

To: School Building Sustainability Subcommittee
From: John Cianciarulo, Executive Assistant
Date: June 4, 2021
Subj.: LEED Checklist

One of the discussion items at next week's meeting is to review the LEED checklist.

Attached is the most current LEED scorecard.

Per Rob Fitzgerald, the "intent for Tuesday's meeting will be to provide an overview of the LEED checklist and which items we are currently on track to achieve, which ones we are investigating, and which items we have questions on from the owner's perspective."

The scorecard will be reviewed in detail on Tuesday. There is no expectation that members need to review in advance. It is provided in case you would like to review and come with questions.



LEEDv4 BD+C: Schools (LEEDv4 SC)
Project Scorecard

Project: **Westwood Hanlon ES**
 Address: **790 Gay St, Westwood, MA 02090**
 Date: **6/2/2021**



Legend
Questions on compliance
Critical items
Previous point status
Current notes Bolded

LEED Goal	Certified, MSBA 2%
Bldg Area	113,141 GFA
Parking	150
Site Area	902,521 SF (TGE Proposed LPB)
Staff	100 per 8.7.20 OPR
Students	560 students K-5 per 8/26/20 MSBA submission
Visitors	809 peak visitors per LEED default count - actual anticipated visitors to be determined.

POINT TOTALS

Yes M+ M- No

52 **26** **16** **16**

Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points Platinum: 80+ points

GENERAL PROJECT DOCUMENTATION

Responsible 5/14/21 100% SD Review

D	Y				PIF1	Minimum Program Requirements	Req'd	Team	REQUIRED: Project must meet all MPRs to be eligible for LEED certification.
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Yes M+ M- No

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INTEGRATIVE PROCESS

1 Responsible 5/14/21 100% SD Review

D	1				IPc1	Integrative Process	1	Team	Early, pre-SD analysis performed by TT assessed potential ECMs as required
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Yes M+ M- No

3 **4** **3** **5**

LOCATION & TRANSPORTATION

15 Responsible 5/14/21 100% SD Review

D				N	LTc1	LEED for Neighborhood Development Location	15		Project not located in a LEED ND development.
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D	1				LTc2	Sensitive Land Protection	1	Civil	Located on land that has been previously developed.
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D	1	1			LTc3	High Priority Site	1-2	Env. Eng.	Qualifies for option 2 - located within a DDA. Project eligible for second point under Option 3, Brownfield Remediation if site soil or groundwater is contaminated and jurisdiction requires remediation.
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D	1	1		3	LTc4	<u>Surrounding Density and Diverse Uses (RP@4)</u>	1-5	TGE	04.15.20: Option 1 Surrounding Density - project not located in densely developed area. Project appears to meet 1 point threshold of Option 2 Diverse Uses with 4 to 7 publicly available services within a 1/2 mile walking distance.
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D		1	3		LTc5	<u>Access to Quality Transit (RP@1)</u>	1-4	Owner	Project does not meet lowest threshold for number of publicly available public transportation trips 6/1/2021 Need to determine student attendance boundary or intended boundary, and percentage of students living within 3/4 mile walking distance of the school. Points awarded at 50% of students (1 pt), 60% of students (2 pts), 70% or more (4 pts).
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D				1	LTc6	Bicycle Facilities	1		Not served by an eligible bicycle network. Gay St has 35mph speed limit & Washington St a 40 mph with no separated bike lanes.
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D				1	LTc7	Reduced Parking Footprint (v4.1)	1	Arch/Civil	Based on 560 students, the baseline parking spaces (0.25 spaces/student) is 140. The project currently is providing 150 parking spaces, which exceeds the baseline. The project would need 105 parking spaces in order to meet the 30% reduction threshold.
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D		1			LTc8	Electric Vehicles (v4.1)	1	Arch/Civil	Target is to pursue credit. Need to determine if EV charging will be included in project budget/pricing. Eversource provides incentives covering cost for infrastructure - everything but the charger itself.
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Yes M+ M- No

4 **5** **2** **1**

SUSTAINABLE SITES

12 Responsible 5/14/21 100% SD Review

C	Y				SSpr1	Construction Activity Pollution Prevention	Req'd	Civil/CM	REQUIRED: ESC plan must conform to the requirements of the 2012 U.S. EPA Construction General Permit (CGP).
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D	Y				SSpr2	Environmental Site Assessment	Req'd	Env. Eng.	REQUIRED: 9.24.20: DWA sent Sanborn Head's ESA Phase I dated 6.29.20. Phase II in the process for add. Investigation work to look into the history behind removal of three UST's and a leaking transformer from 20 years ago
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D	1				SSc1	Site Assessment	1	Arch/Civil/LA	Team to complete and document a site assessment
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Yes M+ M- No

D		1	1		SSc2	Site Development, Protect/Restore (v4.1) (RP@2)	1-2	LA	Per TGE Proposed LPB Site Area of 902,521 SF and the calculated previous Site Developed Area of 233,255 SF. Project would need to preserve and protect 40% of greenfield area (if any), and 1 point awarded for restoring 15% of total site area (135,378 SF). 2 points awarded for restoring 25% of total site area (225,630 SF).
D	1				SSc3	Open Space	1	LA	Per TGE LPB Site Area of 902,521 SF, the project would need to provide 270,756 SF of Open space. Of that Open Space Area, 67,690 SF needs to be vegetated.
D		2	1		SSc4	Rainwater Management (v4.1)	2-3	Civil	TGE provided detailed updated credit requirements. Team to review and confirm if the requirements can be met. 80%= 1pt, 85% = 2pts and 90% = 3pts. A combination of LID and Green Infrastructure practices may be implemented. Coal tar sealant are prohibited. Retention tanks are not considered LID or GI; they may be accepted only if used in conjunction with LIDs.
D		2			SSc5	Heat Island Reduction	1-2	Arch/LA	Prelim calcs show that site should meet Heat Island Reduction thresholds, assuming light colored roof. Compliance to be assessed once hardscape color/product selection provided. Assumed color selection and SR criteria does not drastically impact pricing with regard to the poured surfacing and open-grid pavers shown.
D	1				SSc6	Light Pollution Reduction	1	MEP/LA	DWA confirmed ext lighting will not exceed allowable BUG ratings as determined by the project's lighting zone (LZ).
D				1	SSc7	Site Master Plan	1		No significant future development planned on the site
D	1				SSc8	Joint Use of Facilities	1	Arch/Owner	Will make at least 3 spaces within the school available to public: auditorium, gymnasium, cafeteria, classrooms, playing fields, and/or joint parking. Owner to confirm which spaces will be made available.

Yes M+ M- No

5	3	0	4	WATER EFFICIENCY	12	Responsible	5/14/21 100% SD Review
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D	Y				WEpr1	Outdoor Water Use Reduction	Req'd	LA	REQUIRED: Install landscape that does not require a permanent irrigation system beyond a maximum two-year establishment period OR reduce the project's landscape water requirement by at least 30% from the calculated baseline for the site's peak watering month. NOTE: The following landscape types may be included or excluded from landscape calculations: vegetated playgrounds, athletic fields, food gardens, and urban agricultural areas.
D	Y				WEpr2	Indoor Water Use Reduction	Req'd	MEP/Kitchen	REQUIRED: DWA confirmed nurse will have full size refrigerator/ice machine deleted. Dishwasher will be ENERGY STAR. Need to confirm commercial kitchen equipment meets water use reduction limits. Food steamer to consume less than 6 gallons/hour/pan (12 pan steamer) for prerequisite, and less than 2 gal/hr/pan for credit. Pre-rinse spray valve to confirm less than 1.3 gpm. Flush and flow fixtures must reduce aggregate water consumption by 20% from the baseline. All newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible for labeling must be WaterSense labeled.
D	Y				WEpr3	Building-level Water Metering	Req'd	Owner/MEP	11.3.20: Main water meter shown on P1.23 in Area C.
D	1	1			WEc1	Outdoor Water Use Reduction	1-2	LA	Project will include irrigation, but will be limited to sports fields. Note sports fields and vegetated playgrounds can be included or excluded from landscape area calculations.
D	3	2		2	WEc2	Indoor Water Use Reduction	1-7	MEP/Kitchen	Min reduction of 30% targeted. Refer to comments in WEp2. For additional commercial kitchen credit in Table 3: Confirm food disposer meets 3-8 gpm full load condition with 10 minute automatic shutoff, or 1 gpm with no-load condition. See WEp2 Comment. 32.73% (no urinals for staff). 31% if only 80% of students use urinals (none for kindergarten / WABA). 2 pts for flush/flow fixture reduction and 1 point for commercial kitchen equipment compliance.
D				2	WEc3	Cooling Tower Water Use	1-2		Design will not include a cooling tower
D	1				WEc4	Water Metering	1	MEP	11.3.20: DWA confirmed intent to pursue credit

Yes M+ M- No

22	6	3	0	ENERGY & ATMOSPHERE	31	Responsible	5/14/21 100% SD Review
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C	Y				EApr1	Fundamental Commissioning and Verification	Req'd	CxA	REQUIRED: MSBA to provide A qualified CxA by end of DD to perform Cx services for all base-building HVAC&R equipment serving the project. OPR has been drafted by team
D	Y				EApr2	Minimum Energy Performance	Req'd	Team/Modeler	REQUIRED: Project will exceed minimum requirements by satisfying MSBA requirements. GGD responsible for modeling effort
D	Y				EApr3	Building-level Energy Metering	Req'd	MEP	REQUIRED: 11.3.20: Utility meter shown on E3.01.
D	Y				EApr4	Fundamental Refrigerant Management	Req'd	MEP	REQUIRED: Project will not use chlorofluorocarbon (CFC)-based refrigerants in new HVAC&R systems.

C	6			EAc1	Enhanced Commissioning	2-6	CxA	10.23.20: The updated MSBA commissioning scope, as outlined in Project Advisory 63, satisfies all requirements. Mass Save MOU req's Enhanced and BECx. 4.15.20: MSBA requires and engages commissioning services for the project. Enhanced level of Building Envelope Commissioning discussed to support high performance envelope goals. Owner to determine interest in Monitoring-based Commissioning. PV panels must also be commissioned if any included in the project or claimed from the adjacent community array. Demand Response must be fully tested at least once if enrolled in program with Utility.
D	14	2		EAc2	<u>Optimize Energy Performance</u> (RP@8)	1-16	Team/Modeler	4.15.20: Project will pursue 2% Green Schools funding from MSBA by showing a 35% improvement over ASHRAE 90.1-2010.
D	1			EAc3	Advanced Energy Metering	1	MEP	11.18.20: Intent is to provide required submeters.
C	1	1		EAc4	Demand Response	1-2	Owner/MEP	4.15.20: Team to design for participation in DR program. Owner to determine if it will participate in a Demand Response program through utility provider, Eversource.
D		3		EAc5	<u>Renewable Energy Production</u> (RP@2)	1-3	Owner	Project investigating roof mounted solar PV array. Will determine if able to offset energy costs by 1% (1pt), 5% (2pts), or 10% (3pts).
D			1	EAc6	Enhanced Refrigerant Management	1	MEP	GSHP system may make compliance challenging.
C			2	EAc7	Green Power and Carbon Offsets	1-2	Owner	Pending green power and/or carbon offset purchase for a 5-year contract to offset 50% (1pt) or 100% (2pts) energy use

Yes M+ M- No

	5	2	1	5	MATERIALS & RESOURCES	13	Responsible	5/14/21 100% SD Review
D	Y				MRpr1 Storage & Collection of Recyclables	Req'd	Owner/Arch.	REQUIRED: Recycling storage area included
C	Y				MRpr2 Construction and Demolition Waste Management Plan	Req'd	CM	REQUIRED: Specifications will include required CWM plan development and implementation
C				5	MRc1 <u>Building Life-Cycle Impact Reduction</u> (RP@2)	2-5		Westwood decided against timber structure and pursuit of full LCA. Team to continue to consider embodied carbon of materials selected irrespective of conducting a whole-building LCA model for LEED credit point.
C	1		1		MRc2 Building Product Disclosure & Optimization-EPD's (v4.1)	1-2	Arch/CM	Specs will be developed to include language for EPDs. EPDs for at least 20 different permanently-installed products from 5 or more manufacturers must be provided. Option 2 achieved by installing at least 5 weighted permanently installed products from 3 or more manufacturers with embodied carbon optimization reports or action plans.
C	1	1			MRc3 BPDO-Raw Materials (v4.1)	1-2	Arch/CM	Require use products that meet at least one of the responsible extraction criteria materials re-use; bio-based, recycled content, certified wood, for at least 15%, by cost, of the total value of permanently installed building products (1 pt) or 30% (2 pts).
C	1	1			MRc4 BPDO-Material Ingredients (v4.1)	1-2	Arch/CM	Specs will be developed to include language for healthy materials. HPDs, C2C, or Declare certified products for at least 20 different permanently-installed products from 5 or more manufacturers must be provided. Option 2 achieved by installing at least 5 weighted permanently installed products from 3 or more manufacturers with material ingredient optimization or action plans.
C	2				MRc5 Construction and Demolition Waste Management	1-2	CM	Assuming min. diversion at least 50% of the total construction and demolition material; diverted materials must include at least three material streams. (1pt). Second point maybe for 75% & four material streams (2pts), OR do not generate more than 2.5 pounds of construction waste per square foot of the building's floor area (2pts).

Yes	M+	M-	No						
7	2	6	1	INDOOR ENVIROMENTAL QUALITY	16	Responsible	5/14/21 100% SD Review		
D	Y			EQpr1 Minimum IAQ Performance	Req'd	MEP	REQUIRED: Project will meet requirements of ASHRAE 62.1-2010, Ventilation for Acceptable Indoor Air Quality.		
D	Y			EQpr2 Environmental Tobacco Smoke (ETS) Control	Req'd	Owner	REQUIRED: Will prohibit smoking on campus. Provide signage within 10 ft of all building entries conveying the no-smoking policy.		
D	Y			EQpr3 Minimum Acoustical Performance	Req'd	Acoust. Eng.	REQUIRED: Project will meet minimum acoustical requirements		
D	2			EQc1 Enhanced IAQ Strategies	1-2	Arch/MEP	Will meet Opt 1: Entryway Systems, Interior Cross-Contamination Prevention, and Filtration. & Opt 2 Carbon Dioxide Monitoring		
C	3			EQc2 Low-Emitting Materials (v4.1)	1-3	Arch/CM	Specs to include proper language and requirement to track attributes		
C	1			EQc3 Construction IAQ Management Plan	1	CM	Spec will require IAQ management plan that meets SMACNA guidelines		
C		2		EQc4 IAQ Assessment	1-2	Owner/CM	Pending time/approach to IAQ testing and/or flush out		
D		1		EQc5 Thermal Comfort	1	MEP	Project will provide required number of thermal comfort controls. Need to assess compliance with ASHRAE 55 in challenging areas (kitchen) while maintaining low-EUI of Path 1 Mass Save MOU.		
D	1		1	EQc6 Interior Lighting	1-2	Arch/MEP	Project will provide required number of lighting controls. Opt 2 to be evaluated		
D		2	1	EQc7 Daylight	1-3	Arch	Pending assessment		
D		1		EQc8 Quality Views	1	Arch	Project should be able to meet this credit given qualifying views into almost all classrooms and offices. D+W to confirm that all furniture is modular/easily moved and provide renderings of classrooms with permanent furniture in front of the glazing with views to the exterior. TGE can make Occupancy table detailing calculations during DD phase.		
D		1		EQc9 Acoustic Performance (v4.1)	1	Acoust. Eng.	Pending assessment by acoustician		

Yes	M+	M-	No						
4	2	0	0	INNOVATION	6	Responsible	5/14/21 100% SD Review		
D	1			INc1.1 Innovation: Responsible Purchasing - Lamps	1	Team	Assume project is 100% LED.		
D	1			INc1.2 Innovation: Economic and GHG Analysis of Mechanical S	1	Team	Compliance is met through the MSBA LCCA requirements.		
D	1			INc1.3 Pilot: Integrative Analysis of Building Materials	1	Team	Assume use of >2 products that meet multi-attribute criteria for low-emitting materials, EPDs, & material ingredients.		
C		1		INc1.4 Innovation: TBD	1	Team	Pending team approach		
C		1		INc1.5 Pilot Credit:	1	Team	Pending team approach		
C	1			INc2 LEED Accredited Professional	1	Team	Multiple team members hold an active, applicable LEED accreditation.		

Yes	M+	M-	No						
1	2	1	0	REGIONAL PRIORITY 02090 (underlined)	4	Responsible	5/14/21 100% SD Review		
D			X	RPC1 <u>LTc4 Surrounding Density and Diverse Uses (4 pts)</u>	1	-	Refer to base credit		
D		1		RPC2 <u>LTc5 Access to Quality Transit (1 pt)</u>	1	-	Refer to EAc5		
D	1			RPC3 <u>SSc2 Protect or Restore Habitat (2 pts)</u>	1	-	Refer to LTc5		
D	1			RPC4 <u>EAc2 Optimize Energy Performance (20%/8 pts)</u>	1	-	Refer to MRc1		
D	1			RPCX <u>EAc5 Renewable Energy Production (5%/2 pts)</u>	1	-	Refer to LTc4		
D			X	RPCX <u>MRc1 Building Life-Cycle Impact Reduction (2pts)</u>	1	-	Refer to SSc2		

Yes	M+	M-	No						
52	26	16	16	PROJECT TOTALS (Certification Estimates)	110				

Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points Platinum: 80+ points