

ENGINE



EVER READY



City of Seattle Neighborhood Fire Station 9

Design Commission Review - Schematic Design January 21, 2010

MITHŪN

## Fire Station 9

3829 Linden Avenue N

Located along Linden Ave N. between N. 38th Street and 39th Street, in Fremont

Station type - Neighborhood I (the smallest of all stations)

Replacement station - The existing station is in poor condition due to its age. Replacement would be more cost-effective than remodel.

Station 9 will be rebuilt on the site of existing station and expanded from 5,700 sf to approx. 8,500 sf.

Station 9 will continue to provide compressed air fill service for the North end. It will also continue to house one engine company.

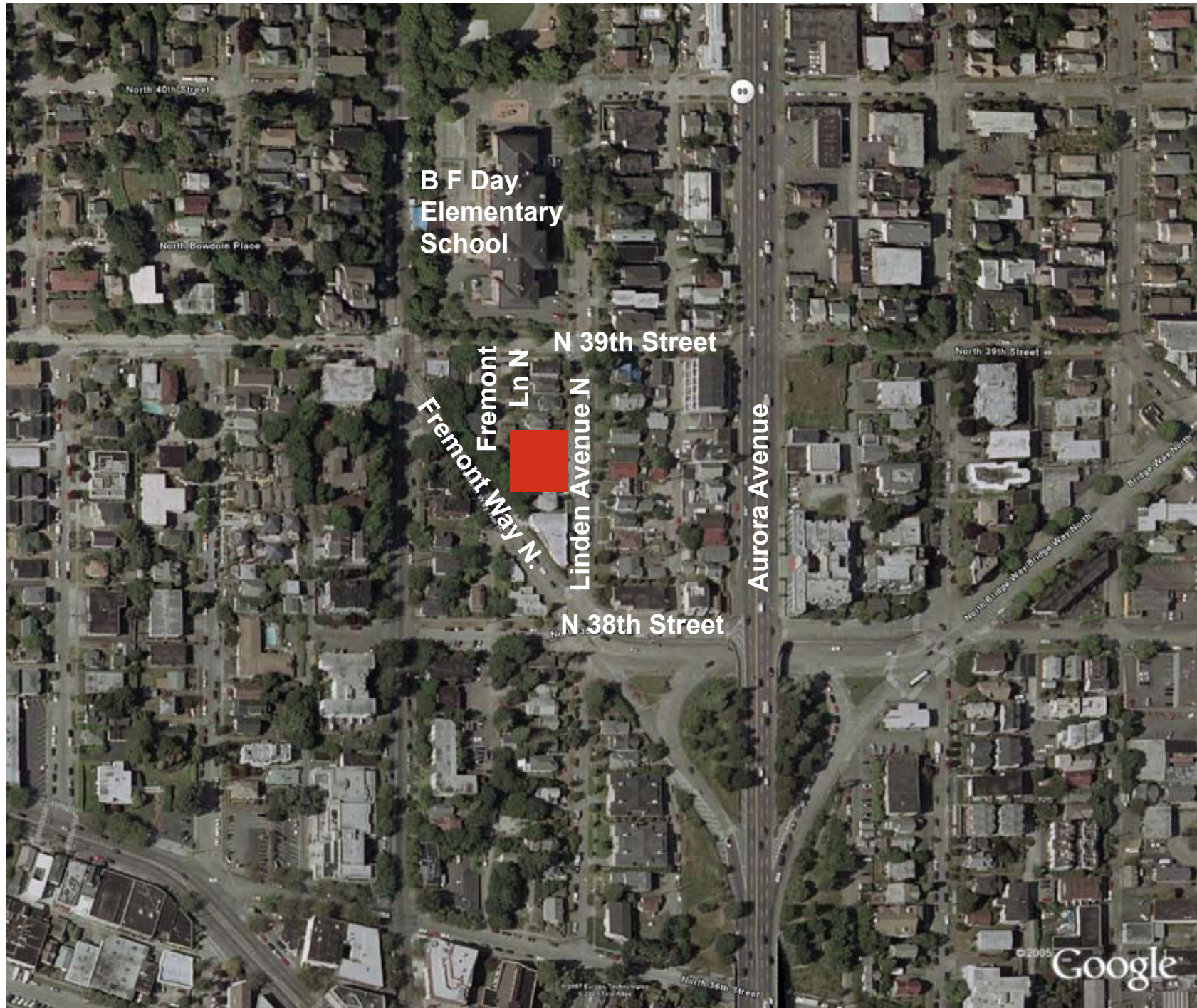
An interim facility will be provided in different location during construction.

Sustainability goal - LEED silver or higher.

Artist, Peter Reiquam is selected to join the team at the beginning of schematic design.

Currently, at 90% Schematic Design.







looking west to Fire Station 9 site & adjacent buildings



art at existing station site



looking east to buildings across street from station site



city view to Southeast



Fremont Lane N at back of site



steep slope with existing trees at back of site



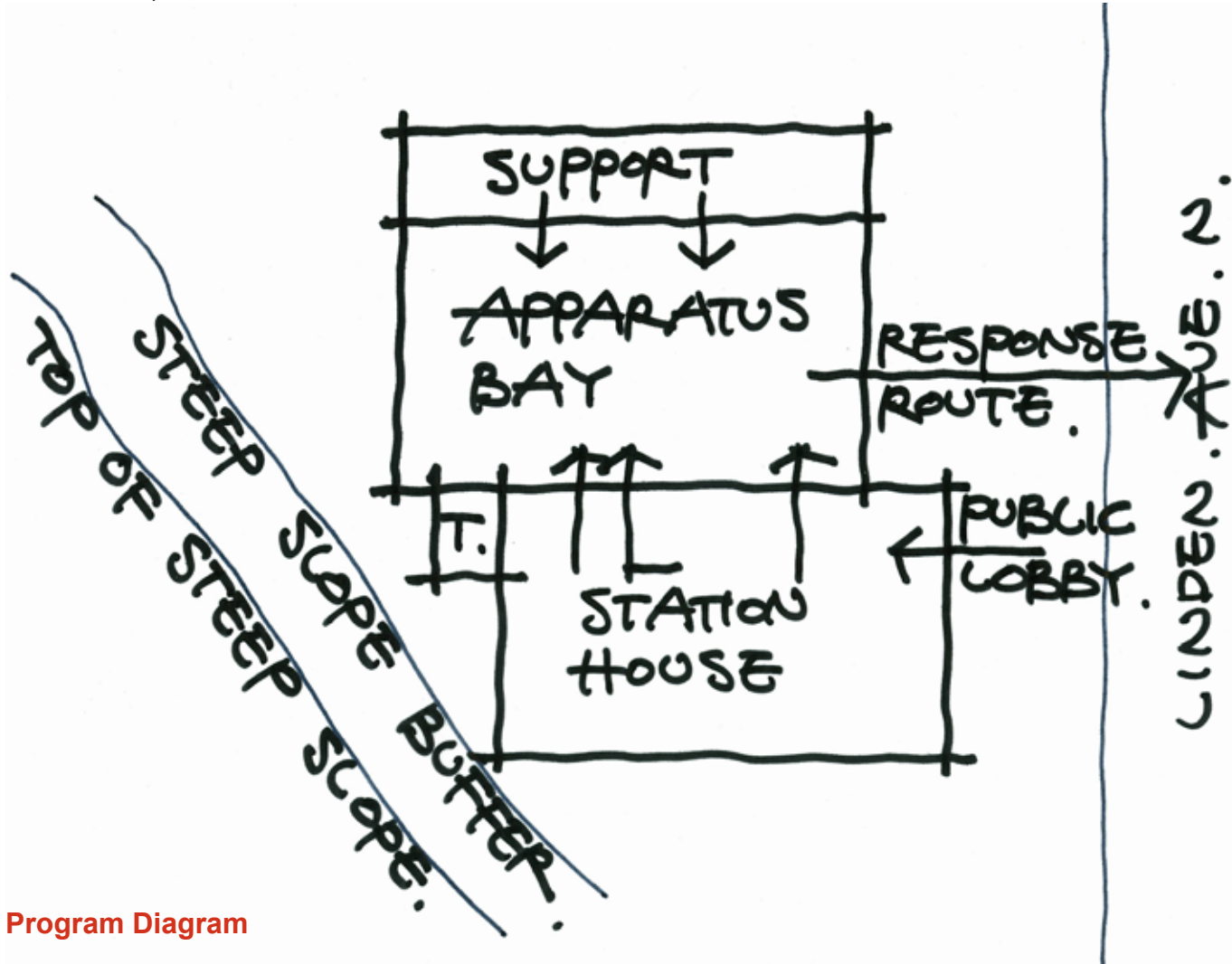
Looking East along Fremont Way N.

# Fire Station 9 Mascot - EVER READY cat with 9 long lives

## Design Concept

### BE EVER READY

provide an **EVER READY** station to firefighters, functional, efficient & comfortable.



## Program Diagram



## Design Commission Comments

Concept Design Presentation  
October 1, 2009

### Commended the project for:

fit the program onto the very constricted site

### Encouraged team to:

work freely, going beyond just decorating the massing model

integrate softscape & hardscape

integrate art through out the site

encourage artist to be free, take the artwork to the next level

make a gesture toward the existing, historic building in some way

## Schematic Design Process

### Function / Operation

4 working meetings with SFD & FFD in SD

### Community

1st public open house on 1/9/2010

positive support

working with Peter to integrate art and architecture

public art to be presented to PACC in February

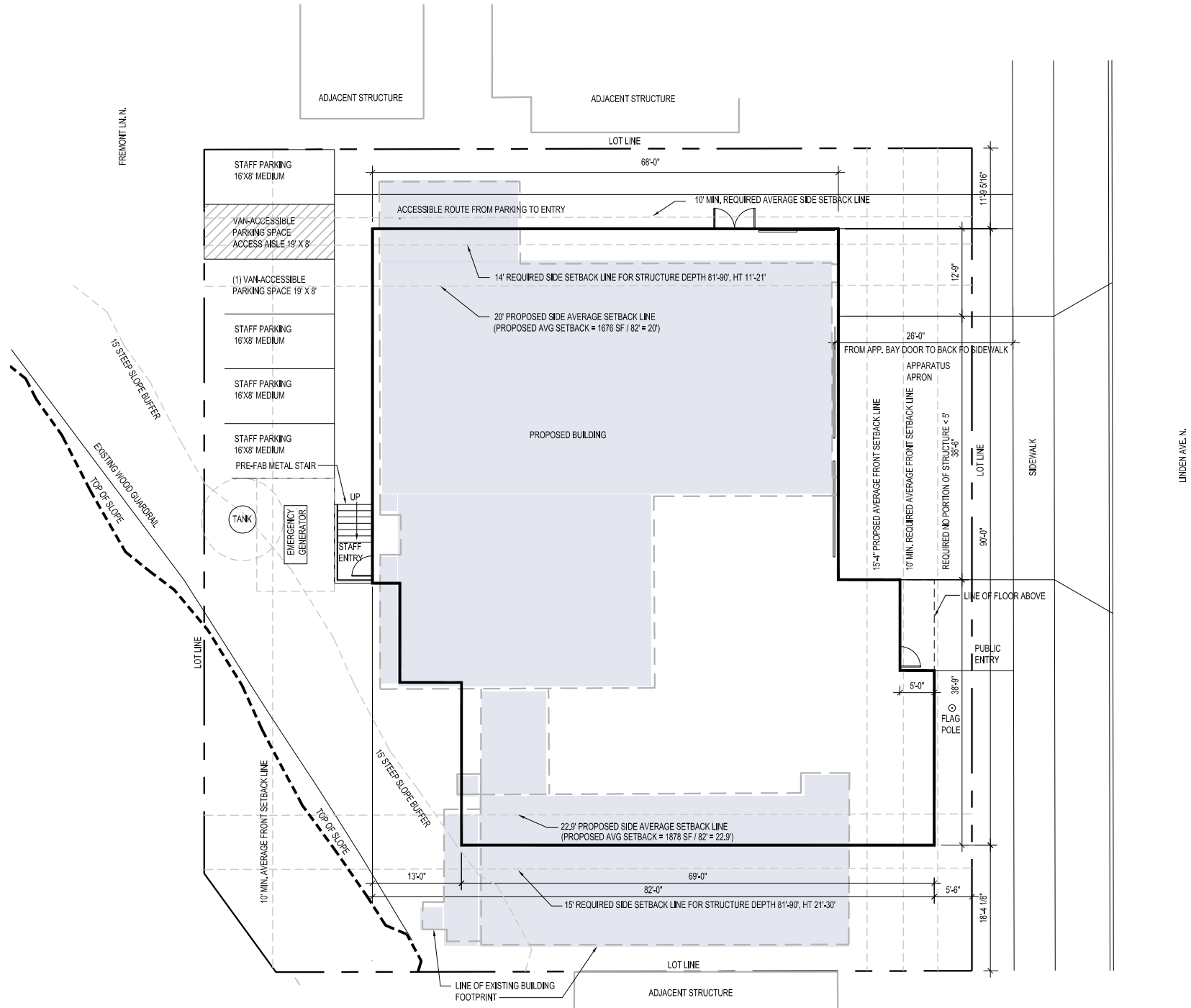
historical exhibit coordination

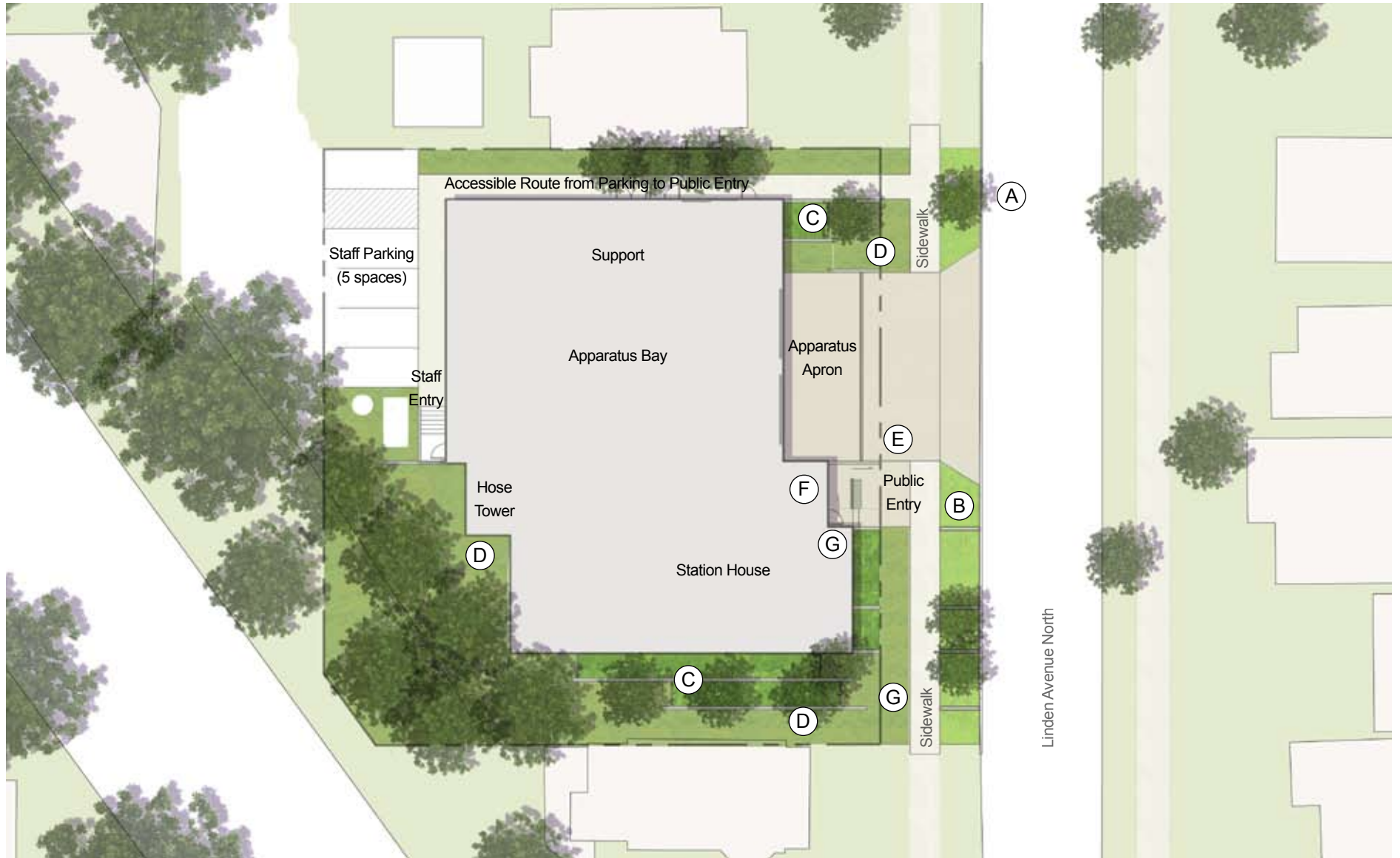
### Budget

project is on budget at SD







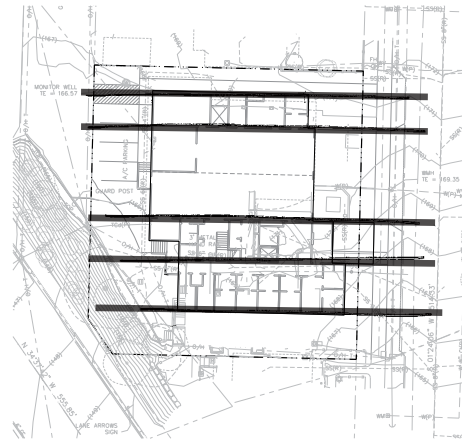


- (A) New Street Trees (3)
  - (B) Rain Garden at Planter Strip
  - (C) Stormwater Planters
  - (D) Native Plantings
- (E) FS9 Mascot in conc. paving
  - (F) Relocate existing FS9 Mascot neon art
  - (G) FS9 historical exhibit



### Tree Canopy / Planting:

- Connect to native plantings - locally and at neighborhood scales
- Vertically integrate plantings - connect to existing tree canopies and ground-level shrub layer



### Infrastructure:

- Slow flow of water across site
- Expose natural processes
- Allow for evapotranspiration opportunities
- Allow for water collection from roof and paved surfaces
- Use site grades to our advantage



### Conceptual Overlay:

- Functional site that utilizes structural interventions and plants to create an engaging place.



French drain

Gate in site wall

Gravel access path

Piped connection to stormwater planter

Overflow water is conveyed on the surface

Overflow water is conveyed via slot drain or other paving treatment to expose surface water and not impact vehicle access

Street trees - small per COS standards, max height 20'

Stormwater planter garden

# suggested plant species

## accent trees

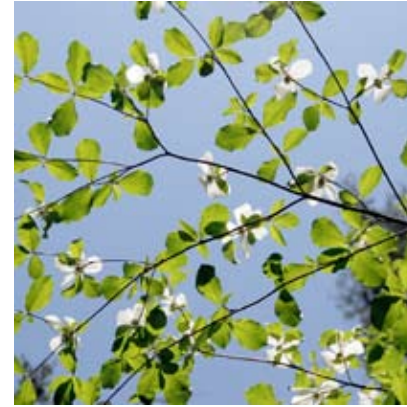
*Styrax japonica*  
Japanese Snowbell



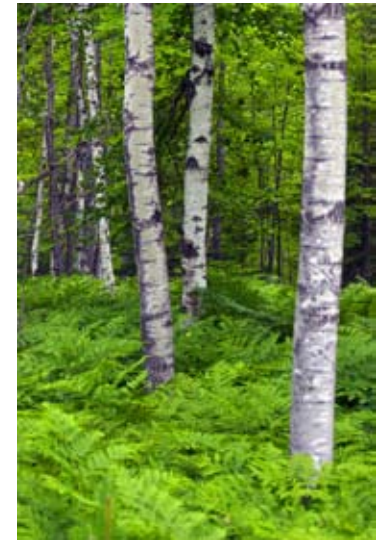
*Ginkgo biloba 'Autumn Gold'*  
Autumn Gold Ginkgo



*Cornus nuttallii*  
Western Flowering Dogwood



*Betula papyrifera*  
Paper Birch



*Ribes sanguineum*  
Red Flowering Currant



*Blechnum spicant*  
Deer Fern



*Rosa nutkana*  
Nooka Rose



*Symphoricarpos albus*  
Snowberry

### stormwater garden

*Acer circinatum*  
Vine Maple



*Cornus sericea*  
Red Osier Dogwood



*Polystichum munitum*  
Sword Fern



*Arcostaphylos uva-ursi*  
Kinnikinnick



*Mahonia repens*  
Creeping Mahonia



*Fragaria chiloensis*  
Coastal Strawberry

### sidewalk planting

*Larix laricina*  
Tamarack



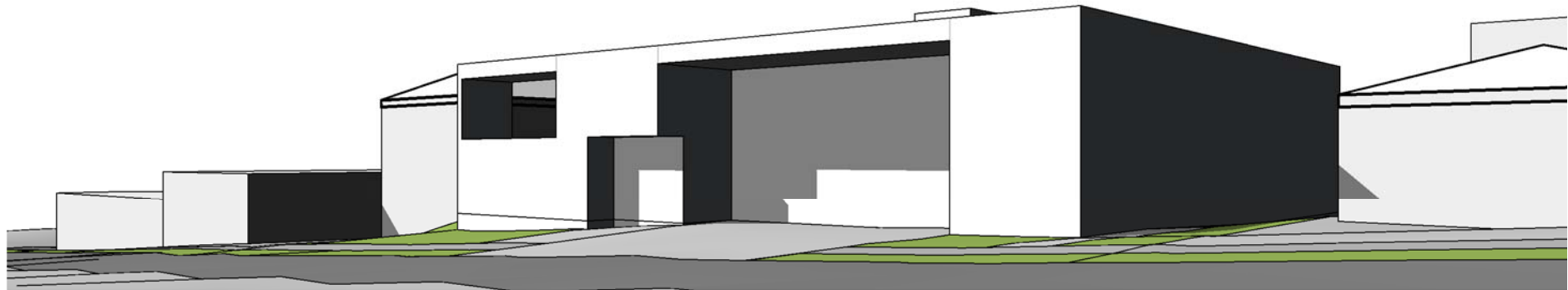
*Cornus kousa* 'Chinensis'  
Chinese Kousa Dogwood



*Cercis canadensis*  
Eastern Redbud

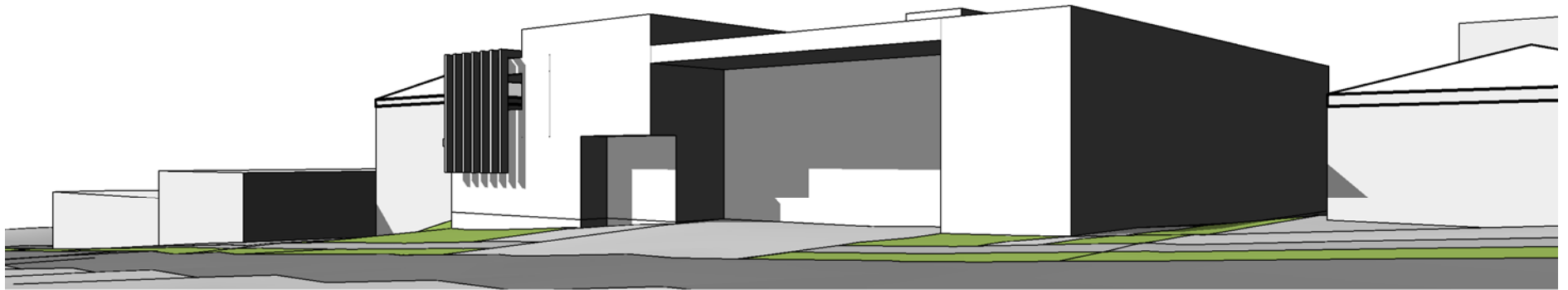




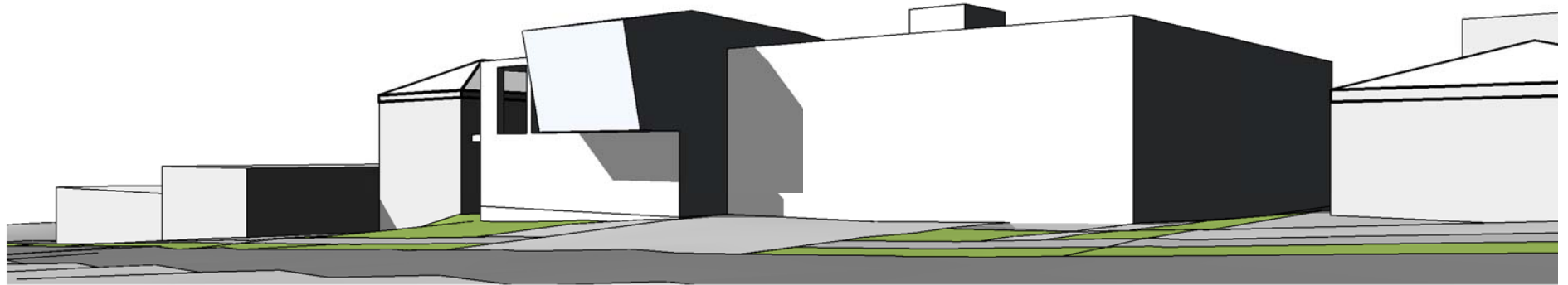


1 box, singular civic gesture

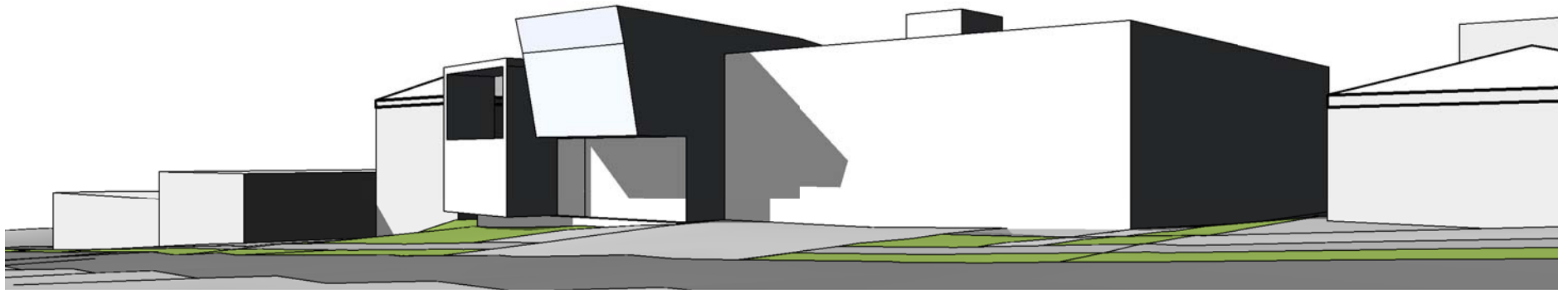




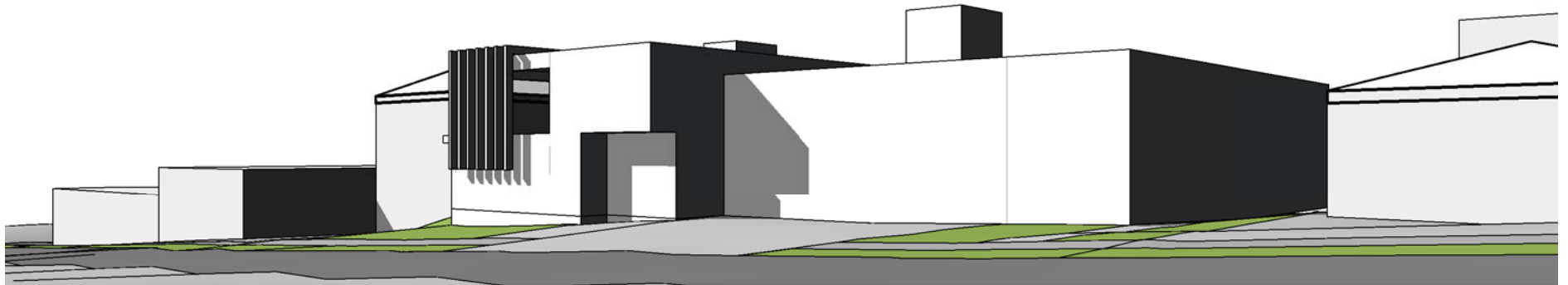
1 box + high space



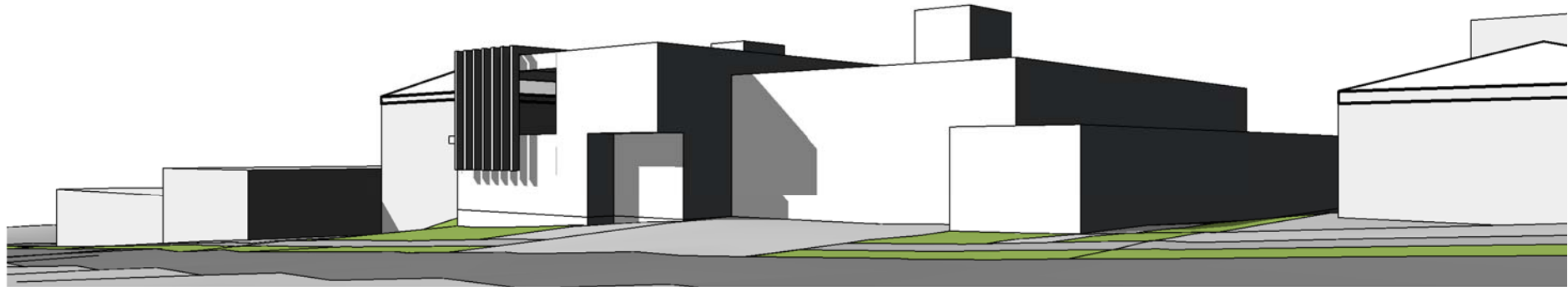
1 box + high space, object, sculpture, Fremont funkyness



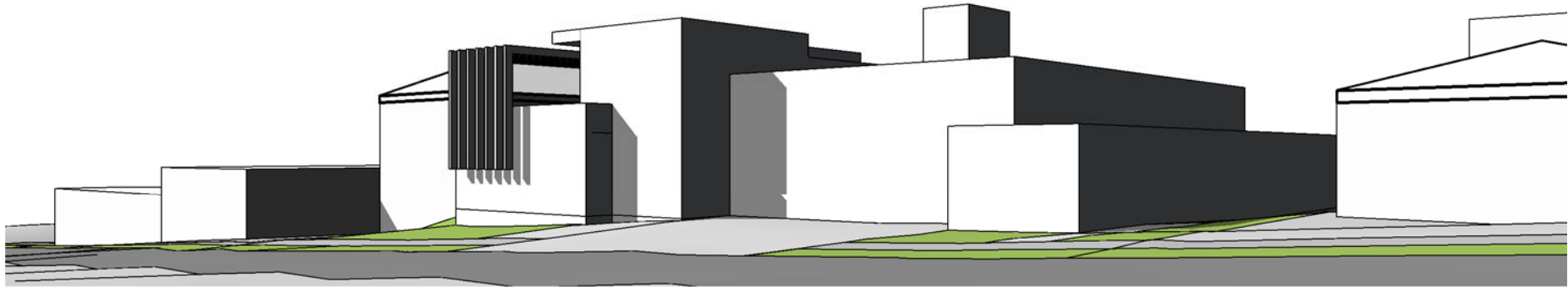
1 box + high space, object, sculpture, Fremont funkiness + highlight deck



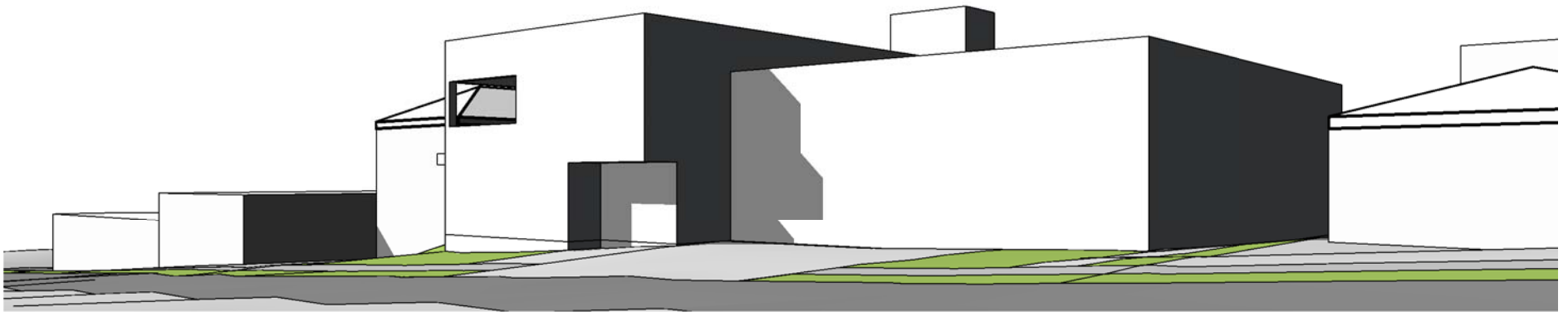
2 boxes - operation box + living quarter

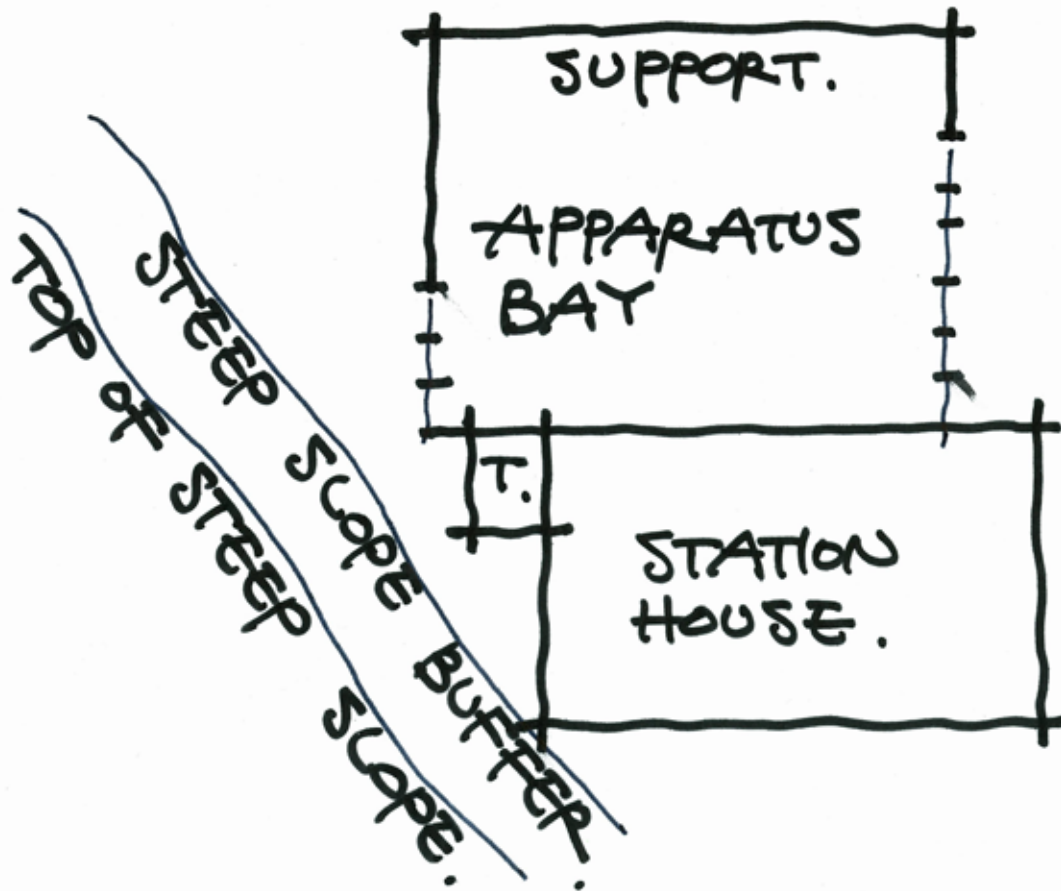


3 boxes - station house + apparatus bay + support bar



3 boxes + high space, presented at Design Commission Review Concept Design on 10/1/2009





**Operation Box**

- transparency at apparatus bays  
East & West Elevations
- showcase EVERY READY  
(fire trucks & actions)
- civic presence

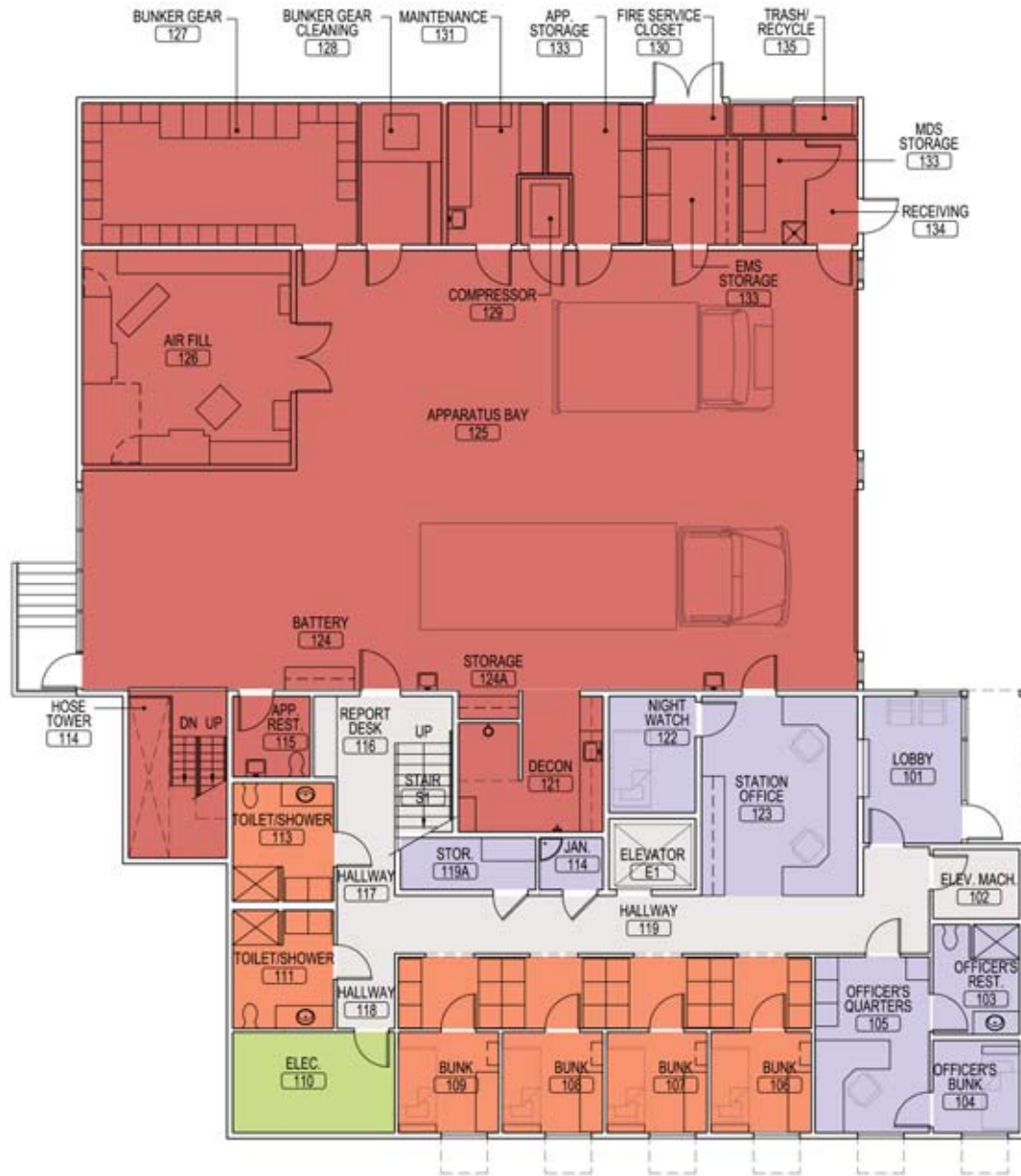
**Station House Box**

- support BE EVERY READY

**Contrast** between solid & transparent

use of **brick**  
responds to residential neighborhood at building material & its scale & texture level





■ OPERATIONS  
 ■ ADMINISTRATION  
 ■ CREW AREA  
 ■ EQUIPMENT  
 ■ CIRCULATION

### Response to program

Compact building footprint is away from steep slope buffer.

All operation support spaces are accessed directly from Apparatus Bay.

All sleep rooms are located on 1st floor for quick response time.

Rest of crew spaces & outdoor beanery area are located on 2nd floor to take advantage of city view & stay away from traffic noise from Fremont Way N.

Extra wide “L” shaped open stair is designed for quick response time with visual connection & min. turns.

Public Lobby & Physical Training are more visible while the rest spaces are more private.





### Response to program

Compact building footprint is away from steep slope buffer.

All operation support spaces are accessed directly from Apparatus Bay.

All sleep rooms are located on 1st floor for quick response time.

Rest of crew spaces & outdoor beanery area are located on 2nd floor to take advantage of city view & stay away from traffic noise from Fremont Way N.

Extra wide “L” shaped open stair is designed for quick response time with visual connection & min. turns.

Public Lobby & Physical Training are more visible while the rest spaces are more private.



■ OPERATIONS  
 ■ ADMINISTRATION  
 ■ CREW AREA  
 ■ EQUIPMENT  
 ■ CIRCULATION



West Elevation



East Elevation



South Elevation



North Elevation



**Fire Station 9**



**B.F. Day School**

**Street Elevation Along Linden Ave. N. Looking West**



**Fire Station 9**

**Street Elevation Along Linden Ave. N. Looking West**



B F Day Elementary School

**Response to Fremont & neighborhood**  
**explore brick options**

**color & texture**

option 1 - mixed color, mission/rugged texture  
e.g. brick buildings in Fremont commercial area

option 2 - one color, smooth texture  
e.g. B F Day School

**size**

Standard 2 1/4" x 7 5/8", residential scale  
Econ 3 1/2" x 11 1/2", commercial scale



Brick color & pattern on existing buildings in Fremont commercial area



Brick coursing detail in Fremont commercial area



Brick detail on B F Day School building



Response to Fremont & neighborhood -

explore brick options

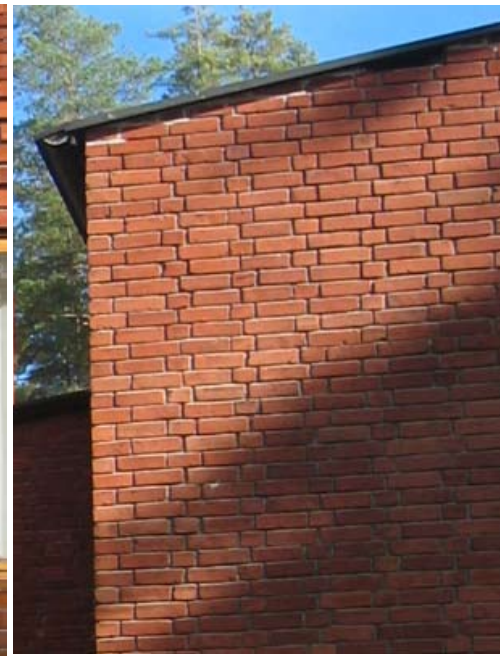
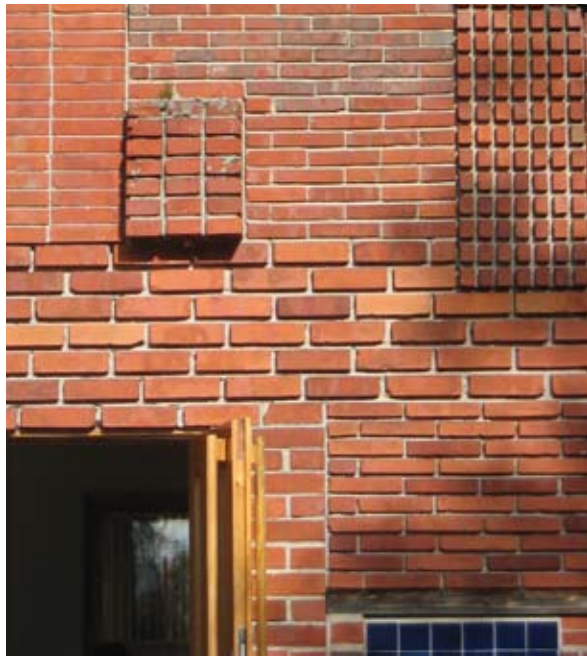
pattern

Stretcher bond  
Flemish bond

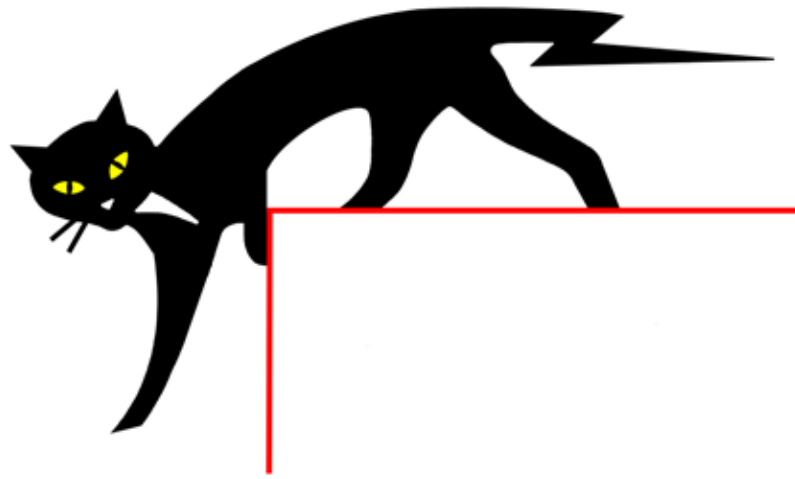
detail

solider coursing  
at window head & sill

in & out



Brick details on Alvar Aalto's buildings



*NORTH ELEVATION  
Fire Station 9 - Artist's Concept Study  
15 Jan. 2010*



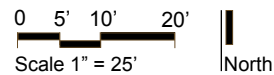
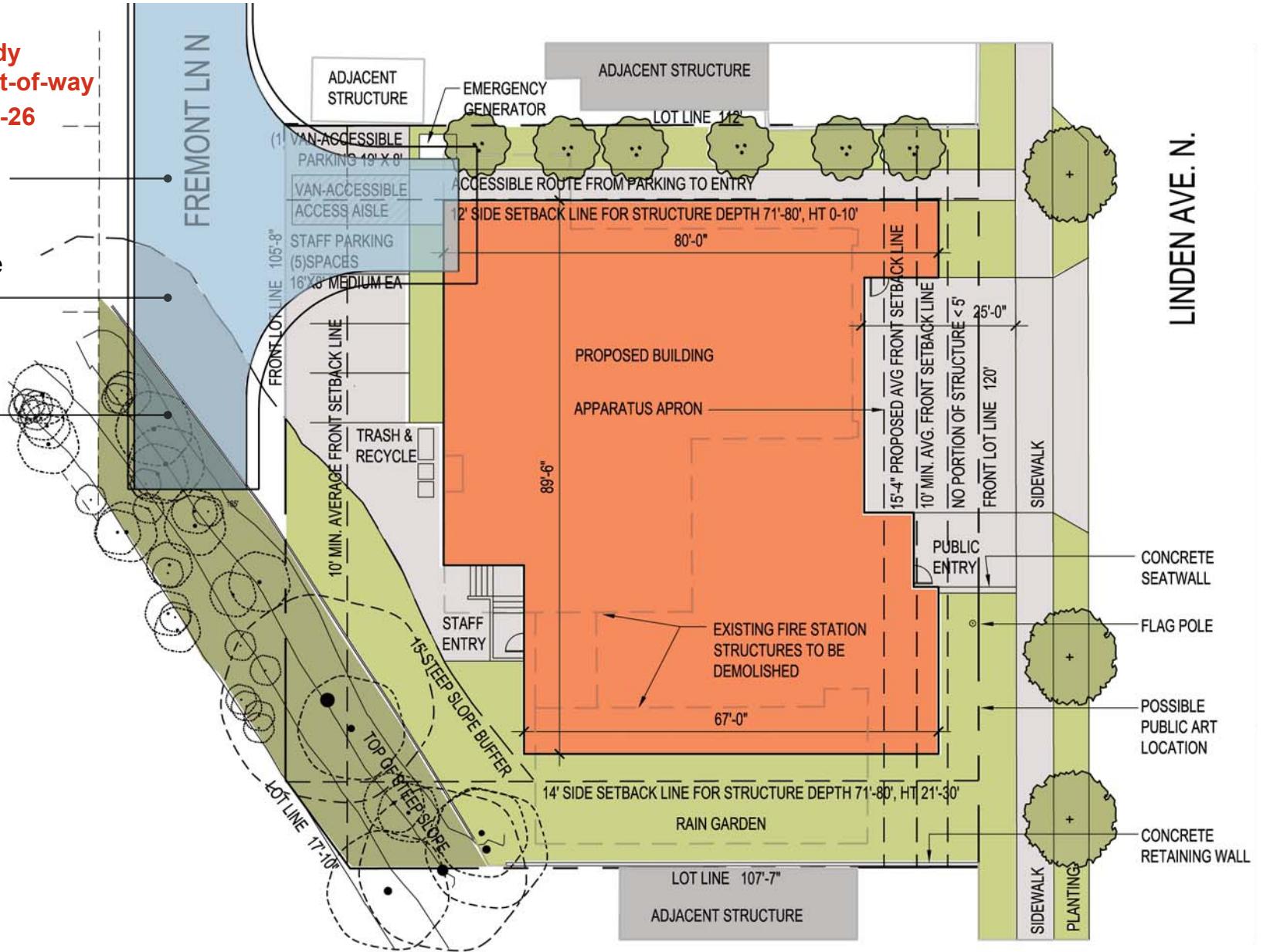
	Seattle Municipal Code Requirements	Departure request	Decision type
Departure No.1 <b>Parking quantity</b>	<b>Parking quantity per SMC 23.45.098</b> Requirement for fire stations is not shown on Chart A, B or C of 23.54.015.	To meet the program needs, 5 spaces are proposed for staff parking, 1 space per staff.	Director determination based on the requirements for the most comparable use per SMC 23.54.015. H.
Departure No.2 <b>Right of Way</b>	<b>Fremont Lane N. Right of Way improvement per SMC 23.53.015</b>	No Right of Way improvement along Fremont Lane N. is proposed because environmentally critical area and it is adequate for current & potential pedestrian and vehicular traffic.	Director rule in consultation with Director of Transportation during MUP to waive or modify requirements.
Departure No.3 <b>Parking location</b>	<b>Parking location per SMC 23.45.098</b> B. "Parking areas and facilities may not be located in the required front setback." Proposed staff parking at Fremont Lane N. is not allowed in the required front setback unless it is determined to be an undeveloped street per 23.40.030 and a front setback is not required.	To meet the program needs, the proposed staff parking is located in the required front setback along Fremont Lane N.	Type I or II Directors rule during MUP. Or if 23.40.030 does not apply to the site, Type V Council decision during MUP to waive or modify development standard for City facilities per SMC 23.45.106.
Departure No.4 <b>Structure width &amp; depth</b>	<b>Structure width &amp; depth per SMC 23.45.094</b> A.1. Maximum width with modulation or landscape option in Lowrise 1 zone is 75'. B. "The maximum depth of institutional structures shall be 65% of lot depth." 72.8'	To meet the program needs & steep slope buffer requirement, the proposed width is 89'-6"; depth is 80'. To reduce the appearance of bulk, the front facade is modulated, landscaping is provided & the proposed average front setback is 15', 5' more than 10' minimum average front setback requirement.	Type V Council decision during MUP to waive or modify development standard for City facilities per SMC 23.76.004A.
Departure No.5 <b>Landscaping of required setbacks</b>	<b>Landscaping of required setbacks per SMC 23.45.096</b> E.1. "Institutions shall provide landscaping for setbacks which abut a street."	Landscaping is not provided for front setback at Fremont Lane N. due to conflict with meeting steep slope buffer requirement & the program needs to provide staff parking, staff entry access, trash & recycle area.	Type V Council decision during MUP to waive or modify development standard for City facilities per SMC 23.45.106.
Departure No.6 <b>Noise</b>	<b>Noise per SMC 23.45.100</b> A.2. "Institutions which are the origin or destination of emergency vehicles which emit noise specifically exempted by Chapter 25.08 shall be located only on an arterial street as designated in Chapter 11.18 of the Seattle Municipal Code (Traffic Code). Access to emergency entrances for such institutions shall also be located on the arterial."	The existing and proposed emergency access is not located on an arterial street; the steep slope prohibits access to the site. This development standard can not be met on this site due to site constraints and program needs.	Type V Council decision during MUP to waive or modify development standard for City facilities per SMC 23.45.106.
Departure No.7 <b>Curb cuts</b>	<b>Curb cuts per SMC 23.54.030</b> F.2.b. 25' curb cut is allowed.	To meet the program needs & steep slope buffer requirement, the proposed curb cut is 48' for 5 parking spaces along Fremont Lane N.	Type V Council decision during MUP to waive or modify development standard for City facilities per SMC 23.45.106, C.
Departure No.8 <b>Structure Height</b>	<b>Structure Height per SMC 23.45.009</b> A. maximum height for L1 zone 25'.	To meet the program needs, additional height is proposed for Station House portion of the structure.	Type V Council decision during MUP to waive or modify development standard for City facilities per SMC 23.76.004A.

**Turnaround study  
per Seattle Right-of-way  
Manual Figure 4-26**

Turnaround area

Turnaround area  
in 15' steep slope  
buffer

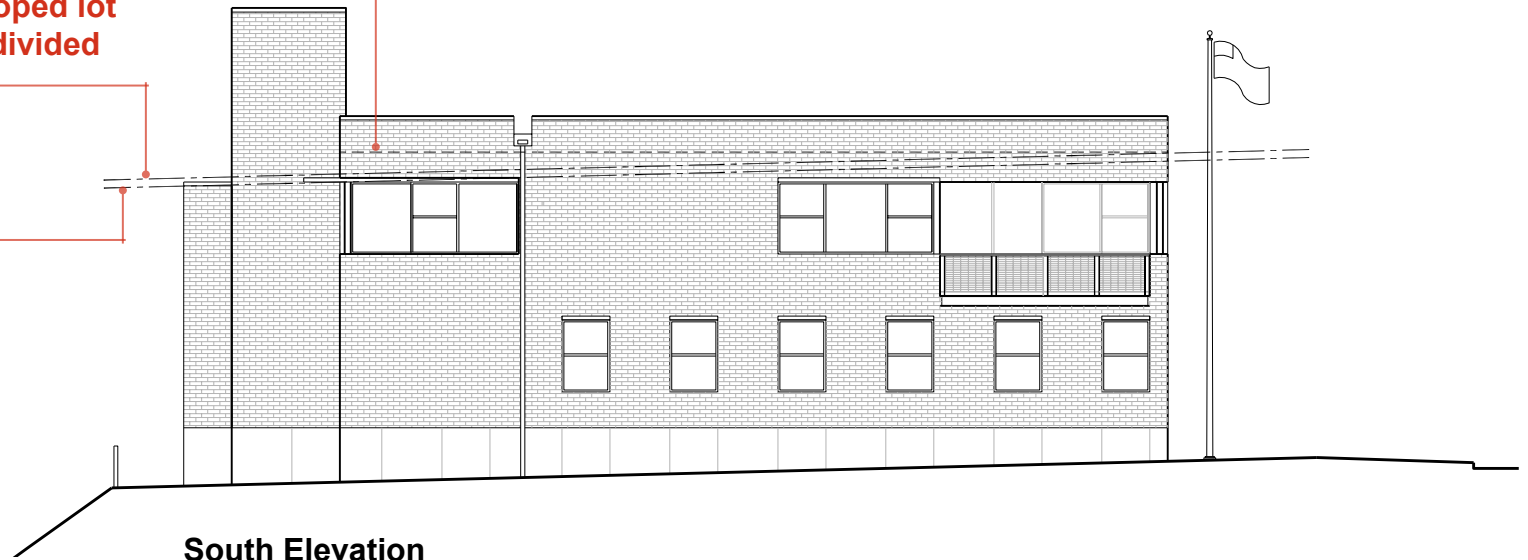
Turnaround area  
in steep slope  
area



Top of proposed roof structure

Additional height on sloped lot  
(percent of slope - 4% divided  
by 6 =  $4/6 = 8''$ )

L1 zone max. building  
height limit 25'



South Elevation

Top of proposed roof structure

Additional height on sloped lot  
(percent of slope - 5% divided  
by 6 =  $5/6 = 10''$ )

L1 zone max. building  
height limit 25'



West Elevation

21	3		2	Sustainable Sites	
Y				SS Prereq 1	<b>Construction Activity Pollution Prevention</b>
1				SS Credit 1	<b>Site Selection</b>
5				SS Credit 2	<b>Development Density &amp; Community Connectivity</b>
	1			SS Credit 3	<b>Brownfield Redevelopment</b>
6				SS Credit 4.1	<b>Alternative Transportation, Public Transportation Access</b>
1				SS Credit 4.2	<b>Alternative Transportation, Bicycle Storage &amp; Changing Rooms</b>
3				SS Credit 4.3	<b>Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles</b>
2				SS Credit 4.4	<b>Alternative Transportation, Parking Capacity</b>
	1			SS Credit 5.1	<b>Site Development, Protect or Restore Habitat</b>
			1	SS Credit 5.2	<b>Site Development, Maximize Open Space</b>
			1	SS Credit 6.1	<b>Stormwater Design, Quantity Control</b>
1				SS Credit 6.2	<b>Stormwater Design, Quality Control</b>
1				SS Credit 7.1	<b>Heat Island Effect, Non-Roof</b>
1				SS Credit 7.2	<b>Heat Island Effect, Roof</b>
	1			SS Credit 8	<b>Light Pollution Reduction</b>
2	1	7		<b>Water Efficiency</b>	
Y				WE Prereq 1	<b>Water Use Reduction, 20% Reduction</b>
2				WE Credit 1.1	<b>Water Efficient Landscaping, Reduce by 50%</b>
		2		WE Credit 1.2	<b>Water Efficient Landscaping, No Potable Use or No Irrigation</b>
		2		WE Credit 2	<b>Innovative Wastewater Technologies</b>
	1	3		WE Credit 3	<b>Water Use Reduction</b>
9	6	1	19	<b>Energy &amp; Atmosphere</b>	
Y				EA Prereq 1	<b>Fundamental Commissioning of the Building Energy Systems</b>
Y				EA Prereq 2	<b>Minimum Energy Performance, 10% New Bldgs or 5% Ex. Bldg Renovat</b>
Y				EA Prereq 3	<b>Fundamental Refrigerant Management</b>
5	1	1	12	EA Credit 1	<b>Optimize Energy Performance</b>
			7	EA Credit 2	<b>On-Site Renewable Energy</b>
2				EA Credit 3	<b>Enhanced Commissioning</b>
2				EA Credit 4	<b>Enhanced Refrigerant Management</b>
	3			EA Credit 5	<b>Measurement &amp; Verification</b>
	2			EA Credit 6	<b>Green Power</b>
5	2		7	<b>Materials &amp; Resources</b>	
Y				MR Prereq 1	<b>Storage &amp; Collection of Recyclables</b>
			1	MR Credit 1.1	<b>Building Reuse, Maintain 55% of Existing Walls, Floors &amp; Roof</b>
			1	MR Credit 1.2	<b>Building Reuse, Maintain 75% of Existing Walls, Floors &amp; Roof</b>
			1	MR Credit 1.3	<b>Building Reuse, Maintain 95% of Existing Walls, Floors &amp; Roof</b>
			1	MR Credit 1.4	<b>Building Reuse, Maintain 50% of Interior Non-Structural Elements</b>
1				MR Credit 2.1	<b>Construction Waste Management, Divert 50% from Disposal</b>
1				MR Credit 2.2	<b>Construction Waste Management, Divert 75% from Disposal</b>
			1	MR Credit 3.1	<b>Resource Reuse, 5%</b>

			1	Indoor Environmental Quality	
1				MR Credit 3.2	<b>Resource Reuse, 10%</b>
1				MR Credit 4.1	<b>Recycled Content, 10% (post-consumer + ½ pre-consumer)</b>
1				MR Credit 4.2	<b>Recycled Content, 20% (post-consumer + ½ pre-consumer)</b>
1				MR Credit 5.1	<b>Regional Materials, 10% Extracted, Processed &amp; Manufactured Regionally</b>
	1			MR Credit 5.2	<b>Regional Materials, 20% Extracted, Processed &amp; Manufactured Regionally</b>
			1	MR Credit 6	<b>Rapidly Renewable Materials, 2.5%</b>
	1			MR Credit 7	<b>Certified Wood</b>
12	2	1		<b>Indoor Environmental Quality</b>	
Y				EQ Prereq 1	<b>Minimum IAQ Performance</b>
Y				EQ Prereq 2	<b>Environmental Tobacco Smoke (ETS) Control</b>
1				EQ Credit 1	<b>Outdoor Air Delivery Monitoring</b>
1				EQ Credit 2	<b>Increase Ventilation</b>
1				EQ Credit 3.1	<b>Construction IAQ Management Plan, During Construction</b>
	1			EQ Credit 3.2	<b>Construction IAQ Management Plan, Before Occupancy</b>
1				EQ Credit 4.1	<b>Low-Emitting Materials, Adhesives &amp; Sealants</b>
1				EQ Credit 4.2	<b>Low-Emitting Materials, Paints &amp; Coatings</b>
1				EQ Credit 4.3	<b>Low-Emitting Materials, Flooring Systems</b>
	1			EQ Credit 4.4	<b>Low-Emitting Materials, Composite Wood &amp; Agrifiber Products</b>
1				EQ Credit 5	<b>Indoor Chemical &amp; Pollutant Source Control</b>
1				EQ Credit 6.1	<b>Controllability of Systems, Lighting</b>
		1		EQ Credit 6.2	<b>Controllability of Systems, Thermal Comfort</b>
1				EQ Credit 7.1	<b>Thermal Comfort, Design</b>
1				EQ Credit 7.2	<b>Thermal Comfort, Verification</b>
1				EQ Credit 8.1	<b>Daylight &amp; Views, Daylight 75% of Spaces</b>
1				EQ Credit 8.2	<b>Daylight &amp; Views, Views for 90% of Spaces</b>
3	2	1		<b>Innovation &amp; Design Process</b>	
1				ID Credit 1.1	<b>Innovation in Design: Sustainable Education</b>
1				ID Credit 1.2	<b>Innovation in Design: Green Housekeeping</b>
	1			ID Credit 1.3	<b>Innovation in Design: Green Operations and Management</b>
		1		ID Credit 1.4	<b>Innovation in Design: Carbon Neutral Building</b>
		1		ID Credit 1.5	<b>Innovation in Design: Community Involvement/Connection - Exemplary Construction Waste, Exemplary Water Conservation....</b>
1				ID Credit 2	<b>LEED® Accredited Professional</b>
1		2	1	<b>Regional Priority Credits</b>	
1				RP Credit 1.1	<b>Regional Priority Credit: Specific Credit SS 1</b>
		1		RP Credit 1.2	<b>Regional Priority Credit: Specific Credit SS 6.1</b>
			1	RP Credit 1.3	<b>Regional Priority Credit: Specific Credit EA 1 &amp; 2</b>
		1		RP Credit 1.4	<b>Regional Priority Credit: MR 7</b>

Yes	Easy	Hard	No
53	16	12	29

Project Totals (pre-certification estimates)

**53 credits LEED silver**

ENGINE



discussion

EVER READY