

2 SITE WORK – V02000

2.1 GENERAL

2.1.1 Description

This standard identifies minimum requirements that shall be met for all site work in the design and construction of elements for Arlington County Building Design Standards.

2.1.2 Related Arlington County Standards, Specification and Policies

including, but not limited to, those listed in Table 2.1.2

Table 2.1.2 Related Arlington County Standards, Specification and Policies
American Society for Testing and Materials (ASTM)
Arlington County Code (Code of the County of Arlington County, Virginia) (ACC)
Arlington County Construction Standards and Specifications - 02100 Clearing and Grubbing to 02951 Boring and Jacking
Arlington County Construction Standards and Specifications - 03100 Concrete Formwork, Reinforcement and Materials
Arlington County Construction Standards and Specifications - 03400 Precast Concrete
Arlington County DPR Design Standards
Arlington County Government Street Light Policy And Planning Guide January 2008
Arlington County Landscape Standards January 2010
Arlington County Tree Replacement Guidelines
Arlington County Department of Public Works Retaining Wall Policy December 9, 2002
Arlington County Zoning Ordinance (ACZO)
Designing Sidewalks and Trails for Access – Part II: Best Practices Design Guide
Building Design - Horizontal Infrastructure - H-3.1 Driveway Entrances
Building Design - Horizontal Infrastructure - H-3.2 Curb Ramps
(Amendment No. 1 omitted this standard)
ICC International Building Code/2012
Standards for Planting and Preservation of Trees on Site Plan Projects
US Green Building Council’s Leadership in Energy and Environmental Design (LEED) green building rating system
Virginia Department of Transportation (VDOT) Road and Bridge Standards 2008 edition

2.1.3 Applicable Standards and Specifications

including, but not limited to, those listed in Table 2.1.3

Table 2.1.3 Applicable Standards and Specifications

American Society for Testing and Materials (ASTM)
American with Disabilities Accessibility Guidelines for Public Rights-of-Way (PROWAG)
American with Disabilities Accessibility Guidelines for Public Rights-of-Way (ADAAG)
Designing Sidewalks and Trails for Access – Part II: Best Practices Design Guide
ICC International Building Code/2012
The Illuminating Engineering Society of North America (IES)
(Amendment No. 1 omitted this standard)
(Amendment No. 1 omitted this standard)
US Green Building Council’s Leadership in Energy and Environmental Design (LEED) green building rating system
Virginia Uniformed Statewide Building Code 2012 (USBC)

2.1.4 Quality Assurance

2.1.4.1 Reserved

2.1.5 Submittals

2.1.5.1 The Registered Design Professional shall identify, in the specification sections, manufacturer’s products, descriptions, energy efficiency, performance criteria, materials, components, fabrication, source quality control, finish, and accessory materials pertaining to all Site Work and construction.

2.1.5.2 All street markings, including fire lanes, and signage locations for all public and private access and travel ways shall be marked on a signage and markings plan as part of the site works plan set.

2.2 DESIGN

2.2.1 Description

All site design must conform to the requirements identified within the Arlington County Infrastructure Design and Construction Standards – Building Design - Horizontal, Infrastructure and the current version of the Arlington County Construction Standards and Specifications.

2.2.2 Drainage

2.2.2.1 All storm sewer systems shall be designed for the 10 year storm event, all storm sewer pipes shall have a minimum slope of 0.5%.

2.2.2.2 Drainage systems shall be designed to convey water to a natural watercourse or to an existing storm drainage facility on or off site.

2.2.2.3 Overland relief shall be provided so that Buildings will not be flooded during major storms. Overland relief shall be evaluated using the 100-year storm.

2.2.2.4 The drainage system, including overland relief, shall be designed to account for flows from both on site and off site areas.

2.2.2.5 Any drainage to adjacent properties shall be equal to or lesser than existing discharge.

- 2.2.2.6 Corrugated Metal Pipe (CMP) shall not be used in storm water drainage systems on County facilities.
- 2.2.2.7 All basements shall have a sump pump installed. Sump pumps shall not discharge onto walkways or travel lanes (including gutters). Sump pumps shall discharge directly into a storm sewer or a properly engineered drainage facility. In some cases consideration for the installation of a sump pump may be needed for certain crawl spaces.
- 2.2.2.8 No Building or parts of Buildings, including overhangs and footings, retaining walls, or other Building structures shall be constructed or placed within, or encroach upon, County storm drainage easements or on County property where an easement would normally be required.

2.2.3 Grading:

- 2.2.3.1 Buildings must be situated and the site graded such that no flooding will occur even if there is a local failure (i.e. pipe collapse) of the storm water system.
- 2.2.3.2 Grading will be designed to provide convenient access to the storm sewer and sanitary sewer facilities for maintenance and use.
- 2.2.3.3 All grassed areas shall have a minimum slope of 2%.
- 2.2.3.4 No clearing or grading shall occur until the County approves the Erosion and Sediment Control plan.

2.2.4 Storm Water Management

All Storm Water Management (SWM) facilities shall be designed in accordance with Table 2.2.4

Table 2.2.4 Storm Water Management
Arlington County Code - Chapter 26 - Utilities (26-5)
Arlington County Code – Chapter 48 – Floodplain Management
B-90 – Chapter 57 – Erosion and Sediment Control
Arlington County Code – Chapter 60 – Stormwater Management
Arlington County Code – Chapter 61 – Chesapeake Bay Preservation Ordinance
Arlington County Infrastructure Design and Construction Standards – Building Design - Vertical Infrastructure (Doc Version 2015.1204) (ACIDCS-BD-VS)
Stormwater Manual: A Guide to Stormwater Requirements for Land Disturbing Activities in Arlington County
(Amendment No. 1 omitted this standard)
Virginia Stormwater BMP Standards and Specifications
Virginia Stormwater Management Handbook
Virginia Stormwater Management Regulations (Section 4 VAC 50-60 Virginia Administrative Code)

- 2.2.4.1 Impervious Cover Reduction - Vegetated roofs and pervious pavement systems are encouraged for most applications to get credit for reduction in impervious area needed for treatment.

2.2.5 ADA

All site design shall comply with the requirements of the American with Disabilities Act (ADA).

2.2.6 Landscape Development:

Landscape design plans shall be prepared by a licensed Landscape Architect in the Commonwealth of Virginia.

- 2.2.6.1 Soil Media – County approved soil media for sodded areas, planting beds or planters shall be provided.
- 2.2.6.2 Plant Selection - The selection of plant materials will, in general, be made from the list outlined in Part 8 of the Arlington County Landscape Standards. Plant materials appropriate for the particular site and location should be reviewed and selected to promote long term survival and ease of maintenance. Common names of plants shall be included in the planting schedule for the site. The County may approve the use of additional species on a project by project basis
- 2.2.6.3 Planting and Preservation of trees - shall be in accordance with Arlington County's Standards for Planting and Preservation of Trees on Site Plan Projects. All existing trees must be inventoried and accurately identified by species, size and location on plans. All reasonable steps must be taken to preserve existing trees on site unless they are found to be hazardous or in significant decline. Tree preservation plans must be reviewed and approved by a DPR Urban Forester. Trees which must be removed shall be replaced according to Arlington County Tree Replacement Guidelines.
- 2.2.6.4 Locations for trees and shrubs must be coordinated with utilities, utility easements and conduits for street/site lighting and sight distance requirements.
- 2.2.6.5 All trees, shrubs and lawns shall be warranted by the Contractor for one year from the date of acceptance of the project by the County. Upon completion of the warranty period, the County and the Contractor shall conduct a final walk-through of the site to ensure all plantings and lawn areas (grass) are acceptable.
- 2.2.6.6 Landscaping at all SWM must be coordinated with and approved by the Arlington County Project Officer. Arlington County Project Officer to coordinate with the Environmental Management Bureau in DES. No plants or landscaping shall be placed where they will interfere with the drainage patterns or where they will block access to storm water facilities.
- 2.2.6.7 All new or disturbed drainage swales shall to be sodded or seeded, mulched and stabilized with biodegradable mat or fabric.
- 2.2.6.8 Specifications for seeding must include straw mulch, hydro seeding media or a comparable material to protect seed during germination period.

2.2.7 Screening

- 2.2.7.1 If screening fencing or walls are required, they shall comply with Arlington County Zoning Ordinance requirements.

2.2.8 Walls

If block, masonry, stone or rubble walls are used they shall be constructed to comply with County standards, the Arlington County Department of Public Works Retaining Wall Policy December 9, 2002 and the Arlington County Zoning Ordinance.

2.2.9 Pavement Design

- 2.2.9.1 All bituminous pavement shall be designed and constructed in accordance with the Arlington County Construction Standards and Specifications – 02600 Bituminous Roadway Pavements and 02601 Bituminous Hiking, Biking and Jogging.
- 2.2.9.2 *Pavers* used in an **ADA** required access route is Not Acceptable.
- 2.2.9.3 The use of permeable pavement treatments is encouraged and shall be determined on a case by case basis.
- 2.2.9.4 Provide a full length concrete pavement extension at the dumpster pad for refuse collection trucks. Include bollards at rear and sides of dumpster location.

2.2.10 Site Lighting

- 2.2.10.1 All site parking lighting shall be designed to Illuminating Engineering Society (IES) standards.
- 2.2.10.2 The site lighting design layout is to be incorporated into the site plan by the Registered Design Professional.
- 2.2.10.3 Exterior site lighting shall comply with the requirements for light pollution control.

2.2.11 General Requirements

- 2.2.11.1 The Contractor shall retain a testing agency to perform all site work testing and inspections more than five feet (5') outside the Building footprint. Contractor shall not use the same inspection firm as the County retains for special inspections.
- 2.2.11.2 Water meter shall be sized and installed in accordance with the Arlington County Construction Standards and Specifications – 02550 Water Mains and Appurtenances and approved by the Department of Environmental Services - Water Sewer and Streets Bureau.
- 2.2.11.3 Consideration shall be given to pavement and screening of all utility meters.
- 2.2.11.4 All public and private easements, proposed and existing, shall be shown on the site plan. The Architect shall prepare and submit to the County stamped mylar originals for all on-site and off-site easement plats for review and approval.
- 2.2.11.5 Building corners are to be tied to property lines by displaying set back distances.
- 2.2.11.6 A paved surface from all emergency exits to an area of refuge shall be provided.

2.2.12 Sidewalks and Trails

- 2.2.12.1 A minimum of two feet (2') is required between the trail edge and any vertical obstructions such as trees, utility poles, signs, or other obstacles.
- 2.2.12.2 Side slopes adjacent to sidewalks and trails shall not exceed 2:1 unless protected by an approved pedestrian guard rail.

2.2.12.3 Corrugated Metal Pipe (CMP) in storm pipes associated with sidewalks and trails is Not Acceptable.

2.3 PRODUCTS

2.3.1 Reserved