LEED v4 for BD+C: New Construction and Major Renovation
Project Checklist

Project Name: Austin Fire Station No. 22 / EMS12
Date: 05/25/2021

C	Y	?	N	Credit Type	Credit	Points	Status	CoA Baseline Criteria for Building Projects	Deliverables	Potential Effort (0-3)	Additional Fees $	Potential Cost (0-3)	Cost Value $	Notes
	1	**0**	**0**	Design Credit	Integrative Process	**1**	Not Attempted		Required Documentation - Project Team Letter • Forms: Sample Form IPc_Integrative_Process • Worksheet: v4_Integrative Process Worksheet_v03 • Special Circumstances (if applicable) • Energy-Related Systems - A simple box energy modeling is a preliminary building model used to analyze the building's energy loads. Project teams can use the EPA's Target Finder tool or a similar tool in order to benchmark energy performance. Target Finder allows projects to set target goals for a building design's energy demands. • Water-Related Systems: EPA Water Budget Tool					
1	**6**	**4**	**24**		**Location and Transportation**	**16**								
	0	0	16	Design Credit	LEED for Neighborhood Development Location	16	Not Elligible							
	1	0	0	Design Credit	Sensitive Land Protection	1	Not Attempted		Forms: LTc_Sensitive_Land_Protection Special Circumstances (if applicable) Applicable Site Plans .					
	0	0	2	Design Credit	High Priority Site	2	Not Elligible							
	2	2	1	Design Credit	Surrounding Density and Diverse Uses	5	In Progress		**OPTION 1** •**Forms: LTc_Sensitive_Land_Protectio**n •Special Circumstances (if applicable) •Applicable Site Plans ed.					
1	1	2	4	Design Credit	Green Vehicles	5	Complete		**•Form: LTc_Quality_Transit** **•Map: Indicating project location, location of transit stops, routs serving each sstop and the walking routes between the location of the project functional entry and the stops** **•Schedule: Provide all transit types, provide weekday and weekend route schedules showing the frequency of trips and services in opposite directions** **•Verification: Provide the planned stops or stations will be sited, funded, and under construction by the date of the certification of occupancy and will be completed within two years of that date**					
	1	0	0	Design Credit	Bicycle Facilities	1	In Progress	Use City of Austin Standard 710S.	•Forms: Plp_Project_Information Site Plan •Vicinity Map-Provide a vicinity map that shows routes along a bicycle network to the destination selected. The map must identify use type, bicycling distance to the destination form the project boundary (must be within 3 mi) and each segment of the bicycling network identified by type according to the bicycle network definition. •Bicycle Network Commitment-Provide a capital improvement plan or equivalent document signed on developer letterhead that confirms that the bicycle network will be fully funded by the date of the certificate of occupancy and is scheduled from completion within one year of that date.					
	0	0	1	Design Credit	Reduced Parking Footprint	1	Not Elligible							
	1	0	0	Design Credit	Green Vehicles	1	Not Attempted		oForms: LTc_Green_Vehicles oParking plan oParking Signage oEVSE Parking Signage oEVSE Manufacture Documentation oSpecial Circumstances (if applicable)					
0	**5**	**3**	**2**		**Sustainable Sites**									
Y	Y	Y	Y		Construction Activity Pollution Prevention	**Required**	Not Attempted		•SSp_Construction_Activity_Pollution **LOCAL STANDARDS AND CODES** •ESC Plan •Conractor declaration •Photographs •ESC implementation narrative •Special Circumstances					
	1	0	0		Site Assessment	1	Not Attempted		•SSc_Site_Assessment •Site Assessment Worksheet_0					
	0	1	1		Site Development - Protect or Restore Habitat	2	Not Attempted		SSc_Protect_or_Restore_Habitat **Option 1** •Site plan •Soil Characteristics **Option 2** •Verification of recognition •Confirmation of accreditation •Contact					
	1	0	0		Open Space	1	Not Attempted	Refer LEED Criteria - Limit development footprint. Exceed zoning requirement for open space	SSc_Open_Space					
	0	2	1		Rainwater Management	3	Not Elligible							
	2	0	0		Heat Island Reduction	2	Not Attempted	Refer LEED Criteria	•SSc_Heat_Island •Site plan •Manufacture documentation					

	1	0	0		Light Pollution Reduction	1	Not Attempted	1e. Only light exterior areas for comfort and safety. Do not allow light trespass onto adjacent properties. 1f. Pedestrian orientation - Provide ease and security of pedestrian access both day and night.	•SSc_Light_Pollution Form (Attached) •Site light Plan: Lighting Plan depicting the project boundary, the property line (if different from the project boundary), the lighting boundary, any additional properties including in the lighting boundary (if applicable), the location and label of all exterior luminaries within the project boundary (both exempt and nonexempt), and any relevant project site conditions. •Internally Illuminated exterior signage calculations For Option 1 •BUG Rating Method •Luminaire Schedule Uplight: Showing the uplight rating of each unique luminaire (lamp/ballast combination) in the orientation and tilt specified in the project design. If there are multiple orientations/tilts, shoe the uplight rating for each orientation/tile. •Luminaire Schedule light Trespass: Showing the backlight and glare rating of each unique luminaire (lamp/ballast combination) in the orientation and tilt specified in the project design. If there are multiple orientations/tilts, show the backlight and glare ratings for each orientation/tilt. Also include the mounting heights for each unique luminaire (photometric center of the luminaire above grade) For Option 2 •Uplight Illuminance Calculations •Light Trespass Calculations: Provide the greatest vertical illuminance value for each of the vertical calculation planes at the light boundary. Also, provide the calculations grid for the one vertical plane that has the greatest vertical illuminance (worst case scenario) with the point of the greatest illuminance highlighted.					
0	**7**	**2**	**2**		**Water Efficiency**	**11**									
Y	Y	Y	Y	Design Credit	Outdoor Water Use Reduction	**Required**	Not Attempted		WEpc_Outdoor_Water **Option 2** •EPA WaterSense Tool or Outdoor Water Use Reduction Calculator •Site Plan •Additional Reduction Calculations					
Y	Y	Y	Y	Design Credit	Indoor Water Use Reduction	**Required**	Not Attempted		•WEpc_Indoor_Water •v4v4 1_Indoor Water Use Reduction Calculator_v04_0 •Fixtures and Fitting Cutsheets •Appliancces and process water cutsheets					
Y	Y	Y	Y		Building-Level Water Metering	**Required**	Not Attempted		•WEp_Water_Metering •Letter of commitment					
	2	0	0	Design Credit	Outdoor Water Use Reduction	2	Not Attempted							
	4	2	0	Design Credit	Indoor Water Use Reduction	6	Not Attempted							
	0	0	2		Cooling Tower Water Use	2	Not Elligible		•WEc_Cooling_Towers •Potable water analysis details					
	1	0	0		Water Metering	1	Not Attempted		WEc_Water_Metering					
0	**14**	**2**	**12**		**Energy and Atmosphere**	**33**									
Y	Y	Y	Y	Const. Credit	Fundamental Commissioning and Verification	**Required**	Not Attempted	Include a Commissioning plan for Mechanical, Electrical and Plumbing systems in the design and construction process.						
Y	Y	Y	Y	Design Credit	Minimum Energy Performance	**Required**	Not Attempted	Refer LEED Criteria and Energy Star rating of 75	**Need to select the OPTION**					
Y	Y	Y	Y		Building-Level Energy Metering	**Required**	Not Attempted		EAp_Energy_Metering Letter of Commitment					
Y	Y	Y	Y	Design Credit	Fundamental Refrigerant Management	**Required**	Not Attempted	Refer LEED Criteria. Jan 1st 2010 restrictions on use of R22						
	0	0	1	Const. Credit	Enhanced Commissioning	6	Not Attempted	Refer LEED criteria						
	10	2	6	Design Credit	Optimize Energy Performance	18	Not Attempted	4b. Demonstrate that HVAC system component performance criteria used are 15% better than a system in minimum compliance with code 4c. Install Energy Star rated equipment for appliances, office equipment, electronics, and commercial food service equipment.						
	1	0	0	Design Credit	Advanced Energy Metering	1	Not Attempted		EAc_Energy_Metering Advanced Meter Cutsheets					
	0	0	2	Design Credit	Demand Response	2	Not Elligible							
	0	0	3	Design Credit	Renewable Energy Production	3	Not Elligible							
	1	0	0	Design Credit	Enhanced Refrigerant Management	1	Not Attempted	Refer LEED criteria						
	2	0	0	Const. Credit	Green Power and Carbon Offsets	2	Not Attempted	Refer LEED criteria. All city facilities to be powered by alternaitve energy by 2012. Consult with Austin Energy.						
0	**8**	**3**	**2**		**Materials and Resources**	**13**									
Y	Y	Y	Y	Design Credit	Storage and Collection of Recyclables	**Required**	Not Attempted	5a. Consult with User, BSD and/or ARRD to incorporate recycling containers and pickup areas in plans and allow for accessibility of large vehicles. 5b. Plan for for recycling areas, pick-up, containers, trash cans and consult with solid waste services. Refer to planning guidelines	•MRp_Recyclables •Floor Plans highlighting the recycling storage areas for the project -Verification of recycled material types -Narrative describing recycling storage and collection strategies -Floor plans indicating recycling storage and collection areas -Methodology and results of waste stream study					
Y	Y	Y	Y	Const. Credit	Construction and Demolition Waste Management Planning	**Required**	Not Attempted		Construction waste management plan Total Construction waste					
	3	0	2	Const. Credit	Building Life-Cycle Impact Reduction	5	Not Attempted							
	1	1	0	Const. Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2	Not Attempted							
	1	1	0	Const. Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2	Not Attempted							
	1	1	0	Const. Credit	Building Product Disclosure and Optimization - Material Ingredients	2	Not Attempted							
	2	0	0	Const. Credit	Construction and Demolition Waste Management	2	Not Attempted	Refer city standards - Storm water Pollution Prevention Plan						
0	**11**	**4**	**1**		**Indoor Environmental Quality**	**16**									

Y	Y	Y	Y	Design Credit	Minimum Indoor Air Quality Performance	**Required**	Not Attempted	a. Comply with current version of ASHRAE 62.1 Sections 4 - 7 Ventilation for acceptable Indoor Air Quality	•EQp_IAQ_Performance •v2009v4v4 1_Minimum_IAQ_Performance_Calculator_v04 •Option 1 ASHRAE Standard 62.1-2012 •CIBSE – documentation demonstrating that natural ventilation is an effective strategy for the project as determined through the flow process in figure 2.8 of the CIBSE Application Manual •ASHRRAE – documentation demonstrating that the minimum outdoor air opening and space configurations meet or exceed the minimum values from the natural procedure outlined in ASHRAE 62.1-2010 section 6.4 •Mechanical ventilation controls documentation •Natural ventilation controls documentation					
Y	Y	Y	Y	Design Credit	Environmental Tobacco Smoke Control	**Required**	In Progress	Conform with City Policy but increase distance to 25ft.	**•Forms •Site plan with non-smoking and smoking areas (25' from entrances) Scaled site plan or map showing the location of designated outdoor smoking and no-smoking areas, location of property line, and site boundary and indicating 25-foot (7.5-meter) distance from building openings •Signage:Drawings, photos, or other evidence of signage communicating no-smoking policy •Description of project's no-smoking policy, including information on how policy is communicated to building occupants and enforced Copy of no-smoking policy, signed letter from owner describing project's no-smoking policy and enforcement, or copy of any legally binding covenants or restrictions to verify status of residential units as nonsmoking Any code restrictions that prevent establishment of no-smoking requirements**					
	1	1	0	Design Credit	Enhanced Indoor Air Quality Strategies	2	Not Attempted		**Need to select the OPTION**						
	2	1	0	Const. Credit	Low-Emitting Materials	3	Not Attempted	Low-Emitting Materials—Adhesives and Sealants: All installed sealants and adhesives must meet South Coast Air Quality Management District standards Rule 1168. Low-Emitting Materials—Paints and Coatings: All paints and primers used in the interior of the building must not exceed the VOC limit of Green Seal Environmental Standard GS-11 and GC-03. All coatings used in the interior of the building must not exceed the VOC limit of SCAQMD Rule 1113. Low-Emitting Materials—Flooring Systems: All installed carpets meet Carpet & Rug Institute's (CRI) Green Label Plus minimum standards. All installed carpet pads meet CRI Green Label minimum standards. All resilient flooring products, including linoleum, laminate flooring, wood flooring, ceramic flooring, wall base, and rubber flooring must be FloorScoreTM certified. Low-Emitting Materials—Composite Wood and Agrifiber Products; Require that all installed composite wood and insulation contains no added urea-formaldehyde.					
	1	0	0	Const. Credit	Construction Indoor Air Quality Management Plan	1	Not Attempted	Construction IAQ Management Plan—During Construction: Contractor to provide and implement a Construction Indoor Air Quality Management Plan that meets the recommended control measures of the Sheet Metal and Air Conditioning National Contractor's Association IAQ Guidelines. Protect materials from moisture damage and use MERV 8 filters at R.A.Gs for construction phase Std Spec 1510 Construction IAQ Management Plan—Before Occupancy: Refer LEED criteria. Include flush out process in projject requirements and construction schedule.					
	2	0	0	Const. Credit	Indoor Air Quality Assessment	2	Not Attempted								
	1	0	0	Design Credit	Thermal Comfort	1	Not Attempted		**Need to select the OPTION**						
	2	0	0	Design Credit	Interior Lighting	2	Not Attempted	Refer LEED criteria. 8g. Provide adequate daylighting to all regularly occupied spaces and integrate daylighting systems with electric lighting systems and controls.	**Need to select the OPTION**						
	1	1	1	Design Credit	Daylight	3	Not Attempted	Refer LEED criteria. 8g. Provide adequate daylighting to all regularly occupied spaces and integrate daylighting systems with electric lighting systems and controls.							
	0	1	0	Design Credit	Quality Views	1	Not Eligible	Provide views of the exterior through windows for all habitable spaces, especially for occupants that are in the room for most of the day.							
	1	0	0	Design Credit	Acoustic Performance	1	Not Attempted								
0	**3**	**0**	**3**		**Innovation**	**6**									
	2	0	3	Design Credit	Innovation	5	Not Attempted								
	1	0	0	Const. Credit	LEED Accredited Professional	1	Not Attempted								
0	**3**	**0**	**1**		**Regional Priority**	**4**									
	1	0	0		Regional Priority: Outdoor water use reduction (2)	1	Not Attempted								
	1	0	0		Regional Priority: Indoor water (4)	1	Not Attempted								
	1	0	0		Regional Priority: Optimize energy performance (10)	1	Not Attempted								
	0	0	1		Regional Priority: Specific Credit	1	Not Eligible								

1	58	18	47	**TOTALS**	Possible Points: **100**
		Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110			

Note from Guerra: VRF system typically performs 12-15% higher than baseline = 5 points

Regional Priority Credits for Austin, TX: (automatically get these points if we hit these thresholds for that credit in()

~~Renewable energy production (2)~~
Outdoor water use reduction (2)
Indoor water (4)
~~Rainwater management (2),~~
Optimize energy performance (10)
~~Reduced parking footprint (1)~~

Innovation Credit ideas:

Educational component to building
Green Housekeeping
Pest Management
Carbon Footprint Reduction using mass timber structural system