

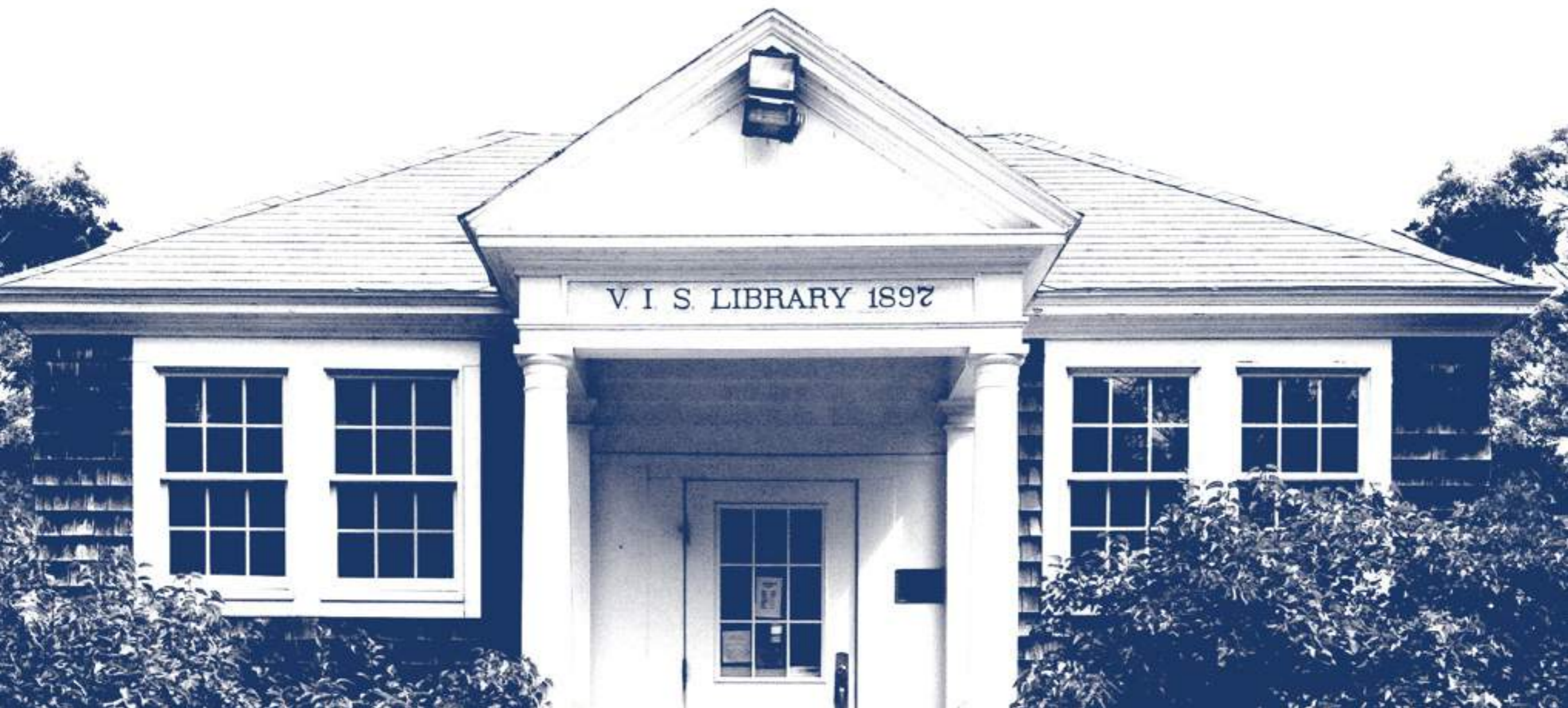
Eastham Public Library

Eastham, Massachusetts

Project Meeting #16

May 29, 2014

Oudens Ello Architecture



Eastham Public Library

Cost Estimate Comparison

May 26, 2014

	Description	100% DD	75% CD	Adjustments	+ / -
A10	FOUNDATIONS				
	Std. Foundation	91,803	103,336		11,533
	Special Foundations	-	-		
	Lowest Floor Construction	128,197	131,670	18,885	3,473 ⁸
A20	BASEMENT CONSTRUCTION				
	Basement Excavation	68,425	58,545		(9,880)
	Basement Walls	141,575	119,718		(21,857)
B10	SUPERSTRUCTURE				
	Upper Floor Construction	153,054	153,037		(17)
	Roof Construction	246,946	246,216		(730)
B20	EXTERIOR CLOSURE				
	Exterior Walls	294,000	268,691	(13,650)	(25,309) ¹
	Exterior Windows	398,500	383,734		(14,766)
	Exterior Doors	32,500	28,675		(3,825)
B30	ROOFING				
	Roof Covering	280,000	289,206	(25,062)	9,206 ²
	Roof Opening	-	-		0
C10	INTERIOR CONSTRUCTION				
	Partitions	192,000	226,880	5,000	34,880 ⁹
	Interior Doors	71,300	78,325	5,500	7,025 ¹⁰
	Millwork	223,600	155,632	(23,250)	(67,968) ³
C20	STAIRCASES				
	Stair Construction	20,380	10,000	(5,000)	(10,380) ⁴
	Stair Finished	14,620	14,620		0
C30	INTERIOR FINISHES				
	Wall Finishes	40,062	46,449	8,100	6,387 ¹¹
	Floor Finishes	176,203	187,070		10,867
	Ceiling Finishes	156,735	168,302	5,995	11,567 ¹²
D10	CONVEYING SYSTEMS				
	Elevator	90,000	90,400		400

	DD Trade	CD Trade	
A	430,000	413,269	(16,731)
B	1,405,000	1,369,559	(35,441)
C	894,900	887,278	(7,622)
D10	90,000	90,400	400

D20	PLUMBING				
	Plumbing	245,000	321,369		76,369
D30	HVAC				
	HVAC	730,000	784,183		54,183
D40	FIRE PROTECTION				
	Fire Protection	170,000	151,076		(18,924)
D50	ELECTRICAL				
	Service & Distribution	169,172	177,957		8,785
	Lighting & Power	265,745	255,273	(49,000)	(10,472)
	Communications & Security	75,523	106,152		30,629
	Other	36,560	36,261		(299)
E10	EQUIPMENT				
	Equipment Gen.	7,000	11,000	5,000	4,000
E20	FURNISHINGS				
	Fixed Furnishing	13,000	46,236	(11,100)	33,236
F10	SPECIAL CONSTRUCTION				
	Special Construction	-	-		0
F20	SELECTIVE BLDG. DEMOLITION				
	Demolition	10,000	10,000		0
	Abatement	15,000	-		(15,000)
G10	SITE PREP / DEVELOPMENT				
	Site Prep / Development	182,700	245,690		62,990
G20	SITE IMPROVEMENTS				
	Site Improvements	361,763	376,032		14,269
G30	CIVIL / MECH UTILITIES				
	Civil / Mech. Utilities	309,000	433,113		124,113
G40	ELECTRICAL UTILITIES				
	Electrical Utilities	86,700	90,900		4,200
DIRECT COSTS		5,497,063	5,805,748	(78,582)	308,685

D20	245,000	321,369	76,369
D30	730,000	784,183	54,183
D40	170,000	151,076	(18,924)
D50	547,000	575,643	28,643
E10	7,000	11,000	4,000
E20	13,000	46,236	33,236
F20	-	-	0
F20	25,000	10,000	(15,000)
G10	182,700	245,690	62,990
G20	361,763	376,032	14,269
G30	309,000	433,113	124,113
G40	86,700	90,900	4,200
	5,497,063	5,805,748	308,685

Z10	MARK UP				
11%	General Cond.	604,677	630,000		
1%	General Requirements	61,017	64,357		
2.25%	Insurance / Bond	138,662	146,252		
0%	Permit (by Owner)	-	-		
2.50%	Fee	157,535	166,159		
INDIRECT COSTS		961,892	1,006,769		
SUBTOTAL INDIRECT/DIRECT		6,458,955	6,812,517		

	Design / Pricing Contingency	322,948	34,063	(69,376)	
	Escalation	-	-		
	Construction Contingency	-	-		
ESTIMATED CONTRACT AWARD		6,781,903	6,846,580		64,677

Notes on Adjusted Amounts:

- 1 Eliminate precast panels at retaining wall - estimated \$13,650 savings (Page 11)
- 2 Reduction from 8" to 4" vented rigid insulation - estimated \$25,062 savings (Page 12)
- 3 Remove circulation desk from base contract - \$23,250 savings (Page 15)
- 4 Reduce stair construction (wood structure not steel) - estimated \$5,000 savings (Page 16)
- 5 Reduce value for P1 fixtures (too high for simple exposed lamp pendant) - estimated \$49,000 savings (Page 20)
- 6 Remove metal shelving, wood end panels, and benches from base contract - \$11,100 savings (Page 22)
- 7 Reduce Design Contingency from 1.5% to 0.5% - estimated savings \$69,376 (Page 28)
- Total Deductions** **\$196,438**
- 8 Add Barrier One moisture reducing add mixture to concrete slab at Lower Level - estimated \$18,885 add (Page 9)
- 9 Add framing for fireplace wall - estimated \$5,000 add (Page 14)
- 10 Add painted door frames (missing in previous estimate) - estimated \$5,500 add (Page 14)
- 11 Add stone veneer and framing at gas fireplace - estimated \$8,100 add (Page 16)
- 12 Add missing 1" glass fiber acoustic treatment in high ceilings - estimated \$5,995 add (Page 17)
- 13 Add gas fireplace insert - estimated \$5,000 add (Page 22)
- Total Additions** **\$48,480**

Possible Deduct Alternates (in recommended order of acceptance)

1.	Remove all plantings* from base contract; to be completed by owner (alternate: remove shrubs and perennials only; leave trees in base)	\$50,000 (\$30,000)
2.	Eliminate gas fireplace and associated framing, plumbing, and masonry	\$20,000
3.	Remove Meeting Room operable partition and track from base contract	\$36,000
4.	Change exterior bluestone paving to precast concrete unit pavers; change interior bluestone flooring to porcelain tile	\$30,000
5.	Change metal standing seam roof to TPO membrane with simulated ribs	\$40,000
<hr/> Total Deductions		\$176,000

* not including planting beds, mulch, soils, lawn, meadow grasses, or rain gardens



LEED v3 for New Construction and Major Renovations Project Scorecard

Project: Eastham Public Library

Address: 190 Samoset Rd

Date of Review: May 22, 2014

General Notes & Legend

Critical path items
Questions, or issues with compliance
Changes in status per 75%CD set review

TOTALS

48 17 7 38

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

GENERAL PROJECT DOCUMENTATION

PI form	Required	Responsible
PI form 1 Minimum Program Requirements	Required	Eastham
PI form 2 Project Summary Details	Required	Team
PI form 3 Occupant Usage Data	Required	Team
PI form 4 Schedule and Overview Documents	Required	Team

5.22.14 - Notes & Status
REQUIRED: 2.18.14 Eastham committed to share energy & water use data w/ USGBC for the first 5 years. TGE distributed MPR package.
REQUIRED: Team must provide general information on project size, site characteristics and energy & water sources
REQUIRED: Team must provide general information on occupancy and space usage
REQUIRED: Team must provide general information schedule and provide overview documents and narratives

Phase	Yes	M+	M-	No
	16	2	0	8

SUSTAINABLE SITES

26 Responsible

5.22.14 - Notes & Status
REQUIRED: ESC plan shown on C1.1 within 75% CD set, current specs do not include Division 31 . Older spec includes 312500 Sedimentation and Erosion Control requirements. CM must implement and document compliance
3.14.14: Moved to 'No'. Building within 100ft of wetland area
Internet survey appears to show that site area does not meet density or connectivity requirements
"Maybe" based on possible contamination w/in existing bldg. 3.14.14: Was an oil release in parking area. Showing compliance may prove difficult.
2.18.14: Library Cmte confirmed that the "Flex" line of the Cape Cod Regional Transit Authority (www.capecodcta.org) & P&B bus (4x daily) stops within 1/4m of project. Stop is 1265' from building entrance.
Project does not comply. No shower or bike storage shown in set. 2.18.14 Limited interest in shower in project. Bike storage will be provided.
2.18.14: Library Cmte approved providing preferred parking spaces. 3.14.14: Nitsch will locate 3 LEFE parking spaces in preferred locations, and include signage detail.
Possibility to add a 6 combined LEFE & HOV spaces to satisfy SSc4.3 & SSc4.4 together.
5.13.14 - Drawing L1.0 does not indicate location of LEFE preferred parking (75% CD set)
2.18.14 Library approved if signage can include language beyond just "Carpool Only" to include "Mother & Child" or similar. There is no firm USGBC ruling on alt signage, but some anecdotal evidence suggests that teams can use 'Reserved HOV Parking'; Parking capacity = 1/350sf;
5.13.14 - Drawing L1.0 does not indicate location of LEFE preferred parking (75% CD set)
Compliant field grass & existing tree areas = ~25,000sf > footprint (11,685sf) or 20% of site (16,400sf)
Review of Eastham zoning shows no open space requirement for municipal buildings. Need confirmation of open space requirements to confirm compliance path.
5.13.14: Footprint = 11,684.4 sf; Case 2 - Compliant; Case 3 - Compliant (Total Open Space = 27,337.39 sf) per 75% CD set
3.14.14: Moved to 'Yes'. Nitsch confirming that runoff quantity will be reduced by 100%
3.14.14: Moved to 'Yes'. Nitsch confirming that 100% of the water will be treated with BMPs on-site.
Additional Regional Priority credit for SSc6.2 moved to "Yes" as well.
3.14.14: Permeable pavers and concrete no longer in project. Moved to 'No'
Material includes: new cedar shake (small amount of coverage, only the historic building), Revere Kynar standing seam (coated, assuming a light/standard gray to match TPO), Gray TPO. 5.13.14: Will need to determine the specific roofing material selections in order to determine the SRI values for the standing seam and TPO materials. Not currently outlined in 75% CD set. http://www.metalsales.us.com/commercial/resources/colors#.UvFCRXddUbc
Carried as 'Maybe-' 3.14.14: Pending design development Directional fixtures will be selected to assist with trespass compliance. Team exploring use of a solar powered flag pole based down-light. Interior lighting will be on time clock – have to confirm scheduling meets requirements. LAM working on exterior lighting and will do photometric study. 2.18.14: The library is open 2 nights a week until 8pm. The community room will be used for after-hour uses

Yes	M+	M-	No
7	1	2	0

WATER EFFICIENCY

10 Responsible

5.22.14 - Notes & Status
REQUIRED: Project will meet 20% threshold with fixture options listed in 15400: 5.13.14: WC-1.28 gpf; L-0.3 gpm; Sink-0.5 gpm; U-0.125 gpf. TGE preliminary calcs show: 41.15%
Project eligible for all 4 points with no permanent irrigation.
Option 1: Flush fixtures = 34% reduction (WC: 1.28gpf, urinals: 0.125gpf) Option 2: 3.14.14: Remains 'M-' pending Nitsch review of nutrient removal reqsof zoning. Treating to tertiary standards involves extra filtration or biological activity to remove nutrient pollutant and it may also involve disinfection
TGE preliminary calcs show: 40.98%. Any change in fixtures from what is listed in WEp1 would drop project below 40% threshold. Carrying 40% last point as 'Yes' pending fixture approval by Eastham.

Yes	M+	M-	No
11	4	2	18

ENERGY & ATMOSPHERE

35 Responsible

5.22.14 - Notes & Status
REQUIRED: CRITICAL PATH ITEM A CxA must be brought in to satisfy the minimum Cx required scope. 2.27.14: Requirements sent. OPR reaching out to SBS and other. Intent is to pursue Enhanced Commissioning Services.
REQUIRED: Project will demonstrate compliance using an energy model computer simulation. Baseline is ASHRAE 90.1-2007
5.13.14: Per conference call, energy model is on track to demonstrate about 28% energy cost-savings over baseline.
REQUIRED: Compliant refrigerants have been specified
5.13.14: Updated with ext lighting shows 28%. 4.29.14: Preliminary model results show 30.9% energy cost savings. Moved 2 points to M+ from Yes.
5.13.14: PV will not be part of project. Building will be designed to be "solar ready"
5.13.14: Specs do not currently include Cx requirements (75% CD set). 3.14.14: To meet credit requirements a CxA must be brought in soon to comment on the DD and set have issues addressed before CDs. Intent is to pursue Enhanced Commissioning Services. Moved to 'Yes'.
Experience has shown that VRF systems do not meet credit requirements due to relatively high refrigerant charge per ton cooling capacity.
Carried 1 point as 'Yes' for ENERGYSTAR Portfolio Manager sharing to satisfy MPR. No current interest in full M&V plan.
Carried as 'Maybe -'. Not a design decision. Credit can be evaluated later in project. 2.18.14: TGE explained green power purchase procedure.



Phase	Yes	M+	M-	No						
	3	2	1	8	MATERIALS & RESOURCES			14	Responsible	5.22.14 - Notes & Status
D	Y				Prereq 1	Storage and Collection of Recyclables	Required	OEA	REQUIRED: 5.13.14: Plenty of storage space for collection of recyclables, if necessary, per 75% CD set. Should be fine. 2.18.14: Recycling collection bins will be distributed throughout project space. All recyclables are collected daily and picked up by town. Town has a recycling program.	
C				3	Credit 1.1	Building Reuse - Maintain Existing Walls, Floors & Roof	3	n.a	Reused portion does not meet credit threshold	
C				1	Credit 1.2	Building Reuse - Maintain Interior Non-Structural Elements	1	n.a	Reused portion does not meet credit threshold	
C	1	1			Credit 2	Construction Waste Management - Divert 50% (1), 75% (2)	2	OEA/CM	75% is a reasonable target for MA projects. But conservatively carrying 1 as 'Maybe +' pending research into Cape options. Old specification ToC includes 017419 Construction Waste Management & Disposal. 5.13.14: Current specifications do not include Division 1 specs	
C				2	Credit 3	Materials Reuse	2	n.a	No evidence of significant usage of reused materials. Credit seems unlikely.	
C	1	1			Credit 4	Recycled Content - 10%, 20%	1-2	OEA/CM	5.13.14: Current specifications do not include Division 1 specs (75% CD set). Draft specs include 018113 Sustainable Design Requirements requiring proper reporting of material attributes Project tracking 1st threshold as 'Yes' and 2nd as 'Maybe +' pending performance in CA.	
C	1		1		Credit 5	Regional Materials - 10%, 20%	1-2	OEA/CM	5.13.14: Current specifications do not include Division 1 specs (75% CD set). Draft specs include 018113 Sustainable Design Requirements requiring proper reporting of material attributes Project tracking 1st threshold as 'Yes' and 2nd as 'Maybe +' pending performance in CA.	
C				1	Credit 6	Rapidly Renewable Materials	1	n.a	No evidence of significant usage of rapidly renewable materials. Credit seems unlikely.	
C				1	Credit 7	Certified Wood	1	OEA/CM	2.18.14: Moved to 'No'. Significant amount of interior and exterior wood shown in design. Using >50% wood may prove cost prohibitive.	
	Yes	M+	M-	No						
	6	4	2	3	INDOOR ENVIROMENTAL QUALITY			15	Responsible	5.22.14 - Notes & Status
D	Y				Prereq 1	Minimum Indoor Air Quality Performance	Required	TMP	REQUIRED: TMP must confirm ASHRAE 62.1-2007 criteria are satisfied. M0.1 lists ventilation design criteria which match ASHRAE 62 requirements	
D	Y				Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required	Eastham/OEA	REQUIRED: No Smoking signage must be included in design. None currently found in 75% CD set.	
D			1		Credit 1	Outdoor Air Delivery Monitoring	1	TMP	3.14.14: OA Monitoring: Will have no BAS system, so nothing to report alarm to. ECM motors know the amount of OA delivered. TGE to research alt compliance. CO2 Sensors: Currently 5 CO2 sensors designed within the project: Conference Room, Eastham Room, (2x) Assembly Room, and Program Room	
D				1	Credit 2	Increased Ventilation	1	n.a	3.14.14: Moved to 'No'. Project will not exceed ASHRAE-62 by 30%.	
C	1				Credit 3.1	Construction Indoor Air Quality Management Plan - During Const.	1	OEA/CM	Compliant IAQ management plan required as part of 018119.5.13.14: Current specifications do not include Division 1 specs (75% CD set)	
C		1			Credit 3.2	Construction Indoor Air Quality Management Plan - Before Occupancy	1	OEA/CM	Assume flush out or testing will be required as part of 018119 but carried as 'Maybe +' pending better understanding of schedule.5.13.14: Current specifications do not include Division 1 specs (75% CD set)	
C	1				Credit 4.1	Low-Emitting Materials - Adhesives & Sealants	1	OEA/CM	Assume project will meet requirements. Specifications and material selections will be developed with credit requirements in mind.	
C	1				Credit 4.2	Low-Emitting Materials -Paints & Coatings	1	OEA/CM	Assume project will meet requirements. Specifications and material selections will be developed with credit requirements in mind.	
C	1				Credit 4.3	Low-Emitting Materials - Floor Systems	1	OEA/CM	Assume project will meet requirements. Specifications and material selections will be developed with credit requirements in mind. Resilient flooring Armstrong Excelon is FloorScore , but no direct reference to FloorScore product	
C		1			Credit 4.4	Low-Emitting Materials - Composite Wood	1	OEA/CM	Assume project will meet requirements. Specifications and material selections will be developed with credit requirements in mind.	
D				1	Credit 5	Indoor Chemical and Pollutant Source Control	1	n.a	3.14.14: Moved to 'No'. Project will have larger copier that will not be isolated.	
D				1	Credit 6.1	Controllability of Systems - Lighting	1	Eastham/TMP	5.13.14: Current design does not seem to represent compliance for IEQc6.1, as the abundance of private workstations (study carrels, computer stations, staff workstations) without task lighting will not comply with requirements (75% CD set) Reading areas are considered Multi-Occ.Private spaces may prove difficult. All computer stations and study carrels are considered private areas that would require control (task lights)	
D		1			Credit 6.2	Controllability of Systems - Thermal Comfort	1	TMP	3.14.14: Moved to 'M+'. Combination of Tstats and operable windows may meet credit requirements.	
D	1				Credit 7.1	Thermal Comfort - Design	1	TMP	Assume building complies with ASHRAE 55 requirements.M0.1 lists temp & humidity design conditions.	
D		1			Credit 7.2	Thermal Comfort - Verification	1	Eastham	3.14.14: Moved to 'M+'. Low hanging fruit" credit. Pending Eastham interest in conducting thermal comfort survey. 2.18.14: TGE explained procedure. Eastham was interested, but not ready to commit at this time.	
D			1		Credit 8.1	Daylight and Views - Daylight - 75%	1	OEA	5.13.14: Pending calculations	
D	1				Credit 8.2	Daylight and Views - Views 90%	1	OEA	5.13.14: Confirmed that views should be met with ease with current design (75% CD set).	
	Yes	M+	M-	No						
	3	3	0	0	INNOVATION IN DESIGN			6	Responsible	5.22.14 - Notes & Status
C	1				Credit 1.1	Innovation in Design: To be determined	1	Team	Assume a minimum of 2 ID credits will be earned. Options include Exemplary Performance in base point, participation in Pilot credit, low-mercury lighting, building as Edu, other Eastham Policy, etc	
C	1				Credit 1.2	Innovation in Design: To be determined	1	Team	2.18.14: Town interesting in Building as an Educational Tool path. TGE to send memo. Assume a minimum of 2 ID credits will be earned.	
C		1			Credit 1.3	Innovation in Design: To be determined	1	Team	Carried as 'Maybe' pending selection of ID option	
		1			Credit 1.4	Innovation in Design: To be determined	1	Team	Carried as 'Maybe' pending selection of ID option	
C		1			Credit 1.5	Innovation in Design: To be determined	1	Team	Carried as 'Maybe' pending selection of ID option	
C	1				Credit 2	LEED® Accredited Professional	1	Team	Various team members are LEED AP accredited.	
	Yes	M+	M-	No						
	2	1	0	1	REGIONAL PRIORITY - 02642			4	Responsible	5.22.14 - Notes & Status
D	1				Credit 1.1	RP for 02642: SS4.1, SS5.1, SS6.2, WEc2, EAc1 (40%)	1	-	Tracking SS5.1 as 'Yes'	
D		1			Credit 1.2	RP for 02642: SS4.1, SS5.1, SS6.2, WEc2, EAc1 (40%)	1	-	Tracking WEc3 (40%) as 'M+'	
D	1				Credit 1.3	RP for 02642: SS4.1, SS5.1, SS6.2, WEc2, EAc1 (40%)	1	-	Tracking SS6.2 as 'Yes'	
D				1	Credit 1.4	RP for 02642: SS4.1, SS5.1, SS6.2, WEc2, EAc1 (40%)	1	-	Tracking EAc2 as No'	
	Yes	M+	M-	No						
	48	17	7	38	PROJECT TOTALS (Certification Estimates)			110		
Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points Platinum: 80+ points										



LEED v3 for New Construction and Major Renovations Project Scorecard

Project: Eastham Public Library

Address: 190 Samoset Rd

Date of Review: May 22, 2014

General Notes & Legend

Critical path items

Questions, or issues with compliance

Changes in status per 75%CD set review

TOTALS

48 17 7 38

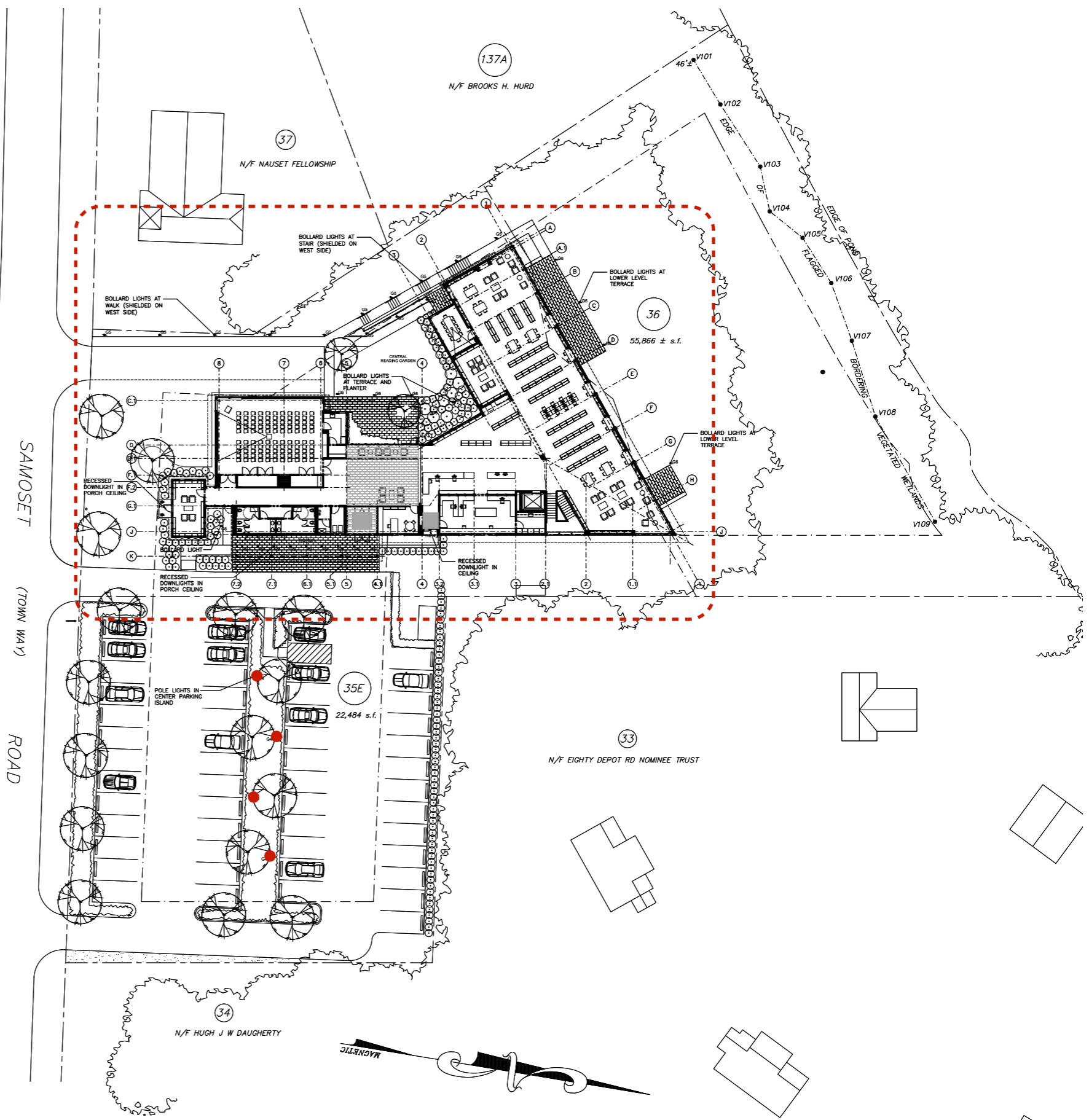
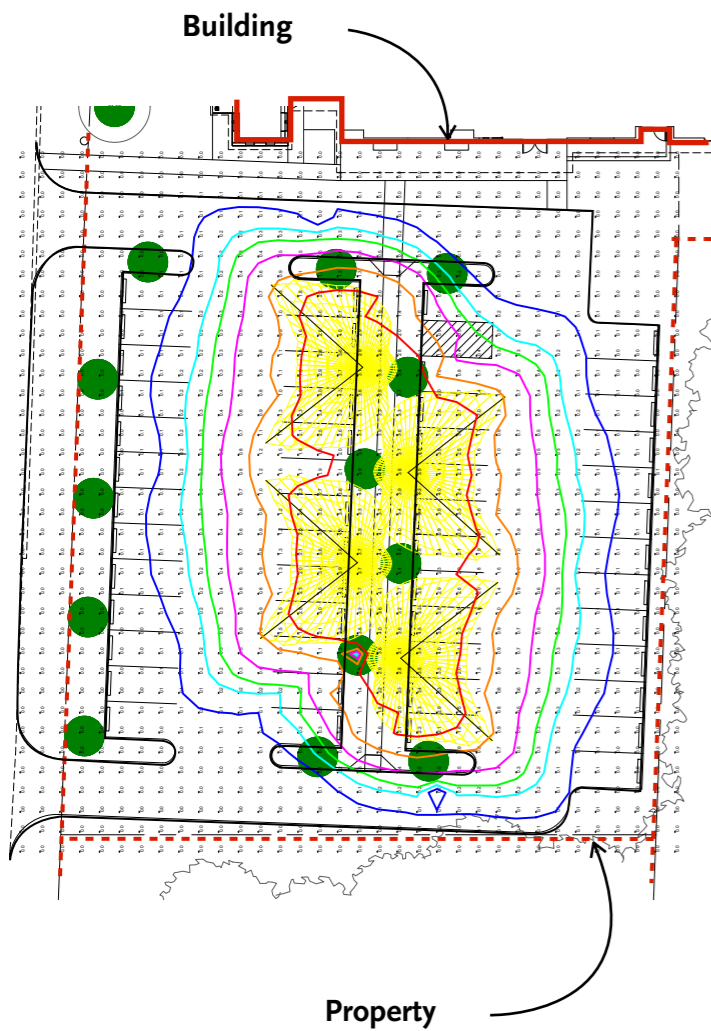
Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points Platinum: 80+ points

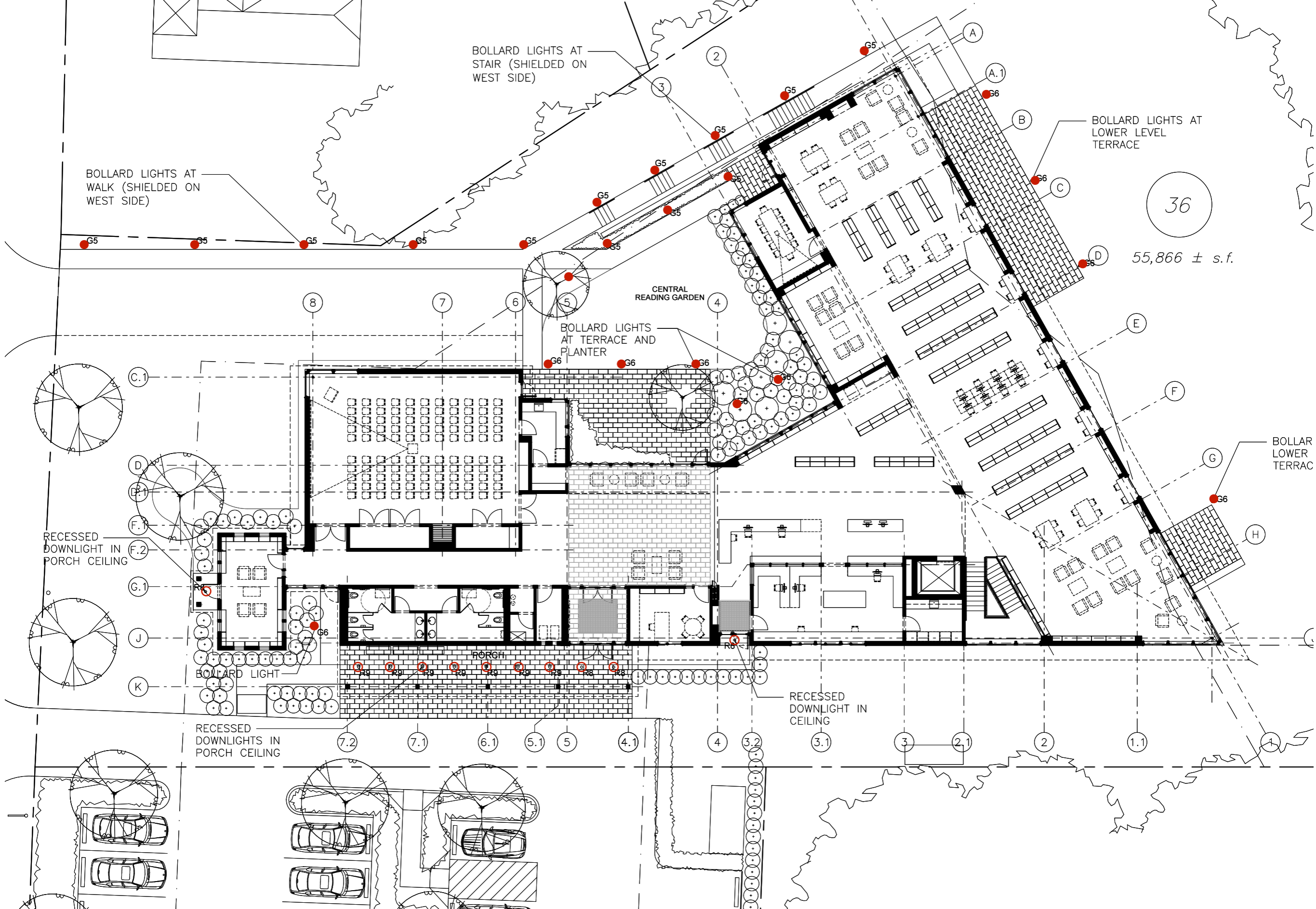
GENERAL PROJECT DOCUMENTATION

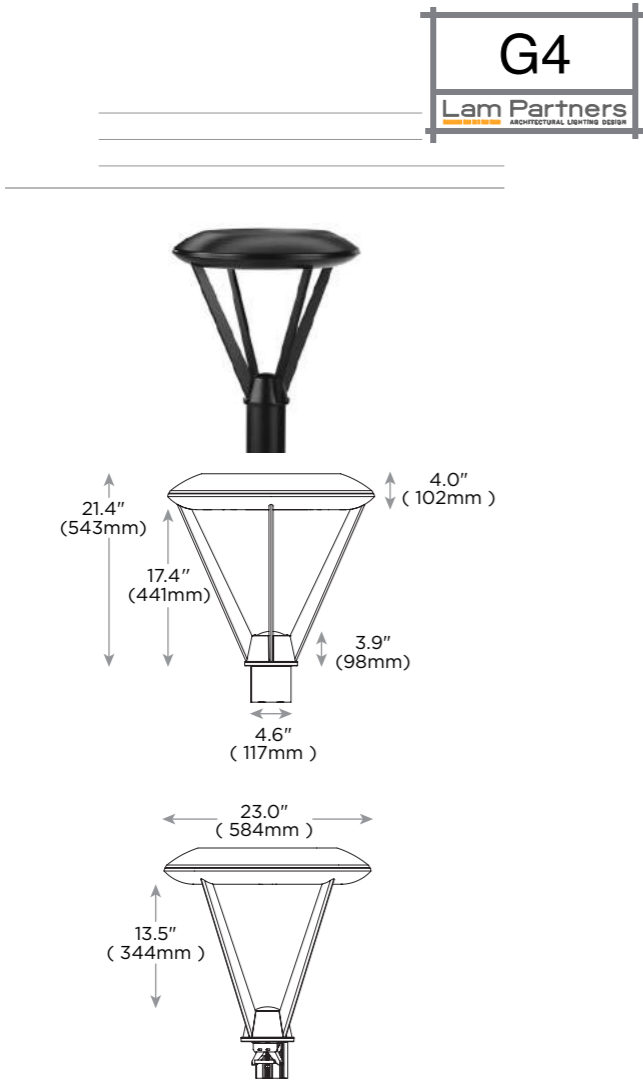
Y
Y
Y
Y

PI form 1	Minimum Program Requirements	Required
PI form 2	Project Summary Details	Required
PI form 3	Occupant Usage Data	Required
PI form 4	Schedule and Overview Documents	Required









Parking Lot Pole Lights: 12'-0" tall



Directional Bollards: 36" tall
(Egress path and stair)



Standard Bollards: 20" tall



BOLLARD LIGHTS AT
STAIR (SHIELDED ON
WEST SIDE)

BOLLARD LIGHTS AT
LOWER LEVEL
TERRACE

36

55,866 ± s.f.

CENTRAL
READING GARDEN

BOLLARD LIGHTS
AT TERRACE AND
PLANTER

BOLLAR
LOWER
TERRAC

Thru-Wall Book Drop

RECESSED
DOWNLIGHT IN
PORCH CEILING

Mobile Book
Drop

One Way

RECESSED
DOWNLIGHTS IN
PORCH CEILING

RECESSED
DOWNLIGHT IN
CEILING

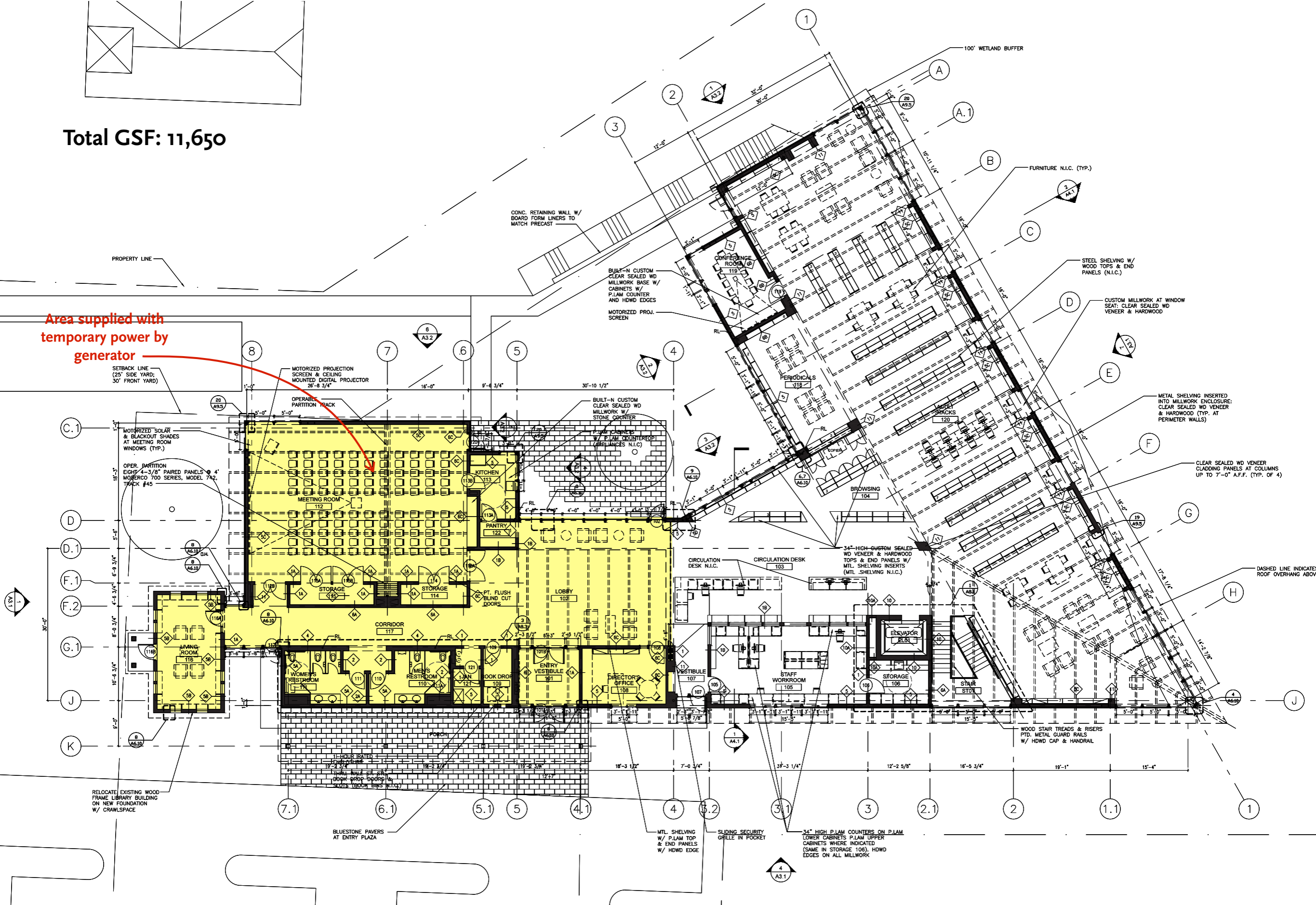
HVAC Units

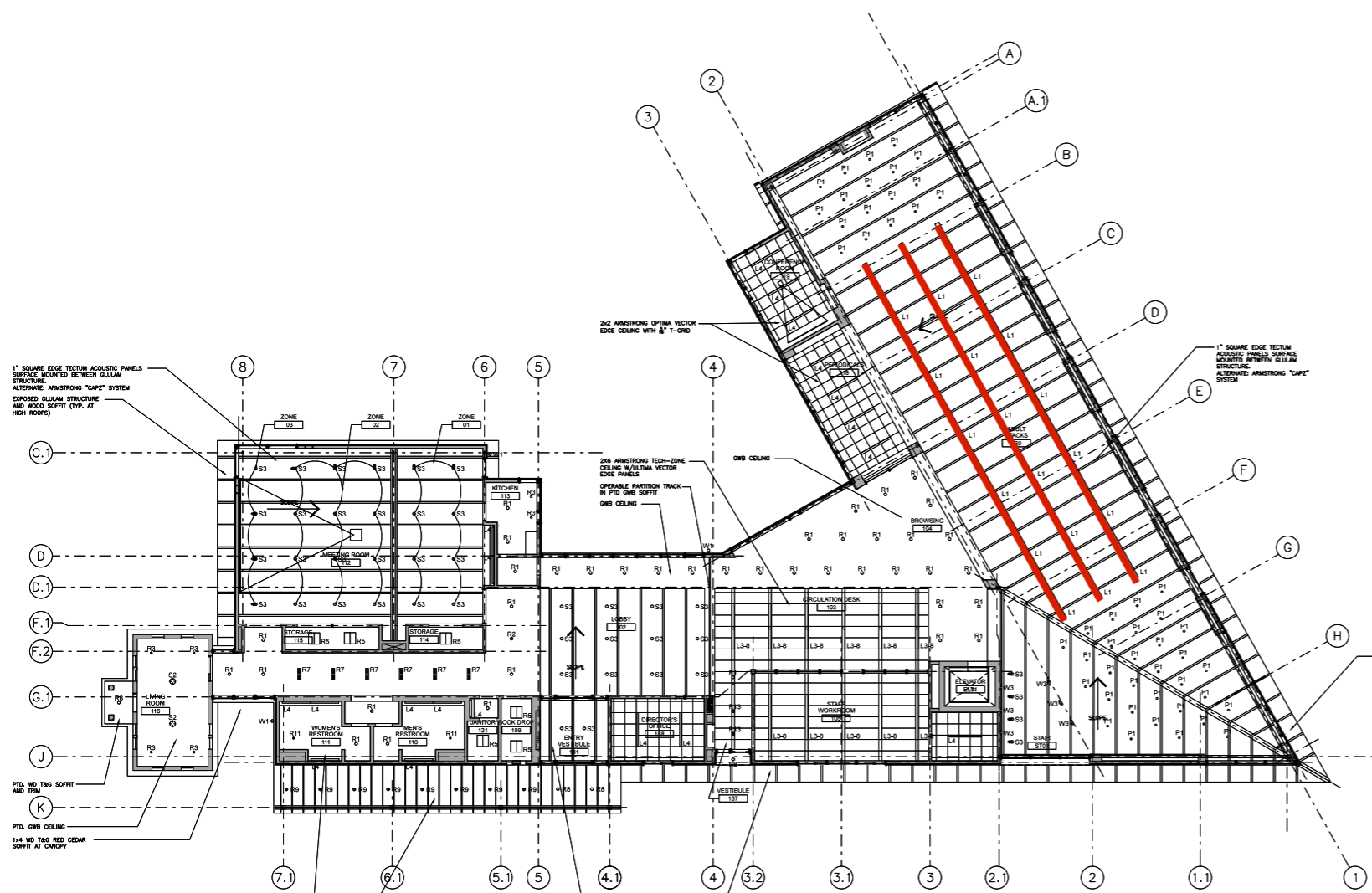
Generator

Transformer

Total GSF: 11,650

Area supplied with temporary power by generator —





SoCo

LINE-VOLTAGE PENDANTS,

Tech Lighting's SoCo system of Socket & Cords delivers choice, flexibility and the power of custom design. We know bare lamps can be beautiful, and we make it easy to create your own unique look. Mix, match and cluster to create a truly unique light sculpture or just install a few at a time to put light exactly where you need it. Need help laying out a design? We can help. Perfect for residential and commercial applications.

1

CHOOSE YOUR FABRIC CORD COLOR AND LENGTH.

While we showcase eight standard colors options and three standard cord lengths, the possibilities are almost limitless. Contact us for alternate colors and custom lengths or let us cut your cords to size so you save time during installation.

2

CHOOSE YOUR SOCKET AND FINISH.

Select between the modern or the vintage socket in your ideal finish – both are perfect for a wide array of design aesthetics. A four inch flush canopy in the matching metal finish ships standard with every pendant. Due to the diameter of the cord, SoCo pendants do not currently work with our T-TRAK system or our multi-port canopies.

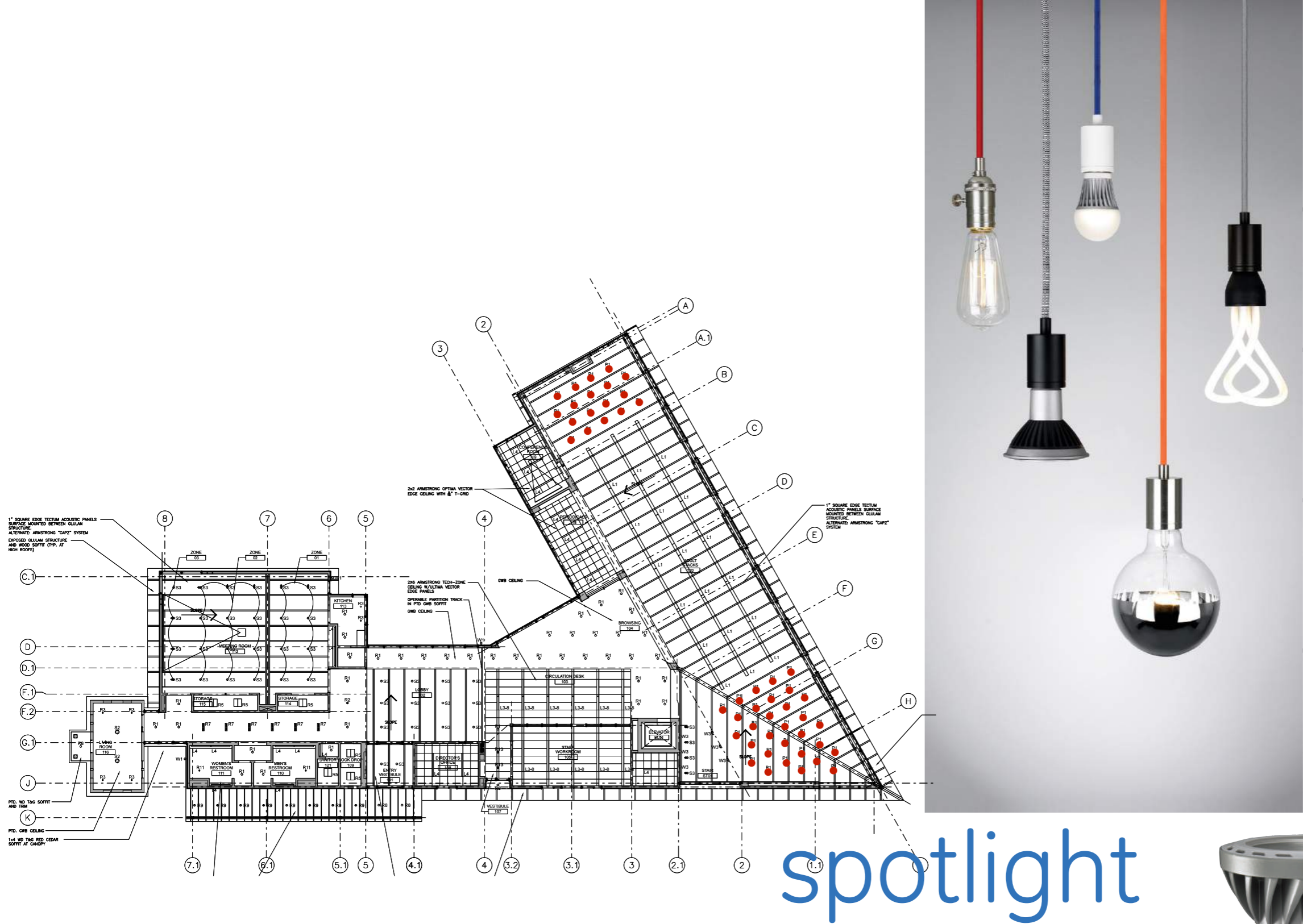
3

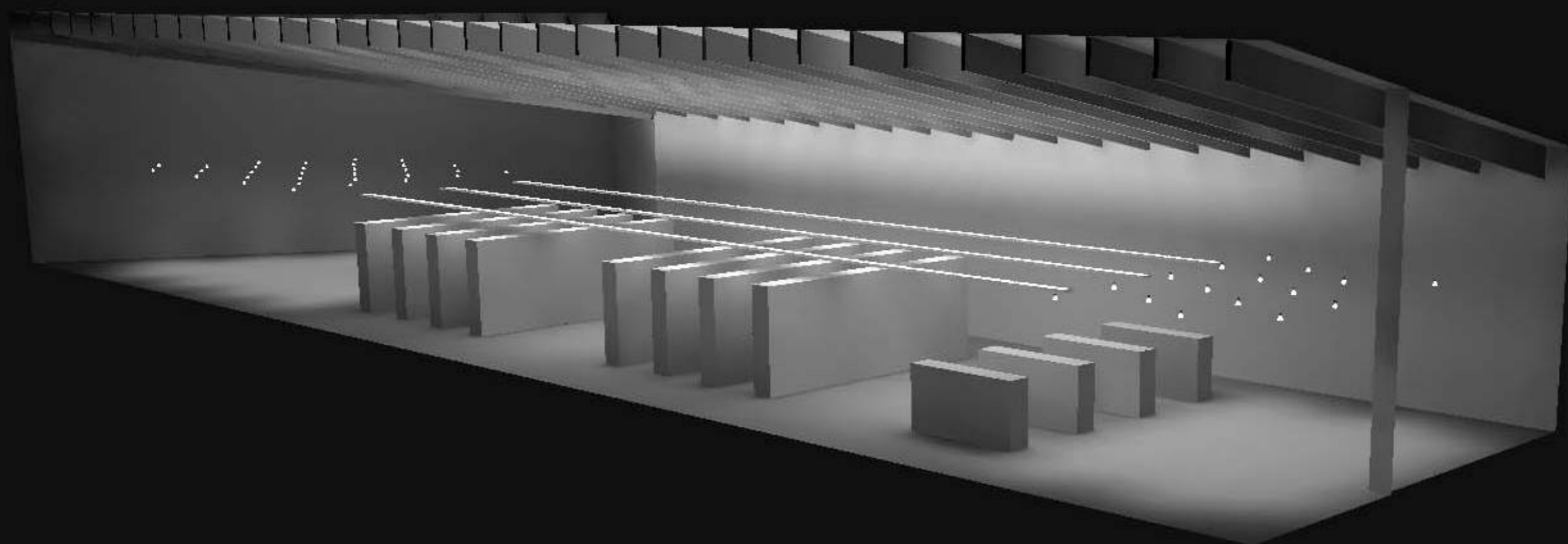
CHOOSE YOUR LAMP TO COMPLETE THE LOOK.

Don't forget your lamps. The SoCo sockets accommodate virtually any medium base lamps up to 150 watts. We have made it easy to order some of the most popular lamps including several energy efficient LED and compact fluorescent options. Don't see what you are looking for here? Contact us for our full lamp offering.

4

MAKE YOUR SELECTION WITH THE ORDERING GRID.







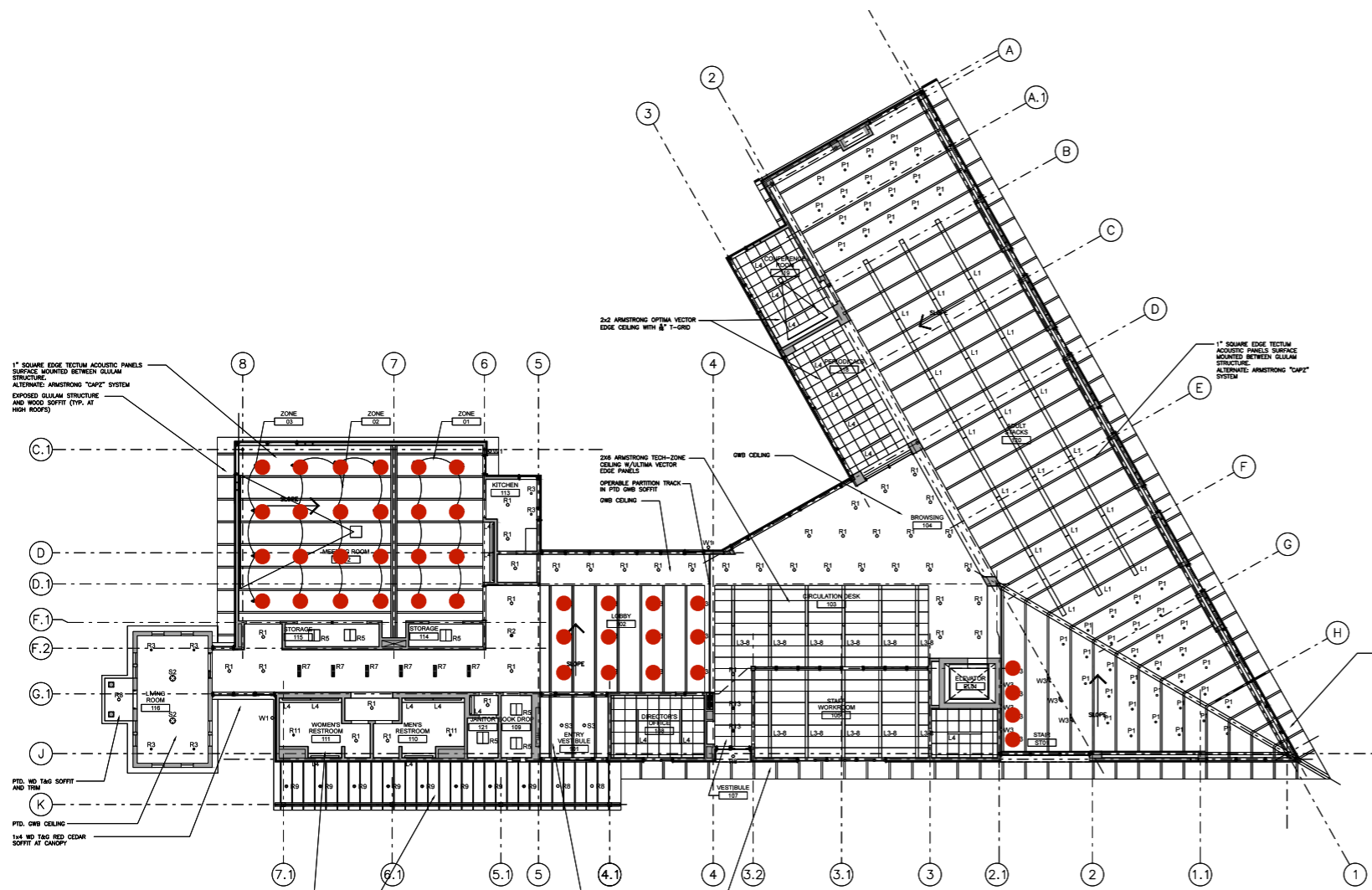
Interior View of Adult Stacks





Interior View of Adult Stacks





LINE-VOLTAGE HEADS

Tweak Incandescent PAR Head

DESCRIPTION

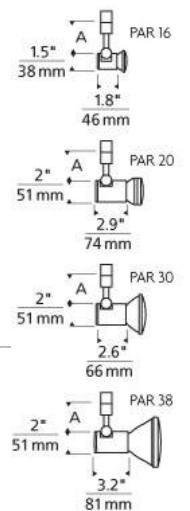
Minimal head pivots vertically 180°, rotates horizontally 350°. Features horizontal locking mechanism. Dimmable with a standard incandescent dimmer. 120 volt incandescent PAR16 lamp with GU10 base up to 50 watts; PAR20 lamp with E26 medium base up to 50 watts; PAR30 lamp with E26 medium base up to 75 watts; PAR38 lamp with E26 medium base up to 120 watts (lamp not included).

ACCESSORIES & OPTICAL CONTROLS

PAR Louver Lens Holder

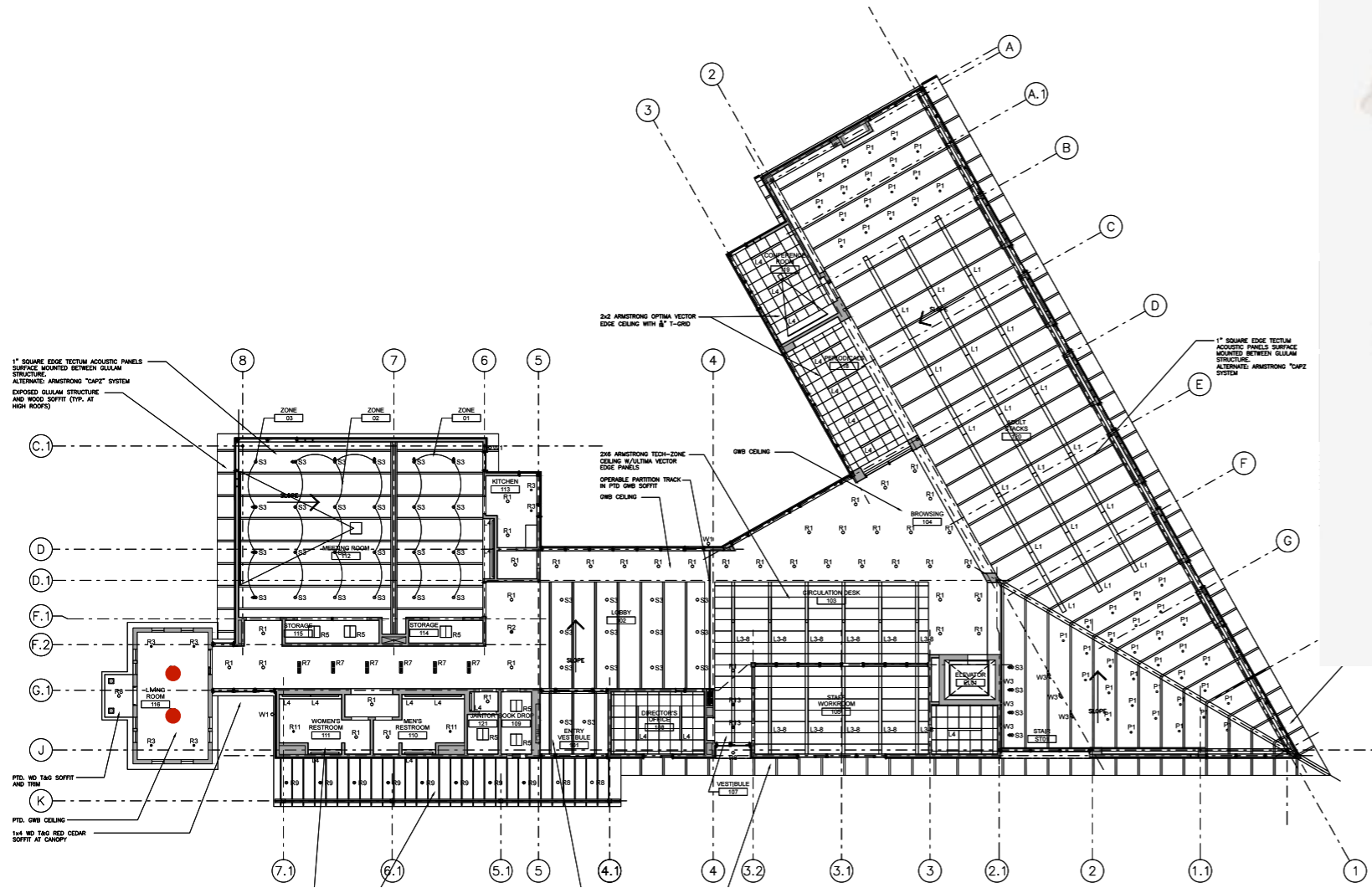
WEIGHT

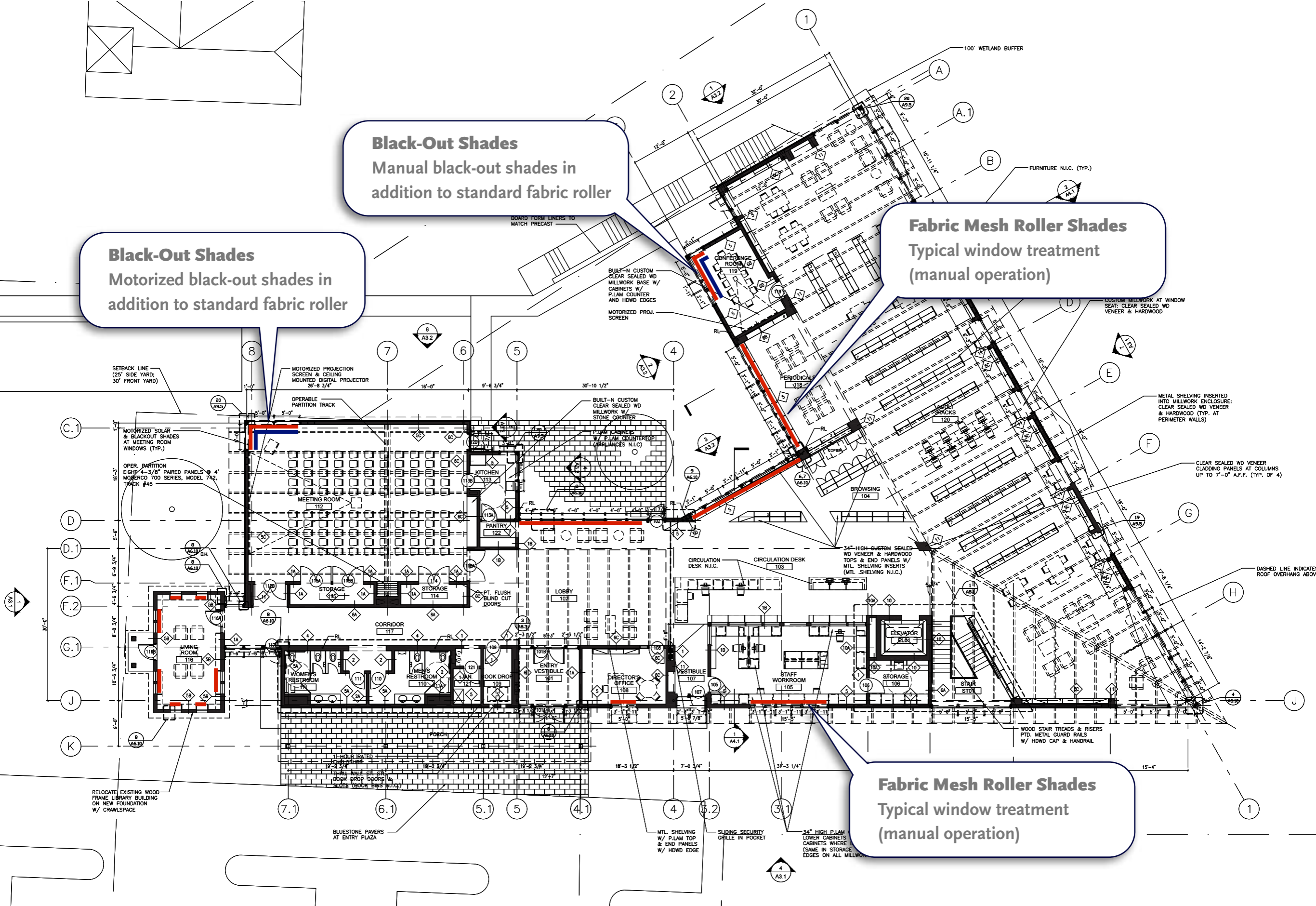
5.1lb / 2.31kg ±

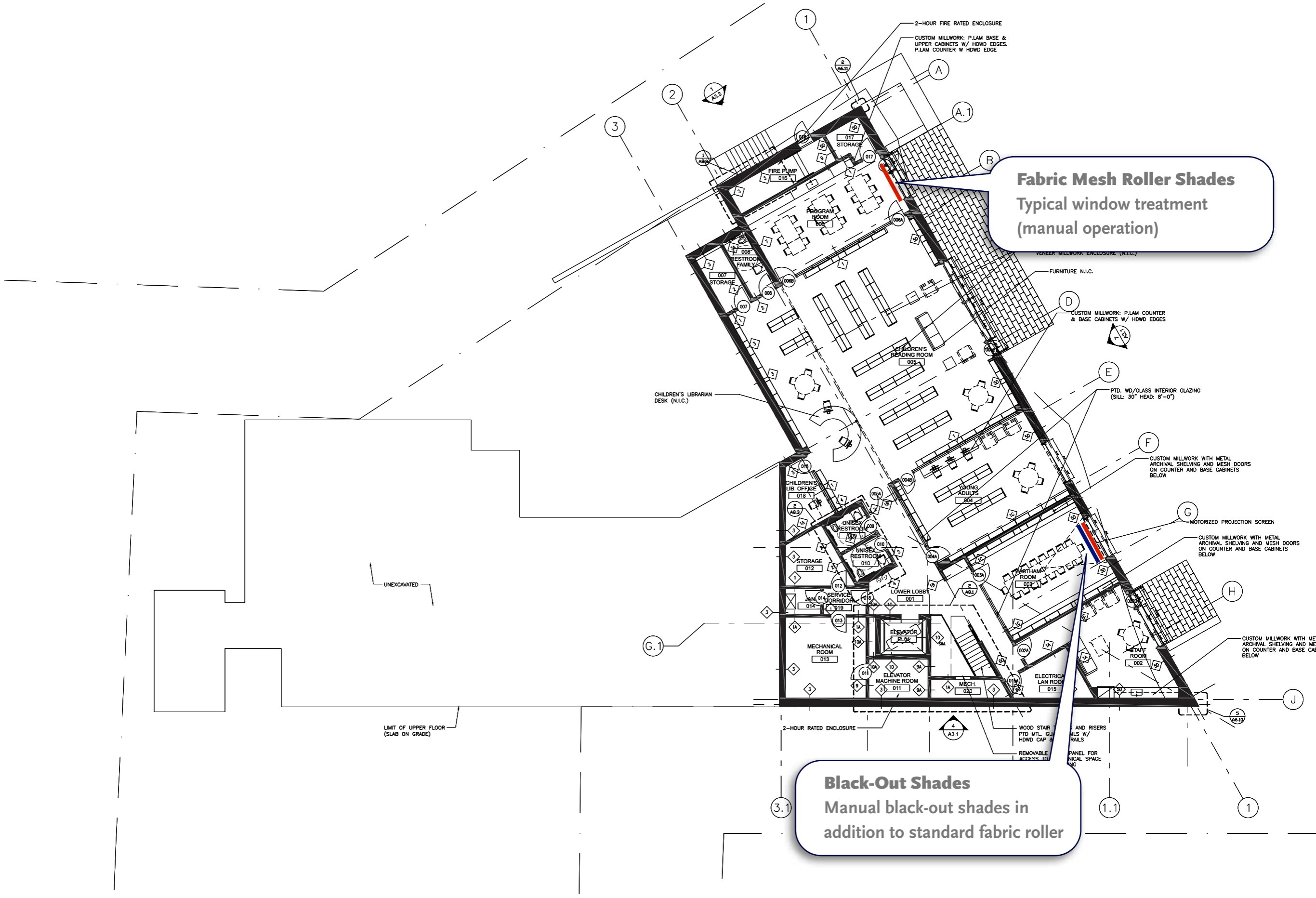


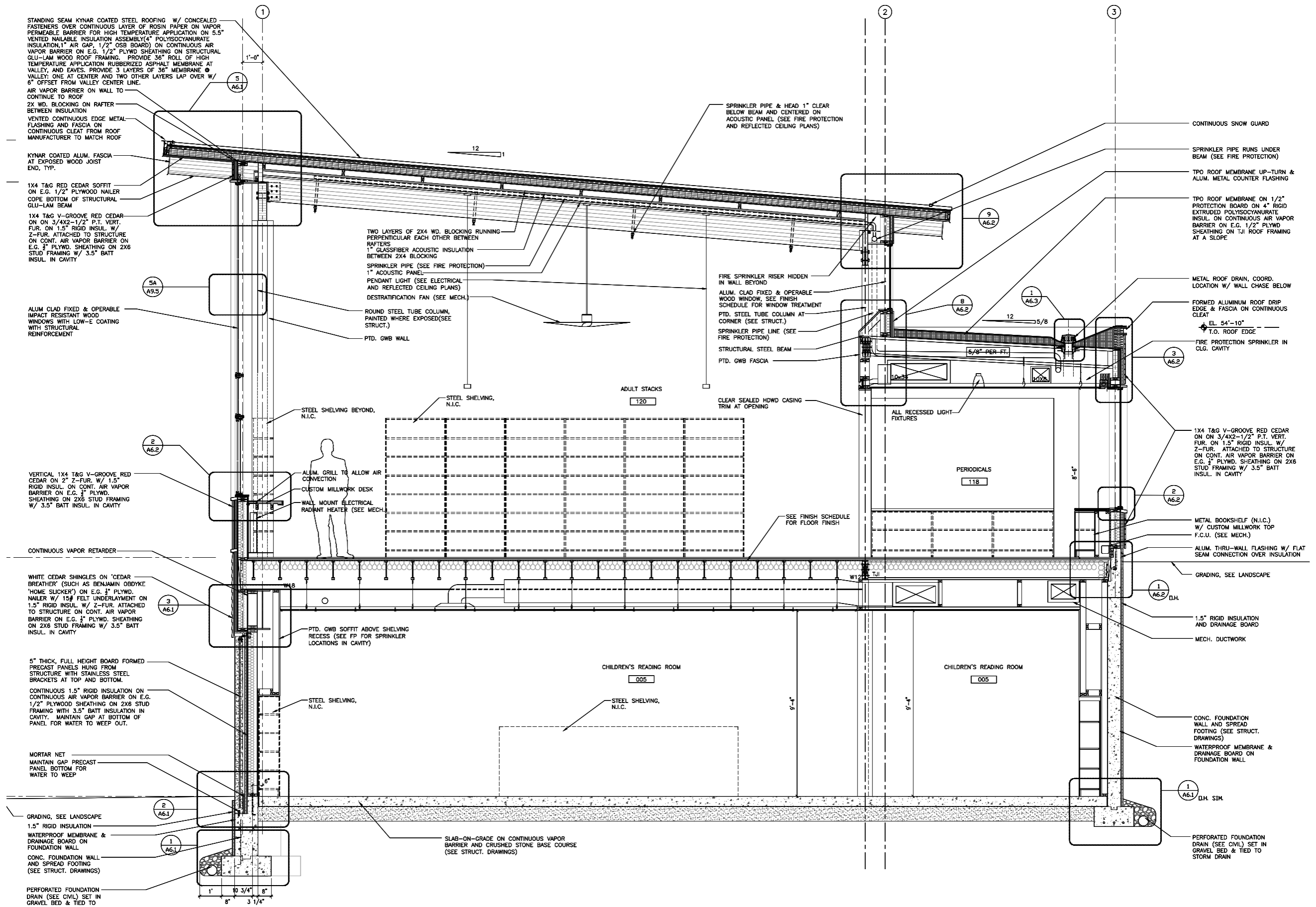
SCHOOLHOUSE
ELECTRIC & SUPPLY CO.

HOME / LIGHTING / SURFACE MOUNT FIXTURES / ALABAX MEDIUM











Oudens Ello Architecture