

# Town of Berlin

Department of Development Services

FILE COPY

February 25, 2015

Mr. Joseph Bajorski  
Berlin Housing Authority  
250 Kensington Road  
Berlin, CT 06037

Subject: Berlin Housing Authority

Dear Mr. Bajorski:

At its meeting of February 12, 2015, the Berlin Planning and Zoning Commission voted unanimously to approve your Special Permit and Site Plan applications for the Berlin Housing Authority. In accordance with Connecticut State Statutes, the Notice of Decision for the Special Permit must be filed in the Berlin Land Records. Please bring the enclosed, original document to the Office of the Berlin Town Clerk at your earliest convenience for that purpose.

Should you have any questions, please call this office.

Sincerely,



Hellyn R. Riggins, AICP  
Director of Development Services

*Certified Mail (Return Receipt Requested): 7014 1200 0000 9524 1477*

# Town of Berlin

MAR 03 REC'D

Department of Development Services

February 25, 2015

## TOWN OF BERLIN

### NOTICE OF DECISION

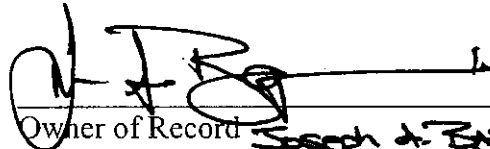
**SUBJECT:** Special Permit/Site Plan Applications

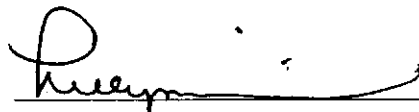
**APPLICANT:** Berlin Housing Authority

**LOCATION:** 143 Percival Avenue

At its Regular Meeting of February 12, 2015, the Berlin Planning and Zoning Commission voted unanimously to approve, with conditions, the Special Permit and Site Plan Applications of the Berlin Housing Authority for housing for elderly persons, 50 units in two buildings, at 143 Percival Avenue. The conditions of approval are:

- a. Show 150 s.f. of open space per unit.
- b. All fencing to be wooden, as shown on the plan.

  
 Owner of Record *Joseph J. Epstein*  
 Chairman, BHA

  
 Hellyn R. Riggins, AICP  
 Director of Development Services

Received for Record at BERLIN, CT  
 On 03/12/2015 At 12:58:27 pm



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**FILE COPY**

TOWN OF BERLIN

2014 NOV -4 P 3: 35

**PLANNING AND ZONING COMMISSION  
SITE PLAN APPROVAL APPLICATION**

Site Plan  or \*Site Plan Amendment

**APPLICANT**

Name Housing Authority, Town of Berlin

Address 250 Kensington Road, Berlin, CT 06037

Telephone 860-828-4500 Fax \_\_\_\_\_

Signature \_\_\_\_\_


**OWNER (IF NOT THE APPLICANT)**

Name The Town of Berlin

Address 240 Kensington Road, Berlin, CT 06037

Telephone 860-828-7000

**WITH THE SIGNING OF THIS APPLICATION, I GIVE MY CONSENT THAT ANY TOWN OFFICIAL AND/OR EMPLOYEE THAT THE TOWN DEEMS NECESSARY MAY ENTER MY PROPERTY TO VERIFY INFORMATION SUBMITTED FOR THIS APPLICATION.**

Signature  Date 11.4.14

**PROPERTY DATA** Address 143 Percival Avenue

Lot/Block Map 8-4, Bl 54, Lot 63,65 Zoning R-11

Proposed Use Housing for elderly persons. 50 units in two buildings.

	<b>YES</b>	<b>NO</b>
Wetland	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Water Course	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flood Hazard Zone	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flood Plain	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the subject property within 500 feet of another municipality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	EXISTING	PROPOSED	N/A
Sanitary Sewers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Septic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Well	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flood Hazard Zone	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SITE PLANNER**

Name Angus McDonald-Gary Sharpe and Associates, Inc.  
Matthew White, P.E.  
Address 233 Boston Post Road - P.O. Box 608, Old Saybrook, CT 06475  
Telephone 860-388-4671 Fax 860-388-3962  
Email almgps-mbw@snet.net

**CORRESPONDENCE SHOULD BE DIRECTED TO**

Name Housing Authority, Town of Berlin  
Address 250 Kensington Road, Berlin, CT 06037  
Telephone 860-828-4500 Fax \_\_\_\_\_  
Email \_\_\_\_\_

**Application Fee:**

\$350.00 for the first 5,000 square feet; then 10 cents per square foot of additional square footage.

\$350.00 Minimum/\$1940.00 Maximum plus \$60.00 for the State of CT Solid Waste Management Fund – Check for both fees to be made payable to the “Town of Berlin.”

**\* If Site Plan Amendment:**

\$195.00 plus \$60.00 for the State of CT Solid Waste Management Fund - Check for both fees to be made payable to the “Town of Berlin”

Attachment: Checklist

Site Plan Approval Application Fee Paid	State of CT Solid Waste Management Fund Fee Paid
\$ <u>1940.-</u>	\$ <u>60.-</u>
<u>fms</u> Received by	<u>fms</u> Received by



TOWN OF BERLIN

2014 NOV -4 P 3: 34

**PLANNING AND ZONING COMMISSION  
SPECIAL PERMIT USE APPLICATION**

**APPLICANT** Name Housing Authority, Town of Berlin  
Address 250 Kensington Road, Berlin, CT 06037  
Telephone 860-828-4500 Fax \_\_\_\_\_

**OWNER (IF NOT THE APPLICANT)**  
Name The Town of Berlin  
Address 240 Kensington Road, Berlin, CT 06037  
Telephone 860-828-7000

**WITH THE SIGNING OF THIS APPLICATION, I GIVE MY CONSENT THAT ANY TOWN OFFICIAL AND/OR EMPLOYEE THAT THE TOWN DEEMS NECESSARY MAY ENTER MY PROPERTY TO VERIFY INFORMATION SUBMITTED FOR THIS APPLICATION.**

Signature  Date 11-4-14

**PROPERTY DATA** Address 143 Percival Avenue  
Lot/Block Map8-4, Bl 54, Lots 63,65 Zoning R-11

Is the subject property within 500' of another municipality? No

**PROPOSED USE** Housing for elderly persons. 50 units in two buildings.



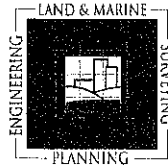
**CORRESPONDENCE SHOULD BE DIRECTED TO**

Name Housing Authority, Town of Berlin  
Address 250 Kensington Road, Berlin, CT 06037  
Telephone 860-828-4500 Fax \_\_\_\_\_  
Email \_\_\_\_\_

**FEE:** \$220 plus \$60 for the State of Connecticut Solid Waste Management Fund  
**Note:** One check made payable to "Town of Berlin" in the proper amount may be submitted.

**NOTE:** Regardless of the source used for determining the adjacent property owners list, including the use of the Town of Berlin's GIS software, the ultimate responsibility for accuracy is upon the applicant.

<b>Special Permit Use Application Fee Paid</b>		
\$ <u>220</u>	<u>fms</u> Received by	<u>11-4-14</u> Date
<b>State of Connecticut Solid Waste Management Fund Fee Paid</b>		
\$ <u>60</u>	<u>fms</u> Received by	<u>11-4-14</u> Date



ANGUS McDONALD  
GARY SHARPE  
& ASSOCIATES, INC.  
SINCE 1966

## TRANSMITTAL

Date: November 4, 2014

To: Town of Berlin Zoning Department

From: Matthew White, P.E.

RE: Berlin Housing Authority - Percival Avenue

Enclosures:

- (1) Application Fee in the amount of \$2,280
- (1) Copy of completed application forms - Signed copies to be delivered under separate cover.
- (6) Sets of Architectural Plans - Dated November 4, 2014
- (6) Copies of the Drainage Report - Dated July 17, 2014
- (6) Copies of the Traffic Impact Study - Dated August 8, 2014
- (14) Copies of Site Development Plans and Landscaping Plans

2014 NOV -4 P 3:40  
TOWN OF BERLIN

 FILE COPY

TOWN OF BERLIN

2014 NOV 13 A 11: 14

Statement of Use  
Town of Berlin Housing Authority  
143 Percival Avenue

Date: November 11, 2014

The project consists of the removal of the former Knights of Columbus building and the construction of 2 new buildings containing 50 residential units for elderly housing to be operated by the Berlin Housing Authority. 34 1-bedroom units and 16 2-bedroom units are proposed together with a community room and outdoor patio.

The site is located in the R-11 Zoning District and a special permit is sought under section XI.Q, Housing for Elderly Persons. There are 88 parking spaces proposed compared to a requirement of 63 spaces. The excess spaces are proposed to accommodate Housing Authority staff, visitors, and care givers. A traffic report has been submitted with an estimate of peak hour traffic counts.





**MILONE & MACBROOM®**

TOWN OF BERLIN

August 8, 2014

2014 NOV -4 P 3: 58

Mr. Matthew White  
Angus McDonald/Gary Sharpe & Associates, Inc.  
P.O. Box 608  
233 Boston Post Road  
Old Saybrook, CT 06475

**RE: Traffic Impact Study  
Proposed Residential Development - Berlin Housing Authority  
Percival Avenue (Route 71)  
Berlin, Connecticut  
MMI #3323-05-1**

Dear Matt:

At your request, we have prepared this traffic impact study to assess the traffic implications of 50 housing units within two buildings to be developed on the site of a former Knights of Columbus hall on Percival Avenue (Route 71) in Berlin, Connecticut. Figure 1 shows the site location and surrounding area. The work comprising the study consisted of a number of tasks including field reconnaissance, inventory of present roadway conditions, review of recently collected traffic volume and speed data on Percival Avenue, estimation of site-generated traffic associated with the proposed development, and analysis of traffic operations at the site access drives.

### **Site Environs**

The site is located on the east side of Percival Avenue approximately halfway between Carbo Lane and Kenton Street, just south of Percival Field. The surrounding land use is primarily residential. Percival Avenue, adjacent to the site, has a posted speed limit of 30 miles per hour and contains a single travel lane in each direction with 12-foot travel lanes and 1-foot shoulders. In addition to Percival Avenue (Route 71), major roadways in the area include Route 372, Route 9, and U.S. Route 5.

### **Existing Traffic Volumes and Travel Speeds**

Traffic volume and travel speed data for Percival Avenue adjacent to the site was recently collected by means of Automatic Traffic Recorder (ATR). Data was collected from 12:00 p.m. on Wednesday, June 4, 2014, to 10:00 a.m. on Friday, June 6, 2014. During this period, it was found that a 24-hour daily average of 2,690 vehicles traveled by the site (total of both directions). The morning peak hour occurred from 7:00 a.m. to 8:00 a.m. on Friday when 189 vehicles traveled past the site, 137 in the northbound direction and 52 in the southbound direction. The afternoon peak hour occurred from 4:00 p.m. to 5:00 p.m. on Wednesday when 255 vehicles traveled past the site, 117 northbound and 138 southbound. Figures 2 and 3 illustrate the existing weekday morning and afternoon peak-hour traffic volumes on Percival Avenue at the site driveway, respectively.

Milone & MacBroom, Inc., 99 Realty Drive, Cheshire, Connecticut 06410 (203) 271-1773 Fax (203) 272-9733  
www.miloneandmacbroom.com

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The vehicle travel speed data collected for Percival Avenue at the site driveway location during this period was reviewed. The 85<sup>th</sup> percentile speeds, which are often used in roadway assessment and design, were found to be 42 miles per hour in the northbound direction and 44 miles per hour in the southbound direction. The 85<sup>th</sup> percentile speed is the speed at which or below 85 percent of motorists travel. The 50<sup>th</sup> percentile travel speeds for the northbound and southbound directions were found to be 36 miles per hour and 38 miles per hour, respectively. As mentioned above, the posted speed limit is 30 miles per hour.

**Accident History**

Accident data for the study area was obtained from the University of Connecticut Crash Data Repository/Connecticut Department of Transportation (CTDOT) for the 3-year period of January 1, 2010 through December 31, 2012. It was found that five accidents occurred on Percival Avenue during this time frame between Carbo Lane and Kenton Street. Four of the five accidents resulted in property damage only. Three of the accidents reportedly involved motorists traveling too fast for conditions and colliding with a fixed object. Another collision involved unsafe backing, and the fifth accident was a rear-end collision that was due to a motorist following too closely. Table 1 summarizes the accident data on Percival Avenue near the site.

**TABLE 1  
 Percival Avenue (Route 71) - Accident Data**

LOCATION:	ACCIDENT SEVERITY			TYPE OF COLLISION			
	INJURY	PROPERTY DAMAGE ONLY	TOTAL	REAR-END	BACKING	FIXED OBJECT	TOTAL
Percival Avenue in the vicinity of the site driveway	1	4	5	1	1	3	5

Source: UCONN Crash Data Repository/CTDOT, January 1, 2010 through December 31, 2012

**Proposed Development and Site Access**

The site currently contains a vacant former Knights of Columbus hall, which is to be replaced with two buildings with a total of 50 housing units. One building will contain 26 units, and the other building will contain 24 units. Eighty-eight parking spaces are proposed at the site, six of which will be designated for handicapped motorists.

Vehicle access to and from the site will continue via the existing driveway at Percival Avenue. The site driveway approach to Percival Avenue is STOP-sign controlled. Visibility was reviewed from the point of view of a motorist about to egress to Percival Avenue. Motorists exiting the driveway will have Intersectional Sight Distances (ISDs) in both directions that meet CTDOT guidelines for the 85<sup>th</sup> percentile speeds, subject to selective clearing of vegetation and foliage within the state right-of-way. As mentioned above, the 85<sup>th</sup> percentile speed of northbound traffic approaching the site was recorded to be 42 miles per hour. The 85<sup>th</sup> percentile speed of southbound approaching traffic is 44 miles per hour. Based on CTDOT guidelines, the corresponding ISDs for a motorist looking to the south (left) and to the north (right) to adequately judge whether or not to turn from the site and enter the flow of traffic on Percival Avenue are 467 feet and 489 feet, respectively.

**Site Traffic Volumes**

Vehicle trips generated by the proposed development have been estimated based on statistical data contained in the Institute of Transportation Engineers (ITE) *Trip Generation*<sup>1</sup> publication and are summarized in Table 2. It is estimated that approximately five trips will enter the site and 25 trips will exit the site during a typical weekday morning peak hour. During the weekday afternoon peak hour, it is estimated that 25 trips will enter the site and 10 trips will exit the site.

**TABLE 2  
 Anticipated Site-Generated Traffic**

Land Use (ITE Code)	Dwelling Units	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Apartment (220)	50	5	25	30	25	10	35

Source: *Trip Generation, 9<sup>th</sup> Edition*, Institute of Transportation Engineers, 2012

The distribution of this peak-hour site traffic to and from the north and south on Percival Avenue has been estimated based on a review of Census Journey-to-Work data as well as the existing area traffic patterns. It is estimated that approximately 90 percent of the site traffic will be oriented to and from the north on Percival Avenue toward Route 9, Route 72, and Interstate 84 while 10 percent will be oriented to/from the south on Percival Avenue toward Interstate 691, U.S. Route 5, and Route 15 (Wilbur Cross Parkway). Figure 4 illustrates the site traffic distribution. Figures 5 and 6 show this distribution applied to the anticipated site traffic volumes for the weekday morning and weekday afternoon peak hours, respectively.

**Future Traffic Volumes**

In order to assess the impact of the residential development, roadway traffic within the study area was developed without and with the site traffic volumes.

<sup>1</sup> *Trip Generation, 9<sup>th</sup> Edition*, Institute of Transportation Engineers, 2012

Background (no-build) traffic is reflective of roadway conditions without the proposed development. Review of CTDOT traffic monitoring data from stations along Percival Avenue over the last 15 years finds that traffic volumes have for the most part decreased. Therefore, no generic or normal growth was applied to the existing traffic volumes. An inquiry was then made to CTDOT and the Town of Berlin Planning and Zoning Office. It was found that there are a few recently approved traffic generators in the vicinity of the site.

The Lofts at Sherwood Falls is a residential development at the renovated Sherwood Tool Factory that was approved to contain 72 condominiums and 14 townhouses located at 10 Main Street in Berlin, Connecticut, which is about one-half mile north of the site. This development is projected to generate two northbound and eight southbound trips during the morning peak hour and nine northbound and four southbound trips during the afternoon peak hour that will travel along Percival Avenue. It is noted that the Lofts at Sherwood Falls was partially occupied at the time when the traffic counts for this study were conducted in early June. For the purpose of this study, however, all of these Lofts at Sherwood Falls trips were added into our background traffic profile.

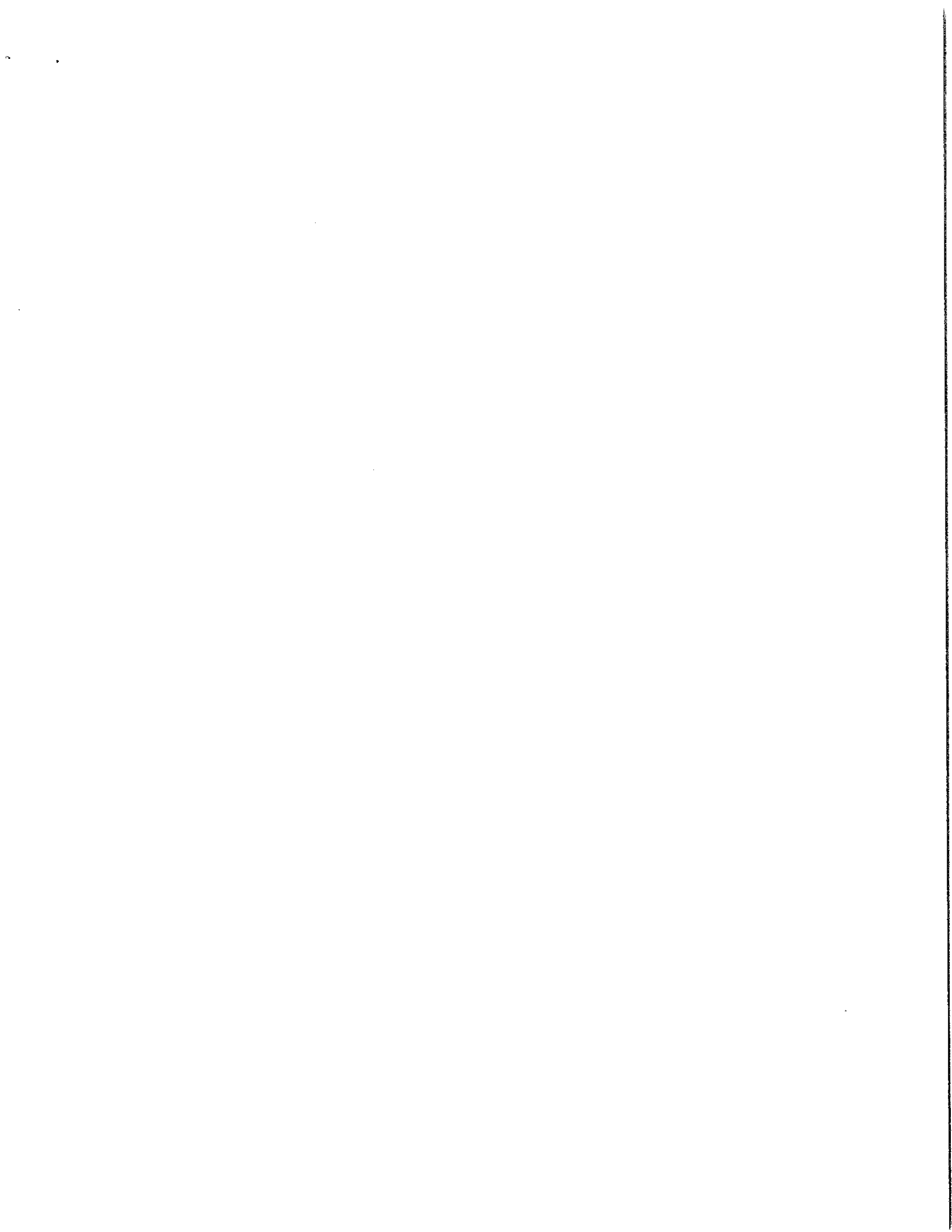
McGee Acres is a residential development, which will contain 12 single-family housing units located on McGee Lane in Berlin, Connecticut. This development is about one-half mile northwest of the site off Hart Street and is estimated to generate six southbound trips during the morning peak hour and six northbound trips during the afternoon peak hour that will travel along Percival Avenue. The new traffic volumes from these two nearby developments were added to the existing traffic volumes to develop Figures 7 and 8, the future background traffic volume estimates for the weekday morning and weekday afternoon peak hours, respectively.

Additionally, a small amount of new vehicle traffic is expected to be oriented to and from the Berlin railroad station in the future once the New Haven–Hartford–Springfield commuter rail line opens. The Berlin railroad station is located at 51 Depot Road, about a mile to the northeast of the site. The Office of the State Traffic Administration (OSTA) Administrative Decision for the Berlin railroad station (State Project No. 170-2296 from August 2013) was reviewed; however, it was found that no new vehicle trips are projected to travel along Percival Avenue during the peak hours.

Lastly, the estimated site traffic volumes were added to the background traffic to develop the future combined (build) traffic volumes. The combined volumes are reflective of roadway conditions with the residential development in place. Figures 9 and 10 illustrate the combined peak traffic volumes at the study intersection for the weekday morning and weekday afternoon peak hours, respectively.

### **Capacity Analysis**

The future traffic volumes at the site driveway intersection with Percival Avenue were evaluated by means of *Highway Capacity Software 2010*, which uses the methodologies of the *Highway Capacity Manual*. Levels of Service (LOS) were determined, which are qualitative measures of the efficiency of operations in terms of delay and inconvenience to motorists. A description of the various LOS designations, A through F, is given in the Appendix. LOS A describes operations with very low average control delay per vehicle while LOS F describes operations with long average delays. Table 3 summarizes the analysis findings of future conditions after the proposed 50-unit residential



development has been built and opened. As can be seen, motorists making the critical movements at the site driveway intersection with Percival Avenue in the future are expected to have very little delay and experience LOS A during peak hours.

**TABLE 3**  
**Capacity Analysis Summary Under Combined (Build) Conditions**

MOVEMENTS	LEVEL OF SERVICE	
	WEEKDAY MORNING PEAK HOUR	WEEKDAY AFTERNOON PEAK HOUR
Site Driveway at Percival Avenue		
<i>Westbound Left/Right</i>	A	A
<i>Southbound Left</i>	A	A

**Conclusions**

A study was conducted to assess the impact of the proposed residential development on Percival Avenue in Berlin at the site of the former Knights of Columbus hall. The proposed development consists of two residential buildings with a total of 50 units. Site access will remain via the driveway at Percival Avenue. Motorists at the site driveway are expected to experience excellent operations with LOS A. Sightlines at the driveway will be adequate for the 85<sup>th</sup> percentile speeds according to CTDOT guidelines for ISDs, subject to necessary clearing of vegetation with the Percival Avenue right-of-way to the north and south of the site driveway.

We hope this information is useful in assessing the traffic implications related to this project. If you have any questions or need further information, please do not hesitate to contact me.

Very truly yours,

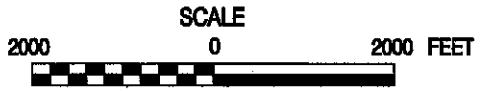
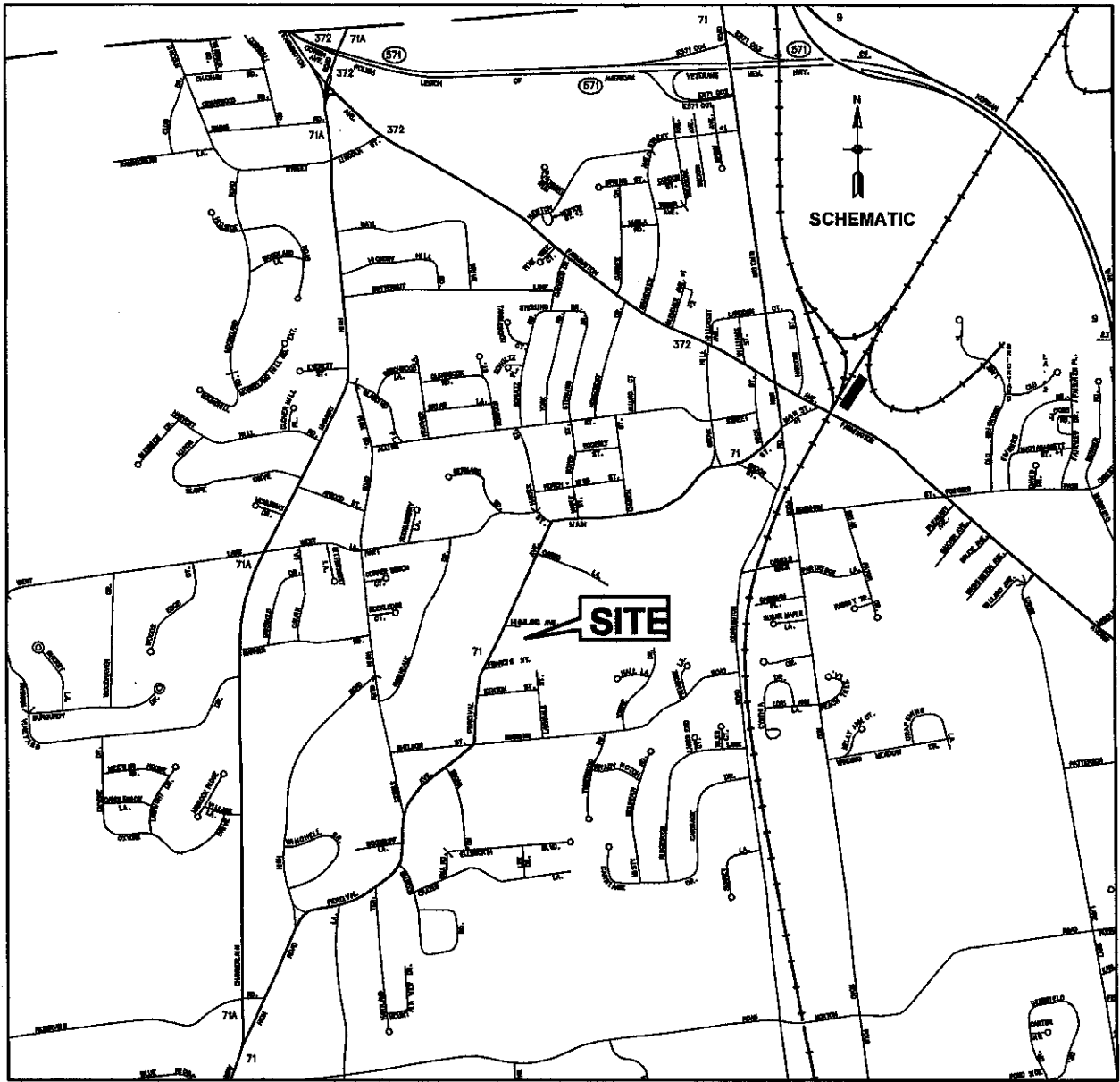
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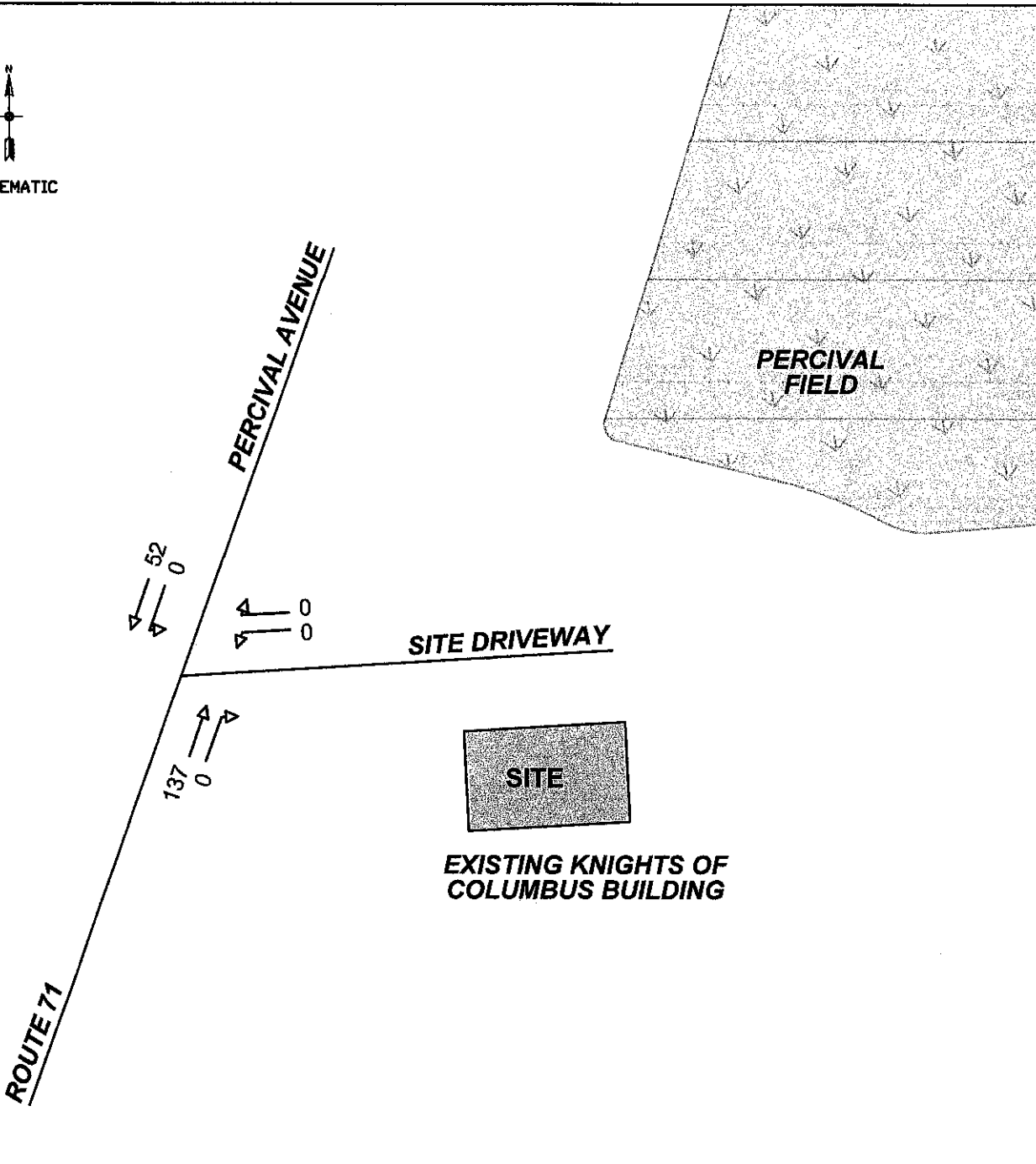
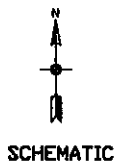
David G. Sullivan, P.E., Associate  
 Manager of Traffic Engineering

Enclosures

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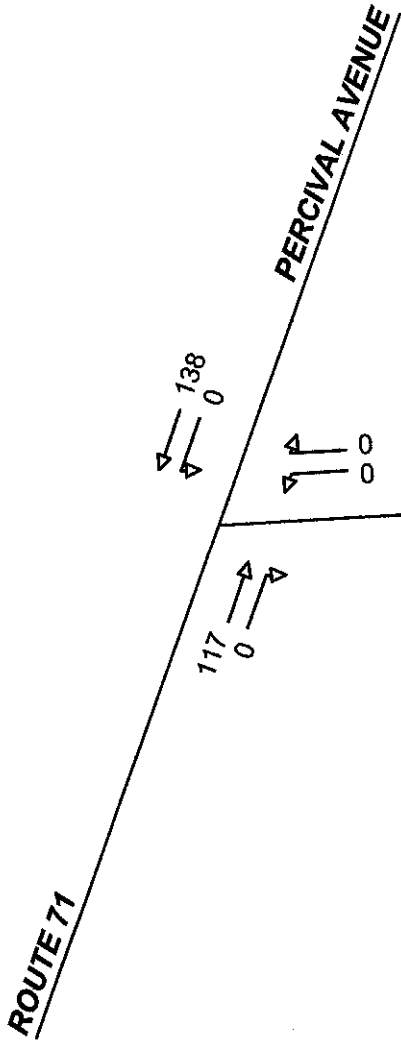
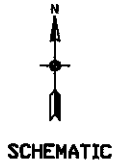
**SITE LOCATION**  
 Berlin Housing Authority  
 Berlin, Connecticut



**2014 EXISTING TRAFFIC VOLUMES  
WEEKDAY MORNING PEAK HOUR (7:00 - 8:00 AM)**

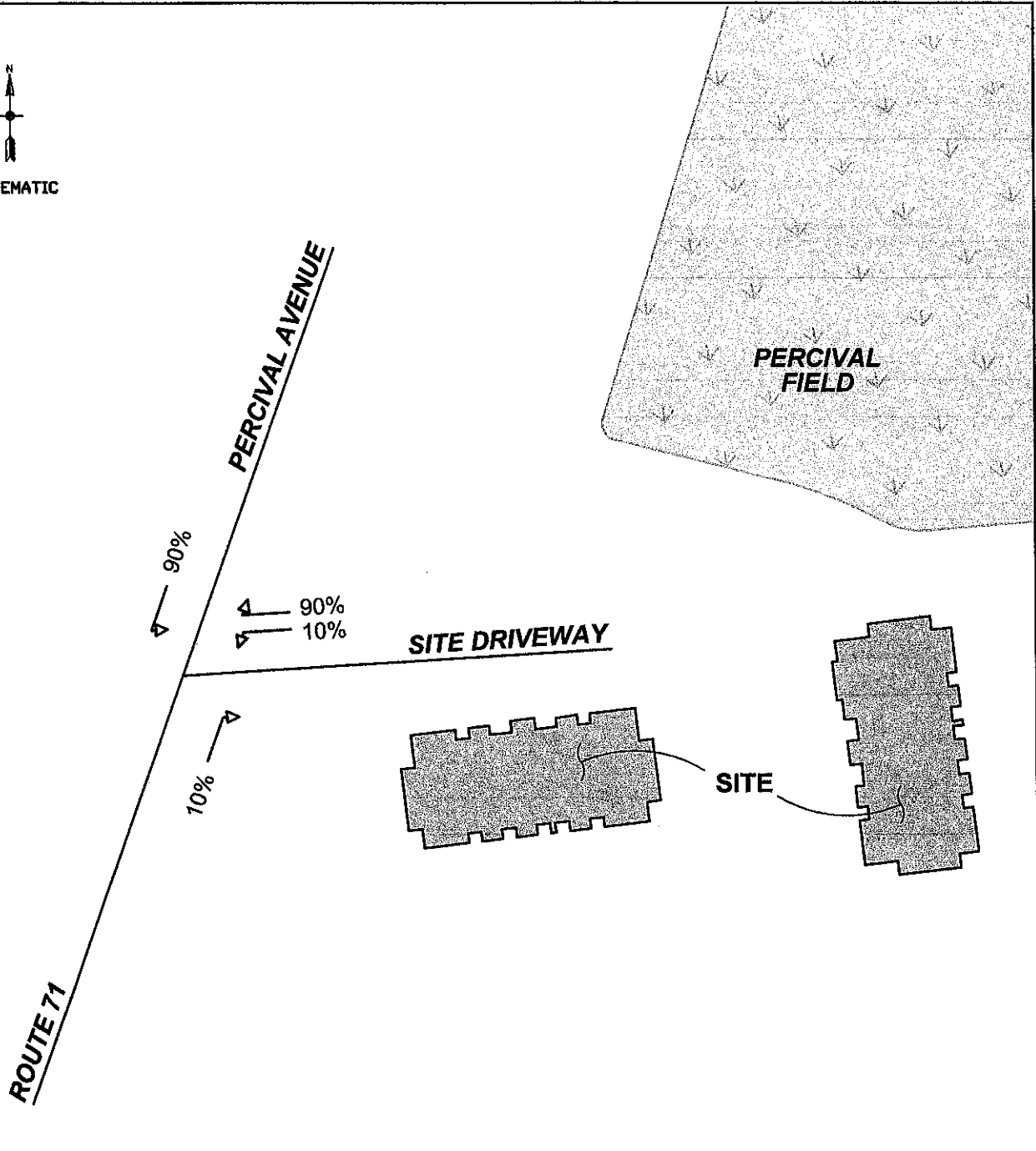
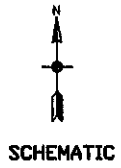
**Berlin Housing Authority  
Berlin, Connecticut**





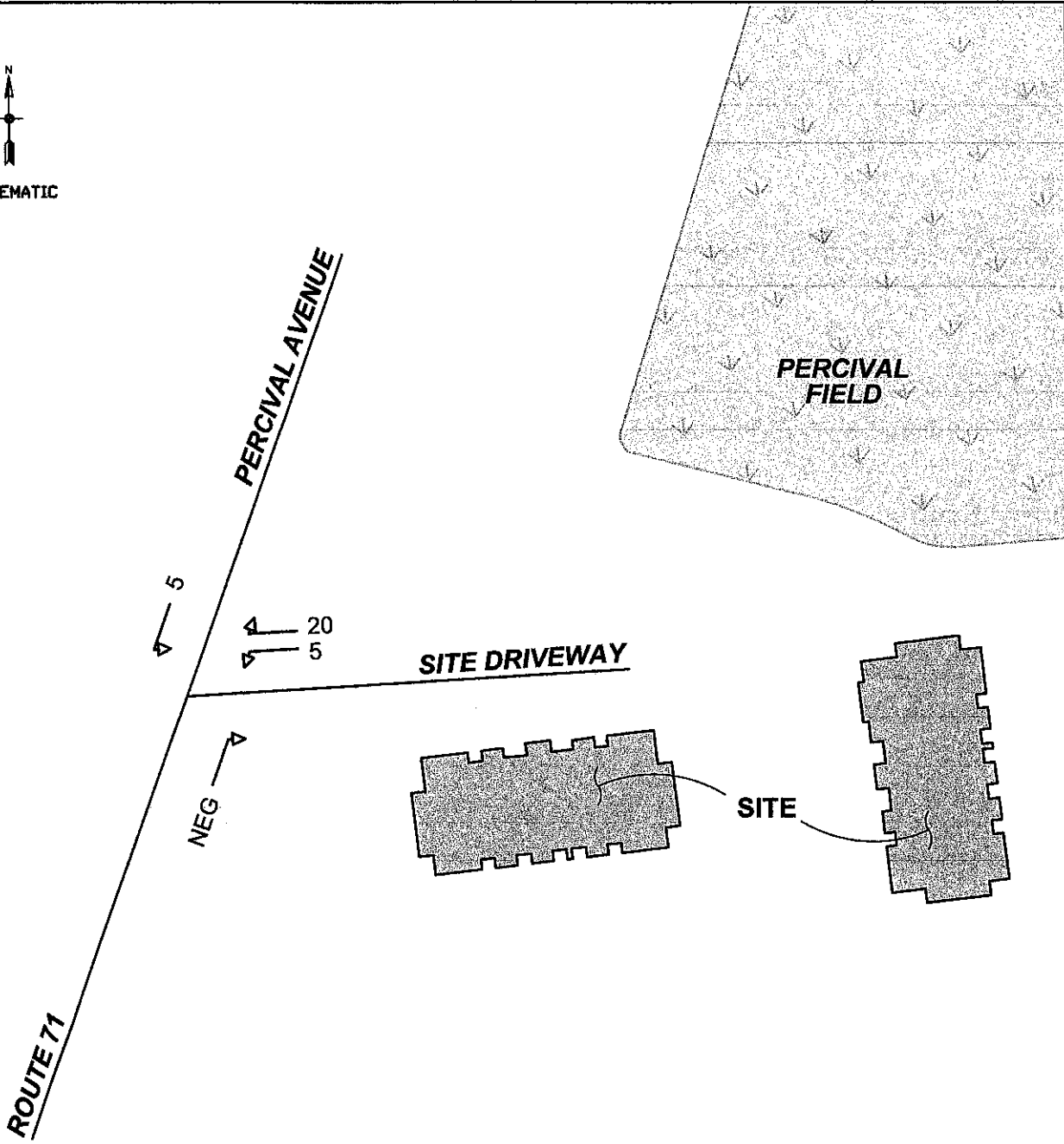
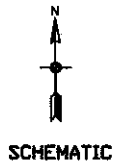
**2014 EXISTING TRAFFIC VOLUMES  
WEEKDAY AFTERNOON PEAK HOUR (4:00 - 5:00 PM)**

**Berlin Housing Authority  
Berlin, Connecticut**



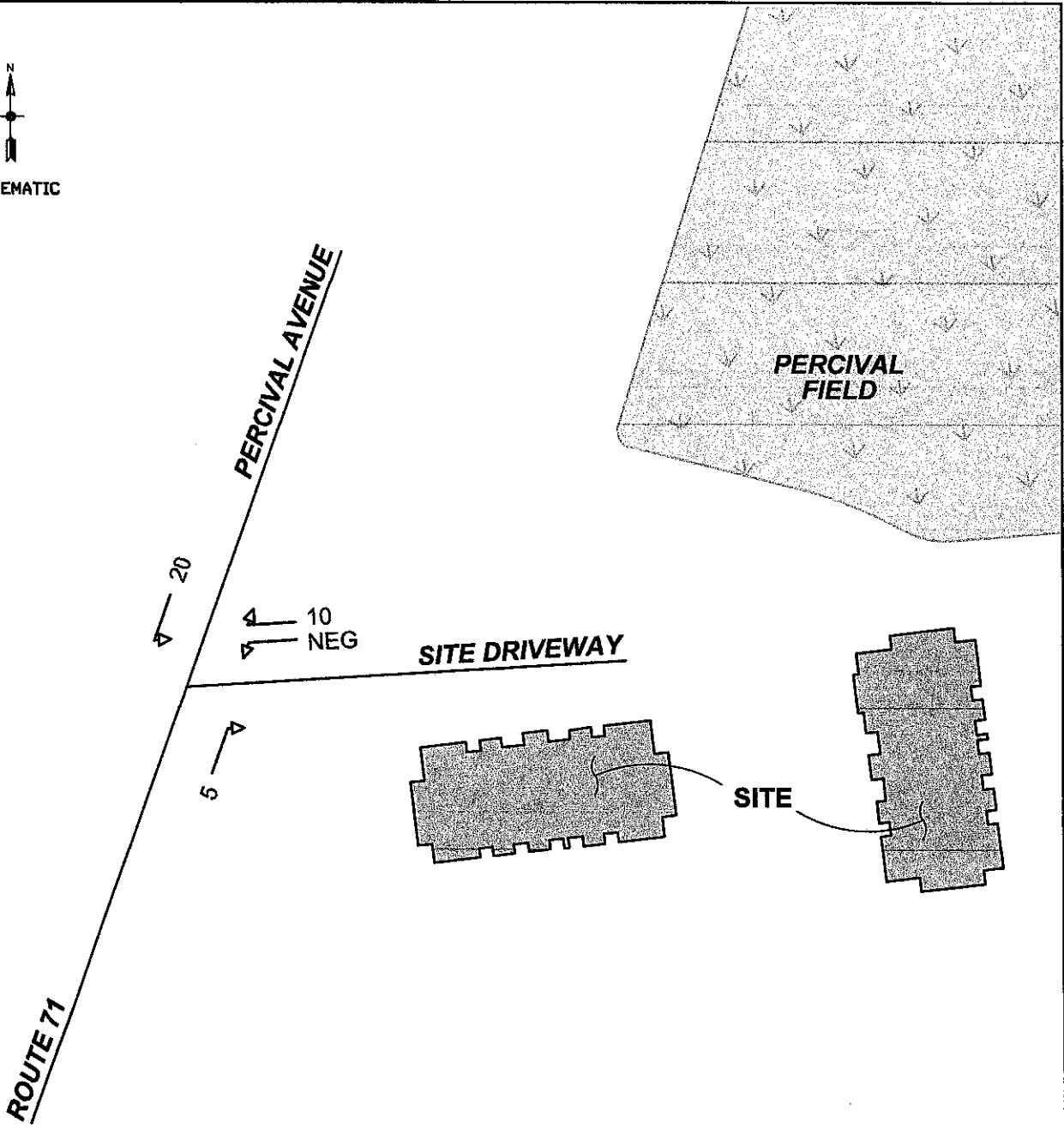
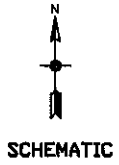
**SITE TRAFFIC DISTRIBUTION**

**Berlin Housing Authority  
Berlin, Connecticut**



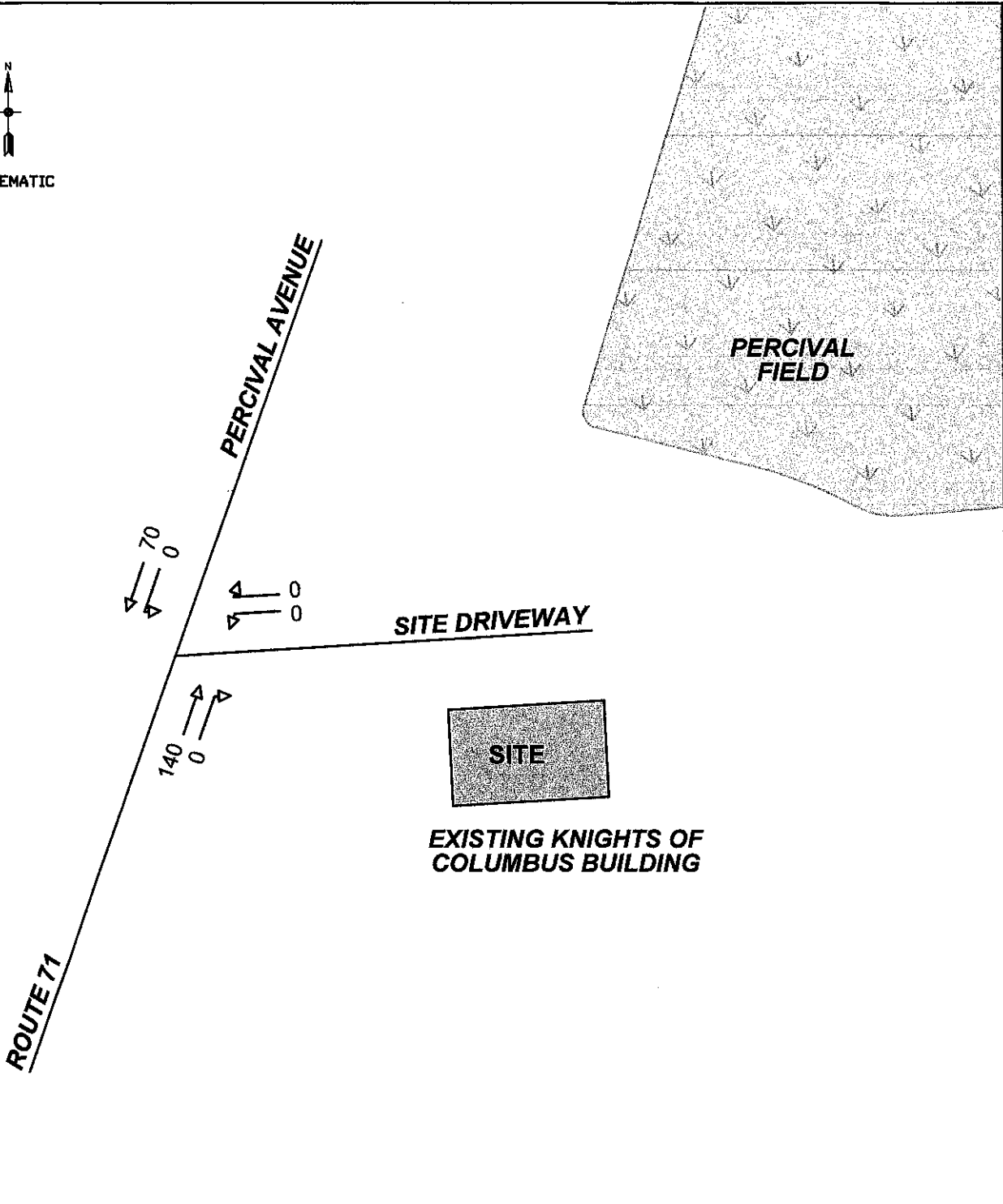
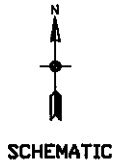
**NEW SITE TRAFFIC VOLUMES  
WEEKDAY MORNING PEAK HOUR**

**Berlin Housing Authority  
Berlin, Connecticut**



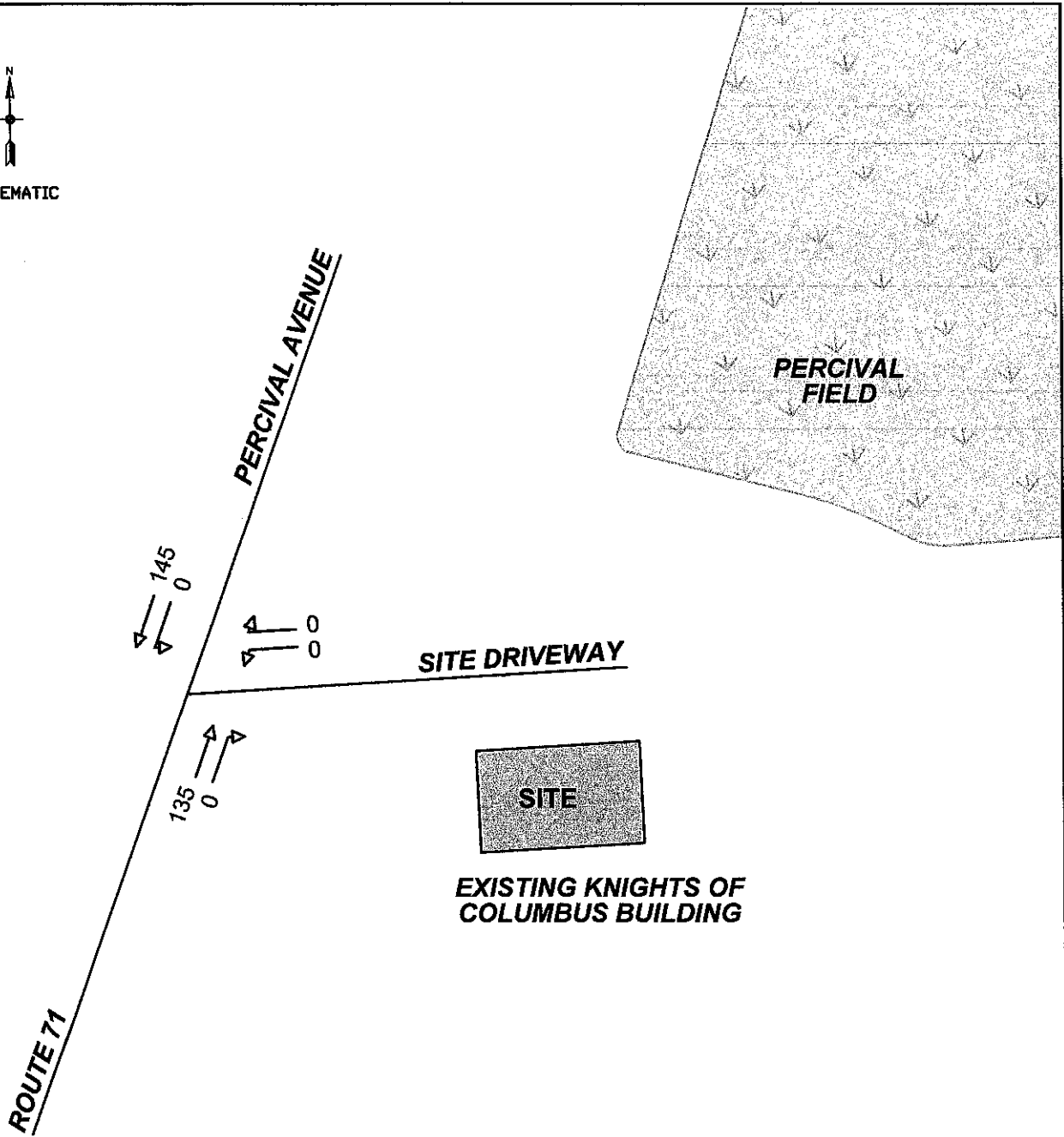
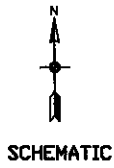
**NEW SITE TRAFFIC VOLUMES  
WEEKDAY AFTERNOON PEAK HOUR**

**Berlin Housing Authority  
Berlin, Connecticut**



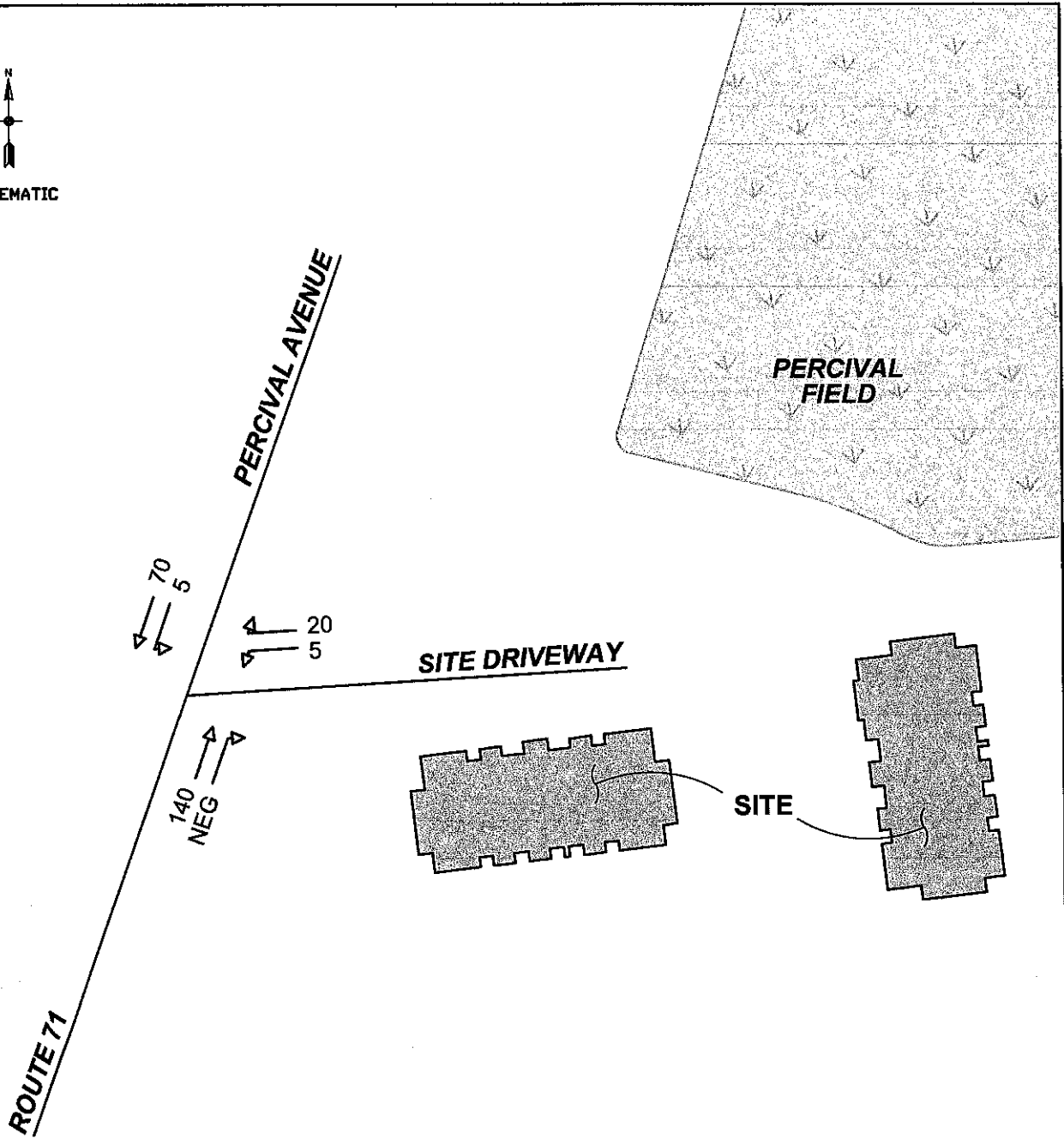
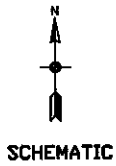
**FUTURE BACKGROUND (NO BUILD) TRAFFIC VOLUMES  
WEEKDAY MORNING PEAK HOUR**

**Berlin Housing Authority  
Berlin, Connecticut**



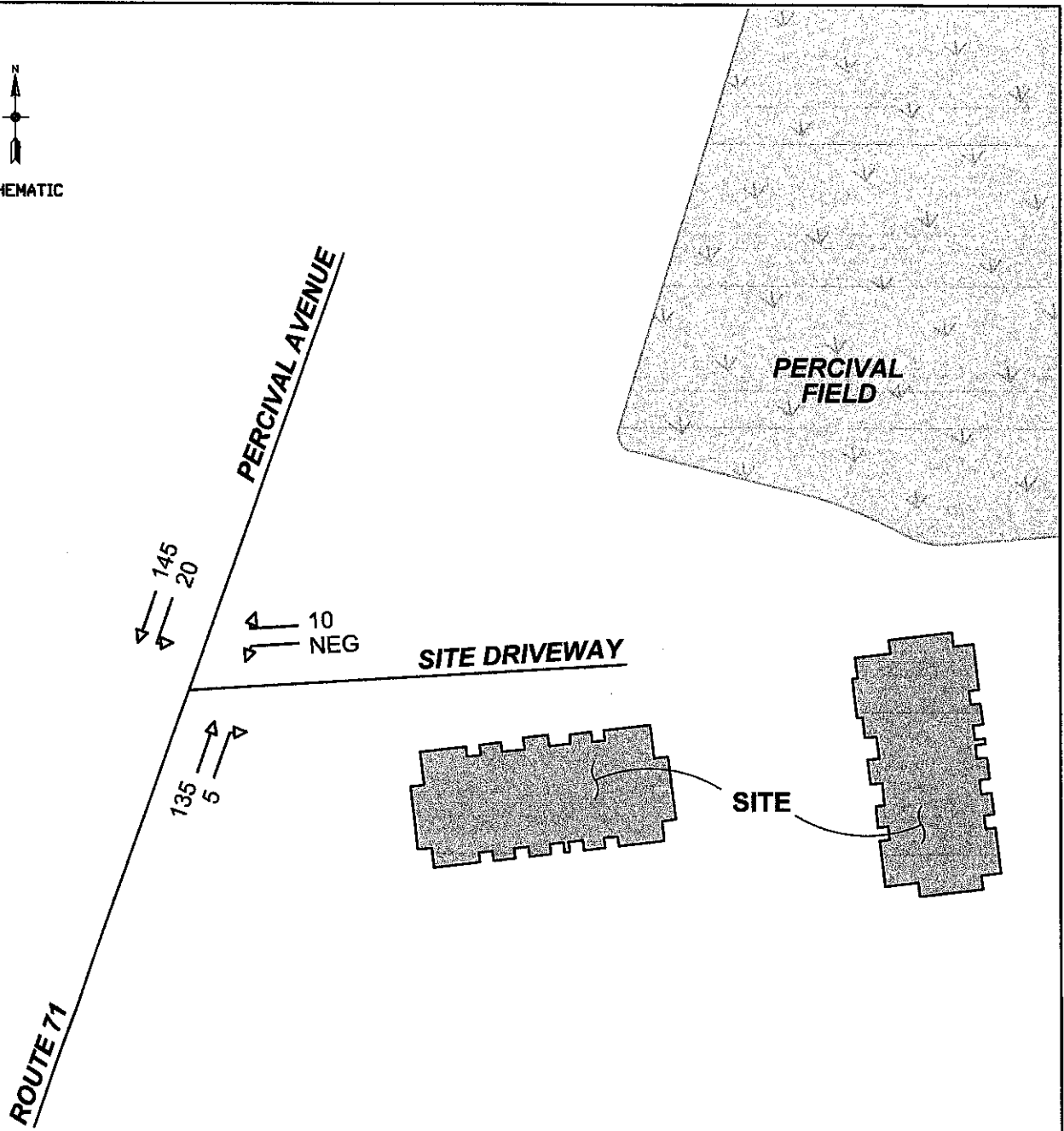
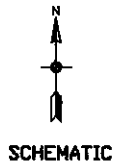
**FUTURE BACKGROUND (NO BUILD) TRAFFIC VOLUMES  
WEEKDAY AFTERNOON PEAK HOUR**

**Berlin Housing Authority  
Berlin, Connecticut**



**FUTURE COMBINED (BUILD) TRAFFIC VOLUMES  
WEEKDAY MORNING PEAK HOUR**

**Berlin Housing Authority  
Berlin, Connecticut**



**FUTURE COMBINED (BUILD) TRAFFIC VOLUMES  
WEEKDAY AFTERNOON PEAK HOUR**

**Berlin Housing Authority  
Berlin, Connecticut**



# **APPENDIX**

# **LEVEL OF SERVICE FOR TWO-WAY STOP SIGN CONTROLLED INTERSECTIONS**

The level of service for a TWSC (two-way stop controlled) intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service is not defined for the intersection as a whole. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. LOS criteria are given in the Table. LOS criteria are given below:

<b>LEVEL-OF SERVICE CRITERIA FOR TWSC INTERSECTIONS</b>	
<b>LEVEL OF SERVICE</b>	<b>AVERAGE CONTROL DELAY (s/veh)</b>
<b>A</b>	<b><math>\leq 10</math></b>
<b>B</b>	<b><math>&gt; 10</math> AND <math>\leq 15</math></b>
<b>C</b>	<b><math>&gt; 15</math> AND <math>\leq 25</math></b>
<b>D</b>	<b><math>&gt; 25</math> AND <math>\leq 35</math></b>
<b>E</b>	<b><math>&gt; 35</math> AND <math>\leq 50</math></b>
<b>F</b>	<b><math>&gt; 50</math></b>

Reference: Highway Capacity Manual 2000, Transportation Research Board, 2000.

TWO-WAY STOP CONTROL SUMMARY								
<b>General Information</b>					<b>Site Information</b>			
Analyst	NJY				Intersection	Rte 71 @ Site		
Agency/Co.	Milone & MacBroom				Jurisdiction	Berlin, CT		
Date Performed	6/10/2014				Analysis Year	2014		
Analysis Time Period	Combined AM							
Project Description 3323-05-1								
East/West Street: Site Driveway					North/South Street: Percival Ave. (Route 71)			
Intersection Orientation: North-South					Study Period (hrs): 1.00			
<b>Vehicle Volumes and Adjustments</b>								
<b>Major Street</b>		Northbound			Southbound			
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		140	0	5	70			
Peak-Hour Factor, PHF	1.00	0.90	0.90	0.90	0.90	1.00		
Hourly Flow Rate, HFR (veh/h)	0	155	0	5	77	0		
Percent Heavy Vehicles	0	--	--	2	--	--		
Median Type	Undivided							
RT Channelized			0					0
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
<b>Minor Street</b>		Eastbound			Westbound			
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				5		20		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.90	1.00	0.90		
Hourly Flow Rate, HFR (veh/h)	0	0	0	5	0	22		
Percent Heavy Vehicles	0	0	0	2	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
<b>Delay, Queue Length, and Level of Service</b>								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		5		27				
C (m) (veh/h)		1425		863				
v/c		0.00		0.03				
95% queue length		0.01		0.10				
Control Delay (s/veh)		7.5		9.3				
LOS		A		A				
Approach Delay (s/veh)	--	--	9.3					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY							
<b>General Information</b>				<b>Site Information</b>			
Analyst	NJY			Intersection	Rte 71 @ Site		
Agency/Co.	Milone & MacBroom			Jurisdiction	Berlin, CT		
Date Performed	6/10/2014			Analysis Year	2014		
Analysis Time Period	Combined PM						
Project Description 3323-05-1							
East/West Street: Site Driveway				North/South Street: Percival Ave. (Route 71)			
Intersection Orientation: North-South				Study Period (hrs): 1.00			
<b>Vehicle Volumes and Adjustments</b>							
<b>Major Street</b>	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		135	5	20	145		
Peak-Hour Factor, PHF	1.00	0.90	0.90	0.90	0.90	1.00	
Hourly Flow Rate, HFR (veh/h)	0	150	5	22	161	0	
Percent Heavy Vehicles	0	--	--	2	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration			TR	LT			
Upstream Signal		0			0		
<b>Minor Street</b>	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				0		10	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.90	1.00	0.90	
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	11	
Percent Heavy Vehicles	0	0	0	2	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
<b>Delay, Queue Length, and Level of Service</b>							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		LT		LR			
v (veh/h)		22		11			
C (m) (veh/h)		1425		900			
v/c		0.02		0.01			
95% queue length		0.05		0.04			
Control Delay (s/veh)		7.6		9.0			
LOS		A		A			
Approach Delay (s/veh)	--	--	9.0				
Approach LOS	--	--	A				

**FILE COPY**

February 12, 2015

Staff Comments

Subject: Berlin Housing Authority  
Revised Plans Received February 12, 2015

Comment Received to Date: Town Engineer

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Town Engineer

No comment – see attached email.

**From:** hriggins  
**Sent:** Tuesday, February 10, 2015 10:53 AM  
**To:** fsemnosk  
**Subject:** FW: Berlin Housing Authority Review Comments

For packet.

**From:** Arthur Simonian  
**Sent:** Monday, February 09, 2015 9:49 PM  
**To:** hriggins  
**Subject:** Re: Berlin Housing Authority Review Comments

We concur with their responses and all the comments were addressed.

ART

**Art Simonian, P.E.**  
**Public Works Director**  
[asimonian@town.berlin.ct.us](mailto:asimonian@town.berlin.ct.us)  
**860.828.7014 office**

**Sent from my Verizon phone**

**From:** hriggins <[hriggins@town.berlin.ct.us](mailto:hriggins@town.berlin.ct.us)>  
**Sent:** Feb 9, 2015 3:31 PM  
**To:** Matt White <[almgops-mbw@snet.net](mailto:almgops-mbw@snet.net)>; fsemnosk; 'Joseph Bajorski'; Arthur Simonian  
**Cc:** fsemnosk  
**Subject:** RE: Berlin Housing Authority Review Comments

I will copy your response to the PZC. We will not print off the plans.

**From:** Matt White [<mailto:almgops-mbw@snet.net>]  
**Sent:** Monday, February 09, 2015 3:25 PM  
**To:** fsemnosk; 'Joseph Bajorski'; Arthur Simonian  
**Cc:** hriggins  
**Subject:** Berlin Housing Authority Review Comments

Art and Hellyn,

Please find the attached response letter to the Engineering review, together with a PDF version of the revised plans. I can bring stamped sets of the plans to the meeting on Thursday evening. Hellyn, please let me know how many sets to bring.

Let me know if you have any questions.

**DEPARTMENT OF DEVELOPMENT SERVICES**

Date: February 10, 2015

**PROJECT REVIEW SHEET**

Application: Site Plan/Special Permit

Applicant: Berlin Housing Authority

*Revised Plans Received February 10, 2015*

*Agenda Date: February 12<sup>th</sup>*

*To: Art Simonian, Hellyn Riggins*

Department/District:

- Director
- Zoning Enforcement Officer
- Engineering
- Kensington Fire District
- Worthington Fire District
- Board of Education
- Conservation Commission

- Building Official
- Berlin Water Control
- Health District
- Fire Marshal
- Board of Police Commissioners
- Inland Wetlands
- Police Chief

No Comment

Comments:

*Art Simonian 2/12/15*  
Signature/Date

*OK, see my email*

Berlin Housing  
Authority

Overall Site Plan

Revised Sheets Only

Received February 10, 2015



**FILE COPY**

**DEPARTMENT OF DEVELOPMENT SERVICES**

Date: February 10, 2015

**PROJECT REVIEW SHEET**

Application: Site Plan/Special Permit

Applicant: Berlin Housing Authority

*Revised Plans Received February 10, 2015*

*Agenda Date: February 12<sup>th</sup>*

*To: Art Simonian, Hellyn Riggins*

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Department/District:

Director  
 Zoning Enforcement Officer  
 Engineering  
 Kensington Fire District  
 Worthington Fire District  
 Board of Education  
 Conservation Commission

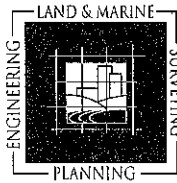
Building Official  
 Berlin Water Control  
 Health District  
 Fire Marshal  
 Board of Police Commissioners  
 Inland Wetlands  
 Police Chief

No Comment

Comments:

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Signature/Date



**FILE COPY**

February 9, 2015

Arthur G. Simonian, P.E.  
Director of Public Works  
Town of Berlin  
240 Kensington Road  
Berlin, CT 06307

ANGUS McDONALD  
GARY SHARPE  
& ASSOCIATES, INC.  
SINCE 1966

TOWN OF BERLIN

2015 FEB 10 A 11:05

RE: 143 Percival Avenue - Berlin Housing Authority

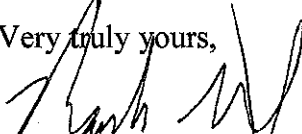
Dear Mr. Simonian,

In response to the January 30, 2015 review letter prepared by Diversified Technology Consultants, Inc, regarding the above referenced project, the project plans have been revised as follows:

1. An outlet control structure detail has been added to the detail sheet.
2. A trash rack has been specified for the small diameter orifice on the outlet structure.
3. The proposed rip rap size for outlet protection has been specified on the plans.
4. A preformed scour hole was specified at the detention basin outlet due to the limited space available. The scour hole computations are included on the detail sheet.
5. An analysis supporting the size of the emergency overflow has been attached to this letter. If the outlet structure was plugged, and the full 100 year flow was directed to the emergency overflow, the flow depth would be about 4" and the velocity would be 3.8 ft/sec.
6. A detail section through the detention basin berm has been added to the detail sheet.
7. A detail of the detention basin graded access way has been added to the plans.
8. The responsible party for long term maintenance of the storm water control system has been specified on the plan as The Berlin Housing Authority.
9. A stop sign and stop bar have been added to the plan at the site exit.
10. The traffic engineers have contacted the DOT regarding any State permitting that may be required. At a minimum, a DOT encroachment permit will be required for any construction work within the State Right of Way. The northern radius will be increased as much as allowable and the vegetation in the Right of Way will be evaluated during the Encroachment Permit review.
11. Stamped and signed copies of the Storm Water and Traffic reports were submitted to the Commission at the last meeting.
12. The storm drains have been re-labeled as HDPE pipe.

Please give me a call if you have any questions.

Very truly yours,



Matthew White, P.E.

**Worksheet**  
**Worksheet for Trapezoidal Channel**

*EMERGENCY OVERFLOW*

---

Project Description	
Worksheet	Trapezoidal Channel - 1
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth

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Input Data	
Mannings Coefficient	0.040
Slope	0.050000 ft/ft
Left Side Slope	0.67 H : V
Right Side Slope	0.67 H : V
Bottom Width	12.66 ft
Discharge	15.73 cfs

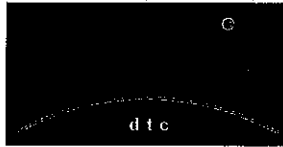
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Results	
Depth	0.32 ft
Flow Area	4.1 ft <sup>2</sup>
Wetted Perimeter	13.44 ft
Top Width	13.09 ft
Critical Depth	0.36 ft
Critical Slope	0.034240 ft/ft
Velocity	3.79 ft/s
Velocity Head	0.22 ft
Specific Energy	0.55 ft
Froude Number	1.19
Flow Type	Supercritical

---

ENGINEERED  
SOLUTIONS



LAND  
STRUCTURES  
WATER  
TOWN OF BERLIN

2015 FEB -2 A 4:29

January 30, 2015

Arthur G. Simonian, P.E., LEED  
Director Public Works  
Town of Berlin  
240 Kensington Road  
Berlin, CT 06037

**FILE COPY**

**SUBJECT: Site Plan Review – 143 Percival Avenue – Applicant: Berlin Housing Authority  
DTC Project No.: 15-123-106**

Dear Mr. Simonian:

Pursuant to your request, DTC is pleased to present our review of the site plan application documents for the above referenced property. Our review was based on the site plans, architectural plans, drainage report, and traffic study stamped received by the Town of Berlin on November 4, 2014. Specific areas of review are outlined below.

#### Drainage Report

The hydrologic routing analysis provided by the applicant, followed industry accepted methodology. Calculations demonstrating no increase in peak runoff rates for the 2 year 24 hour storm through 100 year 24 hour storms were provided. Hydraulic analysis of the storm pipe conveyance network for the 25 year storm was also included. The following items are recommended for inclusion in the application.

- Provide detail of detention basin outlet control structure.
- Consider a trash rack for protection of the small diameter orifice (less than 6").
- Outlet protection calculations for rip-rap aprons were provided in the drainage report. Identify the proposed rip-rap size on the plans or details.
- Calculations were provided for a rip-rap apron at the detention basin outfall. However, the site plan shows a preformed scour hole.
- Provide calculations supporting the size of the emergency spillway and rip-rap armor. Identify the proposed rip-rap size on the plans or detail.
- Provide a detail section through the detention basin earthen berm identifying materials of construction, dimensions, and keying into existing soil.
- Identify material of construction for detention basin access road on plans or detail.
- Designate on the site plan the party responsible for long-term maintenance of the detention basin and catch basin filters.

*Information contained in this document is proprietary and confidential and may not be disseminated to any party other than the intended recipient without the written consent of Diversified Technology Consultants.*

2321 WHITNEY AVENUE SUITE 301 HAMDEN CT 06518

203 238 4200 PH 203 234 7376 FAX

[www.teamdte.com](http://www.teamdte.com)

### **Traffic Report**

The traffic report provided intersection sight distances looking from the proposed site driveway to the north and south along Percival Avenue. These distances should be reviewed in the field since selective cutting of vegetation offsite within the right of way may be required, as noted in the report.

### **Driveway and Parking Lot Geometry**

Sidewalk layout within the site provides handicapped accessible pedestrian circulation to both buildings and parking areas.

Six (6) accessible parking spaces exceed regulatory requirements based on total number of parking spaces. Accessible parking spaces are evenly distributed between both buildings, including van spaces. The typical accessible parking stall layout shown on the detail plan is code compliant.

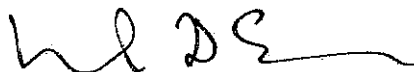
The proposed access driveway is skewed at angle of approximately 60 degrees to Percival Avenue similar to the existing condition. This skew angle restricts turning radii and driver ability to seek a sightline to the north when looking from the driveway. Narrow property boundaries along the driveway present a challenge to increasing this angle toward 90 degrees.

Turning movements for a passenger car were acceptable throughout the site. A single unit truck (AASHTO SU-30) was modeled to simulate trash pickup. Turning right (north) onto Percival Avenue was in conflict with the curb return when attempting to stay in the lane.

- Consider a stop sign and stop bar located at the site exit onto Percival Avenue. Consultation with the Connecticut Department of Transportation District Office by the applicant is recommended for this item since Percival Avenue is a State highway (CT-71).
- Consider a wider radius or signage prohibiting right turns by trucks leaving the site. Consultation with the Connecticut Department of Transportation District Office by the applicant is recommended for this item since Percival Avenue is a State highway (CT-71).

It was a pleasure to provide this site plan review for the Town of Berlin. Please contact the undersigned with any questions or comments.

Sincerely,



Michael Errickson, PE  
Project Manager

**Diversified Technology Consultants, Inc.**

*Information contained in this document is proprietary and confidential and may not be disseminated to any party other than the intended recipient without the written consent of Diversified Technology Consultants.*

2321 WHITNEY AVENUE SUITE 301 HAMDEN CT 06518

203 239 4200 Ph 203 234 7378 Fax

www.teamdtc.com

November 18, 2014

Updated November 19, 2014 (Police Chief)

Updated November 25, 2014 (Fire Marshal)

Updated January 20, 2015 (Town Engineer)

### **Staff Comments**

Application: Site Plan/Special Permit

Applicant: Berlin Housing Authority

Location: Percival Avenue

*To the Applicant: These are the only comments to date; additional comments may be forthcoming.*

---

### Health District

- Public water and sewer available - okay
- If existing wells are present – must be properly abandoned

### Police Chief

1. Traffic Officer's comments (attached)
2. Sidewalks should be considered. Unsafe for pedestrians to walk on Percival Avenue.
3. A second point of entry for emergency vehicles should be considered.

### Fire Marshal

- OK – Site Plan Only – architectural plans will be reviewed when full set submitted at time of permit

### Town Engineer

1. Have applicant confirm that no state traffic permit analysis is required.
2. Recommend having drainage and traffic reports reviewed by outside consultant.
3. Require PE stamp on both traffic and drainage reports.
4. Are the proposed buildings being designed with LEED's components included?
5. Proposed generator needs to have sound enclosure to required decibal level
6. Use HDPE for RCP drainage pipe.

- *Emailed on January 20, 2015 to Matthew White, P.E & Joseph Bajorski*



# BERLIN POLICE DEPARTMENT

---

*Officer Robert Canto - Traffic Bureau*  
Email: [rcanto@town.berlin.ct.us](mailto:rcanto@town.berlin.ct.us) Phone: 860-828-7082

Date: November 17, 2014

To: Chief Paul Fitzgerald

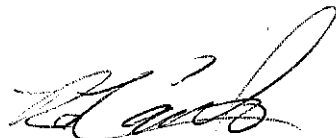
From: Officer Robert L. Canto

Subject: T14-16 (Berlin Housing Authority)143 Percival Ave.

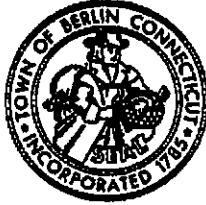
Case#: 14-26948

I have reviewed the site plans that have been given to me, and visited the site. I do not see a problem with the plans as proposed. The handicap spaces exceed the spaces required by guidelines based on the number of parking spaces proposed. There are no sidewalks in the area to tie into. The parking space has been thoughtfully planned out with adequate snow removal/piling areas within.

Please feel free and contact me if you have any questions regarding the survey.



Traffic Officer/  
Robert L. Canto



**TOWN OF BERLIN**  
Conservation Commission  
Town Hall • Berlin, CT 06037

**TOWN OF BERLIN**  
**CONSERVATION COMMISSION**  
**TUESDAY, NOVEMBER 18, 2014**

**APPROVED ROOM 8 - BERLIN TOWN HALL - 6:30 P.M.**

**Members Present:**

Michael DeLorenzo, Chairman	Guy Hoffman, Vice Chairman
Patricia T. Bigelow	Joseph Mazza
Robert Ramsey	Thomas Heisler

**Members Absent:**

Karl G. Lewis	Steven Sokolowski
Karen Pagliaro	

**Staff:**

Hellyn Riggins, Director of Development Services  
Juliet Benjamin, Secretary

**1. CALL TO ORDER:**

Chairman DeLorenzo called the meeting to order @ 6:30 P.M.

**2. AUDIENCE OF CITIZENS:**

None

**3. APPROVAL OF MINUTES - Tuesday, October 14, 2014:**

**Minutes:** Commissioner Hoffman made a motion to approve the Minutes of Tuesday, October 14, 2014 as written. Commissioner Bigelow seconded the motion & they were unanimously approved.

**Meeting Calendar:** Commissioner Mazza made a motion to approve the Meeting Calendar for 2015 as presented. Commissioner Ramsey seconded the motion & it was unanimously approved.

**4. NEW BUSINESS:**

**Note:** Commissioner Hoffman made a motion to add two items to New Business. Commissioner Ramsey seconded the motion & it was approved.

C. Site Plan/Special Permit - Percival Avenue - (former Knights of Columbus property) - Senior Housing - 50 units in two buildings, Berlin Housing Authority, Applicant.

D. Site Plan Amendment - Clara's Castle Realty, LLC - 1436 Berlin Turnpike - Application for Parking.

**A. Site Plan Amendment - 462 Alling St, St. Paul's Church (former Kensington Grammar School location) Parking lot, Open Space & Prayer Garden - St. Paul's Church is proposing site improvements to the space**



formerly containing the Kensington Grammar School, across from St. Paul's School. The proposal is for open space, a new parking lot for 101 spaces and a prayer garden. The Storm Water Analysis lists a slight decrease in the impervious surface of the property and no increase in runoff from the parking area. Commissioner Hoffman suggested that the handicap parking spaces be located nearer the proposed Prayer Garden. Director of Development Services Riggins noted that she has not had time to review the project but she will take Commissioner Hoffman's suggestion into consideration when it goes to the Planning & Zoning Commission.

**B. Special Permit/Subdivision/Site Plan - 0 Deming Road, Progressive Development Corporation , Applicant, Karen Berube, Owner, (Lot 10-1/Block 83) Located between City of New Britain Dump & Gill & Son Garage** - Director of Development Services Riggins noted that zoning recently amended the regulations to allow contractor yards with indoor storage of vehicles only. The proposal calls for a four lot subdivision, two rear lots and two front lots, with a light industrial building on each lot. Entry to the property is between the City of New Britain Dump and Gill & Son Garage. The proposal does not contain a landscaping plan. Commissioners voiced concern that Lot 4 seems to be in close proximity to Webster Brook & within 50' of the floodway. Also, a portion of the building within Lot 4 appears to fall within the 50' wetland upland review area. Commissioners were also concerned about runoff from the property and what measures will be taken regarding retention or filtration from the parking lot runoff.

→ **C. Site Plan/Special Permit - Percival Avenue (former Knights of Columbus property) - Senior Housing - 50 Units in two buildings, Applicant, Berlin Housing Authority** - Commissioners were in agreement that the Housing Authority worked hard to fit the two buildings into the property so as not to effect the wetlands.

**D. Site Plan Amendment - 1436 Berlin Turnpike - Clara's Castle Realty, LLC** - The proposal calls for adding to the parking area to lease that area to the daycare located on the adjoining property. The Commission had no comment on the plan.

**Budget:** Chairman DeLorenzo noted that budget requests are due in two weeks. Commissioners were in agreement to request funding, as in the past, for Public Education. That funding will be used for additional signs and trail maintenance of open space properties and sponsoring hikes with CFPA along with blazing new trails.

Commissioners discussed reorganizing the Land Care Volunteers program and actively seeking out individuals who hike trails that would be willing to report on the condition of the trails and any trees, etc. that may have fallen on the trails. Chairman DeLorenzo asked for a commissioner to volunteer to put together a mission statement for the Land Care Volunteers along with a checklist for use on the trails.

Chairman DeLorenzo noted that a contract has been awarded for remediation of the Kensington Orchard site (former Bradley property), Chamberlain Highway with a small on site parking area for hikers.

It was noted that a hiker had a concern that someone was hunting on Town owned open space land. It was later found that it was on the Chotkowski property on the Chamberlain Highway.

**5. OLD BUSINESS:**

**A. USE OF TOWN LANDS:**

**Girl Scout Camp Property on Chamberlain Highway**

**Trail blaze Signs/Signage for Trails -**

**Open Space Land @Beckley Quarry -**

**Pistol Creek Walking Trails**

**POCD Update Committee -**

**Hatchery Brook Community Garden/Hatchery Brook Conservation Area** - Commissioner Bigelow stated that the gardens are cleaned up and ready for winter.

**Hatchery Brook/Bicentennial Park** - Chairman DeLorenzo clarified that the beaver dam in located in Bicentennial Park. Chairman DeLorenzo plans to follow up on this item with Town Manager McNair.

**Blue Hills Conservation Area -**  
**Kensington Orchards/Bradley -**

**B. OPEN SPACE ACQUISITION -**

**6. COMMISSIONER COMMENTS:**

**7. CORRESPONDENCE:**

**8. ADJOURNMENT:**

Commissioner Ramsey moved to adjourn the meeting @7:55 P.M. The motion was seconded by Commissioner Heisler & unanimously approved.

Respectfully submitted, Juliet K. Benjamin, Secretary