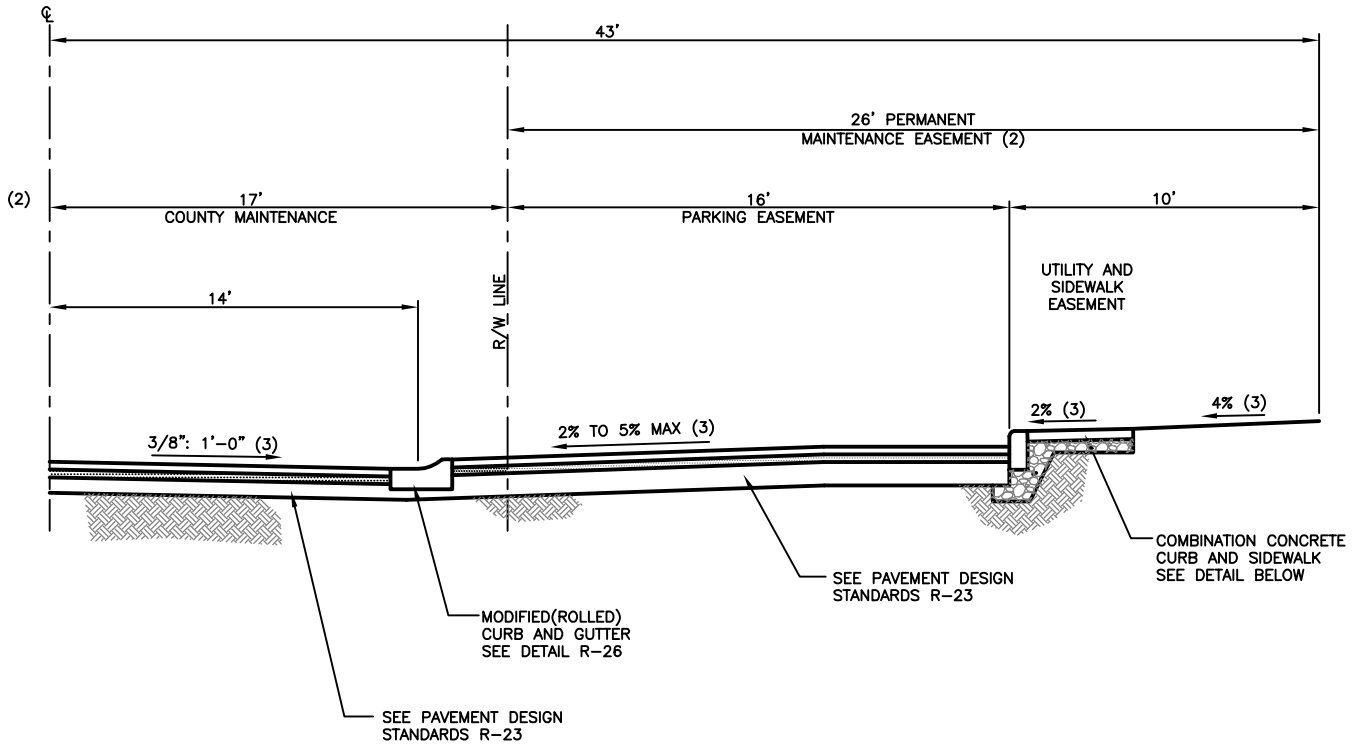
Notes:

1. UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.
2. PERMANENT MAINTENANCE EASEMENT PROVIDES RIGHT OF USING THAT AREA TO APPLICABLE PARTIES (COUNTY, UTILITY COMPANIES, HOME OWNERS ASSOCIATION, ETC.) FOR INSTALLATION, USAGE AND MAINTENANCE OF ROAD, UTILITIES AND OTHER COMMON FACILITIES, SUCH AS PARKING, SIDEWALK, ETC.
3. SLOPES SHOWN ARE THE STEEPEST ALLOWED, UNLESS SPECIFIED ON DETAIL.
4. ALLOWS FOR PARKING ON ONE SIDE OF THE ROAD.

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STANDARD ROAD & STREET DETAILS
RESIDENTIAL (TOWNHOUSE) ROAD WITHOUT
PERPENDICULAR PARKING - 34' R/W
(MINOR ROAD)

REVISED	
05/07	
R-2	



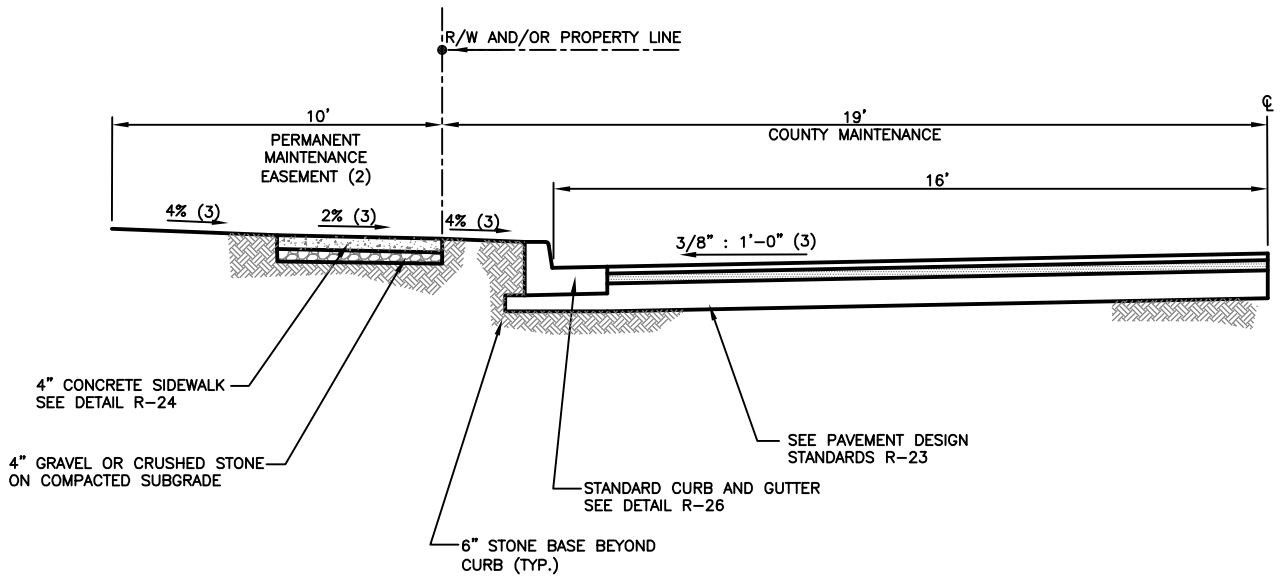
NOTES:

1. UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.
2. PERMANENT MAINTENANCE EASEMENT PROVIDES RIGHT OF USING THAT AREA TO APPLICABLE PARTIES (COUNTY, UTILITY COMPANIES, HOME OWNERS ASSOCIATION, ETC..) FOR INSTALLATION AND MAINTENANCE OF ROAD, UTILITIES AND OTHER COMMON FACILITIES, SUCH AS PARKING, SIDEWALK, ETC..
3. SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
4. ALLOWS FOR PARKING ON ONE SIDE OF THE ROAD.

CECIL
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PUBLIC WORKS

STANDARD ROAD & STREET DETAILS
RESIDENTIAL (TOWNHOUSE) ROAD WITH
PERPENDICULAR PARKING - 34' R/W
(MINOR ROAD)

REVISED	
05/07	
R-3	



NOTES:

1. UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.
2. PERMANENT MAINTENANCE EASEMENT PROVIDES RIGHT OF USING THAT AREA TO APPLICABLE PARTIES (COUNTY, UTILITY COMPANIES, HOME OWNERS ASSOCIATION, ETC.) FOR INSTALLATION AND MAINTENANCE OF ROAD, UTILITIES AND OTHER COMMON FACILITIES, SUCH AS PARKING, SIDEWALK, ETC.
3. SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
4. ALLOWS FOR PARKING ON ONE SIDE OF THE ROAD.

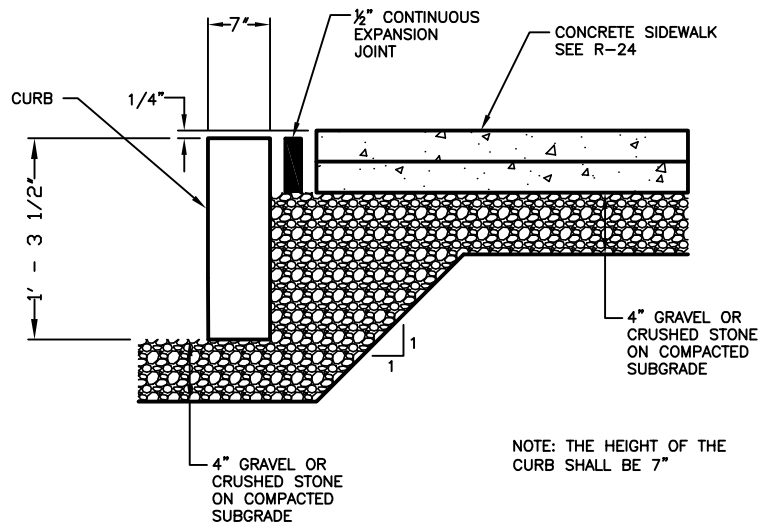
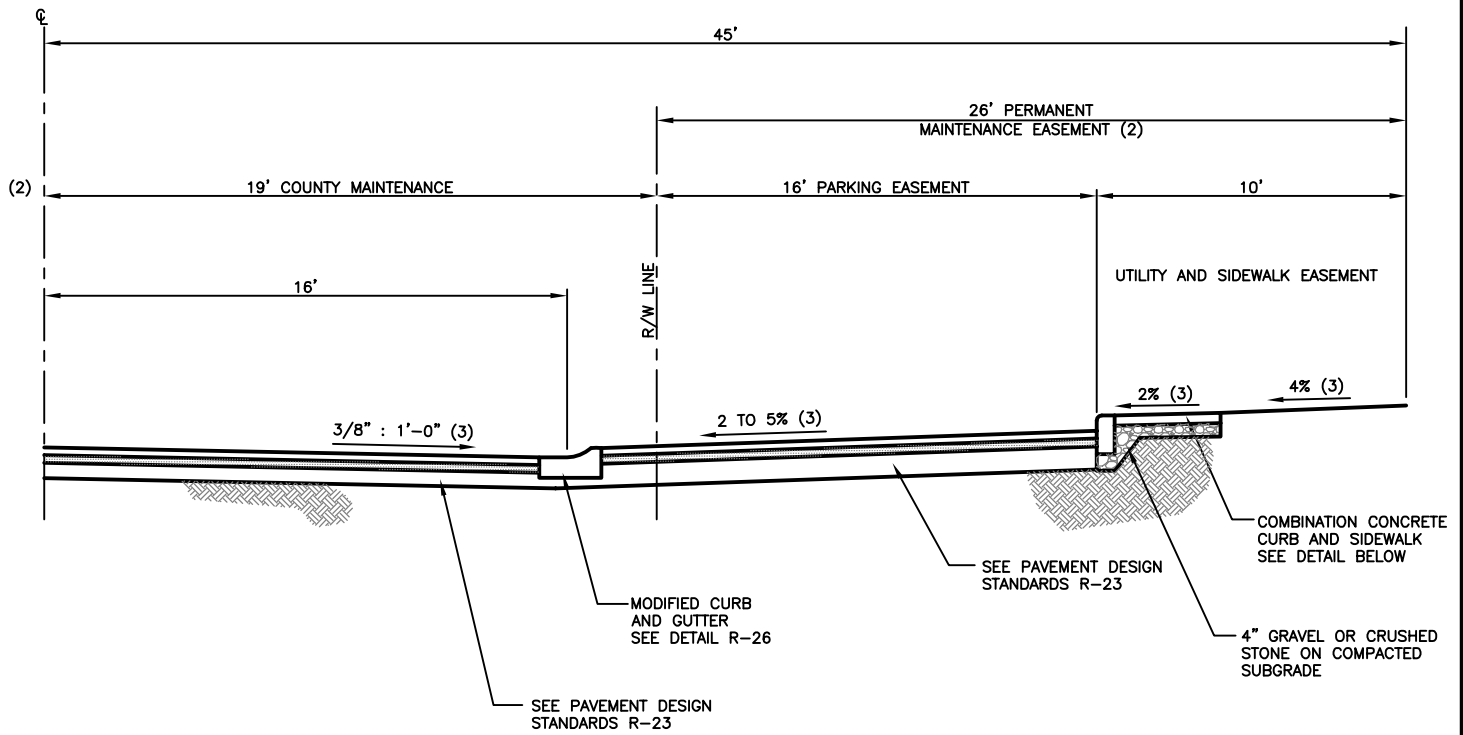
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PUBLIC WORKS

STANDARD ROAD & STREET DETAILS
RESIDENTIAL (TOWNHOUSE) ROAD WITHOUT
PERPENDICULAR PARKING - 38' R/W
(MINOR COLLECTOR)

REVISED

05/07

R-4



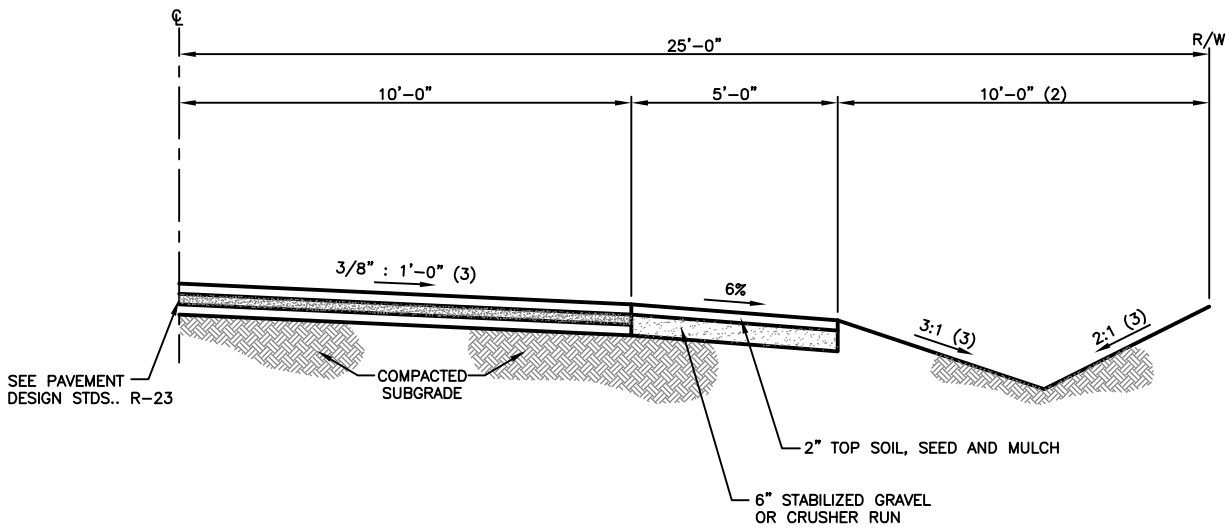
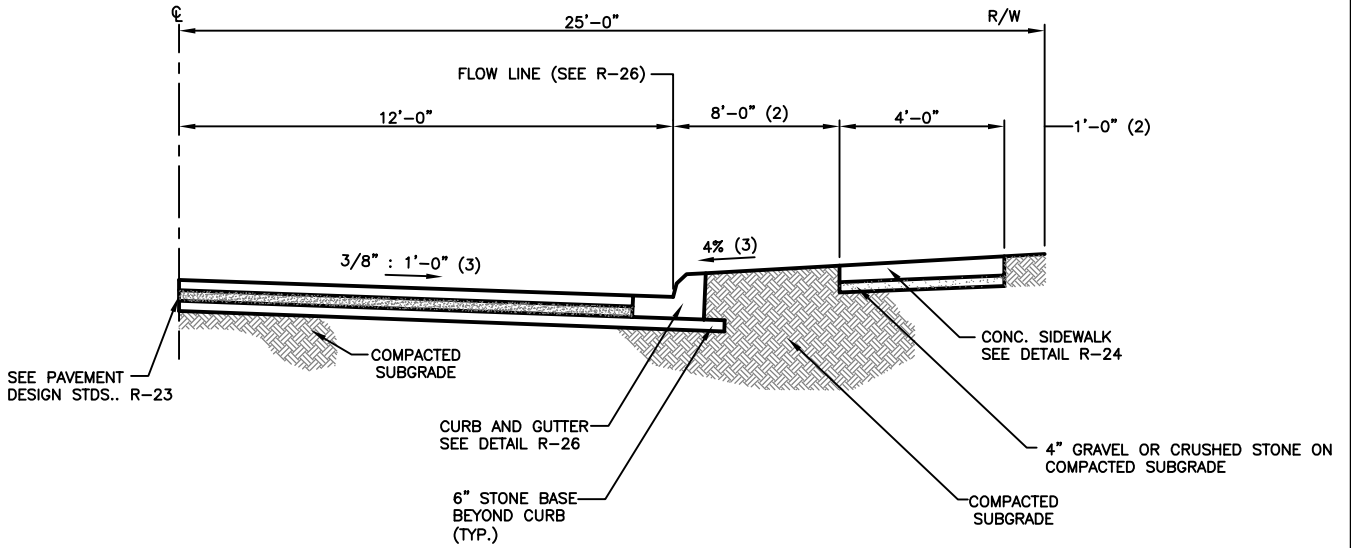
NOTES:

1. UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.
2. PERMANENT MAINTENANCE EASEMENT PROVIDES RIGHT OF USING THAT AREA TO APPLICABLE PARTIES (COUNTY, UTILITY COMPANIES, HOME OWNERS ASSOCIATION, ETC.) FOR INSTALLATION AND MAINTENANCE OF ROAD, UTILITIES AND OTHER COMMON FACILITIES, SUCH AS PARKING, SIDEWALK, ETC.
3. SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
4. ALLOWS FOR PARKING ON ONE SIDE OF THE ROAD.

CECIL
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STANDARD ROAD & STREET DETAILS
TOWNHOUSE ROAD WITH
PERPENDICULAR PARKING - 38' R/W
(MINOR COLLECTOR)

REVISED	
05/07	
R-5	



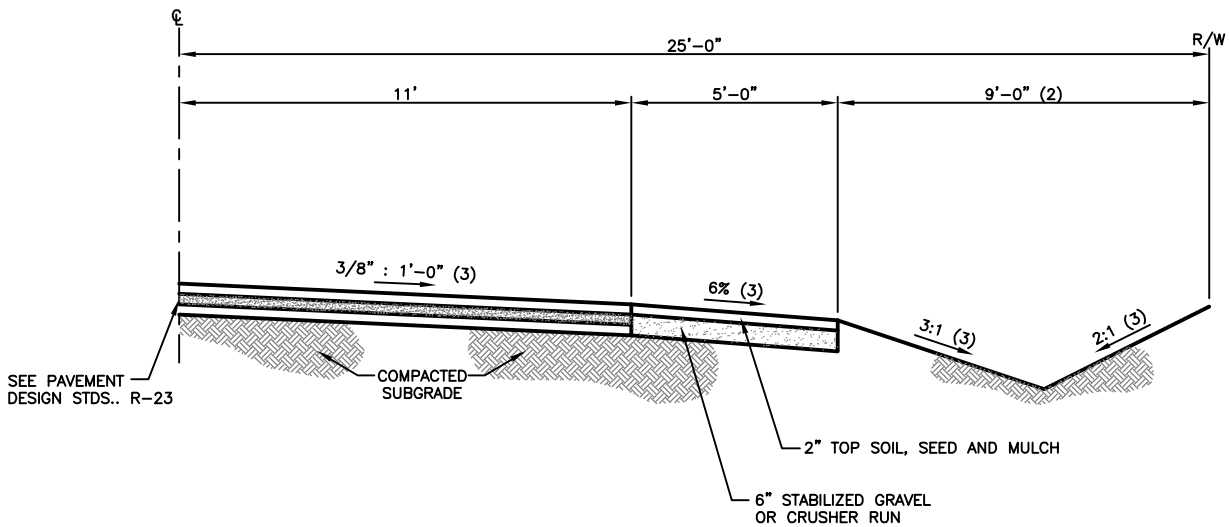
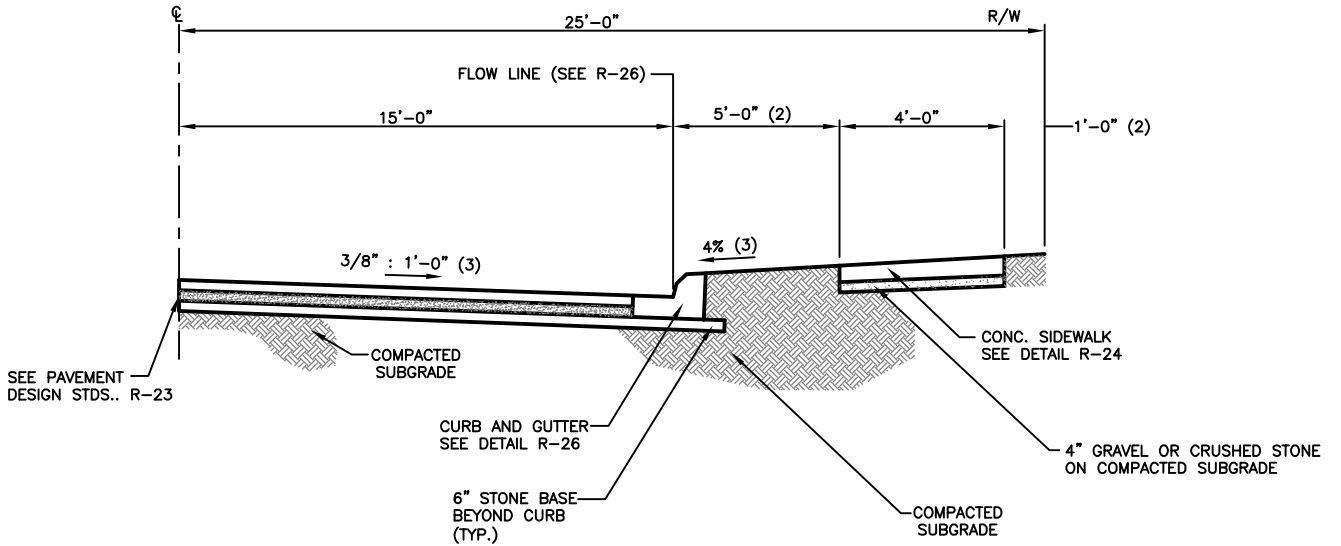
NOTES:

1. FOR COMMUNITIES WHERE LOTS \geq 30,000 SQUARE FEET.
2. UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.
3. SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
4. NO PARKING ON THE ROAD IS PERMITTED.

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STANDARD ROAD & STREET DETAILS
RESIDENTIAL (DETACHED LOTS) ROAD
MINOR ROAD - 50' R/W

REVISED	
05/07	
R-6	



NOTES:

1. FOR COMMUNITIES WHERE 10,000 SF < LOTS < 30,000 SF
2. UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.
3. SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
4. ALLOWS FOR PARKING ON ONE SIDE OF THE ROAD.

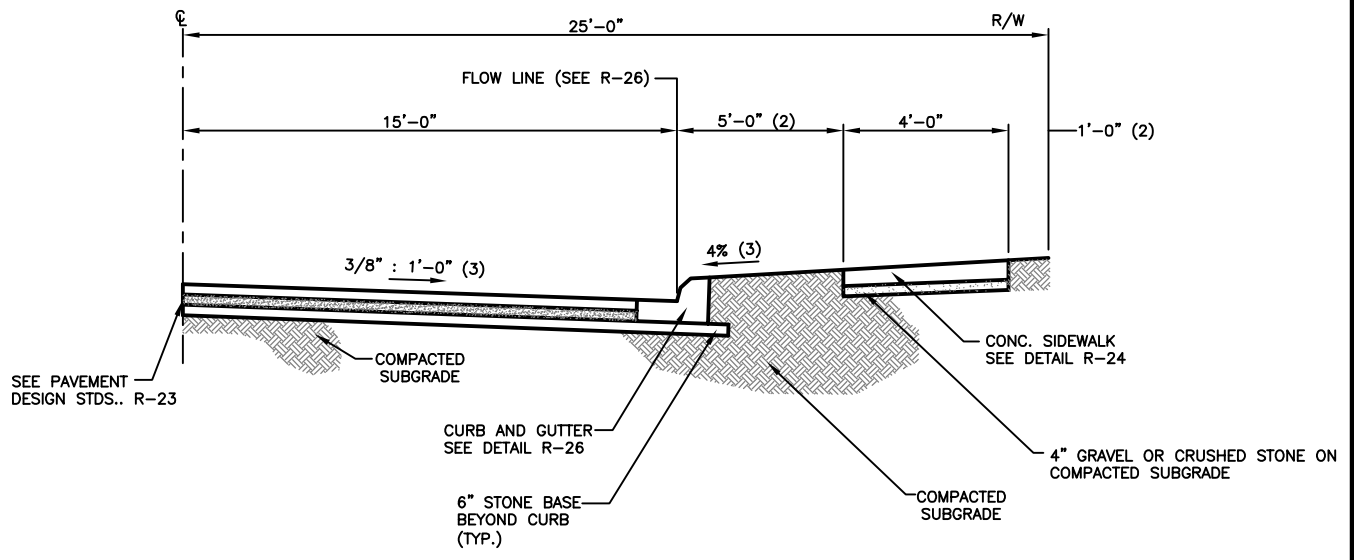
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STANDARD ROAD & STREET DETAILS
RESIDENTIAL (DETACHED LOTS) ROAD
MINOR ROAD - 50' R/W

REVISED

05/07

R-6A



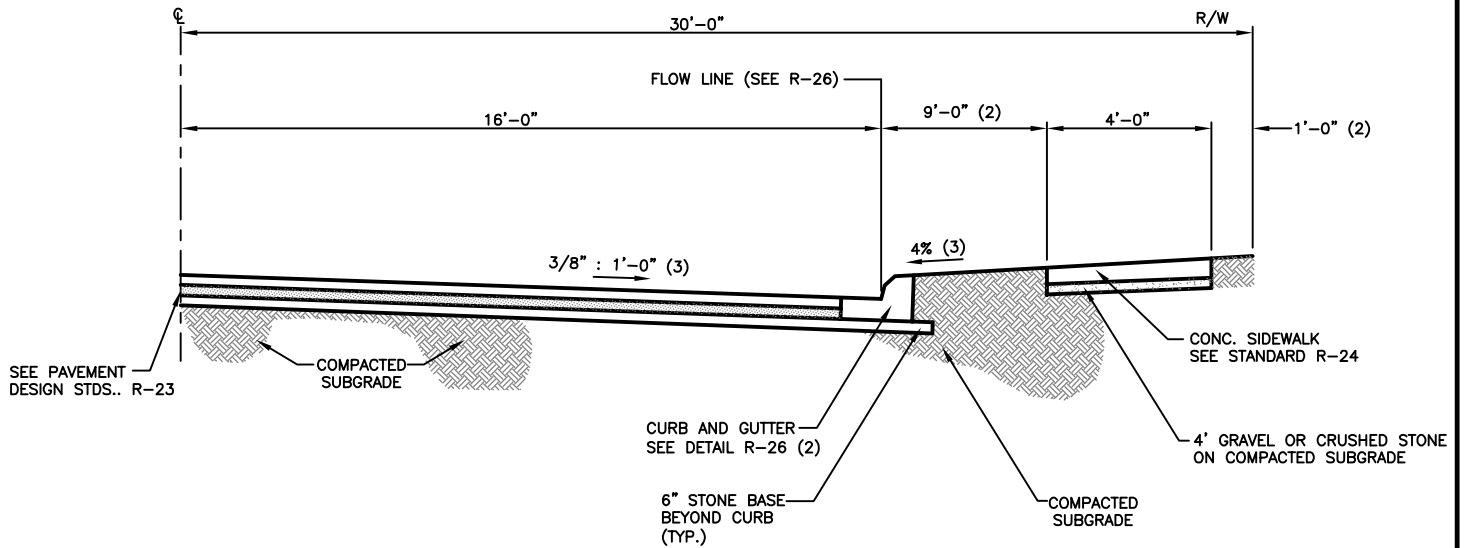
NOTES:

1. FOR COMMUNITIES WHERE LOTS \leq 10,000 SF.
2. UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.
3. SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
4. ALLOWS FOR PARKING ON ONE SIDE OF THE ROAD.

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STANDARD ROAD & STREET DETAILS
RESIDENTIAL (DETACHED LOTS) ROAD
MINOR ROAD - 50' R/W

REVISED	
05/07	
R-6B	



SEE PAVEMENT DESIGN STDS.. R-23

COMPACTED SUBGRADE

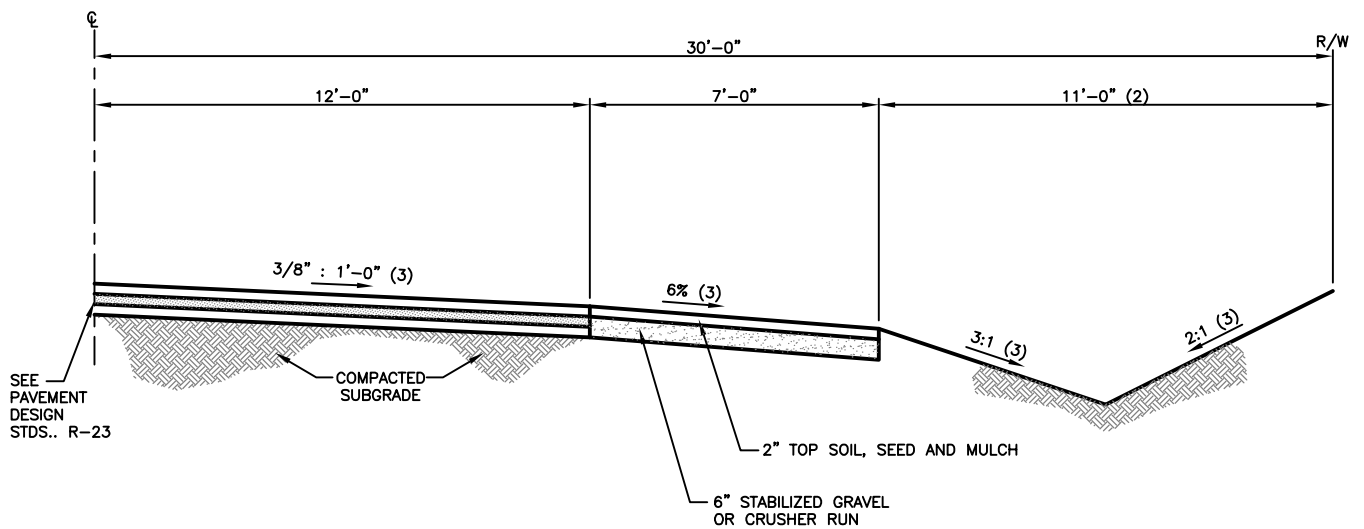
CURB AND GUTTER SEE DETAIL R-26 (2)

6" STONE BASE BEYOND CURB (TYP.)

COMPACTED SUBGRADE

CONC. SIDEWALK SEE STANDARD R-24

4' GRAVEL OR CRUSHED STONE ON COMPACTED SUBGRADE



SEE PAVEMENT DESIGN STDS.. R-23

COMPACTED SUBGRADE

2" TOP SOIL, SEED AND MULCH

6" STABILIZED GRAVEL OR CRUSHER RUN

NOTES:

1. FOR COMMUNITIES WHERE LOTS \geq 30,000 SQUARE FEET.
2. UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE AREA OF 2" TOPSOIL, SEED AND MULCH.
3. SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
4. ALLOWS FOR PARKING ON ONE SIDE OF THE ROAD.

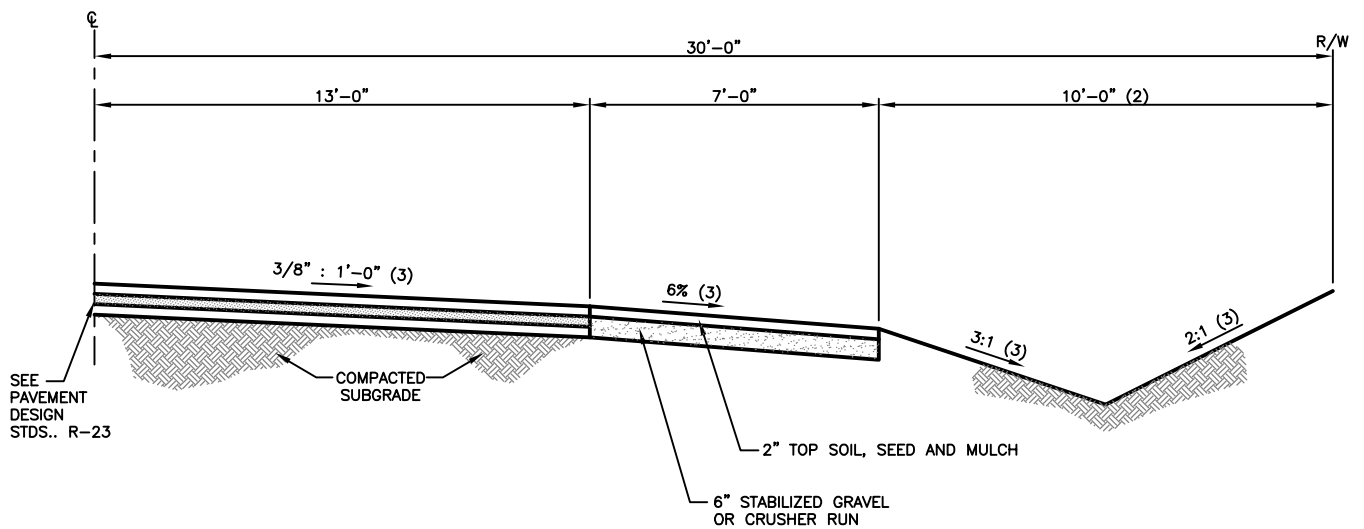
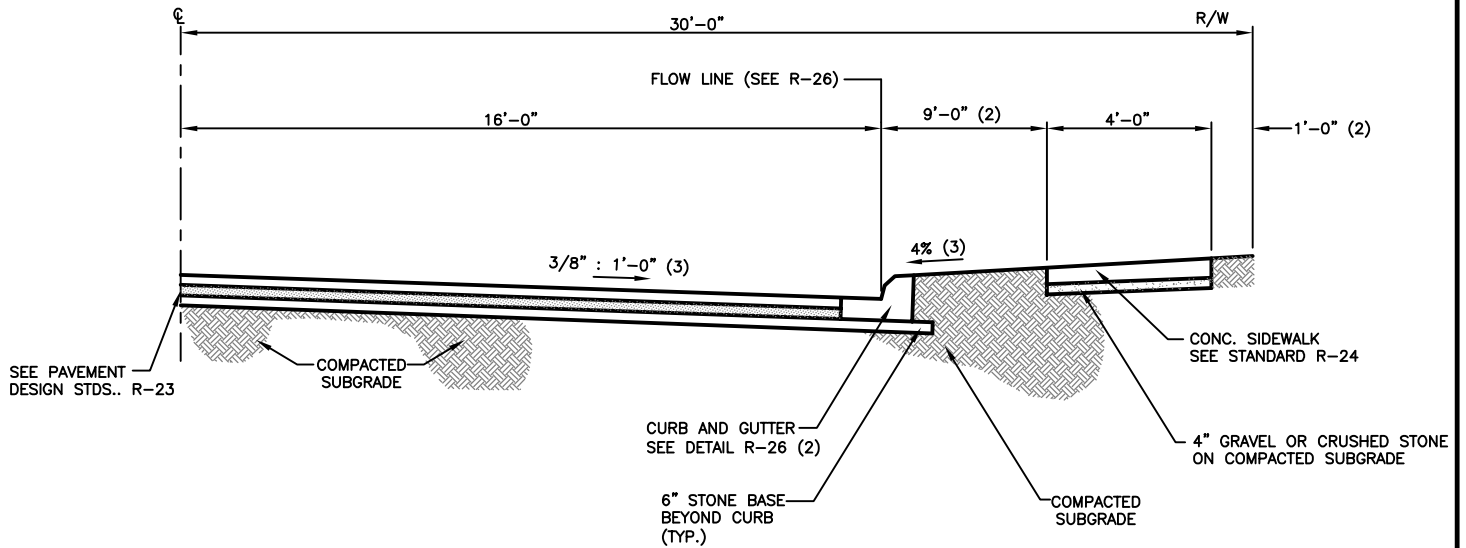
CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS
RESIDENTIAL (DETACHED LOTS) ROAD
MINOR COLLECTOR ROAD - 60' R/W

REVISED

05/07

R-7



NOTES:

1. FOR COMMUNITIES WHERE 10,000 SF < LOTS < 30,000 SF.
2. UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.
3. SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
4. ALLOWS FOR PARKING ON ONE SIDE OF THE ROAD.

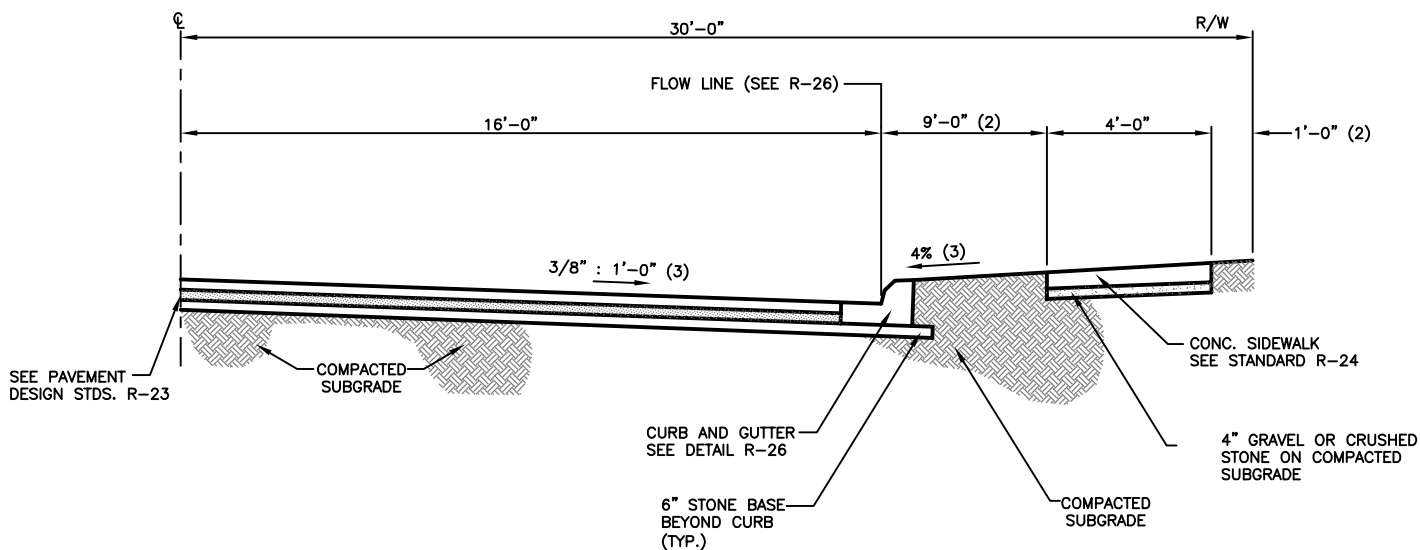
CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS
RESIDENTIAL (DETACHED LOTS) ROAD
MINOR COLLECTOR ROAD - 60' R/W

REVISED

05/07

R-7A



SEE PAVEMENT
DESIGN STDS. R-23

COMPACTED
SUBGRADE

CURB AND GUTTER
SEE DETAIL R-26

6" STONE BASE
BEYOND CURB
(TYP.)

CONC. SIDEWALK
SEE STANDARD R-24

4" GRAVEL OR CRUSHED
STONE ON COMPACTED
SUBGRADE

COMPACTED
SUBGRADE

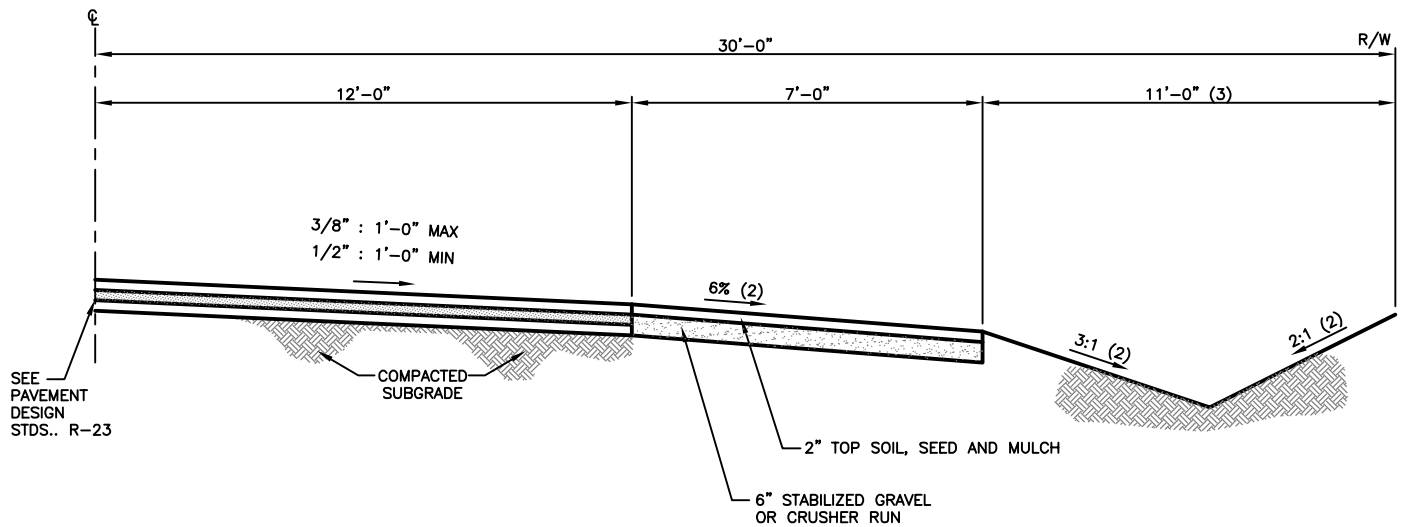
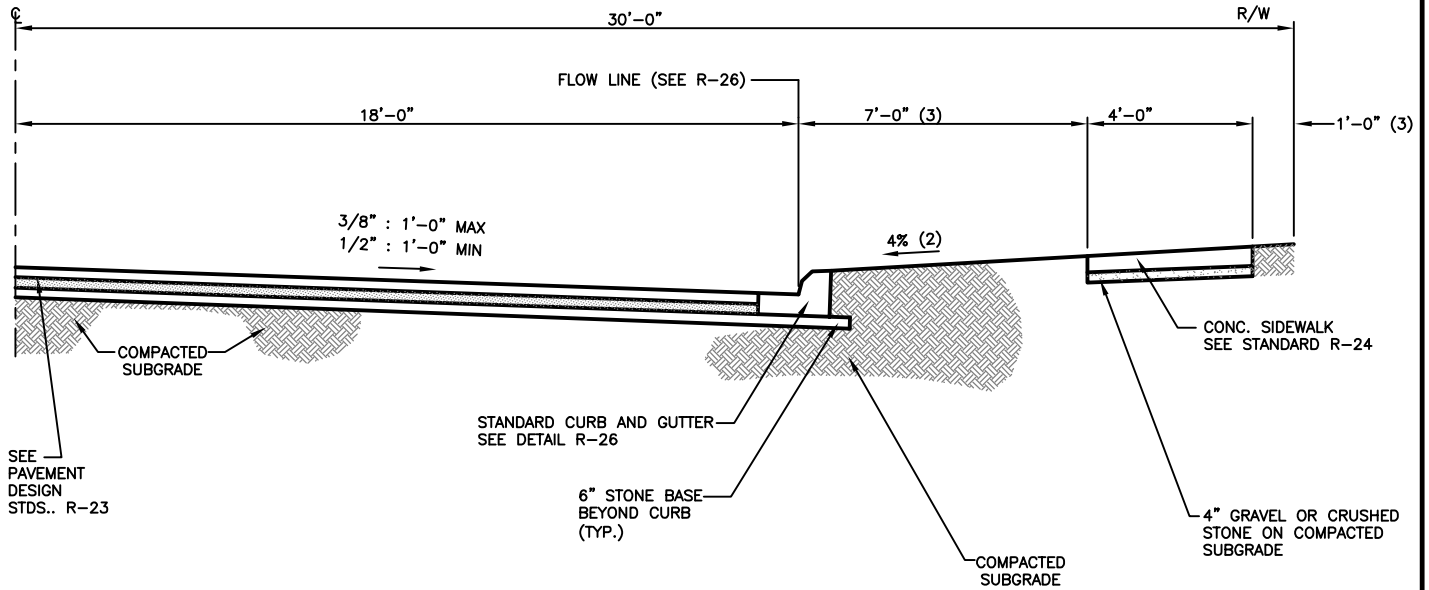
NOTES:

1. FOR COMMUNITIES WHERE LOTS \leq 10,000 SF.
2. UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.
3. SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
4. ALLOWS FOR PARKING ON ONE SIDE OF THE ROAD.

CECIL
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STANDARD ROAD & STREET DETAILS
RESIDENTIAL (DETACHED LOTS) ROAD
MINOR COLLECTOR ROAD - 60' R/W

REVISED	
05/07	
R-7B	



NOTES:

1. R.O.W. AND PAVEMENT WIDTHS TO BE INCREASED AS NECESSARY TO ACCOMMODATE TURN LANES WHERE WARRANTED.
 2. R.O.W. AND PAVEMENT WIDTH TO BE INCREASED AS NECESSARY TO ACCOMMODATE ADDITIONAL LANES AND ROADWAY TO BE DESIGNED IN ACCORDANCE WITH APPLICABLE AASHTO STANDARDS FOR ANTICIPATED TRAFFIC VOLUMES EXCEEDING 5000 ADT..
 3. NO ACCESS TO ABUTTING PROPERTIES ALLOWED.
- (1) MODIFIED (ROLLED) CURBS NOT ALLOWED.
- (2) SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
- (3) UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.

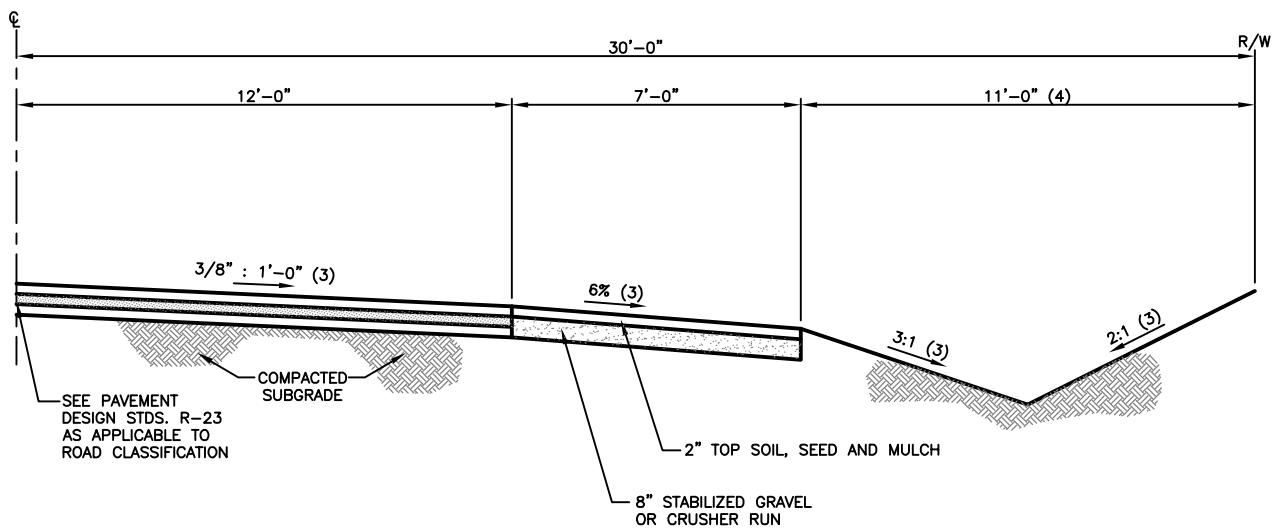
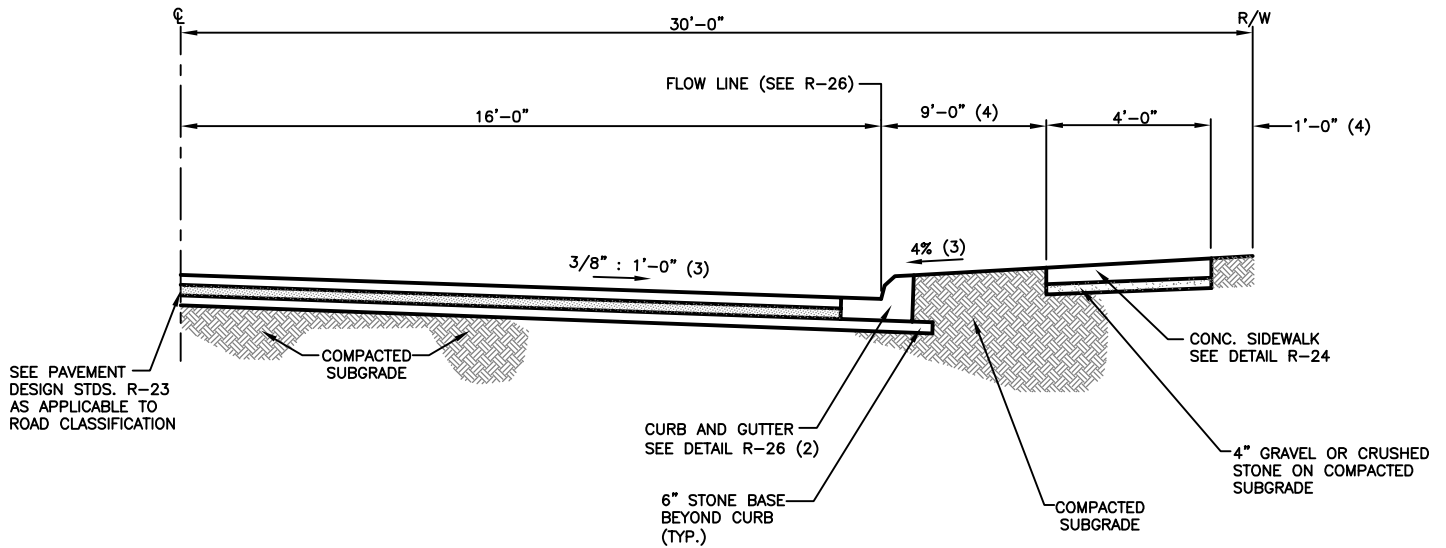
CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS
RESIDENTIAL
MAJOR COLLECTOR ROAD - 60' R/W

REVISED

05/07

R-8



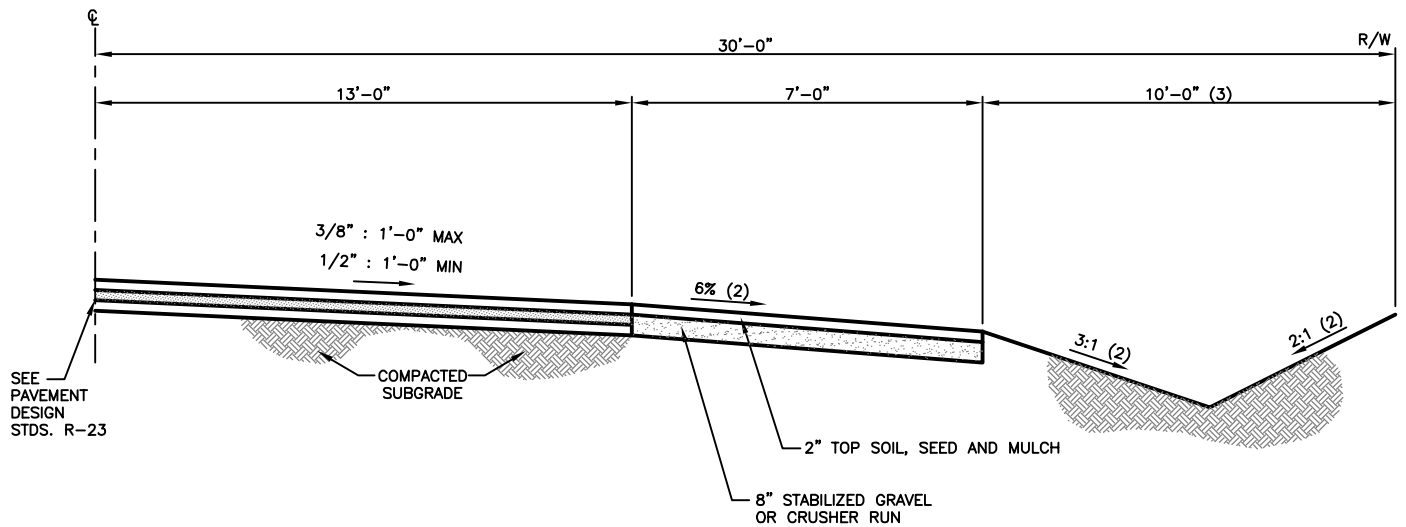
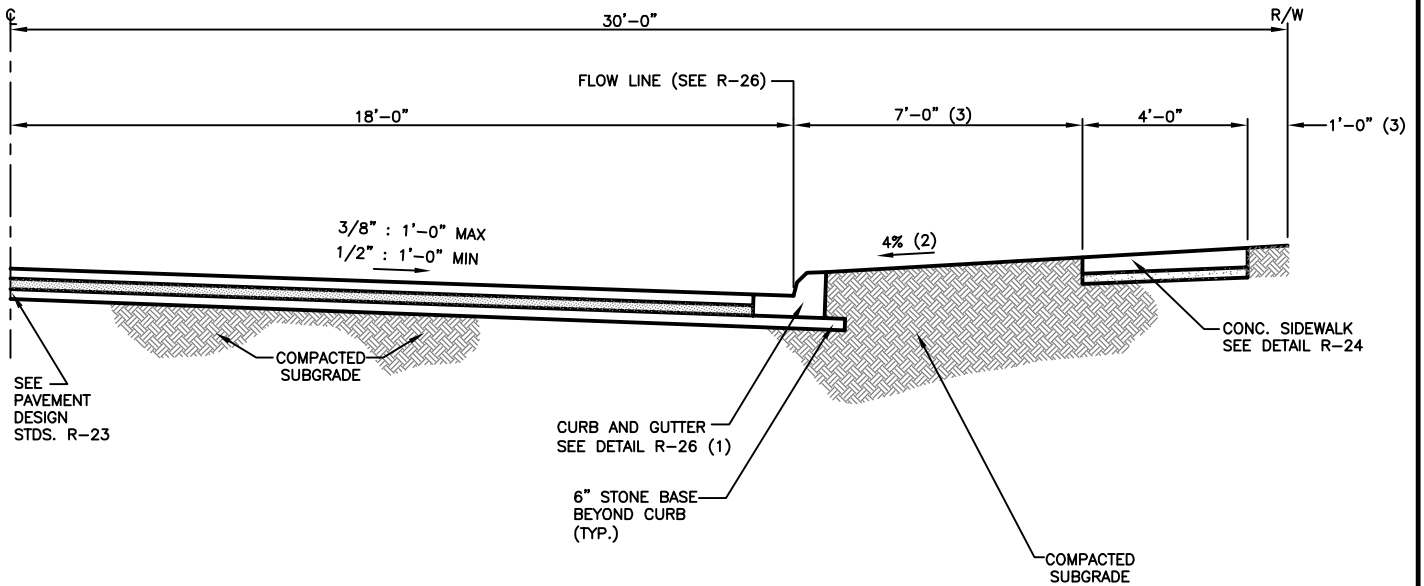
NOTES:

1. R.O.W. AND PAVEMENT WIDTHS TO BE INCREASED AS NECESSARY TO ACCOMMODATE TURN LANES WHERE WARRANTED.
- (1) THESE REDUCED DIMENSIONS APPLY IF R.O.W. FOR A CURBED ROAD IS REDUCED TO 50' UPON APPROVAL BY THE DEPARTMENT.
- (2) MODIFIED (ROLLED) CURBS ARE ALLOWED ONLY IN FRONT OF DRIVEWAYS FOR ABUTTING LOTS.
- (3) SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
- (4) UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.

CECIL
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OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS
COMMERCIAL OR INDUSTRIAL ROAD – 60' R/W
(MINOR COLLECTOR ROAD)

REVISED	
05/07	
R-9	



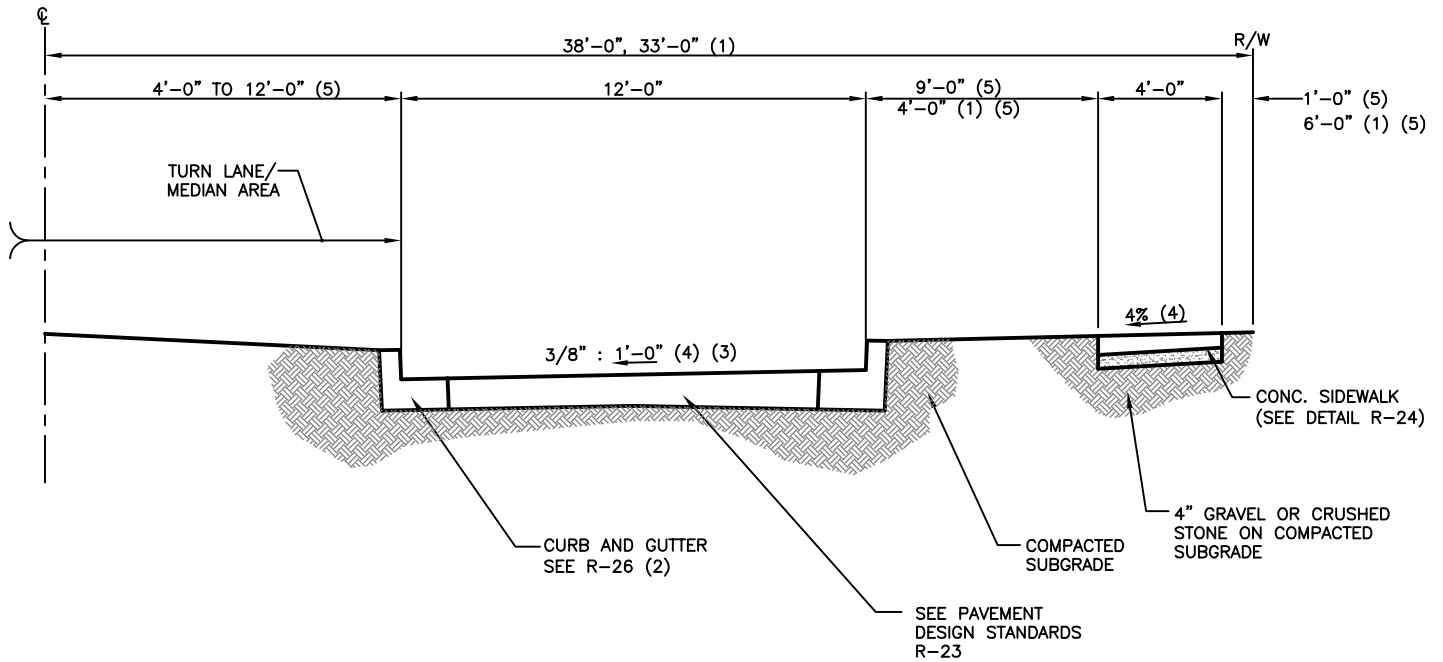
NOTES:

1. R.O.W. AND PAVEMENT WIDTHS TO BE INCREASED AS NECESSARY TO ACCOMMODATE TURN LANES WHERE WARRANTED.
2. R.O.W. AND PAVEMENT WIDTH TO BE INCREASED AS NECESSARY TO ACCOMMODATE ADDITIONAL LANES AND ROADWAY TO BE DESIGNED IN ACCORDANCE WITH APPLICABLE AASHTO STANDARDS FOR ANTICIPATED TRAFFIC VOLUMES EXCEEDING 5000 ADT.
3. NO ACCESS TO ABUTTING PROPERTIES ALLOWED.
 - (1) MODIFIED (ROLLED) CURBS NOT ALLOWED.
 - (2) SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
 - (3) UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.

CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS
COMMERCIAL OR INDUSTRIAL ROAD - 60' R/W
(MAJOR COLLECTOR ROAD)

REVISED	
05/07	
R-10	

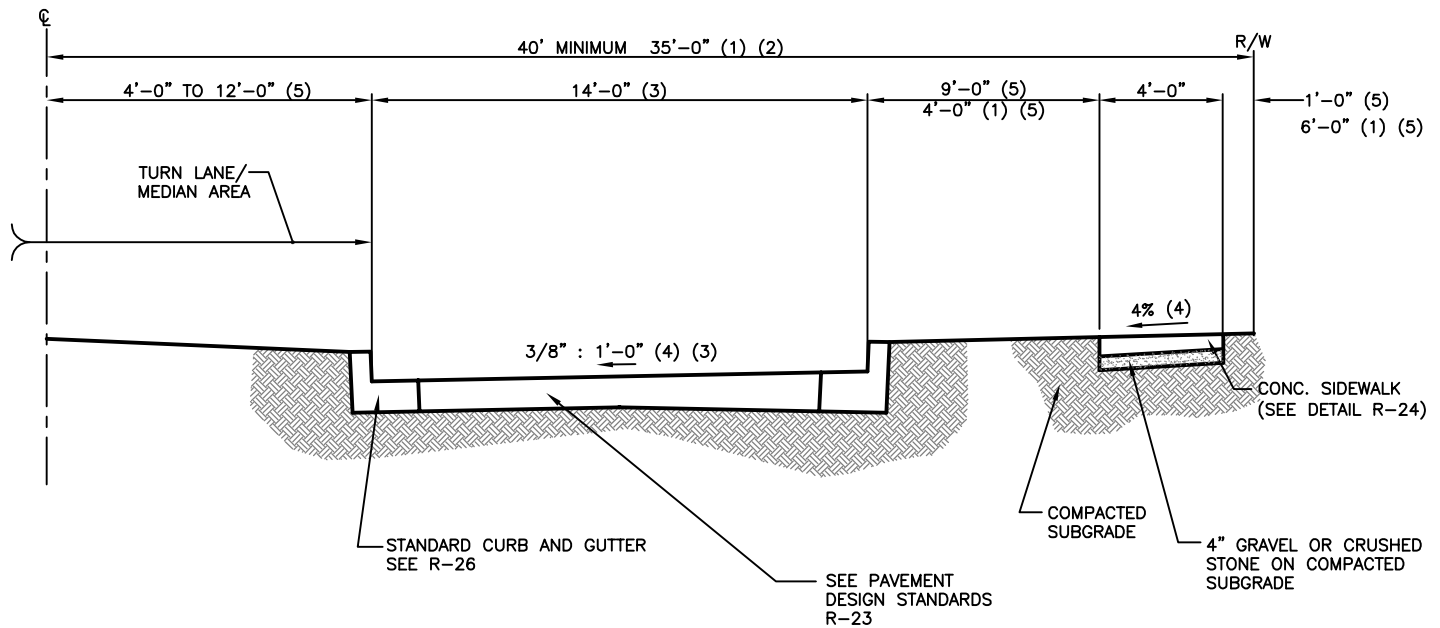


NOTE: FOR RESIDENTIAL OR COMMERCIAL SUBDIVISIONS WITH ONE ENTRANCE, THE MEDIAN/TURN LANE SHALL EXTEND FROM THE ENTRANCE OF THE SUBDIVISION TO THE FIRST INTERSECTION OR COMMERCIAL ENTRANCE, OR AS DETERMINED BY THE DEPARTMENT OF PUBLIC WORKS.

NOTES:

1. R.O.W. AND PAVEMENT WIDTHS TO BE INCREASED AS NECESSARY TO ACCOMMODATE TURN LANES WHERE WARRANTED.
- (1) THESE REDUCED DIMENSIONS APPLY IF R.O.W. FOR A CURBED ROAD IS REDUCED TO 66' UPON APPROVAL BY THE DEPARTMENT.
- (2) MODIFIED (ROLLED) CURB WILL BE ALLOWED ONLY IN FRONT OF DRIVEWAYS FOR ABUTTING LOTS.
- (3) WITH APPROVAL OF THE DEPARTMENT THE ROAD MAY BE SLOPED TO DRAIN TO THE OUTSIDE.
- (4) SLOPES SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
- (5) UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.

CECIL COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ROAD & STREET DETAILS DUAL LANE ROAD (MINOR COLLECTOR ROAD, 76' R/W)		REVISED
	05/07		
			R-11



NOTE: FOR RESIDENTIAL OR COMMERCIAL SUBDIVISIONS WITH ONE ENTRANCE, THE MEDIAN/TURN LANE SHALL EXTEND FROM THE ENTRANCE OF THE SUBDIVISION TO THE FIRST INTERSECTION OR COMMERCIAL ENTRANCE, OR AS DETERMINED BY THE DEPARTMENT OF PUBLIC WORKS.

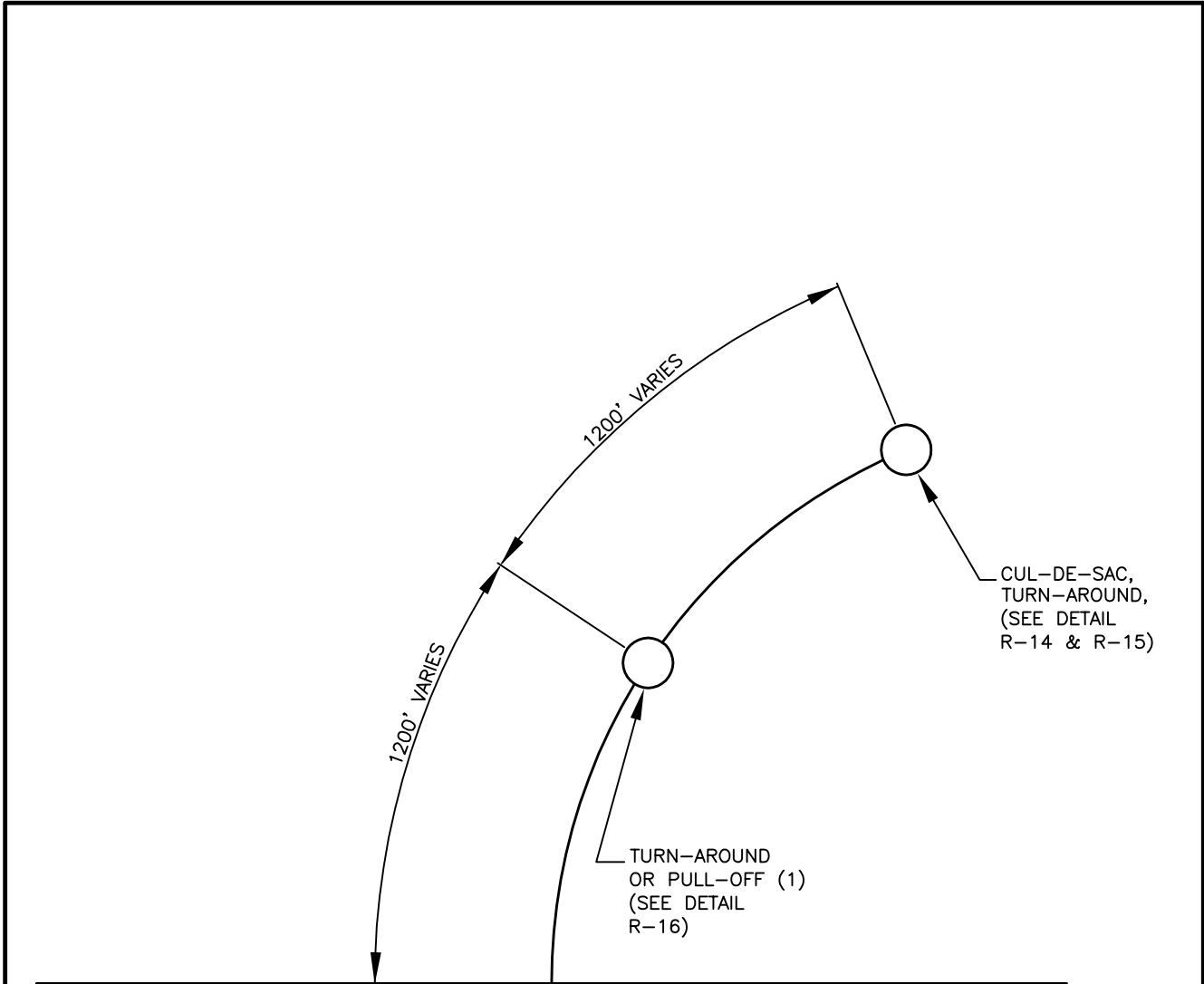
NOTES:

1. R.O.W. AND PAVEMENT WIDTHS TO BE INCREASED AS NECESSARY TO ACCOMMODATE TURN LANES WHERE WARRANTED.
2. R.O.W. AND PAVEMENT WIDTH TO BE INCREASED AS NECESSARY TO ACCOMMODATE ADDITIONAL LANES AND ROADWAY TO BE DESIGNED IN ACCORDANCE WITH APPLICABLE AASHTO STANDARDS FOR ANTICIPATED TRAFFIC VOLUMES EXCEEDING 900 VEHICLES PER HOUR.
3. ACCESS FROM ROAD TO ABUTTING PROPERTIES NOT ALLOWED.
 - (1) THESE REDUCED DIMENSIONS APPLY IF R.O.W. FOR A CURBED ROAD IS REDUCED TO 70' UPON APPROVAL BY THE DEPARTMENT.
 - (2) MODIFIED (ROLLED) CURBS NOT ALLOWED.
 - (3) WITH APPROVAL OF THE DEPARTMENT THE ROAD MAY BE SLOPED TO DRAIN TO THE OUTSIDE.
 - (4) SLOPE SHOWN ARE THE STEEPEST SLOPES ALLOWED, UNLESS SPECIFIED ON DETAIL.
 - (5) UNSURFACED AREAS WITHIN THE RIGHT-OF-WAY SHALL RECEIVE A MINIMUM SURFACE TREATMENT OF 2" TOPSOIL, SEED AND MULCH.

CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS
DUAL LANE ROAD
(MAJOR COLLECTOR ROAD, 80' R/W)

REVISED	
05/07	
R-12	

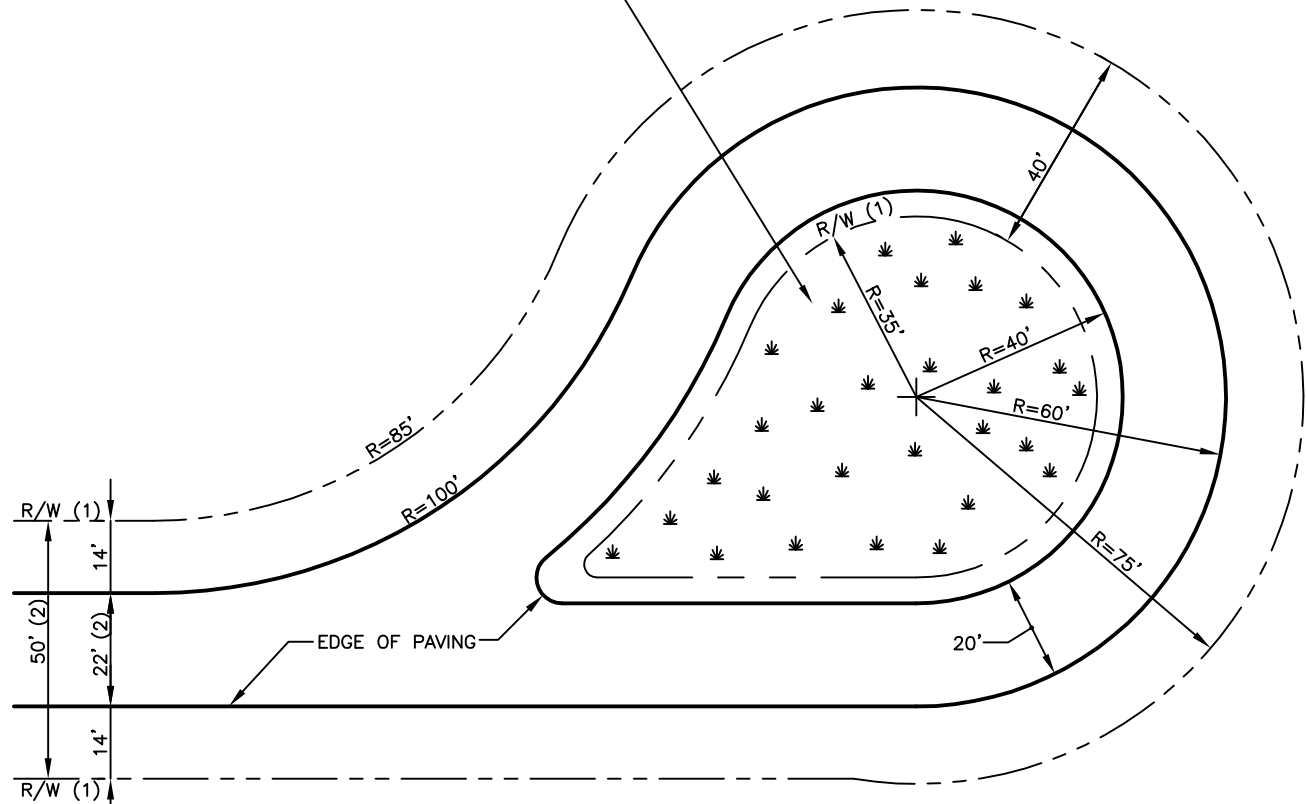
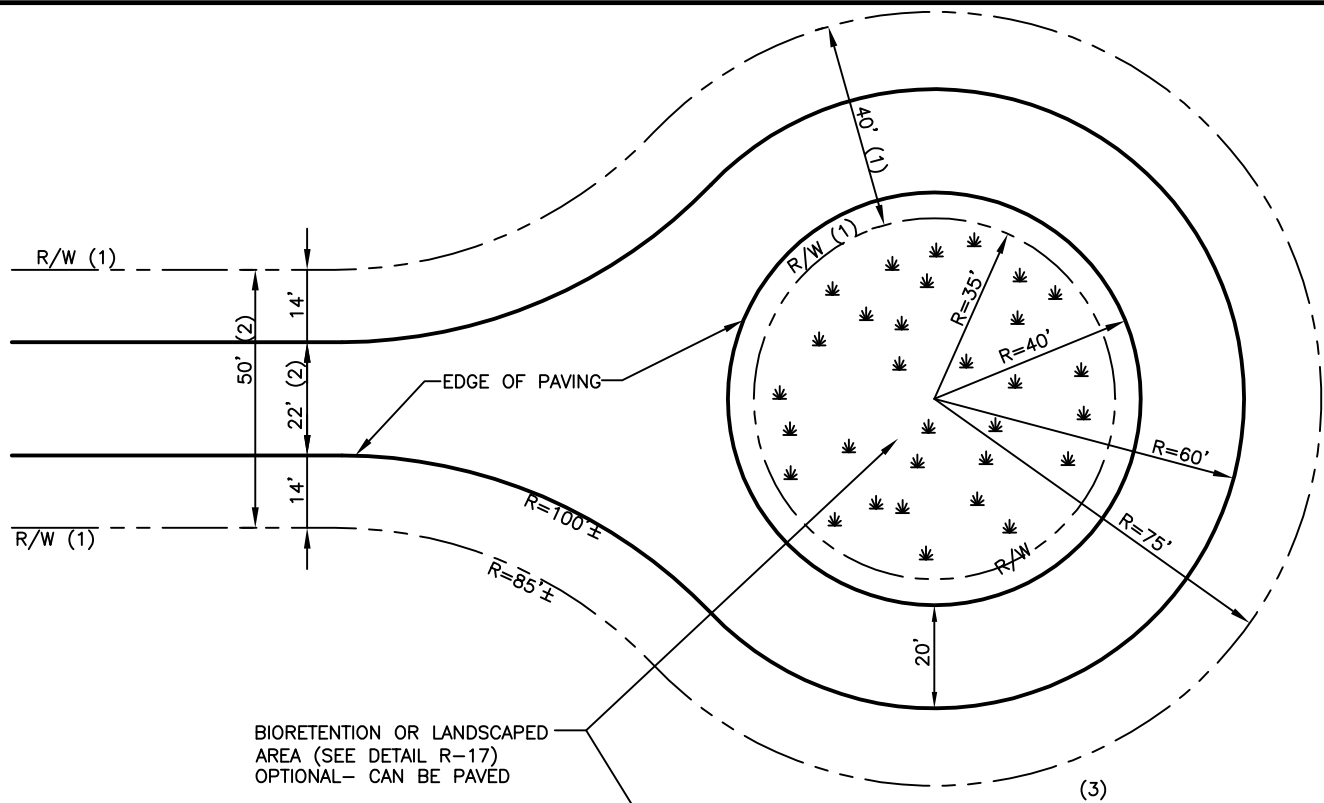


EXISTING COUNTY ROAD

NOTE:

1. INTERMEDIATE PULL-OFFS WILL BE USED FOR MINI-ROADS ONLY. ALL OTHERS ROADS WILL USE TURN-AROUND.
2. THE DEPARTMENT OF PUBLIC WORKS RESERVES THE RIGHT TO APPROVE VARIATIONS TO THE 1200 FEET SEPARATION REQUIREMENT. THESE VARIATIONS MAY BE BASED ON THE LOCATION OF WATER DRAFTING TANKS, PUBLIC AND PRIVATE WATER SYSTEMS AND PROPOSED SITE CONDITIONS, ETC.

CECIL COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ROAD & STREET DETAILS	REVISED
	CUL-DE-SAC ROAD SCHEMATIC	05/07
		R-13



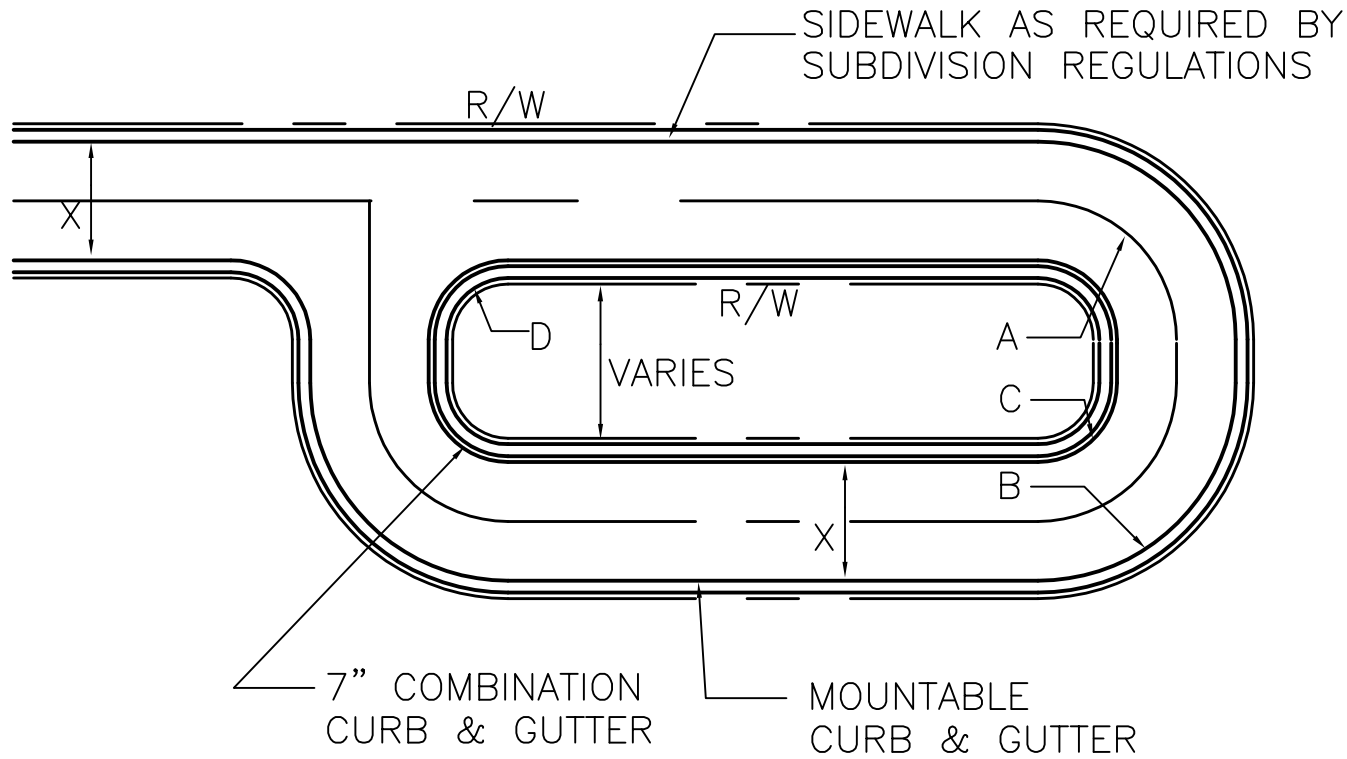
NOTE:

- (1) R/W LINE TO RUN ALONG BACK OF CURB FOR TOWNHOUSE ROADS.
- (2) WILL VARY ACCORDING TO ROAD TYPE.
- (3) A LEFT OFFSET IS SHOWN. A RIGHT OFFSET DESIGN CONFORMING THE SAME DIMENSIONS MAY BE USED.

CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS
RESIDENTIAL
CUL-DE-SAC ROAD
CUL-DE-SAC DETAIL

REVISED	
05/07	
R-14	



CURVE	RADIUS	L	DELTA
A	31.00	48.67'	90 °
B	46.00	72.25'	90 °
C	16.00	25.12'	90 °
D	11.42	17.93'	90 °

NOTE: CLOSED SECTION ROADS ONLY

X = 30' FOR LOTS LESS THAN 30,000 SF AND GREATER THAN 10,000 SF.

X = 30' FOR LOTS LESS THAN 10,000 SF.

CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

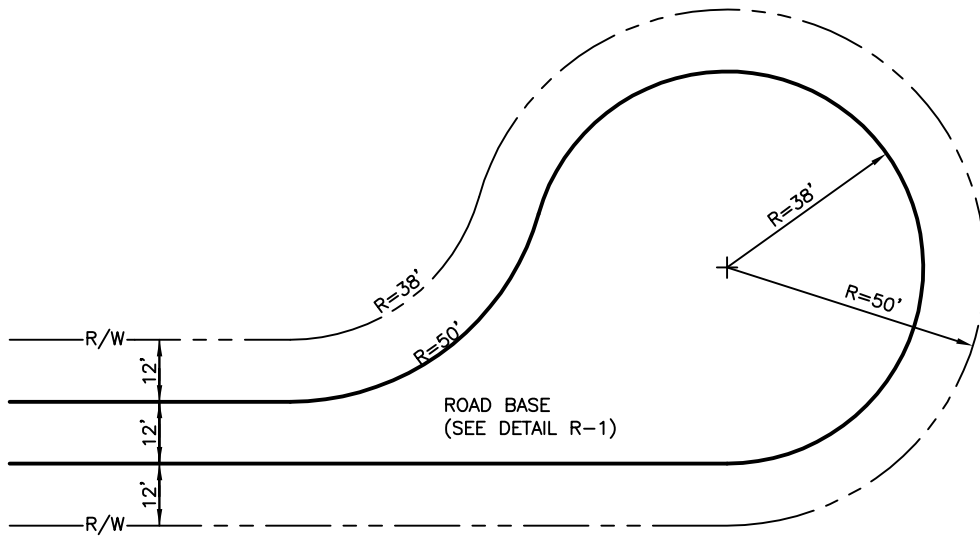
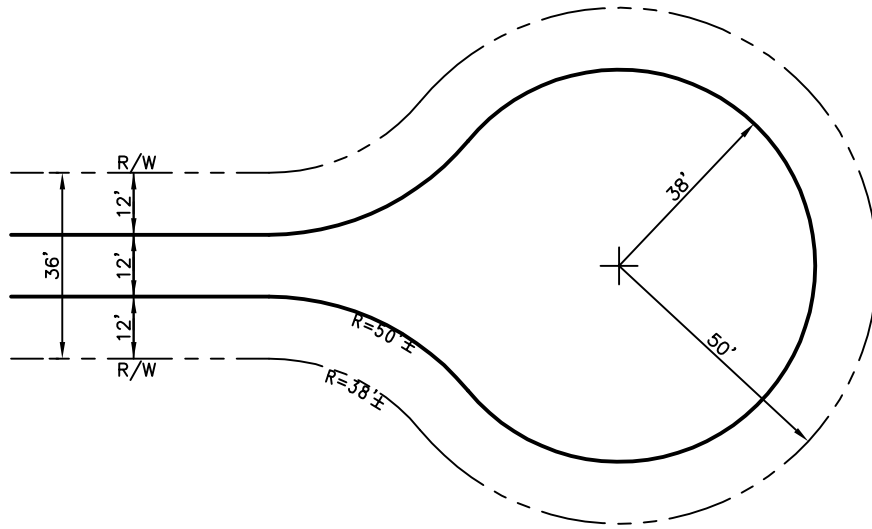
STANDARD ROAD & STREET DETAILS

RESIDENTIAL
CUL-DE-SAC RECTANGULAR

REVISED

05/07

R-14A



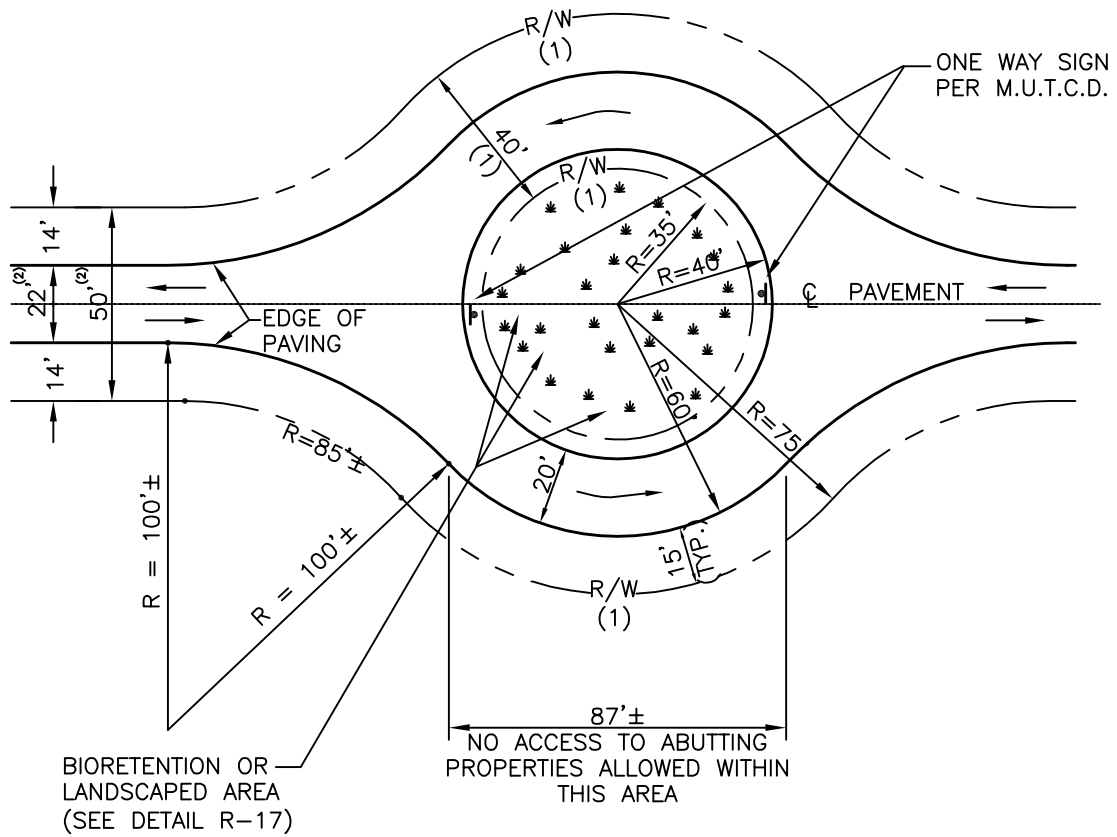
NOTE:

- (1) A LEFT OFFSET IS SHOWN. A RIGHT OFFSET DESIGN CONFORMING THE SAME DIMENSIONS MAY BE USED.

CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

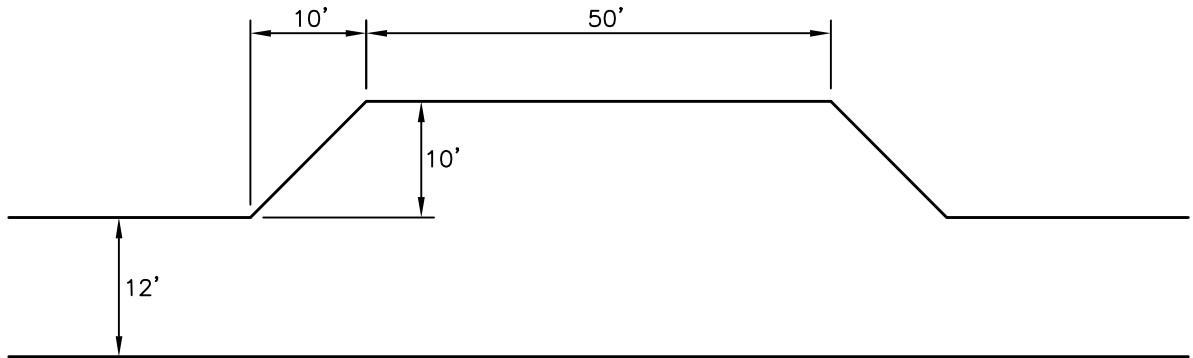
STANDARD ROAD & STREET DETAILS
RESIDENTIAL
CUL-DE-SAC ROAD (MINI ROAD)
CUL-DE-SAC DETAIL

REVISED	
05/07	
R-15	



NOTE:

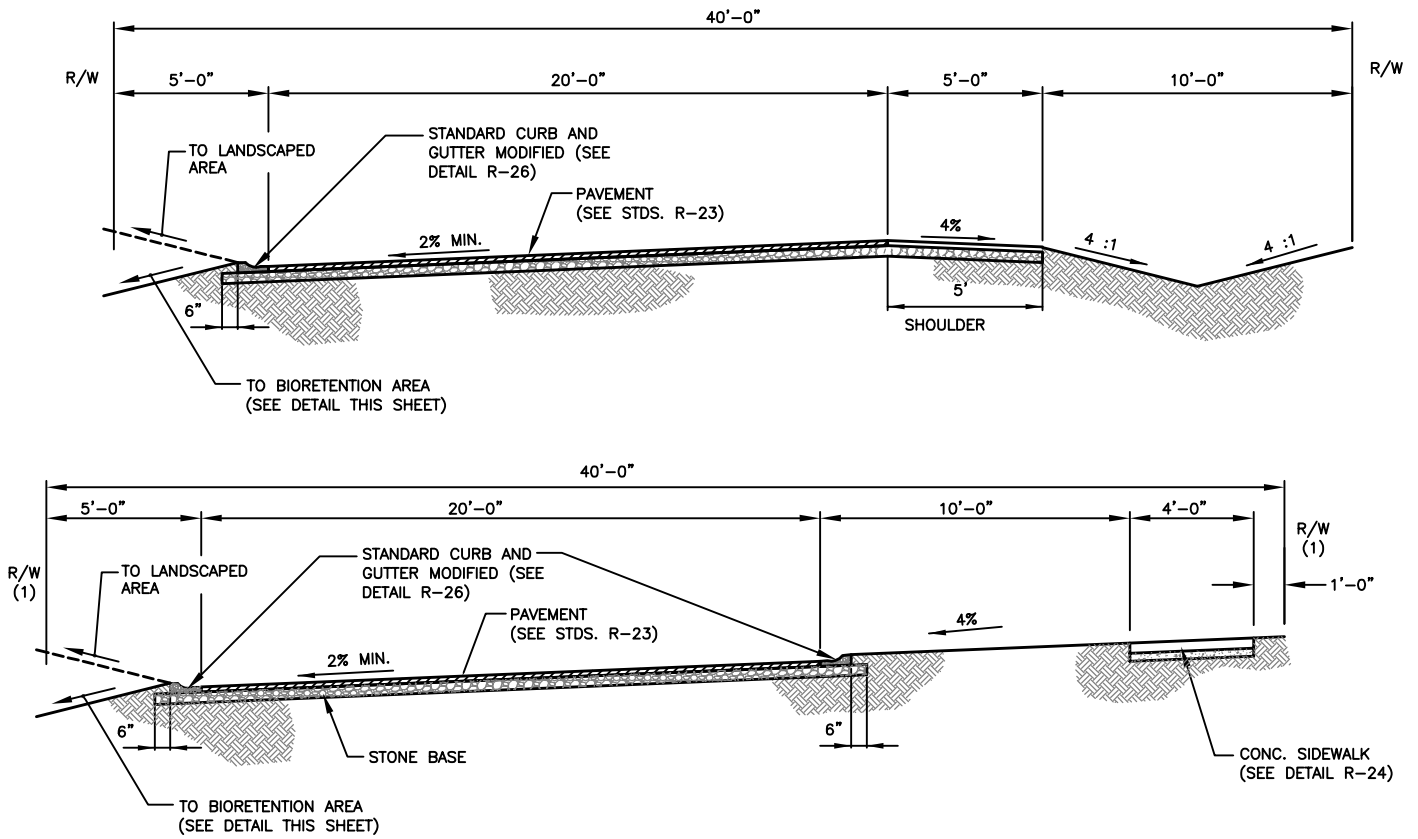
- (1) RIGHT OF WAY LINE TO RUN ALONG BACK OF THE CURB FOR TOWNHOUSE ROADS.
- (2) WIDTH WILL VARY BASED ON ROAD TYPE.



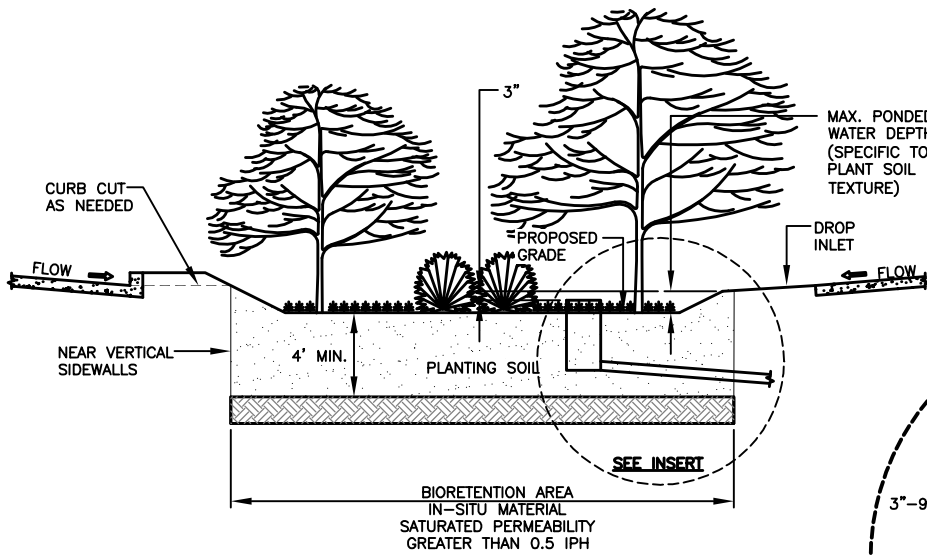
PULL-OFF (PRIVATE MINI-ROADS ONLY)

NOTE:

- 1. BROADEN RIGHT-OF-WAY ACCORDINGLY IF NEEDED.



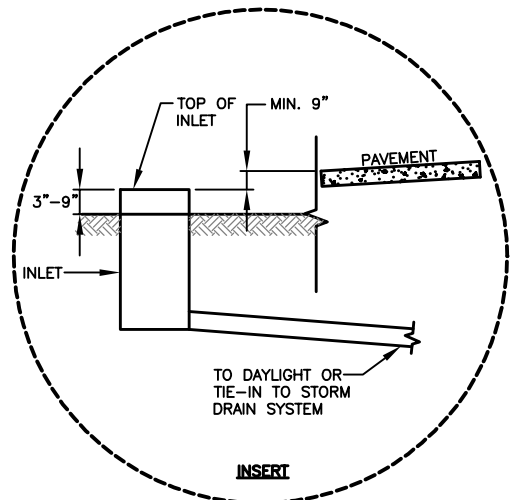
(1) RIGHT OF WAY TO RUN ALONG BACK OF THE CURB FOR TOWNHOUSE ROADS.



BIORETENTION SCHEMATIC

NOTES:

1. THESE DETAILS ARE NOT APPLICABLE TO MINI ROADS OR TEMPORARY TEE TURNAROUNDS.
2. CURB REQUIRED ON PAVEMENT CROSS SLOPES 2% AND GREATER.
3. CENTER AREA MAY ALSO BE LANDSCAPED.

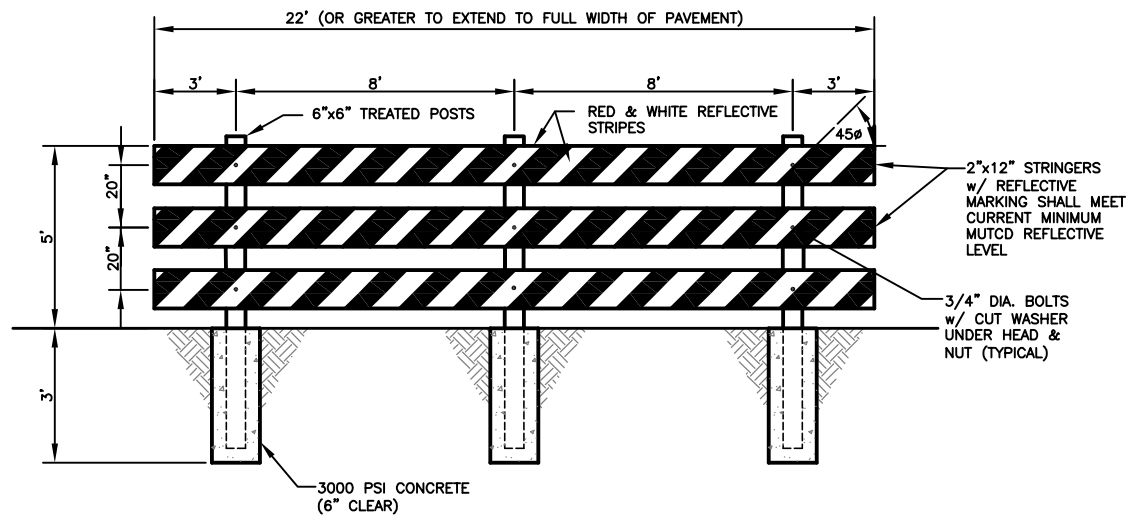
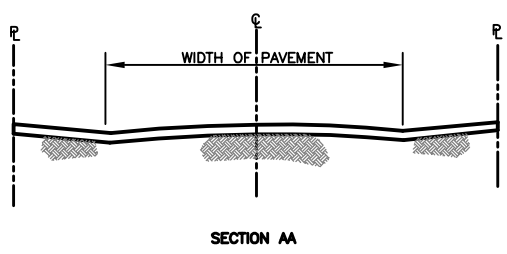
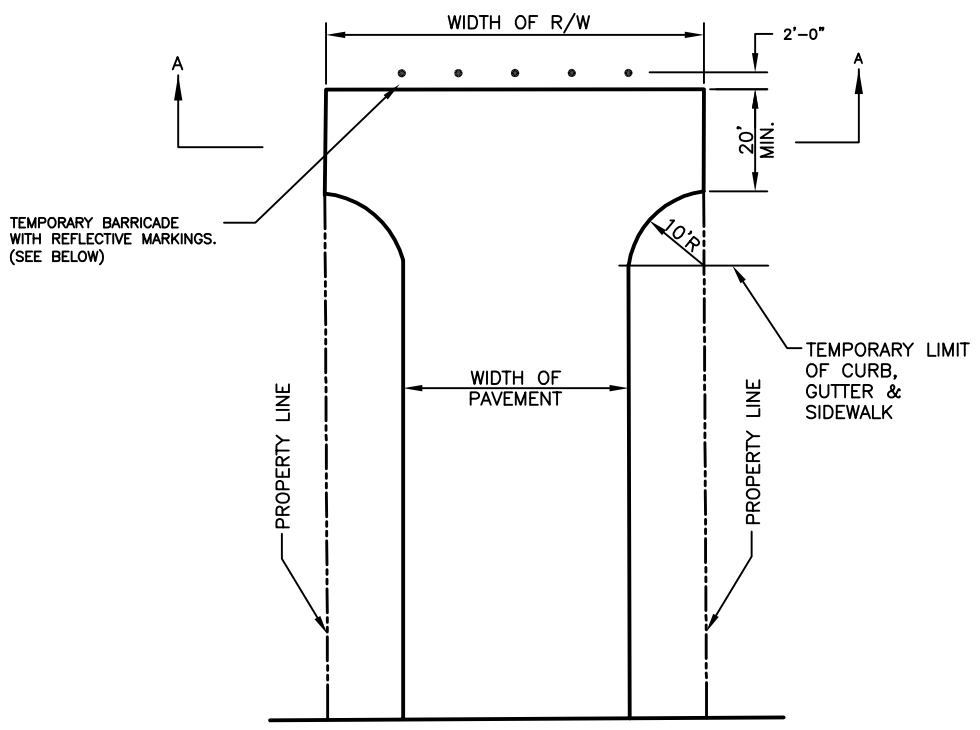


CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS
**RESIDENTIAL
CUL-DE-SAC AND INTERMEDIATE TURNAROUND
CROSS SECTIONS**

REVISED	
05/07	
R-17	

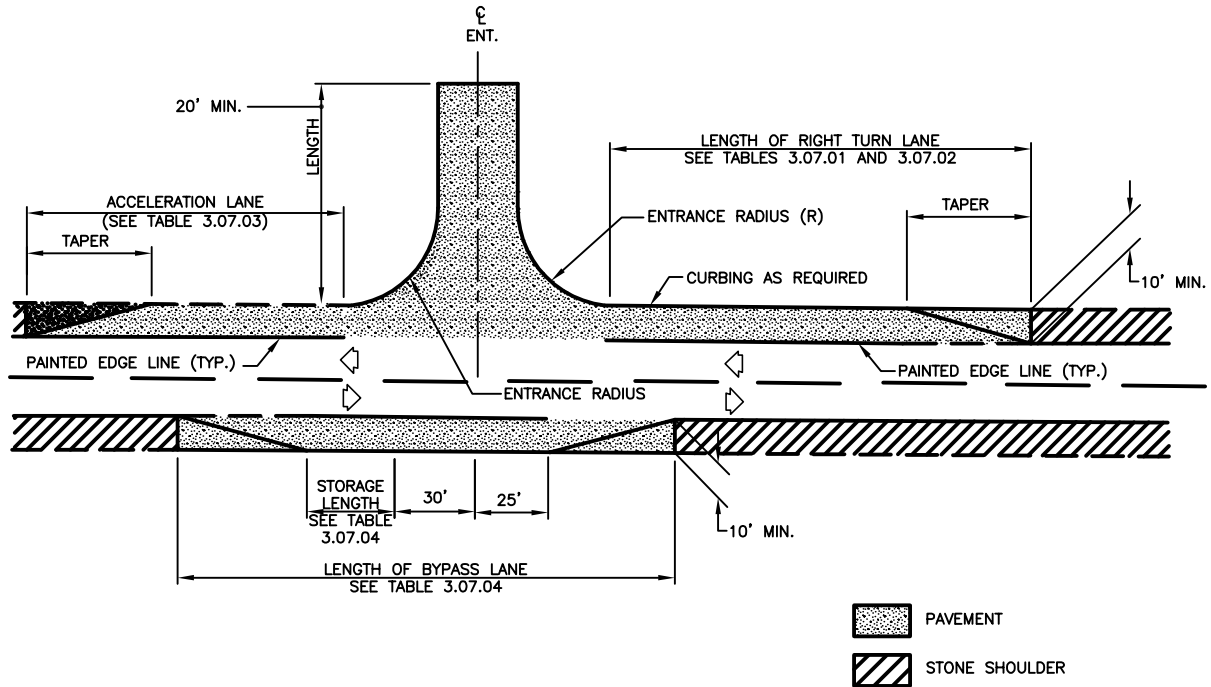
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CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

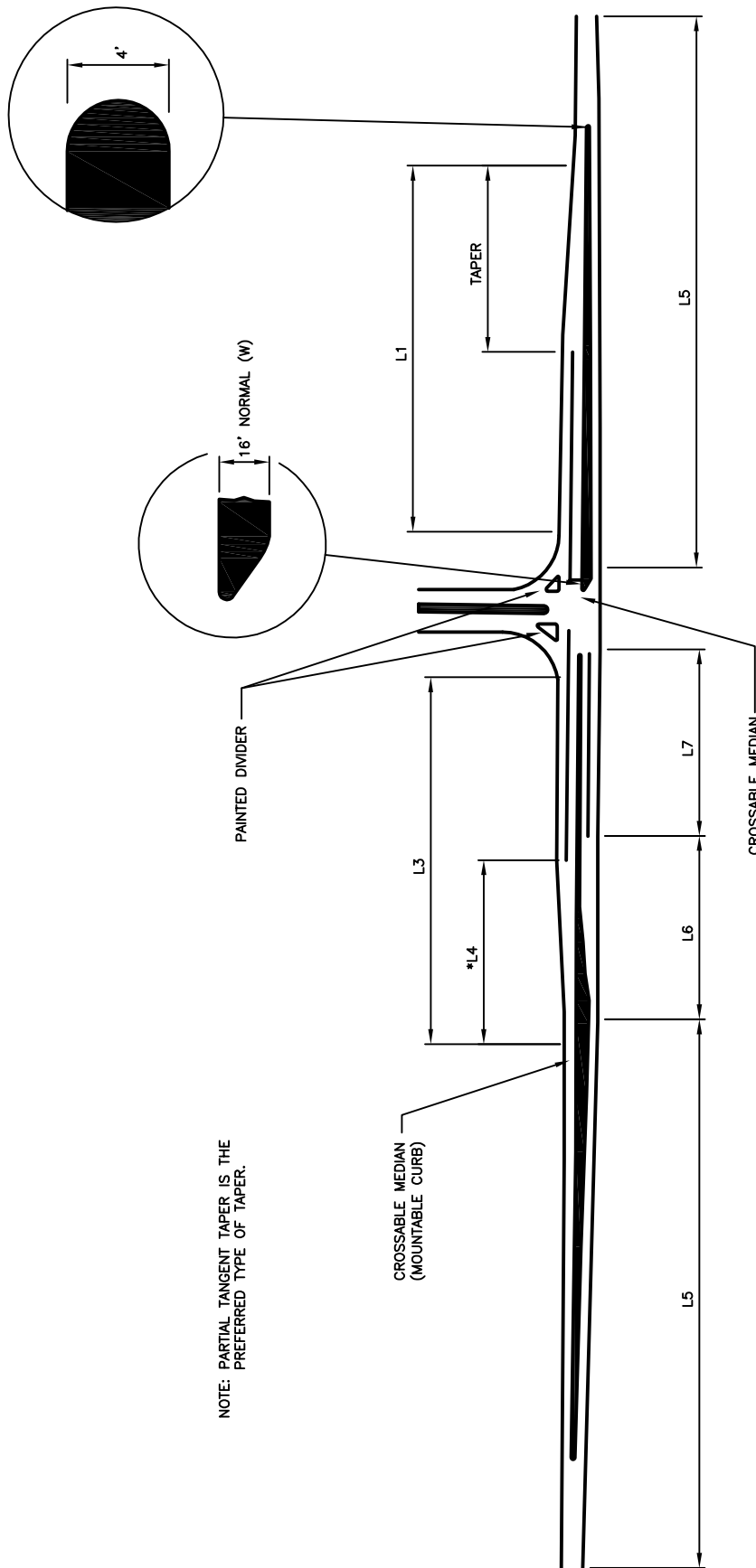
STANDARD ROAD & STREET DETAILS
**TEE TURN AROUND
& TYPE III BARRICADE**

REVISED	
05/07	
05/08	KLP
R-18	



- NOTES:
1. TAPERS WILL BE 75 FEET IF NOT OTHERWISE SPECIFIED IN TABLES 3.07.01, 3.07.02, OR 3.07.04.

CECIL COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ROAD & STREET DETAILS	REVISED
	TYPICAL RIGHT TURN LANE & BY-PASS DETAIL	05/07
		R-19



NOTE: PARTIAL TANGENT TAPER IS THE PREFERRED TYPE OF TAPER.

W= LANE WIDTH
 S= POSTED SPEED OF HIGHWAY
 *L4= 50:1 TAPER, 50' MIN.

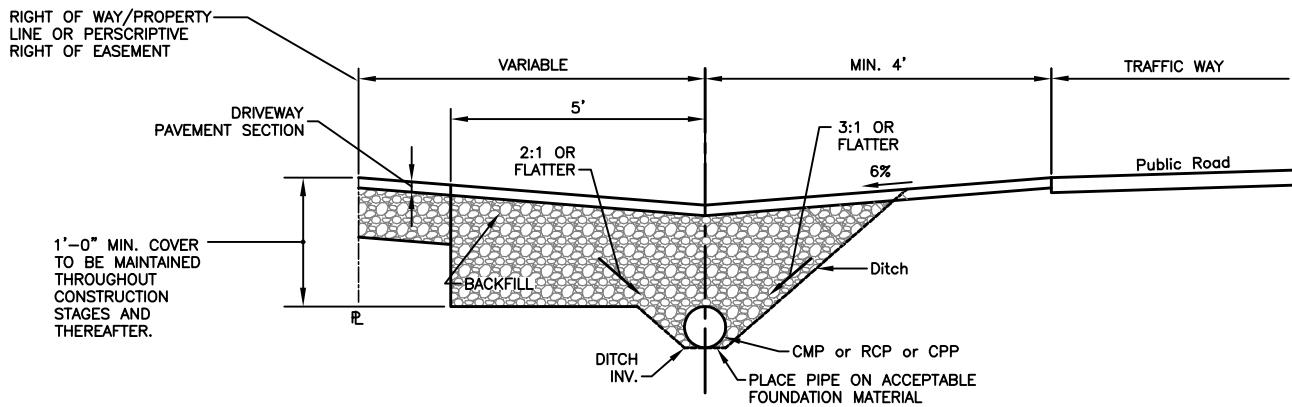
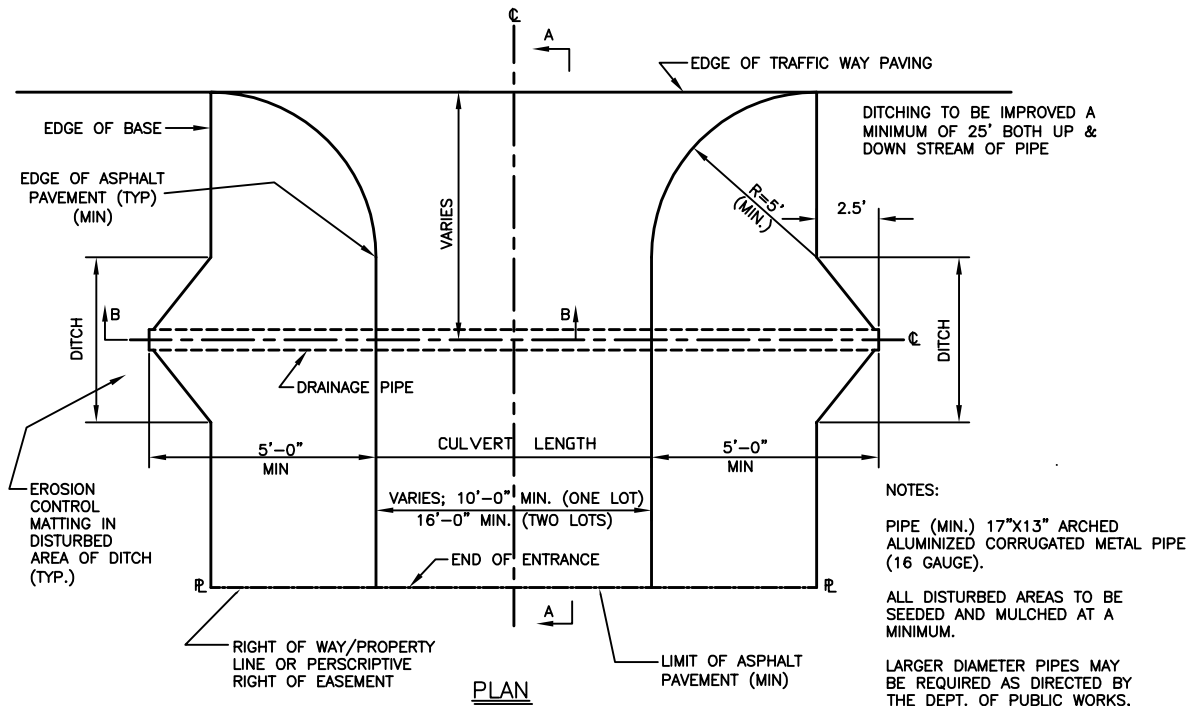
L1= SEE WARRANTS FOR RIGHT TURN LANES
 L3= SEE TABLE 3.07.03 (MAY BE REQUIRED WHEN RIGHT TURN VPH > 100)
 L5= 200' MINIMUM OR $\frac{WS}{2}$ WHICH EVER IS GREATER
 L6= 100' (TAPER)
 L7= MIN. 100' OR

TURNING VEH./HR.		REQUIRED STORAGE LENGTH
100'	200'	
100'	175'	250'
200'	300'	300'

CECIL COUNTY DEPARTMENT OF PUBLIC WORKS

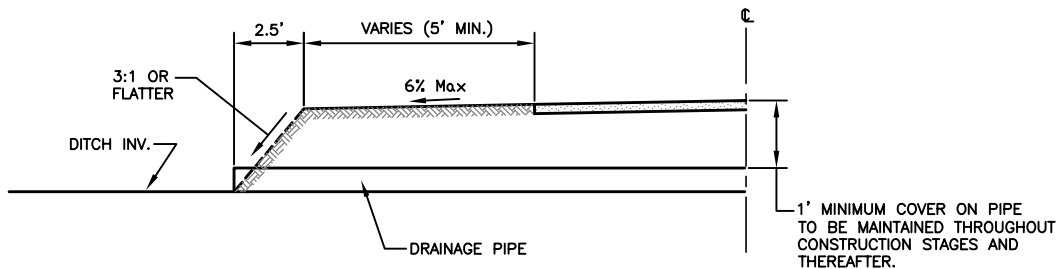
STANDARD ROAD & STREET DETAILS
 ACCELERATION LANE, DECELERATION LANE,
 AND LEFT TURN LANE ON A TWO LANE,
 TWO WAY ROADWAY

REVISED	
05/07	
R-20	

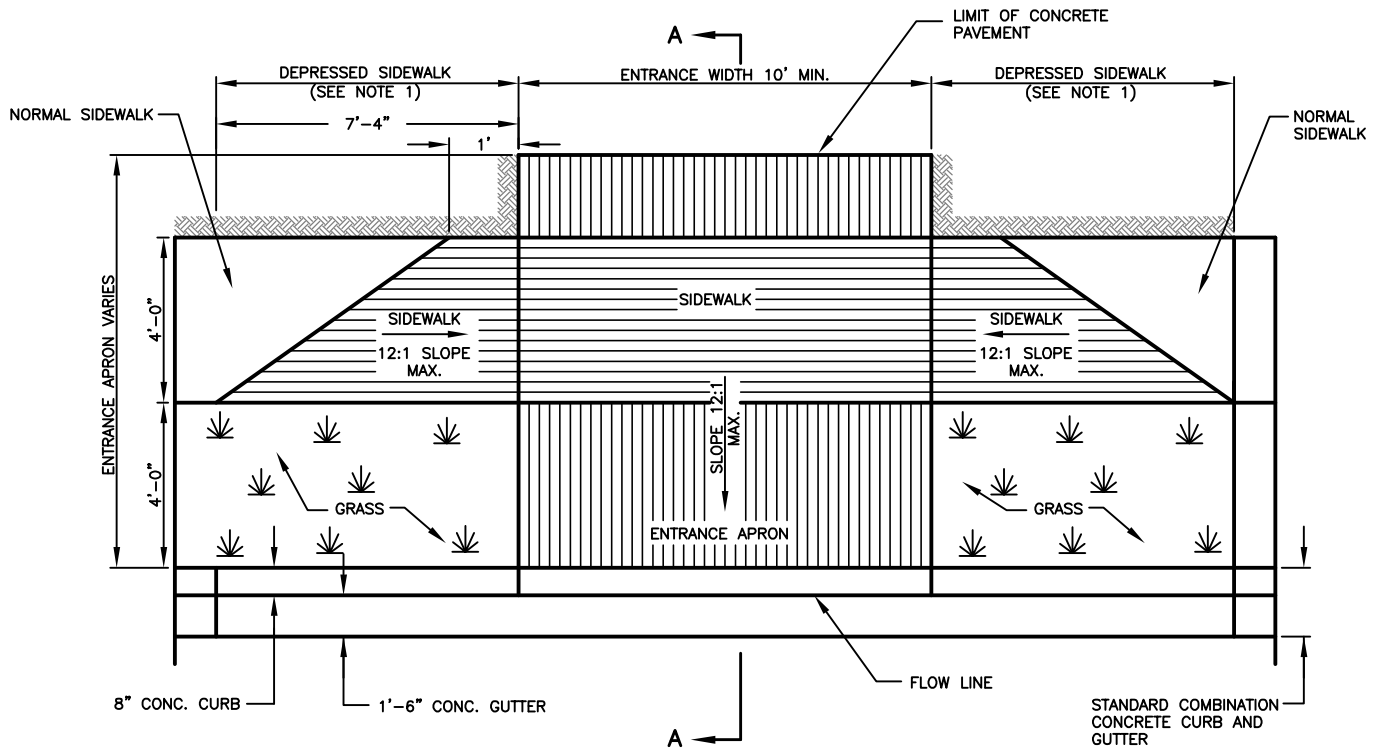


BACKFILL AND DRIVEWAY MATERIALS TO BE CRUSHER RUN.

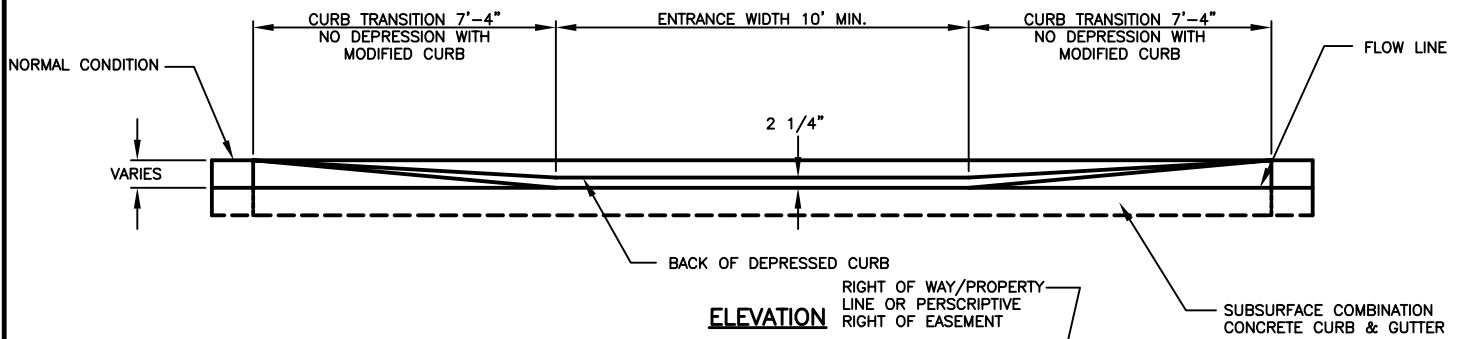
ALL DRIVEWAYS MUST BE PAVED AT LEAST TO THE RIGHT-OF-WAY.



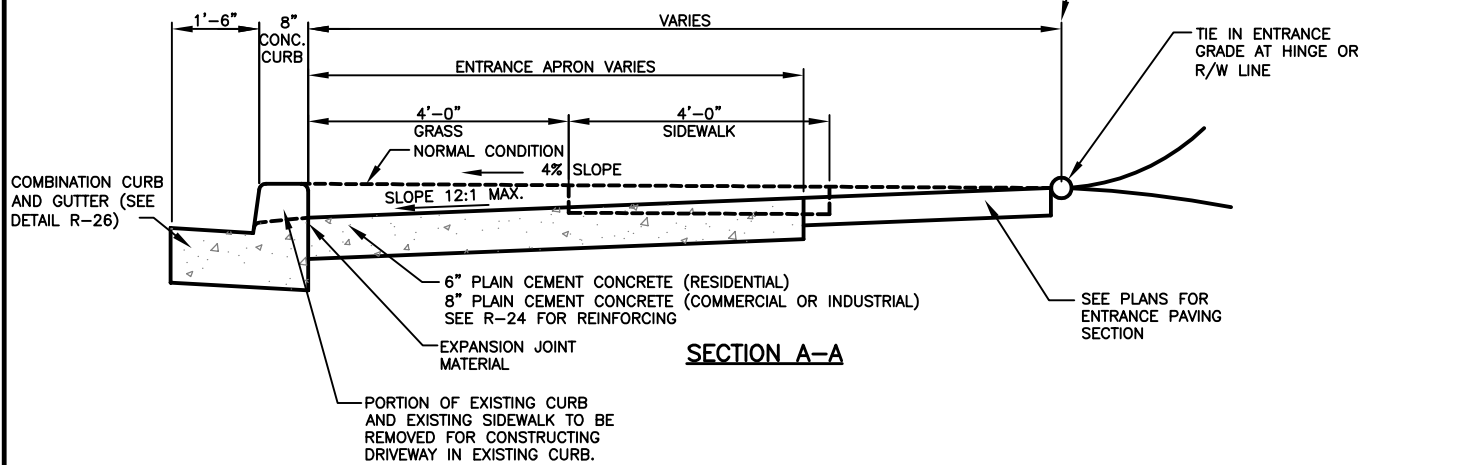
CECIL COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ROAD & STREET DETAILS		REVISED	
			05/07	
			R-21	
TYPICAL DRIVEWAY ENTRANCE FROM ROAD WITH DRAIN PIPE				



PLAN



ELEVATION

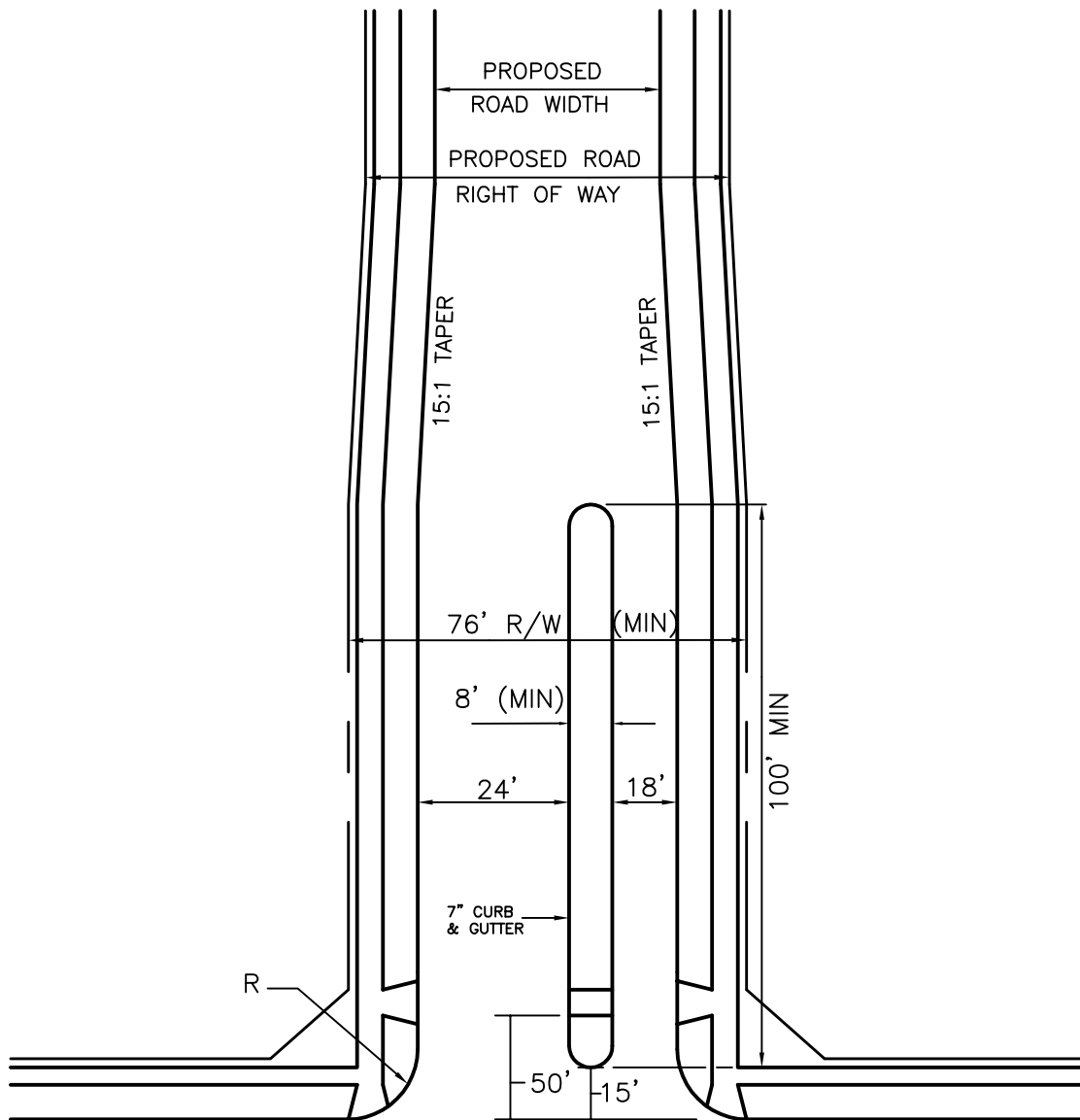


SECTION A-A

NOTES:

1. THE BACK EDGE OF THE 4' WIDE SIDEWALK TO BE DEPRESSED SO THAT THE ENTRANCE APRON GRADE WILL NOT EXCEED 12:1 (8.33%) WITHIN SIDEWALK
2. ALL EXPANSION JOINTS TO BE 1/2" PERFORMED BITUMINOUS EXPANSION JOINTS.

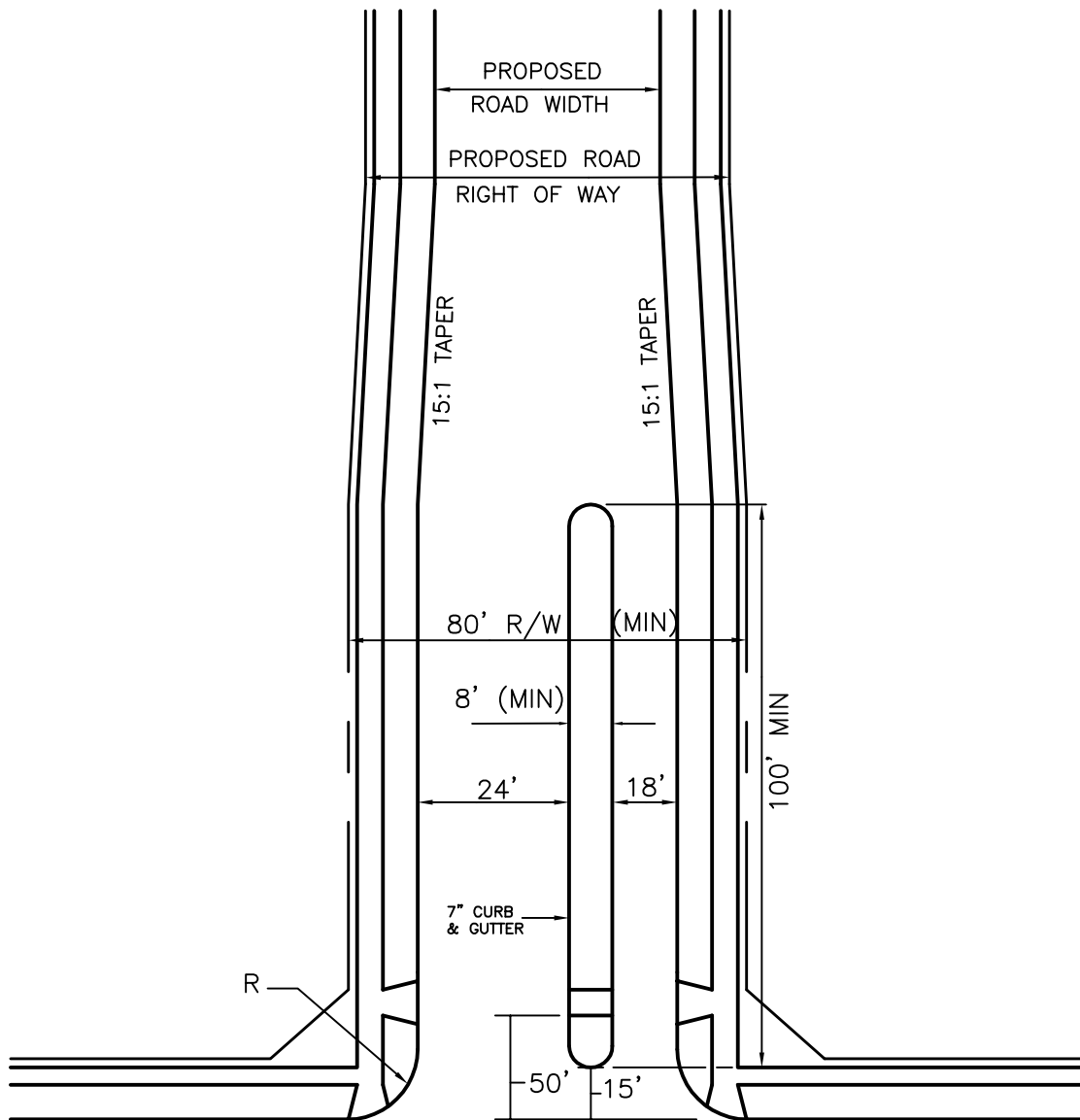
CECIL COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ROAD & STREET DETAILS TYPICAL DRIVEWAY ENTRANCE SIDEWALK ABUTTING STANDARD COMBINATION CURB AND GUTTER		REVISED
	05/07		
	R-22		



NOTE: FOR RESIDENTIAL OR COMMERCIAL SUBDIVISIONS WITH ONE ENTRANCE, THE MEDIAN SHALL BE EXTENDED TO THE FIRST INTERSECTION OR COMMERCIAL ENTRANCE, OR AS DETERMINED BY THE DEPARTMENT OF PUBLIC WORKS.

R = 40' RESIDENTIAL ROADS
 R = 50' COMMERCIAL/INDUSTRIAL ROADS

CECIL COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ROAD & STREET DETAILS		REVISED	
	MONUMENTAL ENTRANCE (MINOR COLLECTOR ROAD) – 76' R/W		05/07	
				R-22A



NOTE: FOR RESIDENTIAL OR COMMERCIAL SUBDIVISIONS WITH ONE ENTRANCE, THE MEDIAN SHALL BE EXTENDED TO THE FIRST INTERSECTION OR COMMERCIAL ENTRANCE, OR AS DETERMINED BY THE DEPARTMENT OF PUBLIC WORKS.

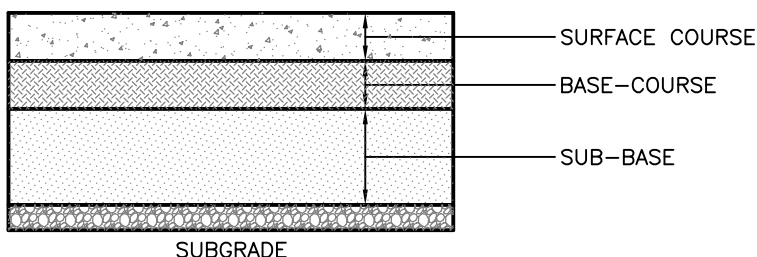
R = 40' RESIDENTIAL ROADS
 R = 50' COMMERCIAL/INDUSTRIAL ROADS

CECIL COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ROAD & STREET DETAILS	REVISED
	MONUMENTAL ENTRANCE (MAJOR COLLECTOR ROAD) – 80' R/W	05/07
		R-22B

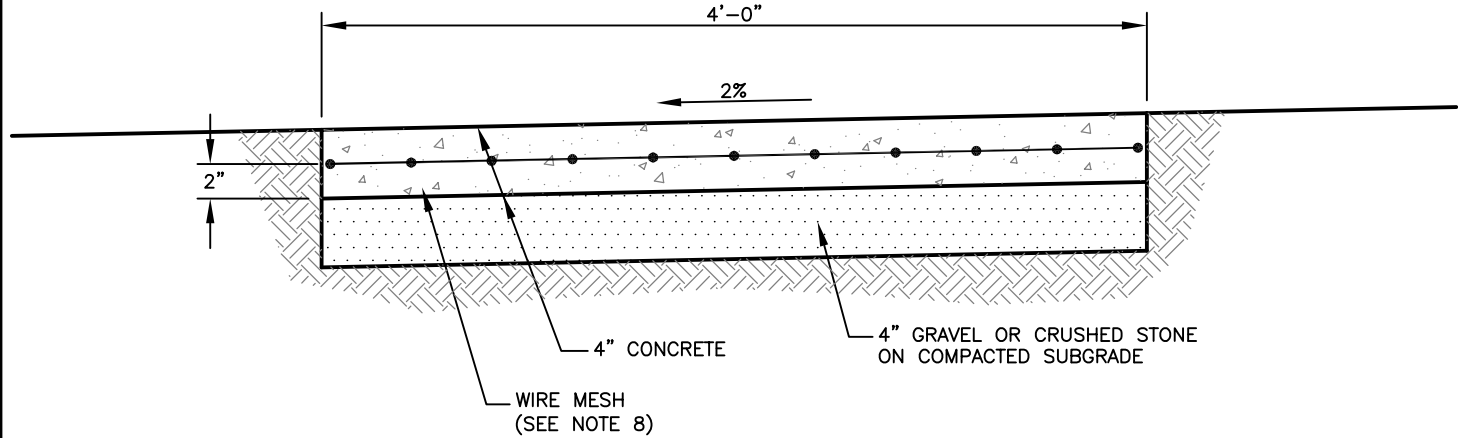
TYPE AND ROAD CLASSIFICATION	COMMERCIAL/INDUSTRIAL ROADS			ALL OTHER ROADS			
	MINOR	MINOR COLLECTOR	MAJOR (3) COLLECTOR	MINOR	MINOR COLLECTOR	MAJOR (4) COLLECTOR	TOWNHOUSE PARKING
SURFACE COURSE: TYPE THICKNESS (IN.)	N/A	*	*	LEVEL 1 9.5 mm 64-22	LEVEL 2 9.5 mm 64-22	LEVEL 2 9.5 mm 76-22	LEVEL 1 9.5 mm 64-22
	N/A	2.00	2.00	1.50	1.50	1.50	1.50
BASE-COURSE TYPE THICKNESS (IN.)	N/A	*	*	LEVEL 1 19 mm 64-22	LEVEL 2 19 mm 64-22	LEVEL 2 19 mm 76-22	LEVEL 1 19 mm 64-22
	N/A	10.00	12.00	3.00	4.50	7.00	N/A
SUB-BASE TYPE THICKNESS (IN.) NO. OF LIFT (2)	N/A	GA (1)	GA	GA	GA	GA	GA
	N/A	15.00	15.00	10.00	12.50	15.00	15.00
	N/A	2	2	2	2	2	2
MINIMUM STRUCTURAL NUMBER (SN) (4) (5)	N/A	6.90	7.70	3.20	4.15	5.50	2.90

* ENGINEER MUST SUBMIT PAVEMENT DESIGN TYPE IN ACCORDANCE WITH STATE HIGHWAY ADMINISTRATION'S PAVEMENT DESIGN GUIDE.

- (1) GA = GRADED AGGREGATE (CAN BE REPLACED WITH BANK RUN GRAVEL AS SPECIFIED BY THE SHA SPECIFICATIONS, CERTIFIED BY A GEOTECHNICAL ENGINEER OR QUALIFIED SOILS TECHNICIAN, AND APPROVED BY THE DEPARTMENT. MINIMUM STRUCTURAL NUMBER SHALL BE MAINTAINED AT ALL TIMES.); IF BANK RUN GRAVEL IS USED, INCREASE THICKNESS BY 2".
- (2) LIFT THICKNESS SHALL NOT BE LESS THAN 4" AND SHALL NOT EXCEED 8".
- (3) FOR MAJOR COLLECTOR WITH TRAFFIC VOLUME EXCEEDING 5000 ADT OR TRUCK TRAFFIC VOLUME EXCEEDING 500/DAY/DIRECTION A DETAILED DESIGN PREPARED BY A PROFESSIONAL ENGINEER EXPERIENCED IN HIGHWAY PAVEMENT DESIGN SHALL BE SUBMITTED FOR APPROVAL BY THE DEPARTMENT.
- (4) THESE MINIMUM DESIGNS ARE BASED ON POOR SUB GRADE SOILS. THE STRUCTURAL NUMBER REQUIREMENTS, CAN BE REDUCED BY 0.8 IF A GEOTECHNICAL REPORT DEMONSTRATES EXISTENCE OF GOOD SUB GRADE SOILS AND IS APPROVED BY THE DEPARTMENT. SEE SECTION 4.01B FOR DEFINITION OF POOR & GOOD SOILS.
- (5) ALTERNATE PAVEMENT SECTIONS MEETING THE MINIMUM STRUCTURAL NUMBER REQUIREMENTS, CAN BE SUBMITTED TO THE DEPARTMENT WITH CALCULATIONS IN ACCORDANCE WITH SECTION 4.01C FOR APPROVAL.
- (6) MIX DESIGN SHALL BE SHA CERTIFIED AND CURRENT CERTIFICATION SHALL BE PROVIDED BY THE CONTRACTOR UPON REQUEST OF THE DEPARTMENT.



CECIL COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ROAD & STREET DETAILS		REVISED	
			05/07	
			05/08	KLP
	MINIMUM PAVEMENT SECTION STANDARDS		R-23	



NOTES:

1. SIDEWALKS TO BE SCRIBED IN 4' SQUARES.
2. EXPANSION JOINTS ACROSS THE SIDEWALK NOT LESS THAN 12' APART AND NOT MORE THAN 16' APART.
3. 1/2" PRE FORMED BITUMINOUS EXPANSION JOINT FILLER IN EXPANSION JOINTS TO BE 1/4" WIDE, 1/4" BELOW SURFACE OF SIDEWALK.
4. CONCRETE TO BE 3000 P.S.I., S.H.A. MIX NO. 2
5. WHEN SIDEWALK ABUTS CURB, WALK SHALL BE 1/4" ABOVE CURB.
6. FOR LOCATION OF SIDE WALK SEE DETAILS (R-1 THRU R-17).
7. FOR MODIFICATIONS TO SUIT DRIVEWAYS AND RAMPS SEE DETAIL (R-22 & R-25)
8. 6" x 6" 10 GAUGE WIRE MESH TO BE USED CONTINUOUSLY FOR ALL SIDEWALKS, PLACED 2" CLEAR OF THE BASE.

CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

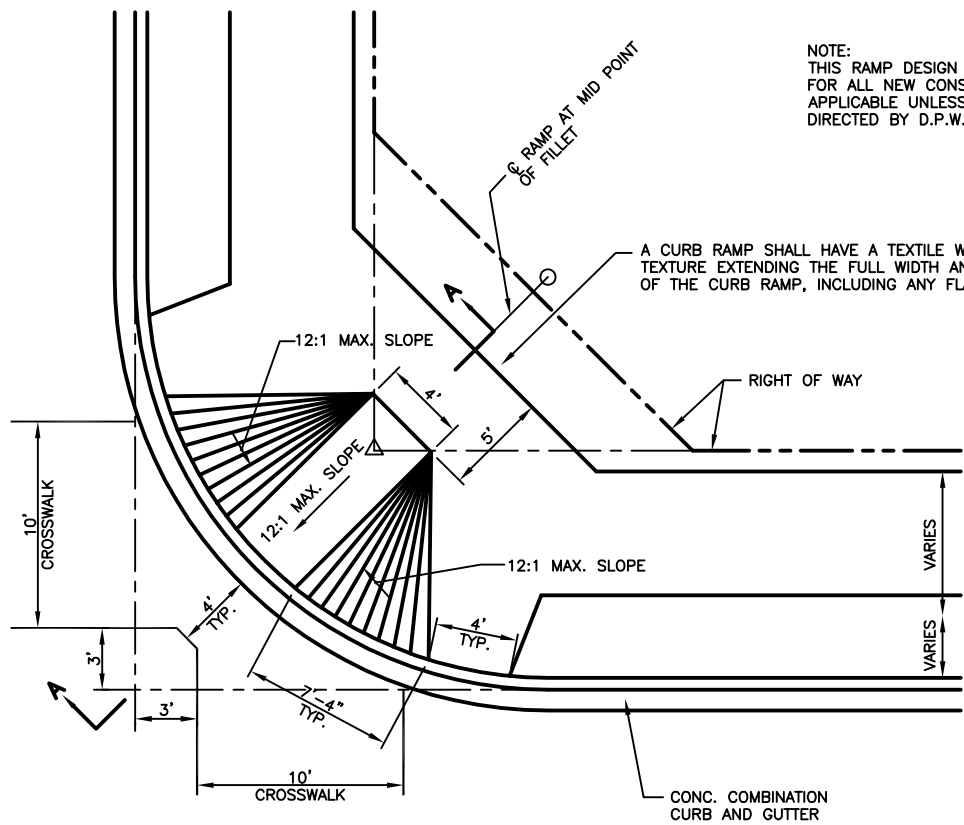
STANDARD ROAD & STREET DETAILS

STANDARD 4' SIDEWALK

REVISED

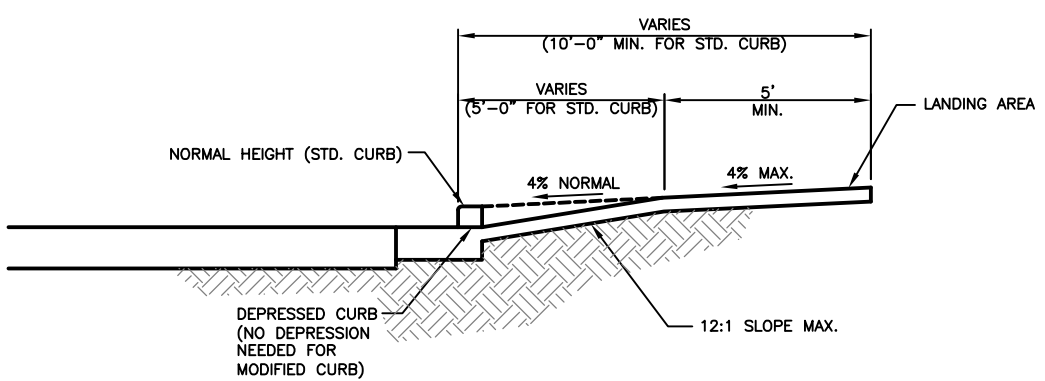
05/07

R-24



NOTE:
THIS RAMP DESIGN TO BE USED
FOR ALL NEW CONSTRUCTION WHERE
APPLICABLE UNLESS OTHERWISE
DIRECTED BY D.P.W.

A CURB RAMP SHALL HAVE A TEXTILE WARNING
TEXTURE EXTENDING THE FULL WIDTH AND DEPTH
OF THE CURB RAMP, INCLUDING ANY FLARES



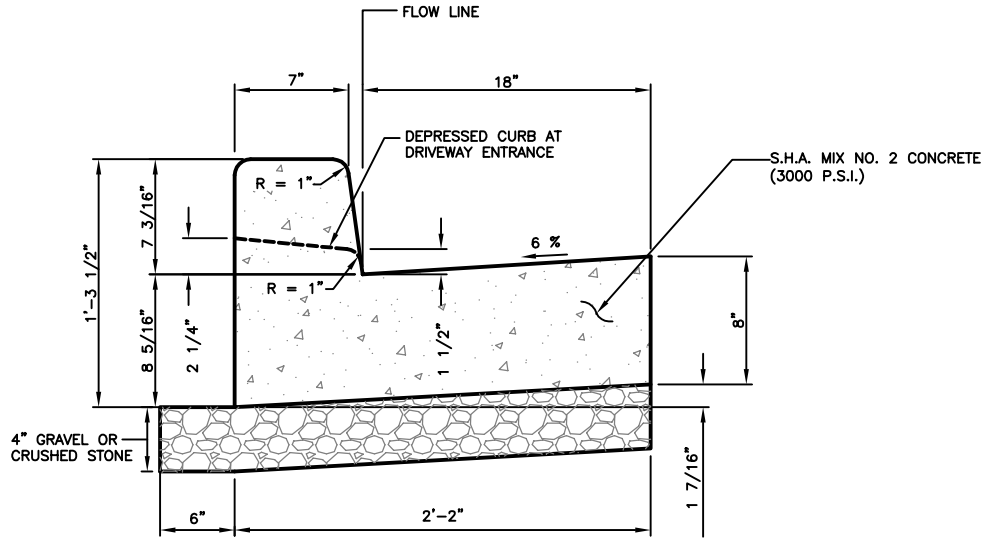
CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS

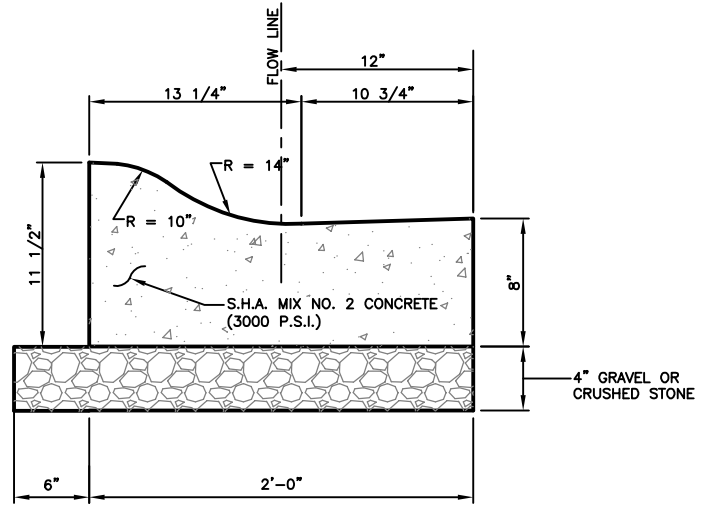
SIDEWALK CORNER RAMP

REVISED	
05/07	
R-25	

R:\MD_CecilCnty\Common_Info\Revised County Details\2008\05-20-08\R-26.dwg, Model, 9/4/2008 12:58:02 PM, john_e_dougherty, CutePDF Writer, Letter, 1:10



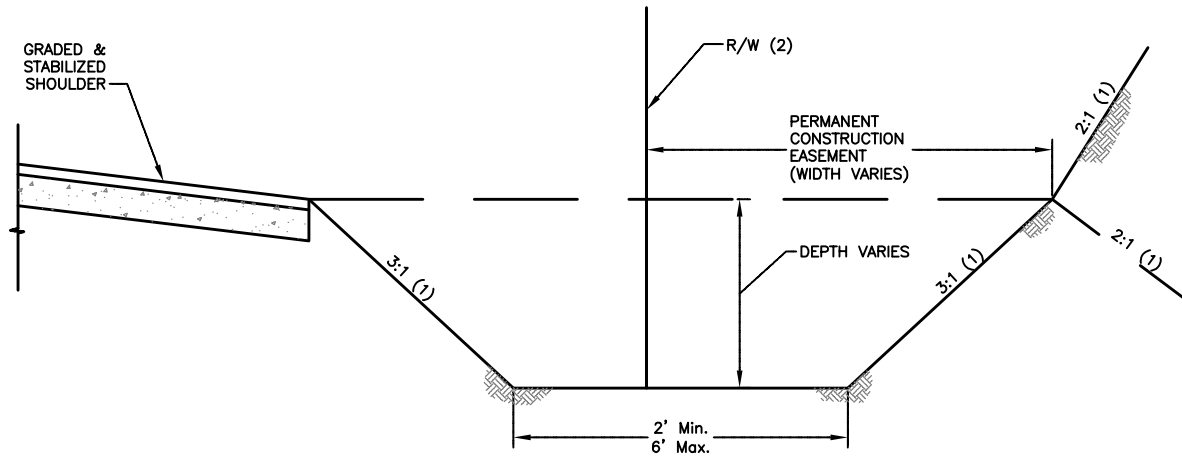
STANDARD COMBINATION CURB AND GUTTER



MODIFIED COMBINATION CURB AND GUTTER

NOTE:
 MODIFIED COMBINATION CURB
 & GUTTER TO BE USED ONLY ON
 MINOR ROADS, CUL-DE-SAC ROADS,
 MINOR COLLECTOR ROADS,
 AND MEDIANS

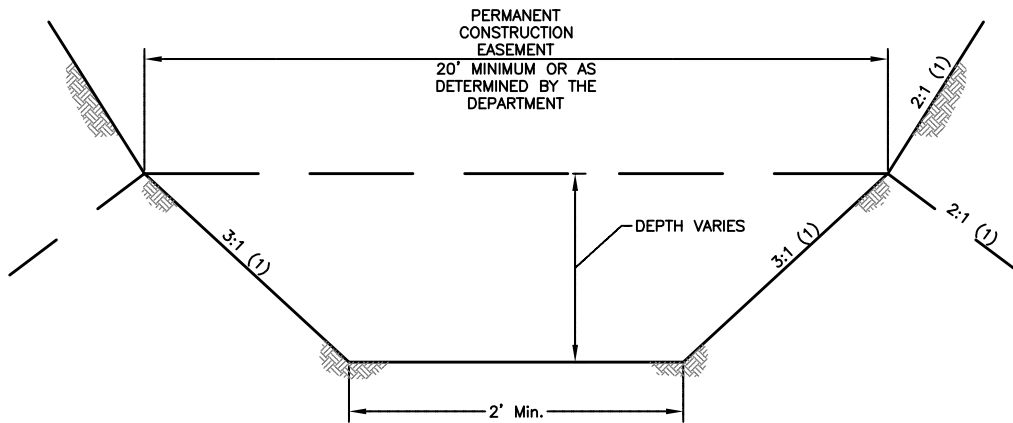
CECIL COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ROAD & STREET DETAILS		REVISED	
			05/07	
			05/08	KLP
	CURB DETAILS		R-26	



- (1) THE SLOPES INDICATED ARE THE STEEPEST SLOPES ALLOWED.
- (2) AN EQUIVALENT PARABOLIC CROSS SECTION IS AN ALLOWABLE ALTERNATIVE.
- (3) RELATIONSHIP BETWEEN R.O.W. AND DITCH BASED ON THE DITCH DESIGN, AND APPLICABLE STREET R.O.W.

WITHIN OR ADJACENT TO A RIGHT-OF-WAY

- Notes:
- 1. LONGITUDINAL SLOPE OF DITCH TO BE 4% MAX.
 - 2. VELOCITY OF FLOW IN THE DITCH FOR 1" RAINFALL STORM TO BE 1.0 FEET/SEC. MAX.
 - 3. STORM WATER MANAGEMENT CREDIT APPLIES TO THE DEVELOPMENT DENSITY OF 2 DU/AC.
 - 4. GRASSED CHANNEL FOR STORM WATER CREDIT NOT ALLOWED IF ROOF TOP CONNECTION CREDIT IS TAKEN.



NOT WITHIN OR ADJACENT TO A RIGHT-OF-WAY

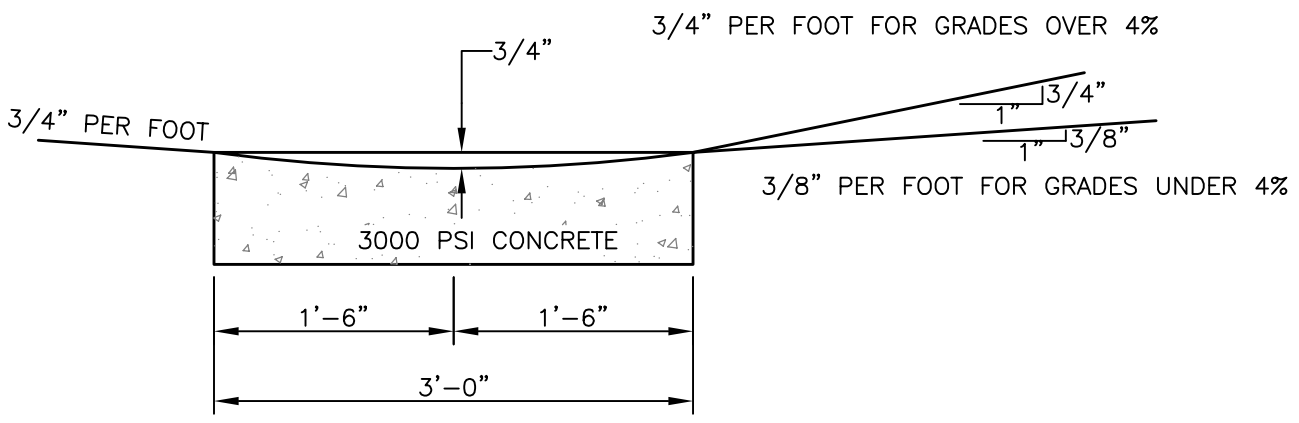
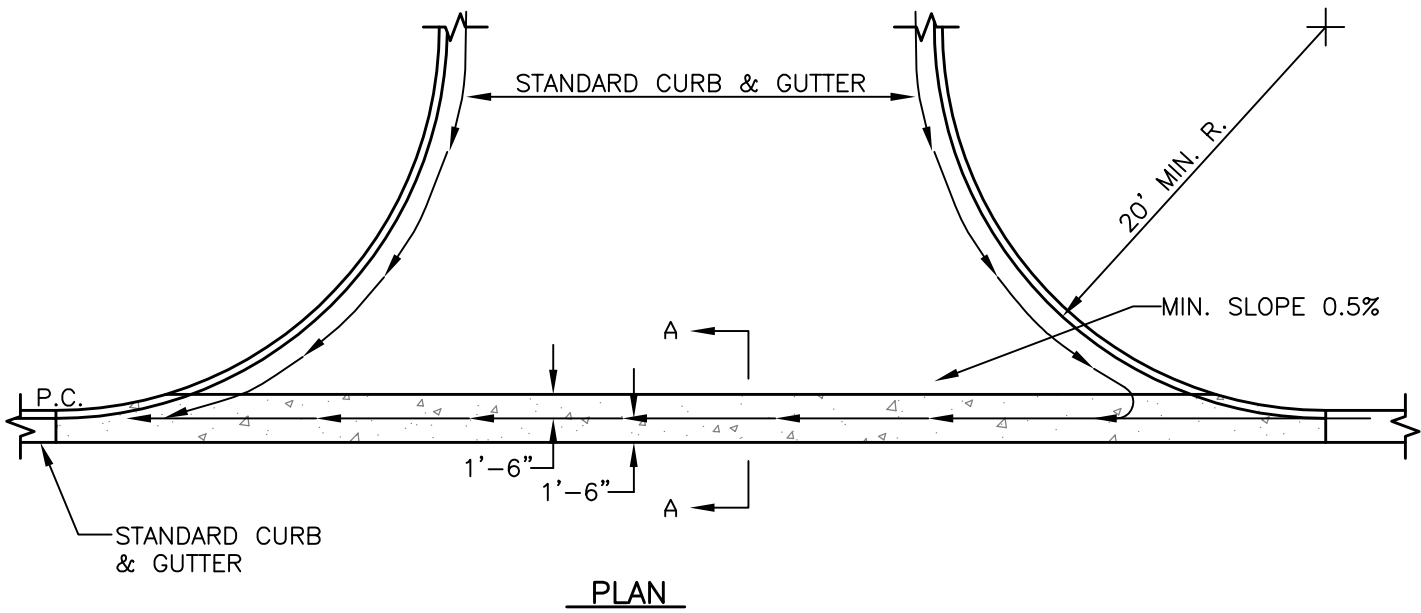
- (1) THE SLOPES INDICATED ARE THE STEEPEST SLOPES ALLOWED.
- (2) LONGITUDINAL SLOPE OF DITCH TO BE 4% MAX.

CECIL
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OF
PUBLIC WORKS

GRASSED ROADSIDE CHANNEL
FOR
STORM WATER MANAGEMENT CREDIT

REVISED	
05/07	
R-27	

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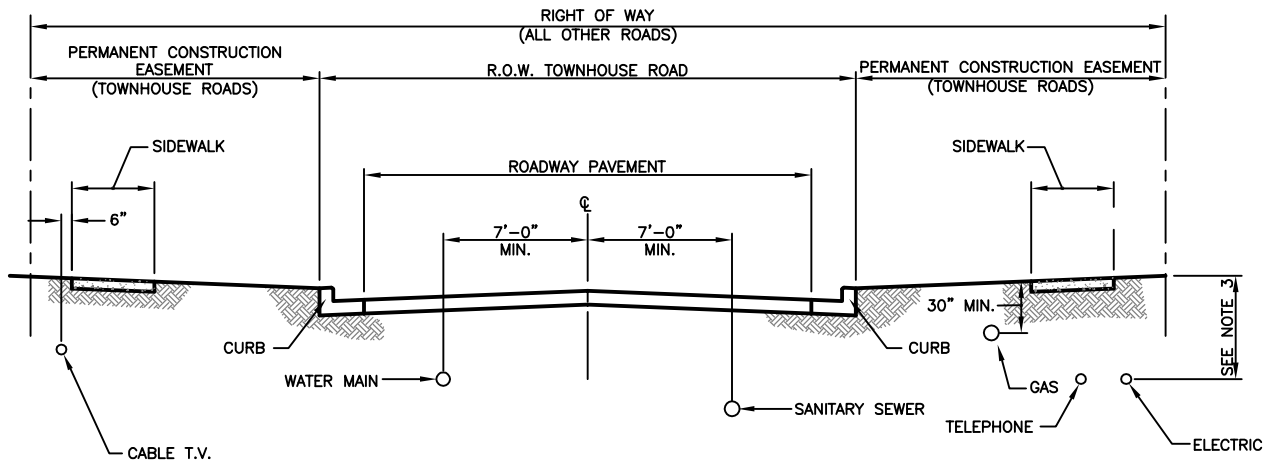


CECIL
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OF
PUBLIC WORKS

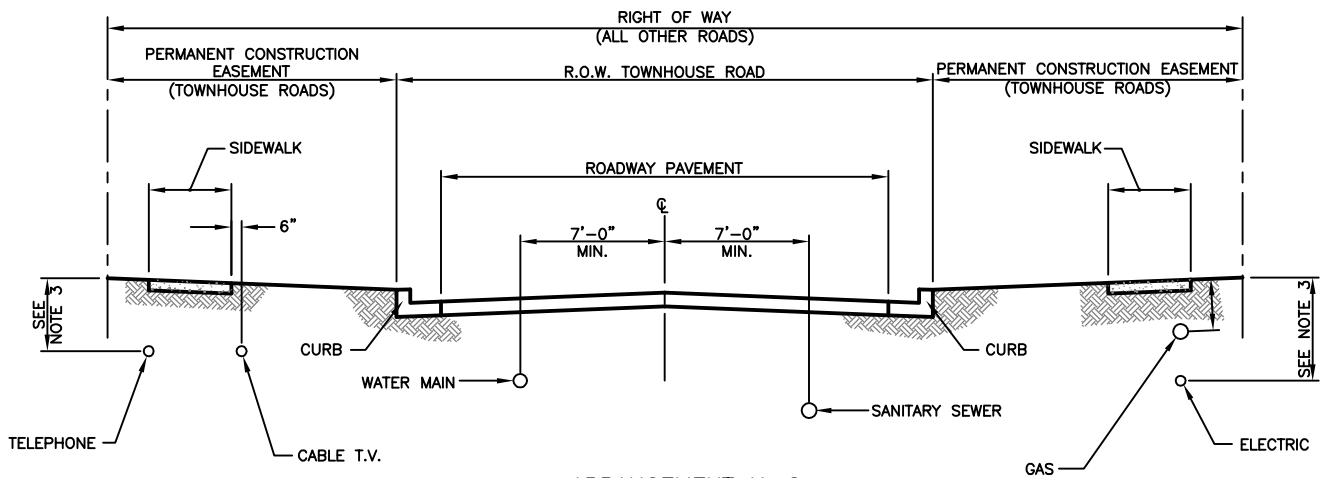
STANDARD ROAD & STREET DETAILS

VALLEY GUTTER
FOR 90° INTERSECTION

REVISED	
05/07	
05/08	KLP
R-28	



ARRANGEMENT No.1



ARRANGEMENT No.2

NOTES:

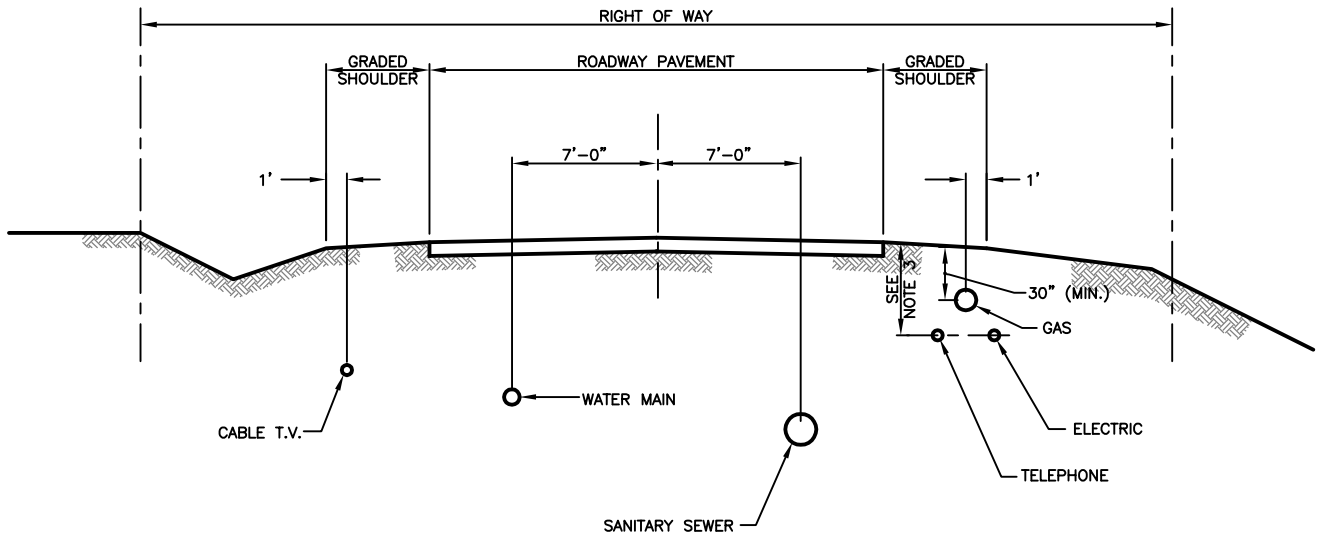
1. THE DEPARTMENT OF PUBLIC WORKS SHALL BE CONSULTED CONCERNING THE UTILITY LOCATION ARRANGEMENT FOR A GIVEN STREET PROJECT.
2. GAS, ELECTRIC AND TELEPHONE LINES MAY BE PLACED IN SAME TRENCH.
3. ELECTRIC: 0-600V 24" COVER, OVER 600 V 36" COVER,
CABLE T.V. 11" COVER
TELEPHONE: MAIN SERVICE 24" COVER, RESIDENTIAL CONNECTION 11" COVER

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OF
PUBLIC WORKS

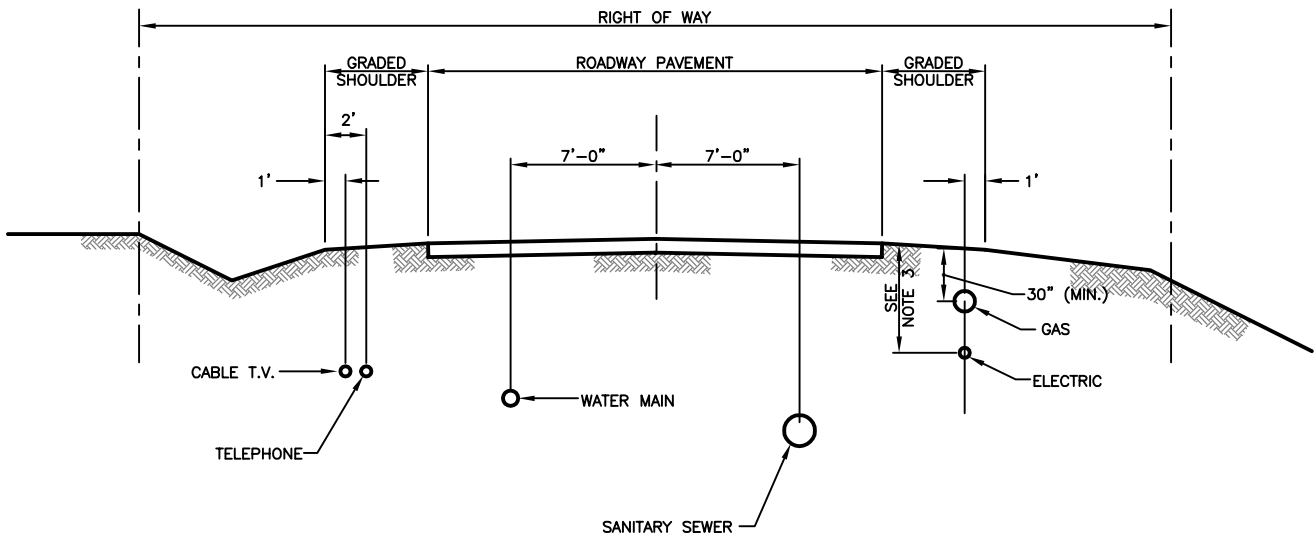
STANDARD ROAD & STREET DETAILS

NORMAL LOCATION OF PUBLIC UTILITY
CLOSED SECTION

REVISED	
05/07	
R-29	



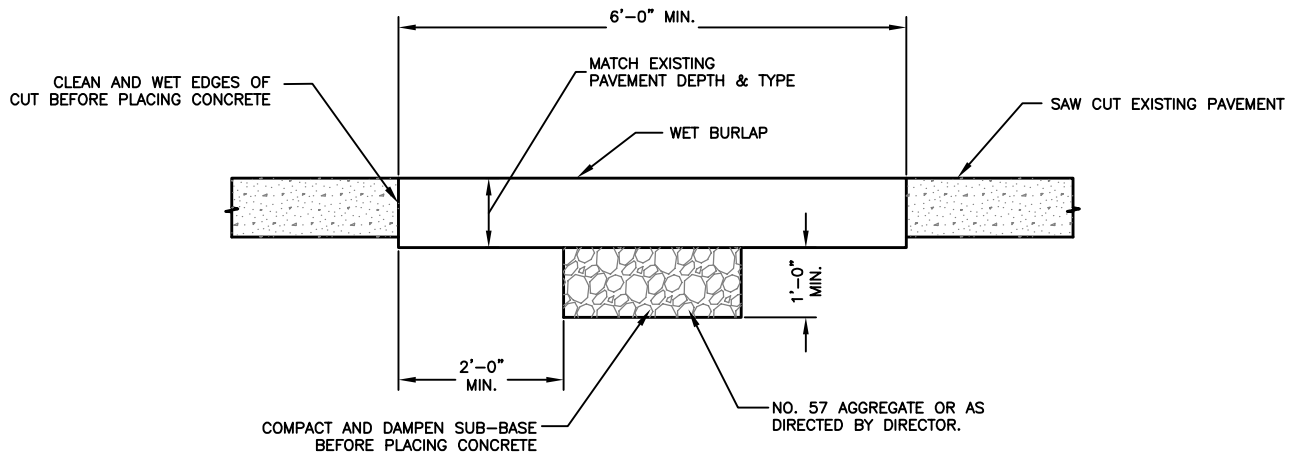
ARRANGEMENT No.1



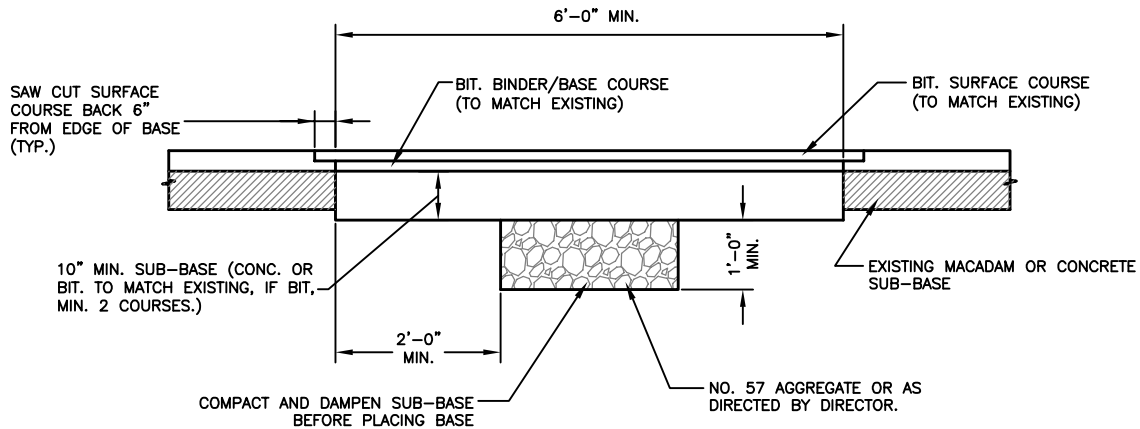
ARRANGEMENT No.2

NOTES:

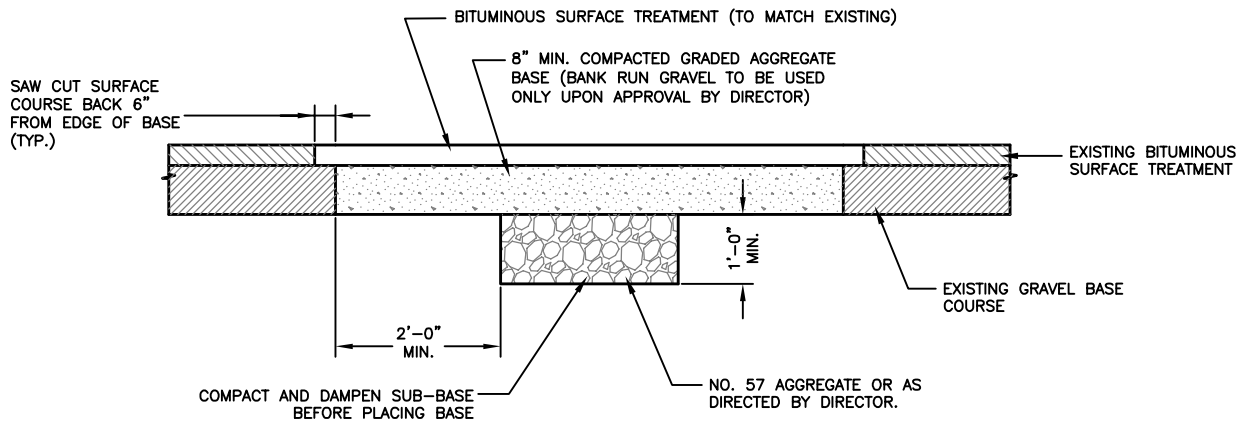
1. THE DEPARTMENT OF PUBLIC WORKS SHALL BE CONSULTED CONCERNING THE UTILITY LOCATION ARRANGEMENT FOR A GIVE STREET PROJECT.
2. GAS, ELECTRIC AND TELEPHONE LINES MAY BE PLACED IN SAME TRENCH.
3. ELECTRIC: 0-600V 24" COVER, OVER 600 V 36" COVER,
CABLE T.V. 11" COVER
TELEPHONE: MAIN SERVICE 24" COVER, RESIDENTIAL CONNECTION 11" COVER



CONCRETE ROADWAY – RIGID TYPE



MACADAM ROADWAY – FLEXIBLE TYPE



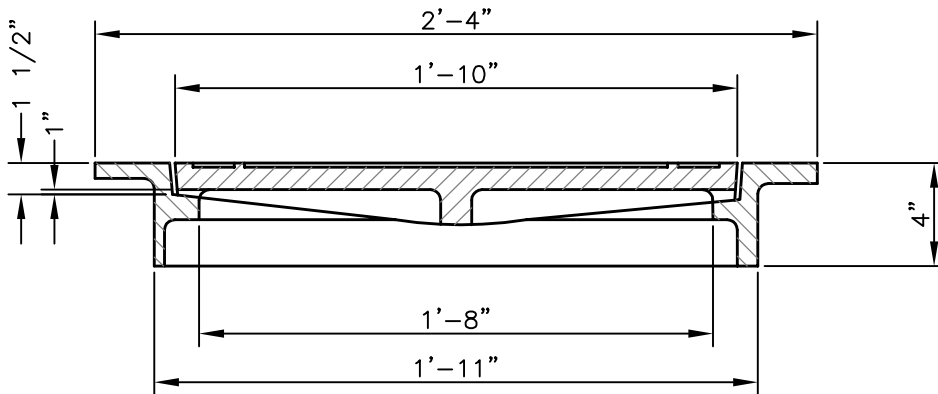
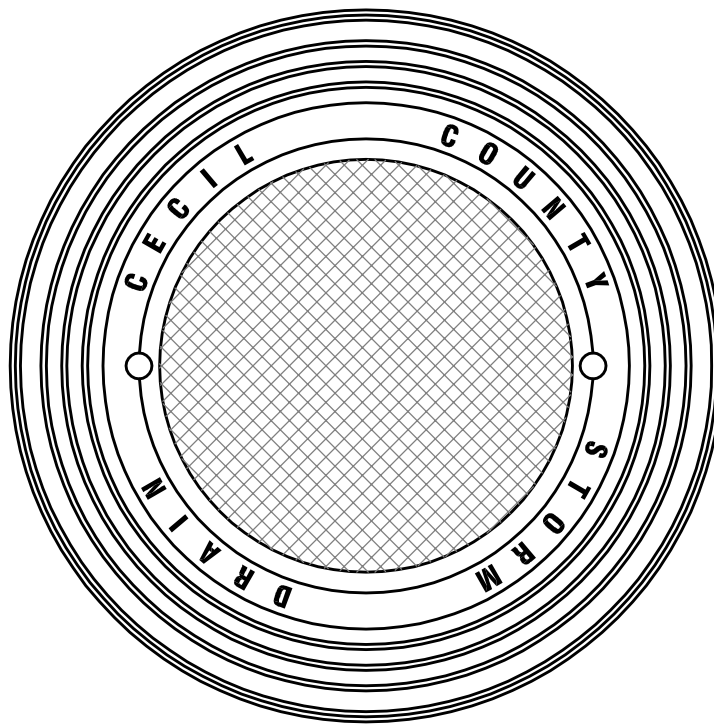
SURFACE TREATED GRAVEL ROADWAY

NOTE: BACKFILL IN TRENCH SHALL BE THOROUGHLY COMPACTED BY TAMPING OR BY SOME OTHER APPROVED METHOD IN 6" LAYERS BEFORE PATCH IS MADE.

NO EXCAVATION OR CAVE-IN WILL BE PERMITTED UNDER EXISTING SURFACES AND NO BELLING OF THE TRENCHES WILL BE ALLOWED. SHEETING OR SHORING WILL BE USED WHEN SO DIRECTED BY ENGINEER.

(NO SCALE)

CECIL COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ROAD & STREET DETAILS	REVISED
	METHOD OF CUTTING & REPAIRING OPENING IN EXISTING ROADWAYS	05/07
		R-31



NOTE: MATERIAL SHALL BE GRAY IRON. CASTING MUST BE MACHINED ON BEARING SURFACES.

WEIGHT 185 LBS.

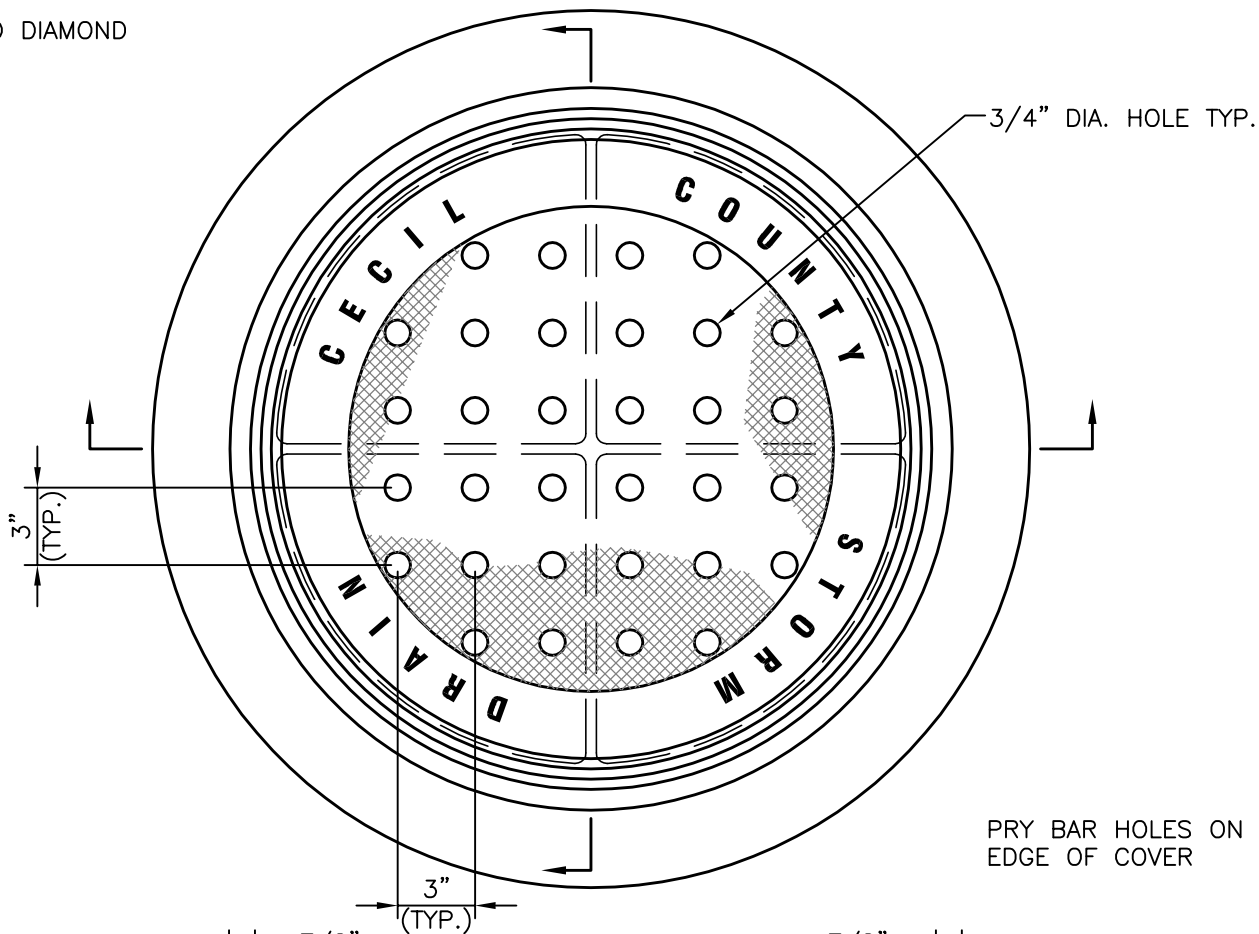
CECIL
COUNTY
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OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS

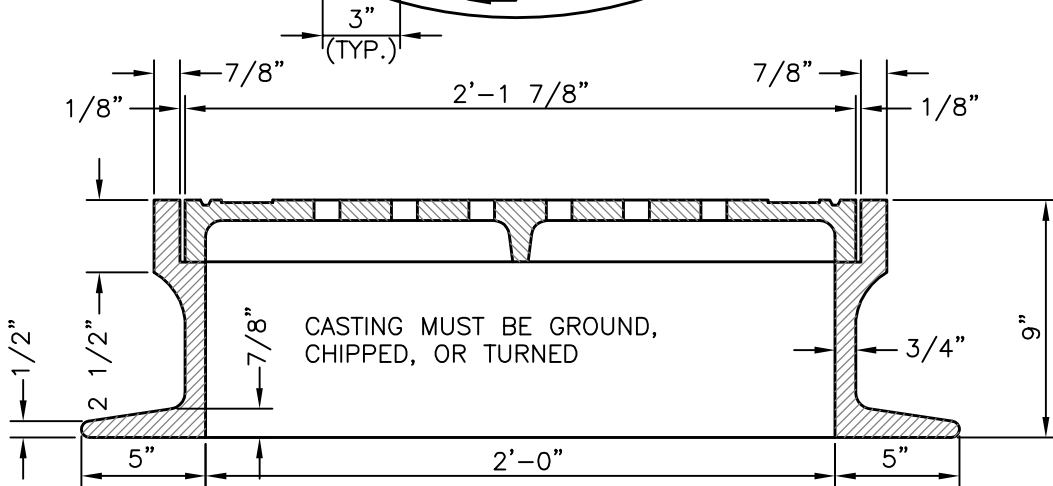
SIDEWALK FRAME AND COVER

REVISED	
05/07	
R-32	

STANDARD DIAMOND
GRID

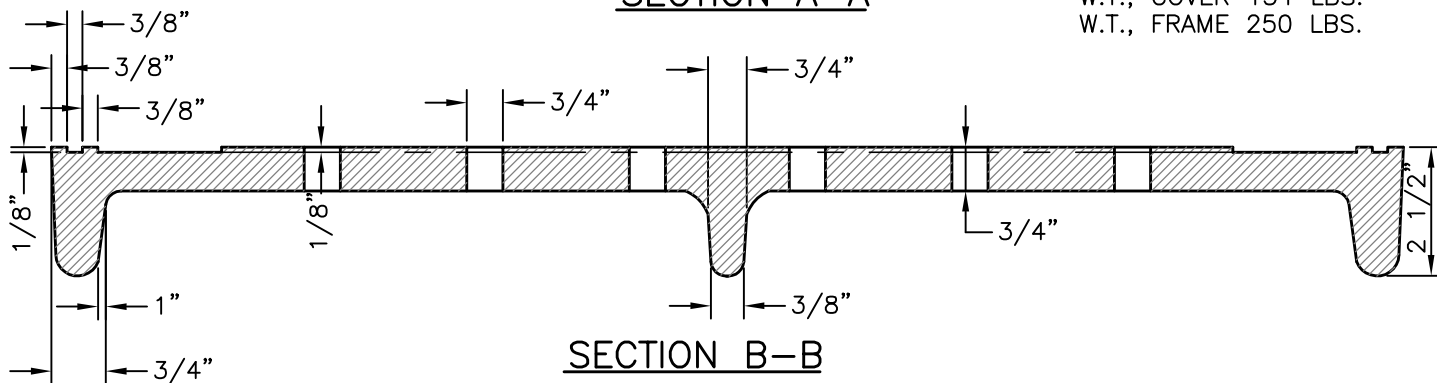


PRY BAR HOLES ON
EDGE OF COVER



SECTION A-A

W.T., COVER 134 LBS.
W.T., FRAME 250 LBS.



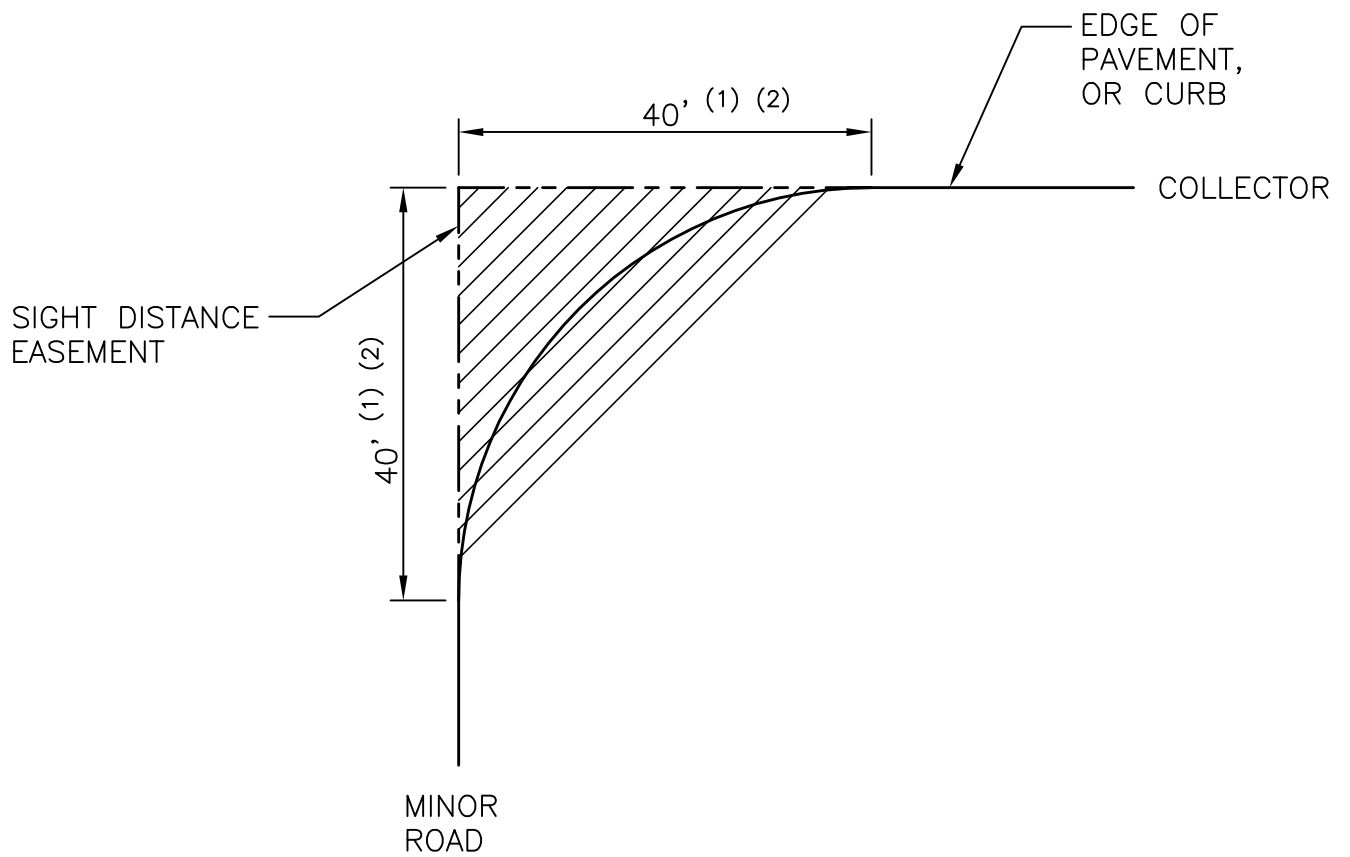
SECTION B-B

CECIL
COUNTY
DEPARTMENT
OF
PUBLIC WORKS

STANDARD ROAD & STREET DETAILS

24" HEAVY TRAFFIC MANHOLE
FRAME AND COVER

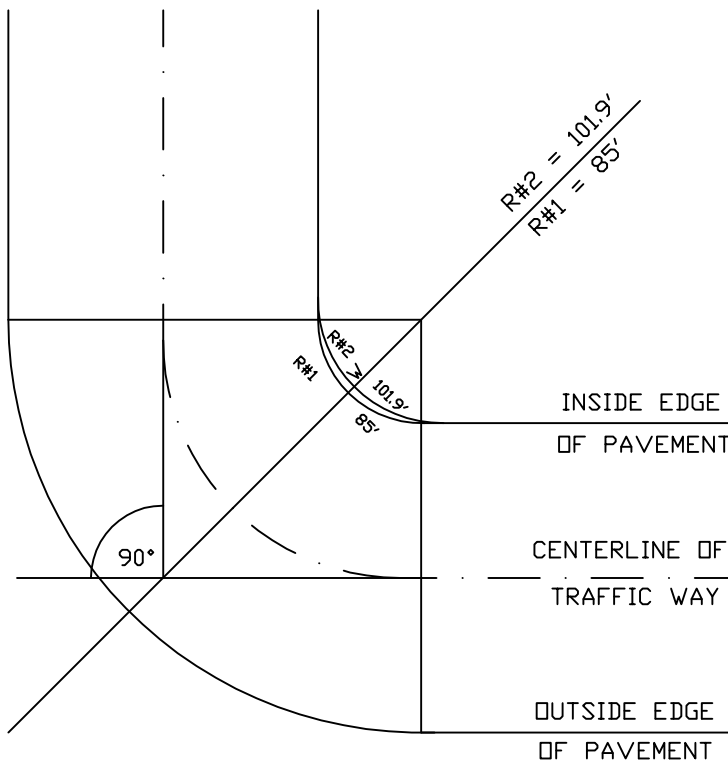
REVISED	
05/07	
R-33	



- (1) FOR THE INTERSECTION OF 2 COLLECTOR ROADS THIS DISTANCE SHALL BE 40'.
- (2) FOR THE INTERSECTION OF 2 MINOR ROADS THIS DISTANCE MAY BE REDUCED TO 25'.

Road Description	Right of Way Width (FEET)	MINIMUM PAVEMENT WIDTH (FEET)	Design Speed (MPH)	Min. Radius (Feet)	Maximum Grade
Private Mini Road	36'	12' Open Section with 3' Graded Shoulders	25	200'	10%
Town House					
Minor Road	30'	28' Closed Section Road w/ Per Perpendicular Parking *	25	200***	10%
Minor Road	34'	28' Closed Section Road w/o Perpendicular Parking*	25	200***	10%
Minor Collector	38'	32' Closed Section Road w/o Perpendicular Parking *	30	380'	8%
Minor Collector	38	32' Closed Section Road w/ Perpendicular Parking*	30	380'	8%
Residential Detached					
Lots > 30,000 SF					
Minor Road	50'	20' Open Section with 5' Shoulder	25	200**	10%
	50'	24' Closed Section Road	25	200**	10%
10,000 SF < Lots <= 30,000 SF	50'	22 Open Section w/5' Shoulder			
	50'	30' Closed Section Road*	25	200**	10%
Lots < 10,000	50'	30' Closed Section Road*	25	200**	10%
Residential Detached					
Minor Collector					
Lots > 30,000 SF	60'	24' Open Section Road with 7' Shoulder or 32' closed section road	30	380'	8%
10,000 SF < Lot < 30,000 SF	60'	26' Open Section Road with 7' shoulder or 32' Closed Section Road*	30	380'	8%
Lots < 10,000 SF	60'	32' Closed Section Road*	30	380'	8%
Residential Detached					
Major Collector					
Lots > 30,000 SF	60'	24' Open Section Road with 7' Shoulder or 36' closed section road	40	750'	7%
Lots>10,000 SF <30,000 SF	60'	36' Closed Section Road	40	750'	7%
Lots < 10,000 SF	60'	36' Closed Section Road	40	750'	7%
Commercial/Industrial					
Minor Collector	60'	32' Closed section Road*	40	750'	8%
Road	60'	24' Open Section Road with 7' Shoulder	40	750'	8%
Commercial/Industrial					
Major Collector	60'	26' Open Section Road w/ 7' Shoulder	40	750'	7%
	60'	36' Closed Section Road	40	750'	7%
Dual Lane					
Minor Collector	76'	20' Closed Section Road*	30	380'	8%
Dual Lane					
Major Collector	80'	22' Closed Section Road	40	750'	7%

- * SIDEWALK SHALL BE PROVIDED ALONG BOTH SIDES OF ROAD UNLESS DIRECTED OTHERWISE BY THE OFFICE OF PLANNING AND ZONING.
- ** WHERE CENTERLINE DEFLECTION ANGLE IS 60° OR GREATER, THE DESIGNER MAY DEViate FROM THE 25 MPH DESIGN CRITERION AND USE A MINIMUM RADIUS OF 125 FEET TO CONNECT THE CENTERLINES.
- *** WHERE THE CENTERLINE DEFLECTION ANGLE IS 60° OR GREATER, THE DESIGNER MAY DEViate FROM THE 25 MPH DESIGN CRITERION AND USE A MINIMUM RADIUS OF 50 FEET TO CONNECT THE CENTERLINES.



1. FIND EXTERNAL #1, USING THE FOLLOWING FORMULA:
EXTERNAL #1 = R#1 X EXSEC $\frac{1}{2}$ DELTA
2. ADD WIDENING W TO EXTERNAL #1
THIS WILL BE EXTERNAL #2.
3. FIND RADIUS #2, USING THE FOLLOWING FORMULA:
R#2 = EXTERNAL #2
EXSEC $\frac{1}{2}$ DELTA

EXAMPLE:

GIVEN:

CENTERLINE RADIUS = 100'
 DELTA = 90°
 NORMAL PAVEMENT WIDTH = 30' (R/W = 50')
 REQUIRED WIDENING FOR CENTERLINE RADIUS OF 100' = 7' (TO BE APPLIED AT THE MIDPOINT OF THE INSIDE EDGE OF PAVEMENT)

REQUIRED:

RADIUS OF WIDENING (R#2)

SOLUTION:

RADIUS OF INSIDE EDGE OF PAVEMENT
 $R\#1 = 100' - 15' = 85'$
 EXTERNAL #1 = $85 \times \text{EXSEC } \frac{1}{2} \text{ DELTA} = 85 \times .41421 = 35.21$
 EXTERNAL #2 = $35.21 + 7 = 42.21$
 $R\#2 = \frac{\text{EXTERNAL \#2}}{\text{EXSEC } \frac{1}{2} \text{ DELTA}} = \frac{42.21}{.41421} = 101.9'$

NOTE:

THE RADIUS OF THE INSIDE PROPERTY LINE IN THIS EXAMPLE WILL BE 91.9' (101.9-10.0)

CENTERLINE RADIUS OF CURVE	MINIMUM LENGTH CURVE*	WIDENING AT MIDPOINT
500' - 451'	400'	3'
450' - 351'	350'	4'
350' - 251'	300'	5'
250' - 151'	200'	6'
150' - 100'	150'	7'

* CURVES LESS THAN THIS LENGTH WILL NOT REQUIRE WIDENING

APPENDIX

APPENDIX A
RULES AND REGULATIONS FOR
UTILITY CONSTRUCTION PERMITS

Pursuant to Part 6 of the Cecil County Road Code and Standard Specifications the following Rules and Regulations are established for the purpose of regulating the construction of utility work performed in the rights-of-way and/or easements owned and/or maintained by the Cecil County Department of Public Works.

1.00 **DEFINITIONS**

- 1.01 Division Chief – Chief of the Cecil County Department of Public Works Roads Division or designee.
- 1.02 Department – The Department of Public Works Roads Division.
- 1.03 Utility – Any utility company, contractor, subcontractor or representative.
- 1.04 Applicant – A Utility which completes a permit application.
- 1.05 Permittee – An applicant which has received an approved permit.
- 1.06 Work Site – The location of construction activities described in the permit.
- 1.07 Contractor – The name of the company actually performing the work. This includes any subcontracting company link in the chain between the Applicant/Utility and the crew actually performing the work.
- 1.08 Contact – The responsible person(s) to whom the Director may contact to discuss work site activities and direct corrective measures as necessary.
- 1.09 M.U.T.C.D – Manual on Uniform Traffic Control Devices (Federal).
- 1.10 Utility Construction Permit – A permit issued in accordance with these Rules and Regulations regulating the construction of utilities within Cecil County and/or maintained rights-of-way and/or easements.

2.00 **PERMIT REQUESTS**

- 2.01 Each applicant shall complete and file with the Cecil County Department of Public Works Roads Division a request for a utility permit which contains the following information:

- i. Applicant (Utility Company) name, address, city, state, zip code
- ii. Applicant contact name, telephone number.
- iii. Utility job number and application date.
- iv. Contractor name, address, city, state, zip code.
- v. Contractor contact name, telephone number.
- vi. Signature of applicant and printed (or typed) name
- vii. Proposed location of work and ADC map grid.
- viii. Complete description of work and begin construction date.

2.02 The “Applicant” portion of the request must be completed in full before review of the request can begin.

2.03 Utility Permits shall not exceed 10,000 linear feet of proposed utility construction. Additional Utility Permits may be filed for utility projects in excess of this limit.

3.00 **DRAWINGS TO BE FILED WITH PERMIT REQUEST**

3.01 Each applicant shall have attached drawings as follows: (2) copies drawn to an appropriate scale, folded 8 1/2” by 11’ in size, showing clearly the following information:

- i. Property lines
- ii. Road right-of-way
- iii. Road names
- iv. Road features (i.e., width, curbing, sidewalks)
- v. Other utility lines and structures
- vi. Street addresses, pole, pedestal and box numbers
- vii. All proposed utility work
- viii. Proposed disturbed areas, staging areas
- ix. Proposed sediment controls
- x. Traffic control plan (as required)

3.02 During review of the request the Division Chief may request that additional information be submitted in order to make determinations on impacts on other utility or road improvements, and for further clarifications as necessary.

3.03 Upon completion of the application, the Department will approve or disapprove the application as submitted. The applicant will be notified of the status of the application, either by receipt of the permit (approved or disapproved) or by request for additional information.

3.04 The approved access permit shall be valid for a period of one year from the date of issuance.

4.00 GENERAL REQUIREMENTS

- 4.01 All work described in the permit shall be subject to inspection by the Division Chief.
- 4.02 The Permittee shall maintain at the work site a copy of the permit, together with a copy of the drawings and other documents required in accordance with the permit.
- 4.03 The Permittee shall erect and maintain all necessary signs, barricades, detour signs and warning devices required to safely direct traffic over or around the part of the highway where permitted operations are to be performed, so long as work does not interfere with traffic, in accordance with the latest edition of the Federal Highway Administration's M.U.T.C.D., pursuant to the Annotated Code of Maryland, Transportation Article, Title 25, Section 104.
- 4.04 All activities under the permit, where applicable, must conform to the Cecil County Road Code and Standard Specifications for Design and Construction.
- 4.05 Any open cutting within the paved portion of the roadway shall comply with a detail in the Standard Details R-29 and R-30, or as modified in writing by Cecil County. At the time construction is completed, a one (1) year maintenance bond period will be in effect.
- 4.06 No trench will be allowed to remain open after the normal workday. If a trench is to remain open, steel plates and proper traffic control signs for the maintenance of traffic shall be installed in accordance with the M.U.T.C.D.
- 4.07 After completion of utility work, all materials and debris shall be cleared from County roadways and right-of-way and Utility Company (Permittee) shall be responsible for as good or better restoration of the site.
- 4.08 Cecil County shall not be held responsible for any accidents or damages resulting from any unsafe condition during the construction, or, as a result of the construction.
- 4.09 If construction under the permit requires the alteration or removal of all or part of any existing structure within the County right-of-way which is not addressed in the permit, the Permittee shall not perform this work without first obtaining the written approval of the Division Chief, which approval shall be amendment to the permit.
- 4.10 The Division Chief may develop Policies and Procedures to establish procedural activities pursuant to these Rules and Regulations.

5.00 NOTIFICATIONS

- 5.01 Permittee shall notify Cecil County Department of Public Works, Road Division twenty-four (24) hours prior to engaging in any work under the permit and shall provide the Division with the name and telephone number of its representative or agent at the work site.
- 5.02 The Permittee shall notify “Miss Utility” at 1-800-257-7777, forty-eight (48) hours in advance of any work under the permit.
- 5.03 The Permittee shall notify the Department of Public Works, Roads Division, within twenty-four (24) hours after completion of the work under the permit, as the Division will make a final inspection of the work and process any required documents.
- 5.04 Failure to notify the Department of Public Works, Roads Division prior to construction or completion of the permitted work shall result in: a delay in work until such notice is provided, a delay in the issuance of permits being reviewed, the suspension of all work permitted, or a fine in the amount up to \$5,000.00.

6.00 BLANKET PERMITS

- 6.01 May be issued to a Utility company currently in good standing with Cecil County for the following purposes:
 - i. Emergency repairs to restore existing service on weekends, holidays and evenings when Cecil County offices are closed.
 - ii. Emergency repairs to restore existing service during normal Cecil County business hours when situations arise which do not allow for the timely execution of permit application.
- 6.02 Utility companies which are issued this permit shall submit, on a monthly basis, a report of all work which was done the previous month. This report shall be submitted no later than the fifteenth (15th) day of the following month. Failure to supply the report to Cecil County in the time specified shall result in the Blanket Permit being suspended and or revoked until the report is received.

7.00 PERMIT FEES AND EXPENSES

- 7.01 A Permit fee (established by the Cecil County Commissioner), shall be paid for each utility permit. The permit fee includes request, plan and field review of the proposed work site, and any required inspections. Project length applications are greater than 10,000 feet shall require additional permit applications for each additional length of 10,000 feet, or any part thereof. Such fees will not be refunded once the review process has begun. Additional fees may be assessed if, at the discretion of the Division Chief, the work performed under the permit is not completed in a timely manor or is not in compliance with the Cecil County Road Code. Permits issued under this section expire one (1) year from date of issuance. The County reserves the right to correct any hazardous conditions and charge the Permittee.
- 7.02 An annual fee will be charged for the Blanket Permit which will be billed during January of each year. This fee will be determined based on the volume of work permitted during the previous year. The Director shall maintain a fee schedule for this purpose.

8.00 PENALTIES

- 8.01 The Department of Public Works may fine any Permittee who has violated any provision, restriction or requirement of any permit issued pursuant to these Rules and Regulations and the Code of Cecil County and/or may suspend or revoke any permit issued hereunder. Any Permittee whose privileges have been suspended or revoked shall forfeit and return any and all permits to the Cecil County Department of Public Works.
- 8.02 In addition to the fine which may be assessed under Section 8.01 above, the County may issue a "Stop Work Order" if the Permittee violates any provision issued hereunder. Should a Stop Work Order be issued, the Department of Public Works and/or the Department Permits and Inspections may refuse to issue any other licenses or permits pursuant to the Code of Cecil County. Additionally, failure to comply with any Federal, State or Local Laws, including, but not limited to the M.U.T.C.D will result in penalties as stated above.
- 8.03 In the event that construction is NOT in accordance with the Code of Cecil County and appropriate notice has been given in writing by certified mail, Cecil County may make all necessary corrections and the cost of such corrections may be adjudicated toward future work or business with Cecil County, including, but not limited to, property tax assessments to cover all correction costs.

9.00 EFFECTIVE DATE

9.01 These Rules and Regulations for Utility Permits shall become effective on the date of the adoption of the Road Code Revisions.

APPENDIX B
RULES AND REGULATIONS FOR ROAD ACCESS PERMITS

Pursuant to Sections 3.08 and 4.07 of the CECIL COUNTY ROAD CODE AND STANDARD SPECIFICATIONS, the following Rules and Regulations are established for the purpose of regulating the construction of residential and non-residential entrances (hereinafter referred to as “road access”), entering onto all public roads owned or maintained by the Department of Public Works of Cecil County, Maryland, or onto any future road to be taken into and maintained by the Department of Public Works of Cecil County, Maryland.

1.00 DEFINITIONS

- 1.01 Director – Director of Public Works or duty authorized agent
- 1.02 Department – Department shall mean the Department of Public Works
- 1.03 Non-Residential Road Access – Any access to a County Road except for a Residential Road Access defined in section 1.04 below.
- 1.04 Residential Road Access – Any access to a County Road from a property used primarily for residential and/or agricultural purposes, excluding there from an access serving more than two (2) residences or residential units, with the exception to inter-family transfers in which the County will permit a maximum of three (3) residences or residential units with an executed private residential maintenance agreement.
- 1.05 Permittee – The owner of the property to which access is requested from an existing or proposed County Road or his agent, if such delegation is made in a writing filed as a part of the permit application pursuant to Section 2.00 below.
- 1.06 Road Access Permit – A permit issued in accordance with these Rules and Regulations regulating the construction of private, residential, and commercial entrances onto Cecil County Public Roads, rights-of-way and easements.
- 1.07 Work Site – The location of construction activities described in the permit.

2.00 PERMIT APPLICATIONS

- 2.01 Each applicant shall complete and file with the Department of Public Works Development Services Division an access permit application.

3.00 DRAWINGS TO BE FILED WITH PEMRIT APPLICATION

3.01 The following drawings shall accompany each application in accordance with the type of access:

a. Applications for Non-residential Road Access Permits – One (1) copy of a drawing to appropriate scale, folded to 8 1/2” by 11” in size, with a scale of no less than one inch (1”) equals fifty feet (50’) or more than one inch (1”) equals thirty feet (30”) showing clearly the following information:

- i. Property lines;
- ii. Building locations;
- iii. Road name;
- iv. Road right-of-way boundaries;
- v. Road widths;
- vi. Type and Location of Curbing
- vii. Sidewalks and handicapped ramps;
- viii. Street address number and building lot numbers;
- ix. Proposed driveway location and driveway dimensions including radii and width
- x. All existing and proposed utilities.

b. Applications for Residential Road Access Permit – One (1) copy of a drawing folded to 8 1/2” by 11” in size, with a scale of no less than one inch (1”) equals forty feet (40’) or more than one inch (1”) equals thirty feet (30’) showing clearly following information:

- i. Property lines;
- ii. Building locations;
- iii. Road name;
- iv. Road right-of-way boundaries;
- v. Road widths;
- vi. Type and Location of Curbing
- vii. Sidewalks and handicapped ramps;
- viii. Street address number and building lot numbers;
- ix. Proposed driveway location and driveway dimensions including radii and width.

3.02 During the review of the application, the Director or duty authorized agent may request that additional information be submitted including, but not limited to, location of adjacent driveways, site distances and a traffic control plan to enable the Director or Duty authorized agent to make a determination of the impact of the proposed access on adjacent areas.

Unless otherwise required by the Department, access within commercial/industrial subdivisions are considered to have acceptable sight distances and may forego a formal sight distance analysis. All other

commercial/industrial accesses shall perform a sight distance analysis as stipulated in Section 3.03 and 3.07.14 of the Cecil County Road Code and Standard Specifications. The need for a sight distance analysis for residential driveways will be determined on a case-by-case basis by the Department.

- 3.03 Upon completion of the application, the Department of Public Works will approve or disapprove the application as submitted. The Applicant will be notified of the status of the application, either by receipt of the permit (approved or disapproved) or by request for additional information.
- 3.04 The approved access permit shall be valid for a period of one year (1) from the date of issuance.

4.00 GENERAL REQUIREMENTS

- 4.01 All work described in the permit shall be subject to inspection by the Director or duly authorized agent.
- 4.02 The Permittee shall maintain at the work site a copy of the permit, together with a copy any drawings and other documents required in accordance with the permit.
- 4.03 The Permittee shall erect and maintain all necessary signs, barricades, detour signs and warning devices required to safely direct traffic over or around the part of the highway where permitted operations can be done, so long as the work does not interfere with traffic, in accordance with the Federal Highway Administration's Manual on Uniform Traffic Control Devices, adopted by the state Highway Administration pursuant to the Annotated Code of Maryland, Transportation Article, Title 25, Section 104.
- 4.04 All activities under the permit must conform to the Cecil County Road Code and Standard Specifications.
- 4.05 If construction under the permit requires the alteration or removal of all or part of any existing structure within the County road right-of-way which is not addressed in the permit, the Permittee shall not perform such alteration or removal without first obtaining the written approval of the Director or duty authorized agent, which approval shall be an amendment to the permit.
- 4.06 Monumental mailboxes and other ornamental permanent structures are not permitted in the County's right-of-way unless they meet the standards established by the Department of Public Works, the United States Postal Service and the Department of Planning and Zoning; or, are otherwise explicitly permitted (in writing) by the Department of Public Works.
- 4.07 The Director may develop Policies and Procedures to establish procedural activities pursuant to these Rules and Regulations.

5.00 NOTIFICATIONS

- 5.01 Permittee shall notify the Cecil County Department of Public Works Development Services Division (“Department”), telephone number 410-996-5265 weekdays between the hours of 8:00 a.m. and 4:30 p.m. prior to engaging in any construction under permit and shall provide the Department with the name and phone number of its representative at the work site.
- 5.02 The Permittee shall notify “Miss Utility”, phone number 1-800-257-7777, forty-eight hours (48) in advance of any work under the permit.
- 5.03 The Permittee shall notify the Department of Public Works Development Services Division upon completion of permitted work by calling 410-996-5265, as the Department of public Works will complete the permit review and work completion documents as necessary.
- 5.04 Failure to notify the Department of Public Works of the completion of the permitted road access may result in a delay of the issuance of the corresponding “Use and Occupancy” permit. Such notice shall be made in a timely manner to allow the scheduling of a final inspection of the road access.

6.00 SPECIAL CONDITIONS FOR NON-RESIDENTIAL ROAD ACCESS PERMITS

- 6.01 Applicants for a Non-Residential Road Access Permit may be required to execute a Public Works Agreement if the size and scope of the access and its relationship to other development activities adjacent to the work site create an actual or potential threat to the public health and safety of highway users, adjacent property owners, or the public in general.
- 6.02 The Director or duly authorized agent may, as a condition of the Non-Residential Road Access Permit, require that the Permittee initiate a traffic control plan depending upon the size and scope of the access and its impact upon traffic.

7.00 PERMIT FEES AND EXPENSES

- 7.01 An application fee shall be paid to Cecil County prior to the issuance of an Access Permit. This fee shall be paid to Cecil County Government at the time the application is filed. These fees will cover plan and field review and inspection costs.
- 7.02 As the permit fee includes applications, plan and field review of the proposed work site, as well as any required inspections, such fees will not be refunded once the review process has begun.

7.03 Inspection Fees: Normal inspection fees are covered by the Application Fee. This includes one initial site permit inspection, one pre-paving inspection and one final inspection – as may be required by the Department. Subsequent additional inspections or site visits, requested by the applicant, or agent, may be charged additional fees.

8.00 PENALTIES

8.01 The Director or duly authorized agent may fine under Section 1.07 (A) of the Cecil County Road Code, any Permittee who has violated any provision, restriction, or requirement of any permit issued pursuant to these Rules and Regulations and the Code of Cecil County and/or may suspend or revoke any permit issued hereunder. Any Permittee whose privileges have been suspended or revoked shall forfeit and return any road access permit to the Cecil County Department of Public Works.

8.02 In addition to the penalty the Director or duly authorized agent may issue a “Stop Work Order” under section 1.08 of the Cecil County Road Code, if the Permittee violates any provision issued hereunder.

8.03 In the event that the construction is NOT in accordance with the Code of Cecil County, Maryland and appropriate notice has been given in writing by certified mail, Cecil County may make all necessary corrections and the cost of such corrections may be adjudicated toward future work or business with Cecil County, including property tax attachment.

8.04 In the event that final construction completion is delayed at a time when the “Use and Occupancy” approval is needed by the applicant, Cecil County may choose to allow the applicant or agent to post and “Access Cash Performance Bond” in the amount of the outstanding work as established by the Department of Public Works. The cash bond is provided for the anticipated short term, successful completion of the requirements of the access permit, not to exceed six (6) months shall be forfeited, unless extensions for unusual circumstances are approved prior to the expiration of the aforementioned six (6) months. Forfeited funds shall be used by the Department of Public Works to construct and/or correct the deficiencies in the accesses construction or required road improvements. Upon successful completion of the requirements of the Access Permit and Cash Bond, the Department will refund the posted monies to the applicant.

9.00 EFFECTIVE DATE

9.01 These Rules and Regulations for Road Access Permits shall become effective on the date of the adoption of the Road Code Revisions.