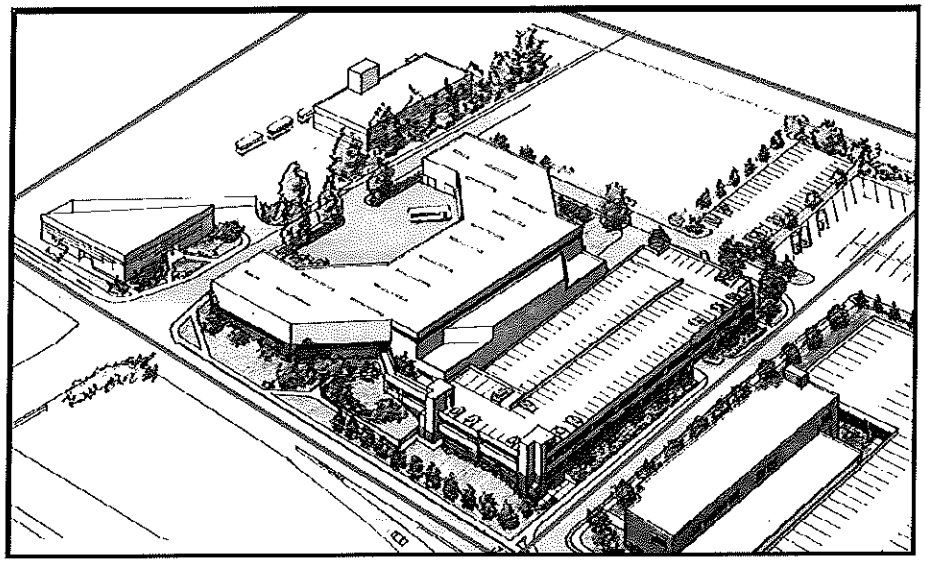
North Davidson BOD Facility Renovation and Expansion

901 N Davidson St. Charlotte, NC, 28206



CATEGORICAL EXCLUSION

Prepared for:

Charlotte Area Transit System (CATS)
and
Federal Transit Administration

April 17, 2009

Documentation prepared by:
PB Americas, Inc.
Charlotte, North Carolina

U.S. Department
of Transportation
**Federal Transit
Administration**

REGION IV
Alabama, Florida, Georgia,
Kentucky, Mississippi,
North Carolina, Puerto
Rico, South Carolina,
Tennessee, Virgin Islands

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April 20, 2009

Mr. David McDonald
Transit Planning Manager
Charlotte Area Transit System (CATS)
600 E. 4th St., 9th Floor
Charlotte, NC 28202

RE: Categorical Exclusion Requested for N. Davidson Bus Garage Renovation and Expansion

Dear Mr. McDonald:

The Federal Transit Administration (FTA) has received and reviewed the Categorical Exclusion (CE) documentation submitted on April 17, 2009 (and previously) on behalf of the Charlotte Area Transit System (CATS) for the N. Davidson Bus Garage Renovation and Expansion project, located in Charlotte, NC. Based on our review of the material submitted, the project qualifies as a Categorical Exclusion pursuant to 23 CFR Section 771.117(d)(9). If you have or develop a grant application in TEAM for this project, please scan and pin the CE documentation approval letter from FTA to the application in TEAM as applicable. If we can be of any further assistance, please contact me at (404) 865-5614. If you need further assistance, please contact me at (404) 865-5614, or at Keith.melton@dot.gov.

Sincerely,

Keith Melton

Keith Melton
Community Planner

Enclosure

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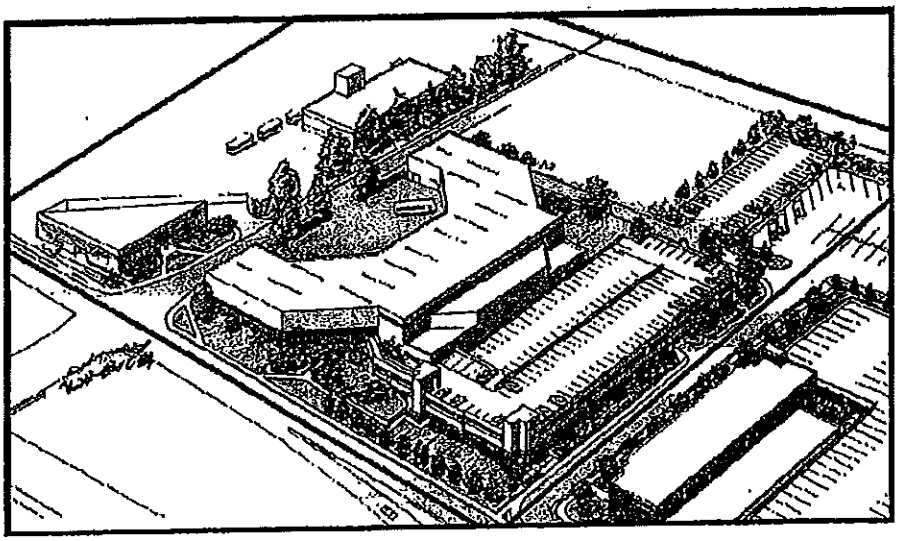

CATEGORICAL EXCLUSION

Final

Charlotte Area Transit System (CATS)
Federal Transit Administration

April 2009

Keith Melton
(Print Name)
Keith Melton
(Signature)
Federal Transit Administration

E.D. McDonald, III, P.E
(Print Name)
E.D. McDonald, III
(Signature)
Charlotte Area Transit System

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List of Acronyms

BMP	Best Management Practices
BOD	Bus Operations Division
CATS	Charlotte Area Transit System
CDOT	Charlotte Department of Transportation
CE	Categorical Exclusion
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CPTED	Crime Prevention through Environmental Design
CWA	Clean Water Act
DWQ	Division of Water Quality
ESA	Environmental Site Assessment
FIRM	Flood Insurance Rate Map
FTA	Federal Transit Administration
HCM	Highway Capacity Manual
JD	Jurisdictional Determination
LOD	Limits of Disturbance
LOS	Level of Service
MBR	Migratory Bird Rule
MCAPCO	Mecklenburg County Air Pollution Control Ordinance
MUTCD	Manual of Uniform Traffic Control Devices
NAAQS	National Ambient Air Quality Standards
NCAC	North Carolina Administrative Code
NCDOT	North Carolina Department of Transportation
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
SHPO	State Historical Preservation Office
SWANCC	Solid Waste Agency of Northern Cook County v. US Army Corps of Engineers
STIP	Statewide Transportation Improvement Program
STS	Special Transportation Service
TNW	Traditional Navigable Waters
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

Project Need and Purpose

The Charlotte Area Transit System (CATS), a department of the City of Charlotte, North Carolina, provides fixed route and demand response transit service to the City of Charlotte and the surrounding Mecklenburg County area. Fixed route service is provided through the Bus Operations Division (BOD).

BOD maintains and operates its bus fleet from two facilities, one located on South Tryon Street south of downtown and the other located at 901 North Davidson Street north of downtown. The South Tryon Facility was opened in 2005 and can support the daily operations of 250 buses and the centralized functions (body repair, paint, and warehousing) for the entire bus fleet. The North Davidson BOD Facility was constructed in 1980-1981 to support a fleet of up to 200 transit buses. The building and its systems need to be upgraded and modernized to meet the standards set by the South Tryon Facility, to provide enhanced energy efficiency, and to support the anticipated fleet expansion.

CATS plans to renovate and expand the North Davidson BOD Facility to provide adequate space and an appropriate environment to support operations and maintenance of up to 200 transit buses.

Figure 1 shows the location of the existing North Davidson BOD Facility proposed for renovation and expansion as well as the new South Tryon Facility. The proposed renovation and expansion is part of CATS' current approved budget and work program. This project would be consistent with CATS' goal to provide improved transit services in Mecklenburg County.

Project Description

The North Davidson BOD Facility, situated on two parcels totaling 8.15 acres, was constructed in 1980 and 1981 and includes a two-story (plus basement) administration/operations building (14,268 square feet), a three-level (including mezzanine) maintenance building (62,116 square feet), and a fuel and wash facility (11,488 square feet). The bus facility was designed to service a fleet of up to 200 buses. As a result of the expanding bus fleet needed to serve the region's on-going growth in population and employment, a new facility was constructed in 2005 to accommodate additional buses and service those vehicles. At present CATS manages a fleet of 319 buses with an anticipated need for 700 buses by 2025. The new bus facility on South Tryon Street houses the administrative activities and a new operations building for CATS. The new facility also includes a bus maintenance facility, paint and body shop, wash and fuel building, surface parking for 250 buses, visitor parking, and a staff parking deck with approximately 300 employee spaces.

The North Davidson BOD Facility would continue to operate as part of CATS' bus maintenance activities, servicing up to its capacity of 200 buses as the fleet expands. The existing North Davidson BOD Facility is inefficient and impractical because of limitations of employee parking and outdated internal infrastructure. As shown in **Figure 2**, the triangular operations building, fleet parking, and fuel and wash building are located on Site A. The main "U" shaped maintenance building and employee parking is located on Site B. The proposed project would include:

- Minor renovations to the existing triangular building on Site A,
- No changes to the fuel and wash building on Site A,
- No changes to the bus parking lot on Site A,
- Major renovation of the interior and recladding of the exterior of the maintenance building on Site B, and
- A new, multi-level staff parking deck over the existing employee surface parking lot on Site B.

A conceptual site plan for this project is shown in **Figure 3**. The primary access to the existing bus facility is North Davidson Street and East 12th Street, with secondary access to the employee parking off Linden Lane.

Construction of the facility is anticipated to begin in August 2009 and is expected to take about a year to complete.

Basis for NEPA Categorical Exclusion

Pursuant to the Code of Federal Regulations (CFR), Part 771, Section 117(d)(9), under the National Environmental Policy Act (NEPA), the proposed project on Sites A and B can be classified as a "rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users," and as such, normally meets the federal criteria for a Categorical Exclusion (CE).

The Federal Transit Administration (FTA) is the lead federal agency.

Connection to Other Projects

In addition to the BOD renovation and expansion, CATS plans to develop a new administration, operations, and maintenance facility for Special Transportation Service (STS) on an adjacent parcel to the east of the project site. This project is being assessed under a separate CE document.

Figure 1: Project Location

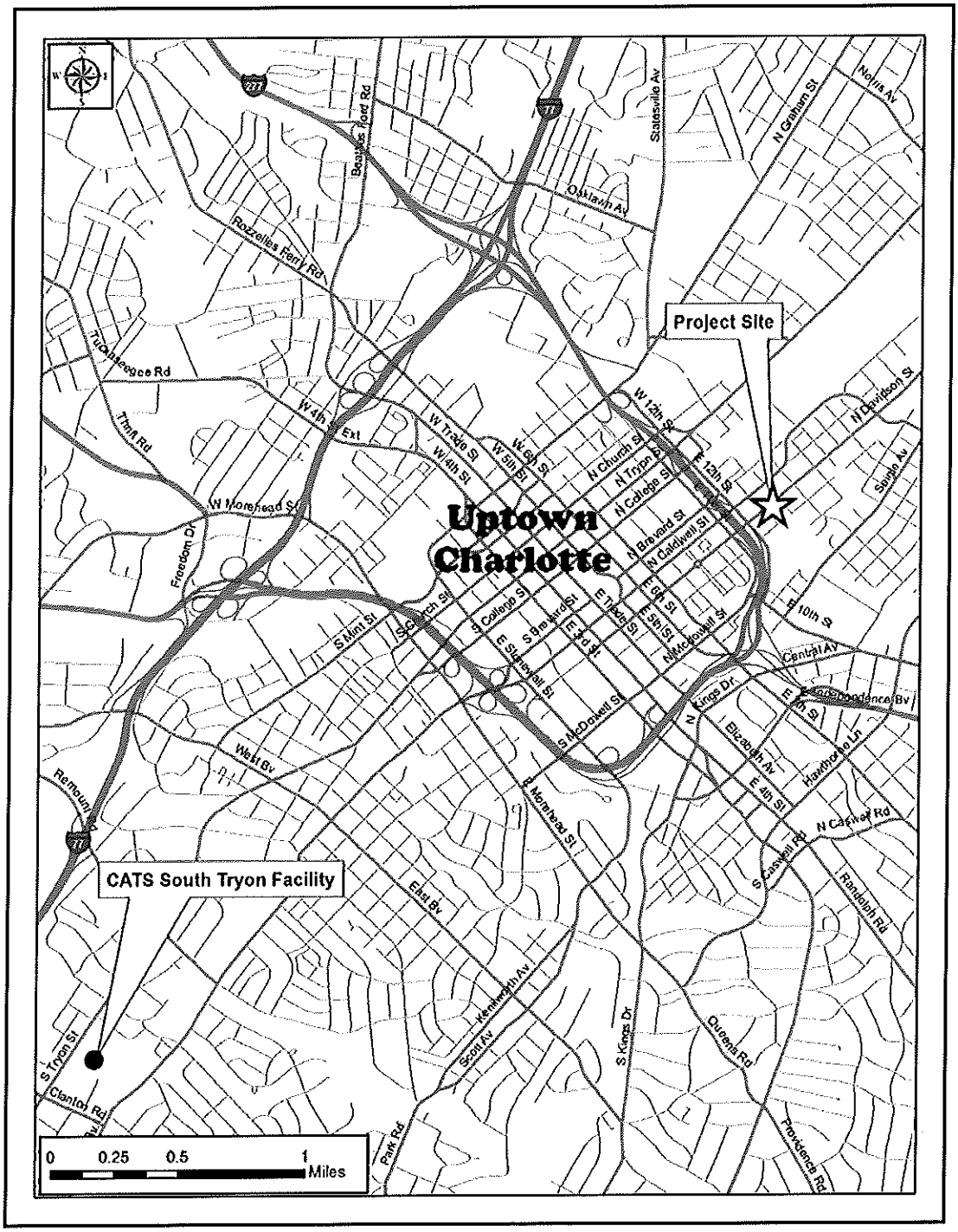


Figure 2: Project Site

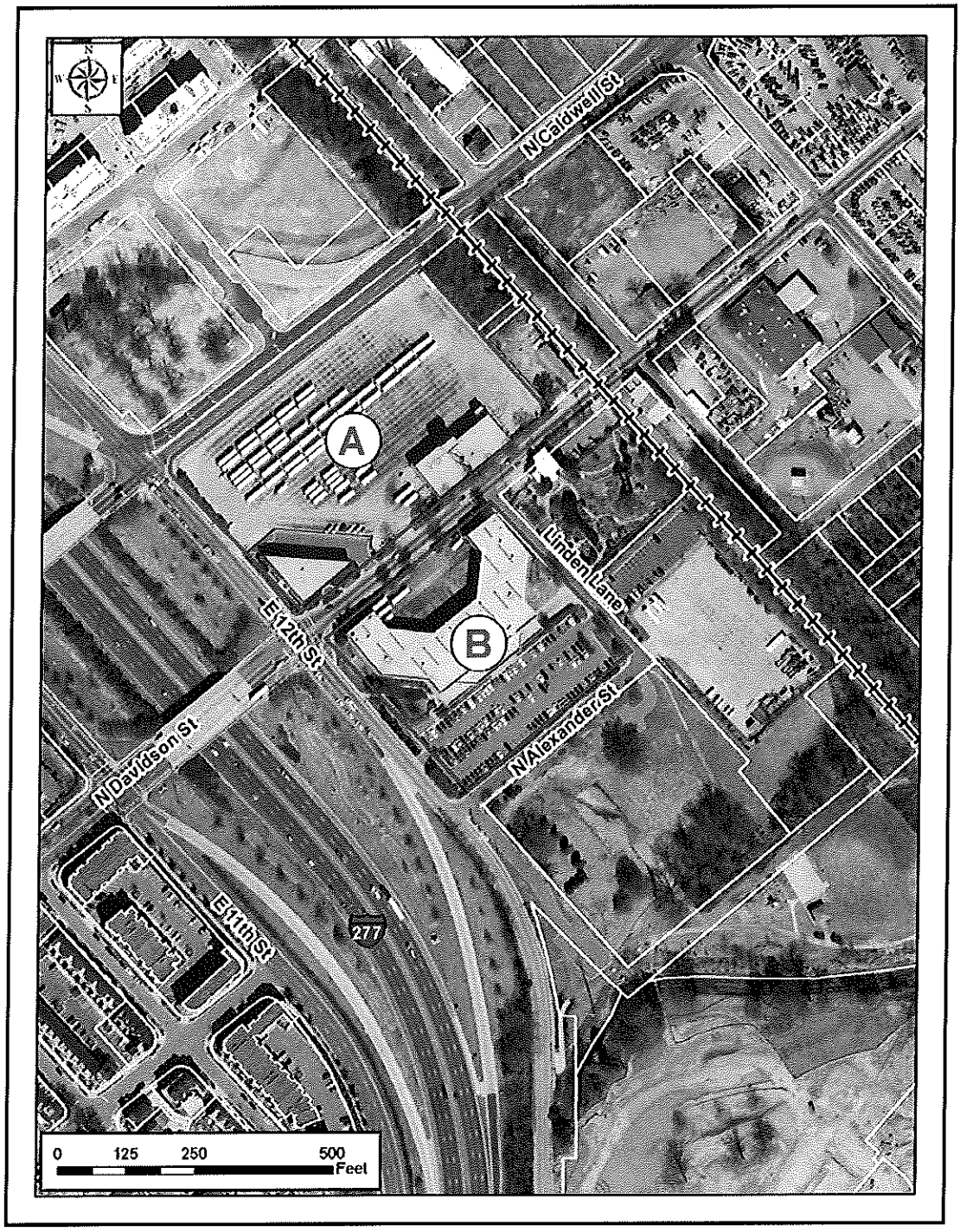
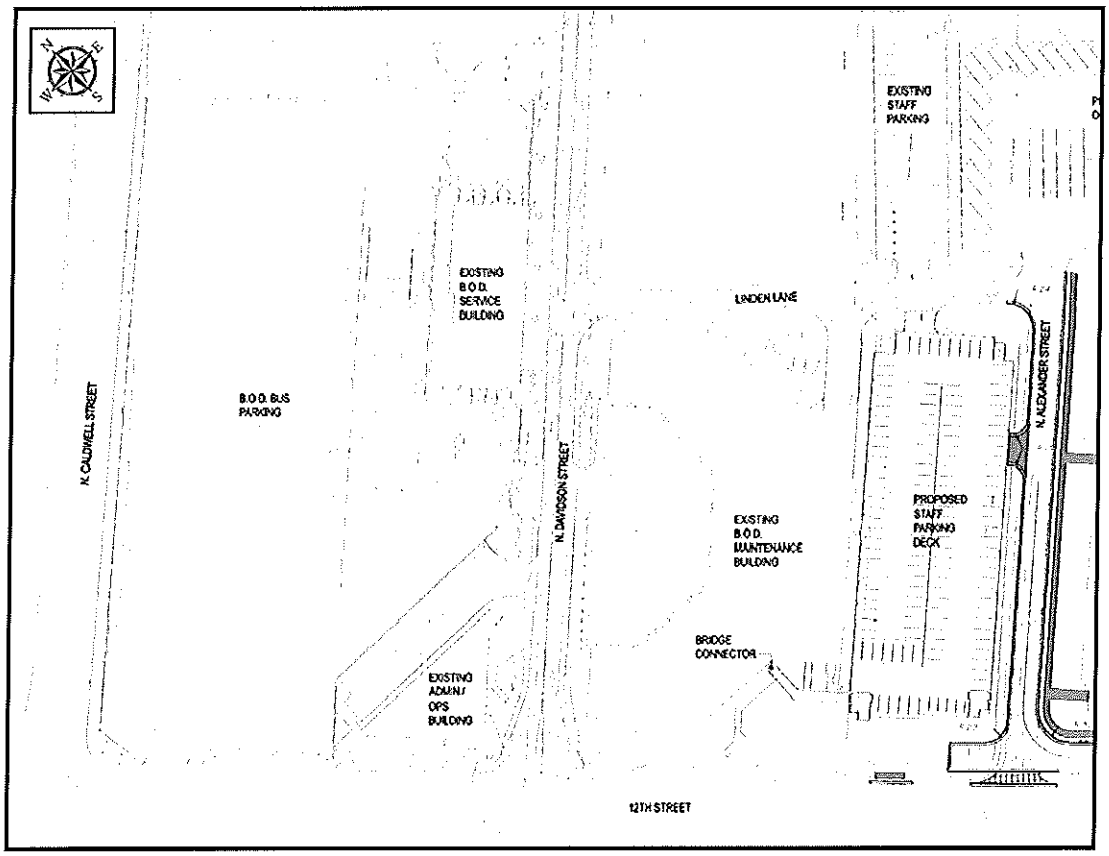


Figure 3: Conceptual Site Plan



Assessment of Possible Environmental Impacts

A) Land Acquisition: No impact.

The site is divided into two parcels along North Davidson Street just beyond the I-277 loop around Uptown Charlotte as shown in **Figure 2**. Parcel A is a 4.79 acre site between North Davidson Street and North Caldwell Street. The parcel is bounded on the south by East 12th Street and the northern boundary is about 90 feet south of the CSX rail line. The site predominantly serves as a surface lot for bus storage but also includes a fuel and wash building and a building for transit operations. It is listed as Mecklenburg County tax parcel #08108801 and zoned Industrial 2 (I-2).

Parcel B is a 3.36 acre lot bounded by North Davidson Street to the west, East 12th Street to the south, North Alexander Street to the east, and Linden lane to the north. This site has a basement level and two upper levels with garage bays on the first level for bus maintenance and

office/storage space on the upper level. It is listed as Mecklenburg County tax parcel #08108701 and also zoned Industrial 2 (I-2).

Both parcels are currently owned by the City of Charlotte. No additional land would be acquired for this project.

B) Land Use and Zoning of Surrounding Areas: No impact.

There is a mix of land uses surrounding the project site. The two parcels that occupy the existing maintenance facility and properties to the north are industrial. Land uses include manufacturing, warehousing, a large auto salvage yard, and an active freight rail line (CSX). To the south is East 12th Street and I-277 (Brookshire Freeway), which has a combined 450-foot wide right-of-way corridor. I-277 is a heavily traveled loop road around Uptown Charlotte. Farther to the south (south of I-277) are multi-family complexes, including Skyline Terrace and Tivoli. To the east of the existing maintenance facility is the vacant City-owned parcel, which is proposed for redevelopment as part of a separate project, and a Mecklenburg County Park (Alexander Park). An additional Mecklenburg County recreational facility, Little Sugar Creek Greenway, runs parallel to the eastern boundary of the park. Both of these facilities are depicted in **Figure 4** in Section M. Farther to the east is a multi-family complex (Seigle Point), separated by Little Sugar Creek and open space (on the Seigle Point development site). In addition, McGill Rose Garden is on a 1.36 acre site adjacent to the CATS property just to the north. McGill Rose Garden, first opened in 1962, is a non-profit public garden/recreational facility providing horticultural therapy services, gardening education, meeting space, and a garden sanctuary. To the west are newly developed 940 Brevard Apartments, a 100-unit apartment community for seniors.

The two parcels that occupy the existing maintenance facility are zoned Industrial 2 (I-2), which permits transit maintenance and operations facilities. For these parcels, the proposed project is consistent with current zoning and would not require a rezoning action.

C) Air Quality: No significant impact.

The proposed project was amended to the Statewide Transportation Improvement Program (STIP) on April 2, 2009 (TIP number TD-4703). The proposed project is within the Charlotte-Gastonia-Rock Hill air basin, which is classified as in attainment for four of the six criteria air pollutants (nitrogen oxides, sulfur oxides, lead, and particulate matter), meaning the basin's air quality does not exceed the National Ambient Air Quality Standards (NAAQS) for these pollutants. The air basin is designated as a

carbon monoxide (CO) maintenance area and as a non-attainment area for 8-hour ozone. (Source: USEPA's website: http://www.epa.gov/oar/oaqps/greenbk/ accessed March 18, 2009).

The requirements of 40 CFR 93 are implemented in Mecklenburg County Air Pollution Control Ordinance (MCAPCO) Regulations 2.200, "Transportation Conformity." Projects exempt from project level transportation conformity are listed in 40 CFR 93.126. The construction of new bus or rail storage/maintenance facilities, categorically excluded in 23 CFR 771.117 (d), is included in the list of exempt projects. Thus the proposed renovations and expansion of the North Davidson BOD Facility are not subject to a project level conformity analysis. (Source: e-mail from David McDonald, CATS, March 9, 2009, included in **Appendix A**.)

The proposed project also is not expected to generate localized violations of the CO NAAQS. The entrances off East 12th Street and North Davidson Street would continue to be used by buses accessing the bus storage and maintenance facility. The unsignalized intersections of North Davidson Street/Linden Lane and East 12th Street/North Alexander Street would be the primary intersection used by private vehicles accessing the bus facility. Currently, these intersections operate at Level of Service (LOS) A. In the year 2025, the East 12th Street/North Alexander Street intersection would still operate at LOS A with the project in place. The intersection of East 12th Street and Davidson Street currently operates at LOS C. In the year 2025, the intersection would operate at LOS F in both the Build and No Build scenarios. The poor LOS and delay is caused by the 51% growth in background traffic and is not related to the traffic volumes generated by the site. The poor LOS and Delay at East 12th Street at Linden Street is caused by control delay of the Stop sign on Linden St and associated gap acceptance (driver behavior).

In accordance with 40 CFR 93.123, a quantitative CO hot-spot analysis is not required because the project is not: 1) a project affecting locations, areas, or categories of sites identified as sites of violation or possible violation; 2) a project affecting intersections that are at LOS D, E, or F, or those that will change to LOS D, E, or F because of increased traffic volumes related to the project; 3) a project affecting one or more of the top three intersections in the non-attainment or maintenance area with highest traffic volumes; or 4) a project affecting one or more of the top three intersections in the non-attainment or maintenance area with the worst level of service.

MCAPCO regulation 2.0805, Parking Thresholds, requires a permit for parking facilities that exceed certain thresholds because of the potential for localized violations. The proposed employee parking deck has 326 spaces with a parking area that is approximately 100,000 square feet.

According to Sections 2.0805(a)(3) and 2.0805(b), the proposed employee parking deck does not meet the capacity or area thresholds listed in the MCAPCO regulation (750 spaces for a new parking deck or a new parking deck covering at least 225,000 square feet (Section (a)(3)); a new parking deck with at least 500 spaces (Section (b)). Therefore, no permit is required under MCAPCO regulation 2.0805, Parking Thresholds.

D) Noise: No significant impact.

As described in the introduction, the proposed improvements consist of interior renovations to the existing buildings on both Sites A and B, which are illustrated in **Figure 2**. The only new construction associated with the proposed improvements is a new, multi-level parking deck over the existing employee surface parking on Site B. This new parking deck will only be used for employee parking purposes, and will not be used for providing additional bus parking.

Under the proposed improvements, there is no alteration to existing conditions related to transit activities; transit routes, transit facilities, and transit capacities will remain the same as existing conditions. Therefore, transit-related noise is expected to remain generally unchanged by the proposed improvements. Because there are no transit-related improvements associated with the proposed project, no noise and vibration screening, analysis or mitigation is required for this project.

E) Water Quality: No significant impact.

As indicated on the Charlotte East United States Geological Survey (USGS) Quadrangle Map, the proposed project is in the Catawba River Basin. Water quality in this heavily developed sub-basin is affected by intensive urban runoff from growth in the City of Charlotte and Mecklenburg County, as well as discharges from several large wastewater treatment plants. Little Sugar Creek is approximately 480 feet from the limits of the project site. Sugar Creek is classified as a Class C stream by North Carolina Department of Environment and Natural Resources Division of Water Quality (DWQ). Pursuant to DWQ Surface Water Classification standards, Class C waters are defined as 'Waters protected for uses such as secondary recreation, fishing, wildlife, fish consumption, aquatic life including propagation, survival and maintenance of biological integrity, and agriculture. Secondary recreation includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner.'

Pursuant to North Carolina Administrative Code (NCAC) 15A NCAC 2B.0243, a 50-foot wide vegetated riparian (shoreline) area is designated

along the Catawba River below Lake James and along the mainstem lake shorelines from and including Lake James to the North Carolina portion of Lake Wylie. The parcel is outside of the 50-foot buffer and therefore, not subject to buffer requirements.

The footprint of the proposed parking deck for the North Davidson BOD Facility would utilize the area of the parcel currently occupied by the surface parking. The nearest corner of the development footprint is approximately 480 feet from Little Sugar Creek. The proposed plan would slightly decrease the amount of impervious surface. The minor loss of vegetation that would result from the project may increase non-point source pollution since vegetation serves to reduce erosion and trap contaminants. During construction appropriate erosion control measures would be utilized. The proposed project would not significantly impact or degrade water quality of Little Sugar Creek or within the Catawba River Basin. This site is in a Distressed Business District and subject to the City of Charlotte Post Construction Controls Ordinance Section 4.401.B and would require a mitigation fee for the pre-project built upon area. Distressed Business Districts are areas delineated by the City and, though they can vary widely, generally share common physical needs and problems. In order to address these issues, the City targets these areas for various infrastructure improvements, economic growth initiatives, crime prevention measures, and other community and business related enhancements.

F) **Wetlands:** No impact.

The United States Army Corps of Engineers (USACE) is the lead agency for making jurisdictional determinations for freshwater wetlands and waters of the U.S. within Mecklenburg County. Section 404 of the U.S. Clean Water Act of 1977 requires the USACE to use the procedures and criteria enumerated in the *1987 U.S. Army Corps of Engineers Wetlands Delineation Manual (1987 Corps Manual)* in making jurisdictional determinations (Environmental Laboratory, 1987). Additional information on wetlands is provided in **Appendix C**.

The proposed project would not impact any wetlands; therefore, no compensatory wetland mitigation would be required.

G) **Flooding:** No impact.

Mecklenburg County is a participant in the National Flood Insurance Program. According to the Flood Insurance Rate Map (FIRM) for the City of Charlotte, Mecklenburg County, North Carolina community panel number 4554J, dated March 2, 2009, the project is outside the 100-year floodplain.

H) **Navigable Waters and Coastal Zones:** No impact.

The proposed project is not within or affecting a coastal zone or a navigable waterway.

I) **Ecologically Sensitive Areas:** No impact.

Pursuant to 49 CFR §194, an ecological or environmentally sensitive area is defined as an area that serves a critical role in the ecological balance and is extremely vulnerable to natural disasters and human impacts. Such areas may include imperiled local or global natural communities.

The subject property is developed and would not result in any impacts to any ecologically sensitive areas.

J) **Endangered Species:** No significant impact.

A list of federally protected species within Mecklenburg County was obtained from the U.S. Fish and Wildlife Service (USFWS) and is provided in **Table 1** below.

Table 1: Federally Protected Species Listed for Mecklenburg Co.

Type	Common Name	Scientific Name	Status
Invertebrates	Carolina heelsplitter	*Lasmigona decorata*	Endangered
Vascular Plants	Michaux's sumac	*Rhus michauxii*	Endangered
	Schweinitz's sunflower	*Helianthus schweinitzii*	Endangered
	Smooth coneflower	*Echinacea laevigata*	Endangered

Source: U.S. Fish and Wildlife Service, January 31, 2009, http://www.fws.gov/nc-es/es/cntylist/mecklenburg.html

The State and Federally-endangered Carolina heelsplitter (*Lasmigona decorata*) inhabits cool, clean, shallow, heavily shaded streams of moderate gradient. Stable streambanks and channels, with pool, riffle and run sequences, little or no fine sediment, and periodic natural flooding, appear to be required for the Carolina heelsplitter (USFWS, 2002). Although the heelsplitter is found in some degraded streams, it appears to be restricted to the highest quality portions of those streams (Taxonomic Expertise Committee, 2004).

No suitable Carolina heelsplitter habit is present onsite. While Little Sugar Creek is approximately 480 feet from the project limits, this reach of the stream is urbanized and subject to nonpoint discharges due to

surrounding development and represents suboptimal habitat for this species. Best Management Practices (BMPs), including erosion and sediment control measures, would be employed to limit the amount of sediment entering the stream during the construction phase of the project. Therefore, the proposed project is not expected to result in a negative impact to Carolina heelsplitter habitat.

Michaux's sumac (*Rhus michauxii)* inhabits sandy or rocky open woods in association with basic soils. This plant survives best in areas where some form of disturbance has provided an open area (USFWS, 2002). No Michaux's sumac plants were identified during field investigations conducted on March 12, 2009. Therefore, the proposed project would not result in a negative impact to the State and Federally-endangered Michaux's sumac individuals or habitat.

Habitat for the Federally-endangered Schweinitz's sunflower (*Helianthus schweinitzii)* include roadsides, power line clearings, old pastures, woodland openings and other sunny or semi-sunny situations. Schweinitz's sunflower is known from a variety of soil types but is generally found growing on shallow, poor, clayey and/or rocky soils (USFWS, 2002). In the few sites where Schweinitz's sunflower occurs in relatively natural vegetation, the natural community is considered a xeric hardpan forest (Schafale and Weakley 1990).

The project site is currently developed with limited landscaping. No Schweinitz's sunflowers were identified during field investigations conducted on March 12, 2009. Therefore, given existing land use, the proposed project would not result in an adverse impact on Schweinitz's sunflower individuals or habitat.

State and Federally-endangered smooth coneflower (*Echinacea laevigata)* are found in sunny sites with low competition, usually on magnesium and calcium rich soils. These sites include open woods, barrens, roadsides, clearcuts, dry limestone bluffs, and power line rights-of-way. Periodic disturbance is necessary for the maintenance of open conditions. (USFWS, 1995). As noted above, the project site is currently developed with limited landscaping. No individuals were identified during field investigations on March 12, 2009. Therefore, the proposed project would not result in an adverse impact to smooth coneflower or its habitat.

K) **Traffic and Parking:** No significant impact.

A traffic analysis was conducted for this project and is provided in **Appendix B**. The memorandum includes the analysis of traffic associated with the North Davidson BOD Facility renovation and expansion as well as

the relocation of the STS facility. The following section summarizes the traffic analysis as it relates directly to the North Davidson BOD Facility.

Site Location and Access

The North Davidson BOD Facility renovation/expansion site is along East 12th Street between North Caldwell Street, North Alexander Street and Linden Lane. East 12th Street is a three-lane, one-way, northwest road. The entrances off East 12th Street and North Davidson Street would continue to be used by buses accessing the bus storage and maintenance facility. The existing driveway from the employee parking lot behind the maintenance building to East 12th Street will be removed. Access to the parking deck will be from North Alexander Street. Based on the proposed site access, current year (2009), future no-build (2025), and future build (2025) intersection analyses were performed for the following intersections:

- East 12th Street at North Davidson Street
- North Davidson Street at Linden Lane
- East 12th Street at North Alexander Street

Existing Traffic and Survey Data

Turning Movement Traffic Count Data

Turning movement counts were collected by the Charlotte Department of Transportation (CDOT) at East 12th Street and North Davidson Street on February 21, 2008 from 6:00 AM to 7:00 PM. These volumes were increased by 3 percent to account for a one-year growth rate thereby bringing the volumes to 2009 levels. The turning movement counts are summarized in **Table 2**. Current intersection geometry and traffic signal phasing were also obtained from the signal plan dated August 2002. Sight distance along East 12th Street near the driveway is within acceptable limits.

Table 2: Existing Turning Movement Counts at 12th and Davidson Streets

	Davidson St - SB			12th St - WB			Davidson St - NB			12th St - EB			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Sum
6:00 AM	6	35	0	9	33	7	0	14	3	0	0	0	107
6:15 AM	5	50	0	21	61	2	0	19	9	0	0	0	167
6:30 AM	15	28	0	20	79	11	0	17	14	0	0	0	184
6:45 AM	16	74	0	35	117	6	0	33	5	0	0	0	286
7:00 AM	18	78	0	25	121	14	0	32	13	0	0	0	301
7:15 AM	11	109	0	24	125	9	0	33	18	0	0	0	329
7:30 AM	24	138	0	23	159	27	0	27	22	0	0	0	420
7:45 AM	24	156	0	23	175	20	0	33	21	0	0	0	452
8:00 AM	19	144	0	34	148	19	0	26	22	0	0	0	412
8:15 AM	23	133	0	36	160	16	0	39	20	0	0	0	427
8:30 AM	20	142	0	25	144	17	0	38	28	0	0	0	414
8:45 AM	28	42	0	38	128	27	0	17	43	0	0	0	323
9:00 AM	27	93	0	50	132	14	0	39	18	0	0	0	373
9:15 AM	18	67	0	48	106	16	0	34	20	0	0	0	309
9:30 AM	13	58	0	46	121	17	0	41	12	0	0	0	308
9:45 AM	20	61	0	46	128	13	0	39	26	0	0	0	333
4:00 PM	33	75	0	58	151	16	0	77	25	0	0	0	435
4:15 PM	35	64	0	71	140	15	0	57	29	0	0	0	411
4:30 PM	25	54	0	95	126	19	0	66	29	0	0	0	414
4:45 PM	22	80	0	89	180	22	0	91	44	0	0	0	528
5:00 PM	20	67	0	97	132	20	0	73	37	0	0	0	446
5:15 PM	19	77	0	81	160	25	0	81	46	0	0	0	489
5:30 PM	28	55	0	74	154	26	0	77	53	0	0	0	467
5:45 PM	11	69	0	99	149	24	0	80	29	0	0	0	461
6:00 PM	20	54	0	110	149	35	0	78	22	0	0	0	468
6:15 PM	17	63	0	113	134	19	0	68	30	0	0	0	444
6:30 PM	20	55	0	73	116	14	0	49	21	0	0	0	348
6:45 PM	13	57	0	66	69	9	0	68	23	0	0	0	305

Source: CDOT Turning Movement Count (2/21/2008)

Existing Traffic Pattern at North Davidson BOD Facility

CATS conducted a survey of their employee's arrival/ departure pattern and bus operations at the existing North Davidson BOD Facility during the month of March 2009. **Table 3** summarizes the result from that survey. It shows that on a typical day approximately 800 trips enter and exit the existing North Davidson BOD Facility. Based on the survey, the heaviest arrival/ departures at the facility are between 5:00-6:00 in the morning and 6:00-7:00 in the afternoon.

Table 3: Existing BOD Facility Arrival/ Departure Survey

		Employee Operators		Bus Operations		Technology Employees		BOD non-drivers		Total Daily		
Start	End	Out	In	Out	In	Out	In	Out	In	Out	In	Total
12:00 AM	1:00 AM	4	1		2					4	3	7
1:00 AM	2:00 AM	7			7					7	7	14
2:00 AM	3:00 AM	10			8			1	2	11	10	21
3:00 AM	4:00 AM									0	0	0
4:00 AM	5:00 AM		13	11					1	11	14	25
5:00 AM	6:00 AM		42	42						42	42	84
6:00 AM	7:00 AM		23	32						32	23	55
7:00 AM	8:00 AM	3	9	9	3	1	11	0	4	13	27	40
8:00 AM	9:00 AM	15	1	0	22	4	2	0	0	19	25	44
9:00 AM	10:00 AM	12	10		12		2	1	1	13	25	38
10:00 AM	11:00 AM	16	8		1					16	9	25
11:00 AM	12:00 PM	13	10	5	1	6	2	2		26	13	39
12:00 PM	1:00 PM	8	8	1	1	6	6			15	15	30
1:00 PM	2:00 PM	17	17	1	4	3	6			21	27	48
2:00 PM	3:00 PM	10	13	3						13	13	26
3:00 PM	4:00 PM	13	37	16			3			29	40	69
4:00 PM	5:00 PM	9	12	15	1	15	2	4	0	43	15	58
5:00 PM	6:00 PM	5	8	8	8	0	0	1	0	14	16	30
6:00 PM	7:00 PM	27	4		40				1	27	45	72
7:00 PM	8:00 PM	15			18					15	18	33
8:00 PM	9:00 PM	9	1	1	4					10	5	15
9:00 PM	10:00 PM	6	1		6					6	7	13
10:00 PM	11:00 PM	8			3					8	3	11
11:00 PM	12:00 AM	7			3					7	3	10
24-hour Total		**214**	**218**	**144**	**144**	**35**	**34**	**9**	**9**	**402**	**405**	**807**

Future Trip Estimates

CATS provided programmed quantities of parking spaces for the North Davidson BOD Facility. These figures represent the anticipated parking capacity needed for employees, bus fleets, visitors, and maintenance vehicles. This data was used to estimate future trips associated with the North Davidson BOD Facility.

Prior to 2005, all CATS buses were serviced and managed out of the North Davidson BOD Facility. The facility was designed for a capacity of 200 buses, but at that time the facility was operating over capacity with 269 buses which required overflow parking for employees. Opening of the South Tryon Facility in 2005 allowed CATS to move a large share of its buses to the new facility and relieve the burden on the North Davidson BOD Facility. However, anticipated growth in transit ridership and CATS expansion plan for the future will require full utilization of both of these facilities. Therefore, future trip estimates assume that the proposed North Davidson BOD Facility renovation and expansion will be utilized to its capacity of servicing 200 buses and providing 326 parking spaces for employees.

It should be noted that the traffic volumes generated by the North Davidson BOD Facility arrive and depart the site at predominantly off-peak periods. Maintenance employees work split shifts, primarily between 7AM and 3PM. Bus traffic also departs/arrives during off-peak periods, because the vehicles are in service during peak commuting periods. Therefore, the proposed site is not expected to create congestion along East 12th Street or North Davidson Street during traditional peak driving periods.

The predominant movement for buses to/from the site would use North Davidson Street toward Uptown Charlotte and the Charlotte Transportation Center (estimated at 90 percent). Maintenance and administrative staff would be more equally distributed in both directions on North Davidson Street. Site traffic trip assignments were made by applying forecast site trips to the roadway system according to the trip distribution percentages.

Level of Service Analysis

Criteria for LOS for signalized and un-signalized intersections were determined utilizing Synchro 7 and Highway Capacity Manual (HCM) methodology. HCM standards use LOS "D" as a measure of acceptable operating conditions at signalized intersections in urban areas during the peak hour. LOS "E" is generally considered acceptable at un-signalized

intersection locations during peak periods if only the side street encounters delay.

Existing 2009 Level of Service Analysis

For existing year 2009 analysis, traffic volumes at both analyzed intersections were determined by growing the existing 2008 traffic volumes by an annual growth rate of 3 percent for one year. **Table 4** provides the LOS operations for 2009 traffic conditions, Future No-Build, and Future Build scenarios.

Future Year (2025) Level of Service Analysis

A LOS analysis was performed using 2025 traffic volumes obtained by growing existing 2008 Turning Movement counts 3 percent annually for 17 years. This worst case scenario analysis assumes a 51 percent growth in volumes at East 12th Street and North Davidson Street during both peak periods.

The poor LOS and delay at East 12th Street at North Davidson Street is caused by the 51 percent growth in background traffic and is not related to the traffic volumes generated by the site. The applied growth rate is not a prediction or anticipation of future traffic volumes, only a what-if scenario. The poor LOS and delay at Linden Lane at North Davidson Street is caused by control delay of the stop sign on Linden Lane and associated gap acceptance (driver behavior). The LOS analysis results are summarized in **Table 4.**

Table 4: Existing 2009 and 2025 Intersection LOS Analysis

	AM Peak			PM Peak		
Intersection	Existing 2009	2025 No-Build	2025 Build	Existing 2009	2025 No-Build	2025 Build
East 12th Street at North Davidson Street	33.0 – C	109.8 – F	111.9 – F	18.4 – B	54.9 – E	56.5 – E
Linden Lane at North Davidson Street	0.0 – A*	0.0 – A*	57.4 – F*	0.0 – A*	0.0 – A*	58.2 – F*
East 12th Street at North Alexander Street	0.0 – A	0.0 – A	0.0 – A	0.0 – A	0.0 – A	0.3 – A

Legend: 00.0 – A = intersection delay and LOS. * Unsignalized Intersection: LOS and Delay shown for worse approach.

Signal Warrants Analysis

A signal warrants analysis was performed for the North Davidson Street/Linden Lane and the East 12th Street/North Alexander Street intersections using the Manual of Uniform Traffic Control Devices (MUTCD) methodology. None of the eleven traffic signal warrants in the

MUTCD are met under current or future volume scenarios. The side street volumes are not sufficient to meet minimum volume warrants, and the North Davidson BOD Facility volumes are greatest during off-peak periods on North Davidson Street.

Traffic Summary

The LOS analysis shows that the impacts of the proposed North Davidson BOD Facility expansion are minimal, adding only 1 percent and 2 percent delay to the AM and PM 2025 Future Build scenarios, respectively. The traffic generated by the North Davidson BOD Facility would arrive and depart the site at predominantly off-peak periods. **Therefore, the proposed site is not expected to appreciably impact congestion on East 12th Street or North Davidson Street during traditional peak travel periods.**

Parking

The proposed project includes a 326-space, on-site parking deck for employees and visitors. This parking deck replaces the existing 150-space surface lot located east of the existing maintenance building. The project would not require on-street parking or parking on off-site locations.

L) **Energy Requirements and Potential for Conservation:** No impact.

The proposed renovation and expansion of the North Davidson BOD Facility will have very little, if any, increase in overall operational energy requirements. The existing facilities and building systems have not been updated since the original construction almost 30 years ago. The following is a brief outline of the proposed upgrades that are anticipated to result in significantly more energy efficient operation.

The renovations in the triangular building will consist of some minor modifications to wall locations on the first floor. Upgrades to the mechanical and electrical systems are not anticipated.

The maintenance building will essentially be gutted and rebuilt on the interior and the exterior cladding will be replaced. This will include:

- Replacing the current high-bay lighting with new energy efficient light fixtures to improve quality of light and reduce heat load.
- Upgrading lighting controls to allow lighting in areas that are not in use to be turned off.
- Replacing the entire heating, ventilation, and air conditioning system with more energy efficient units that use non-CFC based refrigerants.

- Replacing the existing, inadequate vehicle exhaust system with a new energy efficient vehicle exhaust system.
- Replacing all existing two-post, in-ground vehicle lifts with new, environmentally-friendly vehicle lifts. All existing buried piping with pressurized hydraulic fluid will be removed and any new piping will be easily accessible and not buried.
- Replacing the exterior cladding. There is evidence that the existing insulated metal panel exterior cladding is leaking. The exterior cladding will be removed and replaced with a combination of masonry and new insulated metal panels to provide a watertight, energy-efficient enclosure.
- Replacing the emergency generator. The existing emergency generator supports the bare minimum requirements for life safety. A new emergency generator will be included in the project to provide adequate coverage to maintain transit service during emergencies.
- Utilizing more natural lighting in the facility. Very little natural light is currently introduced in the maintenance building. When the exterior cladding is replaced, additional energy-efficient windows will be provided in the office areas and existing windows will also be replaced.
- Replacing the existing overhead doors to the repair bays with new doors that provide for more natural light into the work space.
- Reducing the amount of shop equipment present under existing conditions, including the elimination of two paint booths. This function is now located at the new South Tryon Facility.
- Providing a new building management system that integrates HVAC, lighting, security, and fire alarm systems.
- Utilizing building materials comprised of renewable resources where practical.
- Using light-reflectent concrete where practical, to reduce heat sink.
- Minimizing water usage for any new landscaped areas.

M) Historic Properties: No impact.

Archaeological Resources

Based on a preliminary assessment of the proposed Limits of Disturbance (LOD) for the North Davidson BOD Facility renovation and expansion on

Sites A and B, additional field investigation of the project area was not warranted. Site A will not be affected by any construction so no archaeological survey is necessary. Site B will have a parking deck constructed on a previously disturbed parking lot, and no archaeological survey is necessary.

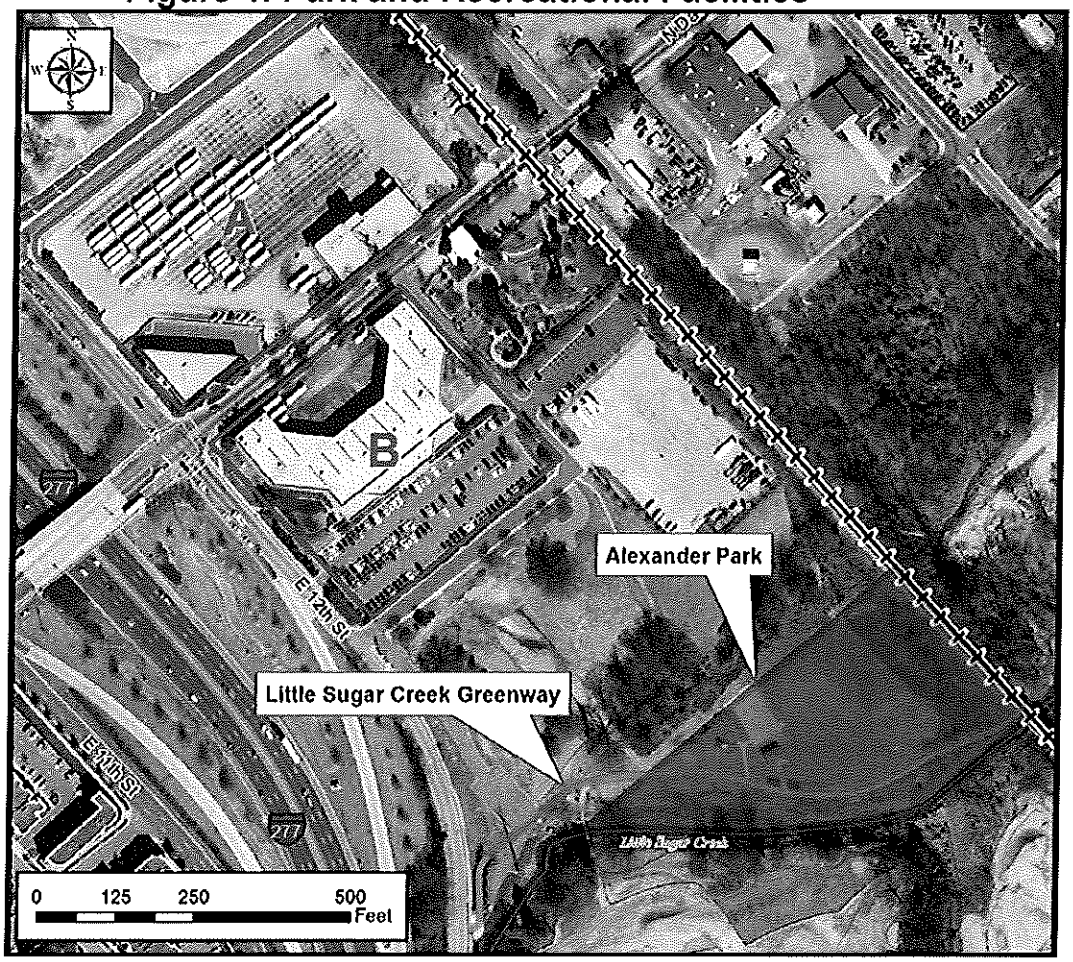
Historic Resources

The architectural portion of the survey resulted in the identification of one newly recorded resource and no previously recorded resources. The newly recorded resource, a c. 1920 commercial structure that was originally home to Avant's Fuel and Ice Co., currently functions as the McGill Rose Garden center. This building, a one-story structure that features exterior walls clad in brick laid in a running course bond and a flat roof, exhibits a design common for the period. This resource has no apparent association with any event or person important in our nation's history and does not appear to have the ability to yield important information. The building is recommended as not eligible for the National Register of Historic Places (NRHP). A resource number has been requested from the State Historical Preservation Office (SHPO).

N) Parklands: No impact.

At its closest point, Alexander Park is approximately 450 feet east of the proposed project site. The park is situated on a 2.46-acre parcel with a playground, basketball court and shelter. The park includes a section of the Little Sugar Creek Greenway, which currently terminates at East 12th Street and is under construction for extension to the north. Both the park and greenway are shown below in **Figure 4**. **The proposed project would not impact these amenities.**

Figure 4: Park and Recreational Facilities



O) Construction: No significant impact.

The renovations and expansion of the North Davidson BOD Facility is anticipated to begin in August 2009 and is expected to take about a year to complete.

Any major construction project, public or private, would inconvenience or disturb the residents, businesses and business customers adjacent to the construction site. Without proper planning and implementation controls, noise, disruption of utilities, disposal of debris and spoil, water quality and runoff, access and traffic disruption, air quality and dust control, safety and security, and disruption to businesses could adversely affect the comfort and daily lives of businesses and persons traveling in the vicinity of the project. Construction impact controls will be integrated into the project's contract specifications, traffic control plans, and phasing plans, to avoid or minimize these potential areas of impact.

Construction Noise

During the construction phase of the proposed parking deck, the potential exists for short-term noise impacts generated by construction equipment. To reduce the potential for such impacts, contractors will be required to adhere all local noise ordinances and to the latest edition of the North Carolina Department of Transportation's (NCDOT's) Standard Specifications for Road and Bridge Construction. These specifications include guidelines for screening stationary equipment, exhaust noise, noise from loose equipment parts, and excessive tailgate banging.

Disruption of Utilities

No disruption of utility service to commercial or industrial facilities or residences is anticipated.

Disposal of Debris and Spoil

The project would involve the removal of vegetation. Final plans have not been prepared, but preliminary estimates of excess material are not substantial. The construction plans will specify the method to be used to dispose of the debris and spoil. The contractor will coordinate with the Mecklenburg County Environmental Protection Department on the necessary specifications and permits.

Water Quality and Runoff

Because the site slopes to the west, measures to control erosion and sediment will be included in the construction documents. The construction specifications will include the following types of statements:

- Clearing and grubbing operations should be scheduled and performed so that grading and installation of permanent erosion-control features can follow immediately thereafter, if conditions permit (otherwise, temporary erosion-control measures may have to be employed between successive construction stages);
- The surface area of erodible earth material exposed at any one time by clearing and grubbing should be kept to a minimum; and
- Areas that have been seeded and mulched to control erosion should be cared for until temporary protection is no longer needed.

Construction specification will also ensure that the contractor will take measures to prevent harmful stormwater runoff from discharging streams that lead into Little Sugar Creek. These measures may include the use of grease traps, dikes, curb walls, retention basins or sumps.

Access and Distribution of Traffic

Although final plans have not been prepared, it is not anticipated that any streets would be closed to traffic other than possibly for short-term partial lane closures to allow equipment onto and off of the site. No traffic would have to be diverted through a residential area, and access to land uses would not be disrupted. A traffic control plan will be developed and coordinated with the Charlotte Department of Transportation prior to construction.

Air Quality and Dust Control

The construction of the proposed project would result in the exposure of soils. Construction specifications will contain measures to ensure that the contractor will:

- Use appropriate emission control devices on gasoline or diesel construction equipment;
- Prohibit idling and other unnecessary operation of equipment; and
- Equip all machines to prevent or control air pollution in accordance with criteria issued by the USEPA.

The construction specifications will also require that contractors maintain all work and access areas free of dust. Methods that can be used to control dust include the use of tarpaulins on trucks used in construction operations, sprinkling of calcium chloride and/or water on dust-generating surfaces, and light bituminous treatment.

Safety and Security

Specific measures to ensure safety and security during construction would be addressed in the construction documents.

Disruption of Businesses

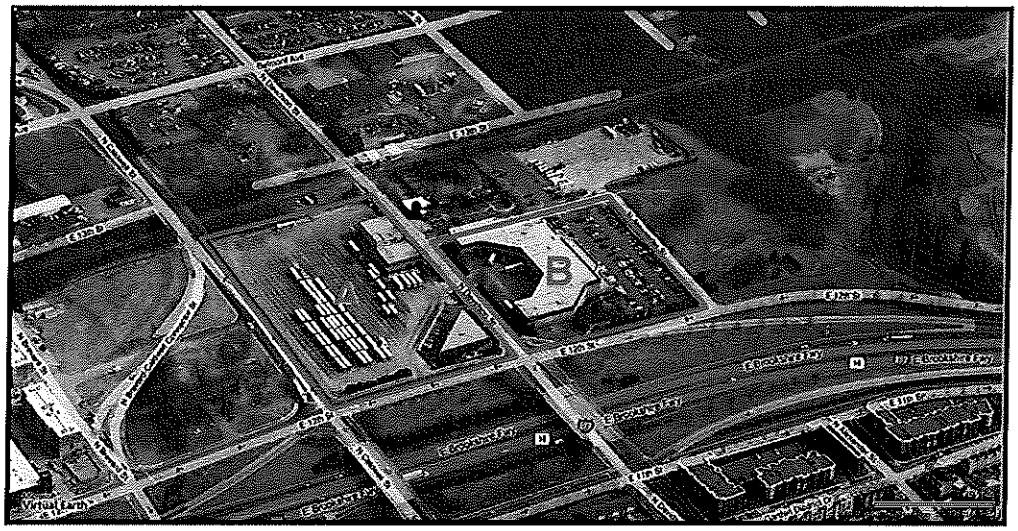
It is possible that nearby businesses and their patrons may experience some minor inconveniences during the construction of the project; however, no business should experience a substantial adverse economic impact.

P) Aesthetics: No significant impact.

The North Davidson BOD Facility has been in existence since the early 1980s and is part of a complex mix of the Charlotte urban landscape (**Figure 5**). To the south of the facility is I-277 and to the north is an active CSX railroad. To the west as shown in the image below is vacant property

that is currently being developed as multi-family housing. The North Brevard-Caldwell Connector Street has been abandoned. East of the maintenance facility is a vacant lot and further east is existing Alexander Park outside the boundaries of this project. Just beyond the park on the east side of Little Sugar Creek is Seigle Point, a new multi-family residential development (not shown).

Figure 5: Visual Context Map



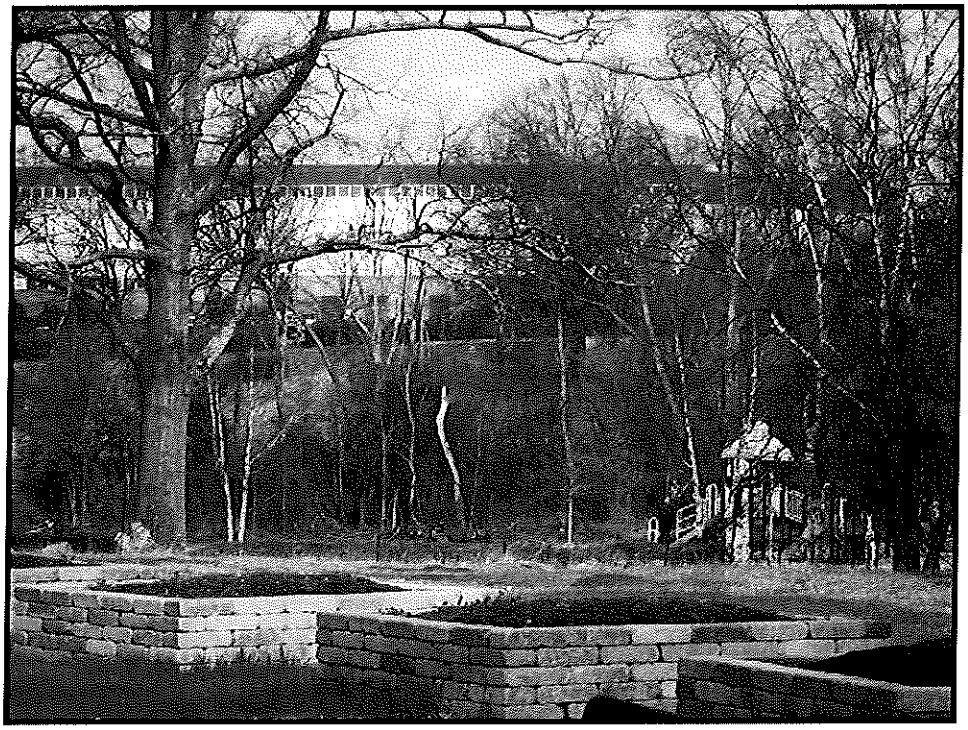
Views of the site from outside the property would vary. From across North Caldwell Street the view of the North Davidson BOD Facility would not change. The fleet parking, administration building, and fuel/wash building would generally have the same look after the renovations as it appears today. The north side of the property is currently obstructed for most viewers from the CSX railroad. Some view points of the upper levels of the proposed staff parking deck on Site B would be available from the north but it would be limited.

There are multi-family units on the south side of I-277 (Tivoli and Skyline Terrace) that would be exposed to new features looking north after the completion of the project. Currently the foreground is dominated by the I-277 corridor, with a mid-ground view of the North Davidson BOD Facility employee surface parking lot and a vacant lot to the east and a background view of a fleet storage lot and the CSX railroad. The proposed project would add new eliminates to the mid-ground views and eliminate the view of the fleet storage lot and portions of the CSX railroad in the background.

The change in the views from the east would be the most noticeable. Currently the view from the east is of the existing North Davidson BOD

Facility in the background, an open lot in the mid-ground, and Alexander Park in the foreground. Today the view of the North Davidson BOD Facility from the new multi-family residential development (Seigle Point) is partially screened by existing tree canopy and vegetation but still dominates the background views particularly during the winter months (**Figure 6**). The new three-level staff parking deck would replace the existing view of the North Davidson BOD Facility in the background. The parking deck would continue to be screened by the tree canopy and vegetation.

Figure 6: North Davidson BOD Facility View from Seigle Point



The change in view is not considered a significant impact because of the character of the area surrounding the site. This is not an area with high quality views or an area that is considered scenic. The surrounding land uses are a mixture of industrial, transportation, residential, and limited open space. There are positive view sheds within the context of the park and greenway but there are several negative visual elements in the area such as billboards, old storage facilities, major power lines, and bridge structures. Most of the structures in the area are not architecturally significant and are faced with a variety of building materials.

The following measures would serve to improve the visual quality of the North Davidson BOD Facility:

- The blue-painted panels on the lower side of the existing North Davidson BOD Facility would be replaced with a brick façade where they are exposed to public view. Similar areas adjacent to the proposed parking deck would be sandblasted to remove the blue paint.
- The new staff parking deck would include brick integrated into a pre-cast concrete façade on the lower level and decorative grille work between parking deck columns to enclose the entire lower level. Intermittent pre-cast columns on the ground level would create a more pedestrian-scale environment.
- Landscaping for the new staff parking deck would be in accordance with the City zoning ordinance and would include perimeter street trees and base plantings between the sidewalk and the parking deck.
- Landscaping around the existing North Davidson BOD Facility would be updated and in accordance with the City zoning ordinance.

Q) **Community Disruption:** No significant impact.

It is not anticipated that the proposed project would disrupt the surrounding community. The project would not reduce or otherwise adversely affect access to community facilities, and would not alter existing patterns of circulation within the area. No major changes to the existing traffic patterns would occur and the existing sidewalks would remain intact. Future plans for the Sugar Creek Greenway expansion would not be impacted by the proposed project. No existing facilities that serve the community would be displaced.

There are three residential communities within one-quarter mile of the project:

First Ward is located inside the I-277 loop that encompasses Uptown Charlotte. Its northern boundary is I-277 and the closest residential unit is about 500 feet to the south of the nearest edge of the project site, on the opposite side of I-277. The existing urban landscape with I-277 in the foreground, the existing North Davidson BOD Facility in the mid-ground, and the CSX railroad in the background would minimize the extent of change of the residents' view of the renovations and expansion of the North Davidson BOD Facility. The proposed design for the parking deck would also improve the existing view.

940 Brevard Apartments, a new multi-family development across North Caldwell Street to the west of the existing North Davidson BOD Facility, would not be disrupted by the renovations or expansion of the North

Davidson BOD Facility. Only renovations to the interior of the buildings on the site visible from the new development would occur. The exterior view would not change. The traffic patterns and visual context would remain the same.

Seigle Point, located to the east of the project site, is a Charlotte Housing Authority redevelopment project and is expected to have almost 400 units once completed. The closest residential units to the existing North Davidson BOD Facility are about 700 feet from the eastern edge of the site. Sporadic trees along Little Sugar Creek and Alexander Park provide some visual buffering between the residential development and the proposed BOD staff parking deck. The proposed treatments to the parking deck would improve the visual effect of this site. The current view of the large siding of the existing maintenance building is not visually appealing.

Noise levels associated with construction may cause temporary disruptions. Given the nature of the proposed improvements, noise levels are not expected to increase substantially over existing conditions after construction would be completed. No noise assessment was performed because there are no transit-related improvements associated with the proposed project.

R) Safety and Security: No significant impact.

It is anticipated that the proposed renovations and expansion of the North Davidson BOD Facility would not have negative impacts to the safety and security of the surrounding area nor would the facility be unsafe.

During the design of the project, CATS will investigate the feasibility of incorporating the elements of Crime Prevention through Environmental Design (CPTED). CPTED as a concept contends that a community can create "a climate of safety... right from the start by designing a physical environment that positively influences human behavior." CPTED builds on the key strategies of territoriality, natural surveillance, activity support and access control, as a part of a comprehensive crime prevention program. Anticipated elements of CPTED that can be applied to this project include improved lighting, use of proper landscaping that does not provide hiding places, and signs to identify the site and activities.

S) Secondary Development: Minimum impact.

The proposed relocation of the STS facility to the east of the project site would be considered a secondary development. The project is not expected to cause any additional secondary development such as new businesses or housing in the area.

T) **Consistency with Local Plans:** Consistent.

The proposed renovation and expansion is a part of CATS' current approved budget and work program. This project would be consistent with CATS' goal to provide improved transit services in Mecklenburg County. As stated previously, the two parcels that occupy the existing North Davidson BOD Facility are zoned Industrial 2 (I-2), which permits transit maintenance and operations facilities. For these parcels, the proposed project is consistent with current zoning and would not require a rezoning action.

U) **Hazardous Materials:** No significant impact.

A Phase I Environmental Site Assessment (ESA) was conducted on the two parcels associated with the renovation and expansion of the existing North Davidson BOD Facility as well as site identified for the relocation of the STS facility. The purpose of the ESA was to identify the presence of potential environmental contaminants or releases affecting the site and to identify the presence of hazardous or potentially hazardous substances on or adjacent to the site. The following section summaries the Phase I ESA as it relates directly to the North Davidson BOD Facility. Additional summary information can be found in Appendix D.

Based on the results of this Phase I ESA, the assessment found no evidence of *recognized environmental conditions* in connection with the subject property except for:

- The adjoining Transit Maintenance Operations Site A incident because groundwater flow to toward the southeast, which may impact the northeast corner of the Transit Maintenance Operations Site B property.
- The floor drains because the wash down fluids contain petroleum products that pose a material threat to impact the subsurface;
- The piping for the eight hydraulic reservoirs and associated underground piping because they represent a material threat of release of hydraulic fluid to the subsurface; and
- The three underground storage tanks and oil/water separator because of their material threat to release hazardous substances or petroleum products in to the subsurface;

See *Section L) Energy Requirements and Potential for Conservation* for maintenance building renovations that would remove several of these recognized environmental conditions.

V) **Environmental Justice:** No significant impact.

In accordance with Executive Order 12898, consideration has been given to the possible environmental effects on minority and low-income communities. There are three residential communities within one-quarter mile of the project. **First Ward** is inside the I-277 loop that encompasses Uptown Charlotte; **940 Brevard Apartments** is located across North Caldwell Street to the west of the existing North Davidson BOD Facility; and **Seigle Point** is to the east of the project site.

Seigle Point

Seigle Point is a new development in the vicinity of the project site (within one-quarter mile) that fits the definition of an environmental justice community. This development is east of the project site and borders Little Sugar Creek to the west, the CSX rail line to the north, Seigle Avenue to the east, and East 10th Street and East 12th Street to the south. The development is also the site of a previous development that fit the definition of an environmental justice community. In 2000, when the former development existed, 99 percent of the population of 668 persons came from a minority population according to U.S. Census block data, with the overwhelming majority from the African American population. Median household incomes are very low according to U.S. Census block group data (the lowest unit of geography for which income data is reported), which extends beyond the geographical area of the development. In 2000, median household income was a very low $6,442.

The Seigle Point development is a Housing Authority redevelopment in which roughly half of the nearly 400 units are planned for low-income residents and families once the project is fully completed. Of the 50 townhomes planned for development, about 20 will be reserved for low-income families who will be given subsidies to help pay the mortgage. The Seigle Point development is expected to change the percent of minority population within this area. With a range of rental and home mortgage values and being in close proximity to Uptown Charlotte, the new development is expected to attract a greater mix of population and income groups.

It is expected that median household income has risen somewhat given the time that has elapsed since the last census (nearly a decade) and the very low level of $6,442 recorded by the 2000 census. It is unclear as to what extent income has increased.

First Ward / Garden District

Other residential developments within one-quarter mile of the project site are south of the project across I-277. The developments are part of the greater First Ward community of downtown Charlotte, which is also

referred to as the Garden District. This area has experienced revitalization over the past several years and attracts young professionals seeking affordable living arrangements within close proximity to downtown jobs. Many of the new developments are on green field sites with no previous developments. For this reason, no prior population data at the block level was recorded for the 2000 census in the developments enclosed by North Davidson Street to the west, East 11th Street to the north, Garden District Drive and North Myers Street to the east, and East 9th Street to the south. However, median household income data from block group level data is available for the area because it encompasses a larger geography that includes nearby developments in existence at the time of the 2000 census. According to the 2000 census, median household income was $26,458 for this area.

A nearby development enclosed by North Caldwell Street to the west, East 11th Street to the north, North Davidson Street to the east, and East 9th Street to the south was built prior to 2000. Thus, population information is available from 2000 census block level data, which indicates that the area exhibited a population of 147 persons, of which 89 percent were African American (which made up the entire minority population). Median household income for 2000 at the block group level was $11,439, which includes a larger geography that extends beyond the developments described here.

Given the close proximity of developments in the Garden District to downtown and the increasing popularity and value this confers to young professionals, both race and income levels are expected to change. Racial populations are expected to be more diverse compared to the predominant minority population in existence during the 2000 census (89 percent African American in one census block) and higher incomes are anticipated, although to what extent is unclear. Yet, with the relative affordability of the housing in this area, it is also anticipated that a substantial percentage of minority populations will continue to reside in the greater First Ward community.

940 Brevard Apartments

An additional area under consideration for environmental justice is a proposed development north of the project site, which is bordered by North Brevard Street to the west, the CSX rail line to the north, North Caldwell Street to the east, and East 12th Street to the west. This roughly six-and-a-half acre site is the location of a new multi-family development still under construction at this time. Once complete, the 100-unit development will provide safe, decent and affordable housing to seniors who earn $13,500 or less annually. Prior to this development, several scattered single-family homes existed on the western portion of the area, which was divided by the eastern portion by the Brevard-Caldwell

Connector Street, which is now being abandoned. According to 2000 U.S. Census block data, the area was populated by 10 African Americans. According to 2000 U.S. Census block group data, the median household income in this area and surrounding areas in the same block group (including developments described above) was $11,439. A diverse mix of races and income groups is anticipated for the new multi-family development in this location although precise estimates cannot be determined at this time.

Environmental Justice Assessment

No adverse noise, visual, air quality, or traffic impacts would occur in these neighborhoods. No residences, businesses or community facilities in these neighborhoods or serving these neighborhoods would be relocated as a result of the project.

CATS is anticipating only a few new positions being created as a result of this project. Some of these positions would be entry level, and could be filled by people residing in one of these neighborhoods. Approximately 300 employees currently work at the North Davidson BOD Facility. An estimated 88 percent of the employees that will be working at the North Davidson BOD Facility are minorities. Fifteen percent of the jobs are considered entry-level positions. .The new multi-family developments that are underway to the east and west of the project site could provide opportunities for future employees to be within walking distance of the site.

Because no communities would be negatively impacted as a result of this project, no disproportionately adverse impacts are anticipated.

Summary

Pursuant to the CFR, Part 771, Section 117(d)(9), the proposed project on Sites A and B can be classified as a "rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users," and as such, normally meets the federal criteria for a CE.

The minor nature of this project, shown in this assessment of possible environmental impacts, indicates that this project qualifies for a CE.

APPENDIX A: Agency Correspondence

An informational letter was mailed to the following agencies on March 23, 2009.

Federal Agencies

US Fish and Wildlife Service
Brian P. Cole, State Supervisor
Asheville Field Office
160 Zillicoa Street
Asheville, NC 28801

US Army Corps of Engineers
Ken Jolly
REGULATORY DIVISION
69 Darlington Avenue,
Wilmington, NC 28403

State Agencies

NCDOT Public Transportation Division
Miriam S. Perry, Director
1550 Mail Service Center
Raleigh, NC 27699-1550

NC Division of Water Quality
Coleen Sullins
1617 Mail Service Center
Raleigh, NC 27699-1617
512 N. Salisbury St
Raleigh, NC 27604

NC Wildlife Resources Commission
Ron Linville, Regional Coordinator
Habitat Conservation Program
3855 Idlewild Road
Kernersville, NC 27284

NC Department of Environmental and Natural Resources
Harry L. LeGrand, Zoologist
Natural Heritage Program
1615 Mail Service Center
Raleigh, NC 27699-1615

State Historic Preservation Office
Peter Sandbeck
NC Dept. of Cultural Resources
State Historic Preservation Office
4617 Mail Service Center
Raleigh, NC 27699-4617

Local Agencies

City of Charlotte
Mayor Pat McCrory
Office of the Mayor
600 E. Fourth St.
Charlotte, NC 28202

Mecklenburg County Environmental Protection Department
Don R. Willard, Director
Director
700 North Tryon Street
Charlotte, NC 28202-2236

Charlotte-Mecklenburg Planning Commission
Mr. Robert Cook
Mecklenburg-Union MPO Secretary
600 E. Fourth Street
8th Floor
Charlotte, NC 28202

Charlotte Historic Preservation Commission
Mr. John R. Rogers, Jr., Administrator
600 East Fourth Street
Charlotte, NC 28202

Email from David McDonald, CATS, March 9, 2009 regarding air quality conformity

[Mr.] Todd [Steiss],
[The North Davidson Street project] was in the previous TIP as TD-4703 and is expected to be added to the current TIP under the same TIP number. In regard to air quality, it is [to] be considered an exempt project under Table 2 of the Conformity Rule. The first highlighted section below should apply.

Transportation Conformity Rule

Table 2—Exempt Projects

Mass Transit

Operating assistance to transit agencies.
Purchase of support vehicles.
Rehabilitation of transit vehicles[1] .
Purchase of office, shop, and operating equipment for existing facilities.
Purchase of operating equipment for vehicles (e.g., radios, fare box, lifts, etc.).
Construction or renovation of power, signal, and communications systems.
Construction of small passenger shelters and information kiosks.
Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures).
Rehabilitation or reconstruction of track structures, track, and track bed in existing rights-of-way.
Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet[1] .
Construction of new bus or rail storage/maintenance facilities categorically excluded in 23 CFR part 771.

Note: *[1] In PM10 and PM2.5 nonattainment or maintenance areas, such projects are exempt only if they are in compliance with control measures in the applicable implementation plan.*

E. David McDonald, II
Transit Planning Manager
Charlotte Area Transit System
(704) 336-6900 work
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APPENDIX B: Traffic Analysis Memorandum

Traffic Analysis Memorandum

A traffic analysis was conducted by PB Americas, Inc on March 22, 2009 for this project and includes traffic associated with the renovation and expansion of the existing North Davidson BOD Facility as well as the relocation of the STS facility.

Site Location and Access

The North Davidson BOD Facility renovation/expansion site is along East 12th Street between North Caldwell Street, North Alexander Street and Linden Lane. East 12th Street is a three-lane, one-way, northwest road. The entrances off East 12th Street and North Davidson Street would continue to be used by buses accessing the bus storage and maintenance facility. The existing driveway from the employee parking lot behind the maintenance building to East 12th Street will be removed. The STS vehicles will access the upper level of the parking deck from Linden Lane and the lower level from the private drive that runs parallel to East 12th Street off North Alexander Street.

Based on the proposed site access, current year (2009), future no-build (2025), and future build (2025) intersection analyses were performed for the following intersections:

- East 12th Street at North Davidson Street
- North Davidson Street at Linden Lane
- East 12th Street at North Alexander Street

Existing Traffic and Survey Data

CATS provided existing turning movement counts and arrival/ departure survey at the existing the North Davidson BOD Facility and at a remote parking lot (east of Uptown) where STS vehicles are currently being stored.

Turning Movement Traffic Count Data

Turning movement counts were collected by the Charlotte Department of Transportation (CDOT) at East 12th Street and North Davidson Street on February 21, 2008 from 6:00 AM to 7:00 PM. These volumes were increased by 3 percent to account for a one year growth rate thereby bringing the volumes to 2009 levels. The turning movement counts are summarized in **Table 1**. Current intersection geometry and traffic signal phasing were also obtained from the signal plan dated August 2002. Sight distance along East 12th Street near the driveway is within acceptable limits.

Table 1: Existing Turning Movement Counts at 12th and Davidson Streets

	Davidson St - SB			12th St - WB			Davidson St - NB			12th St - EB			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Sum
6:00 AM	6	35	0	9	33	7	0	14	3	0	0	0	107
6:15 AM	5	50	0	21	61	2	0	19	9	0	0	0	167
6:30 AM	15	28	0	20	79	11	0	17	14	0	0	0	184
6:45 AM	16	74	0	35	117	6	0	33	5	0	0	0	286
7:00 AM	18	78	0	25	121	14	0	32	13	0	0	0	301
7:15 AM	11	109	0	24	125	9	0	33	18	0	0	0	329
7:30 AM	24	138	0	23	159	27	0	27	22	0	0	0	420
7:45 AM	24	156	0	23	175	20	0	33	21	0	0	0	452
8:00 AM	19	144	0	34	148	19	0	26	22	0	0	0	412
8:15 AM	23	133	0	36	160	16	0	39	20	0	0	0	427
8:30 AM	20	142	0	25	144	17	0	38	28	0	0	0	414
8:45 AM	28	42	0	38	128	27	0	17	43	0	0	0	323
9:00 AM	27	93	0	50	132	14	0	39	18	0	0	0	373
9:15 AM	18	67	0	48	106	16	0	34	20	0	0	0	309
9:30 AM	13	58	0	46	121	17	0	41	12	0	0	0	308
9:45 AM	20	61	0	46	128	13	0	39	26	0	0	0	333
4:00 PM	33	75	0	58	151	16	0	77	25	0	0	0	435
4:15 PM	35	64	0	71	140	15	0	57	29	0	0	0	411
4:30 PM	25	54	0	95	126	19	0	66	29	0	0	0	414
4:45 PM	22	80	0	89	180	22	0	91	44	0	0	0	528
5:00 PM	20	67	0	97	132	20	0	73	37	0	0	0	446
5:15 PM	19	77	0	81	160	25	0	81	46	0	0	0	489
5:30 PM	28	55	0	74	154	26	0	77	53	0	0	0	467
5:45 PM	11	69	0	99	149	24	0	80	29	0	0	0	461
6:00 PM	20	54	0	110	149	35	0	78	22	0	0	0	468
6:15 PM	17	63	0	113	134	19	0	68	30	0	0	0	444
6:30 PM	20	55	0	73	116	14	0	49	21	0	0	0	348
6:45 PM	13	57	0	66	69	9	0	68	23	0	0	0	305

Source: CDOT Turning Movement Count (2/21/2008)

Existing Traffic Pattern at North Davidson BOD Facility

CATS conducted a survey of their employee's arrival/ departure pattern and bus operations at the existing North Davidson BOD Facility during the month of March 2009. **Table 2** summarizes the result from that survey. It shows that on a topical day approximately 800 trips enter and exit the existing North Davidson BOD Facility. Based on the survey, the heaviest arrival/ departures at the facility are between 5:00-6:00 in the morning and 6:00-7:00 in the afternoon.

Table 2: Existing BOD Facility Arrival/ Departure Survey

		Employee Operators		Bus Operations		Technology Employees		BOD non-drivers		Total Daily		
Start	End	Out	In	Out	In	Out	In	Out	In	Out	In	Total
12:00 AM	1:00 AM	4	1		2					4	3	7
1:00 AM	2:00 AM	7			7					7	7	14
2:00 AM	3:00 AM	10			8			1	2	11	10	21
3:00 AM	4:00 AM									0	0	0
4:00 AM	5:00 AM		13	11					1	11	14	25
5:00 AM	6:00 AM		42	42						42	42	84
6:00 AM	7:00 AM		23	32						32	23	55
7:00 AM	8:00 AM	3	9	9	3	1	11	0	4	13	27	40
8:00 AM	9:00 AM	15	1	0	22	4	2	0	0	19	25	44
9:00 AM	10:00 AM	12	10		12		2	1	1	13	25	38
10:00 AM	11:00 AM	16	8		1					16	9	25
11:00 AM	12:00 PM	13	10	5	1	6	2	2		26	13	39
12:00 PM	1:00 PM	8	8	1	1	6	6			15	15	30
1:00 PM	2:00 PM	17	17	1	4	3	6			21	27	48
2:00 PM	3:00 PM	10	13	3						13	13	26
3:00 PM	4:00 PM	13	37	16			3			29	40	69
4:00 PM	5:00 PM	9	12	15	1	15	2	4	0	43	15	58
5:00 PM	6:00 PM	5	8	8	8	0	0	1	0	14	16	30
6:00 PM	7:00 PM	27	4		40				1	27	45	72
7:00 PM	8:00 PM	15			18					15	18	33
8:00 PM	9:00 PM	9	1	1	4					10	5	15
9:00 PM	10:00 PM	6	1		6					6	7	13
10:00 PM	11:00 PM	8			3					8	3	11
11:00 PM	12:00 AM	7			3					7	3	10
24-hour Total		214	218	144	144	35	34	9	9	402	405	807

Existing Traffic Pattern at STS Facility

CATS also conducted a survey of their employee's arrival/ departure pattern and STS bus operations at the STS facility during the month of March 2009. **Table 3** summarizes the result from that survey. STS currently operates 83 buses. Survey shows that between 6:00-7:00 in the morning it generates a total of 65 trips and almost the same amount between 3:00-4:00 in the afternoon. Therefore, it is important to note that the arrival/ departure peak at the STS facility is different from the peak observed at the maintenance facility and also the peak of the traffic count data.

Future Trip Estimates

CATS provided programmed quantities of parking spaces for the North Davidson BOD Facility. These figures represent the anticipated parking capacity needed for employees, bus fleets, visitors, and maintenance vehicles. This data was used to estimate future trips associated with the North Davidson BOD Facility, which includes the STS within the new facility.

Prior to 2005, all CATS buses were serviced and managed out of the North Davidson BOD Facility. The facility was designed for a capacity of 200 buses, but at that time the facility was operating over capacity with 269 buses which required overflow parking for employees. Opening of the South Tryon Facility in 2005 allowed CATS to move a large share of its buses to the new facility and relieve the burden on the North Davidson BOD Facility. However, anticipated growth in transit ridership and CATS expansion plan for the future will require full utilization of both of these facilities. Also, currently the STS vehicles are stored at a remote parking lot east of Uptown Charlotte. Relocating the STS fleet to North Davidson Street site will greatly improve the operation and maintenance of these vehicles. Therefore, future trip estimate assumes that the proposed North Davidson BOD Facility renovation and expansion will be utilized to its capacity of servicing 200 buses and providing 326 parking spaces for employees.

Trip Generation

Trip generation for the expansion of the North Davidson BOD Facility was developed by BOD staff based on current plans for the facility expansion. It should be noted that the traffic volumes generated by the North Davidson BOD Facility arrive and depart the site at predominantly off-peak periods. Maintenance employees work split shifts, primarily between 7AM and 3PM. Bus traffic also departs/arrives during off-peak periods, because the vehicles are in service during peak commuting periods. Therefore, the proposed site is not expected to create congestion along East 12th Street or North Davidson Street during traditional peak driving periods.

Table 3: Existing STS Facility Arrival/ Departure Survey

			Number of Cars [1]								
	Number of Buses		Administration		Maintenance		Transportation		Total Trips		
Time	Out	In	Out	In	Out	In	Out	In	Out	In	Total
2400 - 0100	0	2	0	0	0	0	2	0	2	2	4
0100 - 0200	0	2	0	0	0	0	5	0	5	2	7
0200 - 0300	0	0	0	0	0	0	0	0	0	0	0
0300 - 0400	0	0	0	0	0	0	0	0	0	0	0
0400 - 0500	0	0	0	1	0	0	0	1	0	2	2
0500 - 0600	8	0	0	0	0	0	0	9	8	9	17
0600 - 0700	30	0	0	4	0	0	0	31	30	35	65
0700 - 0715	5	0	0	0	0	0	0	6	5	6	11
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	2	0	0	2	0	0	0	10	2	12	14
0815 - 0830	0	0	0	0	0	0	0	0	0	0	0
0830 - 0845	0	0	0	0	0	0	0	0	0	0	0
0845 - 0900	0	0	0	0	0	0	0	0	0	0	0
0900 - 1000	18	2	0	0	0	0	4	21	22	23	45
1000 - 1100	2	6	0	0	0	0	6	3	8	9	17
1100 - 1200	1	5	0	0	0	0	5	2	6	7	13
1200 - 1300	2	0	0	0	0	0	0	2	2	2	4
1300 - 1400	0	0	1	0	0	0	1	0	2	0	2
1400 - 1500	6	0	0	0	0	0	1	6	7	6	13
1500 - 1600	4	29	0	0	0	0	26	5	30	34	64
1600 - 1615	0	4	4	0	0	0	5	0	9	4	13
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0
1700 - 1715	1	0	2	0	0	0	10	1	13	1	14
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	2	0	0	0	0	0	0	2	2	2	4
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0
1800 - 1900	1	27	0	0	0	0	28	1	29	28	57
1900 - 2000	1	2	0	0	0	0	3	1	4	3	7
2000 - 2100	0	1	0	0	0	0	2	0	2	1	3
2100 - 2200	0	1	0	0	0	0	1	0	1	1	2
2200 - 2300	0	1	0	0	0	0	1	0	1	1	2
2300 - 2400	0	1	0	0	0	0	1	0	1	1	2
24-Hour Total	**83**	**83**	**7**	**7**	**0**	**0**	**101**	**101**	**191**	**191**	**382**

[1] Not including visitors at five per hour from 0830 to 1600 hours; these numbers do not include trainees

Trip Distribution and Assignment

The predominant movement for buses to/from the site would use North Davidson Street towards Uptown Charlotte and the Charlotte Transportation Center (estimated at 90 percent). Maintenance and administrative staff would be more equally distributed in both directions on North Davidson Street. Site traffic trip assignments were made by applying forecast site trips to the roadway system according to the trip distribution percentages.

Level of Service Analysis

Criteria for the Level of Service (LOS) analysis for signalized and un-signalized intersections were determined utilizing Synchro 7 and Highway Capacity Manual (HCM) methodology. HCM standards use LOS "D" as a measure of acceptable operating conditions at signalized intersections in urban areas during the peak hour. LOS "E" is generally considered acceptable at un-signalized intersection locations during peak periods if only the side street encounters delay.

Existing 2009 Level of Service Analysis

For existing year 2009 analysis, traffic volumes at both analyzed intersections were determined by growing the existing 2008 traffic volumes by an annual growth rate of 3 percent for one year. An intersection level of service (LOS) analysis was performed using HCM methodology. **Table 4** provides the LOS operations for 2009 traffic conditions, Future No-Build, and Future Build scenarios.

1) The AM Bus peak travel period (6:00 to 7:00 AM)
2) The AM peak travel period (7:30 to 8:30 AM)
3) The PM peak travel period (4:45-5:45 PM)
4) The PM Bus peak travel period (6:00-7:00 PM)

Future Year (2025) Level of Service Analysis

A LOS analysis was performed using 2025 traffic volumes obtained by growing existing 2008 Turning Movement counts 3 percent annually for 17 years. This worst case scenario analysis assumes a 51-percent growth in volumes at East 12th Street and North Davidson Street during both peak periods. As mentioned earlier, peak arrival/ departures at North Davidson Street and STS does not coincide with the hour based on the traffic counts taken at East 12th Street and North Davidson Street. Therefore, renovation and expansion of the existing North Davidson BOD Facility has very minimal impact on traffic. NOTE: The poor LOS and Delay at East 12th Street at North Davidson Street is caused by the 51% growth in background traffic and is not related to the traffic volumes generated by the site. The applied growth rate is not a prediction or anticipation of future traffic volumes, only a what-if scenario. The poor LOS and Delay at Linden Lane at North Davidson Street is caused by control delay of the

Stop sign on Linden Lane and associated gap acceptance (driver behavior). The LOS analysis results are summarized in **Table 4.**

Table 4: Existing 2009 and 2025 Intersection LOS Analysis

	AM Peak			PM Peak		
Intersection	Existing 2009	2025 No-Build	2025 Build	Existing 2009	2025 No-Build	2025 Build
East 12th Street at North Davidson Street	33.0 – C	109.8 – F	111.9 – F	18.4 – B	54.9 – E	56.5 – E
Linden Lane at North Davidson Street	0.0 – A*	0.0 – A*	57.4 – F*	0.0 – A*	0.0 – A*	58.2 – F*
East 12th Street at North Alexander Street	0.0 – A	0.0 – A	0.0 – A	0.0 – A	0.0 – A	0.3 – A

Legend: 00.0 – A = intersection delay and LOS. * Unsignalized Intersection: LOS and Delay shown for worse approach.

Signal Warrants Analysis

A signal warrants analysis was performed for the North Davidson Street/Linden Lane and the East 12th Street/North Alexander Street intersections using the Manual of Uniform Traffic Control Devices (MUTCD) methodology. None of the eleven traffic signal warrants in the MUTCD are met under current or future volume scenarios. The side street volumes are not sufficient to meet minimum volume warrants and the North Davidson BOD Facility volumes are greatest during off-peak periods on North Davidson Street.

Traffic Summary

The LOS analysis shows that the impacts of the proposed North Davidson BOD Facility expansion are minimal, adding only 1 percent and 2 percent delay to the AM and PM 2025 Future Build scenarios, respectively. The traffic generated by the North Davidson BOD Facility will arrive and depart the site at predominantly off-peak periods. Therefore, the proposed site is not expected to appreciably impact congestion on East 12th Street or North Davidson Street during traditional peak travel periods.

Parking

The proposed project will create 540 on-site parking spaces for North Davidson BOD Facility employees and visitors. No existing parking spaces will be lost by the construction of this project, and the project will not require on-street parking or parking on off-site locations.

APPENDIX C: Wetlands Analysis Memorandum

Wetlands Analysis Memorandum

A wetlands analysis was conducted by PB Americas, Inc on March 16, 2009 for this project and includes any wetlands associated with the renovation and expansion of the existing North Davidson BOD Facility as well as the relocation of the STS facility.

The United States Army Corps of Engineers (USACE) is the lead agency for making jurisdictional determinations for freshwater wetlands and waters of the U.S. within Mecklenburg County, North Carolina. Section 404 of the U.S. Clean Water Act (CWA) of 1977 requires the USACE to use the procedures and criteria enumerated in the *1987 U.S. Army Corps of Engineers Wetlands Delineation Manual (1987 Corps Manual)* in making jurisdictional determinations (Environmental Laboratory, 1987). Wetlands are defined in the 1987 Corps Manual and by the U.S. Environmental Protection Agency (USEPA) as:

> *... areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*

Pursuant to 33 CFR 328 (Section 328.3), waters of the U.S. (which also includes wetlands), as it is applied to the jurisdiction limits of authority of USACE under the U.S. Clean Water Act of 1977, is defined as:

1. *All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*

2. *All interstate waters including interstate wetlands;*

3. *All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:*

    i. *Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*

    ii. *From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or*

    iii. *Which are used or could be used for industrial purpose by industries in interstate commerce;*

4. *All impoundments of waters otherwise defined as waters of the United States under the definition;*

5. *Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;*

6. *The territorial seas;*

7. *Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition), are not waters of the United States.*

8. *Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.*

Additionally, two (2) recent U.S. Supreme Court decisions have limited the jurisdiction which USACE can exert over areas that meet the definition of wetlands or waters of the U.S. according to the *Corps Manual.* The first of these decisions, issued in 2001, was the *Solid Waste Agency of Northern Cook County v. US Army Corps of Engineers* (SWANCC). This ruling held that the USACE does not have jurisdiction over wetlands or waters of the U.S. that are not surface water tributaries of other wetlands or waters of the U.S., based solely upon its Migratory Bird Rule (MBR). As a result of this decision, the USACE has issued guidance to its field offices not to assert jurisdiction over these isolated wetlands or waters of the US unless a clear link to interstate commerce is present.

The second such Supreme Court decision, issued in 2006, was regarding the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (Rapanos). This ruling held that the USACE can only assert jurisdiction over Traditional Navigable Waters (TNW) and their associated wetlands, as well as relatively permanently flowing tributaries of TNWs and their adjacent wetlands, or over those tributaries and associated wetlands that possess a significant nexus to the TNWs to which it eventually flows. As a result of this ruling, the U.S. Environmental Protection Agency (USEPA) and USACE have issued various guidance documents to their field offices regarding how and when to conduct analyses of tributaries of TNWs to determine whether they contain either relatively permanent flows or a significant nexus to downstream TNWs.

The various guidance documents are summarized in a publication entitled U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional

Guidebook (JD Guidebook) (USACE and USEPA, 2007). According to this guidebook, among the classes of water bodies subject to Federal CWA jurisdiction are:

- TNWs;
- All wetlands adjacent to TNWs;
- Non-navigable tributaries of TNWs that are relatively permanent (i.e. tributaries that typically flow year-round or have continuous flow at least seasonally; and
- Wetlands that directly abut such relatively permanently tributaries.

Federal CWA jurisdiction also covers the following classes of waters when a fact-specific analysis determines that those waters have a significant nexus with a TNW:

- Non-navigable tributaries that do not typically flow year-round or have continuous flow at least seasonally;
- Wetlands adjacent to such tributaries; and
- Wetlands adjacent to, but that do not directly abut a relatively permanent non-navigable tributary.

A significant nexus exists if the tributary, together with its adjacent wetlands, ahs more than an insubstantial or speculative effect on the chemical, physical, and/or biological integrity of the downstream TNW. Principal considerations when evaluating significant nexus include the volume, duration, and frequency of the flow of water in the tributary and the proximity of the tributary to a TNW, plus the functions performed by the tributary and all of its adjacent wetlands.

The USACE has developed a Significant Nexus Checklist for use in determining whether a significant nexus exists between a tributary of a TNW that does not have relatively permanent flow and the downstream TNW. It has also developed a new Jurisdictional Determination (JD) form for its use in determining whether it can assert jurisdiction over watercourses and associated wetlands, taking into consideration the SWANCC and Rapanos decisions.

Furthermore, pursuant to the North Carolina Environmental Management Commission T15A:02H.1300 et. seq., North Carolina extended its wetlands rules to "isolated" wetlands by promulgating "isolated" wetland rules that became effective on a permanent basis on 1 April 2003. Any discharge into an isolated wetland must be authorized by DWQ.

No wetlands were identified on the two parcels associated with the North Davidson BOD Facility Renovation and Expansion. The parcel associated with the proposed STS Facility relocation is a vacant lot with a maintained/landscaped upland field community with scattered woody vegetation including ornamental

hollies (*Ilex spp.)* and two large willow oaks (*Quercus phellos*). A fringe of forested uplands is located on the southern portion of the property. A small isolated wetland, approximately 0.01-acre in size, is located on the northeastern portion of the parcel, at the toe-of-slope of an embankment. This system is supported primarily by runoff collected from adjacent roadways and groundwater seepage from the adjacent slope. Dominant vegetation observed included soft rush (*Juncus effusus*). Soils exhibited characteristics of a low chroma matrix mineral soil. Indicators of wetland hydrology observed included soil saturation and wetland drainage patters.

No significant nexus exists between this isolated wetland and Little Sugar Creek. Therefore, this wetland would likely not be considered jurisdictional by USACE under the CWA. However, the proposed STS Facility project would require the issuance of Isolated Wetland Permit by DWQ. The proposed project would impact approximately 0.01-acre of wetlands; therefore, no compensatory wetland mitigation would be required.

APPENDIX D: Hazardous Materials Phase I ESA Summary

PHASE 1
ENVIRONMENTAL SITE ASSESSMENT
N. DAVIDSON STREET PROPERTY
CHARLOTTE, NORTH CAROLINA
S&ME PROJECT NO. 1354-09-024

Prepared For:
The City of Charlotte
Engineering and Property Management
600 East 4th Street
Charlotte, North Carolina 28202-2844

Prepared By:

S&ME
9751 Southern Pine Boulevard
Charlotte, North Carolina 28273

April 15, 2009

1 SUMMARY

S&ME has performed a Phase I Environmental Site Assessment (ESA) of approximate 7-acre property that encompasses two Mecklenburg County Tax parcels. These parcels are located on the south side of North Davidson Street and east of East 12th Street. The subject site (Mecklenburg County Tax Parcel Nos. 081-087-01 containing 3.36-acres and 081-086-07 containing 3.65-acres) is located in uptown Charlotte, Mecklenburg County, North Carolina. This Phase I ESA was authorized by Mr. David Wolfe with the City of Charlotte Engineering and Property Management. The following summary is intended as an overview of the Phase I ESA, and does not include the complete findings and opinions of the full report.

The subject property is located in the eastern quadrant of the intersection of North Davidson Street and East 12th Street. The subject site has postal addresses of 914 North Davidson Street and 910 North Alexander Street. The portion of the subject site fronting North Davidson Street is developed with a multi-story building constructed around 1985 with associated concrete and asphalt-paving located in the north and south sides of the property, respectively. The southern portion of the site is vacant and consists of grass-covered land and woodland with remnants of the former Alexander Street School and asphalt-paving located in the northern, central and southern portions of the site. North Alexander Street bisects the subject site in half.

A review of Fire Insurance Maps (Sanborn Maps) revealed a portion of the subject property was formerly developed with the Alexander Street School which operated from at least 1929 until 1976 (date of deed reference). The Sanborn Map review revealed the remaining portions of the subject site being residential development.

Based on the Sanborn Maps, property immediately surrounding the subject site also consisted of mostly residential development, except for property to the east. This property was developed with the Avant's Fuel and Ice Company.

Review of historical aerial photographs revealed that the subject site appeared very similar to the Sanborn Map review in that the subject site consisted of mostly residential development with the Alexander Street School from at least 1938 until the Transit Maintenance Operations No. 2 (TMO #2) was constructed.

Mr. Curtis Helms, Jr. performed the site reconnaissance for the property on April 8, 2009. The exterior reconnaissance confirmed that the subject site is developed with the CATS maintenance facility, with evidences of monitoring wells, three underground storage tanks [(I) 10,000-gallon transmission fluid, (1) 10,000-gallon motor oil, and (1) 20,000-gallon fuel oil], one oil/water separator, one stormceptor, and a pad-mounted transformer. The pad-mounted transformer appeared in good condition with no evidence of leakage. The exterior reconnaissance revealed typical *de minimis* staining on the asphalt-parking lot. The reconnaissance also confirmed that the vacant parcel is currently grass-covered with remnants of the former Alexander Street School (demolished brick, concrete and asphalt-paved parking lots). The exterior observation for the vacant parcel did not reveal any evidence of spills, stressed vegetation, buried waste, underground or above ground

storage tanks, subsidence, transformers, or unusual soil discoloration which may indicate the possible presence of contaminants on the properties.

On April 8, 2009, Mr. Curtis Helms, Jr. along with Mr. Doug Pierotti were accompanied by Mr. Mark Maletz, the Service Manager with CATS during the interior reconnaissance. The interior revealed a total of sixteen (16) bays, fourteen (14) of which are service bays, one (1) dynamometer room, and one (1) wash bay. The dynamometer bay has not been used for several years because of the outdated equipment. The wash bay is utilized to clean the busses and engines. The remaining 14 bays contain hydraulic lifts fed by seven (7) hydraulic reservoirs. Piping from each hydraulic reservoir runs underground to the lifts. Most hydraulic lifts revealed evidence of leakage within the vaults.

Adjacent to the wash bay is the floor chemical storage area that houses the floor cleaning equipment, floor cleaning chemicals, and a "catch all" floor grate that is periodically pumped by Haz-Mat. There is evidence of spillage from the chemicals storage reservoir. Each service bay has access to transmission fluid, motor oil, gear oil, and grease for typical maintenance through hoses from the lube room that hang from the ceiling. The battery storage room did not contain a floor drain but it did have an exhaust fan to evacuate fumes. There is one (1) bay with a pit utilized for a quick check of squeaking brakes, leaks, and vibrations. Located on the western side of the building is the paint storage room and paint booth. The paint booth is used infrequently and for small jobs. There is a floor drain within the paint booth and Mr. Maletz believes it drains into the oil/water separator. The interior reconnaissance revealed several secured caged areas containing tools, and tool boxes, diesel fuel storage tank, batteries, and miscellaneous maintenance items.

The interior reconnaissance revealed multiple floor drains throughout the building. Mr. Mark Maletz is unaware of their destination but believes that they flow into the oil/water separator. Additionally, there are several closed loop parts washers that are maintained and, if necessary, emptied by Haz-Mat. Located in the center of the building is the parts storage room and above the parts storage room is a mezzanine utilized for miscellaneous storage. There was no evidence of hazardous substance or petroleum product storage within the mezzanine. Access to the individual floors is by a hydraulic operated elevator. The hydraulic reservoir for the elevator appeared in good condition, with only evidence of *de minimis* spillage or leakage. The lube room contained multiple 55-gallon drums of oils, transmission fluids, and gear oils. Staining was observed on the concrete floor along with a floor drain located adjacent to the fluid transfer station. The interior reconnaissance also revealed an area for empty and full gas cylinders. The interior reconnaissance included the furnace room and generator room. The furnace had a metal pipe exiting the top of the furnace that flows to a floor drain presumably for the discharge of condensate. The back-up generator is fired by fuel oil (exterior UST) and did not reveal any evidence of leakage.

The public record review, including the EDR Radius Map Report, identified multiple sites located within the ASTM specified search radii that have records pertaining to hazardous substances or petroleum products. The EDR Report identified the following:

one CERCLIS, one CERCLIS-NFRAP, one Resource Conservation and Recovery Act-Large Quantity Generator of Hazardous Waste (RCRA-LQG), one North Carolina Hazardous Substance Disposal Site (NC-HSDS), one Dry Cleaners, one Manufactured Gas Plant, two Resource Conservation and Recovery Act-Small Quantity Generator of Hazardous Waste (RCRA-SQG), two Resource Conservation and Recovery Act-Non Generator of Hazardous Waste (RCRA-NonGen), two State Hazardous Waste Sites (SHWS), two Above Ground Storage Tank Sites (AST) two Brownfield Sites, three Leaking Underground Storage Tank Sites-Trust Fund (LUST-TRUST), ten EDR Historical Auto Stations, eleven Registered Underground Storage Tank Sites (UST), eleven EDR Historical Cleaners, thirteen Leaking Underground Storage Tank Sites (LUST), and thirteen Incident Management Database Sites (IMD).

The subject site was not identified within the EDR Radius Map Report, however, the subject site does have monitoring wells that are associated with a removed waste oil UST and a closed-in-place fuel oil UST. The waste oil UST was associated with an incident (incident # 18399) with limited soil and groundwater contamination. The incident was closed by the NCDENR with a Notice of No Further Action-dated August 1998. The fuel oil UST was reportedly closed in place with a Notice of No Further Action also dated August 1998.

The EDR Orphan Summary List was reviewed and did not reveal any apparent facilities located within the ASTM specified search radii.

The Mecklenburg County Emergency Management Department was contacted, via facsimile regarding any emergency or HAZMAT type responses which may have affected the soil and/or groundwater quality at a site or adjacent to the site. To date, S&ME has not received a response.

Based on the results of this Phase I ESA, S&ME found no evidence of *recognized environmental conditions* in connection with the subject property except for:

1. **The adjoining Transit Maintenance Operations No. 1 incident because groundwater flow toward the southeast, which may impact the northeast corner of the Transit Maintenance Operations No.2 property.**
2. **The floor drains because the wash down fluids contain petroleum products that pose a material threat to impact the subsurface;**
3. **The piping for the eight hydraulic reservoirs and associated underground piping because they represent a material threat of release of hydraulic fluid to the subsurface; and**
4. **The three underground storage tanks and oil/water separator because of their material threat to release hazardous substances or petroleum products in to the subsurface.**

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