



County of Fairfax, Virginia

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

July 27, 2011

Tim Sampson
Walsh, Colucci, Lubeley, Emrich & Walsh, P.C.
2200 Clarendón Boulevard, 13th Floor
Arlington, VA 22201

RE: Rezoning Application RZ 2011-SU-004
(Concurrent with Proffered Condition Amendment Application PCA 2000-SU-032-03 and
Special Exception Amendment Application SEA 84-C-076-09)

Dear Mr. Sampson:

Enclosed you will find a copy of an Ordinance adopted by the Board of Supervisors at a regular meeting held on July 26, 2011, granting Rezoning Application RZ 2011-SU-004 in the name of Inova Health Care Services. The Board's action rezones certain property in the Sully District from the R-1 District to the C-3 District and permits medical care facilities with an overall Floor Area Ratio (FAR) of 0.34. The subject property is located on the southeast side of Ox Trail approximately 1,200 feet west of its intersection with West Ox Road on approximately 1.09 acres of land [Tax Map 45-2 ((2)) 51A1], and is subject to the proffers dated June 6, 2011.

The Board also:

- Reaffirmed the modification of the transitional screening requirements and a waiver of the barrier requirement in favor of that shown on the GDP/SEA Plat and further described in the proffers.

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- Reaffirmed the modification of the loading space requirement in favor of that shown on the GDP/SEA Plat.

Sincerely,



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

Cc: Chairman Sharon Bulova
Supervisor Michael Frey, Sully District
Janet Coldsmith, Director, Real Estate Division, Dept. of Tax Administration
Barbara Berlin, 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
Ken Williams, Plans & Document Control, ESRD, DPWES
Department of Highways-VDOT
Sandy Stallman, Park Planning Branch Manager, FCPA
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 26th day of July, 2011, the following ordinance was adopted:

**AN ORDINANCE AMENDING THE ZONING ORDINANCE
PROPOSAL NUMBER RZ 2011-SU-004
(Concurrent with Proffered Condition Amendment Application PCA 2000-SU-032-03 and
Special Exception Amendment Application SEA 84-C-076-09)**

WHEREAS, Inova Health Care Services, 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 the C-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

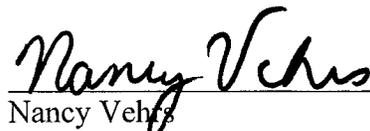
WHEREAS, this Board has today held a duly called public hearing and after due consideration of the reports, recommendation, testimony and facts pertinent to the proposed amendment, the Board is of the opinion that the Ordinance should be amended,

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

Be, and hereby is, zoned to the C-3 District, and said property is subject to the use regulations of said C-3 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 26th day of July, 2011.



Nancy Vehrs
Clerk to the Board of Supervisors



INOVA FAIR OAKS HOSPITAL

PROFFERS

PCA 2000-SU-032-03

June 6, 2011

Pursuant to Section 15.2-2303(A), Code of Virginia (1950, as amended) and Section 18-204 of the Zoning Ordinance of Fairfax County (1978, as amended), INOVA HEALTH CARE SERVICES ("Inova"), for themselves, the property owners and their successors and/or assigns (hereinafter collectively referred to as the "Applicant"), hereby proffers that the development of the parcels identified as 2011 Fairfax County tax map parcels 45-2 ((1)) 41B1, 41L, 41L3, 41L4 and 41L5; and 45-2 ((2)) 38, 39A, 39B, 46A1 and 51A1 (the "Application Property") shall be in substantial conformance with the following conditions if, and only if, PCA 2000-SU-032-03 and the companion applications RZ 2011-SU-004 and SEA 84-C-076-09 are approved by the Board of Supervisors. In the event PCA 2000-SU-032-03, RZ 2011-SU-004 and SEA 84-C-076-09 are so approved, then all previous proffers for the Application Property are hereby deemed null and void and hereafter shall have no effect on the Application Property.

1. Consolidation of Parcel 51A1. It is noted that the parcel identified as 2011 Fairfax County tax map parcel 45-2 ((2)) 51A1 ("Parcel 51A1") is the subject of RZ 2011-SU-004 and its associated proffer which references the incorporation of Parcel 51A1 into PCA 2000-SU-032-03 and these proffers. The purpose of this is to consolidate Parcel 51A1 into the Inova Fair Oaks Hospital Campus and incorporate it into the campus-wide proffers and development plan.
2. Development Plan. Development of the Application Property shall be in substantial conformance with the Generalized Development Plan/Generalized Development Plan Amendment/Special Exception Amendment Plat ("GDP/SEA Plat") prepared by Dewberry & Davis LLC, dated January 31, 2011 and revised through May 13, 2011 consisting of sheets 1 – 13.
3. Minor Modifications. Pursuant to Paragraph 5 of Section 18-204 of the Zoning Ordinance, minor modifications to the GDP/SEA Plat and these proffers may be permitted as determined by the Zoning Administrator.
4. Proposed Development. Development of the Application Property shall include a maximum of 1,083,777 square feet of gross floor area ("GFA"). This does not include cellar area(s) as defined by the Zoning Ordinance. The Applicant reserves the right to construct less than the maximum amount of GFA for the buildings as shown on the GDP/SEA Plat and to reallocate GFA among the buildings depicted on the GDP/SEA Plat without requiring a proffered condition amendment ("PCA") so long as (1) the total maximum GFA is not exceeded; (2) the maximum building heights as set forth in Proffer 17.b. are not exceeded; and (3) any changes to the footprint and/or configuration of individual buildings and/or garages are deemed to be allowable minor

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modifications as determined by the Zoning Administrator. The Applicant reserves the right to construct the development shown on the GDP/SEA Plat in phases.

5. Uses. The Application Property may include the following uses:
 - a. Medical Care Facility and related ancillary uses including but not limited to hospital administrative offices and support services, a helistop, an assisted living facility, a child care center, a health club(s), a cafeteria(s)/eating establishment(s), a delicatessen(s)/quick service food store(s), a pharmacy(s), and a gift shop(s), etc.
 - b. Medical Office Buildings provided that the total square footage of the four Medical Office Buildings shown on the GDP/SEA Plat shall not exceed 370,000 square feet of GFA. This does not include cellar area as defined in the Zoning Ordinance.
 - c. Mobile and land based telecommunication facilities, subject to the provisions of Section 2-514 of the Zoning Ordinance, and provided that monopoles may not be installed on the Application Property.
 - d. Telecommunication facilities provided that monopoles may not be installed on the Application Property.
 - e. Accessory uses and accessory service uses.
6. Parking. Parking shall be provided in the combination of a garage structure and surface lots as shown on the GDP/SEA Plat and shall be provided in accordance with the parking requirements of Article 11 of the Fairfax County Zoning Ordinance, as determined by the Department of Public Works and Environmental Services ("DPWES"), for the uses on the Application Property. The Applicant reserves the right to construct the new surface parking areas and parking garage expansions shown on the GDP/SEA Plat in phases. Handicap accessible parking spaces will be located in convenient and accessible locations proximate to building entrances as required by the Public Facilities Manual.
7. Road Improvements.
 - a. New Entrance. Subject to final design approval by DPWES and the Virginia Department of Transportation ("VDOT"), the Applicant shall construct the new vehicular entrance to the Application Property from Rugby Road in a location as generally shown on the GDP/SEA Plat (the "New Entrance"). If not sooner, the New Entrance shall be substantially completed prior to issuance of the first Non-RUP, exclusive of core and shell, for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat; provided, however, that if the New Entrance is under construction and the Applicant is

diligently pursuing substantial completion of the New Entrance at the time the Applicant would otherwise be issued such Non-RUP, then the requirement for substantial completion of the New Entrance shall be extended to allow the Applicant to occupy up to the first 50,000 square feet of floor area (including floor area in the cellar) of the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat. In no event shall the Applicant be permitted to occupy more than 50,000 square feet of floor area within the new "Proposed Oncology Center/MOB 4" (including floor area in the cellar) until the New Entrance is substantially complete. For purposes of this Proffer, "substantially completed" shall mean open and available for use by the public.

- b. Traffic Signal. At the time of site plan submission for the New Entrance (see Proffer 7.a. above), the Applicant shall complete and submit a warrant study to VDOT for a new traffic signal at the intersection of the New Entrance and Rugby Road. The warrant study shall assume full build out of the development shown on the GDP/SEA Plat. If the signal is warranted, the Applicant shall design, equip and install (at such time as may be warranted) a new traffic signal with pedestrian accommodations at that location subject to approval by VDOT of the final design of the signal.
- c. Existing Traffic Signals Timing Modifications. The Applicant shall request VDOT to determine if a corridor evaluation of signal timings is needed. This request shall be submitted in writing with a copy submitted to the Fairfax County Department of Transportation ("FCDOT"). This request shall be submitted between 180 and 365 days after the New Entrance (see Proffer 7.a.) is substantially completed and the traffic signal referenced in Proffer 7.b above is installed. If VDOT determines that a corridor evaluation is necessary, the Applicant shall conduct a corridor evaluation of existing signal timings along Rugby Road and Ox Trail, from the intersection of Ox Trail and West Ox Road to the intersection of Rugby Road and Route 50, to determine appropriate signal timing modifications along such corridor. Such signal timing plans shall be subject to review and approval by VDOT and shall provide for sufficient pedestrian crossing times in accordance with established standards as determined by VDOT. The Applicant shall coordinate with VDOT to implement such signal timing modifications as may be approved by VDOT based on the findings of the evaluation. If required, this proffer shall be completed prior to final bond release for the hospital bed tower expansion shown on the GDP/SEA Plat as "Previously Approved/Proposed Hospital Expansion North".
- d. Alder Woods Drive Traffic Signal Retrofit. At the time of site plan submission for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat, the Applicant shall seek approval from VDOT to retrofit the existing, north-facing signal heads at the Alder Woods Drive and Rugby Road intersection with baffles, or make other adjustments as approved by VDOT, to better enable drivers on the southbound approach to that

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intersection to distinguish those traffic signal heads from those located further south at the intersection of Rugby Road and the Fairfax County Parkway. If approved by VDOT, the Applicant shall install such baffles, or make such other adjustments as approved by VDOT, prior to bond release for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat. In no event shall this Proffer 7.d. be construed to require the Applicant to replace the existing signal heads or equipment; the extent of this commitment is to retrofit or readjust the existing signal heads.

e. Off-Site Right-of-Way/Easements. In the event the Applicant is unable to obtain the necessary right-of-way or easements required to construct the improvements described in these Proffers, the Applicant shall proceed as follows:

- i. The Applicant shall request the County to acquire the right-of-way or easements by means of its condemnation powers, at the Applicant's expense. The Applicant's request will not be considered until it has been forwarded, in writing, to the appropriate County agency accompanied by: (1) plans and profiles showing the necessary right-of-way or easements to be acquired, including all associated details of the proposed improvements to be located on said property; (2) an independent appraisal of the value of the right-of-way or easements to be acquired and of all damages and benefits to the residue of the affected property; (3) a sixty (60) year title search certificate of the right-of-way or easements to be acquired; and (4) a Letter of Credit, or cash (at the Applicant's discretion) in an amount equal to the appraised value of the right-of-way or easements to be acquired and of all damages to the residue, which Letter of Credit or cash can be drawn upon by the County.
- ii. In the event the property owner of the right-of-way or easements to be acquired is awarded more than the appraised value of same and of the damages to the residue in a condemnation suit, the amount of the award in excess of the Letter of Credit or cash posted amount shall be paid to the County by the Applicant within fifteen (15) days of said award. All other costs incurred by the County in acquiring the right-of-way shall be paid to the County by the Applicant on demand.
- iii. In the event the County does not acquire the aforesaid right-of-way or easements by means of its condemnation powers, the Applicant is relieved of its responsibility to construct the off-site portion of the aforesaid improvements specifically affected by the unavailability of the right-of-way or easements. The Applicant shall complete the proffered improvements for which acquisition of right-of-way or easements is not necessary and coordinate necessary transitions with DPWES and/or VDOT. In the event the Applicant is required to obtain necessary right-of-way or easements to implement the provisions of this Proffer

7.e., then the timing requirements of these Proffers as they relate to the improvements that necessitate such right-of-way or easements shall be automatically hereby adjusted to reflect the delays incurred by such proceedings, but in any event such improvements shall be completed prior to final bond release for the respective phase of development.

- f. Emergency Access. The Applicant reserves the right to seek approval for, and to construct, an emergency access-way over Tax Map Parcels 45-2 ((6)) A1, K2 and L1, between the Fairfax County Parkway and the intersection of Joseph Siewick Drive and Alder Woods Drive. If warranted, the Applicant will provide a traffic signal at the intersection of Joseph Siewick Drive and Alder Woods Drive. The construction of such improvements shall be subject to the approval of any necessary zoning, special exception and/or other permit approvals from Fairfax County, VDOT and/or other governmental authorities, as may be required at the time of the Applicant's request.
 - g. Zoning Administrator Consideration. Upon demonstration by the Applicant that, despite diligent efforts and due to factors beyond the Applicant's control, any of the improvements proffered in this Proffer 7 (or an improvement in any other Proffer the timing of which is associated with an improvement proffered in this Proffer 7) have been delayed (due to, but not limited to, an inability to secure necessary permission for utility relocations, approval by VDOT, and/or approval of ground lessees) beyond the timeframes provided by these proffers, the Zoning Administrator may approve a later date for completion of the improvement(s) without requiring a PCA.
8. Bus Facilities. The Applicant shall continue to allow Fairfax Connector buses to access the existing bus stop(s) on the Application Property via a route that traverses the Application Property on Joseph Siewick Drive, to and from its intersections with Alder Woods Drive and Ox Trail; provided, that the specific bus route may be modified as agreed by the Applicant and FCDOT without requiring a PCA. The Applicant may modify the bus circulation route on a temporary basis as required for construction staging.
 9. Pedestrian Circulation Improvements. The Applicant shall provide a comprehensive pedestrian circulation system throughout the Application Property as shown on the GDP/SEA Plat. New sections of sidewalks and other such improvements shown on the GDP/SEA Plat shall be constructed concurrently with the phase of development that is proximate to such area of the Application Property.
 10. Bicycle Facilities. The Applicant shall provide indoor and/or outdoor bicycle racks on the Application Property that provide spaces for a minimum total of 64 bicycles. Bicycle racks shall be located outdoors, with convenient access to the main hospital and emergency entrances and/or within the parking garage. The final location of the bike racks shall be subject to review by

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FCDOT. Subject to necessary approvals, if any, the Applicant shall install such bicycle racks, prior to issuance of the first Non-RUP, exclusive of core and shell, for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat. The Applicant shall also provide shower and changing facilities for employees of Inova Fair Oaks Hospital and demonstrate that the same have been provided prior to issuance of the first Non-RUP, exclusive of core and shell, for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat.

11. Transportation Demand Management. The Applicant shall formulate and implement a transportation demand management program (the "TDM Program") to encourage and facilitate the ability of employees of Inova Fair Oaks Hospital to travel to work by means other than single occupancy vehicle.

- a. TDM Program Elements. The TDM Program shall include the elements listed below. Such items may be adjusted from time to time as approved by FCDOT, without requiring a PCA.
 - i. A TDM Program Manager ("PM") to oversee all TDM elements and act as the liaison between the Applicant and FCDOT. The PM may be employed directly by the Applicant or be a contractor to the Applicant. The PM position may be part of other duties assigned to the individual;
 - ii. Participation in the Fairfax County Ride Source Program, including registering with the Guaranteed Ride Home (GRH) program offered in connection with the Metropolitan Washington Council of Governments;
 - iii. Display in the Inova Fair Oaks Hospital main lobby transportation-related information for employees, volunteers, patients, and visitors;
 - iv. Distribute an employee benefits package to all new employees, including site-specific transit-related information referencing the nearest Metro station and bus routes, a Metro "SmarTrip" card with a one-time initial benefit of \$50.00 per card, and encouraging all employees to use Metrorail, bus service, carpool/vanpool, bicycling, or walking;
 - v. Maintain varied hospital shifts to allow for some work trips to occur outside of the typical AM and PM peak hours of Rugby Road and Alder Woods Drive, and encourage telecommuting and flextime for administrative employees as appropriate;
 - vi. Provide reserved spaces for carpoolers and vanpoolers located proximate to garage entrances;

- vii. Provide for on-site bus services (See Proffer 8 above);
 - viii. Provide for on-site bicycle storage, showers and changing facilities (See Proffer 10 above);
 - ix. Provide a sidewalk system designed to encourage/facilitate pedestrian circulation (See Proffer 9 above);
 - x. Provide an on-campus child care center(s) and eating establishment(s) and other possible accessory service uses; and
 - xi. Provide information to new employees about housing opportunities within the area.
- b. TDM Program Development and Implementation. The Applicant shall prepare a written TDM Program incorporating the TDM Program Elements listed in Proffer 11.a. and submit it to FCDOT at the time of submission of the site plan for the phase of development on the Application Property that will result in a cumulative floor area ratio ("FAR") on the Application Property in excess of 0.30. The Applicant's submission shall include a provision notifying FCDOT to whom it may direct any comments on the TDM Program. Thereafter, the Applicant shall cooperate with FCDOT to incorporate the written comments of FCDOT into the TDM Program, provided that such comments are (i) provided to the Applicant within thirty (30) days of the Applicant's submission; and (ii) are reasonably related to the scope of the TDM Program as provided by this Proffer 11 and do not otherwise materially increase the cost to the Applicant of the TDM program, as determined by the Applicant. In the event the Applicant does not receive written comments as provided in this Proffer 11.b., then the TDM program shall be deemed approved as submitted by the Applicant. The TDM program shall have been approved (or deemed approved) consistent with the provisions of this Proffer 11 prior to final bond release for the phase of development on the Application Property that will result in a cumulative floor area ratio ("FAR") on the Application Property in excess of 0.30, following which time the Applicant shall implement the approved TDM program.
- c. TDM Program Survey. The Applicant shall conduct a survey of employees of the Inova Fair Oaks Hospital to determine the baseline condition of employee commuting behavior. The Applicant shall submit the results of such survey to FCDOT concurrent with the submission of the TDM Program as provided in Proffer 11.b. above. The Applicant shall conduct a follow up survey within two years following the implementation of the TDM Program to measure the effectiveness of the TDM Program compared against the baseline condition determined by the initial survey. The Applicant shall submit the

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results of such follow-up study to FCDOT for review. The Applicant shall cooperate with FCDOT in the evaluation and implementation of additional TDM measures, if needed, provided that such additional measures remain reasonably related to the scope of the TDM Program as provided by this Proffer 11 and do not otherwise materially increase the cost to the Applicant of the TDM program as determined by the Applicant.

12. Storm Water Management. The Applicant shall provide for storm water detention and Best Management Practices (“BMP”) in the locations as generally shown on the GDP/SEA Plat as approved by DPWES. The areas in and adjacent to both the existing SWM/BMP dry pond located in the northeast quadrant of the Alder Woods Drive/Rugby Road intersection and the existing stormwater outfall channel located in the southeast quadrant of the Alder Woods Drive/Rugby Road intersection shall be landscaped as shown on the GDP/SEA Plat. The Applicant shall incorporate one or more Low Impact Development facilities, such as the “Possible Infiltration Trench or Other Innovative BMP” as generally shown on the GDP/SEA Plat. The Applicant shall maintain the existing SWM/BMP dry pond located in the northeast quadrant of the Alder Woods Drive/Rugby Road intersection; the existing SWM/BMP dry pond located near the Child Care Center; and the existing SWM/BMP wet pond located in the northeastern quadrant of Alder Woods Drive and Joseph Siewick Drive.

13. Limits of Clearing and Grading. The Applicant shall conform to the limits of clearing and grading shown on the GDP/SEA Plat subject to allowances for the installation of signs, fences, trails and/or utilities, which shall be located and installed in the least disruptive manner necessary, as determined by the Urban Forest Management Division of DPWES (“UFMD”). A replanting plan shall be developed and implemented, as approved by the UFMD, for any areas within the areas protected by the limits of clearing and grading that must be disturbed.

14. Landscaping/Buffers.

- a. Rugby Road Buffer. As shown on the GDP/SEA Plat, the Applicant shall provide a buffer of existing vegetation and supplemental plantings that is 115-120 feet in width along the Application Property’s frontage on Rugby Road and Ox Trail between Alder Woods Drive and Joseph Siewick Drive (measured from the eastern edge of the road right-of-way), except in the locations of (i) the existing child care center; (ii) the former single family residence on Parcel 51A1; and (iii) the New Entrance and its related improvements (such as necessary pavement widening, turn lanes, signal equipment, etc.). Any signs, trails and/or utilities that are installed within this buffer area will be located and designed to minimize impact to existing vegetation as determined by the UFMD, and a replanting plan shall be developed and implemented, as approved by UFMD, for any such area that is disturbed. The Applicant shall install the supplemental planting within the Rugby Road Buffer as shown on the GDP/SEA Plat prior to issuance of the first Non-RUP, exclusive of the core and shell permit, for the “Proposed Oncology Center/MOB 4”

as shown on the GDP/SEA Plat; provided, however, that supplemental planting in the area of the New Entrance shall not be required to be installed at such time and instead shall be required to be installed concurrent with construction of the New Entrance.

b. Rugby Road Buffer - Tree Preservation Plan.

- i. The Applicant shall submit a tree preservation plan as part of the site plan(s) for any land disturbing activity, including the New Entrance, which is located within twenty-five (25) feet of either the Rugby Road Buffer or the area of upland forest on the southeast portion of the Application Property in proximity to the "Proposed Cooling Tower Expansion" or the "Proposed Parking (55 Spaces)" as shown on the GDP/SEA Plat.
- ii. The tree preservation plan(s) shall be prepared by a professional with experience in the preparation of tree preservation plans, such as a certified arborist or landscape architect, and shall be subject to the review and approval of UFMD. The tree preservation plan shall consist of a tree survey that includes the location, species, size, crown spread and condition rating percentage of all trees 12 inches in diameter and greater, located on the Application Property, that are located within 25 feet of the proposed limits of clearing and grading. The condition analysis ratings shall be prepared using methods outlined in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture. 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.
- iii. The Applicant shall retain the services of a certified arborist, and shall have the limits of clearing and grading in the areas of tree preservation marked with a continuous line of flagging prior to a walk-through meeting with the UFMD to be held prior to any clearing and grading. During the tree preservation walk-through meeting, the Applicant's arborist shall walk such limits of clearing and grading with an UFMD 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; provided, however, that no adjustment shall be required that would affect the location and/or design of the proposed development on the Application Property, including a requirement for additional retaining walls. Trees within the preservation areas that are identified specifically by UFMD in writing 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.

- iv. 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 adjacent to the tree preservation areas as shown on the phase I & II erosion and sediment control sheets. All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities. The installation of all tree protection fencing shall be performed under the direct supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. At least ten (10) days prior to the commencement of any clearing or grading activities adjacent to the tree preservation areas, but subsequent to the installation of the tree protection devices, the UFMD 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 UFMD.
- v. 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 respective site plan submission. The details for these treatments shall be reviewed and approved by UFMD, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following: (1) root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches; (2) root pruning shall take place prior to any clearing and grading; (3) root pruning shall be conducted with the supervision of a certified arborist; and (4) a UFMD representative shall be informed when all root pruning and tree protection fence installation is complete.
- vi. During any clearing or tree/vegetation removal in the areas adjacent to the tree preservation areas, 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 UFMD. The Applicant shall retain the services of a certified arborist or landscape architect to monitor on-site 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 Tree Preservation Plan, and reviewed and approved by UFMD.

- c. New Entrance. As shown on the GDP/SEA Plat, landscaping shall be provided in the area of the New Entrance, both within the Rugby Road Buffer and within the median of the New Entrance, to minimize visual impacts on nearby residences. Such landscaping shall be shown on the site plan that includes the New Entrance, and such landscaping shall be installed concurrent with construction of the New Entrance.
- d. Parcel 51A1. As shown on the GDP/SEA Plat, the Applicant shall remove the existing Rugby Road driveway apron serving Parcel 51A1, and thereby discontinue access to Rugby Road from such parcel. Future access to Parcel 51A1 shall be provided only through the Application Property and not directly via Rugby Road. The Applicant shall also remove the existing driveway asphalt leading to the former single family residence. The Applicant shall restore the area by completing the curb, gutter and sidewalk section along Rugby Road and revegetating the area of the driveway as shown on the GDP/SEA Plat. The Applicant may, but shall not be required to, remove the existing retaining walls located in the former front yard of the residential structure. Such improvements and landscaping shall be constructed/installed prior to issuance of the first Non-RUP, exclusive of the core and shell permit, for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat.
- e. Southern Buffer. The Applicant shall continue to provide the existing buffer and fence adjacent to the Fairfax County Park Authority property to the south of the Application Property (Tax Map 45-2 ((1)) 42), as shown on the GDP/SEA Plat.
- f. Eastern Buffer. The Applicant shall continue to provide the existing buffer adjacent to the Westvale community to the east of the Application Property, as shown on the GDP/SEA Plat. Prior to submission of a site plan for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat, the Applicant or the Applicant's representative and the Applicant's arborist shall walk such buffer area to evaluate (i) the need to remove dead or dying vegetation within such buffer area; and (ii) opportunities to provide supplemental planting to help provide year-round screening within such buffer area. The Applicant shall send a written invitation to the president of the Westvale owner's association inviting him/her or their designee to attend such site walk. The Applicant shall include a plan addressing such buffer area with the submission of the site

plan for "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat for review and approval by the UFMD, and the Applicant shall perform approved tree care and install any supplemental planting prior to issuance of the first Non-RUP, exclusive of the core and shell permit, for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat.

15. Lighting.

- a. General. All new outdoor lighting shall comply with the Outdoor Lighting Standards of Part 9 of Article 14 of the Zoning Ordinance. Outdoor pole-mounted lighting fixtures shall be a maximum height of fifteen (15) feet. New building mounted security lighting shall utilize full cut-off fixtures with shielding such that the lamp surface is not directly visible from any adjacent properties.
- b. Parking Garage.
 - i. Existing. Prior to site plan approval for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat, the Applicant shall retrofit the westernmost bay of lighting fixtures within the existing parking garage to provide cut-off shielding or other modifications to reduce glare towards Rugby Road.
 - ii. Garage Expansion. All lighting fixtures associated with the areas of garage expansion as shown on the GDP/SEA Plat shall be of a low intensity design and shall utilize full cut off fixtures which shall focus directly on the garage. Lighting within such parking areas shall be of low intensity in order to reduce the impact on adjacent residences. Lighting within the stair towers of such parking areas shall be fully shielded with full cut-off fixtures in order to reduce the impact on adjacent residences. Parapet walls on each level of such parking areas shall be a minimum of 42 inches in height to provide adequate shielding of vehicle headlights.

16. Signs. Signs for the Application Property shall be provided in accordance with the requirements of Article 12 of the Zoning Ordinance or pursuant to approval by the Board of Supervisors in accordance with the provision set forth in Par. 7 of Sect. 9-308 of the Zoning Ordinance, including, without limitation, those approved pursuant to SEA 84-C-076-7. The Applicant reserves the right to provide monument signage not specifically shown on the GDP/SEA Plat provided that it conforms to Article 12 and/or Board of Supervisors approval in accordance with the provision set forth in Par. 7 of Sect. 9-308 of the Zoning Ordinance.

17. Design Detail – Building; Garage; Site.

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- a. Building Architecture and Materials. Building materials and final design of new hospital and medical office buildings shall be compatible with and of comparable quality to the existing hospital and medical office buildings on the Application Property.
- b. Building Height. The maximum height of the buildings on the Application Property will not exceed the heights as represented on the GDP/SEA Plat. The Applicant reserves the right to construct buildings to a lesser height than the maximum heights as shown on the GDP/SEA Plat. Rooftop mechanical structures including penthouses will not extend more than twelve (12) feet above the roof line. All rooftop mechanical equipment shall be screened from view at the periphery of the Application Property. No antennae will be located on building rooftops other than the main hospital building and additions thereto, except as may be required for public safety purposes.
- c. Garage Expansion; Western Elevation. Building materials and final design of the garage expansion areas shall be compatible with and of comparable quality to the existing garage on the Application Property. As shown on the GDP/SEA Plat, the Applicant shall utilize topography, site berming and landscaping in the final design of the western expansion of the existing parking garage in an effort to buffer/screen from view the area of the western face of the garage as it is seen from Rugby Road.
- d. Design Detail. The design details shown on the GDP/SEA Plat are provided to illustrate the design intent of the proposed development. Landscaping and onsite amenities shall be generally consistent in terms of character and quantity with the illustrations and details presented on that sheet. Specific features such as locations of plantings, sidewalks etc. are subject to modification with final engineering and architectural design. The Applicant shall submit a detailed landscape plan in conjunction with the site plan(s) for review and approval by UFMD.
- e. Trash Dumpsters. All proposed trash dumpsters will be screened by a combination of brick walls, a gate and evergreen plantings as may be approved by the UFMD.
- f. Green Building Practices – Medical Office Building 4.
 - i. The Applicant will include, as part of the site and building plan submissions for the “Proposed Oncology Center/MOB 4” as shown on the GDP/SEA Plat, a list of specific credits within the most current version of the U.S. Green Building Council’s Leadership in Energy and Environmental Design—New Construction (LEED®-NC) rating system, or other LEED rating system determined to be applicable to the building by the U.S. Green Building Council (USGBC), that the Applicant anticipates attaining. At least one principal participant of the Applicant’s project team shall be a LEED Accredited Professional, and such

professional will provide certification statements at both the time of site plan review and the time of building plan review confirming that the items on the list are expected to meet at least the minimum number of credits necessary to attain LEED Silver certification for the building.

- ii. In addition, prior to site plan approval, the Applicant will designate the Chief of the Environment and Development Review Branch of the Department of Planning and Zoning as a team member in the USGBC's LEED Online system. This team member will have privileges to review the project status and monitor the progress of all documents submitted by the project team, but will not be assigned responsibility for any LEED credits and will not be provided with the authority to modify any documentation or paperwork.
- iii. Prior to building plan approval for the building, the Applicant will submit documentation, to the Environment and Development Review Branch of DPZ, regarding the U.S. Green Building Council's preliminary review of design-oriented credits in the LEED program. This documentation will demonstrate that the building is anticipated to attain a sufficient number of design-related credits that, along with the anticipated construction-related credits, will be sufficient to attain LEED Silver certification. Prior to release of the bond for the building, the Applicant shall provide documentation to the Environment and Development Review Branch of DPZ demonstrating the status of attainment of LEED Certification from the U.S. Green Building Council for the building.
- iv. As an alternative to and in lieu of the requirements of paragraphs i - iii above, or if the U.S. Green Building Council review of design-oriented credits indicates that the building is not anticipated to attain a sufficient number of design-related credits, along with the anticipated construction-related credits, to support attainment of LEED Silver certification, the Applicant will, prior to building permit approval, execute a separate agreement and post a "green building escrow," in the form of cash or a letter of credit from a financial institution acceptable to DPWES as defined in the Public Facilities Manual, in the amount of \$2.00 per gross square foot of building. This escrow will be in addition to and separate from other bond requirements and will be released upon demonstration of attainment of certification, by the U.S. Green Building Council, under the most current version of the LEED-NC rating system or other LEED rating system determined, by the U.S. Green Building Council, to be applicable to the building. The provision to the Environment and Development Review Branch of DPZ of documentation from the U.S. Green Building Council that the building has attained LEED certification will be sufficient to satisfy this commitment. If the applicant fails to provide documentation to the Environment and Development

Review Branch of DPZ demonstrating attainment of LEED certification within two years (or such longer time if the Applicant provides documentation to the satisfaction of the Environment and Development Review Branch of DPZ that USGBC review of the LEED certification has been delayed through no fault of the Applicant) of issuance of the first Non-RUP, exclusive of core and shell, for the building, the escrow will be released to Fairfax County and will be posted to a fund within the county budget supporting implementation of county environmental initiatives.

18. Park Dedication. At the time of submission of the site plan for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat, the Applicant shall submit to the Fairfax County Park Authority ("FCPA") a written offer, including a plat depicting the areas of reservation referenced below and a form of deed, to dedicate and convey in fee simple (free and clear of monetary obligations) to the FCPA for public park purposes Tax Map Parcels 45-2 ((2)) 38, 39A and 39B, subject to reasonable reservations by the Applicant of easements and/or other rights to provide for (i) storm drainage through such parcels; (ii) a reservation of density credit for such parcels; (iii) the right of the Applicant to utilize such parcels to support the open space, landscaping, tree cover and/or other such requirements for development on the balance of the Application Property; and (iv) future right-of-way that may be needed for adjacent road improvements. The Applicant's offer shall provide FCPA a period of one hundred twenty (120) days to respond in writing to the Applicant with the FCPA's decision to either accept or not to accept the offer. In the event FCPA does not respond as so provided, or responds with a conditional acceptance that would change the substance of the offer, then FCPA shall be deemed not to have accepted the offer and the Applicant shall have no further obligation under this Proffer 18. In the event FCPA accepts the offer, then the Applicant shall so dedicate such land to FCPA prior to bond release for the site plan for the "Proposed Oncology Center/MOB 4" as shown on the GDP/SEA Plat.
19. Heritage Resources. In the event the Applicant proposes any land disturbing activity on Tax Map Parcels 45-2 ((2)) 38, 39A and 39B, other than improvements to the existing stormwater outfall channel, the Applicant shall conduct a Phase II archaeological survey for the area to be disturbed. If a Phase III archaeological study is found necessary by the County archaeologist, that study shall be performed by the Applicant; provided, however, that in no event shall the results of such studies prohibit the Applicant's proposed development of the property.
20. Special Exception Amendment. Notwithstanding the GDP/SEA Plat is presented on one set of plans, the Applicant reserves the right to file for only special exception amendment(s) from the Board of Supervisors in the future in accordance with Sect. 9-014 of the Zoning Ordinance, without filing for an amendment to the Generalized Development Plan so long as the floor area ratio is not increased and all proffered conditions are satisfied.

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21. Child Care Center.

- a. The child care center shall be used exclusively by the children of employees of Inova Health Care Services and physicians and staff practicing on the Inova Fair Oaks Campus.
- b. The maximum number of children at any one time within the facility shall be 150 (with a maximum daily enrollment of 200) and there shall be a maximum of 40 total employees on-site at any one time.
- c. The hours of operation shall be limited to 6:00 a.m. to 8:00 p.m., Monday through Friday. The operator of the child care center shall not allow children to play in the outdoor area before 9:00 a.m.
- d. Access to the site shall only be provided through the adjacent hospital site with no direct access onto Ox Trail.

22. Density Credit. Density credit shall be reserved for the Application Property as permitted by the provisions of Paragraph 4 of Section 2-308 of the Fairfax County Zoning Ordinance for all dedications described herein and/or on the GDA/GDPA/SEA Plat or as may be reasonably required by Fairfax County or VDOT at time of site plan approval. Specifically, but without limitation, density credit has been and shall continue to be reserved for a total of 10.309 acres of land previously dedicated to the Board of Supervisors and the Fairfax County Park Authority.

23. Compliance with Federal, State, and Other Local Laws/Severability. If it is found by a court of competent jurisdiction, that any portion of these Proffers violates any Federal, State or other local law, then the offending portion of these Proffers shall be deemed null and void and no longer in effect. All remaining conditions of these proffers shall remain in full force and effect.

24. Severability. Pursuant to Sect. 18-204 of the Zoning Ordinance, any portion of the Application Property may be the subject of a future Proffered Condition Amendment ("PCA"), Special Exception ("SE"), or Special Permit ("SP") application without joinder and/or consent of the owners of the other portions of the Application Property.

25. Successors and Assigns. These Proffers will bind and inure to the benefit of the Applicant, the owners and their successors and assigns.

26. Counterparts. These proffers may be executed in one or more counterparts, each of which when so executed and delivered shall be deemed an original document and all of which taken together shall constitute but one and the same instrument.

[SIGNATURE PAGES TO FOLLOW]

PROFFERS
PCA 2000-SU-032-03

APPLICANT/TITLE OWNER OF TAX MAP
45-2 ((1)) 41B1, 41L, 41L3, 41L4, 41L5 and 45-2
((2)) 38, 39A, 39B, 46A1, 51A1

INOVA HEALTH CARE SERVICES
By: Inova Health System Foundation,
its Sole Member



By: Richard C. Magenheimer
Its: Chief Financial Officer

[SIGNATURES CONTINUE NEXT PAGE]

PROFFERS
PCA 2000-SU-032-03

LESSEE OF TAX MAP 45-2 ((2)) 46A1

FAIR OAKS MEDICAL PLAZA, L.P.
By: Fairfax Medical Corp., its General Partner



By: V.P.

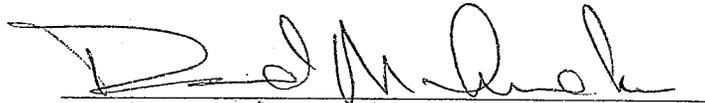
Its: DAVID M. ANDERSON

[SIGNATURES CONTINUE ON NEXT PAGE]

PROFFERS
PCA 2000-SU-032-03

LESSEE OF TAX MAP 45-2 ((1)) 41L

FAIR OAKS PROFESSIONAL BUILDING, L.P.
By: Fair Oaks Medical Building, Inc., its General
Partner


By: DAVID M. ANDERSON
Its: V.P.

[SIGNATURES CONTINUE ON NEXT PAGE]

PROFFERS
PCA 2000-SU-032-03

LESSEE OF TAX MAP 45-2 ((1)) 41L3

SP II Fairfax, LLC
By: Seavest Inc., its non-,member manager



By: Douglas Ray
Its: President

[SIGNATURES END]

DEVELOPMENT CONDITIONS

SEA 84-C-076-09

June 22, 2011 as amended on July 26, 2011

If it is the intent of the Board of Supervisors to approve SEA 84-C-076-09 on Tax Maps 45-2((1)) 41B1, 41L, 41L3, 41L4, and 41L5, and 45-2((2)) 38, 39A, 39B, 46A1 and 51A1 previously approved for a Medical Care Facility, including an assisted living facility, a child care center and related uses, to permit an increase in land area, an increase in gross floor area and other building additions and site modifications pursuant to Sect. 4-304 of the Fairfax County Zoning Ordinance, the staff recommends that the Board condition the approval by requiring conformance with the following development conditions, which supersede all previously approved conditions as they pertain to this site. (An asterisk (*) indicates development conditions that have been carried forward from the previous approval).

1. This Special Exception Amendment is granted for and runs with the land indicated in this application and is not transferable to other land.*
2. This Special Exception Amendment is granted only for the purpose(s), structure(s) and/or use(s) indicated on the special exception amendment plat approved with the application, as qualified by these development conditions.*
3. This Special Exception Amendment is subject to the provisions of Article 17, Site Plans. Any plan submitted pursuant to the special exception shall be in substantial conformance with the approved Special Exception Amendment (SEA) Plat entitled "Inova Fair Oaks Hospital Campus Generalized Development Plan/ Generalized Development Plan Amendment/ Special Exception Amendment Plat RZ 2011-SU-004, PCA 2000-SU-032-03 and SEA 84-C-076-09 (the "GDP/ SEA Plat"), prepared by Dewberry and Davis LLC dated January 31, 2011, as revised through May 13, 2011. Minor modifications to the approved special exception may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.
4. A copy of this Special Exception Amendment and the Non Residential Use Permit SHALL BE POSTED in a conspicuous place on the property of the use and made available to all departments of the County of Fairfax during the hours of operation of the permitted use.*
5. Parking spaces shall be provided as shown on the GDP/ SEA Plat and as noted. This condition shall not limit the ability of the applicant to phase the provision of parking, so long as the phasing complies with Article 11; however, the number of parking spaces provided at the ultimate build-out shall not be reduced by more than 10% from that number proposed on the GDP/ SEA Plat.*

6. No new beds (above the 182 currently approved) shall be installed prior to approval of a Certificate of Public Need. In addition, no building permit shall be issued for the "Proposed Hospital Expansion North" until such time as a Certificate of Public Need has been approved for such structure. Prior to site plan approval for the "Proposed Hospital Expansion North" or the "Proposed Hospital Expansion South" as shown on the GDP/ SEA Plat, the applicant shall attend a public meeting of the Health Care Advisory Board to present additional details regarding future bed complement and/or surgical services.*
7. The stormwater management system shall be reviewed for adequacy by DPWES at the time of site plan review; if any inadequacies are identified, appropriate corrective measures shall be employed to the satisfaction of DPWES, prior to final site plan approval.

During construction of all phases of development on the Application Property from which stormwater will be directed to either the SWM/BMP wet pond located in the northeastern quadrant of Alder Woods Drive/Joseph Siewick Drive intersection or the SWM/BMP dry pond located in the northeastern quadrant of the Alder Woods Drive/Rugby Road intersection, the Applicant shall, in addition to any other site monitoring as may be required by the Public Facilities Manual, monitor the discharges from the limits of construction. The applicant shall, at the time of the on-site pre-construction meeting, provide to DPWES a baseline conditions report, with sufficient information, including but not limited to, topographic data and photographs, as determined by DPWES, to document the existing, pre-construction conditions of the respective on-site ponds, to be used as a base line for comparison with all subsequent monitoring reports. The applicant shall, for the duration of the construction activity, until the site is completely stabilized, as determined by the site inspector, inspect the flow into the respective on-site pond(s) from the area of site work on a weekly basis, or more frequently as may be required due to a heavy rain event, in order to monitor the effectiveness of the approved erosion and sediment (E&S) controls. The Applicant shall prepare and submit to DPWES a monthly report of such inspections, with a photographic record. In the event it is reasonably determined based on such monitoring that the approved erosion and sediment control measures are insufficient, as determined by the DPWES site inspector, the Applicant shall install additional measures requested by DPWES that are deemed necessary to improve the E&S controls.

Assisted Living:

8. The assisted living facility shall be limited to a maximum of 112 residents.*
9. A sidewalk shall be provided along the west side of Joseph Siewick Drive from Alder Woods Drive to a sidewalk connection at the Assisted Living Facility. *

10. The applicant shall participate in the Virginia Department of Social Services Auxiliary Grant Program by providing access to the proposed assisted living facility to a minimum of four residents who participate in the Auxiliary Grant Program.*

The above proposed conditions are staff recommendations and do not reflect the position of the Board of Supervisors unless and until adopted by that Board. This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be himself responsible for obtaining the required Non-Residential Use Permit through established procedures, and this Special Exception shall not be valid until this has been accomplished.

Pursuant to Section 9-015 of the Zoning Ordinance, this special exception shall automatically expire, without notice, thirty-six (36) months after the date of approval unless, at a minimum, the use has been established or construction has commenced and been diligently prosecuted for one of the buildings in the proposed development options. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the special exception. The request must specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.



INOVA FAIR OAKS HOSPITAL CAMPUS

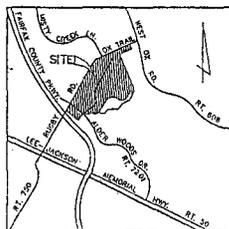
Sully District Fairfax County, Virginia

Rezoning RZ 2011-SU-004

Generalized Development Plan

Generalized Development Plan Amendment PCA 2000-SU-032-03

Special Exception Amendment Plat SEA 84-C-076-09



VICINITY MAP
SCALE: 1" = 2,000'

APPLICANT:
INOVA HEALTH CARE SERVICES
3600 JOSEPH SIEWICK DRIVE
FAIRFAX, VA 22033

SHEET INDEX:

1. COVER SHEET
2. GENERALIZED DEVELOPMENT PLAN AMENDMENT / SPECIAL EXCEPTION AMENDMENT PLAT
3. NOTES
4. TABULATION
5. EXISTING VEGETATION MAP
6. LANDSCAPE DETAILS
7. LANDSCAPE DETAILS AND CROSS-SECTION
8. PEDESTRIAN CIRCULATION
9. WATERSHED / SWM FACILITY DATA
10. STORMWATER NARRATIVES
11. BMP COMPUTATIONS
12. AS-BUILT WET POND
13. DRAINAGE OUTFALL PLAN AND CROSS-SECTIONS

INOVA FAIR OAKS
HOSPITAL CAMPUS
GENERALIZED DEVELOPMENT PLAN / GENERALIZED
DEVELOPMENT PLAN AMENDMENT
SPECIAL EXCEPTION AMENDMENT PLAT
RZ 2011-SU-004
PCA 2000-SU-032-03
SEA 84-C-076-09

RECEIVED
Department of Planning & Zoning
MAY 13 2011

Rev. May 13, 2011
Rev. April 15, 2011

January 31, 2011

M-10780

Dewberry & Davis LLC
1801 WASHINGTON AVENUE
FAIRFAX, VA 22033
PHONE: 703.281.1100
FAX: 703.281.1101
WWW.DEWBERRY.COM



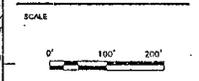
Zoning Evaluation Division

Dewberry & Davis LLC
 8411 ALPHESTON BLVD.
 FAIRFAX, VA 22031
 PHONE: 703-433-8800
 FAX: 703-433-8801
 WWW.DEWBERRY.COM

INOVA FAIR OAKS
 HOSPITAL CAMPUS
 GENERALIZED DEVELOPMENT PLAN
 SPECIAL EXCEPTION AMENDMENT
 SPECIAL EXCEPTION AMENDMENT PLAN



KEY PLAN

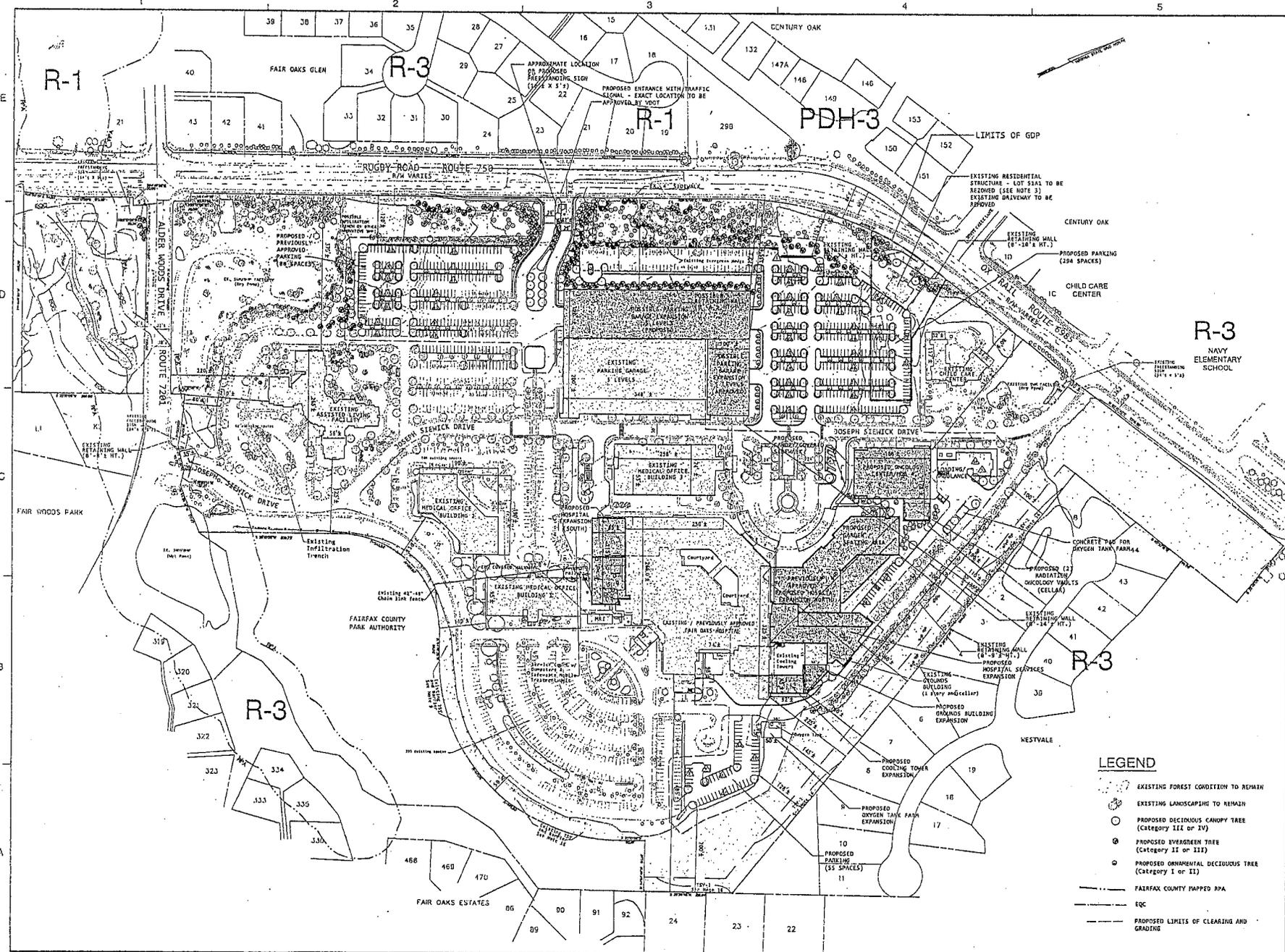


No.	DATE	BY	Description
2	5/13/11	JMC	
1	4/15/11	JMC	

REVISIONS

DRAWN BY: JMC
 APPROVED BY: JMC
 CHECKED BY: PCY
 DATE: January 31, 2011

TITLE
**INOVA FAIR OAKS
 HOSPITAL CAMPUS
 GDP / GDPA / SEA**
 112 2011-SU-004
 PCA 0000-SU-103-03
 SEA 01-C-078-00
 PROJECT NO.



- LEGEND**
- EXISTING FOREST CONDITION TO REMAIN
 - EXISTING LANDSCAPING TO REMAIN
 - PROPOSED DECIDUOUS CANOPY TREE (Category II or III)
 - PROPOSED EVERGREEN TREE (Category II or III)
 - PROPOSED ORNAMENTAL DECIDUOUS TREE (Category I or II)
 - FAIRFAX COUNTY MAPPED RPA
 - EQC
 - PROPOSED LIMITS OF CLEARING AND GRADING

TABULATION FOR AREA OF SEA 84-C-076-9 AND GDPA 2000-SU-032-03

SUBJECT PROPERTY: 45-2 (1) 41B1, 41L, 41L3, 41LA, 41L5, AND 45-2 (2) 38, 39A, 39B, 46A1, AND 51A1

ZONINGC-3

LAND AREA (2,740,360 SF)..... 62.91 AC*

FLOOR AREA RATIO (FAR)
 PERMITTED PER COMPREHENSIVE PLAN.....0.35*
 PROPOSED WITH THIS APPLICATION.....0.34*

GROSS FLOOR AREA PERMITTED
 (731,2190 AC @ 0.35 FAR - PER COMPREHENSIVE PLAN..... 1,116,297 SF*
 EXISTING GROSS FLOOR AREA..... 709,165± SF
 HOSPITAL.....373,773± SF
 MEDICAL OFFICE BUILDING 1.....74,656± SF
 MEDICAL OFFICE BUILDING 2.....76,660± SF
 MEDICAL OFFICE BUILDING 3.....103,669 ± SF
 CHILD CARE CENTER.....9,300± SF
 ASSISTED LIVING FACILITY.....68,454± SF
 RESIDENTIAL STRUCTURE/ADMIN. BLDG.....1,680± SF
 RESIDENTIAL STRUCTURE - ACCESSORY BLDGS.....894± SF

PREVIOUSLY APPROVED GROSS FLOOR AREA NOT YET CONSTRUCTED.....182,000 ± SF
 HOSPITAL EXPANSION TO NORTH.....160,000± SF
 HOSPITAL EXPANSION TO SOUTH.....22,000± SF

PROPOSED ADDITIONAL/ADJUSTED GROSS FLOOR AREA WITH THIS APPLICATION..... 192,611 ± SF
 ONCOLOGY CENTER/ MEDICAL OFFICE BUILDING 4.....90,000 ± SF
 PROPOSED HOSPITAL EXPANSION TO NORTH (EXPANDED GFA FOR TOTAL OF 199,175±SF).....39,175±SF
 PROPOSED HOSPITAL EXPANSION TO SOUTH (EXPANDED GFA FOR TOTAL OF 28,000±SF).....6,000±SF
 HOSPITAL SERVICE BUILDING EXPANSION.....49,200±SF
 GROUNDS BUILDING EXPANSION.....2,850±SF
 EXISTING TEMPORARY TRAILERS DEMOLITION.....3,080±SF
 MOB/IB CATH LAB DEMOLITION.....640± SF
 RESIDENTIAL STRUCTURE - ACCESSORY BLDGS DEMOLITION.....894± SF

TOTAL EXISTING, PREVIOUSLY APPROVED AND PROPOSED GROSS FLOOR AREA (709,165± + 182,000 ± SF + 192,611 ± SF)..... 1,083,777± SF

GROSS FLOOR AREA AVAILABLE FOR EXPANSIONS TO BE APPROVED IN THE FUTURE (1,116,297 SF - 1,083,777± SF).....32,520 ± SF

OPEN SPACE
 REQUIRED (15% OF 62.91 AC)..... 9.44±AC
 PROPOSED (50%)..... 31.66±AC

PARKING SPACES REQUIRED..... 1,996± SF
 HOSPITAL: 272 PROPOSED LICENSED BEDS @ 2.9 SPACES/BED.....789
 MOB-1: 74,656 SF X 3 SPACES/1,000 SF GFA.....224
 MOB-2: 76,660 SF X 3 SPACES/1,000 SF GFA.....230
 MOB-3: 103,669 SF X 3 SPACES/1,000 SF GFA.....311
 CHILD CARE CENTER: 150 CHILDREN X 0.16 SPACE/CHLD.....24
 ASSISTED LIVING FACILITY.....73
 112 RESIDENTS @ 1 SPACE/3 RESIDENTS = 38 SPACES
 35 EMPLOYEES @ 1 SPACE/EMPLOYEE = 35 SPACES
 PROPOSED MOB-4: 115,000 SF (INCLUDING CELLAR) X 3 SPACES/1,000 SF GFA.....345

PARKING SPACES EXISTING..... 2,637±**
 SURFACE..... 1,740
 GARAGE.....917

PARKING SPACES PROPOSED..... 3,115±**
 SURFACE..... 1,212
 GARAGE (917 EXISTING + 250 APPROVED + 736 PROPOSED)..... 1,903

LOADING SPACES REQUIRED.....27
 HOSPITAL.....5
 MOB 1.....4
 MOB 2.....5
 MOB 3.....5
 MOB 4.....5
 CHILD CARE CENTER.....1
 IND. LIVING FACILITY.....2

LOADING SPACES PROVIDED/PROPOSED..... 23**
 HOSPITAL.....5
 MOB 1.....4
 MOB 2.....4
 MOB 3.....5
 MOB 4.....3
 CHILD CARE CENTER.....1
 IND. LIVING FACILITY.....2

BUILDING HEIGHTS EXISTING

HOSPITAL (6 STORIES).....90± FT
 MEDICAL OFFICE BUILDING 1 (4 STORIES).....52± FT
 MEDICAL OFFICE BUILDING 2 (4 STORIES).....52± FT**
 MEDICAL OFFICE BUILDING 3 (4 STORIES).....60± FT***
 ASSISTED LIVING FACILITY (3 STORIES).....50± FT**
 CHILD CARE CENTER (1 STORY).....20± FT
 TEMPORARY TRAILERS.....15± FT
 RESIDENTIAL STRUCTURE/ADMIN. BLDG (1 STORY).....20± SF

BUILDING HEIGHTS PROPOSED

HOSPITAL EXPANSION NORTH (4 STORIES).....60± FT***
 MEDICAL OFFICE BUILDING 4 (4 STORIES).....60± FT***
 HOSPITAL EXPANSION SOUTH (2 STORIES).....35± FT
 PARKING GARAGE (3 LEVELS).....55± FT

- * SEE NOTE 19.
- ** SEE NOTE 17.
- *** IN ADDITION, MOB-3 HAS A MECHANICAL TENTHOUSE THAT APPROXIMATES 12 FEET IN HEIGHT, AND THE ASSISTED LIVING FACILITY HAS A MANSARD ROOF SCREEN THAT APPROXIMATES 12.5 FEET IN HEIGHT.
- **** BOTH THE HOSPITAL EXPANSION NORTH AND MEDICAL OFFICE BUILDINGS 3 AND 4 HAVE/MAY HAVE TENTHOUSES/SCREEN WALLS WITH MORE THAN 25% ROOF AREA COVERAGE AND HEIGHTS UP TO 12 FEET.

TABULATION FOR AREA OF GDP FOR INFORMATION ONLY

SUBJECT PROPERTY: 45-2 (2) 51A1

ZONING
 EXISTING.....R-1
 PROPOSED.....C-3

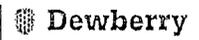
LAND AREA (47,480 SF)..... 1.09 AC

FLOOR AREA RATIO (FAR)
 PERMITTED PER COMPREHENSIVE PLAN.....0.35
 PROPOSED WITH THIS APPLICATION.....0.015

GROSS FLOOR AREA (GFA)
 PERMITTED PER COMPREHENSIVE PLAN..... 16,618±SF
 PROPOSED WITH THIS APPLICATION..... 1,680±SF

OPEN SPACE
 REQUIRED (15%).....0.16 AC
 PROPOSED.....SEE TAB ABOVE FOR SEA

PARKING/LOADING SPACES/REQUIRED/PROPOSED..... SEE TAB ABOVE FOR SEA



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INNOVA FAIR OAKS HOSPITAL CAMPUS
 GENERALIZED DEVELOPMENT PLAN AMENDMENT
 SPECIAL EXCEPTION AMENDMENT PLAN
 SULLY DISTRICT
 FAIRFAX COUNTY, VIRGINIA



KEY PLAN
 SCALE

NO.	DATE	BY	DESCRIPTION
2	5/13/11	JMC	
1	4/15/11	JMC	

DRAWN BY: JMC
 APPROVED BY: JMC
 CHECKED BY: PGT
 DATE: January 31, 2011

TITLE
 INNOVA FAIR OAKS HOSPITAL CAMPUS
 TABULATION

PROJECT NO.

4
 SHEET NO. 4 of 10

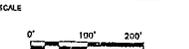
M-10780

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INOVA FAIR OAKS HOSPITAL CAMPUS
 GENERALIZED DEVELOPMENT PLAN
 GENERALIZED DEVELOPMENT PLAN AMENDMENT
 SPECIAL EXCEPTION AMENDMENT PLAN
 SULLY DISTRICT
 FAIRFAX COUNTY, VIRGINIA



KEY PLAN



No.	DATE	BY	Description
2	5/13/11	JMC	
1	4/18/11	JMC	

DRAWN BY: JMC
 APPROVED BY: POCY
 CHECKED BY: JMC
 DATE: January 21, 2011

TITLE
 INOVA FAIR OAKS HOSPITAL CAMPUS
 GDP/GDPA/SEA
 Existing Vegetation Map

PROJECT NO.

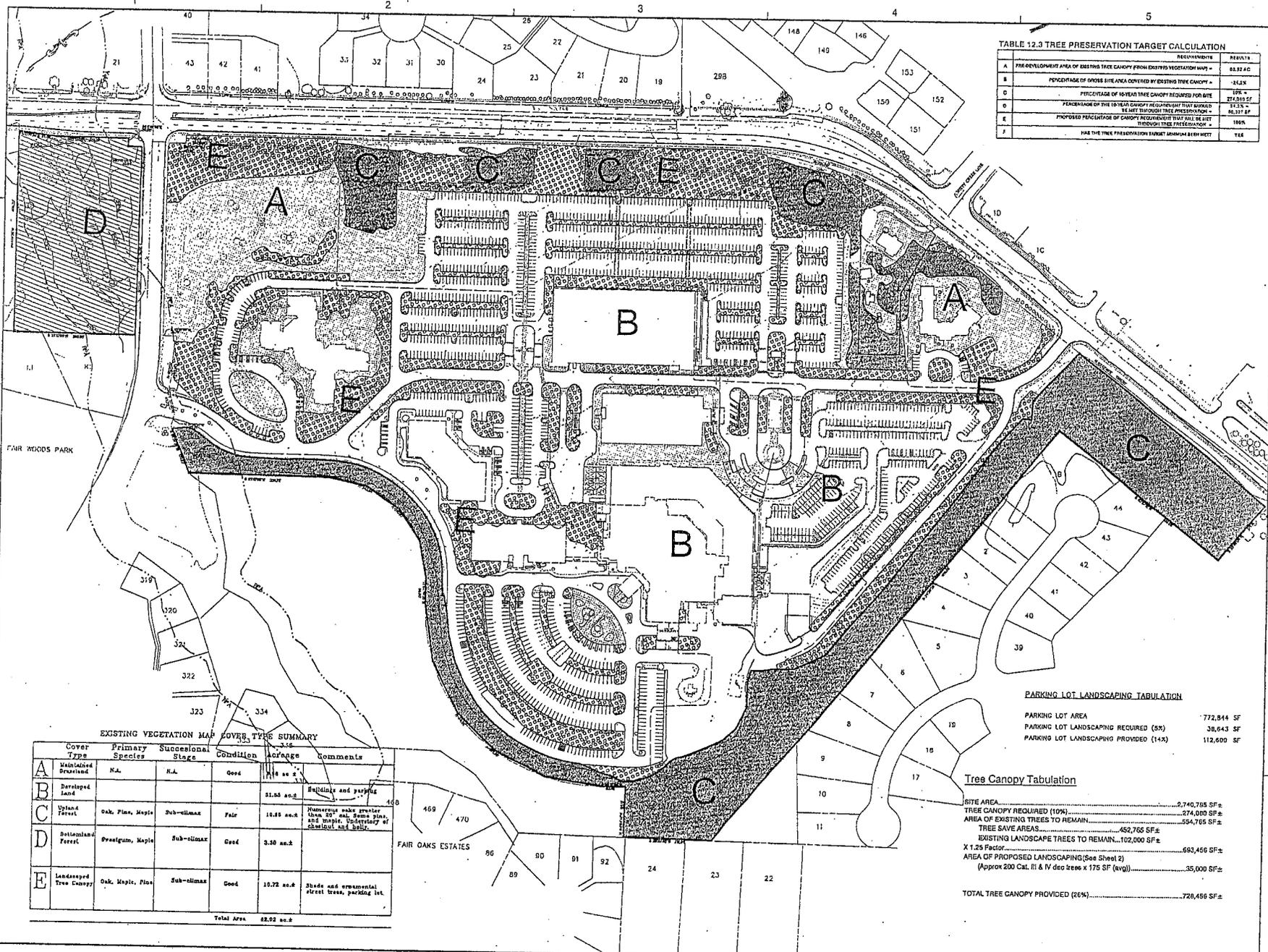
5

SHEET NO. 6 of 13

M-10780

TABLE 12.3 TREE PRESERVATION TARGET CALCULATION

REQUIREMENTS	RESULTS
A. PRE-DEVELOPMENT AREA OF EXISTING TREE CANOPY FROM EXISTING VEGETATION MAP =	82,82 AC
B. PERCENTAGE OF GROSS SITE AREA COVERED BY EXISTING TREE CANOPY =	24.2%
C. PERCENTAGE OF 10-YEAR TREE CANOPY REQUIRED FOR SITE	10%
D. PERCENTAGE OF THE 10-YEAR TREE CANOPY REQUIREMENT THAT SHOULD BE MET THROUGH TREE PRESERVATION =	24.2%
E. PROPOSED PERCENTAGE OF CANOPY REQUIREMENT THAT WILL BE MET THROUGH TREE PRESERVATION =	100%
F. ARE THE TREE PRESERVATION TARGET MET BY MEET	Y



EXISTING VEGETATION MAP COVER TYPE SUMMARY

Cover Type	Primary Species	Successional Stage	Condition	Soilage	Comments
A	Maintained Driveland	N.A.	N.A.	Good	
B	Developed Land			11.55 ac ±	Buildings and parking
C	Upland Forest	Oak, Pine, Maple	Sub-climax	Fair	Numerous oaks greater than 20" dbh, some pine, and maple. Substratum of chert and shale.
D	Bottomland Forest	Braealgun, Maple	Sub-climax	Good	3.30 ac ±
E	Landscaped Tree Canopy	Oak, Maple, Pine	Sub-climax	Good	Shade and ornamental street trees, parking lot.
Total Area				82.82 ac ±	

PARKING LOT LANDSCAPING TABULATION

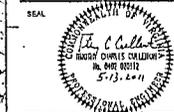
PARKING LOT AREA	772,844 SF
PARKING LOT LANDSCAPING REQUIRED (5%)	38,643 SF
PARKING LOT LANDSCAPING PROVIDED (14%)	112,600 SF

Tree Canopy Tabulation

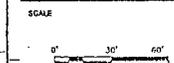
SITE AREA	2,740,785 SF ±
TREE CANOPY REQUIRED (10%)	274,079 SF ±
AREA OF EXISTING TREES TO REMAIN	554,765 SF ±
TREE SAVE AREAS	452,765 SF ±
EXISTING LANDSCAPE TREES TO REMAIN	102,000 SF ±
X 1.25 Factor	693,456 SF ±
AREA OF PROPOSED LANDSCAPING (See Sheet 2) (Approx 200 Cal. III & IV dbh trees x 175 SF (avg))	35,000 SF ±
TOTAL TREE CANOPY PROVIDED (26%)	728,456 SF ±

INOVA FAIR OAKS
 HOSPITAL CAMPUS
 GENERALIZED DEVELOPMENT PLAN
 GENERALIZED DEVELOPMENT PLAN AMENDMENT
 SPECIAL EXCEPTION AMENDMENT PLAN

SULLY DISTRICT
 FARMINGTON, INDIANA



KEY PLAN



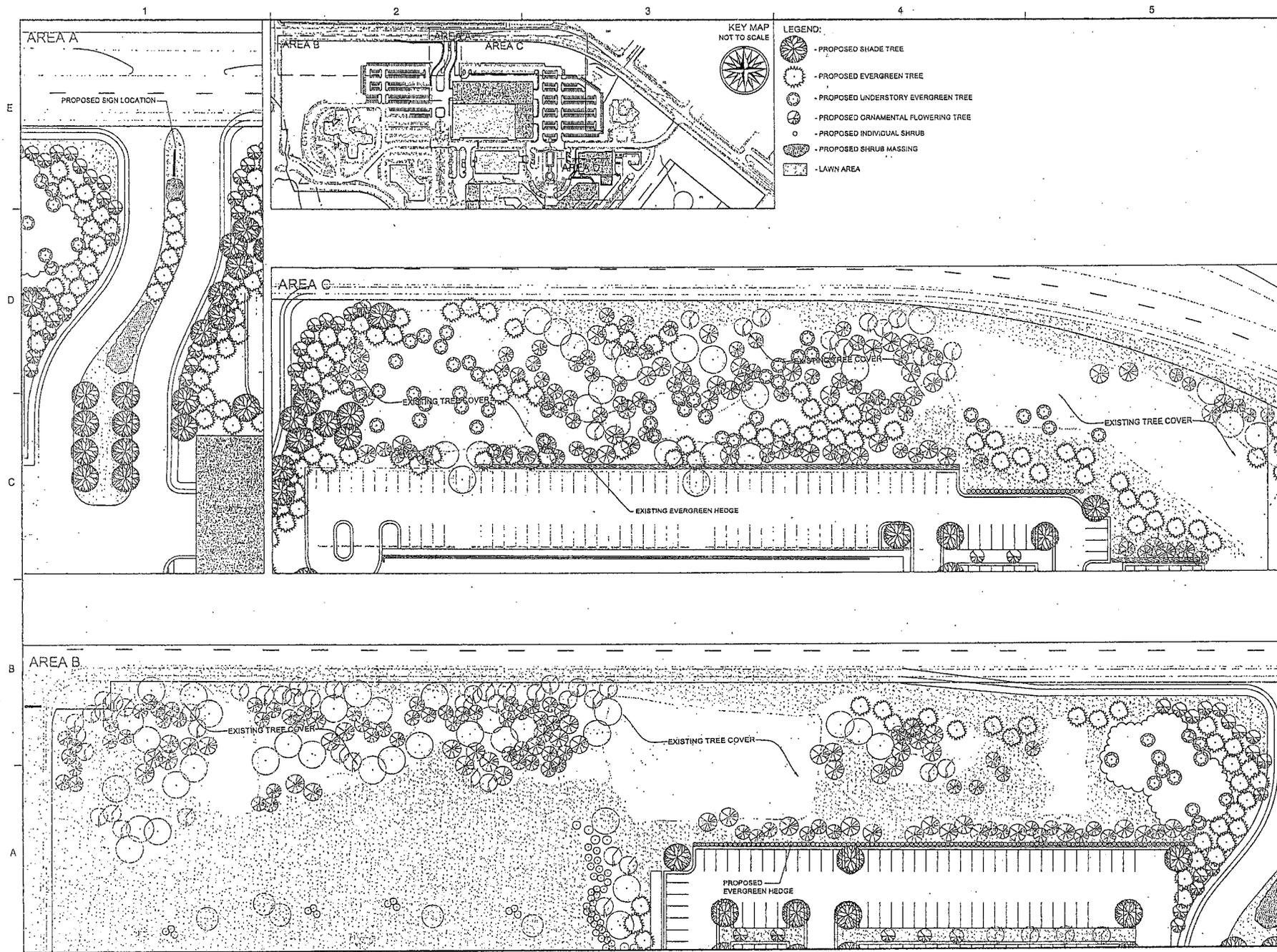
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2	5/11/11	JMC	
1	4/15/11	JMC	

DESIGNED BY: JMC
 APPROVED BY: POY
 CHECKED BY: POY
 DATE: January 31, 2011

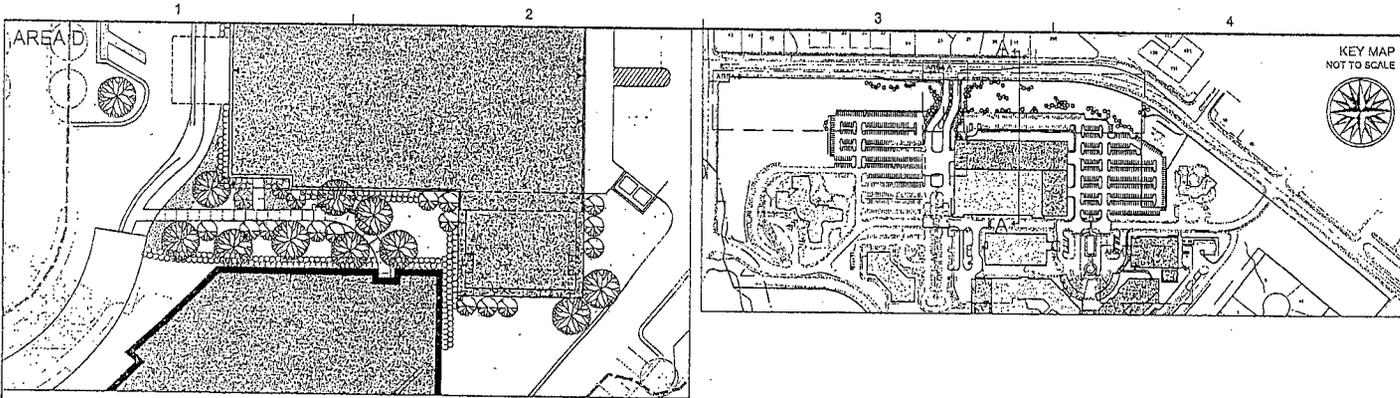
TITLE: INOVA FAIR OAKS HOSPITAL CAMPUS GDP / GDPA / SEA
 PZ 2011-SU-004
 POA 2000-SU-002-03
 SEA 04.C.076-09
 PROJECT NO.

6
 SHEET NO. 6 OF 13

M-10780

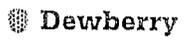


- LEGEND:
- PROPOSED SHADE TREE
 - PROPOSED EVERGREEN TREE
 - PROPOSED UNDERSTORY EVERGREEN TREE
 - PROPOSED ORNAMENTAL FLOWERING TREE
 - PROPOSED INDIVIDUAL SHRUB
 - PROPOSED SHRUB MASSING
 - LAWN AREA



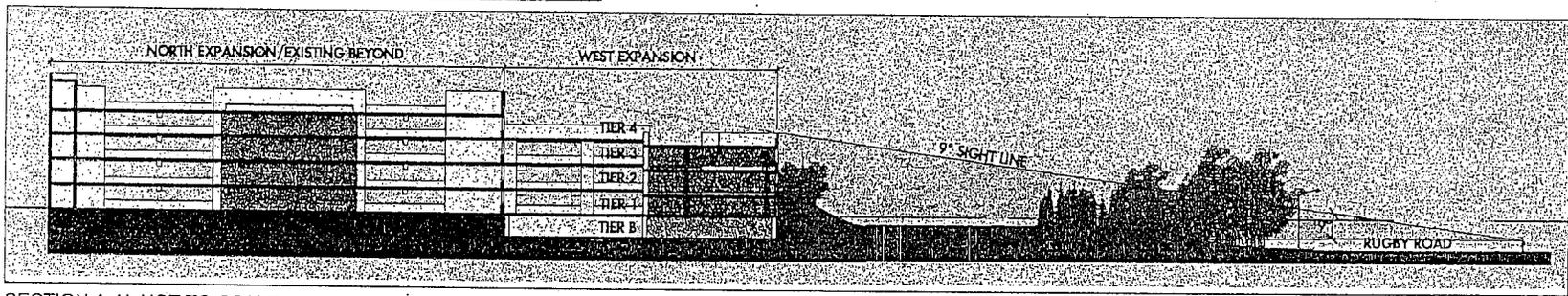
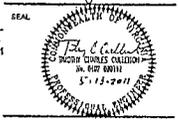
- LEGEND:**
- PROPOSED SHADE TREE
 - PROPOSED EVERGREEN TREE
 - PROPOSED INDIVIDUAL SHRUB
 - PROPOSED SHRUB MASSING
 - LAWN AREA

NOTE:
 THE LANDSCAPE PLANS PRESENTED ON SHEET 6 AND THIS SHEET, AND THE VIEW GRAPHICS, PERSPECTIVE, AND SITE SECTIONS PRESENTED ON THIS SHEET ARE PRELIMINARY AND ARE SUBJECT TO MODIFICATION WITH FINAL ENGINEERING AND ARCHITECTURAL DESIGN.

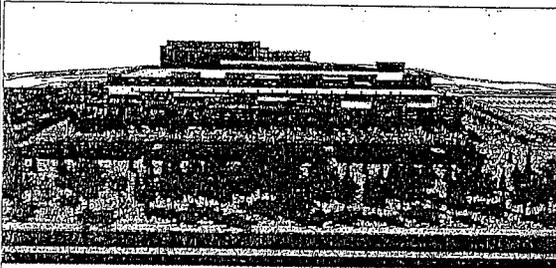


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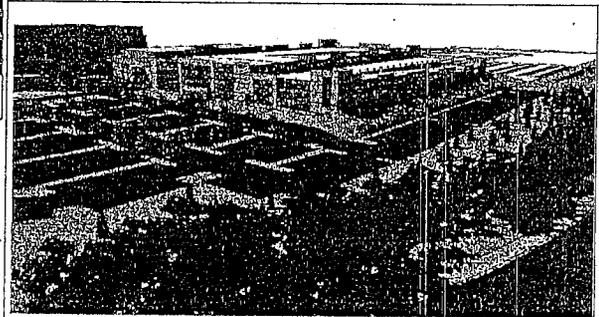
INOVA FAIR OAKS HOSPITAL CAMPUS
 GENERALIZED DEVELOPMENT PLAN
 GENERALIZED DEVELOPMENT PLAN AMENDMENT
 SPECIAL EXCEPTION AMENDMENT PLAN
 SALLY DISTRICT
 FAIRFAX COUNTY, VIRGINIA



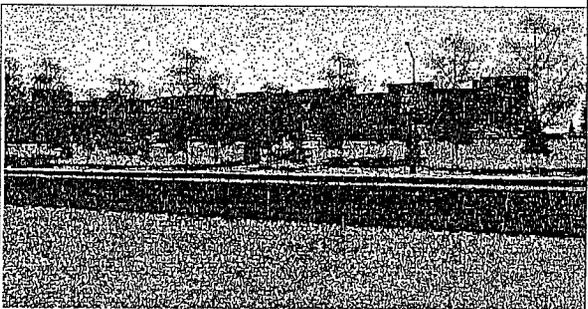
SECTION A-A' NOT TO SCALE



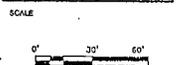
West view of IFOH Campus



Northwest view of IFOH Campus



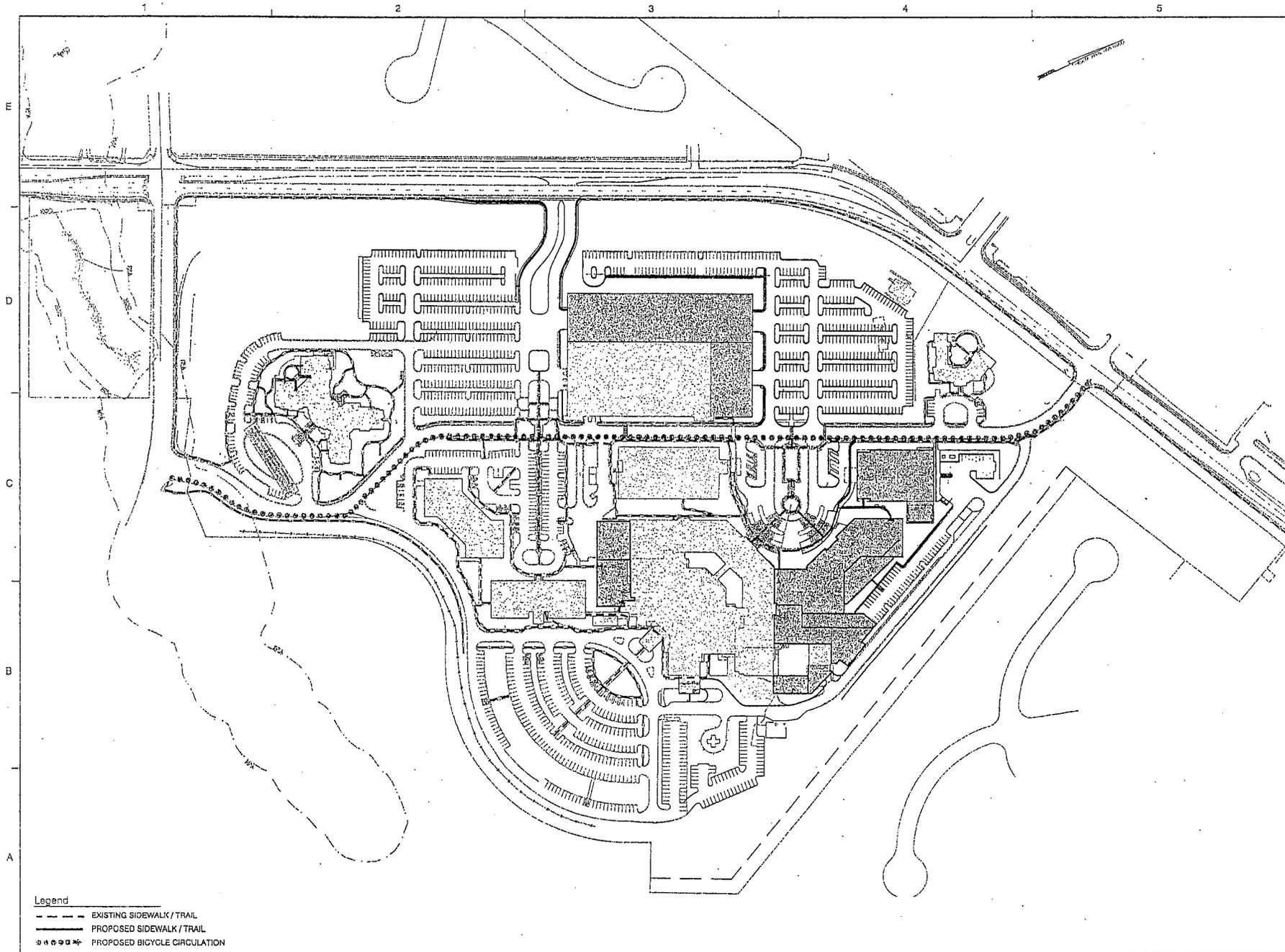
Perspective from Rugby Road



NO.	DATE	BY	DESCRIPTION
2	8/13/11	JMC	
	8/19/11	JMC	

DESIGNED BY: JMC
 APPROVED BY: _____
 CHECKED BY: PCY
 DATE: January 31, 2011

TITLE:
 INOVA FAIR OAKS HOSPITAL CAMPUS
 GDP / GDPA / SEA
 R2 2011-SU-004
 PCA 2000-SU-032-03
 SEA 84-C-078-09
 PROJECT NO.



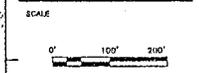
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NOVA FAIR OAKS
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SULLY DISTRICT
 FAIRFAX COUNTY, VIRGINIA



KEY PLAN



No.	DATE	BY	Description
2	5/13/11	JMC	
1	4/18/11	JMC	

REVISIONS

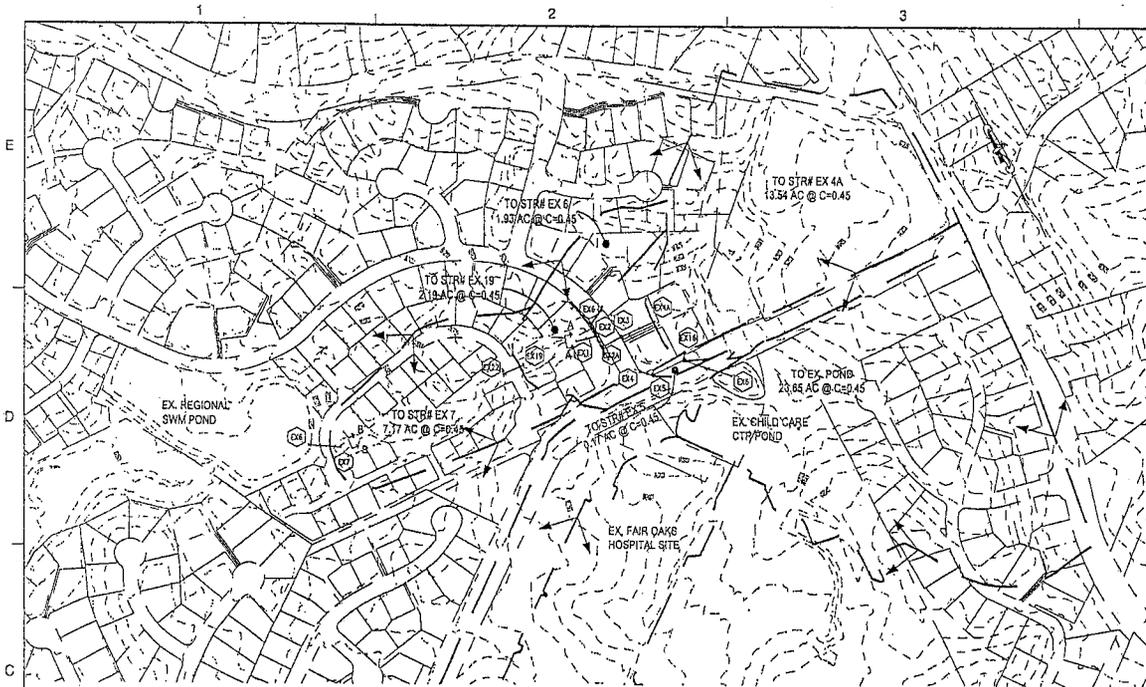
DRAWN BY: JMC
 APPROVED BY: PGY
 CHECKED BY: PGY
 DATE: January 31, 2011

TITLE
 INOVA FAIR OAKS
 HOSPITAL CAMPUS
 GDP / GDPA / SEA
 PEDESTRIAN CIRCULATION

PROJECT NO.

Legend

--- EXISTING SIDEWALK / TRAIL
 - - - PROPOSED SIDEWALK / TRAIL
 ○ ○ ○ ○ ○ PROPOSED BICYCLE CIRCULATION



STORMWATER MANAGEMENT INFRASTRUCTURE

The existing Fair Oaks Hospital Campus is served by a series of four (4) different SWM/BMP facilities. These facilities ring the Campus and provide both detention and water quality for the site. The proposed expansion discussed within this Special Exception Amendment (SEA) will affect only three of these facilities, namely the Wet Pond adjacent to the southeast corner of the property, the extended detention dry pond on the southwest property, and the dry pond located at the northeast corner of the property.

WATER QUALITY REQUIREMENTS:

Extended Detention Dry Pond:

This pond was designed to provide BMP's for an area of 18.3 acres at a c-factor of 0.72. Upon completion of the work proposed with this SEA, 18.34 acres at a c-factor of 0.70 will be draining to the pond. Therefore, the BMP requirements are provided in the existing pond and no additional BMP's are required.

WET POND:

The impervious area within the watershed of the existing wet pond will be decreased by 0.05 acres with the proposed SEA. Therefore the existing wet pond, currently providing BMP's for the area, will still meet the BMP requirements for this plan.

CHILD CARE CENTER POND:

The impervious area within the watershed of the existing Child Care Center Pond will be decreased by 0.41 acres with the proposed SEA. Therefore, the existing pond currently providing BMP's for the area will still meet the BMP requirements for this plan.

WATER QUALITY DETENTION REQUIREMENTS:

EXTENDED DETENTION DRY POND:

The existing extended detention dry pond provides detention for the 1, 2, and 10 year storms. The pond was designed for an area of 18.3 acres with a c-factor of 0.72. When all the improvements proposed with this SEA are constructed, there will be an area of 18.34 acres with a c-factor of 0.70 draining to the pond. Therefore, the original pond design is adequate and there will be no additional detention required with this SEA.

WET POND:

The existing wet pond provides detention for the 2 and 10 year storms. The proposed SEA will result in an increase of 0.5 acres in impervious area, but the overall c-factor for the pond will remain unchanged and no additional detention is required.

CHILD CARE CENTER POND:

The impervious area within the watershed of the existing Child Care Center Pond will be decreased by 0.41 acres with the proposed SEA. Therefore, there will be no increase in runoff as a result of the proposed development and no additional detention is required.

NOTE:

THE FOLLOWING 3 SHEETS (SHEETS 11-13) ARE FOR INFORMATION ONLY. THEY SHOW THE BMP AND OUTFALL ANALYSIS FROM APPROVED FAIRFAX COUNTY PLAN #3624-SP-07, AND DETENTION COMPUTATIONS FOR THE WET POND FROM THE APPROVED FAIR OAKS ESTATES SITE PLAN.

OUTFALL ANALYSIS:

The changes proposed with this Rezoning (RZ), CDPA and SEA are tested within the Cub Run watershed. The proposed site improvements drain into Old Dick Branch, a tributary of Cub Run, a natural stream channel, existing rip rap channels installed with Alder Woods Office project under Plan #3624-PI-07, and culverts under Alder Woods Road (#14-212 EDCO). Riprap flood (100' S1' RCP), and Fairfax County Parkway (10'x12' box culvert). No changes are proposed to these existing culverts and related and rip rap lined channels as part of this project.

The outfall channel from the Extended Detention Dry Pond proposed with Plan #3624-SP-07 from existing Structure #8 is designed to convey the 10-year storm runoff (2.1 cfs) at non-velocity (less than 2 ft/s) velocities (see cross section F-F on Sheet 7 of the SEA Plan). The on-site extended detention dry pond provides a significant reduction in peak runoff for all storms. Structure #12 is the outlet from the existing wet pond. This channel was previously improved and fixed with rip-rap. The proposed channel design was based on the release rates of the approved Wet Pond (Fair Oaks Estates Section 6, Plan #3624-PI-03 Sheet 8 of the SEA Plan). The channel capacity (See section G-G) is 177 cfs although the school 10-year storm is only 134 cfs. The maximum velocity in the channel is 5.8 fps which is less than that allowed in a rip-rap channel.

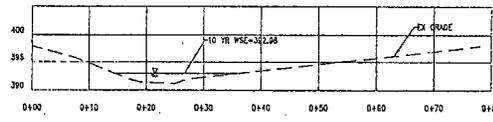
Below this point the outfall channel from the existing wet pond and the extended detention dry pond combine. The total 10-year storm peak-development runoff in the existing rip-rap stream channel below existing structures #8 and #12 (Cross Section L-L) is also adequate to convey the proposed conditions release rate as shown previously with approved plan #3624-SP-07.

It should be noted that the extended detention dry pond proposed with plan #3624-SP-07 has been designed to detain the increased runoff due to proposed development for larger frequency storms than that required in the PSD. The 100-year design storm is detained such that the peak 100-year discharge will not overflow the roadway of Alder Woods Drive. Based on this analysis, it is the opinion of the engineer that the drainage outfall for this project is adequate and no downstream properties will be adversely impacted by the proposed development.

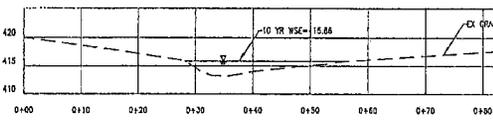
CHILD CARE CENTER POND OUTFALL:

The outfall from the existing child care pond enters an existing storm sewer system along Ripley Road. Storm sewer computations below have been provided for the existing system up to the point it enters the storm sewer at structure #21 on an existing easement in the Century Oak Subdivision. The runoff continues through the existing easement through two culverts in an existing regional SWM pond. Culvert computations provided with approved Fairfax County plan #6620-SD-04 show that the culverts are adequate to handle the flow. Cross sections A-A and B-B have been provided on this sheet showing the adequacy of the easement. Based on this analysis, it is the opinion of the engineer that the drainage outfall for this project is adequate and no downstream properties will be adversely impacted by the proposed development.

OUTLET	FROM	TO	INC. DRAINAGE AREA (AC.)	PERCENT IMPERVIOUS (%)	INTEGRATED CA	ACTUAL CA	TIME TO TRAVEL (MIN)	PEAK FLOW (CFS)	PEAK FLOW (MGD)	PEAK FLOW (MGD)	PEAK FLOW (MGD)	REMARKS
EX 6	EX 16	-	23.83	-	7.420	8.0	7.37	64.08	24.98	3.6	1.68	10 YEAR FROM POND
EX 6	EX 16	0.63	0.33	0.76	0.364	0.364	7.27	2.88	2.88			
EX 16	EX 3	0.39	31.47	0.33	0.11	7.899	7.27	0.78	47.48	38	0.73	PER 3624-SP-05
EX 3	EX 4	0.17	24.64	0.75	0.198	8.027	7.27	0.93	61.42	36	0.90	
EX 4	EX 3	0.09	24.73	0.76	0.209	8.097	7.27	0.91	59.83	36	1.21	
EX 4	EX 3	-	13.54	-	8.370	-	-	-	-	-	-	PER 6620-SD-04
EX 3	EX 2A	0.15	18.43	0.48	0.068	16.734	7.27	6.48	165.72	36	2.85	PER 3220-SD-03
EX 2A	EX 2	0.33	38.23	0.90	0.297	16.531	7.27	2.16	161.88	41	3.30	PER 6620-SD-03
EX 1	EX 2	-	1.93	0.45	0.87	-	7.27	-	0.51	-	-	PER 6620-SD-03
EX 2	EX 1	0.11	40.78	0.90	0.298	16.833	7.27	3.72	113.71	48	2.38	



CROSS SECTION B-B
SCALE: 1"=10'
Q₁₀ = 113.91 CFS
Q₂ = 13.005 CFS
SLOPE = 0.002



CROSS SECTION A-A
SCALE: 1"=10'
Q₁₀ = 143.53 CFS
Q₂ = 1.781 CFS
SLOPE = 0.002

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

The following information is required to be shown as provided in all zoning applications, or a waiver request of the information requirements with justification after the attached. Notes: Waiver will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following zoning Ordinance paragraphs:
 Ordinance 18-011 (2.1 & 2.2)
 Chapter Section 18-15 (10 & 11)
 The following items are required:
 FCM # 10-100 (1 & 2)
 FCM # 10-100 (1 & 2)
 Amendments 18-202 (1P & 2P)

- 1. Plans at a minimum scale of 1"=25' (unless it is depicted on one sheet with a minimum scale of 1"=100').
- 2. A graphic depicting the stormwater management facilities and methods of detaining and treating runoff including the stormwater management facilities, storm drainage pipe systems, any water retention, pond, wetland, access, spill, abatement, energy dissipation devices, and stream stabilization measures as shown on Sheet 8 & 10.
- 3. Provide **SEE SHEETS 8 OF THIS PLAN SET**

Facility Name	Outlet Area (sq-ft)	Drainage Area (ac)	Storage Volume (cu-ft)	If permit, due to
Structure #12	100	100	100	
Structure #8	100	100	100	
Structure #21	100	100	100	
Structure #22	100	100	100	
Structure #23	100	100	100	
Structure #24	100	100	100	
Structure #25	100	100	100	
Structure #26	100	100	100	
Structure #27	100	100	100	
Structure #28	100	100	100	
Structure #29	100	100	100	
Structure #30	100	100	100	
Structure #31	100	100	100	
Structure #32	100	100	100	
Structure #33	100	100	100	
Structure #34	100	100	100	
Structure #35	100	100	100	
Structure #36	100	100	100	
Structure #37	100	100	100	
Structure #38	100	100	100	
Structure #39	100	100	100	
Structure #40	100	100	100	
Structure #41	100	100	100	
Structure #42	100	100	100	
Structure #43	100	100	100	
Structure #44	100	100	100	
Structure #45	100	100	100	
Structure #46	100	100	100	
Structure #47	100	100	100	
Structure #48	100	100	100	
Structure #49	100	100	100	
Structure #50	100	100	100	
- 4. Outlet drainage channels, outfalls and pipe systems are shown on Sheet 8 & 10.
- 5. All stormwater access points to stormwater management facilities are aligned on Sheet 3.
- 6. All stormwater access points to stormwater management facilities are aligned on Sheet 3.
- 7. A description of the existing conditions of each receiving site catch extended downstream from the site to a point which is at least 100' from the site area or which has a drainage area of at least one acre (100' or 100' is provided on Sheet 10 & 11).
- 8. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied as provided on Sheet 10 & 11.
- 9. Existing topography with maximum contour interval of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheet 2.
- 10. A submission waiver is requested for: **N/A**
- 11. Stormwater management is not required because: **N/A**

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INOVA FAIR OAKS HOSPITAL CAMPUS
 GENERALIZED DEVELOPMENT PLAN AMENDMENT
 SPECIAL EXCEPTION AMENDMENT PLAN
 SULLY DISTRICT
 FAIRFAX COUNTY, VIRGINIA



KEY PLAN

SCALE
 0' 200' 400'

No.	DATE	BY	Description
2	5/13/11	JMC	

DESIGNED BY: JMC
 APPROVED BY: PCY
 CHECKED BY: PCY
 DATE: January 31, 2011

TITLE
INOVA FAIR OAKS HOSPITAL CAMPUS
GDP / GDPA / SEA
OUTFALL ANALYSIS

PROJECT NO.

Water Quality Narrative

The site is served by several SWAMP facilities. The eastern part of the hospital site is served by an extended detention dry pond and a small open space area. The middle part of the hospital site drains into an existing detention dry pond located at the intersection of Alder Woods Drive and Jordan Neck Drive. The western part of the site is served by a new detention pond located at Jordan Neck Drive and an open space area. This pond is being constructed because it is not required for this area. The total hospital site area is 1,013,417 sq. ft. The area includes a small portion of the west side of Alder Woods Drive. All BMP facilities proposed include an existing detention pond located at Jordan Neck Drive. The existing detention pond is a 1.5 million gallon pond. The hospital site includes a detention pond, a wet pond, and a dry pond. The detention pond is a 1.5 million gallon pond. The wet pond is a 1.5 million gallon pond. The dry pond is a 1.5 million gallon pond. The hospital site includes a detention pond, a wet pond, and a dry pond. The detention pond is a 1.5 million gallon pond. The wet pond is a 1.5 million gallon pond. The dry pond is a 1.5 million gallon pond.

TOTAL HOSPITAL SITE AREA	1,013,417 sq. ft.
UNDEVELOPED AREA ON-SITE	3,800 sq. ft.
WET POND	1,114 sq. ft.
NET HOSPITAL SITE AREA FOR BMP	1008,503 sq. ft.

Watershed Information

Part 1: List all of the Subarea and "C" Factors used in the BMP Calculations

Subarea Designation and Description	C Factor	Area (sq. ft.)	Product (sq. ft.)
Area A-1	0.2	1,000,000	200,000
Area A-2	0.3	1,000,000	300,000
Area A-3	0.4	1,000,000	400,000
Area A-4	0.5	1,000,000	500,000
Area A-5	0.6	1,000,000	600,000
Area A-6	0.7	1,000,000	700,000
Area A-7	0.8	1,000,000	800,000
Area A-8	0.9	1,000,000	900,000
Area A-9	1.0	1,000,000	1,000,000
Area A-10	1.1	1,000,000	1,100,000
Area A-11	1.2	1,000,000	1,200,000
Area A-12	1.3	1,000,000	1,300,000
Area A-13	1.4	1,000,000	1,400,000
Area A-14	1.5	1,000,000	1,500,000
Area A-15	1.6	1,000,000	1,600,000
Area A-16	1.7	1,000,000	1,700,000
Area A-17	1.8	1,000,000	1,800,000
Area A-18	1.9	1,000,000	1,900,000
Area A-19	2.0	1,000,000	2,000,000
Area A-20	2.1	1,000,000	2,100,000
Area A-21	2.2	1,000,000	2,200,000
Area A-22	2.3	1,000,000	2,300,000
Area A-23	2.4	1,000,000	2,400,000
Area A-24	2.5	1,000,000	2,500,000
Area A-25	2.6	1,000,000	2,600,000
Area A-26	2.7	1,000,000	2,700,000
Area A-27	2.8	1,000,000	2,800,000
Area A-28	2.9	1,000,000	2,900,000
Area A-29	3.0	1,000,000	3,000,000
Area A-30	3.1	1,000,000	3,100,000
Area A-31	3.2	1,000,000	3,200,000
Area A-32	3.3	1,000,000	3,300,000
Area A-33	3.4	1,000,000	3,400,000
Area A-34	3.5	1,000,000	3,500,000
Area A-35	3.6	1,000,000	3,600,000
Area A-36	3.7	1,000,000	3,700,000
Area A-37	3.8	1,000,000	3,800,000
Area A-38	3.9	1,000,000	3,900,000
Area A-39	4.0	1,000,000	4,000,000
Area A-40	4.1	1,000,000	4,100,000
Area A-41	4.2	1,000,000	4,200,000
Area A-42	4.3	1,000,000	4,300,000
Area A-43	4.4	1,000,000	4,400,000
Area A-44	4.5	1,000,000	4,500,000
Area A-45	4.6	1,000,000	4,600,000
Area A-46	4.7	1,000,000	4,700,000
Area A-47	4.8	1,000,000	4,800,000
Area A-48	4.9	1,000,000	4,900,000
Area A-49	5.0	1,000,000	5,000,000
Area A-50	5.1	1,000,000	5,100,000
Area A-51	5.2	1,000,000	5,200,000
Area A-52	5.3	1,000,000	5,300,000
Area A-53	5.4	1,000,000	5,400,000
Area A-54	5.5	1,000,000	5,500,000
Area A-55	5.6	1,000,000	5,600,000
Area A-56	5.7	1,000,000	5,700,000
Area A-57	5.8	1,000,000	5,800,000
Area A-58	5.9	1,000,000	5,900,000
Area A-59	6.0	1,000,000	6,000,000
Area A-60	6.1	1,000,000	6,100,000
Area A-61	6.2	1,000,000	6,200,000
Area A-62	6.3	1,000,000	6,300,000
Area A-63	6.4	1,000,000	6,400,000
Area A-64	6.5	1,000,000	6,500,000
Area A-65	6.6	1,000,000	6,600,000
Area A-66	6.7	1,000,000	6,700,000
Area A-67	6.8	1,000,000	6,800,000
Area A-68	6.9	1,000,000	6,900,000
Area A-69	7.0	1,000,000	7,000,000
Area A-70	7.1	1,000,000	7,100,000
Area A-71	7.2	1,000,000	7,200,000
Area A-72	7.3	1,000,000	7,300,000
Area A-73	7.4	1,000,000	7,400,000
Area A-74	7.5	1,000,000	7,500,000
Area A-75	7.6	1,000,000	7,600,000
Area A-76	7.7	1,000,000	7,700,000
Area A-77	7.8	1,000,000	7,800,000
Area A-78	7.9	1,000,000	7,900,000
Area A-79	8.0	1,000,000	8,000,000
Area A-80	8.1	1,000,000	8,100,000
Area A-81	8.2	1,000,000	8,200,000
Area A-82	8.3	1,000,000	8,300,000
Area A-83	8.4	1,000,000	8,400,000
Area A-84	8.5	1,000,000	8,500,000
Area A-85	8.6	1,000,000	8,600,000
Area A-86	8.7	1,000,000	8,700,000
Area A-87	8.8	1,000,000	8,800,000
Area A-88	8.9	1,000,000	8,900,000
Area A-89	9.0	1,000,000	9,000,000
Area A-90	9.1	1,000,000	9,100,000
Area A-91	9.2	1,000,000	9,200,000
Area A-92	9.3	1,000,000	9,300,000
Area A-93	9.4	1,000,000	9,400,000
Area A-94	9.5	1,000,000	9,500,000
Area A-95	9.6	1,000,000	9,600,000
Area A-96	9.7	1,000,000	9,700,000
Area A-97	9.8	1,000,000	9,800,000
Area A-98	9.9	1,000,000	9,900,000
Area A-99	10.0	1,000,000	10,000,000

Phosphorus Removal - General

BMP phosphorus removal efficiencies are the same for Northern Virginia jurisdictions unless otherwise noted. Table 4-1 provides the phosphorus removal efficiencies for BMPs in Northern Virginia.

Facility Type	Removal Eff. (%)
Extended Detention Dry Pond	82%
Wet Pond	82%
Detention Dry Pond	82%
Detention Dry Pond with Stormwater	82%
Detention Dry Pond with Stormwater and Sedimentation	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium and Bismuth	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium and Bismuth and Antimony	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium and Bismuth and Antimony and Arsenic	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium and Bismuth and Antimony and Arsenic and Cadmium	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium and Bismuth and Antimony and Arsenic and Cadmium and Mercury	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium and Bismuth and Antimony and Arsenic and Cadmium and Mercury and Lead	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium and Bismuth and Antimony and Arsenic and Cadmium and Mercury and Lead and Zinc	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium and Bismuth and Antimony and Arsenic and Cadmium and Mercury and Lead and Zinc and Copper	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium and Bismuth and Antimony and Arsenic and Cadmium and Mercury and Lead and Zinc and Copper and Silver	82%
Detention Dry Pond with Stormwater and Sedimentation and Phosphorus and Nitrogen and Carbon and Sulfur and Chlorine and Fluorine and Iodine and Bromine and Selenium and Tellurium and Bismuth and Antimony and Arsenic and Cadmium and Mercury and Lead and Zinc and Copper and Silver and Gold	82%

Table 4-1: Phosphorus Removal Efficiencies for Different BMP Facilities

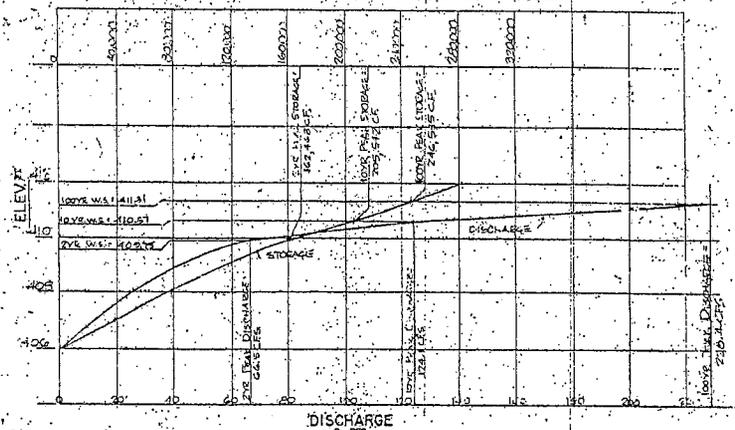
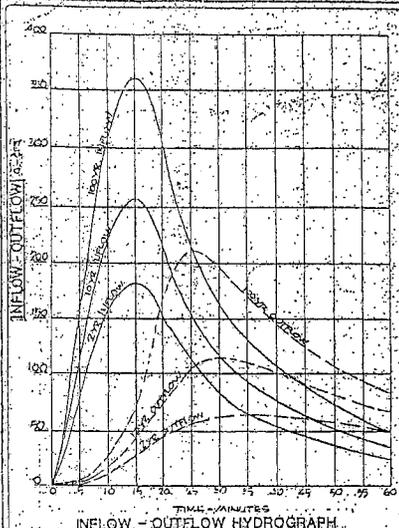
Phosphorus Removal - "Ocoquan Method"

This section is for use in the jurisdictions which do not utilize Ocoquan's "Ocoquan Method" for phosphorus removal calculations. The "Ocoquan Method" for phosphorus removal is described in Section 4.0 of the Ocoquan Manual. Please check with your local jurisdiction to determine which method to use.

Part 3: Compute the Weighted Average "C" Factor for the Site

Subarea Designation	C Factor	Area (sq. ft.)	Product (sq. ft.)
Area A-1	0.2	1,000,000	200,000
Area A-2	0.3	1,000,000	300,000
Area A-3	0.4	1,000,000	400,000
Area A-4	0.5	1,000,000	500,000
Area A-5	0.6	1,000,000	600,000
Area A-6	0.7	1,000,000	700,000
Area A-7	0.8	1,000,000	800,000
Area A-8	0.9	1,000,000	900,000
Area A-9	1.0	1,000,000	1,000,000
Area A-10	1.1	1,000,000	1,100,000
Area A-11	1.2	1,000,000	1,200,000
Area A-12	1.3	1,000,000	1,300,000
Area A-13	1.4	1,000,000	1,400,000
Area A-14	1.5	1,000,000	1,500,000
Area A-15	1.6	1,000,000	1,600,000
Area A-16	1.7	1,000,000	1,700,000
Area A-17	1.8	1,000,000	1,800,000
Area A-18	1.9	1,000,000	1,900,000
Area A-19	2.0	1,000,000	2,000,000
Area A-20	2.1	1,000,000	2,100,000
Area A-21	2.2	1,000,000	2,200,000
Area A-22	2.3	1,000,000	2,300,000
Area A-23	2.4	1,000,000	2,400,000
Area A-24	2.5	1,000,000	2,500,000
Area A-25	2.6	1,000,000	2,600,000
Area A-26	2.7	1,000,000	2,700,000
Area A-27	2.8	1,000,000	2,800,000
Area A-28	2.9	1,000,000	2,900,000
Area A-29	3.0	1,000,000	3,000,000
Area A-30	3.1	1,000,000	3,100,000
Area A-31	3.2	1,000,000	3,200,000
Area A-32	3.3	1,000,000	3,300,000
Area A-33	3.4	1,000,000	3,400,000
Area A-34	3.5	1,000,000	3,500,000
Area A-35	3.6	1,000,000	3,600,000
Area A-36	3.7	1,000,000	3,700,000
Area A-37	3.8	1,000,000	3,800,000
Area A-38	3.9	1,000,000	3,900,000
Area A-39	4.0	1,000,000	4,000,000
Area A-40	4.1	1,000,000	4,100,000
Area A-41	4.2	1,000,000	4,200,000
Area A-42	4.3	1,000,000	4,300,000
Area A-43	4.4	1,000,000	4,400,000
Area A-44	4.5	1,000,000	4,500,000
Area A-45	4.6	1,000,000	4,600,000
Area A-46	4.7	1,000,000	4,700,000
Area A-47	4.8	1,000,000	4,800,000
Area A-48	4.9	1,000,000	4,900,000
Area A-49	5.0	1,000,000	5,000,000
Area A-50	5.1	1,000,000	5,100,000
Area A-51	5.2	1,000,000	5,200,000
Area A-52	5.3	1,000,000	5,300,000
Area A-53	5.4	1,000,000	5,400,000
Area A-54	5.5	1,000,000	5,500,000
Area A-55	5.6	1,000,000	5,600,000
Area A-56	5.7	1,000,000	5,700,000
Area A-57	5.8	1,000,000	5,800,000
Area A-58	5.9	1,000,000	5,900,000
Area A-59	6.0	1,000,000	6,000,000
Area A-60	6.1	1,000,000	6,100,000
Area A-61	6.2	1,000,000	6,200,000
Area A-62	6.3	1,000,000	6,300,000
Area A-63	6.4	1,000,000	6,400,000
Area A-64	6.5	1,000,000	6,500,000
Area A-65	6.6	1,000,000	6,600,000
Area A-66	6.7	1,000,000	6,700,000
Area A-67	6.8	1,000,000	6,800,000
Area A-68	6.9	1,000,000	6,900,000
Area A-69	7.0	1,000,000	7,000,000
Area A-70	7.1		

STORAGE
THIS SHEET IS FOR INFORMATION ONLY



7 YEAR STORM

INFLOW - OUTFLOW HYDROGRAPH - STANDARD FLOOD ROUTING METHOD

Time (min)	Inflow (cfs)	Outflow (cfs)	Elevation (ft)	Storage (cu.ft)
0	0.0	0.0	406.00	0
5	45.4	0.0	406.18	605
10	87.2	2.1	406.42	1665
15	121.7	7.7	406.78	3180
20	151.2	16.2	407.25	4700
25	174.8	27.8	407.82	6220
30	191.2	42.0	408.48	7740
35	200.0	58.7	409.25	9260
40	201.2	77.2	409.92	10780
45	204.8	97.2	410.58	12300
50	209.2	118.2	411.25	13820
55	214.0	140.2	411.92	15340
60	218.8	163.2	412.58	16860
65	223.2	187.2	413.25	18380
70	227.2	212.2	413.92	19900
75	230.8	238.2	414.58	21420
80	234.0	265.2	415.25	22940
85	236.8	293.2	415.92	24460
90	239.2	322.2	416.58	25980
95	241.2	352.2	417.25	27500
100	242.8	383.2	417.92	29020
105	244.0	415.2	418.58	30540
110	244.8	448.2	419.25	32060
115	245.2	482.2	419.92	33580
120	245.2	517.2	420.58	35100
125	244.8	553.2	421.25	36620
130	244.0	590.2	421.92	38140
135	242.8	628.2	422.58	39660
140	241.2	667.2	423.25	41180
145	239.2	707.2	423.92	42700
150	236.8	748.2	424.58	44220
155	234.0	790.2	425.25	45740
160	230.8	833.2	425.92	47260
165	227.2	877.2	426.58	48780
170	223.2	922.2	427.25	50300
175	218.8	968.2	427.92	51820
180	214.0	1015.2	428.58	53340
185	209.2	1063.2	429.25	54860
190	204.8	1112.2	429.92	56380
195	200.0	1162.2	430.58	57900
200	195.2	1213.2	431.25	59420
205	190.8	1265.2	431.92	60940
210	186.8	1318.2	432.58	62460
215	183.2	1372.2	433.25	63980
220	180.0	1427.2	433.92	65500
225	177.2	1483.2	434.58	67020
230	174.8	1540.2	435.25	68540
235	172.8	1598.2	435.92	70060
240	171.2	1657.2	436.58	71580
245	170.0	1717.2	437.25	73100
250	169.2	1778.2	437.92	74620
255	168.8	1840.2	438.58	76140
260	168.8	1903.2	439.25	77660
265	169.2	1967.2	439.92	79180
270	170.0	2032.2	440.58	80700
275	171.2	2098.2	441.25	82220
280	172.8	2165.2	441.92	83740
285	174.8	2233.2	442.58	85260
290	177.2	2302.2	443.25	86780
295	180.0	2372.2	443.92	88300
300	183.2	2443.2	444.58	89820
305	186.8	2515.2	445.25	91340
310	190.8	2588.2	445.92	92860
315	195.2	2662.2	446.58	94380
320	200.0	2737.2	447.25	95900
325	204.8	2813.2	447.92	97420
330	209.2	2890.2	448.58	98940
335	214.0	2968.2	449.25	100460
340	218.8	3047.2	449.92	101980
345	223.2	3127.2	450.58	103500
350	227.2	3208.2	451.25	105020
355	230.8	3290.2	451.92	106540
360	234.0	3373.2	452.58	108060
365	236.8	3457.2	453.25	109580
370	239.2	3542.2	453.92	111100
375	241.2	3628.2	454.58	112620
380	242.8	3715.2	455.25	114140
385	244.0	3803.2	455.92	115660
390	244.8	3892.2	456.58	117180
395	245.2	3982.2	457.25	118700
400	245.2	4073.2	457.92	120220
405	244.8	4165.2	458.58	121740
410	244.0	4258.2	459.25	123260
415	242.8	4352.2	459.92	124780
420	241.2	4447.2	460.58	126300
425	239.2	4543.2	461.25	127820
430	236.8	4640.2	461.92	129340
435	234.0	4738.2	462.58	130860
440	230.8	4837.2	463.25	132380
445	227.2	4937.2	463.92	133900
450	223.2	5038.2	464.58	135420
455	218.8	5140.2	465.25	136940
460	214.0	5243.2	465.92	138460
465	209.2	5347.2	466.58	139980
470	204.8	5452.2	467.25	141500
475	200.0	5558.2	467.92	143020
480	195.2	5665.2	468.58	144540
485	190.8	5773.2	469.25	146060
490	186.8	5882.2	469.92	147580
495	183.2	5992.2	470.58	149100
500	180.0	6103.2	471.25	150620
505	177.2	6215.2	471.92	152140
510	174.8	6328.2	472.58	153660
515	172.8	6442.2	473.25	155180
520	171.2	6557.2	473.92	156700
525	170.0	6673.2	474.58	158220
530	169.2	6790.2	475.25	159740
535	168.8	6908.2	475.92	161260
540	168.8	7027.2	476.58	162780
545	169.2	7147.2	477.25	164300
550	170.0	7268.2	477.92	165820
555	171.2	7390.2	478.58	167340
560	172.8	7513.2	479.25	168860
565	174.8	7637.2	479.92	170380
570	177.2	7762.2	480.58	171900
575	180.0	7888.2	481.25	173420
580	183.2	8015.2	481.92	174940
585	186.8	8143.2	482.58	176460
590	190.8	8272.2	483.25	177980
595	195.2	8402.2	483.92	179500
600	200.0	8533.2	484.58	181020
605	204.8	8665.2	485.25	182540
610	209.2	8798.2	485.92	184060
615	214.0	8932.2	486.58	185580
620	218.8	9067.2	487.25	187100
625	223.2	9203.2	487.92	188620
630	227.2	9340.2	488.58	190140
635	230.8	9478.2	489.25	191660
640	234.0	9617.2	489.92	193180
645	236.8	9757.2	490.58	194700
650	239.2	9898.2	491.25	196220
655	241.2	10040.2	491.92	197740
660	242.8	10183.2	492.58	199260
665	244.0	10327.2	493.25	200780
670	244.8	10472.2	493.92	202300
675	245.2	10618.2	494.58	203820
680	245.2	10765.2	495.25	205340
685	244.8	10913.2	495.92	206860
690	244.0	11062.2	496.58	208380
695	242.8	11212.2	497.25	209900
700	241.2	11363.2	497.92	211420
705	239.2	11515.2	498.58	212940
710	236.8	11668.2	499.25	214460
715	234.0	11822.2	499.92	215980
720	230.8	11977.2	500.58	217500
725	227.2	12133.2	501.25	219020
730	223.2	12290.2	501.92	220540
735	218.8	12448.2	502.58	222060
740	214.0	12607.2	503.25	223580
745	209.2	12767.2	503.92	225100
750	204.8	12928.2	504.58	226620
755	200.0	13090.2	505.25	228140
760	195.2	13253.2	505.92	229660
765	190.8	13417.2	506.58	231180
770	186.8	13582.2	507.25	232700
775	183.2	13748.2	507.92	234220
780	180.0	13915.2	508.58	235740
785	177.2	14083.2	509.25	237260
790	174.8	14252.2	509.92	238780
795	172.8	14422.2	510.58	240300
800	171.2	14593.2	511.25	241820

RESERVOIR ROUTING SUMMARY:

Peak Inflow: 182.8 cfs

Peak Outflow: 46.4 cfs

Peak Reduction: 116.4 cfs (63.7%)

Maximum Water Surface Elevation: 409.74 ft

Maximum Storage: 12743 cubic feet

STORM WATER DETENTION SUMMARY

AREA OF SITE = 0.56 ACRES
 DRAINAGE AREA TO DETENTION POND = 100.7 ACRES
 PREWET DEVELOPMENT TO = 15 MINUTES
 $C = 0.25$ FOR 2 YRS., $C = 0.25$ FOR 10 YRS.
 $Q_p = (4.20)(0.62)(0.76) = 0.75$ CFS
 $Q_1 = (0.25)(0.5)(1.74) = 0.21$ CFS
 POST DEVELOPMENT TO = 15 MINUTES
 $C = 0.25$ FOR 2 YRS., $C = 0.25$ FOR 10 YRS.
 $Q_p = (0.25)(0.62)(0.76) = 0.75$ CFS
 $Q_1 = (0.25)(0.5)(1.74) = 0.21$ CFS
 UNDEVELOPED RUNOFF FROM SITE
 $Q_p = 169.4$ CFS = 0.75 CFS = 169.4 CFS
 $Q_1 = 169.4$ CFS = 0.75 CFS = 169.4 CFS
 ALLOWABLE DISCHARGE FROM POND
 $Q_p = [(0.50)(0.5)(1000) - 101.0] / 60 = 6.67$ CFS
 $Q_1 = [(0.50)(0.5)(1000) - 101.0] / 60 = 6.67$ CFS
 ACTUAL DISCHARGE FROM POND
 $Q_2 = 6.67$ CFS
 $Q_1 = 115.3$ CFS
 PERMITTED DISCHARGE FROM POND
 $Q_2 = 102.3$ CFS = 0.5 CFS = 112.3 CFS
 $Q_1 = 204.5$ CFS = 1.13 CFS = 143.5

CONTROL DEVICE DESIGN

10 YEAR STORM

INFLOW - OUTFLOW HYDROGRAPH - STANDARD FLOOD ROUTING METHOD

Stage (ft)	Discharge (cfs)	Time (min)	Inflow (cfs)	Outflow (cfs)	Elevation (ft)	Storage (cu.ft)
0.00	0.0	0	0.0	0.0	406.00	0
0.20	0.7	3	43.8	0.5	406.18	570
0.40	1.6	6	83.9	1.2	406.36	1140
0.60	3.1	9	121.7	2.1	406.54	1710
0.80	4.9	12	157.0	3.6	406.72	2280
1.00	8.3	15	189.4	5.7	406.90	2850
1.20	11.7	18	218.7	8.6	407.08	3420
1.40	15.3	21	244.8	12.1	407.26	3990
1.60	18.3	24	268.4	16.2	407.44	4560
1.80	21.7	27	289.4	21.0	407.62	5130
2.00	25.4	30	307.2	26.5	407.80	5700
2.20	29.2	33	322.8	32.7	407.98	6270
2.40	33.1	36	336.4	39.6	408.16	6840
2.60	37.0	39	348.0	47.2	408.34	7410
2.80	40.9	42	358.4	55.5	408.52	7980
3.00	44.7	45	367.6	64.4	408.70	8550
3.20	48.4	48	375.6	73.8	408.88	9120
3.40	52.1	51	382.4	83.7	409.06	9690
3.60	55.8	54	388.0	94.1	409.24	10260
3.80	59.4	57	392.4	105.0	409.42	10830
4.00	63.0	60	395.6	116.4	409.60	11400
4.20	66.7	63	397.6	128.2	409.78	11970
4.40	70.4	66	398.4	140.2	409.96	12540
4.60	74.1	69	398.0	152.2	410.14	13110
4.80	77.8	72	396.4	164.2	410.32	13680
5.00	81.5	75	393.6	176.2	410.50	14250
5.20	85.2	78	389.6	188.2	410.68	14820
5.40	88.9	81	384.4	200.2	410.86	15390
5.60	92.6	84	378.0	212.2	411.04	15960
5.80	96.3	87	370.4	224.2	411.22	16530
6.00	100.0	90	361.6	236.2		

