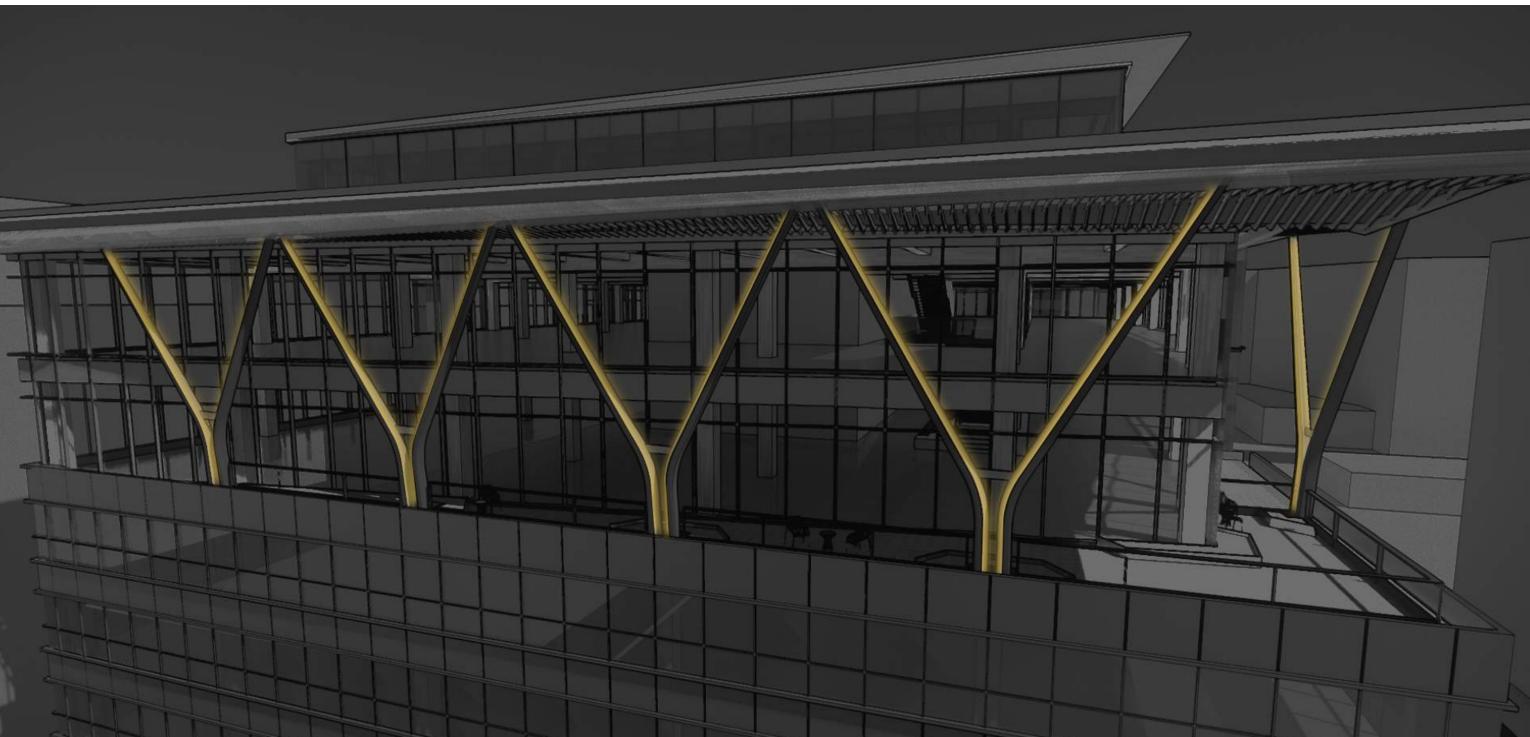
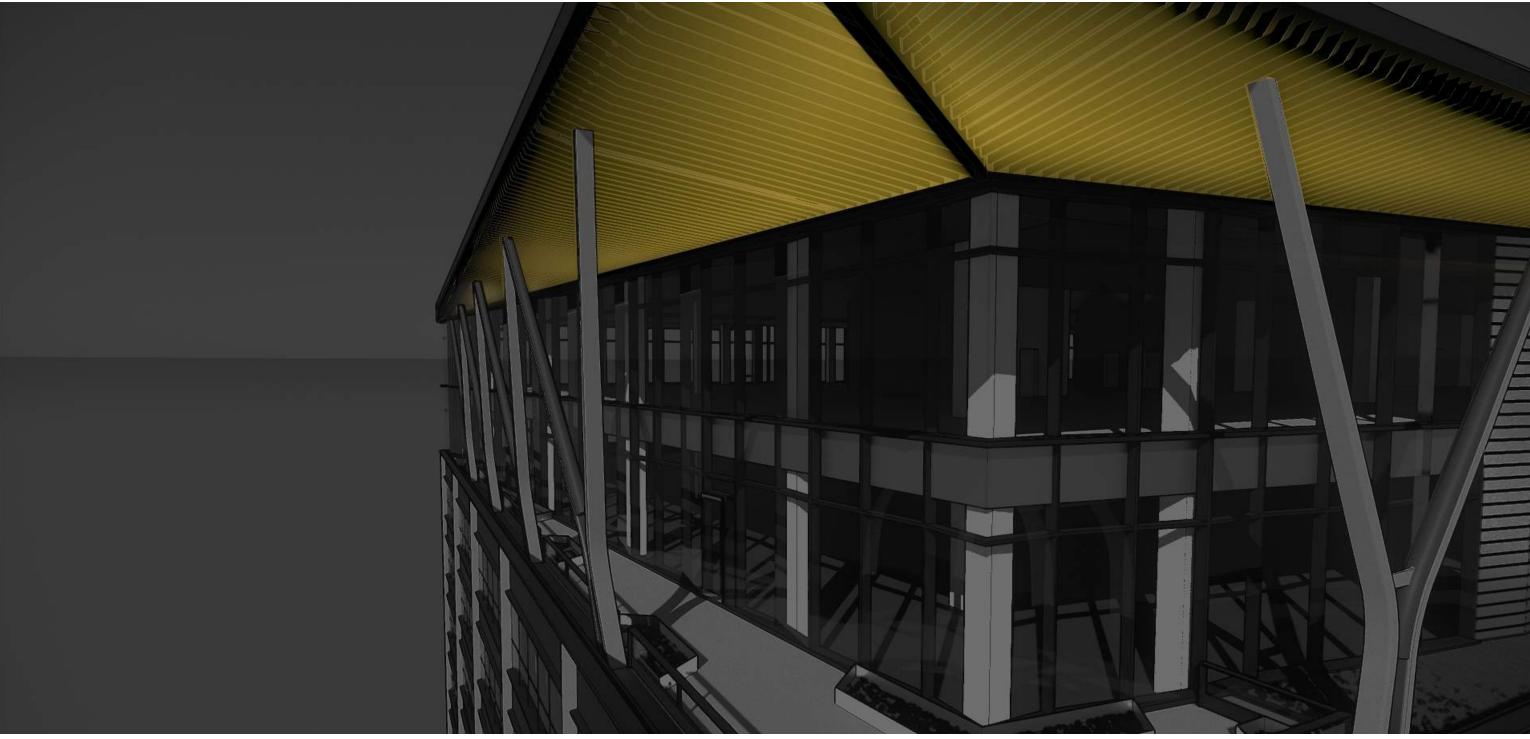
# exterior lighting

#### **Exterior Lighting Concepts**



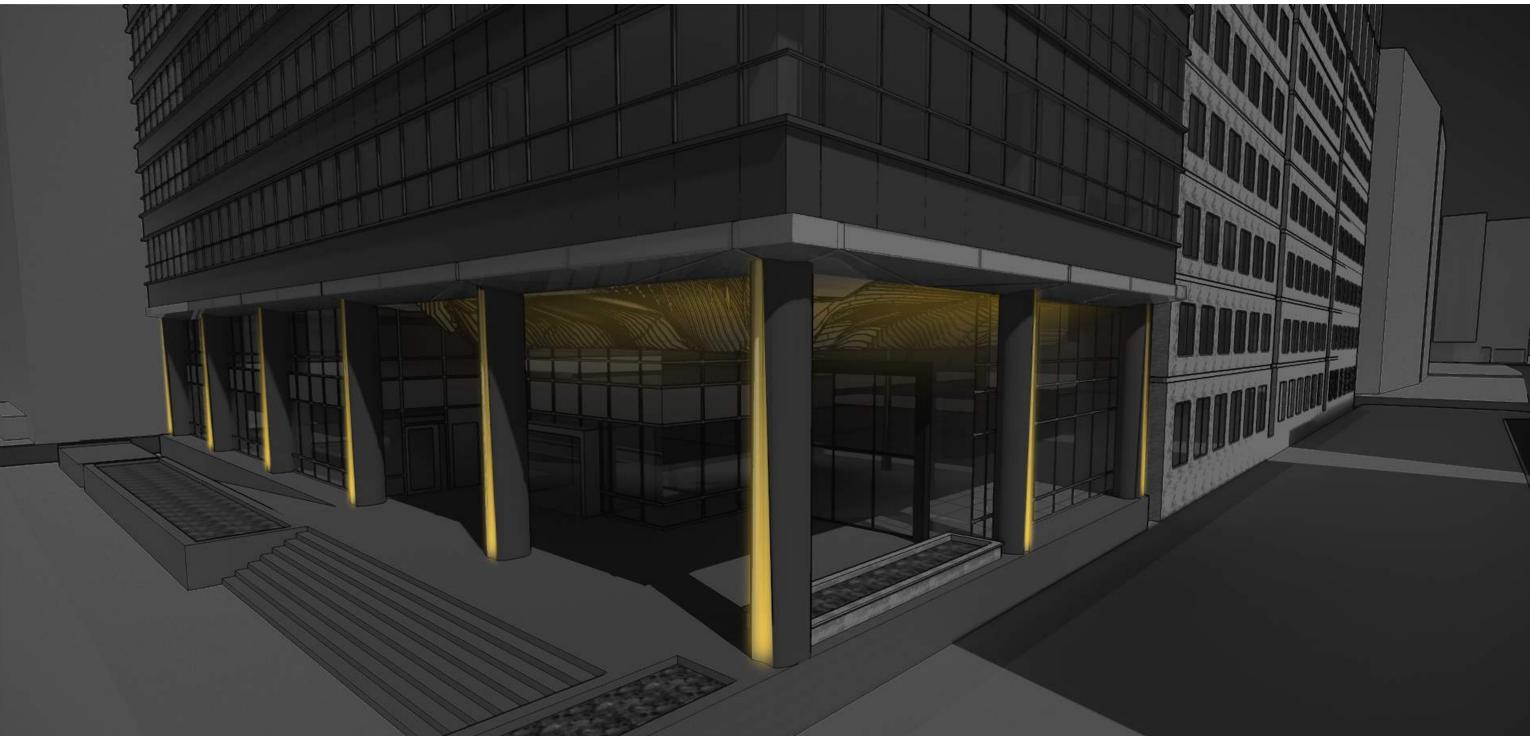
**80 M STREET SE**DESIGN REVIEW PACKAGE

#### **Exterior Lighting Concepts**



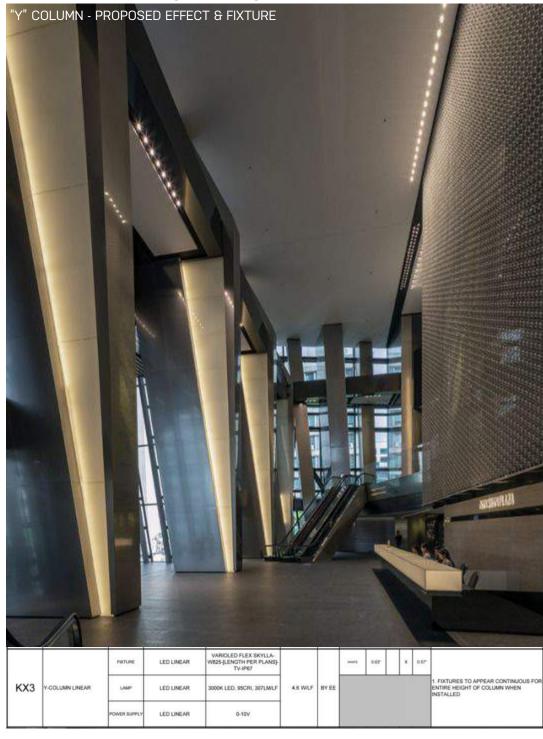
**80 M STREET SE**DESIGN REVIEW PACKAGE

#### **Exterior Lighting Concepts**



**80 M STREET SE**DESIGN REVIEW PACKAGE

#### Exterior Lighting - Precedents & Fixtures











CANOPY & SOFFIT - PROPOSED FIXTURE



COLUMN LIGHT - PROPOSED FIXTURE



		FIXTURE	LUMENPULSE	LOGN-4W-48V-[LENGTH PER PLANS]-30K-10x30-CL-SAMN- BRZ-UCTL-[CERTIFICATION]			SPOAZE	1 13/16"	x	2 1/16"
KX5	TERRACE SLAT LINEAR GRAZING LIGHT	LAMP	LUMENPULSE	3500K LED, 80+ CRI, 380LM/LF	4 W/LF	BY EE				
-		POWER SUPPLY	LUMENPULSE	0-10V						

		FIXTURE	TARGETTI	KPLM-10-FH-FL-L2-30- 1DU2525B-1DU2521			BMUSHED BMUSHED	4.29"	×	11.5	
<x2< td=""><td>IN-GRADE COLUMN UPLIGHT</td><td>LAMP</td><td>TARGETTI</td><td>3000K LED, 84CRI, 961LM, 18°</td><td>16 W</td><td>BYEE</td><td></td><td></td><td></td><td></td><td>FIXTURE FOCUS IS NOT ADJUSTABLE     AND IS FACTORY LOCKED TO 0°</td></x2<>	IN-GRADE COLUMN UPLIGHT	LAMP	TARGETTI	3000K LED, 84CRI, 961LM, 18°	16 W	BYEE					FIXTURE FOCUS IS NOT ADJUSTABLE     AND IS FACTORY LOCKED TO 0°
		POWER SUPPLY	TARGETTI	0-10V							



#### Exterior Lighting - Local Precedents







International Spy Museum



NPR, 1111 N. Capitol St., NE



## LEED scorecard

	LEED-BD+C: CS v4 Project Scorecard														
				rtical Exp 1000124129	ansion				Credit Strategy Phase			90	line	Control	sponse
Possible	Yes	Y?	N? No	Project Info	rmation	RP	v4.1	Assignee	Credit Requirements	Action Items	LEED Phase	Complian Verified	LEED Online Status	Quality Control	GBCI Respons
				P1				Team	Site Area (3D Boundary) = 42,553 sf						
Required 1	1	0	0 0	Integrative F	Project Information Process				Date of substantial completion =		Design				
1	1			Credit	Integrative Process			Team	Complete integrative process worksheet and Simple Box Model that asses water and energy in SDs	Lorax provided to team with October project update. Hickok Cole and ARUP to collaborate on worksheet	Design				
<b>20</b> 20	17	0	20		d Transportation  LEED for Neighborhood Development Location	1		Lorax			Design				
20	2		20	Credit	Sensitive Land Protection			Team		Documented	Design	_	Ready for Review		
3	2		1	Credit	High Priority Site	Х		Team		Documented	Design	✓	Ready for Review		
6	6	Д		Credit	Surrounding Density and Diverse Uses	X		Lorax		Documented	Design	✓ ✓	Ready for Review	$\Box$	
6	6			Credit	Access to Quality Transit	Х		Lorax	For estimated FTE of 424;	Documented	Design	Ý	Ready for Review		
1			1	Credit	Bicycle Facilities			Arch./Civil	Short term req = 11 racks Long term req = 22 racks	HCA providing 10 racks; non- compliant	Design				
1			1	Credit	Reduced Parking Footprint			Civil			Design				
1	1			Credit	Electric Vehicles	x	Y	Owner	v4.1: HCA supplying two charging stalls + 4 additional w/EV ready infrastructure.	HCA to: 1) specify LEED compliant charging stations 2) provide station submittal documentation proving compliance 3) Provide parking alottment breakdown for tenant reserved spaces.	Constr				
11		1	1 6	Sustainable											
Required	+ -			Prereq	Construction Activity Pollution Prevention	+	$\vdash$	Civil/CM		Larger Higher Cala and Civil to	Constr				
1	1			Credit	Site Assessment			Civil	Likely not compliant due to lack of green roofs).	Lorax, Hickok Cole, and Civil to complete worksheet	Design				
2			2	Credit	Site Development - Protect or Restore Habitat		Y	Civil	OFO/ of autimosity for the sink with most in the department	more green roof is added	Design				
1			1	Credit	Open Space	Х		Civil			Design				
3			3	Credit	Rainwater Management	х		Civil	Zero lot line project - manage 70/75/80th percentile storm event onsite for 1/2/3 points. SWM engineer to advise	to discuss SWM design with civil er	Design				
2	1		1	Credit	Heat Islands Reduction			Civil/Arch.	Low Slope Roof; Spec. Initial SRI ≥82 or 3 yrs aged SRI ≥64; will need Non-roof area, high-reflectance roof area, and green roof area.  OR  Parking under cover an option for 1 point	Hickok Cole verified areas, but ballasted roof does not comply with SRI reqs. -Areas- Main roof =24759.6 sf Equipment Cage = 6271.5 sf Terrace = 2844.3 sf Green Roof = 6990 sf	Design				
1		1		Credit	Light Pollution Reduction			MEP	Lighting Zone E3: Areas of medium ambient brightness. These will generally be urban residential areas.	CM Kling - Uplight on wood of room is problem area. Calculation method would be required to prove compliance.	Design				
1	1	_	4 0	Credit Water Effici	Tenant Design and Construction Guidelines			Lorax		Lorax to provide template	Design				
11 Required		1	1 2	Prereq	Outdoor Water Use Reduction			Landsape			Design				
Required				Prereq	Indoor Water Use Reduction			MEP			Design				
Required				Prereq	Building-Level Water Metering	$\perp$	Щ	Owner	Need letter signed by owner; Template provided in 1/2020		Design				
3	3			Credit	Outdoor Water Use Reduction		Y	Landscape	No irrigation	Still need to provide landscape information; plant species and water needs	Design				
4	3		1	Credit	Indoor Water Use Reduction		Υ	MEP	*WaterSense Labels*  1.28 gpf toilets, 0.125 gpf urinals, 0.35 gpm bathroom faucets, 1.0 gpm break room sinks  35% savings (3pts)	Updated to v4.1 credit requirements to take advantage of extra points in outdoor water use reduction and cooling tower water use.	Design				
3		1	1 1	Credit	Cooling Tower Water Use		Υ	MEP	Potable water quality test and cycles calculation	Lorax provided quote on water analysis. HCA to provide affirmative on buying this credit	Design				
1	1			Credit	Water Metering			ARUP	Submeter domestic hot water & indoor fittings+fixtures	Hickok Cole has chosen manual meters	Design				

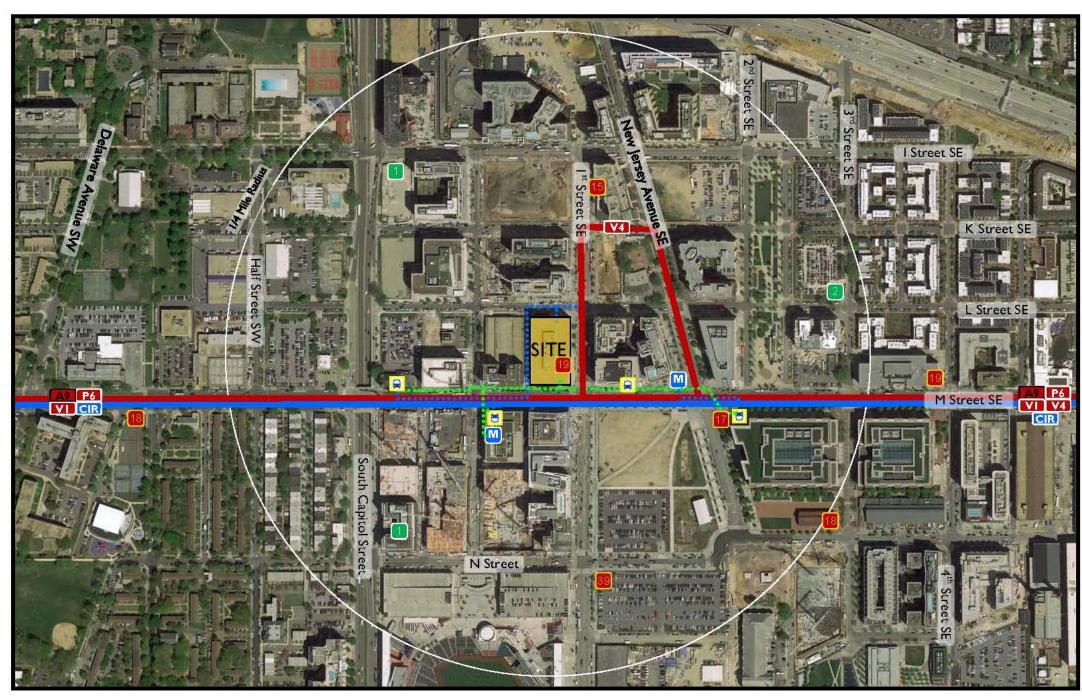
	) IC	DIC NERSHII	<b>X</b>			LE	ED-BD+C:	CS v4 Project Scorecard						
			rtical Exp 1000124129	pansion				Credit Strategy Phase			93	line	Control	esuods
Possible					RP	v4.1	Assignee	Credit Requirements	Action Items	LEED Phase	Complian Verified	LEED Online Status	Quality Contro	GBCI Respon
33	2 2	8 21	Energy & A	tmosphere										
Required			Prereq	Fundamental Commissioning and Verification			CxA		ARUP to complete design review	Constr				
Required			Prereg	Minimum Energy Performance 2% minimum above ASHRAE 90.1-2010	+ +		EM			Design			+ +	
Required			Prerea	Building-Level Energy Metering	1 1		Owner	Need letter signed by owner		Design	H			
Required			Prereq	Fundamental Refrigerant Management	1 1		MEP	ÿ ,		Design	H			
6		6	Credit	Enhanced Commissioning			CxA	Highly recommend Enhanced Cx, monitoring based, and envelope Cx -	Lorax to provide cost range on first 3 points w/in Ecx	Constr				
18	2 2	6 8	Credit	Optimize Energy Performance			EM	Whole building energy simulation w/baseline ASHRAE Standard 90.1–2010  3% - 1, 5% - 2, 7% - 3, 9% - 4, 11% - 5, 13% - 6, 15% - 7, 17% - 8, 19% - 9, 21% - 10	ARUP showing 5%, but targeting 7%	Design				
1		1	Credit	Advanced Energy Metering			MEP	1)meter all whole-building energy sources used by the building; and 2)any individual energy end uses that represent 10% or more of the total annual consumption of the building.	ARUP to provide pricing. Is this all with the base building.	Design				
2		2	Credit	Demand Response			Owner		DR language have to be inlcuded in TLA?	Constr				
3		3		Renewable Energy Production			Owner			Design				
1		1	Credit	Enhanced Refrigerant Management			MEP			Design				
2		2	Credit	Green Power and Carbon Offsets Resources			Owner	1) 50% for 5 years RECs and Carbon Offsets - 1pt 2) 100% for 5 years RECs and Carbon Offsets - 2pt	Lorax to get quotes if necessary	Constr				
14 Required	4 1	2 7		Storage & Collection of Recyclables			Architect		1	Dogign				
Required	-		Prereq Prereq	Construction and Demolition Waste Management Planning	+	-+	CM			Design Constr	$\vdash$		+ +	
6		2 4	Credit	Building Life-Cycle Impact Reduction			Architect	Resuse or salvage 25/50/75% of building marterials (on or offsite), can be structural, enclosure materials, and interior elements for potential 2/3/4 points.	Lorax and Hickok Cole to collaborate on reuse calcs.	Constr				
2	1	1		Building Product Disclosure and Optimization - EPD		Υ	Arch./CM	v4.1 - 10 EPDs from 3 manufacturers		Constr				
2	1	1	Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials		Υ	Arch./CM	v4.1 - recycled, regional, etc 20% by cost (40% for 2)		Constr				
2	1	1	Credit	Building Product Disclosure and Optimization - Materials Ingredients	$\bot$	Υ	Arch./CM	v4.1 - 10 HPDs from 3 manufacturers		Constr	$oxed{oxed}$		$\perp$	
2	1 1		Credit	Construction and Demolition Waste Management			CM	75% diversion from landfill, 4 waste streams		Constr	I I			

	LEED-BD+C: CS v4 Project				CS v4 Project Scorecard										
				rtical Ex					Credit Strategy Phase			83	Online	Control	sbonse
Possible						RP	v4.1	Assignee	Credit Requirements	Action Items	LEED Phase	Complian Verified	LEED Or Status	Quality Control	GBCI Response
10 Required	7	2	1 0	Indoor Env Prereg	rironmental Quality Minimum Air Quality Performance	1		MEP			Design				
Required				Prereq	Environmental Tobacco Smoke Control			Architect			Design				
2		1	1	Credit	Enhanced Indoor Air Quality Strategies			MEP	10' entrance mats. Deck to deck partitions @ janitors closets, MERV 13 filters (1 pt) Carbon Dioxide Monitoring (1 pt)	Terrace mats will be required due to the outside to inside dynamic of doorways; Lorax exploring potential work-arounds for CS projects	Design				
									2/3/4 product categories meet following requirements;  Paints and Coatings + Adhesives and Sealants -75% by volume or surface area meet VOC emissions eval and 100% meet VOC content eval.  Flooring + Ceilings -90% by cost or surface area meet VOC emissions eval or are inherently nonemititing or are salvaged						
				Credit	Low-Emitting Materials			Arch./CM	Wall panels -75% by cost or surface area meet VOC emissions eval or are inherently nonemitting or are salvaged Insulation -75% of all insulation meets VOC emissions eval.		Constr				
3	2	1		Credit	Construction IAQ Management Plan			СМ	Composite Wood -75% of all composit wood, buy cost of surface area meets formaldehyde emissions eval.  Additional criteria for furnitire and composite wood		Constr				
	-	7		Credit	Construction IAQ Management Flam	+		CIVI		Preliminary model results show	COIISII				
3	3			Credit	Daylighting		Y	Architect	55%/75%/90% via simulation: illuminance calculations 1/2/3 points	potential for all three points [under v4.1] provided we include manual or automatic glare control. Hickok Cole already specified use of manual in design development	Design				
1	1			Credit	Quality Views			Architect	75% of all regularly occupied floor space must meet 2 of 4 established criterion. (90% for EP)	Lorax to run calcs based on current design	Design				
6	5	1	0 0	Innovation	in Design				octabilities of teneric (00% for E1)	ourront doorgin					
1	1			Credit	Innovation: O+M Starter Kit (IPM and Hardscape Mgmt)			Team	Must be included in TSLA (willing to adopt 4 plans get 2 points)	80M has plans currently in place	Innovation				
1	1	+		Credit	Innovation: O+M Starter Kit (Green Cleaningand SWM Policy) Innovation: Green Building Education	1		Team		80M has plans currently in place  Lorax to determine potential on  Quality Views and/or heat island	Innovation				
1	1	$\dashv$	+	Credit	Pilot: Integrative Analysis	+	$\vdash$	Team		reduction  Lorax followed up with questions	Innovation				
1	1	1	+	Credit	Innovation: TBD	+	+	Team	ID daylight views, potential Timber Traceabilty	for Katerra	Innovation				
1	1			Credit	LEED™ Accredited Professional			Lorax			Innovation	✓	Ready for Review		
4	4	0	0 0	Regional F	Priority Credits Regional Priority Credit: LTc High Priority Site			Lorax			RP		Ready for Review		
1	1	$\dashv$	+	Credit	Regional Priority Credit: LTc High Priority Site Regional Priority Credit: LTc Surrounding Density and Diverse Uses	+	+	Lorax			RP RP	/	Ready for Review		
1	1			Credit	Regional Priority Credit: LTc Access to Quality Transit			Lorax			RP	/	Ready for Review		
1	1	0	40 5	Credit	Regional Priority Credit: LTc Electric Vehicles		Щ	Lorax	A 1-5		RP		CBCI Ctift- 11		
110 Color Ke	y:	8	13 59	40-49 50-59 60-79	LEED Certified Silver LEED Certified Gold		Address 80 M Street, SE, Washington, DC 20003  Pre-requisite					ign	Constr. Innov. RP		
Project	_	ned	lule:	80+	Project Team:			Site: 45,117 GSF, Expansion: 106,029 GSF  Awarded Point Summary			Anticipated Clarification Approved	n i	0 0 0 0 0 0		0 0 0 0 0 0 0 0 0
Die					Owner Columbia Property Tours		-	Danisa	0		Awarded		0 0	_	0 0 0
Planning Schematic	Design	ın			Owner: Columbia Property Trust Architect: Hickok Cole			Design:	0		Denied Deferred		0 0	_	0 0 0
Design De	velopm	nent:	: 8/5/19	- 9/27/19	Civil: Wiles Mensch	Construction: 0 Innovation: 0								0 0	
Constructi	struction Docs: 10/1/19 - 2/17/20 MEP: ARUP Regional: 0				Total Credits Awarded: 0										
Bid Energy Modeler: Construction Commissioning: ARUP (FCx) Occupancy General Contractor:					Total	Points Awarded:		0							
Occupanc	y				Tourior at Contractor.										



# traffic study

### **Transportation Options**



- Metrobus Route
- MetroExtra Route
- DC Circulator Route
  - Capital Bikeshare Locations
  - **Zipcar Locations**
  - Mavy Yard Ballpark Metrorail Station
  - Bus Stop
  - ... Walking Route to/from Transit Stops
  - Biking Route to/from Transit Stops

### Trip Generation – Mode Splits

Component	Mode Split						
Component	AM	PM					
Auto	29%	37%					
Metrorail	52%	47%					
Metrobus + Other Transit	11%	10%					
Walk/Bike	7%	7%					

### Trip Generation - Existing

Component	AN	Л Peak Ho	our	PM Peak Hour			
Component	In	Out	Total	In	Out	Total	
Person Trips	231	52	283	50	212	262	
Auto Person Trips	76	6	82	29	67	96	
Metrorail Person Trips	114	34	148	15	107	122	
Metrobus + Other Transit Person Trips	25	7	33	3	23	27	
Walk/Bike Person Trips	16	5	21	2	15	17	

Component	A۱	Л Peak Ho	our	PM Peak Hour				
Component	In	Out	Total	In	Out	Total		
Vehicle Trips	77	4	81	29	66	95		

### Trip Generation - Proposed

Component	AN	И Peak Ho	our	PM Peak Hour			
Component	In	Out	Total	In	Out	Total	
Person Trips	84	19	103	18	77	95	
Auto Person Trips	28	2	30	11	24	35	
Metrorail Person Trips	56	17	73	7	53	60	
Metrobus + Other Transit Person Trips	9	3	12	1	9	10	
Walk/Bike Person Trips	6	2	8	1	5	6	

Component	A۱	Л Peak Ho	our	PM Peak Hour			
Component	In	Out	Total	In	Out	Total	
Vehicle Trips	28	1	29	10	24	34	

### Parking Requirements

Type	Required	Existing	Proposed
Vehicle Parking	NA	295 (1.01 sp/kSF)	288 (0.73 sp/kSF)
Long-Term Bicycle Parking	42	0	43
Short-Term Bicycle Parking	3	6	12

#### TDM Plan

- Designate Transportation Management Coordinator
  - Distribute and market information regarding transportation options to building tenants
  - Provide TDM information to new tenants
  - Conduct annual commuter surveys and report TDM activities/efforts to goDCgo
  - Provide links to transportation programs/services on property management website
  - Demonstrate tenants are in compliance with DC Commuter Benefits Law
  - Provide carpool matching assistance
- Provide bicycle parking, showers, and changing facilities in compliance with ZR16
- Provide bicycle repair facility in the garage
- Provide two carpool/vanpool spaces in the garage near elevators
- Unbundle parking costs from leases

### TDM Plan (continued)

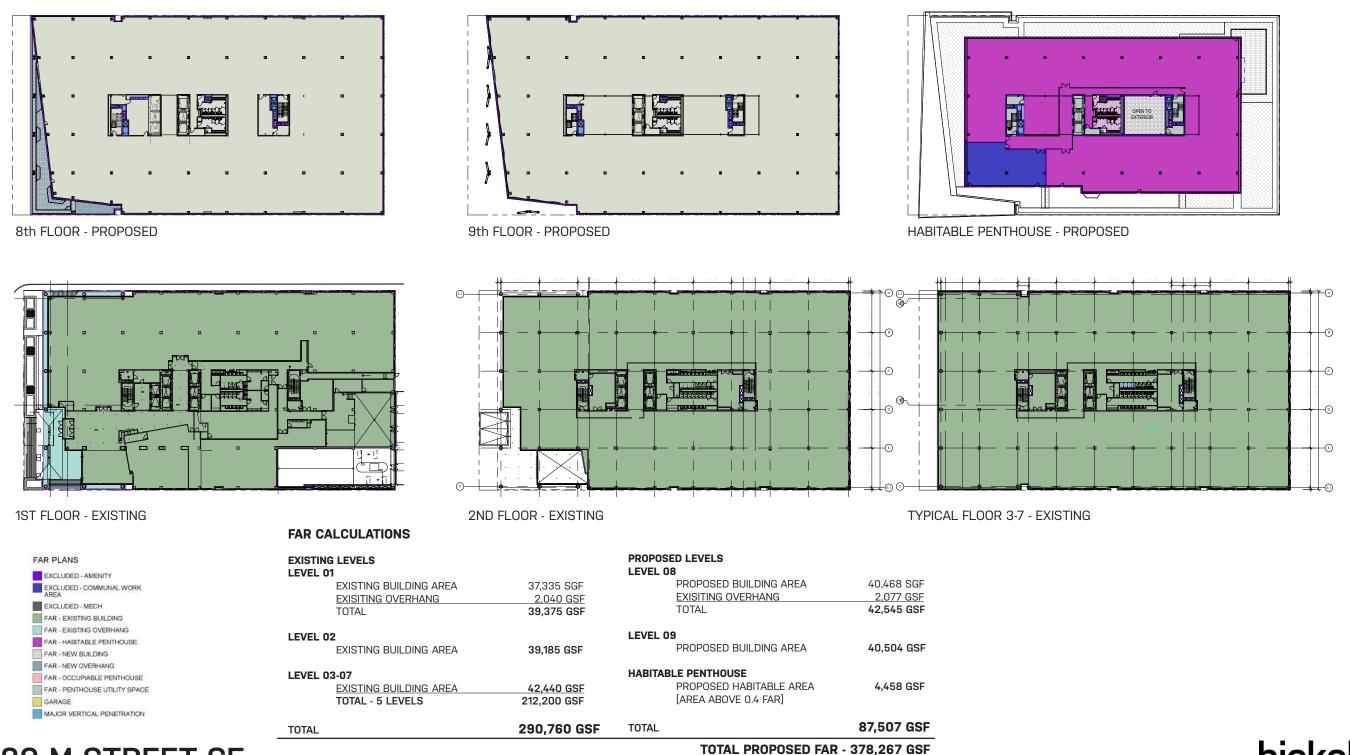
- Provide a free SmarTrip card and one complimentary CaBi coupon good for a free ride to each new employee
- Preclude outside users from leasing unused parking spaces
- Install missing trees along 1<sup>st</sup> Street frontage (as long as no utility conflicts are present)
- Fund CaBi expansion plate for adjacent CaBi Station
- Submit documentation following C of O summarizing compliance with TDM conditions
- Submit letter every five years following C of O summarizing compliance with TDM conditions

### Loading Management Plan

- Designate Loading Dock Manager
  - Schedule deliveries for all tenants
  - Monitor inbound/outbound truck maneuvers to ensure they are not blocking vehicle, bike, or pedestrian traffic
- Require all tenants to use the loading area for all deliveries and move-in/move-out activities through lease provision
- Prohibit trucks from idling in the loading dock
- Disseminate suggested truck route maps and 'Turn Off Your Engine' Brochures

## APPENDIX

#### FAR Tabulations



#### Existing - P3 floor plan





