



# County of Fairfax, Virginia

*To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County*

May 26, 2010

Gregory A. Riegle  
McGuire Woods LLP  
1750 Tysons Boulevard, Suite 1800  
McLean, VA 22102

RE: Rezoning Application RZ 2009-PR-021

Dear Mr. Riegle:

Enclosed you will find a copy of an Ordinance adopted by the Board of Supervisors at a regular meeting held on May 25, 2010, granting Rezoning Application RZ 2009-PR-021 in the name of Elm Street Communities, Incorporated. The Board's action rezones certain property in the Providence District from the R-1 District to the PDH-3 District to permit up to 16 single-family detached dwellings at an overall density of 2.60 du/ac and approval of the conceptual development plan. The subject property is located in the southeast quadrant of the intersection of Cedar Lane and Amanda Place on approximately 6.15 acres of land [Tax Map 49-1 ((1)) 35A] and is subject to the proffers dated May 20, 2010.

Please note that on April 14, 2010, the Planning Commission approved Final Development Plan Application FDP 2009-PR-021.

Sincerely,

Nancy Velrs  
Clerk to the Board of Supervisors  
NV/ph  
Enclosure

**Office of the Clerk to the Board of Supervisors**  
12000 Government Center Parkway, Suite 533  
Fairfax, Virginia 22035

Phone: 703-324-3151 ♦ Fax: 703-324-3926 ♦ TTY: 703-324-3903

Email: [clerktothebos@fairfaxcounty.gov](mailto:clerktothebos@fairfaxcounty.gov)

<http://www.fairfaxcounty.gov/bosclerk>

May 26, 2010

Cc: Chairman Sharon Bulova  
Supervisor Lynda Smyth, Providence District  
Janet Coldsmith, Director, Real Estate Division, Dept. of Tax Administration  
Regina Coyle, Director, Zoning Evaluation Division, DPZ  
Diane Johnson-Quinn, Deputy Zoning Administrator, Dept. of Planning and Zoning  
Thomas Conry, Dept. Manager. – GIS - Mapping/Overlay  
Angela K. Rodeheaver, Section Chief, Transportation, Planning Division  
Eric Teitelman, Capital Projects and Operations Div., Dept. of Transportation  
Ken Williams, Plans & Document Control, ESRD, DPWES  
Department of Highways-VDOT  
Sandy Stallman, Park Planning Branch Manager, FCPA  
Charlene Fuhrman-Schulz, Development Officer, DHCD/Design Development Division  
District Planning Commissioner  
Denise James, Office of Capital Facilities/Fairfax County Public Schools  
Karyn Moreland, Chief Capital Projects Sections, Dept. of Transportation

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium in the Government Center at Fairfax, Virginia, on the 25th day of May, 2010, the following ordinance was adopted:

**AN ORDINANCE AMENDING THE ZONING ORDINANCE  
PROPOSAL NUMBER RZ 2009-PR-021**

**WHEREAS**, Elm Street Communities, Incorporated, filed in the proper form an application requesting the zoning of a certain parcel of land herein after described, from the R-1 District to PDH-3 District, and

**WHEREAS**, at a duly called public hearing the Planning Commission considered the application and the propriety of amending the Zoning Ordinance in accordance therewith, and thereafter did submit to this Board its recommendation, and

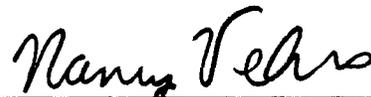
**WHEREAS**, this Board has today held a duly called public hearing and after due consideration of the reports, recommendation, testimony and facts pertinent to the proposed amendment, the Board is of the opinion that the Ordinance should be amended,

**NOW, THEREFORE, BE IT ORDAINED**, that that certain parcel of land situated in the Providence District, and more particularly described as follows (see attached legal description):

Be, and hereby is, zoned to the PDH-3 District, and said property is subject to the use regulations of said PDH District, and further restricted by the conditions proffered and accepted pursuant to Va. Code Ann., 15.2-2303(a), which conditions are in addition to the Zoning Ordinance regulations applicable to said parcel, and

**BE IT FURTHER ENACTED**, that the boundaries of the Zoning Map heretofore adopted as a part of the Zoning Ordinance be, and they hereby are, amended in accordance with this enactment, and that said zoning map shall annotate and incorporate by reference the additional conditions governing said parcel.

GIVEN under my hand this 25th day of May, 2010.



Nancy Veltz

Clerk to the Board of Supervisors



**ELM STREET COMMUNITIES, INC.  
RZ/FDP 2009-PR-021  
PROFFERS**

**October 23, 2009  
January 6, 2010  
February 23, 2010  
March 9, 2010  
March 18, 2010  
March 22, 2010  
March 25, 2010  
April 6, 2010  
May 6, 2010  
May 20, 2010**

Pursuant to Section 15.2-2303(a) of the Code of Virginia, 1950, as amended, the property owners and Applicant in this rezoning proffer that the development of the parcel under consideration and shown on the Fairfax County Tax Maps as Tax Map Reference – 49-1-((1))-35A (hereinafter referred to as the “Property”) will be in accordance with the following conditions if, and only if, said rezoning request for the PDH-3 District is granted by the Board of Supervisors of Fairfax County, Virginia (the “Board”). In the event said application request is denied or the Board’s approval is overturned by a court of competent jurisdiction, these proffers shall be null and void. The Owners and the Applicant (“Applicant”), for themselves, their successors and assigns, agree that these proffers shall be binding on the future development of the Property unless modified, waived or rescinded in the future by the Board, in accordance with applicable County and State statutory procedures. The proffered conditions are:

**I. GENERAL**

1. Substantial Conformance. Subject to the proffers and the provisions of Article 16 of the Zoning Ordinance, under which minor modifications to an approved

final development plan are permitted, the development shall be in substantial conformance with the Conceptual Development Plan/Final Development Plan (CDP/FDP), containing eight (8) sheets prepared by Charles P. Johnson & Associates, Inc. dated June 10, 2009 and revised through March 4, 2010.

2. Architectural Compliance. It shall be understood that the various illustrative architectural representations contained within the CDP/FDP are not final architectural plans to be used for construction purposes. As a result, the final architectural design of all buildings shall be in substantial conformance with the general type, quality and proportion of materials as depicted on the illustrative elevations shown on the CDP/FDP.

3. Façade Materials. On Lots 4 and 9, the north façade of each residential unit, including the garage, shall be constructed of materials that are of a proportional quality and quantity to those used on the front façade, including similar decorative elements and window treatments. On Lots 6 and 7, the south façade of each residential unit, including the garage, shall be constructed of materials that are of a proportional quality and quantity to those used on the front façade, including similar decorative elements and window treatments. On Lot 1, the west and south façade of the residential unit, including the garage, shall be constructed of materials that are of a proportional quality and quantity to those used on the front façade, including similar decorative elements and window treatments. On Lot 2, the south façade of the residential unit, including the garage, shall be constructed of materials that are of a proportional quality and quantity to those used on the front façade, including similar decorative elements and window treatments.

4. Building Footprints. The residential units on Lots 1, 6, 7, and 8 shall be constructed in substantial conformance with the building footprints and attached garage locations shown on the CDP/FDP.

5. Lot 1 Driveway. The driveway on Lot 1 shall be constructed as generally shown on the CDP/FDP.

6. Minor Modifications. Minor modifications from what is shown on the CDP/FDP and these Proffers, which may become occasioned as a part of final architectural and engineering design, may be permitted as determined by the Zoning Administrator in accordance with the provisions set forth in Section 16-403 of the Zoning Ordinance.

7. Lot Yield. The development shall consist of a maximum of Sixteen (16) single-family detached units.

8. Establishment of HOA. Prior to record plat approval, the Applicant shall establish a Homeowners Association (HOA) in accordance with Sect. 2-700 of the Zoning Ordinance for the purpose of, among other things, establishing the necessary residential covenants governing the design and operation of the approved development and to provide a mechanism for ensuring the ability to complete the maintenance obligations and other provisions noted in these proffer conditions.

9. Dedication to HOA. At the time of subdivision plat recordation, open space, common areas, private driveways, and amenities not otherwise conveyed or dedicated to the County shall be dedicated to the HOA and maintained by the same.

10. Disclosure. Prior to entering into a contract of sale, prospective purchasers shall be notified in writing by the Applicants of the maintenance responsibility for the

private driveways, stormwater management facilities, common area landscaping and any other open space amenities and shall acknowledge receipt of this information in writing. The initial deeds of conveyance and HOA governing documents shall expressly contain these disclosures.

11. Escalation. All monetary contributions required by these proffers shall be adjusted upward or downward based on the percentage change in the annual rate of inflation as calculated by referring to the Consumer Price Index for all urban customers (CPI-U), (not seasonally adjusted) as reported by the United States Department of Labor, Bureau of Labor Statistics occurring subsequent to the date of rezoning approval and up to the date of payment. In no event shall an adjustment increase exceed the annual rate of inflation as calculated by the CPI-U.

12. Garage Conversion. Any conversion of garages that will preclude the parking of vehicles within the garage is prohibited. A covenant setting forth this restriction shall be recorded among the land records of Fairfax County in a form approved by the County Attorney prior to the sale of any lots and shall run to the benefit of the HOA and the Board of Supervisors. This restriction shall also be disclosed in the HOA documents. Prospective purchasers shall be advised of this use restriction, in writing, prior to entering into a contract of sale.

13. Length of Driveways. All driveways serving the approved residential units on Lots 1, 2, 3, 10, 11, 12, 13, 14, 15, and 16 shall be a minimum of twenty feet (20') in length as measured outward from the face of the garage door to the face of curb or edge of sidewalk, whichever is applicable. All driveways serving the approved residential

units on Lots 4, 5, 6, 7, 8, and 9 shall be a minimum of eighteen feet (18') in length as measured outward from the face of the garage door to the rear property line.

14. Encroachment of Decks and Similar Appurtenances. Decks, bay windows, patios, chimneys, areaways, mechanical equipment and other similar appurtenances may encroach into minimum yards as depicted on the "lot typical" contained on the CDP/FDP, as permitted by Section 2-412 and Article 10 of the Zoning Ordinance. The restrictions and limitations of this proffer shall be disclosed to purchasers prior to contract ratification and further disclosed in the homeowners association documents.

## II. TRANSPORTATION

15. Right-of-Way Dedication along Cedar Lane and Amanda Place. At the time of subdivision plat recordation, or upon demand by VDOT or Fairfax County, whichever occurs first, the Applicant shall dedicate, at no cost to Fairfax County and in fee simple to the Board, the right-of-way along the site frontage to Cedar Lane and Amanda Place, as generally shown on the CDP/FDP. Dennis Drive shall not be extended to or terminated on the Property and right-of-way for a future extension of Dennis Drive shall not be dedicated or reserved.

16. Private Driveways. The private access serving Lots 4, 5, 6 and Lots 7, 8, and 9, as shown on the plan, shall be constructed by the Applicant with materials and to the pavement thickness standard of public streets as set forth in the Public Facilities Manual (PFM), subject to DPWES approval.

17. Right Turn Lane on Cedar Lane. Prior to the issuance of the fifth Residential Use permit, and subject to approval by VDOT and DPWES, the right turn lane from Cedar Lane onto Amanda Place shall be constructed, and available for use by the public, as generally shown on the CDP/FDP.

18. Left and Right Turn Lanes on Amanda Place. Prior to the issuance of the fifth Residential Use permit, and subject to approval by VDOT and DPWES, the left and right turn lanes from Amanda Place onto Cedar Lane shall be constructed, and available for use by the public, as generally shown on the CDP/FDP.

19. Construction of Improvements. Upon demonstration by the Applicant that, despite diligent efforts, the improvement in Proffers 17 and 18 have been delayed, the Zoning Administrator may agree to a later date for the completion of the improvements. Diligent pursuit shall include submitting applications for all necessary approvals from the Virginia Department of Transportation (VDOT), the Fairfax County Department of Transportation (DOT) and the Department of Public Works and Environmental Services (DPWES).

20. Construction Access and Hours. Construction access shall only be off Amanda Place. The staging and parking of construction vehicles shall occur on the Property, including personal vehicles utilized by construction workers. No parking shall occur on adjacent roadways. The hours of initial construction shall be posted in English and in Spanish and shall be limited to the hours between 7:00 a.m. and 9:00 p.m. Monday through Friday and 8:00 a.m. to 9:00 p.m. on Saturdays. No construction will occur on Sundays or Federal Holidays.

### III. ENVIRONMENTAL

21. Stormwater Management Facilities and Best Management Practices. The Applicant shall implement stormwater management techniques to control the quantity and quality of stormwater runoff from the Property as reviewed and approved by DPWES. Stormwater management facilities/Best Management Practices (“BMPs”) shall be provided as generally depicted on the CDP/FDP. Adequate outfall shall be demonstrated in accordance with the PFM as determined by DPWES.

In addition to compliance with the applicable minimum requirements for detention, it shall be further demonstrated to DPWES at the time of subdivision plan submission that there is no net increase in the 10-year pipe flow at Structure M-2 located in Bowling Green Drive, adjacent to Lot 11, Dunn Loring Woods, Section One, Block N, as calculated using current methodologies to be submitted with Amanda Place subdivision plans. To fulfill this requirement, the Applicant reserves the right to install additional onsite SWM and BMP facilities on the Property, provided the same are in substantial conformance with the CDP/FDP, or at off site locations, including but not limited to Tax Map Parcels 49-1-((01))-37 and 38 (Parcels 37 and 38) Said facility may consist of a rain garden, an infiltration trench, a combination thereof, or other type of facilities as reviewed and approved by DPWES. Any additional off site SWM or BMP facility shall be installed prior to installation of Phase 1 sedimentation controls associated with development of Property.

All SWM and BMP facilities shall be properly maintained on the Property in a manner determined by DPWES in accordance with adopted standards for the same.

Should any deficiencies in the existing SWM or BMP facilities be identified by the Stormwater Management Maintenance Division during regular inspections, or when investigating a drainage complaint, then maintenance shall be performed in accordance with an issued punchlist.

If DPWES, prior to bond release, determines that the SWM or BMP facilities on the Property or at such off site locations as may be permitted pursuant to these proffers, are properly constructed and installed but are not detaining the quantity of stormwater described on the plans governing the facilities' approval, and the reduced detention is attributable to incorrect assumptions in the methodology or approach relied upon during the facilities' approval, then the Applicant shall repair or upgrade the existing SWM and BMP facilities on the Property to attain the quantity and quality of stormwater runoff described in the CDP/FDP and reflected on any approved site plan, subject to the review and approval of DPWES.

22. The Applicant shall maintain the existing stormwater management pond shown on Sheet 2 of the CDP/FDP and will utilize it in the phase 1 E&S controls until completion of the installation of the phase 2 E&S controls, or completion of an off-site facility described in Proffer 21.

23. BMP Maintenance. After establishing the HOA pursuant to Proffer 8, the Applicant shall provide the HOA with written materials describing proper maintenance of the approved BMPs.

24. Landscaping. At the time of site plan review, the Applicant shall submit to DPWES, a landscape plan showing landscaping consistent with the quality, quantity and general location shown on the Landscape Plan on Sheet 4 of the CDP/FDP. This

plan shall be subject to review and approval of Urban Forestry Management, DPWES. At the time of planting, the minimum caliper for deciduous trees shall be two and one-half (2.5) inches to three (3) inches and the minimum height for evergreen trees shall be seven (7) feet. Actual types and species of vegetation shall be determined pursuant to more detailed landscape plans approved by Urban Forest Management at the time of site plan approval.

25. Lots 3 and 10 Landscaping. Prior to the issuance of a Residential Use permit for Lots 3 and 10, the Applicant shall install landscaping on Lots 3 and 10 that is generally consistent with the quality, quantity and general location shown on the Landscape Plan on Sheet 4 of the CDP/FDP. The requirements of this Proffer shall be disclosed in the HOA governing documents.

26. Energy Conservation. All newly constructed dwellings on the Property shall be Energy Star qualified homes, or an equivalent rating as determined by DPWES. The appliances utilized, including dishwashers, refrigerators and freezers, and clothes washers, shall be Energy Star Certified or an equivalent rating.

#### **IV. TREE PRESERVATION**

27. Tree Preservation Plan. The applicant shall submit a Tree Preservation Plan and Narrative as part of the first and all subsequent submissions of the subdivision plan review process. The preservation plan and narrative shall be prepared by a Certified Arborist or a Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES.

The tree preservation plan shall include a tree inventory that identifies the location,

species, critical root zone, size, crown spread and condition analysis percentage rating for all individual trees to be preserved, as well as all on and off-site trees, living or dead with trunks 8 inches in diameter and greater (measured at 4 1/2 -feet from the base of the trunk or as otherwise allowed in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture) located within 25 feet of either side of the limits of clearing and grading. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of clearing and grading shown on the CDP/FDP and those additional areas in which trees can be preserved as a result of final engineering. The tree preservation plan and narrative shall include all items specified in PFM 12-0506 and 12-0508. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan.

28. Tree Preservation Walk-Through. The Applicant shall retain the services of a certified arborist or registered consulting arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree preservation walk-through meeting, the Applicant's certified arborist or registered consulting arborist shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Representatives of the Dunn Loring Woods Civic Association shall be invited to participate in the tree preservation walk-through.

Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions

29. Limits of Clearing and Grading. The Applicant shall conform strictly to the limits of clearing and grading as shown on the CDP/FDP, subject to allowances specified in these proffered conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the CDP/FDP, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such utilities.

30. Tree Preservation Fencing. All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the

demolition, and phase I & II erosion and sediment control sheets, as may be modified by the "Root Pruning" proffer below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES.

31. Root Pruning. The Applicant shall root prune, as needed to comply with the tree preservation requirements of these proffers. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the subdivision plan submission. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

- Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.
- Root pruning shall take place prior to any clearing and grading, or demolition of structures.

- Root pruning shall be conducted with the supervision of a certified arborist.
- An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.

32. Site Monitoring. During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as proffered and as approved by the UFMD. The Applicant shall retain the services of a certified arborist or registered consulting arborist to monitor all construction and demolition work and tree preservation efforts in order to ensure conformance with all tree preservation proffers, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES.

33. Tree Appraisal. The Applicant shall retain a professional arborist with experience in plant appraisal, to determine the replacement value of all trees 8 inches in diameter or greater located on the Application Property that are shown to be saved on the Tree Preservation Plan. These trees and their value shall be identified on the Tree Preservation Plan at the time of the first submission of the respective site plan(s). The replacement value shall take into consideration the age, size and condition of these trees and shall be determined by the so-called "Trunk Formula Method" contained in the latest edition of the Guide for Plan Appraisal published by the International Society of Arboriculture, subject to review and approval by UFMD.

At the time of the respective site plan approvals, the Applicant shall post a cash bond or a letter of credit payable to the County of Fairfax to ensure preservation

and/or replacement of the trees for which a tree value has been determined in accordance with the paragraph above (the "Bonded Trees") that die or are dying due to unauthorized construction activities. The letter of credit or cash deposit shall be equal to 50% of the replacement value of the Bonded Trees. At any time prior to final bond release for the improvements on the Application Property constructed adjacent to the respective tree save areas, should any Bonded Trees die, be removed, or are determined to be dying by UFMD due to unauthorized construction activities, the Applicant shall replace such trees at its expense. The replacement trees shall be of equivalent size, species and/or canopy cover as approved by UFMD. In addition to this replacement obligation, the Applicant shall also make a payment equal to the value of any Bonded Tree that is dead or dying or improperly removed due to unauthorized construction activity. This payment shall be determined based on the Trunk Formula Method and paid to a fund established by the County for furtherance of tree preservation objectives. Upon release of the bond for the improvements on the Application Property constructed adjacent to the respective tree save areas, any amount remaining in the tree bonds required by this proffer shall be returned/released to the Applicant.

34. Conservation Easement. At the time of subdivision plat recordation, the Applicant shall cause to be recorded among the land records a conservation easement running to the benefit of Fairfax County, in a form acceptable to the County Attorney, for the area generally shown on the CDP/FDP (the "Conservation Areas"). The final location of the Conservation Areas shall be determined after the trails identified in Proffer 35 are located.

35. Trail Field Location. In order to minimize site disturbance, the proposed trails within the designated tree save area shall be field located in consultation with the UFMD, DPWES, but shall not be located in the conservation easements described in Proffer 34.

## V. RECREATION

36. Parks and Recreation. Pursuant to Section 6-409 of the Zoning Ordinance regarding developed recreational facilities, the Applicant shall provide the recreational facilities to serve the Application Property. Per Section 6-409, recreational facilities such as recreational trails, walking paths, excluding any trails required by the Comprehensive Plan, and similar features may be used to fulfill this requirement. At the time of subdivision plan review, the Applicant shall demonstrate that the value of any proposed recreational amenities is equivalent to a minimum of \$25,000.00. In the event it is demonstrated that the proposed facilities do not have sufficient value, the Applicant shall contribute funds in the amount needed to achieve the overall proffered amount of \$25,000.00 to the Fairfax County Park Authority ("FCPA") for off-site recreational facilities intended to serve the future residents, as determined by FCPA in consultation with the Supervisor for the Providence District.

37. Park Authority Contributions: In addition to Proffer 36, the Applicant shall contribute \$42,000 to the Fairfax County Park Authority, prior to the issuance of the first RUP on the Property, for use at off-site recreational facilities intended to serve the future residents, as determined by FCPA in consultation with the Supervisor for the Providence District.

38. Cedar Lane Trail in Proposed Right-of-Way. Prior to the issuance of the first RUP, the Applicant shall construct an asphalt trail across the Cedar Lane frontage of the Property in the proposed right-of-way, as generally shown on the CDP/FDP. The exact location of said trail shall be determined at subdivision plan review, subject to review and approval by VDOT and DPWES. The Applicant's obligation to construct said trail shall be contingent on the Applicant receiving any and all rights-of-way, easements and/or written consent necessary for the construction of said trail from any property owner, utility companies, and/or any governmental agencies (collectively, the "Approving Parties"), which approval(s) shall be granted at no cost to the Applicant, except for typical administrative fees and costs associated with preparation, approval and recordation of deeds, plans and plats and any other nominal fees. During subdivision plan review, the Applicant shall diligently pursue and make good faith efforts to secure any such necessary approvals from the Approving Parties. In the event the Applicant is unable to secure necessary approvals from the Approving Parties prior to the time of receiving subdivision plan approval, the Applicant shall provide written documentation of such efforts to DPWES and escrow funds for the future construction of the trail in an amount determined by DPWES to be sufficient for future construction of this trail by others. Such funds may be used for future trail construction by others along Cedar Lane or in the vicinity of the Property, as determined by the Providence District Supervisor. Regardless of whether the trail is constructed or the escrow option be utilized, such amount shall be credited to that total amount of contribution referenced in Proffer 36 and 37.

39. Public Access Easement. At the time of subdivision plat recordation, the Applicant shall cause to be recorded among the land records a public access easement running to the benefit of Fairfax County, in a form acceptable to the County Attorney, for the areas as generally shown on the CDP/FDP.

**VI. OTHER**

40. Temporary Signage. No temporary signs (including “popsicle” style paper or cardboard signs) which are prohibited by Article 12 of the Zoning Ordinance, and no signs which are prohibited by Chapter 7 of Title 33.1 or Chapter 8 of Title 46.2 of the Code of Virginia shall be placed on or off-site by the Applicant or at the Applicant’s direction to assist in the initial marketing and sale of homes on the subject Property. Furthermore, the Applicant shall direct its agents and employees involved in marketing and/or sale of residential units on the subject Property to adhere to this proffer.

41. School Contribution. A contribution of \$70,000.00 shall be made to the Board of Supervisors for transfer to FCPS and designated for capital improvements for schools serving the area. The contribution shall be made at the time of, or prior to, issuance of the first Building Permit for the approved units.

42. Affordable Dwelling Units. Prior to the issuance of the first building permit, the Applicant shall contribute to the Fairfax County Housing Trust Fund the sum equal to one half of one percent (1/2 %) of the value of all the units approved on the property. The one half of one percent (1/2 %) contribution shall be based on the aggregate sales price of all of the units subject to the contribution, as if those units were sold at the time of the issuance of the first building permit. The projected sales price shall be determined by the Applicant through an evaluation of the sales prices of

comparable units in the area, in consultation with the Fairfax County Department of Housing and Community Development (HCD) and DPWES.

43. Universal Design. At the time of initial purchase, the following Universal Design options shall be offered to each purchaser at no additional cost: clear knee space under sink in kitchen, lever door handles instead of knobs, light switches 44"-48" high, thermostats a maximum of 48" high, and/or electrical outlets a minimum of 18" high.

At the time of initial purchase, additional Universal Design options shall be offered to each purchaser at the purchaser's sole cost. These additional options may include, but not be limited to, one no-step pathway into the house, 36-inch-wide doorways and/or zero-threshold doorways.

44. Phase I Archaeological. Prior to any land disturbing activities on the Property, Applicant shall conduct a Phase I archaeological study on the Property and provide the results of such study to the Cultural Resources Management and Protection Section of the Fairfax County Park Authority (CRMPS). The study shall be conducted by a qualified archaeological professional. If the Phase I study concludes that an additional Phase II study of the Property is warranted, the Applicant shall complete said study and provide the results to (CRMPS); however, submission of the Phase II study to (CRMPS) shall not be a pre-condition of Subdivision Plan approval or recordation of the same. If the Phase II study concludes that additional Phase III evaluation and/or recovery is warranted, the Applicant shall also complete said work in consultation and coordination with (CRMPS); however, any such Phase III work shall not be a pre-condition of Subdivision Plan approval or recordation of the same.

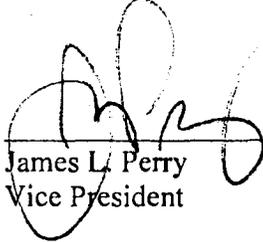
45. Fire Lane. The proposed fire lane, as shown on the CDP/FDP, shall be constructed using Grasspave<sup>2</sup> or other material as determined by the Fairfax County Fire Marshall.

46. Successors and Assigns. Each reference to “Applicant” in this Proffer Statement shall include within its meaning, and shall be binding upon, Applicant’s successor(s) in interest, assigns, and/or developer(s) of the Property or any portion of the Property.

These proffers may be executed in counterparts and the counterparts shall constitute one and the same proffer statement.

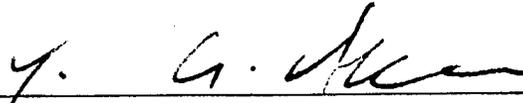
ELM STREET COMMUNITIES, INC.

(Contract Purchaser of Tax Map No. 49-1-((1))-35A)

By:   
Name: James L. Perry  
Title: Vice President

**Amanda Place Proffers**  
**RZ/FDP 2009-PR-021**

KOREAN CENTRAL PRESBYTERIAN CHURCH, INC.  
(Title Owner of Tax Map No. 49-1-((1))-35A)



---

Young Gil Kwon, Clerk of Session



---

Kwan Hyung Lee, also known as Kwan Hyung Yi,  
Treasurer

\9985381.19

**Amanda Place Proffers**  
**RZ/FDP 2009-PR-021**



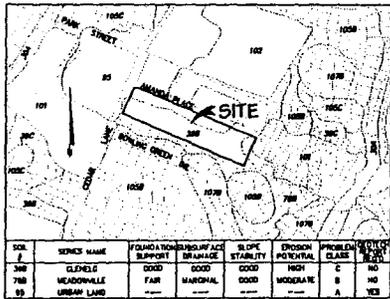
# CONCEPTUAL / FINAL DEVELOPMENT PLAN

# AMANDA PLACE

PROVIDENCE DISTRICT  
FAIRFAX COUNTY, VIRGINIA

RZ 2009-PR-021

RECEIVED  
Department of Planning & Zoning  
MAR 05 2010  
Zoning Evaluation Division

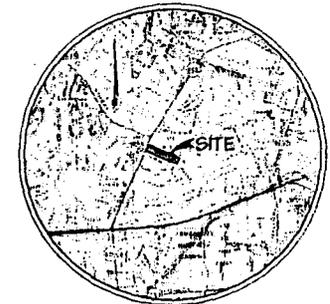


SOILS MAP/DATA  
SCALE: 1" = 50'

SOIL	SERIES NAME	FOUNDATION SUPPORT	INGRESS DRAINAGE	ROCK STABILITY	EROSION POTENTIAL	PROBLEM CLASSES	USE
308	CLOVELL	GOOD	GOOD	GOOD	MODERATE	C	NO
750	WALTONVILLE	FAIR	MODERATE	GOOD	MODERATE	B	NO
99	URBAN LAND					A	YES

### NOTES

- THE PROPERTY DELINEATED ON THIS PLAN IS LOCATED ON FAIRFAX COUNTY TAX ASSESSMENT MAP NUMBER 46-1(11)35A. THE SITE IS CURRENTLY ZONED R-1. THE PROPOSED ZONING IS PDH-3.
- THE PROPERTY HEREIN IS CURRENTLY IN THE OWNERSHIP OF THE WYOMAN CENTRAL PRESBYTERIAN CHURCH IN DEED BOOK 20045 AS PAGE 1388 AMONG THE LAND RECORDS OF FAIRFAX COUNTY, VIRGINIA.
- BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A FIELD RUN SURVEY PREPARED BY CHARLES P. JOHNSON & ASSOCIATES, DATED FEBRUARY 2009. CONTOUR INTERVAL EQUALS TWO FEET WIND 1929.
- THERE ARE NO 100-YEAR FLOODPLAINS ON-SITE. NO FLOODPLAIN OR DRAINAGE STUDIES ARE REQUIRED FOR THIS PROJECT.
- THERE ARE NO RESOURCE PROTECTION AREAS (RPAs) OR ENVIRONMENTAL QUALITY CORRIDORS (EQCs) ON THIS SITE. A WATER QUALITY IMPACT ASSESSMENT WILL NOT BE REQUIRED.
- TO THE BEST OF OUR KNOWLEDGE, THE SITE HAS NO SCENIC ASSETS OR NATURAL FEATURES DESERVING OF PROTECTION AND PRESERVATION.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO KNOWN BRANES, OBJECTS, OR STRUCTURES HARMING A PLACE OF BURIAL.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITY EASEMENTS HAVING A WIDTH OF 25 FEET OR GREATER, NOR ANY MAJOR UNDERGROUND UTILITY EASEMENTS LOCATED WITHIN THE SITE.
- SEE SHEET 8 FOR A DESCRIPTION OF EXISTING VEGETATION.
- THERE ARE NO EXISTING STRUCTURES OCCUPYING THE SITE.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO HAZARDOUS OR TOXIC SUBSTANCES AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 174.6, 302.4, AND 304; HAZARDOUS WASTE AS SET FORTH IN COMBINATION OF VIRGINIA / DEPARTMENT OF WASTE MANAGEMENT VS 872-10-1 - VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATION AND/OR PETROLEUM PRODUCTS AS DEFINED IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 280 TO BE GENERATED, UTILIZED, STORED, TREATED, AND/OR DISPOSED OF ON-SITE.
- THERE ARE NO ZONING OVERLAY DISTRICTS FOR THIS SITE.
- THERE ARE NO AFFORDABLE DWELLING UNITS (ADUs) REQUIRED FOR THIS PROJECT.
- NO DENSITY REDUCTIONS ARE REQUIRED BY ZONING ORDINANCE SECTION 2-3-08.
- IN ACCORDANCE WITH THE ADOPTED COMPREHENSIVE PLAN, THE PROPOSED DEVELOPMENT WILL PROVIDE RESIDENTIAL DEVELOPMENT AT 2.8 DWELLING UNITS PER ACRE AND WILL CONFORM TO ALL APPLICABLE ORDINANCES, REGULATIONS, AND ADOPTED STANDARDS EXCEPT AS NOTED BELOW:
  - A MODIFICATION OF THE PS-2 IMPERVED DRIVEWAY STANDARDS OF PVA SECTION 700, PLATE 11-2, IN FAVOR OF THE COMMON DRIVEWAY AS SHOWN ON SHEET 3.
- PROPOSED PUBLIC IMPROVEMENTS:
  - WATER SERVICE TO BE PROVIDED BY AN EXISTING 8" MAIN LOCATED IN AMANDA PLACE
  - SANITARY SERVICE TO BE PROVIDED BY AN EXISTING 8" MAIN LOCATED IN AMANDA PLACE
- AN ON-SITE TRAIL IS BEING PROPOSED AS A RECREATIONAL FACILITY WITH THIS DEVELOPMENT.
- NO SPECIAL AMENITIES ARE BEING PROPOSED WITH THIS DEVELOPMENT.
- A DEVELOPMENT SCHEDULE HAS NOT BEEN DETERMINED AT THIS TIME.
- SEE SHEET 8 FOR ARCHITECTURAL ELEVATIONS.
- A MAJOR PAVED TRAIL IS REQUIRED ALONG CEDAR LANE PER THE FAIRFAX COUNTY TRAILS PLAN.
- PARCEL "A" WILL BE CONVEYED TO A HOMEOWNERS ASSOCIATION FOR OWNERSHIP AND MAINTENANCE.
- MINOR MODIFICATIONS TO THE BUILDING FOOTPRINTS, LOT AREAS, DIMENSIONS, UTILITY LAYOUT, AND LIMITS OF CLEARING AND GRADING MAY OCCUR WITH THE FINAL ENGINEERING DESIGN, IN SUBSTANTIAL CONFORMANCE WITH THE COP/APP.



VICINITY MAP  
SCALE: 1" = 200'



### MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

- Plot is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').
- A graphic detailing the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site setbacks, energy dissipation devices, and stream stabilization measures as shown on Sheet 8.
- Provide:
 

Facility Name/Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sq ft)	Storage Volume (cu ft)	If pond, dam height (ft)
Retention Pond	1.314	1.314	1.3609	5,592	N/A	
Infiltration Trench	1.974	1.974	1.3008	7,780	N/A	
Total	3.334	3.334	2.6617	12,106		
- Outlet drainage channels, outfalls, and pipe systems are shown on Sheet 8. Pond inlet and outlet pipe systems are shown on Sheet 8.
- Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 8. Type of maintenance access road surface noted on the plan is ASPHALT.
- Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 8.
- A "Stormwater management narrative" which contains a description of how detention and best management practices requirements will be met is provided on Sheet 8.
- A description of the existing conditions of each numbered outlet outfall downstream from the site to a point within 100 feet of the site area or within a drainage area of at least one square mile (640 acres) is provided on Sheet 8.
- A description of how the outlet requirements, including basin changes to contributing drainage area (i.e. drainage diversion), of the Public Facilities Manual will be satisfied is provided on Sheet 8.
- Existing topography with minimum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheet 1, 2, 3.
- A submission which is requested for: N/A
- Stormwater management is not required because: N/A

### SITE TABULATIONS

LOT AREA	124,553.9 (2.860 Ac)
PARCEL "A"	134,267.9 (3.082 Ac)
RIGHT-OF-WAY DEDICATION	8,974.6 (0.206 Ac)
TOTAL	267,796.4 (6.148 Ac)

### PDH-3 ZONE

	REQUIRED	PROVIDED
NUMBER OF UNITS	---	16 SINGLE-FAMILY DETACHED
MAXIMUM DENSITY	3 DU/AC	2.8 DU/AC
MINIMUM LOT AREA	N/R	8,899 sq ft
AVERAGE LOT AREA	N/R	7,780 sq ft
MAXIMUM BUILDING HEIGHT	N/R	30'
MINIMUM YARDS	N/R	SEE DETAIL SHEET 3
OPEN SPACE	20%	40%
PARKING	12 spaces/lot for lots with public street frontage; 3 spaces/lot (excluding drive/driveway)	84 spaces

### REVISIONS

NO.	SHEET NUMBER AND REVISION DESCRIPTION	DATE
1.	(1) ADDED WATER REPORT (2) REVISED CLEARING LIMITS & FENCE IMPROVEMENTS (3) ADDED UTILITY EASEMENTS & STREET CROSS-SECTION (4) MODIFIED LANDSCAPING & TREE COVER CALC (5) CULVERT INVOIR REQUESTS REVISED TABS (6) REVISED LAYOUT (7) REVISED LANDSCAPING & TREE COVER CALC (8) REVISED DUTAIL	10-23-09
2.	(1a) ADDED SITING AREA NEAR BIODIVERSITY FACILITY (2) REVISED PROPOSED IMPROVEMENTS	11-24-09
3.	(1) REVISED SITE TABS & SWM INFORMATION (2) REVISED LAYOUT & CEDAR LANE IMPROVEMENTS (3) REVISED LANDSCAPING & TREE COVER CALC (4) REVISED DUTAIL SURVIVAL & SWM/APP CALC (5) NEW SHEET	1-8-10
4.	(1) REVISED SITE TABS & SWM INFORMATION (2) REVISED LAYOUT & CEDAR LANE IMPROVEMENTS (3) REVISED LANDSCAPING & TREE COVER CALC (4) REVISED DUTAIL SURVIVAL & SWM/APP CALC (5) NEW SHEET	2-23-10
5.	(1) REVISED SITE TABS & SWM INFORMATION (2) REVISED LAYOUT & CEDAR LANE IMPROVEMENTS (3) REVISED LANDSCAPING & TREE COVER CALC (4) REVISED DUTAIL SURVIVAL & SWM/APP CALC (5) NEW SHEET	3-6-10

NO CHANGES OTHER THAN THOSE SPECIFIED ABOVE, HAVE BEEN MADE TO THIS PLAN FROM THAT HAS PREVIOUSLY SUBMITTED OR APPROVED.

### TABLE OF CONTENTS

- COVER SHEET
- EXISTING CONDITIONS PLAN
- CONCEPTUAL/FINAL DEVELOPMENT PLAN
- CONCEPTUAL LANDSCAPE PLAN
- EXISTING VEGETATION MAP
- DUTAIL ANALYSIS
- ARCHITECTURAL ELEVATIONS

### DEVELOPER

ELM STREET COMMUNITIES, INC.  
1355 BEVERLY ROAD  
SUITE 240  
MCLEAN, VIRGINIA 22101  
(703)734-8730

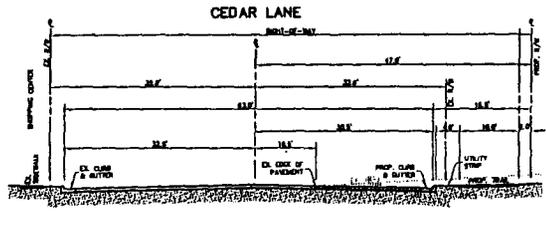
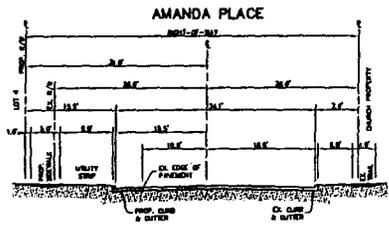
CPI Charles P. Johnson & Associates, Inc.  
PLANNERS, ENGINEERS, SURVEYORS, ARCHITECTS, INSPECTORS  
1355 BEVERLY ROAD, SUITE 240, MCLEAN, VIRGINIA 22101 (703)734-8730  
FAX (703)777-0048

DATE: JUNE 10, 2009  
REVISED: OCTOBER 23, 2009  
NOVEMBER 24, 2009  
JANUARY 6, 2010  
FEBRUARY 23, 2010  
MARCH 4, 2010

SHEET 1 of 8

AMANDA PLACE





**LEGEND**

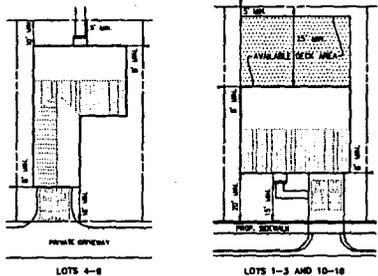
- LIMITS OF CLEARING & GRADING
- - - - - EXISTING TREELINE
- ~~~~~ PROPOSED TREELINE
- - - - - EXISTING UTILITY LINE & POLE
- EX. SANITARY SEWER
- PROP. SANITARY SEWER
- EX. STORM DRAIN & EASEMENT
- PROP. STORM DRAIN & EASEMENT
- EX. WATERMAIN

**SECTION A-A**  
SCALE: 1" = 10'

**SECTION B-B**  
SCALE: 1" = 10'

ULTIMATE SECTION MAY VARY WITH FINAL ENGINEERING, SUBJECT TO VDOT APPROVAL.

ULTIMATE SECTION MAY VARY WITH FINAL ENGINEERING, SUBJECT TO VDOT APPROVAL.

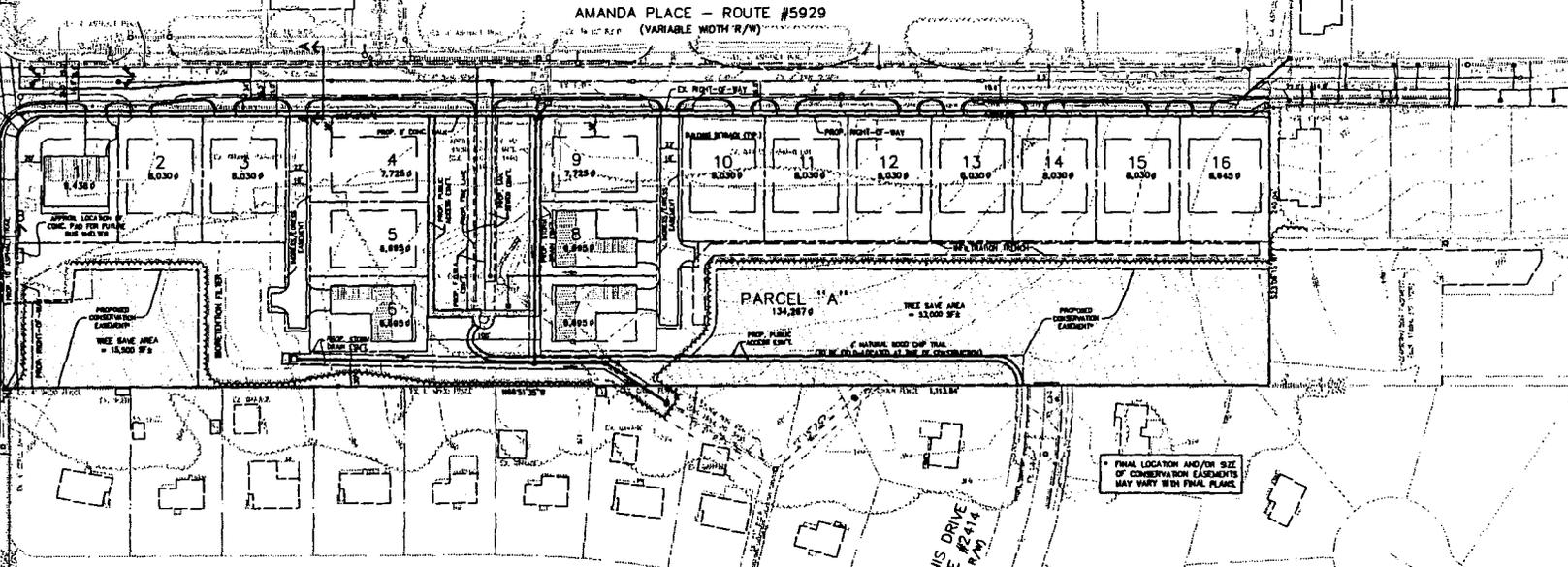


**TYPICAL LOT LAYOUT**  
SCALE: 1" = 30'

MARK STREET  
ROUTE #675  
(VARIABLE WIDTH R/W)



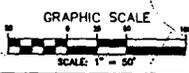
CEDAR LANE - ROUTE #698  
(VARIABLE WIDTH R/W)



BOWLING GREEN DRIVE - ROUTE #2404  
(VARIABLE WIDTH R/W)

DENNIS DRIVE  
ROUTE #2414  
(50' R/W)

\* FINAL LOCATION AND/OR SIZE OF CONSERVATION EASEMENTS MAY VARY IN FINAL PLANS



CONCEPTUAL / FINAL DEVELOPMENT PLAN

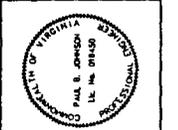
**AMANDA PLACE**

PROVIDENCE DISTRICT  
FAIRFAX COUNTY, VIRGINIA

RZ 2009-PR-021

Charles P. Johnson & Associates, Inc.  
PLANNERS, ENGINEERS, ARCHITECTS, SURVEYORS  
10000 WOODBURN ROAD, SUITE 100, FARMERS MARKET CENTER  
FAIRFAX COUNTY, VIRGINIA 22031-4400  
TEL: 703.776.1100 FAX: 703.776.1101  
WWW.CPJASOCIATES.COM

CPJ



DATE	BY	CHKD	APP'D
10/11/09	CPJ	CPJ	CPJ
SHEET 3 OF 8			
DRAWING NO. 08-524			
TYPE: CONCEPTUAL			



Existing  
Vegetation  
Map  
Amanda Place

**LEGEND**

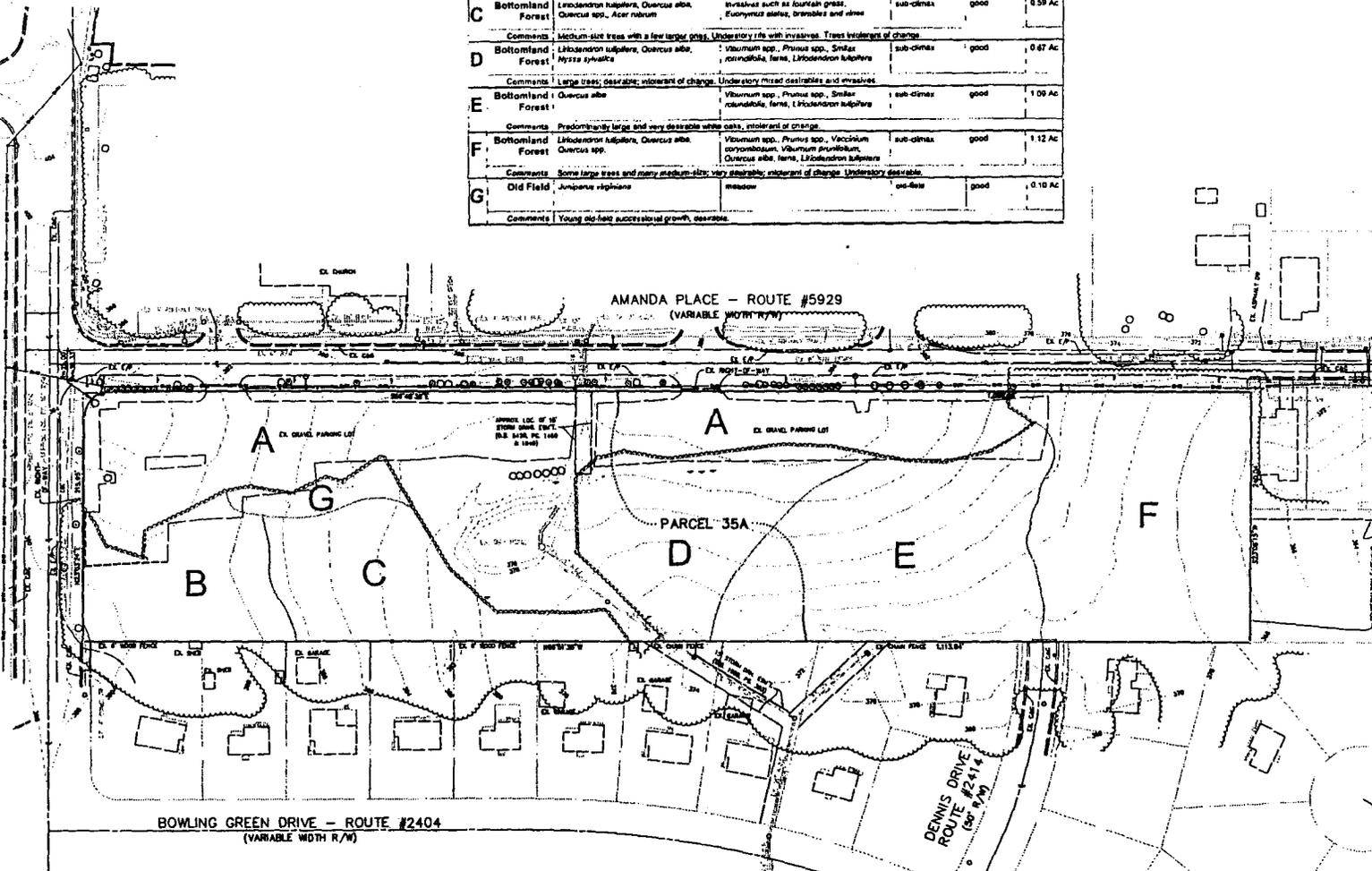
- EXISTING TREELINE
- EXISTING UTILITY LINE & POLE
- EX. SAN. SEWER & EASEMENT
- EX. STORM DRAIN & EASEMENT
- EX. WATERMAIN

Cover Type	Primary Species	Understory Species	Successional Stage	Condition	Area
<b>A</b> Developed	<i>Acer rubrum</i> , <i>Quercus pauciflora</i> , <i>Pinus strobus</i>	<i>Acer rubrum</i> , brambles, <i>Smilax rotundifolia</i> , <i>Viburnum</i> spp.	N/A	N/A	2.08 Ac
Comments	Gravel parking and storm water management dry pond surrounded by low maintenance grass and some landscape trees.				
<b>B</b> Bottomland Forest	<i>Liriodendron tulipifera</i> , <i>Quercus alba</i> , <i>Quercus</i> spp.	<i>Acer rubrum</i> , brambles, <i>Smilax rotundifolia</i> , <i>Viburnum</i> spp.	sub-climax	good	0.49 Ac
Comments	Large shade trees, intolerant of change. Some invasive exotics are established.				
<b>C</b> Bottomland Forest	<i>Liriodendron tulipifera</i> , <i>Quercus alba</i> , <i>Quercus</i> spp., <i>Acer rubrum</i>	invasives such as fountain grass, <i>Eucalyptus</i> spp., brambles and vines	sub-climax	good	0.59 Ac
Comments	Medium size trees with a few larger ones. Understory rich with invasives. Trees intolerant of change.				
<b>D</b> Bottomland Forest	<i>Liriodendron tulipifera</i> , <i>Quercus alba</i> , <i>Myrica sylvatica</i>	<i>Viburnum</i> spp., <i>Prunus</i> spp., <i>Smilax rotundifolia</i> , ferns, <i>Liriodendron tulipifera</i>	sub-climax	good	0.87 Ac
Comments	Large trees, desirable; intolerant of change. Understory mixed desirable and invasives.				
<b>E</b> Bottomland Forest	<i>Quercus alba</i>	<i>Viburnum</i> spp., <i>Prunus</i> spp., <i>Smilax rotundifolia</i> , ferns, <i>Liriodendron tulipifera</i>	sub-climax	good	1.00 Ac
Comments	Predominantly large and very desirable white oaks, intolerant of change.				
<b>F</b> Bottomland Forest	<i>Liriodendron tulipifera</i> , <i>Quercus alba</i> , <i>Quercus</i> spp.	<i>Viburnum</i> spp., <i>Prunus</i> spp., <i>Vaccinium corymbosum</i> , <i>Viburnum prunifolium</i> , <i>Quercus alba</i> , ferns, <i>Liriodendron tulipifera</i>	sub-climax	good	1.12 Ac
Comments	Some large trees and many medium-size; very desirable; intolerant of change. Understory desirable.				
<b>G</b> Old Field	<i>Juncus sp.</i>	meadow	post-climax	good	0.10 Ac
Comments	Young old-field successional growth, desirable.				

PARK STREET  
ROUTE #675  
(VARIABLE WIDTH R/W)

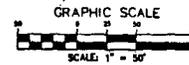


CEDAR LANE - ROUTE #698  
(VARIABLE WIDTH R/W)



BOWLING GREEN DRIVE - ROUTE #2404  
(VARIABLE WIDTH R/W)

DENNIS DRIVE  
ROUTE #2414  
(50' R/W)



EXISTING VEGETATION MAP

**AMANDA PLACE**

PROVIDENCE DISTRICT  
FAIRFAX COUNTY, VIRGINIA



DATE: 10/11/10	SCALE: 1" = 50'
PROJECT: 08-524	SHEET: 5 OF 8
TITLE: CDP/FSM	DATE: 10/11/10

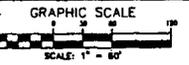
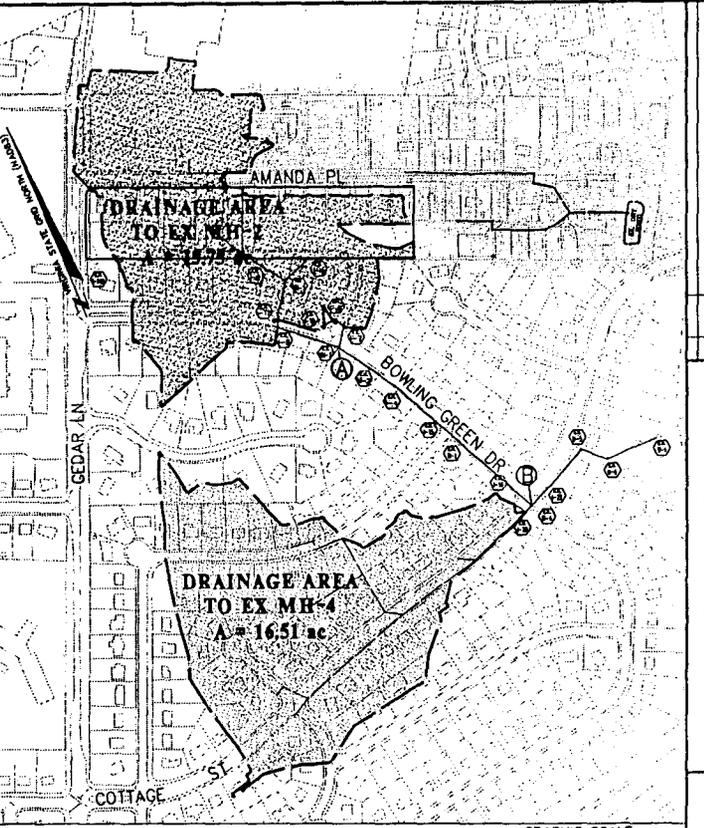
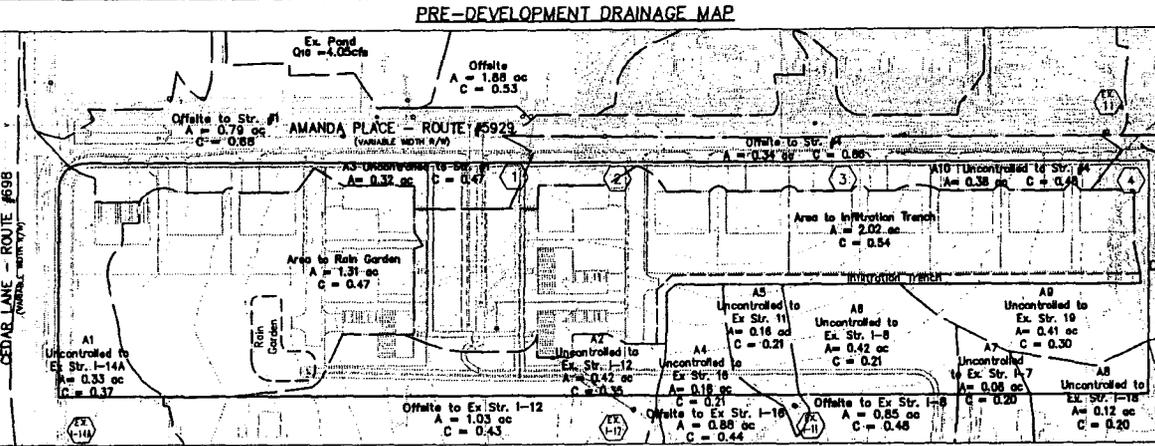
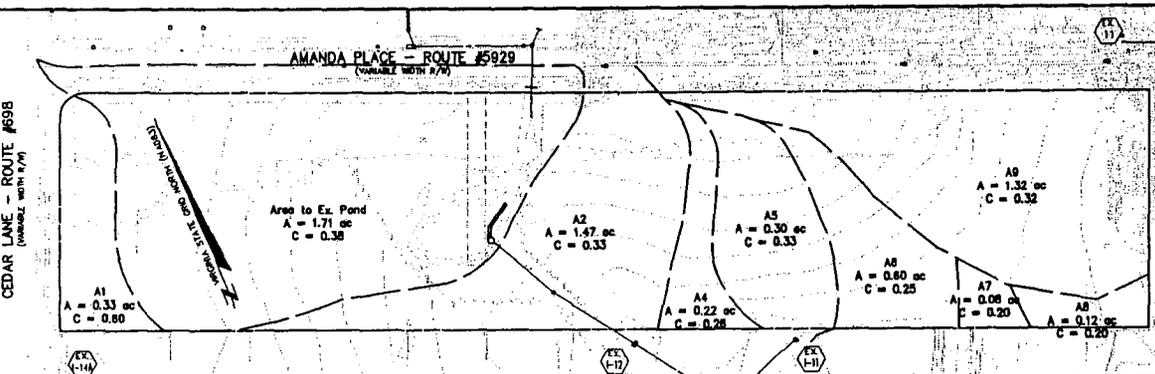
Charles P. Johnson & Associates, Inc.  
 1400 N. 17th St., Suite 200, Arlington, VA 22209  
 (703) 525-1100  
 www.cpj.com



OUTFALL ANALYSIS  
**AMANDA PLACE**

PROVIDENCE DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

RZ 2009-PR-021



Post Development to Existing Storm Sewer Computations (Dunn Loring Subdivision)

PROFILE	ID	DRAINAGE AREA		C	C.E.A.	ADCUA	TITLE OF CONSTRUCTION	OFFICE	DATE	PROFILE		LUMBER	LUMBER
		AREA	COEFF.							IN	OUT		
0001	001	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0002	002	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0003	003	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0004	004	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0005	005	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0006	006	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0007	007	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0008	008	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0009	009	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0010	010	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0011	011	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0012	012	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0013	013	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0014	014	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0015	015	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0016	016	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0017	017	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0018	018	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0019	019	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0020	020	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0021	021	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0022	022	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0023	023	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0024	024	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0025	025	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0026	026	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0027	027	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0028	028	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0029	029	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0030	030	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0031	031	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0032	032	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0033	033	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0034	034	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0035	035	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0036	036	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0037	037	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0038	038	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0039	039	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00
0040	040	1.00	0.33	0.38	0.12	0.12	10' 0" 10' 0"	11.3	11.3	0.0001	0.00	0.00	0.00

OUTFALL NARRATIVE PER PFM

THE PROPERTY CONSISTS OF 6.15 ACRES ON WHICH 18 SINGLE FAMILY DETACHED UNITS AND RELATED UTILITIES ARE BEING PROPOSED. THE SITE CURRENTLY HAS A LARGE GRAVEL PARKING LOT AND AN EXISTING DRY POND, ALMOST HALF OF THE SITE IS DENSELY WOODED. THE SITE'S TOPOGRAPHY IS SOMEWHAT FLAT AND HAS SLOPES BETWEEN 3% - 5%.

THE SITE'S EXISTING STORMWATER RUNOFF SHEET FLOWS IN THREE DIFFERENT DIRECTIONS. AREA 1 (0.33 ACRES) SHEET FLOWS INTO AN EXISTING CURB INLET ALONG CEDAR LANE TO THE SOUTHWEST OF THE SITE. AREA 2 (4.05 ACRES INCLUDING 1.71 ACRES TO EXISTING DRY POND) SHEET FLOWS INTO AN EXISTING STORM SEWER SYSTEM WITHIN DUNN LORING SUBDIVISION. AREA 3 (1.77 ACRES) SHEET FLOWS INTO AN EXISTING YARD INLET WITHIN THE AMANDA PLACE SUBDIVISION AND ULTIMATELY DISCHARGES INTO AN EXISTING OFFSITE SWM/BMP DRY POND TO THE EAST OF THE SITE.

AFTER THE DEVELOPMENT, THE DRAINAGE PATTERN WILL BE SIMILAR TO THE EXISTING DRAINAGE PATTERN. HOWEVER, APPROXIMATELY 1.31 ACRES OF THE SITE'S STORMWATER WILL SHEET FLOW INTO A PROPOSED GRATE INfiltration FILTER AND 2.02 ACRES OF DENSE AREA WILL DRAIN INTO AN INFILTRATION TRENCH AND INFILTRATE INTO THE GROUND. THE FILTER AND TRENCH WILL PROVIDE SWM & BMPs FOR THE SITE. MOST OF THE REMAINING RUNOFF FROM THE SITE WILL BE REDUCED AND CONTINUE TO SHEET FLOW INTO THE EXISTING STORM SEWER SYSTEM IN DUNN LORING SUBDIVISION AND AMANDA PLACE SUBDIVISION (SEE POST DEVELOPMENT DRAINAGE MAP SHEET). THE EXISTING STORM SEWER SYSTEM HAS BEEN ANALYZED AND FOUND TO HAVE ADEQUATE CAPACITY (SEE EXISTING STORM SEWER COMPUTATIONS THIS SHEET).

THE DRAINAGE AREA AT EXISTING STRUCTURE MH-4, WHICH INCLUDES THE SUBJECT SITE, IS 15.75 ACRES. THIS POINT IS LABELED ON THE OVERALL DRAINAGE MAP AS "A". THE DRAINAGE AREA AT EXISTING STRUCTURE MH-4 JOINS THIS EXISTING STORM SEWER SYSTEM AT POINT "B". IT IS 18.31 ACRES, WHICH IS LARGER THAN THE SIZE OF THE FIRST DRAINAGE AREA AT THE POINT OF CONFLUENCE (POINT "A"). PER PFM, 8-2003.2A, THE EXTENT OF DOWNSTREAM DRAINAGE SYSTEM REVIEW IS 150' DOWNSTREAM OF THIS CONFLUENCE POINT "B". THE EXISTING 48" HOP BETWEEN EXISTING MH-4 AND MH-5 IS 77.11' AND BETWEEN MH-22 AND MH-5 IS 174.85'. THEREFORE, THE EXTENT OF REVIEW IS COMPLETE AT EXISTING STRUCTURE MH-5. THE EXISTING STORM SEWER FROM THE PROPERTY (EX-113) TO THE CL MH-5 HAS BEEN ANALYZED AND FOUND TO HAVE ADEQUATE CAPACITY TO HANDLE THE EXISTING AND PROPOSED FLOWS FROM THE SUBJECT PROPERTY. SINCE THE SHEET FLOW ONTO ADJACENT DOWNSTREAM PROPERTIES FROM THE SITE WILL BE REDUCED AND THE EXISTING STORM SEWER SYSTEM HAS ADEQUATE CAPACITY, THE DEVELOPMENT WILL NOT HAVE AN ADVERSE IMPACT ON DOWNSTREAM PROPERTIES. IT IS THEREFORE THE ENGINEER'S OPINION THAT PFM ADEQUATE OUTFALL REQUIREMENTS HAVE BEEN SATISFIED FOR THIS PROJECT.

HYDRAULIC GRADE LINE

SHEET NO.	PART TYPE	OUTLET TO THE MAIN	JUNCTION LOSS																																																																																																											
			D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	S <sub>1</sub>	H <sub>1</sub>	V <sub>1</sub>	Q <sub>1</sub>	V <sub>2</sub>	Q <sub>2</sub>	V <sub>3</sub>	Q <sub>3</sub>	K <sub>1</sub>	K <sub>2</sub>	K <sub>3</sub>	K <sub>4</sub>	K <sub>5</sub>	K <sub>6</sub>	K <sub>7</sub>	K <sub>8</sub>	K <sub>9</sub>	K <sub>10</sub>	K <sub>11</sub>	K <sub>12</sub>	K <sub>13</sub>	K <sub>14</sub>	K <sub>15</sub>	K <sub>16</sub>	K <sub>17</sub>	K <sub>18</sub>	K <sub>19</sub>	K <sub>20</sub>	K <sub>21</sub>	K <sub>22</sub>	K <sub>23</sub>	K <sub>24</sub>	K <sub>25</sub>	K <sub>26</sub>	K <sub>27</sub>	K <sub>28</sub>	K <sub>29</sub>	K <sub>30</sub>	K <sub>31</sub>	K <sub>32</sub>	K <sub>33</sub>	K <sub>34</sub>	K <sub>35</sub>	K <sub>36</sub>	K <sub>37</sub>	K <sub>38</sub>	K <sub>39</sub>	K <sub>40</sub>	K <sub>41</sub>	K <sub>42</sub>	K <sub>43</sub>	K <sub>44</sub>	K <sub>45</sub>	K <sub>46</sub>	K <sub>47</sub>	K <sub>48</sub>	K <sub>49</sub>	K <sub>50</sub>	K <sub>51</sub>	K <sub>52</sub>	K <sub>53</sub>	K <sub>54</sub>	K <sub>55</sub>	K <sub>56</sub>	K <sub>57</sub>	K <sub>58</sub>	K <sub>59</sub>	K <sub>60</sub>	K <sub>61</sub>	K <sub>62</sub>	K <sub>63</sub>	K <sub>64</sub>	K <sub>65</sub>	K <sub>66</sub>	K <sub>67</sub>	K <sub>68</sub>	K <sub>69</sub>	K <sub>70</sub>	K <sub>71</sub>	K <sub>72</sub>	K <sub>73</sub>	K <sub>74</sub>	K <sub>75</sub>	K <sub>76</sub>	K <sub>77</sub>	K <sub>78</sub>	K <sub>79</sub>	K <sub>80</sub>	K <sub>81</sub>	K <sub>82</sub>	K <sub>83</sub>	K <sub>84</sub>	K <sub>85</sub>	K <sub>86</sub>	K <sub>87</sub>	K <sub>88</sub>	K <sub>89</sub>	K <sub>90</sub>	K <sub>91</sub>	K <sub>92</sub>	K <sub>93</sub>	K <sub>94</sub>	K <sub>95</sub>	K <sub>96</sub>	K <sub>97</sub>
5	MH	325.47	48	122.40	80.27	0.0072	0.67	9.74	0.368	122.40	9.74	1192.21	1.473	0.516	70	0.61	0.000	1.783	1.78	0.89	1.56	337.03	345.36																																																																																							
22	DI	327.00	48	122.40	174.85	0.0072	1.36	9.74	0.368	118.20	9.41	1113.40	3.376	0.482	0	0.00	0.000	0.850	1.10	0.55	1.82	338.85	342.71																																																																																							
4	MH	328.68	48	119.28	77.11	0.0087	0.52	9.41	0.364	79.22	10.28	1200.40	4.321	1.442	0	0.00	0.000	1.784	1.79	0.89	1.41	340.20	341.40																																																																																							

