

# **2 Hollyhock Road Wilton, CT**

## **TRAFFIC REPORT**

Prepared by:

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Revised: January 11, 2021

Revised: February 2, 2021



# Traffic Study

**Project:** 2 Hollyhock Road  
Conversion from an Office building to 8-30g Apartment Building.

## Scope

The following is an analysis of the traffic impacts resulting from the conversion of an office building use to that of an apartment building based upon the ITE Manual and the following building occupancies.

Assumptions: Existing Building Occupancies based upon 2020 rent rolls.  
Apartments proposed shall remain rental units

I) Existing: Commercial Office spaces: 9

Total Occupied square footage; First Floor:  $2850 + 900 = 3750$  sq. ft.  
Upper Floor: 4500 sf

ITE Generation: LUC,(land use code): 712 Small Office Building:

Peak PM: 2.45 trips per 1000 GFA

II) Proposed Use: 18 Apartments of the following distribution

Studio: 12 units

1 Bedroom: 0 units

2 Bedroom: 6 units

Total square footage: Gross: 4500 sf first  
Includes the proposed lounge & common bathrooms  
Gross: 4500 sf upper

ITE Generation: LUC: 220 Multi-family: low rise: (2 story garden apartments)  
A description of the appropriate apartment LUC category is provided in the appendix.

Peak PM: 0.56 trips per dwelling unit

The data above is based upon double occupancy for studio and 1 bedroom with an additional occupant within the second bedroom considered a non-driver. The sidewalk facilities along Route 7 have been completed, for this study 100% of the occupancy entry and exit is by a motor vehicle. Since the proposed 8-30G project is close to the prime business sites in the Route 7 corridor, ASML and The Wilton Corporate Park, some occupancy commuting may be as a pedestrian. The study takes the conservative approach considering weather, sidewalk, and Route 7 pedestrian crossing limitations.

Refer to the attached excel spread sheet for the traffic generation at an hourly interval noted.

**Findings**

Trip generation: Existing use: 9 offices: 8250 sf  
LUC: 712

PM Peak: 25.2 trips  
Daily total: 78.3 trips

Proposed use: 18 apartment units  
LUC: 220

PM Peak: 10.1 trips  
Daily total: 55.7 trips

The change in use reduces the peak trip generation count from the subject site by 29 %.

Occupancies along Hollyhock Road consist of Commercial Office, Single family and Mixed Occupancy, (commercial on the first floor, apartments above). A chart is available for the adjacent uses, yet there is no impact on the traffic along Hollyhock Road by this change in use, since there is a net reduction in traffic generation by the building use conversion. In addition, since the predominant Commercial use along Hollyhock Road is commercial office, the peak traffic generation rate of the neighboring properties is not in time sequence with the proposed Apartments. A review of the charts attached indicates that the commercial use peak traffic generation rate lags after the apartments peak generation rate for both the AM and PM peaks.

**Traffic Impacts on Route 7.**

Referencing a 2010 Route 7 Transportation and Land Use Study(SWRPA) which included an ADT site north at Grumman Hill Road intersection, the 8:00 peak is 2100 trips, predominantly south bound and the PM Peak at 5:30 is 2000 trips, exceeding the site generated traffic substantially. The Level of Service (LOS) analysis completed at the Grumman Hill Intersection Traffic Light was an AM value of C and a PM value of B. The inclusion of the light assists in the traffic movement at the Hollyhock Road intersection.

In addition, improvements as noted in the CTDOT Preliminary Design Report 102-35, extending to the Hollyhock intersection, consist of the inclusion of dedicated right and left turning lanes which should improve the LOS levels noted above for the Hollyhock intersection.

**Conclusion:**

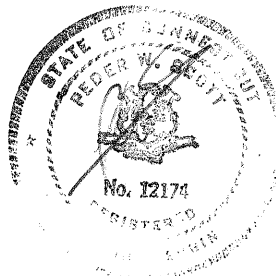
The conversion of the existing Commercial Office Building to Apartments will not negatively impact the traffic circulation along Hollyhock Road and Route 7 corridor.

Respectfully Submitted:



Peder W. Scott, P.E., R.A.  
President

2/3/21  
date



**Attachments**

Existing Occupancies- Offices: Hourly traffic Generation

Proposed Occupancy-Apartments: Hourly traffic Generation

Town of Wilton Tax Map; Hollyhock Road

Existing Rent Roll-Office Spaces

ITE- Description of Land Use Codes for apartments

Route 7 Map with location relative to other Uses



## EXISTING OCCUPANCY (9) OFFICE SPACES

### Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use

Source: ITE *Trip Generation Manual*, 10th Edition

PERCENT OF 24 HOUR TRAFFIC

Land Use Code	712				
Land Use	Small Office Building				
Setting	General Suburban				
Time Period	Weekday				
Trip Type	Vehicle				
# Data Sites	18				
GROSS FLOOR AREA	8250	TOTAL			
LUC GENERATOR		UNIT			
PM PEAK	2.45	1000 GFA	20.2 TRIPS		
DAILEY	78.3	1000 GFA			
	% of 24-Hour Traffic		TRIP COUNT		TOTAL TRIP COUNT
Time	Entering	Exiting	Entering	Exiting	
12-1 AM	0	0	0.0	0.0	0.0
1-2 AM	0	0	0.0	0.0	0.0
2-3 AM	0	0	0.0	0.0	0.0
3-4 AM	0	0	0.0	0.0	0.0
4-5 AM	0	0	0.0	0.0	0.0
5-6 AM	0	0	0.0	0.0	0.0
6-7 AM	0	0	0.0	0.0	0.0
7-8 AM	10.9	0.5	8.5	0.4	8.9
8-9 AM	12.8	3.7	10.0	2.9	12.9
9-10 AM	10.0	6.3	7.8	4.9	12.8
10-11 AM	9.0	6.0	7.1	4.7	11.8
11-12 PM	8.1	11.9	6.3	9.3	15.7
12-1 PM	9.5	11.6	7.4	9.1	16.5
1-2 PM	10.7	6.7	8.4	5.2	13.6
2-3 PM	10.9	12.3	8.5	9.6	18.2
3-4 PM	9.0	9.5	7.1	7.4	14.5
4-5 PM	6.3	7.7	4.9	6.0	11.0
5-6 PM	2.8	23.0	2.2	18.0	20.2
6-7 PM	0	0.7	0.0	0.5	0.5
7-8 PM	0	0	0.0	0.0	0.0
8-9 PM	0	0	0.0	0.0	0.0
9-10 PM	0	0	0.0	0.0	0.0
10-11 PM	0	0	0.0	0.0	0.0
11-12 AM	0	0	0.0	0.0	0.0

**PROPOSED OCCUPANY - (18) 8-30G APARTMENTS**

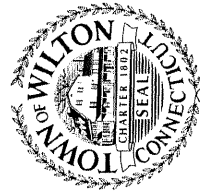
**Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use**

Source: ITE *Trip Generation Manual*, 10th Edition

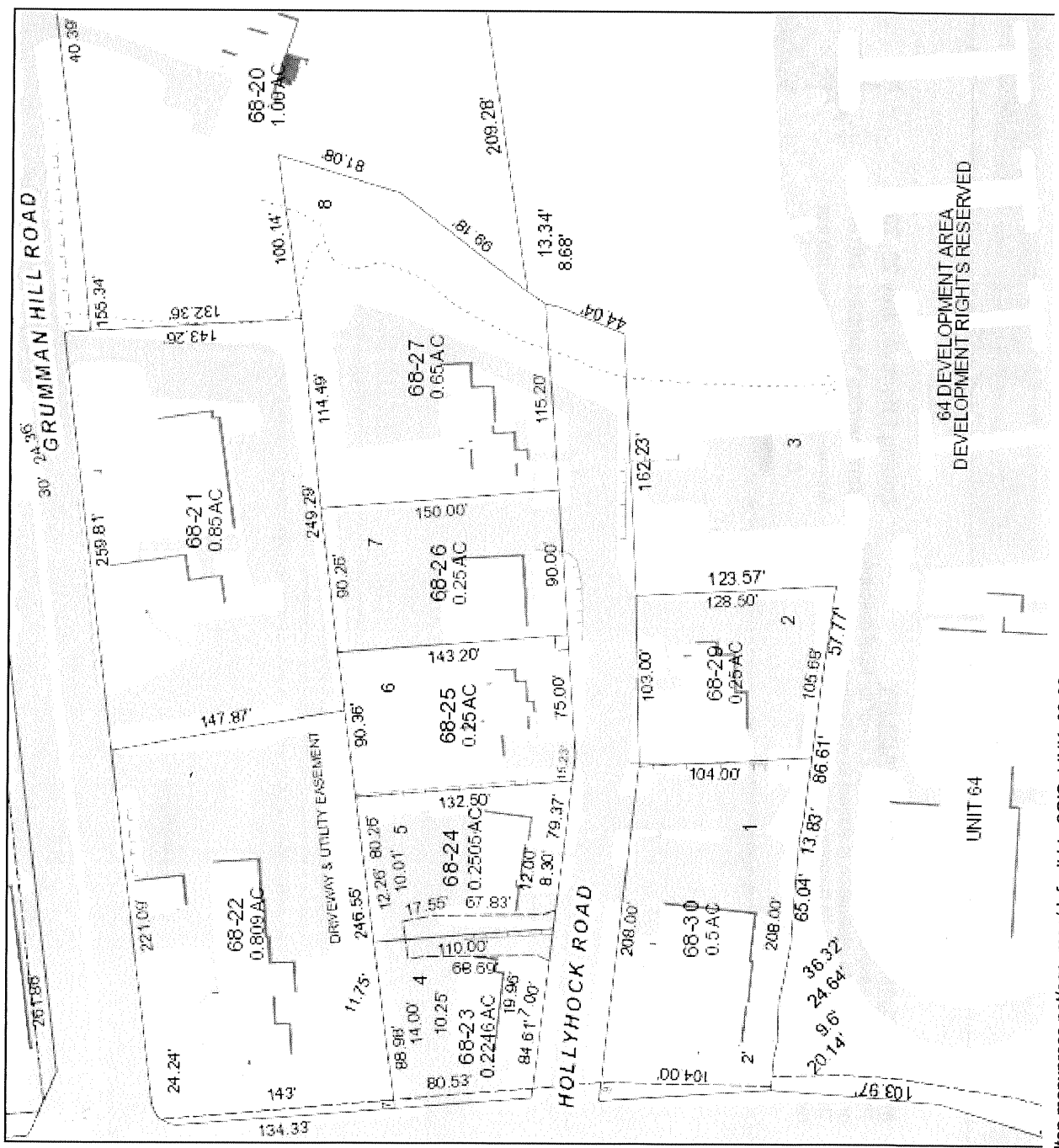
Land Use Code	220				
Land Use	Multifamily Housing (Low-Rise)				
Setting	General Suburban				
Time Period	Weekday				
Trip Type	Vehicle				
# Data Sites	9				
DWELLING UNITS	18	TOTAL			
LUC GENERATOR		UNITS			
PM PEAK	0.56	DW UNIT	10.1 TRIPS		
DAILEY	55.7	DW UNIT			
	% of 24-Hour Traffic		TRIP COUNT		TOTAL TRIP COUNT
Time	Entering	Exiting	Entering	Exiting	
12-1 AM	0.7	0.3	0.4	0.2	0.6
1-2 AM	0.4	0.1	0.2	0.1	0.3
2-3 AM	0.3	0.3	0.2	0.2	0.3
3-4 AM	0.3	0.4	0.2	0.2	0.4
4-5 AM	0.4	1.0	0.2	0.6	0.8
5-6 AM	0.1	2.6	0.1	1.4	1.5
6-7 AM	1.1	5.8	0.6	3.2	3.8
7-8 AM	2.6	12.9	1.4	7.2	8.6
8-9 AM	4.0	9.1	2.2	5.1	7.3
9-10 AM	3.9	7.2	2.2	4.0	6.2
10-11 AM	3.9	4.7	2.2	2.6	4.8
11-12 PM	4.9	5.5	2.7	3.1	5.8
12-1 PM	5.6	5.4	3.1	3.0	6.1
1-2 PM	4.8	4.9	2.7	2.7	5.4
2-3 PM	5.9	6.0	3.3	3.3	6.6
3-4 PM	8.3	5.2	4.6	2.9	7.5
4-5 PM	10.0	5.1	5.6	2.8	8.4
5-6 PM	11.4	6.7	6.3	3.7	10.1
6-7 PM	9.5	6.3	5.3	3.5	8.8
7-8 PM	7.1	4.3	4.0	2.4	6.3
8-9 PM	5.7	3.5	3.2	1.9	5.1
9-10 PM	4.7	1.4	2.6	0.8	3.4
10-11 PM	2.9	1.0	1.6	0.6	2.2
11-12 AM	1.5	0.4	0.8	0.2	1.1

# Town of Wilton

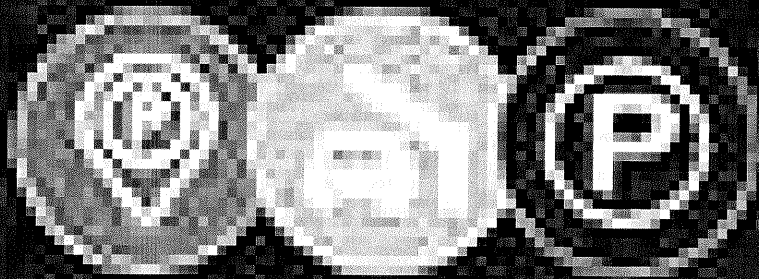
Geographic Information System (GIS)



Date Printed: 4/8/2020



<b>Rent Roll: Current Office Model</b>						
<u>Tenant</u>	<u>Lease Type</u>	<u>Start</u>	<u>End</u>	<u>Renewal Options</u>	<u>Tenant Since</u>	<u>Net Rental Area</u>
Sage/Catalytic Inc.	Gross+Utilities	6/1/10	5/31/20	1x5	6/1/10	1,375
Cosmetologist	Gross	7/20/19	7/19/25	1x5	10/1/19	600
Susan Bauerfeld, PHD	Gross	7/1/18	3/31/21	1x2	7/1/18	600
Euro Engineer	Gross	3/1/20	2/28/21		8/1/19	600
Vacant 2nd Floor Cathedral Center Suite	Gross+Utilities					1,645
Pinyan Capital	Gross	5/1/18	4/31/21	1x3	5/1/18	380
Judith Woolf Acupuncture	Gross	9/1/17	8/31/20	2x3	9/1/17	650
Lockwood Capital	Gross	8/1/17	10/24/19	1x1	8/1/17	500
Claire Arcamone - Healing Touch	Gross	10/1/17	10/1/19	1x2	10/1/17	600
Vacant -South Shop/Studio 1st Floor	Gross					900
Creative Planning Inc	Gross	10/1/19	10/1/20	1x1	10/1/19	250
Gregory Clark Collection -- Basement	Gross	3/1/06	3/1/24	1x5	3/1/06	2,650
Gregory Clark Collection --- East Wing Loft	Gross	3/1/06	3/1/24	1x5	3/1/06	1,650
Gregory Clark Collection --- Rear Shop/Studio	Gross	3/1/06	3/1/24	1x5	3/1/06	900
Coldwell Banker Real Estate	Gross	2/1/19	1/30/20	1x2	2/1/19	550



# Parking Generation Manual

## 1.000

1.000

# Multifamily Housing (Low-Rise) (220)

Peak Period Parking Demand vs: Occupied Dwelling Units

On a: Weekday (Monday - Friday)

Setting/Location: General Urban/Suburban (< 1/2 mile to rail transit)

Peak Period of Parking Demand: 11:00 p.m. - 6:00 a.m.

Number of Studies: 7

Avg. Num. of Occupied Dwelling Units: 83

## Peak Period Parking Demand per Occupied Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.25	0.45 - 1.44	0.85 / 1.41	***	0.25 ( 20% )

## Data Plot and Equation

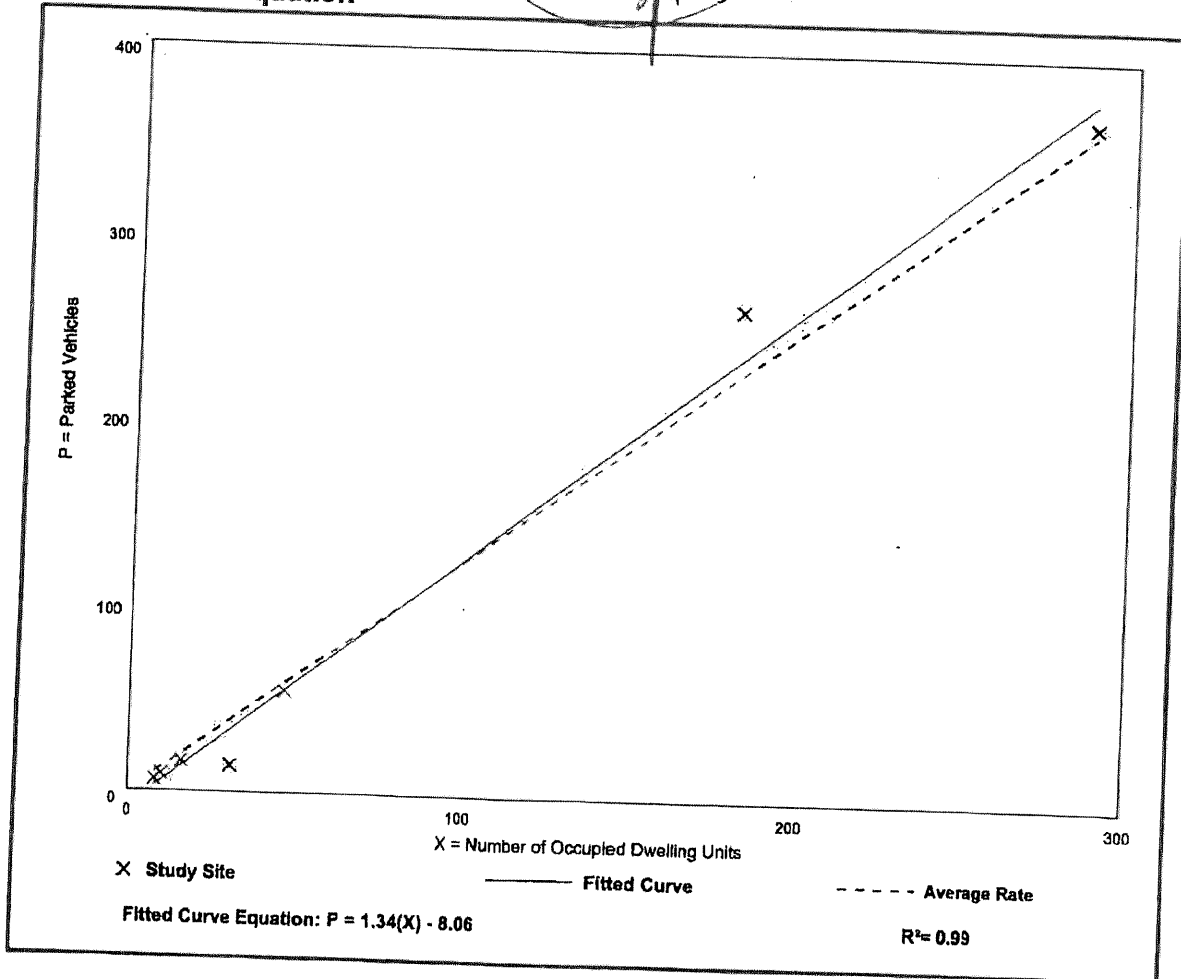


Table 5 ITE Descriptions of Land Use Codes (LUC)

LUC	Name	Description
220	Apartment	Apartments are rental dwelling units located within the same building with at least three other dwelling units, for example, quadraplexes and all types of apartment buildings. The studies included in this land use did not identify whether the apartments were low-rise, mid-rise, or high-rise. Low-rise apartment (Land Use 221), high-rise apartment (Land Use 222) and mid-rise apartment (Land Use 223) are related uses.
221	Low-Rise Apartment	Low-rise apartments (rental dwelling units) are units located in rental buildings that have one or two levels (floors), such as garden apartments. Apartment (Land Use 220), high-rise apartment (Land Use 222) and mid-rise apartment (Land Use 223) are related uses.
222	High-Rise Apartment	High-rise apartments (rental dwelling units) are units located in rental buildings that have more than 10 levels (floors) and most likely have one or more elevators. Apartment (Land Use 220), low-rise apartment (Land Use 221) and mid-rise apartment (Land Use 223) are related uses.
223	Mid-Rise Apartment	Mid-rise apartments are apartments (rental dwelling units) in rental buildings that have between three and 10 levels (floors). Apartment (Land Use 220), low-rise apartment (Land Use 221) and high-rise apartment (Land Use 222) are related uses.
230	Residential Condominium	Residential condominiums/townhouses are defined as ownership units that have at least one other owned unit within the same building structure. Both condominiums and townhouses are included in this land use. The studies in this land use did not identify whether the condominiums/townhouses were low-rise or high-rise. Low-rise residential condominium/townhouse (Land Use 231), high-rise residential condominium/townhouse (Land Use 232) and luxury condominium/townhouse (Land Use 233) are related uses.
231	Low-Rise Residential Condominium	Low-rise residential condominiums/townhouses are units located in buildings that have one or two levels (floors). Both condominiums and townhouses are included in this land use. Residential condominium/townhouse (Land Use 230), high-rise residential condominium/townhouse (Land Use 232) and luxury condominium/townhouse (Land Use 233) are related land uses.
232	High-Rise Residential Condominium	High-rise residential condominiums/townhouses are units located in buildings that have three or more levels (floors). Both condominiums and townhouses are included in this land use. Residential condominium/townhouse (Land Use 230), low-rise residential condominium/ townhouse (Land Use 231) and luxury condominium/townhouse (Land Use 233) are related land uses.

The differences in travel impacts between apartments and condominiums are less clear. “Ownership” may be a proxy for higher income. Travel behavior research has established a positive association with income, specifically related to higher rates of auto ownership (Pucher & Renne, 2003; Giuliano & Dargay, 2006; Blumenberg &

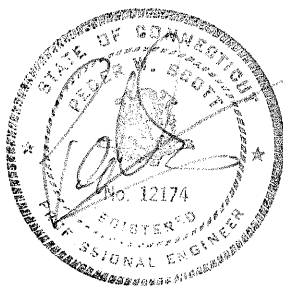
# Google Maps Little Pub Wilton





**2 Hollyhock Road  
Wilton, CT**

# **PARKING STUDY**



Prepared by:

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Date: April 29, 2020  
Updated: February 1, 2021

# **Parking Study**

**Project:** 2 Hollyhock Road  
Conversion from an Office Building to 8-30g Apartment Building.

## **Scope**

The following is an analysis of the parking requirements resulting from the conversion of an office building use to that of an apartment building based upon the Town of Wilton Regulations with a comparison to the ITE Parking Generation Manual, 5<sup>th</sup> edition. The ITE manual provides parking rates for various land use types (Residential, Retail, etc) in various settings (Suburban, dense urban and city center core, etc.) The ITE data also includes an Affordable housing component which shall be discussed in the following report.

The project as submitted consists of 18 apartments with studios and two-bedroom units as outlined below of which 30% are affordable, made up of 15% (3 units) at 85% market rate and 15% (3 units) at 60% market rate.

Apartment	Affordable Housing (6 Units)	Floor	Type
1		1st	Studio
2		1st	Studio
3		1st	Studio
4	AF4	1st	Studio
5	AF5	1st	2-Bed
6 Handicap		1st	Studio
7		1st	2-Bed
8	AF2	2nd	2 -Bed
9	AF3	2nd	Studio
10		2nd	2-Bed
11		2nd	Studio
12		2nd	Studio
13	AF1	2nd	Studio
14 Handicap		2nd	Studio
15		3rd	2-Bed
16		3rd	2-Bed
17		3rd	Studio
18	AF6	3rd	Studio

Based upon the site plan prepared, the project proposes 23 parking spaces plus one handicapped space which is not considered in this analysis, refer to attachment Figure 1.0.

### **Methodologies**

Parking requirements for various land uses are typically determined based upon the municipality Zoning Regulations. However, since the project is considered unique in nature due to the following factors, the parking regulations for the project can be different than what is required for a typical residential use:

- The relatively small size of the units
- Affordability housing designation classification for a portion of the units.
- Proximity of the units to the main commercial corridor of the municipality.

The above factor could potentially result in reduced parking demand for the proposed project. Hence to determine the required parking demand for this unique project, this analysis evaluates the forecast parking demand of the project utilizing the following various methodologies and sources.

- Parking required based on the Town of Wilton Parking Regulations.
- Parking required based upon the Institute of Transportation Engineers (ITE) Parking Generation Manual 5<sup>th</sup> Edition (January 2019);
- Parking required based upon similar projects submitted to the Town of Wilton

### **I) Municipal Zoning Regulations**

Based upon the Town of Wilton zoning regulations, the following is the parking requirements for multi-family dwelling.

Parking required per Town of Wilton Zoning	
Studio	1.5/unit
One-bedroom	2/unit
Two bedroom	2/unit
Visitor Parking	1 space per 2 units

Project Parking Capacity required per Town of Wilton Zoning					
Land Use	Quantity	Units	Parking Required	Total Parking	
Studio	12	dwelling units	1.5	18	spaces
One-bedroom	0	dwelling units	2	0	spaces
Two bedroom	6	dwelling units	2	12	spaces
Visitor Parking	6	For 1 & 2 bedroom units	0.5	3	spaces
			Total req'd	33	
			Round-up	33	spaces
			Parking Provided:	23	spaces
			Compliance to regulations	-10	spaces
			Percentage of req'd parking	69.6%	spaces
					percentage

## II) Parking required based on the ITE Parking Generation Manual

The Institute of Transportation Engineers (ITE) Parking Generation Manual is a widely accepted source for the determination of parking demand. The Manual contains parking requirements and rates for various land uses based upon empirical and recorded data from existing sites. The most recently updated Manual consists of an updated data base reflecting the impacts of rider sharing companies, trends in vehicular use by younger adults and other factors which effect parking demand.

The fact is that the municipal codes adopted by most communities reflect a general land use in which one regulation fits all residential land uses while the ITE Manual creates numerous categories which reflect demand based upon unit densities, locations and the affordability index. The ITE also breaks down the parking requirements for weekday, Saturday and Sunday conditions. With this project, in which the predominant land uses on Hollyhock Road are commercial, the weekend parking requirements do not govern the capacity of the project due to street side parking opportunities.

The ITE Manual has developed parking requirements based upon either bedroom count or unit count. With a project which includes 2- bedroom units and the demographics of the area in which each unit can house couples with several vehicles, the unit count analysis is more accurate than that based upon bedroom count.

For the use category of Low Rise housing (category 220) for weekday parking within an Urban/Suburban area, for the peak demand period, the parking demand is based upon an equation:

P-1.34(x) – 8.06 in which x is the number of units. Since the project is of a minor size, an average of 1.25 spaces per unit with the 85% percentile of 1.4 spaces per unit can be utilized to determine the parking demand, refer to the attached ITE data sheet.

The affordable housing analysis completed by the ITE Parking Generation Manual includes all multi-family housing that is rented at below market rate to households that include at least one employed member. The eligibility to live in an affordable unit is based upon housing income and/or the resident's age. Most of the studies completed by ITE consisted of between 75% to 100% affordable with units, recorded at sites in the general urban/suburban setting.

The affordability index for the proposed units in the Wilton area must be reviewed based upon the demographics and the respective income ranges to that of vehicle ownership. The occupant income levels for the "85% of market Affordable units" will not impact the number of vehicles owned, and thus these units are analyzed under the ITE Low-Rise housing category. The occupant income level of the "65% of market Affordable units" would have a significant impact on vehicular ownership and are therefore analyzed under the ITE Affordable category.

Based upon 5th Edition ITE Manual-Affordable Housing required parking is;

Weekend: 0.99 spaces/dwelling unit  
 Saturday: 0.79 spaces/dwelling unit  
 Sunday: 0.96 spaces/dwelling unit

An analysis combining the (15) units of Low-Rise Housing category and the (3)-65% percentile market rate Affordable category for the weekday peak is tabulated below based upon the ITE manual. The handicapped space allocation is assumed to be constant for the two categories of use.

<b>Project Parking Capacity Planned to be provided per ITE Manual</b>					
<b>weekday: 11:00 pm to 6:00 am</b>					
Land Use	Quantity	Units	Parking Required	Total Parking	
Low Rise units	15	dwelling units	see equation	12.05	spaces
Affordable	3	dwelling units	0.99	2.97	spaces
Visitor Parking	6	1 & 2 bedroom	0.5	3	spaces
			Total req'd	18.02	spaces
			Round-up	19	spaces
Parking Provided:				23	spaces
Compliance above ITE Manual				4	spaces
Percentage of ITE manual parking				121.00%	percentage

The above analysis is based upon the 85% percentile of prediction, refer to the attached ITE Category Data Sheet. Based upon the ITE analysis completed, the project has proposed adequate parking for the intended Apartment use.

### **III) Comparison to similar projects**

The standard for the review and approval of projects is based upon the premise that each project is reviewed equally relative to the zoning codes of the municipality. Accordingly, precedents are established in how the regulations applied, especially with regards to parking regulations and actual parking at similar projects.

One such study completed in 2015 by Malone & MacBroom Traffic Engineers reviewed numerous apartment complexes in Fairfield County with regards to actual observed parking use. While many of the projects were larger in size, the trend indicates that for smaller projects, less than 50 units, the actual parking is less than that required by the municipality.

This analysis indicates that this project, while deficient in parking spaces required per the Town of Wilton regulations, meets the predicted parking demands based upon an ITE analysis.

### **IV) Findings and Conclusions**

Based upon the Town of Wilton regulations, 35 parking spaces are required.

#### Predicted by ITE Parking Generation Code

Based upon this analysis, 19 spaces are required.

Since 23 spaces are proposed, this project meets the 85% percentile parking demand in compliance with ITE recommendations.

The geometry of the site also provides for additional parking along Hollyhock Road a private road shared by the applicant, which during daylight hours is used by several of the commercial establishments and visitors of other apartments after business closing hours and on weekends. The ROW measures 41 feet, with a 24' wide driving lane and shoulder measuring 12' wide as shown. While a specific on-site parking analysis was not completed, this anticipated additional capacity is available and additional to the parking proposed on the site plan. Attached is an Overlay Site Plan of Hollyhock Road, depicting parking locations currently in use along the shoulder of this private road. The proposal is to reserve these spaces with signage for this project after the close of businesses, 6:00 pm to 8:00 am weekdays plus weekends to provide supplemental guest parking spaces. The proposed effective proposed parking would then be considered 23 + 5 spaces equal 28 parking spaces. This would provide 85% of the parking required by the Town of Wilton.

The other option for the parking is to restrict the number of vehicles to be parked by the tenant of this apartment building. The wording of the tenant lease agreement can restrict parking to 1 space for certain apartment units,

Option 1: is to restrict two studios to no vehicle parking, reducing the required spaces to 31;

Option 2: is to restrict two of the 2-bedrooms to a single space, reducing the required spaces to 29;

Option 3: is to restrict three of the 2-bedrooms to a single space, reducing the required spaces to 28; note the restriction has to be equal for the affordability versus the standard unit, so 2 standard and 1 affordable can be restricted to a single space.

For each option the affordability criteria of equal opportunity is met, since the same restriction applies to a standard and an affordable unit. A table is provided which outlines the various parking lot calculations and combinations of this report for review and consideration.

The adequacy of parking is met based upon the predicted parking demands estimated by the ITE Manual. This addresses trends in reduced parking for apartments due to changes in vehicular use, use of ride share capabilities and proximity to facilities along the Route 7 corridor. With the completion of the sidewalk, a pedestrian walkable environment has been created with a bus stop across the street. The trends anticipated in many studies is a reduction in vehicular use in the near future, with the potential of alternate means of mass transit, such as bus routes, autonomous vehicles and ride share capabilities. This is in addition to the impacts of expanded virtual work environments coupled with delivery services and expansion of key commercial and office facilities in walking distance to the subject apartments, all of which reduce the need for individual vehicle use. Accordingly, there is no anticipated increase in parking required for this occupancy. The project as proposed will provide adequate parking for the apartment occupants and visitors within the Holleyhock road corridor.

Respectfully Submitted:



Peder W. Scott, P.E., R.A.  
President

2/3/21

Date



# 18 Apartment Unit Building – 2 Hollyhock Road

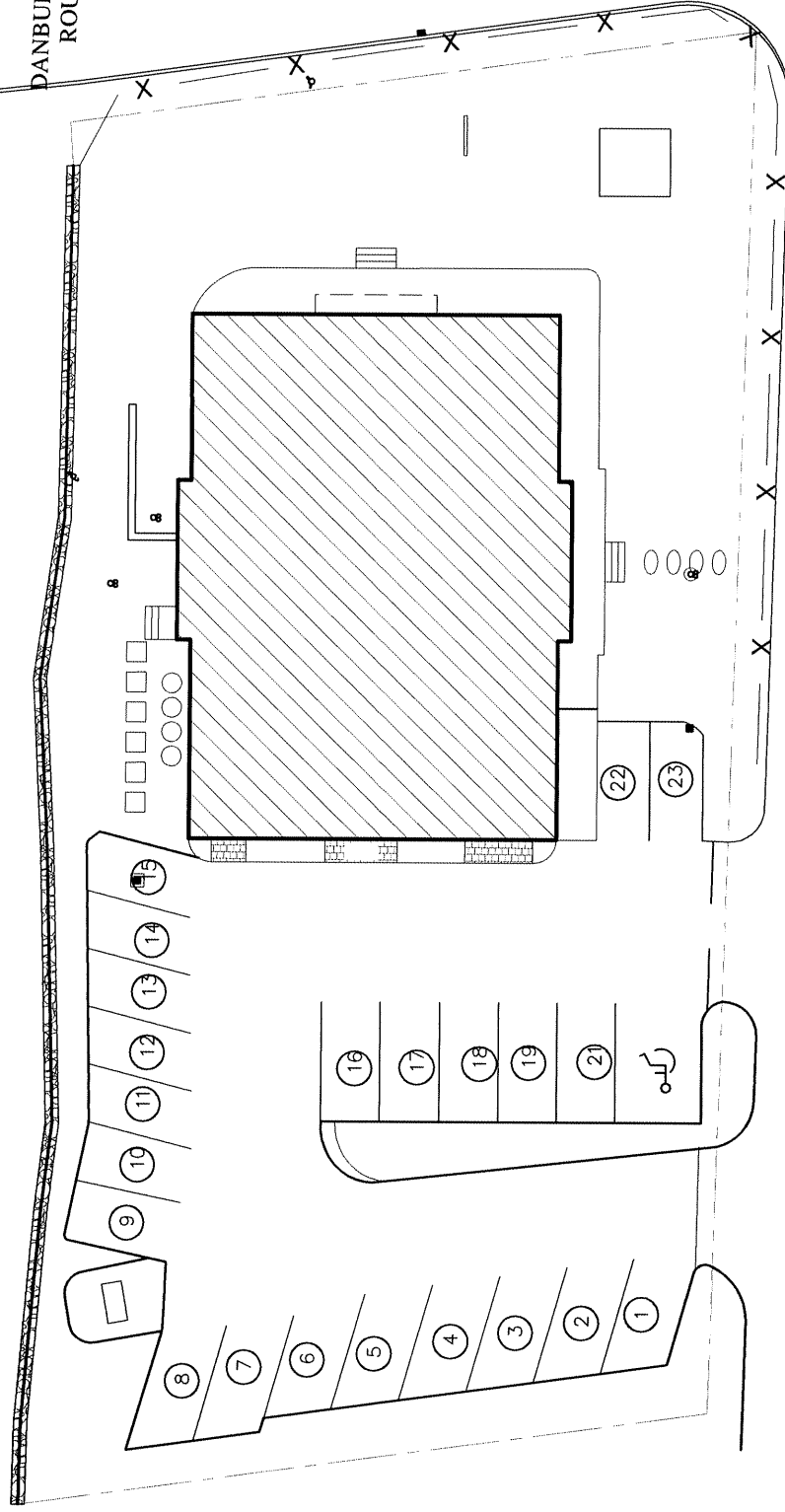
## 8-30g Affordable Housing Project

	Studios	1-Bed	2-Bed	Totals
Apartment Quantities	12	0	6	18
Parking Code Requirement	1.5(Spot)	2 (Spots) + .5 (Visitor)	2 (Spots) + .5 (Visitor)	
Parking Spaces Required per Wilton Code	18	0	12	30
Visitor Spaces required per Wilton Code	0	0	3	3
Total Spaces required per Wilton	18	0	15	33
Parking Required based on the ITE General Parking Manual See Parking Study – 1/11/2021				19
Onsite Parking Available 2 Hollyhock Road				23
Residential Parking Count Data per Milone & Macboom See Parking Study - 1/11/2021	Average spaces per 59 developments 11,404 apartments (2 bedroom apartments average)			1.274
2 Hollyhock Rd. Spaces per apartment average, with 23 onsite spaces				1.2777
<b>Below - Mitigation Strategies to Improve Parking Availability-Below</b>				
Two Studios with “Non Car” Apartments (Per Lease Agreement) .5 Visitor spaces included Tenants from Neighboring Corporations (ASML, AIG....) Walking distance to work	-2			-2
Three 2-Bedroom apartments with “ One Car” availability (Per Lease Agreement) .5 Visitor spaces included			-3	-3
Total spaces needed reduced based strategies above	16		12	28
Onsite Parking Available @ 2 Hollyhock Road	20 Assigned Spaces/ 3 Visitor Spaces			23
Curbside Visitor Parking @ 2 Hollyhock Road	Refer to Site and Road plans revealing a 24’ clear roadway with parking spaces on margin for Visitor use (3 hour time limit with installed signage or only after 4:00PM to 8:00 AM Parking available)			5
Loading Zone	Uses two (2) of the eight (8) visitor spaces from 9AM-4PM ( with appropriate signage)			
Total parking spaces provided at 2 Hollyhock Road				28



DRIVEWAY DAVIS CORP.

DANBURY ROAD  
ROUTE 7



HOLLYHOCK ROAD

SITE PLAN

SCALE: NTS

FIGURE 1.0



# Memorandum

TO: Timothy S. Hollister, Esq.

FROM: Dave Sullivan, P.E., Milone & MacBroom, Inc.

DATE: May 19, 2015

RE: Residential Parking Assessment  
Wheelers Woods Residential Community  
Milford, Connecticut  
MMI #4962-01-21

*De Sullivan*  
RECEIVED AT  
PUBLIC HEARING

MAY 19 2015

MILFORD  
P & Z BOARD

It is proposed that the Wheelers Woods Residential Community development provide an on-site parking supply based on 1.8 parking spaces for all one-bedroom units and 2.0 parking spaces for all two-bedroom and three-bedroom units. The City of Milford parking requirement, however, is 2.0 parking spaces for efficiency and one-bedroom units and 3.0 parking spaces for two-bedroom and three-bedroom units. Nevertheless, based on our research of parking at residential multifamily developments, the proposed parking supply at Wheelers Woods Residential Community is expected to be adequate. Milone & MacBroom, Inc. (MMI) has undertaken extensive study of residential parking in Connecticut over the years, finding that overall parking usage at residential apartment and condominium developments is consistently less than 2.0 parked vehicles per dwelling unit.

The proposed Wheelers Woods Residential Community is to have 180 dwelling units: 62 one-bedroom units, 100 two-bedroom units, and 18 three-bedroom units. Overall, there will be 1.76 bedrooms per unit at the proposed residential development. A total of 352 parking spaces is proposed based on the aforementioned ratios, which equates to an aggregate on-site parking supply of 1.96 spaces per unit.

Attached to this memo is a spreadsheet containing empirical data on parking usage collected at various residential developments in Fairfield and New Haven Counties from 1998 to the current day. Each of the 59 individual observations found a parking demand ratio of less than 2.0 occupied parking spaces per unit. The majority of observations found the residential parking at less than 1.5 parked vehicles per unit. Only one of the 59 observations yielded a ratio near what Wheelers Woods Residential Community is proposing. This was at Harbour Woods in Stratford, a 36-unit luxury development with all two-bedroom units and no one-bedroom units.

Review was also made of national data on parking use published by the Institute of Transportation Engineers (ITE).<sup>1</sup> ITE contains parking data for numerous different land uses. For "Low/Mid-Rise Apartments," the average peak-period parking demand was found to be 1.23 vehicles per dwelling unit, with a 95% confidence level of 1.37 parked vehicles per unit. For "Rental Townhouses," the average peak parking demand was 1.62 vehicles per unit. For "Rental Condominium/Townhouses," the average peak parking demand was 1.38 vehicles per unit.

Based on all of this data, we believe that typical parking use at the Wheelers Woods Residential Community will be less than 2.0 parked vehicles per unit. If we assume a parking demand of around say

<sup>1</sup> *Parking Generation - 4<sup>th</sup> Edition*. Institute of Transportation Engineers, 2010



1.5 vehicles per unit, for example, the 180 proposed units would generate 270 parked vehicles. With a total of 352 parking spaces proposed, this would leave around 80 empty parking spaces on the site under typical peak conditions. During atypical times such as holidays, parties, and events at the community clubhouse, we believe that the on-site supply of 352 spaces will still be adequate to accommodate any temporarily heightened parking demands.

Enclosure

4962-01-21-m1915-memo

# RESIDENTIAL PARKING COUNT DATA

Site Location		Count Date	Number of Units	Number Bedrooms per Unit	Parked Vehicles per Unit
Avalon Haven	North Haven	Tue, 7/10/01	128	1.77	1.43
Avalon Haven	North Haven	Wed, 10/10/01	128	1.77	1.05
Avalon Haven	North Haven	Wed, 10/10/01	128	1.77	1.52
Avalon Haven	North Haven	Sat, 10/13/01	128	1.77	1.20
Avalon Haven	North Haven	Sat, 10/13/01	128	1.77	1.40
Avalon Springs	Wilton	Wed, 11/17/99	102	2.30	1.69
Avalon Walk East	Hamden	Thu, 12/3/98	334	1.42	1.16
Avalon Walk West	Hamden	Thu, 12/3/98	430	1.73	1.43
Foxbridge Village	Branford	Thu, 11/18/99	140	2.00	1.84
Golden Hill Apts.	Milford	Tue, 7/10/01	80	2.00	0.60
Harbour Woods	Stratford	Thu, 6/28/01	36	2.00	1.97
Hawley Glen	Stratford	Thu, 6/28/01	40	1.35	1.75
Hickory Woods	Stratford	Thu, 6/28/01	42	1.62	1.64
Milford Apartments	Milford	Mon, 7/9/01	22	1.00	1.27
Milford Chase	Milford	Mon, 7/9/01	20	1.00	1.05
Milford Hunt	Milford	Mon, 7/9/01	32	1.00	1.03
Southwick	Milford	Tue, 7/10/01	27	2.00	1.48
St. John Common	North Haven	Thu, 12/3/98	70	2.00	1.54
St. John Common	North Haven	Wed, 12/11/98	70	2.00	1.31
The Stratford Arms	Stratford	Thu, 6/28/01	94	1.37	0.71
Tide Harbor	Stratford	Thu, 6/28/01	128	1.13	1.10
Woodland Hills	Branford	Thu, 11/18/99	97	2.60	1.82
Residential Community In	Milford	Thur, 2/14/08	246	1.25	1.26
Residential Community In	Milford	Sat, 2/16/08	246	1.25	1.19
Residential Community In	Milford	Sun, 2/17/08	246	1.25	1.22
Residential Community In	Hamden	Thur, 2/14/08	764	1.59	1.09
Residential Community In	Hamden	Sat, 2/16/08	764	1.59	1.23
Residential Community In	Hamden	Sun, 2/17/08	764	1.59	1.31
Residential Community In	Orange	Thur, 5/1/08	168	1.50	1.13
Residential Community In	Orange	Sat, 5/3/08	168	1.50	1.09
Residential Community In	Orange	Sun, 5/4/08	168	1.50	1.15
Residential Community In	Danbury	Thur, 2/14/08	268	1.71	1.31
Residential Community In	Danbury	Sat, 2/16/08	268	1.71	1.34
Residential Community In	Danbury	Sun, 2/17/08	268	1.71	1.38
Residential Community In	New Canaan	Wed, 4/16/08	104	2.10	1.64
Residential Community In	New Canaan	Sat, 4/12/08	104	2.10	1.60
Residential Community In	New Canaan	Sun, 4/13/08	104	2.10	1.58
Residential Community In	Stamford	Thur, 5/29/08	323	1.48	1.14
Residential Community In	Stamford	Sat, 5/31/08	323	1.48	1.04
Residential Community In	Stamford	Sun, 6/1/08	323	1.48	1.04
The Fairfield Apartments	Stamford	Thur, 4/24/14	258	1.47	1.11
The Fairfield Apartments	Stamford	Fri, 4/25/14	258	1.47	1.00
The Fairfield Apartments	Stamford	Sun, 5/4/14	258	1.47	1.00
The Fairfield Apartments	Stamford	Tue, 5/6/14	258	1.47	0.98
Eastside Commons	Stamford	Tue, 7/12/11	108	2.14	1.39
Glenview House Apts	Stamford	Tue, 7/12/11	135	2.22	1.33
Glenview House Apts	Stamford	Tue, 8/12/12	135	2.22	1.33
Glenview House Apts	Stamford	Wed, 7/11/12	135	2.22	1.26
Glenview House Apts	Stamford	Thur, 7/12/12	135	2.22	1.30
Glenview House Apts	Stamford	Thur, 8/23/12	135	2.22	1.32
Glenview House Apts	Stamford	Wed, 8/29/12	135	2.22	1.36
Glenview House Apts	Stamford	Thur, 9/6/12	135	2.22	1.18
Glenview House Apts	Stamford	Fri, 9/7/12	135	2.22	1.23
Avalon (on Woodmont)	Milford	Thur, 5/14/15	246	1.25	1.33
Avalon (on Woodmont)	Milford	Sat, 5/16/15	246	1.25	1.30
Avalon (on Woodmont)	Milford	Sun, 5/17/15	246	1.25	1.30
1060 New Haven Ave	Milford	Thur, 5/14/15	138	1.57	1.44
1060 New Haven Ave	Milford	Sat, 5/16/15	138	1.57	1.38
1060 New Haven Ave	Milford	Sun, 5/17/15	138	1.57	1.41

PROPOSED WHEELERS WOODS RESIDENTIAL COMMUNITY

180

1.76

Proposed Number of Parking Spaces per Unit:

1.96

83



# ASBUILT PLAN

OF PROPERTY PREPARED FOR

## ARTIFACT DESIGN GROUP

#2 HOLLYHOCK ROAD, WILTON, CONNECTICUT

SCALE: 1" = 20'

DATE: JAN. 20, 2004

BY "ARCAMONE LAND SURVEYORS"

REFER TO ZONING BOARD OF APPEALS VARIANCE #03-09-31, 03-09-32 & RESOLUTION #1203-82

		REQUIRED/ALLOWED		EXISTING FOUNDATION ASBUILT	
ALL PLANS	FRONT SETBACK	* 31' APPROVED	100' MIN.	31.4'	31.0'+
	REAR		50' MIN.	87.5'±	87.4'±
	SIDE	* 17' APPROVED	50' MIN.	17.7'±	17.7'±
	SIDE TO HOLLYHOCK RD	* 24' APPROVED	50'	24.4'±	24.0'
	AGGREGATE SIDE		N/A MIN.		
	LOT FRONTAGE		150' MIN.	104'	104'
	LOT AREA		21,780sf MIN.	21,173sf	21,173sf
	HEIGHT		39' MAX.	-	33.9'±
	# OF STORIES		3 MAX.	-	3
	LOT COVERAGE: BUILDING	* 21% APPROVED	20% MAX.	21% to fin. veneer	21%
: SITE		* 56.6% APPROVED	50% MAX.		56.5%**

\*\* BLUESTONE/COBBLE ON STONE DUST WALKWAY NOT INCLUDED IN COVERAGE

THIS SURVEY MEETS THE STANDARD OF A CLASS "A-2" SURVEY.

SURVEY TYPE : ZONING LOCATION SURVEY  
BOUNDARY DETERMINATION : DEPENDENT RESURVEY

THIS SURVEY AND MAP WERE PREPARED IN ACCORDANCE WITH THE "RECOMMENDED STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT". SEC. 20-300b-1 to 20-300b-20. EFFECTIVE; JUNE 21, 1996 AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC., SEPTEMBER 26, 1996

THE CERTIFICATION SHOWN ABOVE RUNS TO THE PERSON(S) FOR WHOM THE SURVEY WAS PREPARED AND ANY GOVERNMENTAL AGENCY, TITLE INSURANCE CO., OR LENDING INSTITUTION WHOSE NAME APPEARS ABOVE. CERTIFICATION IS NOT TRANSFERABLE.

UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS IF ANY, ARE NOT SHOWN.

THIS MAP IS INVALID WITHOUT A LIVE SIGNATURE AND EMBOSSED SEAL.

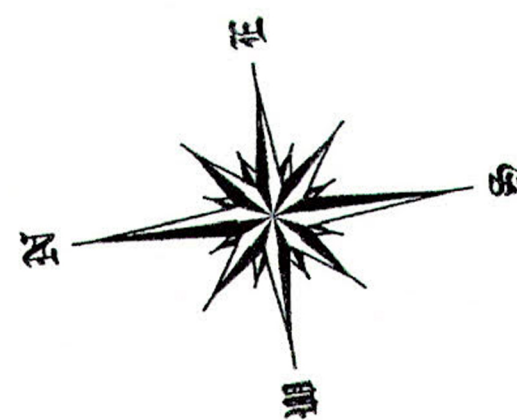
REFERENCES TO THE ABOVE PROPERTY ARE MADE TO MAP(S) No. 528, 5278 W.L.R. & TAX MAP 68 & TAX LOT(S) 30  
PROPERTY IS LOCATED IN ZONE : "DE-5"

MAP OF PROPERTY PREPARED FOR ARTIFACT DESIGN GROUP, GREG & ELIZABETH CLARK 66 DANBURY RD WILTON, CT 1" = 20' 8/15/03  
LAST REV. 9/3/03 BY ROLAND H. GARDNER

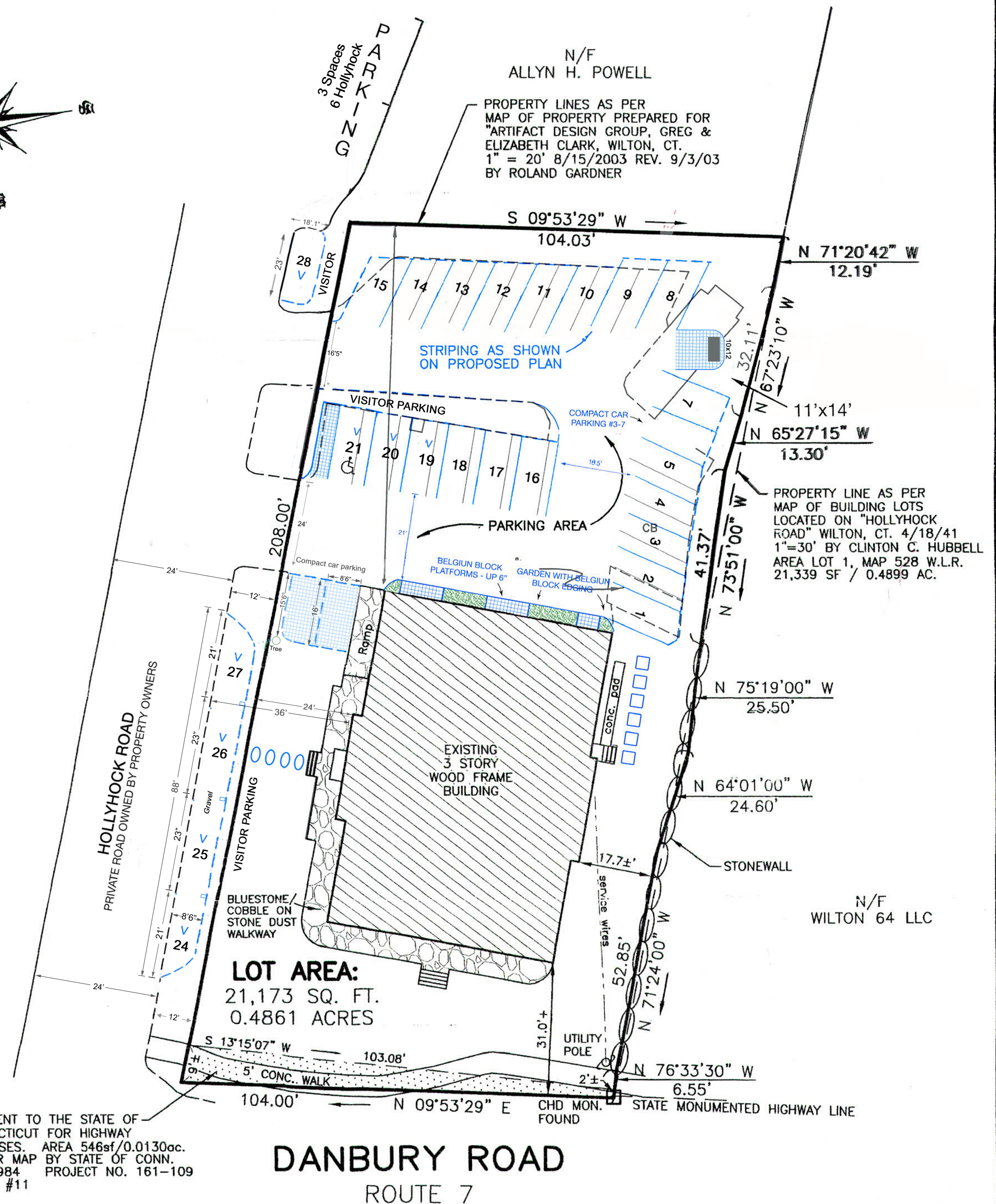
DISTANCES SHOWN +/- FROM BUILDINGS TO PROPERTY LINES ARE NOT TO BE USED TO ESTABLISH BOUNDARIES.

"TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON"

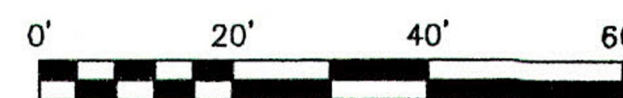
  
WAYNE J. ARCAMONE, LAND SURVEYOR, NORWALK, CONN. CONNECTICUT REG # 15773



EASEMENT TO THE STATE OF CONNECTICUT FOR HIGHWAY PURPOSES. AREA 546sf/0.0130ac. AS PER MAP BY STATE OF CONN. MAY 1984 PROJECT NO. 161-109 SERIAL #11



V: Visitor Parking



GRAPHIC SCALE

## OVERLAY SITE PLAN

REVISIONS

DATE	DESCRIPTION	BY
3/10/04	OFFSETS	AAT
9/23/04	ASBUILT	AAT
12/01/04	COVERAGE ASBUILT	JAD



## HOLLYHOCK RD - ROAD VIEW

ENP: EXISTING NEIGHBOR PARKING  
AVP: ART HOUSE VISITOR PARKING



## Hollyhock Road - Satellite View



2021



2017



## Hollyhock Road - Satellite View



2019



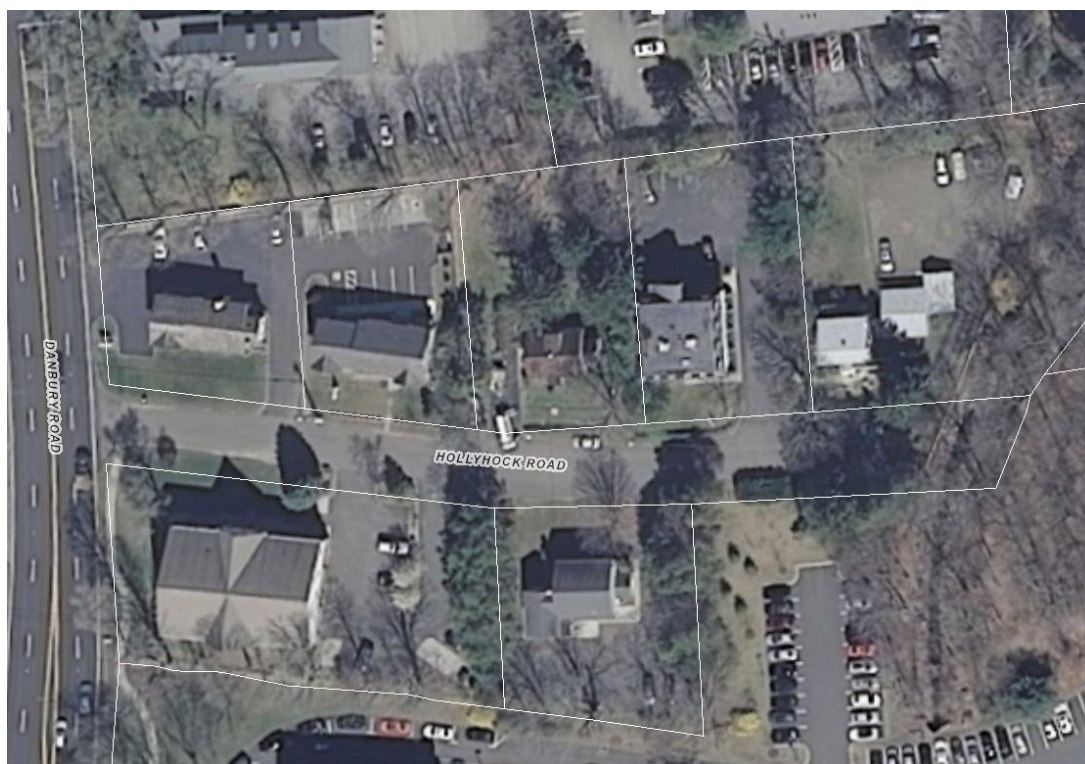
2016



## Hollyhock Road - Satellite View



2013



2012