

**Proposed Warehouse Sound Analysis  
Hopping Brook Industrial Park  
555 Hopping Brook Road, Holliston, MA**

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# 555 Hopping Brook Road, Holliston



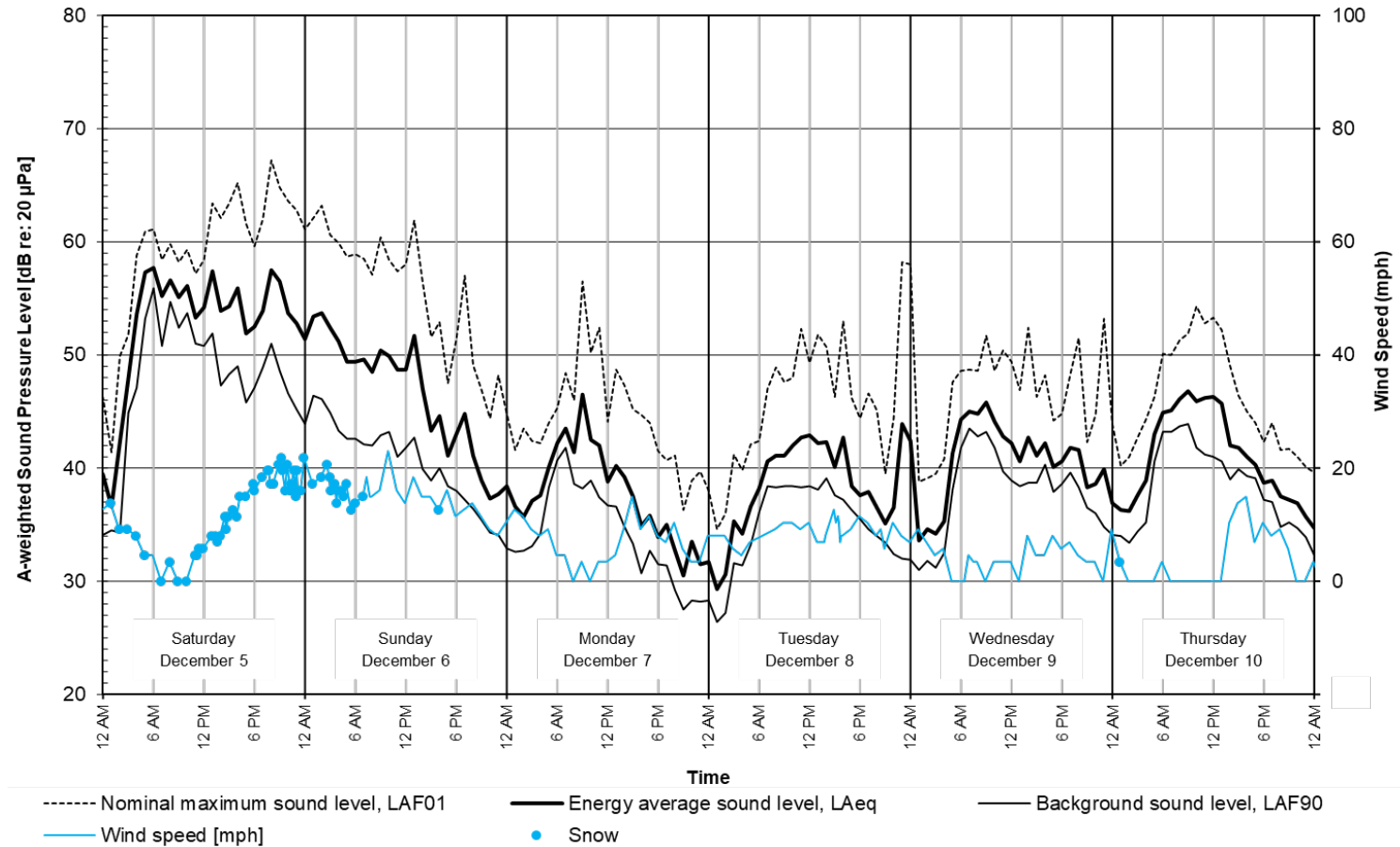
# Summary of Limits

- ❑ Holliston 2015 Zoning Bylaw—50 dBA  
(Legally binding to project stationary equipment and site activities)
- ❑ Holliston 2019 Zoning Bylaw—Same as MassDEP  
(Same as MassDEP Noise Policy)
- ❑ Commonwealth of Massachusetts (310 CMR 7.10 U)—  
Creating condition of noise not permitted  
(Legally finding, no specific, measurable limits established)
- ❑ MassDEP Noise Policy—Not more than 10 dBA above  
background, pure tone sound not permitted.  
(Legally binding to project stationary equipment)
- ❑ Medway Zoning Bylaw—45 dBA  
(Advisory only, not legally binding for Holliston projects)

# Existing Ambient Sound Levels

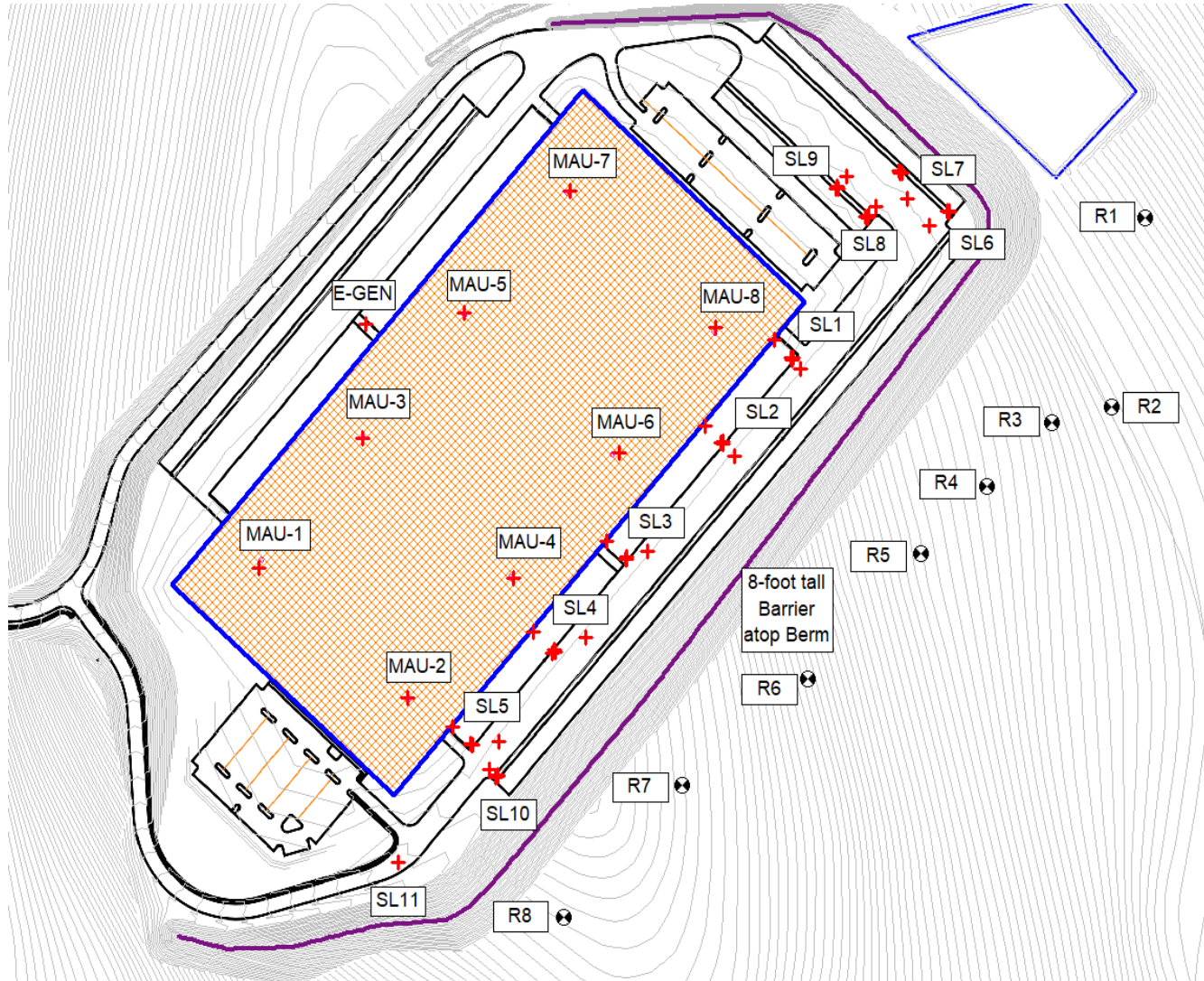
## Sound Levels Measured Southern Edge Near Residences (SM1)

Holliston, MA (December 5 - December 12, 2020)





# Computer Modeling



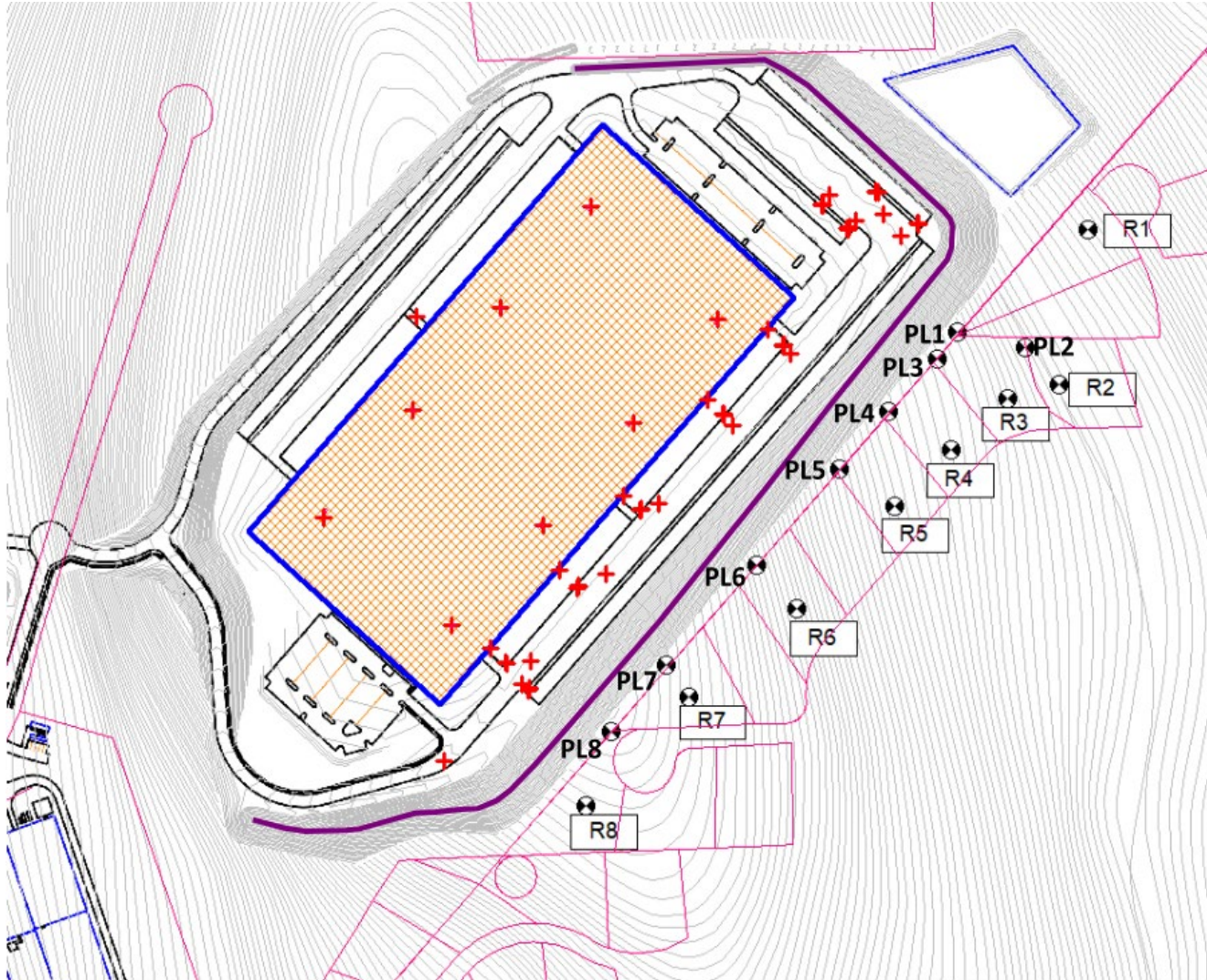
# Stationary Equipment Sound Levels

Stationary Sources	Holliston 2015 Zoning Bylaw	Holliston 2019 Zoning Bylaw	MassDEP Noise Policy	Medway Zoning Bylaw	R1	R2	R3	R4	R5	R6	R7	R8
Warehouse interior equipment					26	27	28	28	28	30	30	31
Rooftop make-up air unit					22	27	28	28	29	32	31	32
Emergency generator					9	9	10	11	11	12	12	12
<b>Total Continuous</b>	<b>50</b>	<b>40</b>	<b>40</b>	<b>45</b>	<b>27</b>	<b>30</b>	<b>31</b>	<b>31</b>	<b>32</b>	<b>34</b>	<b>34</b>	<b>35</b>

# Transient Sound Levels

Transient Sources	R1	R2	R3	R4	R5	R6	R7	R8
Truck high idle	35	35	36	37	37	38	37	38
Backup alarm, tonal	34	34	35	35	35	36	37	38
Truck pass-by	40	40	41	41	40	43	42	43
Truck accelerating	36	36	37	37	37	41	42	46
Trailer-disconnect	46	46	47	48	48	48	48	49

# Response to Peer Review Comments





# Stationary Equipment Residences & Property Lines

Stationary Sources	R1	PL1	R2	PL2	R3	PL3	R4	PL4	R5	PL5	R6	PL6	R7	PL7	R8	PL8
Warehouse interior equipment	<b>27</b>	26	<b>28</b>	27	<b>29</b>	27	<b>29</b>	27	<b>29</b>	28	<b>31</b>	29	<b>32</b>	29	<b>31</b>	29
Rooftop make-up air unit	<b>24</b>	20	<b>28</b>	24	<b>29</b>	21	<b>29</b>	22	<b>30</b>	24	<b>33</b>	27	<b>34</b>	28	<b>32</b>	28
Emergency generator	9	<b>10</b>	10	<b>10</b>	10	<b>11</b>	11	<b>11</b>	11	<b>12</b>	12	<b>13</b>	13	<b>13</b>	12	<b>12</b>
Total Continuous	<b>29</b>	27	<b>31</b>	29	<b>32</b>	28	<b>32</b>	28	<b>33</b>	30	<b>35</b>	31	<b>36</b>	32	<b>35</b>	32
Holliston 2015 Zoning Bylaw	50															
Holliston 2019 Zoning Bylaw	40															
MassDEP Noise Policy	40															
Medway Zoning Bylaw	45															

The higher of residence and property line sound levels shown in **RED**

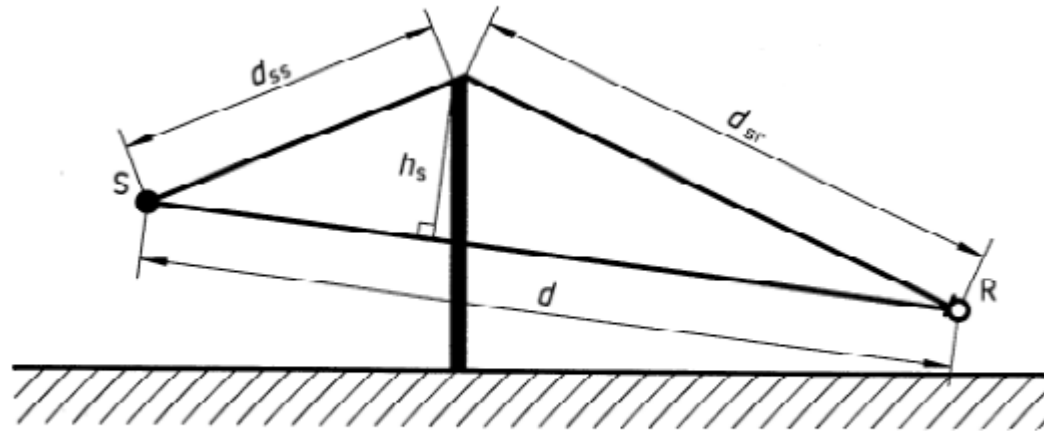
# Transient Activity Sound Residences & Property Lines

Transient Sources	R1	PL1	R2	PL2	R3	PL3	R4	PL4	R5	PL5	R6	PL6	R7	PL7	R8	PL8
Truck high idle	36	37	36	36	37	36	38	35	38	37	38	37	39	37	38	39
Backup alarm, tonal	35	37	34	34	36	36	35	37	35	36	37	36	40	38	38	40
Truck pass-by	41	42	41	41	42	41	41	41	43	41	43	43	44	43	43	44
Truck accelerating	36	36	36	36	37	37	37	37	38	37	41	40	43	43	46	45
Trailer disconnect	47	47	47	46	48	47	48	46	48	47	49	47	49	48	49	49

The higher of residence and property line sound levels shown in RED

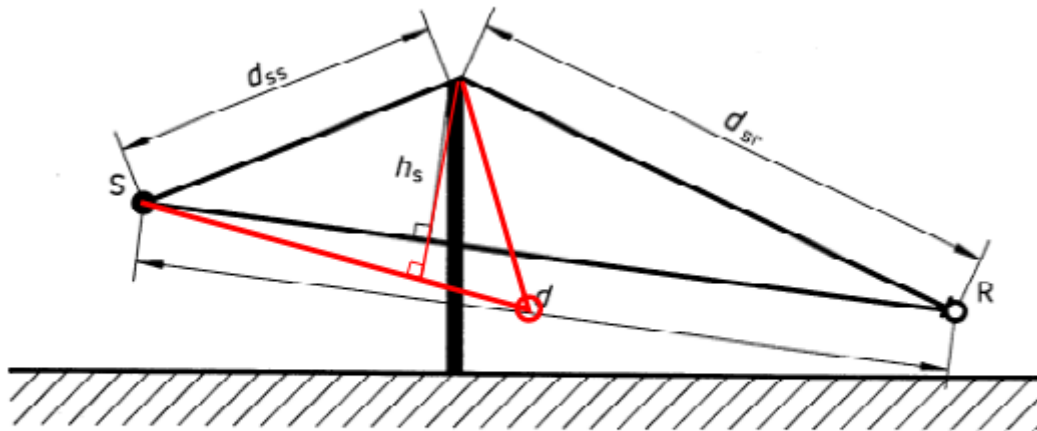
# Foliage Attenuation

- About 1 dBA for 30-70 feet of dense foliage (can't see through it)  
(ISO 9613-2—Modeling sound propagation)
- Barriers:



**Figure 6 — Geometrical quantities for determining the pathlength difference for single diffraction**

# Receiver Close to Barrier



**Figure 6 — Geometrical quantities for determining the pathlength difference for single diffraction**



# 555 Hopping Brook

Questions?