STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF MANAGEMENT AND BUDGET
STATE PLANNING COORDINATION

September 15, 2006

Jack McFadden
McBride & Zeigler
2607 Eastburn Center
Newark, DE 19711

RE: PLUS review – PLUS 206-08-09; Twin Spans Business Park, Lot 7D

Dear Mr. McFadden:

Thank you for meeting with State agency planners on August 23, 2006 to discuss the proposed plans for the Twin Spans Business Park Lot 7D project to be located at Anchor Mill Road and Wilmington Road within the Twin Spans Business Park in New Castle.

According to the information received, you are seeking site plan approval through the City of New Castle for a 404,000 sq. ft. warehouse on the upland portion of 47 acres located within the exiting industrial park.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as the City of New Castle is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the City..

Executive Summary

The following section includes some site specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The

full text of this letter represents the official state response to this project. ***Our office notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.***

State Strategies/Project Location

- This project is located in Investment Level 1 according to the *Strategies for State Policies and Spending.* This site is also located in and adjacent to an Out of Play area. 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. Out of Play areas on the other hand are areas that generally include publicly-owned lands, lands for which serious legal constraints on development are identified, and lands in some form of permanent open-space protection. Our office has no objections to the proposed development of this project in the Level 1 area but we advise that development of the land be sensitive to it's location to the Out of Play area as noted in the suggestions and recommendations in this letter.

Street Design and Transportation

- The developer may be correct that their building's trip generation would be more consistent with high-cube warehousing and would be less 1,836 trips on an average weekday. Before accepting that position, however, the City should require 24-hour traffic counts performed at similar existing buildings in support of it. In the absence of such data, it is recommended that the City require the developer to design their entrance for 1,836 trips per day.

- In that event, DelDOT would also recommend that the City require the developer to verify that the intersection of Anchor Mill Road and Route 9 is adequate to support the proposed development, and if necessary require the developer to make improvements there.

Natural and Cultural Resources

- To protect rare species and sensitive wetland habitat, DNREC recommends that at least a 100-foot buffer remain between the wetlands and any structures, roadways and parking lots. It is not entirely clear how wide the proposed buffer is going to be and PLUS materials indicate disturbance within 100 feet of wetlands, so they recommend that the size of the warehouse be scaled back and/or the parking area

shifted to accommodate the needed 100-foot buffer between wetlands and these site plan features.

- The proposed parking location is directly adjacent from the wetlands/SRA and almost wholly within the 100-year floodplain. The Office of Nature Preserves strongly urges the applicant to move the parking further away from the wetlands/SRA and out of the floodplain. This will provide better assurances that polluted stormwater runoff associated with automobiles does not enter the wetlands/SRA .

The following are a complete list of comments received by State agencies:

Office of State Planning Coordination – Contact: Herb Inden 739-3090

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Division of Historical and Cultural Affairs – Contact: Alice Guerrant 739-5685

While The Division of Historical and Cultural Affairs does not know of anything on the parcel to be developed, it is very close to the site of the Wm. Booth Est. House known as Hawthorn, as shown on the Beers Atlas of 1868. In addition, this area next to the stream has very high potential for both prehistoric-period and early historic-period archaeological sites.

Small, rural, family cemeteries often are found in relation to historic farm complexes, such as Hawthorn, usually a good distance behind or to the side of the house. The developer should be aware of Delaware's Unmarked Human Remains Act of 1987, which governs the discovery and disposition of such remains. The unexpected discovery of unmarked human remains during construction can result in significant delays while the process is carried out, and the developer may want to hire an archaeological consultant to check for the possibility of a cemetery here. The DHCA will be happy to discuss these

issues with the developer; the contact person for this program is Faye Stocum, 302-736-7400.

They would appreciate an opportunity to examine the area prior to any ground-disturbing activities, to see if any sites are in fact present and to learn something about their location, nature, and extent.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Because the proposed development is located on a private road, Anchor Mill Road, the entrance on that road is outside DelDOT's jurisdiction. The intersection of Anchor Mill Road and Delaware Route 9 was designed and built to serve the full development of the business park and from the responses on the PLUS form this project appears to be consistent with that full development.

The sites expected trip generation received significant discussion at the PLUS meeting. The response to item 36 on the PLUS form stated that the proposed development would generate 49 trips per day on an average weekday. That figure was acknowledged to be in error. The site engineer and DelDOT had made differing assumptions about the nature of the proposed warehouse so each reached different conclusions about it. As the discussion with the site engineer may not have been clear to the others present, DelDOT provided the next three paragraphs and table as clarification.

The Institute of Transportation Engineers' Trip Generation report (ITE), which is a standard reference, provides rates and equations for predicting the traffic generated by various types of land use. These rates and equations are derived from traffic studies (counts) for similar uses. ITE provides information on two types of warehousing. For ordinary warehousing, the information is based on 26 studies from across the US and Canada, dating from the late 1960's through the 2000's. For high-cube warehousing, the information is based on three studies done in 1989 in the San Francisco Bay Area. ITE describes high-cube warehousing as follows:

> High-cube warehouses are used for the storage of manufactured goods prior to their distribution to retail outlets. These facilities consist of large shells of steel buildings and large halls, often subdivided for individual tenants, with a typical ceiling height of 24 to 26 feet; they are also characterized by a small employment count due to a high level of mechanization, truck activities frequently outside the peak hour of the adjacent street system and good freeway access.

Casual observation and conversations with warehouse developers, confirmed by a limited amount of research, indicates that warehousing practices have changed and that, at least

in Delaware, typical warehouse trip generation tends to resemble high-cube warehousing as described by ITE. Because of the limited amount of information available on high-cube warehousing, DelDOT is providing information based on both types in the table below.

Expected Trip Generation 404,000 s.f. Warehouse	Weekday A.M. Peak Hour of Adjacent Street		Weekday P.M. Peak Hour of Adjacent Street		Average Weekday	
	In	Out	In	Out	In	Out
Warehousing	184	40	49	147	918	918
High-Cube Warehousing	Not Available		17	32	Not Available	

To conclude, the developer may be correct that their building's trip generation would be more consistent with high-cube warehousing and would be less 1,836 trips on an average weekday. Before accepting that position, however, the City should require 24-hour traffic counts performed at similar existing buildings in support of it. In the absence of such data, it is recommended that the City require the developer to design their entrance for 1,836 trips per day.

In that event, DelDOT would also recommend that the City require the developer to verify that the intersection of Anchor Mill Road and Route 9 is adequate to support the proposed development, and if necessary require the developer to make improvements there. This intersection was necessarily designed using estimated volumes for the traffic in and out of Anchor Mill Road. Because the business park is now partially occupied, the traffic can be counted and the accuracy of those estimates can be improved.

The Department of Natural Resources and Environmental Control – Contact: Kevin Coyle 739-9071

Soils

According to the New Castle County soil survey mapping, Othello, Othello-Fallsington Urban Land complex, and Tidal Marsh were mapped in the immediate vicinity of the proposed construction. Othello and Othello-Fallsington Urban Land complex are poorly-drained wetland associated (hydric) soils that have severe limitations for development. Tidal Marsh is a very poorly-drained wetland associated (hydric) soil that has the highest severity level for development.

Although portions of this parcel may no longer contain jurisdictional wetlands (through removal of hydrophytic vegetation), functional wetland presence is evidenced by the presence of hydric Othello and Othello-Fallsington soil mapping units. Building in such soils may leave prospective residents of this and adjoining properties susceptible to

future flooding problems from groundwater-driven surface water ponding, especially during extended periods of high-intensity rainfall events such as tropical storms/hurricanes or "nor'easters." This is in addition to increased flooding likely from surface water runoff emanating from future created forms of structural imperviousness (roof tops, roads, and sidewalks).

Wetlands

According to the Statewide Wetland Mapping Project (SWMP) mapping, nontidal palustrine unconsolidated bottom wetlands and tidally-influenced estuarine emergent wetlands were mapped on the parcel. Most of the mapped wetlands on this parcel are tidally-influenced estuarine wetlands. Wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. The developer should maintain a 100-foot vegetated buffer from the wetlands. There should not be any buildings or associated infrastructure within the buffer.

PLUS application materials indicate that wetlands have been delineated (presumably a field delineation) and have been verified by the Army Corps of Engineers through the Jurisdictional Determination process.

In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process.

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-9943 to schedule a meeting.

Impervious Cover

Based on a review of the PLUS application, post-development surface imperviousness is estimated at 31 percent. However, given the scope and density of this project, said estimate may be an underestimate. The applicant should understand that all forms of constructed surface imperviousness (i.e., rooftops, sidewalks and roads) should be accounted for when calculating surface imperviousness; otherwise, environmental impacts will be underestimated. It is strongly advised that the projected surface imperviousness be recalculated with all forms constructed surface imperviousness included in the calculation.

Studies have shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline. Since the amount of imperviousness generated by this project (projected at 31%) will far exceed the desirable watershed threshold of 10 percent, the applicant is strongly advised to pursue best management practices (BMPs) that mitigate or reduce some of the most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover via preservation or additional tree plantings are examples of practical BMPs that could easily be implemented to reduce surface imperviousness.

TMDLs

A Total Maximum Daily Load (TMDL) is the maximum level of pollution for which a water quality limited water body can assimilate without compromising use and recreational goals such as swimming, fishing, drinking water, and shell fish harvesting. Although TMDL development has not been scheduled for this watershed to date, it is still recommended that the applicant employ best available technologies (BATS) and/or best management practices (BMPs) as "methodological mitigative strategies" to reduce degradative impacts that might be associated with this project.

Reducing imperviousness, planting/preservation of trees, and maintaining 100-foot minimum upland buffers from wetlands and streams are some examples of proactive mitigative strategies that will help reduce excessive nutrient runoff from this development and it impacts on water quality, while ensuring State compliance with potential Federal TMDL regulatory requirements.

Water Supply

The project information sheets state that the City of New Castle will be used to provide water for the proposed project. Our records indicate that the project is located within the public water service area granted to New Castle County Water & Light Co. under

Certificate of Public Convenience and Necessity number 88-WS-05. It is recommended that the developer contact the New Castle County Water & Light Co. to determine the availability of public water. Any questions concerning CPCNs should be directed to the Public Service Commission at 302-739-4247. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any well(s).

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.

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.

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 is a Groundwater Management Zone called Chicago Bridge & Iron within 1000 feet of the proposed project.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

Sediment and Erosion Control/Stormwater Management

A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through the New Castle Conservation District. Contact the New Castle Conservation District at (302) 832-3100, Ext. 3, for details regarding submittal requirements and fees.

A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted to the Division of Soil and Water Conservation along with the $195 NOI fee prior to plan approval.

The location of this project may provide for a waiver from stormwater quantity management if the runoff can be conveyed to tidal waters in a non-erosive condition.

Verification should be provided that the project area was considered during the design of the existing stormwater management basin.

The applicant’s consultant has indicated that the roof runoff is proposed to be separated from the parking lot runoff and discharged directly into the wetlands. TMDLs have been established for all waters of the State, including the Delaware River drainage basin.

Although the actual reductions for this watershed have not been incorporated into the Sediment & Stormwater Regulations at this time, all runoff should be managed for quality treatment to the extent practicable. Disconnecting the roof leaders from impervious surfaces and allowing the runoff to filter across vegetated areas prior to entering the wetlands should be provided as a minimum.

It is strongly recommended that you contact the reviewing agency to schedule a preliminary meeting to discuss the sediment and erosion control and stormwater management components of the plan. 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.

Rare Species and Freshwater Wetlands

A review of the database indicates that there are currently records of Speyeria idalia (regal fritillary) in the vicinity and because this species inhabits wetlands and marshes it could occur within the project site. This state-rare butterfly prefers to feed upon milkweed and thistle although it may utilize other plants for egg laying. In addition, the freshwater wetlands on this parcel posses many important functions, as well as potentially providing important habitat for an array of wildlife species. Run-off from a project such as this with a proposed 31% impervious surface could be detrimental to this wetland type. To protect rare species and sensitive wetland habitat, DNREC recommends that at least a 100-foot buffer remain between the wetlands and any structures, roadways and parking lots. It is not entirely clear how wide the proposed buffer is going to be and PLUS materials indicate disturbance within 100 feet of wetlands, so they recommend that the size of the warehouse be scaled back and/or the parking area shifted to accommodate the needed 100-foot buffer between wetlands and these site plan features.

State Resource Area

The wetlands on the site are within a State Resource Area. The proposed parking location is directly adjacent from the wetlands/SRA and almost wholly within the 100-year floodplain. The Office of Nature Preserves strongly urges the applicant to move the parking further away from the wetlands/SRA and out of the floodplain. This will provide better assurances that polluted stormwater runoff associated with automobiles does not enter the wetlands/SRA .

Underground Storage Tanks

There is one inactive LUST site(s) located near the proposed project:

Knotts Bus Service, Facility # 3-000491, Project # N9204103

No environmental impact is expected from the above inactive/active LUST site(s). However, should any underground storage tank or petroleum contaminated soil be discovered during construction, the Tank Management Branch must be notified as soon as possible. It is not anticipated that any construction specifications would need to be changed due to petroleum contamination. However, should any unanticipated contamination be encountered and PVC pipe is being utilized, it will need to be changed to ductile steel with nitrile rubber gaskets in the contaminated areas.

Site Investigation and Restoration

Two SIRB site were found within a 1/2-mile radius of the proposed project site:

The Chicago Bridge and Iron-OU2 (DE-1038) is located west of the proposed site. A remedial investigation was conducted in 1996. PCE was found in groundwater. Groundwater tends to flow towards the north west; however, groundwater flow is not always predictable. DNREC recommends public water use.

NC Abandoned Container Site (DE-148) is located west of the proposed site. It is an abandoned site that once housed 400 drums. According to DNREC records, most of the drums were removed and the site is a low priority site.

Generally, DNREC see no danger due to these sites especially since the location of the proposed site is in an industrial complex.

Department of Agriculture - Contact: Milton Melendez 698-4500

The Delaware Department of Agriculture has no objections to the proposed application.

Right Tree for the Right Place

The Delaware Department of Agriculture Forest Service encourages the developer to use the “Right Tree for the Right Place” for any design considerations. This concept allows for the proper placement of trees to increase property values in upwards of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.

Native Landscapes

The Delaware Department of Agriculture and the Delaware Forest Service encourages the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants. To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

Tree Mitigation

The Delaware Forest Service encourages the developer to implement a tree mitigation program to replace trees at a 1:1 ratio within the site and throughout the community. This will help to meet the community's forestry goals and objectives and reduce the environmental impacts to the surrounding natural resources. To learn more, please contact our offices at (302) 349-5754.

Public Service Commission - Contact: Andrea Maucher 739-4247

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

Constance C. Holland, AICP
Director

CC: City of New Castle