



Z-10-07-002

City of Greensboro Planning Department  
Zoning Staff Report and Plan Amendment Evaluation

Zoning Commission Hearing Date: July 12, 2010

**GENERAL INFORMATION**

**APPLICANT** Henry Isaacson for Burch Creek Farm, LLC and Landport Investments, LLC

**HEARING TYPE** Original Zoning

**REQUEST** **County AG** (Agriculture) to **CD-CP** (Conditional District-Corporate Park)

**CONDITIONS**

1. Uses: All uses permitted in the Corporate Park zoning district **except** all agricultural uses, all residential uses, christmas tree sales, carnivals and fairs, outdoor religious events, junked motor vehicles, and land clearing and inert debris landfills, minor.

**LOCATION** Generally described as east of **Birch Creek Road**, West of **Knox Road** and south of **Burlington Road**.

**PARCEL ID NUMBER (S)** **Multiple**

**PUBLIC NOTIFICATION** The notification area for this public hearing was 600 feet (Chapter 30-9-1.2 of the City Ordinance requires notification of the owner of that parcel of land and the owners of all parcels of land adjoining and contiguous to that parcel of land as shown on the County tax listing). **43** notices were mailed to those property owners in the mailing area.

**TRACT SIZE** ~145.00 acres

**TOPOGRAPHY** Undulating

**VEGETATION** Heavily wooded

**SITE DATA**

**Existing Use** 2 old barns, a shed and a house

	<b>Adjacent Zoning</b>	<b>Adjacent Land Uses</b>
N	County AG (Agriculture)	Single Family dwelling
E	County AG (Agriculture)	Single Family dwelling
W	County AG (Agriculture) and RS-40 (Residential-Single Family)	Single Family dwelling
S	County AG (Agriculture)	Single Family dwelling

**Zoning History**

Case #	Date	Request Summary
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N/A

**ZONING DISTRICT STANDARDS**

**District Summary \***

Zoning District Designation:	Existing (County AG)	Requested (CD-CP)
Max. Density:	N/A	N/A
Typical Uses	Primarily intended to accommodate uses of an agricultural nature including farm residences and farm tenant housing. It also accommodates scattered nonfarm residences on large tracts of land. It is not intended for major residential subdivisions	Primarily intended to accommodate office, warehouse, research and development, and assembly uses on large sites in a planned, campus like setting compatible with adjacent residential uses. The district may also contain retail and service uses which customarily locate within planned employment centers.

*\*These regulations may not reflect the actual requirements for all situations; see the City of Greensboro Zoning Code for actual regulations for site requirements for this zoning district.*

**SPECIAL INFORMATION**

**Overlay District Ordinance/Historic Preservation – N/A**

**Environmental/Soils**

Water Supply Watershed      Site drains to Lake MacIntosh Watersupply Watershed WSIII, Little Alamance Creek

Floodplains      **Onsite. Contact the State & Corps for any wetland disturbance or stream crossings or disturbance.**

Streams      Perennial streams require a 100ft buffer. If stream is intermittent, then a 50ft buffer will be required. A non-encroachment area of either 30ft or 5x's the channel width will also be required for non FEMA mapped streams. Jordan stream buffer rules may apply.

Other:      For High Density development a BMP is required.

**Utilities**

Potable Water

Waste Water

**Airport Noise Cone**

The subject property is not located in the Airport Noise Cone.

**Landscaping Requirements**

Location	Required Planting Yard Type and Rate
North	Type A Yard – avg. width 50'; 4 canopy trees per100'; 10 understory trees per 100'; 33 shrubs per 100'
South	Type A Yard – avg. width 50'; 4 canopy trees per100'; 10 understory trees per 100'; 33 shrubs per 100' and Type D Yard – minimum width 5'; 2 understory trees per 100'; 18 shrubs per 100'
East	Street Yard - minimum width 8'; 2 canopy tree per 100', 17 shrubs per 100' and Type A Yard – avg. width 50'; 4 canopy trees per100'; 10 understory trees per 100'; 33 shrubs per 100' and Type D Yard – minimum width 5'; 2 understory trees per 100'; 18 shrubs per 100'
West	Street Yard - minimum width 8'; 2 canopy tree per 100', 17 shrubs per 100'

**Tree Preservation Requirements**

Acreage	Requirements
145 ac.	All trees 4" or greater DBH which are located within the required planting yards or within 25' of the side and rear property line, whichever is greater

**Transportation**

Street Classification: Birch Creek Road – Minor Thoroughfare, Knox Road – Minor Thoroughfare.

Site Access: Access is proposed via a collector street that would be built and would connect Birch Creek Road and Knox Road in an east west direction.

Traffic Counts: Birch Creek Road ADT = 1100 (2007), Knox Road ADT = 1500 (2007).

Trip Generation: Phase 1: AM Peak Hour = 72, PM Peak Hour = 55, 24 Hour = 292  
Phase 1 + Phase 2: AM Peak Hour = 497, PM Peak Hour = 521, 24 Hour = 3,444.

Sidewalks: Sidewalks are a requirement of the Development Ordinance. 5' sidewalk with a 5' grass strip is required along both sides of thoroughfares. 5' sidewalk with a 3' grass strip is required along one side (at a minimum, collectors may require sidewalk on both sides) of all other street types. There is no existing sidewalk along the frontage of this development nor are there any plans for the City to build sidewalk in this area.

Transit in Vicinity: No

Traffic Impact Study: Yes, required per TIS Ordinance. Please reference the Executive (TIS) Summary at the end of this report for the recommended improvements for this development.

Street Connectivity: N/A.

Other: N/A.

## **IMPACT ANALYSIS**

### **Land Use Compatibility**

The proposed **CD-CP** (Conditional District-Corporate Park) zoning would allow land uses that are compatible with the general character of the area. The area is rural and consists of rural residential and mixed use industrial throughout.

### **Connections 2025 Comprehensive Plan Policies**

The Generalized Future Land Use Map designates this location as a **Potential Employment Center Pending Further Study**. Adjacent City of Greensboro property zonings are scattered with a mix of Highway Business, Residential, Mixed Use, etc. The GFLUM designations in the area are predominantly Interim Residential and Mixed Use Corporate Park. The requested **CD-CP** (Conditional District-Corporate Park) zoning district is consistent with this GFLUM designation as a Potential Employment Center.

### **Connections 2025 Written Policies**

Reinvestment/Infill Goal: Promote sound investment in Greensboro's urban areas, including Center City, commercial and industrial areas, and neighborhoods.

POLICY 4C: Promote new patterns and intensities of use to increase economic competitiveness and enhance quality of life in urban areas.

Growth at the Fringe Goal: Provide a development framework for the fringe that guides sound, sustainable patterns of land use, limits sprawl, protects rural character, evidences sound stewardship of the environment, and provides for efficient provision of public services and facilities as the City expands. Development will increase density and mix land uses at a pedestrian scale with sidewalks, bikeways, and where possible, public transit.

Economic Development Goal: Promote a healthy, diversified economy with a strong tax base and opportunities for employment, entrepreneurship and for-profit and non-profit economic development for all segments of the community, including under-served areas such as East Greensboro.

POLICY 7C: Ensure that city land use policies and regulations allow for an adequate supply of land to accommodate economic development.

POLICY 7C.1: Ensure that adequate land is zoned and has infrastructure available for the various stages of business development

### **Connections 2025 Map Policies**

Interim Potential Employment Center – Pending Further Study:

Areas that require further study to determine the best land use classification. These areas have been identified as potential employment centers primarily due to: topography, the existence of large parcels, proximity to other business uses, and convenient access to highways. In the process of developing a Generalized Future Land Use map utilizing the full range of permanent land use classifications, these areas will be studied in more detail and provide opportunities for input from citizens within these areas.

## **CONFORMITY WITH OTHER PLANS**

**City Plans – N/A**

**Other Plans - N/A**

## **Staff/Agency Comments**

### **Water Resources -**

Contact the State & Corps for any wetland disturbance or stream crossings or disturbance.

### **Housing and Community Development**

### **Planning**

The 145-acre parcel under consideration is located east of Birch Creek Road, West of Knox Road and south of Burlington Road. The applicant intends to develop the site as a corporate data center. This request is compatible with the intent and purpose of the zoning code and the Comprehensive Plan. The availability of large tracts of useable land in this area, proximity to other businesses, and convenient access to highways makes this request conducive for the intended use. Since the subject site is currently outside the City limits, this original zoning request is accompanied by a voluntary annexation petition.

Approving this request will help provide a development framework for the fringe that guides sound, sustainable patterns of land use, limits sprawl, evidences sound stewardship of the environment, and provides for efficient provision of public services and facilities as the City expands. It will also promote a healthy, diversified economy with a strong tax base and opportunities for employment, entrepreneurship and for-profit and non-profit economic development for all segments of the community.

Staff believes that this request is consistent with the intent and purpose of the zoning code and the Comprehensive Plan (Connections 2025). Staff is also of the opinion that the request is generally compatible with the existing development in the surrounding area.

## **STAFF RECOMMENDATION**

Staff recommends **approval** of the requested **CD-CP** (Conditional District-Corporate Park) zoning district.

**Project Doublewide – Transportation Impact Analysis**  
**Prepared for American Express Travel Related Services Company, Inc.,**  
**May 24, 2010**

**Executive Summary**

The proposed Project Doublewide is an proposed Office Park to be located to the north and west of Knox Road and east of Birch Creek Road in Guildford County, North Carolina.

The Project Doublewide development is currently envisioned that the site will ultimately consist of data center facility and office park / light industrial use.

This study analyzes two phases of the property’s development. The two analyzed phases include the following land intensities and planned build-out years:

**Phase 1** development will consist of approximately 198,000 square feet data center facility located on approximately 88 gross acres as shown on site plan (Figure 1). The facility was analyzed based on 100 employees. Also the proposed site connector road (Industrial Street) between Knox Road and Birch Creek Road is intended to be developed during this Phase. This facility is envisioned to be completed in 2013.

**Phase 2** development on the approximately 58 gross acres (Tract B) as shown on site plan (Figure 1) is unknown. Due to the uncertainty of the actual land use, this study assumed a 435,600 square feet of general light industrial depicting the maximum land use intensity (worst case scenario) for this phase development. The study assumed this phase development will be completed in 2015.

Davenport Transportation Consulting was retained to determine the potential traffic impacts of this development and to identify transportation improvements that may be required to accommodate the impacts of both background traffic and new development traffic for each studied phase. The build-out analysis year for this project was assumed to be 2013 for Phase 1 and 2015 for Phase 2. The AM (7-9 am) and PM (4-6 pm) peaks were analyzed.

The North Carolina Department of Transportation (NCDOT) and City of Greensboro DOT were contacted to obtain background information and to ascertain the elements to be covered in this Traffic Impact Analysis (TIA). Information regarding the property was provided by the developer’s representative, Trammell Crow Company.

Below is a table that represents the trip generation for this development.

<b>Table A - ITE Trip Generation</b>								
Project Double Wide								
Average Weekday Driveway Volumes				24 Hour Two-Way	AM Peak Hour		PM Peak Hour	
<u>Land Use</u>	<u>ITE Land Code</u>	<u>Size</u>	<u>Volume</u>	<u>Enter</u>	<u>Exit</u>	<u>Enter</u>	<u>Exit</u>	
<b>Phase 1</b>								
Office Park	750	100	Employees	292	66	6	8	47
<b>Phase 2</b>								
General Light Industrial	110	435.6	Th. Sq. Ft. GFA	3,152	374	51	56	410
<b>Total Trips (Phase 1 + 2)</b>				<b>3,444</b>	<b>440</b>	<b>57</b>	<b>64</b>	<b>457</b>

Table B summarizes the level of service analysis for existing conditions.

<b>Table B - Level of Service Summary (Existing Conditions)</b>		
Intersections	AM 2010 Existing	PM 2010 Existing
I-40 Eastbound Ramps at Mt. Hope Church Road	B (13.5)	B (14.5)
I-40 Westbound Ramps at Mt. Hope Church Road	A (6.1)	A (7.0)
Mt. Hope Church Road at Knox Road	B (18.1)	B (18.4)
Knox Road at Birch Creek Road	A (9.3) SB Approach	A (9.2) SB Approach
LOS (delay in seconds) Note for unsignalized conditions, LOS and delay indicates only minor street approach with longest delay		

Table C represents the summary of the level of service analysis for Phase 1 conditions.

Table C - Level of Service Summary (Phase 1)		
AM Peak	2013 Future No Build	2013 Phase 1 Build
I-40 Eastbound Ramps at Mt. Hope Church Road	B (13.1)	B (13.7)
I-40 Westbound Ramps at Mt. Hope Church Road	A (5.5)	A (6.0)
Mt. Hope Church Road at Knox Road	B (17.1)	B (17.2)
Knox Road at Birch Creek Road	A (9.4) SB Approach	A (9.6) SB Approach
Knox Road at Industrial Street		A (9.4) EB Approach
Industrial Street at Driveway 1		A (8.5) NB Approach
Industrial Street at Driveway 2		A (8.6) NB Approach
Birch Creek Road at Industrial Street		A (8.9) WB Approach
PM Peak	2013 Future No Build	2013 Phase 1 Build
I-40 Eastbound Ramps at Mt. Hope Church Road	B (15.4)	B (15.5)
I-40 Westbound Ramps at Mt. Hope Church Road	A (6.7)	A (6.7)
Mt. Hope Church Road at Knox Road	B (17.7)	B (18.6)
Knox Road at Birch Creek Road	A (9.3) SB Approach	A (9.4) SB Approach
Knox Road at Industrial Street		A (9.1) EB Approach
Industrial Street at Driveway 1		A (8.5) NB Approach
Industrial Street at Driveway 2		A (8.6) NB Approach
Birch Creek Road at Industrial Street		A (8.9) WB Approach
LOS (delay in seconds)		
Note for unsignalized conditions, LOS and delay indicates only minor street approach with longest delay		



Table D represents the summary of the level of service analysis for Phase 2 conditions.

<b>Table D - Level of Service Summary (Phase 2)</b>			
<b>AM Peak</b>	<b>2015 Future No Build</b>	<b>2015 Phase 2 Build</b>	<b>2015 Phase 2 Build with Improvements</b>
I-40 Eastbound Ramps at Mt. Hope Church Road	B (13.0)	B (17.3)	B (19.9)
I-40 Westbound Ramps at Mt. Hope Church Road	A (5.5)	A (8.9)	A (9.4)
Mt. Hope Church Road at Knox Road	B (17.7)	C (29.7)	B (19.0)
Knox Road at Birch Creek Road	A (9.5) SB Approach	B (11.5) SB Approach	B (11.5) SB Approach
Knox Road at Industrial Street		A (9.7) EB Approach	
Industrial Street at Driveway 1		A (8.4) NB Approach	
Industrial Street at Driveway 2		A (8.7) NB Approach	
Industrial Street at Driveway 3		B (10.5) NB Approach	A (9.2) NB Approach
Birch Creek Road at Industrial Street		B (11.1) WB Approach	A (9.7) WB Approach
<b>PM Peak</b>	<b>2015 Future No Build</b>	<b>2015 Phase 2 Build</b>	<b>2015 Phase 2 Build with Improvements</b>
I-40 Eastbound Ramps at Mt. Hope Church Road	B (14.6)	B (17.4)	B (19.2)
I-40 Westbound Ramps at Mt. Hope Church Road	A (6.4)	A (7.2)	A (8.5)
Mt. Hope Church Road at Knox Road	B (17.3)	E (59.4)	B (19.7)
Knox Road at Birch Creek Road	A (9.3) SB Approach	B (13.8) SB Approach	B (13.8) SB Approach
Knox Road at Industrial Street		A (9.6) EB Approach	
Industrial Street at Driveway 1		A (8.6) NB Approach	
Industrial Street at Driveway 2		A (8.8) NB Approach	
Industrial Street at Driveway 3		B (12.0) NB Approach	B (11.5) NB Approach
Birch Creek Road at Industrial Street		B (12.7) WB Approach	B (12.2) WB Approach
LOS (delay in seconds)			
Note for unsignalized conditions, LOS and delay indicates only minor street approach with longest delay			

*Summary and Conclusion*

Our ITE trip generation indicates that the Project Doublewide is projected to generate 292 daily trips in Phase 1 based on 100 employees. The land use for Phase 2 development is unknown. Due to the uncertainty of the actual land use, this study assumed a 435,600 square feet of general light industrial depicting the maximum land use intensity (worst case scenario) for this phase development, with a projected trip generation of 3,152 daily trips.

Our Phase 1 analysis indicates there is adequate capacity at all of the off-site study intersections to accommodate Phase 1 site traffic. However, we have recommended coordinating and optimizing signal timing at the three traffic signals along Mt. Hope Church Road to accommodate future background growth and site traffic.

With the addition of the Phase 2 traffic, our Phase 2 level of service analysis indicates that there will be queuing issues at the signalized intersections along Mt. Hope Church Road between Knox Road and I-40 / I-85 Eastbound Ramps. However, with the implementation of recommended improvements outlined in Table E, the traffic impacts as a result of this phase development will be mitigated.

In conclusion, this analysis has been conducted based on the scope given by GDOT and NCDOT. We have identified all areas of deficiency and made recommendations for improvements where necessary. Should our recommendations be implemented, this project would not have a serious or detrimental effect on transportation capacity within the study area.

Table E on the following page summarizes the recommended improvements by phase for each intersection. Improvements are illustrated in Figure 9 of the report for Phase 1 and Figure 14 for Phase 2.

**Table E - Recommended Improvement Summary**

Intersection	2013 Phase 1	2015 Phase 2
I-40 Eastbound Ramps at Mt. Hope Church Road	We recommend that the coordinated signal timing of this intersection be optimized to account for additional traffic	
I-40 Westbound Ramps at Mt. Hope Church Road	We recommend that the coordinated signal timing of this intersection be optimized to account for additional traffic	
Mt. Hope Church Road at Knox Road	We recommend that the coordinated signal timing of this intersection be optimized to account for additional traffic	<ul style="list-style-type: none"> <li>• Provide a full length northbound right lane on Mt Hope Church Road</li> <li>• Provide a westbound left turn lane on Knox Road with 400 feet of storage, appropriate deceleration length and appropriate taper</li> <li>• Modify traffic signal phasing</li> <li>• Optimize the coordinated signal timing of this intersection to account for additional traffic</li> </ul>
Knox Road at Birch Creek Road	No improvements are recommended.	This intersection will warrant an eastbound left turn lane on Knox Road with 250 feet of storage, appropriate deceleration length and appropriate taper.
Knox Road at Industrial Street	We recommend this intersection should be constructed to meet both GDOT and NCDOT standards.	
Industrial Street at Driveway 1	We recommend this intersection should be constructed according to GDOT standards.	
Industrial Street at Driveway 2	We recommend this intersection should be constructed according to GDOT standards.	
Industrial Street at Driveway 3	N/A	This intersection will warrant an eastbound right turn lane on Industrial Street with 250 feet of storage and appropriate taper. We also recommend this intersection should be constructed according to GDOT standards.
Birch Creek Road at Industrial Street	We recommend this intersection should be constructed to meet both GDOT and NCDOT standards.	This intersection will warrant a northbound right turn lane on Birch Creek Road with 250 feet of storage, appropriate deceleration length and appropriate taper. We also recommend that this intersection should be constructed to meet both GDOT and NCDOT standards.

