

OAKMEAD PARKWAY

Prepared by Thornton Tomasetti

LEED-EBOM - SCORECARD

12/14/17

NO.	CREDIT	YES	MAYB	NO	DISCIPLINE	COMMENTS
TOTAL CREDIT POINTS:		54	53	3		
LOCATION & TRANSPORTATION						
LT 1	Alternative Transportation	6	9		Facility Manager / Tenants	
SUSTAINABLE SITES						
SS Prereq. 1	Site Management Policy	X			Facility Manager	
SS 1	Site Development - Protect or Restore Habitat	2			Owner	
SS 2	Rainwater Management		3		Civil Engineer / Facility Manager	
SS 3	Heat Island Reduction	1	1		Architect	
SS 4	Light Pollution Reduction		1		Facility Manager / Building Engineer	
SS 5	Site Management	1			Facility Manager	
SS 6	Site Improvement Plan	1			Facility Manager	
WATER EFFICIENCY						
WE Prereq. 1	Indoor Water Use Reduction	X			Building Engineer / Plumbing Engineer	
WE Prereq. 2	Building-Level Water Metering	X			Building Engineer	
WE 1	Outdoor Water Use Reduction	2			Landscape Architect / Building Engineer	
WE 2	Indoor Water Use Reduction	5			Building Engineer / Plumbing Engineer	
WE 3	Cooling Tower Water Use			3	N/A	
WE 4	Water Metering	1	1		Building Engineer	
ENERGY & ATMOSPHERE						
EA Prereq. 1	Energy Efficient Best Management Practices	X			Commissioning Agent	
EA Prereq. 2	Minimum Energy Performance	X			Facility Manager	
EA Prereq. 3	Building-Level Energy Metering	X			Building Engineer	
EA Prereq. 4	Fundamental Refrigerant Management	X			Building Engineer	
EA 1	Existing Building Commissioning - Analysis	2			Commissioning Agent	
EA 2	Existing Building Commissioning - Implementation	2			Commissioning Agent	
EA 3	Ongoing Commissioning		3		Commissioning Agent	
EA 4	Optimize Energy Performance	7	13		Facility Manager	
EA 5	Advanced Energy Metering		2		Building Engineer	
EA 6	Demand Response		3		Building Engineer	
EA 7	Renewable Energy and Carbon Offsets	5			Owner	
EA 8	Enhanced Refrigerant Management		1		Building Engineer	
MATERIALS & RESOURCES						
MR Prereq. 1	Ongoing Purchasing and Waste Policy	X			Facility Manager	
MR Prereq. 2	Facility Maintenance and Renovations Policy	X			Facility Manager	
MR 1	Purchasing - Lamps	1			Facility Manager / Tenants	
MR 2	Purchasing - Ongoing	1			Facility Manager	
MR 3	Purchasing - Facility Maintenance and Renovation		2		Facility Manager / Tenants' Construction Manager	
MR 4	Solid Waste Management - Ongoing	2			Facility Manager / Tenants	
MR 5	Solid Waste Management - Facility Maintenance and Renovations		2		Facility Manager / Tenants' Construction Manager	
INDOOR ENVIRONMENTAL QUALITY						
EQ Prereq. 1	Minimum IAQ Performance	X			Building Engineer / Commissioning Agent	
EQ Prereq. 2	Environmental Tobacco Smoke Control	X			Owner / Architect	
EQ Prereq. 3	Green Cleaning Policy	X			Facility Manager	
EQ 1	IAQ Management Program	2			Building Engineer	
EQ 2	Enhanced IAQ Strategies	1	1		Facility Manager / Building Engineer	
EQ 3	Thermal Comfort		1		Building Engineer / Commissioning Agent	
EQ 4	Interior Lighting		2		Facility Manager / Tenants	
EQ 5	Daylight and Quality Views		4		Tenants	
EQ 6	Green Cleaning - Custodial Effectiveness Assessment	1			Facility Manager	
EQ 7	Green Cleaning - Products and Materials	1			Facility Manager	
EQ 8	Green Cleaning - Equipment	1			Facility Manager	
EQ 9	Integrated Pest Management	2			Facility Manager	
EQ 10	Occupant Comfort Survey	1			Facility Manager / Tenants	
INNOVATION & DESIGN						
IN 1.1	Ex. Perf. Indoor Water Use Reduction	1			TT	
IN 1.2	Innovation: Green Education	1			TT	
IN 1.3	TBD		1		TBD	
IN 1.4	TBD		1		TBD	
IN 1.5	TBD		1		TBD	
IN 2	LEED Accredited Professional	1			TT	
REGIONAL PRIORITY CREDITS						
RB 1.1	Solid Waste Management (2 points)	1			TT	
RB 1.2	Purchasing - Ongoing (2 points)	1			TT	
RB 1.3	Indoor Water Use Reduction (5 points)	1			TT	
RB 1.4	Alternative Transportation (11 points)		1		TT	
TOTAL CREDIT POINTS:		54	53	3		

Certified = 40-49, Silver = 50-59, Gold = 60-79, Platinum = 80-110

TO	Greg Carey	FROM	Abena Darden
COMPANY	Embarcadero Realty Services	DATE	February 13, 2018
RE	LEED EBOM Approach	PROJECT NO	U17225.00
CC	Maggie Smith, TT; File	PROJECT NAME	Oakmead Parkway

Summary

The City of Sunnyvale's green building program requires new construction and addition projects over 10,000sf to demonstrate LEED Silver compliance through verification by a LEED Accredited Professional. Thornton Tomasetti, Inc. (TT) has reviewed the scope of the proposed Oakmead Parkway project, including the extent of the proposed construction, construction schedule, and limits of work within occupied tenant spaces, and have determined that the LEED for Existing Building Operation & Maintenance (EBOM) is the most practical and feasible LEED rating system to use for this project, instead of a Building Design & Construction rating system, such as new construction or major renovation. Additionally, TT worked with the US Green Building Council (USGBC)/Green Business Certification, Inc. (GBCI) to assess the project, and they concluded as well that the EBOM rating system would be the most compatible rating system option for this project.

LEED EBOM Overview

The EBOM rating system is a set of performance standards for certifying the operations and maintenance of existing buildings. The intent is to promote high-performance, healthful, durable, affordable, and environmentally sound practices in existing buildings. LEED EBOM assesses the sustainability of ongoing operational practices within building operations, systems upgrades or performance improvements, minor space changes or facility alterations and additions.

The rating system encourages owners, operators, and tenants to implement sustainable practices and reduce the environmental impacts of their building over its functional life cycle. Specifically, the rating system addresses exterior and interior maintenance programs, water and energy use, environmentally preferred products, and ongoing indoor environmental quality.

The EBOM rating system is a whole building rating system and the concepts would be implemented during the design and construction of the Oakmead Parkway construction scope, however certification would not become available until 20-24 months after the final "link lobby" is completed. This is due to the fact that in order to generate an EnergyStar score, 12 months of continuous, operational (with at least 50% occupancy) energy use is required. Additionally, the certification application requires operating data for the building and site for what is called a

Performance Period. The Performance Period is a continuous, unbroken time during which sustainable operations performance is measured. The minimum duration for this performance period is three months (except for energy performance which is a 12-month period), and the maximum duration is 24-months.

LEED EBOM versus Building Design & Construction

The LEED EBOM rating system is a whole building rating system that focuses on ongoing operations of existing, occupied buildings that are undergoing improvements with little construction. The proposed construction of the Oakmead Parkway project would fall under this category. Because the construction would be limited to enclosing current exterior spaces between the existing four buildings and relocating restrooms, the construction scope would fall under "little construction." Furthermore, this construction would not readily classify as a major renovation, which would be the requirement to use the Building Design and Construction rating system (BD+C).

A major renovation is classified as major HVAC improvements, significant building envelope modifications and major interior rehabilitation. Because the existing HVAC systems are not being replaced, nor will current tenant spaces be vacated and renovated, there would be inherent challenges with using the BD+C rating system. Because the BD+C rating system was written for new construction/major renovation projects and would apply to the entire building(s), not just the additions, many of the credits would not be applicable to the proposed scope of work for Oakmead Parkway, making it challenging to meet any level of LEED certification under a BD+C scorecard. This would be particularly notable when looking at the project's energy's performance. The BD+C rating system requires a whole building energy model, demonstrating compliance with a 2-5% improvement over ASHRAE 90.1 2010, which is a stringent requirement. It is unlikely the project would be capable of meeting this without upgrading the existing HVAC system and/or existing building envelope.

However, the EBOM rating system uses the EPA's EnergyStar ratings to benchmark buildings. Through this method, occupied existing buildings are evaluated against a national building performance benchmark of similar program, size, and occupancy schedule. This would allow Oakmead Parkway to be compared against other operational buildings of all ages to demonstrate an energy performance baseline.

TT has assessed the project and scope and has concluded that a LEED EBOM Silver certification is feasible at 54 identified points.

Case Studies

As mentioned, it is not possible to certify just the connector additions. The LEED certification would apply to the entire connected building. TT is currently working on a museum project in San Francisco that is working through a similar process. The City & County of San Francisco

Environmental Code requires new construction municipal projects to achieve LEED Gold certification. Because the entirety of the building would be required to achieve LEED certification, we requested a variance from the Municipal Code to pursue LEED EBOM for the entire Museum instead of following a BD+C rating system. This variance was approved and LEED requirements were folded into the construction documents of the addition project to support the EBOM certification. Particularly, we focused on EBOM facility alteration credits, erosion control measure implementation, water performance of new plumbing fixtures, and indoor air quality issues that arise during construction. Many of these measures also align with the CALGreen mandatory measures.

In February 2011, the City & County of San Francisco also passed an Existing Commercial Buildings Energy Performance Ordinance. The ordinance requires annual benchmarking, periodic energy audits and the public availability of benchmarking information for nonresidential and public buildings. One of the approved methods for meeting this Ordinance is by certifying existing buildings under the LEED EBOM rating system.

Another notable initiative in the Bay Area includes the City of San Jose's Green Vision 2022. As a part of this Green Vision, the City has put together a task force to develop a Benchmarking and Transparency Policy. This is a "plan that will provide direction on community-wide initiatives to achieve a sustainable water supply and meet greenhouse gas reduction goals, with a focus on emissions from mobility and energy usage," and specifically mentions benchmarking energy performance in Energy Star Portfolio Manager, a key component of the LEED EBOM rating system.

Conclusion

As a result of the LEED assessment and subsequent research, TT recommends that the Oakmead Parkway project pursue LEED for Existing Building Operation & Maintenance certification to meet the City of Sunnyvale's green building requirements. This rating system will capture the elements of the BD+C rating system while also taking into account the ongoing performance of the non-renovated existing building aspects of the project to demonstrate improvements over time. Furthermore, this rating system would account for the existing tenants' sustainability performance, while setting guidelines and precedents for new tenants who will potentially lease space in the building.

Appendices

The following appendices are included:

- A: Correspondence with the USGBC/GBCI regarding rating system selection
- B: Draft LEED EBOM Silver Scorecard
- C: LEED EBOM Process Timeline

**Appendix A:
Correspondence with the USGBC/GBCI**

Smith, Maggie

From: Smith, Maggie
Sent: Friday, February 16, 2018 9:22 AM
To: Smith, Maggie
Subject: FW: Oakmead Parkway Update

From: GBCI Reply [<mailto:reply@gbc.org>]
Sent: Wednesday, October 11, 2017 11:27 AM
To: Smith, Maggie <MSmith@ThorntonTomasetti.com>
Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; djohnson@usgbc.org
Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]



Dear Maggie,

GBCI will consider this project to be a single building, based on the document titled GBCI Package.pdf that I downloaded from your ftp site today. This decision is based on the substantial, programmatic quality of the new 'Enclosed Link Lobby' spaces, particularly on the Proposed Site Plan on Sheet A-0.1 and in the Proposed Section Thru Link Space on Sheet A-9.3.

You may upload this message to the PI form in LEED Online to let the review team know that we provided this guidance.

Best Regards,

David Sheridan

Green Building Specialist PE, LEED AP BD&C
Green Business Certification Inc.
2101 L Street NW, Suite 500
Washington, DC 20037

How did I do?

[Click on a face to provide feedback on my performance!](#)

The information above is not equivalent to a formal LEED Certification Review. Applications for LEED Certification will be thoroughly reviewed based on USGBC Member balloted and approved LEED Rating Systems.

Case 01730141

From: msmith@thorntomasetti.com

Sent: 10/10/2017

To: reply@gbci.org

Subject: RE: Case 01730141 : Appropriate Rating System for New Project []

Hi David,

Please use this fileshare link to download the drawings:

Link: <https://fileshare.thorntomasetti.com/xk6kOwEN33Hq>

Files: GBCI Package.pdf

Thanks,

Maggie Smith, LEED AP BD+C, GPR Rater

Senior Project Consultant

Thornton Tomasetti

650 California St., Suite 1400

San Francisco, CA 94108

T +1.415.365.6900 F +1.415.365.6901

D +1.415.365.6965

MSmith@ThorntonTomasetti.com

www.ThorntonTomasetti.com

www.greenbuild.com

http://www.thorntomasetti.com/services/building_sustainability

From: GBCI Reply [<mailto:reply@gbci.org>]

Sent: Wednesday, October 11, 2017 7:59 AM

To: Smith, Maggie <MSmith@ThorntonTomasetti.com>

Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; djohnson@usgbc.org

Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]

GBCI[®]

Hi, Maggie

Thanks. I picked the file from your ftp site. I'll consult with my MPR-specialist colleague and get back to you. This should not take long.

Best Regards,

David Sheridan

Green Building Specialist PE, LEED AP BD&C
Green Business Certification Inc.
2101 L Street NW, Suite 500
Washington, DC 20037

How did I do?



[Click on a face to provide feedback on my performance!](#)

The information above is not equivalent to a formal LEED Certification Review. Applications for LEED Certification will be thoroughly reviewed based on USGBC Member balloted and approved LEED Rating Systems.

Case 01730141

From: msmith@thorntomasetti.com

Sent: 10/10/2017

To: reply@gbci.org

Subject: RE: Case 01730141 : Appropriate Rating System for New Project []

Hi David,

Please use this fileshare link to download the drawings:

Link: <https://fileshare.thorntomasetti.com/xk6kOwEN33Hq>

Files: GBCI Package.pdf

Thanks,

Maggie Smith, LEED AP BD+C, GPR Rater

Senior Project Consultant

Thornton Tomasetti

650 California St., Suite 1400

San Francisco, CA 94108

T +1.415.365.6900 F +1.415.365.6901

D +1.415.365.6965

MSmith@ThorntonTomasetti.com
www.ThorntonTomasetti.com
www.greenbuild.com
http://www.thorntontomasetti.com/services/building_sustainability

From: Smith, Maggie
Sent: Tuesday, October 10, 2017 2:05 PM
To: 'GBCI Reply' <reply@gbc.org>
Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; djohnson@usgbc.org
Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]

Hi David,

Please use this fileshare link to download the drawings:
Link: <https://fileshare.thorntontomasetti.com/xk6kOwEN33Hq>
Files: GBCI Package.pdf

Thanks,

Maggie Smith, LEED AP BD+C, GPR Rater
Senior Project Consultant
Thornton Tomasetti
650 California St., Suite 1400
San Francisco, CA 94108
T +1.415.365.6900 F +1.415.365.6901
D +1.415.365.6965
MSmith@ThorntonTomasetti.com
www.ThorntonTomasetti.com
www.greenbuild.com
http://www.thorntontomasetti.com/services/building_sustainability

From: GBCI Reply [<mailto:reply@gbci.org>]

Sent: Tuesday, October 10, 2017 6:14 AM

To: Smith, Maggie <MSmith@ThorntonTomasetti.com>

Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; djohnson@usgbc.org

Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]



Dear Maggie,

Your message of September 27 responding to my request for drawings did not come through. Perhaps the attachments were too large? Could you break them down to multiple messages? And perhaps strip some layers that we might not need to get a sense of the project? Try limiting the attachment to 5 MB.

Best Regards,

David Sheridan

Green Building Specialist PE, LEED AP BD&C
Green Business Certification Inc.
2101 L Street NW, Suite 500
Washington, DC 20037

How did I do?



[Click on a face to provide feedback on my performance!](#)

The information above is not equivalent to a formal LEED Certification Review. Applications for LEED Certification will be thoroughly reviewed based on USGBC Member balloted and approved LEED Rating Systems.

Case 01730141

From: msmith@thorntontomasetti.com

Sent: 10/9/2017

To: reply@gbci.org

Subject: RE: Case 01730141 : Appropriate Rating System for New Project []

Hi David,

Wanted to check in to see if there are any updates on this?

Thanks!

Maggie Smith, LEED AP BD+C, GPR Rater
 Senior Project Consultant
 Thornton Tomasetti
 650 California St., Suite 1400
 San Francisco, CA 94108
 T +1.415.365.6900 F +1.415.365.6901
 D +1.415.365.6965
MSmith@ThorntonTomasetti.com
www.ThorntonTomasetti.com
www.greenbuild.com
http://www.thorntontomasetti.com/services/building_sustainability

From: Smith, Maggie
 Sent: Wednesday, September 27, 2017 3:47 PM
 To: 'GBCI Reply' <reply@gbci.org>
 Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>;
djohnson@usgbc.org
 Subject: RE: Case 01730141 : Appropriate Rating System for New Project []

Hi David,

Drawings attached - please keep in mind this project is confidential. The space in between the connections is really just circulation space and new restrooms will be built adjacent to these spaces but within the existing buildings.

I don't have photos of the existing buildings but Google Maps street view gives a pretty good view - address is 1246 Oakmead Parkway, Sunnyvale, CA. Here's one screenshot:

[\[cid:image001.jpg@01D340DE.6E293CB0\]](#)

Thanks,
 Maggie Smith, LEED AP BD+C, GPR Rater
 Senior Project Consultant
 Thornton Tomasetti
 650 California St., Suite 1400
 San Francisco, CA 94108
 T +1.415.365.6900 F +1.415.365.6901
 D +1.415.365.6965
MSmith@ThorntonTomasetti.com<<mailto:MSmith@ThorntonTomasetti.com>>
www.ThorntonTomasetti.com<<http://www.ThorntonTomasetti.com>>
www.greenbuild.com<<http://www.greenbuild.com>>
http://www.thorntontomasetti.com/services/building_sustainability

From: Smith, Maggie
Sent: Monday, October 09, 2017 9:10 AM
To: 'GBCI Reply' <reply@gbci.org>
Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; 'djohnson@usgbc.org' <djohnson@usgbc.org>
Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]

Hi David,

Wanted to check in to see if there are any updates on this?

Thanks!

Maggie Smith, LEED AP BD+C, GPR Rater

Senior Project Consultant

Thornton Tomasetti

650 California St., Suite 1400

San Francisco, CA 94108

T +1.415.365.6900 F +1.415.365.6901

D +1.415.365.6965

MSmith@ThorntonTomasetti.com

www.ThorntonTomasetti.com

www.greenbuild.com

http://www.thorntontomasetti.com/services/building_sustainability

From: Smith, Maggie

Sent: Wednesday, September 27, 2017 3:47 PM

To: 'GBCI Reply' <reply@gbci.org>

Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; djohnson@usgbc.org

Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]

Hi David,

Drawings attached – please keep in mind this project is confidential. The space in between the connections is really just circulation space and new restrooms will be built adjacent to these spaces but within the existing buildings.

I don't have photos of the existing buildings but Google Maps street view gives a pretty good view – address is 1246 Oakmead Parkway, Sunnyvale, CA. Here's one screenshot:



Thanks,

Maggie Smith, LEED AP BD+C, GPR Rater

Senior Project Consultant

Thornton Tomasetti

650 California St., Suite 1400

San Francisco, CA 94108

T +1.415.365.6900 F +1.415.365.6901

D +1.415.365.6965

MSmith@ThorntonTomasetti.com

www.ThorntonTomasetti.com

www.greenbuild.com

http://www.thorntontomasetti.com/services/building_sustainability

From: GBCI Reply [<mailto:reply@gbci.org>]

Sent: Wednesday, September 27, 2017 12:41 PM

To: Smith, Maggie <MSmith@ThorntonTomasetti.com>

Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; djohnson@usgbc.org

Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]



Hi, Maggie

Could you provide more detailed drawings or renderings of the buildings and connections, and a description of the planned use of spaces in the connections? Also, would it be possible to have some photo images of the existing buildings?

Best Regards,

David Sheridan

Green Building Specialist PE, LEED AP BD&C

Green Business Certification Inc.

2101 L Street NW, Suite 500

Washington, DC 20037

How did I do?

[Click on a face to provide feedback on my performance!](#)

The information above is not equivalent to a formal LEED Certification Review. Applications for LEED Certification will be thoroughly reviewed based on USGBC Member balloted and approved LEED Rating Systems.

Case 01730141

From: msmith@thorntomasetti.com

Sent: 9/25/2017

To: reply@gbci.org

Subject: RE: Case 01730141 : Appropriate Rating System for New Project []

Thanks David,

Please let us know as soon as you hear back.

Best,

Maggie Smith, LEED AP BD+C, GPR Rater

Senior Project Consultant

Thornton Tomasetti

650 California St., Suite 1400

San Francisco, CA 94108

T +1.415.365.6900 F +1.415.365.6901

D +1.415.365.6965

MSmith@ThorntonTomasetti.com

www.ThorntonTomasetti.com

www.greenbuild.com

http://www.thorntomasetti.com/services/building_sustainability

From: Smith, Maggie

Sent: Monday, September 25, 2017 10:31 AM

To: 'GBCI Reply' <reply@gbci.org>

Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; djohnson@usgbc.org

Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]

Thanks David,

Please let us know as soon as you hear back.

Best,

Maggie Smith, LEED AP BD+C, GPR Rater

Senior Project Consultant

Thornton Tomasetti

650 California St., Suite 1400

San Francisco, CA 94108

T +1.415.365.6900 F +1.415.365.6901

D +1.415.365.6965

MSmith@ThorntonTomasetti.com
www.ThorntonTomasetti.com
www.greenbuild.com
http://www.thorntontomasetti.com/services/building_sustainability

From: GBCI Reply [<mailto:reply@gbc.org>]
Sent: Monday, September 25, 2017 10:30 AM
To: Smith, Maggie <MSmith@ThorntonTomasetti.com>
Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; djohnson@usgbc.org
Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]



Hi, Maggie

I'm going to have to consult with a colleague who specializes in MPR and rating system selection issues. This will take a few days, as his inbox tends to be pretty busy.

Best Regards,

David Sheridan

Green Building Specialist PE, LEED AP BD&C
Green Business Certification Inc.
2101 L Street NW, Suite 500
Washington, DC 20037

How did I do?



[Click on a face to provide feedback on my performance!](#)

The information above is not equivalent to a formal LEED Certification Review. Applications for LEED Certification will be thoroughly reviewed based on USGBC Member balloted and approved LEED Rating Systems.

Case 01730141

From: msmith@thorntontomasetti.com
Sent: 9/25/2017
To: reply@gbc.org
Subject: RE: Case 01730141 : Appropriate Rating System for New Project []

Thanks David,

That makes sense. Regarding the programmatic dependency issue - it seems that we can achieve the MPR based on either "programmatic dependency or architectural cohesiveness (the building was designed to appear as one building)," is that correct? I think the latter would be applicable in this scenario, let me know what you think.

I'll relay this info to the Owner.

Thanks,

Maggie Smith, LEED AP BD+C, GPR Rater
Senior Project Consultant
Thornton Tomasetti
650 California St., Suite 1400
San Francisco, CA 94108
T +1.415.365.6900 F +1.415.365.6901
D +1.415.365.6965
MSmith@ThorntonTomasetti.com
www.ThorntonTomasetti.com
www.greenbuild.com
http://www.thorntontomasetti.com/services/building_sustainability

From: Smith, Maggie
Sent: Monday, September 25, 2017 8:28 AM
To: 'GBCI Reply' <reply@gbci.org>
Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; djohnson@usgbc.org
Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]

Thanks David,

That makes sense. Regarding the programmatic dependency issue – it seems that we can achieve the MPR based on either “programmatic dependency **or architectural cohesiveness** (the building was designed to appear as one building),” is that correct? I think the latter would be applicable in this scenario, let me know what you think.

I’ll relay this info to the Owner.

Thanks,

Maggie Smith, LEED AP BD+C, GPR Rater
Senior Project Consultant
Thornton Tomasetti
650 California St., Suite 1400
San Francisco, CA 94108
T +1.415.365.6900 F +1.415.365.6901
D +1.415.365.6965
MSmith@ThorntonTomasetti.com
www.ThorntonTomasetti.com
www.greenbuild.com
http://www.thorntontomasetti.com/services/building_sustainability

From: GBCI Reply [<mailto:reply@gbc.org>]
Sent: Friday, September 22, 2017 12:31 PM
To: Smith, Maggie <MSmith@ThorntonTomasetti.com>
Cc: Darden, Abena <ADarden@ThorntonTomasetti.com>; djohnson@usgbc.org
Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]



Hi, Maggie

I do not think beginning the performance period before the connecting structures are constructed would be a good idea. You could submit a CIR to confirm, but I think the answer would be to wait until you have a complete building.

The matter of programmatic dependency is also something to consider carefully as you plan your LEED strategy. Note that the MPR states that spaces - not personnel - create such dependency. If each of the four structures to be connected have spaces that are essential to the proper operation of the other three, you have programmatic dependency. As you move along in your thinking we can help you to sort out this issue. It is critical, as you don't want to submit a LEED application and then find that you have a multiple building issue.

Best Regards,

David Sheridan

Green Building Specialist PE, LEED AP BD&C
Green Business Certification Inc.
2101 L Street NW, Suite 500
Washington, DC 20037

How did I do?



[Click on a face to provide feedback on my performance!](#)

The information above is not equivalent to a formal LEED Certification Review. Applications for LEED Certification will be thoroughly reviewed based on USGBC Member balloted and approved LEED Rating Systems.

Case 01730141

From: msmith@thorntomasetti.com
Sent: 9/21/2017
To: reply@gbci.org
Subject: RE: Case 01730141 : Appropriate Rating System for New Project []

Hello David,

Thanks for your response. We agree that LEED EB sounds the most appropriate. Based on your comment below ("wait until the connections are constructed to call the four buildings one building") would we need to wait to start our 12 month energy data collection until after the 4 buildings are connected or could we combine individual energy data from the 4 buildings (separately) to determine the total energy use for the project?

Thanks,
Maggie Smith, LEED AP BD+C, GPR Rater
Senior Project Consultant
Thornton Tomasetti
650 California St., Suite 1400
San Francisco, CA 94108
T +1.415.365.6900 F +1.415.365.6901
D +1.415.365.6965
MSmith@ThorntonTomasetti.com
www.ThorntonTomasetti.com
www.greenbuild.com
http://www.thorntomasetti.com/services/building_sustainability

From: Smith, Maggie
Sent: Thursday, September 21, 2017 9:21 AM
To: "'GBCI Reply" <reply@gbci.org>' <reply@gbci.org>
Cc: djohnson@usgbc.org; Darden, Abena <ADarden@ThorntonTomasetti.com>
Subject: RE: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]

Hello David,

Thanks for your response. We agree that LEED EB sounds the most appropriate. Based on your comment below ("wait until the connections are constructed to call the four buildings one building") would we need to wait to start our 12 month energy data collection until after the 4 buildings are connected or could we combine individual energy data from the 4 buildings (separately) to determine the total energy use for the project?

Thanks,

Maggie Smith, LEED AP BD+C, GPR Rater
Senior Project Consultant
Thornton Tomasetti
650 California St., Suite 1400
San Francisco, CA 94108

T +1.415.365.6900 F +1.415.365.6901
D +1.415.365.6965
MSmith@ThorntonTomasetti.com
www.ThorntonTomasetti.com
www.greenbuild.com
http://www.thorntontomasetti.com/services/building_sustainability

From: "GBCI Reply" <reply@gbci.org> [<mailto:reply@gbci.org>]
Sent: Thursday, September 21, 2017 8:34 AM
To: Smith, Maggie <MSmith@ThorntonTomasetti.com>
Cc: djohnson@usgbc.org
Subject: Case 01730141 : Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]



Dear Maggie,

It is difficult to envision the connecting structures as independent LEED buildings. You might make a case for the four existing buildings, when connected, constituting a single LEED building. The v4 Minimum Program [Requirement Must use reasonable LEED boundaries](#) allows programmatic dependency to gather structures connected by spaces that serve only circulation into a single building. If the project were to pass the single building question, you would have to apply the BD&C rating system to the entire building. If the buildings are not slated for renovation, it might be a challenge to meet v4 requirements.

The O&M rating system might work. The reasonable LEED boundary MPR applies, so you would have to show programmatic dependency among the structures. The work on the connections might possibly be recorded in the MR credits for purchasing and solid waste management. But you would need to wait until the connections are constructed to call the four buildings one building (assuming you could demonstrate programmatic dependency).

Those are my thoughts based on what you have told us about the prospective project. If you have questions you can reach me by replying to this email.

Best Regards,

David Sheridan
Green Building Specialist PE, LEED AP BD&C

Green Business Certification Inc.

2101 L Street NW, Suite 500
Washington, DC 20037

How did I do?



[Click on a face to provide feedback on my performance!](#)

Case 01730141

ORIGINAL INQUIRY:

Smith, Maggie <MSmith@ThorntonTomasetti.com>

Hello,

I was hoping I could get your help in determining the appropriate rating system for a new project. Currently, there are 4 existing, adjacent office buildings on a site and the developer is proposing to enclose the spaces between the 4 buildings to essentially create one large building (see elevations below). They are required by local green building ordinance to certify only the additions, but it's unclear to me whether that is allowable under any LEED rating system. The additions will not have independent MEP systems, but will instead connect into the existing building's current systems. There is little to no changes planned within the existing buildings, just enclosing the walkways between them and adding restrooms in the enclosed space.

The owner does not want to perform LEED EBOM certification on the whole building unless that is the only option, so my question is whether it would be possible to certify the additions under LEED BD+C?

Thank you!

Maggie Smith, LEED AP BD+C, GPR Rater
Senior Project Consultant

Thornton Tomasetti

650 California St., Suite 1400

San Francisco, CA 94108

T +1.415.365.6900 F +1.415.365.6901

D +1.415.365.6965

MSmith@ThorntonTomasetti.com

www.ThorntonTomasetti.com

www.greenbuild.com

http://www.thorntontomasetti.com/services/building_sustainability

From: "GBCI Reply" <reply@gbci.org> [<mailto:reply@gbci.org>]
Sent: Wednesday, September 06, 2017 2:10 PM
To: Smith, Maggie <MSmith@ThorntonTomasetti.com>
Subject: Case 01730141: Appropriate Rating System for New Project [ref:_00D409UeD._5004018omuu:ref]



Dear Maggie,

I have created a case with our LEED Coach Team and will send you a response as soon as possible.

For your reference, your case number is: 01730141.

Sincerely,
DJuan Johnson

U.S. Green Building Council
2101 L Street NW, Suite 500
Washington, DC 20037
Email djohnson@usgbc.org | Phone 571-287-7938

INQUIRY SUBMITTED:

Smith, Maggie <MSmith@ThorntonTomasetti.com>

Hello,

I was hoping I could get your help in determining the appropriate rating system for a new project. Currently, there are 4 existing, adjacent office buildings on a site and the developer is proposing to enclose the spaces between the 4 buildings to essentially create one large building (see elevations below). They are required by local green building ordinance to certify only the additions, but it's unclear to me whether that is allowable under any LEED rating system. The additions will not have independent MEP systems, but will instead connect into the existing building's current systems. There is little to no changes planned within the existing buildings, just enclosing the walkways between them and adding restrooms in the enclosed space.

The owner does not want to perform LEED EBOM certification on the whole building unless that is the only option, so my question is whether it would be possible to certify the additions under LEED BD+C?

**Appendix B:
Draft LEED EBOM Silver Scorecard**

OAKMEAD PARKWAY

Prepared by Thornton Tomasetti

LEED-EBOM - SCORECARD

12/14/17

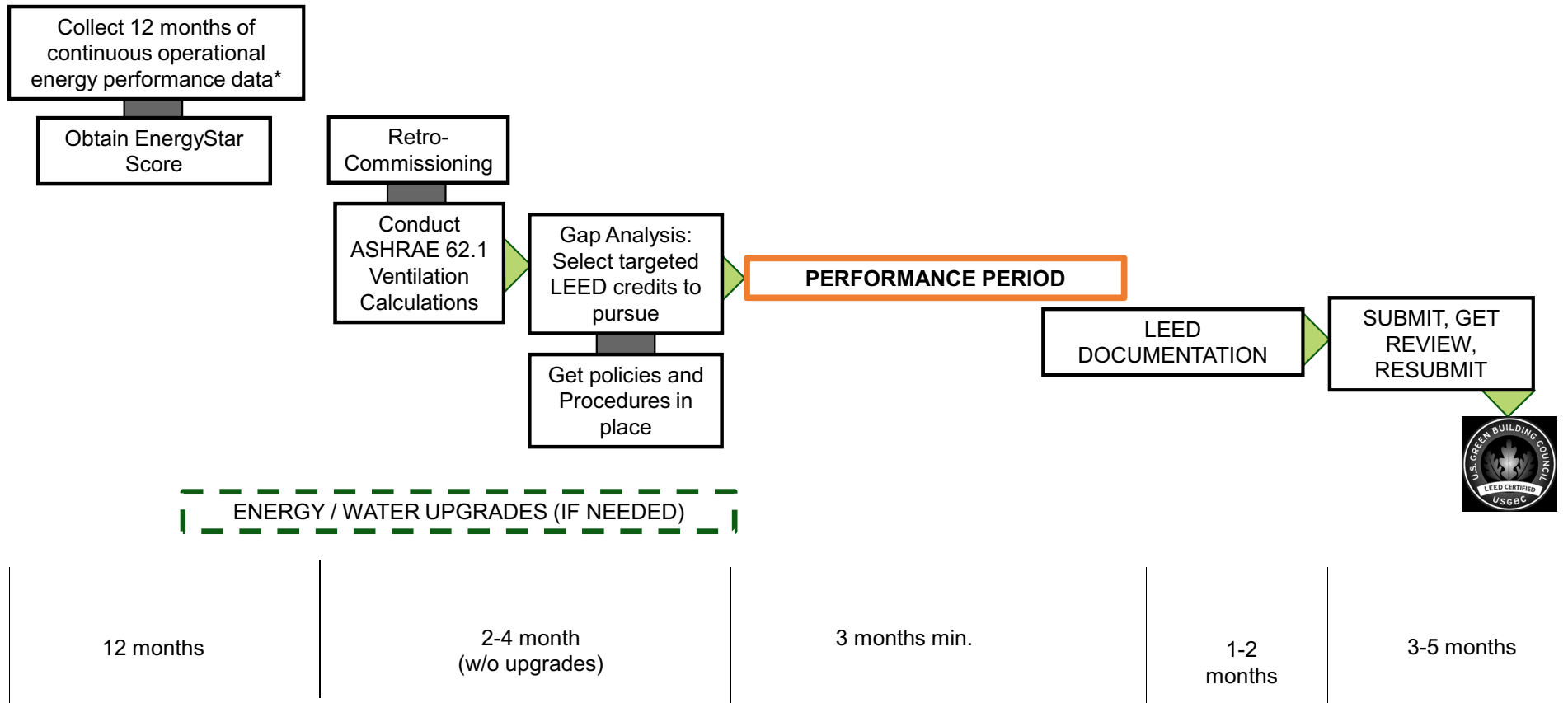
NO.	CREDIT	YES	MAYB	NO	DISCIPLINE	COMMENTS
TOTAL CREDIT POINTS:		54	53	3		
LOCATION & TRANSPORTATION						
LT 1	Alternative Transportation	6	9		Facility Manager / Tenants	
SUSTAINABLE SITES						
SS Prereq. 1	Site Management Policy	X			Facility Manager	
SS 1	Site Development - Protect or Restore Habitat	2			Owner	
SS 2	Rainwater Management		3		Civil Engineer / Facility Manager	
SS 3	Heat Island Reduction	1	1		Architect	
SS 4	Light Pollution Reduction		1		Facility Manager / Building Engineer	
SS 5	Site Management	1			Facility Manager	
SS 6	Site Improvement Plan	1			Facility Manager	
WATER EFFICIENCY						
WE Prereq. 1	Indoor Water Use Reduction	X			Building Engineer / Plumbing Engineer	
WE Prereq. 2	Building-Level Water Metering	X			Building Engineer	
WE 1	Outdoor Water Use Reduction	2			Landscape Architect / Building Engineer	
WE 2	Indoor Water Use Reduction	5			Building Engineer / Plumbing Engineer	
WE 3	Cooling Tower Water Use			3	N/A	
WE 4	Water Metering	1	1		Building Engineer	
ENERGY & ATMOSPHERE						
EA Prereq. 1	Energy Efficient Best Management Practices	X			Commissioning Agent	
EA Prereq. 2	Minimum Energy Performance	X			Facility Manager	
EA Prereq. 3	Building-Level Energy Metering	X			Building Engineer	
EA Prereq. 4	Fundamental Refrigerant Management	X			Building Engineer	
EA 1	Existing Building Commissioning - Analysis	2			Commissioning Agent	
EA 2	Existing Building Commissioning - Implementation	2			Commissioning Agent	
EA 3	Ongoing Commissioning		3		Commissioning Agent	
EA 4	Optimize Energy Performance	7	13		Facility Manager	
EA 5	Advanced Energy Metering		2		Building Engineer	
EA 6	Demand Response		3		Building Engineer	
EA 7	Renewable Energy and Carbon Offsets	5			Owner	
EA 8	Enhanced Refrigerant Management		1		Building Engineer	
MATERIALS & RESOURCES						
MR Prereq. 1	Ongoing Purchasing and Waste Policy	X			Facility Manager	
MR Prereq. 2	Facility Maintenance and Renovations Policy	X			Facility Manager	
MR 1	Purchasing - Lamps	1			Facility Manager / Tenants	
MR 2	Purchasing - Ongoing	1			Facility Manager	
MR 3	Purchasing - Facility Maintenance and Renovation		2		Facility Manager / Tenants' Construction Manager	
MR 4	Solid Waste Management - Ongoing	2			Facility Manager / Tenants	
MR 5	Solid Waste Management - Facility Maintenance and Renovations		2		Facility Manager / Tenants' Construction Manager	
INDOOR ENVIRONMENTAL QUALITY						
EQ Prereq. 1	Minimum IAQ Performance	X			Building Engineer / Commissioning Agent	
EQ Prereq. 2	Environmental Tobacco Smoke Control	X			Owner / Architect	
EQ Prereq. 3	Green Cleaning Policy	X			Facility Manager	
EQ 1	IAQ Management Program	2			Building Engineer	
EQ 2	Enhanced IAQ Strategies	1	1		Facility Manager / Building Engineer	
EQ 3	Thermal Comfort		1		Building Engineer / Commissioning Agent	
EQ 4	Interior Lighting		2		Facility Manager / Tenants	
EQ 5	Daylight and Quality Views		4		Tenants	
EQ 6	Green Cleaning - Custodial Effectiveness Assessment	1			Facility Manager	
EQ 7	Green Cleaning - Products and Materials	1			Facility Manager	
EQ 8	Green Cleaning - Equipment	1			Facility Manager	
EQ 9	Integrated Pest Management	2			Facility Manager	
EQ 10	Occupant Comfort Survey	1			Facility Manager / Tenants	
INNOVATION & DESIGN						
IN 1.1	Ex. Perf. Indoor Water Use Reduction	1			TT	
IN 1.2	Innovation: Green Education	1			TT	
IN 1.3	TBD		1		TBD	
IN 1.4	TBD		1		TBD	
IN 1.5	TBD		1		TBD	
IN 2	LEED Accredited Professional	1			TT	
REGIONAL PRIORITY CREDITS						
RB 1.1	Solid Waste Management (2 points)	1			TT	
RB 1.2	Purchasing - Ongoing (2 points)	1			TT	
RB 1.3	Indoor Water Use Reduction (5 points)	1			TT	
RB 1.4	Alternative Transportation (11 points)		1		TT	
TOTAL CREDIT POINTS:		54	53	3		

Certified = 40-49, Silver = 50-59, Gold = 60-79, Platinum = 80-110

**Appendix C:
LEED EBOM Process Timeline**

LEED for Existing Buildings Process Overview

(typical Office Building with Energy Star Score at least 75)



*At least 50% occupancy required to calculate EnergyStar score