

3 EXISTING ENVIRONMENT AND ANALYSIS OF IMPACTS

3.1 PHYSICAL RESOURCES

3.1.1 *Traffic, Parking and Circulation*

3.1.1.1 *Existing Conditions*

The purpose of this traffic evaluation is to assess the traffic impact of the proposed Litchfield Judicial District Courthouse development in Torrington, Connecticut. Three conceptual design plans of the courthouse development are currently under review. The three proposed site locations are located in the southeast section of the City of Torrington, in vicinity of the Center Business District (CBD) area. The three site locations and the intersections studied are presented in Figure 3-1.

The scope of work involved in the preparation of this traffic analysis includes:

- Conducting manual turning movement counts at twenty-seven intersections and placing Automatic Traffic Recorders (ATRs) at eight locations.
- Making visual observations of the surrounding area.
- Obtaining data pertaining to the physical characteristics of the roadways and signalized intersections.
- Discussions with City of Torrington and Connecticut Department of Transportation (DOT) Staff.

Throughout this report, many terms unique to traffic engineering are used. Below are definitions of several of the most common terms.

Trip is a one-way movement to or from a site. One car entering and leaving site constitutes two trips.

Traffic Generation is the actual number of vehicle movements which may reasonably be expected to be attracted by a specific development. Usually traffic generation is expressed as a number of trips.

Average Weekday Trip Generation is the total traffic generation of a development on a typical working weekday.

Peak Hourly Generation is traffic generation which may be anticipated during the highest volume hour for the particular development. This analysis parameter may vary as to the time of day, depending on the type of facility being proposed.

Figure 3-1

Capacity and Level of Service are terms utilized to describe the ability of a roadway to handle its traffic assignment.

Capacity is defined as the maximum volume of vehicles which may be expected to be carried by a specific roadway or intersection at a given Level of Service. The typical unit of capacity is vehicles per hour.

Level of Service (LOS) is a measure of the quality of flow and overall congestion on a particular section of road or at a specific intersection.

v/c (volume to capacity) Ratio is a ratio of the volume of traffic using an intersection to the total capacity of the intersection (the maximum number of vehicles that can utilize the intersection during an hour). As the v/c ratio approaches 1.0, the intersection nears capacity and it may become impossible to accommodate all the vehicles attempting to travel through the intersection.

Levels of Service (LOS) are defined in the *Highway Capacity Manual 2000 of the Transportation Research Board, National Research Council, 2000*. LOS ratings are classified by letters from A to F, and are as follows in Table 3-1:

Table 3-1. LOS Ratings.

Rating	Description	Traffic
A	Free Flow	Drivers feel no restrictions.
B	Stable Flow	Drivers feel some restrictions.
C	Stable Flow	Drivers somewhat restricted, but not objectionably so.
D	Approaching Unstable Flow	Increased restriction and congestion.
E	Capacity	Substantial restriction, serious delays.
F	Forced Flow	Stop and go conditions, extreme delays.

The regional approach routes to each site location are from Route 8, Route 4, and Route 202. As traffic approaches the various sites, the local roadway corridors that would carry majority of traffic to and from each site include: Migeon Avenue/Water Street, Prospect Street, Route 800 (Main Street), Route 202, East Albert Street, and Harwinton Avenue # 2.

Migeon Avenue and Water Street are both classified as minor arterial roadways by the DOT. Migeon Avenue is a north-south roadway, while Water Street runs in an east-west direction. The roadway changes names at the intersection with Church Street, a local roadway, and provides a single lane in each direction within the corridor. Migeon

Avenue intersects with Forest Street and Pearl Street/Hotchkiss Place at unsignalized intersections. To the east, Water Street intersects with John Street at an unsignalized intersection and terminates at the Route 800 (Main Street)/Route 202 signalized intersection. Water Street at John Street has a stop sign on the John Street approach and on-street parking is available at all three approaches of the intersection. John Street primarily has commercial and retail land uses.

Prospect Street is aligned in a north-south direction and classified as a major collector roadway by the DOT. Prospect Street provides major connections to Route 4, where it turns to the north, and Route 202, to the south, where it terminates. Prospect Street provides a single lane in each direction and has a posted speed limit of 25 miles per hour (mph). On-street parking is allowed on both sides of Prospect Street within the corridor. Prospect Street, in vicinity of the study area, predominately consists of residential land uses and has an institutional development. Study area intersections along Prospect Street include the following locations:

- Forest Street unsignalized intersection,
- Clark Street unsignalized intersection,
- Pearl Street signalized intersection,
- Church Street signalized intersection,
- Mason Street signalized intersection, and
- Water Street signalized intersection.

Route 800 (Main Street) is aligned in a north-south direction and classified as a principal arterial roadway by DOT. Route 800 (Main Street) runs throughout the length of the city and crosses through the CBD area in the City of Torrington. Route 800 (Main Street) provides major connection points at Route 8, Route 4, and Route 202. Route 800 (Main Street) is a two-lane roadway that provides turning lanes at key intersection locations. Route 800 (Main Street) has abundant on-street parking on both sides of the roadway within the study area and has a posted speed of 25 mph. The Route 800 (Main Street) corridor contains a mixture of commercial, retail, residential, institutional, and office land uses. Study area intersections along Route 800 (Main Street) include the following locations:

- Prospect Place signalized intersection,
- Pearl Street/East Pearl Street signalized intersection,
- Church Street signalized intersection,
- Mason Street/City Hall Avenue signalized intersection,
- Water Street/Route 202 (East Main Street) signalized intersection,
- Route 202 (Litchfield Street) signalized intersection, and
- Albert Street/East Albert Street signalized intersection.

Route 202 (East Main Street) is aligned in a northeast-southwest direction and classified as a principal arterial roadway by the DOT. Route 202 (East Main Street) is a four-lane roadway (two lanes in each directions) and has turn lanes at key intersection locations within the corridor. The Route 202 (East Main Street) corridor contains a mixture of

commercial, retail, institutional, and office land uses within the study area. Route 202 (East Main Street) intersects with two intersections within the study area, at Route 800 (Main Street), described above, and at Center Street. Route 202 (East Main Street) at Center Street is a signalized T-intersection providing a single lane at each approach. Center Street is classified as a local roadway.

Harwinton Avenue # 2 is classified as a collector roadway and intersects with the Route 8 northbound on-ramp and off-ramp at unsignalized intersections. Harwinton Avenue # 2 has a posted speed limit of 30 mph. The northbound approach of Harwinton Avenue # 2 at the Route 8 northbound on-ramp intersection has a wide roadway width, which provides a defacto left turn lane. The Harwinton Avenue # 2 at Route 8 northbound off ramp intersection provides a single lane at each approach.

Depending on which site is chosen for the courthouse, different groups of local streets would be affected by the traffic generated by the new development.

3.1.1.2 Impact Evaluation

A total of 27 intersections were analyzed as part of the study area. Turning movement counts were conducted during the weekday morning and afternoon peak periods in June, July, and August 2005 at the following intersection locations (Figure 3-1):

1. Route 800 (Main Street) at Prospect Place,
2. Route 800 (Main Street) at Pearl Street/East Pearl Street,
3. Route 800 (Main Street) at Church Street,
4. Route 800 (Main Street) at Mason Street/City Hall Avenue,
5. Route 800 (Main Street) at Water Street/Route 202 (East Main Street),
6. Route 800 (Main Street) at Route 202 (Litchfield Street),
7. Route 800 (South Main Street) at Albert Street/East Albert Street,
8. Prospect Street at Forest Street,
9. Prospect Street at Clark Street,
10. Prospect Street at Pearl Street,
11. Prospect Street at Church Street,
12. Prospect Street at Mason Street,
13. Prospect Street at Water Street,
14. Field Street at Forest Street,
15. Field Street at Clark Street,
16. Field Street at Pearl Street,
17. Water Street at John Street,
18. Migeon Avenue at Forest Street,
19. Migeon Avenue at Pearl Street/Hotchkiss Place,
20. Water Street at Church Street,
21. Route 202 (East Main Street) at Center Street,
22. Franklin Street at Franklin Drive,
23. East Albert Street at Franklin Drive/Oak Avenue,
24. Harwinton Avenue at Laurel Hill Road,
25. Harwinton Avenue at East Albert Street,

- 26. Harwinton Avenue # 2 at Route 8 NB On-Ramp, and
- 27. Harwinton Avenue # 2 at Route 8 NB Off-Ramp.

The peak hour volumes for each of the intersections are summarized in a traffic flow diagram presented in Appendix D.

Capacity analyses were conducted for the signalized and unsignalized intersections using Synchro Professional Software, version 6.0, according to the methods described in the *2000 Highway Capacity Manual*, published by the Transportation Research Board (TRB). Analyses were conducted for the Existing and No-Build conditions.

Existing Conditions: Turning movement counts were conducted at study area intersections during the weekday morning and afternoon peak periods in Year 2005.

No-Build: Upon consultation with the DOT, the Year 2005 existing traffic volumes were projected to the 2010-design year using a 1.5% per year growth factor to account for normal growth in traffic within the study area. These projected volumes represent the 2010 No-Build traffic volumes, which are defined as design year traffic without the proposed courthouse development.

For the 2010 Build scenario, courthouse-generated traffic was added to the 2010 No-Build traffic to arrive at a combined traffic condition. The assumptions for vehicular trip generation and distribution are discussed below.

The impact of the proposed courthouse is determined by calculating the number of trips that are expected to be generated by the development and subsequently assigning the trips to the surrounding roadway system. The trip generation rates represent the number of trips expected to be added to the roadway during the peak hour of the adjacent street. The Institute of Transportation Engineers (ITE) *Trip Generation, 7th Edition* (2003) contains trip generation rates for Government Office Complexes (Land Use No. 733), and are available for two independent variables (gross SF of floor area and number of employees). For this study, it is more reliable to use the trip generation rates for employees, as standard trip generation rates for courthouses are not available. The total number of employees for the Litchfield Judicial District Courthouse development is approximately 297. The total number of jurors is approximately 105. Therefore, the total number of travelers to and from the courthouse would be 402. The arrival and departure times of these two groups differ; therefore the trip generation for courthouse employees versus jurors is calculated separately.

The number of trips expected to be generated by the courthouse is as follows:

- Morning Peak Hour @ 0.61 trips per employee (89% entering & 11% exiting)
- Afternoon Peak Hour @ 0.79 trips per employee (31% entering & 69% exiting)

The number of trips expected to be generated by the courthouse is as follows:

$$\text{Courthouse employees} = 297$$

Morning Peak Hour Entering - $297 \times 0.61 \times 0.89 = 161$ Vehicle Trips
Morning Peak Hour Exiting - $297 \times 0.61 \times 0.11 = 20$ Vehicle Trips

Afternoon Peak Hour Entering - $297 \times 0.79 \times 0.31 = 73$ Vehicle Trips
Afternoon Peak Hour Exiting - $297 \times 0.79 \times 0.69 = 162$ Vehicle Trips

Courthouse Jurors: 105 jurors would be called to the courthouse each day; it is assumed that 70% of jurors would arrive during the morning peak hour. It is expected that 73%, or 77 jurors, would be selected and remain at the courthouse; 70% of the selected jurors would leave the courthouse during the afternoon peak hour.

Morning Peak Hour Entering - $105 \times 0.70 = 74$ Vehicle Trips
Afternoon Peak Hour Exiting - $77 \times 0.70 = 54$ Vehicle Trips

The total trip generation from the courthouse development is:

Morning Peak Hour Entering - $161 + 74 = 235$ Vehicle Trips
Morning Peak Hour Exiting - $= 20$ Vehicle Trips

Afternoon Peak Hour Entering - $= 73$ Vehicle Trips
Afternoon Peak Hour Exiting - $162 + 54 = 216$ Vehicle Trips

The above figures indicate that the expected impact of the proposed Litchfield Judicial District Courthouse development is 235 vehicles entering and 20 vehicles exiting during the morning peak hour, and 73 vehicles entering and 216 vehicles exiting during the afternoon peak hour.

Local travel patterns to each proposed courthouse site were determined based on the geographical location of the courthouse and the local roadway network. The distributions for each of the proposed locations for the courthouse development are shown in separate traffic flow diagrams in Appendix D. The regional trip distribution for site generated traffic traveling to and from each proposed site is as follows:

- 5% from Route 4 eastbound approach,
- 10% from Route 4 westbound approach,
- 3% from Main Street northbound approach,
- 2% from Main Street southbound approach,
- 35% from Route 8 northbound approach,
- 15% from Route 8 southbound approach,
- 20% from Route 202 eastbound approach, and
- 10% from Route 202 westbound approach.

The number of trips and their distribution for each of the candidate sites are presented in Appendix D. Traffic flow diagrams for the Existing Conditions and 2010 No-Build conditions are also presented in Appendix D.

Tables 3-2 and 3-3 present the results of the capacity analyses for the 2005 Existing and 2010 No-Build Conditions, respectively. This exhibit indicates that all of the intersections would operate at LOS C or better during both the weekday morning and afternoon peak hours in both conditions, with the exception of Route 800 (Main Street) at Water Street/Route 202 (East Main Street), which operates at LOS F during the weekday afternoon peak hour during both the Existing and No-Build Conditions. The Route 800 (Main Street) at Water Street/Route 202 (East Main Street) intersection operates poorly during the weekday afternoon peak hour due to insufficient roadway capacity, indicated by a significantly high v/c (volume/capacity) ratio of 3.61 under background conditions.

3.1.1.3 The Timken Site

3.1.1.3.1 Existing Conditions

Courthouse development at the Timken site would influence traffic operations at the following unsignalized intersections along Field Street: Forest Street, Clark Street, and Pearl Street. All of these roadways are classified as local roads with the exception of Pearl Street, which is classified as a minor arterial roadway. Field Street at Forest Street is a four way stop controlled intersection with single lane approaches, and primarily contains residential developments in the surrounding area. The Forest Street eastbound approach has a moderate downhill grade of approximately 3 to 4%.

Field Street at Clark Street is a T-intersection and has a stop sign on the Clark Street approach. The primary land use in the general vicinity is office development. Field Street provides a single lane in each approach and Clark Street has a wide westbound approach providing defacto right and left turn lanes. The posted speed limit along Field Street is 25 mph.

Field Street at Pearl Street is a T-intersection and has a stop sign on the Field Street approach. Each intersection approach provides a single lane, and land uses along Pearl Street are primarily residential.

3.1.1.3.2 Impact Evaluation

The Timken site is located on Field Street between Forest Street, to the north, and Pearl Street, to the south. The proposed development would consist of a 117,000 SF, four-story courthouse. Two surface parking lots would be constructed onsite, the first containing parking spaces for staff and judges and the second larger lot with visitor parking spaces. Based on this conceptual plan, Clark Street would be closed off from Field Street to Clinton Street. A total of four access drives would intersect with Field Street providing access to both surface parking lots and the courthouse development.

Capacity analyses were conducted for the signalized and unsignalized intersections surrounding the Timken sites for the 2010 Build Condition.

**Table 3-2
Existing Levels of Service - All locations**

	AM LOS		PM LOS	
	Signalized Intersections	Unsignalized ⁽¹⁾ Intersections	Signalized Intersections	Unsignalized ⁽¹⁾ Intersections
Route 800 (Main Street) at Prospect Place	A		A	
Route 800 (Main Street) at Pearl Street/East Pearl Street	B		B	
Route 800 (Main Street) at Church Street	A		A	
Route 800 (Main Street) at Mason Street/City Hall Avenue	A		A	
Route 800 (Main Street) at Water Street/Route 202 (East Main Street)	C		F	
Route 800 (Main Street) at Route 202 (Litchfield Street)	C		C	
Route 800 (South Main Street) at Albert Street/East Albert Street	B		B	
Prospect Street at Forest Street		A		A
Prospect Street at Clark Street		A		A
Prospect Street at Pearl Street	A		A	
Prospect Street at Church Street	A		A	
Prospect Street at Mason Street	B		A	
Prospect Street at Water Street	B		B	
Field Street at Forest Street ⁽²⁾		A		A
Field Street at Clark Street		A		A
Field Street at Pearl Street		A		A
Water Street at John Street		A		A
Migeon Avenue at Forest Street		A		A
Migeon Avenue at Pearl Street/Hotchkiss Place		A		A
Water Street at Church Street	B		B	
Route 202 (East Main Street) at Center Street	A		A	
Franklin Street at Franklin Drive		A		A
East Albert Street at Oak Avenue ⁽²⁾		A		B
Harwinton Avenue at Laurel Hill Road ⁽²⁾		A		A
Harwinton Avenue at East Albert Street ⁽²⁾		A		C
Harwinton Avenue # 2 at Route 8 NB On-Ramp		A		A
Harwinton Avenue # 2 at Route 8 NB Off-Ramp		A		A

⁽¹⁾ Synchro Unsignalized Intersection ICU LOS

⁽²⁾ All Way Stop Intersection

**Table 3-3
Anticipated Levels of Service - 2010 Volumes - No build conditions - All locations**

	AM LOS		PM LOS	
	Signalized Intersections	Unsignalized ⁽¹⁾ Intersections	Signalized Intersections	Unsignalized ⁽¹⁾ Intersections
Route 800 (Main Street) at Prospect Place	A		A	
Route 800 (Main Street) at Pearl Street/East Pearl Street	B		B	
Route 800 (Main Street) at Church Street	A		A	
Route 800 (Main Street) at Mason Street/City Hall Avenue	A		A	
Route 800 (Main Street) at Water Street/Route 202 (East Main Street)	C		F	
Route 800 (Main Street) at Route 202 (Litchfield Street)	C		D	
Route 800 (South Main Street) at Albert Street/East Albert Street	B		C	
Prospect Street at Forest Street		A		A
Prospect Street at Clark Street		A		A
Prospect Street at Pearl Street	A		A	
Prospect Street at Church Street	B		A	
Prospect Street at Mason Street	B		A	
Prospect Street at Water Street	B		B	
Field Street at Forest Street ⁽²⁾		A		A
Field Street at Clark Street		A		A
Field Street at Pearl Street		A		A
Water Street at John Street		A		A
Migeon Avenue at Forest Street		A		A
Migeon Avenue at Pearl Street/Hotchkiss Place		A		B
Water Street at Church Street	B		B	
Route 202 (East Main Street) at Center Street	A		A	
Franklin Street at Franklin Drive		A		A
East Albert Street at Oak Avenue ⁽²⁾		B		B
Harwinton Avenue at Laurel Hill Road ⁽²⁾		A		A
Harwinton Avenue at East Albert Street ⁽²⁾		B		D
Harwinton Avenue # 2 at Route 8 NB On-Ramp		A		A
Harwinton Avenue # 2 at Route 8 NB Off-Ramp		A		A

⁽¹⁾ Synchro Unsignalized Intersection ICU LOS

⁽²⁾ All Way Stop Intersection

2010 Build Condition: The site generated traffic volumes were added to the 2010 No-Build volumes (without the proposed development) to yield the Year 2010 Combined traffic volumes (with the proposed development).

The anticipated 2010 Build traffic volumes are presented in Appendix D, sheet TFD-7.

Table 3-4 presents the results of the capacity analyses for the 2010 Build volumes assuming the court facility is constructed at the Timken site. This exhibit shows that all of the intersections affected would operate at an LOS C or better during both the morning and afternoon peak periods with the exception of: the intersection of Route 800 (Main Street) at Water Street/Route 202 (East Main Street), which would continue to operate at LOS F during the weekday afternoon peak hour.

For security and efficiency at the Timken site, the closure of Clark Street between Field Street and Clinton Street would be proposed. Clark Street has very low traffic volumes during the morning and afternoon peak hours. The closure of Clark Street would not significantly impact the residences on Clark Street, Clinton Street, or Munson Avenue. Pearl Street and Forest Street could both adequately serve any diverted trips due to the closure of Clark Street.

The City of Torrington is planning a major redevelopment of its downtown area, which would also make improvements to the roadway network in the downtown area. A separate EIE for the Downtown Redevelopment Plan is being prepared for the City by the DECD. The most significant changes to the roadway network under the Redevelopment Plan involves the conversion of Main Street and Prospect Street to one-way streets between Water Street and Pearl Street, with Main Street one-way northbound and Prospect Street one-way southbound.

The 2010 Combined traffic volumes (No-Build and Build) for the Timken site were adjusted to account for the proposed changes to the roadway network and capacity analyses performed. Table 3-5 presents the results of the analyses and shows that all of the intersections studied would operate at LOS D or better with the 2010 Build volumes distributed on the proposed roadway network. It should be noted that with the Redevelopment Plan roadway improvements in place, the Prospect Street/Mason Street intersection would worsen to LOS D. This is not due to the courthouse traffic; rather it is a consequence of the one-way recirculation plan proposed by the Redevelopment Plan.

3.1.1.3.3 Mitigation Measures

No significant impact to the roadway system is expected from a courthouse at the Timken site. Therefore, no offsite transportation improvements are warranted.

3.1.1.4 *The Nidec Site*

3.1.1.4.1 Existing Conditions

Courthouse development at the Nidec site would influence traffic operations at the following unsignalized intersection locations:

**Table 3-4
Anticipated Levels of Service - 2010 Volumes - Build conditions - Timken Site**

	AM LOS		PM LOS	
	Signalized Intersections	Unsignalized ⁽¹⁾ Intersections	Signalized Intersections	Unsignalized ⁽¹⁾ Intersections
Route 800 (Main Street) at Prospect Place	A		A	
Route 800 (Main Street) at Pearl Street/East Pearl Street	B		B	
Route 800 (Main Street) at Church Street	A		A	
Route 800 (Main Street) at Mason Street/City Hall Avenue	A		A	
Route 800 (Main Street) at Water Street/Route 202 (East Main Street)	C		F	
Route 800 (Main Street) at Route 202 (Litchfield Street)	C		C	
Route 800 (South Main Street) at Albert Street/East Albert	B		C	
Prospect Street at Forest Street		A		A
Prospect Street at Clark Street		A		A
Prospect Street at Pearl Street	B		B	
Prospect Street at Church Street	A		A	
Prospect Street at Mason Street	B		A	
Prospect Street at Water Street	B		B	
Field Street at Forest Street ⁽²⁾		A		A
Field Street at Clark Street		A		A
Field Street at Pearl Street		A		A
Water Street at John Street		A		A
Migeon Avenue at Forest Street		A		A
Migeon Avenue at Pearl Street/Hotchkiss Place		A		B
Water Street at Church Street	B		B	
Route 202 (East Main Street) at Center Street	A		A	
Franklin Street at Franklin Drive		A		A
East Albert Street at Oak Avenue ⁽²⁾		B		B
Harwinton Avenue at Laurel Hill Road ⁽²⁾		A		A
Harwinton Avenue at East Albert Street ⁽²⁾		B		D
Harwinton Avenue # 2 at Route 8 NB On-Ramp		A		A
Harwinton Avenue # 2 at Route 8 NB Off-Ramp		A		A

⁽¹⁾ Synchro Unsignalized Intersection ICU LOS

⁽²⁾ All Way Stop Intersection

**Table 3-5
Anticipated Levels of Service - 2010 Volumes
Build Condition with Downtown Redevelopment Plan Improvements - Timken Site**

	AM LOS		PM LOS	
	Signalized Intersections	Unsignalized (1) Intersections	Signalized Intersections	Unsignalized (1) Intersections
Route 800 (Main Street) at Prospect Place	A		A	
Route 800 (Main Street) at Pearl Street/East Pearl Street	C		C	
Route 800 (Main Street) at Church Street	A		A	
Route 800 (Main Street) at Mason Street/City Hall Avenue	B		A	
Route 800 (Main Street) at Water Street/Route 202 (East Main Street)		A		A
Route 202 (Litchfield Street) at Water Street	C		C	
Route 202 (Litchfield Street) at Franklin Street		A		A
Route 800 (Main Street) at Route 202 (Litchfield Street)	B		C	
Route 800 (Main Street) at Plaza Drive	A		A	
Route 800 (South Main Street) at Albert Street/East Albert Street		A		A
Prospect Street at Forest Street		A		A
Prospect Street at Clark Street				
Prospect Street at Pearl Street	B		C	
Prospect Street at Church Street	A		A	
Prospect Street at Mason Street	B		B	
Prospect Street at Water Street	D		D	
Field Street at Forest Street (2)		A		A
Field Street at Clark Street		A		A
Field Street at Pearl Street		A		A
Water Street at John Street		A		A
Migeon Avenue at Forest Street		A		A
Migeon Avenue at Pearl Street/Hotchkiss Place		A		B
Water Street at Church Street	A		B	
Route 202 (East Main Street) at Center Street	A		A	
Franklin Street at Franklin Drive		A		A
East Albert Street at Oak Avenue (2)		B		B
Harwinton Avenue at Laurel Hill Road (2)		A		A
Harwinton Avenue at East Albert Street (2)		B		D
Harwinton Avenue # 2 at Route 8 NB On-Ramp		A		A
Harwinton Avenue # 2 at Route 8 NB Off-Ramp		A		A

(1) Synchro Unsignalized Intersection ICU LOS

(2) All Way Stop Intersection

- Franklin Street at Franklin Drive,
- East Albert Street at Franklin Drive/Oak Avenue,
- Harwinton Avenue at Laurel Hill Road, and
- Harwinton Avenue at East Albert Street.

East Albert Street, Laurel Hill Road, and Harwinton Avenue are classified as collector roadways, while Franklin Street and Franklin Drive/Oak Avenue are classified as local roadways by DOT. All four intersections have all-way stop signs posted, with the exception of the Franklin Street at Franklin Drive intersection, which has a stop sign at the Franklin Drive approach. All four intersections provide a single lane approach. Land uses along Franklin Drive are mainly industrial, while Harwinton Avenue and East Albert Street are predominately residential. The posted speed limit within the area ranges from 25 to 30 mph.

3.1.1.4.2 Impact Evaluation

The Nidec site is located on Franklin Drive between the Franklin Street and Marion Avenue intersections. The proposed development would consist of a 160,000 SF, three-story courthouse. Two surface parking lots would be constructed for judges and staff members. The third surface parking lot would contain parking spaces for visitors. A total of five access drives would intersect with Franklin Drive to provide access to all three surface parking lots and the courthouse development.

Capacity analyses were conducted for the signalized and unsignalized intersections surrounding the Nidec site for the 2010 Build Condition.

2010 Build Condition: The site generated traffic volumes were added to the 2010 No-Build volumes (without the proposed development) to yield the Year 2010 Combined traffic volumes (with the proposed development).

The anticipated 2010 Build traffic volumes are presented in Appendix D, sheet TFD-12.

Table 3-6 presents the results of the capacity analyses for the 2010 Build Volumes, assuming the courthouse is constructed at the Nidec site. This exhibit shows that all of the intersections studied would operate at an LOS D or better during both the morning and afternoon peak periods with the exception of the intersection of Route 800 (Main Street) at Water Street/Route 202 (East Main Street), which would continue to operate at LOS F during the weekday afternoon peak hour.

The 2010 Combined traffic volumes for the Nidec site were adjusted to account for the proposed changes to the roadway network and capacity analyses performed. Table 3-7 presents the results of the analyses and shows that all of the intersections studied would operate at an LOS D or better with the 2010 Build volumes distributed on the proposed roadway network. It should be noted that with the Redevelopment Plan roadway improvements in place, the Prospect Street/Water Street intersection would worsen to LOS D. This is not due to the courthouse traffic; rather it is a consequence of the one-way recirculation plan proposed by the Redevelopment Plan.

**Table 3-6
Anticipated Levels of Service - 2010 Volumes - Build conditions - Nidec Site**

	AM LOS		PM LOS	
	Signalized Intersections	Unsignalized ⁽¹⁾ Intersections	Signalized Intersections	Unsignalized ⁽¹⁾ Intersections
Route 800 (Main Street) at Prospect Place	A		A	
Route 800 (Main Street) at Pearl Street/East Pearl Street	B		B	
Route 800 (Main Street) at Church Street	A		A	
Route 800 (Main Street) at Mason Street/City Hall Avenue	A		A	
Route 800 (Main Street) at Water Street/Route 202 (East Main Street)	C		F	
Route 800 (Main Street) at Route 202 (Litchfield Street)	C		C	
Route 800 (South Main Street) at Albert Street/East Albert Street	B		C	
Prospect Street at Forest Street		A		A
Prospect Street at Clark Street		A		A
Prospect Street at Pearl Street	A		A	
Prospect Street at Church Street	B		A	
Prospect Street at Mason Street	B		A	
Prospect Street at Water Street	B		B	
Field Street at Forest Street ⁽²⁾		A		A
Field Street at Clark Street		A		A
Field Street at Pearl Street		A		A
Water Street at John Street		A		A
Migeon Avenue at Forest Street		A		A
Migeon Avenue at Pearl Street/Hotchkiss Place		A		B
Water Street at Church Street	B		B	
Route 202 (East Main Street) at Center Street	A		A	
Franklin Street at Franklin Drive		A		A
East Albert Street at Oak Avenue ⁽²⁾		A		B
Harwinton Avenue at Laurel Hill Road ⁽²⁾		A		A
Harwinton Avenue at East Albert Street ⁽²⁾		B		D
Harwinton Avenue # 2 at Route 8 NB On-Ramp		A		A
Harwinton Avenue # 2 at Route 8 NB Off-Ramp		A		A

⁽¹⁾ Synchro Unsignalized Intersection ICU LOS

⁽²⁾ All Way Stop Intersection

Table 3-7
Anticipated Levels of Service - 2010 Volumes
Build Condition with Downtown Redevelopment Plan Improvements - Nidec Site

	AM LOS		PM LOS	
	Signalized Intersections	Unsignalized (1) Intersections	Signalized Intersections	Unsignalized (1) Intersections
Route 800 (Main Street) at Prospect Place	A		A	
Route 800 (Main Street) at Pearl Street/East Pearl Street	C		C	
Route 800 (Main Street) at Church Street	A		A	
Route 800 (Main Street) at Mason Street/City Hall Avenue	B		A	
Route 800 (Main Street) at Water Street/Route 202 (East Main Street)		A		A
Route 202 (Litchfield Street) at Water Street	C		C	
Route 202 (Litchfield Street) at Franklin Street		A		A
Route 800 (Main Street) at Route 202 (Litchfield Street)	B		C	
Route 800 (Main Street) at Plaza Drive	A		A	
Route 800 (South Main Street) at Albert Street/East Albert Street		A		A
Prospect Street at Forest Street		A		A
Prospect Street at Clark Street				
Prospect Street at Pearl Street	B		C	
Prospect Street at Church Street	A		A	
Prospect Street at Mason Street	B		B	
Prospect Street at Water Street	C		D	
Field Street at Forest Street (2)		A		A
Field Street at Clark Street		A		A
Field Street at Pearl Street		A		A
Water Street at John Street		A		A
Migeon Avenue at Forest Street		A		A
Migeon Avenue at Pearl Street/Hotchkiss Place		A		B
Water Street at Church Street	A		B	
Route 202 (East Main Street) at Center Street	A		A	
Franklin Street at Franklin Drive		A		A
East Albert Street at Oak Avenue (2)		A		B
Harwinton Avenue at Laurel Hill Road (2)		A		A
Harwinton Avenue at East Albert Street (2)		B		D
Harwinton Avenue # 2 at Route 8 NB On-Ramp		A		A
Harwinton Avenue # 2 at Route 8 NB Off-Ramp		A		A

(1) Synchro Unsignalized Intersection ICU LOS

(2) All Way Stop Intersection

3.1.1.4.3 Mitigation Measures

No significant impact to the roadway system is expected from a courthouse at the Nidec site. Therefore, no offsite transportation improvements are warranted.

3.1.1.5 *The Kelley Site*

3.1.1.5.1 Existing Conditions

Intersections affected by the Kelley site include the Water Street at Church Street intersection, the Water Street at John Street intersection, and the Mason Street at Prospect Street intersection. All of these intersections have been described previously.

The Torrington Police Traffic Operations Unit (2005) provided a letter for the City detailing the current usage of the parking lot on the Kelley site. The existing municipal parking lot on the Kelley site contains 113 metered spaces and six (6) handicap spaces. Twenty-five (25) of these spaces are leased to the Torrington Savings Bank (TSB) on an annual basis for their employees. Sixty-two (62) of the spaces on this lot are subject to a shared parking agreement between the Torrington Parking Authority and the Torrington Board of Education dated July 1996. This shared parking agreement promises that the Board of Education shall have the exclusive use of 62 spaces at the westerly end of the lot when school is in session, between the hours of 6 AM and 4 PM, in order to provide parking for teachers at the Vogel-Wetmore School.

3.1.1.5.2 Impact Evaluation

The Kelley site is located on Mason Street and is bounded by Church Street to the north, John Street to the east, and Water Street to the south. The proposed development would consist of a 160,000 SF, three-story courthouse. A three-story parking garage with 390 parking spaces for visitors, judges, and staff employees would be constructed with access provided via Mason Street. A surface parking lot with 15 parking spaces exclusively for judges would be provided on Mason Street east of the Church Street and Mason Street intersection. A pedestrian bridge would provide access from the parking garage to the courthouse development. Based on this conceptual plan, John Street would be closed approximately 350 ft south of the Mason Street intersection. Primary access to the courthouse would be provided by two drives located on Mason Street and Church Street.

The specific trip generation and distribution for the Kelley site is presented in Appendix D, sheet TFD-15; and the number of trips anticipated at each individual intersection are presented in Appendix D, sheet TFD-16.

If the Kelley site is selected, the existing municipal parking lot would no longer be available for use by the school or by citizens. The TSB parking spaces could continue to be accommodated. The new garage that would be constructed for the courthouse would not be open to the public for municipal uses, due to security concerns. Only courthouse staff, judges, jurors or other visitors to the courthouse would be allowed to park. The garage would be closed to the public after hours. Only staff and judges would be able to access the parking garage at those times.

The City has indicated that in 2005, meter income for the lot was approximately \$10,000, with an additional \$3,600 in permits for TSB employees (Torrington Police Traffic Operations Unit, 2005). Thus, closure of the lot would represent a potential financial loss to the City. The City has indicated that loss of this lot would present a hardship. The letter from the Torrington Police (2005) also indicated that the loss of this lot would have a negative effect, as no other lots are available in the vicinity for the teachers, TSB employees, and local business patrons.

Potentially, a parcel north of Church Street, near the railroad, could be used to offset the 62 spaces lost, providing parking for the Vogel-Wetmore staff (Emery, 2005). Twenty-five (25) spaces could be accommodated at the Kelley site for TSB employees.

Capacity analyses were conducted for the signalized and unsignalized intersections surrounding the Kelley site for the 2010 Build Condition.

2010 Build Condition: The site generated traffic volumes were added to the 2010 No-Build volumes (without the proposed development) to yield the Year 2010 Combined traffic volumes (with the proposed development).

The anticipated 2010 Build traffic volumes are presented in Appendix D, sheet TFD-17.

Table 3-8 presents the results of the capacity analyses for the 2010 Build Volumes assuming the court facility is constructed at the Kelley site. This exhibit shows that all of the intersections studied would operate at an LOS D or better during both the morning and afternoon peak periods with the exception of the intersection of Route 800 (Main Street) at Water Street/Route 202 (East Main Street), which would continue to operate at LOS F during the weekday afternoon peak hour.

Utilizing the Kelley site would require the closure of John Street between Mason Street and a point approximately 160 ft north of Water Street. John Street serves as a connector between Water Street and Mason Street and appears to be used mostly by motorists accessing the existing development along John Street or the parking lot at the southeast corner of John Street and Mason Street. Since the proposed courthouse and parking garage would replace the majority of these businesses and the parking lot, no diversion of existing traffic is anticipated. Even though John Street is in close proximity to the Fire Station located on Water Street, discussions with the Torrington Fire Department indicate that the closure of John Street would not have an impact on response times to the surrounding neighborhoods. Fire apparatus rarely use John Street due to its narrow width and the fact that there are sufficient alternate routes for emergency vehicles to use.

The 2010 Combined traffic volumes for the Kelley site were adjusted to account for the proposed changes to the roadway network and capacity analyses performed. Table 3-9 presents the results of the analyses and shows that all of the intersections studied would operate at an LOS D or better with the 2010 Build volumes distributed on the proposed roadway network.

**Table 3-8
Anticipated Levels of Service - 2010 Volumes - Build conditions - Kelley Site**

	AM LOS		PM LOS	
	Signalized Intersections	Unsignalized ⁽¹⁾ Intersections	Signalized Intersections	Unsignalized ⁽¹⁾ Intersections
Route 800 (Main Street) at Prospect Place	A		A	
Route 800 (Main Street) at Pearl Street/East Pearl Street	B		B	
Route 800 (Main Street) at Church Street	A		A	
Route 800 (Main Street) at Mason Street/City Hall Avenue	A		A	
Route 800 (Main Street) at Water Street/Route 202 (East Main Street)	C		F	
Route 800 (Main Street) at Route 202 (Litchfield Street)	C		D	
Route 800 (South Main Street) at Albert Street/East Albert Street	B		C	
Prospect Street at Forest Street		A		A
Prospect Street at Clark Street		A		A
Prospect Street at Pearl Street	A		A	
Prospect Street at Church Street	B		A	
Prospect Street at Mason Street	B		B	
Prospect Street at Water Street	B		C	
Field Street at Forest Street ⁽²⁾		A		A
Field Street at Clark Street		A		A
Field Street at Pearl Street		A		A
Water Street at John Street		A		B
Migeon Avenue at Forest Street		A		A
Migeon Avenue at Pearl Street/Hotchkiss Place		A		B
Water Street at Church Street	B		B	
Route 202 (East Main Street) at Center Street	A		A	
Franklin Street at Franklin Drive		A		A
East Albert Street at Oak Avenue ⁽²⁾		B		B
Harwinton Avenue at Laurel Hill Road ⁽²⁾		A		A
Harwinton Avenue at East Albert Street ⁽²⁾		B		D
Harwinton Avenue # 2 at Route 8 NB On-Ramp		A		A
Harwinton Avenue # 2 at Route 8 NB Off-Ramp		A		A

⁽¹⁾ Synchro Unsignalized Intersection ICU LOS

⁽²⁾ All Way Stop Intersection

**Table 3-9
Anticipated Levels of Service - 2010 Volumes
Build Condition with Downtown Redevelopment Plan Improvements - Kelley Site**

	AM LOS		PM LOS	
	Signalized Intersections	Unsignalized (1) Intersections	Signalized Intersections	Unsignalized (1) Intersections
Route 800 (Main Street) at Prospect Place	A		A	
Route 800 (Main Street) at Pearl Street/East Pearl Street	C		C	
Route 800 (Main Street) at Church Street	A		A	
Route 800 (Main Street) at Mason Street/City Hall Avenue	B		B	
Route 800 (Main Street) at Water Street/Route 202 (East Main Street)		A		B
Route 202 (Litchfield Street) at Water Street	C		C	
Route 202 (Litchfield Street) at Franklin Street		A		A
Route 800 (Main Street) at Route 202 (Litchfield Street)	B		C	
Route 800 (Main Street) at Plaza Drive	A		A	
Route 800 (South Main Street) at Albert Street/East Albert Street	B		C	
Prospect Street at Forest Street		A		A
Prospect Street at Clark Street		A		A
Prospect Street at Pearl Street	B		C	
Prospect Street at Church Street	A		A	
Prospect Street at Mason Street	B		B	
Prospect Street at Water Street	D		D	
Field Street at Forest Street (2)		A		A
Field Street at Clark Street		A		A
Field Street at Pearl Street		A		A
Water Street at John Street		A		A
Migeon Avenue at Forest Street		A		A
Migeon Avenue at Pearl Street/Hotchkiss Place		A		A
Water Street at Church Street	A		B	
Route 202 (East Main Street) at Center Street	A		A	
Franklin Street at Franklin Drive		A		A
East Albert Street at Oak Avenue (2)		B		B
Harwinton Avenue at Laurel Hill Road (2)		A		A
Harwinton Avenue at East Albert Street (2)		B		D
Harwinton Avenue # 2 at Route 8 NB On-Ramp		A		A
Harwinton Avenue # 2 at Route 8 NB Off-Ramp		A		A

(1) Synchro Unsignalized Intersection ICU LOS

(2) All Way Stop Intersection

3.1.1.5.3 Mitigation Measures

No significant impact to the roadway system is expected from a courthouse at the Kelley site. Therefore, offsite transportation improvements are not warranted. However, the siting of a courthouse and associated parking garage at the Kelley site would negatively impact the supply of downtown parking spaces. A total of 87 parking spaces would need to be relocated. Given the size constraints of the site, it may be possible to provide up to 25 surface parking spaces adjacent to the proposed parking garage. However, the additional 62 parking spaces would need to be relocated off-site. If the Kelley site is selected, DPW would coordinate with the City of Torrington to develop mitigation options for the lost parking spaces.

3.1.2 Air Quality

3.1.2.1 Regulations

Under the federal Clean Air Act (CAA) and its associated amendments (42 USC 7401 et seq.) the federal government regulates six “criteria” air pollutants through the EPA:

- nitrogen oxides (NO_x),
- sulfur dioxide (SO₂),
- lead (Pb),
- carbon monoxide (CO),
- particulate matter with a diameter of 10 microns or less (PM₁₀) and 2.5 microns or less (PM_{2.5}), and
- ozone (O₃).

Sources of air pollution in the project area are derived from stationary sources and mobile sources. Emissions from mobile sources (i.e., automobiles) principally contain CO, NO_x, and VOCs.

The EPA has established public health and welfare-based National Ambient Air Quality Standards (NAAQS) for these pollutants, and the Connecticut DEP has adopted the federal standards. In 2005, the Connecticut Air Monitoring Network consisted of 26 active stations, which monitor from one to several air pollutants. The Mohawk Mountain Station in Cornwall was the only station located in Litchfield County and was the closest station to Torrington. It monitors O₃, PM_{2.5}, PM₁₀, trace SO₂, continuous sulfate, organic and elemental carbon, and PM_{2.5} speciation. Areas are designated as “attainment” or “non-attainment” for a particular criterion pollutant based on the monitoring data. If an area is in compliance with the regulations, it is considered an “attainment area”.

According to the *2003 EPA Annual Report on Air Quality in New England*, which utilizes the Air Monitoring Network Results, the entire State of Connecticut was in attainment for CO, Pb, nitrogen dioxide (NO₂), and SO₂ (EPA, 2004a). The entire state was designated as non-attainment for O₃ and portions of the state were in non-attainment for particulate matter.

O₃ is a form of molecular oxygen that consists of three oxygen atoms linked together. O₃ in the upper atmosphere (the "ozone layer") occurs naturally and protects life on earth by filtering out ultraviolet radiation from the sun. However, O₃ at ground level is a noxious pollutant and is the major component of smog, and it is formed in the atmosphere through a complex set of chemical reactions involving hydrocarbons, NO_x, and sunlight.

Unlike O₃, CO levels are most problematic in the winter, since CO emissions are highest when low temperatures favor the incomplete combustion of gasoline in vehicle engines. The effects of CO are most concentrated immediately adjacent to traffic corridors and are of concern at intersections that are significantly impacted, which results in longer idling and therefore, can produce higher concentrations of CO. Typically, microscale modeling of air quality is needed at intersections with significant stop and go conditions.

EPA has developed standards for CO for the 1 and 8-hour periods that are designed to protect human health. Through many years of study, EPA has determined that intersections that operate at LOS C or better do not result in violations of these CO standards. Furthermore, the likelihood of CO violations for intersections with LOS D, E, and F for today and in the future is very low, except under urban "canyon" situations in large metropolitan areas where CO is trapped by tall buildings. As years pass, the fleet of vehicles becomes newer, and newer vehicles have lower emissions than older vehicles. For intersections that are not substantially impacted by traffic, the future CO concentrations may actually be *lower* than existing conditions in the design year, even though there is a modest increase in traffic

Under the CAA Amendments of 1990, each state was required to develop a Title V operating permit program to permit major sources of air pollution and other sources subject to federal CAA requirements.

As of June 2005, there were no listed Title V operating permit owners in Torrington (DEP, 2005c). In Litchfield County, there are three facilities that currently hold a Title V permit that have a term of up to five years. Kimberly Clark Corporation operates a paper mill in New Milford that was issued a Title V permit on October 26, 2002. In Thomaston, Quality Rolling and Deburring Company was issued a Title V permit on June 6, 2003. Also in Thomaston, Whyco Technologies was issued a Title V permit on October 2, 2000.

3.1.2.2 Impact Evaluation

Potential air quality impacts associated with the proposed courthouse project are related to stationary and mobile sources of air pollutants and potential air pollutants generated by construction activity. Stationary source pollutants would be generated by the fuel burning equipment including boilers, chillers, and emergency generators. Mobile sources of air pollution would be associated with automotive traffic.

Heating for the proposed courthouse could be fueled by either heating oil or natural gas. If fuel burning equipment is proposed with potential emissions of 15 tons per year of any individual pollutant, the equipment will require an air quality stationary source

construction and operation permit (new source review) from the DEP. It is anticipated that emergency power will be needed for the new courthouse, which would likely consist of a diesel-powered generator. While the generator remains to be designed and specified, it would likely be exempt from DEP air permitting according to the RCSA Section 22a-174-3b(e). The exemption allows operation only during periods of testing and scheduled maintenance at no more than 500 hours of operation during any 12-month period. The JB would need to maintain records showing compliance with the new source review exemption requirements.

Construction-related air quality impacts can be caused by exhaust emissions from construction equipment and fugitive dust (e.g., wind-blown dust from the construction area), but will be temporary. Due to the adjacent land uses at all three sites, air quality impacts from the construction phase would be mitigated as described in the following subsection.

Given that the new courthouse would not result in a substantial increase in traffic (see Section 3.1), violations of the NAAQS for CO are not expected as a result of Proposed Action. Also, there is expected to be no significant increase in regional ozone precursor emissions because the new courthouse is a replacement of existing facilities and, therefore, there will be no significant increase in regional traffic.

The new courthouse facility is not expected to exceed any Title V thresholds in post-construction conditions. Further mitigation measures during the construction phase of the new courthouse are outlined in Section 3.1.2.3.

3.1.2.2.1 The Timken Site

The additional traffic generated by a courthouse at the Timken site would result in an increase in automobile-related air pollutants such as NO_x, VOCs, and CO. The principal pollutant of concern on a local level is CO. However, violations of the NAAQS for CO are not expected. There is expected to be no significant increase in regional ozone precursor emissions because there would be no significant increase in regional traffic. Traffic impacts in the vicinity of the Timken site would be minimal; therefore, no significant impacts to air quality from vehicular sources are expected. Microscale air analysis is not warranted for this site.

Emergency power for the new courthouse would likely be provided by a diesel-powered emergency generator. Chillers and boilers are also air emissions sources associated with a courthouse. However, these sources contribute insignificant amounts of air pollution, as evidenced by the fact that permits for equipment of the size and type anticipated for the courthouse are no longer required by DEP.

3.1.2.2.2 The Nidec Site

The Nidec site is primarily bordered by the East and West branches of the Naugatuck River. Some residences are located north of the site. Across the river, condominiums are located to the south, a commercial shopping plaza is located to the northwest, and a city park (Fuessenich Park) is located to the southwest. Of importance to this site, NRG

(parent company of Connecticut Jet Power, LLC) operates a gasoline fuel power generator (i.e., Franklin Drive Jet Engine) that abuts the northern property line of the smaller eastern Nidec parcel. Additionally, an electric power substation (Franklin Drive Electric Substation) abuts the jet engine power generator to the north also on the east side of Franklin Drive, and is operated by Connecticut Light & Power (CL&P).

According to NRG, the jet engine is a Pratt & Whitney GG4 (Gasoline Generator) that was originally designed to be utilized on aircraft in the 1960s. The jet engine was formerly owned by CL&P and it currently provides an emergency source of power for CL&P (i.e., when CL&P is performing transmission line repairs, or during blackouts).

The jet engine generator is shown on Photo 3-1 and the electric power substation is shown on Photo 3-2.

As with the Timken site (see Section 3.1.2.2.1), the additional traffic generated by a courthouse at the Nidec site would result in an increase in automobile-related air pollutants such as NO_x, VOCs, and CO. However, violations of the NAAQS for CO are not expected. There is expected to be no significant increase in regional ozone precursor emissions because there would be no significant increase in regional traffic. Traffic impacts in the vicinity of the Nidec site would be minimal; therefore, no significant impacts to air quality from vehicular sources are expected. Microscale air analysis is not warranted for this site.

Emergency power for the new courthouse would likely be provided by a diesel-powered emergency generator. Chillers and boilers are also air emissions sources associated with a courthouse. However, these sources contribute insignificant amounts of air pollution.

3.1.2.2.3 The Kelley Site

As with the Timken and Nidec sites (see Section 3.1.2.2.1 and 3.1.2.2.2), the additional traffic generated by a courthouse at the Kelley site would result in an increase in automobile-related air pollutants such as NO_x, VOCs, and CO. However, violations of the NAAQS for CO are not expected. There is expected to be no significant increase in regional ozone precursor emissions because there would be no significant increase in regional traffic. Traffic impacts in the vicinity of the Kelley site would be minimal; therefore, no significant impacts to air quality from vehicular sources are expected. Microscale air analysis is not warranted for this site.

Emergency power for the new courthouse would likely be provided by a diesel-powered emergency generator. Chillers and boilers are also air emissions sources associated with a courthouse. However, these sources contribute insignificant amounts of air pollution.

3.1.2.3 Mitigation Measures

As the design progress, the project team will review the stationary equipment with the new source review regulations and determine what permit options can be utilized for the Proposed Action.



Photo 3-1. Franklin Drive Electric Substation Facing South.



Photo 3-2. Franklin Drive Jet Engine Facing North.

The Contract Specifications for the project would require the following measures, which would mitigate air quality impacts during the construction period.

- All diesel-powered non-road construction equipment with engine horsepower ratings of 60 and above that are on the project or are assigned to the contract for a period in excess of 30 consecutive calendar days shall be retrofitted with emission control devices (oxidation catalysts, or similar retrofit equipment control technology).
- All motor vehicles and/or construction equipment (both on-highway and non-road) shall comply with all pertinent state and federal regulations relative to exhaust emission controls and safety.
- Idling of delivery and/or dump trucks or other diesel powered equipment shall be limited to three (3) minutes during nonactive use in accordance with RCSA Section 22a-174- 18(b)(3)(C).
- Control of fugitive dust through best management practices shall be required.

All work shall be conducted to ensure that no harmful effects are caused to adjacent sensitive receptor sites (including schools and residential structures). Diesel-powered engines shall be located away from fresh air intakes, air conditioners, and windows.

3.1.3 Noise

The perception of noise is affected by the noise level, the frequencies involved, and the duration of exposure. The noise we hear is the result of a sound source inducing vibration in the air. The vibration produces alternating bands of varying densities in the air, spreading outward from the source in the same way as ripples do on water, resulting in a fluctuation from the normal atmospheric pressure or sound waves. These sound waves are converted to auditory sensations. The loudness of a noise source is indicated by the amplitude of the sound pressure. The amplitude is a measure of the difference between atmospheric pressure (with no noise present) and the total pressure (with the noise present).

The unit of sound pressure is the decibel (dB). Because any particular sound is composed of many frequencies (pitches), it is important to consider the sound frequencies that are received by humans. A method for weighting the frequency spectrum to more closely represent how humans hear and perceive noise is called A-weighting. This method gives less weight or emphasis to both the high and low frequency ends of the spectra where our response is weakest. A-weighting is widely accepted as an appropriate measure to describe the effects of environmental noise. When a noise level is weighted with this method, its level is written as dBA.

In addition to sound pressure and frequency, the type of sound is important when considering impacts to humans. For example, the sound of a crowd cheering at a sporting event may be perceived as acceptable, whereas vehicular traffic of the same decibel rating would be perceived as a nuisance. Human annoyance caused by intruding noise depends on many factors, in addition to the level and frequency of the noise discussed above. These factors may include personal sensitivity to noise, the degree of

interruptions from the noise, the number of occurrences and time of day when the noise occurs, and attitude toward the noise source.

3.1.3.1 Regulations

Federal noise regulations include the Noise Pollution Act of 1972, which placed the primary responsibility for noise control with state and local governments (United States General Services Administration, US GSA; 2005). Since 1986, noise levels have been regulated locally by the Torrington Area Health District (TAHD) and based on CGS set forth in Chapter 442, Sections 22a-67 through 22a-76. The local TAHD regulations and CGS focus on permanent stationary sources of noise that can be measured, controlled, and reduced using modern acoustical engineering (CGS, 2005). Stationary noise sources are defined as any building, structure, facility, or installation which emits or may emit noise beyond the property line on which such source is located.

The RCSA Control of Noise Regulations identify the limits of sound that may be emitted from a specific premises and what activities are excluded or exempt. Examples of noises excluded or exempt include motor vehicles, safety alarms, construction and demolition equipment, and sporting events.

The RCSA noise standards have two important components. The first component evaluates the noise received in an area by classifying the areas where the noise is received and the adjacent areas where the noise is generated into noise zones. The noise zone classifications are based on land use. According to RCSA (2002), Class A noise zones are typically residential and include single and multiple family homes, hotels, prisons, hospitals, and churches. Class B noise zones are generally commercial and include retail trade, schools, government services, and farming. Class C noise zones are industrial and include activities such as manufacturing and warehousing. The allowed noise level emissions are based on the noise class of the emitter and noise class of adjacent receptor zones.

Since it is a government service building, the Torrington Courthouse would be considered a Class B receptor noise zone, and cannot emit noise to adjacent zones exceeding the levels listed in Table 3-10. Thus, if the new courthouse is located within a residential area, the acceptable daytime noise level that the courthouse could emit to the residential area is 55 dBA. If the new courthouse is located within a commercial or industrial area, it could not emit a noise level exceeding 62 dBA. The RCSA Control of Noise Regulations also allow buildings and other structures existing prior to 1978 that are remodeled or converted at a future date an additional permanent 5 dBA maximum noise level allowance above the emitter class of the new use of the building (RCSA, 2002).

Conversely, abutters to the new courthouse must not emit noise to the courthouse that exceeds the regulations. Acceptable noise levels that could be received by the new courthouse (a Class B Receptor) are listed in Table 3-11. For example, a power substation would be classified as a Class C emitter, and it could not emit noises to the new courthouse in excess of 66 dBA.

Short-term noise level intrusions are allowed to exceed these standards by 3 dBA for 15 minutes/hour, 6 dBA for 7 ½ minutes/hour, and 8 dBA for 5 minutes/hour.

Table 3-10. Noise Zone B Emission Standards to Adjacent Receptor Noise Zones.

Adjacent Noise Zone Receptor Class	Area Type	New Building (dBA)		Existing Building (dBA) [†]	
		Day*	Night	Day*	Night
A	Residential	55	45	60	50
B	Commercial	62	62	67	67
C	Industrial	62	62	67	67

Notes:

*Daytime means 7 AM to 10 PM local time.

[†]Applies to an existing building constructed prior to June 1978.

Source: RCSA, Section 22a-69-3.5

Table 3-11. Noise Zone B Receptor Standards from Adjacent Emission Noise Zones.

Adjacent Noise Zone Emitter Class	Area Type	New Building (dBA)	Existing Building (dBA) [†]
A	Residential	55	60
B	Commercial	62	67
C	Industrial	66	71

Notes:

[†]Applies to an existing building constructed prior to June 1978.

Source: RCSA, Section 22a-69-3.5

Noise levels in Torrington’s downtown area are typical of a mixed commercial, industrial, and urban residential area. Motor vehicle traffic generates the majority of the noise, with noise levels highest during peak traffic hours. Construction would occasionally add to the noise levels for a short period of time.

3.1.3.2 Impact Evaluation

The following discussion is germane to all three sites; however, the Timken and Kelley sites have the highest sensitivity for noise. The Timken site is surrounded on two sides by residences and the Kelley site is proximal to a school. The Nidec site is primarily in an industrial area, although there are some condominium units to the south. Site specific issues relative to noise are presented in subsections.

The construction of the new courthouse facility would result in increased noise in and around the construction site. The noise would be generated from construction equipment and, to a lesser degree, demolition equipment. Based on existing geological information, blasting is not anticipated at the Timken and Nidec sites; however blasting may be required at the Kelley site as geological borings done as part of a recent Phase II investigation have revealed some shallow depth to bedrock. Construction noise is exempt under Section 22a-69-1.8(g) of RCSA. Furthermore, Section 22a-174-18(a)(5) of the RCSA limits idling of mobile sources to three (3) minutes, which would prohibit prolonged idling and reduce potential noise impacts.

Table 3-12 presents the typical construction equipment noise emission levels. However, it should be noted that noise levels decrease as distance from that source increases. Noise levels from any stationary source can be estimated at varying distances from the source. Unfortunately, it is difficult to predict reliable levels of construction noise at a particular receptor location because heavy machinery, the major source of construction noise, is constantly moving in unpredictable patterns.

Once constructed, operations at the courthouse facility would not generate any significant noise to the downtown area. The courthouse would be open during normal business hours during the week, thus eliminating any impacts at night and on the weekend.

Table 3-12. Typical Noise Emission Levels for Construction Equipment.

Equipment Item	Noise Level (dBA)	Equipment Item	Noise Level (dBA)
Pneumatic chip hammer	103 - 113	Earth tamper	90 - 96
Jackhammer	102 - 111	Crane	90 - 96
Concrete joint cutter	99 - 102	Hammer	87 - 95
Portable saw	88 - 102	Earthmover	87 - 94
Stud welder	101	Front-end loader	86 - 94
Bulldozer	93 - 96	Backhoe	84 - 93

Source: Center to Protect Worker's Rights (CPWR, 2003); <http://www.cpwr.com/hazpdfs/kfnoise.PDF>; updated December 29, 2003; accessed September 1, 2005.

3.1.3.3 The Timken Site

3.1.3.3.1 Existing Setting

The area adjacent to the Timken site is a mixed residential and commercial area that includes single and multi-family houses and office buildings. Out of the three possible

courthouse sites, this is the most sensitive. Ambient noise at and around the site is low, given the residential and office nature of the site and its environs.

3.1.3.3.2 Impact Evaluation

Since the adjacent site area is mixed residential and commercial, Receptor Noise Zone Classes A and B would apply for any noise the new courthouse would emit to the surrounding area. Receptor Noise Zone A standards for a Class B Emitter (the courthouse) would be required since they are more conservative. The residential/commercial area itself would not likely generate noise that would impact the new courthouse facility. Therefore, the new courthouse could not emit noises in excess of 55 dBA during the daytime.

Noise would be generated from additional vehicular traffic and the operation of a centralized HVAC unit near the courthouse facility. Noise impacts from slow-moving vehicles would be minimal and the HVAC unit's proximity to the new courthouse and distance from the residential area would result in no negative noise impacts to the neighborhood.

There would be temporary increases in noise levels during the construction of the courthouse. Mitigation measures for construction noise are discussed below.

3.1.3.3.3 Mitigation Measures

The only potential noise impact would occur during the construction of the courthouse. To minimize impacts, construction would occur during normal working hours. Noise mitigation from increased vehicular traffic is not warranted due to the relatively small increase in traffic.

3.1.3.4 *The Nidec Site*

3.1.3.4.1 Existing Setting

The Nidec site is primarily bordered by the East and West branches of the Naugatuck River. Some residences are located north of the site. Across the river, condominiums are located to the south, a commercial shopping plaza is located to the northwest, and a city park is located to the southwest. NRG operates a gasoline fuel power generator (i.e., Franklin Drive Jet Engine) that abuts the northern property line of the smaller eastern Nidec parcel (Photo 3-2). Additionally, an electric power substation (Franklin Drive Electric Substation, Photo 3-1) abuts the jet engine power generator to the north on the east side of Franklin Drive, and is operated by CL&P.

Table 3-13 lists the number of hours the jet engine operated each year for 2000 through 2005. The Franklin Drive Jet Engine operated a total of approximately 10 to 30 hours per year.

On average, the jet engine operates approximately five (5) times per year, for durations of approximately 1 to 2 hours. However, the operation time durations can be longer during blackouts (e.g., in 2003, the Franklin Drive jet engine operated for 11 hours during one

blackout). The jet engine operated more than usual in 2004 (i.e., on ten (10) separate occasions approximately 1 to 5 hours in duration) because CL&P performed an atypical amount of maintenance on its transmission lines that year.

Table 3-13. Franklin Drive Jet Engine Operation Time Durations per Year.

Year	Total Hours Operated
2000	12
2001	14
2002	12
2003	22
2004	31
2005	7 [†]

[†]Total number of hours as of September 2005.
Source: NRG, 2005

Noise measurements were collected at the Nidec property line during a test of the Franklin Drive Jet Engine on October 27, 2005 and are discussed in Section 3.1.3.4.2. Noise levels were also recorded to determine background (ambient) conditions. The ambient L_{eq} and L_{90} (the noise level exceeded 90% of the time during monitoring) levels were approximately 67 dBA and 56 dBA, respectively. These levels are typical of urban daytime environments.

3.1.3.4.2 Impact Evaluation

Noise would be generated from additional vehicular traffic and the operation of a centralized HVAC unit near the courthouse facility. Noise impacts from slow-moving vehicles would be minimal and the HVAC unit's proximity to the new courthouse and distance from the residential area would ensure that no negative noise impacts to the neighborhood would occur.

To determine the potential noise impact of the jet engine on occupants and visitors to the courthouse, noise measurements were made. The sampling location was on the western side of Franklin Drive, 10 feet south of the left corner of the front gate to the Nidec property. The results of the monitoring are included in Appendix E. The noise levels were measured with a Quest 2900 Type 2 Sound Level Meter (Oconomowoc, WI). The L_{eq} , or the average integrated sound level accumulated, while engine was running at full load was approximately 78 dBA. The L_{90} (the noise level exceeded 90% of the time during monitoring) was 77 dBA. The noise was relatively constant while the engine was running.

While the noise generated by the jet engine is relatively short and infrequent, it is a significant negative noise source within the Nidec site area while it is operating. The noise generated by the engine is a combination of two sounds, a low rumble and a high-pitched tone, both of which are noticeable and potentially disruptive.

The jet engine would be in operation for longer periods of time during a blackout. During this time, the jet engine would operate until normal power supply was restored. The operation of the jet engine could occur during normal business hours, and therefore could potentially disrupt proceedings.

There would be temporary increases in noise levels during the construction of the courthouse. Mitigation measures for construction noise are discussed in Section 3.1.3.4.3.

3.1.3.4.3 Mitigation Measures

The Franklin Drive Jet Engine is the only stationary noise generator source near the Nidec site that could require mitigation measures. Possible mitigation measures could include the use of sound attenuation techniques in wall and window design and construction and the location of noise sensitive operations to the southwest side of the building, away from the jet engine. The courtrooms would most likely be constructed as interior rooms in the new courthouse, thus minimizing any potential disruption of courtroom proceedings by the jet engine.

If the Nidec site were to be selected, DPW and the Judicial Branch would coordinate with NRG to investigate the feasibility of constructing fencing around the jet engine to attenuate noise during operation. The fence would need to be a solid structure that would serve to dampen noise and provide a visual screening as well.

Construction of the new courthouse would only occur during normal working hours so as to minimize noise impacts.

Noise mitigation from increased vehicular traffic is not warranted due to the relatively small increase in traffic and the expected low vehicular speeds.

3.1.3.5 *The Kelley Site*

3.1.3.5.1 Existing Setting

The larger site parcel on the Kelley site houses the Kelly Transit Company headquarters, a historic railroad depot, and a retail store (Party Warehouse), and is bordered by an inactive rail line. Adjacent land uses include a YMCA, an elementary school, and commercial and light industrial businesses to the south, east, and west. There is also an operating fire station located south of the site on the opposite side of Water Street. Ambient noise levels are expected to be typical of a small urban downtown environment (50-60 dBA).

3.1.3.5.2 Impact Evaluation

The adjacent residential uses require the Kelley site to be subject to the strictest standards, noise emitted to Class A Receptor Noise Zones (school and adjacent grounds) by a Class B generator (the new courthouse). Except for its construction, the courthouse would not likely emit noise above the Class A Receptor levels allowed.

The emergency vehicles from the nearby fire station (Photo 3-3) are exempt from the Connecticut noise regulations, but their noise could be a nuisance for the courthouse. The League for the Hard of Hearing (2003) states that an emergency vehicle siren emits a noise level of approximately 120 dBA. According to the Torrington Fire Chief, there are approximately 1,200 to 1,400 calls to the Water Street station annually, or approximately three to four calls per day. Approximately 60 to 70% of these calls (or approximately two to three calls per day) are considered emergency calls where sirens are used.



Photo 3-3. Water St. Fire Station Headquarters.

While the bus company currently onsite operates at night and on weekends, the new courthouse would only operate during normal daytime business hours, Monday through Friday. Therefore, the new courthouse would reduce hours of operation onsite, which would decrease noise emitted to surrounding areas. The courthouse would also virtually eliminate noise from idling buses at the site, except for any associated mass transit.

Noise would be generated from additional vehicular traffic and the operation of a centralized HVAC unit near the courthouse facility. Noise impacts from slow-moving

vehicles would be minimal and the HVAC unit's proximity to the new courthouse and distance from the school would ensure that no negative noise impacts to the neighborhood would occur.

There would be temporary increase in noise levels during the construction of the courthouse. Mitigation measures for construction noise are discussed in Section 3.1.3.5.3.

3.1.3.5.3 Mitigation Measures

The noise generated from the fire station is the mobile noise generator source near the Kelley site that would likely consider mitigation measures, even though emergency vehicles are exempt from the noise regulations. Possible mitigation measures include the use of sound attenuation techniques in wall and window design and construction and the location of noise sensitive operations to the northern side of the building, away from the fire station. The courtrooms would likely be constructed as interior rooms in the new courthouse, thus eliminating any potential disruption of courtroom proceedings by fire sirens.

Construction of the new courthouse would only occur during daytime hours to mitigate noise impacts.

Noise mitigation from increased vehicular traffic is not warranted due to the relatively small increase in traffic and the expected low vehicular speeds.

3.1.4 Light

The proposed courthouse would utilize nighttime illumination to ensure maximum security and safety. The new courthouse would be designed to current lighting standards, including possible exterior wall pack lighting units on the buildings.

The new courthouse would operate during normal business hours and parking areas would not be available to the public after hours. Therefore, the courthouse would operate during daylight hours for the majority of the time, except for the late autumn and winter.

Lighting for the new courthouse would be shielded and filtered, as well as directed at a downward angle to minimize light trespass and glare to sensitive residential receptor areas. Light trespass is the light that illuminates surfaces beyond the property boundary. These types of lights reduce spill light toward the property boundary, as well as upward light that contributes to sky glow.

3.1.4.1 The Timken Site

3.1.4.1.1 Existing Setting

Nighttime illumination levels in the Timken site area are typical of urban residential areas with street lighting. The parking lot is used currently by the Excelsior plant employees and lighting in the parking lot is typical of commercial and industrial areas with flood lights mounted on poles as shown in Photo 3-4.



Photo 3-4. Lighting in Timken Parking Lot, Field Street.

3.1.4.1.2 Impact Evaluation

The area adjacent to the Timken site is primarily residential and would be the most sensitive receptor area to light. The new courthouse may increase the light generated at the site, since lighting would be required to ensure safety at a government service building. However, high-wattage flood lights would be replaced with lower wattage architectural light fixtures at a lower pole height.

3.1.4.1.3 Mitigation Measures

Lighting would be shielded, filtered, and directed downward to minimize light trespass to surrounding residential areas and sky glow. A design based upon a photometric evaluation would be implemented to provide uniform lighting on the property with minimized variation and light trespass. Landscaped areas would surround the buildings and parking areas for the new courthouse to provide light buffers to the adjacent residential neighborhood.

3.1.4.2 *The Nidec Site*

3.1.4.2.1 Existing Setting

Nighttime illumination levels in the Nidec site area are typical of commercial and industrial areas. Photo 3-5 shows typical street lighting posts located along Franklin Drive. Photo 3-6 shows exterior wall pack lighting on the current site building. Photo 3-6 also reveals that stadium lighting posts from Fuessenich Park, located southwest of the site across the Naugatuck River, are visible at the Nidec site and are not obstructed by trees. Residential areas are located north (houses) and south (condominiums) of the site.



Photo 3-5. Lighting on Franklin Drive Facing Northwest.



Photo 3-6. Lighting at Current Nidec Parking Lot (Western Parcel A) Facing West, Franklin Drive.

3.1.4.2.2 Impact Evaluation

The new courthouse may increase the light generated at the site, since lighting would be required to ensure safety at a government service building. Low-wattage architectural lighting fixtures at a low pole height augmented by possible building-mounted wall packs could be used.

Since the site area receives lighting from Fuessenich Park and the current site building, it is not likely that lighting for the new courthouse would significantly impact the residential areas to the north and south.

3.1.4.2.3 Mitigation Measures

While lighting for the new courthouse would not likely impact surrounding residential areas, it would be shielded, filtered, and directed downward to minimize light trespass and sky glow. A design based upon a photometric evaluation would be implemented to provide uniform lighting on the property with minimized variation and light trespass. Landscaped buffers should be maintained or enhanced where possible.

3.1.4.3 *The Kelley Site*

3.1.4.3.1 Existing Setting

The larger Parcel A on the Kelley site houses the Kelley Transit Company headquarters, a historic railroad depot, and a retail store (Party Warehouse). The smaller site Parcel B is a parking lot owned by the City of Torrington with a right-of-way to the adjacent YMCA.

Nighttime illumination levels in the Kelley site area are typical of commercial and industrial areas with street lighting.

3.1.4.3.2 Impact Evaluation

The adjacent residential areas are sensitive receptor areas to light. The new courthouse may increase the light generated at the site, since more lighting would be required to ensure safety at a government service building. Low-wattage architectural lighting fixtures at a low pole height augmented by possible building-mounted wall packs could be used.

Siren lighting on trucks coming from the nearby Water Street fire station may also negatively impact the new courthouse. For the Water Street station, approximately two to three calls per day, or approximately 700 to 1,000 calls annually, are emergency calls where the sirens are used.

3.1.4.3.3 Mitigation Measures

While lighting for the new courthouse would not likely impact surrounding residential areas, it would be shielded, filtered, and directed downward to minimize light trespass and sky glow. A design based upon a photometric evaluation would be implemented to

provide uniform lighting on the property with minimized variation and light trespass. Landscaped buffers should be maintained or enhanced where possible.

The courtrooms would likely be constructed as interior rooms in the new courthouse, thus eliminating any potential disruption caused by emergency vehicle sirens and lights during courtroom proceedings.

3.1.5 Utilities

3.1.5.1 Downtown Torrington General Existing Conditions

Water Supply

The downtown Torrington area is supplied with water by the Torrington Water Company (TWC), a privately owned company. TWC serves approximately 38,000 users in Torrington, Harwinton, Litchfield, and New Hartford. The public water supply is from surface sources consisting of four reservoirs with a safe yield of 5.3 million gallons per day (MGD). No groundwater wells are used for public water supply in this area.

According to the official City of Torrington website (2005), the Torrington Water Supply is a municipal supplier of treated, filtered water purchased from TWC. According to a letter from TWC (2005), the Drinking Water Treatment Plant (DWTP) has a maximum capacity of 5.3 MGD (the safe yield of the four reservoirs). The current average daily demand is 3.0 MGD, of which the downtown area uses approximately 2 MGD. Complete conventional treatment is performed at the DWTP, including coagulation, sedimentation, and filtration. The average daily consumption rate per capita is approximately 86 gallons per day (gpd), based on a population of 35,000 and a demand of 3.0 MGD.

There are six active storage tanks in the distribution system, located throughout the five service zones. The tanks range in capacity from 0.5 million gallons (MG) to 2.0 MG, and have a total storage capacity of 7.9 MG (TWC, 2005). Water mains in the distribution system are ductile iron pipes (DIP) and cast iron (CI) pipes that range in diameter from 4 to 12 inches.

Fire flow data exist for portions of the downtown Torrington area.

Wastewater System

The downtown Torrington area is serviced by the municipal sewer system operated by the Torrington Water Pollution Control Authority (WPCA). According to the official City of Torrington website (2005), the WPCA has primary responsibility for the operation and maintenance of a 7.0 MGD Wastewater Treatment Facility (WWTF). The WPCA also maintains approximately 163 miles of sanitary sewer lines and 14 wastewater-pumping stations throughout the City. The WPCA service area includes all sewered portions of the City of Torrington, as well as portions of Harwinton and Litchfield. There are approximately 15,000 sanitary sewer connections on this system.

In addition, the City of Torrington Engineering Department has indicated that they also maintain sewer lines. According to the Torrington Engineering Department, the downtown area wastewater collection system flows entirely by gravity, with no pump stations. Lateral and trunk sewers connect to interceptors located along the Naugatuck River and convey wastewater to the WWTF. A 30" northwest interceptor follows the south bank of the West Branch of the Naugatuck River between Church and Litchfield Streets, and a 36" interceptor crosses the river off Franklin Street near Center Street. Information regarding the sewer lines servicing each site was provided by plans supplied by the Torrington Engineering Department.

Sewage collected by the municipal system is discharged to the WWTF located south of the downtown Torrington area, on Bogue Road in Harwinton. The WWTF provides primary treatment and secondary treatment with activated sludge and discharges its effluent to the Naugatuck River. According to a Water Pollution Control Plan adopted in March 2005 (WPCA, 2005), 78.6% of the system capacity (5.5 MGD) is allocated for existing development within the sewer service area. The plan specifies that 16.2% of the capacity (1.134 MGD) must be reserved for future development.

Stormwater System

The City of Torrington's Engineering Department maintains the stormwater runoff collection system for the City of Torrington. The stormwater system consists primarily of tile and reinforced concrete pipes and concrete catch basins and manholes that route runoff to outfall locations along the East and West branches of the Naugatuck River.

According to the Torrington Engineering Department, areas where stormwater capacity problems have been reported include Main Street and the intersection of Prospect and East Pearl Streets. BMPs used to upkeep the system include street sweeping and catch basin cleaning. Information regarding the stormwater systems servicing each site was provided by plans supplied by the Torrington Engineering Department.

Electrical, Telecommunications, and Gas

Natural gas is currently supplied to the downtown Torrington area by the Yankee Gas Services Company (Yankee Gas), which is a subsidiary of the Northeast Utilities (NU) System. Electricity is supplied to Torrington by the Western Division of CL&P, which is also a part of the NU System. A diesel-powered emergency generator would be available at the new courthouse facility in the event of an electrical power failure. Telephone is currently supplied to Torrington by SBC Communications, formerly Southern New England Telecommunications (SNET). Fiber optic cables and high-speed digital subscriber line (DSL) service is available for the majority of Torrington. Cable Vision Corporation provides cable service to the City. The location of these utilities for each site area was determined from plans provided by the Torrington Engineering Department or based on information provided by the property owners.

3.1.5.2 Impact Evaluation

Water consumption and wastewater generation increases must be evaluated for the new courthouse facility. The Public Health Code refers to a water consumption rate of 0.1

gpd per SF for a typical commercial/office building. This value was used as a conservative estimate because it is expected that a building operated for commercial or office uses would have higher use intensity as compared to the new courthouse. Therefore, a new 160,000 SF courthouse would cause an additional average daily demand of 16,000 gpd. The excess or available water capacity is the safe yield (5.3 MGD) less the current total system average daily demand (3.0 MGD), or 2.3 MGD. Ignoring present water consumption at any of the potential sites, the additional water demand caused by the courthouse would be less than 1% of the available water capacity and could easily be accommodated by the present system.

The average wastewater generation rate from the courthouse was considered to be equivalent to the average daily water demand rate of 16,000 gpd. As stated in Section 3.1.5.1, the wastewater capacity reserved for future development in Torrington is 1.134 MGD. Ignoring present wastewater generation at any of the potential sites, the additional demand caused by the courthouse would be less than 2% of the wastewater system capacity available for future development and could easily be accommodated by the present system.

3.1.5.3 The Timken Site

3.1.5.3.1 Existing Setting

Water

According to TWC, 8" water lines run along Field, Clinton, and Clark Streets. Clinton and Field Streets also have 4" water lines available. According to plans provided, three fire hydrants are located along Field Street: two are located on either side of the intersection with Clark Street, and one is located near the intersection of Field Street with Forest Street. The existing Timken building is serviced with water from these local water lines.

There were no available fire flow data relative to the Timken site. Water lines in the site area were not operating near consumptive use capacity.

Sanitary Sewer

According to plans provided, an 8" sanitary sewer line begins at a manhole in Clark Street just east of the intersection with Field Street. The sewage on Clark Street flows by gravity in an easterly direction and connects to Prospect Street. Another 8" sanitary sewer line follows along Field Street, where sewage flows by gravity in a southerly direction and ties into Pearl Street. The existing Timken building is connected to the local sewer system.

There are no known sewage capacity problems in the site area.

Stormwater

According to plans provided by the City, catch basins are located along Clark Street and Field Street that collect stormwater into 15" RCP (reinforced concrete pipe) lines. The Field Street drainage system discharges into a 36" lock joint concrete pipe stormwater line that originates on Field Street at a localized low point and transverses easterly across the 3.2 acre Timken parking lot; it crosses Clinton Street and ultimately discharges to the Prospect Street storm drain system. There is one catch basin located on Clinton Street along the 36" stormwater sewer line to intercept surface runoff. The pipes are connected to the municipal stormwater drainage system, which ultimately discharges to the Naugatuck River. Roof drains and parking lot catch basins are connected to the Clark Street stormwater system, whereas surface flows in front of the Timken building and its parking lot north of Clark Street are directed to the 36" stormwater line.

According to the Torrington Engineering Department, there is a stormwater system capacity issue on the Timken site, and drains commonly flood. A broken or undersized pipe in the line originating from the Timken parking lot area is the suspected cause of the problem. There is also a storm drainage problem at the intersection of Prospect and East Pearl Streets, which is located downstream of the site and toward the ultimate river discharge.

Gas, Electrical, Telecommunications, and Energy

Natural gas, electric, and telephone lines are located along both Clark and Field Streets. Along Clark Street, a 4" low-pressure cast iron (LPCI) pipe supplies natural gas, whereas electricity and telephone service are provided by overhead lines (TPA, 2002). All utilities service the existing Timken building.

According to Timken, when the current 59 Field Street corporate building is operating, it uses electricity to power approximately three hot water heater units and a kitchenette. The remainder of the building is heated with steam produced at a central power plant located approximately two blocks away from the corporate building. Presently, there are no natural gas connections to the site building.

3.1.5.3.2 Impact Evaluation

Connections for water, sewer, gas, electric, and telecommunications services are located within Field or Clark Streets. The existing corporate headquarters building would need to be disconnected from any utilities connected or metered in conjunction with Timken properties. The building would be disconnected for the central power plant heating system in favor of an independent oil or natural gas connection. Presuming the western end of Clark Street would be abandoned for a parking lot for the new courthouse, utilities would either be abandoned or located within a utility easement.

The current and proposed onsite land use, which includes a high percentage of impervious services, would remain largely unchanged. Therefore, stormwater flows can also be presumed to remain virtually unchanged.

3.1.5.3.3 Mitigation Measures

If the Timken site is selected and it is determined that connection to Clark Street should be abandoned, each utility company would be contacted and relocation needs would be assessed. If warranted, remaining utilities that cross the property would be placed within a utility easement to assure future maintenance accessibility. The positioning of the new building onsite would consider utility requirements.

During the site design process, an appropriate stormwater analysis of the downstream collection system must be completed to assess the cause of localized flooding and determine the appropriate mitigation measure. Any broken or undersized pipes located onsite should be appropriately replaced. Other possible mitigation measures include site stormwater detention and adjusting the onsite drainage divide to route more flow to Clark Street instead of the localized low point. Stormwater systems would be upgraded to meet the performance standards of the *DEP Stormwater Quality Manual* (see Section 3.2.2). An easement should be granted to the City for future access and maintenance of the 36" stormwater line under the parking lot.

Since no fire flow data were available for the Timken site area, fire flow testing is also recommended for the design phase of the new courthouse.

3.1.5.4 The Nidec Site

3.1.5.4.1 Existing Setting

Water Supply

According to plans provided by the City, a 6" water line runs along Franklin Drive from a connection to another 6" water line along Franklin Street (to the north), to the bridge crossing the Naugatuck River (to the south). Water service to the northern building is provided from a connection at the northeast corner of the property by a 5" line. Water service to the southernmost one-story brick buildings is provided from a connection at the southern end of the property by an 8" line.

Fire hydrants are located along Franklin Drive, in the southeastern corner and along the eastern edge of the larger western site parcel. Fire flow data were not available for Franklin Drive. Water lines in the site area are not operating near consumptive use capacity.

Sanitary Sewer

The Nidec site is served by the municipal sewer system. According to plans provided in the site selection proposal, three sanitary sewer pipes (24", 27", and 42" precast concrete pipe, PCCP) are located within Franklin Drive. The Torrington Engineering Department (2005) confirmed that all three sanitary sewer lines are presently in service, but that the line closest to the site (the 24" pipe) services the Nidec site.

The three sewer lines along Franklin Drive connect to an interceptor sewer that was built under the western branch of the Naugatuck River. The interceptor was comprised of a twin 18" & 1-20" siphon that collects the sewage from the connecting lines into a DIP encased in concrete. The interceptor sewer discharges to Park Street on the western side of the Naugatuck River, which ultimately flows to the WWTP.

There are no known sewage capacity problems in the site area.

Stormwater

According to a 1984 plan that was provided by the City, stormwater catch basins are located within the northern portion of the larger site parcel that connect to a 15" polyvinyl chloride (PVC) pipe that discharges to the West Branch of the Naugatuck River. To the south, there are also three catch basins located across Franklin Drive and on the smaller eastern site parcel, directly upgradient of the Naugatuck River Bridge. These catch basins connect to a stormwater outfall under the parking lot on the smaller eastern Nidec site parcel, which discharges to the East Branch of the Naugatuck River.

Gas, Electrical, Telecommunications, and Energy

Natural gas, electric, and telephone services are all located along Franklin Drive. Overhead lines provide electric and telephone services to the current site building.

The Nidec site consumes energy in the forms of electricity and natural gas. There are at least 12 ceiling-mounted gas-burning units of various sizes located throughout the current site building.

3.1.5.4.2 Impact Evaluation

Connections for water, sewer, gas, electricity, and telecommunications services are located within Franklin Drive. Existing service connections would most likely be replaced with new construction.

The current high percentage of impervious surface would remain largely unchanged, although existing onsite catch stormwater basins and piped systems would be replaced. The existing stormwater outfall could possibly be retained to minimize construction disturbance on the Naugatuck River bank.

3.1.5.4.3 Mitigation Measures

Each of the various utility companies would be contacted during the design process. An appropriate onsite stormwater collection system would be designed to meet the performance standards of the *DEP Stormwater Quality Manual* (see Section 3.2.2).

Since no fire flow data were available for the Nidec site area, fire flow testing is also recommended for the design phase of the new courthouse.

3.1.5.5 *The Kelley Site*

3.1.5.5.1 Existing Setting

Water Supply

Water main lines run along Water, John, Mason, and Church Streets. According to TWC, Church Street has an 8" CI water line, John Street has a 12" DIP line, Water Street has a 10" CI line, and Mason Street has a 12" DIP line. Fire hydrants are located on the corner of Water and John Streets, as well as along Church Street.

The most recent test data on file from a 1992 International Organization for Standardization (ISO) survey indicated that a fire flow of 3,900 GPM at 20 pounds per square inch (psi) was available at the intersection of Water and Church Streets. Water lines in the site area were not operating near consumptive use capacity.

Sanitary Sewer

Sewer lines (8") run along along Water, John, Mason, and Church Streets. There are no known sewage capacity problems in the site area.

Stormwater

According to plans provided by the City, four (4) catch basins receive stormwater runoff from John Street and the Parcel B parking lot via 12" high-density polyethylene (HPDE) pipes, and drain to a 12" RCP line located along John Street. The pipes are connected to the municipal stormwater drainage system, which ultimately discharges to the Naugatuck River.

According to the Torrington Engineering Department, there are no known capacity or flooding issues present onsite or downstream to the river discharge.

Gas, Electrical, Telecommunications, and Energy

Natural gas, electrical, and telecommunications services run along Water, John, Mason, and Church Streets. Electrical and telephone services are provided to the site via overhead lines.

Currently, the Kelley site consumes energy in the form of heating oil. According to the real estate agent for the site, there are four (4) oil furnaces onsite. One furnace is located in the main building, one in the Party Warehouse building, one in the bus repair facility, and one is located north of the office building that is out of service.

3.1.5.5.2 Impact Evaluation

Connections for water, sewer, gas, electric, and telecommunications services are located within Water, John, Mason, or Clinton Streets. If a new parking garage is built, the northern portion of John Street would be closed. Presuming the northern end of John

Street is abandoned, utilities would either be abandoned or located within a utility easement.

The current and proposed onsite land use, which includes a high percentage of impervious services, would remain largely unchanged. Therefore, stormwater flows can also be presumed to remain virtually unchanged.

3.1.5.5.3 Mitigation Measures

During the formal proceedings to abandon the northern portion of John Street, each utility company would be contacted and relocation needs would be assessed. If warranted, remaining utilities that cross the property would be placed within a utility easement to assure future maintenance accessibility. The positioning of the new building onsite must consider utility requirements.

An appropriate onsite stormwater collection system would be designed to meet the performance standards of the *DEP Stormwater Quality Manual* (see Section 3.2.2).

While data indicated that acceptable fire flows were available for the Kelley site area, updated fire flow testing is recommended for the design phase of the new courthouse.

3.1.6 Electromagnetic Field

An electromagnetic field (EMF) consists of invisible lines of force that surround any electrical device (National Institute of Environmental Health Sciences & National Institutes of Health, NIEHS & NIH, 2002). The EMF environment at a particular location and time consists of all the electromagnetic fields arriving from numerous sources, both human and natural. Some examples of human-created electromagnetic radiation sources are electric power lines, garage-door openers, citizens band (CB) radios, satellite television broadcasts, cellular phones, and microwave ovens. EMF is a combination of both electric and magnetic fields.

According to the NIEHS and NIH (2002), electric fields are produced by voltage, increase in strength as the voltage increases, and are measured in volts per meter (V/m). Magnetic fields result from the flow of current through wires or electrical devices, increase in strength as the current increases, and are measured in units of gauss (G) or tesla (T). Most electrical equipment must be turned on for a magnetic field to be produced, while electric fields are often present even when the equipment is off as long as it is connected to a power source. Electric fields cannot penetrate most materials that conduct electricity, even those which are poor conductors (e.g., trees, buildings, human skin). Magnetic fields, however, penetrate through most materials and are difficult to shield. Electric and magnetic fields are characterized by their wavelength, frequency, and amplitude (NIEHS & NIH, 2002).

Most recent research has focused on potential health effects of magnetic field exposure, because epidemiological studies have reported an increased cancer risk associated with estimates of magnetic field exposures (NIEHS, 1999). Meanwhile, many of the studies of the biological effects of electric fields did not report a link to increased cancer risk.

The EPA (2004b) has not issued an official statement on the issue of EMF exposure and health risk.

Magnetic fields directly beneath overhead transmission lines typically range from 10 to 20 mG for larger transmission lines (i.e., main feeders) and less than 10 mG for laterals (NIEHS & NIH, 2002).

The typical operating frequency of electric power substations in the United States is approximately 60 Hz, which characterizes the EMF as extremely low frequency (ELF). The ELF range includes 3 to 3,000 Hz. In the United States, there are no federal standards limiting occupational or residential exposure to 60-Hz EMF. However, two organizations, the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and the American Conference of Governmental Industrial Hygienists (ACGIH), have created voluntary guidelines for occupational EMF exposure. These guidelines are presented in Table 3-14.

Table 3-14. Occupational EMF Exposure Guidelines.

Exposure (60 Hz)	Electric Field (kV/m)		Magnetic Field (mG)	
	ICNIRP	ACGIH*	ICNIRP	ACGIH*
<i>Occupational</i>				
Maximum	8.3	25	4,200	10,000
Protective clothing	--	15	--	--
Maximum for worker	--	1	--	1,000
<i>General Public</i>	4.2	--	833	--

Source: National Institute of Environmental Health Sciences & National Institutes of Health (NIEHS & NIH) (June 2002). *EMF, Electric and Magnetic Fields Associated with the Use of Electric Power.*

*Note: The ACGIH guidelines are Threshold Limit Values (TLVs).

Non-occupational EMF exposures vary widely. For example, a can opener can generate a magnetic field of 500 – 1500 mG at a distance of 6 inches away but this value would decrease dramatically to a magnetic field of 2 – 4 mG at a distance of 4 ft away (NIEHS & NIH, 2002).

According to the NIEHS & NIH (2002), at least six states (not including Connecticut) have set regulatory standards for power transmission line electric fields; two of these states have also set standards for magnetic fields.

3.1.6.1 The Timken Site

3.1.6.1.1 Existing Setting

No existing EMF sources other than those normally encountered in the general environment of an urban downtown area are at the Timken site or adjacent to the site.

3.1.6.1.2 Impact Evaluation

The new courthouse facility would not generate EMF higher than that associated with the surrounding site area.

3.1.6.1.3 Mitigation Measures

No EMF issue is perceived at the Timken site; thus no mitigation is warranted.

3.1.6.2 The Nidec Site

3.1.6.2.1 Existing Setting

An electric power substation (Franklin Drive Electric Substation, Photo 3-2) is located northeast of the Nidec site, owned by CL&P. According to CL&P, the operating voltage of the substation ranges between approximately 115,000 and 300,000 V, and the current amperage varies dramatically. A local electric feeder line follows along the western tree belt of Franklin Drive.

Magnetic field measurements were collected by CL&P on August 31, 2005. The magnetic field was measured with an Emdex Snap 3-Axis Magnetic Field Survey Meter (EnerTech; Campbell, CA). The field data sheet is in Appendix F.

The recorded data are listed in Table 3-15. The western side of Franklin Drive is directly beneath the overhead feeder lines and these sampling locations are distinguished on Table 3-15. The highest magnetic field measurement was recorded in front of the primary equipment area of the substation.

The magnetic field measurements are also plotted versus distance from the center of the primary equipment area for the substation (e.g., location of the switch gear, reactor stands), along both the east and west sides of Franklin Drive toward the Nidec site, on Figure 3-2.

3.1.6.2.2 Impact Evaluation

Figure 3-2 indicates that with increased distance from the substation, the magnetic field substantially decreased. As previously described in Section 3.1.6.2.1, sampling locations along the western side of Franklin Drive (closest to the eastern Nidec property line) were located directly beneath the overhead power feeder lines. At distances greater than 100 ft from the primary substation equipment area, sampling locations directly beneath power transmission lines showed readings at approximately 10 mG, which is a typical background level beneath power lines. The measurement closest to the current Nidec buildings was recorded at the (eastern) front gate to the site (Sample No. 7, 8.5 mG),

Table 3-15. Magnetic Field Measurements, Franklin Drive, 8/31/05.

Sample No.	Magnetic Field (mG)	Distance*		Location Description
		ft	m	
3	57.2	40	12	Immediately outside fenced S/S area, in front (east) of switch gear and reactor stands
†4	19.5	80	24	NE corner of property, adjacent to industrial/residential properties to north
†5	11.8	95	29	NE corner of Nidec property, at fire hydrant adjacent to industrial business to north
2	16.5	100	30	In front (east) of S/S transformers
†6	8.0	200	61	Along eastern Nidec property line, @ utility pole
1	5.6	260	79	At NW corner of jet engine property
†7	8.5	300	91	Near front (eastern) gate to Nidec property

Notes:

*The distance listed is taken from the center of the area where the switch gear and reactor stands are located.

†Samples 4 - 7 were taken along the western side of Franklin Drive, across the street from the substation and jet engine, under overhead transmission lines.

Measurements collected on 8/31/05 by CL&P.

S/S = substation, NE = northeast, NW = northwest

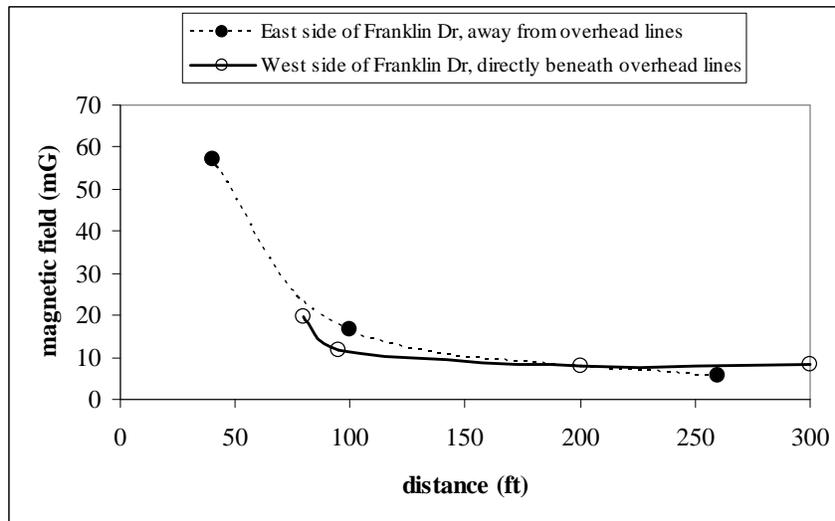


Figure 3-2. Magnetic Field.

approximately 300 feet away from the primary equipment area for the Franklin Drive Substation, again located beneath the overhead power lines.

Sampling locations on the eastern side of Franklin Drive (away from the overhead lines) suggested that with increased distance from both the substation and overhead lines, magnetic fields measurements would decrease even more substantially. A measurement recorded 260 ft from the substation equipment area but not beneath overhead power lines (Sample No. 1) was below 6 mG. Therefore, magnetic fields on the Nidec site away from the overhead power lines would also likely fall at least below 6 mG.

Based on the data, the magnetic field on the western side of Franklin Drive near the front gate to the Nidec site is typical of locations beneath overhead electric power lines. The power substation located across the street is not likely generating EMF that negatively impacts the Nidec site.

3.1.6.2.3 Mitigation Measures

Mitigation measures for the EMF generated by the substation are not required.

3.1.6.3 *The Kelley Site*

3.1.6.3.1 Existing Setting

No existing EMF sources other than those normally encountered in the general environment of an urban downtown area are at the Kelley site or adjacent to the site.

3.1.6.3.2 Impact Evaluation

The new courthouse facility would not generate EMF higher than that associated with the surrounding site area.

3.1.6.3.3 Mitigation Measures

No EMF issue is perceived at the Kelley site; thus no mitigation is warranted.

3.1.7 *Contaminated Materials*

Preliminary information regarding the potential presence of oil or hazardous materials on each of the three sites under consideration for the new courthouse was screened by O'Reilly, Talbot, & Okun Associates, Inc. (OTO). The findings are summarized in a report included in Appendix B.

Each site has a history of industrial or commercial use that included the use of oil or hazardous materials. Additionally, each site has records of hazardous waste shipments that would likely meet the definition of an “establishment” and make transfer of the property subject to the Connecticut Transfer Act. However, various “transfer of establishment” exemptions are available for certain government bodies that may apply to the new courthouse. Each site is located in a GB groundwater area as designated by the DEP.

Additional Phase II subsurface investigations would be required at each site to better characterize remediation costs and cost estimates are presented for each Phase II assessment. The Phase II investigations would include sampling of building materials, soil, groundwater, and/or soil gas. Tentative cost estimates for remedial efforts at each site are also presented. The following information summarizes the findings for each site.

3.1.7.1 The Timken Site

3.1.7.1.1 Existing Setting

The Timken site includes two parcels. The smaller southern site parcel (Parcel A) houses the former corporate headquarters for the Torrington Company, while the larger northern site parcel (Parcel B) is a parking lot for the Excelsior Plant, a former Torrington Company/Ingersoll-Rand factory. The Excelsior Plant is located directly upgradient and west of Parcels A and B, on the west side of Field Street.

On the smaller Parcel A, photochemical hazardous waste was generated from a microfiche machine and three Environmental Areas of Concern (AOCs) were identified (emergency generator, loading dock, and groundwater). Previous soil and groundwater sampling revealed that no releases were attributed to the Timken site. However, groundwater contamination was identified on Parcel A which exceeded the residential groundwater volatilization criteria of the Connecticut RSRs and was likely caused by a chlorinated solvents release at the Excelsior Plant. The Excelsior Plant has 48 areas of concern that have been identified, 13 of which involve solvents.

3.1.7.1.2 Impact Evaluation

The Timken site, if not remediated, could pose a potential human health risk to construction workers and building occupants. Further site investigation and remediation would take place if this site was selected. See Section 3.1.7.1.3 for a description of mitigation measures.

3.1.7.1.3 Mitigation Measures

An indoor air and soil vapor sampling program was recommended on Parcel A to assess the impact on the existing structure. Groundwater wells would also be resampled to confirm past data. No Phase I or II data exists for Parcel B because it is located directly downgradient of the Excelsior Plant and Parcel A. A screening level assessment of soil and groundwater conditions as well as building materials (for asbestos and lead paint abatement) would also be considered. The recommended Phase II assessment of building materials and subsurface conditions in the AOCs was estimated to range between \$14,000 and \$16,000.

If no other releases onto Parcel A have occurred since 2003, it is likely that the smaller Parcel A could be transferred under a Transfer Act Form I. Purchase of the larger Parcel B would not likely be subject to the Transfer Act, but this status would be verified by DPW through consultation with Timken.

After confirming the extent of chlorinated solvent contamination on Parcels A and/or B, installation of a sub-slab vapor removal system and/or vapor barrier beneath the building foundation would be evaluated. An environmental land use restriction could also be placed on the property that would limit use to industrial and commercial purposes. However, vapor barriers would have to be retrofitted since the current site building would be reused for the new courthouse facility. In addition, soils excavated from the site that were contaminated with chlorinated solvents would be classified as hazardous waste, thus increasing unit disposal costs.

Per the DEP policy, the future owner of Parcels A and B would not be responsible for remediating the groundwater contamination caused by the Excelsior Plant. Ingersoll-Rand, the owner of the Excelsior Plant, is the Certified Party under the Connecticut Transfer Act and is therefore responsible for eliminating the source of the chlorinated solvent contamination to the site groundwater. This would ultimately help mitigate present or future problems.

3.1.7.2 The Nidec Site

3.1.7.2.1 Existing Setting

The larger site (western) parcel houses an industrial facility where Nidec formerly manufactured fans and air handling equipment. Industrial processes performed onsite have included metal machining, degreasing, plating, painting, soldering, and assembly. Currently, the building is leased to three industrial/commercial tenants. Buxco rents space at the Nidec site for the dry assembly of packaging components. Inertia Dynamics manufactures brake assemblies for vehicles onsite, and employs lubricants and cutting oils in their processes. The Fuel Cell Corporation rents warehouse space onsite.

Previous studies included Phase I and partial Phase II investigations, and identified the several AOCs on the larger site parcel. Known or suspected sources of chlorinated solvent contamination to groundwater include the loading docks and waste storage piles, two degreaser areas, a screw machine room, and one drum storage area. Other AOCs involved: transformers; the plating area for cadmium and chromium contamination; a 20,000 gallon LUST that predated the present 12,000 gallon tank; a drywell and boiler room; past oil application to site parking lots; trash in subsurface fill materials; and building materials containing asbestos and lead paint.

Limited testing was performed at some of these areas on the larger site parcel. A sampling investigation in 1990 indicated that a plume (approximately 16,000 SF) of chlorinated solvent existed below the building floor slab. Groundwater sampling last conducted in 1995 showed PCE and trichloroethene (TCE), common industrial degreasing solvents, at concentrations below residential groundwater volatilization criteria. However, the potential for vapor migration to existing or future structures was not addressed.

The smaller site (eastern) parcel is a parking lot. Limited testing showed that jet fuel (kerosene) spills from the jet engine power generator operated by NRG migrated to the northern part of the parking lot.

3.1.7.2.2 Impact Evaluation

The Nidec site, if not remediated, could pose a potential human health risk to construction workers and building occupants. Further site investigation and remediation would take place if this site was selected. See Section 3.1.7.2.3 for a description of mitigation measures.

3.1.7.2.3 Mitigation Measures

A Phase II investigation would be conducted to investigate the sources of chlorinated solvent release and characterize the extent of the chlorinated solvent plume on the larger parcel. Soils on the larger parcel may also be contaminated with metals. Therefore, the Phase II sampling program would include soil, groundwater, and soil gas sampling inside and outside the current buildings on the larger (western) parcel.

Additional soil and groundwater sampling would also be required to further assess the impact of fuel contamination from the Franklin Drive Jet Engine to the northern part of the (eastern) parking lot parcel. Demolition of the existing site building would also require assessing the building materials for asbestos and lead paint.

A Phase II assessment of building materials and subsurface conditions on both site parcels was estimated to range between \$35,000 and \$37,000.

Once the extent of chlorinated solvent contamination, metals, and petroleum hydrocarbon contamination is fully characterized, soil would be excavated and post-excavation sampling would be required. Soils removed from the site that were contaminated with chlorinated solvents and metals would be classified as hazardous waste, thus increasing unit disposal costs.

Since the current site building would be demolished, a subsurface vapor barrier could be added to the construction of the new courthouse building.

3.1.7.3 *The Kelley Site*

3.1.7.3.1 Existing Setting

The larger parcel on the Kelley site houses the Kelley Transit Company headquarters, a historic railroad depot, and a retail store (Party Warehouse). The smaller site parcel is a parking lot owned by the City of Torrington with a right-of-way to the adjacent YMCA.

Updated Phase I and Phase II reports that were prepared by LFR (Levin-Fricke) and dated August 2005 were reviewed. These most recent investigations revealed additional records indicating that historically over 100 kg of waste petroleum naphtha were generated per month, likely from parts washing resulting from automotive/bus repair operations. Known AOCs at the Kelley site included tanks (USTs and ASTs) of unknown age, staining near drum storage areas and floor drains, an oil/water separator and parts washer units, and building materials with asbestos and lead paint.

There was one petroleum release area from fuel oil LUST(s) outside the northwest corner of Building #1 (the main building facing John Street) that was identified by a previous Phase II study. The tank(s) were removed from the site in February 2000, but post-excavation sampling in the tank grave was not presented in the Phase I report. The Phase II investigation including a soil boring program, but it did not determine the limits of the petroleum contamination emanating from the tank grave because of access constraints (i.e., buses and debris were blocking some areas where drilling was attempted). Drilling refusal at bedrock was encountered between 3 to 8 ft, and groundwater was not observed above bedrock.

Dye tests conducted on the larger parcel confirmed that all drains discharged to a 1,000 gallon oil/water separator that presumably discharges to the sanitary sewer system. The Phase II drilling program also included interior borings beneath the floor slab that were located near a floor drain in the bus wash area in the north part of the building, at each of the parts washer stations, and near the oil/water separator. PCE was detected well below RSR criteria in soils collected below the floor slab at the parts washer station located in the large bus repair garage. VOCs were not detected in any other soil samples collected.

3.1.7.3.2 Impact Evaluation

The Kelley site, if not remediated, could pose a potential human health risk to construction workers and building occupants. Further site investigation and remediation would take place if this site was selected. See Section 3.1.7.3.3 for a description of mitigation measures.

3.1.7.3.3 Mitigation Measures

The LFR Phase II report concluded that the Kelley site may be considered an establishment based on hazardous waste generation recorded reviewed.

The Phase II investigation did not fully characterize the extent of the petroleum contamination from the fuel oil LUSTs located outside the northwest corner of Building #1 (the main building facing John Street). The Phase II report also recommended additional testing to confirm that the PCE detected significantly below RSRs in the parts washer area located in the large bus repair garage was isolated. Groundwater was not sampled at the site.

Any remaining tanks onsite that are not in use would be located and removed in accordance with DEP regulations. Demolition of the existing site building would also require assessing the building materials for asbestos and lead paint.

The extent of petroleum contamination was not fully characterized, but soils removed from the site contaminated with petroleum hydrocarbons would be recycled, thus lowering unit disposal costs. The Kelley Transit Company indicated that they are currently in the process of a general site cleanup that includes debris and tank removal. Post soil excavation sampling would also be required, as well as an assessment of groundwater conditions.

The demolition of buildings onsite would require an assessment of building materials for asbestos and lead. A screening level assessment of building materials was estimated to range between \$4,000 and \$6,000.

3.1.8 Solid Wastes and Recycling

3.1.8.1 Existing Setting

In accordance with the CGS, DEP has developed a Solid Waste Management Plan for the state to address statewide management of solid wastes. The current plan was adopted in 1991. In May 2005, DEP began drafting an updated State Solid Waste Management Plan to replace the current one. The plan is expected to be finalized early in 2006. Currently, the state's municipal solid waste management system focuses on source reduction, recycling, composting yard and food wastes, resource recovery, and landfilling.

According to materials from the City of Torrington's website (City of Torrington, 2005), the City has an agreement with the Connecticut Resources Recovery Authority (CRRA) for long-term solids waste and residential recycling services. All solid waste controlled by the City is delivered to the CRRA Mid-Connecticut Project for processing. The Mid-Connecticut Project consists of a 2,500 ton/day refuse driven fuel resources recovery facility located in Hartford and four associated transfer facilities (one of which is in Torrington). The City also has a Solid Waste Advisory Committee to address issues within the City.

Currently, commercial solid waste producing facilities must pay for their own solid waste pickup and disposal and recycling. Chapter 128 of the City Ordinances deals with garbage, rubbish, and refuse. This ordinance states nonmunicipal collection requirements, indicating that "the owners or operators of all commercial, industrial and institutional establishments and apartment complexes" must provide for the "storage, collection and transportation of their own wastes" at their own expense. Properties that are not covered by municipal collection contracts also must comply with local recycling policies and must separate these materials from regular refuse.

Designated recyclables in the City include:

- Glass and metal food and beverage containers;
- Corrugated cardboard;
- Office paper;
- Scrap metal;
- Nickel-cadmium batteries;
- Lead acid batteries;
- Waste oil; and
- Leaves and grass.

3.1.8.2 Impact Evaluation

Construction and demolition debris would be generated during the development of a courthouse at the Kelley and would require proper offsite disposal. Construction

activities for the proposed facility would also include earthen fill material. In addition, depending on which site is selected, remediation wastes could also be generated. These wastes are addressed in the contaminated materials section of this EIE. The contractor(s) would be required to remove all construction debris, demolition wastes, and packaging materials from the site and dispose of them in compliance with local and state regulations. A construction recycling program would also be implemented, if feasible. This program would include:

- Identification of recyclable materials that would be generated during construction;
- Assessment of the cost/savings of recycling; and
- Development and implementation of a waste management plan.

The DEP's public scoping comments letter (2005d) commented on solid waste handling and specified that the disposal of demolition waste should be handled in accordance with applicable solid waste statutes and regulations. Criteria were given for clean fill and bulky wastes as quoted below. These criteria would be followed during site demolition and courthouse construction.

“Clean fill is defined in section 22a-209-1 of the Regulations of Connecticut State Agencies (RCSA) and includes only natural soil, rock, brick, ceramics, concrete, and asphalt paving fragments. Clean fill can be used onsite or at appropriate off-site locations. Clean fill does not include uncured asphalt, demolition waste containing other than brick or rubble, contaminated demolition wastes (e.g. contaminated with oil or lead paint), tree stumps, or any kind of contaminated soils. Landclearing debris and waste other than clean fill resulting from demolition activities is considered bulky waste...Bulky waste is classified as special waste and must be disposed of at a permitted landfill or other solid waste processing facility...”

Once the courthouse is in operation, expected solid wastes would be similar to those of an office building. Office paper, food wastes, container wastes, and other general office waste would be generated. A private contractor would need to be hired for waste removal and recycling. A Waste Reduction and Recycling Plan would be followed, in accordance with the guidelines set forth in the CGS regarding waste management at state-owned facilities. Depending on the amount of solid waste produced, a decision would need to be made as to whether a trash compactor would be appropriate or if a dumpster with regular pick-up service will suffice.

3.1.8.3 Mitigation Measures

Mitigation would include proper disposal of wastes and separation of recyclables. A waste removal service would be contracted and a recycling program established at the site. The development and implementation of a construction waste and facility waste reduction and recycling plan would also reduce the amount of waste produced by the facility. Solid waste and recycling are not expected to be a major issue for the site, regardless of its ultimate location.

3.1.9 Aesthetics/Viewsheds

3.1.9.1 The Timken Site

3.1.9.1.1 Existing Setting

The Timken site currently contains a two-story structure constructed in the 1970s (Photos 2-8, 3-7), with a concrete exterior. This parcel contains a landscaped, sloped parking area with a vegetated buffer zone abutting residential properties. The adjacent (larger) parking lot parcel is completely paved, with virtually no onsite buffer to adjacent properties, including Field Street. The adjacent Timken properties consist of restored brick exterior mill buildings with landscaped areas across Field Street (Photo 3-8) and newer, more industrial structures. The restored mill buildings are not on the National Register of Historic Places, however they have historic architectural features. Residential homes in the neighborhood to the north and east are of varying age and construction.

3.1.9.1.2 Impact Evaluation

The existing two-story concrete structure would remain onsite and the landscaped parking area would be modified to accommodate the required number of vehicles. The adjacent parcel across Clark Street would be developed with a multi-story courthouse structure and associated parking and access. The closure of the northern end of Clark Street between Clinton Street and Field Street would allow for development of a campus-like atmosphere and reduce the number of potential daily vehicle trips through the residential neighborhood along Clark Street. The multi-story courthouse building would be visible from adjacent homes and the Timken facility. With the new courthouse in place, views of the restored mill buildings that are currently experienced by some neighbors to the east may be blocked. However, the overall addition of the new four-story courthouse building and associated landscaping would be a major site improvement, in an area that is currently a paved slightly sloping parking lot for the Timken property.

3.1.9.1.3 Mitigation Measures

The building architecture of the new facility, as well as the rehabilitated building would be designed to present a unified image. Architectural and landscape elements would be coordinated to blend with the surrounding community and to maximize aesthetics, especially along Field Street, which contains bordering shade trees along the front of the restored mill building. This tree belt along the roadway edge should be duplicated along the courthouse frontage. Landscaped areas would surround the buildings and parking areas for the new courthouse, to provide onsite visual buffers to the adjacent residential neighborhood. Trees in the existing buffer area would be preserved, if practical.

3.1.9.2 The Nidec Site

3.1.9.2.1 Existing Setting

The Nidec site is currently used as an industrial property and is completely developed either with paved parking and loading dock areas or the building footprint. Surrounding areas are of varying periods and construction and are either industrial, residential, or



Photo 3-7. Existing Corporate Building to be Reused for Courthouse Development at Timken Site.



Photo 3-8. Adjacent Timken Properties across Field Street – Restored Mill Buildings with Streetscaping.

recreational in nature. An electric power substation and jet power station (Photos 3-1, 3-2) are located across Franklin Drive from the site and have a commanding visual presence along Franklin Drive with virtually no setback from the roadway. A multi-story industrial building of varied construction occupies the site. This building varies between one-, two-, and three-stories, with the sections in various states of use and/or disrepair (Photo 3-9). This industrial structure offers limited aesthetic value in its current condition, and the parking areas have virtually no setback from the roadway. The structure is visible over the tree line from the bordering Fuessenich Park across the West Branch of the Naugatuck River (Photo 3-10). The structure is also visible from adjacent properties, including a residential condominium complex.

3.1.9.2.2 Impact Evaluation

If selected, the existing building would be demolished and a new multi-story courthouse constructed. Surrounding portions of the site would continue to be used as parking, with improvements for landscaping and access. The new multi-story courthouse would be visible from the same locations as the existing industrial structure, but would be set back appreciably from the roadway, allowing for the introduction of landscaping elements around the structure. The courthouse development would not have a negative impact on aesthetics or viewsheds. Rather, the development of a new structure with planned architecture and landscaping is anticipated to provide an improvement to the site.

3.1.9.2.3 Mitigation Measures

If the Nidec site is selected, it is expected that an improvement to the viewshed would be realized over the existing industrial building; therefore no mitigation is warranted. However, appropriate landscaping and architectural features would add to the visual effect of the new structure. Trees would be added between the roadway and parking lot areas.

3.1.9.3 *The Kelley Site*

3.1.9.3.1 Existing Setting

The Kelley site consists of several buildings of varied periods (Photos 2-22 through 2-26) and construction, as well as a municipal metered parking lot. The site also houses many stored vehicles and buses on an ongoing basis, as well as parking areas for vehicles of customers and employees of the businesses onsite. As previously discussed, four of the structures on the site are National Register listed and represent documented historical resources. These structures vary in their condition, as some have been impacted by vandalism, neglect, and water/weather damage. The site is set within the Water Street Historic District and most of the immediately adjacent structures (residential, commercial, and institutional) are also listed on the National Register (Photos 3-11, 3-12).

The site is visible from the back side (west) of the YMCA building, the Vogel-Wetmore School, and portions of Water Street.



Photo 3-9. View of Nidec Site Looking South along Franklin Drive.



Photo 3-10. View from Fuessenich Park Stadium East toward Nidec Site.



Photo 3-11. National Register Listed Palmer Rooms Building – Corner of John and Water Streets, Adjacent to Kelley Site.



Photo 3-12. National Register Listed Historic Firehouse – Corner of Water and John Streets, across from Kelley Site.

3.1.9.3.2 Impact Evaluation

Should the Kelley site be selected, all structures on the site would need to be relocated and/or documented and razed. A new multi-story courthouse building would be constructed on the Kelley Realty parcel, with associated access, parking, and landscaping. As envisioned in the conceptual plan (Figure 2-14), the new courthouse would front on both Water and Mason Streets with appropriate entries. The municipal parking lot would also be demolished and replaced with a dedicated parking garage. Construction of a courthouse and parking garage on the site would create new structures in a district which is primarily composed of historic structures in an urban setting.

3.1.9.3.3 Mitigation Measures

Potential aesthetic impacts to the site and consistency with the surrounding historic district necessitate that a careful architectural design would need to be developed to ensure that the new courthouse building would reflect or enhance elements of the character of the surrounding district. The parking garage would be fronted onto Mason Street, in a location with limited visibility from Water Street.

3.1.10 Cultural Resources

The State Historic Preservation Office (SHPO) is a mandated review agency for state-sponsored projects under the authority and regulations of CEPA. Section 22a-1a-3(a)(4) of the implementing regulations specifies that consideration of potential environmental impacts includes evaluating potential “disruption or alteration” of a historic, architectural, or archaeological resource or its setting. As such, the National Register List of Historic Places was reviewed for this EIE to determine whether any listed structures are present on any of the sites or if any of the sites are within listed Historic Districts. The Torrington Historical Society was also contacted for information regarding these sites. To date, no comments have been received from the SHPO on this project.

3.1.10.1 The Timken Site

3.1.10.1.1 Existing Setting

The Timken site is not located within a Historic District, nor does it contain any buildings listed on the National Register List of Historic Places. To date, the SHPO has not commented on the site’s potential use for a courthouse.

3.1.10.1.2 Impact Evaluation

No impact to historic or archaeological resources is anticipated to occur due to construction on this site. The site has been historically disturbed and has been developed as an office building and industrial property for many years.

3.1.10.1.3 Mitigation Measures

No mitigation is needed, as no impact is expected to occur. Should any potentially significant resources be discovered during the construction phase, the appropriate contact would be made to the SHPO.

3.1.10.2 The Nidec Site

3.1.10.2.1 Existing Setting

The Nidec site is not located within a Historic District, nor does it contain any buildings listed on the National Register of Historic Places. The SHPO did not comment on the site's potential use for a courthouse. The site's location at the confluence of the two branches of the Naugatuck River would, however, suggest a potential sensitivity for archaeological resources. Due to the historical industrial setting of the property and its highly disturbed and developed nature, it is not expected that significant intact archaeological resources remain on the site.

3.1.10.2.2 Impact Evaluation

No impact to historic or archaeological resources is anticipated to occur due to construction on this site. The site has been historically heavily disturbed and has been developed as an industrial property for many years.

3.1.10.2.3 Mitigation Measures

No mitigation is needed, as no impact is expected to occur. Should any potentially significant resources be discovered during the construction phase, the appropriate contact would be made to the SHPO.

3.1.10.3 The Kelley Site

3.1.10.3.1 Existing Setting

The Kelley site is located within the Water Street Historic District and contains four National Register listed buildings. These structures were discussed in detail in the Alternatives Considered section (Section 2); summary information is provided below. Additional photos of the structures are included for reference as Photos 3-13 through 3-16.

The first of the National Register listed properties is the E.J. Kelley Co. Garage (Appendix A), which was constructed in 1912. The structure is brick with structural iron or steel. Listed as two stories, the structure is 70 ft x 90 ft in extent. The significance of the structure is related to the importance of the E.J. Kelley Co. in the City, and also to the building's construction during the period of transition from horse-drawn freight wagons to trucks. The structure is still used today.

The second listed structure on the Kelley site is the warehouse that directly abuts the previously described structure. The structure dates to 1895 with post and beam construction and corrugated metal and wood on the frame. The structure is approximately 54 ft x 90 ft in extent and is used for storage. This unique structure was used in the past as a multi-level horse barn, for vehicle storage, as a storage facility for a moving company, and as a public warehouse for flour and furniture. Remnants of the prior moving business are still evident today, as are past features of the Kelley Transit Company.

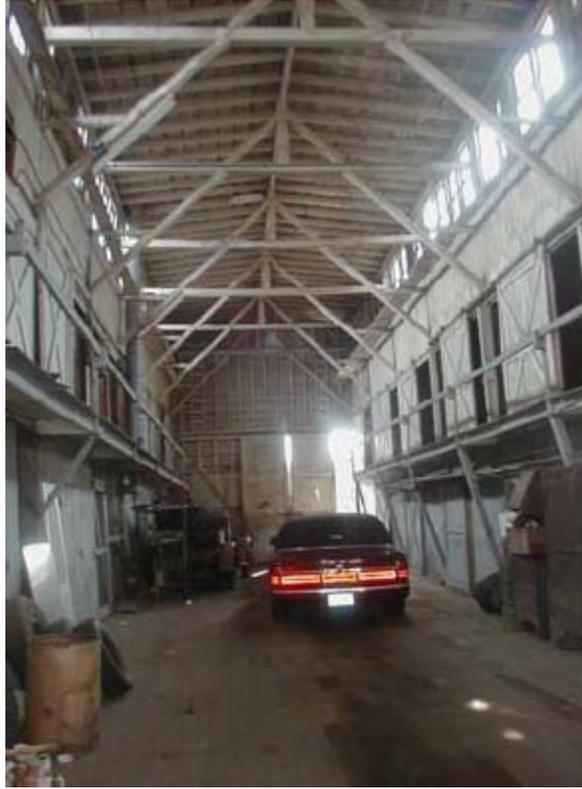


Photo 3-13. Interior of National Register Listed Warehouse building – Kelley Site.



Photo 3-14. Exterior of National Register Listed Kelley Garage.



Photo 3-15. Interior of Former Train Depot – Failed Floor Due to Water Damage.



Photo 3-16. Failed Roof in Former Train Depot.

The third listed structure is another Kelley garage, constructed in 1929. This structure is brick with load bearing masonry. The one-story structure, which is 103 ft x 81 ft, contains seven garage bays and abuts the warehouse structure to the north. This structure provides evidence of the expansion of the E.J. Kelley trucking business in the City. The overall integrity of the structure has been compromised by recent storms in 2005. A portion of the rear of the structure appears to be collapsing. In addition, several of the garage bay doors appeared to be sagging and showed signs of deterioration.

The final listed structure on the site is a former train depot, built in 1898 of brick, granite, and load bearing masonry construction. The one-story building is 33 ft x 110 ft and shows signs of significant deterioration, including a collapsed floor, loss of the side porches, and roof integrity issues. The depot was the former station of the New York, New Haven, and Hartford Railroad and replaced an earlier depot which was a more ornate, Gothic structure, in order to meet post Civil War demands.

3.1.10.3.2 Impact Evaluation

Construction on the Kelley site would require the demolition or relocation of four National Register listed structures. Several of these structures are already in a state of disrepair to the extent that it is unclear if they could be restored or relocated. In particular, the 1929 garage building has recently been significantly damaged by a storm to the extent that the property owner is seeking to raze the structure. The integrity of other structures on the site is also currently being reviewed by the property owner. The City of Torrington has indicated an interest in potentially relocating the train depot structure; however, no definite plans have been made at the time of this report. The depot structure has a failing roof, which led to extensive water damage to the interior of the structure, including the collapse of the floor in the center of the structure. Historic porches were removed in the past and the building has been subject to damage from vandals and from urban wildlife.

However, should the Kelley site be selected, all four structures would most likely need to be razed or relocated. Due to its location in the Water Street Historic District, the construction of a courthouse at this site could also have visual impacts on historic context of the overall Water Street District.

3.1.10.3.3 Mitigation Measures

Before any demolition or construction, photos would be taken to document the structures and/or some structures may be relocated for future restoration. Any proposed project would need to be coordinated with the local historical society and the State Historic Preservation Office to determine what efforts would need to be taken to provide proper mitigation. Due to the extent of historic structures and the construction/space requirements, it would not be possible to avoid demolition or offsite relocation of the structures. Should the Kelley site be selected and a new courthouse be constructed, care would be taken to provide sensitivity to the architecture of the district through coordination with the SHPO during the design development and preliminary design phases of the project.

3.2 NATURAL RESOURCES

3.2.1 *Geology, Topography, and Soils*

3.2.1.1 *Existing Setting*

The City of Torrington is located in the Northwest Hills of Connecticut, with peak elevations in the City on the order of 1,300 ft above mean sea level (MSL) along the western boundaries. The downtown area is gently sloping or flat, due to its location along the two branches of the Naugatuck River. The three shortlisted sites are also relatively flat, with the majority of the site sloping less than 5%. The Timken site ranges from elevation 606 ft to 590 ft MSL. The Kelley site ranges in elevation from approximately 595 ft to 587 ft MSL. Finally, the Nidec site elevations vary from approximately 540 ft to 536 ft MSL.

DEP (2005e) Geographic Information System (GIS) information regarding soils, surficial materials, and bedrock geology were reviewed for the three sites. In general, all three sites are located in the highly urbanized downtown area which has undergone significant historical disturbance. As such, limited detailed soils information exists for the sites; instead they are primarily classified as Urban land, except as noted below. The glacial history of the area suggests that soils at the sites would be primarily till, consisting of sands and gravels. The location of the Nidec site at the confluence of the branches of the Naugatuck River would indicate that alluvial deposits are also likely present. These conclusions are supported by surficial materials information from the DEP GIS layers. Bedrock geology for the Timken site is classified as Hoosac Schist, while the Nidec and Kelley sites are underlain by well-layered gray gneiss formations. According to a recent Phase II study done at the Kelley site (LFR, 2005), drilling refusal was met at bedrock between 3 to 8 ft below the ground surface.

As introduced above, the soils for the Timken, Nidec, and Kelley sites are primarily classified as Urban Land, with the following exceptions:

- The northern portion of the Timken site is classified as the Hinckley-Urban Land Complex, with slopes of 0-3%. This soil is not a wetland soil, is non-hydric, and is not designated as prime farmland.
- The same complex is also located at the southeastern end of the Timken site, with steeper slopes listed (3-15%). The remainder of the site is classified as Urban Land (non-wetland, non-hydric, not prime farmland).
- The southern tip of the Nidec site, along the confluence of the branches of the Naugatuck River, is delineated as Udorthents, flood control soils. These soils are listed as non-wetland and non-hydric.

3.2.1.2 *Impact Evaluation*

Since all three proposed sites are previously developed areas that have already been significantly disturbed, there would be no significant impact on topography, soils, or natural geologic resources. The site and its immediate environs are Urban land which has been significantly disturbed and historically impacted. The soils are not considered to be

Prime or Statewide Important Farmlands; thus, no loss of potentially valuable cropland is expected to occur. Due to the flat or gentle topography of the sites, minimal soil erosion is expected during construction activities.

3.2.1.3 Mitigation Measures

Erosion control measures such as silt fence, haybales, and temporary stormwater settling areas would be employed, as needed, to minimize soil erosion from the site and to prevent impacts to stormwater leaving the site during construction. An EPA National Pollutant Discharge Elimination System (NPDES) Stormwater Permit would also be required. In the State of Connecticut, this permitting is included under the DEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities. A Stormwater Pollution Control Plan would establish control measures to prevent the migration of pollutants from the site via stormwater.

3.2.2 Hydrology/Water Quality

The State of Connecticut has established water quality standards and criteria for both surface waters and groundwater. Comprised of a set of Standards, Criteria, and Classification Maps, the State's water quality standards set an overall policy for water quality management in accordance with Section 22a-426 of the CGS and in concert with the State CWA (Chapter 446k of the CGS). The Standards are text policy statements regarding classification of water resources by desired use, anti-degradation, allowable discharges, and other topics. The Criteria are descriptive and numerical standards for various parameters and goals. The Classification Maps show the Class assigned to each surface and groundwater resource across the State of Connecticut. The Standards are updated frequently to respond to evolving conditions. Overall, these standards are used to provide policy guidance for various issues.

The DEP has also delineated the Major, Regional, Sub-Regional, and local drainage basins for the State of Connecticut. The proposed sites are within the Housatonic Major Basin and the Naugatuck Regional Basin. Based on topography alone, the Nidec and Timken sites straddle two Sub-Regional Basins: The East Branch Naugatuck River and the West Branch Naugatuck River Basins, while the Kelley site lies entirely within the West Branch Naugatuck River Basin. Therefore, all drainage from the three sites will ultimately discharge to the Naugatuck River.

The State also maintains SCELs. This program is administered by the DEP's Bureau of Water Management's Inland Water Resources Division, and regulates the placement of encroachments and obstructions riverward of SCELs. The intent of this program is to limit impacts of flooding due to human interference with natural stream channels. Any project which proposes to place an obstruction riverward of an established SCEL must apply for a permit from DEP. Activities requiring a permit include removal/deposition of material, any alteration, construction, dredging, filling, clearing, grubbing, grading, piping, culverting, channelizing, diverting, damming, and dewatering, among others. Repair of structures within the SCEL may also require a permit.

The state has also delineated areas which potentially contribute to water supply areas and wells. Aquifer Protection Areas have been mapped. None of the three sites fall within an Aquifer Protection Area. As all three sites are downtown, in a highly developed area with historic urban uses by industries, the groundwater supply in the area is categorized as GB, which is not a potential groundwater supply area for public drinking water. All three sites are serviced by public water supply lines.

In addition, inland floodplains are defined within the City as land areas at or below the 100- or 500-year floodplain limits as defined by FEMA mapping. Floodplains are regulated by the DEP for State Agencies and require Flood Management Certification before any construction activity takes place within or affecting a floodplain.

The State of Connecticut's Flood Management regulations stipulate that no state agency shall undertake an activity within the 100-year floodplain or a critical activity within the 500-year floodplain without an approved flood management certification from the Commissioner. Critical activities include, but are not limited to, the treatment, storage, and disposal of hazardous waste and the siting of hospitals, elderly housing, schools, or residences. In order to obtain approval for flood management, the proponent would need to establish that the new use would not adversely increase flood elevations or risk life, health, or property by meeting specific criteria. Other specific requirements regarding stormwater and sanitary sewer management systems may also apply, in addition to any criteria set forth by FEMA or the USACE.

In response to the destruction caused by a significant flood in the area in 1955, a system of flood control dams and other improvements (dikes, floodwalls, etc.) were designed and constructed. Although built by the USACE, the City now owns and operates the system. Inspection and maintenance is conducted by the City with assistance from the USACE.

The State of Connecticut has guidelines for stormwater system design and maintenance, as well as for soil erosion and sediment control. The 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (CT Council on Soil and Water Conservation) and the 2004 Connecticut Stormwater Quality Manual (DEP, 2004) would need to be met for the design, construction, and operation of the new courthouse facility.

The construction of a courthouse at any of the candidate sites would likely require substantial changes to the existing stormwater management systems. If DEP determines that these changes are significant, then the Judicial Branch must certify that the project complies with the stormwater management standards specified in section 25-68h-3 of the RCSA.

3.2.2.1 The Timken Site

3.2.2.1.1 Existing Setting

Surface Water

No surface water bodies or natural watercourses are located on or adjacent to the Timken site. Stormwater drainage from the site traverses east through a residential neighborhood,

eventually draining to the Naugatuck River, which is designated as a Class B water. Class B waters are designated for recreational use, fish and wildlife habitat, agricultural and industrial supply, and other uses including navigation. Class B waters are not designated for potential water supply use, in this case due to the degree of urbanization and the influence of this urbanization and stormwater discharges on water quality. Discharges to Class B surface waters are restricted to cooling water discharges, discharges from municipal and wastewater treatment facilities, discharges from public or private drinking water treatment systems, dredging and dewatering, emergency and clean water discharges, as well as other discharges subject to Section 22a-430 CGS.

As previously stated in this section, flooding and capacity issues exist with the stormwater utility line originating from the Timken parking lot area, most likely due to an undersized or broken pipe. No remedial actions have been taken or planned to address this issue.

Groundwater

The Timken site is underlain by Class GB groundwater. Designated uses for Class GB groundwaters include industrial process water and cooling waters and baseflow for hydraulically connected surface water bodies. These groundwaters are not suitable for human consumption without treatment and are typically associated with historically urbanized communities where waste discharges, spills or chemical releases, and land use impacts have degraded groundwater quality. Discharges are limited to treated domestic sewage, certain agricultural wastes, certain water treatment wastewaters, discharge from septage treatment facilities subject to stringent treatment and discharge requirements, and certain other biodegradable wastes.

Floodplains

No delineated FEMA floodplain areas fall within the Timken site. As such, no evaluation of impacts or mitigation is needed for this issue area.

3.2.2.1.2 Impact Evaluation

Surface Water

The construction of a courthouse on this site would not be expected to impact nearby surface waters any more than the current commercial/industrial development. No surface water bodies or natural watercourses are located on the site, indicating that the primary potential for impact would be from stormwater discharges from the site, which in general may contain elevated concentrations of pollutants and sediment. The site is currently primarily impervious, with limited to no controls for stormwater runoff. An increase in impervious area is not expected for courthouse development at this site. It is expected that the new drainage system which will be designed and constructed for the project will be an improvement over existing conditions at the site, providing a positive impact overall. Potential impacts to surface waters from stormwater pollutants would be mitigated through the appropriate design of a new stormwater drainage system on the site and the use of detention as needed to prevent any increases in peak flows discharging to the Naugatuck River. The installation of BMPs such as swirl concentrators for pollutant

removal prior to discharge to river may also be pursued in the design process. The new system would comply with DEP standards (including an 80% removal of TSS) and would address current capacity and flooding issues emanating from the site.

Flooding is known to occur offsite due to insufficient capacity or a break in the continuity of the system. In conversations with the City Engineer, it was suggested that stormwater drainage should be rerouted easterly along Clark Street, with residual flow to the 36-inch system down Clinton Street. Should this site be selected, the project team would coordinate with the City during the design of any proposed system.

Groundwater

It is not expected that the proposed construction and operation of a courthouse would have any significant groundwater impacts. Approximately 80% of the current site is impervious parking lots or building roof footprints. As such, the exchange between surface and groundwater on the site is minimal. Constructing the courthouse similarly would result in a high percentage of impervious surface on the parcel. Hazardous materials would be limited to small amounts of cleaning products and potential vehicular leaks/releases. No vehicles would be stored long-term at the site, reducing the potential for leaks to go unnoticed. Good housekeeping procedures and stormwater BMPs are expected to minimize any potential pollutants reaching groundwater. In addition, groundwater below the site has been historically impacted and is not used for drinking water supplies. No discharges from the facility would be permitted to the groundwater system, with the potential exception of roof drainage.

3.2.2.1.3 Mitigation Measures

Surface Water

Impacts to surface water resources would be mitigated with the appropriate design of a new stormwater drainage system. Runoff would be detained as needed to prevent any increases in peak flows discharging to the municipal stormwater system and the Naugatuck River. The proposed stormwater drainage system would be compliant with applicable standards and follow the *CT Stormwater Quality Manual* criteria (including 80% TSS removal) and would improve upon current conditions.

Groundwater

No significant impacts to groundwater are expected from the Proposed Action. The proposed land use would be similar in nature to the existing, thus no increase in impacts is expected. In order to encourage some recharge to groundwater from the site, roof leaders could potentially be infiltrated, as appropriate.

3.2.2.2 *The Nidec Site*

3.2.2.2.1 Existing Setting

Surface Water

No surface water bodies are located within the Nidec site. However, the site is bordered by the two branches of the Naugatuck River to the east and west and the confluence of

the two branches of the river to the south. Stormwater drainage from the site discharges to the river, which is designated as a Class B water. Class B waters are designated for recreational use, fish and wildlife habitat, agricultural and industrial supply and other uses including navigation. Class B waters are not designated for potential water supply use, in this case due to the degree of urbanization and the influence of this urbanization and stormwater discharges on water quality. Discharges to Class B surface waters are restricted to cooling water discharges, discharges from municipal and wastewater treatment facilities, discharges from public or private drinking water treatment systems, dredging and dewatering, emergency and clean water discharges, as well as other discharges subject to Section 22a-430 CGS.

Groundwater

The Nidec site is underlain by Class GB groundwater. Designated uses for Class GB groundwaters include industrial process water and cooling waters and baseflow for hydraulically connected surface water bodies. These groundwaters are not suitable for human consumption without treatment and are typically associated with historically urbanized communities where waste discharges, spills or chemical releases, and land use impacts have degraded groundwater quality. Discharges are limited to treated domestic sewage, certain agricultural wastes, certain water treatment wastewaters, discharge from septage treatment facilities subject to stringent treatment and discharge requirements, and certain other biodegradable wastes.

Floodplains

As discussed in the Alternatives Analysis section, the Nidec site borders on the 100-year floodplain of the two branches of the Naugatuck River. The site is also located within the 500-year floodplain to the river (Figure 2-7). Delineated SCELs also border on or fall along the edges of the property and limited FEMA Floodway areas border the site to the south.

3.2.2.2.2 Impact Evaluation

Surface Water

As the existing site is almost entirely paved, the proposed action would not increase the impervious area on the site. It is anticipated that the proposed construction may actually result in a minor decrease in impervious area on the site. Potential impacts to surface waters from stormwater pollutants would be mitigated through the appropriate design of a new stormwater drainage system on the site. The new stormwater drainage system would be designed and constructed for this project to meet DEP standards, including the requirement for 80% TSS removals. Detention would be used as need to prevent any increases in peak flows discharging to the Naugatuck River. The system may tie into existing discharge points to the river, if feasible. The installation of BMPs such as swirl concentrators for pollutant removal prior to discharge to the river would also be evaluated in the design process. In addition, the land use would change from an industrial setting to an office building, with significantly less hazardous materials onsite with the potential to contact stormwater or surface waters. This land use change may have a positive impact on surface waters.

Groundwater

It is not expected that the proposed construction and operation of a courthouse would have any significant groundwater impacts. Existing and proposed conditions have a high percentage of impervious surfaces which reduces the degree of surface water/groundwater exchange. Hazardous materials would be limited to small amounts of cleaning products and potential vehicular leaks/releases. As mentioned above, the change in land use from an industrial setting to an office setting would reduce potential hazardous releases. No vehicles would be stored long-term at the site, reducing the potential for leaks to go unnoticed. Good housekeeping procedures and stormwater BMPs are expected to minimize any potential pollutants reaching groundwater. In addition, groundwater below the site has been historically impacted and is not used for drinking water supplies. No discharges from the facility would be permitted to the groundwater system.

Floodplains

It is anticipated that site design would not include any grading activities within the 100-year floodplain. Thus, no impact would occur. If the design necessitates grading or another activity within the floodplain, a Floodplain Management Certification and appropriate mitigation would be pursued. The site is within the 500-year floodplain, but is not a critical activity specifically defined by the State, so no certification is specifically required for the location of the facility within the 500-year floodplain.

State SCeLs also border on the site. It is expected that the project could be configured to avoid work riverward of the State SCeL boundaries. Thus, no impacts would occur. If however, disturbance is to occur beyond these regulated boundaries, a permit would be required from the State and mitigation would be needed.

3.2.2.2.3 Mitigation Measures

Surface Water

Potential impacts to surface waters from stormwater pollutants would be mitigated through the appropriate design of a new stormwater drainage system on the site and the use of detention as needed to prevent any increases in peak flows discharging to the Naugatuck River. The proposed stormwater drainage system would be compliant with applicable standards, would follow the *CT Stormwater Quality Manual* criteria (including 80% TSS removal), and would improve upon current conditions. The use of BMPs such as swirl concentrators and deep sump catch basins with “hooded outlets” can reduce the potential for pollutants to leave the site.

Groundwater

No significant impacts to groundwater are expected from the Proposed Action. The proposed land use would be similar to the existing in terms of impervious area and less intensive in regard to hazardous materials and pollution potential; thus, no increase in impacts is expected. In order to encourage some recharge to groundwater from the site, roof leaders could potentially be infiltrated, if appropriate. As a result, no specific mitigation is planned for this issue area.

Floodplains

As site design is not expected to impact the 100-year floodplain or areas riverward of the SCEL at the site; thus, no mitigation is planned at this time. Should the construction process necessitate work in these regulated areas, the appropriate permits and certifications would be pursued and mitigation developed.

3.2.2.3 *The Kelley Site*

3.2.2.3.1 Existing Setting

Surface Water

No surface water bodies or natural watercourses are located on or adjacent to the Kelley site. Stormwater drainage from the site travels south, draining through a system of storm drains to the West Branch of the Naugatuck River, which is designated as a Class B water. As discussed above, Class B waters are designated for recreational use, fish and wildlife habitat, agricultural and industrial supply, and other uses including navigation. Class B waters are not designated for potential water supply use, in this case due to the degree of urbanization and the influence of this urbanization and stormwater discharges on water quality. Discharges to Class B surface waters are restricted to cooling water discharges, discharges from municipal and wastewater treatment facilities, discharges from public or private drinking water treatment systems, dredging and dewatering, emergency and clean water discharges, as well as other discharges subject to Section 22a-430 CGS.

Groundwater

The Kelley site is underlain by Class GB groundwater. Designated uses for Class GB groundwaters include industrial process water and cooling waters and baseflow for hydraulically connected surface water bodies. These groundwaters are not suitable for human consumption without treatment and are typically associated with historically urbanized communities where waste discharges, spills or chemical releases, and land use impacts have degraded groundwater quality. Discharges are limited to treated domestic sewage, certain agricultural wastes, certain water treatment wastewaters, discharge from septage treatment facilities subject to stringent treatment and discharge requirements, and certain other biodegradable wastes.

Floodplains

No delineated FEMA floodplain areas fall within the Kelley site. As such, no evaluation of impacts or mitigation is needed for this issue area.

3.2.2.3.2 Impact Evaluation

Surface Water

As detailed above, no surface water resources are located on the property. Drainage from the site is conveyed to the West Branch of the Naugatuck River via the municipal stormwater system. Almost the entire existing municipal lot parcel is paved and the

majority of the Kelley Realty parcel is currently covered by structures. The proposed action is not expected to significantly increase the impervious area on the site. Potential impacts to surface waters from stormwater pollutants would be mitigated through the appropriate design of a new stormwater drainage system on the site and the use of detention as needed to prevent any increases in peak flows discharging to the Naugatuck River. The installation of BMPs such as swirl concentrators for pollutant removal prior to discharge to the river may also be pursued in the design process. It is expected that a new stormwater system would be a significant improvement to existing conditions on the site. In addition, the removal of long-term overnight parked vehicles and vehicle maintenance facilities would reduce the amount of potential pollutants on the site. The construction of a parking structure would reduce the number of vehicles exposed to precipitation and therefore the amount of pollutants which can contact stormwater.

Groundwater

It is not expected that the proposed construction and operation of a courthouse would have any significant groundwater impacts. Hazardous materials would be limited to small amounts of cleaning products and potential vehicular leaks/releases. No vehicles would be stored long-term at the site, reducing the potential for leaks to go unnoticed. Good housekeeping procedures and stormwater BMPs are expected to minimize any potential pollutants reaching groundwater. The high degree of imperviousness of the present and proposed uses limits the extent of surface water/groundwater interaction. In addition, groundwater below the site has been historically impacted and is not used for drinking water supplies. No discharges from the facility would be to the groundwater system, unless roof leaders are directed to infiltration for recharge purposes.

3.2.2.3.3 Mitigation Measures

Surface Water

Potential impacts to surface waters from stormwater pollutants would be mitigated through the appropriate design of a new stormwater drainage system on the site and the use of detention as needed to prevent any increases in peak flows discharging to the Naugatuck River. The proposed stormwater drainage system would be compliant with applicable standards, would follow the *CT Stormwater Quality Manual* criteria (including 80% TSS removal), and would improve upon current conditions. The use of BMPs such as swirl concentrators and deep sump catch basins can reduce the potential for pollutants to leave the site. Interior garage drains will lead to an oil/water separator, which will treat stormwater prior to its discharge into the municipal sanitary sewer system. A licensed waste oil hauler will clean the tank at least once annually.

Groundwater

No significant impacts to groundwater are expected from the Proposed Action. The proposed land use would be similar to the existing in terms of impervious area and less intensive in regard to hazardous materials and pollution potential, thus no increase in impacts is expected. In order to encourage some recharge to groundwater from the site, roof leaders could potentially be infiltrated, if appropriate. As a result, no specific mitigation is planned for this issue area.

3.2.3 Wetlands

There are no wetlands on any of the three sites (Timken, Nidec, Kelley), based on available mapping and field review of the three sites. As such, no analysis of impacts or mitigation is required for the Proposed Action.

The Nidec site is located adjacent to the two branches of the Naugatuck River. The river at this location is a channelized water feature with steep armored banks with vegetation consisting of invasive species, primarily Japanese knotweed (*Polygonum cupidatum*). There are no wetlands associated with the river at this location.

3.2.4 Rare Species

According to the DEP Natural Diversity Database GIS information for 2005, there are no known rare, threatened or endangered species at, or in proximity to, any of the three candidate sites. As such, no analysis of impacts or mitigation is required for the Proposed Action.

3.2.5 Wildlife and Fisheries

3.2.5.1 The Timken Site

3.2.5.1.1 Existing Setting

This site is entirely covered with either buildings or asphalt parking surrounded by residential and commercial development. As such, there is limited wildlife value at this site. Avifauna expected to be found at this site include typical urban birds such as: house sparrow (*Passer domesticus*), song sparrow (*Melospiza melodia*), American goldfinch (*Carduelis tristis*), American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), house finch (*Carpodacus mexicanus*), rock pigeon (*Columba livia*), European starling (*Sturnus vulgaris*), black-capped chickadee (*Parus atricapillus*), mourning dove (*Zenaida macroura*), and northern mockingbird (*Mimus polyglottos*).

Mammals expected to be present at the site include: raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), Norway rat (*Rattus norvegicus*), house mouse (*Mus musculus*), and striped skunk (*Mephitis mephitis*).

There are no aquatic resources at or near the site; therefore, there are no aquatic wildlife present at this site.

3.2.5.1.2 Impact Evaluation

The development of this site as a courthouse with parking does not alter the current habitat of the site. The site would remain as predominantly impervious surfaces and, therefore, the same species that currently occur at the site would be expected post-development.

3.2.5.1.3 Mitigation Measures

No significant impact to wildlife is expected at this site; therefore, mitigation is not warranted.

3.2.5.2 *The Nidec Site*

3.2.5.2.1 Existing Setting

The Nidec site is covered almost entirely by buildings and parking, located at the confluence of the two branches of the Naugatuck River. Existing within a general urban setting, wildlife at the site is expected to consist of typical urban mammals and avifauna, similar to that of the Kelley and Timken sites.

The segments of the Naugatuck River at the Nidec Site consists of a channelized riverine corridor with steep banks dominated by Japanese knotweed (*Polygonum cupidatum*), an invasive species that offers minimal wildlife value.

The riparian habitat has been compromised by historical anthropogenic uses. The construction of dams, channelization, and riparian habitat destruction has limited the diversity of the fish community along this stretch of the river. Fish population surveys conducted by DEP concluded that the physical habitat impairment is a significant factor in limiting fish species support (King's Mark, 2003).

Fish surveys were conducted during the mid to late 1990s at the Palmer Bridge Street crossing (approximately 0.5 miles south of the Nidec site) and on a segment of the West Branch, adjacent to Torrington Plaza, proximal to the Nidec site. Both cold and warm-water species were encountered at both locations including: black nose dace (*Rhinichthys atratulus*), longnose dace (*Rhinichthys cataractae*), cutlips minnow (*Exoglossum maxillingua*), creek chub (*Semotilus atromaculatus*), fallfish (*Semotilus corporalis*), common shiner (*Luxilus cornutus*), tessellated darter (*Etheostoma olmstedi*), rock bass (*Ambloplites rupestris*), and white sucker (*Catostomus commersoni*) (King's Mark 2003).

A number of fish species that typically inhabit warm water lakes and ponds and slow-moving rivers were also found in the surveys and they include: largemouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*), pumpkinseed (*Lepomis gibbosus*), fathead minnow (*Pimephales promelas*), golden shiner (*Notemigonus crysoleucas*), yellow perch (*Perca flavescens*), and brown bullhead (*Ameiurus nebulosus*) (King's Mark 2003). These species are considered transient in rivers such as the Naugatuck.

The river is stocked by DEP at a point immediately south of the confluence of the two branches of the River. According to Don Mysling, Fisheries Biologist at DEP, the water quality of the River has improved in recent years, thereby improving the viability of the trout population.

The river contains habitat opportunities for some amphibians and reptiles including: green frog (*Rana clamitans melanota*), bull frog (*Rana catesbeiana*), pickerel frog (*Rana palustris*), common snapping turtle (*Chelydra s. serpentine*), northern water snake (*Nerodia s. sipedon*), Northern brown snake (*Diadophis punctatus edwardsii*), black rat snake (*Elaphe o. obsoleta*), and Eastern milk snake (*Lampropeltis t. triangulum*).

3.2.5.2.2 Impact Evaluation

The construction of a courthouse at the Nidec site would not substantially alter the character of the land; therefore, mammals and birds that occur at the site would continue to exist there.

The new courthouse is not expected to impact the river fish populations as no work within the river or its narrow riparian corridor is expected. Localized improvements to water quality along this segment of the Naugatuck River would likely be realized as the new stormwater management system would be constructed to supplant the existing, outdated system. Stormwater discharges to the river are expected to be of improved water quality, given that the current DEP requirements for stormwater management (oil/grease separators, sediment traps, deep sump catch basins, etc.) would be implemented for this project. In addition, efforts would be made to provide a sensitive design which would buffer the riverine corridor and proposed Naugatuck Greenway through vegetation and aesthetic enhancements.

The selection of the Nidec site would necessitate some level of site cleanup before construction is initiated. This remediation would likely have positive impacts to the water quality of the river at this location.

3.2.5.2.3 Mitigation Measures

The project is not expected to negatively affect wildlife or fisheries resources; therefore, no mitigation is warranted.

3.2.5.3 *The Kelley Site*

3.2.5.3.1 Existing Setting

This site is primarily covered with either buildings or asphalt parking surrounded by residential and commercial development. The entire site is currently disturbed. As such, there is limited wildlife value at this site. Species expected to be found at this site include typical urban birds such as: house sparrow (*Passer domesticus*), song sparrow (*Melospiza melodia*), American goldfinch (*Carduelis tristis*), American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), house finch (*Carpodacus mexicanus*), rock pigeon (*Columba livia*), European starling (*Sturnus vulgaris*), black-capped chickadee (*Parus atricapillus*), mourning dove (*Zenaid macroura*), and northern mockingbird (*Mimus polyglottos*).

Mammals expected to be present at the site include: raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), Norway rat (*Rattus norvegicus*), house mouse (*Mus musculus*), and striped skunk (*Mephitis mephitis*).

There are no aquatic resources at or near the site; therefore, there are no aquatic wildlife present at this site.

3.2.5.3.2 Impact Evaluation

The development of this site as a courthouse with parking does not alter the current habitat of the site. The site would remain as predominantly impervious surfaces and, therefore, the same species that currently occur at the site would be expected post-development.

3.2.5.3.3 Mitigation Measures

No significant impact to wildlife is expected at this site; therefore, mitigation is not warranted.

3.3 SOCIOECONOMIC RESOURCES

3.3.1 Land Use and Zoning

3.3.1.1 Land Use Summary for Torrington

The City of Torrington, the largest city in Litchfield County, is located in the Litchfield Hills Region. The Litchfield Hills Region is predominantly rural, with the City of Torrington serving as a regional center for population, commerce, and industry. The State's Plan of Conservation and Development reinforces this concept by classifying downtown Torrington and the vicinity as a Regional Center (OPM, 2005).

Industrial land uses originated in the City due to its strategic location along the Naugatuck River, which provided water power for these facilities. As a result of this historic development, the downtown area features densely concentrated development that is primarily industrial, commercial, and residential, while the northern and western portions of the City are more rural and less developed (City of Torrington, 2005). Natural resources constraints such as topography, geology, and wetlands also limit development in these outer regions. Significant open space also exists in the City in the form of State Forests and parks. The Paugnut State Forest is the largest contiguous area and the Torrington Water Company also has significant holdings for water supply protection purposes.

The downtown is an active cultural center, with attractions such as the Warner Theater, the Nutmeg Conservatory for the Arts, and the Artwell Gallery. The area is home to a mix of small shops, restaurants, and services, with distinctive art deco style architecture and preserved historical structures providing homes to contemporary businesses (City of Torrington, 2005).

To address shifts in the City's economic base and to improve usage of downtown buildings and revitalize the area, a separate EIE is being prepared by the State of Connecticut DECD for the Downtown Torrington Redevelopment Plan. In conjunction with the City's Plan of Conservation and Development, this will identify needed infrastructure improvements and desired land use patterns within the City, particularly the downtown area.

3.3.1.2 City Zoning Regulations

While lands owned by the State of Connecticut are not subject to local zoning, information on the City's zoning is provided here to provide context to the siting of a courthouse at any of the three candidate sites. The City's zoning map and associated regulations reflect the historical and planned uses of land and, therefore, are considered in this EIE. The siting of a courthouse at each of the three candidate sites is evaluated with respect to the general land uses allowed within the respective zoning districts for each of the courthouse site locations.

The City of Torrington Zoning Regulations establish a series of fifteen zoning districts with associated building and land use restrictions. The majority of the City of Torrington is zoned for residential uses, with focused areas zoned for industrial and commercial uses along the branches of the Naugatuck River, in the general downtown area, and along the major highway/state route corridors. In addition, a large area in the western portion of the City is designated as a Watershed Protection Zone. The three short-listed sites fall into three zoning districts: Industrial (Timken and Kelley), and General Business, and a General Residence Zone (Kelley). The minimum area and setback requirements associated with these districts are listed in Table 3-16.

The City's Zoning Regulations also set forth environmental regulations in the form of performance standards relative to vibration, odor, electromagnetic radiation, heat, lighting, hazardous materials, and noise. Specific regulations are specified for areas subject to flood hazards, specifically land subject to a one percent or greater chance of flooding in any given year (i.e. 100-year floodplain), as defined on FEMA mapping.

Table 3-16. City of Torrington Zoning Metrics.

Zoning District	Industrial (I)	General Business (GB)	General Residence (R-6)
Minimum Lot Size (SF)	10,000	None	7,500
Minimum Lot Width (ft)	80	None	75
Front Yard Setback (ft)	10	None	25
Side Yard Setback (ft)	25 ft only if adjacent to a residential zone	20 ft only if adjacent to residential zone	Min. of 8 ft on one side; total on both sides of 20 ft
Rear Yard Setback (ft)	25 ft only if adjacent to a residential zone	20 ft only if adjacent to a residential zone	30
Maximum Height (ft)	60	60	60
Maximum Building Coverage Ratio	0.75	N/A	0.5

Specific land uses and the accompanying zoning requirements are discussed in the following subsections.

3.3.1.3 The Timken Site

3.3.1.3.1 Existing Setting

As mentioned in the Alternatives Considered section, the Timken site is zoned Industrial. As presented in Table 3-16, this sets a minimum front yard setback of 10 ft and has side and rear yard setbacks of 25 ft if the lot is adjacent to a residential zone, which applies to the subject site as it is adjacent to R-6 zoning. The maximum building height for this zone is 60 ft and the maximum building coverage ratio is 0.75.

The Timken site currently houses a former corporate headquarters building of the Torrington Company. This two-story structure (43,587 SF) was constructed in 1973 and was used as office space. The remainder of the parcel consists of parking and landscaped areas. Across Clark Street to the north is the other parcel offered for sale. This parcel is completely paved, developed as a parking lot for employees working in the buildings along Field Street. Prior to its development as a parking lot, the site north of Clark Street consisted of individual residences.

Surrounding land uses include industrial/commercial development to the west (also held by Timken) and residential development to the north, south, and east (Photos 3-17 and 3-18). Much of the residential development is in the form of multi-family homes, some with small offices operating in at least one of the units.

3.3.1.3.2 Impact Evaluation

If selected as the site for courthouse development, the existing vacant two-story structure could remain and be renovated for JB facilities use. It is anticipated that this structure would be utilized for offices and specific accessory courthouse functions. A second building would be constructed immediately north of the existing building. This new structure would house courtrooms and associated court functions. For the most efficient use of this site, Clark Street would be closed between Clinton and Field Streets to make room for the proposed structure. By doing so, onsite space would be sufficient to allow for surface parking, which would minimize costs associated with design and construction at this site. Closure of this portion of Clark Street is also a security benefit for the site, as no vehicular traffic would be allowed between the two buildings.

Overall, land use would be similar to the existing development at the site. The majority of the existing large parking lot would remain and the hours of courthouse operation would be similar to those of offices or commercial businesses. Since the existing building is vacant, no impacts would be associated with reuse of the facility for a courthouse. Timken has indicated that they would be able to accommodate current parking demands at other locations on their property, as Timken facilities are not operating at capacity. Vacant areas exist within the large mill type building across Field Street from the Timken site. As such, no direct impacts would occur. However, if the



Photo 3-17. Residential Development along Field Street, South of Timken Site.



Photo 3-18. Residential Development at Intersection of Clinton and Clark Streets – Proposed Western Terminus Point for Clark Street

Timken facilities were to run closer to capacity or if another company occupied the site, it is unclear whether or not parking would be sufficient on the remaining Timken parcels in the area.

3.3.1.3.3 Mitigation Measures

The Proposed Action would be a similar land use to the present site, though slightly more intensive with the addition of a new building. Although a courthouse is not a specific use identified in the zoning regulations, it is generally considered an office use, which is permitted in the Industrial zone. No tenants would require relocation and the parking spaces lost could be made up on Timken’s other parcels, according to the company.

3.3.1.4 The Nidec Site

3.3.1.4.1 Existing Setting

The Nidec site is zoned Industrial. Local zoning requirements would be the same as listed above for the Timken site, with the associated setbacks and height restrictions.

The site is primarily developed either with structures or associated paved parking. Adjacent paved parking is also located across Franklin Drive to the east. The site is currently operating as an industrial facility with three tenants (Inertia Dynamics, Buxco, Inc., and Fuel Cell Corp.). The industrial tenants use only a portion of the existing structure, the remainder is available for lease. The three current tenants have separate leases with Nidec. A summary of lease terms is provided below in Table 3-17.

Table 3-17. Nidec Site Tenant Information.

Tenant Business	Lease End Date	Approximate Number of Employees Onsite
Buxco Electronics	3/30/2010	15
Inertia Dynamics	5/31/2007	110
Fuel Cell Energy	7/2007	2 (site mostly used for storage)

The purchase of this site by the State of Connecticut could affect the current leasing arrangements for these businesses. The current leases do not allow Nidec to terminate these leases upon sale of the property. If the State were to purchase the property before the lease end date(s), then the State would have to either honor the lease term and conditions or buy out the affected leases.

Inertia Dynamics manufactures brakes and clutches at the Nidec site. Buxco uses its leased space at the facility to assemble plastic crating used for laboratories, but does no manufacturing onsite. Fuel Cell Corp. uses space onsite for storage of supplies and materials and does not staff the site full time.

Adjacent land uses include industrial and commercial properties, namely a substation and power company properties to the east (Photos 3-1 and 3-2), residential condominiums to the south, Fuessenich Park (ballfield, Photo 3-10) and a retail shopping center to the west, and mixed uses to the north. The site is separated from adjacent land uses on the west, east, and south by the confluence of the East and West branches of the Naugatuck River.

3.3.1.4.2 Impact Evaluation

The siting of a courthouse at this location, if it were subject to local zoning regulations, would be a permitted use. Selection of the site would require demolition of the existing building and termination of the three existing leases. These tenants would need to relocate, either within the City of Torrington or elsewhere. Selection of this site could displace up to 127 jobs. This loss is further discussed in forthcoming sections of the EIE.

3.3.1.4.3 Mitigation Measures

No negative impacts are expected due to the change in land use from industrial to institutional. However, the potential loss of the three tenants, one of which employs over 100 workers, is significant. If the Nidec site is selected, the DPW will discuss applicable requirements under the Connecticut Uniform Relocation Assistance Act with the property owner and tenants, in consultation with the City and the CT DECD.

3.3.1.5 *The Kelley Site*

3.3.1.5.1 Existing Setting

The City of Torrington parcel is zoned R-6, which is a residential classification, and the Kelley parcel is zoned General Business. The parcel owned by the City of Torrington is currently a paved municipal parking lot with meters. The City has shared parking agreements for 62 spaces with the Board of Education and for 25 spaces with the Torrington Savings Bank on the site. The remaining parking spaces are open for general municipal use. The YMCA also possesses an easement to access their parking spaces across the municipal lot parcel.

The Kelley parcel is currently a bus depot, with vehicle storage, maintenance garages, and an operations office. An abandoned historic train depot is also located on the western border of the site. Three tenants occupy the site, as listed in Table 3-18.

Table 3-18. Kelley Site Tenant Information.

Tenant Business	Lease End Date	Approximate Number of Employees Onsite
Kelley Bus/Transit	3/2007	40
Party Warehouse	Month-to-month	3 full time, several part time
Contractor	Will vacate in next few months	Storage only, no employees onsite

Kelley Transit Company has been in operation at the site as a private company since the mid 1800s, first as a horse-powered hauling business, then as a trucking company and finally as a passenger transit provider. The current fleet includes 57, 55, and 49 passenger buses, as well as other smaller buses, vans, and vehicles. The Kelley Transit Company offers the following services on a scheduled and chartered basis to its patrons:

- Commuter Bus Service between Torrington, Winsted, and Hartford on weekdays;
- Local Transit bus service for the Northwest Transit District six days/week;
- Private Transportation Services;
- Charter Buses for hire by groups; and
- Private Tours.

Immediately adjacent land uses include the YMCA and residences to the east, an inactive rail line and commercial businesses to the west (Photos 3-19, 3-20), retail storefronts and mixed use development (restaurants, apartments, etc.) to the south, and Carl Bozenski's Christmas Village to the north (Photo 3-21). Christmas Village, operated by Torrington's Parks and Recreation Department, has provided children the opportunity to visit Santa during the holidays and receive a toy for over 50 years.

The Vogel-Wetmore School is also located to the northeast of the site (Photo 3-22). This school supports grades K-5 and had a total January 2004 enrollment of 544 students. According to the school's website, the school day runs approximately from 9:00 AM to 3:30 PM, with kindergarten hours from 9:00 AM to noon for AM and 12:40 PM to 3:30 PM for AM and PM kindergarten, respectively. A City fire station is also located to the southeast of the site.

3.3.1.5.2 Impact Evaluation

The siting of a courthouse at this location is considered to be consistent with the City's zoning regulations. Land use would be less intensive in terms of hazardous materials. Construction at the Kelley site would require the demolition of the existing structures onsite, as well as termination of the current leases. It is undetermined whether these tenants would relocate in Torrington; however, a representative of the site has indicated that relocation would most likely be in Torrington. Potentially, 40+ jobs could be lost from the City if this did not occur. The City's municipal parking lot and its associated revenue (approximately \$13,600 annually) would be lost unless the lot was relocated. This is the only municipal lot in this area, so that local business patrons would need to park elsewhere along City Streets in the vicinity (Emery, 2005).

3.3.1.5.3 Mitigation Measures

If the Kelley site is selected, the DPW will discuss applicable requirements under the Connecticut Uniform Relocation Assistance Act with the property owner and tenants, in consultation with the City and the Connecticut DECD. The City has provided a letter (Emery, 2005b) indicating that the City does not have an established site for relocation of the municipal parking lot in the area, but that a lot may be available for purchase further west on Church Street to accommodate the Board of Education spaces. However, no municipal parking would be



Photo 3-19. Businesses Along Rail Line, Northwest of Kelley Site.



Photo 3-20. Rail Corridor along West Border of Kelley Site, with Historic Depot.



Photo 3-21. Christmas Village Located North of Kelley Site.



Photo 3-22. View from Kelley Site Northeast Across Green to Vogel-Wetmore School.

provided at this lot if it were constructed. If the Kelley site is selected, the DPW would coordinate with the City in identifying a site that could be used for municipal parking.

3.3.2 Long Range State and Local Planning

3.3.2.1 Overview of Plans

3.3.2.1.1 State Plan of Conservation and Development

The *Conservation and Development Policies Plan for Connecticut 2005-2010* (herein referred to as the State Plan of Conservation and Development or C & D Plan) and *Connecticut Conservation and Development Policies Plan 2005-2010 Locational Guide Map* were reviewed in the context of this project. These two documents guide the State's decision making processes for several areas such as growth, resource management, and public investment. As stated in the C & D Plan, all State agencies are required to be consistent with the Plan when undertaking the following:

- Acquisition of real property if costs exceed \$100,000;
- Development or improvement of real property if development costs exceed \$100,000;
- Acquisition of public transportation facilities or equipment if costs exceed \$100,000; and
- Authorization of any State Grant in excess of \$100,000 for acquisition, development, or improvement of real property or acquisition of public transportation facilities or equipment.

The *Locational Guide Map* classifies all land in the State into one of eight categories, four development categories and four conservation categories. These areas are defined in order to conserve existing urban areas, promote appropriate development, and preserve environmentally significant areas. In order of their development priority, the four development area classifications are: 1.) Regional Centers, 2.) Neighborhood Conservation Areas, 3.) Growth Areas, and 4.) Rural Community Centers. The four conservation areas, in order of their priority are: 1.) Existing Preserved Open Space, 2.) Preservation Areas, 3.) Conservation Areas, and 4.) Rural Lands. There are also overlying classifications for Aquifer Protection Areas and Historic Areas. In addition, all floodways are shown as Preservation Areas, while 100-year floodplains are shown as Conservation Areas.

According to the *Locational Guide Map*, much of the northern and western portions of the City are designated as Conservation Policy Areas (Existing Preserved Open Space, Preservation Areas, Conservation Areas, Rural Lands). The majority of the downtown area is classified as either a Regional Center, Neighborhood Conservation Area, or Growth Area, with small pockets of Preservation and Conservation Areas associated mostly with floodplain/floodway areas along the Naugatuck River.

The overall C & D Plan sets forth six main Growth Principles. These principles are in turn broken into more specific areas and policies. The six main growth principles are as follows (OPM, 2005).

1. Redevelop and revitalize Regional Centers and areas with existing infrastructure or currently planned physical infrastructure;
2. Expand housing opportunities and design choices to accommodate a variety of household types and needs;
3. Concentrate development around transportation nodes and along major transportation corridors to support the viability of transportation options;
4. Conserve and restore the natural environment, cultural and historical resources, and traditional rural lands;
5. Protect and ensure the integrity of environmental assets critical to public health and safety; and
6. Promote integrated planning across all levels of government to address issues on a Statewide, Regional, and Local basis.

The first principle, redevelopment and revitalization of Regional Centers, encourages well planned concentrated development which fits the community. The principle discusses the nature of the development, infrastructure, revitalization and reuse, and economic development. Creation of quality urban environments which are pedestrian and transit friendly, with aesthetics factored into the development, development in areas where infrastructure exists and in proximity to regional routes, brownfields redevelopment, cluster development for industries, and reuse of vacant or underutilized parcels are all discussed.

The second principle, accommodation of a variety of household types and needs, focuses on promoting housing choice among all income levels, using current infrastructure, and preserving the existing housing stock and associated neighborhoods. This principle does not directly apply to the Proposed Action.

The third principle focuses on concentrating development along major transportation corridors and around major nodes to support multiple transportation options. The economic aspects, promoting land uses that support transit, transportation system management, and environmental responsibility are all discussed.

The fourth and fifth principles deal with environmental protection. The fourth principle deals with conservation and restoration of the natural environmental, cultural and historical resources, and traditional rural lands. The mapped land types considered to be Conservation Priorities are summarized and policies for each are discussed. The fifth principle focuses on the protection of environmental assets with a focus on public health and safety. Drinking water supply protection, water quality, air quality, and waste management are specifically discussed.

The final principle supports integrated planning across all levels of government within the State (State, Regional, Local). Such efforts would provide for greater consistency and effectiveness of policies and regulations.

Overall, the State C & D Plan indicates the need for a balance between development and preservation and a focus on preserving those resources which are most important on a local, regional, and statewide basis. The public welfare, health, and safety would be served by effective land use controls, restrictions to preserve the environment, and policies to better focus development in areas with sufficient infrastructure to support it.

3.3.2.1.2 Litchfield Hills Council Regional Plan

The Litchfield Hills Council of Elected Officials (LHCEO) is the regional planning agency for the 11-town Litchfield Hills Planning Region. This regional group, which consists of the mayors and first selectmen for each of the towns, is responsible for developing and maintaining the Regional Growth Policy Map for the Litchfield Hills Region (adopted 1996). The Map Plan guides long-term physical, economic, and social planning within the region. Along with a series of technical reports, this Map comprises the LHCEO's regional plan of development. The Growth Policy Map identifies recommended development intensities for the region and highlights areas that should be preserved and areas that can accommodate growth and development. Major goals are stated as:

- Conservation and strengthening of existing urban and village centers;
- Promotion of compatible forms of development adjacent to those areas;
- Provision of sufficient land and infrastructure for vigorous economic development;
- Avoidance of intensive development in environmentally sensitive areas; and
- Preservation of the character of the region's rural areas.

All three sites are categorized as being in the Regional Center, according to the Map Plan. Downtown Torrington is cited as the regional center for the Litchfield Hills Region in general. The Plan indicates that the area is serviced by high capacity utilities and infrastructure, which can accommodate the highest development densities and growth (LHCEO, 1996). Priorities and policies suggest that the region can support high density development, it should not interfere with the unique character of the City, nor should the area appear congested. The Regional Center also takes priority for placement of new public institutions and traffic capacity improvements. Reuse of existing structures is also supported. Finally, building facades, landscaping, and automobile parking improvements which enhance the historic character of the region are promoted. Preservation Areas are listed for the region as including natural resources, such as waterbodies, wetlands, floodplains, and preserved open space. Sensitive Resource Areas are also defined, and include historic resources and floodplain areas. For both the preservation and sensitive resource areas, policies are encouraged to protect the resources and limit development in these areas, in some cases encouraging public ownership.

3.3.2.1.3 Litchfield Hills Regional Comprehensive Economic Development Strategy

Harrall-Michalowski Associates, Inc. and Scillia Dowling and Natarelli Advisors prepared the Litchfield Hills Regional Comprehensive Economic Development Strategy (CEDS) in May 2004 for the Litchfield Hills Council of Elected Officials. This document, which was developed to meet a perceived need in the region for the LHCEO to be more active in economic planning, presents the following:

- An overview of the communities in the region;
- An analysis of the area (including topics such as infrastructure, services, land use, natural and cultural resources, environmental issues, and socioeconomic development);
- A Vision for the region; and
- An Action Plan on how to achieve the region's goals.

After creating the CEDS, the LHCEO also developed the Litchfield Hills Economic Development Partnership (LHEDP) composed of elected officials, businesses, educators, planners, and financial institutions. This group was active in the preparation of the CEDS, soliciting input from the appropriate groups, obtaining financial support, and framing the plan.

The vision statement for the region is stated as follows (Harrall-Michalowski, Scillia Dowling and Natarelli Advisors, 2004):

“Over the course of the next two decades, the Litchfield Hills Region will promote growth opportunities for higher education and strengthen the economic well-being and quality of life for all of its residents. The Region will continue to transition to a more diversified economy that is globally competitive and results in the retention and creation of new and higher paying jobs, supported by appropriate labor force skills. The local property tax base will be expanded and broadened in a manner that conserved appropriate open space and community character, while strengthening the area's existing urban and village centers.”

Five priority goals were established, each with associated strategies. A description of these goals is quoted as follows (Harrall-Michalowski, Scillia Dowling and Natarelli Advisors, 2004):

1. Implement priority municipal economic development projects that support goals 2, 3, 4, and 5 – Implementation of projects at the city/town level to support other goals;
2. Promote growth of a diversified regional economy that improves job opportunities – Retain and facilitate expansion of local businesses and attract new businesses;
3. Ease the local property tax – Enlarge and diversify the tax base in the region;
4. Improve the capacity of the region to support economic development initiatives – Allocate additional resources to organization of economic development initiatives; and

5. Maintain and enhance the region's quality of life – Foster smart growth and respect the region's historical, cultural, and natural resources.

The document cites the downtown Torrington redevelopment project as having the greatest potential to effect change in the region. The Five-Year Regional Action Plan for Torrington also cites projects such as brownfields redevelopment, development of a modern facility to house the operations of the Northwest Transit District, and development of a new industrial park, among others. The development of new Litchfield Judicial District facilities is also specifically cited under Goal #5 in the Action Plan.

Priority programs are established as reusing vacant industrial buildings and facilities, brownfields redevelopment, a regional information database website, and regional linkage between job needs and excess regional labor force.

3.3.2.1.4 City of Torrington Plan of Development

The Torrington Planning and Zoning Commission developed the *City of Torrington Connecticut Plan of Development* (last rev. 2003), an advisory document which sets forth the “Commission’s recommendation for the most desirable use of land within the municipality for residential, recreational, commercial, industrial and other purposes, and for the most desirable density of population in the several parts of the municipality”. The Plan includes sections describing the history of Torrington, its population, the natural environment and land uses, and economics. Overall, the Plan seeks to increase the availability of parking and public transportation and promote economic development, all while maintaining the City’s architectural integrity and historic buildings. The Plan also includes a section on goals, objectives, and policies, with issue areas identified as the following topics:

- Agriculture – This topic is not applicable as all sites are in a previously developed urban area and no agricultural soils are present.
- Community Facilities – Support, maintain, and expand community services.
- Fire Protection – Improve level of fire protection by insuring adequate water supply and maintaining stations in appropriate locations.
- Commercial Development – Improve City appearance through buffering, setbacks, landscaping, traffic control, aesthetics, and by focusing into set areas.
- The Downtown Area – Maintain the viability and appearance of the downtown area by encouraging retail and commercial development, improving parking, managing traffic, and maintaining the architectural integrity and historical character of the area.
- Environmental Quality – Protect City’s environmental quality through zoning, identification of resources, encouraging appropriate development, and maintaining a balance between conservation and development.

- Historic Preservation – Encourage preservation of historic structures and provide for patterns of development that are compatible with historic areas.
- Housing – This policy is not applicable to the Proposed Action.
- Industrial Development – This section promotes providing adequate and appropriately located land for industrial parks/industrial development. This section also indicates that industrial land should be protected from loss to residential/retail development, and stresses the importance of continuing to provide for economic growth by maintaining the employment and tax base provided by industrial facilities.
- Open Space/Recreation – This section recognizes the importance of balancing between new development and protected open spaces. Key resources within the City are identified and recommendations made for each, including provisions for the Naugatuck River Greenway, a rail trail, and the idea for a river walk. The sewer easement to the south of the Nidec site is listed as a potential river walk location.
- Transportation and Traffic – Transportation goals are identified, including focusing on City Center improvements for safety and traffic improvements, maintaining and expanding transit options, implementation of advanced planning and management techniques, working with streetscapes, providing pedestrian and bike access, and maintaining the overall quality of the transportation system in the region.
- Future Land Use Policies – The overall goal is to maintain the City’s character with a suitable mix of land uses. The Plan suggests that this goal can only be achieved through changes to the existing zoning regulation to promote certain types of development and to appropriately locate industrial development away from residential areas.

Overall, four major general goals and objectives are stated in this Plan, as quoted below (Torrington Planning and Zoning Commission, rev. 2003):

1. Maintain the basic character and quality of life of the City of Torrington with a suitable mix of residential, commercial, agricultural, and industrially zoned property while continuing to provide a mix of residential property.
2. Enhance the City’s tax base, while maintaining a balance between jobs and housing.
3. Advise and cooperate with City agencies and departments to insure that public utilities and services such as fire, police, medical, schools, roadways, transportation, and recreation facilities satisfy the demands of a growing population.

4. Protect the City's natural resources, insuring the preservation of open space and encouraging the preservation of historically significant sites.

3.3.2.1.5 City of Torrington Conceptual Master Plan for the Downtown Area

A document entitled *Conceptual Master Plan for the Downtown Area: City of Torrington, Connecticut* was developed for the City by the Downes Group in association with TPA Design Group in 2002. This study was commissioned as a result of previous planning efforts in the City and private developer interest in the community. The Master Plan was created with an ultimate goal of urban growth and revitalization for the downtown City of Torrington, with significant input from both the private and public sectors and through coordination with residents, businesses, and interest groups.

The document summarizes previous planning efforts within the community. A study entitled *Torrington Downtown Strategic Initiative* was completed in 1998 and centered on five major elements: cultural and heritage tourism, urban development, parking and circulation, design guidelines, and specific areas of focus. This initiative also included a marketing analysis to investigate retail niches and strategies to assist businesses. At the time of this initiative however, no large scale public or private funding was available to realize the planning goals presented.

The Conceptual Master Plan also summarizes developer interest in the downtown area. An Agreement for Private Development was approved and executed between the City's Economic Development Commission and Downtown Torrington Redevelopment LLC (the Developer) in November 2000 (The Downes Group, 2002). A development plan was submitted for consideration in 2001 conceptualizing and discussing the feasibility of developing three areas of the downtown.

According to the Downes Group (2002), this plan was developed to explore the possibility of State funding and for potential commitments from retail developers. The plan presented was comprehensive, including information on zoning, utilities, traffic and circulation, parking, streetscape development, historic resources, and other issues, all in the context of mixed use development and facility renovation. In Spring 2001, the CT General Assembly passed a Special Act that appropriated thirty million dollars (\$30,000,000) to the Developer to fund a portion of the proposed development. This grant money is being administered by DECD, who requested that the City follow a public process to develop a downtown redevelopment plan to guide the Developer (The Downes Group, 2002).

The Conceptual Master Plan was developed by the Downes Group as a step in this process. Several workshops were held in the community to set goals and objectives and discuss issue areas such as:

- Gateways,
- Open space,
- The Naugatuck River,
- Land use,

- Historic preservation,
- Environmental remediation,
- Market research and development opportunities,
- Areas for development,
- Traffic, parking, and access issues, and
- The role of the various parties (public and private sectors).

Fifteen (15) principal goals and objectives resulted from this process. These goals and objectives generally focus on the following:

- Maintaining the character of the community,
- Preserving historic buildings and the main street setting,
- Encouraging investment in the economic sector,
- Improving aesthetics and highlighting local natural resources,
- Providing adequate parking and circulation for traffic and pedestrians,
- Supporting tourism, and
- Determining what businesses are needed in the City through market research.

The Conceptual Master Plan (The Downes Group, 2002) delineates seven planning level land uses:

1. Central Core,
2. Community/Institutional,
3. Retail/Commercial Development,
4. Multi-Use Development,
5. Revitalization Sites,
6. Ancillary Development Sites, and
7. Open Space/Parks.

Four general areas of improvement are also identified: Parking, Streetscape Improvements, Traffic Improvements, and Riverwalk/Greenway. Specific areas are shown on a map of the downtown area to delineate specific sites where these improvements are needed.

The Nidec and Timken sites fall just outside the study area boundaries of the Conceptual Master Plan study, while the Kelley site is located within the study area, in a zone set aside for Retail/Commercial Development in an area slated for Streetscape Improvements.

3.3.2.2 Impact Evaluation

3.3.2.2.1 State Planning

The proposed project is generally consistent with the State C & D Plan in both its general approach to land development and its specific goals for various land use categories. All three of the sites that were shortlisted are currently developed properties with existing infrastructure and utilities. If selected, the Timken site would utilize an existing structure

for a portion of its operations, rather than razing the entire site. Each of the three sites is within the general downtown area and within the designated Regional Center area according to the *Locational Guide Map*. The sites would be accessible from local public transportation routes and by automobile and are close to major regional transportation routes such as Routes 4, 8, and 202.

The Nidec site appears to border along Preservation and Conservation Areas to the west, which run north to south along the West Branch of the Naugatuck River and Conservation Areas to the south and east of Nidec. The Kelley site appears to be just south of a Preservation Area, maintained as a park. Each of these sites would require consideration during the design process to ensure that potential disturbance to these resources would be minimized. Due to the location of the resources outside of project limits, this is not expected to be an issue. No other significant natural resources are present on the sites, as they are almost entirely paved or currently developed. The stormwater systems would be an improvement over existing conditions. No public water supplies or Wellhead Protection Areas exist in the vicinity of any of the three sites.

Both the Nidec and Kelley sites house operating businesses, such that jobs could potentially be lost within the City should the tenants relocate outside of the City. If either the Nidec or Kelley site is selected, the DPW will discuss applicable requirements under the Connecticut Uniform Relocation Assistance Act with the property owner and tenants, in consultation with the City and the Connecticut Department of Economic and Community Development. The City and State would need to work to assist these businesses in finding vacant properties within the City to meet their needs, depending on which site is selected. However, the addition of the Courthouse to the City is expected to have positive economic impacts in terms of adding new jobs to the City and in secondary effects, such as increased patronage of local restaurants and shops.

The Kelley site is located within a historic district and contains listed structures of varying age and condition. The State C & D Plan encourages protection of such resources and districts. If the Kelley site were selected, these structures would need to be relocated and/or documented and razed. This may be inconsistent with the State C & D Plan.

3.3.2.2.2 Regional Planning

The project appears to be generally consistent with local planning policies. The sites are each located within the designated Regional Center, which takes priority for placement of new public institutions and regionally important facilities. The proposed project would use carefully designed architectural facades and landscaping to enhance the property selected, using buffers to shield adjacent properties and to provide an aesthetically pleasing site. Resource areas have been avoided and the shortlisted sites are already developed as commercial or industrial properties and almost completely paved. The Kelley site would require impacting historic structures and would be set in a historic district, although this site has also been indicated as a potential major retail site. These structures would need to be relocated and/or documented and razed. The Timken site

would involve reuse of an existing vacant structure, thereby reducing the need for new structures.

3.3.2.2.3 Local Planning

The project would appear to be generally consistent with the City's plan for development, with some exceptions, as discussed below. All three of the sites are within the downtown area and would avoid disturbance of natural resources in the area. Careful architectural design and landscaping are proposed to buffer the courthouse site and to achieve a unified appearance with the surrounding environment. Development of the Kelley site would require relocation or documentation and demolition of several historical structures of varying age and condition. These structures would need to be relocated and/or documented and razed. This impact cannot be avoided if the Kelley site is selected and may be inconsistent with local planning.

The Timken and Nidec sites were beyond the areas included in a study of the downtown area; however, the Kelley site was suggested as a location for a major retail store, which would suggest that the historic structures were to be removed from the site, regardless of whether this site was selected for a courthouse. It is unclear whether development of this site as a courthouse would impact the retail setting proposed for this portion of Water Street. Selection of the Kelley site would also require elimination of the current municipal parking lot on Mason Street and the City would need to relocate the Board of Education's 62 spaces elsewhere in the area. This would constitute an impact to the City and would reduce available parking for local businesses, contrary to the City's local plans. DPW will work with the City to identify appropriate replacement parking for the displaced spaces.

3.3.3 Public Safety

3.3.3.1 Police Department

3.3.3.1.1 Existing Setting

The Torrington Police Department is located at 567 Main Street and is staffed by 77 sworn police officers and 8 civilian employees (City of Torrington, 2005). The Department is divided into two major divisions: the Patrol Division and Support Services Division. The Support Services Division is comprised of the following units: Records, Community Relations, Crime Watch, Crime Stoppers, the D.A.R.E. program, Traffic Division, and I.S.S. (an investigative unit).

The Police Department also has several specialized units including a Police Canine Unit, an Accident Investigation Unit, a Special Emergency Response Team, a Bicycle Patrol which patrols downtown in the summer, and two other community programs (A School Resource Officer and the Explorer Program). The Special Emergency Response Team originated in 1999 and acts as a regional response team, along with members of the Winsted Police Department. The team consists of a lieutenant, five sergeants, and 13 patrol officers (City of Torrington, 2002).

3.3.3.1.2 Impact Evaluation

The Chief of Police was contacted and indicated that no major impact to the Police Department's operations was anticipated due to the development of a courthouse downtown. He indicated that moving the courthouse downtown would make response and travel times shorter, both for marshals vans and for police response. Judicial Marshals and the State Police would continue to be primary responders to the site, regardless of location.

3.3.3.2 Fire Department

3.3.3.2.1 Existing Setting

The Torrington Fire Department has its headquarters at 111 Water Street and maintains a substation at 899 Main Street in the north end of the city. The department employs approximately 58 employees, according to the City's website. Volunteer companies in Torrington, Burrville, and Drakeville supplement the City forces, adding approximately 50 volunteer firefighters and responding to approximately 25% of all incidents. The department is divided into Training/Safety, Investigation/Prevention, and Operations components. Four shifts operate out of the City stations. Each shift is comprised of a Captain, three lieutenants, and approximately 8 to 9 firefighters. Overall, the City responds to approximately 2,000 incidents annually. According to the Torrington Fire Chief, the Water Street station responds to approximately 80 to 85% of those incidents.

The Water Street facility houses offices for Administration, Operations, Training, and the Fire Marshal. One front-line engine, one reserve engine, one ladder, one rescue vehicle, one utility vehicle, two rescue boats, and a fire prevention trailer are maintained at the Water Street Station.

3.3.3.2.2 Impact Evaluation

The Water Street station would be the primary responder, as it is closest. The Timken site could potentially be responded to by either staffed station (Water St. or Main St.), as they are both in the vicinity. According to the Torrington Fire Chief, the two fire stations in the downtown area are currently minimally staffed. The impact of placing the new courthouse on the staffing would require further investigation, regardless of the site selected.

Additionally, while there are buildings in town that are larger than two stories, there are no parking structures of that size in Torrington. Fire response procedures for a parking structure filled with motor vehicles are different than those for a building occupied by people. According to the City Fire Department, the construction of a three- to four-story parking structure for a new courthouse at the Kelley site would require the fire department to invest in new equipment and training techniques and prepare for different response procedures. If the Kelley site is selected, the sponsoring and participating agencies will discuss and coordinate these issues with the City Fire Department.

3.3.3.3 Other Municipal/State Entities

The City also has a Public Safety Board made up of six (6) members and headed by the Mayor. Finally, an Emergency Operation Center is maintained by the City at the Police Department, and can be opened to the public in the event of an emergency, such as a natural disaster.

The Connecticut State Police maintain their Western District Headquarters at 452 Bantam Road, in Litchfield. Troop L is also based at this location.

3.3.3.4 Courthouse Security Operations

Operation of a courthouse requires separate circulation and support systems and space for judges and staff, the public, jurors, and detained persons. Secured parking is necessary for judges and staff. Exclusive control of the entire parking facilities is also warranted for security concerns. Thus, the parking lot can not be a shared facility for municipal uses. The public entrance to the courthouse would have a metal detector/X-ray booth which would be staffed by security personnel during the hours of courthouse operation.

A loading dock area and a secured entrance for detained persons and marshals are also required. Detained persons would be brought to the courthouse in a secured marshals van, which would be driven inside the building for loading/offloading detained persons. A separate circulation system would exist within the courthouse. Detained persons would be processed after being removed from the marshal vehicle inside the structure in a secured area. The detained persons would then be held in a cell block until the time of their trial.

The cell block and security/guard operations are maintained with an entirely separate circulation system, such that the detained persons are confined to non-public areas at all times, except for their courtroom appearance. Any potential for contact with the public is thus minimized. Detained persons are not kept in the courthouse overnight, they arrive in marshals' vans daily as needed. At no time are detained persons outside of the courthouse, except for during transit in secured marshals vans. The loading docks/detained persons delivery entrances are typically located to the side or rear of the building, secured within a locked gate and fenced area, and are shielded from public view through landscaping and vegetation. This measure, with the internal loading/offloading for detained persons, provides for sensitivity and security for the surrounding land uses. Depending on which site is selected, surrounding land uses could be industrial, commercial, residential, or institutional in nature.

3.3.4 Population, Economy, Employment, and Income

According to the Connecticut Economic Resource Center, Inc. (CERC), The City of Torrington's 2004 total population was estimated at 36,248, a slight increase from the 2000 Census value of 35,202 (CERC, 2004; U.S. Census, 2000). The population of the City is expected to continue to increase by 0.7% annually over the period 2004-2009, consistent with the overall growth rate projected for the state (CERC, 2004).

According to CERC estimates (2004), the median age was 40 and the population of the City was approximately 91% White, 2% Black, 2% Asian Pacific, 4% Hispanic (of any race), 1% Other Race/Multi-Race and less than 1% Native American. More detailed information about the population in the immediate project area is available from the 2000 Census and is discussed in forthcoming sections of this document.

The City of Torrington is broken into 10 census tracts and the tracts are broken down into a series of block groups. Finally, the block groups are broken down into blocks for certain types of data. The Timken and Kelley sites are located within Census Tract 3102, Block Group 1. The Nidec site is located within Census Tract 3103, Block Group 2. Basic statistics for the alternative site locations and for the City, County, and State in general are included below in Table 3-19.

The City of Torrington is located in Litchfield County, within the Torrington Labor Market Area, the Litchfield Hills Economic Development Region, and the Litchfield Hills Planning Area (CERC, 2004). The unemployment rate for the City was 5.8% in 2004, higher than both the County (4.2%) and State (4.3%) levels (CERC, 2004).

According to the U.S. Census (2000), per capita income in Torrington in 1999 was \$21,406, approximately \$7,000 less than the per capita income of Litchfield County and approximately \$7,400 less than the 1999 statewide per capita income. Similarly, median household incomes in 1999 were lower for the City of Torrington (\$41,841) than for the County (\$56,273) and State (\$53,273).

Table 3-19. General 2000 Census Statistics for Alternative Courthouse Sites and Vicinity.

Census Tract/ Geographic Area	Timken and Kelley Sites		Nidec Site		City of Torrington	Litchfield County	State of CT
	Tract 3102	Tract 3102, B.G. 1	Tract 3103	Tract 3103, B.G. 2			
Total Population (2000)	2,736	1,049	1,697	835	35,202	182,193	3,405,565
Per Capita Income (1999)	\$18,647	N/A	\$17,889	N/A	\$21,406	\$28,408	\$28,766
Median Household Income (1999)	\$27,614	N/A	\$36,875	N/A	\$41,841	\$56,273	\$53,935
Poverty Rate (2000)	11.6%	N/A	10.1%	N/A	7.4%	4.5%	7.9%

According to the 2000 Census, the overall poverty rate for the City of Torrington (7.4%) was on pace with that of the State (7.9%), but significantly higher than that for Litchfield County (4.5%). The poverty rate in the downtown area in the census tracts where the potential courthouse sites are located is higher than the overall level for the City, as

shown in the preceding table. Income rates are also lower in the downtown area, in the vicinity of the project area.

According to the 2004 Town Profile (CERC, 2004), the top five major employers in 2002 were The Torrington Company, The Charlotte Hungerford Hospital, O & G Industries, The Torrington Board of Education, and F.M. Precision Golf Corporation.

There were a total of 1,664 businesses operating in Torrington in 2001. Of these, the majority were service related (682 businesses, 41% of total businesses, 32% of the total employees). Manufacturing employed approximately the same number of people, yet it accounted for only 100 firms (6% of the total in the City). Trades accounted for the third largest portion of the labor force (21%) and represented the second largest business sector (469 businesses).

The City has also indicated that Torrington recently was designated as an Enterprise Corridor by the State Legislature. A letter provided by the City also stated that the Torrington City Council recently approved areas eligible for Enterprise Zone benefits, among which are the Nidec and Timken sites.

The State's Enterprise Zone Program is administered by the Office of Business and Industry Development of the DECD. Benefits of the program may include an 80% five year local property tax abatement on eligible property and a 25% or 50% credit on the state corporate business tax of the eligible business. Such incentive benefits are aimed at promoting private business relocation and expansion projects. This would not appear to be directly relevant to courthouse construction but could make the property more marketable for another use by the private sector. This could also prove valuable for tenant relocation incentives for existing businesses at the Nidec or Kelley sites, provided that one of these sites is selected.

3.3.4.1 Impact Evaluation

The Proposed Action is not expected to have any significant effects on population or income in the City of Torrington. Construction and operation of a courthouse in the City would have positive short- and long-term economic effects. In the short-term, jobs would be provided for construction workers, for suppliers of construction related materials, and for service industries addressing the needs of the construction workers. Long-term benefits include the employment of additional staff over time at the courthouse facility. This would similarly benefit not only the local but regional economy through the addition of new jobs. Also, employees and visitors to the courthouse would provide additional patronage to local eating establishments and businesses.

Selection of any of the courthouse sites and purchase by the State would result in a tax revenue loss for the City. Information provided by the City Tax Collector (2005) indicates that in 2004, the Timken site paid \$49,369 in taxes, the Nidec site paid \$29,418.48, and the Kelley Site paid \$16,457.65 in taxes (for the Kelley Realty parcel, as the municipal parcel is owned by the City and does not pay taxes). Tax revenue for the site would need to be offset by State Payment In Lieu Of Taxes (PILOT) monies.

There could also be economic losses due to displaced businesses. Since the Timken site is vacant, no employees would be affected by selection of this site. However, if the Nidec site were selected for courthouse development, the industrial tenants which utilize the facility would need to be relocated. Since the lease terms for at least one of the tenants extends into the construction/occupation phase time period for the courthouse, termination of this lease would need to be negotiated. It is unclear whether these tenants would choose to relocate in Torrington or if they would move their businesses outside of the City. If these businesses did not relocate in Torrington, approximately 127 jobs could potentially be lost from the City.

The Kelley site currently has three tenants, one of whom is going to vacate this year. The remaining two tenants employ at least 45 people. Again, if these tenants chose to relocate outside the City, these jobs could be lost. Preliminary indications from the Kelley site representative are that the Transit Company would relocate in the City. Losses would also occur from parking meter and leased space revenue from the municipal parking lot. The City's Economic Development Director indicated that the loss of the municipal lot would create a hardship on the City and remove approximately \$13,600 in annual revenue. Also, only the 25 TSB parking spaces could be accommodated on the developed courthouse site. The City also indicated in a letter that the 62 Board of Education allotted spaces could potentially be accommodated on a 0.42 acre parcel further west on Church Street, currently owned by Kelley Realty Company. This would not meet municipal parking needs, such that meter revenue would still be lost. The City or State would need to work with the tenant businesses if the Nidec or Kelley sites were selected to try to relocate the businesses to another appropriate location within the City. The DPW would coordinate with the City in identifying a site that could be used for municipal parking. If either the Nidec or the Kelley site is selected, the DPW will discuss applicable requirements under the Connecticut Uniform Relocation Assistance Act with the property owner and tenants, in consultation with the City and the Connecticut Department of Economic and Community Development.

The Proposed Action would have a limited negative economic impact on the Town of Litchfield because employees that currently work at the courthouse facilities there would be relocated to Torrington. These employees would no longer utilize existing services in Litchfield which could have a negative impact on small businesses in the center of the Town. However, the West Street courthouse in Litchfield would be renovated and would still serve some Judicial District functions, limiting the potential impact to the Town.

3.3.5 Housing

Based on Census 2000 data, approximately 58% of the housing units in Torrington are single-family homes. Two-family homes make up the next largest classification, representing almost 19% of all housing units in the city. Three- and four-unit homes compose almost 10% of the total units, while 5 to 9 unit structures add up to approximately 5% of the total. Structures with ten or more units and mobile homes (which account for less than 1%) round out the remaining percentage of housing units for the City.

Table 3-20 presents housing statistics for the census tracts in the vicinity of the alternative courthouse sites, as well as for the City of Torrington, Litchfield County, and the State of Connecticut as a whole.

As shown in the Table 3-20, occupancy rates are high within the downtown tracts in the vicinity of all three alternative courthouse sites, although they are slightly lower than those for the City, County, and State overall. The percentage of owner-occupied housing units is significantly lower in these areas than those for the City, County, and State. In general, Torrington has a lower percentage of owner-occupied homes than other towns in Litchfield County, while it is consistent with the rate for the entire state. Similarly, median home values are lower in the project area tracts than those for the City. Overall, median home values within the City of Torrington (\$112,100) are lower than those for the County (\$156,600) and State (\$166,900).

Table 3-20. Housing Statistics from the 2000 Census.

Census Tract/ Geographic Area	Timken and Kelley Sites		Nidec Site		City of Torrington	Litchfield County	State of CT
	Tract 3102	Tract 3102, B.G. 1	Tract 3103	Tract 3103, B.G. 2			
Total Housing Units	1335	530	976	445	16,147	79,267	1,385,975
Occupancy Rate (Occupied Units/Total Units)	87%	84%	84%	88%	91%	90%	94%
Percentage of occupied units that are Owner- occupied	42%	34%	27%	33%	65%	75%	67%
Median Value of Owner-Occupied Housing Units	\$92,700	\$92,900	\$79,400	\$77,200	\$112,100	\$156,600	\$166,900

3.3.5.1 Impact Evaluation

The three proposed sites are not residential properties. Thus, no effects on the local housing stock are expected.

3.3.6 Consistency with the Environmental Equity Policy (Environmental Justice)

In part, the State’s Environmental Equity Policy (a.k.a. Environmental Justice) states, “...no segment of the population should, because of its racial or economic makeup, bear a disproportionate share of the risks and consequences of environmental pollution or be denied equal access to environmental benefits.” In order to assess the Proposed Action’s

consistency with this policy, a review of Census 2000 demographic information was conducted.

Table 3-21 illustrates the Census 2000 populations of various races for the Census Tracts and Block Groups in the vicinity of the shortlisted sites. For comparison, racial demographics are also included for Litchfield County and for the State of Connecticut (also from the 2000 Census). As mentioned in previous sections, the overall poverty rate for the City of Torrington (7.4%) was on pace with that of the State (7.9%) according to the 2000 Census, but was significantly higher than that for Litchfield County (4.5%). The poverty rate in the downtown area in the census tracts where the potential courthouse sites are located is higher than the overall level for the City, as shown in the preceding table. Income rates are also lower in the downtown area, in the vicinity of the project area.

3.3.6.1 Impact Evaluation

Based on the Census data and the details of the Proposed Action for the project site areas, no disproportionate impact would be placed upon minorities or low-income populations by construction of a courthouse at any of the three sites. No residences or neighborhoods would be displaced and construction impacts are expected to be minor and temporary in nature.

Table 3-21. Racial and Ethnic Populations and Percentages for Project Census Tracts.

	Timken and Kelley Sites		Nidec Site				
Census Tract/ Geographic Area	Tract 3102	Tract 3102, B.G. 1	Tract 3103	Tract 3103, B.G. 2	City of Torrington	Litchfield County	State of CT
Total Population	2,751	1,049	1,686	835	35,202	182,193	3,405,565
Total Population – Hispanic or Latino	122 (4.4%)	48 (4.6%)	112 (6.6%)	43 (5.1%)	1,162 (3.3%)	3,894 (2.1%)	318,947 (9.4%)
Non Hispanic Population Distribution by Race – Total Populations							
White Alone	2,405 (87.4%)	873 (83.2%)	1,434 (85.1%)	749 (89.7%)	32,200 (91.5)	172,154 (94.5%)	2,637,525 (77.4%)
Black or African American Alone	78 (2.8%)	53 (5.1%)	61 (3.6%)	11 (1.3%)	694 (2.0%)	1,837 (1.0%)	292,988 (8.6%)
American Indian or Alaska Native Alone	3 (0.1%)	1 (0.1%)	0 (0%)	0 (0%)	57 (0.2%)	279 (0.2%)	7,464 (0.2%)
Asian Alone	68 (2.5%)	36 (3.4%)	40 (2.4%)	22 (2.6%)	634 (1.8%)	2,107 (1.2%)	81,766 (2.4%)
Native Hawaiian other Pacific Islander Alone	1 (<0.1%)	1 (0.1%)	0 (0%)	0 (0%)	7 (<0.1%)	35 (<0.1%)	1,018 (<0.1%)
Some Other Race Alone	3 (0.1%)	1 (0.1%)	6 (0.4%)	6 (0.7%)	23 (<0.1%)	203 (0.1%)	8,607 (0.3%)
Two or More Races	71 (2.6%)	36 (3.4%)	33 (2.0%)	4 (0.5%)	425 (1.2%)	1,684 (1.0%)	57,250 (1.7%)

Source: U.S. Census 2000.