Minutes are considered "DRAFT" until approved t next meeting

Meeting Minutes
Farmington High School Building Committee Meeting
Wednesday, April 1, 2020
Online- Web Conference
6:30 P.M.

Attendees:
Meg Guerrera, Chair
Ellen Siuta
Garth Meehan
Johnny Carrier
Sharon Mazzochi
Michael Smith
Chris Fagan
Beth Kintner
Kathryn Krajewski, Assistant Town Manager
Kathy Greider, Superintendent
Tim Harris, Director of School Facilities
Devon Aldave, Clerk of the Committee
Mark Garilli, Construction Solutions Group
Chris Cykley, Construction Solutions Group
Michael Scott, TSKP Studio
Ryzsard Szczypek, TSKP Studio

A. Call to Order.
The meeting was called order at 6:32 P.M.

B. Pledge of Allegiance.
The committee members recited the Pledge of Allegiance.

C. Public Comment.
Jay Tulin, 39 Timberline Drive, is the Chair of the Human Relations Commission. Jay explained the purpose of the Human Relations Commission is to foster mutual understanding and respect and encourage equal treatment of all members of the community. Jay read a letter from the Human Relations Commission which is recorded with these minutes as Attachment A. After reading the letter, Jay asked if TSKP Studio has used universal design in previous projects.

Bernard Greene, 48 Walnut Farms Drive, has lived in Farmington for thirty years and has two daughters who attended FHS. Bernard stated that this project is a good opportunity for a net zero energy building. Bernard stated that he is interested in forming a caucus with interested parties, and introduced Peter Millman, who helped Mansfield design a net zero energy building.

Peter Millman, from Mansfield, thanked the committee for the opportunity to speak. He worked to successfully implement a net zero energy building in Mansfield. He urged the committee to consider changing the FHS Ed Specs

to include making net zero a goal. He stated that the Mansfield Building Committee went with net zero energy for two reasons: fiscal responsibility and sustainability. The Mansfield Building Committee determined that the extra cost for going net zero was not much more expensive than other energy systems. He stated that the increased cost was offset by reduced operating expenses. Peter also stated that there are health and curriculum benefits to going net zero. He stated that the Mansfield referendum recently passed with 2 to 1 support and that the Mansfield Building Committee attributed much of the support to net zero. Peter encouraged the committee to reach out the Mansfield Building Committee.

Sam Reisner, 41 Main Street, thanked the committee for making the meeting very accessible. He emphasized the importance of communication and encouraged continued outreach to help residents stay informed during this difficult time.

D. Minutes.

1) To approve the attached March 18, 2020 minutes.

Upon a motion made and seconded (Mazzochi/Meehan) it was unanimously VOTED: to approve the March 18, 2020 minutes.

E. Correspondence.

1) Correspondence Received 3/14/2020 – 3/30/2020.

Meg Guerrera reviewed the correspondences received.

F. Reports.

1) Chair Report.

Meg Guerrera gave the Chair Report. Her report is recorded with these minutes as Attachment B.

2) Communications Subcommittee Report.

Kathy Greider stated that Scott Hurwitz has been working on videos for the committee, including a video with Kosta Diamantis, Director of Office for School Construction and Grants Review.

3) Neighborhood Communications Subcommittee Report.

Sharon Mazzochi stated that the Neighborhood Communications Subcommittee met last week and this week in preparation for a Neighborhood Meeting that will be held via zoom on April 9th at 6:30 P.M. Information for this meeting will be provided on the Farmington Highlands Facebook page. Kat Krajewski stated that a letter was sent to all abutting neighbors of the FHS property to notify them of the upcoming meeting.

4) Financial Communications Subcommittee Report.

No report was given as the Financial Communications Subcommittee has not met since the last FHS Building Committee Meeting.

5) Architect Report.

Michael Scott and Ryszard Szczypek gave a presentation. The presentation is recorded with these minutes as Attachment C.

Johnny Carrier asked about fencing around the property. Michael Scott stated that visual and noise screening will be provided by the berm and evergreen planting included in the design. Michael also stated that additional fencing can be discussed with abutting property owners as a benefit to them as a consequence of the construction process.

Ellen Siuta asked if TSKP Studio could provide information to the committee regarding schools in Connecticut that are net zero to provide more regional context. Ryzsard stated that he is not aware of any public schools in Connecticut that are net zero.

Tim Harris stated that a net zero system is dependent on the baseline that is agreed to by the contractor and the school. Tim stated that many things factor into a net zero system including weather stripping, building automation, water conservation, occupancy controls for lighting and ventilation, lighting retrofit, and HVAC. Tim explained that a payback period and cost savings can be skewed by adjusting the baseline. He provided the examples of occupancy controls, where teachers may still be working in the building after school ends when the heating system will be off and people remaining in the building will be cold.

Johnny Carrier asked about the life expectancy of the equipment and the yearly cost of a net zero building. Michael Scott stated that the geothermal equipment will have a good life expectancy. He also stated that the photovoltaic array will likely still function in twenty years, however with a large PV array it is likely that the school will want to update the panels.

Mark Garilli asked about the difference in reimbursement rates between Mansfield and Farmington. Ryszard stated that the reimbursement rates in Mansfield were significantly higher than Farmington.

6) Owner's Representative Report.

Mark Garilli stated that the committee is continuing to move forward with the FHSBC schedule. The next major milestone on the schedule is meeting with the Town Council in May, followed by the grant submission on June 30th.

G. New Business.

1) **To approve invoice in the amount of $8,500 for the Center for Research and Public Policy.**
   Upon a motion made and seconded (Carrier/Mazzochi) it was unanimously VOTED: to approve the invoice in the amount of $8,500 for the Center for Research and Public Policy.

H. Adjournment.

Upon a motion made and seconded (Carrier/Mazzochi) it was unanimously VOTED: to adjourn the meeting at 8:10 P.M.

Respectfully Submitted,

Devon Aldave
Clerk of the Committee

Attachment A

THE TOWN OF FARMINGTON

NCORPORATED 1645

Farmington Community Services
1 MONTEITH DRIVE
FARMINGTON, CONNECTICUT 06032-1053
INFORMATION (860) 675-2390
FAX (860) 675-2323

On behalf of the 7 members of the Farmington Human Relations Commission, I am writing to urge the FHS Building Commlttee to contract for advisory services from an accessibility consultant with extensive backqround in the concept of Universal Design. We would ask you to use the consultant to review ongoing plans for the high school and make recommendations as to specifications or configurations that may inadvertently result in less than optimal access for students and visitors with a wide range of disabilities and assistive devices.

Universal Design is both a philosophy and a practical approach to ensuring that the built environment is equally accessible to all people, regardless of their physical condition. Although it can sometimes result in specifications that exceed ADA standards, it works ADA specifications into a holistic approach that includes detailed technical knowledge about wheelchair and scooter design as well as practical knowledge about the everyday challenges faced by people with disabilities. A more detailed description of the Universal Design approach is attached to this letter.

There is precedent for using this approach in our town, and in 2008 Farmington was recognized by the ADA Coalition of Connecticut for its efforts to ensure optimal accessibility for all its citizens. After input from an accessibility consultant to the redevelopment of Unionville Center in 2007, our Town Planning and Zoning Commission adopted "Enhanced Standards For Accessible and Universal Design." Since its inception in 2018, the Village Center Committee has had a representative from the Human Relations Commission as a voting member and has ensured that Universal Design will be the standard for any development in that part of town.

Although the possibility of having to spend additional dollars to exceed ADA standards may seem questionable, we would argue that utilizing Universal Design principles is both a moral and a practical issue. After years of failing to meet ADA requirements, it is time for Farmington's educational facilities to live up to the Town's other efforts to ensure equality of treatment and opportunity for its citizens with disabilities. From a pragmatic standpoint, it is wiser to spend a little extra on achieving optimal accessibility than it is to make expensive adjustments and reconfigurations when the original construction proves to be inadequate for some category of user.

Our town buildings belong to all of Farmington's residents. We strongly urge the Building Committee to ensure that this is truly the reality for our citizens with disabilities.

Attachment B

April 1, 2020 - Chair Report

On February 4, 2020 the FHSBC was re-charged by Town Council to prepare a referendum question with a project scope to include a NEW FHS building, designed by TSKP, on the current municipal campus within the net municipal project cost range of $105M-$110M.

We Will Continue to Use Our Compass: FHSBC Guiding Principles

- Rely on competitive analysis of service and design
- **Procure critical information prior to milestone decisions**
- **Evaluate financial expenditures. Focus on the benefit of the cost, not just cost alone.**
- Establish effective professional partnerships resulting in guidance by industry experts
- **Provide timely and transparent communication**

April 1, 2020 - Chair Report

Moving Forward Using our Guiding Principles

- **Stay Focused on Schematic Design Work** - this is a high-priority project with external deadlines driving our timeline
  - Use Abutting Neighborhood Engagement to inform design work

- **Pause the FHSBC Communication Work** (broad community engagement, financial, survey)
  - Be mindful of the benefit associated to our expenditures
  - Information regarding the safety and well-being of our community is paramount
  - We simply need to know more before making milestone decisions

Attachment C

Building Committee Update

Farmington High School

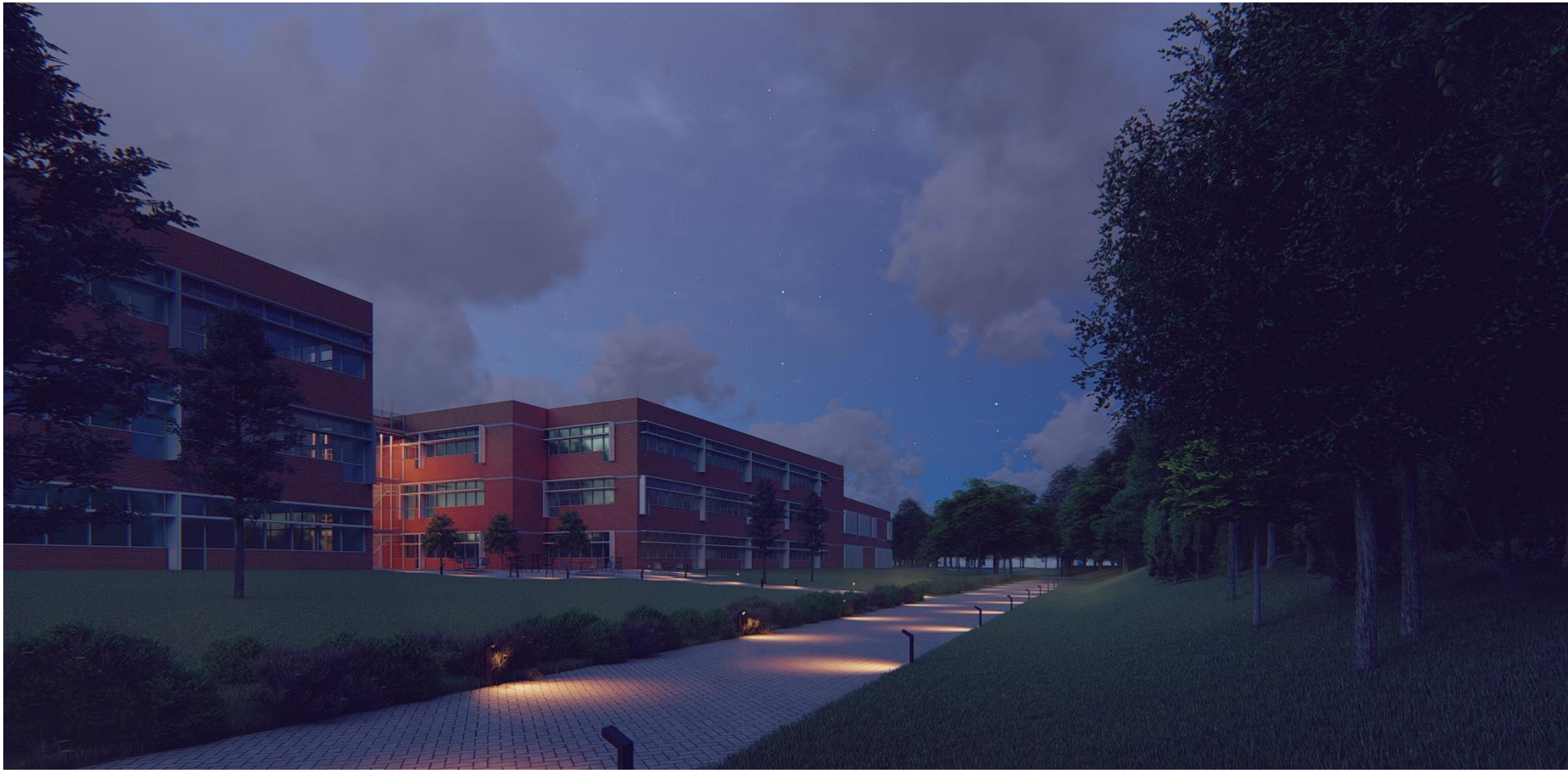
TSKP STUDIO ARCHITECTURE | PLANNING | INTERIORS

April 01, 2020

Design Updates

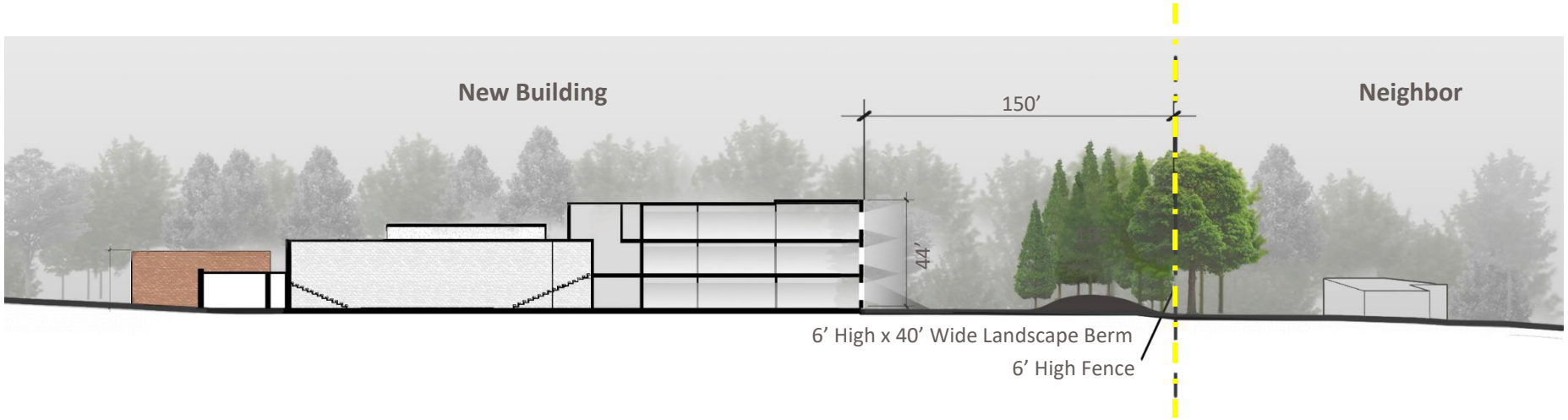
View along East Property Line

View along East Property Line – Evening View



Site Section

East Edge of Property



Potential Cost Reductions

Budget Review

On January 22, 2020:

	Detailed Estimate	In Millions
1. Arch./Eng. Design Fee	$ 5,690,000	$ 5.7
2. Professional Fees	$ 3,018,487	$ 3.0
3. Construction Costs	$ 120,640,036	$ 120.6
4. Alternates	$ 0	$ 0
5. FF&E and Technology	$ 5,591,000	$ 5.6
6. Owner Contingency (5%)	$ 7,100,000	$ 7.1
7. Grand Total	**$ 142,039,523**	**$ 142.0**

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7. Grand Total Cost	**$ 142,039,523**	**$ 142.0**
8. Est. State Reimbursement	- 28,007,905	- 28.0
9. Net Town Share	**$ 114,031,618**	**$ 114.0**

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On February 4, 2020:

10. Target Net Town Share		**$105 to $110**

Potential Cost Reductions

Carried Forward From Previous Page:

After Est. State Reimbursement	**Detailed Estimate**	**In Millions**
9. Net Town Share	**$ 114,031,618**	**$ 114.0**

Potential Cost Reductions Discussed On March 4, 2020:

	Est. Reductions	
10. Reduce Building (7,100 SF x $480/SF)	$ 3,400,000	
11. Delete Green Roof (Per Estimate)	425,000	
12. Delete Softball Field (Per Estimate)	620,000	
13. Delete Relocation of Cupola (Per Est.)	150,000	
* 14. Reduce FF&E and Technology **(TBD)**	500,000	
15. Total Cost Reductions	**$ 5,095,000**	**($ 5.1)**
16. Revised Net Town Share		**$108.9**

On February 4, 2020:

10. Target Net Town Share		**$105 to $110**

FF&E Analysis

FF&E Categories

1.	Admin. Offices, Counseling, Nurse's Office, and Support Services	$ 392,502	
2.	Academic Core Areas, Classrooms, Science Labs, Break-Out Areas	1,188,311	
3.	Special Ed / Special Services, Classrooms, Group Rooms, Offices	200,000	
4.	Alternative High School, Classroom, Offices, Conference Room	25,000	
5.	Media Center, Learning Commons	327,975	
6.	Visual Arts Program Classrooms, Labs	209,485	
7.	Music, Instrumental, Vocal, Practice and Ensemble Rooms	477,781	
8.	Performing Arts, Auditorium, Control Room, Dressing	44,725	
9.	Career & Tech Ed, Wood, Metal, Culinary, and Robotics Labs	114,788	
10.	Phys Ed Offices	60,384	
11.	Dining Areas for Students and Faculty (excluding kitchen equip)	123,510	
12.	Food Services, Custodial Work Room and Office	100,000	
13.	Building Services	20,214	
14.	TOTAL	$ 3,235,829	
		Say $3,240,000	

Assumptions:
Carts for document cameras are in technology budget.
Teacher desks are included above as furniture, not as millwork.
Existing equipment in Edge Studio will be relocated to new building.
Outdoor furniture is excluded.
An allowance of $30,000 is included for a CNC Machine.
Power tools and chargers for Engineering Maker Space are relocated from existing building.
An allowance of $5,000 for Choral Risers is included.

Technology Analysis

Technology Categories

1.	Classrooms, 80 spaces at $7,000 ea	$ 560,000	
2.	Small Group & Conf. Rms., 8 at $5,000 ea	40,000	
3.	Offices & Small Rooms, 40 at $500 ea	20,000	
4.	Gymnasium Projector and Screen	60,000	
5.	Auditorium Digital Equipment	100,000	
6.	Phone System and Handsets	75,000	
7.	Radio Comm., Antenna System, Repeaters	250,000	
8.	Security Cameras, 200 at $1,200 ea	240,000	
9.	Supplemental Audio System, 90 at $1,000 ea	90,000	
10.	Call Regeneration System, Repeaters - allowance	100,000	
11.	Carts for Document Cameras - allowance	50,000	
12.	District Office Equipment, Servers - allowance	100,000	
13.	TOTAL	$ 1,685,000	
		Say $1,700,000	

Assumptions:
Conduits and conductors are in construction budget.
Servers and racks are in construction budget.
Assisted-Listening Devices are in construction budget.
Chromebooks, Laptops, and Desktop computers will be relocated from the existing building.
Printers and copiers will be relocated from the existing building.

Potential Cost Reductions

Carried Forward From Previous Page:

After Est. State Reimbursement	**Detailed Estimate**	**In Millions**
9. Net Town Share	**$ 114,031,618**	**$ 114.0**

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13. Delete Relocation of Cupola (Per Est.)	150,000	
14. Reduce FF&E and Technology	651,000	
15. Reduced Retainage on Savings	300,000	
15. Total Cost Reductions	**$ 5,546,000**	**($ 5.5)**
16. Revised Net Town Share		**$108.3**

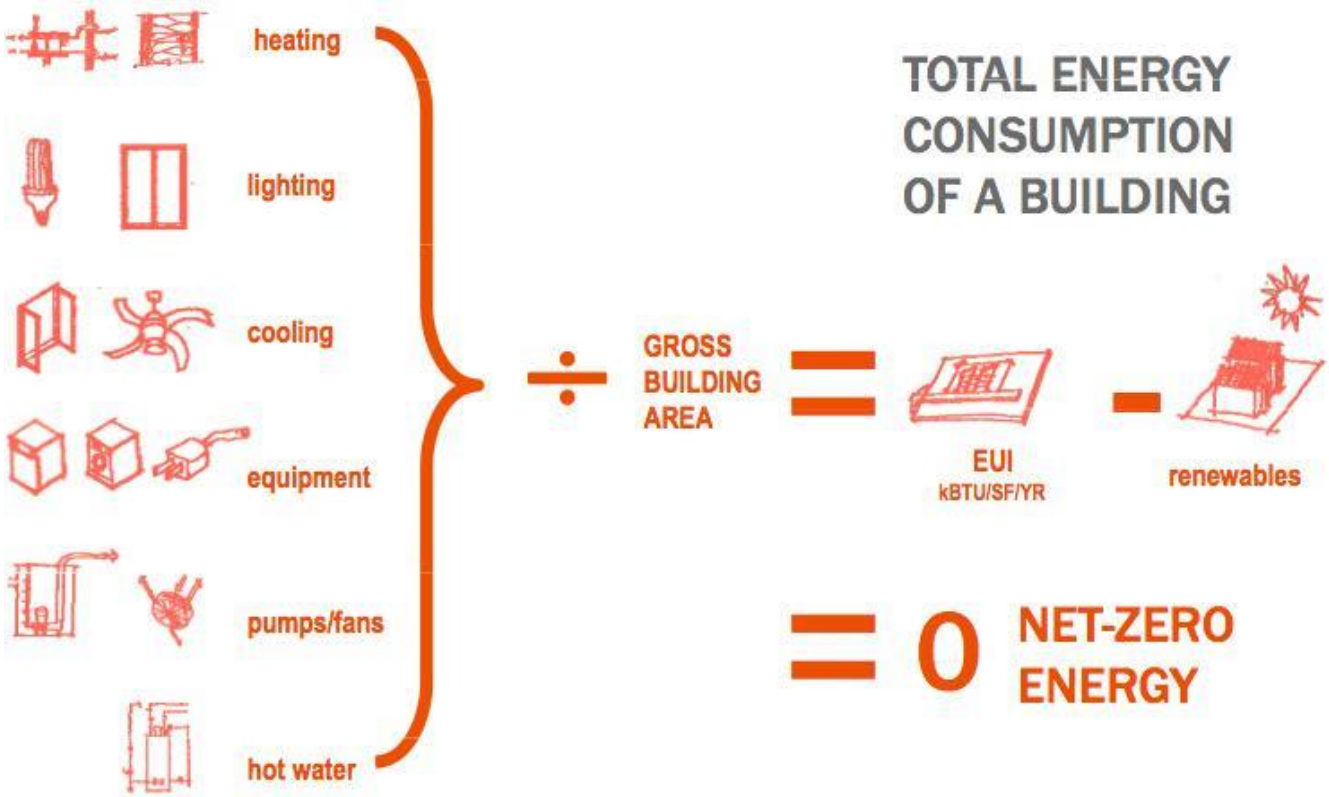
On February 4, 2020:

10. Target Net Town Share		**$105 to $110**

Net Zero Discussion Points

Net Zero Energy

A Net Zero Energy school returns as much energy to the power grid as it uses in a year.



Net Zero Energy

Huge Nationwide Growth in Zero Energy Schools

- 700% Growth in Zero Energy Projects
- Schools Lead All Sectors

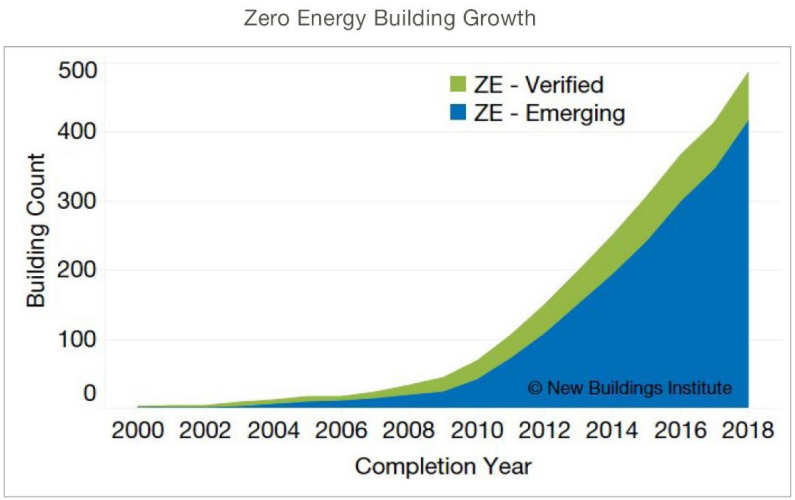
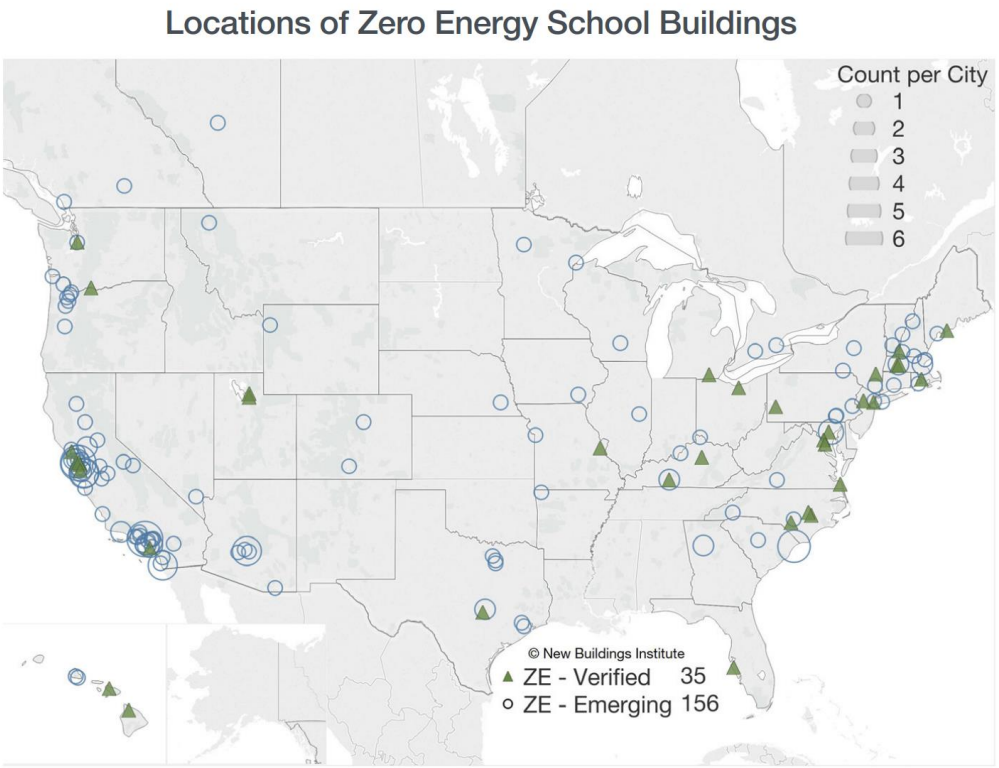
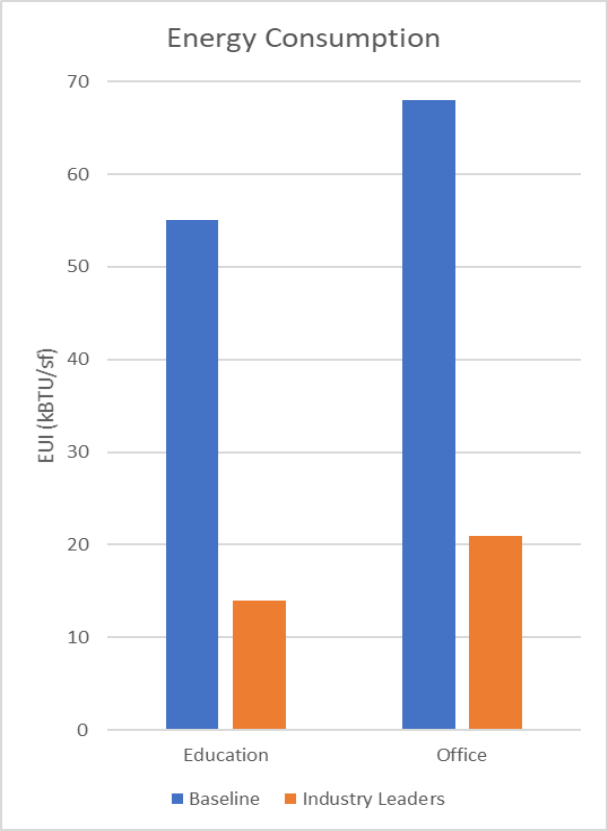


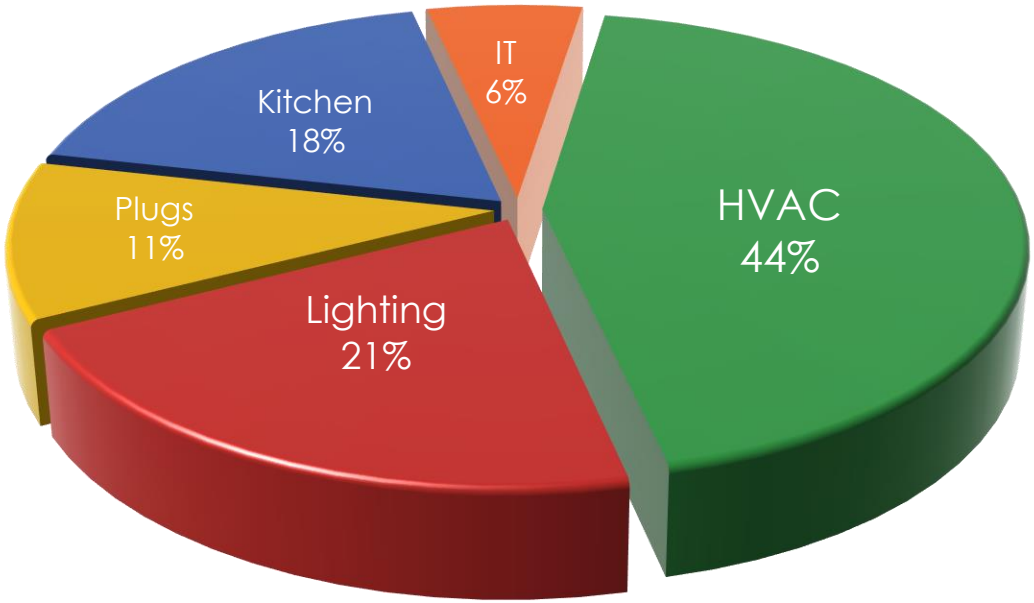
Fig 1. The Buildings List includes nearly 500 projects and is on a steep curve upward, having increased over 700% since 2012.



Net Zero Energy



Energy Targets



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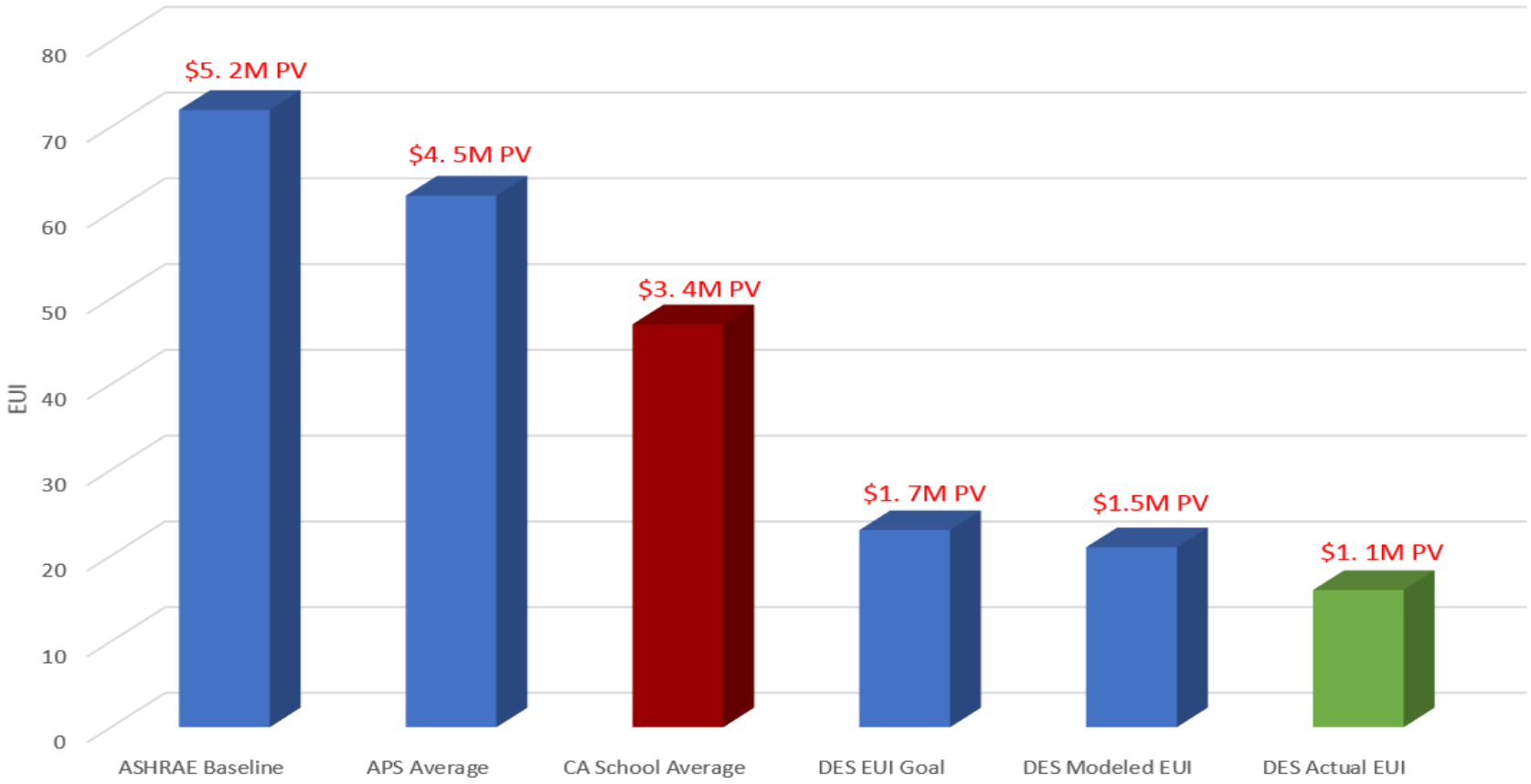
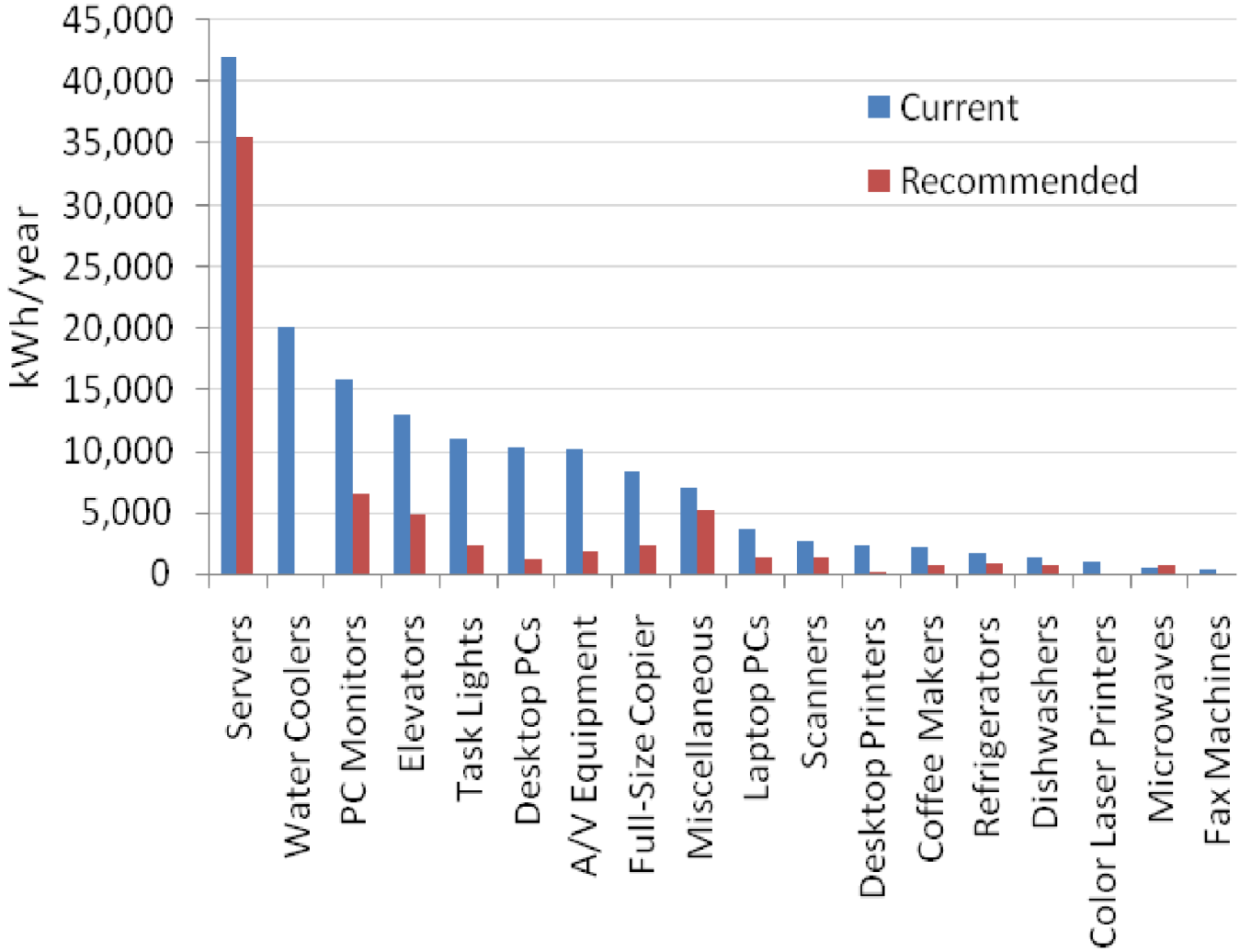
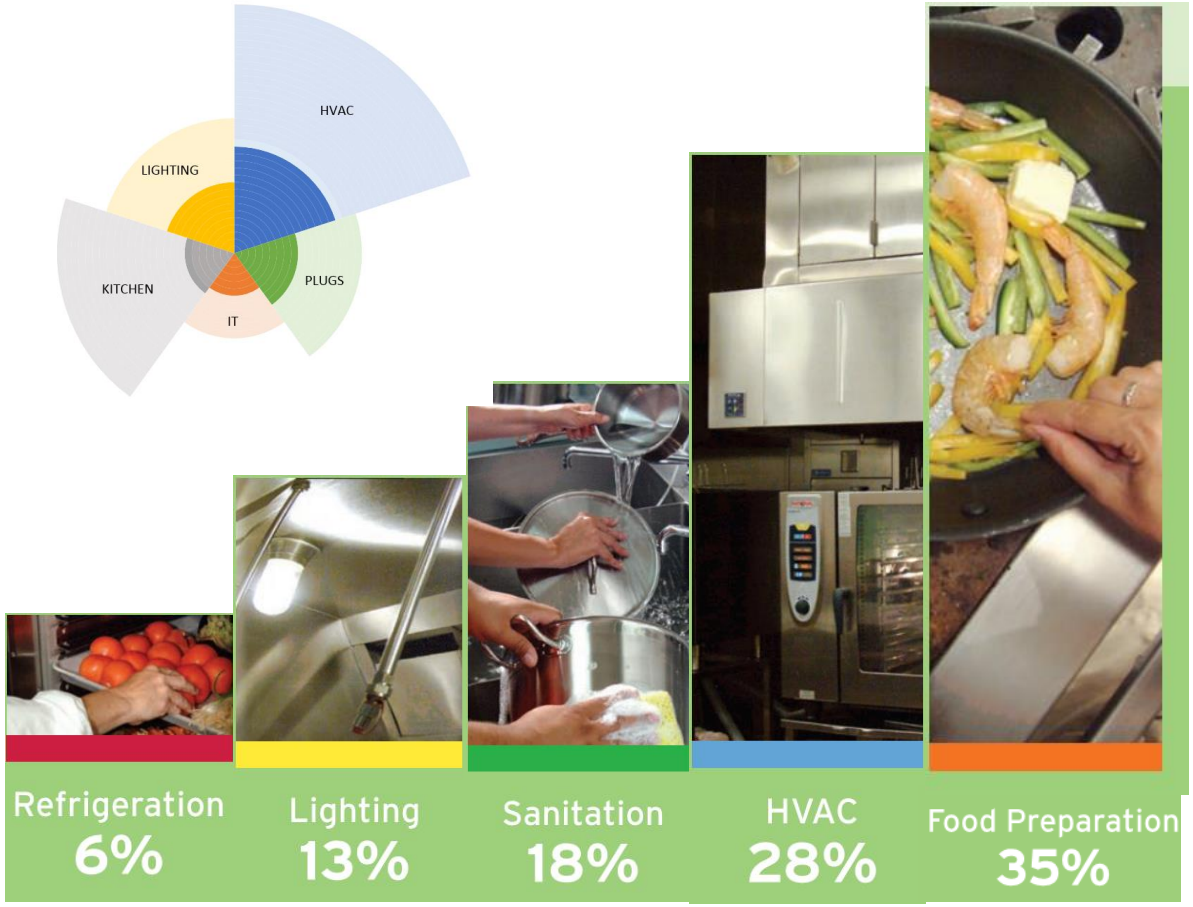


Net Zero Energy – Plug Loads



Annual Energy Consumption by Plug Load Category

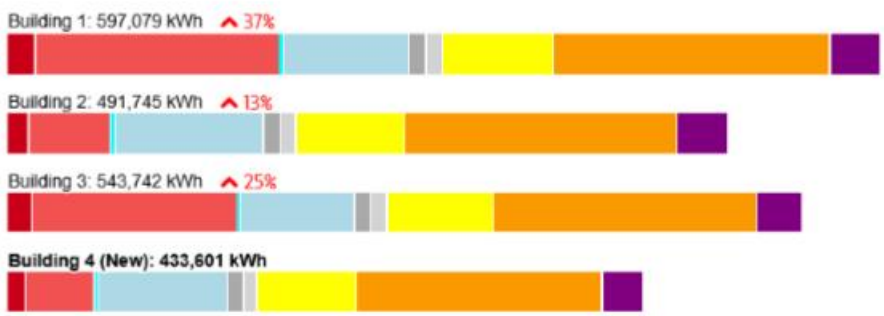
Net Zero Energy – Food Service



Net Zero Energy – Building Factors

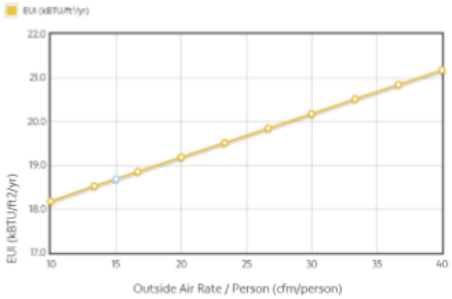
Massing Model Summary

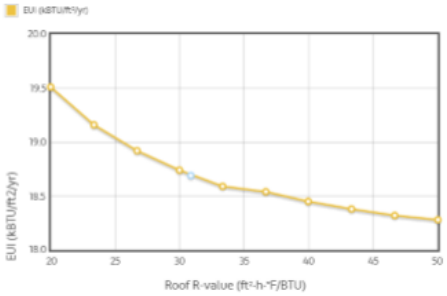
		EUI	Annual Electricity De...	Annual Net CO_{2e} Em...	Annual Energy Cost ...
Building 1	Water Source Heat Pump	23 ▲21%	597,079 ▲37%	315,854 ▲37%	$1.3 ▲30%
Building 2	Water Source Heat Pump	19 ▬0%	491,744 ▲13%	260,186 ▲13%	$1.1 ▲10%
Building 3	Water Source Heat Pump	22 ▲15%	543,742 ▲25%	287,699 ▲25%	$1.2 ▲19%
Building 4 (New)	HVAC System Type Water Source Heat Pump	**19** kBTU/ft²/yr	**433,601** kWh	**229,375** $lbCO_{2e}$/yr	**$1.0** /ft²



Net Zero Energy – Building Factors

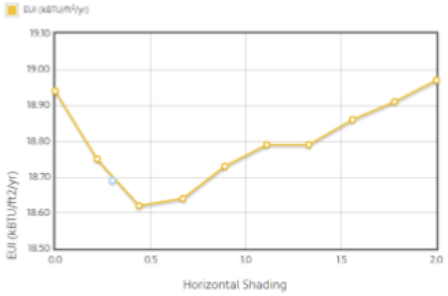
Outside Air Rate

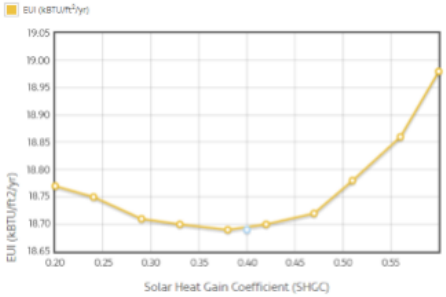




Roof R-Value

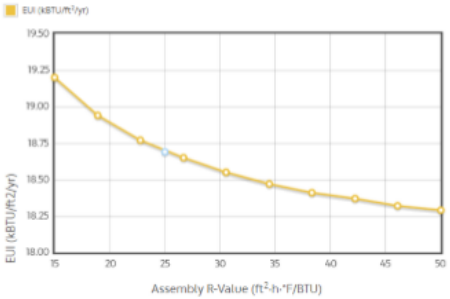
Horizontal Shading

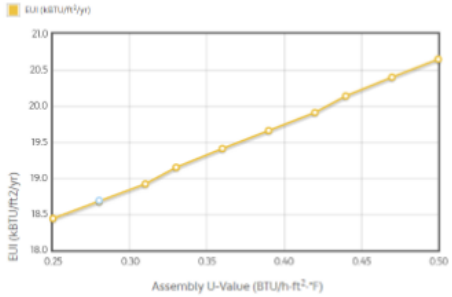




Glass Solar Heat Gain

Wall Assembly

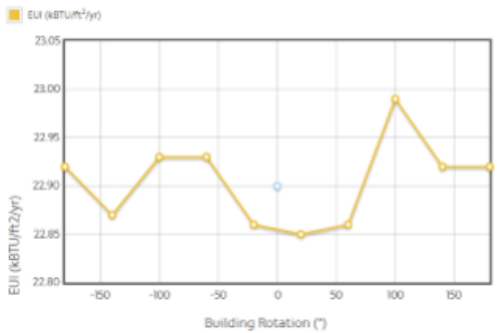




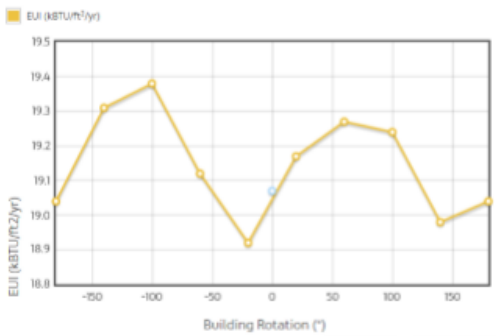
Window U-Factor

Net Zero Energy – Solar Orientation

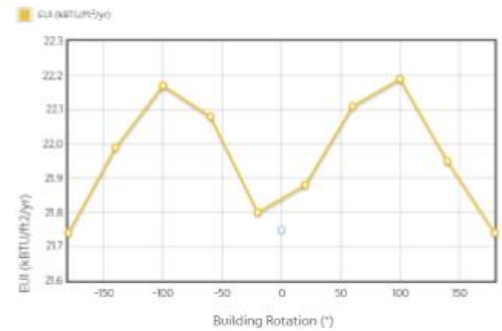
Building 1:



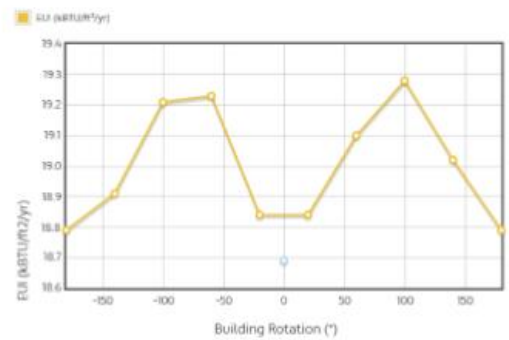
Building 2:



Building 3:



Building 4:



Net Zero Energy - Potential Cost

Net Zero design goals:

- No fossil fuel consumption onsite; use only renewable energy sources
- Onsite generation of all kBTUs required for building operations

	Const. Cost	Project Cost
1. Geothermal Plan	$ 2,750,000	$ 3,238,000
2. PV array to offset kW consumption	$ 3,788,000	$ 4,460,000
	$ 6,538,000	**$ 7,698,000**

- >20 year payback on $7.7M first cost

The End