UNIVERSITY OF ALASKA
ANCHORAGE

# *SCHEMATIC DESIGN APPROVAL*

**Name of Project:** **Kachemak Bay Campus Classroom Building**

**Location of Project:** Homer, Alaska

**Project Number:** 564275 (08)

**Date of Request:** November 2, 2009

| | | |
|---|---|---|
| **Estimated Total Project Cost:** | **$2,700,000** | |
| **Approval Required:** | **F&LMC** | |
| **Prior Approvals/Actions:** | **Preliminary Project Approval:** | **May 6, 2009** |
| | **Formal Project Approval:** | **June 5, 2009** |

## *Policy Citation*

In accordance with Regents' Policy P05.12, Schematic Design Approval (SDA) represents approval of the location of the facility, its relationship to other facilities, the functional relationship of interior areas, the basic design including construction materials, mechanical, electrical, technology infrastructure, and telecommunications systems, and any other changes to the project since Formal Project Approval.

Unless otherwise designated by the approval authority or a Material Change in the project is subsequently identified, SDA also represents approval of the proposed cost of the next phase(s) of the project and authorization to complete the Construction Documents process, to bid and award a contract within the approved budget, and to proceed to completion of project construction. Provided, however, if a Material Change in the project is subsequently identified, such change will be subject to the approval process described below.

For the Schematic Design Approval, if there has been no Material Change in the project since the Formal Project Approval, approval levels shall be as follows:

- TPC > $4 million will require approval by the Facilities and Land Management Committee (F&LMC).
- **TPC > $2 million but ≤ $4 million will require approval by the chair of the F&LMC.**
- TPC ≤ $2 million will require approval by the university's Chief Finance Officer (CFO) or designee.

If there has been a Material Change in the project since the Formal Project Approval, the Schematic Design approval levels shall be the same as the Formal Project Approval.

## *BODY OF THE APPROVAL*

## 1. RATIONALE AND RECOMMENDATION

The project scope is to provide an approximately 7,000 square foot Classroom Building at the Kachemak Bay Campus in Homer. This new classroom building on the Homer campus will replace 9,000 sf of old elementary school space leased from the City.

**Site:**
The proposed building has been sited south of the existing KBC East Campus Building, and west of the existing parking lot. Its placement makes as close a connection as possible to the East Campus Building without impacting the existing parking lot. The building is oriented east-west to maximize views available from the rooms, and to maximize solar exposure. The location also took into account the desire to preserve the main building views of Kachemak Bay and the Kenai Mountains beyond.

**Relationship to Existing Building:**
The two main wings of the one-story building will be clad in horizontal siding similar in appearance to the existing building. The entry points will have covered canopies, and the north and east entries will include arctic entry vestibules.

The central portion roof will likely be sloped or curved, to relate to the East Building and this area will also have structural columns and elements that are similar to those at the entry to the East Building. Windows are located on the north and south sides of the building, to provide daylight and access to views, as well as high windows included in the central section on all four sides.

**Building Method:**
To maximize space with the available funds, the building layout is developed to allow bidding of the project as modular construction, panelized construction, and traditional 'stick-built' construction.

**Bidding Method:**
Project will be design, bid, build. Awarded to the lowest responsive bidder.

**Exterior:**
The primary exterior siding product will be a pre-finished, cementitious based siding that requires less maintenance than wood. It will be in a reddish-brown color complimentary to the color of the East Building. The central portion of the building will be composed of a combination of aluminum storefront and accent wall siding. Accent materials being explored are metal panels, ceramic/porcelain tile, or cementitious panels. Material cost, along with appearance and durability, will be considered during the selection process.

The main entry is located close to mid-point. East of the main entry are five classrooms, three for general purpose on the south side, and the nursing and science classrooms on the north side. South of the main entry is the Learning Resource Center, receptionist and Testing Center. West is the faculty wing with offices and copier/storage/kitchenette area.

**Alternates:**
The Alternates are included in the event the bidding climate allows for additional scope. These are not part of the base bid but have been priced. They would be selected based on availability of funds.

Alternate One: Increase Classroom 3 by 300 square feet. Rough order of Magnitude (ROM)- $85K

Alternate Two: Director's Office, Administrative Assistant Office, Program Coordinator Office, and File Storage. ROM -$170K

Alternate Three: increase the Nursing Classroom by 176 square feet to accommodate a third hospital bed and a faculty observation area. ROM- $60K

Alternate Four: Plaza ROM- $45K

**Architectural:**
The exterior wall assembly will consist of 2x6 wood stud framing filled with fiberglass batt insulation, covered with sheathing and siding. The interior side will be finished with vapor retarder and gypsum board. The low-slope roof assembly will consist of an exposed membrane, over a cover board and average R-38 rigid insulation, mechanically fastened down to roof sheathing. The feature roof system will be curved metal panels over roof sheathing.

**Structural:**
The structure will be a one-story wood framed building.
Wood Framing Options: modular and panelized. Foundation Options: stem wall, frost-protected shallow foundation: a concrete slab-on-grade with a turned down thickened edge, steel piles.

**Mechanical:**
Mechanical systems will be coordinated for the modular building. Domestic hot water will be provided using instantaneous Toyotomi oil fired hot water heater. Point of use electric water heaters will be installed in the classrooms. A domestic hot water recirculation pump will operate based on building occupancy to maintain domestic hot water temperature.

No site irrigation systems are planned to be included in the design.
A new fuel oil tank will be installed for the building. The tank will be an above ground, double wall, UL listed tank.

Heating for the building will be provided by high efficiency, three pass oil fired hot water boilers. The new ventilation system will consist of three new roof-top mounted variable air volume air handling units. One unit will serve the classroom wing, one unit will serve the faculty office wing and one unit will serve the center core and future library addition area. Variable air volume systems are ideal for variable occupancy use buildings as they respond to actual load conditions, saving energy when buildings are not fully occupied.

A microprocessor based direct digital control (DDC) system will be specified for the facility.
A complete automatic fire protection system will be specified to be designed, installed and tested in compliance with NFPA 13.

**Electrical:** An existing 120/208V three-phase utility transformer will be utilized to provide electrical service to the site. We will confirm that the existing transformer has sufficient capacity for the new building load. A minimum 400A, 120/208V, three phase 4 wire service is planned.

An Uninterruptible Power Supply (UPS) will be provided to maintain power to all server and network equipment circuits.

The light fixtures selected will be energy efficient, durable, and provide even, high color rendering illumination throughout the spaces. Throughout the facility indirect type lighting will be used as much as possible and economically feasible. Fluorescent fixtures will be furnished with energy efficient, low mercury/mercury-free T8 lamps and electronic ballasts, typical.

*Classrooms:* Continuous runs of pendant or recess mounted direct/indirect fluorescent fixtures to provide a non-glare lighting source (50 F.C. average at desk level).

*Exterior:* Entrances will be provided with recessed and direct/indirect LED fixtures installed in the canopies.

Lighting control schemes will consist of a combination of occupancy sensors, lighting control panels, photocells, and timers to minimize wasted light energy whenever possible.

**Fire Alarm System:**
A new manual and automatic addressable fire alarm system with Class 'B' wiring will be installed throughout the building.

**Building Codes:**
The design will conform to the following:

| | |
|---|---|
| Building Code: | 2006 International Building Code (IBC) |
| Accessibility: | Americans with Disabilities Act, Accessible Guidelines, 2003 Edition.<br>Accessible and Usable Buildings and Facilities (ICC/ANSI A117.1), 2006 Edition. |
| Occupancy Classification: | B (business, higher education) |
| Construction Type: | V-B Combustible, non-rated |
| Sprinkler System: | Not required for B occupancy building of this size, but allows relaxation of 1-hour rated corridors. |
| Corridor Construction: | Fire-resistive assembly not required if building has sprinkler system. |
| Separation of Occupancy: | No occupancy fire separation assemblies are required. |

**UA Space Standards**

Faculty are assigned 100-120 sf private offices. The design currently has 100 sf offices.

Title III and ABE Staff are assigned 100 sf private offices.

See attached Space summary for classroom sizes.

**Conformance with the draft Master Plan:**

1. Enrollment and other factors (program demands): This project replaces leased space in the old Homer Intermediate School (West Campus). The current lease has expired and there is great uncertainty as to the future of this space. The City of Homer sees the old facility as a liability and is not supportive of its continued use. The heating system is near the point of failure and may not be replaced if it does fail. The new space will give the displaced programs a home on the main campus, making all the KBC programs more centrally convenient for students.

2. Land acquisitions: Additional future land acquisition is desired for additional parking and future growth.

3. The general location of new infrastructure: This plan conforms with the current draft master plan for future buildings.

4. Demolition: The existing shed will be demolished. This building is a poorly constructed shed that came from the purchase of the mobile home park and is not structurally sound enough to be moved.

5. New building locations: Allows future buildings if additional land is provided for parking.

6. Landscaping (guidelines): The site will have landscape plantings; at the vehicle entrances to the site and near the building entrances, more formal and ornamental types of plantings will be used, plantings will be used as buffers along property perimeters and to screen the parking lot from road right-of-ways as necessary. These buffers will include a ten to fifteen foot width landscape buffer along adjacent road right-of-ways as well as a three foot minimum width planting along other adjacent property lines.

7. Open space (location and intent): North of the proposed building is an existing grassy open space with a picnic bench that will be maintained.

8. Signage (way finding, freestanding and on structures): Signage will comply with University Standards and Homer Ordinances.

9. Architectural guidelines: The two main wings of the one-story building will be clad in horizontal siding similar in appearance to the existing building. The central area will have building volumes stepping up to create visual importance. The uppermost roof will likely be sloped or curved, to relate to the East Building. The central section will also have structural columns and elements that are similar to those at the entry to the East Building. Windows are located on the north and south sides of the building, to provide daylight and access to views, as well as high windows included in the central section on all four sides.

10. Environmental and cultural issues: The campus will continue to handle storm water drainage on site with a bioswale/filtration area in the southwest corner.

11. Campus relations to neighbors and municipalities: Homer City Hall and Homer Electric Association are adjacent neighbors. The new city library is a short distance away and connected

by sidewalks. The campus is conveniently located near the town center with many businesses within walking distance. Design will comply with Homer design requirements.

12. General priorities for capital projects: This project is the top priority and is funded.

**Sustainable Design:**
The design team has been requested to incorporate sustainable design, which includes energy efficiency, building orientation, recycling, and environmentally-friendly products.

The project would likely qualify for an "exemplary performance" credit with the use of dual-flush toilets, low-flow urinals, and motion activated faucets.

## 2. Graphic Description

Site and Building Renderings and Drawings are attached.

## 3. Proposed Cost and Funding Source(s)

| | | |
|---|---|---|
| FY08 Capital Appropriation | Fund 107043-564275 | $2,500,000 |
| FY 08/09 KPC Operating | Fund 106210-22714 | $200,000 |
| | | $2,700,000 |

## 4. Estimated Total Project Cost

Budget form is attached.

## 5. Variance Report

The building will be one story instead of two story as submitted in the FPA, this eliminates two sets of stairs and an elevator and it keeps the new building out of the view lines of the existing building grand room. This has allowed more building for the funds available. The non program space is larger than estimated at concept and the building has grown from 6,800 sf to 7,200 sf. The goal is to provide as much program space as possible for the budget. Bid alternates have been identified and will be used to manage the project to budget.

## 6. Schedule for Completion

| | | |
|---|---|---|
| Design | 160 days | 8/ 4/09 – 3/15/10 |
| Bidding & Award | 50 days | 3/16/09 – 5/24/10 |
| Construction | 170 days | 5/25/10 – 1/13/11 |
| Occupancy | | **1/14/11** |

## 7. Affirmation

This project complies with Board Policy P05.12.043, the PPA and FPA were previously approved:
Preliminary Project Approval: May 6, 2009
Formal Project Approval: June 5, 2009

**8. Action Requested**

Sign the Schematic Design Approval which allows the University to take this thru design and construction documents and pre bid notification. This is a design bid build project.

**9. Approval**

Schematic Design Approval is recommended

2 Nov 09

*William Spindle, UAA Vice Chancellor, Administrative Services* — *Date*

11·2·09

*Ken Duke, UA Chief Facilities Officer* — *Date*

Schematic Design Approval is hereby granted.

11-2-09

*Timothy Brady, Chair, Facilities & Land Management Committee* — *Date*

**Approval Notes**

UNIVERSITY OF ALASKA
ANCHORAGE

# SCHEMATIC DESIGN APPROVAL

**Name of Project:** Kachemak Bay Campus Classroom Building

**Location of Project:** Anchorage, Alaska

**Project Number:** 564275 (08)

**Date of Request:** October 29, 2009

| | | |
|---|---|---|
| **Estimated Total Project Cost:** | **$2,700,000** | |
| **Approval Required:** | **F&LM Committee** | |
| **Prior Approvals/Actions:** | **Preliminary Project Approval:** | **May 6, 2009** |
| | **Formal Project Approval:** | **June 5, 2009** |

## Supporting Documents

1. Budget
2. Consultant's Cost Estimate
3. Space Summary
4. Rendering
5. Site Plan
6. Floor Plan
7. Modular Components
8. Learning Resource Center
9. Elevations (all sides)
10. Section

| UNIVERSITY OF ALASKA | | | |
|---|---|---|---|
| Project Name: | UAA Kachemak Bay Campus Classroom Building | | |
| MAU: | UAA | | |
| Building: | New Building | Date: | 10/16/2009 |
| Campus: | Kachemak Bay | Prepared by: | FP&C |
| Project #: | 564275 | Acct #: | 564275 |
| Total GSF Affected by Project: | | 6,800 | 7,200 |
| **PROJECT BUDGET** | | FPA Budget | SDA Budget |
| **A. Professional Services** | | | |
| Advance Planning, Program Development | | $ - | $ 10,000 |
| Consultant: Design Services | | $ 206,000 | $ 160,000 |
| Consultant: Construction Phase Services | | | $ 40,000 |
| Consul: Extra Services (List: Hazardous Materials) | | | |
| Site Survey | | $ 5,000 | $ 2,250 |
| Soils Testing & Engineering | | | done in 2004 |
| Special Inspections | | $ 15,000 | $ 15,000 |
| Plan Review Fees / Permits | | $ 10,000 | $ 10,000 |
| Move overhead electric lines | | $ 20,000 | $ 40,000 |
| *Professional Services Subtotal* | | **$ 256,000** | **$ 277,250** |
| **B. Construction** | | | |
| General Construction Contract(s) | | **$ 2,060,000** | **$ 2,060,000** |
| Other Contractors: (List: _____) | | | |
| Construction Contingency | 10% | $ 206,000 | $ 206,000 |
| *Construction Subtotal* | | **$ 2,266,000** | **$ 2,266,000** |
| *Construction Cost per GSF* | | *$ 333* | *$ 315* |
| **C. Building Completion Activity** | | | |
| Plan Review Fees/Permits | | see above | see above |
| Equipment | | $ 22,660 | $ 22,660 |
| Fixtures | | | |
| Furnishings | | | |
| Signage not in construction contract | | | |
| Move-In Costs | | $ 22,660 | $ 22,660 |
| Art | | $ - | $ - |
| Other (Interim Space Needs or Temp Reloc. Costs) | | $ - | $ - |
| Maintenance Operation Support | | $ - | $ - |
| *Equipment and Furnishings Subtotal* | | **$ 45,320** | **$ 45,320** |
| **D. Owner Activites and Administrative Costs** | | | |
| Project Plng, Staff Support | | $ 49,100 | $ 49,100 |
| Project Management | | $ 61,800 | $ 55,000 |
| Misc. Expenses: Advertising, Printing, Supplies, Etc. | | $ 21,780 | $ 7,330 |
| *Administratice Costs Subtotal* | | **$ 132,680** | **$ 111,430** |
| **E. Total Project Cost** | | **$ 2,700,000** | **$ 2,700,000** |
| *Total Project Cost per GSF* | | *$ 397* | *$ 375* |
| **F. Total Appropriation(s)** | | **$ 2,700,000** | **$ 2,700,000** |

UAA Kachemak Campus Classrooms October 18,2009

Schematic Cost Estimate

| 7340 sf | Stick Built | Modular |
|---|---|---|
| Modular Components | | 1,181,740 |
| General Conditions | 261,860 | 207,040 |
| Civil Work | 171,300 | 171,300 |
| Substructure | 148,000 | 148,000 |
| Shell | 160,000 | |
| Exterior Enclosures | 275,000 | 55,000 |
| Insulated Roof | 121,000 | |
| Interiors | 285,000 | |
| Plumbing | 54,000 | |
| HVAC | 238,000 | |
| Fire Protection | 37,000 | 28,000 |
| Electrical | 175,000 | |
| Equipment | 16,500 | 16,500 |
| Subtotal | 1,942,660 | 1,807,580 |
| Profit (10%) | 194,266 | 180,758 |
| | 2,136,926 | 1,988,338 |
| Contingent Items: | | |
| Extend 6" waterline | 18,500 | 18,500 |
| Area drain N side | 12,000 | 12,000 |
| | 2,167,426 | 2,018,838 |

Schematic Design Approval
UAA Kachemak Bay Campus Classroom Building

## Space Summary

| Space Name | # students | 5/8/2009 FPA sf | 10/16/2009 SDA sf | Difference sf |
|---|---|---|---|---|
| Classroom 1 | 16 | 576 | 576 | - |
| Classroom 2 | 24 | 576 | 576 | - |
| Classroom 3 | 10 | 576 | 300 | (276) |
| Nursing Lab | 12 | 576 | 581 | 5 |
| Science Lab | 18 | 576 | 581 | 5 |
| | | | | |
| Learning Resource Center | 24 | 370 | 650 | 280 |
| Testing Center | 6 | 350 | 125 | (225) |
| Receptionist and GED Proctor | | 80 | 102 | 22 |
| | | | | |
| Faculty Offices 8 each | | 800 | 800 | - |
| Title III | | 100 | 100 | - |
| ABE Staff | | 100 | 100 | - |
| ABE Staff | | 100 | 104 | 4 |
| Adjunct Office (6 Adjuncts) | | 100 | 100 | - |
| Copy/Kitchenette | | 100 | 100 | - |
| Lobby | | 200 | 133 | (67) |
| | | | | |
| **Total Program SF** | | **5,180** | **4,928** | **(252)** |
| | | | | |
| Non Program Area: | | | | |
| Restrooms | | | 368 | |
| Janitor Closet | | | 36 | |
| Server Room | | | 45 | |
| Boiler Rm/Sprinkler Riser | | | 178 | |
| Electrical Rm | | | 50 | |
| Circulation | | | 1,155 | |
| Wall thickness | | | 687 | |
| Total: | | 1,554 | 2,519 | 965 |
| Total Building Area Target | | **6,734** | **7,348** | **614** |

# Schematic Design Review Set

R1M ARCHITECTS

## UAA Kachemak Bay Campus Classroom Building

16 October 2009

564275 (08)

# SCHEMATIC SITE PLAN

1. Additive Alternate #1: General Classroom Expansion. The small classroom (300 square feet) would be increased in size up to a total of 576 square feet to match the other two general classrooms. Expansion would be to the East.

2. Additive Alternate #2: Nursing Classroom Expansion. To meet the requested function of the Nursing Classroom, an additional 176 square feet of space would be added for storage and student observation in expansion to the East.

3. Additive Alternate #3: Administrative Offices. The faculty wing will extend to the West as the new administrative offices would insert into the central portion of the building.

4. Additive Alternate #4: Library Expansion. The library would relocate from the existing East Campus building upon receipt of a grant, adding about 2,000 square feet to the South. Additive Alternate #3 is included in the grant funds.

5. Additive Alternate #5: Exterior Plaza. The base bid is to leave six of the seven parking stalls between the existing and new buildings at East Campus and have the sidewalk extend behind the parking. Alternate is to add the plaza as shown and create a drop-off circle.


RIM ARCHITECTS

Corvus Design

# UAA Kachemak Bay Campus Classroom Building

16 October 2009

Site Plan

564275 (08)


- Faculty Offices
- Testing / Computing / Reception
- Learning Resource Center
- Classroom
- Service Spaces
- Circulation

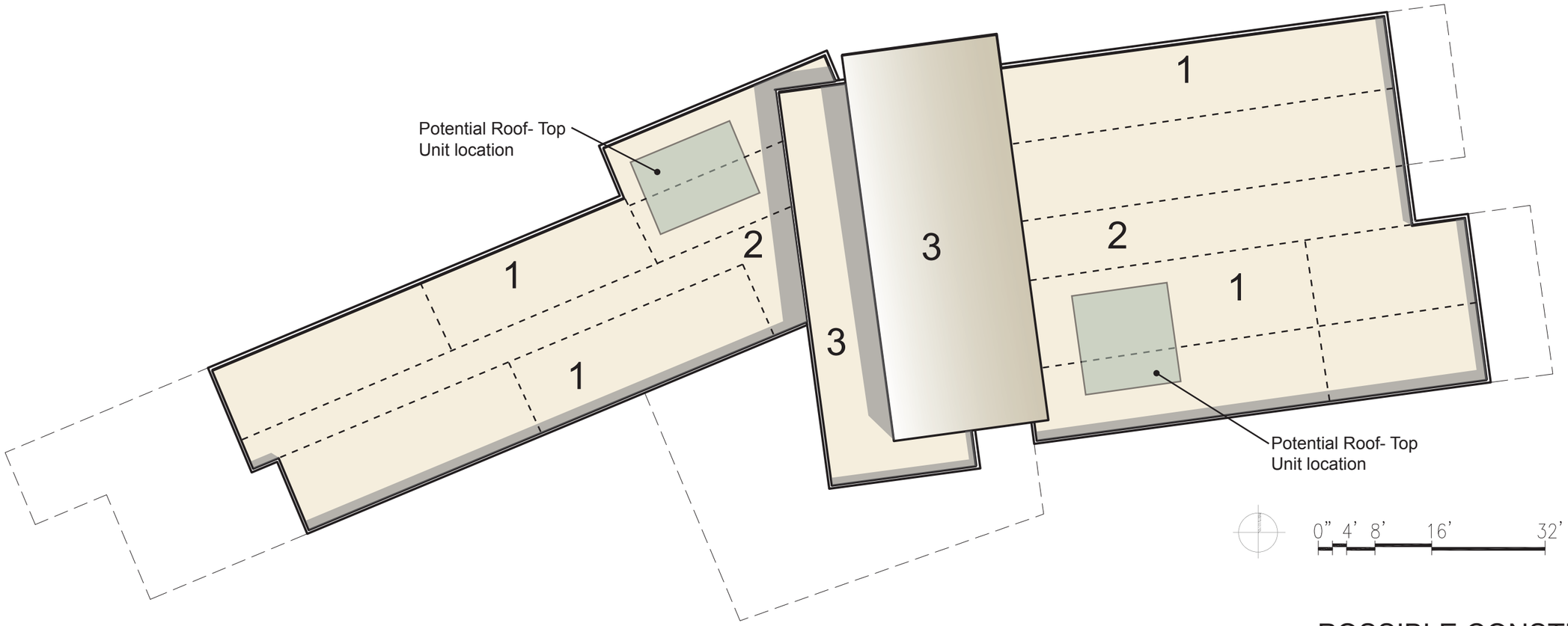
R1M ARCHITECTS

# UAA Kachemak Bay Campus Classroom Building

16 October 2009

Floor Plan

564275 (08)




## POSSIBLE CONSTRUCTION TYPES

1. Pre-fabricated modular units on pile foundations
2. Stick-frame hallways between modules
3. Stick-frame or Panelized wall assemblies

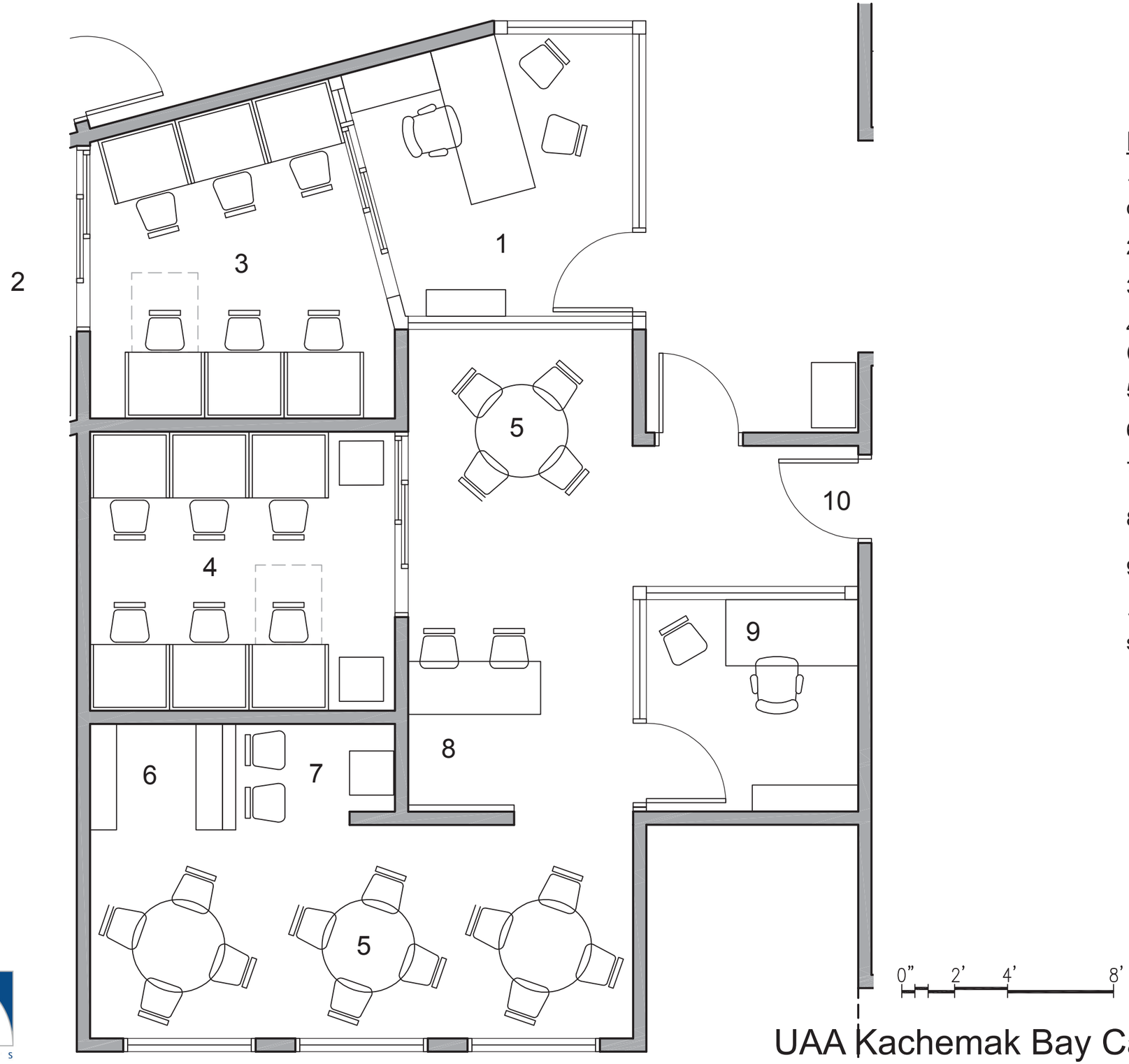
R1M ARCHITECTS

# UAA Kachemak Bay Campus Classroom Building

16 October 2009

Roof Plan

564275 (08)




## EQUIPMENT LIST

1. Reception / Testing Administrator with desk, 2 side chairs, low book shelf
2. Proctor's Station / ABE Office
3. Testing Carrels - (6) @ 3' x 3'
4. Common Use Computer Carrels - (6) @ 3' x 3' with printing station
5. Group Study Tables
6. Bookshelves
7. Viewing Station
8. Math tutor station
9. LRC coordinator
10. Access to small classroom for additional study space

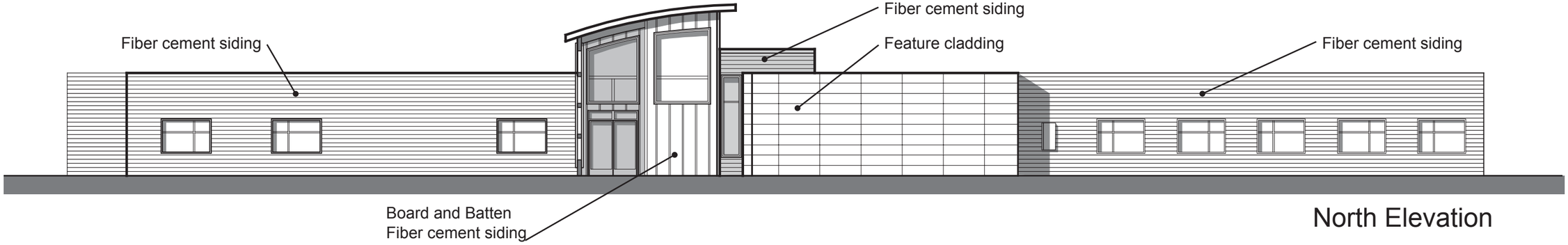
RIM ARCHITECTS

# UAA Kachemak Bay Campus Classroom Building

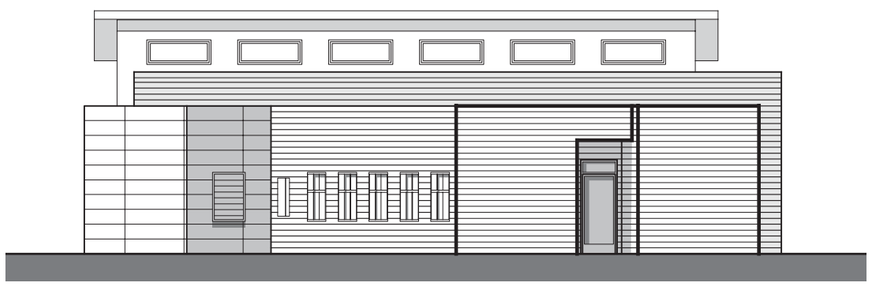
16 October 2009

Learning Resource Center

564275 (08)

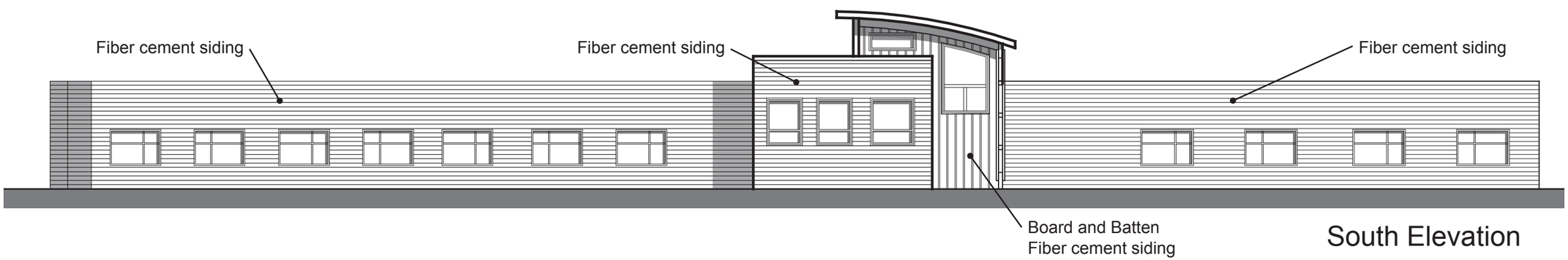



North Elevation



West Elevation

East Elevation




South Elevation

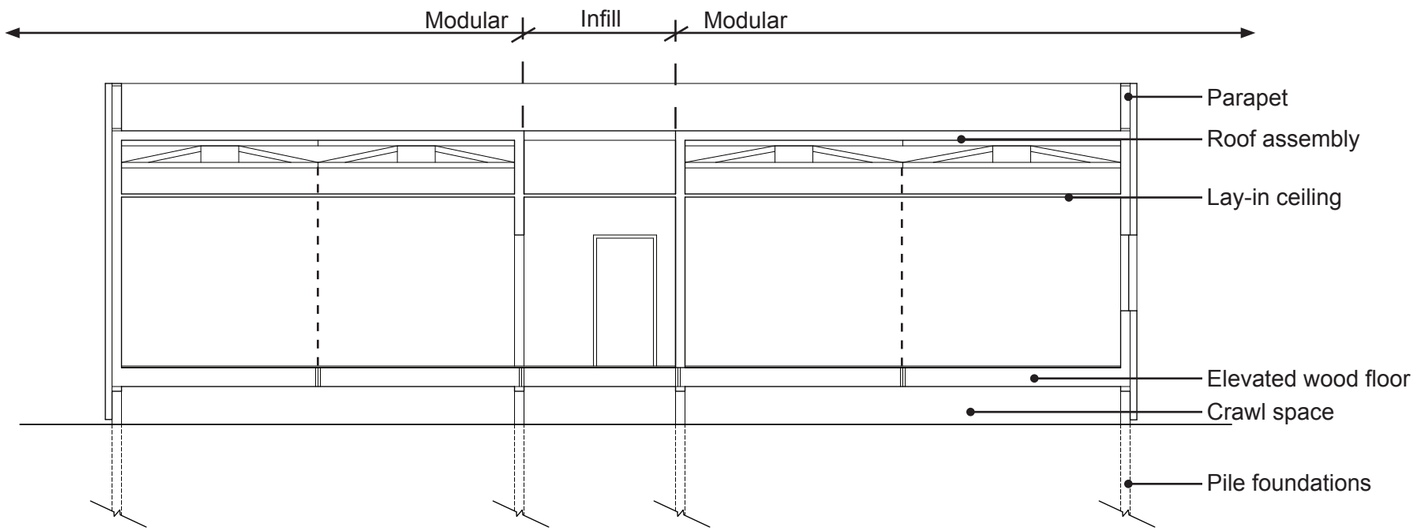
RIM ARCHITECTS

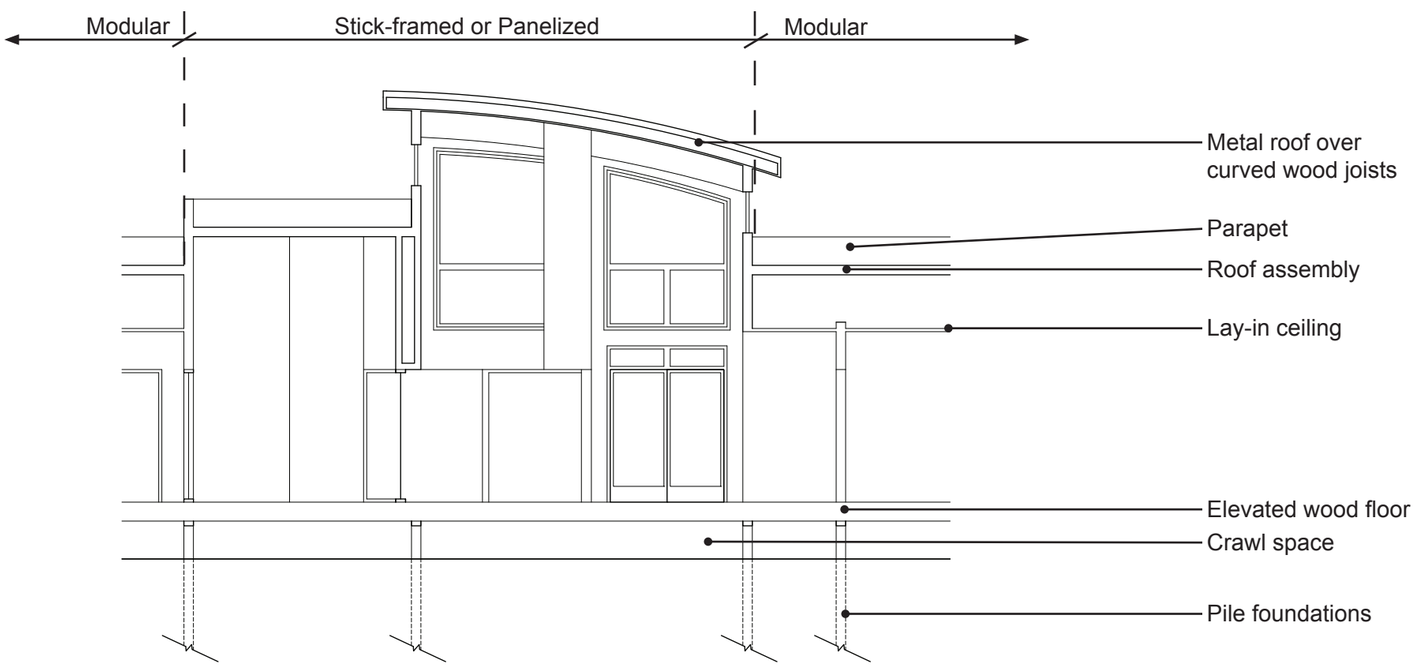
# UAA Kachemak Bay Campus Classroom Building

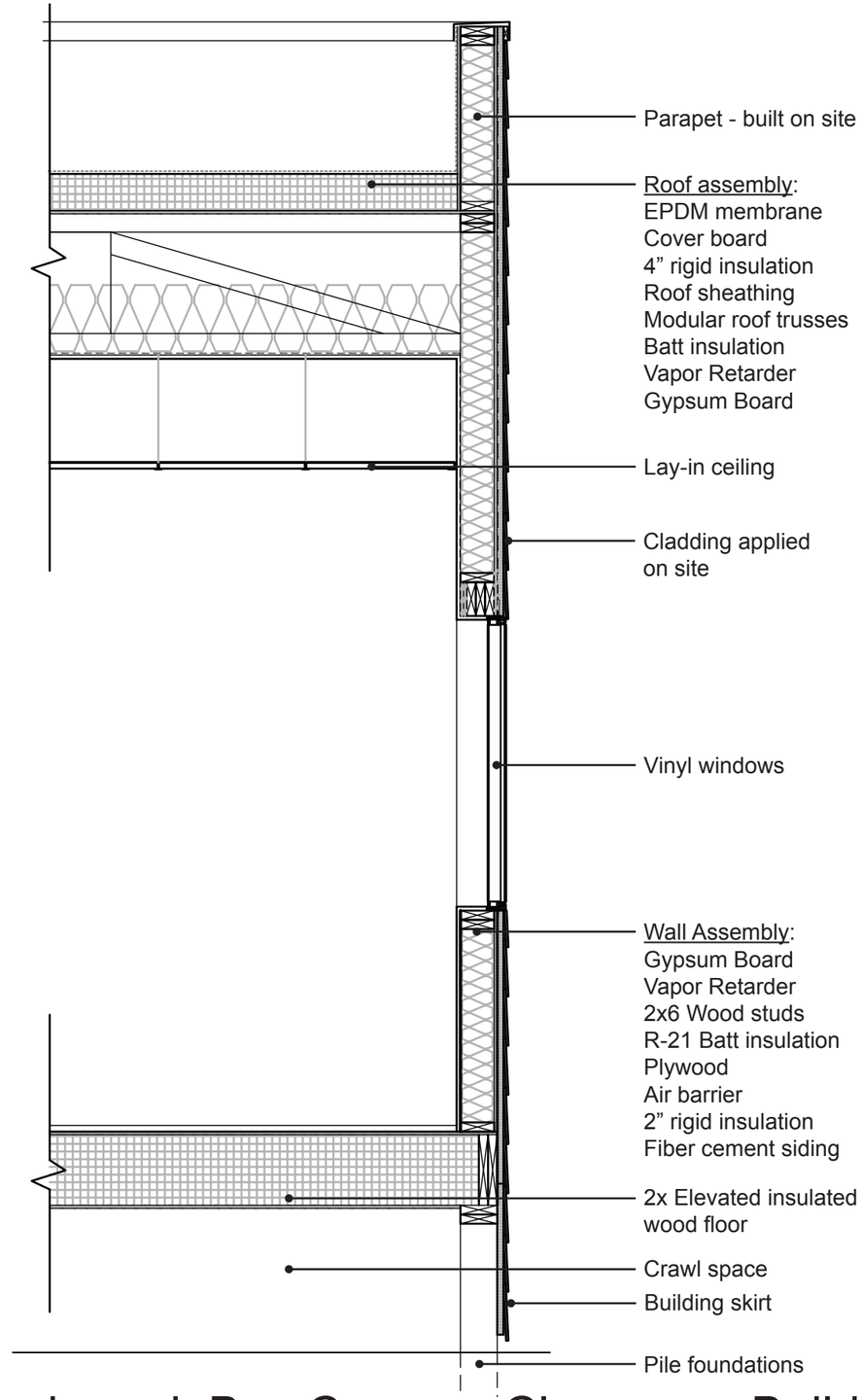
16 October 2009

## Exterior Elevations

564275 (08)




R1M ARCHITECTS

# UAA Kachemak Bay Campus Classroom Building

16 October 2009

## Sections

564275 (08)