



**FAIRFAX
COUNTY**

**DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL SERVICES**
Environmental and Facilities Review Division
12055 Government Center Parkway, Suite 535
Fairfax, Virginia 22035-5503
Telephone: 703-324-1720 Fax: 703-324-8359

V I R G I N I A

March 4, 2004

Brandon Walker, Civil Engineer
Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, Virginia 20151

Subject: Water Quality Impact Assessment for Thompson Road Assemblage, Plan #9820-
WQ-01-1, Tax Map #035-3-02-0000-B, 0000-C1, 0000-D1, 0000-E1, 0000-F1,
0000-G and 0000-M2, Sully District

Reference: Your Letter Dated February 23, 2004

Dear Mr. Walker:

In response to your request, it has been determined that, the Water Quality Impact Assessment (WQIA), for the proposed construction of three stormwater outfall structures is generally acceptable and is hereby approved. This determination is valid as of the date of this letter and does not relieve you of the responsibility of complying with any other Zoning Ordinance or County regulations currently in effect or which may be adopted by the Board of Supervisors at a future date.

Please note the following:

- The limits of clearing and grading for the proposed buildings at Lots #3400, 3405, 3409 and 3413 are very close to the Resource Protection Area (RPA) as depicted on Sheet 1 of 4. It is advised to relocate/move the proposed buildings so that no encroachment upon the RPA will occur.
- The limits of clearing and grading shown near and/or within the limits of the RPA must be strictly observed and enforced. Any encroachment into, and/or disturbance of the RPA not shown on this plan is considered a violation of the Chesapeake Bay Preservation Ordinance (CBPO) and is subject to penalties of the CBPO. This shall include but is not limited to the disturbance for purpose of construction of future decks or any other accessory structure at the backyards of all the impacted lots.

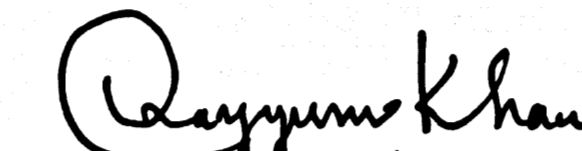
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Brandon Walker, Civil Engineer
Project #9820-WQ-01-1
Page 2

Please ensure that a copy of this letter is made part of the subject plan.

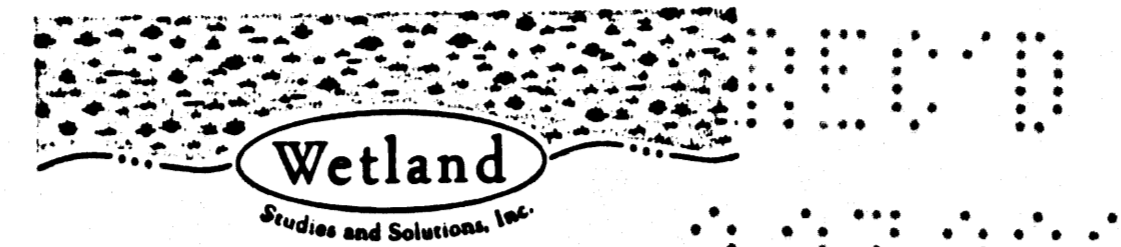
If you have any questions or need additional information, please contact Yosif Ibrahim, Engineer II, Environmental and Facilities Review Division (EFRD) at 703-324-1720.

Sincerely,


Qayyum Khan
Chief Stormwater Engineer

QK/mw

cc: Carl Bouchard, Director, Stormwater Planning, DPWES
Clinton Abernathy, Chief Site Review Engineer, EFRD, DPWES
Yosif Ibrahim, Engineer II, EFRD, DPWES



Thompson Road Assemblage
Water Quality Impact Assessment
 February 18, 2004
 Plan Numbers: 9820-SD-02
 Tax Map Number: 035-3-02-B, C1, D2, E1, F1, G, and M2
 District: Sully
 WSSI #5433

Pursuant to Section 118-1-6 (ff) of the Chesapeake Bay Preservation Ordinance, storm sewer outfalls are included in the definition for "water dependent development". Further, Section 118-2-1 (a) lists "water dependent development" as an "Allowed Use", provided the performance criteria presented in Article 3 are met. Article 118-3-3 (a) states that a Water Quality Impact Assessment (WQIA) is required for any proposed development within the RPA unless exempted under Article 5. Exemptions listed under Section 118-5-2 (b) include "storm or sanitary sewer lines". However, the interpretation has been made that "storm sewer lines" refers only to the pipes and does not include the storm sewer outfalls. As a result, this WQIA has been developed pursuant to the requirements listed in Section 118-4-3. This WQIA is for three stormwater outfalls that are currently proposed to be placed within the RPA limits for the Thompson Road Assemblage development as shown on the enclosed foldout "Stormwater Outfall Location" (Exhibit #1). More detailed views of the stormwater outfalls are provided on Exhibit #2, Exhibit #3, and Exhibit #4.

(a) Display the boundaries of the RPA;

The RPA was field delineated by Wetland Studies and Solutions, Inc. (WSSI) and approved by DPWES under Plan #9820-RPA-01-1 on November 20, 2003. The RPA boundary is displayed on the foldout depicting the location of the stormwater outfalls for the entire Thompson Road Assemblage development (Exhibit #1), as well as more detailed views depicting the outfalls' encroachment into the RPA (Exhibits #2, #3, and #4).

(b) Display and describe the location and nature of the proposed encroachment into and/or impacts to the RPA, including any clearing, grading, impervious surfaces, structures, utilities, and sewage disposal systems;

The required encroachment into the RPA is related to the installation of three (3) storm sewer pipes and the construction of three (3) corresponding stormwater outfalls, including placement of end sections, minor grading to be in the end section to the existing channel, and associated riprap. Detailed drawings of the outfalls are presented in Exhibits #2, #3 and #4. The extent of the proposed clearing limits as well as the area of riprap placement is also shown on the exhibits for each outfall. Only the clearing associated with the construction of the outfall is considered in this WQIA as the clearing associated with the construction of the storm sewer line is an exempt activity. The only impervious areas are those

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Thompson Road Assemblage
 Water Quality Impact Assessment
 February 18, 2004

(f) Demonstrate that the proposed activity will comply with all applicable performance criteria of this Chapter; and

The proposed activity will have minimal impact on the RPA. The only clearing and grading that will take place will be the minimum necessary to install the proposed stormwater outfalls, including riprap and minor channel grading totaling approximately 0.03 ac (1,284 sq. ft.). Impervious areas are limited to the end sections and riprap at each outfall. All SWM/BMP requirements for development of the site have been met, as detailed in the referenced site plans. Therefore, all applicable performance criteria have been met.

(g) Provide any other information deemed by the Director to be necessary to evaluate potential water quality impacts of the proposed activity.

No further information has been requested.

Please feel free to call or email if you have any questions (703) 631-5800. Thank you.

Sincerely,

WETLAND STUDIES AND SOLUTIONS, INC.

Brandon Walker
 Brandon Walker
 Civil Engineer

William E. Nell
 William E. Nell, P.E.
 Vice President

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Thompson Road Assemblage
 Water Quality Impact Assessment
 February 18, 2004

associated with the end sections and riprap for each outfall as shown. Grading is limited to that necessary to tie in the end section to the existing channel topography.

(c) Provide justification for the proposed encroachment into and/or impacts to the RPA;

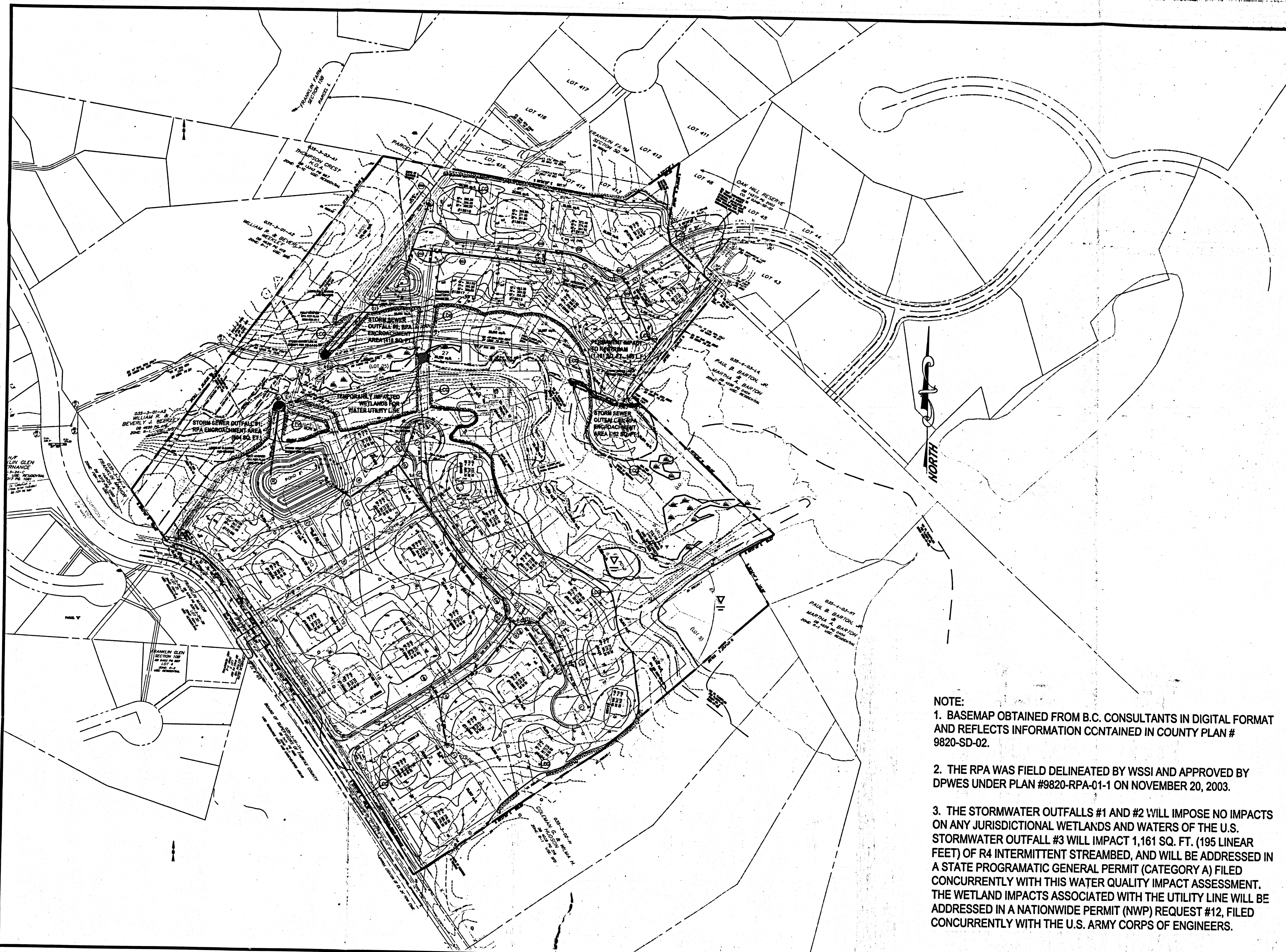
The proposed stormwater outfalls should be granted because the total impact to the RPA is minimal, at approximately 0.03 ac (1,284 sq. ft.) for all three stormwater outfalls, the amount of impervious material is limited to the placement of riprap and end sections, and because the stormwater outfalls are an inherent part of the associated stormwater drainage pipes, which are an exempt activity. In addition, the steep topography and erodible nature of the existing soils precluded the placement of the outfall outside the RPA limits for each of these outfalls. Providing "adequate outfall" (which is required by State and County regulations) required placement of the outfall, either through a pipe or engineered open channel, all the way down to the existing 100-year floodplain. Given these facts, along with the minimal impact associated with the stormwater outfalls, the proposed encroachments are fully justified.

(d) Describe the extent and nature of any proposed disturbance or disruption of wetlands;

A small area of wetlands will be permanently impacted to install the stormwater outfall #3, and the corresponding storm sewer line, totaling approximately 0.03 ac (1,161 sq. ft.; 195 linear feet) of intermittent streambed (R4). The impact from the outfall is minimal and is included in a State Programmatic General Permit (Category A) that has been submitted concurrently with this Water Quality Impact Assessment. See Exhibit #4 for details of the intermittent stream location and estimate of the proposed impact for the outfall.

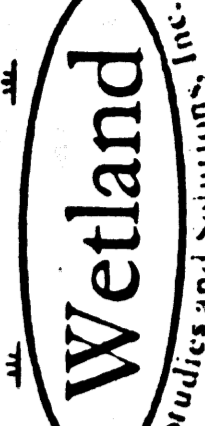
(e) Display and discuss the type and location of proposed best management practices to mitigate the proposed RPA encroachment and/or adverse impacts;

Installation of the proposed site infrastructure and the associated stormwater outfalls will be performed in full compliance with all County and State Stormwater Management and Erosion and Sediment Control requirements, as detailed in the design plans (9820-SD-02) for each outfall, as prepared by B.C. Consultants. A riprap apron will be utilized to prevent erosion immediately downstream of the proposed outfalls, as shown in Exhibits #2, #3 and #4. To the greatest extent practicable, construction techniques/methods, such as the minimal use of mechanical equipment (within the RPA) and hand placement of riprap, are to be utilized by the contractor to minimize the RPA disturbance during the installation of the proposed stormwater outfalls.



NOTE:

1. BASEMAP OBTAINED FROM B.C. CONSULTANTS IN DIGITAL FORMAT AND REFLECTS INFORMATION CONTAINED IN COUNTY PLAN # 9820-SD-02.
2. THE RPA WAS FIELD DELINEATED BY WSSI AND APPROVED BY DPWES UNDER PLAN #9820-RPA-01-1 ON NOVEMBER 20, 2003.
3. THE STORMWATER OUTFALLS #1 AND #2 WILL IMPOSE NO IMPACTS ON ANY JURISDICTIONAL WETLANDS AND WATERS OF THE U.S. STORMWATER OUTFALL #3 WILL IMPACT 1,161 SQ. FT. (195 LINEAR FEET) OF R4 INTERMITTENT STREAMBED, AND WILL BE ADDRESSED IN A STATE PROGRAMATIC GENERAL PERMIT (CATEGORY A) FILED CONCURRENTLY WITH THIS WATER QUALITY IMPACT ASSESSMENT. THE WETLAND IMPACTS ASSOCIATED WITH THE UTILITY LINE WILL BE ADDRESSED IN A NATIONWIDE PERMIT (NWP) REQUEST #12, FILED CONCURRENTLY WITH THE U.S. ARMY CORPS OF ENGINEERS.


Wetland
 Studies and Solutions, Inc.

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THOMPSON ROAD ASSEMBLAGE
WATER QUALITY IMPACT ASSESSMENT
 FAIRFAX COUNTY
UTILITY & STORMWATER OUTFALL LOCATION

| REVISIONS | | App. By | Rev. By | |
|-----------|------|-------------|---------|--|
| No. | Date | Description | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DATE: FEBRUARY 2004 SCALE: 1" = 100'

Horizontal Datum: _____

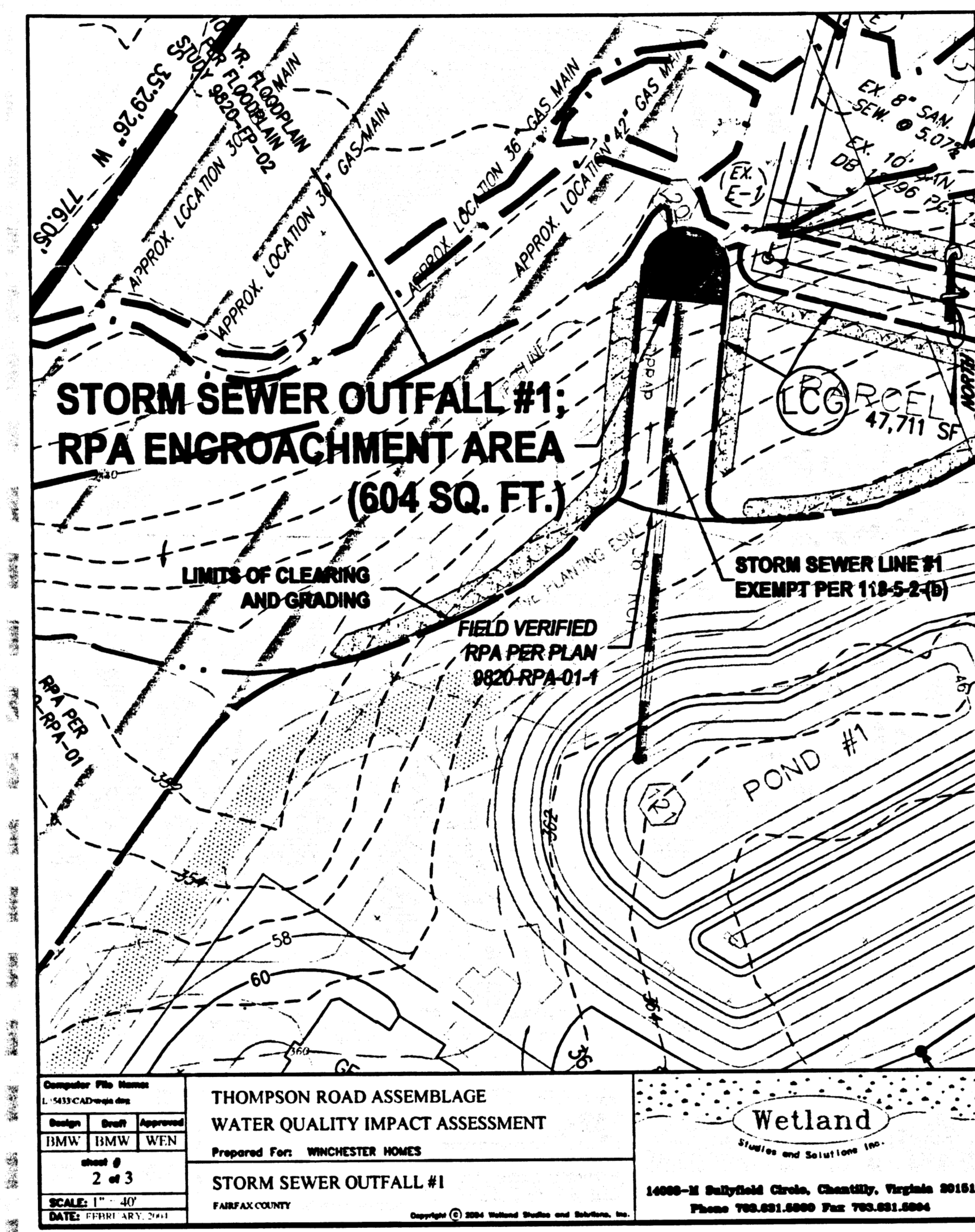
Vertical Datum: _____

Boundary and Topo Source: B.C. CONSULTANTS, INC.

| Design | Draft | Approved |
|--------|-------|----------|
| BMW | BMW | WEN |

Sheet #
1 of 4

Computer File Name:
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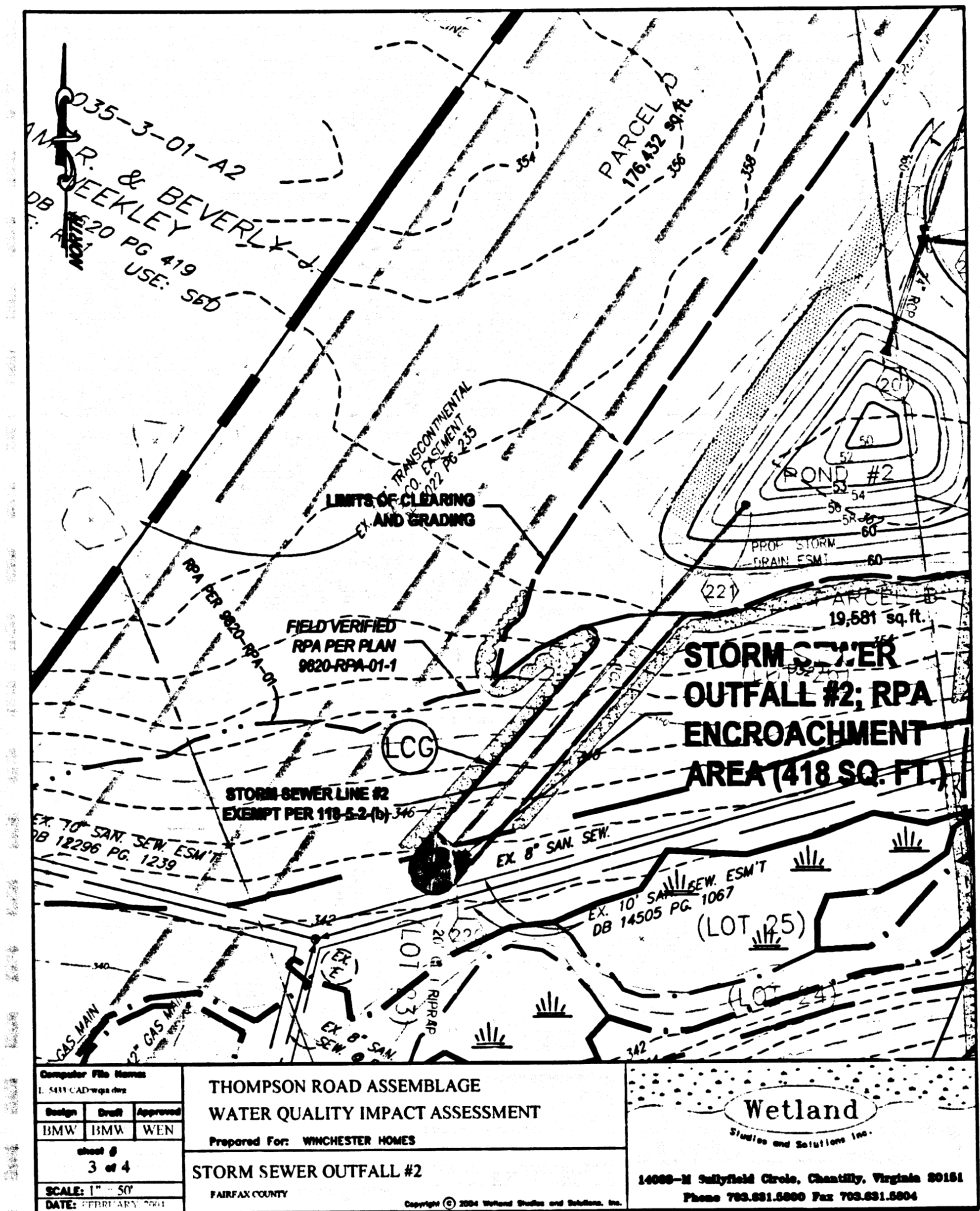


**STORM SEWER OUTFALL #1:
RPA ENCROACHMENT AREA
(604 SQ. FT.)**

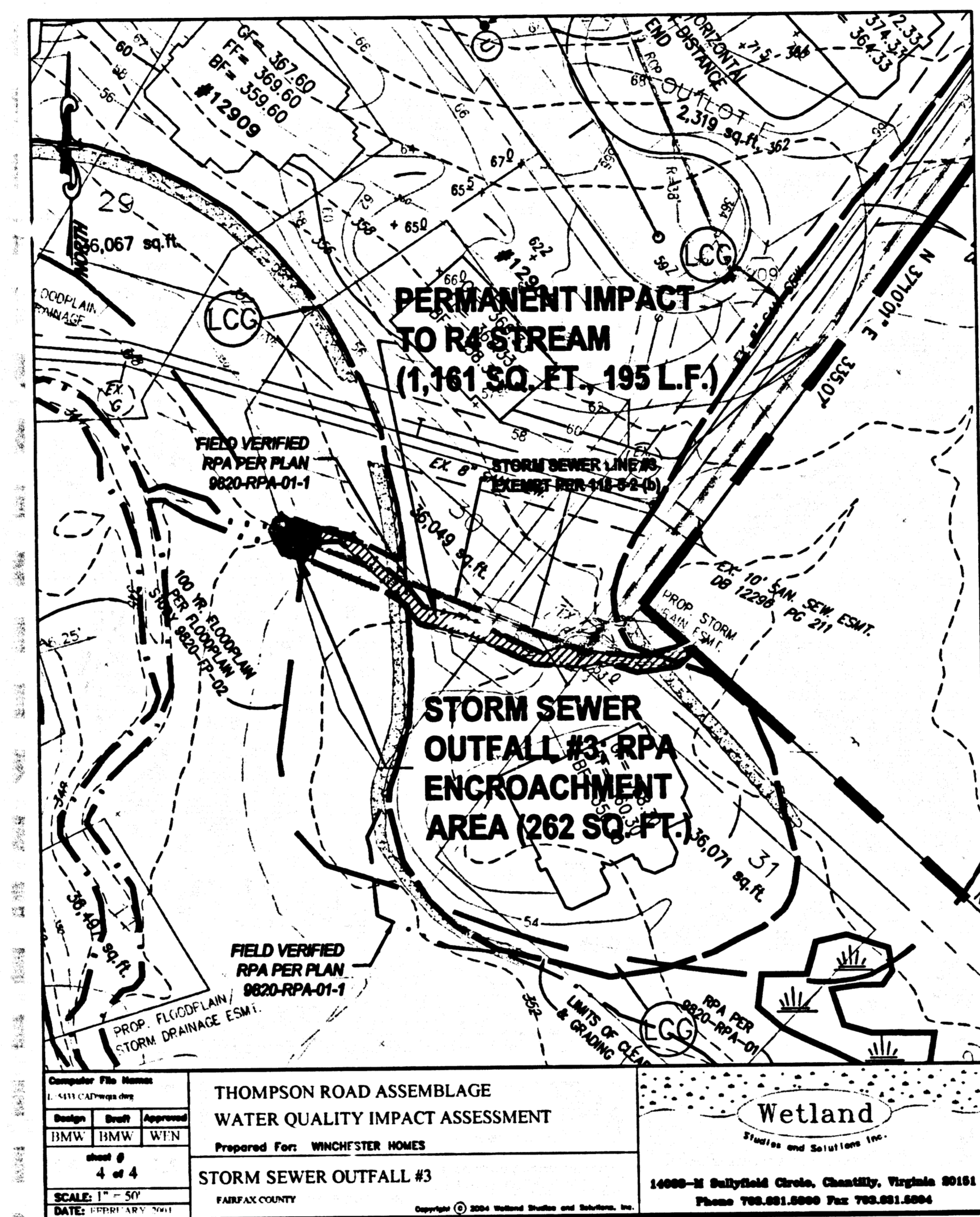
LIMITS OF CLEARING AND GRADING
FIELD VERIFIED RPA PER PLAN 822-RPA-01-1
STORM SEWER LINE #1 EXEMPT PER 119-5-2-10)

POND #1

| | | |
|---|--|--|
| THOMPSON ROAD ASSEMBLAGE WATER QUALITY IMPACT ASSESSMENT Prepared For: WINCHESTER HOMES | | |
| STORM SEWER OUTFALL #1 FAIRFAX COUNTY | | |
| 14000-B Bullyfield Circle, Chantilly, Virginia 20151 Phone 703.891.8899 Fax 703.891.8899 | | |



| | |
|---|---|
| THOMPSON ROAD ASSEMBLAGE WATER QUALITY IMPACT ASSESSMENT Prepared For: WINCHESTER HOMES | Wetland State of Virginia |
| SHEET # 3 of 4 SCALE: 1" = 50' DATE: 11/11/2011 | STORM SEWER OUTFALL #2 FARMAN COUNTY |



| | |
|---|--|
| THOMPSON ROAD ASSEMBLAGE WATER QUALITY IMPACT ASSESSMENT | |
| Prepared For: WINCHESTER HOMES | |
| STORM SEWER OUTFALL #3 | |
| FARMAS COUNTY | |
| SCALE: 1" = 50' DATE: 11/15/2011 | 14000-H Bullfield Circle, Charlotte, Virginia 28111 Phone 703.681.8800 Fax 703.681.8804 |