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# Marblehead Transfer Station Marblehead, Massachusetts

Proposed Upgrades and Access/Circulation Improvements

#### DRAFT Existing Site Context





# DRAFT Project Summary



- Formal traffic impact evaluation currently underway and reviews existing and future traffic volumes and circulation, safety, and on-site operations
- Traffic volumes collected in May 2022 at Beacon Street driveway, along Beacon Street, and along Green Street
- Project will use Green Street driveway as entrance for pit-use and residential recycling and compost
- Container trucks will continue to use Green Street driveway for full access/egress
- New configuration will provide substantial on-site storage for pit-use and for vehicles prior to the facility opening in the morning and after lunch
- Vehicles will not exit to Green Street, except container trucks
- Traffic impacts from Transfer Station reconfiguration will have minimal impacts on surrounding roadways

# DRAFT Future Site Operations



#### **Beacon Street Access**

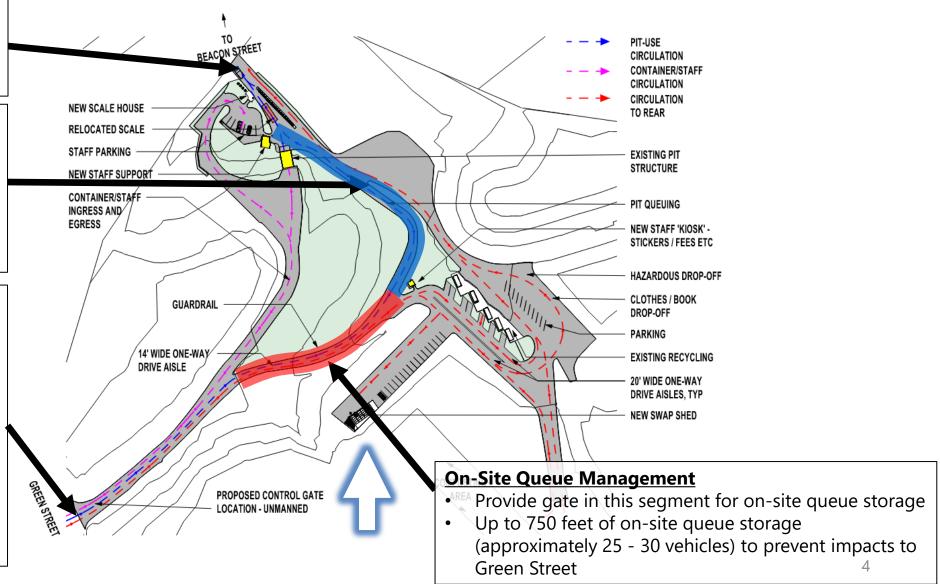
- Exiting vehicles only
- No more queue back-ups
  onto Beacon Street

#### **Pit-Use Access**

 New configuration allows for 500 feet of on-site queuing (approximately 15 – 20 vehicles) with no impact to recycling/ compost circulation

#### **Green Street Access**

- Container trucks enter and exit
- Entrance only (no exits) for pit access and residential uses
- Queues will be managed entirely on-site
- Gate will be opened prior to opening of facility to prevent queues on Green Street



#### DRAFT Traffic Data



- Daily and peak hour traffic volumes collected on Beacon Street and Green Street between May 19 – 21, 2022
- Daily and peak hour traffic volumes collected at the Beacon Street driveway between May 19 – 25, 2022
- Pit-use data slips obtained from May 2021 to determine number of vehicles using scales
- Peak hour turning movement counts obtained at West Shore Drive/Green Street/Pitman Road on Thursday May 19 and Saturday May 21, 2022

# DRAFT Existing Transfer Station Traffic Volumes



Time Period	Total Traffic Volumes	Pit-Use Traffic Volumes
Weekday		
Enter	1,100	60
Exit	1,100	60
Weekday AM Peak (10:45 – 11:45 AM)		
Enter	180	5
Exit	170	5
Weekday PM Peak (1:15 – 2:15 PM)		
Enter	175	5
Exit	185	5
Saturday		
Enter	1,400	60
Exit	1,400	60
Saturday Peak (10:00 – 11:00 AM)		
Enter	280	5
Exit	275	5

- Counts Conducted at Transfer Station Driveway between Thursday 5/19/2022 and Wednesday 5/25/2022
- Weekday volumes are from Monday 5/23/2022, which was the weekday that experienced the highest weekday activity
- Pit-Use volumes were obtained from transfer data slips from May 2021

#### DRAFT Existing Traffic Volumes – Daily



- Based on existing traffic counts conducted in May 2022
- Counts are bi-directional



## DRAFT Existing Traffic Volumes – Peak Hour of Site



- Based on existing traffic counts conducted in May 2022
- Counts are bi-directional



# **DRAFT** Transfer Station Estimated Trip Distribution

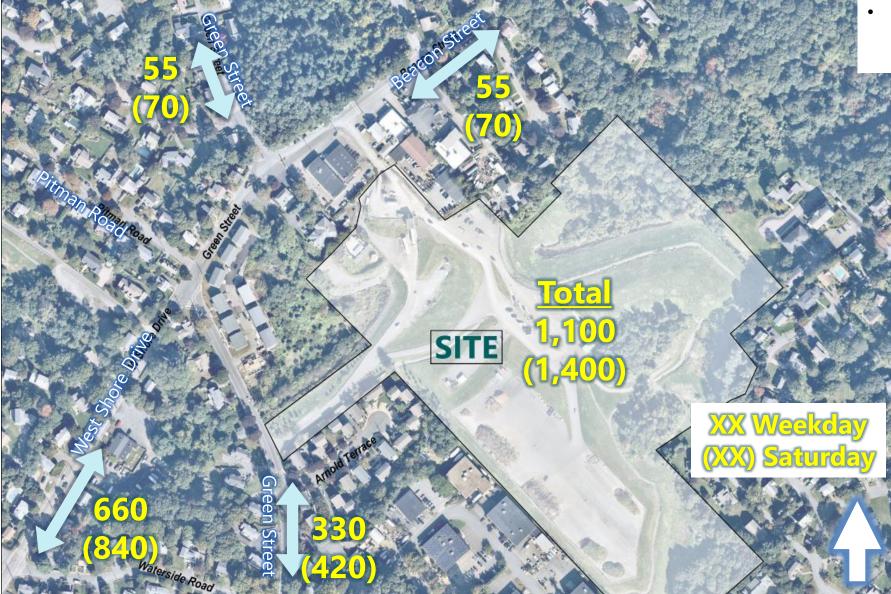


- SITE
  - Based on existing traffic counts conducted in May 2022
  - Majority of traffic is oriented toward West Shore Drive and Green Street

# DRAFT Transfer Station Daily Visits



Based on driveway counts conducted in May 2022 and trip distribution in previous slide



#### **DRAFT** Future Traffic Volumes – Daily





### DRAFT Future Traffic Volumes – Peak Hour of Site





- Intersections of West Shore Drive/Green Street/Beacon Street and Green Street/Site Driveway will operate well below capacity
- Excessive queueing and delay are not expected at either intersection

# DRAFT Preliminary Conclusions of Study



- New configuration will significantly enhance on-site operations and will eliminate queuing impacts to Beacon Street and Green Street
- No new traffic volumes will be added to Beacon Street, west of Green Street or Green Street, south of the driveway
- Container trucks will continue to use Green Street access for entering/exiting
- Beacon Street driveway will be for egress only
- Green Street driveway will be for entrances only (except container trucks)
- Internal gate will allow vehicles to queue on-site prior to the facility opening in the morning and after lunch
- Gate at Green Street will open in advance of facility to allow vehicles to queue on-site
- Potential post-construction traffic monitoring to determine if additional mitigation or turn restrictions need to be implemented
- Traffic impacts from Transfer Station reconfiguration will have minimal impacts on surrounding roadways