Development Review Committee
Government Center Complex Conference Room, Building C
July 6, 2005- 4:00 p.m.

A. Roll Call
B. Minutes
    1. June 1, 2005
C. Public Comment
D. Cases and DRC Discussion
    1. C-7-03. New Town Attributed Parking Space Study
    2. S-53-05. Kingsmill- Spencer's Grant E. Public Comment
F. DRC Recommendations
G. Public Comment (Marywood)
H. Cases and DRC Discussion
    1. S-91-04. Marywood Subdivision
I. Public Comment (Marywood)
J. DRC Recommendation
K. Adjournment

AGENDA

DEVELOPMENT REVIEW COMMITTEE

July 6, 2005

4:00 p.m.

JAMES CITY COUNTY GOVERNMENT COMPLEX

Conference Room, Building C

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1. Roll Call

2. Minutes

   A. June 1, 2005

3. Public Comment

4. Cases and DRC Discussion

   A. C-7-03 New Town Attributed Parking Space Study
   B. S-53-05 Kingsmill- Spencer's Grant

5. Public Comment

6. DRC Recommendations

7. Public Comment (Marywood)

8. Cases and DRC Discussion

   A. S-91-04 Marywood Subdivision

9. Public Comment (Marywood)

10. DRC Recommendation

11. Adjournment

Case No. C-007-03
New Town: Town Center Parking Overview—Annual Review
Staff Report for the July 6, 2005 Development Review Committee Meeting

Summary Facts:

Applicant:	Larry Salzman
Land Owner:	New Town Associates
Proposed Use:	Mixed Use (*Primarily Commercial & Residential)*
Location:	**New Town Section 2&4: Town Center** Block 2 (William E. Wood Building) Block 3 (Main Street) Block 4 (Pecan Square) Block 5 (SunTrust Building/Corner Pocket) Blocks 6 & 7 (Movie Theater & Adjacent Parking Lot) Block 8 (Residential) Block 10 (Mixed Use Buildings & Residential)
Tax Map/Parcel:	(38-4)(1-50)
Primary Service Area:	Inside
Parcel Size:	±86 Acres
Existing Zoning:	Mixed Use with Proffers
Comprehensive Plan:	Mixed Use: New Town
Reason for DRC review:	To allow for general off-site parking and shared parking for all of the blocks listed above as part of the quarterly review of off-site and shared parking at New Town.
Staff Contact:	Karen Drake---(757) 253-6685

Staff Recommendation:

At the February 25, 2004 Development Review Committee Meeting the DRC recommended off-site parking, shared parking and waived the minimum off-street parking requirements per the Zoning Ordinance as long as the parking provided is accordance with the New Town Design Review Guidelines for Block 2 and Block 5 of New Town, Section 2&4 . Additionally, the DRC approved a quarterly block by block parking review based on the conditions listed below.

The last quarterly review occurred on January 12, 2005 when the DRC approved shared parking for Blocks 2, 3, 5, 6, 7 & 8 of Section 2&4. No major developments or changes to the shared parking calculations occurred in the spring of 2005 that necessitated DRC review. Now the New Town shared parking plan is before the DRC for its quarterly review of calculations and for an annual review of the shared parking methodology review process.

Staff comments on the July 2005 Quarterly Update and 2005 Annual New Town Shared Parking Update are in bold italics after each condition:

1. New Town Associates establishes and updates a chart and accompanying site layout plan that details building square footage and use, Zoning Ordinance parking requirements, New Town Guidelines Parking Requirements, shared parking methodology and details the number of parking spaces allocated on-site and off-site. The chart should be structured in such a manner that illustrates that off-site parking is not allocated multiple times. The chart and accompanying site layout plan would be submitted for review and approval on a quarterly basis by staff and the Development Review Committee via the consent calendar. A quarterly review will allow for new lease negotiations to develop, construction of buildings and verification that the off-site and shared parking methodology is realistically working. DRC approval would be issued for a block by block waiver of parking requirements and to permit off-site parking.
   The July 2005 Quarterly Update is attached for your review. Staff finds the parking calculations satisfactory.

2. A letter is submitted for review and approval by the County Attorney and shall be added to the attached parking overview that documents the permanent availability of the off-site and shared parking.
   The New Town Owner Association Documents which have been reviewed and approved by the County Attorney addresses the permanent availability of the off-site parking.

3. Any change by New Town Associates to the shared parking methodology in the attached report on basic parking overview will be approved by the DRC at a quarterly review.
   No change in methodology from January.

4. If at any time New Town Associates does not responsibly update the master chart on a quarterly basis or the DRC does not find the updated parking figures acceptable, off-site parking review shall revert back to an individual building basis.
   To date, this condition has been met.

5. In July of 2005, New Town Associates will conduct a study of the overall New Town parking supply and demand for the DRC to review and approve. In addition to evaluating this study, the DRC will review how frequently this overall study needs to be conducted, evaluate the entire parking review process and make any changes as necessary.

   Upon review of the 2005 Annual New Town Shared Parking Update, staff finds that the shared parking methodology and plan are working satisfactorily. To date, use of shared parking ratios for Sections 2&4 of New Town has produced a significant reduction in the number of parking spaces needed while still meeting projected levels of demand. Per the Zoning Ordinance, the approximate 238,000 square feet of retail, 178,000 square feet of office space, 155 residential units and the 2,200 seat theater that are planned to date would require a minimum of 2,420 parking spaces as compared to 2,026 parking spaces recommended in the New Town Design Guidelines. Through shared parking, a total of 2,115 spaces are being provided to date in Section 2&4, a difference of 305 parking spaces that will not contribute to the impervious cover in New Town.

Staff Recommendation:

Regarding the quarterly update, staff recommends the DRC approve the July 2005 quarterly update for shared parking in New Town, Section 2&4, Blocks 2, 3, 4, 5, 6, 7, 8 & 10. Regarding the annual update and review, staff further recommends that the current system of quarterly parking updates be continued for another year with an annual review in July 2006. Additionally, staff requests that information regarding the placement of bicycle racks throughout Section 2&4 is incorporated into the study. Easy access to bicycle racks will help promote alternative means of transportation within New Town and help reduce the demands for automobile parking spaces.

As design work continues on the final blocks of Sections 2&4 (Blocks 9 and 10), staff urges New Town Associates to seriously consider creative solutions to provide parking beyond the basic open lot designs. Innovative, well-designed mixed-use parking structures can incorporate retail and open/green spaces. Such parking structures could help alleviate parking concerns created if a hotel and conference center were to be located in Block 9 as suggested in preliminary conceptual plans for New Town Section 2&4 by Cooper & Robertson. Examples of innovative alternatives to open parking lots can be found in other new urbanist developments around the country. Finally, as New Town Associates moves forward with development plans for New Town Section 3&6, staff recommends the continued use of shared parking.

Karen Drake
Senior Planner

Attachments:
1.) New Town Shared Parking Update, May 31, 2005

NEW TOWN

There's A New Revolution In Williamsburg, Virginia.

C-007-03

May 31, 2005

By Hand Delivery
Ms. Karen Drake
Senior Planner
James City County, VA

RE: New Town Shared Parking

Dear Karen,

Attached is the annual update on shared parking in New Town.

This submittal includes a review of Blocks 2, 3, 4, 5, 6, 7, 8, and 10. All of these blocks except Block 10 were previously submitted and approved. Some minor changes due to field conditions occur as actual construction takes place. This submittal contains the most current information available.

Block 10 is being presented for the first time. This block is planned to include several mixed use buildings (office and retail and the first floor with residential units above), a fitness center that will have some additional retail space, and single family residential units.

With the addition of Block 10 the shared parking plan for the town center is nearly complete. We are holding one small block for future development. We are not yet certain of the uses for this block, so it may or may not become part of the shared parking plan. Also, the final actual sizes of several buildings are not known yet, and as these buildings get approved and built minor changes will occur. We will continue to submit quarterly and annual updates for approval.

I will attend the DRC meeting on July 6, 2005 and will be pleased to provide additional information at that time.

Please let me know if you have questions or would like any additional information. Thank you.

Sincerely,
New Town Associates, LLC

Lawrence A. Salzman
Managing Director

4801 Courthouse Street, Suite 329 • P.O. Box 5010 • Williamsburg, Virginia 23188
757.565.6200 • Fax 757.565.6291

New Town
Block 10
Parking Report
May 2004

Block 10, which forms the corner of New Town Avenue and Discovery Park Boulevard will include a mixed use building (retail 13,400 square feet, office 6,600 square feet, 60 residential units) a fitness center with some retail space totaling 12,000 square feet, another mixed use building (retail 7,300 square feet, office 7,200 square feet, 6 residential units) and approximately 56 single family residential units (primarily townhouse style). The large mixed use building will include 60 underground parking spaces (one space per residential unit). The 56 single family residential units will be self parked.

The Shared Parking Plan calculates office uses at 4 spaces per 1,000 square feet of usable space, retail at 3.8 spaces per 1,000 square feet, and residential uses at 1.5 spaces per unit. At the 2 P.M. peak hour, office and retail uses are calculated at 97% of demand and residential uses are calculated at 55% of demand (based on Urban Land Institute studies). The overall parking calculation for the block is therefore at peak demand time, and the office space will have very little demand after 5 P.M. on weekdays when other uses are busy. The mix of office, retail, and residential uses should work well in this block. No on street parking is specifically assigned to the analysis of this block but on street parking will be available.

Free standing office, retail, and residential uses based on traditional demand (office 4/1000, retail 5/1000, residential/1.5 units) would require about 256 spaces even after allowing for 60 underground spaces. This indicates that about 61 fewer spaces are required than for free standing buildings without shared parking.

The New Town shared parking system has been planned so that each block can generally accommodate and park the uses in that block, and also so that when all the blocks are combined the overall plan works. Block 10 fits well into this overall plan.

Block 10 Summary

Use	Size	Peak Shared Demand	Market Demand	Design Guidelines
Office	13,000	50	52	39
Retail	33,000	122	165	132
Residential	66	25*	39	39
		197**	256	210

*60 underground spaces are not included.

** Demand below is shown as 195 spaces, difference is due to rounding.

Block 10

Use		Size # units	Parking Demand	2 P.M. Ratio	2 P.M. Demand
Building 1	- Office [1]	6,600 sf	24	.97	23
	Retail	13,400 sf	51	.97	49
	Residential	60	30[2]	.55	17
Building 2	– Fitness/Retail	12,000 sf	46	.97	45
Building 3	- Office [1]	7,300	27	.97	26
	Retail	7,200	27	.97	27
	Residential	6	9	.55	8[3]
					195

[1] Office is based on about 90% usable space

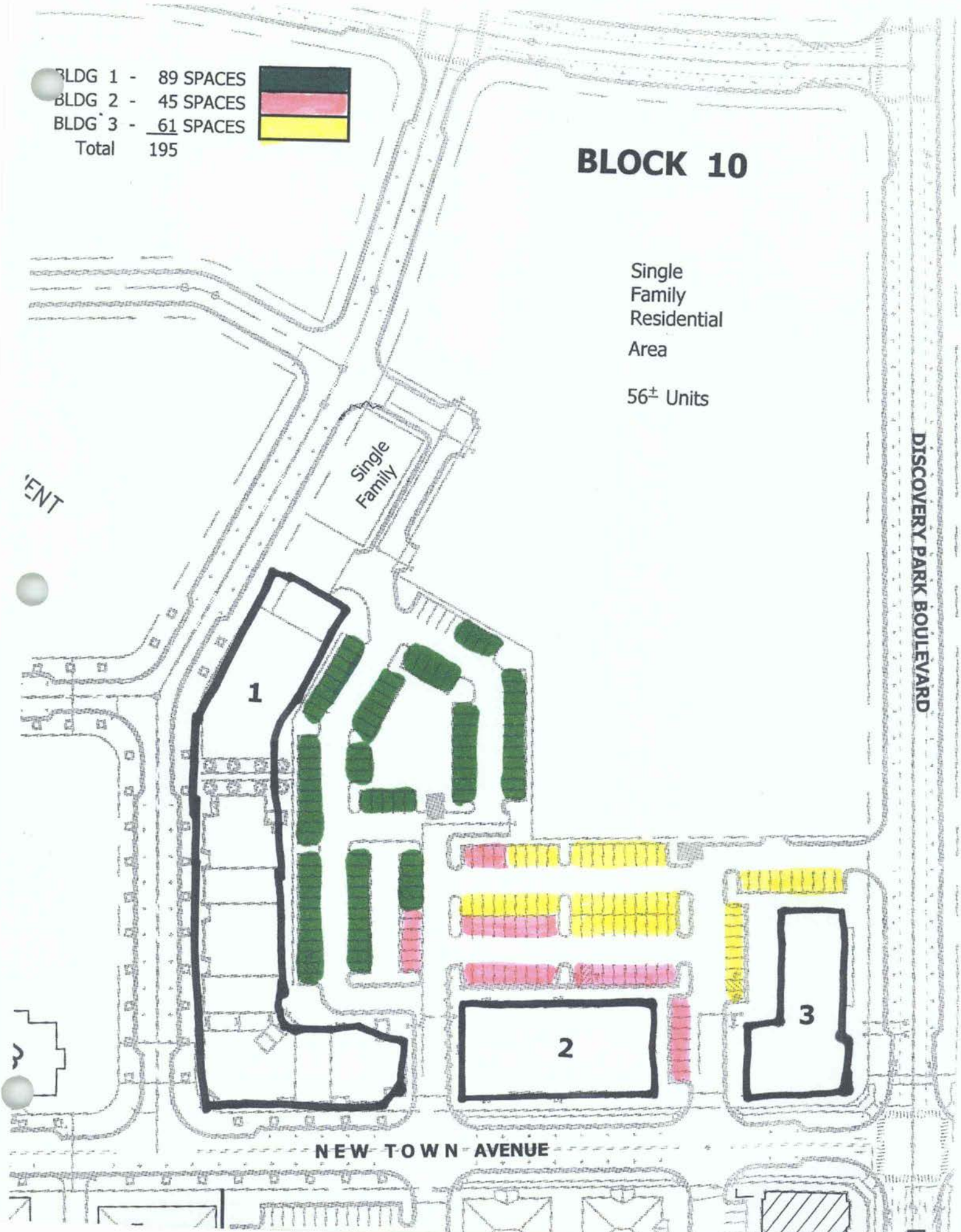
[2] This building will require a total of 90 spaces but 60 spaces will be located in underground parking and will not be included in the shared parking.

[3] 2 P.M. demand is indicated to be 5 spaces but practice has been to dedicate 1 space per dwelling unit. This means the demand would be 6 spaces (1 per unit) plus 2 spaces (55% of 3 additional spaces) for a total of 8 spaces.

Total peak demand for Block 10 is therefore 195 spaces. Parking supply is shown at 200 spaces. Due to field conditions, dumpster locations, etc. we expect to lose perhaps as many as five, spaces.

Supply and demand in Block 10 are therefore in balance.

The overall mix in Block 10 is about 13,000 square feet of usable office space, about 33,000 square feet of retail space (including a fitness center) and 66 residential units (the block also includes about 56 single family units which will be self parked). The residential uses and the fitness center will have low demand at the 2 P.M. weekday peak overall usage.


BLDG 1 - 89 SPACES
BLDG 2 - 45 SPACES
BLDG 3 - 61 SPACES
Total 195
BLOCK 10
Single Family Residential Area
56± Units
Single Family
1
2
3
NEW TOWN AVENUE
DISCOVERY PARK BOULEVARD

New Town Blocks 2, 3, 4, 5, 6, 7, 8, and 10
Parking Report
May 2004

Blocks 2, 3, 4, 5, 6, 7, 8 and 10 make up the bulk of the Town Center in New Town. These blocks will include a mixture of uses including offices, residential, retail, and a movie theater. The parking lots for Blocks 2 and 5 are essentially completed. The rest of the blocks except block 10 are currently under construction. By September 2005 the central parking lots for all of these blocks should be essentially complete, except for block 10 which should be finished early next year.

A review of supply and demand for these blocks is presented below. Our analysis, based on studies by the Urban Land Institute, indicates that the uses planned for these blocks will have a peak parking demand at 2 PM on a weekday. Our analysis therefore focuses on 2 PM weekday demand. The new 12 screen movie theater will generate a lot of parking demand, so we have also analyzed supply and demand at 8 PM on a weekday, which is when the theater generates significant demand.

The information presented indicates

- Total supply for Blocks 2, 3, 4, 5, 6, 7, 8, and 10 will be about 2,115 spaces including parking on the streets.

- Peak demand (2 P.M. weekday) will be about 1,962 spaces. This is about 153 spaces less than total supply. Demand does not yet include the proposed James City County Community Building, ($42^{\pm}$ spaces) and a few spaces are expected to be subtracted from supply due to dumpster locations and field conditions. Retail buildings along Main Street have been estimated to include about 118,000 square feet of space. Current lease negotiations and estimates suggest that this may increase by perhaps as much as 20,000 square feet, which would require about 74 additional spaces and might cause the loss of a few spaces of supply due to building configurations. Upon completion supply and demand should be very close.

- Free standing buildings using market demand parking ratios would require about 2,625 spaces. Shared parking therefore saves about 660 spaces.

- Design guidelines maximum for these uses is 2,026 spaces, while total supply is about 2,115 spaces. The Community Building, field conditions, and final retail building size will bring the Design Guidelines and supply in line.

- The theater should have surplus parking available at its busiest times.

- Overall the Shared Parking Plan for New Town is working well. The mixture of uses facilitates the ability to live, work, and play in the same area while minimizing the amount of parking needed.

Final determination of retail building sizes (and some offices) along with field conditions will result in some changes to the parking plan.

New Town
Blocks 2, 3, 5, 6, 7, 8, and 10 combined
Parking Worksheet

Supply (w/o Garages)

Block	Central Lots	Streets	Total
2	391	66	457
3	566	61	627
5	322	34	356
6/7	276	46	322
8	121	17	138
10	195	20	215
Total	1,871	244	2,115

Demand

Block	Retail (sf)	Usable Office (sf)	Apts	Theater
2	64,000	52,000	-	-
3	60,000	21,000	-	-
5	23,000	68,000	41	-
6/7	48,000	10,000	-	2,200 seats
8	10,000	14,000	48	-
10	33,000	13,000	66	
Total	238,000	178,000	155	

Notes:

Block 4 is Pecan Square which provides on street parking but has no buildings. The Pecan Square Parking is included within block 3.

	2 P.M. Peak Demand	Market Demand	Design Guidelines Maximum	8 P.M. Demand
Office				
178,000 SF – Usable	691	712	534	50
Retail				
238,000 SF	877	1,190	952	787
Residential				
155 units [1]	89	173	173	161
Theater				
2,200 Seats	300	550	367	550
Total	1,957	2,625	2,026	1,548
Office	97%	4/1000	3/1000	7%
Retail	97%	5/1000	4/1000	87%
Units	55%	1.5/unit	1.5/unit	95%
Theater	55%	1/4 seats	1/6 seats	100%

[1] Some are assigned 1 space per unit – garages are not counted.

Block by Block

		2 PM Demand	Supply	Difference	8 PM Demand	Supply	Difference
2	Office – 52,000 usable	202			15		
	Retail – 64,000	236			212		
		438	457	+19	227	457	+230
3	Office – 21,000 usable	82			6		
	Retail – 60,000	221			198		
		303	627	+324	204	627	+423
5	Office – 68,000 usable	264			19		
	Retail – 23,000	85			76		
	Units – 41 (1)	26			48		
		375	356	-19	143	356	+213
6/7	Office – 10,000 usable	39			3		
	Retail – 48,000	178			159		
	Theater – 2,200 seats	303			550		
		520	322	-198	712	322	-390
8	Office – 14,000 usable	54			4		
	Retail – 10,000	37			33		
	Units – 48 (2) -	42			64		
		133	138	+5	101	138	+37
10	Office – 13,000 usable	50			4		
	Retail – 33,000	122			109		
	Units – 66 (3) -	21			39		
		193	215	+22	152	215	+63
	Total	1,962	2115	+153(4)	1,539	2,115	+576

(1) 19 homes have garages and 4 have 1 additional space – we are counting 15 spaces for these 19 units as 100% market demand – 22 x 1.5 plus 15 = 48.

(2) For 40 apartments we are dedicating 1 space per unit – plus ½ space per unit for 8 carriage houses with 1 car garages – 100% demand is then 40 x 1.5 plus 4 = 64.

(3) 60 Units will have 1 space per unit in an underground garage. These spaces will be dedicated and are not included in shared parking. For the other 6 units we are dedicating 1 space per unit. 100% demand on the shared parking component is 60 units at ½ space, and 6 units at 1½ spaces for a total of 39.

(4) The analysis does not include a proposed community building of about 6,000 square feet. Allowing a maximum of about 250 seats, and parking at 2 PM of about one space per six seats suggests demand of about 42 spaces.

SUMMARY FACTS

Applicant:	Mark Richardson, AES Consulting Engineers
Land Owner:	Busch Properties, Inc.
Proposed Use:	Approval of 51 lots.
Location:	Warehams Pond Road
Tax Map/Parcel No.:	(50-3)(1-4); (50-3)(1-5)
Primary Service Area:	Inside
Parcel Size:	49 acres
Existing Zoning:	R-4, Residential Planned Community
Comprehensive Plan:	Low Density Residential
Reason for DRC Review:	1) The development proposes more than 50 lots 2) Cul-de-sac waiver: The cul-de-sac for William Spencer exceeds 1,000 feet 3) Sidewalk waiver: A sidewalk is required by ordinance along Warehams Pond Road (see Planning comment 2)
Staff Contact:	Matthew Arcieri Phone: 253-6685

STAFF RECOMMENDATION

Preliminary Approval

Although the Environmental Division did not initially recommend preliminary approval as part of their attached comment letter, they were able to meet with the applicant and resolve their concerns using the County's development roundtable process. Of note, the open space areas have been revised to remove the buffer along Warehams Pond Road as counting towards the required open space. Proposed lot 52 has been converted to open space.

Staff recommends preliminary approval subject to agency comments.

Cul-de-sac waiver:
Section 19-18 of the Subdivision Ordinance states that the Planning Commission may grant an exception to any requirement of the chapter, but not unless first receiving a recommendation from the DRC and upon finding that:

a.) strict adherence to the ordinance requirement will cause substantial injustice or hardship;

b.) the granting of the exception will not be detrimental to public safety, health, or welfare, and will not adversely affect the property of others;

c.) the facts upon which the request is based are unique to the property and are not applicable generally to other property so as not to make reasonably practicable the formulation of general regulations to be adopted as an amendment to the ordinance;

d.) no objection to the exception has been receiving in writing from the transportation department, health department, or fire chief, and

e.) the hardship or injustice is created by the unusual character of the property, including dimensions and topography, or by other extraordinary situation or condition of such property. Personal, financial, or self-inflicted hardship or injustice shall not be considered proper justification for an exception.

Staff finds that granting the exception to permit the 1,033 foot cul-de-sac street will not be detrimental to public safety, health, or welfare as no objection to the length has been raised by the Fire Department. Staff further finds that allowing a longer cul-de-sac will not negatively affect adjacent property. Furthermore granting an exception based on topographic constraints of the specific site does not set a precedent that would require a general amendment to the ordinance, nor is it possible to construct an ordinance that addresses the facts of this or similar properties. The need for a longer cul-de-sac for this proposal is driven by the applicant's desire to avoid areas of steep slopes and provide required open space.

Staff recommends approval of the cul-de-sac exception request.

Sidewalk Waiver:
In accordance with section 24-35 of the Zoning Ordinance, sidewalk is required along one side of entrance roads serving residential developments expected to serve more than 500 vehicles per day. Applying this ordinance to the, a sidewalk would be required along Warehams Pond Road within the development. The applicant has requested a modification to these requirements.

The ordinance states that the DRC may modify sidewalk requirements provided that equivalent pedestrian facilities providing access within the development and to adjacent properties are provided. To meet this requirement, the applicant notes that the existence of the paved trail on Warehams Pond Road that provides pedestrian access to adjacent properties in Kingsmill. Staff finds that the proposed pedestrian connections satisfy the ordinance's intent to provide pedestrian facilities to adjacent properties. Staff recommends the DRC approve the sidewalk waiver.

Matthew D. Arcieri

Attachments:
1. Subdivision Plan (separate)
2. Agency Comments
3. Revised Open Space Layout
4. Letter from the Department of Game and Inland Fisheries dated June 21, 2005

AGENCY COMMENTS

Planning:

1. The street name William Spencer has been approved for lots 1-38. Please provide a separate street name for William Spencer, lots 39-52.

2. In accordance with 24-35, sidewalk is required along one side of the entrance road (Wareham's Pond Road). Staff recommends providing the sidewalk along the pond side of the road connecting to the relocated paved trail.

3. Please provide landscape plans for all BMPs in accordance with Sections 19-70 and 24-98 of the JCC Ordinance.

4. Is a separate subdivision entrance feature proposed for this section? If so, the Planning Director must review and approve per Section 19-69 of the Subdivision Ordinance.

5. Prior to final approval please submit Community Association documents for review and approval by the County Attorney.

County Engineer:

1. Please submit JCC standard conservation easement and RPA/easement signage plan.

Fire:

1. Relocate fire hydrant on William Spencer (Lots 18/19) generally east to Williams Spencer and William Spencer (Lots 37/38)

JCSA:

1. Please see the attached comments.

Environmental:

1. Please see the attached comments.

JAMES CITY SERVICE AUTHORITY

MEMORANDUM

Date: June 29, 2005

To: Matthew Arcieri, Senior Planner

From: Michael Marshall, E.I.T. – Engineer Intern MJM
Shawn A. Gordon, P.E. – Project Engineer

Subject: SP-53-05 Kingsmill – Spencer's Grant

James City Service Authority has reviewed these plans for general compliance with the JCSA Standards and Specifications, Water Distribution and Sanitary Sewer Systems and has the following comments for the above project you forwarded on June 2, 2005. Quality control and back checking of the plans and calculations for discrepancies, errors, omissions, and conflicts is the sole responsibility of the professional engineer and/or surveyor who has signed, sealed, and dated the plans and calculations. It is the responsibility of the engineer or surveyor to ensure the plans and calculations comply with all governing regulations, standards, and specifications. Before the JCSA can approve these plans for general compliance with the JCSA Standards and Specifications, the following comments must be addressed. We may have additional comments when a revised plan incorporating these comments is submitted.

General Comments:

1. Since this site is served by Newport News Waterworks, the plans shall be submitted to NWW for review and approval for compliance with the materials and construction standards.

2. The plans shall be submitted to the James City County Fire Department for review and approval of the fire hydrant locations.

3. Provide the sanitary sewer lateral inverts for all proposed lateral to sanitary sewer manhole connections. Lateral inverts shall match the crown or 0.8 depth point of the sanitary sewer outfall pipe per JCSA Standards. Revise plan accordingly.

4. Clearly label on all plan sheets the proposed grinder pump lots.

5. Provide sanitary sewer forcemain calculations for verification the velocities within the forcemain meets JCSA Standards.

6. Was the existing wastewater lift station, LS 9-4 available capacity confirmed for adequacy to serve this proposed development?

7. Provide the depth, baseline stationing information and offsets as part of sanitary sewer manhole descriptions on the plans accordingly.

Sheet 2:

1. General Notes:
   a) Replace Note #7 with "Any existing unused wells shall be abandoned in accordance with State Private Well Regulations and James City County Code."
   b) Note #18: Provide the name of the owner/developer contact person.

Sheet 5:

1. Provide the baseline stationing information on the plans for the proposed offsite sanitary sewer main portions.

2. Provide the existing sanitary sewer manhole numbering designations, San MH #2-6B and San MH #6-6E, for the proposed manhole tie-ins accordingly.

3. Provide the depth, baseline stationing information and offsets as part of sanitary sewer manhole descriptions.

4. Show the sheet match line which corresponds with Sheet 6.

5. Confirm the existing sanitary sewer inverts for the proposed manhole tie-ins have been field surveyed in lieu of relying strictly on record drawing information.

6. Provide a 5-feet minimum horizontal separation between the proposed sanitary sewer system (laterals and mains) and storm sewer structures and street lighting.

7. Provide a minimum 10-feet horizontal separation between the proposed sanitary sewer laterals and the proposed fire hydrant assemblies at Sta 23+10 (+/-) and Sta 5+55 (+/-) along William Spencer.

8. All manholes 12 feet and greater in depth shall be shown and labeled as 60-inch diameter manholes. Revise proposed sanitary sewer manhole, San MH #1-2, accordingly.

9. The proposed sanitary sewer laterals/clean-outs serving Lots 9 and 10 shall be relocated consistent with the JCSA Standards and property lines.

10. The proposed sanitary sewer laterals serving Lots 35 & 36 and Lots 25 & 26 shall be extended and the corresponding clean-outs located on the proposed JCSA Utility Easement line per JCSA Standards.

11. Provide the HRPDC detail references on the plan for the proposed sanitary sewer main connections, Detail SS_08, to the existing manholes or provide notes on the plan accordingly.

12. The proposed force main connection invert at sanitary sewer manhole, San MH 1-3, shall match crown or 0.8 depth point to the outfall sewer pipe. Revise accordingly.

Sheet 6:

1. Relocate the proposed sanitary sewer force main to the quarter point of William Spencer Road.

2. Show the sheet match line which corresponds with Sheet 5.

3. JCSA Detail References: Delete the GP-1, GP-2 and GP-3 detail references. These details have been superceded. Provide the attached revised GP-1, GP-2 and GP-3 details on the plans.

4. Provide a 5-feet minimum horizontal separation between the proposed sanitary sewer services and the street lighting.

Sheet 12:

1. William Spencer (Sta 0+00 to Sta 14+25) Profile: Baseline Station 0+00 appears to be shown in the incorrect location. Verify and revise accordingly.

2. William Spencer (Sta 14+25 to Sta 27+25) Profile:
   a) All manholes greater than 12 feet in depth shall be shown and labeled as 60-inch diameter. Revise San MH #1-2 accordingly.
   b) Revise the callout from "Matchline 27+25 Sheet *14*" to "Matchline 27+25 Sheet *13*."

Sheet 13:

1. William Spencer (Sta 27+25 to Sta 38+75) Profile:
   a) Revise the callout from "Matchline 27+25 Sheet *13*" to 'Matchline 27+25 Sheet *12*.'
   b) A minimum vertical separation of 18-inches shall be provided between the proposed 2-inch force main and all crossings between the water and storm sewer pipe systems. Revise plan accordingly.

2. Existing San MH #2-6B to San MH #1-2: All manholes greater than 12 feet in depth shall be shown and labeled as 60-inch diameter. Revise San MH #1-2 accordingly.

3. Wareham's Pond Road Extension Profile: The proposed 12-inch storm sewer located at Sta 11+75 on the profile is contradicting the location shown in the plan view, Sta 11+50 (+/-). Verify and revise profile accordingly.

Sheet 16:

1. JCSA Detail References: Delete the GP-1, GP-2 and GP-3 details. These details have been superceded. Provide the attached revised GP-1, GP-2 and GP-3 details on the plans.

2. Is the "Pipe Trench and Bedding Detail" shown intended for storm sewer piping only? Revise title or provide note for clarification.

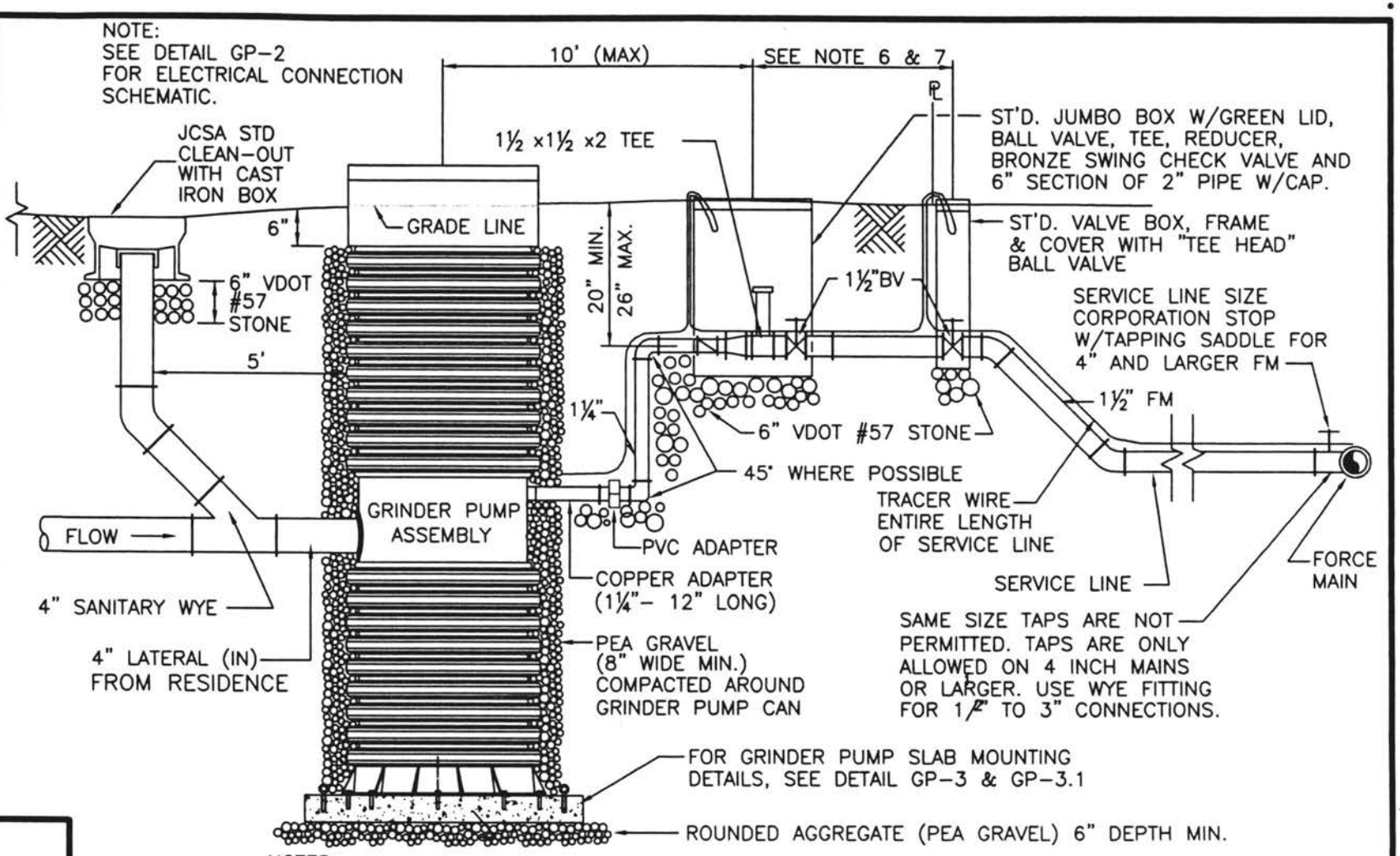
3. Grinder Pump Notes: Provide clarification of which lots are proposed for grinder pumps. Based on the plans, it appears all lots will be not served by grinder pumps. Revise plan accordingly.

4. Grinder Pump System: Revise Note # 10, deleting all Model 210 grinder pump designations.

Sanitary Sewer Data Sheet:

1. Section 5e: Per the JCSA Standards the peaking factor for this development should be 2.5 in lieu of 4.0. Revise data sheet accordingly.

Please call me at 253-6679 if you have any questions or require any additional information.



NOTES:

1. GRINDER PUMPS SHALL BE LOCATED ON EACH LOT/PARCEL AS SHOWN ON THE APPROVED DEVELOPMENT PLANS AND A MINIMUM OF 10 FEET AWAY FROM FOUNDATIONS & STRUCTURES.
2. FORCE MAIN TRAP IS REQUIRED WHEN DISCHARGING INTO A GRAVITY SYSTEM
3. GRINDER PUMP ASSEMBLIES SHALL BE "ENVIRONMENT-1" MODEL 2010 AS MANUFACTURED BY ENVIRONMENT ONE CORPORATION.
4. SADDLES MAY BE USED FOR CONNECTIONS TO GRAVITY SEWERS.
5. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
6. SHUT OFF VALVE SHALL BE LOCATED AT PROPERTY LINE.
7. SHUT OFF VALVE MAY BE DELETED WHEN JUMBO VALVE BOX CONNECTION IS LOCATED ON/AT THE PROPERTY LINE.
8. THE LOCK AND PUMP WRENCH DELIVERED WITH THE GRINDER PUMP ARE TO BE LEFT IN THE CAN UNTIL JCSA PERSONNEL ARRIVE.
9. THE GRINDER PUMP FORCE MAIN SHALL BE TESTED AT 1½ TIMES THE WORKING PRESSURE OR 150 PSI WHICHEVER IS GREATER.

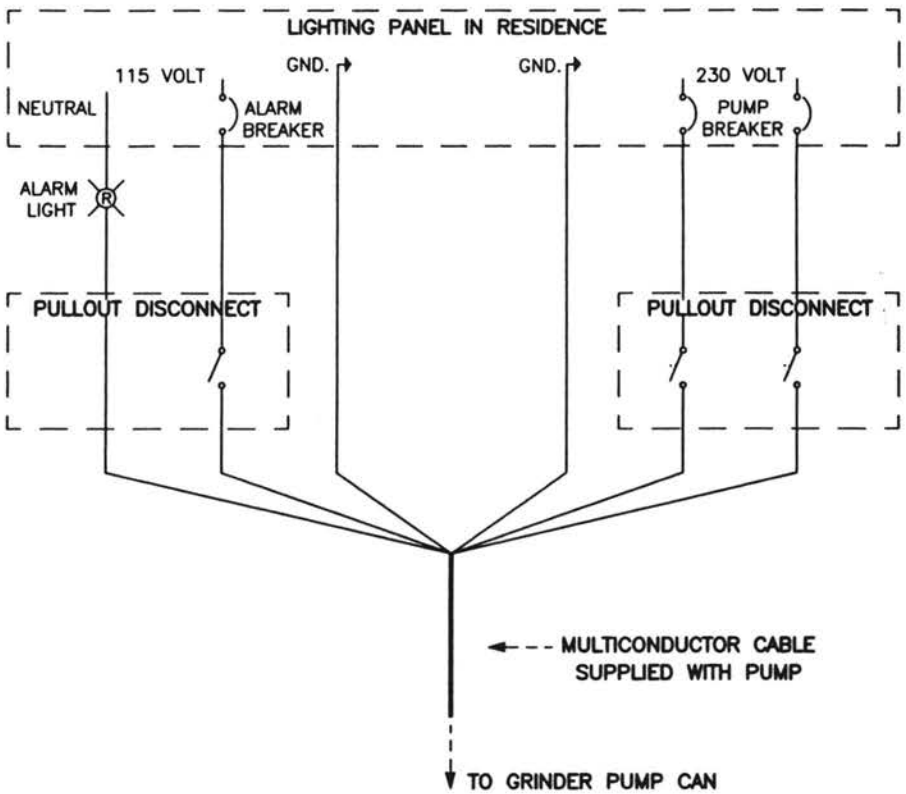
REVISION DATE	COMMENT
JUNE 2004	DELETED APPENDIX REFERENCE, ADDED REVISION BLOCK
JUNE 2004	DELETED GATE VALVE REFERENCE
NOV. 2004	ADDED TRACER WIRE

JCSA
JAMES CITY SERVICE AUTHORITY

RESIDENTIAL GRINDER PUMP INSTALLATION

DWG NO. GP-1 | SCALE: NONE

DWN BY: | DATE:1-1-2002



NOTES:

THE ELECTRICAL PORTION OF GRINDER PUMP INSTALLATIONS CONSISTS OF TWO CIRCUITS.

a) MOTOR CIRCUIT, 230 VOLT, FED FROM A DEDICATED 2 POLE 20 AMP BREAKER IN MAIN SERVICE PANEL TO 2 POLE LOCKABLE OUTDOOR NON-FUSED DISCONNECT, MODEL #U065P MANUFACTURED BY MIDWEST OR APPROVED EQUAL. DISCONNECT SHALL BE MOUNTED ON A SALT TREATED POST WITH BOTTOM OF DISCONNECT BOX A MINIMUM OF 6 INCHES ABOVE FINISHED GRADE OR ON THE NEAREST WALL OF THE DWELLING (50 FEET MAXIMUM) AND BE VISIBLE FROM THE GRINDER PUMP CAN. PUMP CABLE IS THEN ROUTED FROM DISCONNECT TO GRINDER PUMP CAN. SEE SCHEMATIC DIAGRAM ABOVE.

b) ALARM CIRCUIT, 115 VOLT, FED FROM A DEDICATED SINGLE POLE 15 AMP BREAKER IN MAIN SERVICE PANEL TO A 2 POLE LOCKABLE OUTDOOR NON-FUSED DISCONNECT, MODEL #U065P MANUFACTURED BY MIDWEST OR APPROVED EQUAL. DISCONNECT SHALL BE MOUNTED ON A SALT TREATED POST WITH THE BOTTOM OF THE DISCONNECT BOX AT LEAST 6 INCHES ABOVE FINISHED GRADE OR ON THE NEAREST WALL OF THE DWELLING (50 FEET MAXIMUM) AND BE VISIBLE FROM THE GRINDER PUMP CAN, THIS CIRCUIT IS A SWITCH LEG THROUGH AN ALARM CONTACT INTERNAL TO THE GRINDER PUMP CONTROLS. THE SUPPLY WIRE FEEDS FROM THE LIGHTING PANEL THROUGH THE DISCONNECT SWITCH AND INTO THE GRINDER PUMP. THE RETURN LEG LEAVES THE PUMP AND IS CONNECTED TO THE HOT SIDE OF THE ALARM LIGHT IN THE HOUSE. THE NEUTRAL CONDUCTOR IS FED DIRECTLY FROM THE LIGHTING PANEL TO THE ALARM LIGHT. THE RED ALARM LIGHT SUPPLIED WITH THE GRINDER PUMP SHOULD BE INSTALLED IN A CONSPICUOUS PLACE. SEE SCHEMATIC DIAGRAM ABOVE.

ALL BREAKERS AND SWITCHES SHALL BE CLEARLY MARKED.

THE LOCK AND PUMP WRENCH DELIVERED WITH THE GRINDER PUMP ARE TO BE LEFT IN THE CAN UNTIL JCSA PERSONNEL ARRIVE.

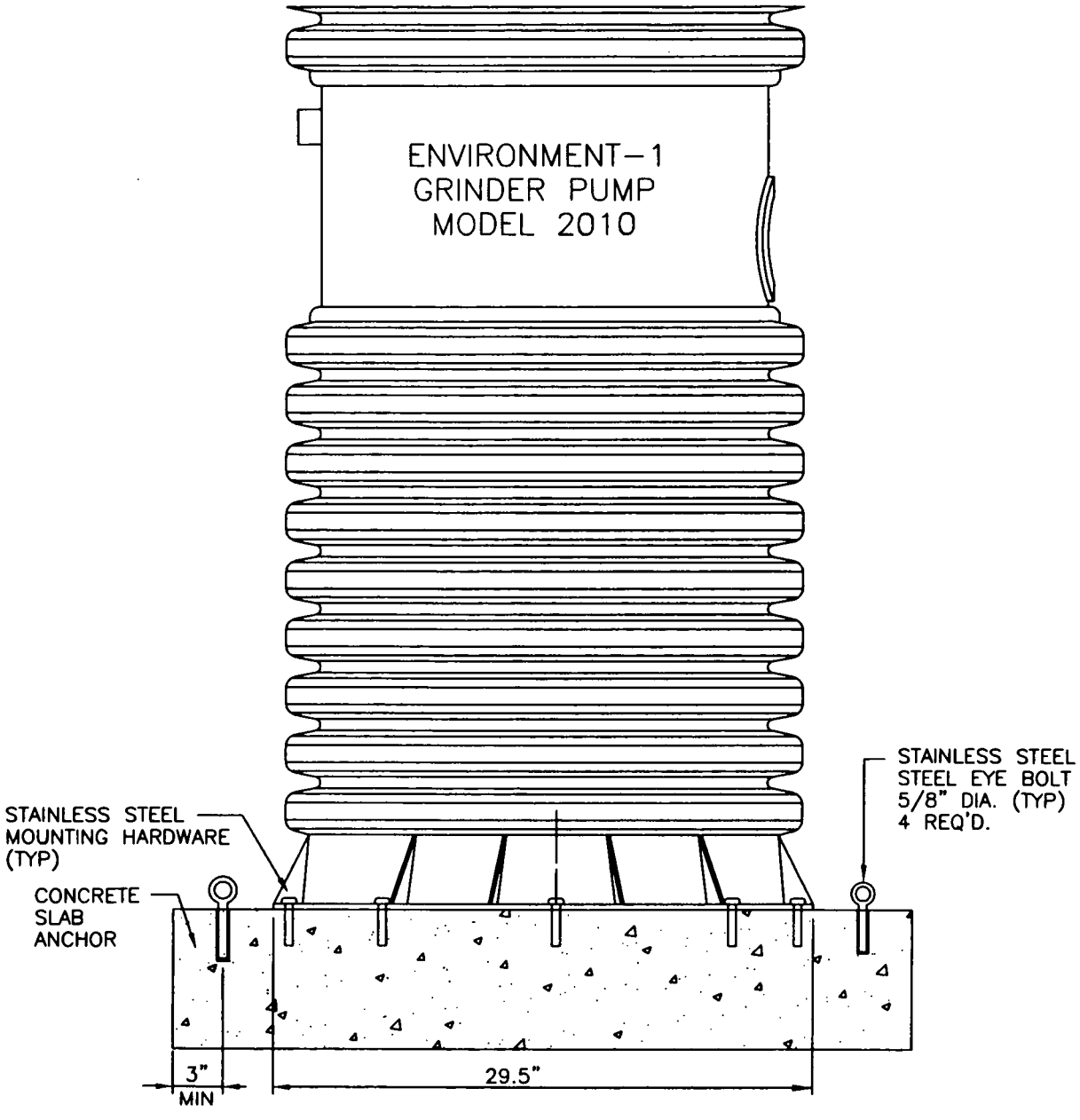
FOR QUESTIONS, CONTACT HOWARD ANBY AT JCSA OPERATIONS, 259-4096

REVISION DATE	COMMENT
12/13/04	ALL NEW DIAGRAM & CHANGE IN VOLTAGE

JCSA
JAMES CITY SERVICE AUTHORITY

GRINDER PUMP ELECTRICAL SCHEMATIC

DWG NO. GP-2	SCALE: NONE
DWN BY:	DATE:1-1-2002



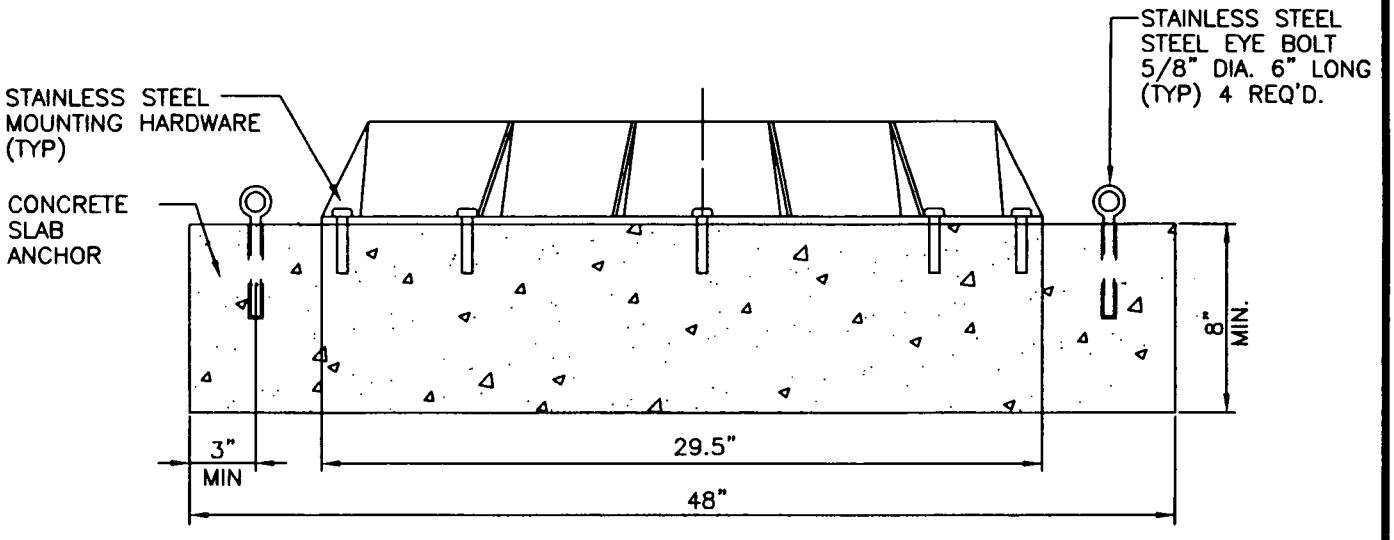
NOTES:
1. CONCRETE SLAB ANCHOR LENGTH, WIDTH AND THICKNESS SHALL BE AS SHOWN IN DETAIL GP-3.1 OR IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS WHICHEVER IS GREATER.
2. 5/8" DIA. STAINLESS STEEL EYE BOLTS ARE TO BE SET IN EXPANSION ANCHORS IMBEDDED IN CONCRETE SLAB AT FOUR (4) POINTS OF EQUAL SPACING.
3. STATION SHALL BE FASTENED TO SLAB WITH 3/8" DIA STAINLESS STEEL HARDWARE AT ALL EIGHT (8) MOUNTING POSITIONS.
4. ONCE STATION IS FASTENED TO SLAB, UNIT SHALL BE LIFTED INTO PLACE USING THE EYE BOLTS, NOT THE TANK

REVISION DATE	COMMENT
IE 2004	DELETED MODEL 210 REFERENCE

JCSA
JAMES CITY SERVICE AUTHORITY

GRINDER PUMP
SLAB MOUNTING DETAIL

DWG NO. GP-3	SCALE: NONE
DWN BY:	DATE:1-1-2002



NOTES:

CONCRETE SLAB ANCHOR OF 370 LBS. (2.5 CU. FT.) PER FOOT OF TOTAL STATION HEIGHT, BASED ON STATION HEIGHT IN 6 INCH INCREMENTS, IS REQUIRED TO PREVENT TANK FROM FLOATING. MINIMUM DIMENSIONS SHOWN ABOVE ARE BASED ON STATION HEIGHT OF 4'-0". ONE INCH OF ADDITIONAL THICKNESS SHALL BE REQUIRED FOR EACH ADDITIONAL 6 INCHES OF TOTAL STATION HEIGHT. SEE EXAMPLES BELOW.

STATION HEIGHT	SLAB LENGTH	SLAB WIDTH	SLAB THICKNESS
4'-0" THRU 4'-6"	4 FT	4 FT	8 INCHES
4'-6" THRU 5'-0"	4 FT	4 FT	9 INCHES
5'-0" THRU 5'-6"	4 FT	4 FT	10 INCHES
5'-6" THRU 6'-0"	4 FT	4 FT	11 INCHES
6'-0" THRU 6'-6"	4 FT	4 FT	12 INCHES
6'-6" THRU 7'-0"	4 FT	4 FT	13 INCHES
7'-0" THRU 7'-6"	4 FT	4 FT	14 INCHES
7'-6" THRU 8'-0"	4 FT	4 FT	15 INCHES
8'-0" THRU 8'-6"	4 FT	4 FT	16 INCHES
8'-6" THRU 9'-0"	4 FT	4 FT	17 INCHES
9'-0" THRU 9'-6"	4 FT	4 FT	18 INCHES
9'-6" THRU 10'-0"	4 FT	4 FT	19 INCHES

FOR STATIONS EXCEEDING 10 FEET IN TOTAL HEIGHT, SLAB THICKNESS SHALL BE INCREASED BY ONE INCH FOR EACH ADDITIONAL 6 INCHES OF STATION HEIGHT, OR FRACTION THEREOF.

REVISION DATE	COMMENT

JCSA
JAMES CITY SERVICE AUTHORITY

GRINDER PUMP SLAB DETAIL

DWG NO GP-3.1	SCALE: NONE
DWN BY:	DATE: 1-1-2002

MDK/KAC

James City County Environmental Division
Kingsmill – Spenser's Grant
County Plan Number S-053-05
June 22, 2005

DRC Approval: *Based on our review of the above referenced project, the Environmental Division recommends* ***denial*** *of preliminary approval for DRC purpose at this time. The following outlines the primary reasons for such a determination*:

- In accordance with Section 23-5 of the Chesapeake Bay ordinance, the limits of steep slopes has not been accurately reflected on the plan nor has the requirement for disturbance to steep slopes been minimized on individual lots as proposed.

- Compliance with the James City County Stream Channel Protection Criteria (24-hour draw-down of the 1-year 24-hour storm runoff volume) for all existing and proposed stormwater management facilities has not been effectively demonstrated.

- The required 10.36 Acres of Natural Open Space as reflected on the approved master stormwater management plan has not been obtained in areas consistent with the James City County guidelines for such areas.

- All items as required in the *James City County Guidelines for the Design and Construction of Stormwater Management BMP's* have not been provided for all proposed and existing stormwater management facilities.

- The Environmental Inventory may not be depicting the full extents of the Resource Protection Area.

General:

1. A Land-Disturbing Permit and Siltation Agreement, with surety, are required for this project.

2. A Subdivision Agreement, with surety, shall be executed with the County prior to recording of lots.

3. A Standard Inspection / Maintenance agreement is required to be executed with the County for all portions of the stormwater conveyance systems and Stormwater Management/BMP facilities as associated with this project.

4. A Geotechnical Report, prepared by a professional engineer, is required to be submitted to support the design of Wet Pond #4 prior to issuance of a Land-Disturbing permit for the project.

5. Record Drawing and Construction Certification. The stormwater management/BMP facility as proposed for this project (Wet Pond #4) will require submission, review and approval of a record drawing (as-built) and construction certification prior to release of the posted bond/surety. Provide notes on the plan accordingly to ensure this activity is adequately coordinated and performed before, during and following construction in accordance with current County guidelines. Additional information should also be added to the Sequence of Construction indicating the information be recorded at appropriate times throughout construction.

6. Bald Eagle Protection Area. Prior to issuance of any land disturbing permit for this development, written documentation from the US Fish and Wildlife and the Virginia Department of Game and Inland Fisheries must be received by this office authorizing the development of this area and that the 3-year observation period pertaining to the Bald Eagle protection area has been waived.

7. VSMP. It appears construction activity for the site will exceed 2,500 square feet. Therefore, it is the owner's responsibility to register for coverage under the General Permit for Discharge of Stormwater from Construction Activities, in accordance with current requirements of the Virginia Department of Conservation and Recreation and the Virginia Stormwater Management Program. Visit http://www.dcr.virginia.gov/sw/vsmp.htm or contact the DCR Central Office at 804-371-7330 for additional information.

8. Plan Number. Please reference the assigned County plan number S-53-05 on all subsequent submissions. Reforestation

9. General Note #13 is incorrect as it refers the wrong section of Chapter 23. Please revise the note to state "Wetlands and land within Resource Protection Areas shall remain in a natural undisturbed state except for those activities permitted by Section 23-7(c) of the James City County Code." *(Refer to 19-29(g) of the Subdivision ordinance.)*

10. Site Tabulation. Provide proposed impervious cover estimates in the site tabulation for the project on plan sheet 3. Also, the information should be located on the title sheet and not the Preliminary Plat sheet of the plan set. Please revise the information and its location accordingly.

11. Natural Open Spaces. Provide a note indicating natural open space easements shall remain in a natural undisturbed state except for those activities referenced on the deed of easement.

12. Tree Line. Per a site visit by county staff, it appears that the existing tree line shown throughout the plan set is incorrect as the plans do not show the full extent of the existing walking trail alongside Wareham's Pond Road East and West. There are several locations where the trail meanders into and out of the tree line and there are several other areas that are being maintained in excess of 50' from the edge of road. A current survey must be performed to support that the areas proposed to be dedicated as natural open space comply with all applicable requirements for such.

Preliminary Plat:

13. Legend. Provide a legend or a call out to explain the significance of the fine dashed lines shown on either side of various property lines throughout the current plan of development such as those shown between lots 19/20/21, 23/24/25/26/27/28/29/30/31.

14. Easements. Provide and label drainage easements of adequate width to maintain all proposed utilities proposed for installation on Lots.

Chesapeake Bay Preservation:

15. Delineate Steep Slope Areas. Section 23-10(2) of the Chesapeake Bay Preservation Ordinance requires delineation of areas with slopes 25 percent or greater. it does not appear that all areas of steep slopes have been delineated; therefore, the tabulated areas may be incorrect. Please submit

a revised Environmental Inventory to adequately depict the existing limits of steep slopes throughout the site.

16. Steep Slope Areas. We are in receipt of a request for waiver from to Section 23-5 of the Chesapeake Bay Preservation Ordinance pertaining to land-disturbing activities on slopes 25 percent or greater. As it appears that all steep slope areas have not been adequately identified, the request for a waiver or exception will need to be resubmitted upon correctly identifying all steep slope areas and associated encroachments. Additionally, the request for waiver must contain the proposed square footage of disturbance to steep slopes and must be consistent with that as shown on the plan of development.

17. Steep Slopes on Lots. In order for steep slopes to be contained on individual lots, they must be either excluded from the building envelope or accounted for in the waiver request for steep slope disturbance. If the latter is chosen, a grading plan must be submitted to support compliance with section 23-5 of the James City County Code.

18. RPA Limits. The Environmental Inventory may not be depicting the full extents of the Resource Protection Area. Information as contained in James City County Geographic Information System (GIS) reflects that additional Resource protection area may be in existence below the proposed basin

19. RPA Signs. Include provisions on the plan for installation of signs identifying the landward limit of the RPA. Refer to Section 23-7(c) of the Chapter 23 Chesapeake Bay Preservation ordinance.

Erosion & Sediment Control Plan:

20. Temporary Sales Road. The variance request pertaining to the Virginia Erosion and Sediment Control Handbook Standard and Specification 3.13 will not be approved for the current site plan primarily for the following reasons:

    a. The proposed stormwater management facility is in the location of an existing temporary sediment basin which can be readily upgraded and made functional as a temporary sediment basin to serve this phase of construction prior to any upland disturbance in accordance with State Minimum Standard # 4. With the majority of the proposed "Temporary Sales Road" lying in the drainage area of the proposed temporary sediment basin, the resulting disturbance can be controlled by the facility removing the requirement for a waiver or variance from the VESCH. Other areas can be controlled with other adequate measures appropriately sized for their contributing drainage areas.

    b. Steep Slopes exist immediately downstream of the measure at station 28+00 of William Spencer. The resulting concentrated drainage in this area has a high potential to result in severe erosion to these slopes. Additionally, the proximity of this site to the James River further exacerbates the need for fully designed and adequate measures to control the site throughout the full duration of land disturbing operations.

    Revise the plans and the sequence of construction to eliminate the requirement and to incorporate the following comments. Due to the complexity of this comment our division reserves the right to issue additional comments upon the next submittal.

21. Design Checklist. Please provide a completed standard James City County Erosion and Sediment Control and Stormwater Management Design Plan Checklist, specific to this project. The intent

of the checklist is to ensure the plan preparer has provided all items necessary for a complete and expeditious review.

22. Temporary Stockpile Areas. Show any temporary soil stockpile, staging, and equipment storage areas (with required erosion and sediment controls) or indicate on the plans that none are anticipated for the project site.

23. Sequence of Construction (SOC). Provide a sequence of construction outlining the installation of erosion and sediment control measures for the project and associated site and utility work that is both in agreement with the plan and in compliance with all applicable State Minimum Standards. The following specific items require clarification; however, additional clarification may be required upon later submittals:

    a. Include perimeter areas required for installation of erosion and sediment control and utility connections.
    b. Please specify the location where the "remaining wooded area shall be harvested" as stated in the SOC.
    c. Explain the differences between Phase 1 and Phase 2.
    d. It appears that the removal of all improvements completed in Phase 1 will need to take place so that these same improvements can be made in Phase 2.

24. E&SC Plan. The erosion control plan presented may be adequate once all road grading, roadside channels, culverts, and storm drain systems are installed and functional; however, during the initial stages of land disturbance, many of the measures as proposed will not be adequate for their associated drainage areas. One approach would be to use the existing sediment basin on site, as it is being re-graded for conversion into a BMP. Another solution would be to put a trap in the proposed storm sewer easement north of station 19+00 of Williams Spencer and possibly another at the outfall of storm system 2. Perimeter diversion dikes and additional silt fencing may also be required. All components of the erosion and sediment control plan shall be designed and in compliance with all applicable VESCH Standards and Specifications.

25. Rock Check Dams. Provide rock check dams at sufficient foot intervals (100 ft. suggested) in all ditches along William Spencer.

26. Seeding and Mulching Specification. Provide a seeding and mulching specification or reference an appropriate mixture for the coastal plain region per the VESCH, Minimum Standard 3.32. Address both temporary and permanent stabilization requirements for the site.

27. Incidental Utility Disturbances. Include provisions on the plan for repair and restoration of stabilized yard areas which may become disturbed and stormwater conveyance channel linings which may become damaged due to post-grading installation of incidental utilities such as electric, cable, telephone, etc. Refer to current *James City County Environmental Division Stormwater Drainage Conveyance Systems, General Design and Construction Guidelines.*

28. Outlet Velocities. Based on the culvert computations, the outlet velocity from the 36 inch pipe at structure is 12.69 fps for the 10-year design event. A special dissipater structure is needed for pipe outfall velocities of this magnitude regardless of the submerged depth.

29. Safety Fence. Use of orange colored safety fence in accordance with VESCH Minimum Standard & Spec. 3.01 of the VESCH must be placed around all open space easement areas to keep accidental disturbance to a minimum.

30. Dust Control. Add dust control measures in accordance with Minimum Standard 3.39 of the VESCH to the erosion and sediment control plan for the site. Dust control will be required due to the proximity of work along Wareham's Pond Road east and west to the existing portions of the Kingsmill development.

31. Outlet Protections. Provide riprap outlet protection for all pipe, culverts, and storm drain outfalls proposed throughout the site and at outfalls within the confinements and outside of the BMP facility(s). Provide information on plans stating riprap class (Class I minimum.) and provide all dimensions in accordance with requirements of the VESCH, Minimum Standards 3.18 and 3.19, including d_{50}, L_a, W, and thickness of rip rap section. The rip rap section at the outfall of the existing stormwater wet pond #4 must be upgraded as well. provide information in the plans to reflect this requirement.

32. Downstream BMP Protection. Include provisions on the E&SC plan to monitor the existing offsite BMP for signs of sedimentation, specifically during or as a result of construction on this site. As this facility is not to be used for sediment control, the contractor should be aware that additional onsite or offsite controls may be necessary to protect the BMP from degradation. This may include additional E&SC measures, cleaning, and sediment removal within the basin or connecting pipe systems and coordination with the owner, engineer, or the County.

Stormwater Management / Drainage:

Note: Due to the severity of the following comments, the plans and supporting documentation have not been fully reviewed at this time and our division reserves the right to issue additional comments upon the next submittal.

33. Drainage Easements. Provide a 20-foot drainage easement, centered on the proposed swales that tie into storm structure 3-4B, 3-9, and 3-10.

34. Open Space Easements. Areas to be dedicated to the county in conservation easements shall be in a natural undisturbed state, maintain a minimum vegetated width of no less than 35 feet, and be free and clear of any and all other easements. Areas proposed for dedication in conservation easements that are not currently in a natural undisturbed state may be accepted by the county provided that they are restored using 1 canopy tree (1 ½" caliper or 6' evergreen), 2 understory trees (3/4" caliper or 4' evergreen), and 3 small shrubs (18" to 3') for every 400 square feet of area to be mitigated. The following areas do not meet these minimum requirements:

    a. The 0.35, 0.50, and 1.11 acre areas along the northwestern and northeastern portions of the site along Wareham's Pond Road East and Wareham's Pond Road west do not accurately reflect either the tree line or existing asphalt pedestrian walk. Therefore, it is believed that these areas do not meet the minimum 35' width requirement and cannot be used in the conservation easement computation.

    b. A substantial portion of the 4.95 acre area to the southwest of the site primarily consists of a material stockpile and disposal area and contains a gravel road and several feet of non-native fill that is not conducive to native vegetation. For these reasons and because these areas contain no natural vegetation at this time, these areas do not meet the requirement for natural undisturbed area and cannot be used on the conservation easement computation. For this area to be acceptable in a conservation easement, a restoration plan must be provided, approved by the county, and bonded fully prior to the

issuance of a land disturbing permit for the project. This plan shall be inclusive of the access road down to the beach. Removal of all construction debris and materials along with the road bed itself must also be provided. Subsoil and topsoil of the entire area must also be proposed in a manner to provide a planting medium conducive to the growth of any and all proposed plant materials.

c. Proposed drainage swales to inlets 3-4B, 3-9, and 3-10 must be contained in drainage easements of adequate width to allow for maintenance and ensure that positive can be obtained at all times. These areas do not the requirements pertaining to drainage easements and cannot be used in the conservation easement computation.

d. While the area in the center of the site proposed for dedication in conservation easement to the county may consist of natural undisturbed vegetation, the ability of this area to provide any function with respect to water quality is minimized as no portion of the site drains through it and therefore no filtering property is exhibited. This area cannot be counted toward water quality points for this site or any other portion of the Kingsmill Development.

35. Design Checklist. Please provide a standard James City County Erosion and Sediment Control and Stormwater Management Design Plan Checklist. Contact the Environmental Division for a current version.

36. Drainage. Drainage easements of adequate width are necessary to ensure offsite drainage can be maintained through the proposed onsite storm drainage system. Refer to Item 7 of the *James City County Stormwater Conveyance Systems (Non BMP related) General Design and Construction Guidelines.*

37. Low-Impact Design. Consider use of low-impact development (LID) design techniques, in addition to end-of-pipe water quality/quantity treatment to reduce the volume and frequency of runoff from the development site to the proposed stormwater management facility. These techniques, including use of bioretention, are well-documented by CBLAD, the Center for Watershed Protection, the USEPA, Prince Georges County, Maryland, and the Department of Conservation and Recreation

38. SWM/BMP. Please label the existing stormwater management facilities as follows on the plan set: Wet Pond #3 label as JR049, and wet pond #2 label as JR046.

39. BMP/Water Quality Points. Please provide a County standard Worksheet for the BMP Point System to ensure the stormwater management plan for this project achieves at least 10 BMP points. Refer to the County BMP manual for the standard worksheet. Additionally, for a BMP to achieve the points reflected in the James City County Guidelines for the Design and Construction of Stormwater Management BMP's, all features consistent with the manual must be provided such as pretreatment forebays, aquatic shelves, stream channel protection volume, pond buffers, etc. Ensure that all features are provided upon the next submittal.

40. Drainage Map. Provide pre and post-development drainage maps for ***all*** BMP facilities proposed for use with this project.

41. Stormwater Management Narrative. Please provide a brief stormwater management narrative which describes existing drainage at the site and proposed onsite stormwater drainage facilities and BMPs. Describe the type of BMP selected for the site and if the facility will function as a

dual purpose temporary erosion and sediment control and permanent water quality and/or quantity control device for the site.

42. Time of Concentration. The method used to calculate the time of concentration for wet pond #4 is unclear and must be revised. The use of the SCS methods (i.e. segmental approach) is recommended because it provides a means of estimating overland sheet flow time and shallow concentrated flow time as a function of readily available parameters such as land slope and cover conditions. Be advised that the length of the sheet flow component in time of concentration computations is limited to 200 feet.

43. Stream Channel Protection. Include a routing to address the provisions in the design of the BMP to ensure compliance with current stream channel protection criteria downstream of proposed BMP facilities. Current stream channel protection criteria for James City County requires 24-hour extended detention of the runoff from the 1-year frequency storm (post-developed) instead of reduction of the 2-year peak rate as previously required by MS-19 of the Virginia Erosion and Sediment Control regulations. The traditional SCS Type II, 24-hour storm duration rainfall depth for the 1-year storm event in James City County is 2.8 inches. As this information has not been provided in the current submittal, a full review will not be performed at this time and our division reserves the right to issue additional comments on further submittals. Stream channel protection must be provided for all three of the proposed stormwater management facilities and revised stormwater routings must be included based on the revised drainage areas. Computations must include stage storage discharge information, time of concentration computations, and drainage area maps reflecting the entire drainage area to the facility. Any composite curve numbers or runoff coefficients used in the computations must be accompanied by documentation supporting the number used. Ensure that all routings are based on up to date as-built information.

44. BMP Configuration. The following comments pertain to the stormwater management facility labeled on the master stormwater management plan as Wet Pond #3:

    a. The information used in the design report and on the plan set for wet pond #3 is incorrect as it reflects a riser in the middle of the facility. This structure was removed several years ago when the BMP was placed into its final configuration.

    b. Include provisions in the plans to modify the current configuration of the outfall structure of wet pond #3 as the liner that was placed in the facility was attached above the 3" orifice effectively preventing it from being used and eliminating the ability of the facility to provide any type of stream channel protection.

45. Pond Buffers. A pond buffer should be provided that extends 25 feet outward (landward or upland) from the 100-year design high water surface elevation of the pond. Also the following general design criteria is recommended: at least 50 feet of setback is recommended between the design high water and any permanent building, dwelling unit or structure; facilities such as embankments, control structures and design high water should not be located within lot area or perimeter buffers as required by zoning (such as right-of-way buffers, setbacks, landscape buffers, etc.) unless previous approval is obtained; and for nonresidential districts, facilities should not be located within 30 feet of a property line.

46. Maintenance Easement. Provide a minimum 20 ft. wide maintenance easement and a minimum 15 ft. wide access easement around the BMP facility. The easement shall extend from a public or private road and should extend to and around the facility, encompassing the embankment, graded

side slopes, emergency spillway, forebay, benches, riser and outlet structures and extend sufficiently outward (25 ft. recommended) from the 100-year design high water elevation.

47. BMP Service Roads. Provide a service road to the BMP at least 12 feet wide and at a grade of no more than approximately 15 percent from a public or private road. The service road should be in easement to ensure future access and situated in a location that minimizes impacts to residents. Road stabilization should consist of all-weather type material which is resistant to erosion and can withstand loads associated with maintenance vehicles and equipment but yet is reasonably permeable to allow for infiltration. Since access is generally occasional, it is our preference to utilize alternative type all-weather surface material aggregate, rather than asphalt. Alternative surfacing should promote vegetative growth and minimizes impervious area but yet provides durability. Alternatives include compacted aggregate, high density polyethylene grid pavers or articulated concrete blocks.

48. BMP Pretreatment. Address BMP pretreatment requirements by use of a sediment forebay or other equivalent measure. Sediment forebays are generally sized to contain 0.1 inch per impervious area and can be counted toward the total water quality volume requirement. A reasonable location for a pretreatment forebay is within the *{Describe Location}* of the proposed BMP.

49. Concrete Riser and Barrel. The existing 24" corrugated metal pipe proposed for reuse in wet pond #4 must be replaced with reinforced concrete pipe. Additionally, anti-seep collars must be specified for installation in accordance with VESCH 3.14. Specify watertight reinforced concrete pipe meeting the requirements of ASTM C361 or ASTM C76 for the reinforced concrete pipe riser and outlet barrel. Indicate size and class of pipe and joint type required. Provide dimensions and specifications for embedment of the riser into the concrete base. Include provisions for an access lid and steps in the riser for maintenance purposes.

50. Low Flow Orifice Protection. Remove the requirement for placement of stone around the perforated low flow pipe and provide a modified EW-11 at the inlet of the pipe. Time has shown that these stone aprons prove to be more of a detriment to the operation of the facility than a benefit to maintenance; therefore, these stone filters are no longer being permitted by our division.

51. Flared End Section. Provide a flared end section or end-wall at the principal spillway barrel outlet for wet pond #4 consistent with the outlet barrel material type.

52. Maintenance Plan. Provide a maintenance plan for the stormwater management/BMP facility. Section 23-10(4)(b) of the Chesapeake Bay Preservation Ordinance requires stormwater management plans to include a long-term schedule for inspection and maintenance of stormwater management/BMP facilities. The plan should be specific for extended detention wet pond facility.

53. Pond WSEL's. For all proposed and existing stormwater management facilities, show the design 1-, 2-, 10- and 100-year design water surface elevations on the plan sheets.

54. Storm Drain Computations. The storm drain computations provided with the submittal do not take the normal pool elevation into consideration in the HGL computation and therefore will not be evaluated any further at this time. Our division reserves the right to comment further on all portions of these systems on the next submittal.

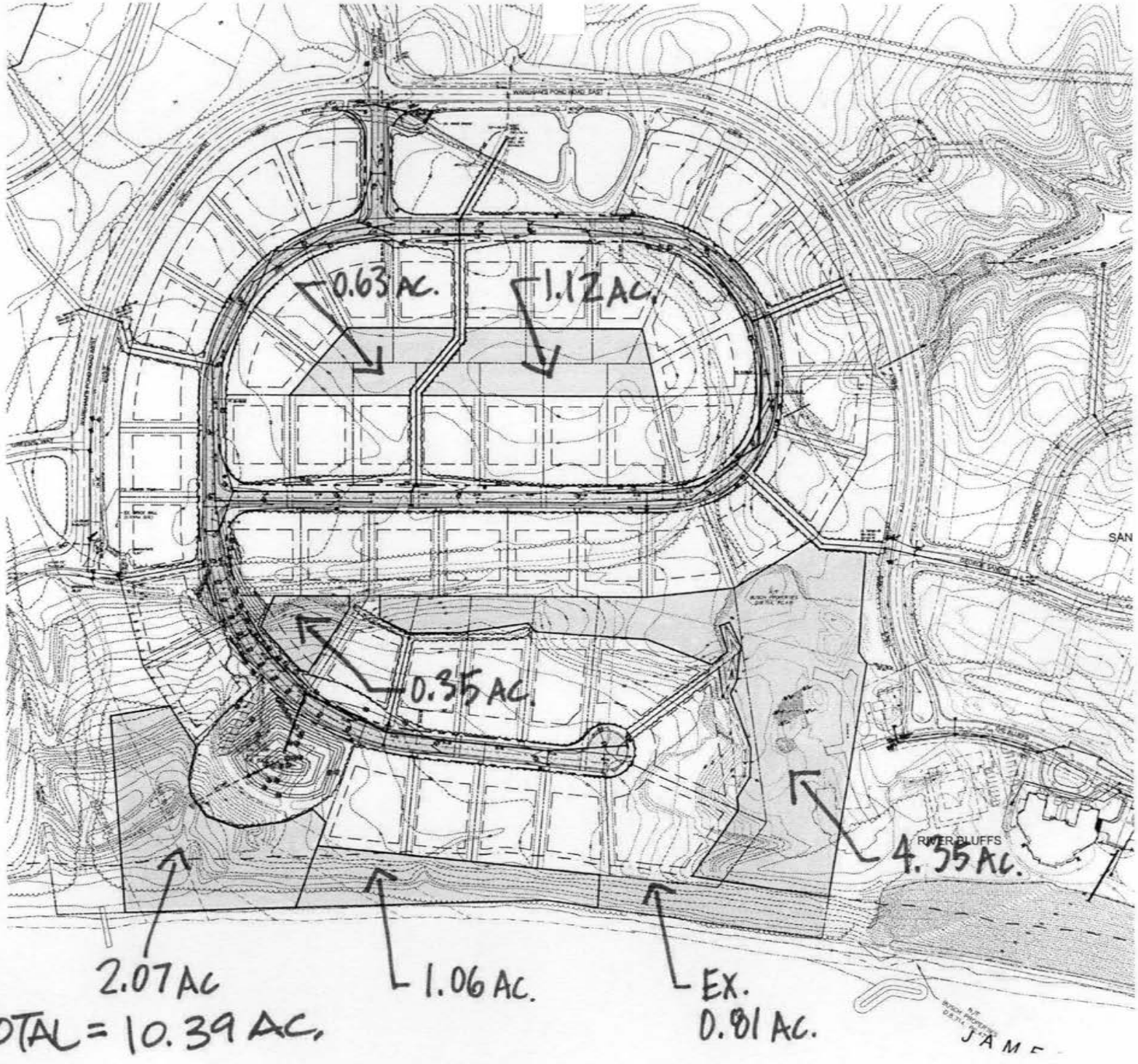
55. RCP Pipe. Show class required for all proposed onsite reinforced concrete pipe storm drains and culverts. Consider dead and live loads and cover depths during and following construction.

56. Pond Liner. The existing stormwater management facility to the north of the proposed development contains an impervious liner that must be cut and sealed around the proposed culvert. Information must be included in the [plan set to reflect all necessary procedures necessary to accomplish this.

57. IS-1 Shaping. Inlet shaping is recommended for all storm drain structures. Inlet shaping will help to minimize and prevent debris buildups due to changes in pipe alignment. Use notes or details to specify inlet shaping at all structures in accordance with VDOT Standard IS-1. In addition, if final depths of the inlets are greater than 4 ft., include provisions for steps in accordance with VDOT Standard ST-1.

58. Pond Landscaping. Provide a landscaping plan with details as necessary to address landscaping and stabilization in and around the BMP. Indicate any special plantings, vegetation, seeding, mulching, sequences of construction or stabilization methods required to support any and all deep water, shallow water, shoreline fringe, riparian fringe, floodplain terrace, upland zones and aquatic benches associated with the intended wet pond. Refer to Minimum Standard 3.05 of the VSMH for additional detailed guidance.

59. Geotechnical. Provide information (preliminary soil evaluations, logs, test results, reports, etc.) as necessary to substantiate that existing soils beneath the proposed wet extended detention stormwater management facility are adequate to sustain a permanent pool as intended for water quality purposes.


0.63 AC.
1.12 AC.
0.35 AC.
4.55 AC.
RIVER BLUFFS
2.07 AC
1.06 AC.
EX.
0.81 AC.
TOTAL = 10.39 AC.

COMMONWEALTH of VIRGINIA

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

Department of Game and Inland Fisheries

William L. Woodfin, Jr.
Director

June 21, 2005

Bill Voliva
Executive Vice President
100 Kingsmill Road
Williamsburg, VA. 23185

RE: Bald Eagle nest JC9802

Hello Bill,
Nest JC9802 has been inactive for 3 consecutive breeding seasons and is therefore considered abandoned. Therefore, Virginia Bald Eagle habitat protection guidelines no longer pertain to this nest site. Further, based on my site visit on Feb/1/2005, it was determined that no remnant of the nest structure is present in the nest tree. Due to the lack of nest material in the tree, the nest tree is no longer protected as well.

If you have any question please feel free to call me at anytime.

Sincerely,
Jeff Cooper
Wildlife Diversity Biologist

Subdivision 91-04
Marywood Subdivision
Staff Report for the July 6, 2005, Development Review Committee Meeting

SUMMARY FACTS

Applicant:	Jason Grimes, AES Consulting Engineers
Land Owner:	Centex Homes
Proposed Use:	Approval of 114 lots
Location:	Property adjacent Kingswood and Druid Hills neighborhoods
Tax Map/Parcel No.:	(47-2)(1-47)
Primary Service Area:	Inside
Parcel Size:	115.27 acres
Existing Zoning:	R-1, Limited Residential
Comprehensive Plan:	Low Density Residential
Reason for DRC Review:	The development proposes more than 50 lots
Staff Contact:	Matthew Arcieri Phone: 253-6685

STAFF RECOMMENDATION

Staff recommends preliminary approval subject to agency comments.

Environmental Issues

As part of its original review, the Environmental Division had recommended disapproval of the plan for five reasons:

- In accordance with Section 23-5 of the Chesapeake Bay ordinance, impacts to steep slope areas due to proposed site work and utilities were excessive for the project and it had not been demonstrated that these impacts have been minimized in an acceptable fashion.
- Impacts to RPA and RPA buffer areas were excessive for the project and had not been minimized in an acceptable fashion in accordance with the Chesapeake Bay ordinance
- In accordance with Section 23-10 and 19-32 of the Chesapeake Bay and subdivision ordinances, the Environmental Inventory for the project did not appear to depict all areas of 25 percent slopes or steeper making it difficult to determine if adequate buildable area exists.
- In accordance with Section 19-32 of the subdivision ordinance, lot-to-lot drainage concerns previously commented on had not been resolved in an acceptable fashion.
- The dam breach analyses as presented for the proposed dual 48-inch culverts at Oxford Road Station was performed using a "sunny-day" breach method.

The applicant has submitted revised plans which address the issues mentioned above. Specifically:

- It was adequately demonstrated that steep slope impacts were reduced in a satisfactory manner from 2.33 acres to 1.88 acres. This results in a reduction of 0.45 acres of steep slope impact. This was mainly due to site plan reduction strategies and the revised location for dry pond BMP # 2.
- It was adequately demonstrated that RPA and RPA buffer impacts were reduced in a satisfactory manner from 4.54 acres total (3.72 acres for RPA buffer; 0.82 acres for RPA) previously to 3.93 acres (3.20 acres for RPA buffer; 0.73 acres for RPA). This results in a reduction of 0.52 acres of RPA buffer impact and 0.09 acres of direct RPA impact respectively. This was mainly due to overall site plan reduction strategies, especially concentrated at the two major road/wetland crossings at Oxford Road and Braddock Road, and due to the revised location of dry pond BMP # 2. Dry pond BMP # 2 was moved upland out of perennial stream and RPA/RPA buffer area.
- Based on detailed survey and lot sketch information as provided by the plan preparer, there are no additional steep slope areas (25 percent or steeper) on the lots as previously identified.
- A master clearing and grading plan exhibit has demonstrated that the lot-to-lot drainage issues as previously raised could be solved during a block grading scenario or during the single-family building application process and did not need to be addressed at the plan of development level.
- The revised dam breach analyses demonstrates that the pipe culvert sizes as proposed at the two crossings on Oxford Road are satisfactory to keep flood elevations below proposed home locations.

It should be noted that although these five items are now considered addressed by the Environmental Division, many technical issues still remain for the project. These issues must be adequately resolved before a land-disturbing permit and final subdivision plan approval can be granted. Also, the project is subject to administrative and Chesapeake Bay Board review for impacts associated with the RPA and RPA buffer. This includes review of the revised WQIA (water quality impact assessment) which is currently under staff review. Chesapeake Bay Board items will be subject to public hearing.

Road Improvements

As part of this plan submittal, the applicant has proposed improvements to the Oxford and Spring Road intersections. At both intersections slopes will be regraded to improve site distance. At Spring Road, four feet of pavement will be added bringing the width of Spring Road at the intersection to 24 feet. 250 feet of Spring Road will be resurfaced.

Traffic Study

As part of their initial comments on this case VDOT requested that a traffic study be submitted for the proposed development. This study was submitted to VDOT on May 6, 2005. The study examined three scenarios:

Alternative 1 – All 114 lots accessing Jamestown Road via Oxford and Spring Roads
Alternative 2 – Separate access to Route 5 (John Tyler Highway) for 29 lots currently accessing Jamestown Road via Oxford Road.
Alternative 3 – An Oxford Road connection between Jamestown Road and John Tyler Highway.

VDOT's comments on this plan conclude that neither of the two alternatives considered represents a better proposal than Alternative 1. Therefore the current proposal with access onto Jamestown Road via Oxford Road and Spring Road is acceptable.

Based on the traffic study, staff believes that the plan as proposed represents the best possible access solution for the Marywood subdivision. Under all scenarios thru/left movements on Jamestown Road operate at a level of service (LOS) A. Diverting 29 lots onto John Tyler Highway reduces delay at the Oxford/Jamestown Road intersection by 1.2 seconds in the AM and 2.7 seconds in the PM. The level of service at this intersection is a LOS C in the AM and LOS D in the PM under all scenarios.

Approach	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
Jamestown Rd. NB At Spring Road Through/Left	AM – A (7.8) PM – A (8.8)	AM – A (7.8) PM – A (8.8)	AM – A (7.8) PM – A (8.8)
Jamestown Road NB At Oxford Road Through/Left	AM – A (7.9) PM – A (9.2)	AM – A (7.9) PM – A (9.2)	AM – A (7.9) PM – A (9.1)
John Tyler Hwy SB At Marywood Entrance Left-Turn lane	N/A	AM – A (8.3) PM – A (8.3)	AM – A (8.4) PM – A (8.6)
Oxford Road EB At Jamestown Road Left/Right	AM – C (23.0) PM – D (31.4)	AM – C (21.8) PM – D (28.7)	AM – C (18.7) PM – D (26.6)
Spring Road EB At Jamestown Road Left/Right	AM – C (17.0) PM – C (20.1)	AM – C (17.0) PM – C (20.1)	AM – C (15.9) PM – C (19.3)
Marywood Entrance WB At John Tyler Hwy Left/Right	N/A	AM – B (11.9) PM – B (12.9)	AM – B (13.0) PM – C (20.7)

Notation: Peak Hour - LOS (Delay)

Source: These values are compiled from the Traffic Impact Studies performed by Dexter Williams dated April 1, 2005, April 2, 2005, and April 20, 2005.

Given the minimal difference in LOS and delay, staff does not believe that shifting 29 lots onto John Tyler will have an appreciable affect on conditions on Oxford, Spring or Jamestown Road. Staff and VDOT continue to not support access onto John Tyler Highway. Such an access point will severely impact the Community Character Corridor by eliminating portions of the existing tree canopy to construct a left turn lane and creates another potential traffic conflict on a road already categorized as severely congested on the HRPDC's 2026 Transportation Plan.

VDOT minimum required sight distance for the intersections of Oxford and Spring Road with Jamestown Road is 390 feet. With the proposed intersection improvements, sight distance is 485 feet or greater in all directions. Staff has also asked VDOT to review sight distances for queued vehicles on Jamestown Road waiting to make a left turn onto Spring and Oxford. VDOT's analysis indicates that there is adequate sight distance for five queued vehicles. Based on the traffic study, the likelihood of five vehicles stacking on Jamestown Road based on the current LOS and delays provided in the traffic study is very low.

Matthew D. Arcieri

Attachments:

1. Plan (separate)
2. Agency Comments
3. Email from Bradley Weidenhammer to Matthew Arcieri dated June 28, 2005
4. Letter from Bradley Weidenhammer to Jack Fraley dated June 28, 2005
5. Citizen Comments

AGENCY COMMENTS

VDOT:

1. Please see the attached comments.

Environmental:

1. Please see the attached comments.

JCSA:

1. Please see the attached comments.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
WILLIAMSBURG RESIDENCY
4451 IRONBOUND ROAD
WILLIAMSBURG, VA 23188

PHILIP SHUCET
COMMISSIONER

JAMES W. BREWER
RESIDENCY ADMINISTRATOR
TEL (757) 253-4832
FAX (757) 253-5148

June 15, 2005

Matthew Arcieri
James City County Planning
Post Office Box 8784
Williamsburg, Virginia 23187

Ref: Marywood Subdivision – Traffic Impact Analysis
County Plan Number S-091-04
James City County

Dear Mr. Arcieri,

We have completed our review of the Traffic Impact Analysis that analyzed the traffic access alternatives for the above referenced proposed development, and offer the following comments:

- We concur with the submitted traffic impact analysis in that the surrounding roadway network will operate with an acceptable level of service (LOS) with this proposed development.

- Upon review of the alternatives provided within the submitted traffic impact study, no substantial difference in delay experienced was found in any one option. Therefore, each alternative is acceptable.

- Under the three alternatives presented, there is no appreciable difference in the LOS of the through movements on Jamestown Road (Route 31) or John Tyler Highway (Route 5) in the AM or PM peak hours.

  - The analyses for the Jamestown Road intersections assume one through lane in each direction with no turn lane improvements. Both directions maintain a LOS A in both peak hours under all three alternatives.
  - The analyses for the John Tyler Highway intersection assume one through lane in each direction as well as a left-turn lane for southbound traffic into the proposed development. The through movements experience no delay, and the left turn operates at a LOS A in the AM and PM peak hours under all three alternatives.

- Under the three alternatives presented, there is no appreciable difference in the LOS of the approaches (Spring Road and Oxford Road) onto Jamestown Road in the AM or PM peak hours.

- Under the two alternatives presented that provide access onto John Tyler Highway, the approach to John Tyler Highway is shown to operate at an acceptable LOS in the AM and PM peak hours.

- Jamestown Road and John Tyler Highway are both posted as 35 MPH facilities. The minimum required intersection sight distance for this speed per VDOT's *Minimum Standards of Entrances to State Highways* is 390-feet. With the intersection improvements proposed to Spring Road and Oxford Road, intersection sight distances in all directions will be 485-feet and greater, as shown on the site plan. The conceptualized John Tyler Highway intersection will have intersection sight distances in excess of 600-feet in both directions, per the narrative included in the traffic study.

- A factor in computing a roadway segment's overall capacity and LOS is the number of access points. It is VDOT's general preference that additional access points be minimized.

- Technical Document Appendix C of the *Hampton Roads 2026 Regional Transportation Plan*, published in June 2004 by the Hampton Roads Planning District Commission, provides estimates of average weekday traffic volumes and congestion levels in the year 2026 for over 1,300 road segments in the region. The 2026 traffic forecast for the subject segment of Jamestown Road is 9,000 vehicles with congestion classified as below moderate. The 2026 forecast for the subject section of John Tyler Highway is 17,000 vehicles with congestion classified as severe.

- Several issues presented in the narrative portions of the submitted traffic study, such as setback requirements, variances, easements, public opposition, etc., require County consideration and were not considered by VDOT in reviewing the submitted alternatives.

- VDOT will assist the County in providing additional signage, as appropriate, along existing roads that may provide access to the proposed development.

Should you have questions please contact me at 253-4832.

Sincerely,

Bradley A. Weidenhammer, EIT
Transportation Engineer

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
WILLIAMSBURG RESIDENCY
4451 IRONBOUND ROAD
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COMMISSIONER

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FAX (757) 253-5148

May 19, 2005

Matthew Arcieri
James City County Planning
Post Office Box 8784
Williamsburg, Virginia 23187

Ref: Marywood Subdivision
County Plan Number S-091-04
James City County

Dear Mr. Arcieri,

We have completed our review of the above referenced subdivision plan and offer the following comments:

1) The submitted Traffic Impact Study is currently under review in Hampton Roads District Traffic Engineering. The results of this review will be provided under separate cover.

2) The horizontal grade line elevation at SS #2-22 exceeds the ground elevation. Review and revise as necessary.

3) The VDOT standard drop inlets DI-3C and DI-3CC have a 6-foot minimum slot length. Review SS #2-5, SS #2-21, SS #2-22, and SS #5-5; revise calculations as necessary.

4) Drainage structures greater than 8-feet in depth require the double letter series of drop inlets. Revise SS #1-2, SS #1-3, SS #1-4, and SS #1-5 to reflect this.

5) The erosion control stone at the outlet end of storm sewers shall be VDOT Std. EC-1, Class I, D=24".

6) A standard safety slab (SL-1) shall be used on all manholes and drop inlets with heights greater than 12-feet. Review SS #2-4, SS #2-13, SS #2-15, SS #2-18, SS #3-8, SS #3-9, SS #3-10, SS #5-1, and SS #5-2. Also provide a detail on the plans.

7) It should be noted on the plans that the typical pavement sections provided on the plans should be used for bidding purposes only. Soil borehole and test reports must be submitted as outlined in Note 12 of the VDOT General Notes. This will indicate the present soil types and condition under the proposed roads, the groundwater elevation, and any need for possible soil treatment, undercut, geotextile fabric, drainage, etc. The final approval of a typical section will be based on this information.

8) It should be noted on the plans that all pipes 36" in diameter and greater will require location specific bedding designs. The approved thickness of the bedding material must be designed taking into account the type of soil, groundwater elevation, pipe size, and invert elevations. The consulting engineers may contact Hampton Roads District Materials if any assistance is needed in the bedding designs.

9) Note on the plans that backfill located within existing or proposed right of way must use VDOT Select Material, Type II, Minimum CBR 20.

10) Provide on the plans details for all standard items located within the right-of-way, to include DI-4FF, EW-2S, GR-2, SL-1, PB-1, etc.

11) Additional right-of-way shall be dedicated on Oxford Road from approximate Stations 16+00 to 17+50 for maintenance of the proposed fill slopes. The dedicated right-of-way should extend 10' beyond the toe of the slope.

12) Additional right-of-way shall be dedicated on Oxford Road around Station 13+00 RT for maintenance of the outfall pipe. The dedicated right-of-way must include all embankment to the pipe, and extend 10' beyond all VDOT maintained items.

13) The Department will only consider accepting the subdivision streets adjoining the proposed dam located on Braddock Road at approximate Station 22+50 if all of the provisions set forth in VDOT's Subdivision Street Requirements (24 VAC 30-91-10) are satisfied. The key items that must be addressed are agreements with the County, design review, right-of-way requirements, alternative access, and permits. A copy of the current "County-State Agreement for Maintenance of a Road Over a Dam" has been included for your reference. Additional information regarding the use of dams in subdivisions can be found in the VDOT Drainage Manual, Section 14.3.5 and Appendix 14D-1.

When the above comments have been addressed, please submit two sets of revised plans to this office for further review. Also, attach a letter noting what action was taken to correct the above comments and any revisions that may impact the right-of-way.

Should you have questions please contact me at 253-4832.

Sincerely,

Bradley A. Weidenhammer, EIT
Transportation Engineer

WAC/SIT/DEC

ENVIRONMENTAL DIVISION REVIEW COMMENTS
MARYWOOD SUBDIVISION
COUNTY PLAN NO. S – 91- 04
June 2, 2005

General:

1. Wetlands. A Land-Disturbing permit cannot be issued for the project until proper evidence is submitted that applicable wetland permits have been secured.

2. Dam Permit. Evidence of a construction permit from the Virginia Soil and Water Conservation Board will be required for BMP # 1 prior to final approval of the plan of development by the Environmental Division, unless the impounding structure is specifically excluded from the regulations. *(Note: A Land-Disturbing permit may not be issued for the project until approval of the project concept is verified from the DCR Division of Dam Safety.)*

3. Streetlights. Responses to previous comment # 3 are acknowledged. It appears the streetlight that was added to Oxford Court, Sta. 21+00 should be situated at the outer radius of the road, between Lots 111 and 112, rather than on the inside radius at Lot 101.

4. Interim Certification. The location of BMP #2 (Sediment Basin # 1) was reconfigured since the last plan submission. As this facility will now serve as a temporary sediment basin (Sediment Basin # 1), it will be subject to interim certification requirements. Similar to that for BMP # 1, ensure appropriate notes are provided on the plan to ensure this activity is performed.

5. Geotechnical. A geotechnical report (GET Solutions; WM04-194G, dated February 25, 2005) was provided for the project to address previous comment # 5. The report needs revised accordingly to reflect plan changes associated with BMP # 2/Temporary Sediment Basin # 1. The report still assumes that the BMP is situated further downstream and the sediment basin is situated upstream. Both are now situated at the upstream location and the design has changed.

Chesapeake Bay Preservation:

6. Resource Protection Areas. Be advised that though the proposed BMP requires substantial grading near the headwaters of the perennial stream, the elevation of the perennial stream origin, the normal water surface elevation of the facility is not being proposed above the elevation of the current elevation corresponding to the origin of the perennial stream; therefore, should groundwater be found to discharge into the BMP above the normal pool of the pond after it is installed, and pursuant to the definitions under section 23-3 of the James City County code for both water Bodies with Perennial Flow and Resource protection areas, a 100' buffer will be imposed from the normal pool elevation within the BMP.

7. This project will require a WQIA and administrative and/or Chesapeake Bay Board review and approval for impacts to RPA and RPA buffer areas. Previous assigned WQIA number was 010-04. *(Note: Although response to previous comment # 10 is acknowledged, it should be noted that not incorporating the requested items from the previous WQIA review into the plan at this time may create undue burden in the need to revise the plan of development at a later date due to conditions that may be placed on the Chesapeake Bay Exception approval.)*

8. Steep Slopes. Additional information was provided to address previous comment # 8 as it pertained to steep slopes. Two outstanding comment remains on this issue. First, previous comment # 8a requested additional information for the area around BMP # 1 and BMP # 2. No additional information was provided for these locations on the 11 x 17 inset maps to confirm if additional steep slope areas (and impacts) exist. Second, pursuant to previous comment # 8d there are still areas present which have 25 % slopes present on lots, which abut RPA buffer, that are not shown in conservation easement. These lots include: Lots 64, 66, 67 and 73. Correct the preliminary plat, plans and mass grading/drainage plan accordingly.

9. Avoidance and Minimization Memo. At the request of Division staff and pursuant to one of several reasons for not granting preliminary approval previously, the plan preparer prepared an "Avoidance and Minimization Memorandum" dated March 7, 2005. The purpose of this memorandum was to quantify and supply information to show how steep slope and RPA/RPA buffer impacts were minimized, reduced and avoided during the course of the project. A subsequent meeting was held between Division staff and the applicant/plan preparer on March 22, 2005 to review the memo and for Division staff to give guidance/direction on select issues. The memorandum was revised by the plan preparer dated April 1, 2005 and various changes incorporated into this revised plan set. The following comments pertain to the revised memorandum dated April 1, 2005:

   9a. Provide mention of the March 22nd meeting between the plan preparer, applicant and County Environmental Division staff.

   9b. The last item under "BMP # 2 Impacts" on page 7 is based on the previous design. There is no mention of the basin being moved upstream to it's current location (concurrent with the location of temporary sediment basin # 1) and resulting impacts to steep slope areas. It can also be mentioned that RPA and perennial stream impacts were avoided by moving the proposed BMP upstream.

   9c. The master lot clearing and grading plan as provided to address lot-to-lot drainage concerns is incomplete in many aspects. See stormwater management/drainage comments below for a complete explanation.

10. Steep Slopes. Previously our Division acknowledged receipt of a request to impact steep slopes dated September 22, 2004. This letter must be revised and resubmitted as steep slope impact quantities have changed and impacts at BMP # 2 are now different than before.

Erosion & Sediment Control Plan:

11. Phase I E&S. The following comments pertain to the Phase I erosion and sediment control plan as presented on Sheets 10, 11, 12 and 13. Comments, in general, are in a south to north direction.

   11a. Sediment Basins. Although not required, it may be easier and less confusing to provide consistency between BMP and Sediment Basin call-outs. Currently BMP # 1 is Sediment Basin # 2 and BMP # 2 is Sediment Basin # 1. Perhaps BMP # 1 should be TSB # 1 and BMP # 2 should be TSB # 2.

   11b. Sediment Trap # 1. Revise the configuration of diversions associated with temporary sediment trap # 1 (Sheet 10) so that they discharge into the trap. Currently the diversions are shown with outfalls below top of berm.

11c. Diversions. Pursuant to previous comment # 11c, the diversions across the sewer right-of-way should be labeled as right-of-way diversions (RWD). Diversion dikes and right-of-way diversions are two different measures used for separate distinct purposes. The same is also true for the diversion proposed along the sewer to the east of BMP # 1/TSB # 2.

11d. Sediment Trap # 2. Revise grading associated with temporary sediment trap # 2 on Sheet 10, to reflect top of berm at El. 48 rather than just peaking at El. 48. This may affect the limits of clearing and grading in that area.

11e. Concrete Channel. Outlet protection or other energy dissipation measures are required at the outfall end of the concrete-lined stormwater conveyance channel which conveys drainage from existing Kingswood subdivision into BMP # 1. The OP must be installed when the channel lining is installed (ie. Phase 1, final, etc.)

11f. Sediment Basin # 2. The schematic for TSB # 2 shows a 72-inch riser and a 48-inch CMP barrel. Combined with the configuration of the principle flow control structure for BMP # 1, it is a bit unclear if the temporary riser/barrel will connect to the permanent riser/barrel or if the temporary riser/barrel will be a separate system, independent of the permanent riser/barrel. Provide clarification.

11g. Sediment Trap # 7. Based on the current plan, access for land-disturbing at the end of Oxford Court will need to ford through the wet/dry storage area of temporary sediment trap # 7. The trap must be reconfigured to avoid this situation or provisions for proper access across the trap must be made (ie. CRS, temporary culvert/road fill, etc.).

12. Culvert. The note added to plan Sheet 25 to address previous comment # 17 should go on to say that "otherwise replacement is necessary". If the existing culvert is found to be in deteriorated condition, it should be replaced.

13. Dewatering. Provide general notes on the erosion and sediment control plan or sequence of construction to ensure that any necessary dewatering operations necessary during the land-disturbing phase are conducted in accordance with Minimum Standard & Spec. 3.26 of the VESCH.

Stormwater Management / Drainage:

14. Narrative. Paragraph 4 under the "stormwater management/Best Management Practices" section of the stormwater management narrative (page 2) needs to indicate that proposed onsite BMPs are designed to meet current County stream channel protection criteria which is 24 hour detention of the postdevelopment 1-year, 24 hour storm. The same is also true in the conclusion on page 3 of the narrative.

15. BMP Worksheet. Overall, responses and revisions to the BMP Point Display map and the BMP worksheet appear to address previous comment # 19. However, one small comment remains. The sum of drainage areas (onsite and offsite) for BMP # 1 on the BMP worksheet and the overall drainage plan Sheet 5 show the drainage area to BMP # 1 as 62.59 acres. However, Hydraflow hydrograph No. 1 (Area 3 to wet pond) shows 59.22 acres. Adjust pond hydraulics or the drainage map/worksheet accordingly to be consistent. *(Note: Even with the lower drainage area*

for BMP # 1, it would appear that 10 BMP points are achieved for the site based on the current configuration. Structural BMPs would achieve a total of 5.13 points and NOS would achieve 5.06 for a total of 10.19 BMP points.)

16. Lot-to-Lot Drainage. Response to previous comment # 45 is noted; however, the comment is not considered fully resolved. Based on the 1 inch = 50 ft. scale master (lot) grading and drainage plan, it would appear that there are still lot-to-lot drainage issues at the following locations: Lots 38 and 40 to Lot 41; Lot 49 to Lot 48; and Lot 82 to Lot 81. These areas are of a serious enough concern that we feel cannot be left to be resolved at the SF plan stage or by use of "global" 5 ft. perimeter HOA drainage easements.

17. BMP # 1. The following comments pertain to the revised plan for BMP # 1.

18a. The width of the aquatic bench proposed at BMP # 1 does not meet minimum requirements of the County BMP manual. Minimum width is 15 feet.

18b. Pursuant to the response to previous comment # 22c, a paved flume was provided in the back of BMP # 1. Computations in the design report show that flow depth in the channel at 0.96 feet for the 10-year storm. As the channel is only 1 ft. deep as constructed and due to the neighborhood "interconnectivity" issue as previously raised, it is preferred that this channel have freeboard as outlined in Item 3.1 of the *James City County Environmental Division, Stormwater Drainage Conveyance Systems, General Design and Construction Guidelines.* Provide a channel design with adequate freeboard (0.5 feet preferred; minimum 0.25 feet). Also, as previously stated, an energy dissipater is required at the end of the channel as design velocity for the 2-year storm event is shown at 23.41 feet per second. (*Refer to Item 6.2 of the Stormwater Drainage Conveyance Systems, General Design and Construction Guidelines).*

18c. Response to previous comment # 22e is acknowledged. Our Division will not require an intermediate slope bench and will concur with the response that a 3H:1V slope is not considered a "drop-off" for this specific review case, if a row of shrubbery landscaping is provided along the north side and just parallel to the nature trail. This row of shrubbery landscaping would be on the slope just off the trail and would serve as further separation between the trail, the existing subdivision and BMP # 1.

18d. Similar to previous comment # 19i, should this BMP not be able to be implemented as proposed, serious concern would exists about the ability for the site to achieve 10-BMP points under it's current layout and configuration. Please keep us informed on the progress of wetland permitting through the USACOE and DEQ and if this BMP is not able to be implemented as previously and currently presented.

19. BMP # 2. The following comments pertain to BMP # 2, a dry extended detention basin, which has a revised location since the last plan submission. The BMP was moved approximately 450 feet upstream to avoid sensitive steep slope, RPA buffer and perennial stream areas.

19a. It appears proposed Lots 51 and 53 will be subject to the pond buffer/setback.

19b. Computations in the design report show a 3-inch low flow orifice at El. 40; however, construction plan Sheet 30 shows a 4-inch orifice.

19c. Final routings for BMP # 2 (dry pond) for the 1-, 2-, 10- and 100-year postdevelopment design storm event could not be found in the design report.

20. BMPs. Provide drawdown calculations to clearly demonstrate that volumes for the postdevelopment 1-year, 24 hour storm achieve 24 hour detention through the 6-inch orifice for BMP # 1 and the 4-inch orifice for BMP # 2. Based on hydrograph summaries in the design report, inflow volume for BMP # 1 (wet pond) is 248,914 cubic feet and 42,021 cubic feet for BMP # 2.

21. MS-19. Previous comment # 24 does not appear to be adequately addressed. Although channel adequacy computations were provided in the design report for analyses Sections A, B, C, and D, our Division specifically requested to know if the channel sections as analyzed were based on field survey information. Based on information in the design report, the computational section depth (height) doed not appear to represent the low flow base channel (channel bed and bank) conditions as observed in the field but rather a full section including overbank areas. Although postdevelopment discharges at select location may meet pre-development discharges, it is unclear if actual channel adequacy determinations were based on applying determined flows to select surveyed channel locations and if applicable channel segments are adequate for erosion resistance and capacity for the 2-year design storm event.

22. Storm Drainage System. The following comments pertain to design computation and construction plan information for the onsite storm drainage piping system.

22a. Pipe construction information is not labeled for the 24-inch pipe segment between storm drainage structure SS # 2-3 and SS # 2-2.

22b. Construction plan Sheet 14 shows an 18-inch pipe segment between storm drainage structures SS # 3-3 and SS # 3-2; however, the design computations shows a 15-inch pipe. Plans and computations should be consistent with information.

22c. Pipe slope does not match between the computations and design plan Sheet 24 for the 15-inch pipe segment between storm drainage structure SS # 3-5 and SS # 3-4.

22d. Rim elevation information in the design report does not match the construction plan for storm drainage structures SS # 3-4A, SS # 3-3B and SS # 3-3A.

23. Master Clearing and Grading Plan. A 4-sheet, 1 inch = 50 ft. scale master clearing and grading plan exhibit was provided as a response to previous comment # 21 (lot-to-lot drainage issues) and to provide our Division with a visual aid as to the future anticipated extent of single family home clearing and drainage patterns. The following comments pertain to the master clearing and grading plan exhibit:

23a. The exhibit plan needs to show no further encroachment into RPA buffer beyond that shown on the plan of development. Revise the SF limits of clearing shown at Lots 48, 64, 87, 90, 102 and 104. Any encroachments into RPA buffer as a result of single-family construction would require the single-family applicant to pursue appropriate administrative and/or Chesapeake Bay Board waivers or exemptions.

23b. Work shown would require erosion and sediment control measures in accordance with the single-family building permit process.

23c. The master lot clearing and grading plans shows additional steep-slope impacts beyond that depicted on the plan of development at Lot 86. Appropriate approvals will be necessary from the Environmental Division during the single-family building permit application process.

23d. As discussed at previous meetings, it is encouraged that any block (ie. multi-lot) grading or erosion and sediment control plan as developed for single-family construction be submitted for advance review and approval by the Environmental Division before applicable, individual single-family building permit applications are submitted for review. It is the intent of the Division to ensure block grading/drainage plans are consistent with the master clearing and grading plan exhibit as provided in this submittal, before individual single-family plans are reviewed. In that manner, the single-families would then need to be consistent with approved block grading and drainage plans and will aid to expedited the review process and ensure consistency with the overall plan of development.

23e. Lots 12, 57 and 58 have no clearing limits.

23f. The "Master Grading plan" provided with the latest submittal may resolve many issues associated with Lot-to-Lot drainage (per previous comment # 21); however, it does now reveal additional concerns as to how the site will be controlled during land disturbing operations have been created. The intent of requesting a master grading plan was to promote drainage in a positive manner toward adequate discharge locations and away from single family residences while minimizing the impacts to steep slopes and other environmentally sensitive areas. Under the current plan, it appears that grading in some areas may cause erosion by concentrating drainage upland of steep slopes. Further, it appears that several lots are proposed for clearing but are not proposed to be graded. For example, only 14 Lots were required for drainage improvements relating to Lot-to-Lot drainage; however, 60 lots are proposed for clearing. Of these 60 Lots, only 37 are proposed to be re-graded. Additionally, the grading plan, as proposed, does not entirely address the lot-to-Lot drainage issues, but in some instances exacerbates it. For example, Lots 46, 47, 48, 49, 62, 63, 64, 65, 66, 67, 69 and 70 will direct stormwater more readily toward the adjacent units. Please review the proposed master grading plan for these issues and revise to prevent stormwater from being directed toward single family dwelling areas and the concentration of runoff onto steep slopes. *(Technically, Minimum Standard # 19 would apply to the onsite channels proposed at Lots 46/47, at Lots 63/64 and at Lot 81. Concentrated drainage from swale or channel outfalls cannot be directed onto slopes with no natural receiving channel.)*

23g. It should be clear that land-disturbing (clearing & grading) associated with the master (lot) clearing and grading plan exhibit will not authorized under the land-disturbing permit for S-91-04.

24. Geotechnical. In response to previous comment # 26, a geotechnical report (GET Solutions; WM04-194G, dated February 25, 2005) was provided for the project. The following comments pertain to the geotechnical report as it relates to the development plan.

24a. The geotechnical report assumes to be basing recommendations for BMP # 2 based on it's previous location. Revise the report and recommendations accordingly.

24b. It is unclear if checkmark item # 4 in Section 4.7 (Engineering BMP Evaluation) on page 14 of the report pertains to wet pond BMP # 1. If it does, it is unclear if BMP # 1 requires a liner.

24c. Ensure Notes # 4 and # 5 in the "General Notes for Construction of Stormwater Basins" on plan Sheet 30 are consistent with recommendations as offered on pages 14 and 15 of the geotechnical report. There appears to be some discrepancies in soil classifications for the dam cores and keys.

24d. Notes # 2 and # 3 of the "General Notes for Construction of Stormwater Basins" on Sheet 30 reference the need for an onsite geotechnical engineer to inspect and observe work. As the geotechnical investigation performed is clear and specific about implementation measures for dam fills as it relates to settlement and stability, ensure that the onsite geotechnical engineer has fully reviewed the geotechnical report and considers it's recommendation during the scope of onsite services. Add language to the notes as appropriate to reference the geotechnical report and link it to the onsite geotechnical engineer.

23e. The design plan or geotechnical report needs to specifically address or provide recommendations for seepage control methods for the dam at BMP # 1 (wet pond at Braddock Road). Due to the size and sensitivity of this dam as a road, dam construction should at a minimum follow Minimum Standards & Specs. 3.01 and 3.02 of the Virginia Stormwater Management HandbookUse of anti-seep collars in this specific application may not be

24. Dambreak Analyses. In response to previous comment # 25, a revised dam breach analyses report was provided (WEG; # 2311; May 17, 2005). The following comments pertain to the revised dam breach analyses.

24a. On Page 11 of Section 5.2 "BMP MC 039 (LaFontaine BMP)" of the report, the narrative indicates a breach flow of 452 cfs; however, the summary information in Figure 5-3 indicates 425 cfs. Clarify which breach flow was used to set the water surface elevation at 55.87 ft. MSL and the minimum finished floor elevation at 57.0 ft. MSL for the area upland of the dual 48-inch culvert system at Oxford Road Sta. 16+50.

24b. For the dam breach analyses from MC 038 (Riverside) to the single 48-inch culvert at Oxford Road Sta. 12+50, the computed water surface elevation at the upland side of the culvert was at 50.93 ft. MSL. This would appear to make the existing plat lot at Lot 22 Section A Druid Hills (4720700022; 221 Oxford Road). virtually unbuildable. It is advisable that this information be passed on to the current owner of that lot.

24c. The conclusion on page 16 of the report indicates that based on "existing structures and potential building area" that there are no restrictions to proposed Marywood lots upland of the first crossing (Oxford Road Sta. 12+50) and only one lot (proposed Lot 104) could be affected upland of the second crossing (Oxford Road Sta. 16+50). The preliminary and final plat for the subdivision should indicate minimum Finished Floor Elevation wherever the dam breach elevation crosses onto the subject lots. This would appear to affect Lot 87 (minimum required finished floor at 52 ft. MSL) and Lots 96, 97, 98, 99, 102, 103, 104 (minimum required finished floor elevation at 57 ft. MSL).

JAMES CITY SERVICE AUTHORITY

MEMORANDUM

Date: May 13, 2005

To: Matthew Arcieri, Planner

From: Timothy O. Fortune, P.E. - Civil Engineer

Subject: S-091-04, Marywood Subdivision (Construction Plans)

James City Service Authority has reviewed these plans for general compliance with the JCSA Standards and Specifications, Water Distribution and Sanitary Sewer Systems and have the following comments for the above project you forwarded on April 12, 2005. Quality control and back checking of the plans and calculations for discrepancies, errors, omissions, and conflicts is the sole responsibility of the professional engineer and/or surveyor who has signed, sealed, and dated the plans and calculations. It is the responsibility of the engineer or surveyor to ensure the plans and calculations comply with all governing regulations, standards, and specifications. Before the JCSA can approve these plans for general compliance with the JCSA Standards and Specifications, the following comments must be addressed. We may have additional comments when a revised plan incorporating these comments is submitted.

General Comments:

1. Per previous comment, the site plan will not receive JCSA final approval until approval has been received from the Department of Environmental Quality.

2. Indicate R/W widths on all plan sheets.

Sheet 4:

1. It appears that San MH #1-8 and #1-9 are incorrectly labeled as Drop MH's. Per the profiles, MH #1-4 is the only structure identified as a drop manhole. Verify and revise labeling accordingly.

Sheet 6:

1. Per previous comment, it appears the easement shown on Lot 49/50 (labeled as Lot 39/40 on previous submittal)is incorrectly labeled as a drainage easement. Verify and revise accordingly.

2. Remove the 30' JCSA Utility Easement label near Lot 62 as no easements are proposed in this area.

Sheet 8:

~~1.~~ Lot 11/12: The 30' JCSA Utility Easement shall be clearly separated from the Variable Width Drainage Easement. This shall be accomplished by extending the easements across one another (i.e. JCSA Utility Easement shall extend to the R/W line). Revise accordingly.

Sheet 9:

1. Per previous comment, remove the Natural Open Space Easement hatch from the existing JCSA Utility Easement across Lot 87.

2. Oxford Road Sta 12+70 (+/-): Clearly label and hatch the JCSA sewer line easement area to be extinguished within the R/W.

3. Show and label the existing JCSA Utility easement along the LS 4-3 gravity sewer located south of Oxford Road. Remove the Natural Open Space Easement hatch from the easement area.

4. Oxford Road Sta 13+00 RT: Label the proposed JCSA Utility Easement.

5. Clearly indicate the Owner of the 16' Permanent Easement shown north of Oxford Road.

6. Lot 105/106: Extend the proposed JCSA Utility Easement to the property line/existing JCSA Utility Easement on the La Fontaine property.

7. Label the existing JCSA Utility Easement along the La Fontaine property line.

Sheet 12:

1. The Applicant shall clarify if the 15"RCP for ST #4 will be removed after Phase 1 work is complete. Clearly state this on the plan and/or sequence of construction. If the culvert is to remain, show and label accordingly on the profiles. Appropriate clearances shall be maintained with proposed JCSA utilities.

Sheet 18:

1. Show sewer connections to Lots 48/49 as perpendicular to the main.

2. Label the JCSA Easement shown on Lot 49/50.

3. Remove water and sanitary sewer services provided to BMP #2.

4. It is recommended the Applicant verify if Lot 57 sanitary sewer lateral will conflict with the storm sewer system when extended at the same slope.

5. Sheet 18 matchline does not match into Sheet 19. Verify and revise accordingly.

6. Revise easement label between San MH #1-3 to #1-4 to reflect a "JCSA Utility Easement", not a drainage easement.

7. Per the profile, it appears MH #1-1 rim elevation will extend above finished grade approximately 2-feet within the VDOT R/W. Clarify why this is required and if acceptable to VDOT.

8. HRPDC/JCSA Detail Reference Table:
   a. It is not clear where JCSA detail S16.0 is used for this project. If not used, remove reference from the table. Revise table accordingly on all plan sheets.

b. Since JCSA detail S18.0 has not yet been adopted by JCSA, add a note referencing the detail on Sheet 33. Revise accordingly on all plan sheets.

9. Required Joint Restraint Table: Clearly indicate Oxford Road and Braddock Road (north of Spring Road) as looped systems and requiring joint restraint on both sides of fittings. Revise all charts provided on the plans to indicate this requirement.

Sheet 19:

1. Label all proposed JCSA Utility Easements along the north side of Braddock Road.

2. Relocate San MH #1-16 such that it is at the quarter point of the Braddock Road around Sta 28+50.

3. Connect Lot 14 lateral directly to San MH #1-17. Provide lateral invert as part of the manhole description.

4. Braddock Road and Rembold Way Materials table: Length of 8-inch waterline shown contradicts the plan. Verify and revise each accordingly.

Sheet 20:

1. Lot 11 & 12: Relocate sanitary sewer cleanouts southward to provide at least 10-feet separation from the building setback lines.

2. San MH #2-2 to 2-1 pipe material contradicts the profile. Verify and revise accordingly.

3. Refer to Sheet 8, Comment # 1 above.

4. Relocate Lot 8 sanitary sewer lateral to Sta 18+02 (+/-) to eliminate a conflict with the proposed storm sewer system.

5. Relocate Lot 5 sanitary sewer cleanout to the R/W line. Provide a JCSA Utility Easement specific for the fire hydrant. Revise the "Variable Width Drainage and JCSA Utility Easement" to only a "Variable Width Drainage Easement".

6. Relocate Lot 4 water meter to Spring Road as a dual connection with Lot 3. This will eliminate an apparent conflict with the storm sewer system along Braddock Road.

7. Braddock Road Sta 10+29 LT and Sta 10+10 RT: The Applicant shall either provide thrust blocks on the proposed 90-degree elbows or indicate the length of existing main to be exposed and joint restraint applied.

8. Clarify why a 6-inch lateral is proposed to Lot 3. Unless capacity/velocity related, revise plan to show a 4-inch pipe. Pipe material shall be DIP.

9. Revise the force main location along Spring Road to be at the quarter point. Revise the force main layout at the Braddock Road/Spring Road intersection to use 45-degree bends east of San MH #2-6 in lieu of the 90-degree bend shown.

10. Show and label the existing force main along Spring Road up to the manhole connection. Clearly indicate the existing force main shall be removed, not abandoned in place.

11. Spring Road Sta 15+00 to Sta 16+80 (+/-): Clearly indicate requirements (i.e. saw cutting, pavement demolition, overlay areas, etc) for installing the waterline along existing Spring Road. What does the hatch shown indicate?

12. All existing water services along Spring Road shall be replaced with new services between the proposed water main and water meter. Revise notes on the plan accordingly.

13. The proposed waterline connection on Spring Road specifies a cut-in sleeve while the profile shows a tapping sleeve and valve. Which is correct?

14. Label the proposed 25' JCSA Utility Easement provided along the LS 4-3 access road. Clearly indicate the existing 15' easement as being extinguished.

15. Revise the CG-9A entrance such that an asphalt entrance is provided. Revise accordingly.

16. Revise the note provided near the Spring Road waterline connection to require removal of the 6-inch waterline, not abandonment. Also, revise the note such that it is clear that the contractor will make the connection (as written, it could be inferred that JCSA will perform this work which is not the case). Revise accordingly.

17. Provide the following notes on the plan which specify JCSA requirements for connection into the system:
    a. The Engineer and Contractor shall have a coordination meeting with JCSA personnel at least 10 business days prior to the planned shutdown and provide a written schedule of work. The schedule shall be a detailed work plan including valve operation, installation procedures and testing processes. An anticipated timeline of the shut down shall also be provided by the Contractor. JCSA shall review the schedule and either approve it or schedule a meeting with the engineer and Contractor within 3 business days following receipt of the plan to work with the Contractor to satisfactorily modify it.
    b. The proposed waterline shutdown shall not occur on a Monday, Friday or weekend.
    c. The Contractor's JCSA contact for this work is Stuart Burcham at 592-1809. Contractor shall contact Mr. Burcham during normal business hours to schedule the coordination meeting and waterline shutdown.
    d. Contractor shall excavate the points of connection and existing utility crossings to determine pipe materials and field conditions. This shall be included in the plan of the work.
    e. It will be the responsibility of the Developer/Contractor to contact all residents 48 hours in advance whose service could be interrupted by the shutdown.

18. Spring Road Sta 12+83: Provide a JCSA Utility Easement around the proposed fire hydrant as it will extend beyond the proposed R/W (based on 7.5' min from F/C).

19. Revise the pump station shut down note as follows:
    a. Include LS 3-7 as part of the note since this station will also be shut down during force-main tie-in.
    b. Add the requirement for the bypass pumping plan to be submitted to the "...*design engineer and* JCSA for approval...".

Sheet 21:

1. Show and label the existing JCSA Utility easement along the LS 4-3 gravity sewer (behind existing Lots 1 & 2).

2. Label the JCSA Utility Easements located around San MH #5-5 and #5-6.

3. Sta 20+70: Relocate fire hydrant to the Lot 111/112 common property line.

4. Add a note requiring Lot 106 water meter to maintain a minimum separation of 18-inches with the proposed sidewalk. Revise the JCSA easement accordingly to accommodate this requirement and installation of the meter.

5. Indicate the existing 12-inch waterline easement width on the plan.

6. Refer to Sheet 9 Comment #6 above.

7. Sta 12+15 Oxford Road: Graphically show the fire hydrant as 7.5' from the face of curb. Provide a JCSA Utility Easement accordingly. Grade around the hydrant such that it is not located on the fill slope.

Sheet 26:

1. General Comment: Show all waterline reducers as eccentric reducers.

2. Marywood Drive Profile:
    a. San MH #1-8: Provide invert out as part of the description.
    b. The pipe slope noted between San MH #1-8 to 1-9 appears incorrect. Verify and revise accordingly.
    c. Revise the force main saxophone to be inverted per the detail on Sheet 34. Revise the connection elevation, etc to reflect this detail and reference Sheet #34 as part of the description. A minimum cover of 3-feet shall be provided over the main.

3. Spring Road Profile:
    a. It appears that 3-feet minimum cover is not maintained over the proposed waterline at the profiled high point. Verify and revise accordingly.
    b. Lower Lot 3 sanitary sewer lateral such that it passes under the proposed waterline and maintains 18-inches vertical separation with the waterline and force main. This will permit the waterline profile to maintain 3-feet of cover throughout. Revise accordingly.

c. Show and label a force main saxophone prior to connection to the existing manhole.
d. Either provide the required force main joint restraint lengths on the profile or add a note requiring the force main to be restrained throughout.

4. Rembold Way Profile:
   a. Eliminate San MH #1-7. It appears that approximately 8-feet horizontal separation can still be maintained between the proposed water and sewer lines. Given the separation and depth of the sewer around 12-feet, this will meet JCSA's requirement and eliminate a potential source of I&I.
   b. Verify computed depth of San MH #1-8.
   c. San MH #1-6 rim elevation contradicts the plan. Verify and revise accordingly.

Sheet 27:

1. Sta 11+00 (+/-): It appears the sanitary sewer lateral to Lot #1 will not maintain 3-feet of cover. Verify and revise accordingly.

2. Clearly indicate fittings for the force main alignment with a "FM" label. Either provide the required force main joint restraint lengths on the profile or add a note requiring the force main to be restrained throughout.

3. Sta 15+40: Fire hydrant location contradicts the plan. Verify and revise accordingly.

4. Provide the DIP hatch convention for consistency among the plans. Coordinate pipe material labeling to be consistent between the plan and profile.

5. It appears the pipe deflection shown at Sta 25+25 (+/-) exceeds that permitted by HRPDC standards (½ of that permitted by the manufacturer). Verify and if necessary, provide the appropriate fittings for the vertical offset.

6. Sta 26+56: Fire hydrant location contradicts the plan. Verify and revise accordingly.

7. It appears that 18-inches vertical separation will not be maintained between the lateral serving Lot 56 at the storm sewer crossing. Verify and revise plan/profile accordingly.

Sheet 28:

1. San Sewer from Mary wood Drive:
   a. Pipe material listed between San MH #1-3 to #1-2 contradicts the plan. Verify and revise accordingly
   b. Revise San MH #1-0 to be a "Proposed" Straddle MH (incorrectly labeled as existing).
   c. Revise the note requiring the Contractor to locate the existing force main "...prior to installation of the *gravity sewer main*", not the force main.

2. San Sewer off of Braddock Road:
   a. Provide the DIP hatch convention for consistency among the plans. Coordinate pipe material labeling to be consistent between the plan and profile.
   b. Graphically show "EX MH" as existing.

Sheet 29:

1. Oxford Road Profile:
   a. Verify the pipe slope/inverts between San MH #5-2 to 5-1. Revise accordingly.
   b. Pipe slope between San MH #5-4 to 5-5 contradicts the plan. Verify and revise accordingly.
   c. Revise Lot 100 sanitary sewer lateral such that 18-inches minimum vertical clearance is provided with the waterline crossing.
   d. The Applicant shall verify if San MH #5-6 rim elevation is correct based on the proposed typical section and profile grade shown on the plan. Verify and revise accordingly.

Sheet 33:

1. Per note 5 of the Pipe Bridge Detail, the Applicant shall submit pipe bridge design calculations sealed by a Professional Engineer registered in VA for JCSA's record.

Sheet 34:

1. The JCSA General Notes for Grinder Pumps are no longer a part of the JCSA General Notes. It is the Applicant's discretion to use these notes, however references to JCSA shall be removed from the General Notes.

2. Grinder Pump Connection to Sewer Cleanout detail: Revise the detail to eliminate the ball valve and valve box. Graphically show the cleanout at the property line.

Sheet 36:

1. The Applicant shall clarify the vertical datum used for the plan views. Existing contouring and structure elevations shown are not reflective nor consistent with the project area.

2. Jamestown Road/Spring Road Improvements:
   a. The existing waterline location and size shown along Spring Road are not reflective of JCSA as-builts (copy attached for your reference). The Applicant shall field verify and revise plan accordingly.
   b. Show and label the existing force main and waterline along Jamestown Road.
   c. The Applicant shall confirm that the proposed VDOT MH and storm sewer will not conflict with the existing waterlines and force main in this area. The Applicant shall have these utilities located as part of the design process, not during construction.
   d. A new fire hydrant assembly shall be provided at the location indicated (existing fire hydrant not to be reused). If hydrant is to be located behind the ditchline as shown, the Applicant shall determine if a culvert is required per HRPDC detail WD_07.

3. Jamestown Road/Oxford Road Improvements:
   a. Show and label the existing waterline along Jamestown Road. The Applicant shall field locate the line and determine if a minimum of 3-feet of cover will be maintained after ditch relocation.

Water Data Sheet:

1. Section 6: It appears that pipe lengths shown for 6 and 8-inch piping do not agree with plan lengths. Verify and revise accordingly.

Sanitary Sewer Systems Data Sheet:

1. Section 4: Revise to reflect the correct lift stations serving the project area (LS 3-6, 3-7 & 4-3).

2. Section 6:
   a. 8-inch PVC and DIP pipe lengths noted appear not to match profiled lengths. Profiles indicate a total length (PVC & DIP) of 6514 lf. Verify and revise accordingly.
   b. The 8-inch force main length appears not to match the plan. Verify and revise accordingly.
   c. JCSA requires any sanitary sewer laterals 6-inch in size (i.e. dual laterals) to be included as part of the tabulation block. Provide accordingly.

3. Section7: Verify the number of 48 and 60-inch manholes. JCSA totaled twenty four 48-inch MH's and nine 60-inch MH's. Verify and revise accordingly.

Water Distribution System Analysis:

1. Include fire flow tests as part of the model report.

2. Summary Worksheet: The Max Demand w/15% irrigation for node J-1 appears to be incorrect (should be 37.3 gpm). Revise worksheet and model scenarios accordingly.

3. Max Day Plus Fire Flow - Fire Flow Report: Description of # homes per node contradicts the Summary Worksheet. Verify which is correct and revise accordingly.

4. Detailed Report for Pump Definition - Oxford Road Hydrant: The Max Operating Head and Max Operating Discharge do not reflect the fire flow test data required to develop the 3-point curve (plotted point uses head for Q_{20} and max discharge for Q_{10}). Revise accordingly.

5. The Detailed Reservoir Reports for Braddock Road and Oxford appear to indicate no inflow/outflow from those analysis points. Please clarify if this is correct with appropriate explanation.

6. Provide a model scenario which applies a 1000 gpm fire flow at node J-8. It is recognized that the system will connect to the 12-inch waterline along La Fontaine, however an assessment needs to be made as far as system dynamics for the existing water system.

Please call me at 253-6836 if you have any questions or require any additional information.

Matthew Arcieri

From: Weidenhammer, Bradley A. [Bradley.Weidenhammer@VDOT.Virginia.gov]
Sent: Tuesday, June 28, 2005 12:29 PM
To: Matthew Arcieri
Cc: Marvin Sowers; Allen Murphy; John Horne; Brewer, Jim (Williamsburg)
Subject: RE: Comments - Marywood Traffic Study

Matt:

Responses to your questions based on the submitted traffic study:

1) Staff would like further analysis of vertical sight and stopping distance for queued vehicles on Jamestown Road at both Spring and Oxford Road. Will queued vehicles on Jamestown Road impact safety or level of service?

Response: The standard methodology for determining queue lengths was used in the study. In general, the level of service/delay will dictate the queue lengths, rather than the queue lengths dictating level of service/delay. The level of service determination methodology for northbound Jamestown Road through movements presented in the study do take into account queuing, therefore queued vehicles will have no further impact on the LOS over what is presented in the study.

e study shows that the 95th percentile queue lengths for the northbound ...nestown Road through movements will be less than 1 vehicle in each of the scenarios presented. The required intersection sight distance for a 35 MPH 2-lane facility based on VDOT's Minimum Standards of Entrances to State Highways is 390-feet. This requirement encompasses both horizontal and vertical components, and must be obtained both from the intersection as well as to the left-turn position at the entrance. The submitted site plans show that there will be 485-feet of sight distance from the Spring Road intersection and 500+ feet of sight distance at the Oxford Road intersection. Given the standard assumption that a queued vehicle takes up approximately 20-feet, there is adequate sight distance for a minimum of 5 queued vehicles based on the information presented. Further analysis is required to determine the implications of sight distance with queued vehicles, as each queued vehicle will represent a new point from which to measure the sight distance.

We also note that AASHTO's stopping sight distance requirements are less than VDOT's intersection sight distance requirements. Using a conservative design speed of 45MPH, the required stopping sight distance per AASHTO is approximately 360-feet.

2) Staff would like further clarification of the third bullet point:

/hen the letter states there is no "appreciable difference" in level of service, how does this translate into difference in actual level of service and delay at the three potential intersections.

Response: Please see the attached table with the compiled results from the analyses. This should aid in comparing the impacts (level of service and delay) of each alternative on each specific approach.

<Marywood Alternatives.doc>>

- In the statement on John Tyler Highway, at what level of service does the through movement operate at?

Response: Assuming construction of a southbound left-turn lane on John Tyler Highway, both the northbound and southbound through movements would experience no delay, thus operating at a LOS A.

3) On March 24, 2005 John McGlennon provided a letter to VDOT requesting a formal public hearing by VDOT to hear and address citizen concern. What was VDOT's final decision on this matter?

Response: I have recently provided you with a letter from James Brewer to Mr. McGlennon dated May 9, 2005 concerning this matter. Let me know if you would like additional copies.

Let me know if you have any further questions.

Bradley A. Weidenhammer, EIT
Transportation Engineer
illiamsburg Residency
51 Ironbound Road
Williamsburg, VA 23188
757-253-4832

-----Original Message-----
From: Matthew Arcieri [mailto:MATTHEWA@james-city.va.us]
Sent: Friday, June 17, 2005 8:54 AM
To: Weidenhammer, Bradley A.
Cc: Marvin Sowers; Allen Murphy; John Horne
Subject: RE: Comments - Marywood Traffic Study
Importance: High

Brad: We are in receipt of your June 15, 2005 letter on the Marywood Traffic Impact Analysis. At your earliest convenience, could you please provide us with the following additional information:

1) Staff would like further analysis of vertical sight and stopping distance for queued vehicles on Jamestown Road at both Spring and Oxford Road. Will queued vehicles on Jamestown Road impact safety or level of service?

2) Staff would like further clarification of the third bullet point:

- When the letter states there is no "appreciable difference" in level of service, how does this translate into difference in actual level of service and delay at the three potential intersections.

- In the statement on John Tyler Highway, at what level of service does the through movement operate at?

On March 24, 2005 John McGlennon provided a letter to VDOT requesting a formal public hearing by VDOT to hear and address citizen concern. What was VDOT's final decision on this matter?

Thank you in advance for all your work on this project. I look forward to your response.

-Matt

Marywood Subdivision
Access Alternative Comparisons

Alternative 1 – Current access plan
Alternative 2 – Separate access to Route 5 for 29 North Lots
Alternative 3 – Oxford Road connection between Route 31 and Route 5

Approach	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
Jamestown Rd. NB At Spring Road Through/Left	AM – A (7.8) PM – A (8.8)	AM – A (7.8) PM – A (8.8)	AM – A (7.8) PM – A (8.8)
Jamestown Road NB At Oxford Road Through/Left	AM – A (7.9) PM – A (9.2)	AM – A (7.9) PM – A (9.2)	AM – A (7.9) PM – A (9.1)
John Tyler Hwy SB At Marywood Entrance Left-Turn lane	N/A	AM – A (8.3) PM – A (8.3)	AM – A (8.4) PM – A (8.6)
Oxford Road EB At Jamestown Road Left/Right	AM – C (23.0) PM – D (31.4)	AM – C (21.8) PM – D (28.7)	AM – C (18.7) PM – D (26.6)
Spring Road EB At Jamestown Road Left/Right	AM – C (17.0) PM – C (20.1)	AM – C (17.0) PM – C (20.1)	AM – C (15.9) PM – C (19.3)
Marywood Entrance WB At John Tyler Hwy Left/Right	N/A	AM – B (11.9) PM – B (12.9)	AM – B (13.0) PM – C (20.7)

Notation: Peak Hour - LOS (Delay)

These values are compiled from the Traffic Impact Studies performed by Dexter Williams dated April 1, 2005, April 2, 2005, and April 20, 2005.

File

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
WILLIAMSBURG RESIDENCY
4451 IRONBOUND ROAD
WILLIAMSBURG, VIRGINIA 23188

PHILIP SHUCET
COMMISSIONER

JAMES W. BREWER.
RESIDENCY ADMINISTRATOR
TEL (757) 253-4832
FAX (757) 253-5148

May 9, 2005

Mr. John J. McGlennon
Board of Supervisors
Jamestown District
Post Office Box 8784
Williamsburg, Virginia 23187

Reference: Marywood Subdivision

Dear Mr. ~~McGlennon~~ John:

This is in reference to your letter received in this office on April 27, 2005, requesting the residency solicit public input, including a possible hearing, prior to the issuance any land use, construction, or access permits.

As we discussed by telephone, this subdivision is not an issue that the Virginia Department of Transportation would become involved, as far as a public hearing is concerned. It is the responsibility of the local government to control land development activity and establishes new streets, the relocation of existing streets and the criteria governing the development of such streets.

VDOT only establishes the minimum standards that must be satisfied for a new subdivision streets to be considered for maintenance by the Department as part of the Secondary System. When VDOT reviews a set of construction plans, we only make recommendations to the county as to what we feel is a minimum standard for a road.

We received the Traffic Impact Study on May 6, 2005 from the developer, which shows the traffic impact of this subdivision. Once we have had the opportunity to review this data we will submit our findings to the county. In the meantime, should you have additional questions or recommendations concerning this matter, please give me a call at 253-4832.

Sincerely,

James W. Brewer
Residency Administrator

cc: Mr. Dennis Heuer, P.E.
Mr. C. M. Clarke

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
WILLIAMSBURG RESIDENCY
4451 IRONBOUND ROAD
WILLIAMSBURG, VA 23188

PHILIP SHUCET
COMMISSIONER

JAMES W. BREWER
RESIDENCY ADMINISTRATOR
TEL (757) 253-4832
FAX (757) 253-5148

June 28, 2005

Mr. Jack Fraley, Chairman
JCC Development Review Committee
Post Office Box 8784
Williamsburg, Virginia 23187

Ref: VDOT Review of Marywood Traffic Study

Dear Mr. Fraley:

At the Development Review Committee (DRC) meeting on January 12, 2005, the DRC asked for the status of VDOT's review of the Marywood Subdivision. We stated that VDOT continues to recommend to the County that a traffic study be submitted for the development. It is my understanding that one of the reasons for the deferral of this case was for the applicant to provide a traffic study to VDOT for review. After review, VDOT would then provide comments to the County staff.

Since the January 12, 2005 DRC meeting, the following has occurred:

1. VDOT met with the applicant, their consultants, and County staff on March 21, 2005 to determine the scope of work for the traffic study.
2. The traffic study was submitted to the VDOT Williamsburg Residency on May 6, 2005, and forwarded to Hampton Roads District Traffic Engineering for review.
3. District and Residency personnel reviewed the traffic study, and comments were provided to County staff on June 15, 2005.

In brief, VDOT found that each of the three alternatives presented for subdivision access is acceptable, and that there was not any appreciable difference in traffic delay and level of service between the three alternatives. The full text of our findings can be obtained from County staff. Should you have any questions please contact me at 253-4832.

Sincerely,

James W. Brewer

James W. Brewer
Residency Administrator

Matthew Arcieri

From: Tony Opperman [aopperman@cox.net]

Sent: Wednesday, May 25, 2005 8:59 PM

To: John J. McGlennon

Cc: SSHues@aol.com; Waldeckj@aol.com; haislip@verizon.net; anne@mooring.com; Matthew Arcieri; jlfraley@cox.net; John Horne; david.steele@vdot.virginia.gov; jim.brewer@vdot.virginia.gov

Subject: Comments on Marywood Traffic Study

John -

I wish to take this opportunity to offer some comments on the Marywood traffic study prepared by Centex Homes, AES, and DRW Consultants. First of all I wish to thank Matt Arcieri of the county's planning staff for providing a copy of the study to Shereen Hues promptly after it was initially received by VDOT.

Here are my major observations:

1. Level of Service (LOS) B is fundamentally better than LOS C or D.

The study reaches a conclusion that a connection to Route 5, if only for 29 of the 115 proposed homes, "is less desireable" than connections to Jamestown Road by Spring and Oxford Roads. Yet the study factually indicates that the LOS for Spring and Oxford will be C and D, respectively, a contradictory conclusion. The facts that support a LOS B for a Route 5 connection logically can only support a conclusion that Route 5 is the better place to put traffic from Marywood, at least in part and perhaps in whole (see below). In addition, the actual traffic counts conducted for Route 5 conclusively demonstrate that both AM and PM existing peak-hour turning movement volumes are worse along Jamestown Road than on Route 5 (April 2, 2005 Memo, Exhibits A1 and A2). This fact further undermines any remaining rationale for the overall conclusion that Route 5 is somehow "less desireable" for Marywood traffic.

2. The existing safety defiency at the intersection of Jamestown and Spring Roads caused by poor sight distance was not considered.

Exhibits D and E in DRW's April 1, 2005 memo show that there will be peak-hour increases in turning motions at Spring and Jamestown Roads by 28% (AM, northbound from Spring), 105% (PM, westbound from Jamestown south), and 39% (PM, westbound from Jamestown north). This disproportionately large increase will exacerbate the hazardous condition caused by poor sight distance along Jamestown Road at Spring and will be made worse by disproportionate increases in turning motions at the same peak hour at Oxford. While traffic models may still consider this situation to be LOS C, models cannot completely replicate actual on-the-ground conditions which already are hazardous, especially when travelling north on Jamestown Road only to unexpectedly encounter a vehicle trying to make a left-hand turn on Spring (the same location that will be impacted by a 105% increase in turning PM turning actions).

3. The additional impact of construction vehicles using residential streets and interfering with 2007 traffic flow was not considered.

Residential traffic is not all that will be generated by the construction of Marywood. Over the next couple of years a considerable flow of construction traffic, including a significant proportion of large vehicles, will be using Spring, Oxford, and Jamestown Roads. None of those vehicles are reflected in the traffic study nor in the subsequent LOS conclusions. The estimated LOS of C and D for Spring and Oxford proposed by the study will likely be far worse during a lengthy construction period that will extend into the 2007 celebration period when use of Jamestown Road will be higher than normal.

4. The traffic counts made for the AM peak hour at Jamestown Road (April 1, 2005 memo, Exhibit A1) may be skewed low.

ose counts were made on March 29, 2005. That day coincided with the week-long spring break for the Williamsburg-mes City County School system, a period in which schools were closed, parents took off work, and there were fewer vehicle trips made. This traffic count needs to be re-done to be considered valid.

5. The option for an exclusive Route 5 entrance for all of Marywood was not considered.

There are no empirical facts presented concerning the traffic ramifications of an exclusive Route 5 entrance for all of Marywood. If the projected LOS for 29 homes is B, what would be the LOS for all 115? As noted above, LOS B is still demonstrably better than C or D. I have no doubt that an exclusive Route 5 entrance for all of Marywood would 1) cost more, 2) have engineering challenges, and 3) cause greater traffic impacts to Route 5 (perhaps resulting in a LOS C comparable to that of Jamestown Road). What's needed are facts, and this study should not be considered complete or acceptable until those facts are provided. The current plans prepared by AES depict minimal improvements to the width and turning radii for Spring Road at its intersection with Jamestown Road, an inadequate concession that further emphasizes the need for a factual analysis of putting all of the traffic onto Route 5.

6. Most of the points made by Marc Bennett and Jason Grimes in their April 15, 2005 memo to Dexter Williams actually reflect that Route 5 is a better place to put Marywood traffic than Jamestown Road.

Specifically: 1) there are at least as many residential entrances on Jamestown Road as Route 5; 2) both roads have the same speed limit; 3) Route 5 actually has a wider ROW width than Jamestown Road; 4) Route 5 has better sight distance than Jamestown Road - especially at Spring Road; 5) a buffer width reduction to allow Marywood traffic on Route 5 may be a fair exchange; 6) the stated concern about the Colonial Pipeline is speculation, not fact; 7) there are at least as many "undesirable" design elements for connections to Jamestown Road, especially involving safety and sight distance; 8) Jamestown Road is also a Community Character Corridor; 9) more current residents will be impacted by Marywood traffic in existing neighborhoods than any number along Route 5; and 10) perceived citizen opposition is not relevent in a factual analysis of traffic impacts (also see below).

7. Important decisions by public agencies deserve real opportunities for public involvement.

The argument repeated in the traffic study that there will not "be any less objection with this (Rt. 5) road connection that the residents of Kingswood have provided" is irrelevant to a factual analysis of traffic impacts. At best, such a statements is speculative since the project sponsors have not sought public involvement nor has VDOT consented to involvement of the public in transportation decision-making. At worst, it reflects a condescending attitude from Centex that opposition from existing neighborhoods is somehow less important than the imagined opposition from other citizens. It certainly reflects the ongoing deficiency in fostering real public involvement in decisions by public agencies over the use and operation of public highways. The best way to correct this is to allow all members of the public to have a formal opportunity to express their views. If VDOT won't do it, then James City County should take the lead on behalf of its citizens.

That said, I do appreciate your continued willingness to listen to the views of your constituents and to work on behalf of our interests. I look forward to attending the DRC meeting on June 1.

Tony Opperman

Matthew Arcieri

From: Tony Opperman [aopperman@cox.net]

Sent: Thursday, June 30, 2005 9:26 PM

To: John J. McGlennon

Cc: Joe McClain; SSHues@aol.com; Waldeckj@aol.com; haislipjr@verizon.net; anne@mooring.com; jlfraley@cox.net; Matthew Arcieri; John Horne; bradley.weidenhammer@vdot.virginia.gov

Subject: Marywood Traffic, County Authority

John -

You are probably aware by now that VDOT has reviewed the CENTEX traffic study and has stated that any of the alternatives presented are acceptable to them. By finding all of the alternatives acceptable - even resulting in a level-of-service (LOS) D rating at Oxford and Jamestown - VDOT has shifted all of the decision-making responsibility for Marywood traffic back on James City County. While I find VDOT's broad-scale acceptance disappointing, the fact remains that state law gives counties - not VDOT - the authority to make decisions concerning the location of roads in their jurisdictions. Specifically, Section 33.1-229 of the *Code of Virginia* gives local government the responsibility "for the establishment of new roads in their respective counties, which shall, upon such establishment, become parts of the secondary system of state highways within such counties" (*Code of Virginia* 33.1-229). James City County has all of the authority it needs to direct CENTEX where to locate the roads for its project, subject to VDOT's permit to connect with the secondary system (and it appears they will approve just about anything).

I have attached a copy of VDOT's letter for your convenience. Of particular importance is the fact that the 2026 traffic projections cited by VDOT (from the Hampton Roads Planning District Commission (HRPDC)) are not consistent with the projections by the County. The HRPDC document can be found at http://www.hrpdc.org/transport/reports/2026TechDocappend.pdf (page 76, I think) while the county's projections are located at http://www.jccegov.com/pdf/planning/fy2004pdfs/T1_RoadProjections.pdf. While the HRPDC projects 2026 lumes of 9,000 and 17,000 vehicles per day for Jamestown Road and John Tyler Highway, respectively, the county's ojections are almost completely the opposite, 25,000 and 12,000 vehicles per day, respectfully. Traffic projections this contradictory undermine both the validity of the CENTEX analysis as well as VDOT's acceptance of it. This essential contradiction, along with sight-distance safety concerns that are dismissed with no practical on-the-ground analysis and minimal mitigation by CENTEX, demonstrates that traffic impacts are neither understood nor resolved. CENTEX needs to start over.

With the July 6 DRC meeting upon us, I believe that its time for the County to take a clear, unequivocal stance on the traffic impacts Marywood will cause. As I note above, the County has the legal authority to force CENTEX to locate the roads in a manner that will reduce traffic impacts to existing neighborhoods. CENTEX may choose to ignore County requests if they plan to have Marywood serviced by a private roadway network and without the state-supported maintenance of roads in the secondary system.

Here is what I ask the County to do:

1. Exercise its authority under Section 33.1-229 of the *Code of Virginia* and affirmatively direct CENTEX to reconfigure the location of the roads in their proposed development. That reconfiguration effort should

a) consider exclusive access to Marywood from Route 5, and
b) consider a three-pod layout with unconnected access to Route 5, Hickory Signpost Road, and Jamestown Road, and
c) absolutely no cut-through access between Route 5 and Jamestown Road.

2. Direct CENTEX to substantially revise their traffic analysis to include consideration of the layout alternatives defined above.

I'm sure that CENTEX won't be happy with such requests and will make much threatening noise. However, the County s the legal authority to make such requests justified by the County's responsibility to look out for the interests of its izens who will otherwise be disproportionately impacted by the present proposal. The County can and must affirmatively direct CENTEX with regard to roadways and not simply be the passive recipient of what the company happens to be offering.

As you know, I do not oppose the concept that the Yancy tract can be developed. In saying that I must also point out that I'm speaking only for myself. I do, however, oppose the unimaginitive design that's on the table and the disproportionate impact that it will have on long-established neighborhoods. CENTEX, or some other developer, can do much better. It's time for the County to stand-up and use the legal authority it has to ask for something better.

Thanks for your help.

Tony Opperman
565-1121

P.S. Coincidentally, the Kingswood pool will be having one of its swim meets on July 6 after the DRC meeting. The traffic on Spring Road from a swim meet, combined with Marywood traffic, would create gridlock along Spring Road and further exacerbate the problems that Marywood will cause at Spring and Jamestown.