

ARCHITECTS ENGINEERS SURVEYORS

Michael R. Wigley, AIA, LEED AP Randy B. Duplechain, P.E. Charles R. Woodward, Jr., LS W. Zachary Crouch, P.E. Michael E. Wheedleton, AIA Jason P. Loar, P.E. Ring W. Lardner, P.E. Gerold G. Friedel, P.E.

April 18, 2016

Sussex County Administrative Building Planning and Zoning Department 2 The Circle P.O. Box 589 Georgetown, Delaware 19947

Attn: Mr. Lawrence Lank

Director of Planning

Re: Gills Neck Village Center - Rezoning

Tax Parcel No.: 3-35-12.00, Parcel 3.00 (Portion)

DBF #2261J001.F01

Dear Mr. Lank,

On behalf of our client, J.G. Townsend, Jr. & Co, we are pleased to submit a rezoning application to be considered by Sussex County Council for approximately 11.66 acres of land from AR (Agriculture/Residential) to B-1 (Neighborhood / Business) located south of Gills Neck Road and east of Kings Highway. We are also providing you with 8 copies of a sketch plan showing a proposed commercial use (75,000 square feet) adjacent to a major arterial as identified in Sussex County Code Chapter 99-5. Enclosed with this submission are:

- Application for Rezoning
- 8 Copies of Recent Boundary Survey / Proposed Rezoning
- Deed
- Legal Description
- Mailing List Application Form
- Application Fee in the amount of \$500.00
- Support Facilities Report
- Revised response to PLUS review 2015-03-02

Mr. Lawrence Lank Sussex County Planning & Zoning April 18, 2016 Page 2

If you have any questions or need additional information, please call me at (302) 424-1441.

Sincerely,

Davis, Bowen & Friedel, Inc.

Ring W. Lardner, P.E.

Principal

P:\JG Townsend\2261J001 Village Town Center\Documents\02-Sussex County Planning and Zoning\2016-04-04 Revised Rezoning Application\2261J001 - B-1 Rezoning Initial Submission Cover Letter.docx

Cc: Gene Bayard, Morris James Wilson Halbrook & Bayard, LLP

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File #:	
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Planning & Zoning Commission Application Sussex County, Delaware

Sussex County Planning & Zoning Department 2 The Circle (P.O. Box 417) Georgetown, DE 19947 302-855-7878 ph. 302-854-5079 fax

Type of Application: (please checl	k applicable)	
Conditional Use		
Zoning Map Amendment 🗹		
Site Address of Conditional Use/Z	oning Map Amendme	nt
Southeast of intersection of Gills Neck R	load and Kings Highway	
Type of Conditional Use Requester We are requesting to rezone approximate		to B-1.
Tax Map #: 3-35-12.00, Parcel 3.00 (Percentage	ortion)	Size of Parcel(s): 65.05
Current Zoning: AR-1 Prop	oosed Zoning: B-1	Size of Building: N/A
Land Use Classification: Agriculture	F.	
Water Provider: Tidewater Utilities,	Inc. Sewe	er Provider: Sussex County
Applicant Information		
Applicant Name: J.G. Townsend Jr. &	ε Co.	
Applicant Address: PO Box 430		
City: Georgetown	State: DE	ZipCode: 19947
Phone #: (302) 226-6631	E-mail: nham	monds@jacklingo.com
Owner Information		
Owner Name: J.G. Townsend Jr. & C	0.	
Owner Address: PO Box 430		
City: Georgetown	State: DE	Zip Code: <u>19947</u>
Phone #: <u>(302) 226-6631</u>	E-mail: nhan	nmonds@jacklingo.com
Agent/Attorney/Engineer Inform	ation	
Agent/Attorney/Engineer Name:	Ring W. Lardner, P.E. c/c	Davis, Bowen & Friedel, Inc.
Agent/Attorney/Engineer Address	3: 23 North Walnut Street	
City: Milford	State: DE	Zip Code: 19963
Phone #: (302) 424-1441	F-mail· rwl@	dbfinc.com





Check List for Sussex County Planning & Zoning Applications

The following shall be submitted with the application

✓ Completed Application	
 Survey shall show the parking area, propose 	e Site Plan or Survey of the property location of existing or proposed building(s), building setbacks, ed entrance location, etc. s (may be e-mailed to a staff member) tion
✓ Provide Fee \$500.00	
architectural elevations, phot	ostion for the Commission/Council to consider (ex. os, exhibit books, etc.) If provided submit 8 copies and they of ten (10) days prior to the Planning Commission meeting.
subject site and County staff	Notice will be sent to property owners within 200 feet of the will come out to the subject site, take photos and place a sign and time of the Public Hearings for the application.
✓ DelDOT Service Level Evaluat	ion Request Response
✓ PLUS Response Letter (if requ	uired)
Plans submitted as a part of this application. I also certify that I or an agent on by beha Zoning Commission and the Sussex Count and that I will answer any questions to the	forms, exhibits, and statements contained in any papers or on are true and correct. If shall attend all public hearing before the Planning and y Council and any other hearing necessary for this application e best of my ability to respond to the present and future ience, order, prosperity, and general welfare of the inhabitants
Signature of Applicant/Agent/Attorn	<u>ey</u>
S. Le	Date: 4/18/2016
Signature of Owner far Ban	106 Date: 4/15/16
For office use only: Date Submitted:	Fee: \$500.00 Check #:
Staff accepting application:	
Location of property:	
Subdivision:	
Date of PC Hearing:	Recommendation of PC Commission:
Date of CC Hearing:	Decision of CC:

pg 411 66361 411 Corner for the Souds of Fred J. Buttinghow and estuding in I Southerly tiredion adan the brisht- 9- my Hould bridbet thusce in an easterly direction in al valler lande of time granted facilied to and the feet from L'undorr to Silver Thence in a Motherly direction in a netaly direction, along said Butting place of Juginning, le the Contents About A lie Sans Sando Mich Here Chiryed to Daguel of Bylline rud Dorthy of Saline Lugar - frautors by die (miles J. hells suit Choda i. skills 25 the A Detoto, a. D. 1944, and recorded in uity at Lengtone, hi Led Rical & J. Job 349. Cage 5/2, etc Dy Allress Wines, The e first fast ware turnity set wind land said Seale; Lealed and follioned francia, inthe Sewerce & the 559 Former L. Collins (Seal) Crimmetoned , Far ou Line 16th usses Couly June in the pine- Tundre Drank foily Mataylandis personally Came Lifer me, The seche chien, a Metory Bullic Inthe State of Accounter, 145, Toby you Southel of Collies sud forolly of police, his Tite! With India Queductule, Summe La Vicesuch, and icknowledger whis Judanine to se thin Deed and the said of holky of Journe .. allie same line, Arially excurred by the sport "il" Turtand rickinshledged That wie Succella lit en Quality relingly Allout Bupulsine "Thuals, ou fear of few Tustand's Gispleasure www Juder my Holid and Sear of Office Lie day and year Arusaid Luster H. Long. Special for second Qualist. 20 th c. D. 1946. Tolary Quel'e Buchana poport made lies 20 " Ling il dujust, 1446. Stand of instrument of sursup County. Wer, John is gaine, click, Deed; John, L. made The Tis hife of the Jona of millsboro, Susay Couly, stimme, while of the first of set, and J. G. Tomsund, for and ar suc,

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D1361 pg. 413 413 Linu under in hand and head of Office the day and year aformaid, vicund to Great. Sugart 20 1. 2. 1946, Istary Wellie evely, Gecouler, V Sweekaser Right meder his In the Way of riegus + 1446, France of assessment of Lussey County . Cel John L. fach. Clark, Deed, Lector a. more, to Lo. Laures S. marre. This Deed . made The 14th May of august in the year of our fad, the thousand Price La Volution, Sector a. more and nettie of more tis refer Junings H. more and mary h. more. Liv . rife A salade and Dirad Buk Hundred Lussey County Delansy forties A Lee-first fort, and James a horod fished flow dred, Sewer willy and State of Delanne forty of live secret fort; Williate Considerations, Confeet may of the will Stoly he receipt march is land scant and annaplate the said firty of his uig in the Some of Hiades, offered arek Hunded and ruing in the described to fallows, to set, Starting at the and Hitchens Streets, in Blades, Thince Bunnie Mesterly with Hitchews Strut Due Hundred (151) get. D Tier Viande of this granter tience Tilis grantego live Bus, Gundred (100) feet, Timek hing pasterly Due Hundred (101) Sutto the n. Vitcheus ded Jouvey July 4. more by deed hearing tale the Pt Lay A December a. A. 1924, and Lit said Seed being Lewsey County age, 536. 80. Du rilus River, The said artical Rille first fart lave turents set their soul and sial, the day and year aforger Licher a. more, (Seal.) Leaid and Suikus nettie- 1. more, (Seal.) in hie pursue 8. Your Killing mary madelin more led.) late of Delanous 2 st Sussef Courty. The line 14 th day of way State willie year of the one

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LEGAL DESCRIPTION

GILLS NECK VILLAGE CENTER REZONING

J.G. TOWNSEND, JR. & CO.

PORTION OF TAX PARCEL #3-34-12.00-3.00

March 29, 2016

ALL that piece or parcel of land, hereinafter described, situate, lying and being on the southerly side of Gills Neck Road (Road 267) and the easterly side of Kings Highway (Road 268); being located in Lewes and Rehoboth Hundred, Sussex County, Delaware; said piece or parcel of land being a portion of the lands of J.G. Townsend, Jr. & Co.; said piece or parcel of land being more particularly described as follows:

BEGINNING at a point formed by the intersection of the southerly right-of-way line of Gills Neck Road (Road 267, width varies) with the easterly right-of-way line of Kings Highway (Road 268, 100' wide); said beginning point being coordinated on the Delaware State Grid System as North 275,225.16 feet, East 732,729.15, thence,

- 1) leaving said Kings Highway and running by and with said southerly right-of-way line of Gills Neck Road, South 75 degrees 47 minutes 58 seconds East 410.52 feet to a point, thence,
- 2) leaving said Gills Neck road and running through the lands of J.G. Townsend, Jr. & Co., the following two courses and distances, South 21 degrees 53 minutes 57 seconds West 1,292.42 feet to a point, thence running,
- 3) North 68 degrees 06 minutes 03 seconds West 395.24 feet to a point on the aforesaid easterly right-of-way line of Kings Highway, thence,
- 4) running by and with said Kings Highway, the following two courses and distances, by and with a curve deflecting to the right with an arc length of 79.47 feet, a radius of 4237.52 feet, a chord bearing and distance of North 20 degrees 51 minutes 37 seconds East 200.08 feet, thence running,
- 5) North 21 degrees 23 minutes 51 seconds East 1,158.01 feet to the point and place of beginning; **CONTAINING** 11.66 acres of land, more or less.

SUBJECT TO and together with easements, conditions and restrictions as shown on the plot entitled "Gills Neck Road, Chesapeake Utilities Easement", as recorded in the Office of the Recorder of Deeds, in and for Sussex County, Delaware, in Plot Book 183, Page 34.

S:\2261\2261H002 Governors\Legal\2261J001-VC REZONING-rev.doc

Mailing List Application Form

For Applications requiring a Public Hearing in Sussex County

Please fill out this form and return it with your application. As a part of your application a Public Hearing is required. The property owners within 200' of the site of the application will be notified. Staff will notify the property owners.

Application Information	1:	
Site Address: Southeast corn	er of Gills Neck Road and Kings High	way
Parcel #: 3-35-12.00	, Parcel 3.00 (Portion)	
Site Address:		
Parcel #:		
Applicant Name: J.G. Towns	end, Jr. & Co.	
Owner Name: J.G. Towns	end, Jr. & Co.	
Type of Application: Conditional Use: Change of Zone: Subdivision: Board of Adjustment:		
Date Submitted: 4/4/16		
For office use only: Date of Public Hearing: File #:		
Date list created:	List created by:	
Date letters mailed:	Letters sent by:	



STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

BOO BAY ROAD P.O. BOX 778 DOYER, DELAWARE 19903

JENNIFER COHAN

April 14, 2016

Mr. Lawrence B. Lank Director of Planning & Zoning Sussex County P.O. Box 417 Georgetown, DE 19947

Dear Mr. Lank:

This letter is to revise and replace my letter of October 8, 2015 regarding the Gills Neck Village Center rezoning application. The applicant has revised the application to include changes to the rezoning classification, proposed land uses, acreage to be rezoned, and the square footage for the proposed commercial development and has sent us a revised Service Level Evaluation Request, a copy of which is enclosed. We are writing to address that revised request.

Based on our review, we estimate that the proposed land use will generate more than 200 vehicle trips in the weekday p.m. peak hour and more than 2,000 vehicle trips per day. These numbers of trips are more than high enough to meet DelDOT's minimum warrants for determining that a Traffic Impact Study (TIS) should be required for a particular development and also are high enough that DelDOT cannot permit the developer to pay an Area Wide Study Fee of \$10 per daily trip in lieu of doing a TIS. Because we are unable to accept the Area Wide Study Fee in lieu of a TIS, we consider the development's traffic impact to be major in the context of our agreement with the County regarding land development coordination. DelDOT's description of this application as major with regard to warranting a TIS does not mean that it is major in other respects. If this were a completely new rezoning application, we would recommend that the applicant be required to perform a TIS.

As explained below, a Traffic Impact Study (TIS) was required previously for a significantly larger version of the present application and we are continuing to rely on the results of that study subject to certain updates. We do not recommend that an additional TIS be required the subject application.



Mr. Lawrence B. Lank April 14, 2016 Page 2 of 4

The subject land is a 11.66-acre part of a larger parcel (Tax Parcel: 335-12.00-3.00) and is located on the southeast corner of the intersection of US Route 9 (Kings Highway) and Gills Neck Road (Sussex Road 267), southeast of the City of Lewes. The subject land is currently zoned AR-1 (Agricultural Residential), and the applicant is seeking to rezone the land to B-1 (Neighborhood Business).

Our volume-based criteria for requiring a TIS, addressed in Section 2.2.2.1 of the <u>Development Coordination Manual</u>, are that a development generates more than 500 trips per day or 50 trips during a weekly peak hour. The development now proposed for the subject land meets those criteria. Having said that, the applicant submitted a TIS in 2006 for the development of the entirety of Tax Parcel 3-35-12.00-3.00. A DelDOT consultant reviewed the study and DelDOT sent comments to Sussex County in January 2008, incorporating in that review analysis of yet a third land use scenario. Shown below for comparison purposes are the 2006, 2008, 2015, and 2016 land use scenarios, with the 2016 commercial data coming from the most recent plan submission (April 2016) in that regard.

Year	2006	2008	2015	2016
Shopping Center (square feet)	330,000	521,000	215,000 (includes pad sites)	75,000 (includes pad sites)
Single-Family Detached Houses (dwellings)	138	N/A	287	287
Townhouses / Condominiums (dwellings)	318	472	136	136
Performing Arts Center (seats)	1,000			
Museum (acres)			10	No longer proposed
YMCA (acres)			17	No longer proposed

Using the floor areas and dwelling units tabulated above, we have calculated the trip generation of the proposed commercial and residential areas. As the civic uses are less well-defined at present, we have not made similar calculations for them. Note that these calculations are not reduced to account for trips between the residential area and the shopping center by way of the internal street system or for shopping trips made by people who would otherwise pass by the shopping center. Accordingly the Total line on this table overstates the trip generation of each scenario.

Year		2006			2008	
Day	Wkdy	Wkdy	Sat	Wkdy	Wkdy	Sat
Peak Hour	AM	PM	Midday	AM	PM	Midday
Shopping Center	323	1,333	1,900	427	1,810	2,556
Single-Family Detached Houses	106	140	132	N/A	N/A	N/A
Townhouses / Condominiums	130	155	135	179	215	180
Total	559	1,628	2,167	606	2,025	2,736

Year		2015			2016	
Day	Wkdy	Wkdy	Sat	Wkdy	Wkdy	Sat
Peak Hour	AM	PM	Midday	AM	PM	Midday
Shopping Center	249	1,001	1,438	131	483	682
Single-Family Detached Houses	211	271	264	211	271	264
Townhouses / Condominiums	66	77	82	66	77	82
Total	526	1,349	1,784	408	831	1,028

Subsequent to the TIS review, in 2009, DelDOT entered an agreement with the applicant, outlining the right-of-way dedications and road improvements for which the applicant and DelDOT will be responsible. That agreement is still in effect. As the applicant's engineer detailed in the September 2015 letter transmitting the Service Level Evaluation Request (SLER), the applicant and related companies have made transportation improvements in the area around the subject land, including some of the work contemplated in the agreement. Copies of the TIS review letter, the agreement and the SLER transmittal letter are enclosed.

Because of the previous TIS, the agreement and the downsizing of the proposed development since then, we find that a new TIS is not needed for the shopping center or the residential development. However, pursuant to Section 2.3.2 of the <u>Development Coordination Manual</u>, we are requiring a Traffic Operational Analysis (TOA) as part of the plan review process to ensure that the required road improvements are appropriately sized. We provided the applicant's engineer with a scope of work for that TOA on September 10, 2015, based on the development proposal that was current at that time, and we understand from them that they have done a significant amount of work in preparing it.

Pursuant to Section 2.6 of the <u>Development Coordination Manual</u>, we are also requiring a Signal Justification Study for a signal at the intersection of Kings Highway, Clay Road and the site entrance there. We provided the applicant's engineer with a scope of work for that study on June 16, 2015, based on the development proposal that was current at that time and we understand from them that they have done a significant amount of work in preparing it.

Mr. Lawrence B. Lank April 14, 2016 Page 4 of 4

Please contact me at (302) 760-2109 if you have questions regarding this letter.

Sincerely,

J. Will Bully 1.

T. William Brockenbrough, Jr.

County Coordinator

Development Coordination

TWB:cjm Enclosures

cc: Janelle Cornwell, Planning and Zoning Manager, Sussex County Planning and Zoning Constance C. Holland, State Planning Coordinator, Cabinet Committee on State Planning Issues

J. Marc Coté, Assistant Director, Development Coordination Gemez Norwood, South District Permit Supervisor, Maintenance and Operations Steve Sisson, Sussex County Subdivision Coordinator, Development Coordination Derek Sapp, Subdivision Manager, Development Coordination Scott Johnson, Subdivision Manager, Development Coordination Troy Brestel, Project Engineer, Development Coordination Claudy Joinville, Project Engineer, Development Coordination

LT Associates, LLC

PO Box 430 Georgetown, Delaware 19947

September 24, 2009

Todd Sammons
Project Engineer, Planning
Delaware Department of Transportation
800 Bay Road
P.O. Box 778
Dover, Delaware 19903

Re: Kings Highway/Gills Neck Road, Proposed Area Improvements

Dear Mr. Sammons:

This Letter Agreement ("Letter Agreement") shall set forth the terms and conditions pursuant to which the Delaware Department of Transportation ("DelDOT") will administer and manage the offsite improvements associated with Governors, Senators and The Village Centre projects (collectively "Projects" or "Properties").

INTRODUCTION

Whereas a Traffic Impact Study was conducted by Orth-Rodgers & Associates dated May 18, 2006 wherein the scope of work was agreed upon on July 7, 2005 and

Whereas a traffic impact study was reviewed by McCormick Taylor, Inc. on behalf of DelDOT wherein certain transportation improvements were recommended in a final traffic impact study letter, dated January 15, 2008, as the proportionate responsibility of LT Associates, LLC ("LT Associates") should the Projects listed proceed and

Whereas DelDOT produced a document entitled "Kings Highway/Gills Neck Road Proposed Area Improvements" and a related Estimate of Cost for such improvements and

Whereas in a meeting held on July 21, 2009, DelDOT agreed that LT Associates', responsibility for transportation improvements related to the Projects was proportionate to vehicular trips generated by the Projects, background traffic being DelDOT's responsibility, and that LT Associates would take full financial and construction responsibility for certain transportation improvements and that all other transportation improvements other than those listed in this Agreement are the sole responsibility of DelDOT and/or other developers, and

Whereas in the meeting dated July 21, 2009, LT Associates agreed with DelDOT that the dedication of land to DelDOT for use as right of way for related transportation improvements was necessary and desirable and that, together with transportation improvement costs, the total contribution from LT Associates was in excess of the total contribution estimated by DelDOT to be LT Associates' responsibility and

Whereas DelDOT recognized that the dedication of land for rights of way and all transportation improvements would be triggered by certain project related events, then,

TERMS

In consideration of the mutual covenants and agreements set forth in this Letter Agreement, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound hereby, the parties hereby covenant and agree as follows:

- Letters of No Objection. DelDOT will expedite its issuance of one Letter of No
 Objection for each of the above-referenced projects to LT Associates subject to the customary
 record plan submission and review process.
- 2. Governors and The Village Centre Highway Permits. LT Associates, will submit Applications for the Permits to DelDOT (collectively "Applications"). The plans for the Projects (collectively "Plans") will substantially conform to the concept plans referenced in item #3 below and be consistent with the Letters of No Objection based on the current Standards and Regulations for Subdivision Streets and State Highway Access manual. DelDOT hereby agrees to expedite the processing of the Applications and issuance of the required Permits when Applications are received.
- 3. LT Associates, LLC's Responsibility for Transportation Improvements. LT Associates shall be solely responsible for the cost of final engineering and construction of the following transportation improvements, as well as underground signal infrastructure (excluding footings and wiring), conceptually depicted in the Delaware Department of Transportation Kings Highway/Gills Neck Road Proposed Area Improvements attached hereto as "Exhibits A#2, A#4, A#5, and as depicted in Gills Neck Road/Cadbury Entrance to Hawkseye Entrance attached hereto as "Exhibit A#10", and as depicted in Right in/Right out Village Centre Entrance onto Gills Neck Road attached hereto as "Exhibit A#12" with the exception of the cost of and installation of all traffic signals which shall be the sole responsibility of DelDOT. Such improvements shall begin by the time of the event listed below and be consistent with the Letters of No Objection. Note: All intersection plans shall be reviewed by DelDOT's Traffic Section for location of signalization equipment and conduit placement. LT Associates is responsible for conduit installation.
 - A#2 Gills Neck Road/Kings Highway/Cape Henlopen High Intersection.

 The intersection shall be improved to include: (i) one left-turn lane and one shared through/right-turn lane at the eastbound Cape Henlopen High School entrance; (ii) one left-turn lane, one through lane, and one right-turn lane at the westbound Gills Neck Road approach; (iii) one left-turn lane, one through lane, and one right-turn lane at the northbound Kings Highway approach; and (iv) one left-turn lane, one through lane, and one right-turn lane at the southbound Kings Highway approach.

 The start of construction shall be prior to the issuance by Sussex County of the 112th building permit for Senators.
 - A#4 Clay Road/Town Centre site entrance.

 The start of construction shall be at the commencement of Phase 1 of The Village Centre.
 - A#5 Gills Neck Road/Kings Highway to Cadbury entrance including Town Centre site entrance.

- The start of construction shall be either at the commencement of Phase 1 of Governors or Phase 1 of The Village Centre, whichever begins first.
- A#10 Gills Neck Road/Cadbury entrance to Hawkseye entrance.

 The start of construction shall be prior to the issuance by Sussex County of the 112th building permit in Senators.
- A#12 Right in/Right out Village Centre Entrance onto Gills Neck Road
 The start of construction shall be at the commencement of Phase 1 of The
 Village Centre.
- 4. <u>LT Associates', Responsibility for Other Transportation Improvements</u>. LT Associates shall be solely responsible for the cost of final engineering and construction of the following transportation improvements as conceptually depicted in the Senators Phase 1 Road Plans, Sheets C8.3 and C8.4 attached hereto as "<u>Exhibit B</u>" and The Village Centre Overall Site Plan, Sheet C2.0 attached hereto as "<u>Exhibit C</u>". Such improvements shall begin by the time of the event listed below:
 - Bike Trail through Senators. (<u>Exhibit B</u>)
 The start of construction shall be the beginning of the Last Phase of Senators.
 - 25 space vehicular parking area dedicated to bike users in The Village Centre.
 (Exhibit C)
 The start of construction shall be at the commencement of Phase 1 of The Village Centre.
 - 100 space parking area in The Village Centre for a potential Park & Ride shuttle. (Exhibit C)
 The start of construction shall be at the commencement of the Last Phase of The Village Centre.
 - \$50,000 lump sum contribution to the improvement of the Rt. land Dartmouth Drive intersection as depicted in DelDOT's Kings Highway/Gills Neck Road Proposed Area Improvements, Map Reference #3 attached hereto as "Exhibit D".

The contribution shall be at the commencement of Phase 1 of The Village Centre.

- LT Associates' Responsibility for Right of Way Dedication. LT Associates shall be solely responsible for the following dedication of rights of way and/or easements at its cost:
 - Gills Neck Road right of way dedication

 The Village Centre, Governors, and Senators
 - Kings Highway right of way dedication Village Centre property
 - Kings Highway right of way dedication Jones Farm property

- Clay Road right of way dedication Jones Farm property
- · Bike Trail easement through Senators and Hawkseye

These right of way dedications shall be sufficient to accommodate the improvements in Item #3 above and improvements by DelDOT or others to Kings Highway, Clay Road and Gills Neck Road more or less as indicated on the Senators, Governors, Village Centre Right of Way Dedication Plan attached hereto as "Exhibit E".

- 6. DelDOT's Responsibility for Transportation Improvements. DelDOT shall be solely responsible for the cost and installation of traffic signals (excluding the underground infrastructure, which shall be placed during intersection construction) when warranted at all intersections constructed by LT Associates. DelDOT shall also be responsible for the collection of funds from other developers or land owners who have a proportionate responsibility for any transportation improvement undertaken by LT Associates up to the time of acceptance of the construction of said improvement. DelDOT shall also be solely responsible for all other transportation improvements listed in The McCormick Taylor, Inc. traffic impact study letter dated January 15, 2008 or in the DelDOT produced document entitled "Kings Highway/Gills Neck Road Proposed Area Improvements" and a related Estimate of Cost for such improvements.
- 7. Condition of the Property to be Dedicated to DelDOT for Rights of Way. LT Associates applicant hereby specifically disclaims any warranty, guaranty or representation, oral or written, past, present or future concerning (i) the nature or physical condition of the property, as designated on the plan to be recorded as being dedicated to DelDOT, including, without limitation, the water, soil and geology, and the suitability thereof and of the purposes for any and all activities and uses which purchaser may elect to conduct thereon; and (ii) the compliance of the property with any law, ordinance or regulation of any government or other body.

DelDOT shall inspect the property and rely solely upon its own investigations and not on any information provided by LT Associates. The transfer of the property as provided for in this letter agreement is made on an "as is" basis.

DelDOT expressly acknowledges that, in consideration of the agreements made herein, LT Associates, its agents or contractors make no warranty or representation, express or implied, or arising by operation of law, including but not limited to, any warranty of condition, habitability, merchantability or fitness for a particular purpose, in respect of the properties.

Notwithstanding the prior paragraphs of Paragraph 7, LT Associates expressly represents and warrants to DelDOT that LT Associates, it agents or contractors have no actual knowledge have not themselves or have not authorized any other party to dump or bury any hazardous or toxic materials or any form of fungi on or beneath the surface of the Properties. In addition, LT Associates, its agents or contractors have no actual knowledge of the existence of any underground tank under the Properties.

Except as provided in this Paragraph 7, LT Associates its agents or contractors make no representation, warranty or guaranty, and hereby specifically disclaim any warranty, guaranty or representation, with respect to the presence, removal or disposal on or beneath the property (or any parcel in proximity thereto) of hazardous materials, toxic materials and fungi of all forms and types, and shall have no liability to DelDOT thereof or therefor.

DelDOT hereby releases LT Associates its agents or contractors from, and waives any right to proceed against LT Associates, agents or contractors its agents or contractors for, any and all costs, expenses, claims, liabilities and demands (including attorney's and other fees), at law or in equity, whether known or unknown, arising out of the physical, developmental, environmental, economic, legal or other condition of the property.

The provisions of this section 7 shall specifically survive closing or transfer of the property.

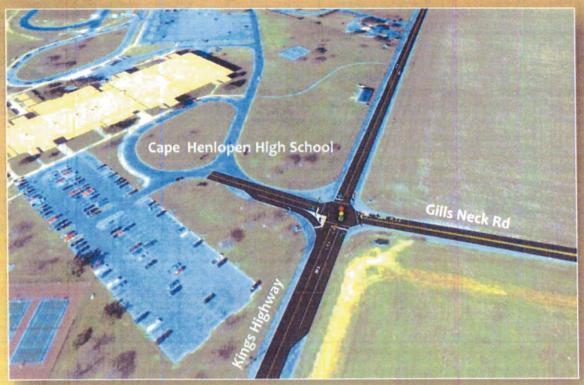
8. Miscellaneous. This Letter Agreement shall be governed by and construed according to the laws of the State of Delaware. This Letter Agreement constitutes the entire agreement between the parties and supersedes all previous communications, written or oral. This Letter Agreement may be modified only by a written instrument executed by both the parties. Time is of the essence of this Letter Agreement. If any provision of this Letter Agreement, as applied to either party or to any circumstance, shall be adjudged by a court to be void or unenforceable, the same shall in no way affect any other provision of this Letter Agreement, the application of any such provision in any other circumstances, or the validity or enforceability of this Letter Agreement as a whole. This Letter Agreement may be executed in one or more counterparts (or with counterpart signature pages), each of which shall be deemed an original and part of one and the same document. Telefax signatures shall be deemed as originals.

The captions used in this Letter Agreement are inserted for convenience of reference only and in no way define, describe or limit the scope or intent of any of the provisions hereof.

Very truly yours,

	LT Associates, TLC
D _{vv}	faut 5
by.	Jun gowisino
<i>'</i>	Namo: Parl Gr. Townsend
	Title: Mamagu, MerubwlTA, LCC
Accepted and Agree	to on this 24 day of Systemser, 2009.
	Delaware Department of Transportation
Ву:	Carolan Wich
	Name: Carolann Wicks
	Title: Secretary

High School / Kings Hwy / Gills Neck Rd (Before)



High School / Kings Hwy / Gills Neck Rd (After)



Clay Rd & Kings Highway (Before)



Clay Rd & Kings Highway (After)



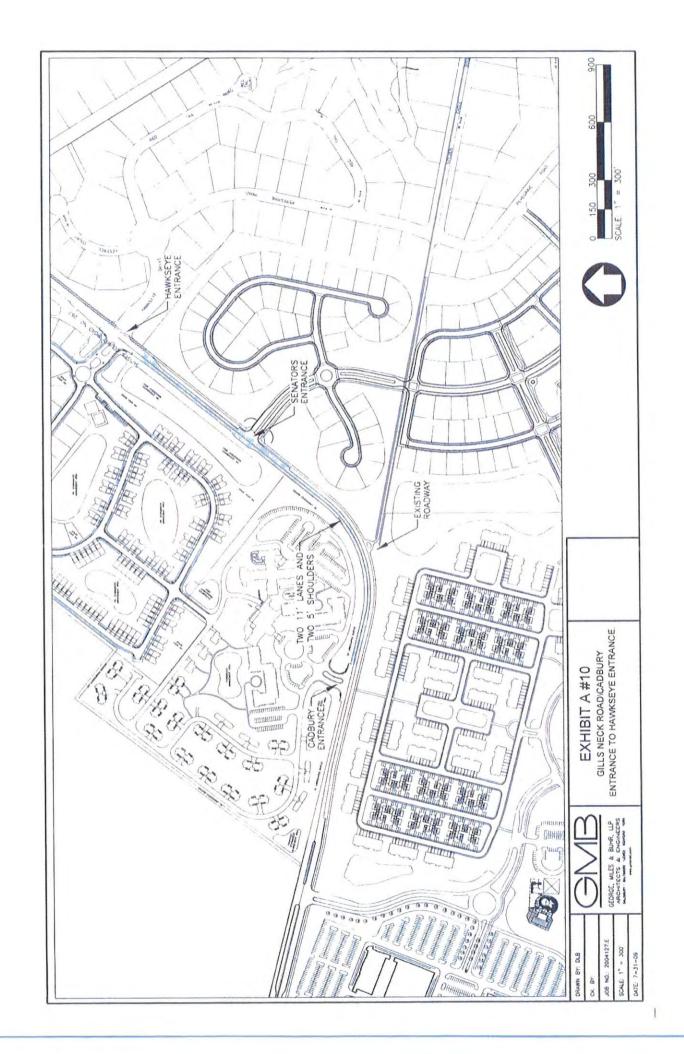
Gills Neck Rd & Commercial Site Entrance (Before)

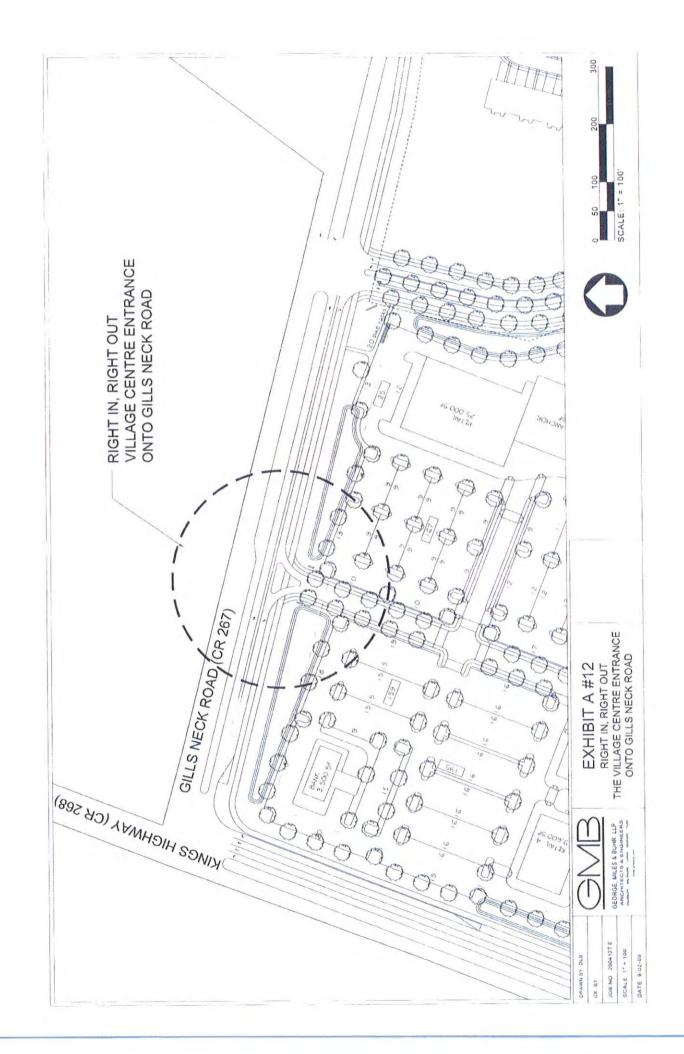


Gills Neck Rd* & Commercial Site Entrance (After)

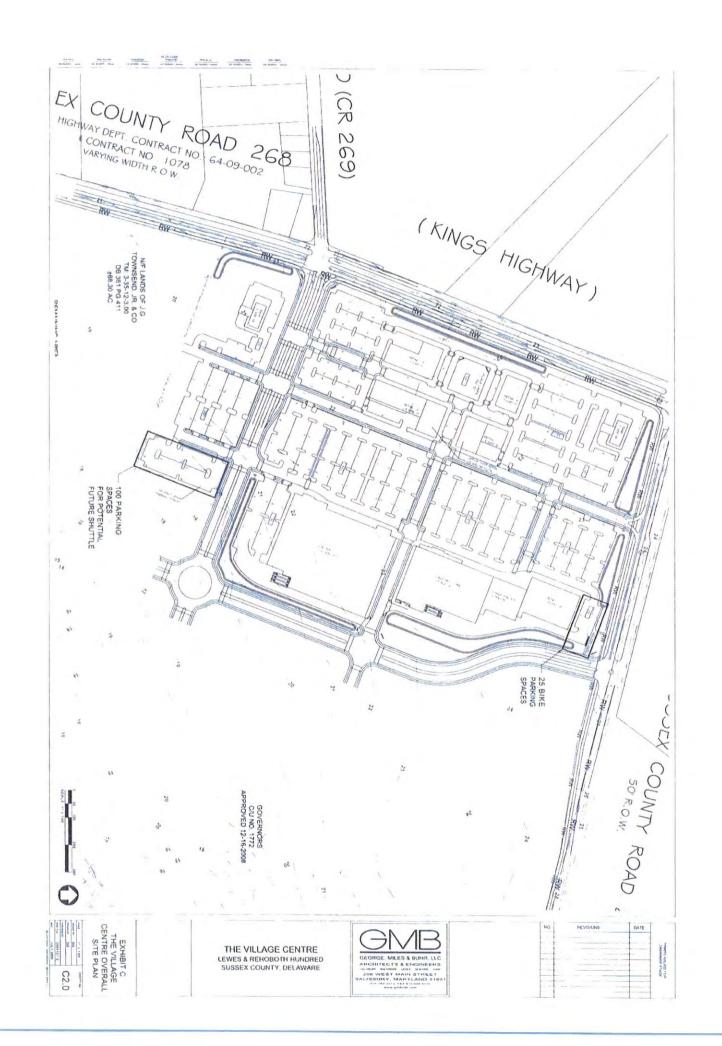


• Gills Neck road to be improved consistent with LT Associates, dated May 10, 2005 or to two eleven foot travel lanes and two five foot shoulders from Kings Highway to Cadbury site entrance









Dartmouth Dr & SR 1 (Before)



Dartmouth Dr & SR 1 (After)



TJS	Total	DelDOT Projected	LT Associates, LLC	LT Associates, LLC	DelDOT
9/2/2009	Amount	Proportionate Costs	(The Towne Centre, Governors, Senators and Showfield)	Per Agreement	Per Agreement
#1 Kings Highway and Dartmouth Drive Roundabout #2 Gills Neck Road/Kings Highway/Cape Henlopen High School Intersection	\$757,500 \$643,500	\$545,854 \$450,160	Proportionate Costs \$149,826 \$178,193	\$0 \$443,500	\$757,500
#3 Route 1 and Dartmouth Drive Intersection #4 Clay Road/Towne Center Site Entrance/Kings Highway #5 Gills Neck Road/Towne Center Site Entrance	\$165,000 \$565,590 \$0	\$150,767 \$318,034 \$0	\$12,224 \$227,328	\$50,000	\$115,000
#5 ROW Dedication along Kings Highway and Overlay #7 ROW Dedication along Freeman Highway and Overlay #8 Monroe Avenue/Showfield Site Entrance #9 Gills Nock Road/Showfield Site Entrance	\$559,205 \$1,118,409 \$0	0.00	\$559,205 \$1,118,409	\$420,000	\$200,000
#10 Gills Neck Road (Kings Highway to the beginning of the curve)	\$726,400	\$0 \$298,855	\$427,545	\$726,400	80
Total	Total \$4,535,604	\$1,763,670	\$2,672,730	\$2,845,490	\$1672.500

מ	Map Reference #10				
/13/2009			Charles and Comment of the Comment o		
eveloper Cost Sh	eveloper Cost Shares Gills Neck Road (Kings Highway to the beginning of the curve)	s Highw	ay to the bec	inning of the curve)	1
ills Neck Road Site Entrance	e Entrance			The second secon	Roadway
evelopment	PM Peak Hour Volumes	Trip %		Costs	\$417,600
owne Center	332	27.88	\$202,489	Design (15%)	\$62,640
	1191			Right of Way	\$0
	PM Peak Hour Volumes	Trip %		Utilities (\$10k/pole)	
	Ç			Telephone Pole	
overnors	63	5.29	\$38,424	Relocations	\$100,000
	1191			MOT (10%)	\$41,760
				Contingency Cost	the same of the sa
and the state of t	PM Peak Hour Volumes	Trip %		(15%)	\$62,640
enators	164	13.77	\$100,025	Drainage (10%)	\$41,760
	1191		***************************************	Total Estimate	\$726,400
	PM Peak Hour Volumes	Trip %			
howfield	142	11.92	\$86,607		
	1191				
	Total Development			The state of the s	
	Contribution	58.86			and the second section as a second
elDOT Percentage		41.14	\$298,855		
			\$726,400		

TJS	Map Reference #9		400	
7/13/2009		The state of the s	* * * * * * * * * * * * * * * * * * *	
Developer Cos	Shares Gills N	Entrance Roundabout	ndabout	
**Note: Costs are	**Note: Costs are solely associated with Showfield site entrance	ance		
Site Entrance In	Site Entrance Improvements Roundabout			144004

LJS	Map Reference #8	
7/13/2009		: : :
Developer Co	Developer Cost Shares Monroe Avenue/Showfield Site Entrance	Entrance
**Note: Costs	**Note: Costs are solely associated with Showfield site entrance	ance
Site Entrance	Site Entrance Improvements and Signal Agreement	10 mm of 10

TJS	Map Reference #7			
7/13/2009				and the second s
Developer Cost SI	Developer Cost Shares ROW Dedication along Freeman Highway and Overlay	J Freem	an Highway and Or	rerlay
**Note: 20 foot ded	**Note: 20 foot dedication along 4,200 ft at \$10/ft^2	72		
The first Control and September and Control and Contro			Frontage ROW	the contract of the second of
Development		Costs	\$840,000	the same of distances in the party and the
Showfield				
**Note: \$350,000/m	**Note: \$350,000/mile, 2"overlay with milling for 4,200 feet at 40 foot width	,200 fee	t at 40 foot width	
			Frontage Overlay	
Development		Costs	\$278,409	
Showfield			\$1.118.409	

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TJS	Map Reference #6		•		
7/13/2009					
Developer Cost Sh	Developer Cost Shares ROW Dedication along Kings Highway and Overlay	Kings	Highway and Over	rlay	
**Note: 20 foot dedic	**Note: 20 foot dedication along 2,100 ft at \$10/ft^2	2			
			Frontage ROW		-
Development	100 to 10	Costs	\$420,000		
Towne Center					
**Note: \$350,000/mi	**Note: \$350,000/mile, 2"overlay with milling for 2,100 feet at 40 foot width	100 fee	t at 40 foot width		1977) 14
			Frontage Overlay		
Development		Costs	\$139,205	- manufacturers	
Towne Center			\$559,205	Total	
			The second secon		
*Check ROW width					

TJS	Map Reference #5			
7/13/2009	The state of the s	: !		
Developer Co	Developer Cost Shares Gills Neck Road/Towne Center Site Entrance	wne Center	Site Entrance	
**Note: Costs are	solely associ	e Center site	e entrance	
Site Entrance Imp	rovements ar	ement	nd Signal Agreement	

LJS	Map Reference #4				
7/13/2009			The state of the s		
S	st Shares Clay Road/Towne Center Site Entrance/Kings Highway	iter Site E	ntrance/Kin	gs Highway	
*Note: Did not inc	**Note: Did not include Towne Center specific entrance improvements	france im	provements		
					Intersection
Development	PM Peak Hour Volumes	Trip %		Costs	\$276,800
Towne Center	879	24.95	\$141,117	Design (15%)	\$41,520
	3523		and the second of the second o	Right of Way	\$56,550
	PM Peak Hour Volumes	Trip %		Utilities (\$10k/pole)	
The second secon			the statement of the st	Telephone Pole	
Governors	137	3.89	\$21,994.	Relocations	\$80,000
	3523			MOT (10%)	\$27,680
			The second secon	Confingency Cost	
	PM Peak Hour Volumes	Trip %		(15%)	\$41,520
Senators	128	3.63	\$20,549	Drainage (10%)	\$41,520
mary designation of the second	3523			Total Estimate	\$565,590
	PM Peak Hour Volumes	Trip %			
Showfield	272	7.72	\$43,667		
the state of the s	3523		the ser of a series falls and a series of		
	PM Peak Hour Volumes	Trip %	Andrew Janes in the Confession of the Confession		THE THE PARTY OF T
Jones Property	126	3.58	\$20,228	Continues of the Contin	The state of the s
	3523				
	Total Development	43.77			
mission and the second					
DelDOT Percentage	9 00	56.23	\$318,034		
			8585 500		

SS	Map Reference #3		,		
7/13/2009	and the same of th			,	
Developer Cost S	Developer Cost Shares Route 1 and Dartmouth Drive	th Drive		1 1 2 3 4 1 1	
	Commence of the control of the contr	de component assure.	the section of the se	the second of th	Intersection
Development	PM Peak Hour Volumes	Trip %		Costs	\$70,000
Towne Center	263	4.57	\$7,547	Design (15%)	\$10,500
	5750			Right of Way	\$60,000
	PM Peak Hour Volumes	Trip %	ANA DEPARTMENT OF THE PROPERTY	Utilities (\$10k/pole)	
Governors	35	0.61	\$1,004	Telephone Pole Relocations	\$0
the state of the s	5750		***************************************	MOT (10%)	\$7,000
in a sign of the s	PM Peak Hour Volumes	Trip %		Confingency Cost (15%)	\$10,500
Senators	42	0.73	\$1,205	Drainage (10%)	\$7,000
a de babas de region (s. prio se s'orden es de mande es despenda en partir de la companya de la companya de la	5750			Total Estimate	\$165,000
	PM Peak Hour Volumes	Trip %			
Showfield	86	1.50	\$2,468		
	5750				
The state of the s	PM Peak Hour Volumes	Trip %			
Jones Property	70	1.22	\$2,009		
	5750				
the state of the s	Total Development				
111111111111111111111111111111111111111	Contribution	8.63			and the second second second second second
DelDOT Percentage) e	91.37	\$150,767		
			\$165,000		

	ווומה ויבובובובות #ד					
7/13/2009	and the same of th					
Developer Cost Shares Gills Neck		s Highwa	//Cape Hen	Road/Kings Highway/Cape Henlopen High School		
**Note: Included a one time \$60,000		from Cap	contribution from Cape Henlopen High School	High School		
Develonment		Trin %		Costs	Intersection \$363,000	And the second control of the second control
Towne Center		9.55	\$61,477	Design (15%)	\$54,450	A STATE OF THE STA
	2889			Right of Way	\$99,000	
	PM Peak Hour Volumes	Trip %		Utilities (\$10k/pole)	The same against the same against the same	
And the state of t	1	C	076	Telephone Pole	000	
Governors	8	7.80	\$10,042	Relocations	200,000	
	2889			MOT (10%)	\$36,300	
				Contingency Cost		
	PM Peak Hour Volumes	Trip %		(15%)	\$54,450	
Senators	164	5.68	\$36,530	Drainage (10%)	\$36,300	
a destat a land grant promised management and the second	2889			Total Estimate	\$643,500	**Reduced by \$60,000
	PM Peak Hour Volumes	Trip %				
Showfield	279	9.66	\$62,145			
Administrative designations and the section (1971) and the section of the section	2889					
A since a service was retired experience encourage experience described with the service of the	PM Peak Hour Volumes	Trip %				
Jones Property	68	2.35	\$15,146			
	2889					
	PM Peak Hour Volumes	Trip %				
*Cape Henlopen	N/A					
High School one	N/A					
time \$60,000 contribution	Total Development Contribution	30.04				
DelDOT Percentage	o	69.96	\$450,160			
•			\$643,500			

TJS	Map Reference #1				
7/13/2009					
	Developer Cost Shares Intersection of Kings Highway and Dartmouth Drive Roundabout	Highway	and Dartmo	uth Drive Roundabou	Į.
Two Bv-pass lane	s at 12 feet and two 10 foot sho	oulders			1
					Intersection
Development	PM Peak Hour Volumes	Trip %		Costs	\$465,000
Towne Center	216	7.70	\$58,311	Design (15%)	\$69,750
	2806			Right of Way	\$0
	PM Peak Hour Volumes	Trip %		Utilities (\$10k/pole)	
Governors	82	2.92	\$22,136	Telephone Pole Relocations	\$60,000
the same and a same of the sam	2806			MOT (10%)	\$46,500
	PM Peak Hour Volumes	Trip %		Contingency Cost (15%)	\$69,750
Senators	82	2.92	\$22,136	Drainage (10%)	\$46,500
	2806			Total Estimate	\$757,500
	PM Peak Hour Volumes	Trip %			
Showfield	175	6.24	\$47,243		
	2806				
	PM Peak Hour Volumes	Trip %			
Jones Property	229	8.16	\$61,820	and the second s	
	2806				
	Total Development				
	Contribution	27.94		and appropriate to the second	
DelDOT Percentage		72.06	\$545,854		and the same of th
	0		\$757,500		

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January 15, 2008

Mr. Todd J. Sammons Project Engineer DelDOT Division of Planning P.O. Box 778 Dover, DE 19903

RE: Agreement No. 1294

Traffic Impact Study Review Services

Task No. 115 - Gills Neck Road Subdivision (Townsend Property)

Dear Mr. Sammons,

McCormick Taylor has completed its review of the Traffic Impact Study (TIS) for the Gills Neck Road Subdivision (Townsend Property) prepared by Orth-Rodgers & Associates (ORA), dated May 18, 2006. This review was assigned as Task Number 115. ORA prepared the report in a manner generally consistent with DelDOT's *Rules and Regulations for Subdivision Streets*.

The TIS evaluates the impacts of the Gills Neck Road Subdivision, a development proposed to be located on the south side of Gills Neck Road (Sussex Road 267), east of Kings Highway (US Route 9/Sussex Road 268), just outside the City of Lewes in Sussex County, Delaware. As evaluated by the TIS and McCormick Taylor, the proposed development would consist of 138 single-family detached houses, 318 multi-family dwelling units, a 330,000 square foot retail center, and a 1,000-seat performing arts center on approximately 120 acres of land. However, we now understand that the single-family detached houses have been eliminated from the project and the performing arts center, if completed, will be built on other lands and is not addressed by this project on this site. As such, the latest plan for the development includes 472 multi-family dwelling units and 521,000 square feet of retail space on the same 120-acre site.

The TIS proposed three access points: one on Kings Highway and two on Gills Neck Road. The site access on Kings Highway has been evaluated in three scenarios: right-in/right-out, all movements except left turns into the site from southbound Kings Highway, and a full-movement intersection. The TIS assumed one of the site entrances on Gills Neck Road would line up with an entrance for the Cadbury development located on the north side of Gills Neck Road. However, we now understand that this entrance would be limited to pedestrian access and the site will have only one vehicular entrance along Gills Neck Road, known as the Commercial Site Entrance. McCormick Taylor subsequently performed additional analyses to reflect the updated land use and site access information.

The land is currently zoned AR-1 (Agricultural Residential), and the developer is seeking to rezone to MR-RPC (Medium-Density Residential, Residential Planned Community) and C-1 (General Commercial). Construction is anticipated to be complete by 2014. As proposed, the site will be interconnected with the adjoining proposed development to the east known as Senators, which will be required to contribute an equitable portion towards all improvements



required of this developer as identified within this document.

There are three DelDOT projects in the vicinity of the study area. The Route 1 Beach Area Improvements Project was set up so that funds could be used for specific sub-projects to address traffic issues in the general area as needed. Currently, there is one sub-project in the vicinity of the development: SR 1, Coastal Highway, S 12, Wescoats Road, S 18, Savannah Road, Triangle Improvements, including Dartmouth Drive (Contract No. 23-122-01). The project is in the early stage of development and includes the relocation of Old Orchard Road (Sussex Road 269A) to form a four-way intersection with Wescoats Road (Sussex Road 12) and Savannah Road (Business US Route 9/Sussex Road 18). That project is currently on hold, but the right-of-way for the relocation is being preserved.

Another project in the area is the Corridor Capacity Preservation Program (CCPP). The Corridor Capacity Preservation Program (CCPP) is a statewide program intended to sustain the capacity of adopted highway corridors by various means such as limiting access points and using service roads for local vehicle trips. The general purpose of the program is to ensure that the existing principal arterial highways are able to efficiently carry regional traffic without impedance from the effects of local development. The Program currently includes Delaware Route 1 (Sussex Road 14/Coastal Highway) just north of the study area.

The third project in the study area is the Route 1 Expansion Project, from Delaware Route 24 (Sussex Road 24/John J. Williams Highway) to north of US Route 9 (Five Points intersection) (Contract No. 22-125-01). The project is to address safety problems on Delaware Route 1 as identified in the Year 2000 Highway Safety Improvement Program (HSIP) and to address capacity deficiencies on Delaware Route 1 in the study section by installing a third southbound travel lane and a continuous improved shared-use/right-turn lane between Five Points/US Route 9 and Delaware Route 24. The project is being coordinated with other transportation planning initiatives, supports planned economic development, and enhances or preserves (minimizing impacts to) environmental resources. Construction of the project started in September 2006 and is expected to be complete by April 2008.

Incorporated into our TIS review is the Kings Highway Corridor Study recently completed by the DelDOT Division of Planning. This study included the use of Synchro software as a tool to help identify and analyze feasible improvements that would be needed in a larger study area due to the construction of the Gills Neck Road Subdivision and other nearby developments. The study area included a number of critical intersections along the Kings Highway corridor and in the area of Wescoats Road, Savannah Road, and Old Orchard Road. The study analyzed the existing traffic conditions based on 2005 traffic data submitted with the TIS, the year 2014 without Gills Neck Road Subdivision (no-build) scenario, and six improvement alternatives for the year 2014 with Gills Neck Road Subdivision (build) scenario. Descriptions and level of service (LOS) results for the DelDOT study can be found at the end of the detailed review part of this letter.



From a traffic operations standpoint, the Kings Highway Corridor Study found Alternative 6 to be the most effective solution. Alternative 6 includes two through lanes in each direction along Kings Highway from Dartmouth Drive to Theodore C. Freeman Highway. However, the major improvements required to fully correct the LOS deficiencies at a number of study intersections cannot be considered a reasonable developer improvement project (i.e., the widening of Kings Highway to include two through lanes per direction through this corridor). As such, beyond the recommended improvements described below, DelDOT should formally recognize the Kings Highway Corridor Study findings and ultimately nominate the dualization of Kings Highway as a project in the Capital Transportation Program (CTP) for a future year. DelDOT should continue to work with property owners and developers seeking to improve, expand, or redevelop property in the Kings Highway area to determine their fair share contributions toward the future CTP project. DelDOT should also continue to work with Sussex County, the City of Lewes, Delaware River Bay Authority (DRBA), and the public to move such a project forward.

Based on the combined efforts and analysis results of our TIS review and the DelDOT Kings Highway Corridor Study, we have the following comments and recommendations:

The following intersections exhibit LOS deficiencies without the implementation of physical roadway and/or traffic control improvements:

Intersection	Situations for which deficiencies occur *
Kings Highway and	2005 Existing AM, PM, and Saturday,
Clay Road (Sussex Road 269) / Proposed Site Entrance	2014 AM, PM, and Saturday without and with Gills Neck Road Subdivision
Kings Highway and Gills Neck Road / Cape Henlopen High School Entrance	2014 AM, PM, and Saturday without and with Gills Neck Road Subdivision
Kings Highway and Dartmouth Drive (Sussex Road 268A)	2014 PM and Saturday without Gills Neck Road Subdivision, 2014 AM, PM, and Saturday with Gills Neck Road Subdivision
Savannah Road and Old Orchard Road	2005 Existing AM, PM, and Saturday

^{*}Based on McCormick Taylor HCS analyses

Should the County choose to approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan. All applicable agreements (i.e. letter agreements for off-site improvements and traffic signal agreements) should be executed prior to entrance plan approval for the proposed development.

1. The developer should improve Gills Neck Road between Kings Highway and the entrance of the Hawkseye/Breakwater subdivisions to be consistent with the proposed concept roadway improvement plan for Gills Neck Road submitted by LT Associates dated May 20, 2005. The concept plan widens Gills Neck Road to provide a raised median, bike lanes, a multi-use path and additional turn lanes and acceleration/deceleration lanes. The one exception would be changing the entrance across from the Cadbury development to pedestrian access only.



- 2. The developer should improve Kings Highway from Dartmouth Drive to Theodore C. Freeman Highway (US Route 9/Sussex Road 23) to include two twelve-foot travel lanes and two ten-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
- 3. In anticipation of the need for future widening to a four-lane typical section, the developer should dedicate sufficient right-of-way along the Kings Highway site frontage. Kings Highway is a principal arterial and typically a dedication of 50 feet from the centerline of roadway and an easement of 10 feet would be dedicated for the roadway section and for a sidewalk, respectively. In this case, to accommodate the potential dualization of the roadway, the developer should dedicate an additional 10 feet of right-of-way. The specific right-of-way dedication needed will be determined in the site plan review process.
- 4. The developer should construct a two-lane connector road through the proposed development between the site entrance on Kings Highway (across from Clay Road, noted in Item Nos. 5 and 6) and Gills Neck Road (Commercial Site Entrance, noted in Item Nos. 7 and 8). The connector road should meet DelDOT's local road standards. These standards include eleven-foot travel lanes and two five-foot shoulders. The connector road should be dedicated for public use and used for access to the proposed development. The developer should coordinate with DelDOT's Subdivision Section to determine the exact alignment and design of the connector road through the site.
- 5. The developer should construct the site entrance on Kings Highway to align with the existing Clay Road intersection. This intersection will also serve as the western terminus of the connector road through the site, noted in Item No. 4. At least one other developer is expected to be responsible for part of these improvements as well. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of these improvements. The proposed configuration is shown in the table below.

Approach	Current Configuration	Proposed Configuration*
Eastbound Clay Road	One shared left/right-turn lane	One left-turn lane, one through lane, and one right-turn lane
Westbound Site Access	Approach does not exist	Two left-turn lanes, one through lane, and one right-turn lane
Northbound Kings Highway	One shared through/left-turn lane	One left-turn lane, one through lane, and one right-turn lane
Southbound Kings Highway	One shared through/right-turn lane	One left-turn lane, one through lane, and one right-turn lane

^{*} The developer of the Gills Neck Road Subdivision should be fully responsible for improvements specifically needed for access to or from that development.



The recommended minimum storage lengths (excluding taper) of the separate turn lanes are listed below.

Approach*	Left-Turn Lane(s)	Right-Turn Lane
Eastbound Clay Road	340'	50'
Westbound Site Access	550' each	105'
Northbound Kings Highway	120'	915'
Southbound Kings Highway	230'	150'

^{*} The developer of the Gills Neck Road Subdivision should be fully responsible for improvements specifically needed for access to or from that development.

Note: The turn-lane storage lengths are based on queuing analysis from DelDOT's Kings Highway Corridor Study only, using Case 6 volumes. DelDOT's *Rules and Regulations for Subdivision Streets* (Subdivision Manual) may have additional requirements, particularly with regards to right-turn lane lengths.

Additionally, a second receiving lane should be constructed along southbound Kings Highway. The second receiving lane should have a minimum length of 1,100 feet (excluding taper). The developer should coordinate with DelDOT's Subdivision Section to determine the exact length of the second receiving lane and taper.

- 6. The developer should enter into a traffic signal agreement with DelDOT for the intersection of Kings Highway and Clay Road/Proposed Site Entrance. The agreement should include pedestrian signals, crosswalks and interconnection at DelDOT's discretion. At least one other developer is expected to enter into a traffic signal agreement for this intersection as well. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of the traffic signal.
- 7. The developer should construct the Commercial Site Entrance on Gills Neck Road. This intersection will also serve as the northern terminus of the connector road through the site, noted in Item No. 4, and the developer should coordinate with DelDOT's Subdivision Section to determine the exact location of this intersection. The intersection should include a separate left-turn lane and right-turn lane on the northbound site entrance approach, a separate left-turn lane on the westbound Gills Neck Road approach, and a separate right-turn lane on the eastbound Gills Neck Road approach.
- 8. The developer should enter into a traffic signal agreement with DelDOT for the intersection of the Commercial Site Entrance and Gills Neck Road. The agreement should include pedestrian signals, crosswalks and interconnection at DelDOT's discretion.
- 9. The developer should improve the intersection of Kings Highway and Cape Henlopen High School/Gills Neck Road. At least one other developer is expected to be responsible for part of these improvements as well. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of these improvements. The proposed configuration is shown in the table below.



Approach	Current Configuration	Proposed Configuration
Eastbound Cape Henlopen High School Entrance	One shared through/left-turn lane and one right-turn lane	One left-turn lane and one shared through/right-turn lane
Westbound Gills Neck Road	One shared left/through/right- turn lane	One left-turn lane, one through lane, and one right-turn lane
Northbound Kings Highway	One shared through/left-turn lane and one right-turn lane	One left-turn lane, one through lane, and one right-turn lane
Southbound Kings Highway	One shared left/through/right- turn lane	One left-turn lane, one through lane, and one right-turn lane

The recommended minimum storage lengths (excluding taper) of the separate turn lanes are listed below.

Approach	Left-Turn Lane	Right-Turn Lane
Eastbound Cape Henlopen High School Entrance	70'	NA
Westbound Gills Neck Road	225'	70'
Northbound Kings Highway	225'	50'
Southbound Kings Highway	370'	50'

Note: The turn-lane storage lengths are based on queuing analysis from DelDOT's Kings Highway Corridor Study only, using Case 6 volumes. DelDOT's *Rules and Regulations for Subdivision Streets* (Subdivision Manual) may have additional requirements, particularly with regards to right-turn lane lengths.

Additionally, the developer should dedicate sufficient right-of-way to accommodate a potential future improvement of adding a second exclusive left-turn lane on the westbound Gills Neck Road approach.

- 10. The developer should enter into a traffic signal agreement with DelDOT for the intersection of Kings Highway and Cape Henlopen High School/Gills Neck Road. The agreement will cover the signal adjustments required by the physical improvements noted in Item No. 9. The agreement should include pedestrian signals, crosswalks, interconnection, and ITS equipment such as CCTV cameras at DelDOT's discretion. At least one other developer is expected to enter into a traffic signal agreement for this intersection as well. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of the traffic signal.
- 11. The developer should install a single-lane roundabout at the intersection of Kings Highway and Dartmouth Drive. This roundabout should include a bypass lane for the southbound Kings Highway right-turn movement and a bypass lane for the northbound Kings Highway through movement. A preliminary concept will need to be designed in order to determine if this improvement is feasible. Should a roundabout be determined to be infeasible at this location, the developer should improve the intersection by adding an exclusive left-turn lane on the eastbound Dartmouth Drive approach (in addition to the existing shared left/right-turn



lane) and a second receiving lane along northbound Kings Highway, and enter into a traffic signal agreement with DelDOT for this intersection. The traffic signal agreement should include pedestrian signals, crosswalks, interconnection, and ITS equipment such as CCTV cameras at DelDOT's discretion. At least one other developer is expected to be responsible for part of these improvements as well, including entering into a traffic signal agreement if necessary. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of these improvements, including the traffic signal if necessary.

- 12. The developer should improve the intersection of Delaware Route 1 and Dartmouth Drive. These improvements should include the addition of a third left-turn lane from westbound Dartmouth Drive to southbound Delaware Route 1. At least one other developer is expected to be responsible for part of these improvements as well. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of these improvements.
- 13. The developer should enter into a traffic signal agreement with DelDOT for the intersection of Delaware Route 1 and Dartmouth Drive. The agreement will cover the signal adjustments required by the physical improvements noted in Item No. 12. The agreement should include pedestrian signals, crosswalks, interconnection, and ITS equipment such as CCTV cameras at DelDOT's discretion. At least one other developer is expected to enter into a traffic signal agreement for this intersection as well. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of the traffic signal.
- 14. The following bicycle, pedestrian, and transit improvements should be included:
 - a. The shoulders on Kings Highway should be maintained and marked as bike lanes from Dartmouth Drive to Theodore C. Freeman Highway.
 - b. The shoulders on Gills Neck Road should be marked as bike lanes from Kings Highway to the entrance of the Hawkseye/Breakwater subdivisions.
 - c. In addition to the improvements noted in Item No. 4, the shoulders on the proposed connector road should be marked as bike lanes.
 - d. Bike lane signs (MUTCD R3-17) should be added along Kings Highway, Gills Neck Road, and the proposed connector road noted in Item No. 4.
 - e. A right-turn yield to bikes sign (MUTCD R4-4) should be added at the start of each right-turn lane added to Kings Highway, Gills Neck Road, and the proposed connector road noted in Item No. 4.
 - f. Where right-turn lanes are added to Kings Highway, Gills Neck Road, or the proposed connector road noted in Item No. 4, a minimum of a five-foot bicycle lane should be dedicated and striped with appropriate markings for bicyclists through the turn lane in order to facilitate safe and unimpeded bicycle travel.
 - g. Utility covers should be moved outside of the designated bicycle lane or be flush with the pavement.
 - h. A minimum of a five-foot wide sidewalk (with a minimum of a five-foot buffer from the roadway) that meets current AASHTO and ADA standards should be included along the site frontage on Kings Highway.



- i. At the intersection of Kings Highway and Gills Neck Road, pedestrian facilities should be included on all four legs of the intersection, including but not limited to marked crosswalks, curb ramps, and pedestrian signals. These facilities should also provide for a crossing of the Junction Breakwater Trail.
- j. One or more pedestrian crossings should be included along Gills Neck Road. The developer should coordinate with DelDOT's Subdivision Section to determine the number, location(s), and traffic control for the pedestrian crossing(s).
- ADA compliant curb ramps should be provided at all pedestrian crossings. Type 3 curb ramps are discouraged.
- 1. Covered bike parking should be included near the store entrances.
- m. Within the development, a minimum of a five-foot wide sidewalk (with a minimum of a five-foot buffer from the roadway) that meets current ADA standards should be included along all roadways, including the connector road noted in Item No. 4. These internal sidewalks should also connect with building entrances and frontage sidewalks.
- n. The developer should coordinate with the Delaware Transit Corporation regarding the possibility of adding a bus stop to serve the commercial portion of the development.

Please note that this review generally focuses on capacity and level of service issues; additional safety and operational issues will be further addressed through DelDOT's subdivision review process.

Additional details on our review of the TIS are attached. Please contact me at (302) 738-0203 or through e-mail at ajparker@mtmail.biz if you have any questions concerning this review.

Sincerely,

McCormick Taylor, Inc.

Andrew J. Parker, P.E., PTOE

Project Manager

Enclosure

General Information

Report date: May 18, 2006

Prepared by: Orth-Rodgers Associates, Inc.

Prepared for: Land Design, Inc. Tax parcels: 3-35-12.00-3.00

Generally consistent with DelDOT's Rules and Regulations for Subdivision Streets: Yes

Project Description and Background

Description: The TIS assumed the proposed development would consist of 138 single-family detached houses, 318 multi-family dwelling units, 330,000 square feet of retail space, and a 1,000-seat performing arts center. However, we now understand that the single-family detached houses have been eliminated from the project and the performing arts center, if completed, will be built on other lands and is not addressed by this project on this site. As such, the latest plan for the development includes 472 multi-family dwelling units and 521,000 square feet of retail space.

Location: The Gills Neck Road Subdivision is proposed to be located on the south side of Gills Neck Road (Sussex Road 267), east of Kings Highway (US Route 9/Sussex Road 268), just outside the City of Lewes in Sussex County, Delaware.

Amount of land to be developed: approximately 120 acres of land

Land use approval(s) needed: Subdivision approval; rezoning from AR-1 (Agricultural Residential) to C-1 (General Commercial) and MR-RPC (Medium Density Residential-Residential Planned Community)

Proposed completion date: 2014

Proposed access locations: The TIS proposed three access points: one on Kings Highway and two on Gills Neck Road, and assumed one of the entrances on Gills Neck Road would line up with an entrance for the Cadbury development on the north side of Gills Neck Road. However, we now understand that this entrance would be limited to pedestrian access and the site will have only one vehicular entrance along Gills Neck Road, known as the Commercial Site Entrance.

Proposed Site Access Scenarios

The TIS analyzed 2014 Build conditions using three different types of trip distribution scenarios, based on what movements would be permitted at the intersection of Kings Highway and Clay Road (Sussex Road 269)/Proposed Site Entrance. The trip distribution scenarios are as follows:

- o <u>DelDOT Original</u>: The Site Entrance driveway is a right-in/right-out access driveway only, as per DelDOT's TIS scoping letter dated July 7, 2005.
- o <u>TIS Scenario 1</u>: Left turns from southbound Kings Highway into the site are prohibited, but all other movements are permitted at this intersection.
- o TIS Scenario 2: All movements in and out of the site are allowed.

DelDOT's original intent was to preserve this intersection as an unsignalized intersection. However, the TIS and McCormick Taylor's analyses indicate that a signal would be necessary at this intersection with the proposed development even with the Site Entrance driveway

functioning as a right-in/right-out access driveway. This is due to the high projected volumes on Clay Road resulting from background growth, other committed developments, and the proposed development.

Livable Delaware

(Source: Delaware Strategies for State Policies and Spending, July 2004)

Location with respect to the Strategies for State Policies and Spending Map of Delaware: The proposed Gills Neck Road Subdivision development is located within Investment Level 2 and 3 areas, and also entirely within an Environmentally Sensitive Developing Area.

Investment Level 2

These areas, generally adjacent to Investment Level 1 Areas, include less developed areas within municipalities, rapidly growing areas that have or will have public water and wastewater services, and may include smaller towns, rural villages, and suburban areas. These areas typically include single-family detached housing developments, commercial and office uses serving primarily local residents, and a limited range of entertainment, parks and recreation, cultural and institutional facilities.

In Investment Level 2 Areas, state investments and policies should be based on available infrastructure to accommodate orderly growth, encourage departure from the typical single-family-dwelling developments, promote a broader mix of housing types and commercial sites, and encourage development that is consistent with the character of the area. Transportation projects should expand or provide roadways, public transportation, pedestrian walkways, bicycle paths, and other transportation modes that manage flow, support economic development efforts, and encourage connections between communities and the use of local streets for local trips.

Investment Level 3

These areas are portions of the county designated for growth, development districts, or long-term annexation. Areas classified as an Investment Level 3 will be considered for state investing after the Level 1 and 2 areas are substantially built out or when the facilities are logical extensions of existing systems and deemed appropriate to serve a particular area. Many of the areas within the Investment Level 3 designation include important farmland and natural resources along with portions of roadways that are designated for corridor capacity protection. Therefore the character pattern and timing of growth along with federally mandated air and water quality goals should be considered on a case-by-case basis for areas within this designation.

In Investment Level 3 Areas, the state will continue to invest in the regional roadway network and roadway safety while continuing to protect the capacity of major transportation corridors, such as Route 13. Roadway improvements to support new development are not encouraged in Investment Level 3 and funds will not be allocated for these types of improvements until they have been allocated to Level 1 and 2 areas.

Environmentally Sensitive Developing Areas

Environmentally Sensitive Developing Areas are defined as a Developing District with special environmental design and protection requirements. New regulations are in place in these areas to control the density of development, preserve open space and valuable habitat and to prevent excessive levels of sediments and nutrients in waterways. Regulated areas include Indian River, Indian River Bay and Rehoboth Bay. Residential Planned Communities and Village Style development is encouraged in these areas to provide open space and protect habitat. If a central wastewater system is provided, residential density would be permitted up to the maximum allowable density of the underlying zoning districts. Industrial uses in these areas are regulated by the Delaware Coastal Zone Act, however they do not regulate commercial, residential warehousing or distribution activities.

Proposed Development's Compatibility with Livable Delaware:

The proposed Gills Neck Road subdivision is located just outside the City of Lewes in Sussex County. A small portion of the development is located in the Investment Level 2 and the majority of the development is located in Investment Level 3. Developments in Investment Level 2 should be an orderly extension of existing infrastructure and include a mix of housing types and commercial areas that are consistent with the character of the area. The state will support developments in Investment Level 3 only if they are a logical extension of existing systems and deemed appropriate to serve a particular area. This area is also classified as an Environmentally Sensitive Developing area, where developments such as Planned Residential Communities and Village Style developments are encouraged over homogenous subdivisions.

This development, as it is now proposed, includes multi-family houses and a retail center with an interconnected roadway network and could be classified as a mixed-use Village Style development. It is also close to other nearby developments including Cadbury, Breakwater, Hawkseye, and the proposed Senators subdivision. The plan includes connections to other developments where applicable, making it a logical extension of existing systems. As long as appropriate pedestrian and bicycle connections are made between the residential and commercial sites within the development to encourage walking and biking as a viable form of transportation, this development appears to be compatible with the policies stated in the 2004 update of the Livable Delaware "Strategies for State Policies and Spending."

Comprehensive Plans

Sussex County Comprehensive Plan: (Source: Sussex County Comprehensive Plan Update, January 2003)

The Future Land Use Map and Zoning Map in the Sussex County Comprehensive Plan identifies the parcel as within an Environmentally Sensitive Developing Area. Housing types approved in the Environmentally Sensitive District include single-family detached homes, townhouses, apartments, condominiums and manufactured housing where permitted by ordinance. Residential Planned Communities and Village Style development should be encouraged in this area to provide open space and protect habitat. Commercial uses, while needed in Environmentally Sensitive Developing Areas, should be limited to neighborhood shopping and businesses to serve

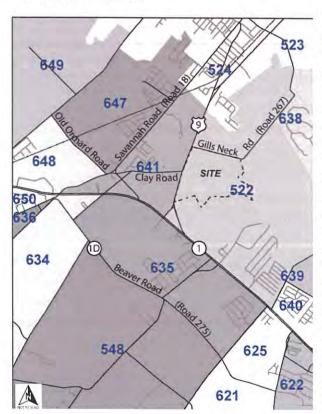
the rapidly expanding population. Village scale shopping centers are the preferred location for these services.

Proposed Development's Compatibility with Comprehensive Plans: The proposed rezoning would change the existing zoning from AR-1 (Agricultural Residential) to C-1 (General Commercial) and MR-RPC (Medium Density Residential-Residential Planned Community). Both of these zoning types are possible within an Environmentally Sensitive Developing Area (Low to Medium Density). However, given the relatively high density of the multi-family housing units (472 units on only a portion of the 120-acre site) and the relatively large size of the shopping center, this development raises questions regarding consistency with the Sussex County Comprehensive Plan, and thus requires additional discussion.

Transportation Analysis Zones (TAZ)

Transportation Analysis Zones (TAZ) where development would be located: 522 (Peninsula Code TAZ)

TAZ Boundaries:



Current employment estimate for TAZ: 1,235 jobs in 2005

Future employment estimate for TAZ: 1,731 jobs in 2030

Current population estimate for TAZ: 966 people in 2005

Future population estimate for TAZ: 1,205 people in 2030

Current household estimate for TAZ: 467 houses in 2005

Future household estimate for TAZ: 615 houses in 2030

Relevant committed developments in the TAZ: Senators, Cadbury, Breakwater, Hawkseye, Jones Property

Would the addition of committed developments to current estimates exceed future projections: Yes

Would the addition of committed developments and the proposed development to current estimates exceed future projections: Yes

Relevant Projects in the DelDOT Capital Transportation Program (FY 2008 – FY 2013)

There are three DelDOT projects in the vicinity of the study area. The Route 1 Beach Area Improvements Project was set up so that funds could be used for specific sub-projects to address traffic issues in the general area as needed. Currently, there is one sub-project in the vicinity of

the development: SR 1, Coastal Highway, S 12, Wescoats Road, S 18, Savannah Road, Triangle Improvements, including Dartmouth Drive (Contract No. 23-122-01). Although not actually listed in the 2008-2013 CTP, it was listed in earlier CTP's and the status has been confirmed with the DelDOT Project Manager. The project is in the early stage of development and includes the relocation of Old Orchard Road (Sussex Road 269A) to form a four-way intersection with Wescoats Road (Sussex Road 12) and Savannah Road (Business US Route 9/Sussex Road 18). That project is currently on hold, but the right-of-way for the relocation is being preserved.

Another project in the area is the Corridor Capacity Preservation Program (CCPP). The Corridor Capacity Preservation Program (CCPP) is a statewide program intended to sustain the capacity of adopted highway corridors by various means such as limiting access points and using service roads for local vehicle trips. The general purpose of the program is to ensure that the existing principal arterial highways are able to efficiently carry regional traffic without impedance from the effects of local development. The Program currently includes Delaware Route 1 (Sussex Road 14/Coastal Highway) just north of the study area.

The third project in the study area is the Route 1 Expansion Project, from Delaware Route 24 (Sussex Road 24/John J. Williams Highway) to north of US Route 9 (Five Points intersection) (Contract No. 22-125-01). The project is to address safety problems on Delaware Route 1 as identified in the Year 2000 Highway Safety Improvement Program (HSIP) and to address capacity deficiencies on Delaware Route 1 in the study section by installing a third southbound travel lane and an improved shared-use/right-turn lane between Five Points/US Route 9 and Delaware Route 24. The project is being coordinated with other transportation planning initiatives, supports planned economic development, and enhances or preserves (minimizing impacts to) environmental resources. Construction of the project started in September 2006 and is expected to be complete by April 2008.

Trip Generation

Trip generation for the proposed development was computed using comparable land uses and equations contained in <u>Trip Generation</u>, Seventh Edition, published by the Institute of Transportation Engineers (ITE). The following land use was utilized to estimate the amount of new traffic generated for this development:

- 138 single-family detached houses (ITE Land Use Code 210)
- 318 townhouse units (ITE Land Use Code 230)
- 330,000 SF shopping center (Land Use Code 820)
- 1,000 seat performing arts center (Lane Use Code 441)

Table 1
GILLS NECK ROAD SUBDIVISION TRIP GENERATION

Land Use	P	AM eak Ho	ur	P	PM eak Ho	ur	and a second	aturda eak Ho	
	In	Out	Total	In	Out	Total	In	Out	Total
138 Single-Family Houses	27	79	106	90	53	143	72	62	134
318 Townhouses	22	108	130	104	51	155	73	62	135
Subtotal	49	187	236	194	104	198	145	124	269
Internal Capture	0	0	0	60	55	115	54	42	96
Pass-by Trips	0	0	0	0	0	0	0	0	0
Primary Residential Trips	49	187	236	134	49	183	91	82	173
Shopping Center - 330,000 SF	195	125	320	661	716	1377	978	903	1881
Internal Capture	0	0	0	55	60	115	*	*	*
Pass-by Trips	0	0	0	167	181	348	*	*	*
Primary Retail Trips	195	125	320	439	475	914	632	583	1215
1,000-Seat Performing Arts Center	0	0	0	10	10	20	330	0	330
Internal Capture	0	0	0	0	0	0	0	0	0
Pass-by Trips	0	0	0	0	0	0	0	0	0
Primary Recreational Trips	0	0	0	10	10	20	330	0	330
TOTAL TRIPS	244	312	556	583	534	1117	1053	665	1718

^{*} DelDOT modified external trips were used in lieu of calculated volumes

Overview of TIS

Intersections examined:

- 1) Gills Neck Road and Proposed Commercial Site Entrance
- 2) Gills Neck Road and Proposed Residential Site Entrance/Cadbury Driveway
- 3) Kings Highway and Clay Road/Proposed Site Entrance
- 4) Kings Highway and Gills Neck Road/Cape Henlopen High School Entrance
- 5) Delaware Route 1 and Kings Highway
- 6) Kings Highway and Theodore C. Freeman Highway (Sussex Road 23/US Route 9)
- 7) Kings Highway and Dartmouth Drive (Sussex Road 268A/US Route 9)
- 8) Clay Road and Marsh Road (Sussex Road 276)
- 9) Clay Road and Wescoats Road
- 10) Savannah Road and Wescoats Road East
- 11) Savannah Road and Wescoats Road West
- 12) Savannah Road and Old Orchard Road
- 13) Marsh Road and Wescoats Road

Conditions examined:

- 1) 2005 existing conditions (Case 1)
- 2) 2014 no-build conditions (Case 2)
- 3) 2014 build with right-in/right-out access on Kings Highway (Case 3)

- 4) 2014 build with Scenario 1 access on Kings Highway (Case 4)
- 5) 2014 build with Scenario 2 access on Kings Highway (Case 5)
- 6) Updated 2014 build with Scenario 2 access on Kings Highway (Case 6)*

Peak hours evaluated: Weekday morning, weekday evening, and Saturday mid-day peak hours.

Committed developments considered for Cases 2-5:

- Senators (180 single-family detached houses)
- Cadbury (82 apartments and 48 cottages)
- Breakwater (80 single-family detached houses and 105 townhouses)
- Hawkseye (162 single-family detached houses)
- Jones Property (150 townhouses and 44,000 square feet of professional offices)
- Cape Henlopen High School Expansion (New school to be built on current site, expanding student base from 850 to 1600)
- Villages of Five Points (244 single-family detached houses, 353 townhouses/condominiums and 115,000 square feet of retail)

*Case 6 Condition

In December 2007, due to developer changes to the proposed land use and site plan of the Gills Neck Road Subdivision and other nearby developments, DelDOT Division of Planning updated the 2014 build volumes to reflect the latest land use, a condition known as **Case 6**. Working in coordination with DelDOT, McCormick Taylor performed additional HCS analyses using the **Case 6** updated volumes.

In addition, Case 6 includes a connector road from Gills Neck Road to Clay Road through the proposed Gills Neck Road Subdivision. The connector road consists of a two-lane section. DelDOT assumed 70% of through traffic that could benefit from this connector road would use it, with the other 30% continuing to travel through the intersection of Kings Highway & Gills Neck Road.

DelDOT utilized the following land use to estimate the amount of new traffic generated for the Gills Neck Road Subdivision under Case 6:

- 472 townhouse units (ITE Land Use Code 230)
- 521,000 square feet of retail space (Land Use Code 820)

Committed developments considered for Case 6:

- Senators (242 single-family detached houses)
- Cadbury (130 retirement apartments and cottages)
- Breakwater (80 single-family detached houses and 105 townhouses)
- Hawkseye (162 single-family detached houses)
- Jones Property (178 townhouses and 12,000 square feet of professional office space)
- Cape Henlopen High School Expansion (New school to be built on current site, expanding student base from 850 to 1600)
- Showfield (239 single-family detached houses and 368 townhouses/condominiums)

Intersection Descriptions

1) Gills Neck Road & Proposed Commercial Site Entrance

Type of Control: proposed two-way stop-controlled (T-intersection)

Eastbound approach: (Gills Neck Road) proposed one through lane and one right-turn lane

Westbound approach: (Gills Neck Road) proposed one left-turn and one through lane **Northbound approach:** (Proposed Commercial Site Entrance) proposed one left-turn lane and one right-turn lane, stop-controlled

2) Gills Neck Road & Proposed Residential Site Entrance/Cadbury Driveway

Type of Control: proposed two-way stop-controlled

Eastbound approach: (Gills Neck Road) proposed one shared through/left-turn lane and one separate right-turn lane

Westbound approach: (Gills Neck Road) proposed one shared through/left-turn lane and one separate right-turn lane

Northbound approach: (Proposed Residential Site Entrance) proposed one shared left/through/right-turn lane, stop-controlled

Southbound approach: (Future Cadbury Driveway) proposed one shared left/through/right-turn lane, stop-controlled

3) Kings Highway & Clay Road/Proposed Site Entrance

Type of Control: existing two-way stop-controlled (T-intersection), proposed signalized four-leg intersection

Eastbound approach: (Clay Road) existing one shared left/right-turn lane, stop-controlled, proposed one left-turn lane, one through lane, and one right-turn lane

Westbound approach: (Proposed Site Entrance) proposed one left-turn, one through, and one right-turn lane

Northbound approach: (Kings Highway) existing one shared through/left-turn lane, proposed one left-turn lane, one through lane, and one right-turn lane

Southbound approach: (Kings Highway) existing one shared through/right-turn lane, proposed one left-turn lane, one through lane, and one right-turn lane

4) Kings Highway & Gills Neck Road/Cape Henlopen High School Entrance

Type of Control: signalized four-leg intersection

Eastbound approach: (Cape Henlopen High School Entrance) one shared through/left-turn and one right-turn lane

Westbound approach: (Gills Neck Road) one shared left/through/right-turn lane

Northbound approach: (Kings Highway) one shared through/left-turn and one right-turn lane

Southbound approach: (Kings Highway) one shared left/through/right-turn lane

5) Delaware Route 1 & Kings Highway

Type of Control: two-way stop-controlled (merge ramp)

Westbound approach: (Kings Highway) one right-turn lane, stop-controlled

Northbound approach: (Delaware Route 1) three through lanes and one right-turn lane

6) Kings Highway & Theodore C. Freeman Highway

Type of Control: unsignalized intersection

Westbound approach: (Theodore C. Freeman Highway) one left-turn and one right-turn lane

Northbound approach: (Kings Highway) one stop-controlled shared through/left-turn lane and one free-flow right-turn lane

Southbound approach: (Kings Highway) one free-flow through lane, one shared and one right-turn lane

Note: This is a complex, unsignalized intersection, governed by unique rules. The westbound right traffic is stop-controlled against the northbound through traffic, which is itself stop-controlled by the westbound left traffic. The northbound right and southbound through traffic proceed unhindered.

7) Kings Highway & Dartmouth Drive

Type of Control: two-way stop-controlled (T-intersection)

Eastbound approach: (Dartmouth Drive) one shared left/right-turn lane, stop-controlled Westbound approach: (Future Jones Property Driveway) future entrance for Jones Property development, consisting of one left-turn lane, one through lane, and one right-turn lane

Northbound approach: (Kings Highway) one left-turn lane and one through lane Southbound approach: (Kings Highway) one through lane and one right-turn lane Note: The TIS anticipated this intersection to be signalized and converted into a four-leg intersection with the development of the Jones Property. However, according to DelDOT, Jones Property is no longer seeking to locate its site entrance at this intersection, but rather move it to the south.

8) Marsh Road & Clay Road

Type of Control: two-way stop-controlled (T-intersection)

Eastbound approach: (Clay Road) one through lane and one right-turn lane

Westbound approach: (Clay Road) one shared through/left-turn lane

Northbound approach: (Marsh Road) one left-turn lane and one right-turn lane, stop-

controlled

9) Clay Road & Wescoats Road

Type of Control: two-way stop-controlled

Eastbound approach: (Clay Road) one through lane and one right-turn lane, stop-

controlled

Westbound approach: (Clay Road) one shared left/right-turn lane, stop-controlled

Northbound approach: (Wescoats Road) one shared through/right-turn lane **Southbound approach:** (Wescoats Road) on shared through/left-turn lane

Note: The eastbound approach of this intersection is the channelized right turn onto Wescoats Road from eastbound Savannah Road. The intersection of Savannah and

Wescoats was also analyzed by the TIS and by McCormick Taylor.

10&11) Savannah Road & Wescoats Road

Type of Control: signalized T-intersection

Westbound approach: (Wescoats Road) one left-turn lane and one right-turn lane Northbound approach: (Savannah Road) one through lane and one right-turn lane Southbound approach: (Savannah Road) one left-turn lane and one through lane

Note: The terminus of the eastbound channelized right-turn lane effectively acts as the

fourth leg of the intersection of Clay Road and Wescoats Road

12) Savannah Road & Old Orchard Road

Type of Control: two-way stop-controlled (T-intersection)

Eastbound approach: (Old Orchard Road) one left-turn lane and one right-turn lane,

stop-controlled

Northbound approach: (Savannah Road) one through lane and one right-turn lane Southbound approach: (Savannah Road) one shared through/right-turn lane

13) Marsh Road & Wescoats Road

Type of Control: two-way stop-controlled

Eastbound approach: (Marsh Road) one shared left/through/right-turn lane, stop-

controlled

Westbound approach: (Marsh Road) one shared left/through/right-turn lane, stop-

controlled

Northbound approach: (Wescoats Road) one shared left/through/right-turn lane Southbound approach: (Wescoats Road) one shared left/through/right-turn lane

Transit, Pedestrian, and Bicycle Facilities

Existing transit service: There is one transit line, Route 206, that runs along Savannah Road from Georgetown to Lewes, but is not located directly adjacent to the development. This route has existing stops at a park and ride lot near Route 9 and Route 23 and at the Beebe Medical Center.

Planned transit service: McCormick Taylor contacted David Dooley of the Delaware Transit Corporation. He stated that currently DART has no plans to expand transit service in the area, but he did suggest external sidewalks along Kings Highway to provide for a potential future bus stop to serve the commercial center.

Existing bicycle and pedestrian facilities: The Kent and Sussex Counties Bicycle Map indicates two designated bicycle trails in the study area. One of these trails is a local loop located along Delaware Route 1, Gills Neck Road and US Route 9 and the other is the American Discovery Trail located along Savannah Road. Gills Neck Road is rated as having below average cycling conditions with low vehicular volumes (less than 2,000 ADT). Kings Highway is rated as having above average cycling conditions with moderate traffic volumes (between 2,000 and 10,000 ADT) north of the Kings Highway and Theodore C. Freeman Highway split, and having above average cycling conditions with high traffic volumes (greater than 10,000 ADT) south of the split. Savannah Road is rated as having above average cycling conditions with moderate traffic volumes. Clay Road is rated as having above average cycling conditions

with low traffic volumes.

Planned bicycle and pedestrian facilities: ORA included a copy of a letter from Anthony Aglio of DelDOT dated February 23, 2005 regarding pedestrian and bicycle facilities. In addition, DelDOT's Bicycle and Pedestrian Facilities Team indicated, in a letter from Stephen Bayer dated October 10, 2007, that the following bicycle and pedestrian facilities should be required. In the letter, Mr. Bayer commented that Livable Delaware's updated State Strategies for Spending Map indicates the site is located in an Investment Level 3 area, where transportation options should be expanded. These would include the existing roadways, public transportation, pedestrian walkways, bicycle paths, and other transportation modes. If the development does occur, the following requests should be incorporated into the project to facilitate bicycle and pedestrian transportation:

- a. The shoulder on Kings Highway should be maintained and marked as bike lanes. If intersection improvements are made at any point on Kings Highway, such locations should include bike lanes through all legs of the intersection.
- b. A 5' wide shoulder should be added on Gills Neck Road along the development frontage and marked as bike lanes.
- c. A 5' wide ADA compliant sidewalk set back 5' from the roadway should be included along the development frontage with Kings Highway.
- d. A 10' wide paved multi-use path setback at least 5' from the roadway should be included along the development frontage with Gills Neck Road.
- e. Internal sidewalks should be included with this development. These should connect with building entrances and frontage sidewalks.
- f. At the proposed entrance on Kings Highway, a 5' bike lane should be striped through any turn lanes and a right-turn yield to bikes sign (MUTCD R4-4) should be added at the start of any right-turn lanes.
- g. At the two entrances proposed on Gills Neck Road, 5' bike lanes should be striped through any turn lanes and a right-turn yield to bikes sign (MUTCD R4-4) should be added at the start of all right-turn lanes.
- h. A bike lane sign (MUTCD R3-17) should be added along both Kings Highway and Gills Neck Road.
- i. At the intersection of Kings Highway and Gills Neck Road, pedestrian facilities should be included on all four legs of the intersection, including but not limited to marked crosswalks, curb ramps, and pedestrian signals. These facilities should also provide for a crossing of the Junction Breakwater Trail.
- j. In future development planning, multimodal transportation connections between residential and commercial locations should be planned for. Specifically, along Gills Neck Road, mid-block pedestrian crossings should be included.
- k. All internal streets to be built with this development should include 5' wide ADA compliant sidewalks setback 5' from the roadway.

Mr. Bayer also indicated the State's Bicycle Plan designates both Kings Highways and Gills Neck Road as bike routes. Also, the Junction Breakwater Trail will be connecting to Gills Neck Road.

Previous Comments

All comments from DelDOT's Scoping Letter, Count Review and Preliminary TIS Review were addressed in the Final TIS submission with the exception of DelDOT's request to evaluate the facilities' conformance with applicable DelDOT, AASHTO and MUTCD standards.

General HCS Analysis Comments

(see table footnotes on the following pages for specific comments)

- The TIS and McCormick Taylor calculated existing truck percents per lane group. For future cases, McCormick Taylor assumed a minimum truck percentage of 2%, the TIS did not.
- 2) The TIS and McCormick Taylor calculated existing PHFs by lane groups. For future cases, McCormick Taylor assumed a minimum of 0.92, the TIS did not.
- 3) McCormick Taylor assumed a minimum yellow time of 4 seconds for all signalized intersection calculations involving intersections that are currently unsignalized or will be improved in future conditions. The TIS used 3 seconds of yellow time at some intersections.
- 4) The alternative site access Scenario 1 and Scenario 2 will only affect the site entrances at Gills Neck Road, the Kings Highway and Gills Neck Road intersection, and the Kings Highway and Clay Road intersection. Therefore, HCS analyses for Cases 4 and 5 were only performed at these intersections.
- 5) The HCS analyses included in the TIS did not always reflect the lane widths observed in the field by McCormick Taylor. McCormick Taylor's HCS analyses incorporated the field-measured lane widths.
- 6) The TIS and McCormick Taylor used different cycle lengths and/or signal timing parameters when analyzing the signalized intersection in some cases.

Table 2 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Signalized Intersection ¹	L	OS per T	IS		LOS per ormick T	
Gills Neck Road & Commercial Site Entrance ²	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid ³
2014 With Proposed Development (Case 3)	A (0.40)	C (0.62)	C (0.86)	A (0.46)	B (0.70)	B (0.73)
2014 With Proposed Development (Case 6)		1	- 2	B (0.53)	B (0.57)	B (0.66)

Unsignalized Intersection ¹ Two-Way Stop Control (T-intersection)	L	OS per T	IS	McC	LOS per ormick T	
Gills Neck Road & Commercial Site Entrance ²	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2014 With Proposed Development Scenario 1 (Case 4)						
Westbound Gills Neck Road - Left	A (7.6)	A (8.5)	A (8.4)	A (7.7)	A (9.2)	B (10.1)
Northbound Commercial Site Entrance	B (12.6)	C (24.5)	E (43.2)	B (12.6)	C (24.5)	E (47.3)
2014 With Proposed Development Scenario 2 (Case 5)						
Westbound Gills Neck Road - Left	A (7.6)	A (8.4)	A (8.4)	A (7.7)	A (8.8)	A (9.2)
Northbound Commercial Site Entrance	B (12.6)	C (23.6)	E (40.9)	B (12.6)	C (23.7)	E (42.8)
2014 With Proposed Development (Case 6)						
Westbound Gills Neck Road - Left	113-	-/2-	1 (# T	A (8.8)	A (9.6)	B (10.4)
Northbound Commercial Site Entrance			EST	E (66.5)	F (102.6)	

³ TIS used 120s cycle length, McCormick Taylor used 60s.

¹ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

² The intersection consists of a separate right-turn and left-turn lane on the eastbound and westbound approach of Gills Neck Road, respectively, and separate left and right-turn lanes on the proposed site driveway.

Table 3 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection ⁴ Two-Way Stop Control	L	OS per T	IS	McC	LOS per ormick T	
Gills Neck Road & Cadbury Driveway/Residential Site Entrance 5	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2014 With Proposed Development (Case 3)						
Eastbound Gills Neck Road - Left	A (8.1)	A (8.0)	A (8.1)	A (8.1)	A (8.0)	A (8.1)
Westbound Gills Neck Road - Left	A (7.6)	A (8.5)	A (8.2)	A (7.6)	A (8.5)	A (8.2)
Northbound Residential Site Entrance	C (19.7)	C (20.4)	C (22.2)	C (19.3)	C (19.3)	C (21.5)
Southbound Cadbury Entrance	B (11.4)	B (12.0)	B (11.4)	B (11.4)	B (11.9)	B (11.4)
2014 With Proposed Development Scenario 1 (Case 4)						
Eastbound Gills Neck Road - Left	A (8.1)	A (8.0)	A (8.1)	A (8.1)	A (8.0)	A (8.1)
Westbound Gills Neck Road - Left	A (7.6)	A (8.4)	A (8.2)	A (7.6)	A (8.5)	A (8.2)
Northbound Residential Site Entrance	C (17.2)	C (19.4)	C (20.6)	C (17.0)	C (18.4)	C (19.9)
Southbound Cadbury Entrance	B (11.3)	B (11.9)	B (11.4)	B (11.3)	B (11.9)	B (11.4)
2014 With Proposed Development Scenario 2 (Case 5)						
Eastbound Gills Neck Road - Left	A (8.1)	A (8.0)	A (8.1)	A (8.1)	A (8.0)	A (8.1)
Westbound Gills Neck Road - Left	A (7.6)	A (8.4)	A (8.1)	A (7.6)	A (8.4)	A (8.2)
Northbound Residential Site Entrance	C (17.1)	C (19.2)	C (20.4)	C (17.0)	-	C (19.9)
Southbound Cadbury Entrance	B (11.3)	B (11.9)	B (11.4)	B (11.3)		B (11.4)

⁴ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

⁵ The TIS analyzed the intersection with a shared left/through/right lane on each approach. McCormick Taylor analyzed the intersection with a separate right-turn lane on both approaches of Gills Neck Road, which is consistent with the concept roadway improvement plan submitted by LT Associates dated May 20, 2005.

Table 4 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection ⁶ Two-Way Stop Control	L	OS per T	IS	McC	LOS per cormick Ta	aylor
Kings Highway & Clay Road / Site Entrance	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2005 Existing (Case 1)						
Eastbound Clay Road	E (44.3)	F (53.6)	F (125.5)	E (43.9)	F (53.6)	F (125.5)
Northbound Kings Highway - Left	A (8.5)	A (9.3)	A (9.5)	A (8.5)	A (9.3)	A (9.5)
2014 Without Proposed Development (Case 2)						
Eastbound Clay Road	F (983.6)	F (1587)	F (1970)	F (983.6)	F (1587)	F (1970)
Northbound Kings Highway - Left	B (10.4)	B (11.7)	B (10.9)	B (10.4)	B (11.7)	B (11.0)
2014 With Proposed Development (Case 3) ⁷						
Eastbound Clay Road	The garden of	7,2	741	F (4576)	F (38880)	F (*)
Westbound Site Entrance	1.87	130.0	- 0.50 T	C (19.4)	D (30.7)	F (*)
Northbound Kings Highway - Left	7,5	11.48	140	B (11.7)	C (15.1)	B (14.8)
Southbound Kings Highway - Left ⁸	-7.0	177	- 4	N/A	N/A	N/A
2014 With Proposed Development (Case 6)						
Eastbound Clay Road	74.	11.79		F (*)	F (*)	F (*)
Westbound Site Entrance	7,5	10501		F (*)	F (*)	F (*)
Northbound Kings Highway - Left	1.47	1.00-20-01	E36-121	A (9.7)	B (12.1)	B (11.3)
Southbound Kings Highway - Left	12	- 50	.2	B (11.8)	C (15.4)	D (32.9)

^{*} HCS+ did not generate a result due to excessive delay.

⁶ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

⁷ The TIS did not analyze Case 3 with the existing lane configurations and rights-in/rights-out site entrance. McCormick Taylor analyzed this scenario in order to better understand the benefits of the improvement options.

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⁸ Left-turns are prohibited on the southbound approach. Therefore no delay and LOS information is available for this movement.

Table 4 (continued) PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006

Prepared by Orth-Rodgers & Associates, Inc.

Roundabout 9	I	OS per T	IS	LOS per McCormick Taylor		
Kings Highway & Clay Road / Site Entrance	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2014 With Proposed Development Scenario 2 (Case 5) 10						
Eastbound Clay Road	7-6			C (33.7)	F (241.8)	F (426.2)
Westbound Site Entrance	4.	-	,-	C (29.0)	F (359.0)	F (484.6)
Northbound Kings Highway		-	-	E (64.9)	E (59.3)	F (228.0)
Southbound Kings Highway	145	2,-1		B (11.3)	F (89.7)	F (110.5)

environmental factor of 1.2 is assumed.

10 The roundabout analysis assumed a bypass lane for the northbound and southbound right-turns on Kings Highway.

⁹ For roundabouts, the numbers in parentheses following levels of service are average delay per vehicle, measured in These results were calculated using the aaSIDRA roundabout analysis software program. An

Table 4 (continued) PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Signalized Intersection 11		OS per T	IS	LOS per McCormick Taylor		
Kings Highway & Clay Road / Site Entrance	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2014 With Proposed Development (Case 3) With Improvement Option 1 12, 13	B (0.75)	B (0.87)	C (0.91)	C (0.78)	F (1.11)	F (1.07)
2014 With Proposed Development Scenario 1 (Case 4) With Improvement Option 2 14	B (0.74)	C (0.84)	F (1.10)	B (0.80)	C (0.82)	F (1.21)
2014 With Proposed Development Scenario 2 (Case 5) With Improvement Option 3 15	B (0.74)	C (0.91)	F (1.31)	B (0.80)	C (0.82)	F (1.54)
2014 With Proposed Development Scenario 2 (Case 5) With Improvement Option 4 16	8.	-	1(2)	B (0.49)	B (0.55)	D (0.85)
2014 With Proposed Development (Case 6) With Improvement Option 3 15			Lit	D (0.95)	F (1.32)	F (2.00)
2014 With Proposed Development (Case 6) With Improvement Option 5 17	-		100	C (0.82)	D (0.95)	F (1.14)

¹¹ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

¹² Improvement Option 1 assumed one left, one through and one right-turn lane on northbound Kings Highway, one through and one right-turn lane on southbound Kings Highway, two left and one right-turn lane on eastbound Clay Road, and one right-turn lane out of the Site Entrance.

¹³ The TIS analyzed this intersection with the eastbound dual left turn movement and the westbound right turn movement operating in the same phase. Given the high volumes of both movements, McCormick Taylor analyzed this intersection assuming that split phasing would be required for the eastbound and westbound approaches, resulting in significantly different LOS analysis results.

¹⁴ Improvement Option 2 assumed one through and one right-turn lane on southbound Kings Highway, and one left, one through and one right-turn lane on the northbound Kings Highway, eastbound Clay Road and westbound Site Entrance approaches, respectively.

¹⁵ Improvement Option 3 assumed one left, one through and one right-turn lane on all approaches.

¹⁶ Improvement Option 4 assumed one left, two through and one right-turn lane on the northbound and southbound Kings Highway approaches, and one left, one through and one right-turn lane on the eastbound and westbound approaches.

¹⁷ Improvement Option 5 assumed one left, one through and one right-turn lane on the northbound and southbound Kings Highway approaches and the eastbound Clay Road approach, and two lefts, one through, and one right-turn lane on the westbound Site Entrance approach.

Table 5 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Signalized Intersection 18	I	OS per T	IS	LOS per McCormick Taylor			
Kings Highway & Gills Neck Road / Cape Henlopen High School	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid	
2005 Existing (Case 1)	B (0.73)	B (0.65)	A (0.69)	B (0.74)	B (0.62)	B (0.67)	
2014 Without Proposed Development (Case 2)	F (1.56)	F (1.09)	F (1.13)	F (1.50)	F (1.08)	F (1.04)	
2014 With Proposed Development (Case 3) 19	-			F (1.81)	F (2.07)	F (2.85)	
2014 With Proposed Development (Case 3) With Improvement Option 1 20	D (0.83)	D (0.86)	D (0.95)	D (0.87)	D (0.91)	D (0.85)	
2014 With Proposed Development Scenario 1 (Case 4) With Improvement Option 2 21	D (0.92)	D (0.83)	D (0.90)	D (0.94)	C (0.79)	C (0.85)	
2014 With Proposed Development Scenario 2 (Case 5) With Improvement Option 3 22	D (0.93)	D (0.91)	F (1.15)	D (0.94)	D (0.86)	F (1.09)	
2014 With Proposed Development Scenario 2 (Case 5) With Improvement Option 4 ²³	-		-	C (0.72)	C (0.61)	. C (0.78)	

¹⁸ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

¹⁹ The TIS did not analyze Case 3 with the existing lane configurations and right-in/right-out site entrance. McCormick Taylor analyzed this scenario in order to better understand the benefits of the improvement options.

²⁰ Improvement Option 1 includes one left, two through and one right-turn lane on northbound Kings Highway, two

²¹ Improvement Option 2 includes one left, two through and one right-turn lane on northbound Kings Highway, two left, one through and one right-turn lane on southbound Kings Highway, one left and one shared through/right lane on westbound Gills Neck Road, and one shared left/through, one right-turn lane on the Cape Henlopen High School approach

Improvement Option 3 includes one left, one through and one right-turn lane on the northbound and southbound approaches of Kings Highway, one left and one shared through/right lane on westbound Gills Neck Road, and one shared left/through, one right-turn lane on the Cape Henlopen High School approach.

²³ Improvement Option 4 includes one left, two through and one right-turn lane on the northbound and southbound approaches of Kings Highway, one left and one shared through/right lane on westbound Gills Neck Road, and one shared left/through, one right-turn lane on the Cape Henlopen High School approach.

Improvement Option 1 includes one left, two through and one right-turn lane on northbound Kings Highway, two left, one through and one right-turn lane on southbound Kings Highway, two left and one shared through/right lane on westbound Gills Neck Road, and one shared left/through, one right-turn lane on the Cape Henlopen High School approach.

Table 5 (continued) PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Signalized Intersection ²⁴	I	OS per T	IS	LOS per McCormick Taylor		
Kings Highway & Gills Neck Road / Cape Henlopen High School	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2014 With Proposed Development (Case 6)		12801		F (1.55)	F (1.36)	F (1.64)
2014 With Proposed Development (Case 6) With Improvement Option 5 25	34	520	-	C (0.79)	C (0.74)	F (1.05)

²⁴ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

²⁵ Improvement Option 5 includes one left, one through and one right-turn lane on the northbound and southbound approaches of Kings Highway and the westbound approach of Gills Neck Road, with one left and one shared through/right lane on the eastbound approach of Cape Henlopen High School.

Table 6 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection ²⁶ Two-Way Stop Control	L	OS per T	IS	LOS per McCormick Taylor		
Delaware Route 1 & Kings Highway	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2005 Existing (Case 1)						
Westbound Kings Highway	B (10.3)	B (12.0)	B (13.1)	B (10.3)	B (12.0)	B (13.1)
2014 Without Proposed Development (Case 2)						
Westbound Kings Highway	B (10.8)	B (13.2)	B (14.2)	B (10.8)	B (13.3)	B (14.2)
2014 With Proposed Development (Case 3)						
Westbound Kings Highway	B (10.8)	B (13.2)	B (14.2)	B (10.8)	B (13.3)	B (14.2)
2014 With Proposed Development (Case 6)						
Westbound Kings Highway	100	J - T	4	B (10.8)	B (14.8)	C (20.1)

²⁶ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

Table 7 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection ²⁷ Two-Way Stop Control	L	OS per T	IS	LOS per McCormick Taylor ²⁸		
Kings Highway & Theodore C. Freeman Highway	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2005 Existing (Case 1)						
Westbound Theodore C. Freeman Highway - Right	B (10.7)	B (10.0)	A (9.8)	B (10.7)	A (8.3)	A (9.8)
Northbound Kings Highway	B (13.9)	C (21.1)	D (33.8)	A (8.2)	A (9.3)	B (10.3)
2014 Without Proposed Development (Case 2)						
Westbound Theodore C. Freeman Highway - Right	B (12.2)	B (10.9)	B (10.6)	B (12.2)	B (10.9)	B (10.6)
Northbound Kings Highway	C (23.1)	D (26.1)	F (61.6)	A (9.1)	A (9.5)	B (11.1)
2014 With Proposed Development (Case 3)						
Westbound Theodore C. Freeman Highway - Right	B (12.5)	B (11.3)	B (11.2)	B (12.5)	B (11.4)	B (11.2)
Northbound Kings Highway	D (29.0)	E (46.3)	F (180.9)	A (9.4)	B (10.3)	B (13.4)
2014 With Proposed Development (Case 6)						
Westbound Theodore C. Freeman Highway - Right	1 4 1	TOP.	11.14	B (12.6)	B (11.5)	B (11.4)
Northbound Kings Highway	1.3.1	1,2	17.2	A (9.5)	B (10.9)	

²⁷ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.
²⁸ McCormick Taylor analyzed northbound Kings Highway as the major street left-turning movement against the

westbound Theodore C. Freeman Highway approach while the TIS analyzed the northbound Kings Highway approach as the minor street stop-controlled approach.

Table 8 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection ²⁹ Two-Way Stop Control (T-intersection)		OS per T	IS	LOS per McCormick Taylor ³⁰		
Kings Highway & Dartmouth Drive 31	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2005 Existing (Case 1)						
Eastbound Dartmouth Drive	C (15.5)	C (21.7)	D (30.0)	C (16.0)	C (21.3)	D (27.6)
Northbound Kings Highway - Left	A (8.3)	A (9.1)	A (9.4)	A (7.3)	A (7.4)	A (7.4)
2014 Without Proposed Development (Case 2) 32						
Eastbound Dartmouth Drive	IE -	je se		D (28.5)	F (159.8)	F (200.5)
Northbound Kings Highway - Left	T care	, A	J= ,=	A (7.5)	A (7.6)	A (7.7)
2014 With Proposed Development (Case 3) 32						
Eastbound Dartmouth Drive	(re	74.	2.	E (48.2)	F (586.0)	F (1282)
Northbound Kings Highway - Left	- 4/	TIP.	-	A (7.5)	A (7.6)	A (7.7)
2014 With Proposed Development (Case 6)						
Eastbound Dartmouth Drive		E I +) T	-3-	F (61.6)	F (819.8)	F (2407)
Northbound Kings Highway - Left	-	- a		A (7.4)	A (7.5)	A (7.7)

³⁰ McCormick Taylor did not include the southbound right movement in their analyses as it is a free-flowing move and does not affect the other traffic at the intersection.

²⁹ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle. measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

³¹ For future Cases 2 and 3, the TIS assumed that the Jones Property will have its site entrance located opposing Dartmouth Drive to form the fourth leg of the intersection and analyzed the intersection with additional turn lanes. According to DelDOT, Jones Property is no longer seeking to locate its site entrance at this intersection, but rather move it to the south. McCormick Taylor analyzed this intersection as a 3-leg intersection with existing lane configurations.

³² The TIS did not analyze any future conditions with existing traffic control. McCormick Taylor analyzed these scenarios in order to better understand the benefits of the proposed improvements.

Table 8 (continued) PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Signalized Intersection ³³	L	OS per T	LOS per McCormick Taylor ³⁴			
Kings Highway & Dartmouth Drive 35	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2014 With Proposed Development (Case 3)	B (0.73)	C (0.90)	F (1.35)	B (0.82)	D (0.92)	F (1.13)
2014 With Proposed Development (Case 3) With Improvement Option 1 36		+	-	A (0.51)	B (0.58)	B (0.69)

Roundabout 37, 38		OS per T	IS	LOS per McCormick Taylor		
Kings Highway & Dartmouth Drive	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2014 With Proposed Development (Case 3)						
Eastbound Dartmouth Drive	11 X 1.	1240 T	- 3	A (9.3)	B (10.3)	B (10.7)
Northbound Kings Highway	-	114	9	B (11.1)	B (11.7)	B (11.9)
Southbound Kings Highway	1200	1		A (6.7)	A (7.0)	A (6.9)
2014 With Proposed Development (Case 6)						
Eastbound Dartmouth Drive	144000	11111111	(-) - I	A (9.2)	B (10.4)	B (10.8)
Northbound Kings Highway	- 76	115-1	I— (Ψ)	B (11.2)	B (12.0)	B (13.2)
Southbound Kings Highway	-14-1	12.2		A (6.6)	A (6.8)	A (7.0)

³³ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

³⁴ McCormick Taylor did not include the southbound right movement in their analyses as it is a free-flowing move and does not affect the other traffic at the intersection.

³⁶ Improvement Option 1 added a second through lane on the northbound approach of Kings Highway.

³⁵ For future Cases 2 and 3, the TIS assumed that the Jones Property will have its site entrance located opposing Dartmouth Drive to form the fourth leg of the intersection and analyzed the intersection with additional turn lanes. According to DelDOT, Jones Property is no longer seeking to locate its site entrance at this intersection, but rather move it to the south. McCormick Taylor analyzed this intersection as a 3-leg intersection with existing lane configurations.

³⁷ McCormick Taylor analyzed the roundabout using aaSIDRA. The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds, calculated with the aaSIDRA model. The analysis assumed an environment factor of 1.2.

³⁸ McCormick Taylor analyzed the roundabout with the southbound right-turn movement as a free-flow bypass lane and with the northbound through movement as a free-flow bypass lane.

Table 9 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection ³⁹ Two-Way Stop Control (T Intersection)	L	OS per T	IS	LOS per McCormick Taylor		
Marsh Road & Clay Road	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2005 Existing (Case 1)	1					
Westbound Clay Road - Left	A (7.4)	A (7.4)	A (7.4)	A (7.5)	A (7.4)	A (7.4)
Northbound Marsh Road	A (9.1)	A (9.2)	A (8.9)	A (9.1)	A (9.2)	A (8.9)
2014 Without Proposed Development (Case 2)						
Westbound Clay Road - Left	A (7.6)	A (7.7)	A (7.6)	A (7.6)	A (7.7)	A (7.6)
Northbound Marsh Road	A (9.6)	A (10.0)	A (9.6)	A (9.5)	A (9.9)	A (9.5)
2014 With Proposed Development (Case 3)						
Westbound Clay Road - Left	A (7.8)	A (8.1)	A (8.3)	A (7.8)	A (8.1)	A (8.3)
Northbound Marsh Road	B (10.1)	B (11.4)	B (12.2)	B (10.0)	B (11.2)	B (12.0)
2014 With Proposed Development (Case 6)						
Westbound Clay Road - Left		- 78	L. A	A (7.8)	A (8.2)	A (8.5)
Northbound Marsh Road			-	B (10.1)	B (11.7)	B (13.0)

³⁹ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

Table 10 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006

Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection 40 Two-Way Stop Control	L	OS per T	IS	LOS per McCormick Taylor			
Wescoats Road & Clay Road 41	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid	
2005 Existing (Case 1)						1	
Eastbound Clay Road	B (11.4)	B (11.9)	B (12.1)	B (10.5)	B (10.9)	B (10.6)	
Westbound Clay Road	B (10.5)	B (10.9)	A (9.8)	B (10.6)	B (10.4)	A (9.8)	
Southbound Wescoats Road - Left	A (7.8)	A (7.7)	A (7.6)	A (7.8)	A (7.7)	A (7.6)	
2014 Without Proposed Development (Case 2)							
Eastbound Clay Road	B (13.9)	C (16.9)	C (16.6)	B (11.8)	B (12.6)		
Westbound Clay Road	B (11.5)	B (12.7)	B (10.9)	B (11.5)	B (11.5)	B (10.8)	
Southbound Wescoats Road - Left	A (7.9)	A (7.9)	A (7.8)	A (7.9)	A (7.9)	A (7.8)	
2014 With Proposed Development (Case 3)							
Eastbound Clay Road	C (15.6)	D (26.8)	E (42.1)	B (13.4)	C (15.5)	C (18.3)	
Westbound Clay Road	B (12.2)	B (14.5)	B (12.3)	B (11.6)	B (14.0)	B (12.1)	
Southbound Wescoats Road - Left	A (7.9)	A (7.9)	A (7.8)	A (7.9)	A (7.9)	A (7.8)	
2014 With Proposed Development (Case 6)							
Eastbound Clay Road			J-1	B (13.3)			
Westbound Clay Road	U P	79.	1	B (12.6)			
Southbound Wescoats Road - Left		141	-	A (8.0)	A (7.8)	A (7.7)	

TIS assumed a shared lane on this approach.

⁴⁰ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.
⁴¹ Based on field observations, McCormick Taylor treated the eastbound through and right-turn lanes as separate; the

Table 11 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection ⁴² Two-Way Stop Control (T Intersection)	L	OS per T	IS	LOS per McCormick Taylor			
Savannah Road & Wescoats Road 43	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid	
2005 Existing (Case 1)							
Westbound Wescoats Road	E (39.7)	F (94.3)	F (50.1)		-	-	
Southbound Savannah Road - Left	B (10.1)	A (8.3)	A (9.1)	-	-	11.24	

Signalized Intersection 42	L	OS per T	LOS per McCormick Taylor			
Savannah Road & Wescoats Road 43	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid
2005 Existing (Case 1)				B (0.82)	A (0.59)	A (0.69)

Signalized Intersection 42	L	OS per T	IS	LOS per McCormick Taylor			
Savannah Road & Wescoats Road /Realigned Old Orchard Road 44	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid	
2014 Without Proposed Development (Case 2)	B (0.72)	B (0.59)	B (0.65)	B (0.76)	B (0.68)	C (0.86)	
2014 With Proposed Development (Case 3)	B (0.77)	C (0,66)	C (0.75)	C (0.81)	C (0.69)	C (0.81)	

⁴³ This intersection was not signalized when ORA did their field views; however, it has since been signalized, hence

McCormick Taylor analyzed it as such for all cases.

⁴² For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

⁴⁴ McCormick Taylor and the TIS assumed that Old Orchard Road will be realigned for all future cases. The realigned intersection includes one left, one through and one right-turn lane on each of the four approaches. DelDOT did not provide Case 6 volumes for the realigned intersection.

Table 12 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection ⁴⁵ Two-Way Stop Control (T Intersection)		OS per T	IS	LOS per McCormick Taylor			
Savannah Road & Old Orchard Road ⁴⁶	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid	
2005 Existing (Case 1)							
Eastbound Old Orchard Road	F (60.9)	E (45.1)	F (84.0)	F (63.6)	E (48.1)	F (89.0)	
Northbound Savannah Road - Left	A (8.9)	B (11.0)	A (9.4)	A (8.8)	B (10.9)	A (9.3)	

existing T-intersection will not exist for all future cases.

⁴⁵ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.
⁴⁶ McCormick Taylor and the TIS assumed that Old Orchard Road will be realigned to Wescosts Road and the

Table 13 PEAK HOUR LEVELS OF SERVICE (LOS)

based on Traffic Impact Study for Gills Neck Road Subdivision Report dated May 18, 2006 Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection ⁴⁷ Two-Way Stop Control	L	OS per T	IS	LOS per McCormick Taylor			
Wescoats Road & Marsh Road	Weekday AM	Weekday PM	Saturday Mid	Weekday AM	Weekday PM	Saturday Mid	
2005 Existing (Case 1)							
Eastbound Marsh Road	B (14.7)	B (14.6)	B (13.0)	B (14.7)	B (14.5)	B (13.0)	
Westbound Marsh Road	B (13.3)	B (14.9)	B (12.6)	B (13.3)	B (14.9)	B (12.6)	
Northbound Wescoats Road - Left	A (7.7)	A (8.0)	A (7.7)	A (7.7)	A (8.0)	A (7.7)	
Southbound Wescoats Road - Left	A (7.8)	A (7.6)	A (7.6)	A (7.6)	A (7.6)	A (7.6)	
2014 Without Proposed Development (Case 2)							
Eastbound Marsh Road	C (18.3)	C (20.1)	C (16.3)	C (17.3)	C (19.1)	C (15.5)	
Westbound Marsh Road	C (15.9)	C (21.7)	C (15.9)	C (15.3)		C (15.3)	
Northbound Wescoats Road - Left	A (7.8)	A (8.2)	A (8.0)	A (7.8)	A (8.1)	A (8.0)	
Southbound Wescoats Road - Left	A (7.8)	A (7.8)	A (7.8)	A (7.7)	A (7.8)	A (7.7)	
2014 With Proposed Development (Case 3)							
Eastbound Marsh Road	C (20.5)	D (26.6)	C (23.4)	C (19.1)	C (24.1)	C (22.0)	
Westbound Marsh Road	C (17.3)	D (29.7)	C (19.9)	C (16.5)	D (26.6)	C (18.9)	
Northbound Wescoats Road - Left	A (7.8)	A (8.2)	A (8.0)	A (7.8)	A (8.1)	A (8.0)	
Southbound Wescoats Road - Left	A (7.8)	A (7.8)	A (7.8)	A (7.7)	A (7.8)	A (7.8)	
2014 With Proposed Development (Case 6)							
Eastbound Marsh Road	11-67		I TY SY	C (17.8)	C (23.4)	C (21.7)	
Westbound Marsh Road	I Ga I	P-J	17.50	C (15.5)	D (25.8)	C (18.5)	
Northbound Wescoats Road - Left	117.5.71	0		A (7.7)	A (8.1)	A (7.9)	
Southbound Wescoats Road - Left	124.2			A (7.7)	A (7.7)	A (7.7)	

 $^{^{47}}$ For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analysis, those numbers are X-critical, a composite volume-to-capacity ratio.

Overview of the DelDOT Kings Highway Corridor Study

Intersections examined as part of analysis:

- 1) Kings Highway and Clay Road/Proposed Site Entrance
- 2) Kings Highway and Gills Neck Road/Cape Henlopen High School Entrance
- 3) Kings Highway and Dartmouth Drive
- 4) Delaware Route 1 and Dartmouth Drive
- 5) Savannah Road and Wescoats Road
- 6) Savannah Road and Old Orchard Road
- 7) Realigned Savannah Road and Old Orchard Road (Note: this intersection is only analyzed by DelDOT in Alternatives 3-6 as described below in Conditions 8-11.)

Conditions examined:

- 1) 2005 existing conditions
- 2) 2014 no-build conditions
- 3) 2014 build alternative 1a this alternative improves the intersection of Kings Highway and Gills Neck Road/Cape Henlopen High School (CHHS) Entrance to include one separate left-turn and one shared through/right-turn lane on the Gills Neck Road and CHHS Entrance approaches, and one left-turn, one through and one right-turn lane on the Kings Highway approaches. The improvements at the intersection of Kings Highway and Clay Road/Site Entrance include one left-turn, one through and one right-turn lane on all four approaches.
- 4) 2014 build alternative 1b this alternative has the same improvements as proposed in alternative 1a, except that alternative 1b doesn't include the Monroe Entrance.
- 5) 2014 build alternative 1c this alternative has the same improvements as proposed in alternative 1a, except that the Gills Neck Road approach at its intersection with Kings Highway has two left-turn lanes and one shared through/right-turn lane.
- 6) 2014 build alternative 2a this alternative includes all the improvements as proposed in alternative 1a. In addition, the eastbound approach of Dartmouth Drive at its intersection with Kings Highway includes one left-turn and one right-turn lane, and a signal is installed at this intersection.
- 7) 2014 build alternative 2b this alternative includes all the improvements as proposed in alternative 1a. In addition, the intersection of Dartmouth Drive and Kings Highway is converted into a roundabout.
- 8) 2014 build alternative 3 this alternative includes all the improvements as proposed in alternatives 1a and 2a. In addition, it realigns the intersection of Savannah Road and Wescoats Road with the intersection of Savannah Road and Old Orchard Road.
- 9) 2014 build alternative 4* this alternative includes all the improvements as proposed in alternatives 1a, 2a and 3. In addition, it develops a connector road from Gills Neck Road to Clay Road through the proposed Gills Neck Road Subdivision. The connector road consists of a two-lane section. DelDOT assumed 70% of through traffic that could benefit from this connector road would use it, with the other 30% continuing to travel through the intersection of Kings Highway & Gills Neck Road.
- 10) 2014 build alternative 5 this alternative includes all the improvements as proposed in alternatives 1a, 2a and 3. In addition, it dualizes Kings Highway to include two travel lanes in each direction from Dartmouth Drive to T.C. Freeman Highway.

11) 2014 build alternative 6 – this alternative includes all the improvements as proposed in alternatives 1a, 2a, 3, 4 and 5. In addition, it includes dual left-turn lanes from eastbound Dartmouth Drive, from westbound Gills Neck Road, and from the proposed westbound Gills Neck Site Entrance all onto Kings Highway.

Peak hours evaluated: Weekday morning, weekday evening, and Saturday mid-day peak hours.

Committed developments considered for conditions described above:

Note: The following are in addition to the Gills Neck Road Subdivision (138 single-family detached houses, 318 multi-family dwelling units, 330,000 square feet of retail space, and a 1,000-seat performing arts center), and are based on planned land use information available at the time the Gills Neck Road Subdivision TIS was prepared, and this information may be different than the current planned land use for each development.

- Senators (180 single-family detached houses)
- Cadbury (82 apartments and 48 cottages)
- Breakwater (80 single-family detached houses and 105 townhouses)
- Hawkseye (162 single-family detached houses)
- Jones Property (150 townhouses and 44,000 square feet of professional offices)
- Cape Henlopen High School Expansion (New school to be built on current site, expanding student base from 850 to 1600)
- Villages of Five Points (244 single-family detached houses, 353 townhouses/condominiums and 115,000 square feet of retail)
- Showfield (198 single-family detached houses and 409 townhouses/condominiums)

*2014 Build Alternative 4 with Updated Volumes

In December 2007, due to developer changes to the proposed land use and site plan of the Gills Neck Road Subdivision and other nearby developments, DelDOT Division of Planning updated the 2014 build volumes to reflect the latest land use ("Case 6" as detailed on page 15). Working in coordination with DelDOT, McCormick Taylor performed additional Synchro analyses for the 2014 build alternative 4 with Case 6 updated volumes.

DelDOT utilized the following land use to estimate the amount of new traffic generated for the Gills Neck Road Subdivision under 2014 build alternative 4 with Case 6 updated volumes:

- 472 townhouse units (ITE Land Use Code 230)
- 521,000 square feet of retail space (Land Use Code 820)

Committed developments considered for the 2014 Build Alt. 4 with Updated Volumes:

- Senators (242 single-family detached houses)
- Cadbury (130 retirement apartments and cottages)
- Breakwater (80 single-family detached houses and 105 townhouses)
- Hawkseye (162 single-family detached houses)
- Jones Property (178 townhouses and 12,000 square feet of professional office space)
- Cape Henlopen High School Expansion (New school to be built on current site,

expanding student base from 850 to 1600)

• Showfield (239 single-family detached houses and 368 townhouses/condominiums)

Table 14 WEEKDAY MORNING PEAK HOUR LEVELS OF SERVICE (LOS)

based on Kings Highway Corridor Study Prepared by DelDOT Division of Planning 48

Intersection ⁴⁹	2005 Existing	2014 No-build ⁵⁰	Alt.	Alt. 4 with Updated Volumes 51	Alt.	Alt.
Dartmouth Dr. & Delaware Route 1	C	7	D	D	D	D
Kings Highway & Dartmouth Drive	В	D	В	В	A	A
Kings Highway & Clay Road	E 52	F	D	D	С	В
Kings Highway & Gills Neck Road	A	F	Е	С	D	С
Savannah Road & Old Orchard Road	F	1-8	_ Q (in William	G.	1/2
Savannah Road & Wescoats Road	В	12-11	-50	- 15:	13	
Realigned Savannah Road & Old Orchard Road	124	В	С	С	C	С

⁴⁸ Analyses of Alternatives 1a, 1b, 1c, 2a, 2b, and 3 were conducted by DelDOT but are not shown because they are now considered to be outdated and DelDOT is not considering recommending those alternatives at this time.

⁴⁹ LOS for 2005 Existing and Alternatives 4-6 was determined by DelDOT using the Synchro simulation software.

LOS shown for unsignalized intersections is for the stop-controlled approach.

^{5f} McCormick Taylor performed additional Synchro analyses using the updated 2014 build volumes provided by DelDOT.

⁵⁰ LOS for 2014 No-build represents McCormick Taylor HCS analysis, which did not include the intersection of Dartmouth Drive & Delaware Route 1. LOS shown for unsignalized intersections is for the stop-controlled approach.

⁵¹ McCormick Taylor performed additional Symphocarchy and the control of the stop-controlled approach.

⁵² LOS shown is for the stop-controlled eastbound Clay Road approach based on McCormick Taylor HCS analysis. DelDOT did not provide Synchro analysis results for this approach.

Table 15 WEEKDAY EVENING PEAK HOUR LEVELS OF SERVICE (LOS)

based on Kings Highway Corridor Study Prepared by DelDOT Division of Planning 53

Intersection 54	2005 Existing	2014 No-build ⁵⁵	Alt.	Alt. 4 with Updated Volumes ⁵⁶	Alt.	Alt.
Dartmouth Dr. & Delaware Route 1	С	=======================================	С	F	С	С
Kings Highway & Dartmouth Drive	A	F	С	D	В	A
Kings Highway & Clay Road	F 57	F	F	Е	С	В
Kings Highway & Gills Neck Road	A	F	D	С	С	В
Savannah Road & Old Orchard Road	F		1 = 1		140	-
Savannah Road & Wescoats Road	В	-	-		183	1
Realigned Savannah Road & Old Orchard Road	-	В	C	C	С	С

⁵⁴ LOS for 2005 Existing and Alternatives 4-6 was determined by DelDOT using the Synchro simulation software. LOS shown for unsignalized intersections is for the stop-controlled approach.

approach.

56 McCormick Taylor performed additional Synchro analyses using the updated 2014 build volumes provided by DelDOT.

⁵³ Analyses of Alternatives 1a, 1b, 1c, 2a, 2b, and 3 were conducted by DelDOT but are not shown because they are now considered to be outdated and DelDOT is not considering recommending those alternatives at this time.

LOS for 2014 No-build represents McCormick Taylor HCS analysis, which did not include the intersection of Dartmouth Drive & Delaware Route 1. LOS shown for unsignalized intersections is for the stop-controlled approach.

⁵⁷ LOS shown is for the stop-controlled eastbound Clay Road approach based on McCormick Taylor HCS analysis. DelDOT did not provide Synchro analysis results for this approach.

Table 16 SATURDAY MID-DAY PEAK HOUR LEVELS OF SERVICE (LOS)

based on Kings Highway Corridor Study Prepared by DelDOT Division of Planning 58

Intersection ⁵⁹	2005 Existing	2014 No-build	Alt.	Alt. 4 with Updated Volumes ⁶¹	Alt.	Alt.
Dartmouth Dr. & Delaware Route 1	D		D	F	D	D
Kings Highway & Dartmouth Drive	A	F	F	F	С	В
Kings Highway & Clay Road	F 62	F	F	F	F	С
Kings Highway & Gills Neck Road	A	F	F	D	D	В
Savannah Road & Old Orchard Road	Е	11.50	10		1-2-1	-
Savannah Road & Wescoats Road	В	161	i je	- 6	-	-
Realigned Savannah Road & Old Orchard Road	14.4	C	С	С	С	C

⁵⁹ LOS for 2005 Existing and Alternatives 4-6 was determined by DelDOT using the Synchro simulation software. LOS shown for unsignalized intersections is for the stop-controlled approach.

DelDOT.

⁵⁸ Analyses of Alternatives 1a, 1b, 1c, 2a, 2b, and 3 were conducted by DelDOT but are not shown because they are now considered to be outdated and DelDOT is not considering recommending those alternatives at this time.

⁶⁰ LOS for 2014 No-build represents McCormick Taylor HCS analysis, which did not include the intersection of Dartmouth Drive & Delaware Route 1. ⁶¹ McCormick Taylor performed additional Synchro analyses using the updated 2014 build volumes provided by

⁶² LOS shown is for the stop-controlled eastbound Clay Road approach based on McCormick Taylor HCS analysis. DelDOT did not provide Synchro analysis results for this approach.

Table 17 2014 ALTERNATIVE 4 CAPACITY ANALYSIS RESULTS

based on Kings Highway Corridor Study Prepared by DelDOT Division of Planning

- Control of	AM Peak Hour			PM	I Peak H	our	Saturday Peak Hour			
Intersection	LOS	Delay (S)	v/c	LOS	Delay (S)	v/c	LOS	Delay (S)	v/c	
Dartmouth Drive & Delaware Route 1	D	37.7	0.52	С	32.7	0.79	D	47.5	0.98	
Kings Highway & Dartmouth Drive	В	11.4	0.69	С	30.8	0.86	F	82.6	1.09	
Kings Highway & Clay Road	D	45.6	0.81	F	86.4	0.97	F	182.0	1.35	
Kings Highway & Gills Neck Road	Е	63.2	0.78	D	43.7	0.76	F	91.0	1.46	
Realigned Savannah Road & Old Orchard Road	C	28.8	0.65	С	21.9	0.67	С	33.7	0.61	

Note: Alternative 4 improvements consist of Alternative 1a plus Alternative 2a plus Alternative 3, plus a two-lane connector road from Gills Neck Road to Clay Road through the proposed Gill Neck Road Subdivision.

Table 18
2014 ALTERNATIVE 4 WITH UPDATED VOLUMES – CAPACITY ANALYSIS RESULTS
based on Kings Highway Corridor Study
Prepared by DelDOT Division of Planning

4.10	AM Peak Hour			PM	I Peak H	our	Saturday Peak Hour			
Intersection	LOS	Delay (S)	v/c	LOS	Delay (S)	v/c	LOS	Delay (S)	v/c	
Dartmouth Drive & Delaware Route 1	D	52.8	0.85	F	128.3	4.46	F	317.0	3.37	
Kings Highway & Dartmouth Drive	В	12.3	0.71	D	49.8	1.01	F	96.4	1.35	
Kings Highway & Clay Road	D	43.3	0.97	Е	65.1	1.26	F	125.8	2.01	
Kings Highway & Gills Neck Road	С	29.2	0.64	С	22.3	0.77	D	36.0	0.96	
Realigned Savannah Road & Old Orchard Road	C	28.8	0.64	С	21.7	0.74	С	29.2	0.74	

Note: Alternative 4 improvements consist of Alternative 1a plus Alternative 2a plus Alternative 3, plus a two-lane connector road from Gills Neck Road to Clay Road through the proposed Gill Neck Road Subdivision.

Table 19 2014 ALTERNATIVE 5 CAPACITY ANALYSIS RESULTS

based on Kings Highway Corridor Study Prepared by DelDOT Division of Planning

4.7.5.74	AM Peak Hour			PM	I Peak H	our	Satur	Saturday Peak Hour			
Intersection	LOS	Delay (S)	v/c	LOS	Delay (S)	v/c	LOS	Delay (S)	v/c		
Dartmouth Drive & Delaware Route 1	D	37.7	0.52	C	32.7	0.79	D	47.5	0.98		
Kings Highway & Dartmouth Drive	A	7.6	0.45	В	13.5	0.58	С	20.4	0.71		
Kings Highway & Clay Road	С	22.6	0.49	С	32.3	0.66	F	93.5	0.87		
Kings Highway & Gills Neck Road	D	50.8	0.72	С	28.3	0.62	D	35.4	0.95		
Realigned Savannah Road & Old Orchard Road	С	28.8	0.65	C	21.9	0.67	С	33.7	0.61		

Note: Alternative 5 improvements consist of Alternative 1a plus Alternative 2a plus Alternative 3, plus two lanes in each direction along Kings Highway from Dartmouth Drive to T.C. Freeman Highway.

Table 20 2014 ALTERNATIVE 6 CAPACITY ANALYSIS RESULTS

based on Kings Highway Corridor Study Prepared by DelDOT Division of Planning

	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
Intersection	LOS	Delay (S)	v/c	LOS	Delay (S)	v/c	LOS	Delay (S)	v/c
Dartmouth Drive & Delaware Route 1	D	37.7	0.52	С	32.7	0.79	D	47.5	0.98
Kings Highway & Dartmouth Drive	A	6.2	0.40	A	8.0	0.51	В	10.2	0.63
Kings Highway & Clay Road	В	15.4	0.47	В	15.5	0.54	С	22.9	0.71
Kings Highway & Gills Neck Road	С	20.8	0.48	В	15.1	0.45	В	16.7	0.65
Realigned Savannah Road & Old Orchard Road	C	28.8	0.65	С	21.9	0.67	С	33.7	0.61

Note: Alternative 6 improvements consist of Alternative 1a plus Alternative 2a plus Alternative 3 plus Alternative 4 plus Alternative 5, plus dual left-turn lanes from eastbound Dartmouth Drive, from westbound Gills Neck Road, and from the proposed westbound Gills Neck Site Entrance all onto Kings Highway.

PLANNING & ZONING COMMISSION

ROBERT C. WHEATLEY, CHAIRMAN IRWIN G. BURTON, III MICHAEL B. JOHNSON MARTIN L. ROSS RODNEY SMITH



Sussex County

DELAWARE

djh@dbfinc.com

SUSSEXCOUNTY PROPERTY OF THE SUSSEXCOUNTY PROPERTY OF THE SUSSEX OF THE

DEPT. OF TRANSPORTATION DIVISION OF PLANNING

Service Level Evaluation Request Form

This form **shall** be submitted to the Planning and Zoning Office and a response **shall** be received back from DelDOT prior to the applicant being able to submit an application to the Planning and Zoning Office.

Date: 9/18/15	
Site Information:	
Location: East side of Site Address/Location: <u>S268</u>), and south side	of US Route 9 (Kings Highway and e of Gills Neck Road (S267).
Tax Parcel Number: 3-35-12.00-3.00(p/o) Current Zoning: AR-1 (36.47+/-Acres) Proposed Zoning: CR-1 (36.47+/-Acres) Land Use Classification: Environmentally Sensitive Developing Area	
Proposed Use(s): Shopping Center	
Square footage of any proposed buildings or number of	units: 215,000sq.ft. including outparcels
Applicant Information:	
Applicant's Name: J.G. Townsend, Jr. & Co.	
Applicant's Address: P.O. Box 430 City: Georgetown State: DE	Zip Code: 19947
Applicant's Phone Number: (302) 226-6645 Applicant's e-mail address: nhammonds@jacklingo.co	PLEASE SEND RESPONSE TO:
Last updated 6-9-15	Milford. DE 19963 (302) 424-1441 FAX 424-0430

DAVIS, BOWEN & FRIEDEL, INC.

P.O. BOX 809 23 NORTH WALNUT STREET MILFORD, DELAWARE 19963

	MII	_FORD,	DELAWARE 19963	September 18, 2015	2261J001
			302) 424-1441	ATTENTION	brough
		FAX (302) 424-0430	Bill Brocken	TOTAL IN THE STATE OF THE STATE
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800	S Bay Ro	ad			
Do	ver, DE 19	9901			
E ARE S	ENDING YO	ou 🗇	Attached Under Separa	te Cover via	the following items:
	Shop Drawin	gs	Prints	Plans	
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1			SLER Transmittal Letter and Er	nclosures	
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LETTER OF TRANSMITTAL

DATE

JOB NO.

2261J001



September 18, 2015

Mr. Lawrence Lank Sussex County Planning and Zoning 2 The Circle, P.O. Box 589 Georgetown, DE 19947

RE: Gills Neck Village Center
Kings Highway & Gills Neck Road
Service Level Evaluation Request (SLER)
Proposed CR-1 Rezoning
Tax Map: 3-35-12.00-3.00 (p/o)

Dear Lawrence:

This letter transmits the Service Level Evaluation Request (SLER) for the referenced proposed CR-1 Rezoning application for a planned shopping center proposed as Gills Neck Village Center. The required pre-application form is enclosed with a copy provided directly to DelDOT as well.

Village Center Current Rezoning and Land Use Proposal

The subject site is proposed for rezoning with the sketch plan indicating a total of 215,000 square feet for a shopping center including 32,000 square feet assumed for the outparcel pad sites planned along Kings Highway. The current land use proposal is a significant reduction (58.73% in size from assumed TIS land use) in total square footage from the previously submitted commercial proposals for the site.

The site consists of a portion of tax parcel 3-35-12.00-3.00, as illustrated on the enclosed Rezoning Plan. It is noted the *approved Governors Subdivision* that is soon to begin construction is located on another portion of the property and is *being developed separately as approved*. The parcel is currently zoned AR-1 (Agricultural Residential). J.G. Townsend, Jr. & Co. (JGT) proposes to rezone approximately 36.47± acres to CR-1 (Commercial Residential) for the proposed Gills Neck Village Center.

JGT is an LT Associates, LLC affiliate, and also the owner of the approved Governors subdivision. Two other LT Associates, LLC affiliates are developing projects along Gills Neck Road: Senators Lewes, LP and Showfield, LLC. Any improvements completed by or required of Senators, Showfield, Governors, and/or Village Center are hereinafter referenced as improvements by LT Affiliates.

The subject proposed CR-1 rezoning site is located along the east side of US Route 9

Mr. Lawrence Lank September 18, 2015 Page 2

(Kings Highway, Sussex Road 268) and along the south side of Gills Neck Road (Sussex Road 267), at the southeast corner of the existing signalized intersection. The site is within Sussex County, outside of the City of Lewes, opposite Cape Henlopen High School/District Office on the northern portion of the site, and opposite Clay Road in the area of the southern site boundary.

Site Access

Two (2) site access points are proposed as the enclosed sketch plan illustrates: a full access on Gills Neck Road (Sussex Road 267) and a full access (primary) along Kings Highway (US Route 9) opposite Clay Road (Sussex 269). The primary site access on Kings Highway (US Route 9) is required to be signalized and improved to provide exclusive lanes along Kings Highway, Clay Road, and the site access. A Traffic Operational Analysis (TOA) and Traffic Signal Justification Study with 2015 data are under way to determine the required DelDOT design and recommendations.

The Kings Highway (US Route 9) site frontage is classified as a major arterial per the definition of major arterial in Chapter 99-5 of the Sussex County Code, which identifies only seven (7) roadways as appropriate for CR-1 rezoning. Roadway G, US Route 9 from Route 1 to the Lewes limits, is classified as a major arterial road. As the enclosed pages from the 2014 DelDOT Vehicle Volume Summary (formerly Traffic Summary) detail, US Route 9 follows Kings Highway but does not continue onto Savannah Road (US 9 Business and Sussex Road 18).

From Five Points south to Dartmouth Drive, US Route 9 merges with Route 1. Dartmouth Drive and Kings Highway are then listed as US Route 9 traveling to the Cape-May-Lewes Ferry terminal. Relevant documentation is enclosed illustrating US Route 9 and the DelDOT classification of Kings Highway as a Principal Arterial similar to the Sussex County designation as a Major Arterial Roadway.

Traffic Studies, TIS Review Letters, and Agreements Completed in the Area

As DelDOT stated during the PLUS comments provided by the Office of State Planning and dated April 23, 2015, a Traffic Impact Study (TIS) was previously completed in 2006 for projects consisting of significantly larger proposed land uses.

The approved TIS and the Letter Agreement detailing DelDOT requirements are based upon an assumed total land use of 521,000 Sq. Ft. Commercial, 723 Single-Family Detached Houses, 1,123 Townhouses, 12,000 sq. ft. of offices, a 750-student high school expansion & 130 retirement apartments/cottages: The total residential units assumed to be occupied since 2005 was 1,978 dwellings. Estimates indicate as of July 20, 2015, approximately 720 total dwelling units along Gills Neck Road had been occupied since 2005. In the 2006 to 2009 timeframe, using the assumed TIS land use the following six (6) items documenting the traffic analysis and corresponding recommendations were completed by DelDOT and the developers including studies, resulting correspondence, and the resulting Letter Agreement that remains valid:

1. 2006 - Gills Neck Road Subdivision (Townsend Property) TIS [now separate

projects known as Governors (approved as 287 Single-Family Homes & 139 Towns, 426 Total) and Gills Neck Village Center (currently proposed as 215,000 square feet of shopping center)] – Revised TIS analysis addressed 472 townhouses/ condominiums and 521,000 square feet of commercial space in addition to all Gills Neck Road area developments;

2. 2007 - Showfield TIS - Revised TIS addressed 239 single-family detached houses and 368 single-family attached houses (166 approved in Sussex County);

2007-2008 - Kings Highway Corridor Study - Completed by DelDOT addressing full build-out of all developments in the Gills Neck Road area (same assumptions as Gills Neck Road Subdivision TIS and Showfield TIS) assuming significantly more density and commercial square feet than was approved and/or is currently proposed;

 January 15, 2008 - Separate DelDOT Consultant TIS Review Letters forwarded to Sussex County by DelDOT for Gills Neck Road Subdivision (now approved Governors and proposed Gills Neck Village Center) TIS and Showfield TIS;

5. 2009 - DelDOT Kings Highway / Gills Neck Road Proposed Area Improvements assuming more density and commercial square feet (same assumptions as Gills Neck Road Subdivision TIS and Showfield TIS) than was approved and/or is currently proposed; and

September 24, 2009 - DelDOT & LT Associates, LLC Signed Letter
 Agreement assuming more density and commercial square feet (same
 assumptions as Gills Neck Road Subdivision TIS and Showfield TIS) than was
 approved and/or is currently proposed.

The superseding Letter Agreement, dated September 24, 2009, documents the significant improvements required of the developers in the Gills Neck Road area including the developers of the proposed Gills Neck Village Center. All off-site improvements identified in the Letter Agreement were based on the 521,000 square feet Village Center proposed at the time and the resulting off-site improvements costs are measured in the millions of dollars. Since the agreement was signed, the Showfield and Gills Neck Village Center proposed land uses have been significantly reduced removing hundreds of homes and removing 306,000 square feet commercial for a 58.73% reduction in proposed commercial size, less than half the previously proposed commercial size.

Completed Developer Improvements Required in the Gills Neck Road Area

A significant amount of multi-modal transportation improvements in the immediate Gills Neck Road area have been funded by the developers consisting of Gills Neck Road widening of 5.0 feet for paved Gills Neck Road shoulders in each direction for approximately 2,260 feet, overlay of existing Gills Neck Road travel lanes, Gills Neck Road improved curve radius, bicycle/pedestrian improvements (i.e. construction of portions of the Junction and Breakwater Trail and 1.91 miles of the Junction and Breakwater Trail constructed on lands dedicated by LT Affiliates), and intersection improvements. LT Affiliates have already invested millions of dollars in the existing multi-modal transportation network and are obligated to invest millions more to address existing multi-modal infrastructure needs while also planning for future build-out of the area. The improvements benefit the residents along these roadways, as well as their

Mr. Lawrence Lank September 18, 2015 Page 4

friends, family, visitors, and the Greater Lewes Community. The improvements would not have been possible without the proposed development of Gills Neck Village Center and ongoing development of the surrounding properties.

DelDOT is only responsible for funding the above ground signal construction (i.e. signal poles, pedestrian signal poles, signal heads, signal phasing, etc.), signal wirings, and signal pole footings per the signed Letter Agreement due to additional right-of-way (ROW) dedicated by LT Affiliates. So far, the only costs to the State have been a small portion for the above ground signal construction completed in summer 2015 with the remaining approved signal construction to be completed next summer in 2016.

A significant amount of construction at Kings Highway/Gills Neck Road/Cape Henlopen High School intersection was completed prior to students reporting back for fall session on Tuesday, September 8, 2015. The scheduled summer 2015 widening and associated items such as signing, striping, relocation of pedestrian crossing, and relocated section of Junction and Breakwater Trail were completed as required. Shared-use path construction along Kings Highway is scheduled for completion prior to summer 2016.

As part of the summer 2015 improvements, a substantial amount of widening was completed along Kings Highway and Gills Neck Road. Portions of the new signal to be operational next summer were also either permanently or temporarily constructed or relocated. The Kings Highway widened pavement section was opened to traffic near the end of August 2015. Traffic conditions along northbound Kings Highway have improved as a result. The Gills Neck Road widening completed in 2015 is not to be opened until summer 2016 due to the agreed upon construction phasing schedule coordinated in conjunction with the Cape Henlopen School District and utilities (electric, phone, and cable) that need to be relocated on the school side of Kings Highway.

For the construction schedule, DelDOT and the developers coordinated with the Cape Henlopen School District due to widening on the school side of Kings Highway and the realignment of school access with new Gills Neck Road configuration. It was determined based on the schools request that *no construction impacting school traffic would be permitted once school was in session*. Nighttime construction was also not permitted.

Accordingly, the summer 2015 construction impacting traffic is completed. Construction of the remaining DelDOT intersection improvements will resume after school is out in June 2016 with further improvements along Kings Highway, reconstruction of Cape site access realigning the existing lane configuration, and opening the Gills Neck Road widening improvements; all funded completely by the developers.

A significant amount of ROW, 4.42 acres of land, was dedicated by the developers to the State of Delaware to accommodate the improvements. To accommodate the significant existing Cape left-turn volume that occurs on a daily basis during the school year, an exclusive left-turn lane with an exclusive left-turn phase serving the Cape Henlopen High School site access was provided by the developers along the northbound Kings Highway approach. The developers, in conjunction with DelDOT, determined a temporary left-turn lane should be opened now in lieu of waiting until next summer. The

Mr. Lawrence Lank September 18, 2015 Page 5

left-turn lane will be relocated next summer in 2016 to its permanent location to allow for a dedicated bicycle lane as part of the construction including widening on the Cape side of King Highway. Additionally, the *existing right-turn lane onto Gills Neck Road was significantly lengthened* to better serve the residents along Gills Neck Road whom will benefit from the lengthened lane.

The traveling public, especially those destined for Cape Henlopen High School and Gills Neck Road, will see a significant improvement in intersection operations in September 2015 and throughout the entire school year with respect to intersection delays, intersection queuing, and intersection safety. Previously, the through vehicles bypassing the left turns into Cape mixed with the right-turns onto Gills Neck Road, which created visibility concerns for drivers turning left onto Gills Neck Road from southbound Kings Highway (without a left-turn lane) and turning right from Gills Neck Road that conflicted with the northbound through vehicles that were previously using the right-turn lane.

The construction of the auxiliary lane improvements, widening along Gills Neck Road to include a raised concrete boulevard median separating traffic, and any associated conduit work for the traffic signal is funded 100% by the developers in the area to address existing conditions along Kings Highway and Gills Neck Road irrespective of the proposed Gills Neck Village Center while planning for the ultimate build-out of all Gills Neck Road area developments.

To date, LT Affiliates have already invested millions of dollars in the multi-modal public infrastructure to improve existing conditions for the traveling public. Per the Letter Agreement, the developers are also contributing \$50,000 towards the Dartmouth Drive improvements adding an additional left-turn lane (3 total left-turn lanes with one shared) for traffic destined for southbound Delaware Route 1. The funds may need to be escrowed considering the Dartmouth Drive improvements are under construction with widening apparently completed. Overlaying and striping remain to be completed.

The following improvements in the area have already been completed by or are under construction by LT Affiliates. The LT Affiliates improvements provided, or that will be provided, significant needed improvements benefiting the general public. The improvements will ultimately support in part full build-out of the all the residential developments along Gills Neck Road and the proposed Gills Neck Village Center:

> Exhibits 1 - 7 -Roadway Widening, Curve, and Trail Improvements

- Improved existing substandard curve in the area of Cadbury and Senators (curve was substandard irrespective of developments) [Exhibits 1-3];
- Improved Gills Neck Road existing substandard typical section along the site frontage of Senators (irrespective of the development) to meet existing local road standards, approximately 2,260 feet (full width reconstruct with travel lanes of 11 feet and shoulders of 5 feet) [Exhibits 1-3];
- Overlaid Gills Neck Road from Hawkseye Site Access to Cadbury Site Access, approximately 2,260 feet (Exhibits 1-3);
- o Removed/replaced gravel trail with paved trail from Senators site access

to match Hawkseye shared-use path (Exhibits 1-4);

 Removed/replaced gravel trail with paved trail from Senators site access to area of Cadbury site access (Exhibits 1-4);

 Dedicated land (approximately 1,425 feet linear feet) through Senators subdivision for Junction and Breakwater Trail (Exhibits 1, 2, and 4);

o Designed and Constructed paved Junction and Breakwater Trail extension through Senators, approximately 1,425 feet (Exhibits 1, 2, and 4); and

- O Dedicated additional land (2.43 acres in addition to previous 1.15 acres for total of 3.58 acres dedicated to State) for Junction and Breakwater Trail extension through the approved Showfield subdivision to resolve DelDOT and the Breakwater subdivision dispute over trail recordation/location. The trail extension construction by DelDOT connected Gills Neck Road to Kings Highway with approximately 3,500 feet of the trail on lands dedicated by LT Affiliates providing more options for the separation of bicycle and vehicular traffic along Gills Neck Road, which was a needed safety and operational improvement (Exhibits 4, 5, 6, 7, & 7A). It is also noted that DelDOT used the connection through Showfield to provide a continuous trail from Gills Neck Road through Showfield to Kings Highway and continuing down to near the canal;
- Exhibit 8 Relocated the existing gravel section of the Junction and Breakwater Trail connecting Gills Neck Road to Kings Highway including providing a temporary connection and allowing for a crosswalk extension from the existing Kings Highway crosswalk to connect with the relocated trail (required temporary design and relocation of pedestrian countdown signal and requires extension of existing crosswalk);
- Exhibit 9 Summer 2015 improvements at Kings Highway/Gills Neck Road/Cape Henlopen High School widening Kings Highway on the Gills Neck Road side only. Provided a temporary left-turn lane with exclusive left-turn phase serving the existing Cape Henlopen High School traffic and extended the right-turn lane onto Gills Neck Road. All necessary ROW to accommodate the improvements was dedicated by LT Affiliates; and
- Exhibit 10 \$50,000 Lump Sum payment towards construction of an additional left-turn lane along Dartmouth Drive approaching Delaware Route 1 from Kings Highway to provide two (2) exclusive left-turn lanes, a shared left-turn/though lane, and an exclusive right-turn lane. It is noted this item is a contribution towards DelDOT construction. DelDOT is currently constructing this improvement as part of the Delaware Route 1 pedestrian improvements project. Coordination with DelDOT has begun to determine if the payment needs to be escrowed with payment pending on approval of Gills Neck Village Center.

Additional Required Developer Improvements in the Gills Neck Road Area

Additional LT Affiliates improvements required that are not completed or started include the improvements at *Kings Highway/Clay Road/Gills Neck Village Center proposed site access* to *address the existing and proposed conditions* at that intersection as well as roadway widening, roadway overlay, and bicycle/pedestrian improvements. In addition to the completed 2015 construction, per the signed DelDOT and LT Associates, LLC

Letter Agreement; approved Senators Entrance Plans; approved Showfield DelDOT Entrance Plans; Governors Entrance Plans under design; and required future Gills Neck Village Center Entrance Plans; the following items are required of LT Affiliates:

- Summer 2016 improvements at Kings Highway/Gills Neck Road/Cape Henlopen High School widening Kings Highway on the Cape Henlopen High School side providing the required width for the intersection improvements and realigning the Cape approach with the new Gills Neck Road receiving lane. The Kings Highway left-turn lane will be shifted in the summer of 2016 to its permanent location to allow for a dedicated bicycle lane between the through lane and right-turn lane. Kings Highway and Gills Neck Road will each consist of exclusive lanes and dedicated bike lanes. A left-turn phase will also be provided in each direction along Kings Highway.
- Kings Highway/Clay Road/Site Access improvements to provide exclusive lanes along each intersection approach. Auxiliary lanes along each approach are needed to address existing conditions and will be designed to support full buildout of the Gills Neck Village Center;
- ➤ Kings Highway/Clay Road/Site Access Traffic Signal Justification Study, Traffic Signal Design, and *installation of a traffic control signal once DelDOT determines a signal is warranted*. A preliminary evaluation of the 2015 traffic volumes collected at the existing intersection indicates existing conditions meet the minimum volume criteria for installation of a traffic control signal.
- Exhibits 11 and 12 Gills Neck Road Roadway Widening About 5,900 feet
 - Gills Neck Village Center site frontage both sides of roadway (960 feet) to local road standards consisting of 11-feet travel lanes and 5-feet paved shoulders (Exhibit 11);
 - Governors site frontage both sides of roadway (1,280 feet) to local road standards consisting of 11-feet travel lanes and 5-feet paved shoulders (Exhibit 11);
 - o Showfield North side of Gills Neck Road (Exhibit 12)
 - Paved shoulder (5 feet) along Breakwater site frontage from Breakwater Site Access to Showfield southwestern boundary (approximately 516 feet); and
 - Paved shoulder (5 feet) Showfield southwestern boundary to about 2,900 feet to northeast to just beyond the S-curve (Exhibit 15).
 - o Showfield South side of Gills Neck Road
 - Paved shoulder (5 feet) 825 feet of Wolfe Runne site frontage; and
 - Paved shoulder (5 feet) 895 feet of Wolfe Pointe site frontage.

Exhibits 11 and 13 - Gills Neck Road Overlay - About 5,900 feet

- o Existing Hawkseye and Breakwater Site Access, 260 feet (Exhibit 13);
- o Breakwater and Hawkseye site frontage southwest of Showfield southwestern boundary, 516 feet (Exhibit 13);
- Showfield site frontage from southwestern boundary to about 2,900 feet to northeast to just beyond the S-curve (Exhibit 15);
- Governors western site boundary to match Senators overlay just east of Cadbury site access, approximately 1,280 feet (Exhibit 11); and
- o Gills Neck Village Center site frontage matching Governors

improvements, approximately 960 feet (Exhibit 11).

- ➤ Exhibit 14 Shared-Use Path New Construction
 - Paved shared-use path along Kings Highway Village Center site frontage for approximately 605 feet to tie into shoulder.
- > Exhibit 15 Improve Existing Substandard Gills Neck Road Curve
 - Near Wolfe Pointe and Showfield Site Access;
 - o Paved shoulder (5 feet) to be provided along improved curve.
- Exhibit 16 25 dedicated vehicle parking spaces for bicyclists (see enclosed Sketch Plan) adjacent to the Junction and Breakwater Trail along Gills Neck Road. Currently, bikes frequently park in the Cape Henlopen High School parking lot and use the Kings Highway signalized pedestrian crossing to access the Junction and Breakwater Trail. The dedicated Gills Neck Village Center parking spaces for area cyclists will fill a public need and eliminate or reduce the need for trail cyclists to cross Kings Highway from the Cape Henlopen High School parking lot, improving overall convenience and safety for cyclists.

Additional Required Traffic Studies (2015)

In addition to the signed Letter Agreement by the DelDOT Secretary and the developers documenting the required off-site and site access improvements for the Gills Neck Village Center project should it be approved, a Traffic Operational Analysis (TOA) is under way with all required traffic data collection completed from the spring and summer 2015. The TOA is funded completely by LT Affiliates. The DelDOT PLUS comments mentioned the previous TIS and Letter Agreement are sufficient, but that the TOA would be required. LT Affiliates are proceeding accordingly with the TOA.

The TOA follows current standard and practices and evaluates the following intersections during the weekday morning, the weekday evening, and the summer Saturday peak hours (based on worst 15 minutes of the peak hour) for delays, capacity, level of service (LOS), and queuing:

- 1. Gills Neck Road / Site Access
- 2. Kings Highway / Clay Road / Site Access
- 3. Kings Highway / Gills Neck Road / Cape Henlopen High School

Daily and peak hour traffic counts were collected along area road segments throughout the spring and summer 2015. Manual traffic count data was also collected at the above intersections in the spring and summer 2015. In addition to the TOA, a Scope of Work was also provided by DelDOT for a Traffic Signal Justification Study to be completed for the intersection of US Route 9 (Kings Highway, Sussex Road 268)/Clay Road (Sussex 269)/proposed Gills Neck Village Center Site Access.

The Traffic Signal Justification Study is completely funded by LT Affiliates and is under way to evaluate the existing and proposed conditions at the intersection, including a Traffic Signal Warrant Analysis of all nine (9) required warrants consistent with the current *Delaware Manual on Uniform Traffic Control Devices* (MUTCD) to determine when a signal should be installed. The Traffic Signal Justification Study will be

Mr. Lawrence Lank September 18, 2015 Page 9

submitted concurrent with and enclosed in the TOA as well as provided to DelDOT Traffic as a stand-alone document as required. All underground signal construction (except footings and wirings) will also be the responsibility of the developers.

Summary

This letter documents the detailed history of LT Affiliates and DelDOT studies, correspondence, agreements, requirements, constructed improvements, and ongoing improvements by LT Affiliates based on occurrences with the previously proposed rezoning as well as the currently proposed CR-1 rezoning for the proposed Gills Neck Village Center. The completed improvements funded by LT Affiliates are detailed with enclosures provided illustrating the same improvements that are currently benefiting the general public prior to the current rezoning proposal even being submitted to Sussex County. The improvements to previously existing substandard conditions in the area would not have been possible without the proposed Gills Neck Village Center and ongoing development of the surrounding properties in the area. Future required LT Affiliates improvements are also detailed with supporting enclosures provided.

The following enclosures are provided to support the request:

- > Service Level Evaluation Request (SLER) Application;
- Gills Neck Village Center Rezoning Plan;
- Gills Neck Village Center Sketch Plan;
- ➤ LT Affiliates Right-of-Way (ROW) Dedication Plan (by GMB) for Kings Highway and Gills Neck Road;
- Sussex County Code Major Arterial Road definition;
- > 2014 DelDOT Vehicle Volume Summary US Route 9 information;
- DelDOT Functional Classification Map;
- Completed or Ongoing Developer Improvements and Contributions;
 - o Exhibit 1 Google Earth aerial history of Senators Site and Frontage;
 - Exhibit 1A Google Earth aerial Senators Curve Improvements
 - Exhibit 2 Google Earth May 25, 2015, aerial illustrating Senators improvements completed in 2015;
 - Exhibit 3 DBF photographs illustrating Senators Gills Neck Road improvements with notes added;
 - Exhibit 4 Lewes Area Pathways Map provided by DelDOT with notes added by DBF;
 - Exhibit 5 Junction and Breakwater Trail connection near Canal;
 - Exhibit 6 Junction and Breakwater Trail along Kings Highway and through Showfield;
 - Exhibit 7 Junction and Breakwater Trail connection at Gills Neck Road near western site boundary and through Showfield;
 - Exhibit 7A Junction and Breakwater Trail connection near western Showfield site boundary and through Showfield;
 - Exhibit 8 Temporary Pedestrian Pole Relocation, Temporary ADA Compliant Domes Relocation, Extension of Crosswalk, and Relocation of connection to Junction and Breakwater Trail;

Mr. Lawrence Lank September 18, 2015 Page 10

- Exhibit 9 Temporary Kings Highway Left-Turn Lane improvement serving Cape Henlopen High School; and
- Exhibit 10 Dartmouth Drive approach widening to Delaware Route
 1.

> Required Additional Developer Improvements

- Exhibit 11 Village Center and Governors Site Frontage Widening and Overlaying;
- o Exhibit 12 Showfield Widening along Breakwater site frontage;
- Exhibit 13 Showfield Overlaying along Breakwater and Hawkseye site frontage;
- o Exhibit 14 Shared-Use Path New Construction (Kings Highway);
- o Exhibit 15 Improved Gills Neck Road Curve near Showfield; and
- o Exhibit 16 25 Parking Spaces for Junction & Breakwater Trail use.

Please review the transmittal letter and enclosures and process the SLER accordingly at your earliest convenience. A copy will be provided directly to DelDOT (with enclosures) as well. We request that you please forward DelDOT's response to us upon receipt. We look forward to receiving DelDOT's response such that we can proceed through Sussex County with submission of the Gills Neck Village Center CR-1 rezoning application.

If you should have any questions or need anything further regarding this project, please feel free to call our office.

Sincerely,

Davis, Bowen & Friedel, Inc.

D.J. Hughes, P.E.

Associate

Enclosures

Cc: Gene Bayard, Morris James Wilson Halbrook & Bayard LLP

Nick Hammonds, Jack Lingo Asset Management, L.L.C.

Marc Coté, DelDOT Planning

T. William Brockenbrough, Jr., DelDOT Planning

Troy Brestel, DelDOT Planning

Claudy Joinville, DelDOT Planning

Ring Lardner, Davis, Bowen and Friedel, Inc.



ARCHITECTS ENGINEERS SURVEYORS

October 9, 2015

Revised: April 18, 2016

Michael R. Wigley, AIA, LEED AP Randy B. Duplechain, P.E. Charles R. Woodward, Jr., LS W. Zachary Crouch, P.E. Michael E. Wheedleton, AIA Jason P. Loar, P.E. Ring W. Lardner, P.E. Gerald G. Friedel, P.E.

Sussex County Planning and Zoning Department 2 The Circle Georgetown, DE 19947

ATTN: Lawrence Lank

Director of Planning and Zoning

RE: Gills Neck Village Center

Developer Response to PLUS review 2015-03-02

Tax Map: 3-35-12.00, Parcel 3.00 (Portion)

DBF No.: 2261J001.F01

Dear Mr. Lank,

On behalf of the Owner / Developer, J.G. Townsend Jr. & Co., we are pleased to submit a revised response to the Office of State Planning's comments for PLUS Review 2015-03-02: The Village Center. On October 9, 2015 we provided a written response to the comments that included a revised schematic site plan that reduces the commercial space (including outparcels) from 235,000 SF to 215,000 SF.

The Developer upon further evaluation is withdrawing the current CR-1 rezoning application and filing a new B-1 rezoning application with up to 75,000 square feet of commercial space. The new application is a significant reduction in the area to be rezoned (reduced from 36.47 acres to 11.66 acres) and commercial space (reduced from 215,000 square feet to 75,000 square feet). The revised response includes our original response in red and revised response in blue to aid in the review of our response.

Strategies for State Policies and Spending

• This project is located in Investment Level 1 according to the Strategies for State Policies and Spending. Investment Level 1 reflects areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy.

Original Response: This project is located adjacent to King's Highway (US- Route 9 and Sussex Road 268) which is classified as other principal arterial per DelDOT's Functional Classification Map. In addition, this section of road is classified as a major

arterial per the definition of major arterial in Chapter 99-5 of the Sussex County Code, which identifies Roadway G as "US Route 9 from its interconnection with Delaware Route 1 to the southwesterly town limit of the Town of Lewes". This site is located within a rapidly growing area consisting of single family detached houses, townhouses, Assisted Living, Cape Henlopen High School, general mixture of commercial / service activities along King's Highway, and through traffic to / from the City of Lewes, Cape May – Lewes Ferry and Cape Henlopen State Park. The September 24, 2009, Letter Agreement between DelDOT and the developers details the roadway, intersection, and site access improvements. A TOA and Signal Justification Study using 2015 traffic data are under way to update the site access design per current traffic counts and the reduced land use.

Revised Response: There is no change from the original response.

Code Requirements/Agency Permitting Requirements

Department of Transportation - Contact Bill Brockenbrough 760-2109

• Per Section 2.2.2.1 of the <u>Development Coordination Manual</u>, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour. From the plan accompanying the PLUS application, DelDOT estimates that the development would generate 11,834 vehicle trip ends per day on a typical weekday. This number differs somewhat from the volume shown on the PLUS application but the difference may not matter in that we understand the center design is still being refined and the floor areas are likely to change. Regardless, the daily and peak hour volumes will almost certainly be high enough to warrant a TIS.

Original Response: The site plan has been revised to further reduce the square footage of the retail space. We will continue to work with our traffic section to update the traffic generation for the project. Regardless, as mentioned in the comment, the proposed project meets the warrants for a TIS per the <u>Development Coordination Manual</u>, which is addressed hereafter.

Revised Response: The site plan commercial space has been further reduced. Our traffic section is updating the traffic generation diagram for the project. The reduction of commercial space still meets the warrant for a TIS per the <u>Development</u> <u>Coordination Manual</u>, which is addressed hereafter.

Having said that, the applicant submitted a TIS in 2006 for the development of the entirety of Tax Parcel 3-35-12.00-3.00. A DelDOT consultant reviewed the study and

DelDOT sent comments to Sussex County in January 2008, incorporating in that review analysis of yet a third land use scenario. Shown below for comparison purposes are the 2006, 2008 and 2015 land use scenarios, with the 2015 residential data coming from a conversation with the applicant's engineer. We understand they intend to submit plans for the residential development to us this spring.

	2006	2008	2015
Shopping Center (square feet)	330,000	521,000	235,000 (includes pad sites)
Single-Family Detached Houses (dwellings)	138	N/A	287
Townhouses (dwellings	318	472	139
Performing Arts Center (seats)	1,000		
Museum (acres)			10
YMCA (acres)			17

Original Response: On June 11, 2015, DBF submitted a record plat and entrance plans for a 426 unit mixed use residential development entitled Governors which is located on a portion of this parcel. The 426 units corresponds with the 287 Single-Family Detached Houses (dwellings) and 139 Townhouses (dwellings) as indicated in the 2015 column above. The Shopping Center square footage has decreased from 235,000 SF (including pad sites) to 215,000 SF. The residual acreage for the future YMCA and multicultural/museum site remains unchanged.

As shown in the table above, the proposed use (2015) substantially reduces the development density (a 55% reduction in commercial square feet and a 10% reduction in residential units as compared to the 2008 proposed use).

Revised Response: On December 16, 2015, the Sussex County Planning and Zoning Commission granted final approval for a 423 mixed use unit residential development entitled Governors which is located on a portion of this parcel. The 423 units corresponds with the 287 single-Family Detached Houses (dwellings) and 136 Townhouses (dwellings) as indicated in the 2015 column above. The Gills Neck Village Center commercial space has decreased from 235,000 square feet (including pad sites) to 75,000 square feet. The project no longer includes a future multi-cultural center or YMCA. The residual acreage of the land (approximately 53.39 acres) is zoned AR-1.

As shown in the table above, the proposed use (described in our response) substantially reduces the development density (an 85% reduction in commercial space

and a 10% reduction in residential units when compared to the 2008 proposed use column).

• Subsequent to the TIS review, in 2009, DelDOT entered an agreement with the applicant, outlining the right-of-way dedications and road improvements for which the applicant will be responsible. That agreement is still in effect. Copies of the TIS review letter and agreement are attached.

Original Response: A copy of the TIS Review Letter and Agreement was not attached to the comments. However, DBF has a copy of each document and is familiar with their contents and requirements. As noted above, the Agreement was based on the 2008 proposed use which is substantially larger than the currently proposed use.

The 2009 Agreement required off-site improvements to be constructed by the developer(s). The status of these improvements are:

Showfield Frontage Improvements: The Developers of Showfield have obtained entrance plan approvals that include a deceleration lane entering Showfield, widening of approximately 2,000 linear feet of Gills Neck Road to 10' travel lanes and 5' shoulders, reconfiguration of the S-curve to the north of the entrance to meet DelDOT standards and improve visibility.

Senators Frontage Improvements: The Developers of Senators recently completed their improvements which consisted of a deceleration lane, by-pass lane, widening of approximately 2,000 linear feet of Gills Neck Road to 11' travel lanes and 5' shoulders, reconfiguration of the curve between the entrances of Senators and Cadbury to meet DelDOT standards and improve visibility.

Governors Frontage Improvements: The Developers of Governors are expected to submit final entrance plans in October 2015 which will consist of a deceleration lane, protected left turn lane, widening of approximately 1,400 linear feet of Gills Neck Road to 11' travel lanes and 5' shoulders to meet DelDOT standards and improve visibility.

Intersection Improvements at Gills Neck Road, King's Highway and Cape Henlopen High School: The Developers of Senators (including contributions from Showfield, Governors and Gills Neck Village Center) recently completed the construction of the Phase 1 improvements to this intersection. The Phase 1 improvements included signal upgrades and adding additional turn lanes along Kings Highway. Phase 2 of the improvements includes additional signal upgrades and

adding additional turn lanes along Gills Neck Road and High School approaches to the intersection.

There are other improvements identified in the 2009 Agreement that will be completed if Gills Neck Village Center is approved and constructed. These improvements include the proposed Kings Highway / Clay Road / Site Access Intersection, installation of a signal at Kings Highway / Clay Road / Site Access, contribution to the improvements at Delaware Route 1 / Dartmouth Road intersection, installation of the shared use path along King's Highway Frontage, road widening, as required, along the King's Highway Frontage, and widening of Gills Neck Road along the property frontage that has not been completed by other projects.

In addition to the required items above, the Developers of Senators and Governors will have removed and replaced the gravel Junction and Breakwater Trail installed by the Owner with a 4,500 linear foot paved trail.

Also, in addition to the 1.15 acres of permanent easement previously granted by the Owners of Showfield, the Owners also dedicated approximately 2.43 acres of land for the expansion of the Junction and Breakwater Trail to DelDOT in response to the easement issues within the Breakwater Community at no cost to the State

The total improvements to the Gills Neck Road Corridor and portions of Kings Highway to include two intersections, Delaware Route 1 / Dartmouth Drive, the Junction and Breakwater Trail, and dedication of land for easements and Right of Way will represents millions of dollars of private investment in public infrastructure. These improvements benefit the residents along these roadways, their friends, family, visitors and the Greater Lewes Community. The improvements listed above, both those completed/underway, and those to be constructed if Gills Neck Village Center is approved, are possible because of the development of the Gills Neck Road corridor and proposed development of Gills Neck Village Center.

Revised Response: As noted above, the Agreement was based on the 2008 proposed use which is substantially larger than the currently proposed use.

The 2009 Agreement required off-site improvements to be constructed by the developer(s). The status of these improvements is:

Showfield Frontage Improvements: The Developers of Showfield have obtained entrance plan approvals that include a deceleration lane entering Showfield, widening of approximately 2,000 linear feet of Gills Neck Road to 10' travel lanes and 5' shoulders, reconfiguration of the S-curve to the north of the entrance to meet

DelDOT standards and improve visibility. The road frontage improvements are currently under construction.

Senators Frontage Improvements: The Developers of Senators within the past year completed their improvements which consisted of a deceleration lane, by-pass lane, widening of approximately 2,000 linear feet of Gills Neck Road to 11' travel lanes and 5' shoulders, reconfiguration of the curve between the entrances of Senators and Cadbury to meet DelDOT standards and improve visibility. Said improvements have been inspected and accepted by DelDOT.

Governors Frontage Improvements: The Developers of Governors are required to install a deceleration lane, protected left turn lane, widening of approximately 1,400 linear feet of Gills Neck Road to 11' travel lanes and 5' shoulders to meet DelDOT standards and improve visibility. The entrance plans were approved by DelDOT on March 3, 2016.

Intersection Improvements at Gills Neck Road, King's Highway and Cape Henlopen High School: The Developers of Senators (including contributions from Showfield, Governors and Gills Neck Village Center) recently completed the construction of the Phase 1 improvements to this intersection. The Phase 1 improvements included signal upgrades and adding additional turn lanes along Kings Highway. Phase 2 of the improvements includes additional signal upgrades and adding additional turn lanes along Gills Neck Road and High School approaches to the intersection. The Phase 2 improvements are scheduled to begin upon the end of the 2015 / 2016 school year.

There are other improvements identified in the 2009 Agreement that will be completed if Gills Neck Village Center is approved and constructed although, given the considerable reduction in size of the center and the corresponding traffic impact, said improvements will need to be discussed with DelDOT in further detail to determine what is still necessary. These improvements include the proposed Kings Highway / Clay Road / Site Access Intersection, installation of a signal at Kings Highway / Clay Road / Site Access, contribution to the improvements at Delaware Route 1 / Dartmouth Road intersection, installation of the shared use path along King's Highway Frontage, road widening, as required, along the King's Highway Frontage, and widening of Gills Neck Road along the property frontage that has not been completed by other projects.

In addition to the required items above, the Developers of Senators and Governors will have removed and replaced the gravel Junction and Breakwater Trail installed by the Owner with a 4,500 linear foot paved trail.

Also, in addition to the 1.15 acres of permanent easement previously granted by the Owners of Showfield, the Owners also dedicated approximately 2.43 acres of land for the expansion of the Junction and Breakwater Trail to DelDOT in response to the easement issues within the Breakwater Community at no cost to the State

The total improvements to the Gills Neck Road Corridor and portions of Kings Highway to include two intersections, Delaware Route 1 / Dartmouth Drive, the Junction and Breakwater Trail, and dedication of land for easements and Right of Way will represent millions of dollars of private investment in public infrastructure. These improvements benefit the residents along these roadways, their friends, family, visitors and the Greater Lewes Community. The improvements listed above, both those completed/underway, and those to be constructed if Gills Neck Village Center is approved, are possible because of the development of the Gills Neck Road corridor and proposed development of Gills Neck Village Center.

development since then, we find that a new TIS is not needed for the shopping center or the residential development. However, pursuant to Section 2.3.2 of the DelDOT anticipates requiring a Traffic Operational Analysis (TOA) as part of the plan review process to ensure that the required road improvements are appropriately sized. They will evaluate the need for separate TIS to address the proposed future museum and YMCA when plans for them are presented, but presently it is believed the YMCA will require a TIS and they anticipate requiring one for it. Further, pursuant to Section 2.6 of the DelDOT anticipates requiring a Signal Justification Study for a signal at the intersection of Kings Highway, Clay Road and the site entrance there.

Original Response: The applicant agrees that a new TIS is not needed for the shopping center or the residential development. The applicant's engineer has requested and received a Signal Justification Study and Traffic Operational Analysis Scope of Work. The results of both studies will be provided as soon as they are completed.

Revised Response: The applicant has submitted a new Service Level Evaluation Request (SLER) to Planning and Zoning and anticipates that a new TIS will not be required as this project's trip generation is further reduced from that anticipated in previous applications. The applicant's engineer has requested and received a Signal Justification Study and Traffic Operational Analysis Scope of Work. Both studies are ongoing and will be submitted as soon as they are completed.

• To obtain a scope of work for the TOA, the applicant may have their engineer contact Mr. Troy Brestel of this office. Mr. Brestel may be reached at (302) 760-2167. To obtain a scope of work for the Signal Justification Study, they may have their engineer contact Mr. Chris Sylvester of the DelDOT Traffic Studies Section. Mr. Sylvester may be reached at (302) 659-4094.

Original Response: The applicant's engineer has requested and received a Signal Justification Study and Traffic Operational Analysis Scope of Work. The results of both studies will be provided as soon as they are completed.

Revised Response: There is no change from the original response.

• The site access on King's Highway and on Gills Neck Road must be designed in accordance with DelDOT's <u>Development Coordination Manual</u> (formerly the <u>Standards and Regulations for Subdivision Streets and State Highway Access</u>), which is available at

http://www.deldot.gov/information/business/subdivisions/changes/index.shtml.

Original Response: The proposed site accesses from Kings Highway and Gills Neck Road will be designed to meet the DelDOT <u>Development Coordination Manual</u>. The applicant's engineer is familiar with the manual and has submitted numerous entrance plans meeting the requirements of the manual. The proposed Gills Neck Village Center includes an interconnection to the adjacent Governors community.

Revised Response: There is no change from the original response.

• As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the <u>Development Coordination Manual</u>, DelDOT will require dedication of right-of-way along the site's frontage on both King's Highway and Gill's Neck Road. By this regulation, those dedications are to provide a minimum of 50 feet of right-of-way from the road centerline on King's Highway and a minimum of 30 feet of right-of-way from the road centerline on Gill's Neck Road. However, the 2008 TIS review letter and the 2009 agreement discussed above contemplate expansion of Kings Highway to either four lanes with median left turn lanes or five lanes with a continuous left turn lane.

Original Response: As part of the Gills Neck Road Improvements designed and installed by the Developers of the Senators Subdivision, a significant amount of right-of-way (far exceeding the requirements of the <u>Development Coordination Manual</u>) has been granted.

Revised Response: There is no change from the original response.

• The right-of-way dedication note has been revised to the following, "An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."

Original Response: This note is not required for this project. A separate right-of-way plan was recorded and the right-of-way limits far exceed the requirements of the <u>Development Coordination Manual</u>.

Revised Response: There is no change from the original response.

• In accordance with Section 3.2.5.1.2 of the <u>Development Coordination Manual</u>, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on both Kings Highway and Gills Neck Road. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, "A 15-foot wide permanent easement is hereby established to the State of Delaware, as per this plat."

Original Response: The 15 foot permanent easement is not required given the amount of right-of-way that was previously dedicated. The applicant will consult with DelDOT as part of the entrance plan process to determine if there is a need for the additional easement, and will grant the amount of additional easement found to be required. The Junction and Breakwater Trail located on the south side of Gills Neck Road and along the property frontage is currently designed to be installed entirely within DelDOT right-of-way.

Revised Response: There is no change from the original response.

• Section 2.5 of the <u>Development Coordination Manual</u> addresses in part Traffic Signal Agreements, Traffic Signal Revolving Fund agreements, and Off-Site Improvement Agreements. These agreements must be finalized prior to entrance plan approval. Having said that, the 2009 agreement discussed above divides responsibility for all signals, assigning DelDOT responsibility for aboveground work and the developer responsibility for underground work, and at least to some extent takes the place of Off-Site Improvement Agreements. The applicant's engineer should contact Mr. Steve Sisson of this office to discuss what, if any, further agreements may be needed. Mr. Sisson may be reached at (302) 760-2553.

Original Response: The applicant's engineer will consult with Mr. Steve Sisson to determine if any further agreements are required for this project. Based on the existing letter agreement between DelDOT and LT Associates, LLC that details all

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DelDOT improvements for Gills Neck Village Center, it appears further agreements are not necessary.

Revised Response: There is no change from the original response.

• Referring to Section P.5 of the <u>Development Coordination Manual</u>, the Initial Stage review fee shall be assessed to this project.

Original Response: The applicant will submit the Initial Stage Fee at the time of Record Plat Submission for review and approval.

Revised Response: There is no change from the original response.

• Referring to Section P.5 of the <u>Development Coordination Manual</u>, the Construction Stage review fee shall be assessed to this project.

Original Response: The applicant will submit the Construction Stage Fee at the time of Entrance Plan Submission for review and approval.

Revised Response: There is no change from the original response.

- In accordance with Section 3.4 of the <u>Development Coordination Manual</u>, a record plan shall be prepared prior to issuing "Letter of No Objection". The following information will be required for the "Letter of No Objection" review:
 - o Copy of the Initial Stage Fee Calculation Form
 - o Copy of the Initial Stage Review Fee
 - o Gate-Keeping Checklist Site Plan
 - Sight Distance Spreadsheet
 - o Design Checklist Record Plan*
 - Owners and Engineer's name and e-mail address
 - o Three (3) paper sets of the Record Plan
 - o Conceptual Entrance Plan
 - o CD with a pdf of the Site Plan
 - o Submission of the Area-Wide Study Fee (if applicable)

*For the design checklist for the site plan, please refer to the <u>Development</u> <u>Coordination Manual</u>, Appendix D, Plan Review Checklist.

Original Response: The required information will be submitted with the record site plan for a Letter of No Objection.

Revised Response: There is no change from the original response.

- Referring to Section 4.3 of the <u>Development Coordination Manual</u>, an entrance plan shall be prepared prior to issuing entrance approval. The following information will be required for Entrance Plan review:
 - o Copy of the Construction Stage Fee Calculation Form
 - o Copy of the Construction Review Fee
 - o Gate-Keeping Checklist Entrance Plan
 - o Auxiliary Lane Spreadsheet
 - Design Checklist Entrance Plan**
 - o Three (3) paper sets of the Entrance Plan
 - SWM Report and Calculations (if applicable)
 - o CD with a pdf of the Entrance Plan

**For the design checklist for the entrance plan, please refer to the <u>Standards and Regulations for Subdivision Streets and State Highway Access</u>, Appendix D, Plan Review Checklist.

Original Response: The required information will be submitted with the entrance plan submission for Entrance Approval.

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• Referring to Section 3.3.5 of the <u>Development Coordination Manual</u>, existing and proposed transit stops and associated facilities as required by the Delaware Transit Corporation (DTC) or DelDOT, in consultation with Sussex County, shall be shown on the Record Plan.

Original Response: DBF will show the existing transit stops within the proposed project limits and will consult with the Delaware Transit Corporation, DelDOT and Sussex County to determine if a proposed transit stop is required and, if so, it will be shown on the Record Plan.

Revised Response: There is no change from the original response.

Referring to Section 3.4.1 of the <u>Development Coordination Manual</u>, because the proposed development would generate more than 200 vehicle trips per day, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request this meeting is available

http://www.deldot.gov/information/business/subdivisions/Meeting Request Form.pdf.

Original Response: DBF will complete the Pre-Submittal Meeting form and request a pre-submittal meeting at the appropriate time during the design process of the proposed entrances and frontage improvements.

Revised Response: There is no change from the original response.

• Referring to Section 3.4.2.1 of the <u>Development Coordination Manual</u>, a Traffic Generation Diagram is required on the Record Plan. See Figure 3.4.2-a for the required format and content.

Original Response: The Traffic Generation Diagram will be shown on the Record Plan.

Revised Response: There is no change from the original response.

• In accordance with Section 3.5 of the <u>Development Coordination Manual</u>, the proposed private subdivision streets should follow Sussex County's requirements for connectivity. That said, we do have comments in this regard, which we offer under Suggestions below.

Original Response: The proposed Gills Neck Village Center provides an interconnection to the proposed Governors community and the existing Senators community (via Governors).

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• Referring to Section 3.5.4.2 of the <u>Development Coordination Manual</u>, projects that generate 2,000 or more Average Daily Trips (ADT) and need Entrance Plan Approval are required to install a shared-use path or sidewalk along the Statemaintained road frontage, in this case Kings Highway and Gills Neck Road.

Original Response: The Gills Neck frontage includes the existing Junction and Breakwater Trail and an additional path or sidewalk is not required on this frontage. The Developer will install a shared use path along the King's Highway frontage as required per the Development Coordination Manual.

Revised Response: There is no change from the original response.

• In accordance with Section 3.8 of the <u>Development Coordination Manual</u>, storm water facilities, excluding filter strips and bioswales, shall be located a minimum of 20 feet from the ultimate State right-of-way along Kings Highway and Gills Neck Road.

Original Response: All stormwater facilities, excluding filter strips and bioswales, will be located a minimum of 20 feet from the ultimate State right-of-way.

Revised Response: There is no change from the original response.

• In accordance with Section 5.2.5.6 of the <u>Development Coordination Manual</u>, Turning Movement Diagrams shall be provided to verify vehicles can safely enter and exit the site entrances. As per Section 5.2.3 of the <u>Manual</u>, the entrance shall be designed for the largest vehicle using the entrance.

Original Response: DBF will prepare Turning Movement Diagrams as required and the Design Vehicle for the Kings Highway Entrance will be a WB-62 and the Design Vehicle for the Gills Neck Road Entrance will be a SU-30.

Revised Response: There is no change from the original response.

• In accordance with Section 5.2.9 of the <u>Development Coordination Manual</u>, the Auxiliary Lane Worksheet should be used to determine whether auxiliary lanes are warranted at the site entrances and how long those lanes should be. The worksheet can be found at

http://www.deldot.gov/information/business/subdivisions/auxiliary_lane_worksheet.xl_s.

Original Response: DBF will prepare auxiliary lane worksheets for each entrance to determine if auxiliary lanes are required. In the case of a signalized intersection, the

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signal justification study or traffic operational analysis will determine the auxiliary lane requirements.

Revised Response: There is no change from the original response.

• In accordance with Section 5.4 of the <u>Development CoordinationManual</u>, sight distance triangles are required for the site access on Kings Highway and Gills Neck Road and shall be established in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards. A spreadsheet has been developed to assist with this task. It can be found at

http://www.deldot.gov/information/business/subdivisions/Intersection-Sight-Distance.xls.

Original Response: DBF will analyze the sight distance requirements per the available spreadsheet and show the sight distance triangles on the record plat and entrance plans. Sight easements will be recorded, if necessary.

Revised Response: There is no change from the original response.

• Metes and bounds and total areas need to be shown for any drainage easements. Section 5.7.2.6 of DelDOT's <u>Development Coordination Manual</u> requires, in part, a minimum 20-foot wide drainage easement for storm drainage systems, open or closed, that fall outside the existing right-of-way. These easements shall be shown and noted on the record plan.

Original Response: If drainage easements are required, they will be shown on the record plat to include the metes and bounds and total areas.

Revised Response: There is no change from the original response.

• In accordance with Section 6.4.3 of the <u>Development Coordination Manual</u>, this project will require Level II Construction Inspection and the applicant will be required to enter a construction inspection agreement with an inspection firm currently under contract with DelDOT.

Original Response: The Developer of the proposed project will enter into a construction inspection agreement prior to scheduling a pre-construction meeting for the proposed entrances.

<u>Department of Natural Resources and Environmental Control – Contact Kevin Coyle</u> 739-9071

Wetlands

• State regulated wetlands <u>ARE</u> located on this property based on a review of the State wetland maps. State regulated wetlands are those wetlands identified on the State's official State Regulated Wetland Maps. Wetlands labeled F for forested wetlands are on the southern edge of the property. Be sure there is no direct or indirect impact to these wetlands during the building process. Any activity in State regulated wetlands may require a permit from DNREC's Wetlands and Subaqueous Lands Section.

Original Response: The proposed Governors community will create a separate parcel for conserved lands, approximately 67.21 acres, in which all wetlands will be contained. Furthermore, the proposed rezoning is located entirely within the uplands area and no wetlands are located within the rezoning area or proposed Gills Neck Village Center, therefore there is no direct impact to the referenced wetlands and there is more than 1,000 feet between the edge of the project and the nearest wetland location. Attached to this response is a copy of the rezoning plan that shows the limits of the proposed zoning request (also the limits of Gills Neck Village Center), adjacent properties and the limits of the Federal 404 delineated wetlands. The State Wetlands are located closer to the centerline of Pot Hook Creek.

Revised Response: There is no change from the original response.

• State regulated subaqueous lands <u>ARE</u> likely to be located on this property based on a review of aerial photographs, SWMP maps, Soil Surveys and USGS topographic maps. Upon review of the GIS layers, Pot Hook Creek runs on and adjacent to this property. State subaqueous lands include all tidal waters (up to the mean high water line), most non-tidal rivers, streams, lakes, ponds, bays and inlets (up to the ordinary high water line), most perennial streams and ditches and many intermittent streams and ditches. An on-site inspection by a representative of the Wetlands and Subaqueous Lands Section or an environmental consultant is recommended to determine the limits of jurisdictional State subaqueous lands. Additional information about State regulated subaqueous lands is available by contacting the Wetlands and Subaqueous Lands Section at (302) 739-9943 or on line at http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLand

http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx.

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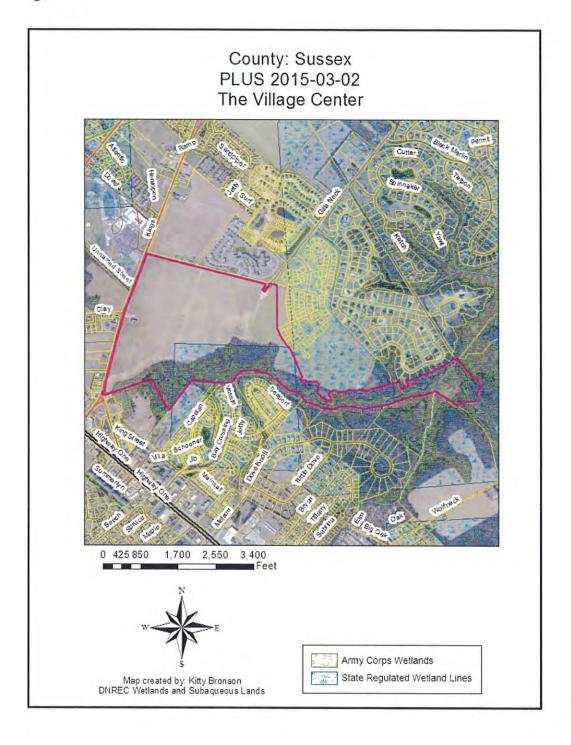
Original Response: The proposed Governors community will create a separate parcel for conserved lands, approximately 67.21 acres, in which all wetlands will be contained. Furthermore, the proposed rezoning is located entirely within the uplands area and no subaqueous lands are located within the rezoning area or proposed Gills Neck Village Center, therefore there is no direct impact to the referenced wetlands and there is more than 1,000 feet between the edge of the project and the nearest subaqueous lands location. Attached to this response is a copy of the rezoning plan that shows the limit of the proposed zoning request (also the limits of Gills Neck Village Center), adjacent properties and the limits of the Federal 404 delineated wetlands. The State Wetlands are located closer to the centerline of Pot Hook Creek.

Revised Response: There is no change from the original response.

• Waters of the U.S. regulated by the U.S. Army Corps of Engineers <u>ARE</u> likely to be located on this property based on a review of aerial photographs, SWMP maps, Soil Surveys and USGS topographic maps. The application notes that a delineation has been done. Review with the Army Corps of Engineers should be done to assess any direct or indirect impacts. The U.S. Army Corps of Engineers can be contacted at (215) 656-6728 or online at http://www.nap.usace.army.mil/cenap-op/regulatory/regulatory.htm.

Original Response: The proposed Governors community will create a separate parcel, approximately 67.21 acres, for conserved lands in which all USACE regulated wetlands will be contained. Furthermore, the proposed rezoning is located entirely within the uplands area and no USACE regulated wetlands are located within the rezoning area or proposed Gills Neck Village Center, therefore there is no direct impact to the referenced wetlands and there is more than 1,000 feet between the edge of the project and the nearest USACE regulated wetland location. Attached to this response is a copy of the rezoning plan that shows the limit of the proposed zoning request (also the limits of Gills Neck Village Center), adjacent properties and the limits of the Federal 404 delineated wetlands. The State Wetlands are located closer to the centerline of Pot Hook Creek.

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TMDLs

The project is located in the low nutrient reduction zone of the greater Inland Bays watershed. In this watershed, Total Maximum Daily Load (TMDL) pollutant reduction targets have been developed by the State of Delaware (under the auspices of Section 303(d) of the 1972 Federal Clean Water Act) for nutrients (e.g., nitrogen, phosphorus), and bacteria. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited waterbody" can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; State of Delaware Surface Water Quality Standards, as amended July 11, 2004) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the low reduction zone of the Inland Bays watershed calls for 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 40 percent reduction (17 percent for marine waters) in bacteria from baseline conditions. Please view the following web link for further information on the regulatory requirements and technical analysis involved in the development of the specific TMDLs:

 $\underline{http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessmentTMDLs.asp} \underline{x}$

Original Response: The project will be designed to comply with the Inland Bays TMDL requirements.

Revised Response: The project will be designed to comply with the Inland Bays TMDL requirements by complying with the Pollution Control Strategy (PCS).

 The Inland Bays Pollution Control Strategy (PCS) and the accompanying regulations were finalized by order of the DNREC Secretary on October 2008.
 The PCS regulations can be reviewed at http://regulations.delaware.gov/documents/November2008c.pdf. Background information about the PCS with guidance documents and mapping tools can be retrieved from

http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib pcs.htm

Original Response: The project will comply with the Inland Bays Pollution Control Strategy requirements.

Revised Response: There is no change from the original response.

• A nutrient management plan is required under the Delaware Nutrient Management law (3 Del. Chapter 22) for all persons or entities who apply

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nutrients to lands or areas of open space in excess of 10 acres. This project's open space may exceed this 10-acre threshold. Please contact the Delaware Nutrient Management Program at 739-4811 for further information concerning compliance requirements or view the following web link for additional information: http://dda.delaware.gov/nutrients/index.shtml

Original Response: The Applicant of the completed project will complete a nutrient management plan if the Applicant intends to apply nutrients to the proposed open space if greater than 10 acres.

Revised Response: There is no change from the original response.

Water Supply

• The project information sheets state water will be provided to the project by Tidewater Utilities via a central water system. Our records indicate that the project is located within the public water service area granted to Tidewater Utilities under Certificate of Public Convenience and Necessity 03-CPCN-12.

Original Response: Tidewater Utilities, Inc. has an existing 12" water main that runs along the property frontage and has provided the Applicant with a Willing and Able to serve letter.

Revised Response: There is no change from the original response.

• Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

Original Response: The selected contractor will obtain dewatering well construction permits should dewatering of the project be required.

Revised Response: There is no change from the original response.

• All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Original Response: The selected contractor will ensure that a licensed water well contractor prepares and signs the well permit application and construct the wells.

Revised Response: There is no change from the original response.

• Potential Contamination Sources exist in the area, and any well permit applications will undergo a detailed review that may increase turnaround time and may require site specific conditions/recommendations. In this case, there are two Underground Storage Tanks associated with Cape Henlopen High School and Petroleum Equipment Inc. Lewes Bulk Plant located within 1000 feet of the proposed project.

Original Response: The applicant thanks the Water Supply Section for the information regarding potential contamination sources.

Revised Response: There is no change from the original response.

Source Water Protection Areas

• Significant portion of the proposed development falls within the wellhead protection area for the City of Lewes. Wellhead protection areas are surface and subsurface areas surrounding a public water supply well where land use activities or impervious cover may adversely affect the quantity and quality of ground water moving toward such wells. The review did not find any excellent groundwater recharge areas within the proposed development (see map). The project lies within Sussex County.

Original Response: A significant portion of the proposed Gills Neck Village Center is located within the wellhead protection area. The proposed project is required to "recharge" the ground per the Sediment and Stormwater Regulations that were promulgated on January 1, 2014. The proposed impervious area will be offset by the recharge of the runoff from this project. The proposed Gills Neck Village Center is not located within the excellent groundwater recharge area.

Revised Response: The original response is still valid, but the following information should also be considered. The applicant has entered into a contract with a professional geologist who specializes in hydrology to provide assistance with the Source Water Protection Area. The developer will comply with Sussex County's Source Water Protection Ordinance during the design and construction of this project.

• DNREC acknowledge that the Sussex County has a source water protection ordinance in place but DNREC recommends that this project go beyond the

requirements of the ordinance and consider the recommendations that will afford this resource additional and much needed protection. DNREC asks the Sussex County consider Chapter 115 Zoning Article IV §115-19 of the County's Code that states in part that agricultural districts are also intended for protection of water resources. As an agricultural district, Lewes' drinking water source would be afforded more protection if the parcel remains agricultural.

Original Response: We include below an excerpt from Mr. Tom Ford of LANDDESIGN, INC. response from PLUS Review 2007-03-11 regarding this same property and downloaded from the Office of State Planning's website:

"Elimination of the existing agricultural irrigation well and its accompanying chemical feed tank will do several important things to enhance the future viability of the Lewes well field. They include:

- 1. The existing ag. well will no longer compete with the well field for ground water when demand is greatest in the summer and the water-table is lowest.
- 2. The ag.irrigation [sic] system will no longer distribute nitrate-nitrogen and pesticides within the capture zone of the well field.
- 3. The chemical feed tank will no longer be a potential source of direct groundwater contamination if a check valve were to fail at the well-head."

Revised Response: The original response is still valid, but the following information should also be considered. The applicant has entered into a contract with a professional geologist who specializes in hydrology to provide assistance with the Source Water Protection Area. The developer will comply with the Sussex County's Source Water Protection Ordinance during the design and construction of this project. A hydrologic report will be submitted to Sussex County as part of the rezoning application.

• The amount of impervious cover proposed in this project is significant. This amount of impervious cover added to the existing impervious cover within the wellhead protection area has the potential to reduce ground-water recharge of the City of Lewes well field. The City of Lewes well field consists of a series of shallow public wells that draw water from the shallow unconfined aquifer that receives recharge directly from precipitation. Maintenance of water levels in this aquifer is critical to this coastal community due to long term risks of salt water intrusion in the event that head levels decline in the freshwater aquifer.

Original Response: The proposed Gills Neck Village Center is located within the outer limits of the Lewes Wellhead Protection Area and is located 100 feet from

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the Lewes Public Wells and meets the safe zone radius from the wells as required by Chapter 89 (Source Water Protection) of the Sussex County Code. In addition, this project will "recharge" the groundwater as per the sediment and stormwater regulations. We also include an excerpt from Mr. Tom Ford of LANDDESIGN, INC. response from PLUS Review 2007-03-11 regarding this same property and downloaded from the Office of State Planning's website:

"Mr. Gilbert Holt, City of Lewes Public Works, was contacted to discuss positive and negative consequences that the proposed development may have on the City's Well site. Mr. Holt seemed to agree that no longer having a farmed field across the road from the well field would at least be a [sic] good in terms of water quality. Nitrates have been increasing in the well nearest the road and it was a concern to him. A significant result of the farmland conversion to this commercial land use is the elimination of the existing irrigation well head. An initial semi-quantitative analysis of the cessation of the center-pivot irrigation and the subsequent withdrawal of water from the well on The Village Center (and in theory Governors) property results in the following observations:

- The area of the project is 68.3 acres, of which 80% could become impervious or 54.6 acs.
- Average precipitation @ Lewes is 44.3 inches/year
- According to the Delaware Ground Water Design Manual about 31% or 13.7 inches/yr of this amount of water percolates to the ground water reservoir when crops are grown in type B soils
- Irrigation requirements for corn on the Delmarva Peninsula are roughly 16 inches per year above the normal rainfall
- Of the 16 inches approximately 85% or 13.6 inches is used by the crop and is lost to the atmosphere.
- The radius of influence of the irrigation well is approximately 900 fee or includes an area of approximately 58 acres.
- 13.6 inches of water has to be pumped from that area to meet irrigation needs

Under the present situation all of the water that makes it to the water table is pumped out again and used for irrigation where it is lost to the atmosphere. There is no net or excess recharge for the area of the Townsend Village Center since the 54.6 acres of impervious surfaces is slightly smaller than the 58 acres comprising the cone of influence around the existing well. Therefore, the quantity of recharge is a wash when comparing land use changes.

The City of Lewes well field should not be affected by the land use change because net recharge to the aquifer will not change. The primary benefit to the Lewes well sites will be the elimination of a contamination source within their well protection zone."

We acknowledge that the proposed application is for 36.47 acres of land (of which 80% or 29.18 acres of land may be impervious) and the theory described above does not change due to the size of the project. This project will complete a Climatic Water Budget to demonstrate compliance with Chapter 99 of the Sussex County Code.

Revised Response: The original response is still valid, with the exception of specific references to land size of the prior application, but the following information should also be considered. The applicant has entered into a contract with a professional geologist who specializes in hydrology to provide assistance with the Source Water Protection Area. The developer will comply with the Sussex County's Source Water Protection Ordinance during the design and construction of this project. A hydrologic report will be submitted to Sussex County as part of the rezoning application.

• The majority of this impervious cover is Parking Lot. On the PLUS application, the Developer estimates 11,487 vehicle trips will be generated from this project. The Source Water Assessment and Protection Program identifies potential contamination from land use in the Source Water Assessment Reports for public water systems. These reports are required by amendments to the Federal Safe Drinking Water Act passed in 1996 (EPA, 1997). The land use category Highway/Parking lot is associated with the production of petroleum hydrocarbons, other organic compounds, metals, and other inorganic compounds (DNREC, 1999). Additionally, commercial land use is associated with the introduction of pathogens into the groundwater (DNREC, 1999).

Original Response: The property is currently actively used for agriculture, whereby numerous fertilizers, pesticides, and herbicides are applied to the property throughout the year.

In accordance with the Sediment and Stormwater Regulations runoff from parking lots into infiltration practices is required to be located 150 feet from any public or private well. In addition, the proposed infiltration practices are required to pre-treat 100% of the runoff prior to entering into the infiltration practice. The applicant will evaluate different pre-treatment practices that are available to treat the potential pollutants listed above.

In addition, as part of the routine operations of the retail center, regular parking lot sweeping and cleaning activities will occur.

Revised Response: The original response is still valid, but the following information should also be considered. The applicant has entered into a contract with a professional geologist who specializes in hydrology to provide assistance with the Source Water Protection Area. The developer will comply with the Sussex County's Source Water Protection Ordinance during the design and construction of this project. A hydrologic report will be submitted to Sussex County as part of the rezoning application.

• Impervious surface cover is known to accumulate pollutants leaked from vehicles. Wind-blown pollutants also accumulate on impervious surface cover. During a storm event, these pollutants are mobilized in runoff (Li, 2003; Schueler, 1994). The runoff from impervious surface cover can carry a pollutant load in a sufficient concentration to degrade water quality (Gobel, 2007; Li et al., 2006; Schueler, 1994). If this runoff is infiltrated into the unconfined aquifer, it has the potential to affect the drinking water quality and may require additional treatment methods for the City of Lewes.

Original Response: In accordance with the Sediment and Stormwater Regulations runoff from parking lots into infiltration practices is required to be located 150 feet from any public or private well. In addition, the proposed infiltration practices are required to pre-treat 100% of the runoff prior to entering into the infiltration practice. The applicant will evaluate different pre-treatment practices that are available to treat the potential pollutants listed above.

As part of the routine operations of the retail center, regular parking lot sweeping and cleaning activities will occur.

Revised Response: The original response is still valid, but the following information should also be considered. The applicant has entered into a contract with a professional geologist who specializes in hydrology to provide assistance with the Source Water Protection Area. The developer will comply with the Sussex County's Source Water Protection Ordinance during the design and construction of this project. A hydrologic report will be submitted to Sussex County as part of the rezoning application.

• The site plan submitted with the PLUS application shows a stormwater management area that runs north to south on the east site of the development (see map). A small bridge crosses this feature. It is unclear from the submission if this is a wet pond cutting into the water table or an infiltration basin.

Original Response: Given the conceptual stage of this project, the stormwater management best management practices have not been selected. At a minimum there will be several infiltration practices and wet ponds are being considered for aesthetic purposes. A bridge will not be constructed and a pipe will be used to cross the roadway.

Revised Response: There is no change from the original response.

• The construction phase of stormwater management facilities requires excavation, hauling, and grading. The heavy equipment used in this phase has the capacity to compact and degrade the structure of the strata of the underlying aquifer (Schueler, 2000). Changes to the structural soil properties may cause significant reduction in recharge capacity. Installing storm-water management ponds in wellhead protection areas has the potential to contaminate the ground water beneath it and infiltrate into the aquifer.

Original Response: There are many construction techniques and equipment available to safely excavate stormwater management facilities to prevent degradation of underlying soil. Stormwater management is a requirement of any development and sizes and shapes will be managed to the extent necessary to meet the Sediment and Stormwater Regulations. As previously noted by the Department, no areas of excellent groundwater recharge exist on the site.

Revised Response: There is no change from the original response.

• DNREC recommends that the portion of the new development within the wellhead protection area not exceed 20 percent impervious cover. Some allowance for augmenting ground-water recharge should be considered if the impervious cover exceeds 20 percent but is less than 50 percent of that portion of the parcel within this area. However, the development should not exceed 50 percent regardless. A water balance calculation will be necessary to determine the quantity of clean water to be recharged via a recharge basin. The purpose of an impervious cover threshold is to minimize loss of recharge (and associated increases in storm water) and protect the quality and quantity of ground water and surface water supplies.

Original Response: Chapter 89 of the Sussex County Code details the requirements for the allowed impervious area within a wellhead protection area and Gills Neck Village Center will comply with the Code. The project will "recharge" the aquifer as part of the overall stormwater management plan and a Climatic Water Budget will be prepared per County Code.

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In addition, the existing agricultural irrigation well will be decommissioned, thereby reducing the use of groundwater from the aquifer.

Revised Response: There is no change from the original response.

- In addition, DNREC recommends the following actions:
 - Remove any stormwater management facilities out of the wellhead protection area. (Please note: they should not be moved to excellent groundwater recharge areas).

Original Response: As indicated in a previous comment, most of this site is located within the Lewes Wellhead Protection Area and thus moving the stormwater management facility would be infeasible. Gills Neck Village Center as part of the overall design will provide "recharge" while also providing pre-treatment to protect the aquifer.

Revised Response: There is no change from the original response.

 Using Better Management Practices in the design, construction, and maintenance of a stormwater management system designed to address water quality with respect to the dissolved component of nutrient and other pollutant loads.

Original Response: Best Management Practices will be implemented in all phases of the project to reduce runoff from the project and maximize nutrient removal efficiencies.

Revised Response: There is no change from the original response.

• Design the infiltration facility with advanced treatment, for example, multichamber sand filter system, to minimize the likelihood of introduction of any contamination to the infiltration basin.

Original Response: The Applicant will evaluate different pre-treatment devices to maximize pollutant removal efficiencies before entering an infiltration basin.

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• Demonstrate via a ground-water particle tracking analysis with a numerical model that contaminants released into the infiltration pond will not be captured by existing wells.

Original Response: The stormwater from this project that will be infiltrated into the groundwater will be pre-treated prior to entering into the infiltration system to remove contaminants from the runoff.

Revised Response: There is no change from the original response.

o In addition, because the wellhead protection area is the source of public drinking water for the City of Lewes, the storage of hazardous substances or wastes should not be allowed within the area unless specific approval is obtained from the relevant state, federal, or local program.

Original Response: Hazardous substances or wastes will not be stored on the project site during construction.

Revised Response: There is no change from the original response.

References

DNREC, 1999, The State of Delaware Source Water Assessment Plan, in DNREC, ed.: Dover, DE, State of Delaware, p. 301.EPA, 1997, State Source Water Assessment and Protection Programs Guidance: Final Guidance: Washington D.C., EPA, p. 160.Gobel. P, Dierkes, C., and Coldewey, W. G., 2007, Storm Water runoff concentration matrix for urban areas: Journal of Contaminant Hydrology v. 91, no. 1-2, p. 26-42.Li, L., Yin, C., He, Q., and Kong, L., 2006, First flush of storm runoff pollution from an urban catchment in China: Journal of Environmental Sciences v. 19, no. 1-2, p. 295 - 299.Schueler, T. R., 1994, The Importance of Imperviousness: Watershed Protection Techniques, v. 1, no. 3, p. 100-111.Schueler, T. R., 2000a, The Compaction of Urban Soils, in Schueler, T. R., and Holland, H. K., eds., The Practice of Watershed Protection: Ellicott City, MD, Center for Watershed Protection, p. 215-218.

Sediment and Stormwater Program

• A sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as possible. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees.

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Original Response: A meeting with the Sussex Conservation District will be requested at the appropriate time during the design process.

Revised Response: There is no change from the original response.

Hazardous Waste Sites

• If it is determined by the Department that there was a release of a hazardous substance on the property in question and the Department requires remediation pursuant to the Hazardous Substance Cleanup Act, the provisions of 7 <u>Del.C.</u>, Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware Regulations Governing Hazardous Substance Cleanup shall be followed.

Original Response: The Owner / Developer will remediate the site as required by Delaware Code should the Department determine that a release of a hazardous substance occurred on this site.

Revised Response: There is no change from the original response.

Tank Management Section

• If a release of a Regulated Substance occurs at the proposed project site, compliance of 7 <u>Del.C.</u>. Chapter 60, 7 <u>Del.C.</u>., Chapter 74 and DE Admin. Code 1351, State of Delaware Regulations Governing Underground Storage Tank Systems (the UST Regulations) is required.

Original Response: The Owner / Developer will comply with the Delaware Code if a regulated substance is released at the site.

Revised Response: There is no change from the original response.

- The following confirmed leaking underground storage tank (LUST) projects are located within a quarter mile from the proposed project area:
 - Uni Mart #02008 Lewes, Facility: 5-000110, Project: S9706088 (Inactive)
 - o Mills Property, Facility: 5-000848, Project: S9703040 (Inactive)

Original Response: The applicant thanks the Branch for the information regarding the confirmed LUST projects.

Revised Response: There is no change from the original response.

• No environmental impacts are anticipated; however, per the UST Regulations: Part E, § 1. Reporting Requirements:

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- Any indication of a Release of a Regulated Substance that is discovered by any Person, including but not limited to environmental consultants, contractors, utility companies, financial institutions, real estate transfer companies, UST Owners or Operators, or Responsible Parties shall be reported within 24 hours to:
 - The Department's 24-hour Release Hot Line by calling 800-662-8802; and
 - The DNREC Tank Management Branch by calling 302-395-2500

Original Response: While the Department does not anticipate any environmental impacts, the Owner / Developer will notify the Agencies listed above if a regulated substance is discovered at the proposed site.

Revised Response: There is no change from the original response.

Air Quality

• The applicant shall comply with all applicable Delaware air quality regulations. Please note that the following regulations in Table 1 – Potential Regulatory Requirements may apply to your project:

Table 1: Potential Regulatory Requirements	
Regulation	Requirements
7 DE Admin. Code 1106 - Particulate Emissions from Construction and Materials Handling	 Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.
	• Use covers on trucks that transport material to and from site to prevent visible emissions.
7 DE Admin. Code 1113 – Open Burning	• Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year.
	Prohibit the burning of land clearing debris.
	 Prohibit the burning of trash or building materials/debris.
7 DE Admin. Code 1135 – Conformity of General Federal Actions to the State	Require, for any "federal action," a conformity determination for each pollutant where the total of

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Implementation Plan	direct and indirect emissions would equal or exceed any of the de minimus levels (See Section 3.2.1)
7 DE Admin. Code 1141 – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	 Use structural/ paint coatings that are low in Volatile Organic Compounds. Use covers on paint containers when paint containers are not in use.
7 DE Admin. Code 1144 – Control of Stationary Generator Emissions	 Ensure that emissions of nitrogen oxides (NO_x), nonmethane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO₂), carbon monoxide (CO), and carbon dioxide (CO₂) from emergency generators meet the emissions limits established. (See section 3.2). Maintain recordkeeping and reporting requirements.
7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty Vehicles	• Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

For a complete listing of all Delaware applicable regulations, please look at our website: http://www.awm.delaware.gov/AOM/Pages/AirRegulations.aspx.

Original Response: The applicant will ensure compliance with the above listed regulations and requirements.

Revised Response: There is no change from the original response.

<u>Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394</u>
At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

• Fire Protection Water Requirements:

• Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.

Original Response: The project will be designed to meet the above requirements.

Revised Response: There is no change from the original response.

• Where a water distribution system is proposed for Mercantile sites, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

Original Response: The information requested will be provided as part of the Fire Marshal's approval process.

Revised Response: There is no change from the original response.

• Fire Protection Features:

• All structures over 10,000 sqft aggregate will require automatic sprinkler protection installed.

Original Response: The project will comply with this requirement.

Revised Response: There is no change from the original response.

• Buildings greater than 10,000 sqft, 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements.

Original Response: All fire lane requirements to include marking will be shown on the site plan that will be submitted to the Fire Marshal for review and approval.

Revised Response: There is no change from the original response.

 Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.

Original Response: The Fire Department Connections will be shown on the plan to include being located within 300 feet of a hydrant and the detail provided on the plan.

Revised Response: There is no change from the original response.

o Show Fire Lanes and Sign Detail as shown in DSFPR.

Original Response: All fire lanes and sign details will be shown on the site plan that will be submitted to the Fire Marshal for review and approval.

Revised Response: There is no change from the original response.

Accessibility

• All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the site must be constructed so fire department apparatus may negotiate it.

Original Response: The proposed site will be designed to meet all accessible requirements as listed in the Fire Prevention Regulations.

Revised Response: There is no change from the original response.

• Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.

Original Response: The proposed site will be designed so that fire department access will be able to be located within 100 feet of the front door.

Revised Response: There is no change from the original response.

• The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.

Original Response: The intent is to design the site without the need of speed reduction devices, but if included in the design they will be in accordance with DelDOT requirements.

Revised Response: There is no change from the original response.

 The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

Original Response: The proposed project will not have gates that limit fire department access.

Revised Response: There is no change from the original response.

• Gas Piping and System Information:

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• Provide type of fuel proposed, and show locations of bulk containers on plan.

Original Response: The type of fuel proposed or fuel provider will be provided on the plan, including bulk container locations if designed for the site.

Revised Response: There is no change from the original response.

• Required Notes:

- Provide a note on the final plans submitted for review to read "All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations"
- o Proposed Use
- Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
- Square footage of each structure (Total of all Floors)
- o National Fire Protection Association (NFPA) Construction Type
- o Maximum Height of Buildings (including number of stories)
- o Note indicating if building is to be sprinklered
- o Name of Water Provider
- Letter from Water Provider approving the system layout
- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- o Provide Road Names, even for County Roads

Original Response: All of the required notes listed above will be included on the site plan that will be submitted to the Fire Marshall's Office for review and approval.

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State Historic Preservation Office - Contact Terrence Burns 736-7404

• There was a known historic house (S-219 and S-1045) on this parcel and an archaeological site (S-562, 7S-G-024), towards the southeast side and Kings Hwy (Route 9). Although the house (S-219 and S-1045) was demolished, there are still some outbuildings remaining. According to the Pomeroy and Beers Atlas of 1868, the house (S-219 and S-1045) was associated with a S. P. Houston, and there may be archaeological resource associated with it. With this in mind, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law, which is in Chapter 54 of Title 7, of the Delaware Code (7 Del. C. Ch. 54).

Original Response: The remaining outbuildings and known archaeological site referenced by the Office are not located on the portion of the property to be rezoned or developed.

Revised Response: There is no change from the original response.

• Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, and sometimes near or within the boundary of an historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (7 Del. C. Ch. 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to know more information pertaining to unmarked human remains or cemeteries, please check the following websites for additional information: www.history.delaware.gov/preservation/umhr.shtml and www.history.delaware.gov/preservation/cemeteries.shtml.

Original Response: The Applicant is aware of the potential for unmarked graves and will consult with a qualified archaeologist as needed for this project.

Revised Response: There is no change from the original response.

• Therefore, prior to any demolition or ground-disturbing activities, the developer may want to hire an archaeological consultant to examine the parcel for any potential archaeological site or archaeological resources, such as cemetery, burial site, or unmarked human remains.

Original Response: The Applicant is aware of the potential for archaeological sites or resources and will consult with a qualified archaeologist as needed for this project.

Revised Response: There is no change from the original response.

Furthermore, if there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. Owners and developers who may plan to apply for an Army Corps of Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities should take place before the Corps or other involved federal agency determines the area of potential effect of the project undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office. and the Advisory Council for Historic Preservation about the project's effects on historic properties. Furthermore, any preconstruction activities without adherence to these stipulations may jeopardize the issuance of any permit or funds. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please review the Advisory Council's website at www.achp.gov.

Original Response: Federal permits are not anticipated for this project and the Applicant is familiar with the Section 106 process.

Revised Response: There is no change from the original response.

Recommendations/Additional Information

Department of Transportation - Contact Bill Brockenbrough 760-2109

• Section 2.5 of the <u>Development Coordination Manual</u> addresses in part Traffic Signal Agreements, Traffic Signal Revolving Fund agreements, and Off-Site

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Improvement Agreements. To the extent that DelDOT identifies a need for these agreements, the applicant should expect a requirement that the need for them be noted on the Record Plan.

Original Response: All requirements identified as part of the Traffic Operational Analysis or the 2009 Agreement will be added to the notes on the Record Plan.

Revised Response: There is no change from the original response.

• The plan accompanying the PLUS application shows a right-turn acceleration lane entering Kings Highway from the proposed main access. While DelDOT will review this feature further as part of the TOA and plan review, DelDOT generally discourages the use of acceleration lanes leaving subdivision streets and commercial driveways.

Original Response: The acceleration lane that was shown on the plan reviewed by PLUS has been removed from the revised sketch plan.

Revised Response: There is no change from the original response.

• The plan accompanying the PLUS application shows what appears to be a full access on Kings Highway serving the proposed YMCA site. While DelDOT will review this feature further when a plan is submitted for the YMCA parcel and may permit some direct access from Kings Highway, it is likely that some or all access movements will need to occur at the main entrance opposite Clay Road.

Original Response: The proposed YMCA and multicultural/museum site shown on the plan reviewed by PLUS is schematic and shown to verify the land set aside for future use will be large enough for the potential use. The access to these parcels will be reviewed as part of their application process.

Revised Response: The revised sketch plan only shows the proposed shopping center and its access.

• The TOA will need to address queueing along the proposed main site access opposite Clay Road.

Original Response: The TOA and Signal Justification Study scopes of work were provided by DelDOT. A queuing analysis for the main site access will be analyzed and included in one or both of the required studies.

The plan accompanying the PLUS application shows a proposed parcel line running down the middle of the main access road leading in from Kings Highway. While such an ownership arrangement may be feasible using a set of cross-access easements, we suggest that the creation of a public or private right-of-way may make for easier administration.

Original Response: The rezoning line has been adjusted to be located on the far side of the access from Clay Road. The parcel lines have not been adjusted on the site plan and will be further evaluated during the design. The intent is to use a set of cross-access easements for the various parcels.

Revised Response: The sketch plan only shows the proposed zoning line and existing right-of-ways. A set of cross access easements will be used for the various parcels.

- In the internal design of the shopping center, we recommend that the applicant's engineer use truck turning templates typical of the largest trucks expected to make deliveries to the center. DelDOT will require the use of such template in the design of the site access but the plan accompanying the PLUS application appears to be restrictive internally, such that fire access and deliveries to the backs of the stores could be difficult.
- Original Response: The plan presented at PLUS is a schematic drawing. As Gills Neck Village Center moves forward in the process, the internal access will be verified to ensure that the site is accessible to both fire protection apparatus as well as the delivery trucks that will service the Center.

Revised Response: The revised sketch plan is a schematic drawing. As the Gills Neck Village Center moves forward in the process, the internal access will be verified to ensure that the site is accessible to both fire protection apparatus as well as the delivery trucks that will service the Center.

• Be advised that the Standard General Notes have been updated and posted to the DelDOT website. Please begin using the new versions and look for the revision date of Mayh 21, 2014. The notes can be found at

http://www.deldot.gov/information/business/subdivisions/DelDOT_Development_ Coordination Plan Sheet Notes.doc

Original Response: Prior to submitting the record plat or entrance plans, the design engineer will verify that the most current general notes are used on the plan sets.

• The applicant should expect a requirement that all PLUS and/or TAC comments be addressed prior to submitting record, subdivision or entrance plans for review.

Original Response: The Applicant is aware that the comments provided at PLUS and / or TAC should be addressed as part of the record and entrance plan reviews.

Revised Response: There is no change from the original response.

• Please check to determine whether any utilities will need to be relocated as part of this project.

Original Response: The design engineer will review this as part of the design stage and will work with the utility companies as necessary.

Revised Response: There is no change from the original response.

• The applicant should expect a requirement that any substation, wastewater facility or other utility parcels serving the site have access from an internal subdivision street with no direct access to the State-maintained highway.

Original Response: Access to a substation, wastewater facility or other utility, if required to serve Gills Neck Village Center, will be from an internal street or access.

Revised Response: There is no change from the original response.

• Please be advised DelDOT's check handling procedures changed in 2012. For specific information, see the letter available at

http://www.deldot.gov/information/business/subdivisions/PaymentProcedure.pdf.

Original Response: The design engineer is aware of the check handling procedures and is also one of the testing firms for the new online submission process that DelDOT is moving towards. The Applicant will comply with the payment procedures in affect at time of submission.

Revised Response: There is no change from the original response.

• The subject parcel is located at the intersection of two roads included in the Lewes Historic Byway, Kings Highway and Gills Neck Road. The design of the shopping center and associated off-site improvements will necessarily affect the experience of visitors to the Byway.

Original Response: The Developer of this property is aware of the Lewes Byway. However, it is noted that the Kings Highway site frontage is not a part of the Lewes Byway or any byway. The only part of the site that is part of the Lewes

Byway is the Gills Neck road site frontage. The Developer of Gills Neck Village Center plans to construct a visually attractive project, which will be a welcome addition to the area designated as the "Gateway to Lewes" along Kings Hwy shown on page 3 the December 15, 2014 Traffic Management Plan completed by Delaware Greenways,

Revised Response: The applicant is aware of the Lewes Byway. The Kings Highway site frontage was added to the Lewes Byway and we were unaware of the addition and the owner was not contacted or notified prior to the change. The applicant and future Developer of Gills Neck Village Center plans to construct a visually attractive project, which will be a welcome addition to the area designated as the "Gateway to Lewes".

• The following comments listed below are from the DelDOT Byways Program and are grouped under Suggestions because many of them are just that; they address concerns which DelDOT cannot require the applicant to address. However, the applicant should expect DelDOT to require the improvements to Kings Highway and Gills Neck Road to be guided by the DelDOT publication Context Sensitive Solutions for Delaware's Byways, the Corridor Management Plan for the Byway, and the Kings Highway/Gills Neck Road Master Plan.

Original Response: The 2009 Letter Agreement will direct developer required improvements. The Developer has reviewed the published and available documents and will consider the guidance provided along Gills Neck Road within the context of public safety, roadway capacity, future maintenance, cost, and feasibility. The Kings Highway site frontage is not part of the Lewes Byway.

Revised Response: The 2009 Letter Agreement will direct the developer required improvements, subject to any changes based on the considerable reduction in the size and scope of the project. The applicant has reviewed the published documents and will consider them within the context of public safety, roadway capacity, future maintenance, cost, and feasibility.

o Follow DelDOT's publications related to Byway design. As the proposed development project is on two roadways that comprise the Lewes Historic Byway, please follow the principles and guidance of the DelDOT publication, Context Sensitive Solutions for Delaware's Byways (DelDOT, June 2011) as the project design and transportation mitigation designs are progressed. This document represents DelDOT policy with regards to the state's byways.

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Original Response: As previously noted, the project is not on two roadways within the Lewes Byway. The Kings Highway site frontage is not part of the Lewes Byway or any byway. The approved and proposed improvements are guided by the existing 2009 Agreement and approved intersection improvements. The byways documents will also be considered along Gills Neck Road. The Developer and design engineer will meet with DelDOT early in the design process for the Gills Neck Road site access and road frontage improvements to review the design standards that will be used for the proposed improvements to Gills Neck Road. Phase 1 of the Kings Highway / Gills Neck Road / Cape Henlopen High School intersection was completed during the Summer of 2015. Phase 2 of the improvements will be completed during the Summer of 2016. The construction plans and signal design plans were paid for by the developers and were each approved by DelDOT in 2015.

Revised Response: The approved and proposed improvements are guided by the existing 2009 Agreement and approved intersection improvements. The byways documents will also be considered along both road frontages. The Developer and design engineer will meet with DelDOT early in the design process for the project site accesses and road frontage improvements to review the design standards that will be used for the proposed improvements to Gills Neck Road. Phase 1 of the Kings Highway / Gills Neck Road / Cape Henlopen High School intersection was completed during the summer of 2015. Phase 2 of the improvements will be completed during the summer of 2016. The construction plans and signal design plans were paid for by the developers and were each approved by DelDOT in 2015.

O Follow the recommendations of the Corridor Management Plan for the Lewes Historic Byway. The soon to be completed Corridor Management Plan (final draft in May) for the Lewes Historic Byway provides more specific guidance on developing context sensitive solutions designed to protect and preserve the character of the Byway. This document, when completed will also become policy for the Department. The Applicant's attention is specifically directed to the typical sections developed in conjunction with the citizens that participated in the Byway Corridor Management Plan development process. Such typical sections received positive comment at the public meeting held on November 13, 2014.

Original Response: The Kings Highway site frontage is not part of the Lewes Byway or any byway. The 2009 Letter Agreement will direct developer required improvements. The Corridor Management Plan is not complete for

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the Lewes Historic Byway. The Developer and design engineer will review the typical sections and evaluate whether they can be incorporated into the Gills Neck Road design, the proposed site access improvements, and development of The Village Center site.

Revised Response: The 2009 Letter Agreement will direct developer required improvements. The Corridor Management Plan for the Lewes Historic Byway was adopted in October 2015. The Developer and design engineer will review the typical sections and evaluate whether they can be incorporated into the frontage, the proposed site access improvements, and development of The Village Center site.

O Coordinate with the Kings Highway/Gills Neck Road Master Plan which will begin shortly. Legislatively funded, the Master Plan will coordinate with the active developers in the area, DelDOT and the community to develop context sensitive solutions for Kings Highway and Gills Neck Road.

Original Response: The 2009 Letter Agreement will direct developer required improvements. Development of the Kings Highway / Gills Neck Road Master Plan has not started as of July 30, 2015. DelDOT anticipated an August project kick off and public meetings will be advertised. The Developer anticipates to be contacted during the preparation of the Master Plan.

Revised Response: There is no change from the original response.

• Address the following site plan comments. The site plan as presented in the PLUS Application, while absent of dimensions, has generated the following specific comments:

Original Response: We will address each comment below.

Revised Response: There is no change from the original response.

Provide sufficient setbacks to enable landscaping and other context sensitive features of the Byway to be designed into the project. The sketch plan shows insufficient setbacks to permit the context sensitive typical sections contained in the draft Corridor Management Plan. Such typical sections will be provided upon request.

Original Response: The Owner has dedicated a significant amount of right-of-way as part of the Kings Highway / Gills Neck Road / Cape Henlopen High School intersection improvements such that additional

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setbacks should not be required. We have requested the typical sections to determine the impacts to the Village Center.

Revised Response: The Owner has dedicated a significant amount of right-of-way as part of the Kings Highway / Gills Neck Road / Cape Henlopen High School intersection improvements such that additional setbacks should not be required. The applicant will review the typical sections and evaluate possible implementation.

Provide for multi-use trails through the development and connections to external trail links. DelDOT requirements with regard to multi-use trails, sidewalks and walkways are found in Section 3.5 of the <u>Development Coordination Manual</u>. The proposed setbacks also seem to lack sufficient room for a trail network along the Byway.

Original Response: The existing multi-use paths/Junction and Breakwater Trail would not exist if it were not for the actions of the Owner – the Owner and its affiliates have donated acres of land and privately funded miles of the constructed trail network.

The Owner of this parcel, as well as others along Gills Neck Road installed, at its sole cost, the gravel portion of the Junction and Breakwater Trail. As most of the developments have been constructed, the Junction and Breakwater Trail has been upgraded from gravel to pavement along the south side of Gills Neck Road and easements were provided through Showfield to allow for connection to Freeman Highway. Furthermore, the developer's will improve the Junction and Breakwater Trail to the intersection of Kings Highway / Gills Neck Road / Cape Henlopen High School. The developers of Governors will then complete the final connection of the re-aligned and improved Junction and Breakwater Trail. There is sufficient space to then extend the Junction and Breakwater Trail (or shared use path) along the King's Highway road frontage of Gills Neck Village Center. In addition, there are sidewalks within the Center to promote walking as well as connection to the Governors community.

Revised Response: There is no change to the original response.

Revise the design of the site to one that enhances the character of the Byway. The succession of outparcels is unlike any other development, recent or older on any of the Lewes Historic Byway roadways. We request that they be eliminated or the site redesigned to a more village

> configuration as opposed to the typical suburban shopping center plan shown in the sketch. Note: A village design represents a center where retail buildings are arrayed across the site with separate parking areas and internal landscaping.

Original Response: The outparcels are located along the Kings Highway site frontage and are not located within the Lewes Byway. The proposed outparcels will provide a general mix of commercial and service oriented businesses consistent with the CR-1 zoning code.

The proposed sketch provides many of the features of the byways in that there are sidewalks throughout the center and use of landscaped islands to "break-up" the parking areas. This layout provides for better access for delivery vehicles and fire apparatus and concentrates utilities within a corridor to be more efficient.

Revised Response: The commercial space has been re-designed. The revised plan mimics the other commercial spaces located along Kings Highway. The proposed sketch plan provides many of the features of the byways in that there are sidewalks throughout the center and use of landscaped islands to "break up" the parking areas. This layout provides for better access for delivery vehicles and fire apparatus and concentrates utilities within a corridor to be more efficient.

Provide appropriate buffering and retain viewsheds. The strip center building at the back of the site has its back to the adjacent residential neighborhood. A village design might address that concern. The shopping center's back will be visible from Gills Neck Road.

Original Response: The proposed Gills Neck Village Center will have landscaping to screen the Center from the adjacent Governors community.

Revised Response: There is no change from the original response.

Provide an acceptable access design to Gills Neck Road. The access to Gills Neck Road lacks an insufficient throat. We are concerned that incoming and outgoing traffic will conflict causing congestion on Gills Neck Road. The subject of entrance length or "throat" is addressed at length in Section 5.2.6 of the Development Coordination Manual.

Original Response: The access shown on the concept plan is just a sketch. The entrance will be designed in accordance with the TOA analysis, as well as the <u>Development Coordination Manual</u>.

Revised Response: There is no change from the original response.

Incorporate the recommendations of the approved Transportation
Management Plan. Please follow the recommendations of the DelDOT
approved Transportation Management Plan (Delaware Greenways,
December 2014) for the Byway by participating in transportation
management improvements in addition to the capacity mitigation
improvements driven by the traffic impact study. Such improvements are
designed to improve the quality of life for the residents in the area, some
of which reside in neighborhoods developed by the Applicant. The report
will be provided upon request.

Original Response: All DelDOT improvements will be required based on the Letter Agreement between LT Associates, LLC and DelDOT detailing the requirements. It is noted the Traffic Management Plan shows a typical section along a section of Kings Highway that is not located within the Byway. It is also noted the Traffic Management Plan references the Showfield TIS and states that since 2007 "few, if any of the developments contained therein have been built." That statement is incorrect as all of Cadbury, Breakwater, and the vast majority of Wolfe Pointe, Hawkseye, and Senators have built-out.

The Developer will extend the shared use path along King's Highway and tie it into the Junction and Breakwater Trail. The Developer will incorporate a bus stop into the design for future expansion of the DART Bus Route to include providing 100 dedicated parking spaces for a potential Park n Ride. The Developer will work with DART on the appropriate location whether it is on Gills Neck Village Center proper or the future YMCA or Museum / Multicultural Center. The Developer is installing a parking area for the users of the Junction and Breakwater Trail. The proposed Gills Neck Village Center will provide interconnection to the existing Junction and Breakwater Trail that was built and paid for by the Owner/affiliates of the Owner.

Revised Response: All DelDOT improvements will be required based on the Letter Agreement between LT Associates, LLC and DelDOT detailing the requirements. The Traffic Management Plan shows a typical section

along a section of Kings Highway that will be reviewed by the applicant. It is also noted the Traffic Management Plan references the Showfield TIS and states that since 2007 "few, if any of the developments contained therein have been built." That statement is incorrect as all of Cadbury, Breakwater, and the vast majority of Wolfe Pointe, Hawkseye, and Senators have built-out.

The Developer will extend the shared use path along King's Highway and tie it into the Junction and Breakwater Trail. The Developer will incorporate a bus stop into the design for future expansion of the DART Bus Route to include providing 100 dedicated parking spaces for a potential Park n Ride. The Developer will work with DART on the appropriate location whether it is on Gills Neck Village Center proper or the residual lands. The Developer is installing a parking area for the users of the Junction and Breakwater Trail. The proposed Gills Neck Village Center will provide interconnection to the existing Junction and Breakwater Trail that was built and paid for by the Owner and / or affiliates of the Owner.

Seek input from the Byway Committee and its sponsors throughout the design process. We request that the Applicant include the Lewes Scenic and Historic Byway Committee, an official committee of the City of Lewes and the Management Entity of the Lewes Historic Byway, in the review process for aspects of the plan review not under DelDOT entrance review purview.

Original Response: The Developer will consider input from the Byway Committee and its sponsors at the appropriate stage of the design process. The entrance, off site intersection, and frontage improvements are requirements of DelDOT and will be reviewed under the DelDOT entrance review purview and per the Letter Agreement documenting required improvements.

Revised Response: There is no change from the original response.

<u>Department of Natural Resources and Environmental Control – Contact Kevin Coyle</u> 739-9071

Soils Assessment

• Based on soils survey mapping update, the soil mapping units with the most limitations for development are Hurlock (HvA), Manahawkin (Ma), Hurlock, and Transquaking & Mispillion (TP). These soil mapping units are poorly to very

poorly drained wetland associated (hydric) soils that are considered to have severe limitations for development (considered unsuitable). Therefore, DNREC strongly recommends that the applicant avoid development in all hydric soil mapping units. (Figure 1).

Original Response: The soils on the proposed Gills Neck Village Center property are all well drained soils and do not have any limitations on the development of this project.

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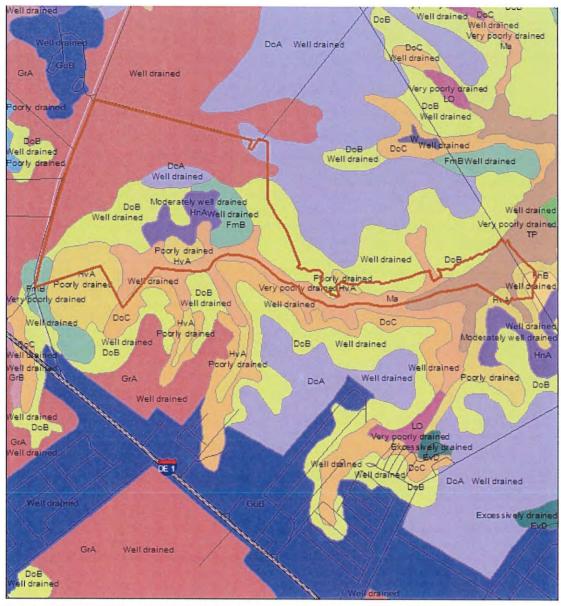
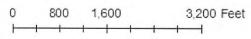


Figure 1: NRCS soil survey mapping update in the immediate vicinity of the proposed construction





Habitat and Rare Species Rare Species

• DNREC scientists have not surveyed this project area; therefore, we are unable to provide information pertaining to the existence of state-rare or federally listed plants, animals or natural communities at this project site. In the absence of site-specific information, we offer the following comments:

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Original Response: The proposed improvements are located within the currently agricultural portion of the property, which has been actively farmed for more than 50 years; therefore any existence of state-rare or federally-listed plants, animals or natural communities is highly unlikely.

Revised Response: There is no change from the original response.

According to the PLUS application submitted in 2009, the forested wetlands along Pot Hook Creek were to be designated as a conservation easement and left intact. However, this application does not specify if the plan remains to designate these habitats as a conservation easement. Rare species have been documented downstream within the forested buffer along Pot Hook Creek and Wolfe Glade. Forested habitat along the creek protects water quality by filtering run-off, minimizing bank erosion, and providing shade that moderates water temperature so it is suitable for spawning. Forested riparian habitat also provides vital breeding areas for wetland dependent species and is utilized by wildlife for resting, foraging and as a travel corridor between habitats. As such, DNREC strongly recommends that the forested wetlands within the parcel, both those which are included in the site plan and those that are not, are to remain intact. Moreover, it remains unclear how wide the buffer will between these key wildlife habitats and the areas that are to be disturbed. DNREC highly recommends that at least a 100 foot (preferably 300 foot) buffer is preserved along the creek to protect sensitive rare species, protect water quality and to maintain a wildlife habitat along the creek.

Original Response: The Governors community is creating a conservation easement as previously shown in 2009. The proposed project is located over 1,000 feet from the proposed conservation easement. Buffers for this project are not proposed and are not required due to its location on the property.

Mosquito Control

• Development projects within 2-5 miles of large expanses of salt marshes or brackish wetlands can often lead to increased demands for mosquito control services, going beyond what DNREC's Mosquito Control Section currently has the budget or resources to provide. State, county and/or local governments should be prepared to deal with increased budget demands for mosquito control services when approving developments that could potentially have mosquito issues.

Original Response: We thank the Section for information regarding budget constraints for mosquito control.

Revised Response: There is no change from the original response.

• Additionally, even though the EPA has scientifically determined that EPA-registered mosquito control insecticides can be applied "without posing any unreasonable risks to human health, wildlife or the environment" (when used in accordance with all product label instructions), avoiding or reducing the use of such pesticides should be employed whenever possible. For more information about this issue, the applicant can contact Dr. Bill Meredith, Mosquito Control Administrator at (302) 739-9917.

Original Response: The Owner / property manager will determine if mosquito control will be required for the project.

Revised Response: There is no change from the original response.

Stormwater Ponds

• Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance for community residents. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns surrounding ponds provide attractive habitat for these species.

Original Response: If a wet pond is proposed, the design engineer will work with the owner / property manager on a design to prevent as best as possible attracting resident Canada geese and mute swans.

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• To deter waterfowl from taking up residence in these ponds, we recommend planting the surrounding open space with a mix of native wildflower plantings (to be planted in accordance with the Sediment and Stormwater Plan approval agency requirements). It is best to mow the open space area surrounding the pond only once a year, either in February or March. If mowing must occur more often, it would be helpful to leave a minimum buffer of 15-30 ft. in width to be mowed annually. This area would be necessary to adequately deter the waterfowl from inhabiting the area (when the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond). In addition to deterring nuisance waterfowl, the native wildflower mix will also serve to attract bees, butterflies, and other pollinators, and reduce run-off, which can contain oil and other pollutants that homeowners may use on their lawns and driveways.

Original Response: If a wet pond is proposed, the design engineer will work with the owner / property manager on a design to prevent as best as possible attracting resident Canada geese and mute swans.

Revised Response: There is no change from the original response.

• DNREC's botanist, Bill McAvoy at (302) 735-8668 or <u>William.McAvoy@state.de.us</u>, would gladly assist in drafting a list of plants suitable for this site. = Kate Fleming, (302) 735-8658, <u>Kate.Fleming@state.de.us</u>

Original Response: We thank the section for the contact information.

Revised Response: There is no change from the original response.

Additional information on TMDLs and water quality

Compliance with the specified TMDL nutrient and bacterial reduction requirements specified for the Inland Bays watershed can be facilitated by adherence to the strategies and requirements described in the Inland Bays PCS, and the implementation of the following recommended BMPs:

Original Response: The proposed project will meet the Inland Bays PCS.

Revised Response: There is no change from the original response.

 Maintain all of the existing forest cover and/or riparian wetlands that bound the southern portion of this parcel. We further suggest additional native tree and native herbaceous plantings - wherever possible – to create additional environmentally-friendly open space.

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Original Response: The proposed project is to be developed on the upland portion of the site and there are no trees located within the project limits.

Revised Response: There is no change from the original response.

 Conduct a United States Army Corps of Engineers (USACE) approved wetlands delineation. According to information submitted by the applicant, a wetland delineation has not been conducted or approved by the USACE.

Original Response: On the PLUS application we noted that wetlands were not located on the site because the portion of the property to be developed is located on uplands that are currently agricultural. A wetland delineation was previously completed and there are no wetlands on the portion of the property.

Revised Response: There is no change from the original response.

O Based on NRCS soil survey mapping, the area proposed for development is likely to contain poorly-drained wetland-associated (hydric) soils; hydric soils are considered unsuitable for development and should be avoided. We further suggest that a site-specific soils evaluation by a licensed soil scientist be conducted to more accurately identify and locate the presence of hydric soils in this parcel.

Original Response: The proposed Gills Neck Village Center is located on well-drained soil as indicated on the NRCS soil survey. A soils investigation will be conducted as part of the design of Gills Neck Village Center.

Revised Response: There is no change from the original response.

• Based on a review of existing buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. Wetland and Stream Buffer Requirements – A Review. J. Environ. Qual. 23: 878-882.), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer (maintaining the existing forested buffer and planting additional native vegetation to maintain this 100-foot buffer) from all waterbodies (including ditches) and wetlands (as determined by USACE approved wetlands delineation).

Original Response: The Governors community is creating a conservation easement as previously shown in 2009. The proposed project is located over 1,000 feet from the proposed conservation easement. Buffers for this project are not proposed and are not required due to its location on the overall property.

Revised Response: There is no change from the original response.

Use green-technology storm water management and a rain garden(s) (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant runoff increases that often track post-development increases in surface imperviousness. Please contact Lara Allison at 739-9939 for further information about the possibility for installing a rain garden(s) on this parcel.

Original Response: The project is required to meet the current Sediment and Stormwater Regulations that requires "recharge" of the resource protection event including the use of green-technology practices. An open water management pond may be constructed as part of the overall stormwater management plan.

Revised Response: There is no change from the original response.

Calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, ponds, and roads) included in the calculation. Using open-water management structures as part of calculation for open space results in an underestimate of actual surface imperviousness, and is not considered an acceptable best management practice.

Original Response: The design engineer accounts for all impervious area to include the open water of an open water management structure to truly calculate the total impervious area.

Revised Response: There is no change from the original response.

O Since this project will create additional surface imperviousness that will increase the probability for increased flooding and increased pollutant load runoff impacts to adjoining streams and wetlands in the greater Inland Bays watershed - wherever practicable - , the use of pervious paving materials (instead of conventional asphalt and concrete) to mitigate these impacts is strongly encouraged. We suggest that the applicant use pervious paving materials in all parking areas and consider the use of pervious pavers in roadways as well.

Original Response: Open pavers is a viable option but conflicts with the comments provided in the Source Water Protection Area Section. The proposed project is required to meet the new Sediment and Stormwater Management Regulations which requires "recharge" of the resource protection event.

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The applicant should voluntarily assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the "Nutrient Load Assessment protocol." The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) resulting from the conversion of individual or combined land parcels to a changed land use(s); thus providing applicants and governmental entities with quantitative information about the project's impact(s) on baseline water quality. We strongly encourage the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact Jen Walls or John Martin at (Division of Watershed Stewardship) at 302-739-9939 for more information on the protocol.

Original Response: The Applicant and Design Engineer are familiar with the "Nutrient Load Assessment Protocol" worksheet and are familiar with the BMPs that effectively remove 100% of nitrogen and phosphorus.

Revised Response: There is no change from the original response.

Additional information on hazardous waste sites

• DNREC's Site Investigation and Restoration Section (SIRS) strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Environmental Site Assessment (including a title search to identify environmental covenants) and a Phase II or Facility Evaluation in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA) and the HSCA Guidance Section 2, part 2.3 (page 2-1). While this is not a requirement under HSCA, it is good business practice and failure to do so will prevent a person from being able to qualify for a potential affirmative defense under Section 9105(c) (2) of HSCA.

Original Response: This parcel of land has been owned by the current owner for over 50 years and said owner has no knowledge of a hazardous material release and a Phase I or II evaluation is not needed at this time. An Environmental Transaction Screen has been conducted and identified no significant issues.

Revised Response: There is no change from the original response.

Additional remediation may be required if the project property or site is re-zoned by the county.

Original Response: This portion of the project does not require remediation.

• Should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800-662-8802). SIRS should also be contacted as soon as possible at 302-395-2600 for further instructions.

Original Response: The Owner / Developer will discontinue construction activity and remediate the site as required by Delaware Code should the Department determine that a release of a hazardous substance occurs during construction of the project.

Revised Response: There is no change from the original response.

Additional information on tank management

• When contamination is encountered, PVC pipe materials should be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

Original Response: If contamination is encountered, PVC pipe materials will be replaced with ductile steel and nitrile rubber gaskets if the soil is not remediated.

Revised Response: There is no change from the original response.

• If any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMS. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMS.

Original Response: The proposed project is not intended to install ASTs but if they do we will pass on the information to the tenants that they need to be registered.

Revised Response: There is no change from the original response.

Additional information on air quality

• New homes may emit, or cause to be emitted, air contaminants into Delaware's air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:

Original Response: There are no new homes proposed for this project.

• Emissions that form ozone and fine particulate matter; two pollutants relative to which Delaware currently violates federal health-based air quality standards, the emission of greenhouse gases which are associated with climate change, and the emission of air toxics.

Original Response: We thank the Section for this information.

Revised Response: There is no change from the original response.

- Air emissions generated from commercial spaces include emissions from the following activities:
 - Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.

Original Response: Construction products are always evolving to reduce emissions from their products or use of their products.

Revised Response: There is no change from the original response.

• The generation of electricity needed to support the commercial space, and all transportation activity.

Original Response: Utility providers are studying ways and implementing practices to find green energy sources to reduce their emission.

Revised Response: There is no change from the original response.

• Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) for the development were quantified. Table 2 represents the actual impact the project development may have on air quality.

Emissions Attributable to Village Center (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Mobile	38.15	50.31	*	*	*

^(*) Indicates data is not available.

Note that emissions associated with the actual construction of the road, including automobile and truck traffic from working in, or delivering products to the site, as well as

site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

Original Response: We thank the Section for quantifying the emission components.

Revised Response: There is no change from the original response.

DNREC encourages sustainable growth practices that:

o Control sprawl;

Original Response: The proposed project is located on property within the Level 1 Investment Area and near existing communities with existing infrastructure to support growth. In addition, numerous vehicle trips will be shortened in duration or eliminated (decreasing emissions) due to the proximity of Gills Neck Village Center to houses and customers.

Revised Response: There is no change from the original response.

o Preserve rural and forested areas;

Original Response: The project is located with Sussex County's growth zone and forested areas are not located within the project limits.

Revised Response: There is no change from the original response.

Identify conflicting land use priorities;

Original Response: The project is located within a Level 1 Investment Area and within Sussex County's growth area.

Revised Response: There is no change from the original response.

• Encourage growth on previously developed sites and denser communities while at the same time protect our diminishing land base;

Original Response: The project is located within a Level 1 Investment Area and within Sussex County's growth area.

Revised Response: There is no change from the original response.

• Coordinate transportation, housing, environment, and climate protection plans with land use plans; and

Original Response: The project includes means for multi-modal transportation, connects to adjacent land uses and will include design methods to protect the

environment. The land use is intended to compliment the neighboring residential, commercial, and institutional uses.

Revised Response: There is no change from the original response.

 Demonstrate that communities can achieve the qualities of privacy, community, and contact with nature without degrading the natural environment or generating unacceptable environmental costs in terms of congestion, use of natural resources, or pollution.

Original Response: The proposed project will be designed to promote interconnection, multiple modes of transportation, public bus stop and runoff reduction practices to mitigate the impacts of this project.

Revised Response: There is no change from the original response.

Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:

• Constructing with only energy efficient products. Energy Star qualified products are up to 30% more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of energy efficiency translates into a percent reduction in pollution. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.

Original Response: The Developer will consider this information and pass it on to the future tenants or building contractors to consider in their design and construction activities.

Revised Response: There is no change from the original response.

Offering geothermal and/or photo voltaic energy options. These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.

Original Response: The Developer will consider this information and pass it on to the future tenants or building contractors to consider in their design and construction activities.

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O Providing tie-ins to the nearest bike paths and links to any nearby mass transport system. These measures can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk, a bike path or mass transit, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.

Original Response: The Developer has constructed portions of the Junction and Breakwater Trail along the property frontage and will construct additional multiuse paths along King's Highway. Furthermore, they will install a bus stop for a future expansion of the DART Bus Route and have multiple connections to the existing Junction and Breakwater Trail as well as an interconnection to the adjacent Governors Residential Condominium Community.

Revised Response: There is no change from the original response.

• Using retrofitted diesel engines during construction. This includes equipment that are on-site as well as equipment used to transport materials to and from site.

Original Response: The Developer will consider this information and pass it on to the future tenants or building contractors to consider in their design and construction activities.

Revised Response: There is no change from the original response.

• Using pre-painted/pre-coated flooring, cabinets, fencing, etc. These measures can significantly reduce the emission of VOCs from typical architectural coating operations.

Original Response: The Developer will consider this information and pass it on to the future tenants or building contractors to consider in their design and construction activities.

Revised Response: There is no change from the original response.

• Planting trees in vegetative buffer areas. Trees reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, thereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

Original Response: The Developer will plant vegetation throughout the project in addition to trees in the required buffers.

O This is a partial list, and there are additional things that can be done to reduce the impact of the development. The applicant should submit a plan to the DNREC DAQ which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into this project.

Original Response: We thank the Department for the partial list of ways to mitigate emission migration measures.

Revised Response: There is no change from the original response.

Delaware State Fire Marshall's Office - Contact Duane Fox 739-4394

• Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

Original Response: The Design Engineer will request a pre-design meeting with a fire protection specialist as part of the design process.

Revised Response: There is no change from the original response.

On behalf of the Applicant, Jack Lingo Asset Management, LLC, we thank the various Departments of the State of Delaware for their comments on this project.

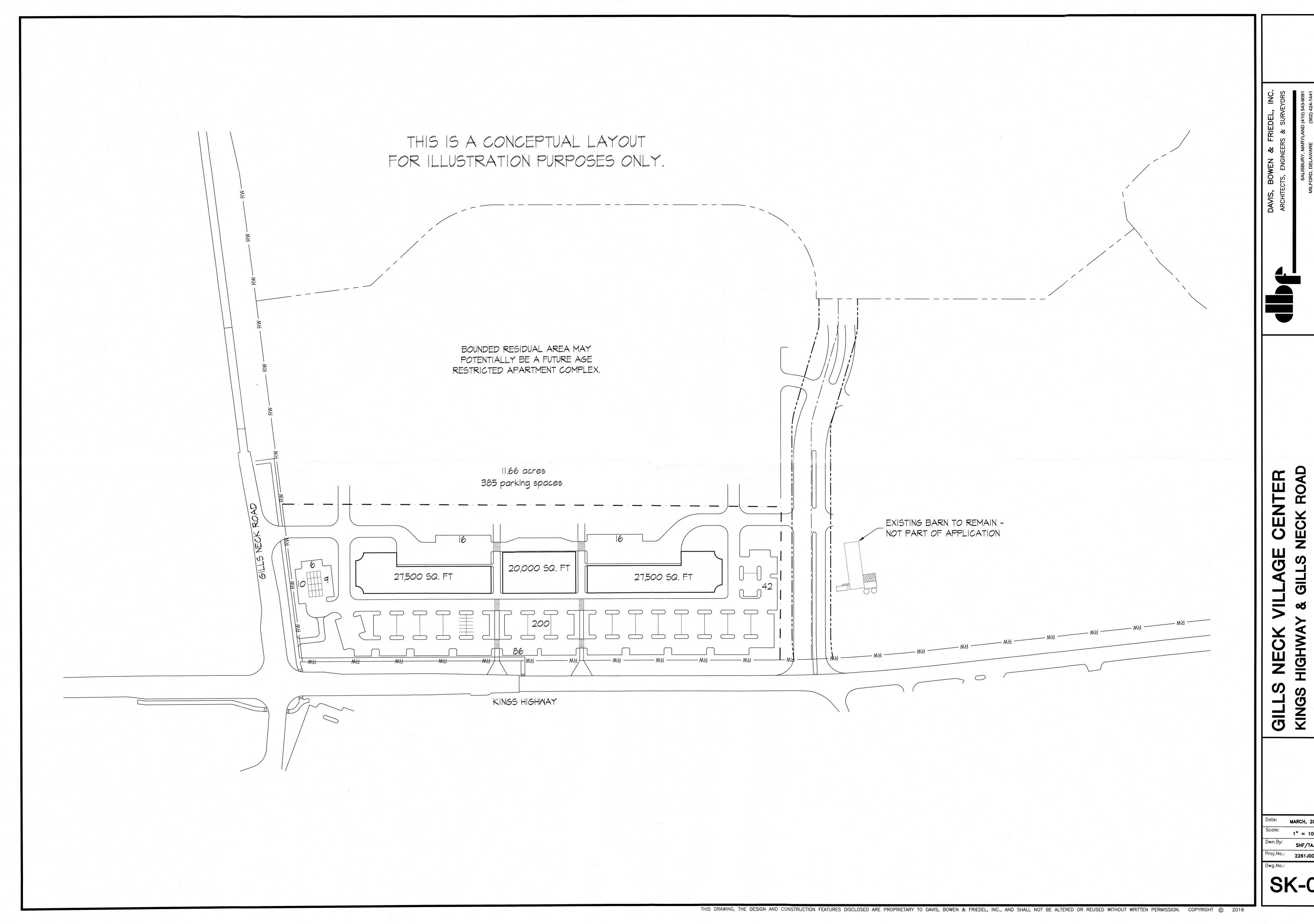
Sincerely, Davis, Bowen & Friedel, Inc.

b, th

Ring W. Lardner, P.E. Principal

P:\JG Townsend\2261J001 Village Town Center\Documents\02-Sussex County Planning and Zoning\2016-04-04 Revised Rezoning Application\2016-04-04 Revised Developer Response to PLUS Comments 2015-10-07.docx

Cc: Constance C. Holland, AICP, Director, Office of State Planning Coordination Gene Bayard, Morris James Wilson Halbrook & Bayard, LLP



MARCH, 2016

SHF/TAJ 2261J001

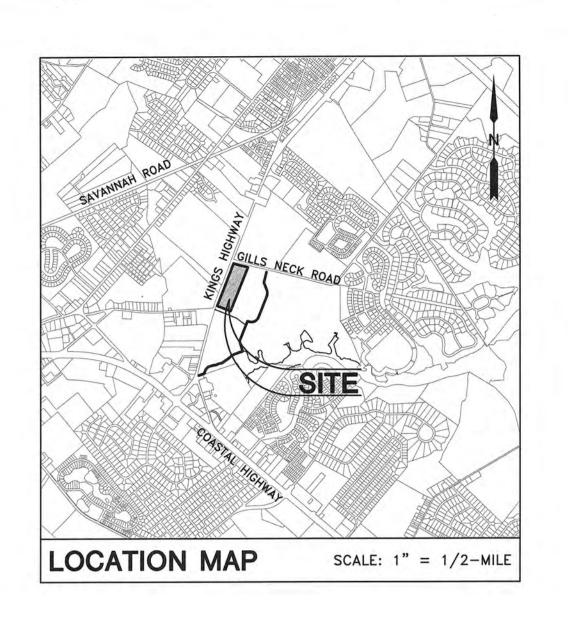
ROAD CENTER

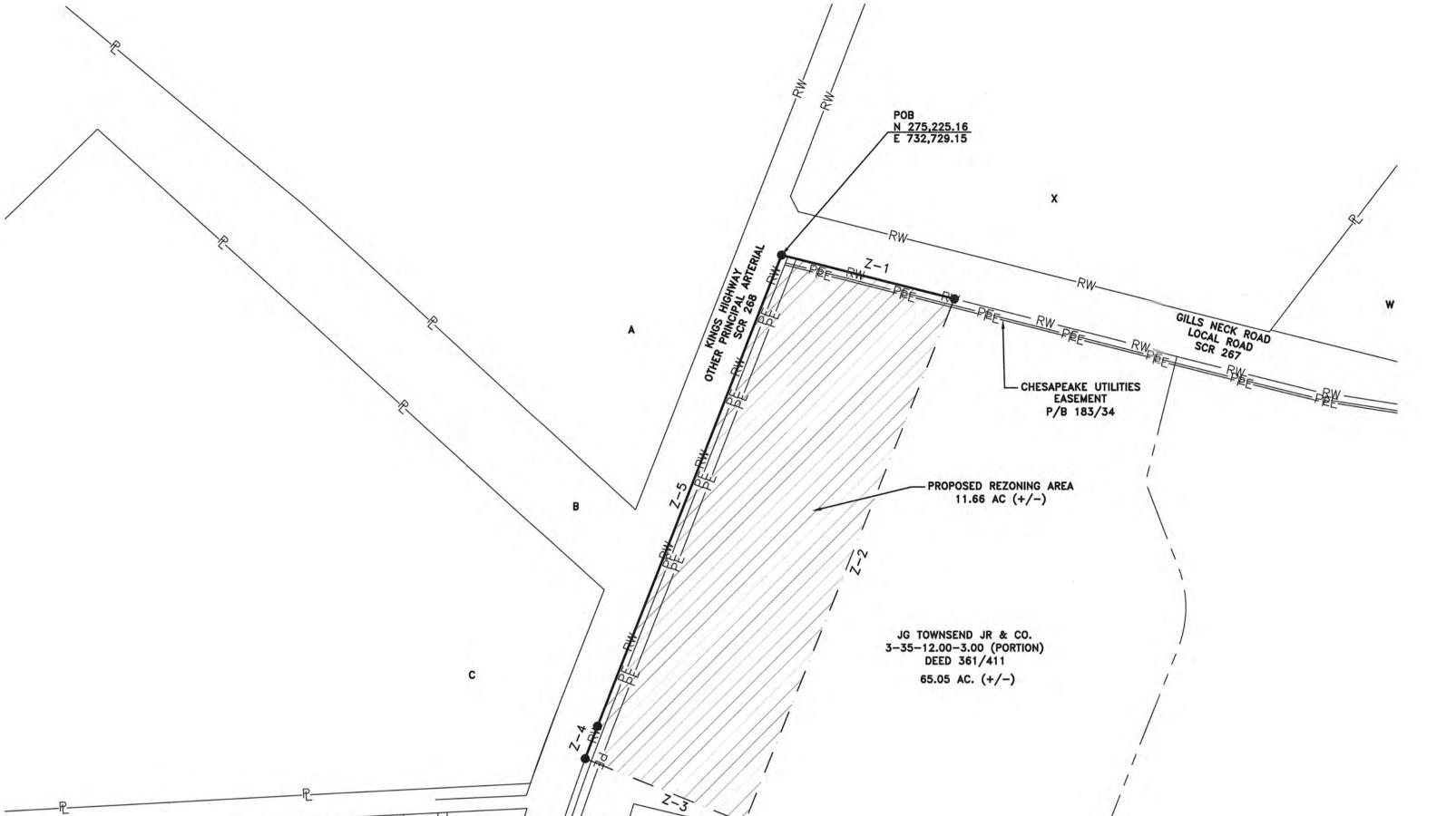
HIGHWAY R REHOBOTH KINGS LEWES & GILL

> MARCH, 2016 1" = 200'

SHF/TAJ 2261J001

Z-01





LINE	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS	DELTA ANGLE
Z-1	S 75*47'58" E	410.52'					
Z-2	S 21*53'57" W	1292.42'					
Z-3	N 68*06'03" W	395.24'					
Z-4			N 20°51'37" E	79.47	79.47	4237.52	1*04'28"
Z-5	N 21°23'51" E	1158.01					

ADJACENT PROPERTY OWNERS

PARCEL#		OWNER	DEED	
A	335-8.00-34.00	CAPE HENLOPEN SCHOOL DISTRICT		
В	335-8.00-33.00	CITY OF LEWES BOARD OF PUBLIC WORKS		
С	335-12.00-2.00	JG TOWNSEND JR CO.	D-408-123	
D	334-6.00-52.00	RUSSELL R. PALMER TRUSTEE	D-2521-186	
E	334-6.00-53.01	RUSSELL R. PALMER TRUSTEE	D - 3829 - 37	
F	334-6.00-54.00	LEWES FARMERS MARKET, L.L.C.	D-4054-264	
G	334-6.00-55.00	WILLIAM K. & JESSIE B. WATTENBARGER	D-4257-249	
H	334-6.00-56.00	GELOF ADAM	D-3936-311	
	334-6.00-57.00	NEW COVENANT PRESBYTERIAN CHURCH	D-2410-33	
J	334-6.00-63.04	MCCREA DYER VENTURES, L.L.C.	D-2447-142	
K	334-6.00-58.00	DONALD A. WAGNER	D-1836-59	
L	334-6.00-59.00	KARL W. RICHESON	D-2461-256	
M	334-6.00-60.00	STEPHEN L. & ANGELA J. WALLO	D-4308-298	
N	334-6.00-61.00	STEPHEN L. & ANGELA J. WALLO	D-2580-298	
0	334-6.00-62.00	NEW COVENANT PRESBYTERIAN CHURCH	D-2623-218	
P	334-6.00-63.01	DELAWARE RIVER & BAY AUTHORITY	D-602-600	
Q	334-6.00-64.02	DELAWARE NATIONAL BANK	D-2623-27	
R	334-6.00-65.00	FRITCHMAN HOLDING COMPANY, L.L.C.	D-3676-252	
S	334-6.00-66.09	CHB REALTY, L.L.C.	D-4333-177	
T	334-6.00-66.02	HUNTERS WALK, LEWES L.L.C.	D-4154-34	
U	334-6.00-69.00	HUNTERS WALK, LEWES L.L.C.	D-4154-34	
٧	334-12.00-3.00	JG TOWNSEND JR, CO	D-361-411	
W	335-8.00-43.01	CADBURY AT LEWES, INC.	D-2934-239	
Χ	335-8.00-37.00	LW & JT MITCHELL FAMILY LIMITED	D-2820-72	

DATA COLUMN:

TAX MAP ID: COMP. PLAN:

3-35-12.00-3.00 (PORTION) ENVIRONMENTALLY SENSITIVE DEVELOPING AREA

AR-1 B-1

EXISTING ZONING: PROPOSED ZONING: EXISTING USE: PROPOSED USE:

AGRICULTURE NEIGHBORHOOD BUSINESS TOTAL REZONING AREA: 11.66±AC

EXISTING SEWER:

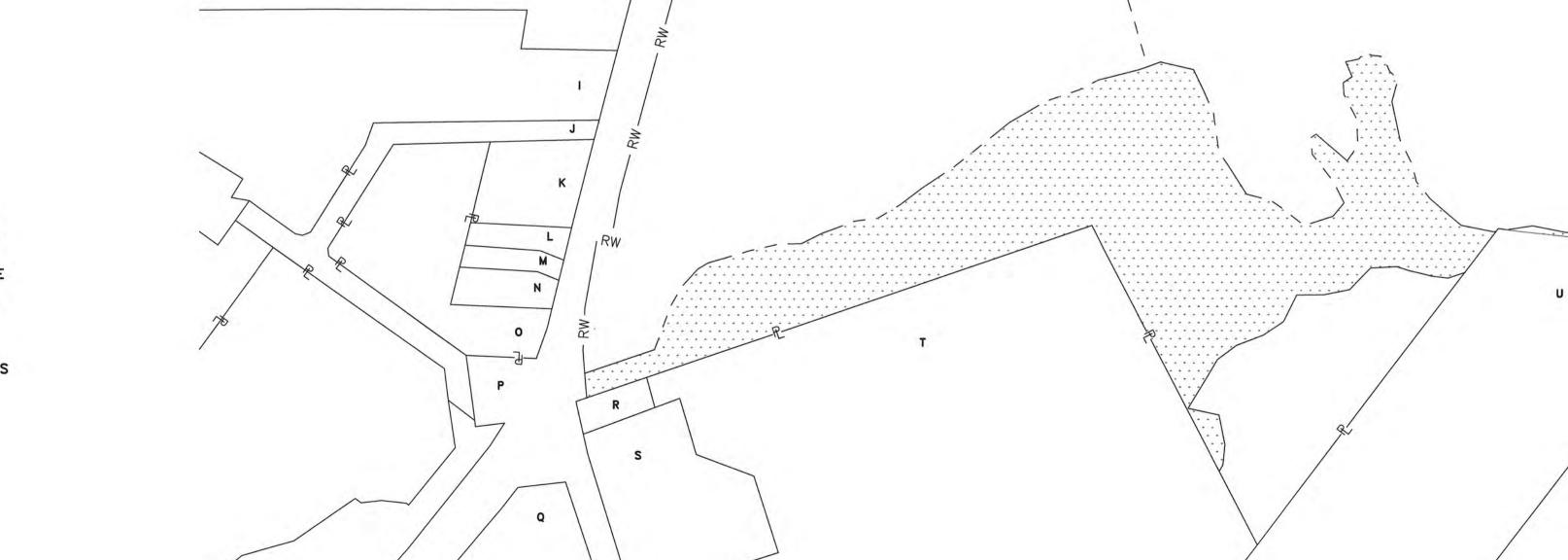
WEST REHOBOTH EXPANSION OF THE DEWEY BEACH SANITARY SEWER DISTRICT TIDEWATER UTILITES INC. EXISTING WATER:

OWNER / DEVELOPER
JG TOWNSEND JR & CO.
PO BOX 430
GEORGETOWN, DELAWARE 19947

ENGINEER/SURVEYOR
DAVIS, BOWEN & FRIEDEL, INC.
23 NORTH WALNUT STREET
MILFORD, DELAWARE 19963
(302) 424-1441

LEGEND

EXISTING PROPERTY LINE EXISTING EASEMENT LINE ADJACENT PROPERTY LINE EXISTING RIGHT-OF-WAY — PROPOSED ZONING LINE FEDERAL "404" WETLANDS



EXISTING —
BUILDING