

July 3, 2019

MAX-2016018.00

Meeting House Way, LLC  
c/o Mr. Sean Murphy, Esquire  
282 Upper Main Street  
P.O. Box 1270  
Edgartown, Massachusetts 02539

SUBJECT: Trip-Generation Letter  
Proposed Residential Development  
139 Meeting House Way  
Edgartown, Massachusetts

Dear Mr. Murphy:

**Greenman-Pedersen Inc.** (GPI) has prepared this letter to evaluate the expected trips associated with the updated site plan for the proposed Meeting House Place residential development to be located at 139 Meeting House Way in Edgartown, Massachusetts. As previously proposed, the project consisted of the construction of 34 single-family homes. Based on numerous meetings with the Martha's Vineyard Commission (MVC) staff and public input, the site plan has been updated and the project now consists of the construction of 28 single-family homes and 10 townhomes. Access and egress to the site is proposed via three driveways on Division Road which provide access to Meshacket Road and Meeting House Way. A Plan of Land is attached to this letter for your reference.

This letter is intended to evaluate the potential traffic impacts associated with the currently proposed development and includes a review of the project-generated trips.

### **Trip Generation**

To estimate the volume of traffic to be generated by the proposed residential development, trip-generation rates published by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*<sup>1</sup> were researched. Land Use Code (LUC) 210 (Single-Family Detached Housing) and LUC 220 (Multifamily Housing [Low-Rise]) were used to estimate the trip generation of the previously and currently proposed development. Table 1 summarizes the results of the proposed trip-generation estimates. All trip-generation data are attached to this letter.

As shown in Table 1, the currently proposed residential development that consists of 28 single-family homes and 10 townhomes is expected to generate 1 *additional* trip (0 entering and 1 exiting) during the weekday AM peak hour and 2 *additional* trips (1 entering and 1 exiting) during the weekday PM peak hour over what was previously proposed (34 single family homes) and analyzed as part of the *Alternative Trip Distribution* information prepared for the project.

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<sup>1</sup> *Trip Generation, 10<sup>th</sup> Edition*. Institute of Transportation Engineers; Washington, DC; 2017.

**Table 1**  
**TRIP-GENERATION SUMMARY**

Time Period / Direction	Previously Proposed	Currently Proposed			Additional Trips <sup>e</sup>
	34 Homes <sup>a</sup>	28 Homes <sup>b</sup>	10 Townhomes <sup>c</sup>	Total <sup>d</sup>	
<b>Weekday Daily</b>	390	320	35	355	(35)
<b>Weekday AM Peak Hour</b>					
<i>In</i>	7	6	1	7	0
<i>Out</i>	<u>22</u>	<u>19</u>	<u>4</u>	<u>23</u>	<u>1</u>
<i>Total</i>	29	25	5	30	1
<b>Weekday PM Peak Hour</b>					
<i>In</i>	23	19	5	24	1
<i>Out</i>	<u>13</u>	<u>11</u>	<u>3</u>	<u>14</u>	<u>1</u>
<i>Total</i>	36	30	8	38	2

<sup>a</sup> ITE LUC 210 (Single-Family Detached Housing) for 34 dwelling units.  
<sup>b</sup> ITE LUC 210 (Single-Family Detached Housing) for 28 dwelling units.  
<sup>c</sup> ITE LUC 210 (Multifamily Housing [Low-Rise]) for 10 dwelling units.  
<sup>d</sup> 28 Home plus 10 Townhomes.  
<sup>e</sup> Previously Proposed 34 Homes minus Total Currently Proposed Total.

**Trip Distribution**

Having estimated project-generated vehicle trips, the next step is to determine the distribution of the project traffic and assign these trips to the local roadway network. The directional distribution of site traffic is dependent on expected travel route to and from the site, consistent with the *Alternative Trip Distribution* information prepared for the project. The trip distribution is shown on Figure 1 – Site Generated Peak Hour Traffic Volumes attached to this letter.

Traffic volume increases leading beyond the study area are anticipated to be between 2 to 14 vehicle trips per hour based on 28 single-family homes and 10 townhomes. These increases represent, on average, one additional vehicle trip approximately every 4 to 30 minutes during the peak hours.

The 2024 Build Peak Hour Traffic Volumes are shown graphically in Figure 2 attached to this letter.

**Summary**

The site is vacant and as currently proposed a residential development consisting of 28 single-family homes and 10 townhomes will be constructed. Access and egress to the site is proposed via three driveways on Division Road which provide access to Meshacket Road and Meeting House Way.

- The currently proposed residential development that consists of 28 single-family homes and 10 townhomes is expected to generate 1 *additional* trip (0 entering and 1 exiting) during the weekday AM peak hour and 2 *additional* trips (1 entering and 1 exiting) during the weekday PM peak hour over what was previously proposed (34 single family homes) and analyzed as part of the *Alternative Trip Distribution* information prepared for the project.

Mr. Sean Murphy  
July 3, 2019  
Page 3

- Traffic volume increases leading beyond the study area are anticipated to be between 2 to 14 vehicle trips per hour based on 28 single-family homes and 10 townhomes. These increases represent, on average, one additional vehicle trip approximately every 4 to 30 minutes during the peak hours.

In light of the information provided in this letter it is expected that with the reduction of 6 single-family homes to the project and the addition of 10 townhomes to accommodate "empty nesters", **the residential development will result in a no appreciable increase in traffic and negligible vehicular impacts** over what has already been analyzed for the previously proposed project. Should you have any questions, or require additional information, please contact me at (978) 570-2968.

Sincerely,

**GREENMAN-PEDERSEN, INC.**



Heather L. Monticup, P.E.

Assistant Vice President / Director of Land Development - Traffic

Enclosures:

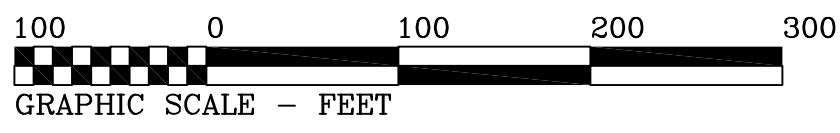
Plan of Land

Trip-Generation Data

Figure 1 – Site Generated Peak Hour Traffic Volumes

Figure 2 - Build Peak Hour Traffic Volumes

cc: Mr. Doug Anderson, Meeting House Way, LLC



Perimeter Area = 54.3 ac - 0.8 ac Roadway Easement =  
53.5 ac of effective perimeter area

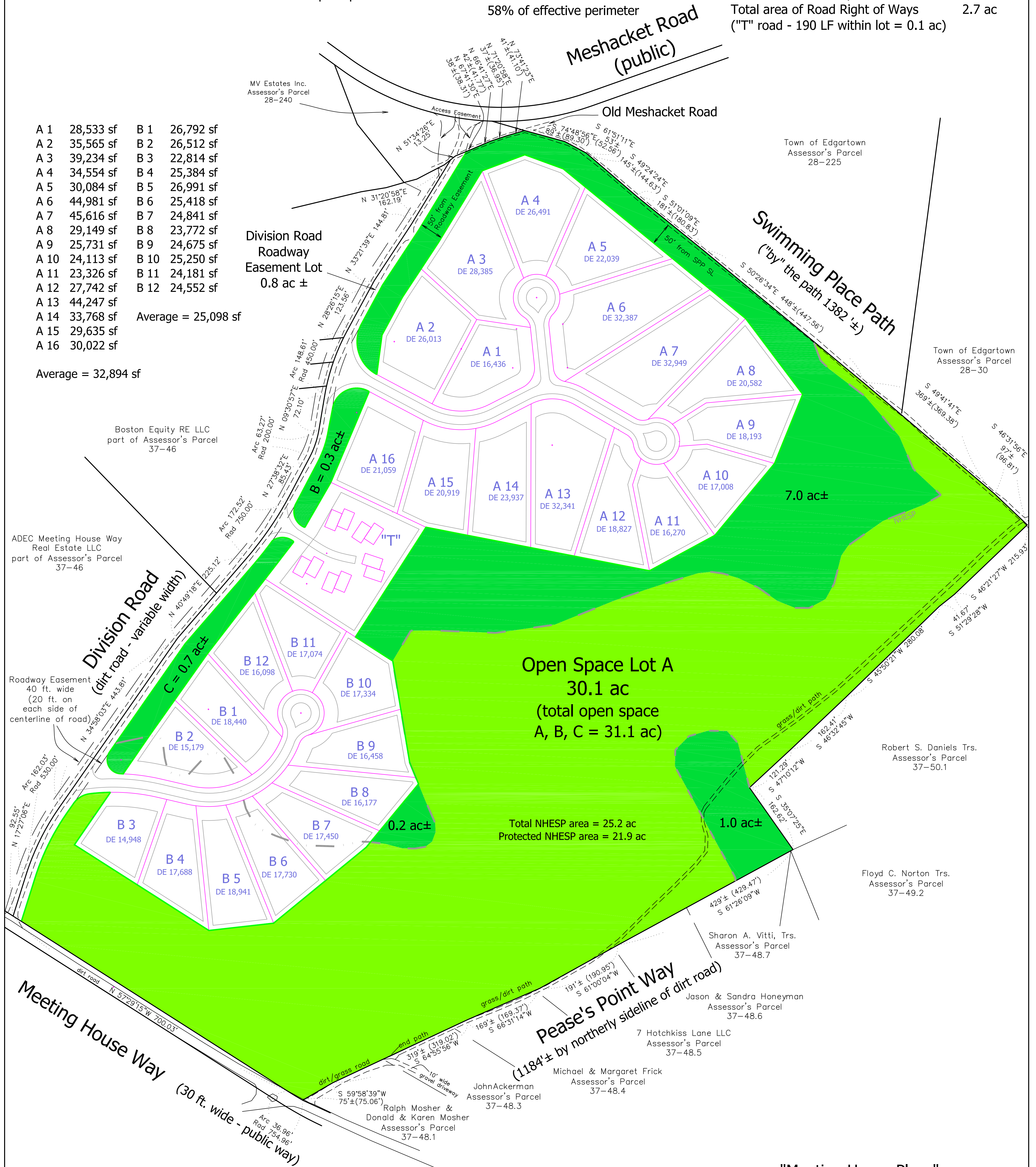
**NHESP**  
 NHESP Priority Habitat Area 25.2 ac  
 Protected NHESP Priority Habitat Area 21.9 ac  
 NHESP Priority Habitat Area subject to potential development 3.3 ac (less than 5 ac take threshold)

**Open Space**  
 NHESP protected open space 21.9 ac  
 Association protected open space 9.2 ac  
 Total open space 31.1 ac  
 58% of effective perimeter

**Area Summary**

**Open Space** 31.1 ac  
 "A" lots (32,894 sf± average) 12.1 ac  
 "T" lot 1.4 ac  
 "B" lots (25,098 sf± average) 6.9 ac  
 Total area of lots 20.4 ac  
**Road Right of Way**  
 "A" way - 1,260 LF 1.2 ac  
 "B" way - 740 LF 0.7 ac  
 Division Rd. Roadway Easement Lot 0.8 ac  
 Total area of Road Right of Ways 2.7 ac  
 ("T" road - 190 LF within lot = 0.1 ac)

A 1	28,533 sf	B 1	26,792 sf
A 2	35,565 sf	B 2	26,512 sf
A 3	39,234 sf	B 3	22,814 sf
A 4	34,554 sf	B 4	25,384 sf
A 5	30,084 sf	B 5	26,991 sf
A 6	44,981 sf	B 6	25,418 sf
A 7	45,616 sf	B 7	24,841 sf
A 8	29,149 sf	B 8	23,772 sf
A 9	25,731 sf	B 9	24,675 sf
A 10	24,113 sf	B 10	25,250 sf
A 11	23,326 sf	B 11	24,181 sf
A 12	27,742 sf	B 12	24,552 sf
A 13	44,247 sf		
A 14	33,768 sf	Average = 25,098 sf	
A 15	29,635 sf		
A 16	30,022 sf		
Average = 32,894 sf			



**Notes:**

- The address of the property that is the subject of this subdivision is 139 Meeting House Way, Assessor's Parcel 37-47, 54.3 acres ±.
- CB F = concrete bound found  
SB F = stone bound found
- |  |                                     |
|--|-------------------------------------|
|  | = NHESP Protected Open Space Parcel |
|  | = Association Open Space Parcel     |

"Meeting House Place"

**Plan of Land in Edgartown, Mass.**

Prepared For  
**Meeting House Way, LLC**  
 Scale: 1" = 100' June 22, 2019

**Schofield, Barbini & Hoehn Inc.**  
 Land Surveying & Civil Engineering  
 12 Surveyor's Lane, Box 339  
 Vineyard Haven, Mass.  
 508-693-2781  
 www.sbhinc.net  
 MV 9969

***Institute of Transportation Engineers (ITE)***

**Land Use Code (LUC) 210 - Single-Family Detached Housing**

**General Urban/Suburban**

Average Vehicle Trips Ends vs: Dwelling Units

Independent Variable (X): 34

**AVERAGE WEEKDAY DAILY**

$$\ln(T) = 0.92 \ln(X) + 2.71$$

$$\ln(T) = 0.92 \ln(34) + 2.71$$

$$\ln(T) = 5.95$$

$$T = 385.39$$

$$T = 386 \text{ vehicle trips}$$

with 50% (193 vpd) entering and 50% (193 vpd) exiting.

**WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$$T = 0.71 (X) + 4.80$$

$$T = 0.71 * 34 + 4.80$$

$$T = 28.94$$

$$T = 29 \text{ vehicle trips}$$

with 25% (7 vph) entering and 75% (22 vph) exiting.

**WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$$\ln T = 0.96 \ln (X) + 0.20$$

$$\ln T = 0.96 \ln(34) + 0.20$$

$$\ln T = 3.59$$

$$T = 36.06$$

$$T = 36 \text{ vehicle trips}$$

with 63% (23 vph) entering and 37% (13 vph) exiting.

**SATURDAY DAILY**

$$\ln T = 0.94 \ln (X) + 2.56$$

$$\ln T = 0.94 \ln(34) + 2.56$$

$$\ln T = 5.87$$

$$T = 355.95$$

$$T = 356 \text{ vehicle trips}$$

with 50% (178 vpd) entering and 50% (178 vpd) exiting.

**SATURDAY PEAK HOUR OF GENERATOR**

$$T = 0.84 (X) + 17.99$$

$$T = 0.84 * 34 + 17.99$$

$$T = 46.55$$

$$T = 47 \text{ vehicle trips}$$

with 54% (25 vph) entering and 46% (22 vph) exiting.

***Institute of Transportation Engineers (ITE)***

**Land Use Code (LUC) 210 - Single-Family Detached Housing**

**General Urban/Suburban**

Average Vehicle Trips Ends vs: Dwelling Units

Independent Variable (X): 28

**AVERAGE WEEKDAY DAILY**

$$\ln(T) = 0.92 \ln(X) + 2.71$$

$$\ln(T) = 0.92 \ln(28) + 2.71$$

$$\ln(T) = 5.78$$

$$T = 322.35$$

$$T = 322 \text{ vehicle trips}$$

with 50% (161 vpd) entering and 50% (161 vpd) exiting.

**WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$$T = 0.71(X) + 4.80$$

$$T = 0.71 * 28 + 4.80$$

$$T = 24.68$$

$$T = 25 \text{ vehicle trips}$$

with 25% (6 vph) entering and 75% (19 vph) exiting.

**WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$$\ln T = 0.96 \ln(X) + 0.20$$

$$\ln T = 0.96 \ln(28) + 0.20$$

$$\ln T = 3.40$$

$$T = 29.93$$

$$T = 30 \text{ vehicle trips}$$

with 63% (19 vph) entering and 37% (11 vph) exiting.

**SATURDAY DAILY**

$$\ln T = 0.94 \ln(X) + 2.56$$

$$\ln T = 0.94 \ln(28) + 2.56$$

$$\ln T = 5.69$$

$$T = 296.57$$

$$T = 296 \text{ vehicle trips}$$

with 50% (148 vpd) entering and 50% (148 vpd) exiting.

**SATURDAY PEAK HOUR OF GENERATOR**

$$T = 0.84(X) + 17.99$$

$$T = 0.84 * 28 + 17.99$$

$$T = 41.51$$

$$T = 42 \text{ vehicle trips}$$

with 54% (23 vph) entering and 46% (19 vph) exiting.

**Institute of Transportation Engineers (ITE)**  
**Land Use Code (LUC) 220 - Multifamily Housing (Low-Rise)**  
**General Urban/Suburban**

Average Vehicle Trips Ends vs: Dwelling Units  
 Independent Variable (X): 10

**AVERAGE WEEKDAY DAILY**

$T = 7.56 * (X) - 40.86$   
 $T = 7.56 * 10 - 40.86$   
 $T = 34.74$   
 $T = 34$  vehicle trips  
 with 50% ( 17 vpd) entering and 50% ( 17 vpd) exiting.

**WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$\ln T = 0.95 \ln (X) - 0.51$   
 $\ln T = 0.95 \ln( 10 ) - 0.51$   
 $\ln T = 1.68$   
 $T = 5.35$   
 $T = 5$  vehicle trips  
 with 23% ( 1 vph) entering and 77% ( 4 vph) exiting.

**WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$\ln T = 0.89 \ln (X) - 0.02$   
 $\ln T = 0.89 \ln( 10 ) - 0.02$   
 $\ln T = 2.03$   
 $T = 7.61$   
 $T = 8$  vehicle trips  
 with 63% ( 5 vph) entering and 37% ( 3 vph) exiting.

**SATURDAY DAILY**

$T = 8.14 * (X)$   
 $T = 8.14 * 10$   
 $T = 81.40$   
 $T = 82$  vehicle trips  
 with 50% ( 41 vpd) entering and 50% ( 41 vpd) exiting.

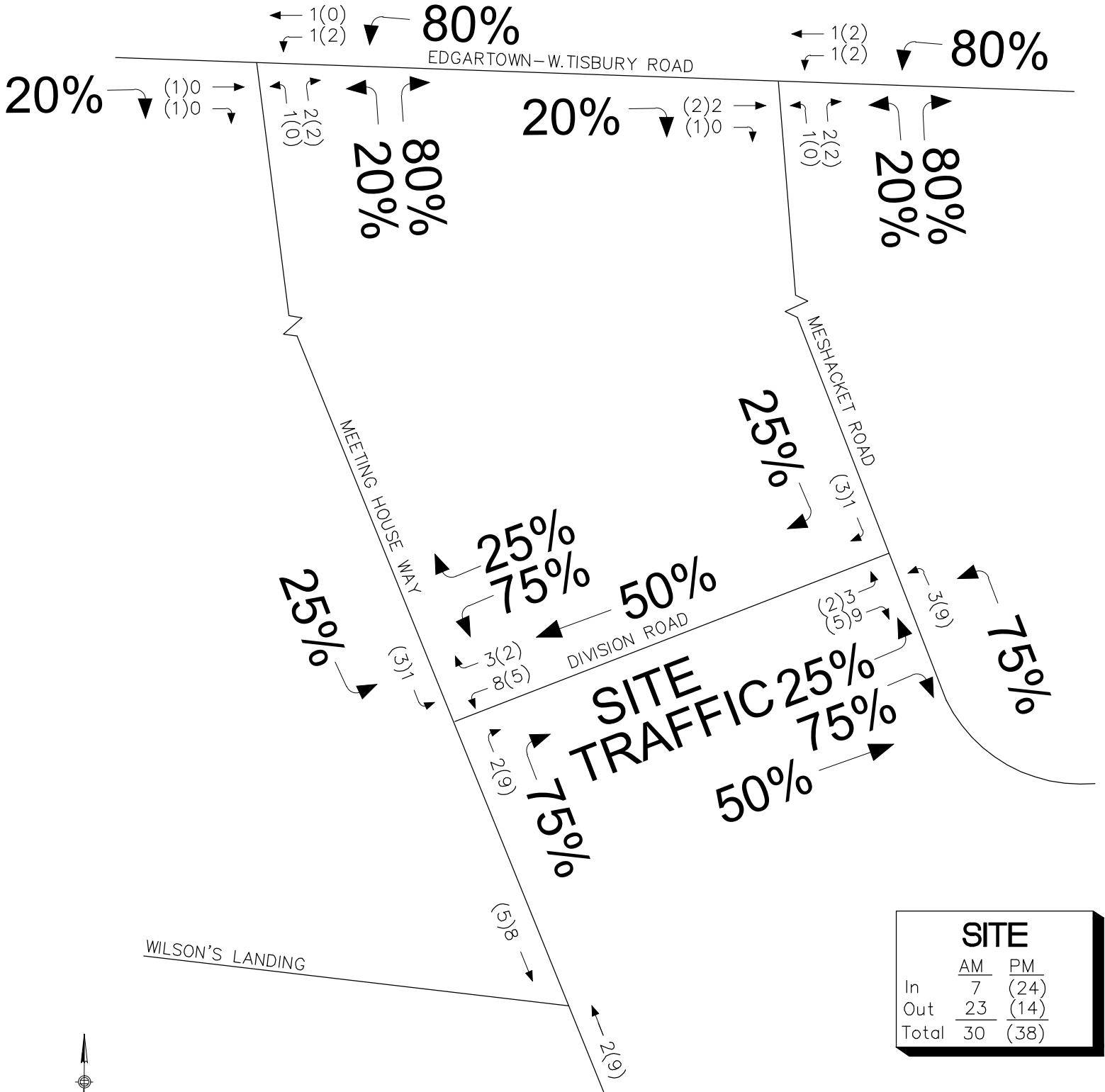
**SATURDAY PEAK HOUR OF GENERATOR**

$T = 0.70 * (X)$   
 $T = 0.70 * 10$   
 $T = 7.00$   
 $T = 7$  vehicle trips  
 \*with 54% ( 4 vph) entering and 46% ( 3 vph) exiting.

*\* Distribution not given for Sat Midday Peak Hour, used Distribution from LUC 220 - Occupied Dwelling Units*

**TRIP-GENERATION LETTER**

Proposed Residential Development - Edgartown, Massachusetts



NOT TO SCALE

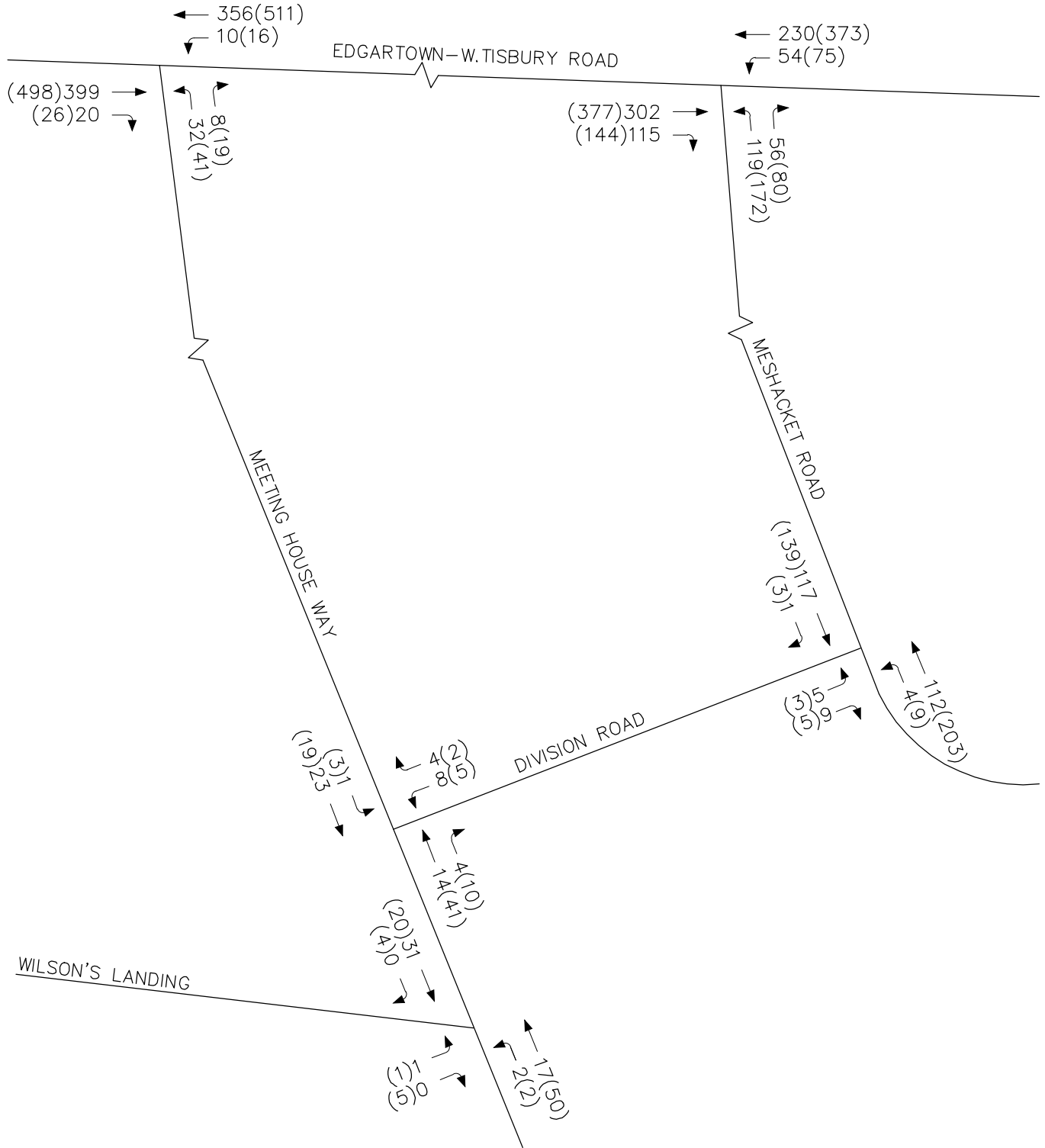
XXX(XXX) = AM(PM)

Figure 1  
Site Generated Trips  
(28 Homes & 10 Townhomes)  
Peak Hour Traffic Volumes



**TRIP-GENERATION LETTER**

Proposed Residential Development - Edgartown, Massachusetts



NOT TO SCALE

XXX(XXX) = AM(PM)