

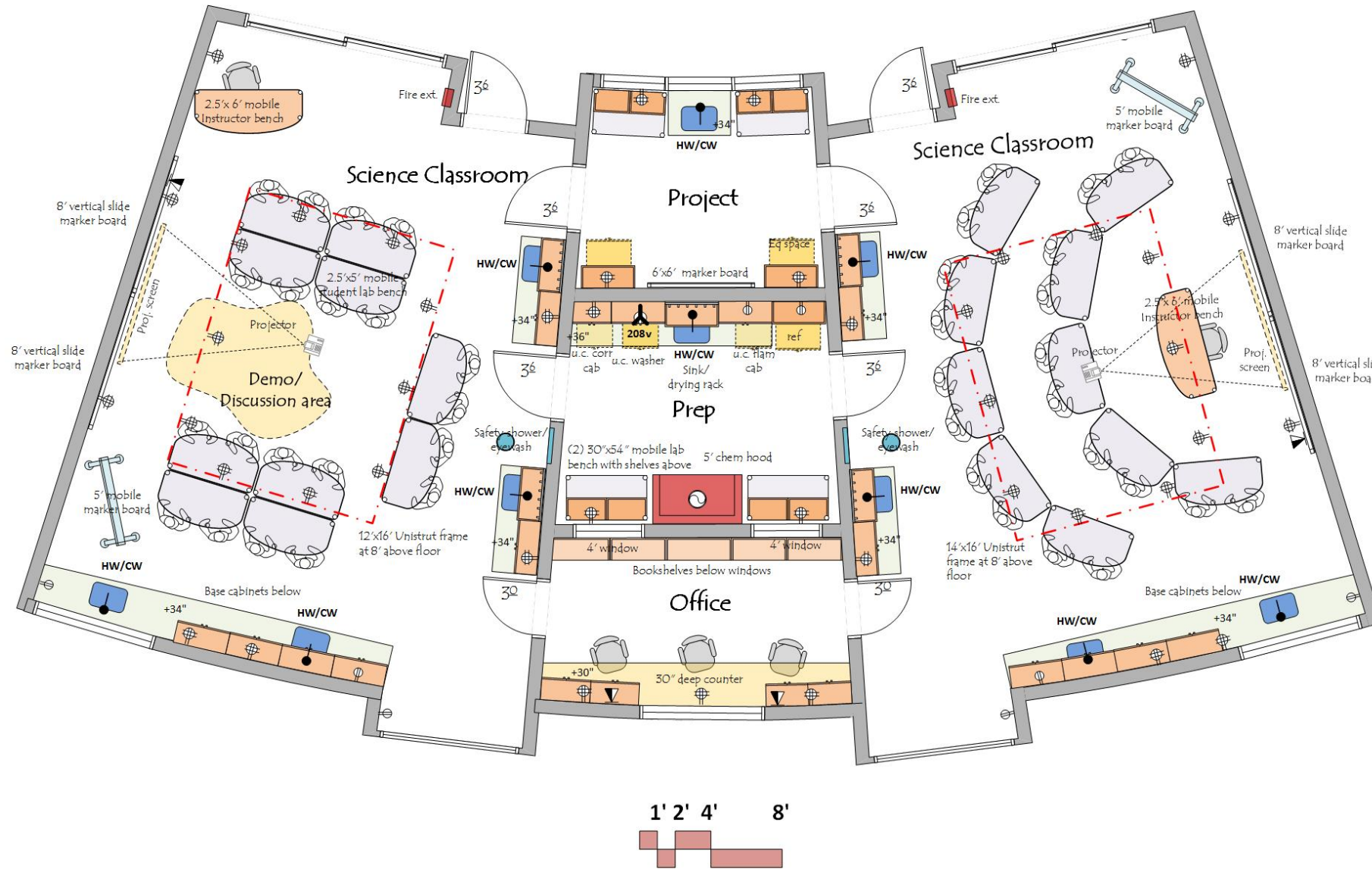
SCIENCE CLASSROOM DESIGN

Nueva Middle School
Hillsborough, California
Draft #4

2017 December 15



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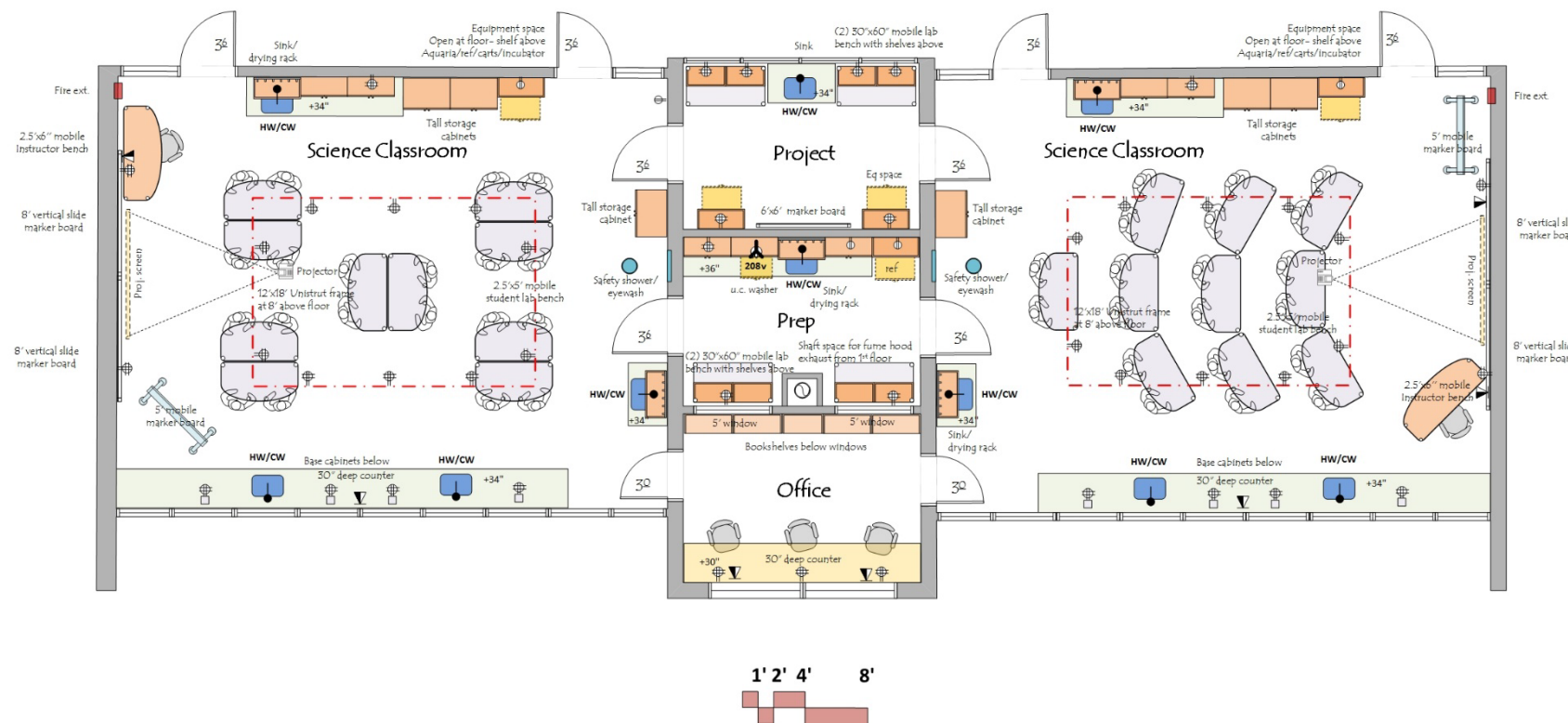


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INTRODUCTION

This is the 4th draft of the science classroom design sketchbook and provides the Basis of Design for the new science classrooms at the Nueva Middle School in Hillsborough, California. This document is an update to the previous science classroom design sketchbook issued 2015 Sep 09. The science classroom plans have been updated based upon faculty comments received on 2017 Sep 14, Oct 12, Nov 14, and design team comments received on 2017 Oct 10.

All electrical outlets and plumbing fittings are noted herein. Interior science classroom elevations are also included. Section details of typical casework conditions are also included.



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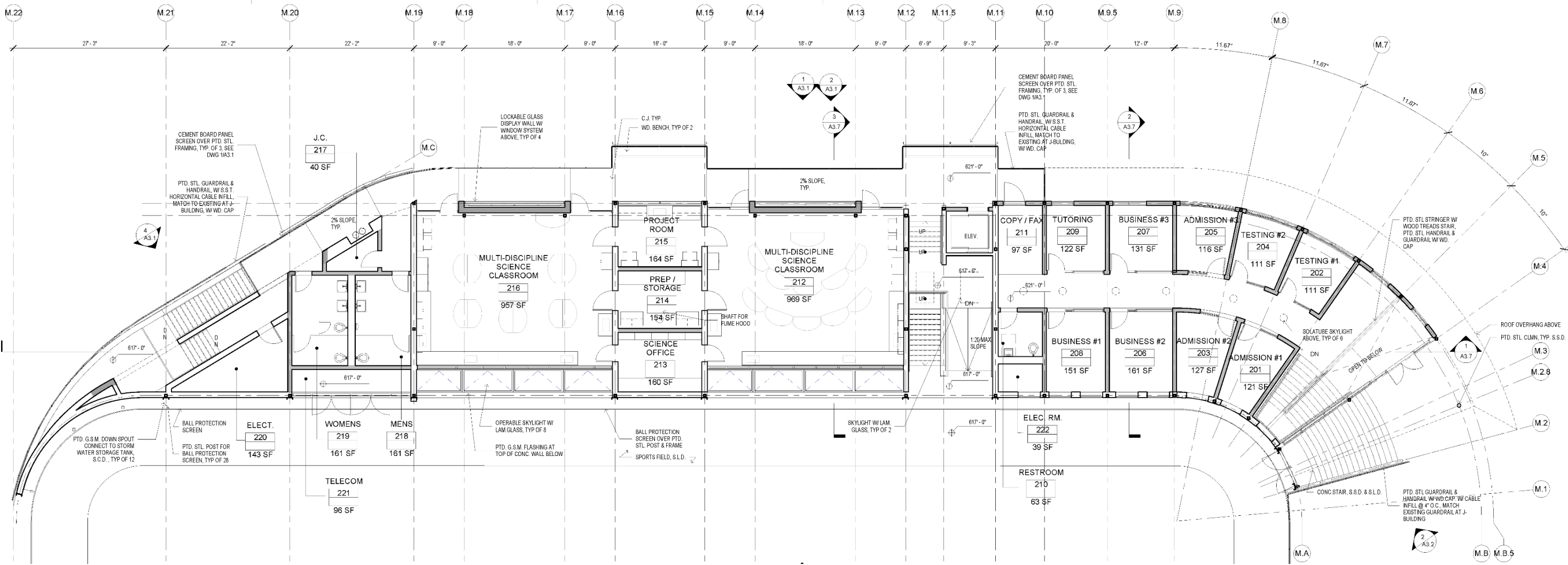


MEP DESIGN CRITERIA

Mechanical	Electrical	Plumbing
<ul style="list-style-type: none"> ▪ Natural ventilation for science classrooms. ▪ Local heat in each science classroom and support room (Prep, Office, Project). ▪ Heat gain in science classroom due to equipment: up to 25 btuh/sf. ▪ Fume hood exhaust controlled by on/off switch at fume hood. ▪ Fume hood to be constant volume. 	<ul style="list-style-type: none"> ▪ Maximum of four duplex or two fourplex power outlets on same circuit anywhere in science classroom areas. ▪ Power outlets at equipment space on dedicated circuits (each duplex, or fourplex, or 208v outlet dedicated). ▪ Under counter washers require 208v power. ▪ Lighting control switches to be located at each classroom door. ▪ Lighting to be direct/indirect LED at 500 LUX. ▪ Dimmable or stepped lighting in science classrooms. ▪ GFI outlets where outlets are near sinks, as required by code. 	<ul style="list-style-type: none"> ▪ Vacuum breakers at each sink faucet. Sinks and faucets to be specified per Division 11. ▪ Piped services include hot water, cold water, and natural gas. ▪ Hard drain connection in wall for emergency eyewash stations with floor drains below safety showers.

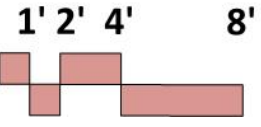
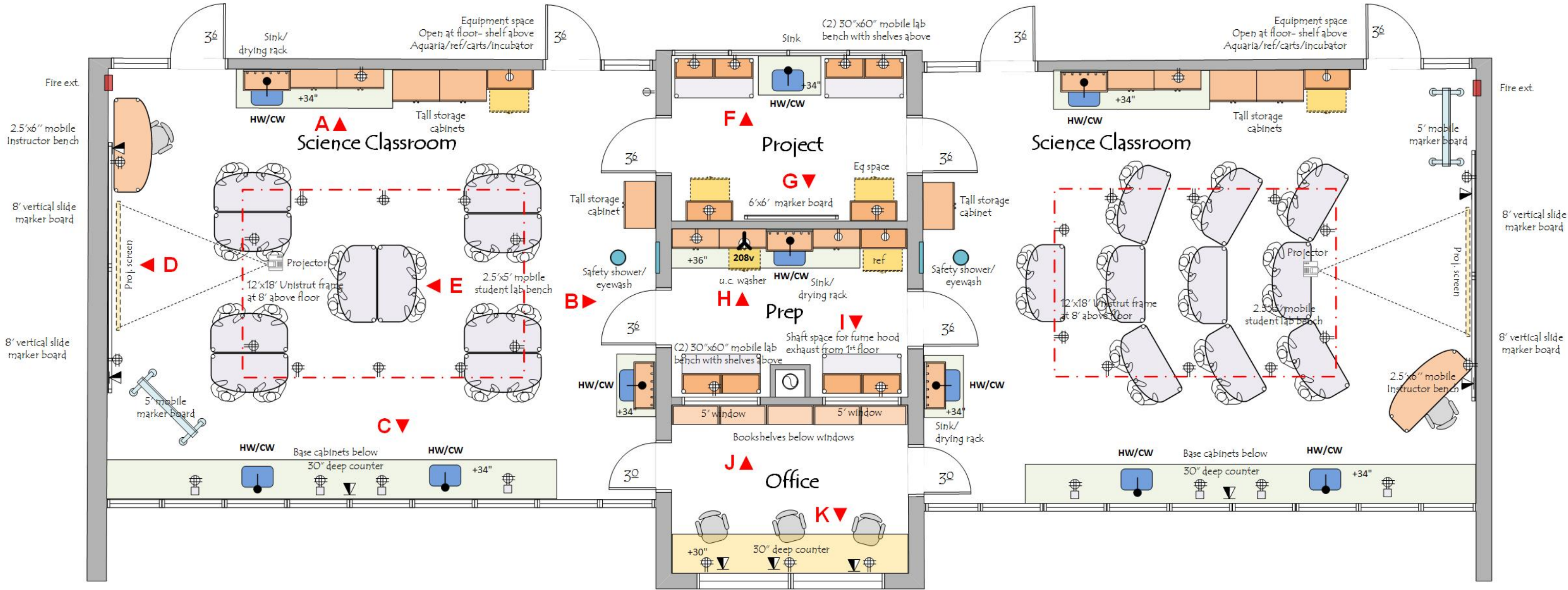
MIDDLE SCHOOL SCIENCE CLASSROOMS

Second Floor Plan



MIDDLE SCHOOL SCIENCE CLASSROOMS

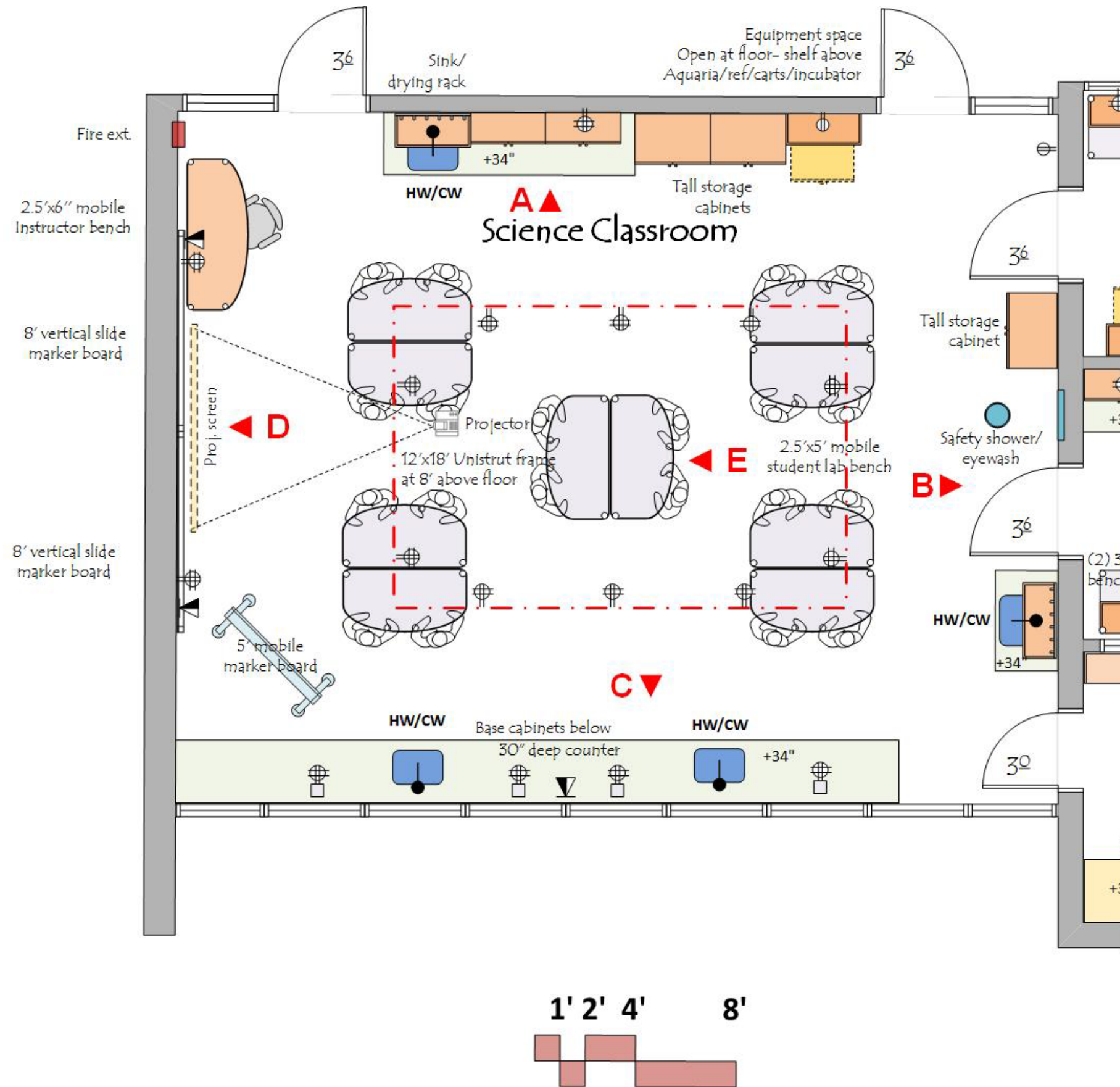
Second Floor



SCIENCE CLASSROOM

Middle School

Second Floor- West Side



ARCHITECTURAL

Occupancy: E
 Floor: linoleum
 Walls: gypsum board and enamel paint
 Ceiling: 10'-0" acoustic tile
 Doors: 3⁶/x8⁰ framed glass
 Windows: at exterior wall adjacent to doors
 Daylight attenuation: Mecho roller shade
 Acoustic Attenuation: NC 40 or less
 Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
 Local heat
 Humidity: Ambient
 Equipment Heat Gain: up to 25 btuh/sf

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data & Wireless data
 Lighting: indirect fluorescent @ 500 LUX with multi-level switching
 Task lights below wall cabinets
 Provide light switches at door

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers
 Domestic water and drain at safety shower/eyewash

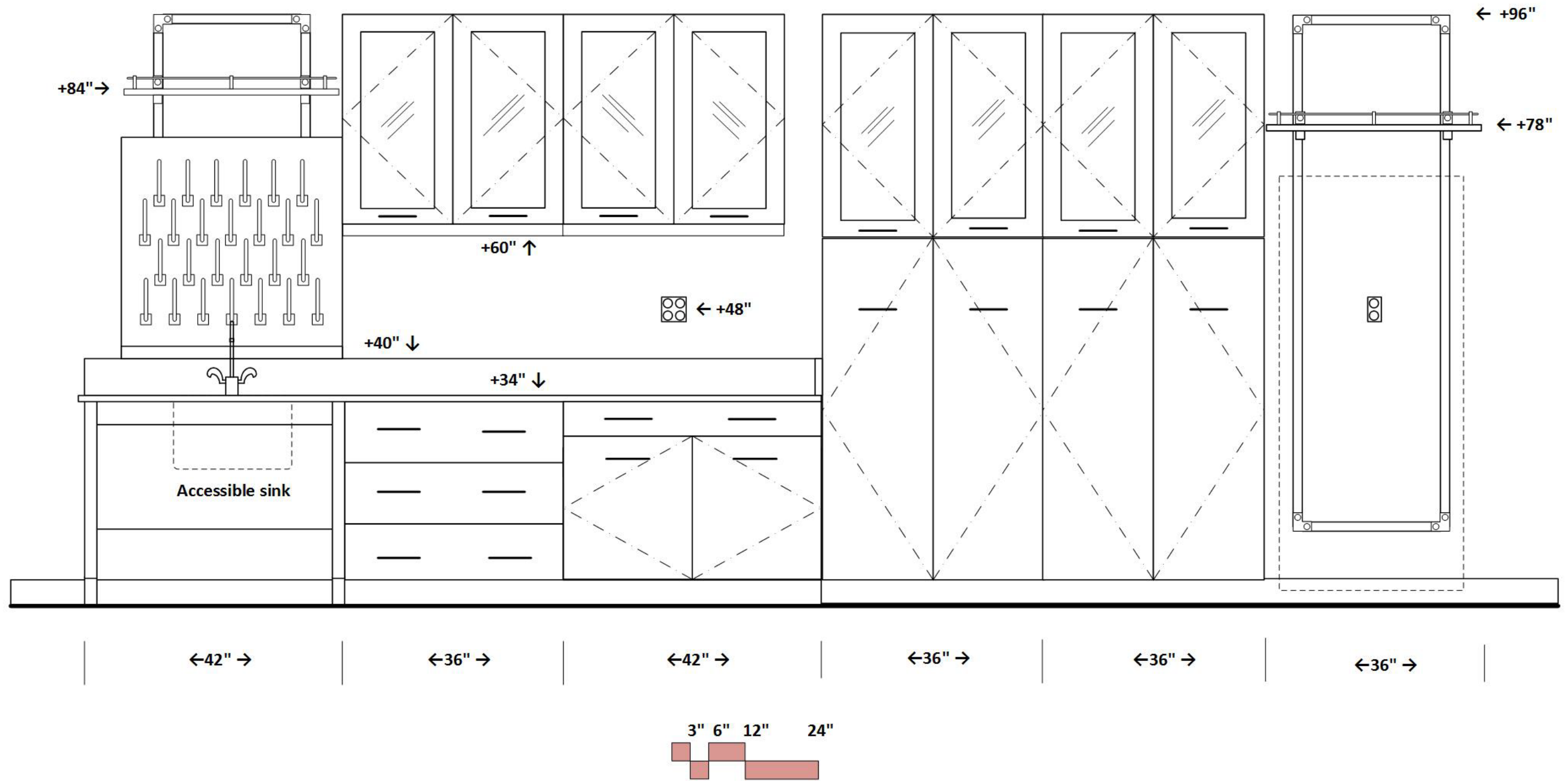
CONTRACTOR FURNISHED EQUIPMENT

Bamboo casework - base cabinets, wall cabinets, tall cabinets
 Epoxy resin tops and sinks
 Faucets & fittings
 Safety shower/eyewash
 Fire Extinguisher
 Unistrut frame suspended from structure above

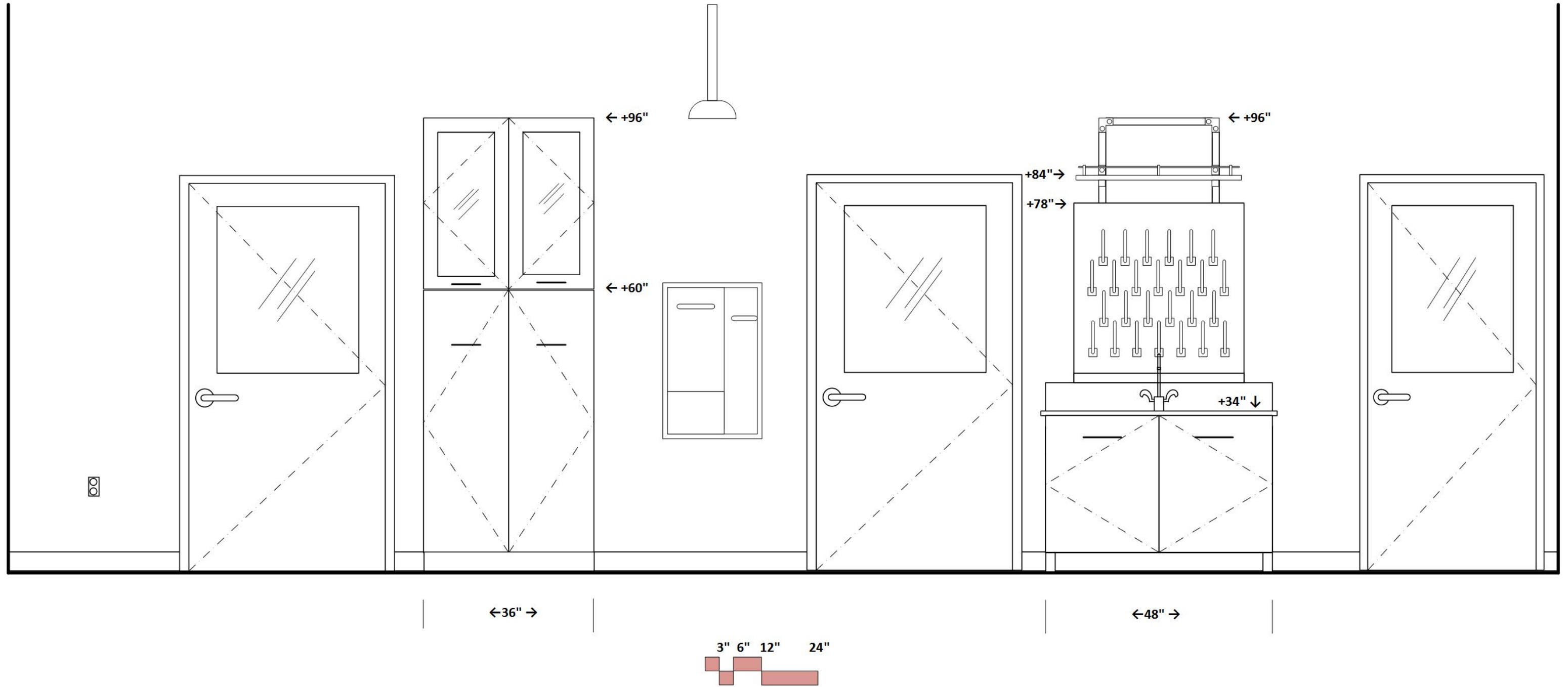
OWNER FURNISHED EQUIPMENT

Chairs
 Benchtop analytical instruments

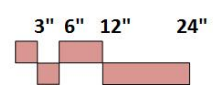
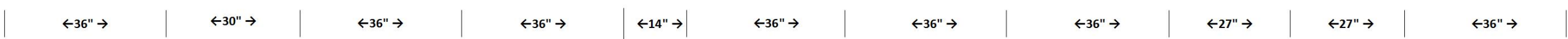
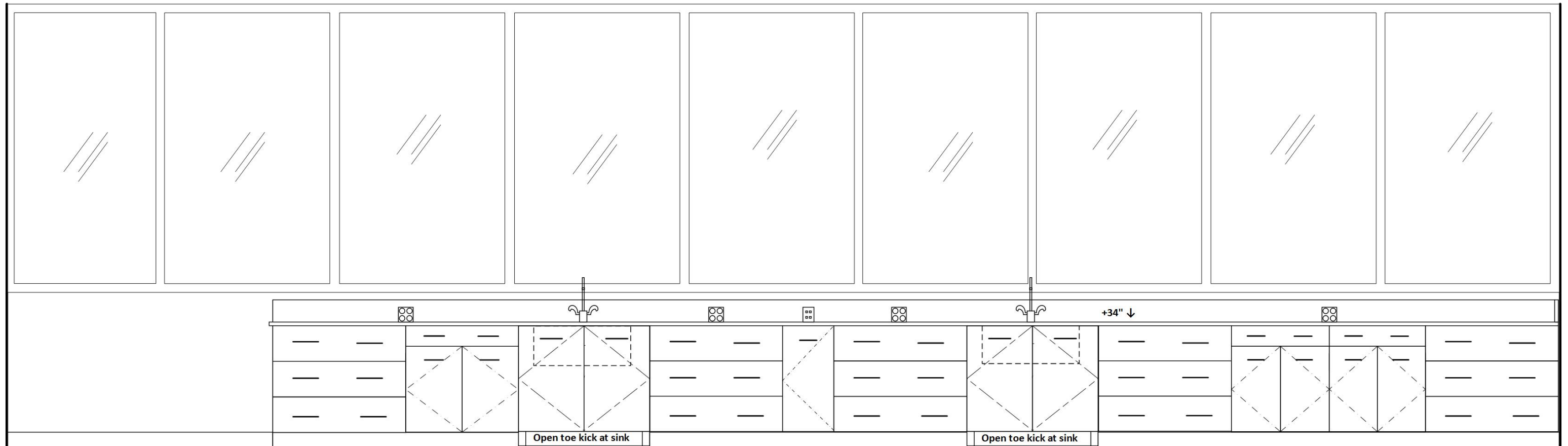
SCIENCE CLASSROOM
Middle School
Second Floor- West Side
Elevation A



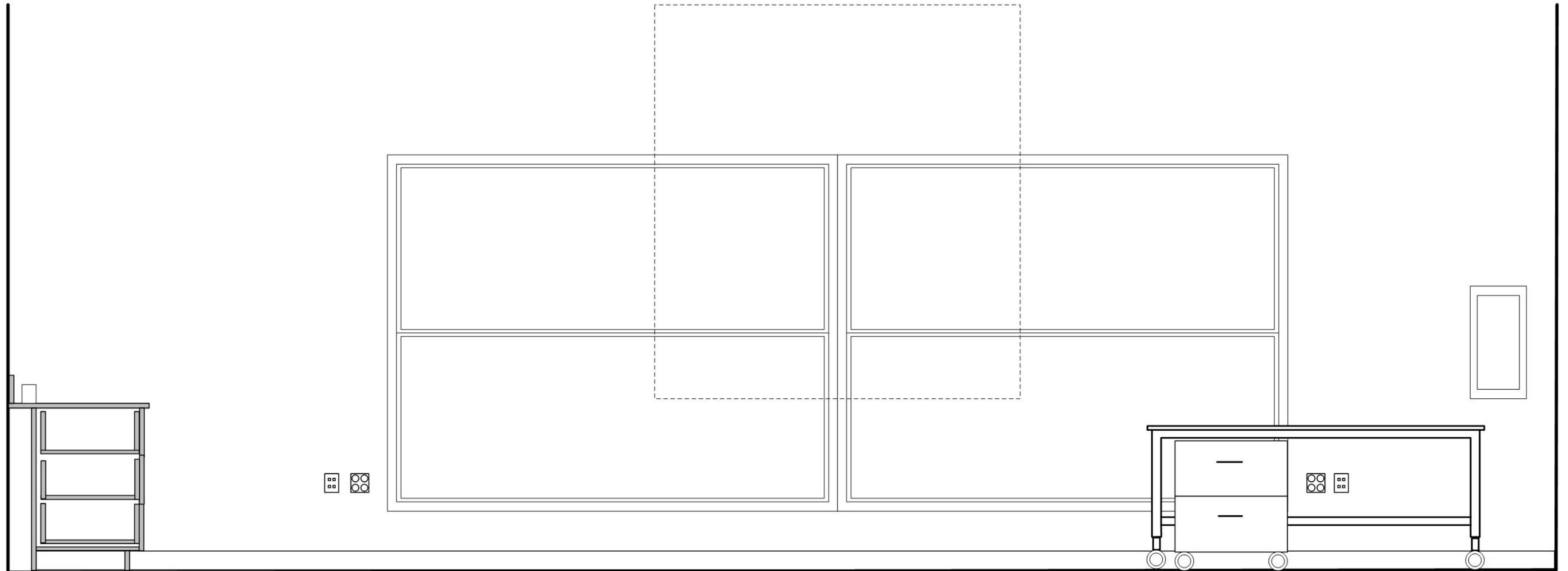
SCIENCE CLASSROOM
Middle School
Second Floor- West Side
Elevation B



SCIENCE CLASSROOM
Middle School
Second Floor- West Side
Elevation C

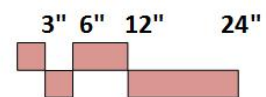


SCIENCE CLASSROOM
Middle School
Second Floor- West Side
Elevation D

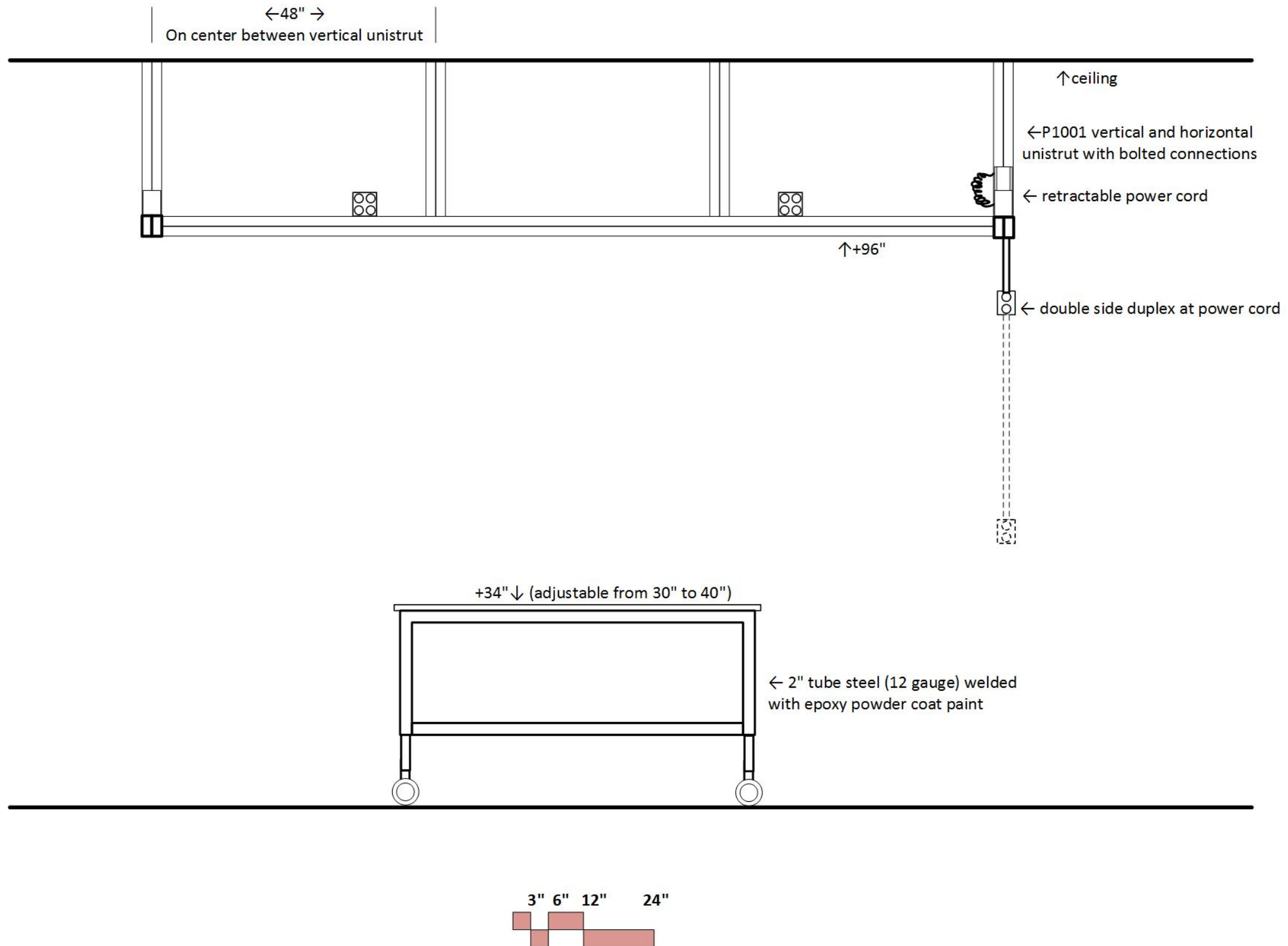


←30" →

24" wide Mobile
base cabinet



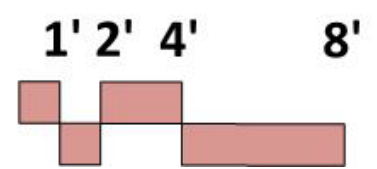
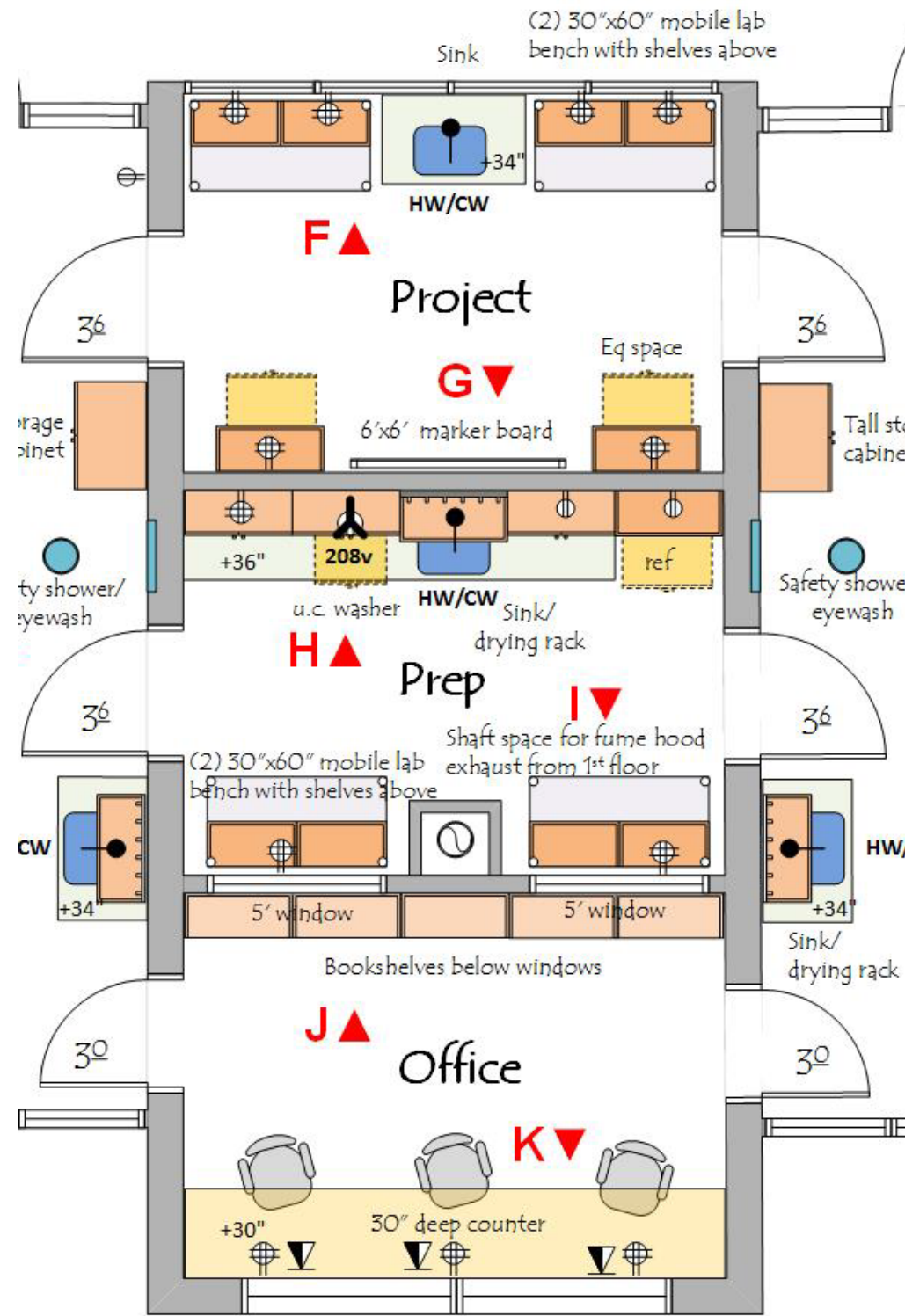
SCIENCE CLASSROOM
Middle School
Second Floor- West Side
Elevation E



PROJECT/PREP/OFFICE

Middle School

Second Floor



ARCHITECTURAL

Occupancy: E
 Floor: Linoleum
 Walls: gypsum board and enamel paint
 Ceiling: 9'-0" acoustic tile
 Doors: 3⁶/₈" framed glass
 Windows: at exterior wall adjacent to doors
 Daylight attenuation: Mecho roller shade
 Acoustic Attenuation: NC 40 or less
 Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
 Local heat
 Humidity: Ambient
 Equipment Heat Gain: up to 25 btuh/sf

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data & Wireless data
 Lighting: indirect fluorescent @ 500 LUX with multi-level switching
 Task lights below wall cabinets
 Provide light switches at door

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers
 Domestic water and drain at safety shower/eyewash

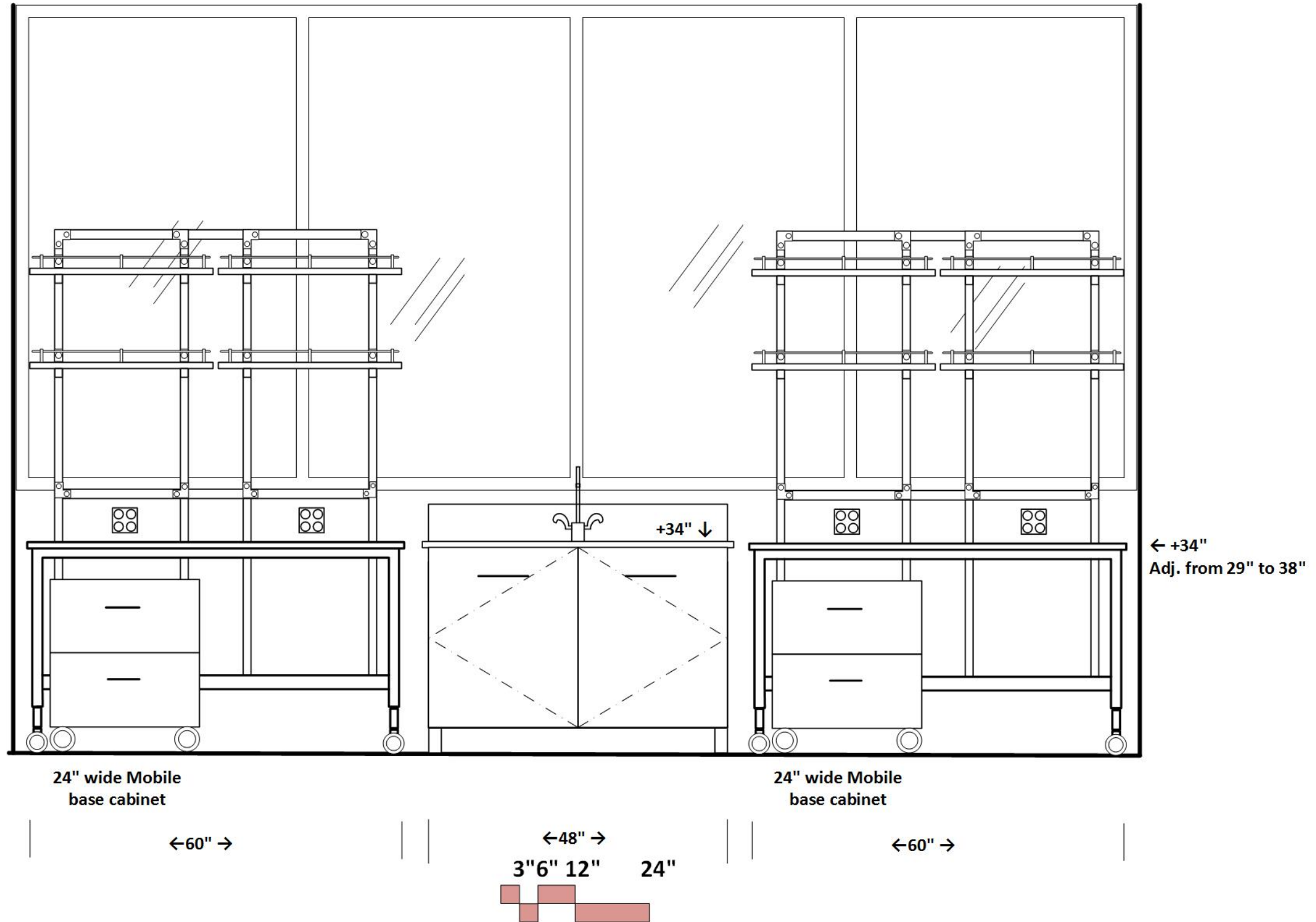
CONTRACTOR FURNISHED EQUIPMENT

Bamboo casework - base cabinets, wall cabinets, tall cabinets
 Epoxy resin tops and sinks
 Faucets & fittings
 Safety shower/eyewash
 Fire Extinguisher
 Unistrut frame suspended from structure above

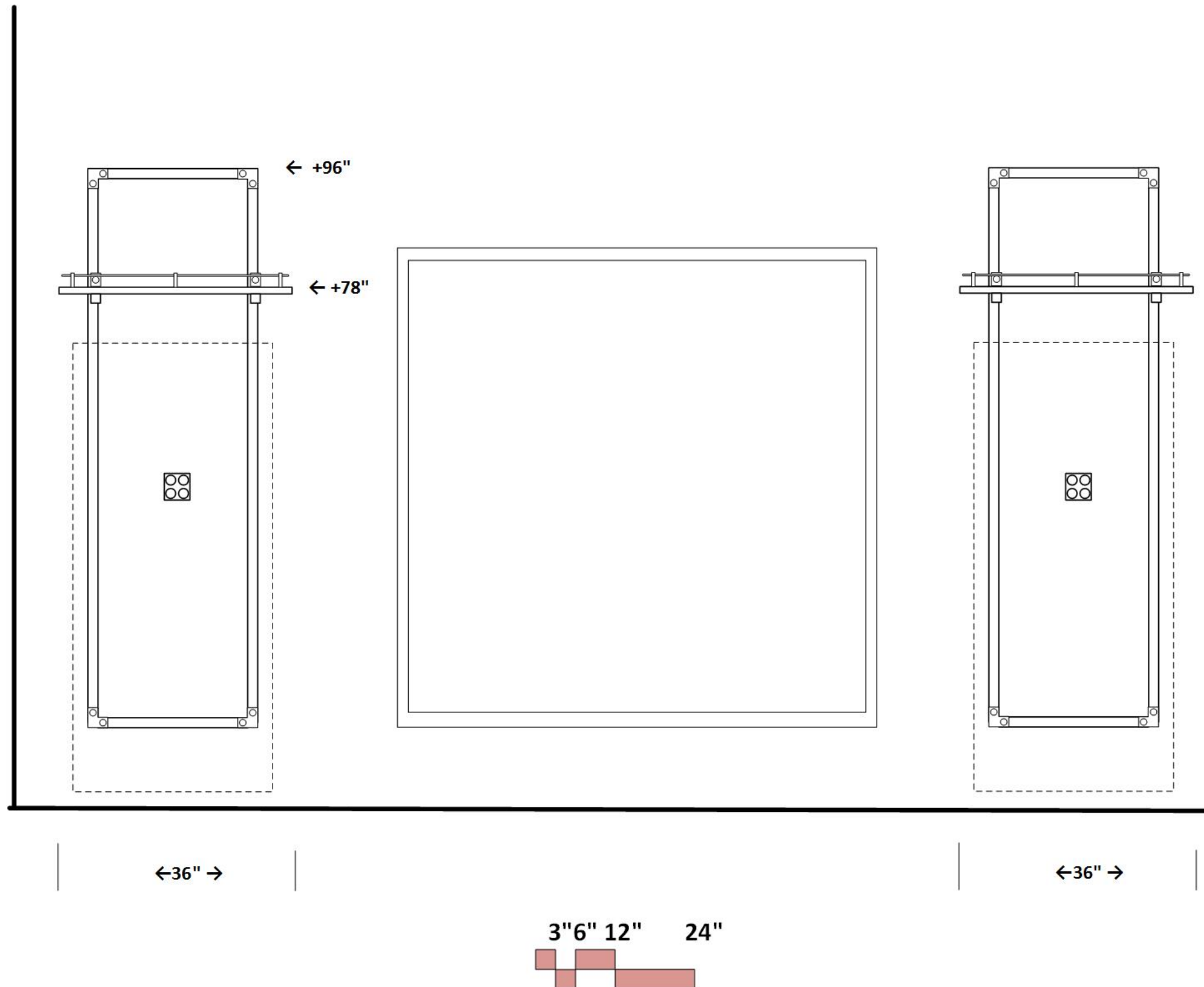
OWNER FURNISHED EQUIPMENT

Chairs
 Benchtop analytical instruments

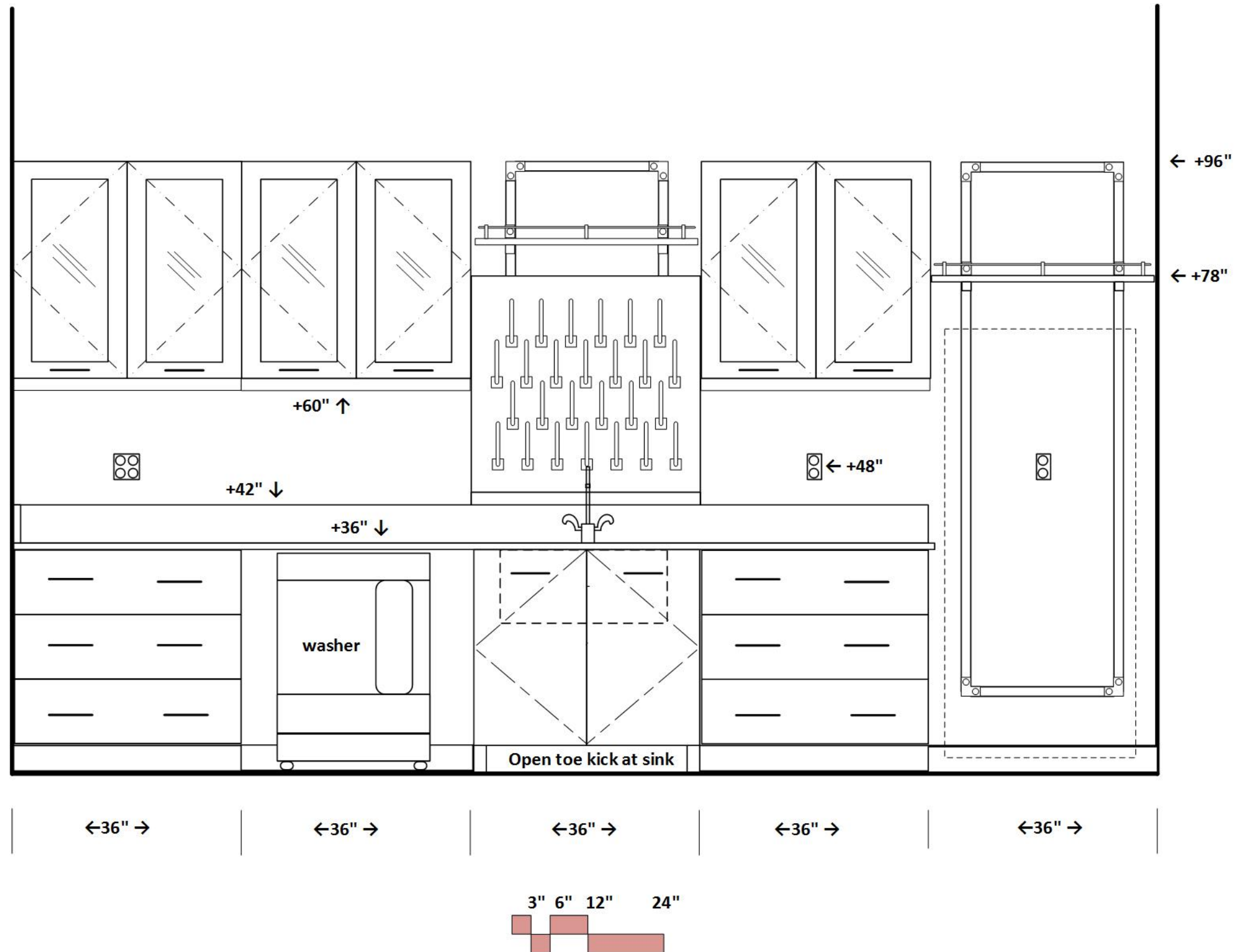
PROJECT/PREP/OFFICE
Middle School
Second Floor
Elevation F



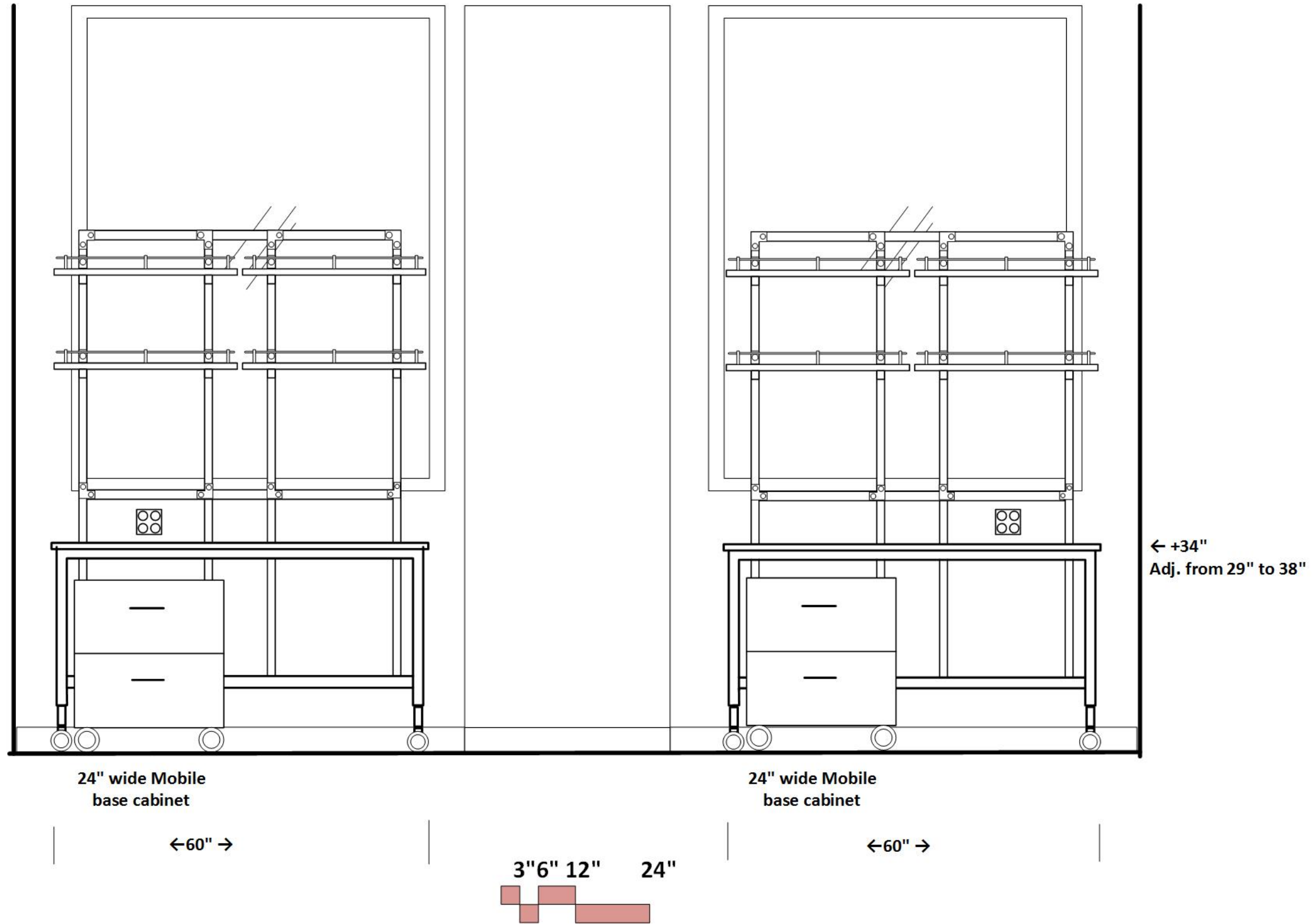
PROJECT/PREP/OFFICE
Middle School
Second Floor
Elevation G



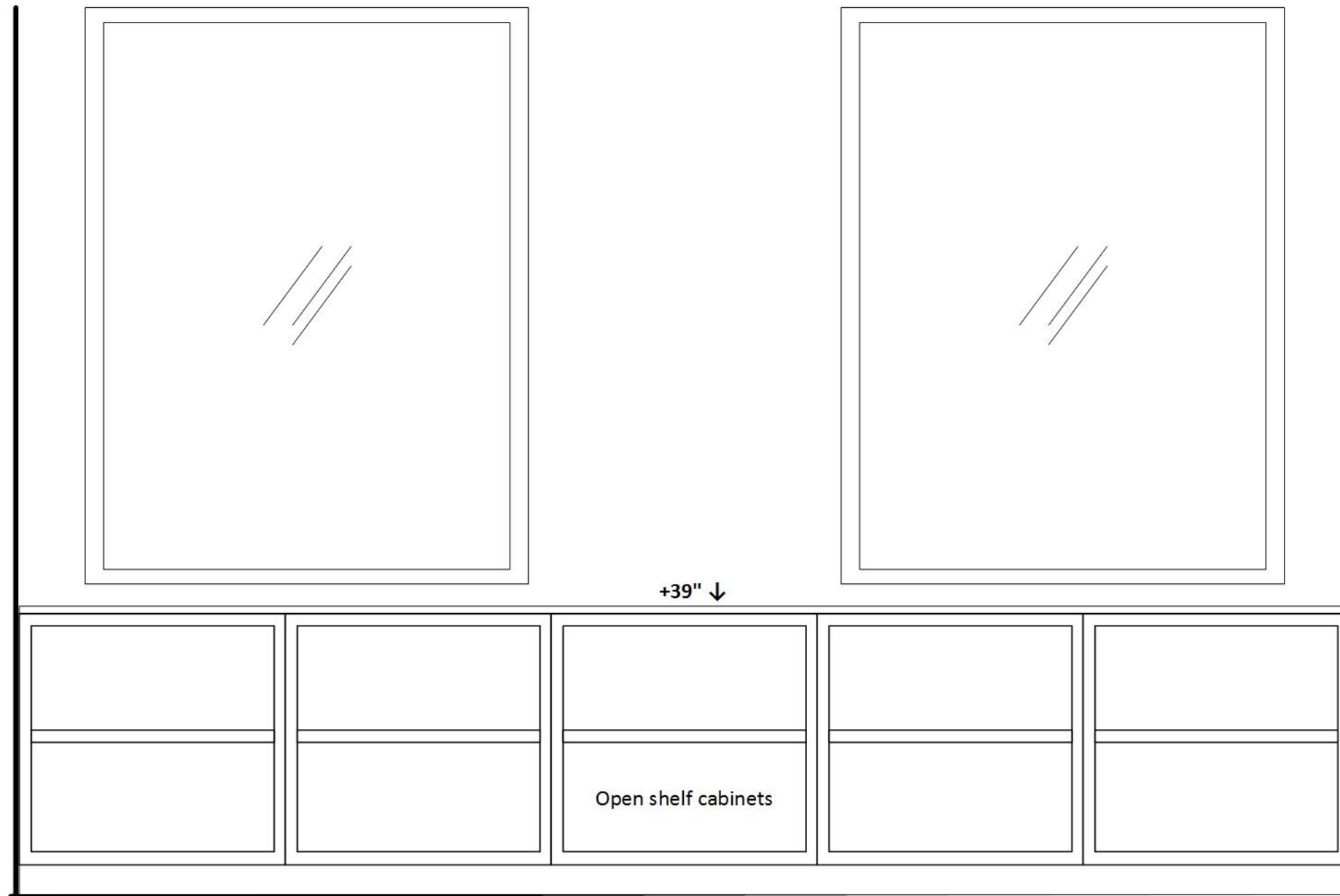
PROJECT/PREP/OFFICE
Middle School
Second Floor
Elevation H



PROJECT/PREP/OFFICE
Middle School
Second Floor
Elevation I



PROJECT/PREP/OFFICE
Middle School
Second Floor
Elevation J



+39" ↓

←36" →

←36" →

←36" →

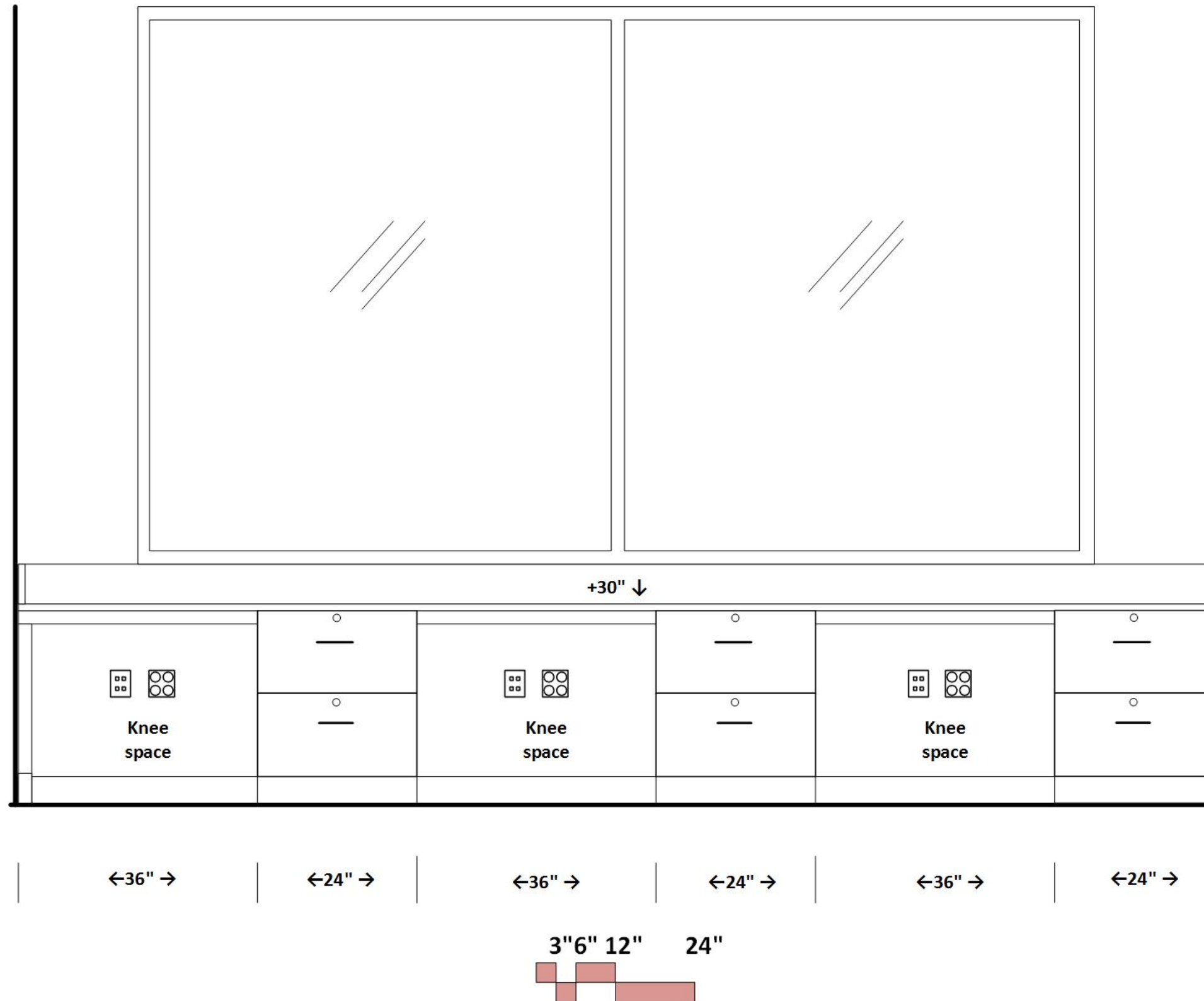
←36" →

←36" →

3" 6" 12" 24"



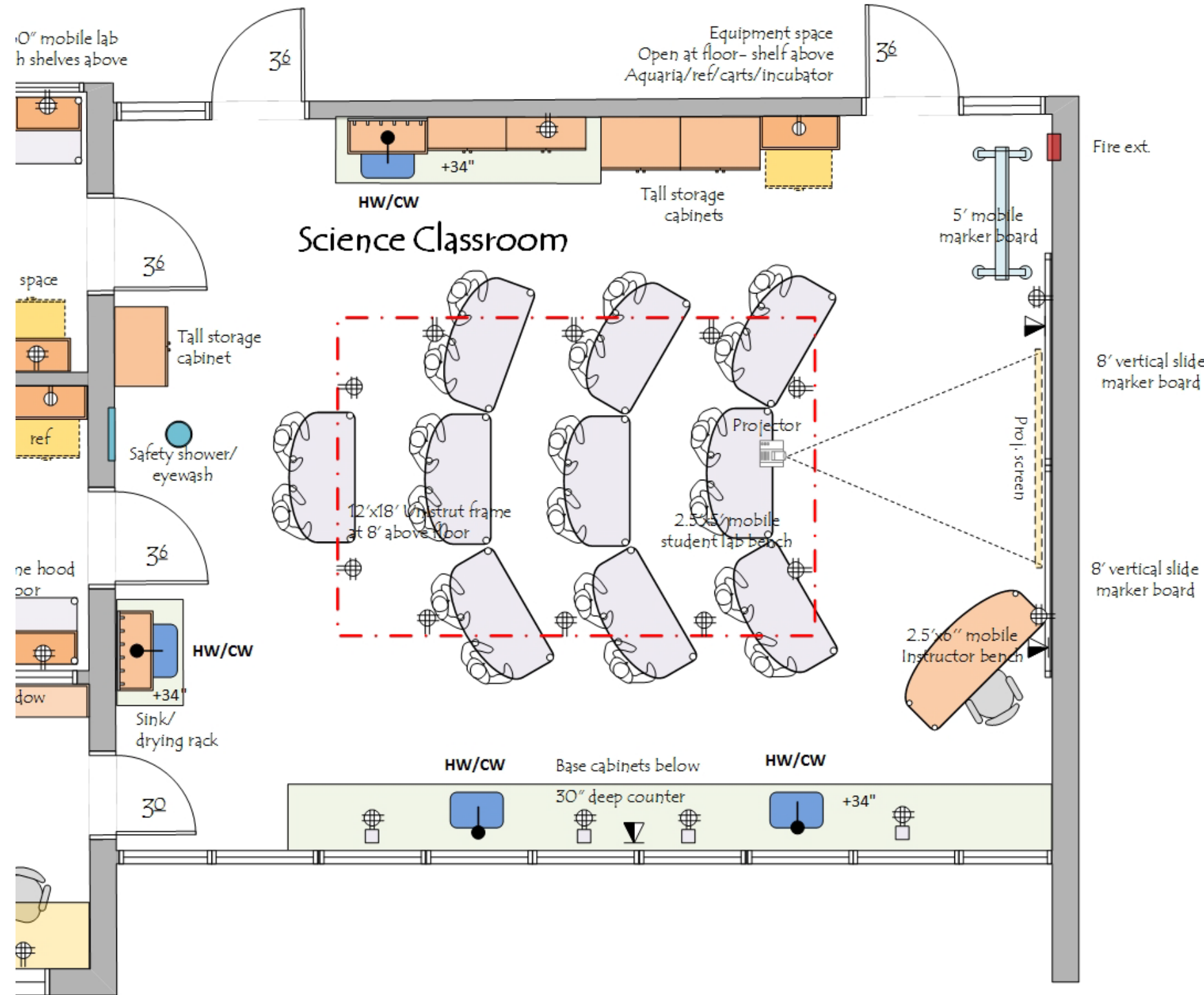
PROJECT/PREP/OFFICE
Middle School
Second Floor
Elevation K



SCIENCE CLASSROOM

Middle School

Second Floor- East Side



NOTE: ELEVATIONS ARE SIMILAR TO CLASSROOM ON WEST SIDE

ARCHITECTURAL

Occupancy: E
 Floor: linoleum
 Walls: gypsum board and enamel paint
 Ceiling: 10'-0" acoustic tile
 Doors: 3⁶/x8⁰ framed glass
 Windows: at exterior wall adjacent to doors
 Daylight attenuation: Mecho roller shade
 Acoustic Attenuation: NC 40 or less
 Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
 Local heat
 Humidity: Ambient
 Equipment Heat Gain: up to 25 btuh/sf

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data & Wireless data
 Lighting: indirect fluorescent @ 500 LUX with multi-level switching
 Task lights below wall cabinets
 Provide light switches at door

PLUMBING

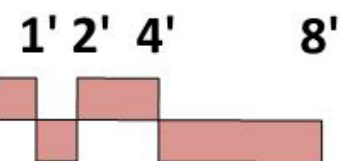
Hot/Cold water (HW/CW) at sinks with vacuum breakers
 Domestic water and drain at safety shower/eyewash

CONTRACTOR FURNISHED EQUIPMENT

Bamboo casework - base cabinets, wall cabinets, tall cabinets
 Epoxy resin tops and sinks- provide sink covers
 Faucets & fittings
 Safety shower/eyewash
 Fire Extinguisher
 Unistrut frame suspended from structure above

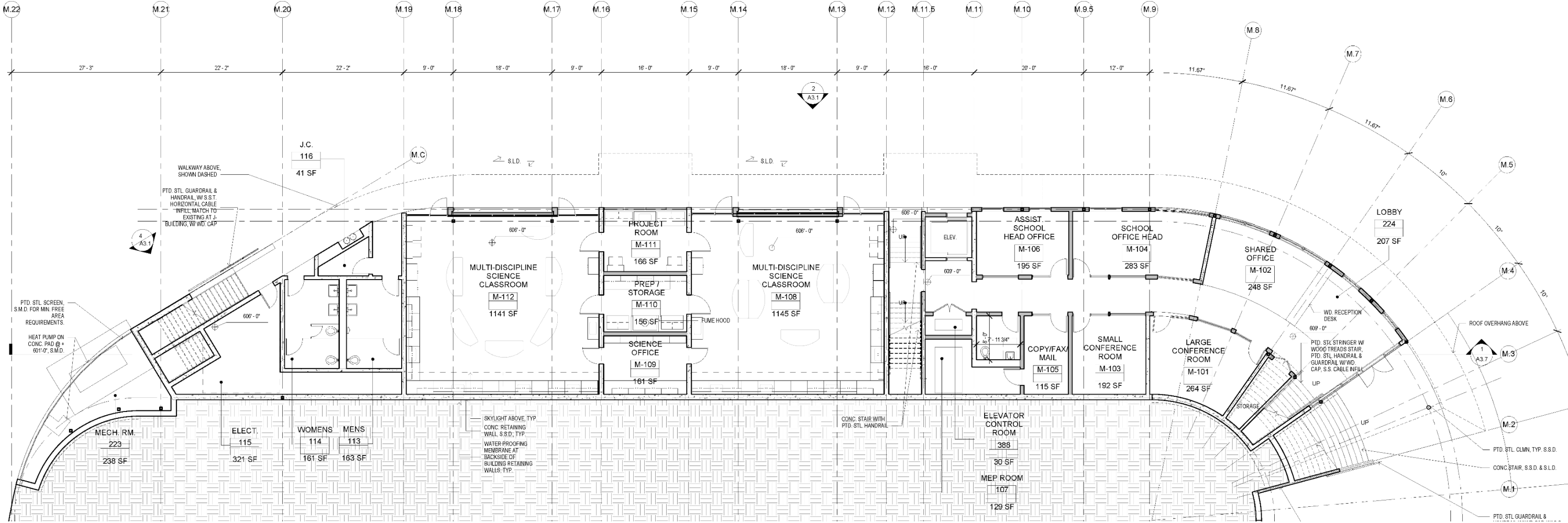
OWNER FURNISHED EQUIPMENT

Chairs
 Benchtop analytical instruments



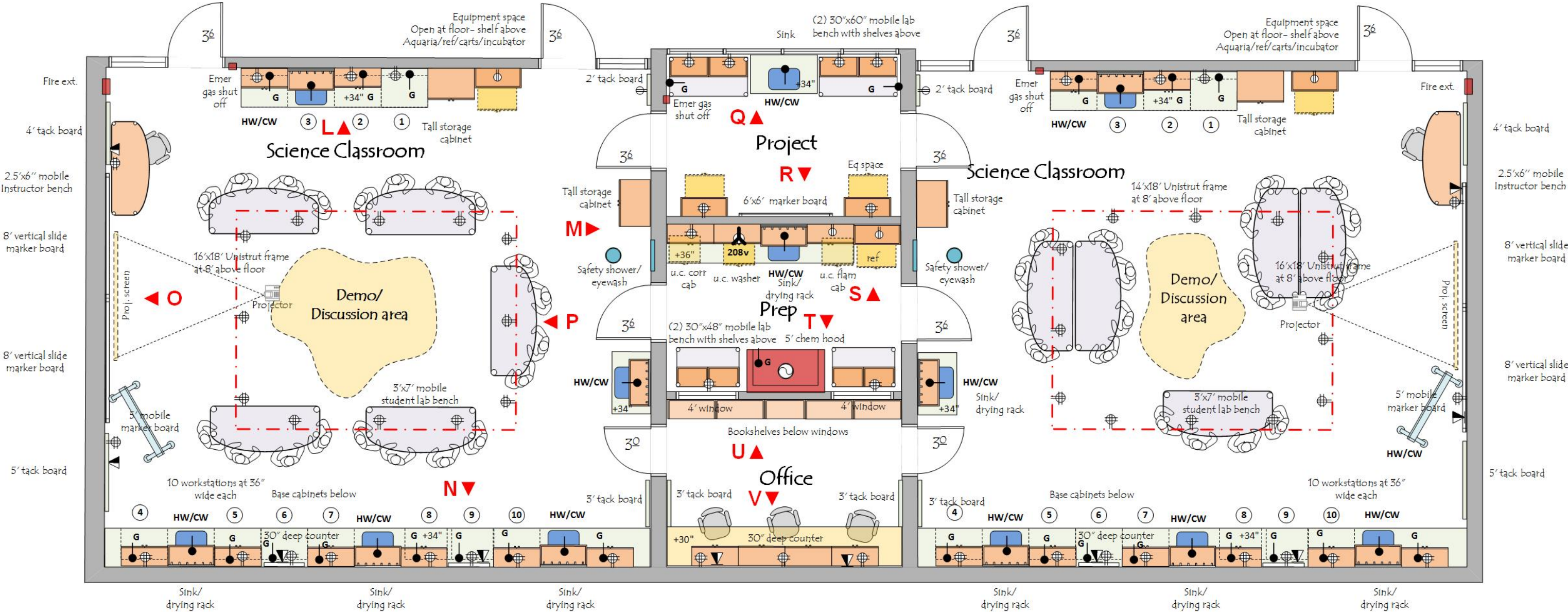
MIDDLE SCHOOL SCIENCE CLASSROOMS

First Floor Plan



MIDDLE SCHOOL SCIENCE CLASSROOMS

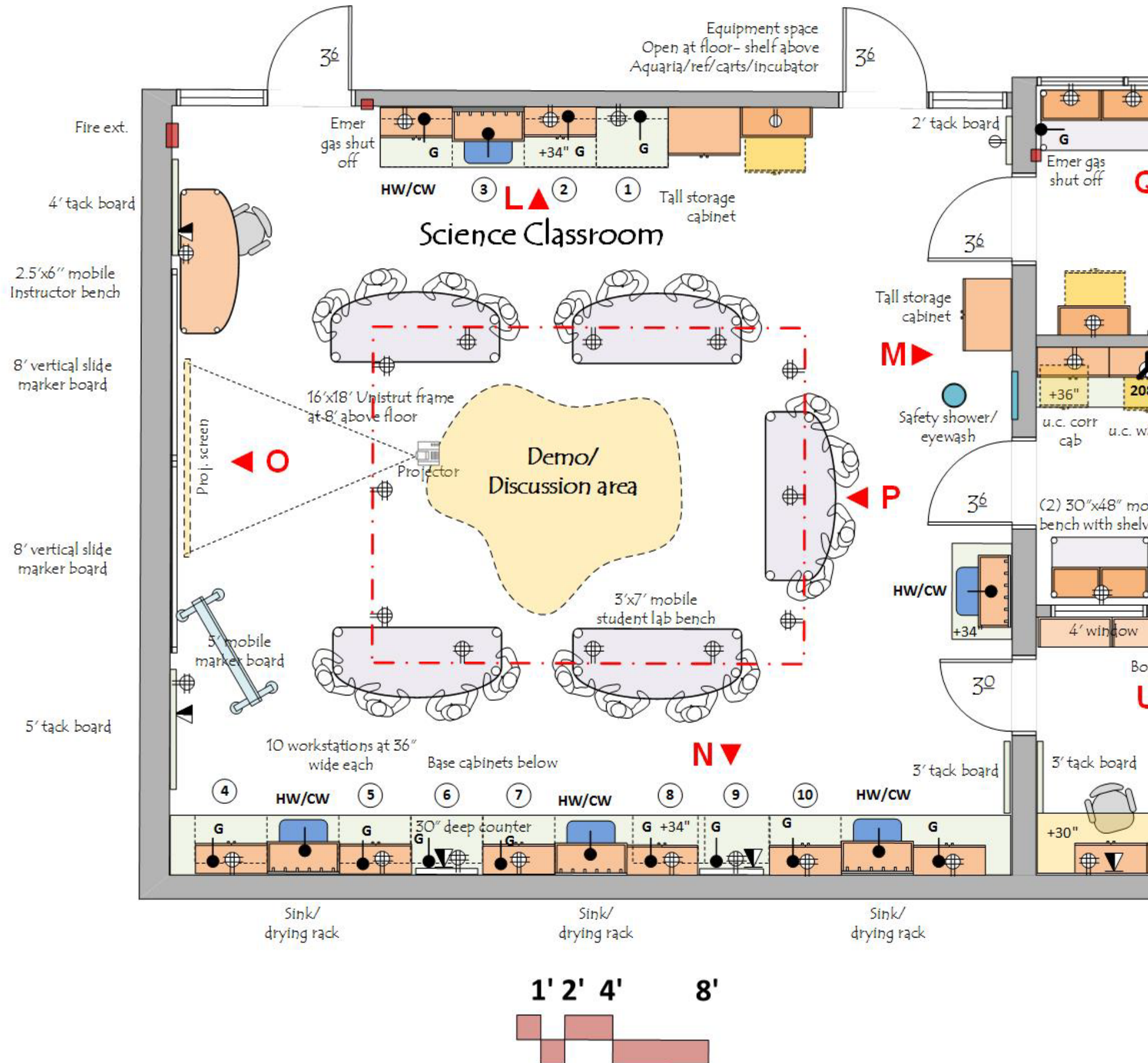
First Floor



SCIENCE CLASSROOM

Middle School

First Floor- West Side



ARCHITECTURAL

Occupancy: E
 Floor: Linoleum
 Walls: gypsum board and enamel paint
 Ceiling: 10'-0" acoustic tile
 Doors: 36"x80" framed glass
 Windows: at exterior wall adjacent to doors
 Daylight attenuation: Mecho roller shade
 Acoustic Attenuation: NC 40 or less
 Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
 Local heat
 Humidity: Ambient
 Equipment Heat Gain: up to 25 btuh/sf

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data & Wireless data
 Lighting: indirect fluorescent @ 500 LUX with multi-level switching
 Task lights below wall cabinets
 Provide light switches at door

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers
 Natural gas at perimeter bench and overhead unistrut
 Emergency gas shut/off at marker board wall near instructor bench
 Domestic water and drain at safety shower/eyewash

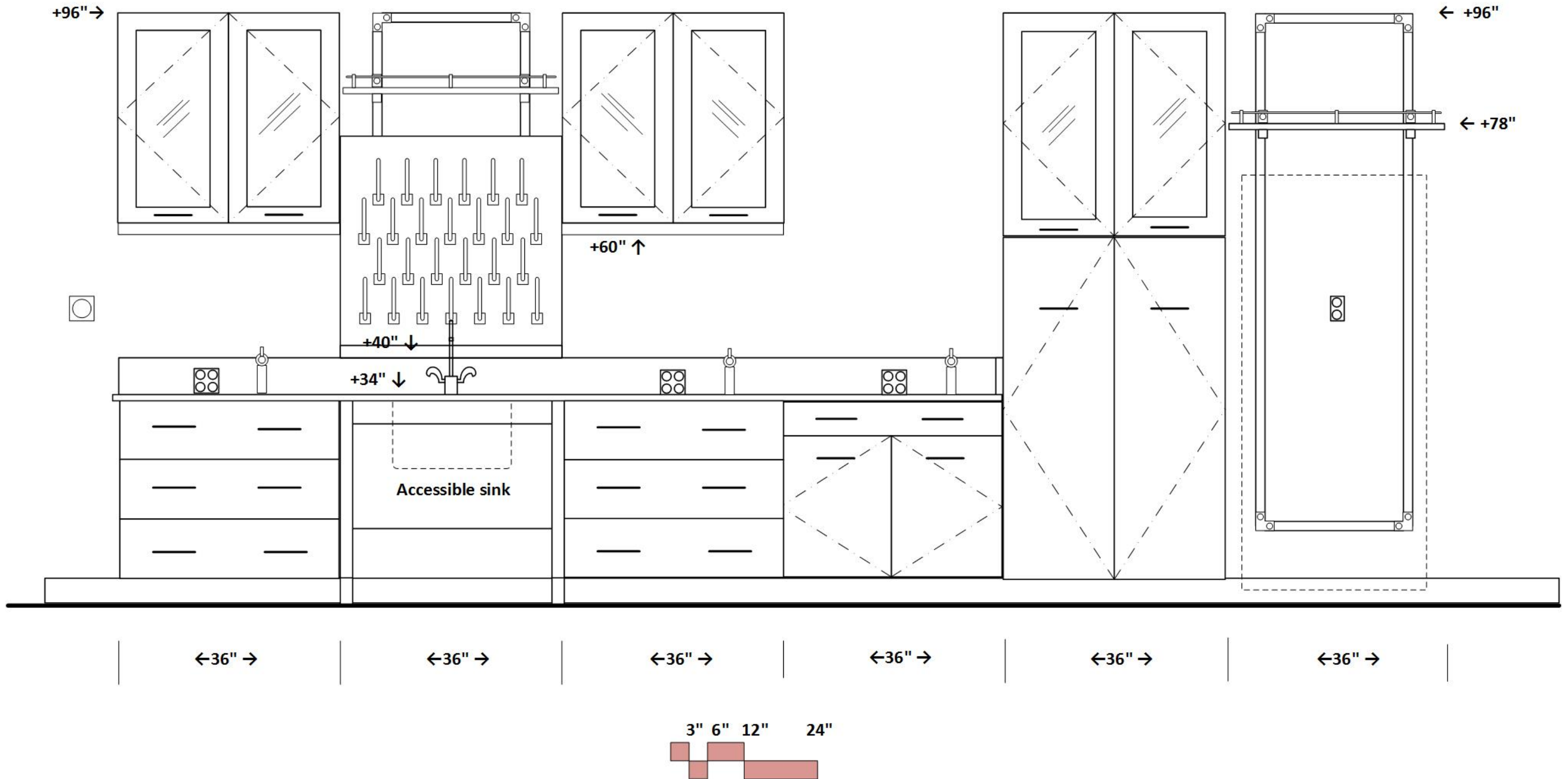
CONTRACTOR FURNISHED EQUIPMENT

Bamboo casework - base cabinets, wall cabinets, tall cabinets
 Epoxy resin tops and sinks- black color tops at perimeter
 Faucets & fittings
 Safety shower/eyewash
 Fire Extinguisher
 Unistrut frame suspended from structure above

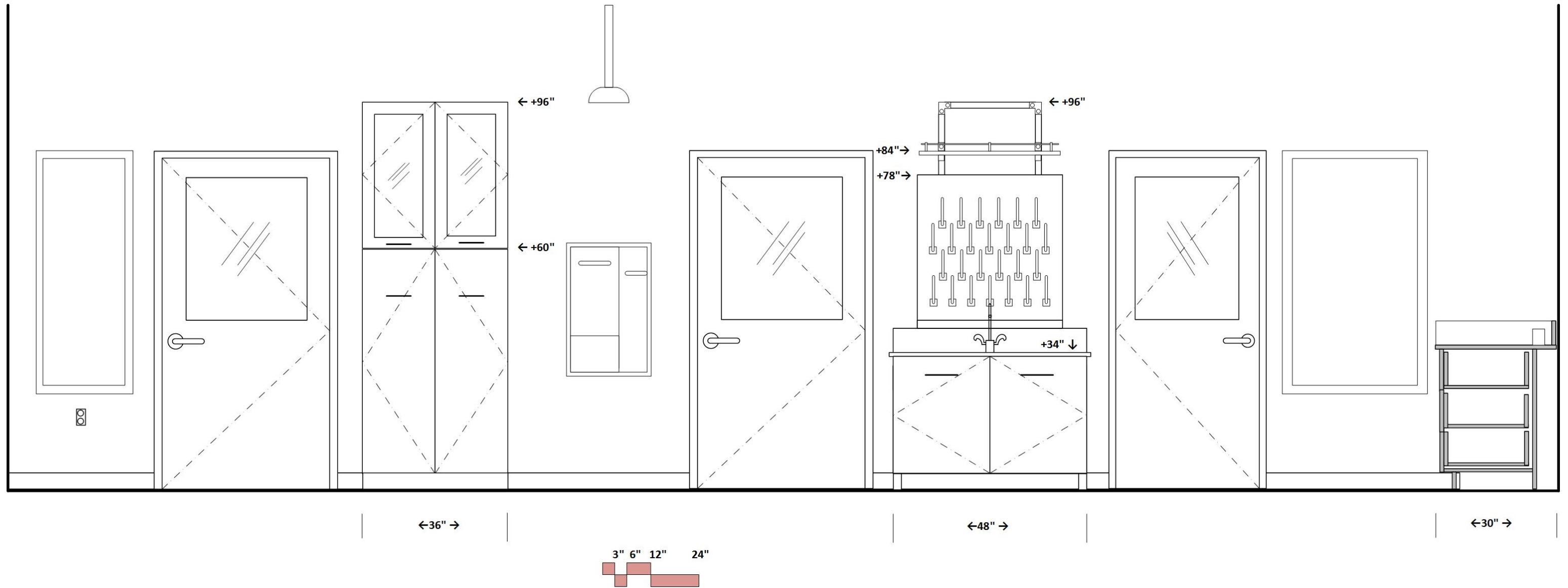
OWNER FURNISHED EQUIPMENT

Chairs
 Benchtop analytical instruments

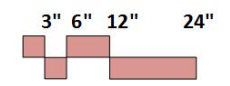
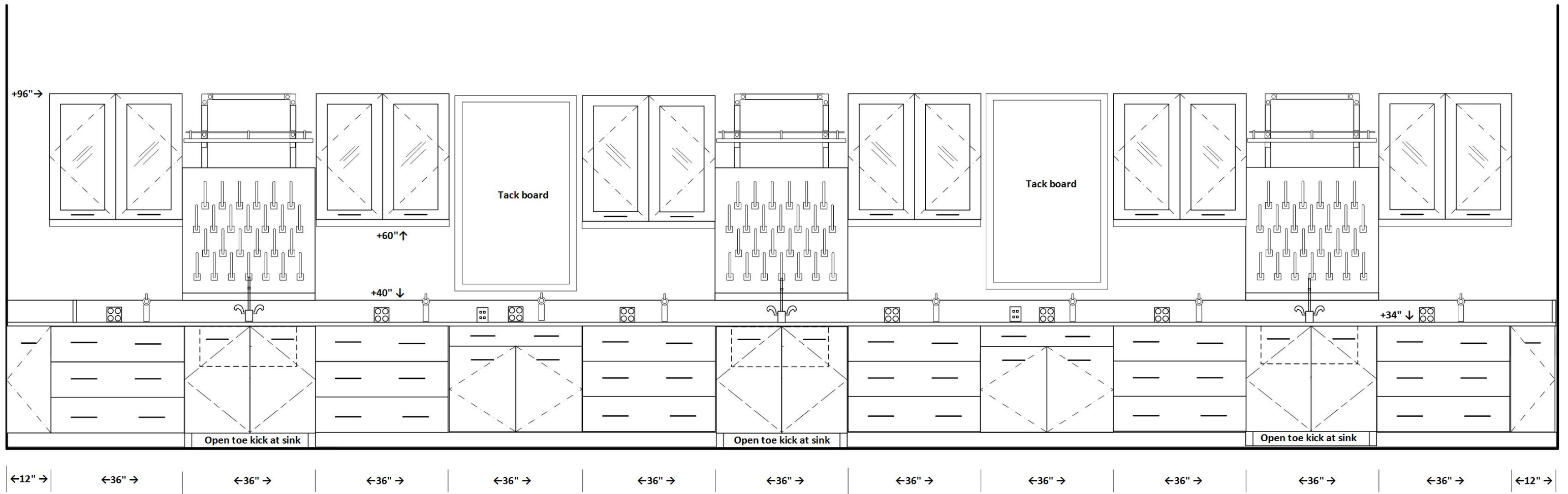
SCIENCE CLASSROOM
Middle School
First Floor- West Side
Elevation L



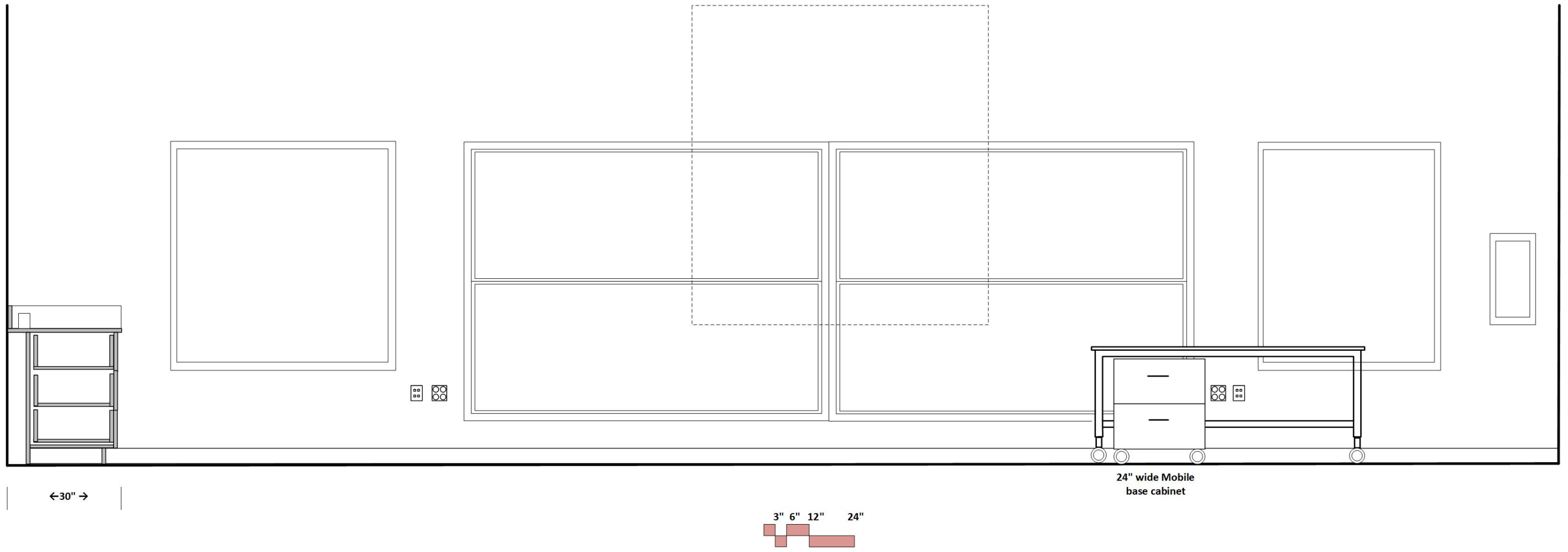
SCIENCE CLASSROOM
Middle School
First Floor- West Side
Elevation M



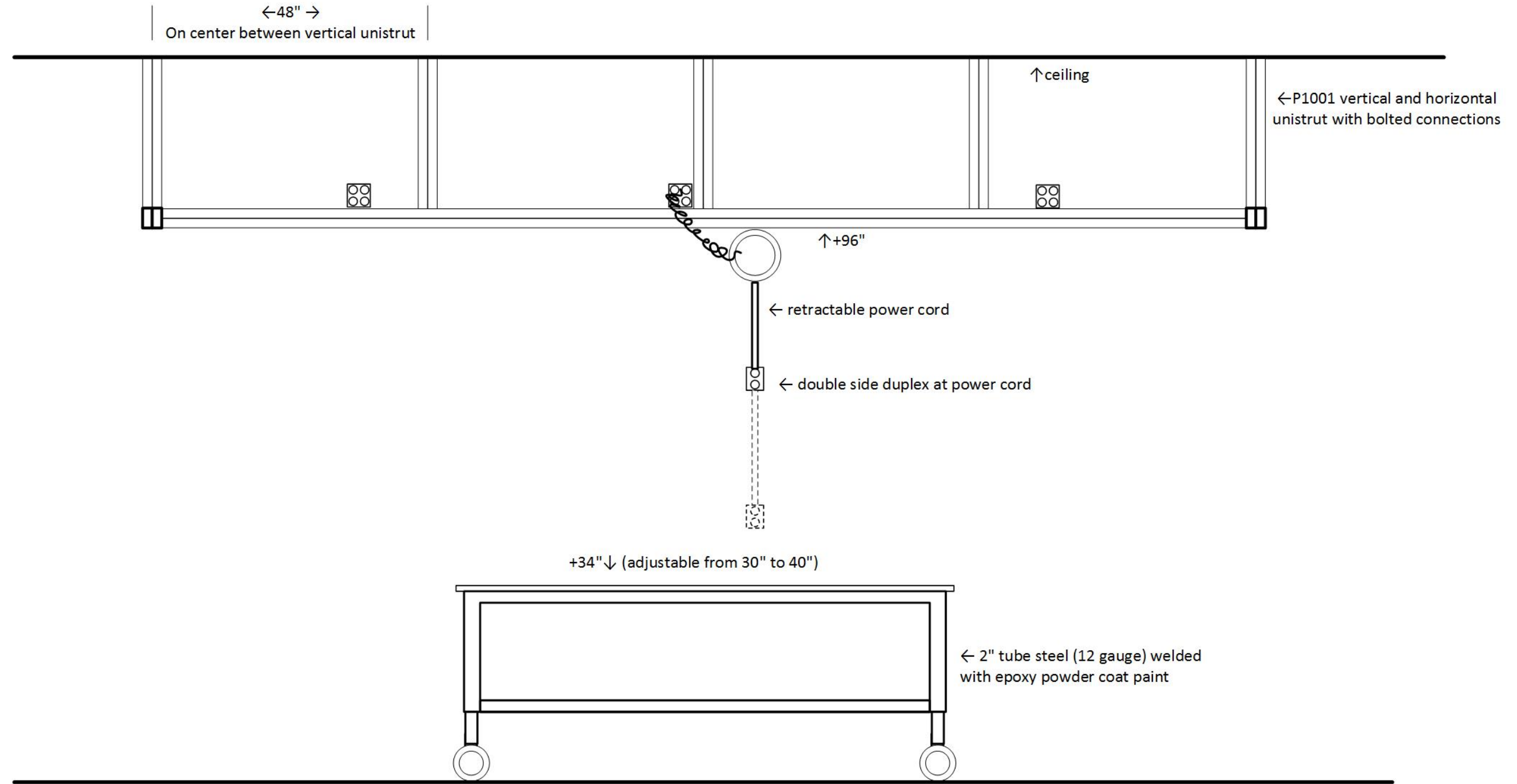
SCIENCE CLASSROOM
Middle School
First Floor- West Side
Elevation N



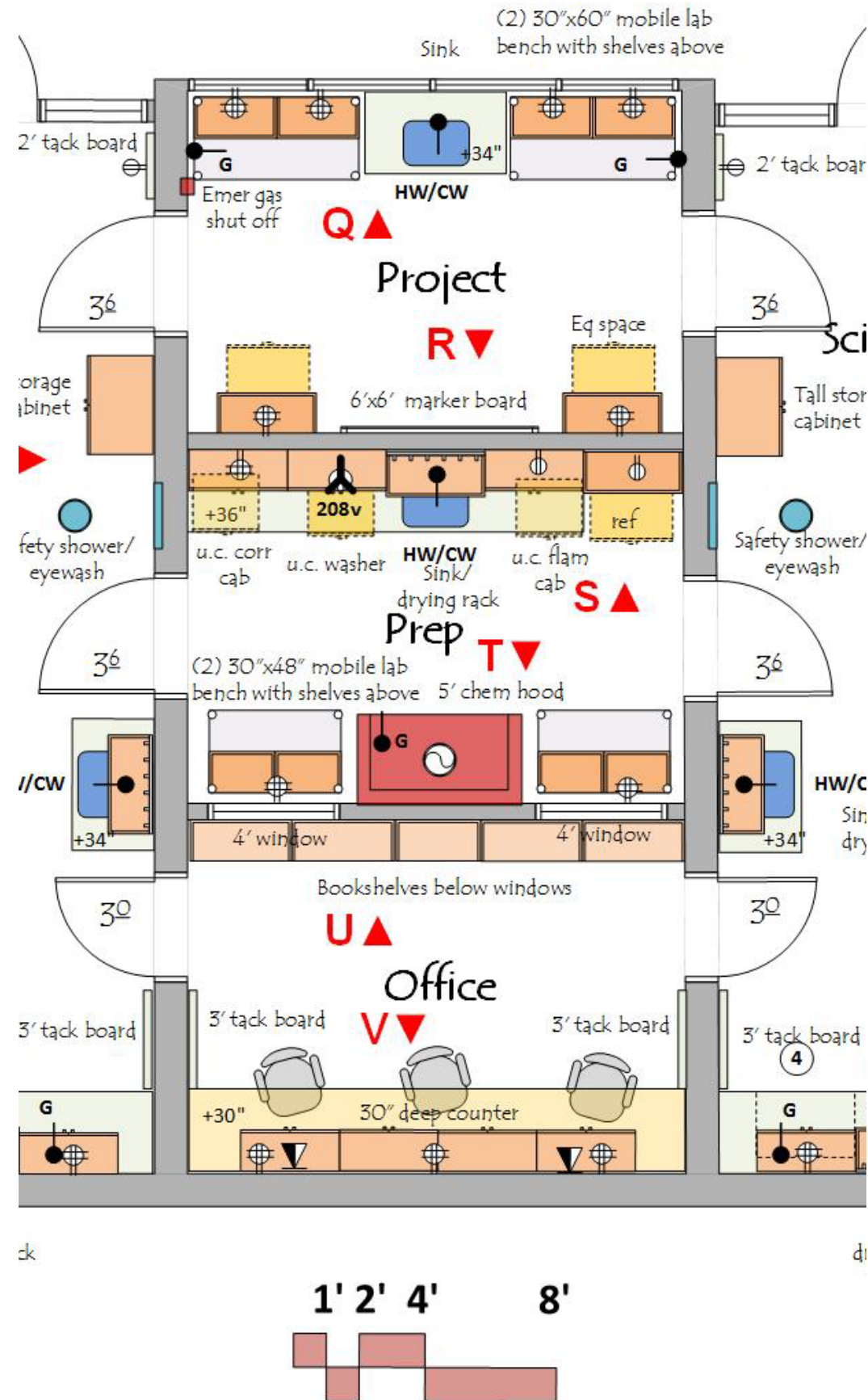
SCIENCE CLASSROOM
Middle School
First Floor- West Side
Elevation O



SCIENCE CLASSROOM
Middle School
First Floor- West Side
Elevation P



PREP/OFFICE/PROJECT Middle School First Floor



ARCHITECTURAL

Occupancy: E
Floor: Linoleum
Walls: gypsum board and enamel paint
Ceiling: 9'-0" acoustic tile
Doors: 3⁶/x8⁰ framed glass
Windows: at exterior wall adjacent to doors
Daylight attenuation: Mecho roller shade
Acoustic Attenuation: NC 40 or less
Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
Local heat
Humidity: Ambient
Equipment Heat Gain: up to 25 btuh/sf
100% exhaust and 6 air changes per hour (24/7) required for Prep Room if chemicals are stored in room

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
Data & Wireless data
Lighting: indirect fluorescent @ 500 LUX with multi-level switching
Task lights below wall cabinets
Provide light switches at door

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers
Natural gas at Project Room and fume hood
Emergency gas shut/off at marker board wall near instructor bench
Domestic water and drain at safety shower/eyewash

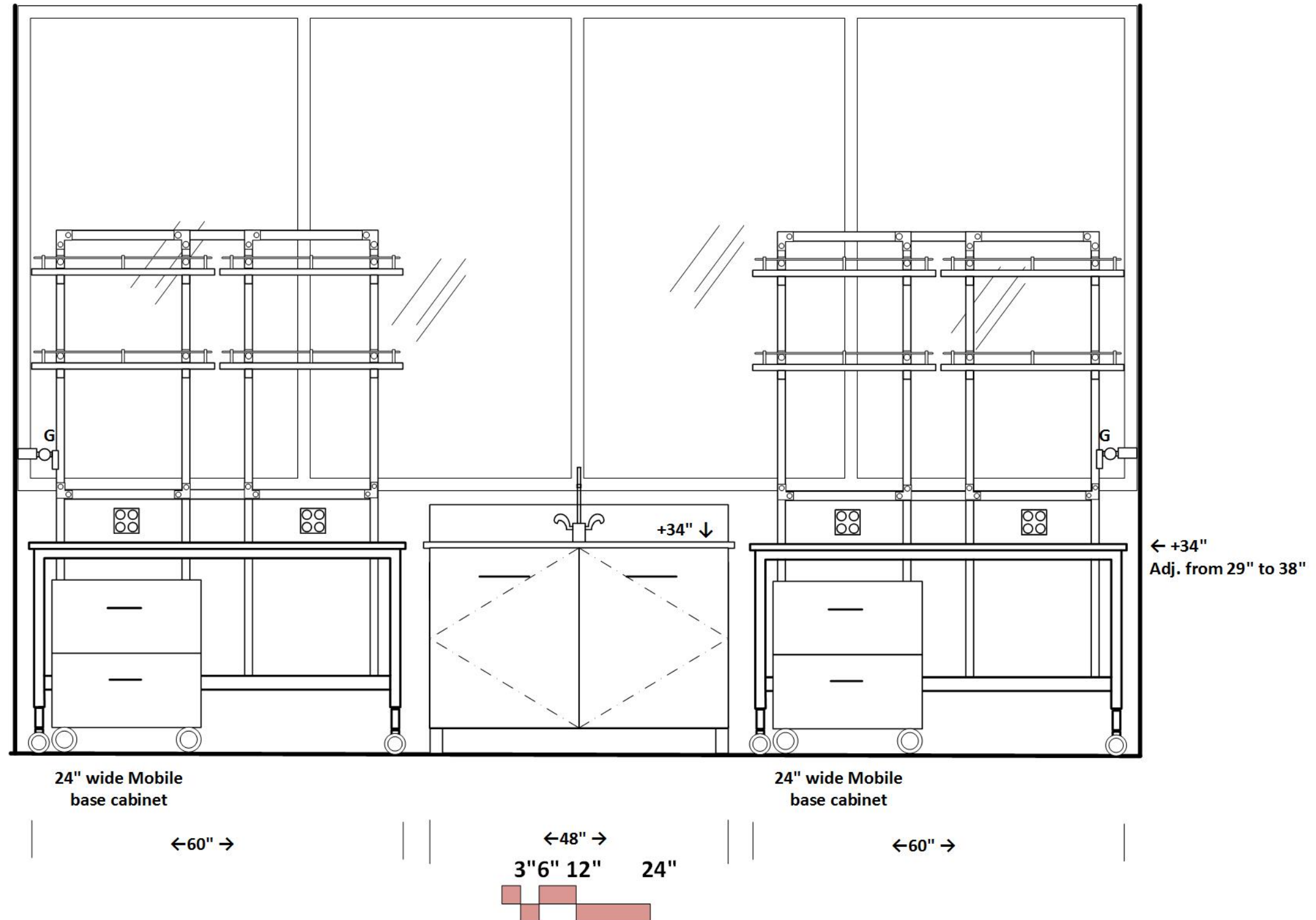
CONTRACTOR FURNISHED EQUIPMENT

Bamboo casework - base cabinets, wall cabinets, tall cabinets
Epoxy resin tops and sinks
Faucets & fittings
Safety shower/eyewash
Fire Extinguisher
Chemical Fume Hood- 1,000 c.f.m. VAV with on/off switch

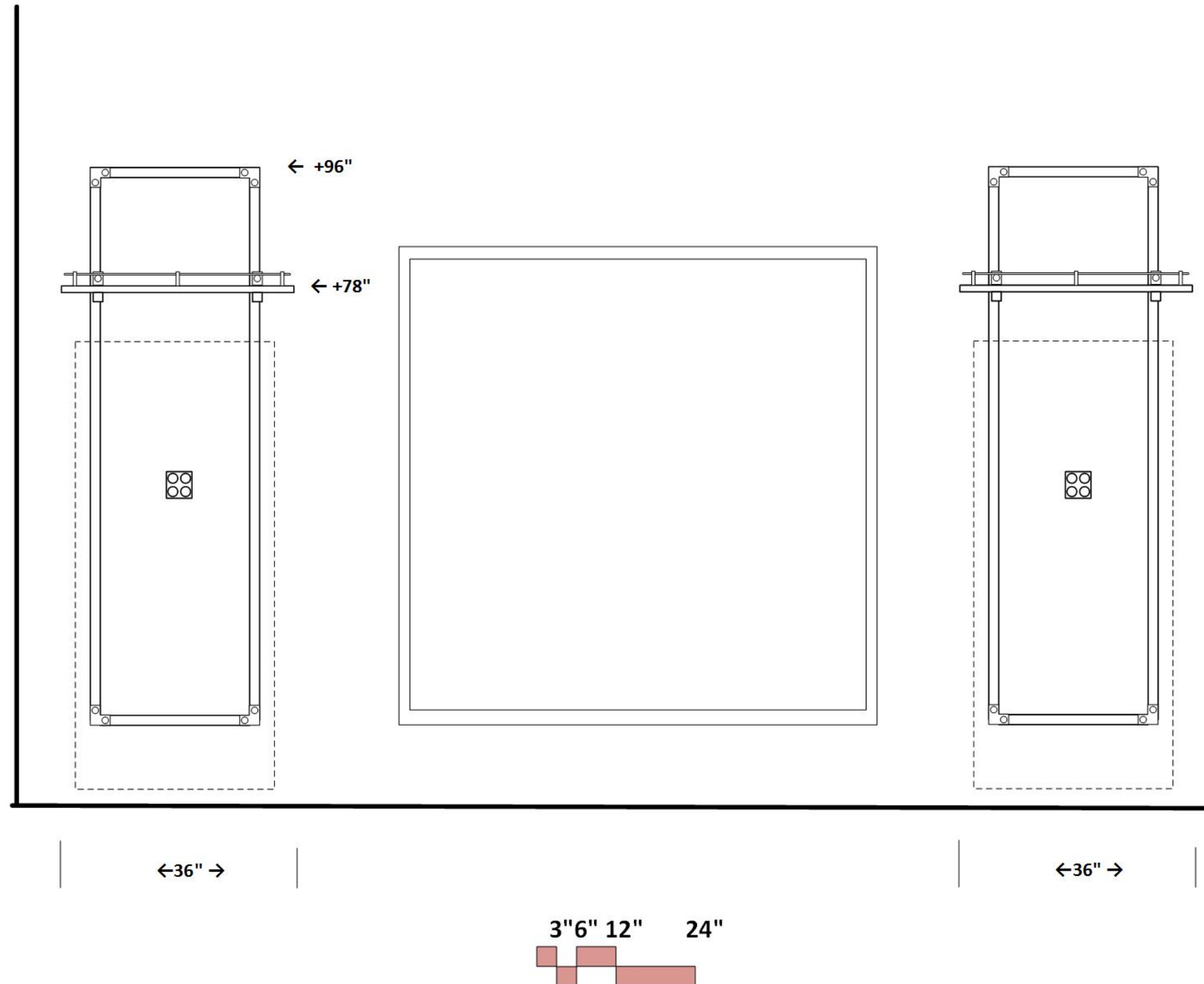
OWNER FURNISHED EQUIPMENT

Chairs
Benchtop analytical instruments

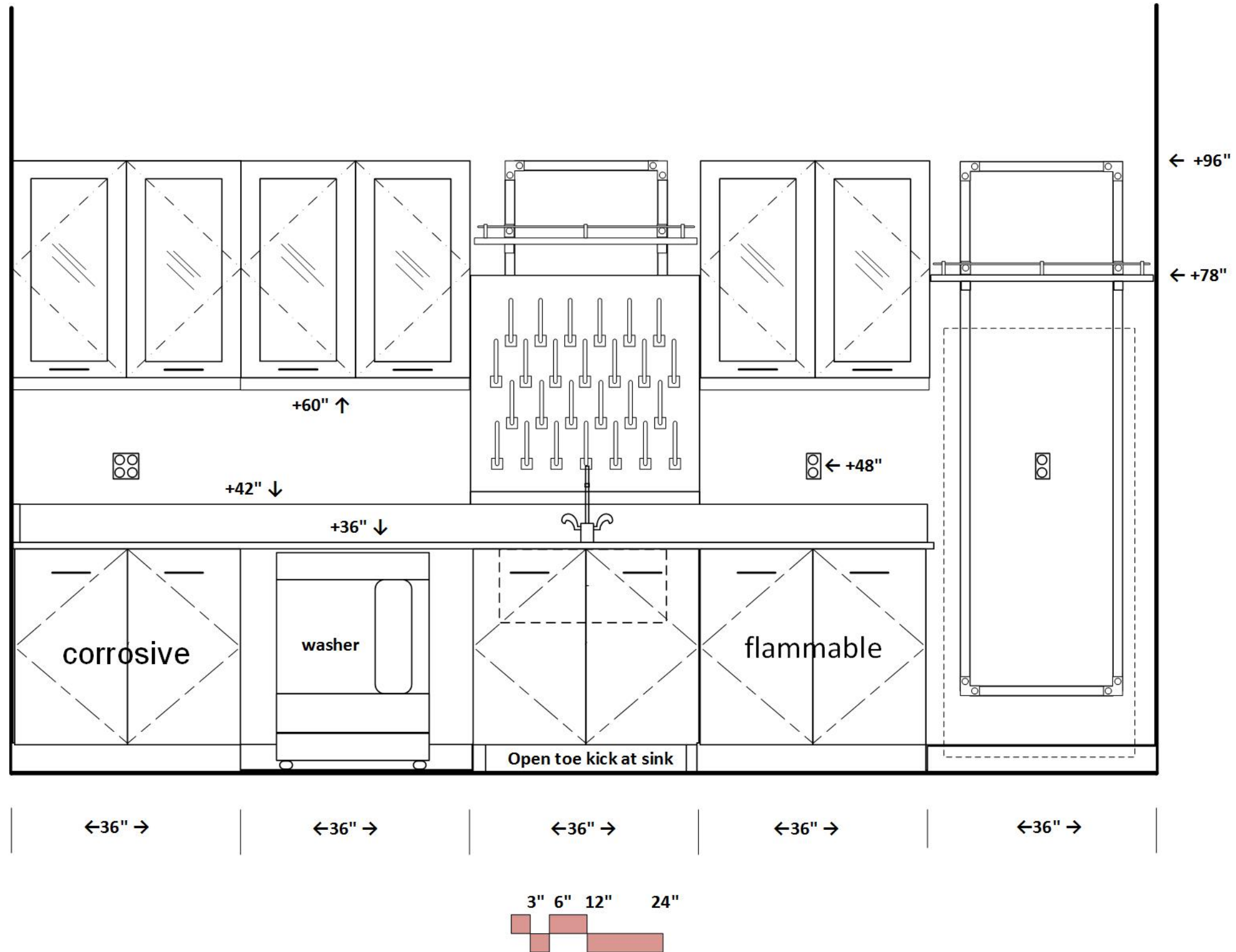
PREP/OFFICE/PROJECT
Middle School
First Floor
Elevation Q



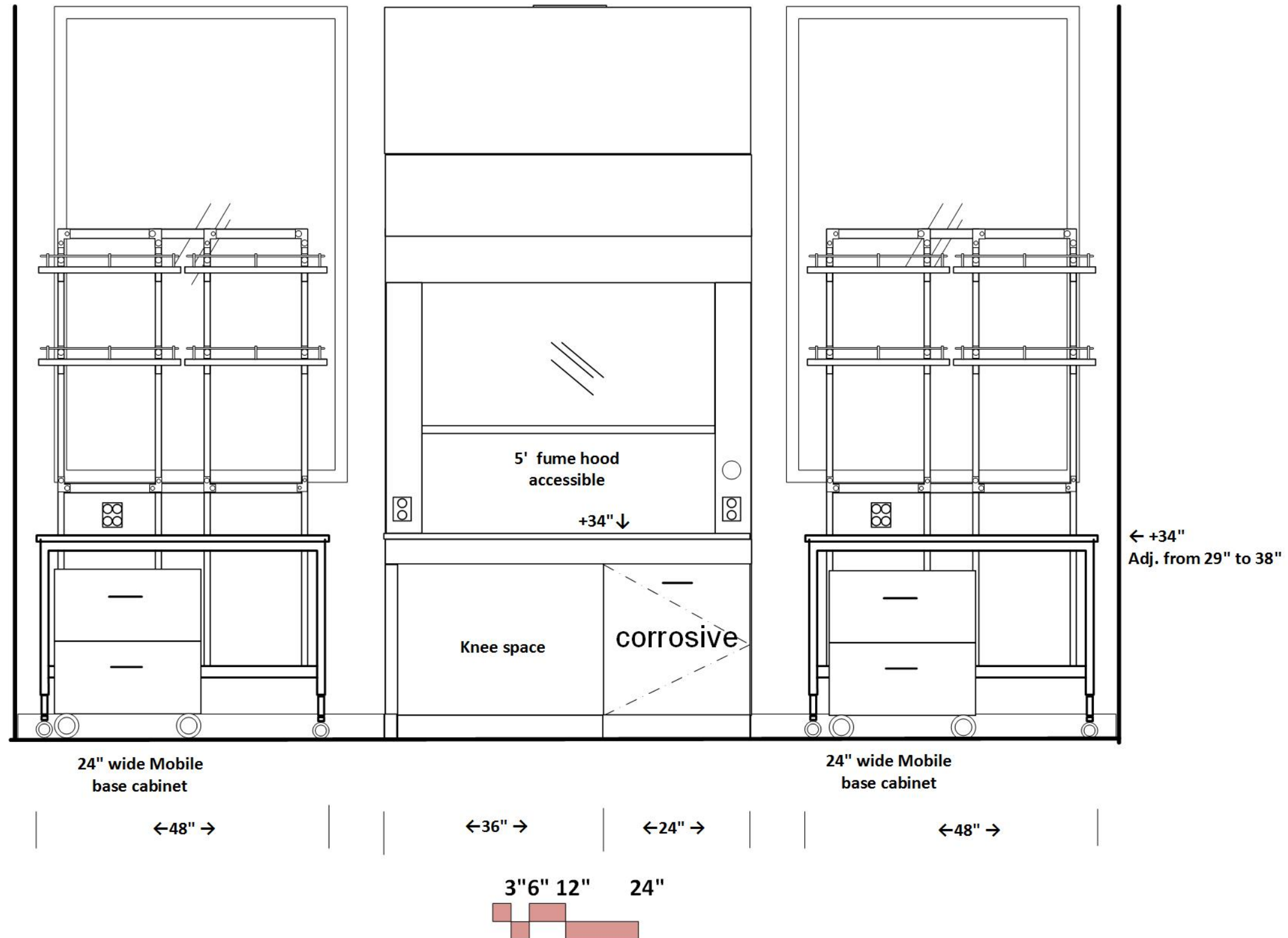
PREP/OFFICE/PROJECT
Middle School
First Floor
Elevation R



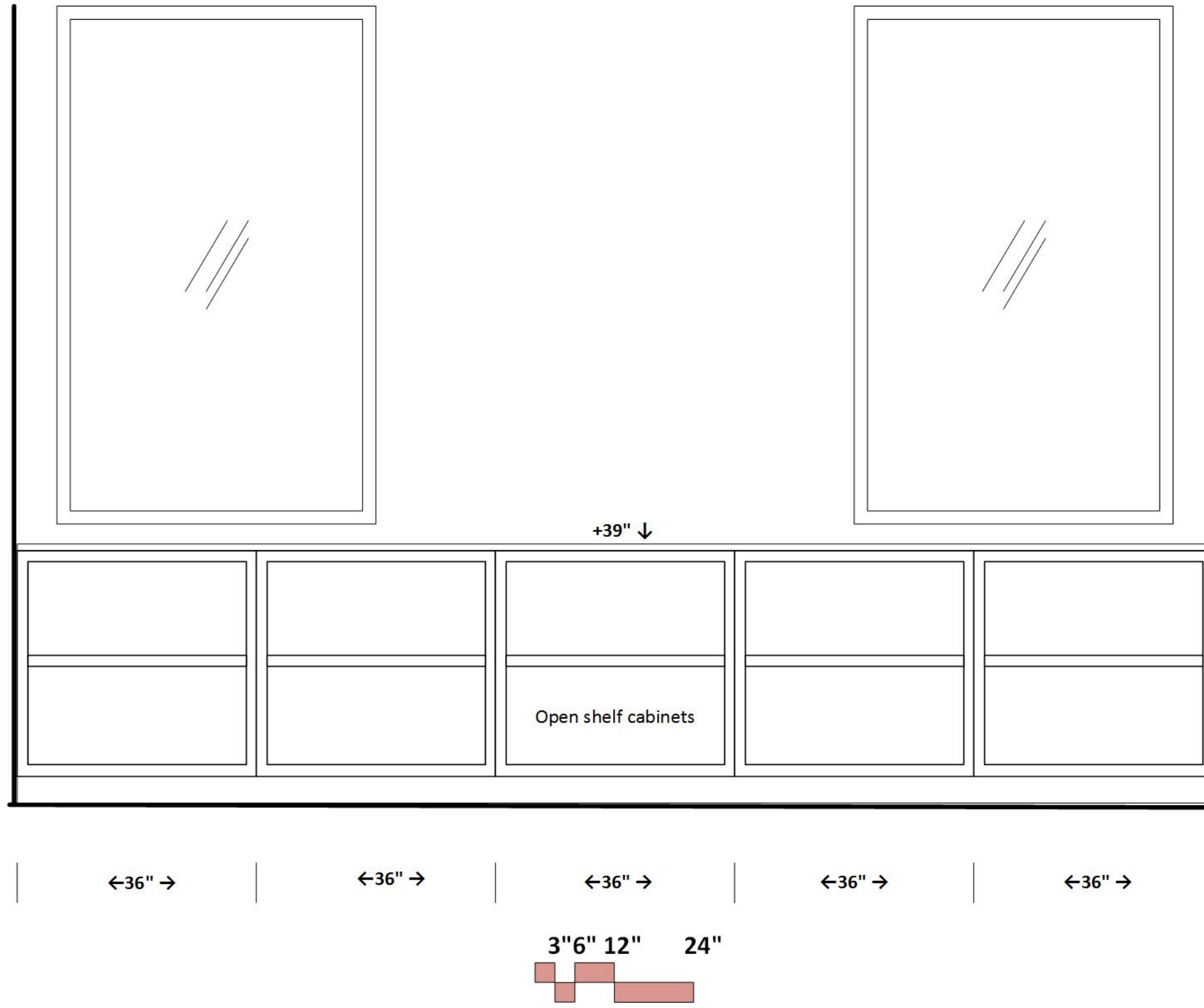
PREP/OFFICE/PROJECT
Middle School
First Floor
Elevation S



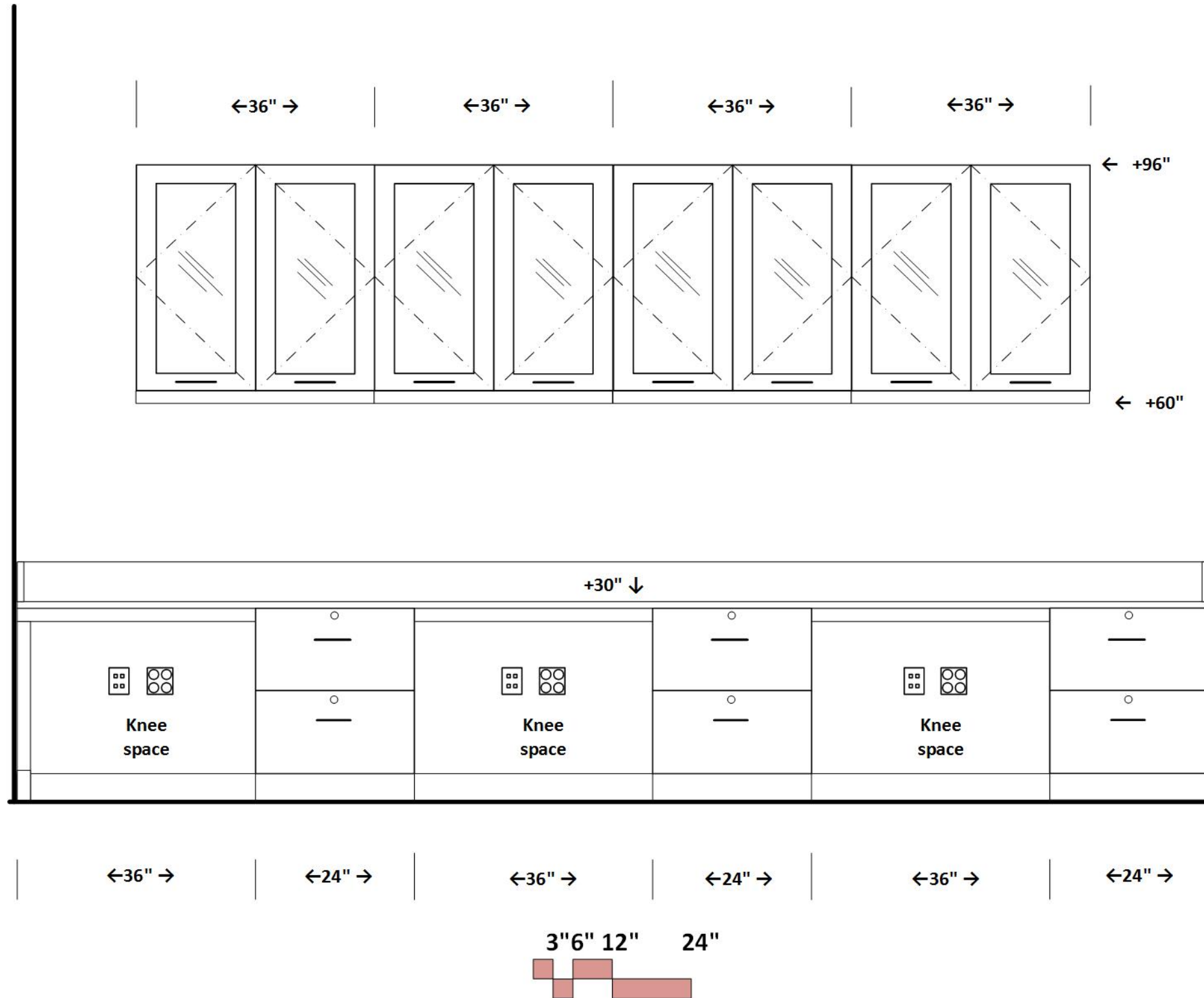
PREP/OFFICE/PROJECT
Middle School
First Floor
Elevation T



PREP/OFFICE/PROJECT
Middle School
First Floor
Elevation U



PREP/OFFICE/PROJECT
Middle School
First Floor
Elevation V

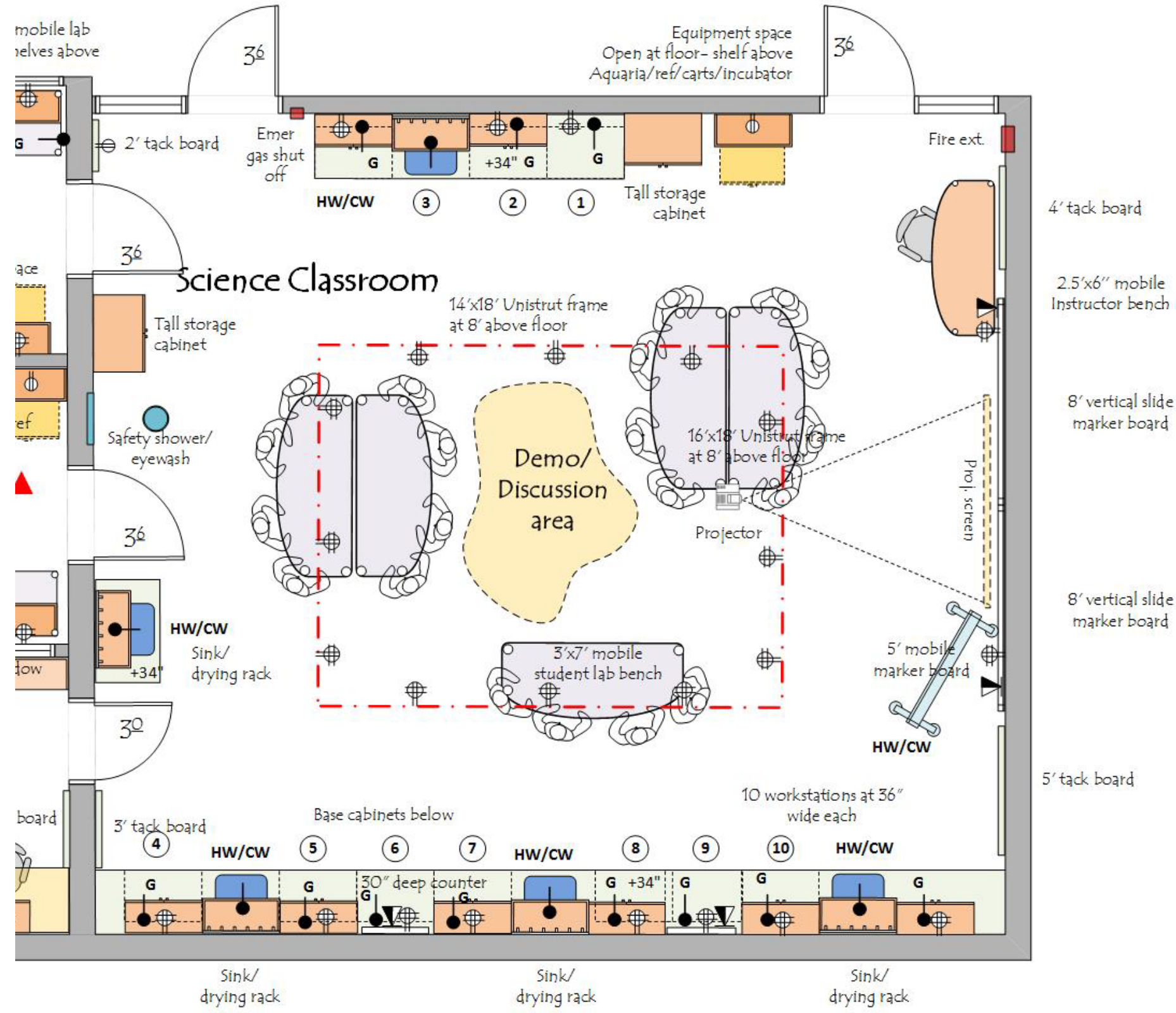


SCIENCE CLASSROOM

Middle School

First Floor- East Side

NOTE: ELEVATIONS ARE SIMILAR TO CLASSROOM ON WEST SIDE



ARCHITECTURAL

Occupancy: E
 Floor: Linoleum
 Walls: gypsum board and enamel paint
 Ceiling: 10'-0" acoustic tile
 Doors: 3'6"x8'0" framed glass
 Windows: at exterior wall adjacent to doors
 Daylight attenuation: Mecho roller shade
 Acoustic Attenuation: NC 40 or less
 Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
 Local heat
 Humidity: Ambient
 Equipment Heat Gain: up to 25 btuh/sf

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data & Wireless data
 Lighting: indirect fluorescent @ 500 LUX with multi-level switching
 Task lights below wall cabinets
 Provide light switches at door

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers
 Natural gas at perimeter bench and overhead unistrut
 Emergency gas shut/off at marker board wall near instructor bench
 Domestic water and drain at safety shower/eyewash

CONTRACTOR FURNISHED EQUIPMENT

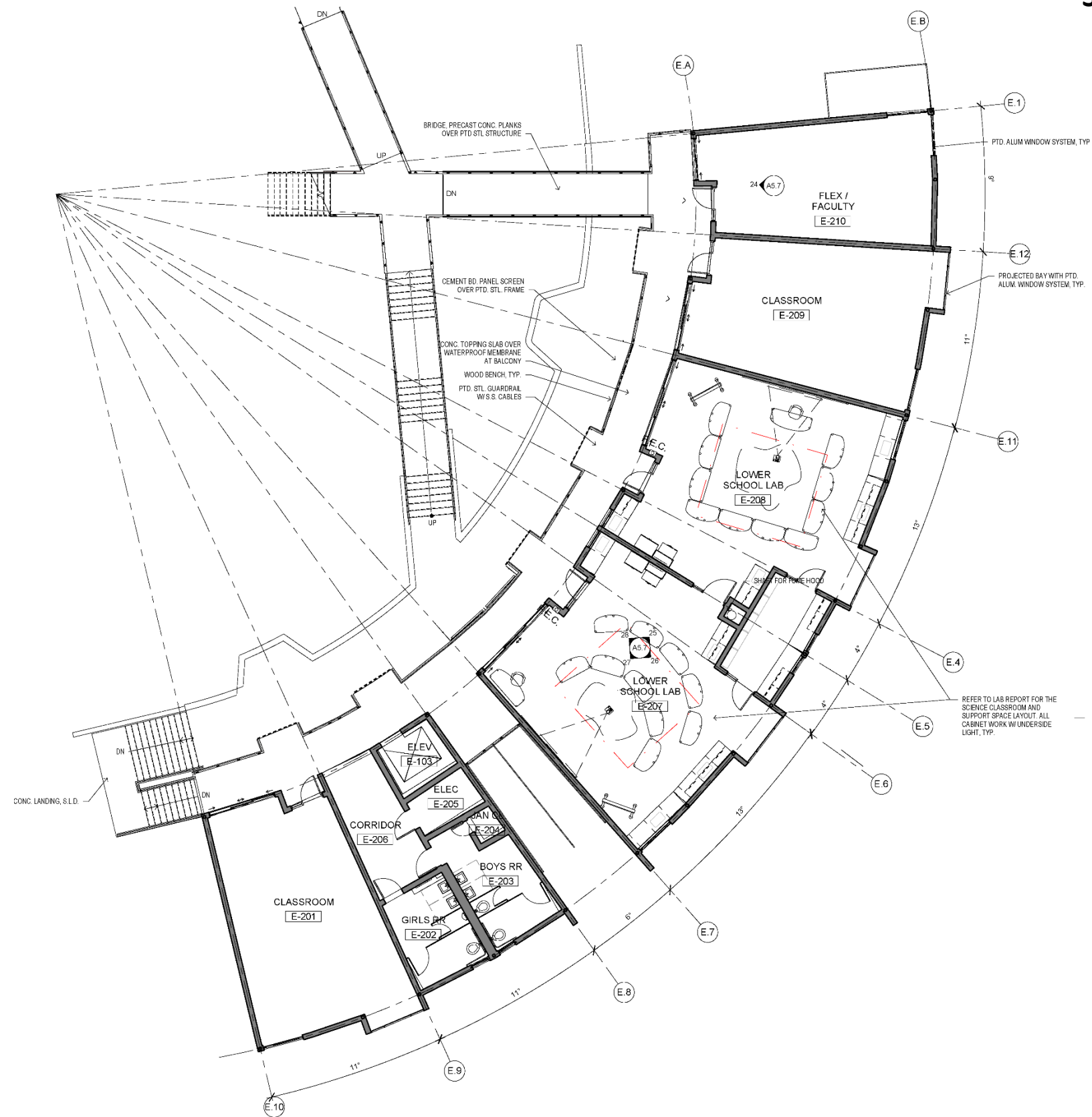
Bamboo casework - base cabinets, wall cabinets, tall cabinets
 Epoxy resin tops and sinks- black tops at perimeter bench
 Faucets & fittings
 Safety shower/eyewash
 Fire Extinguisher
 Unistrut frame suspended from structure above

OWNER FURNISHED EQUIPMENT

Chairs
 Benchtop analytical instruments

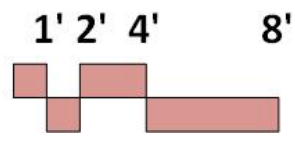
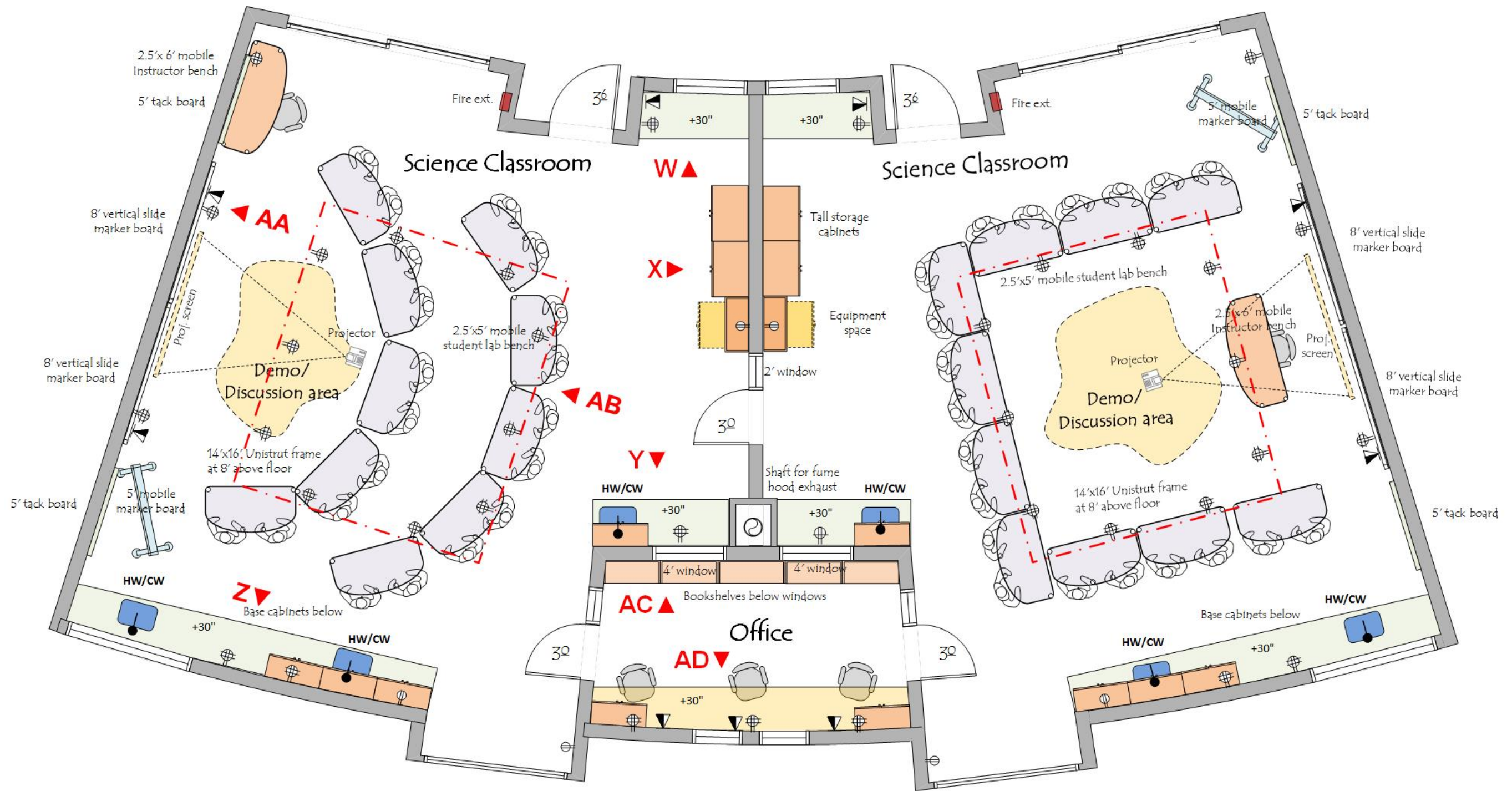
ENVIRONMENTAL CENTER SCIENCE CLASSROOMS

SECOND FLOOR PLAN



ENVIRONMENTAL CENTER SCIENCE CLASSROOMS

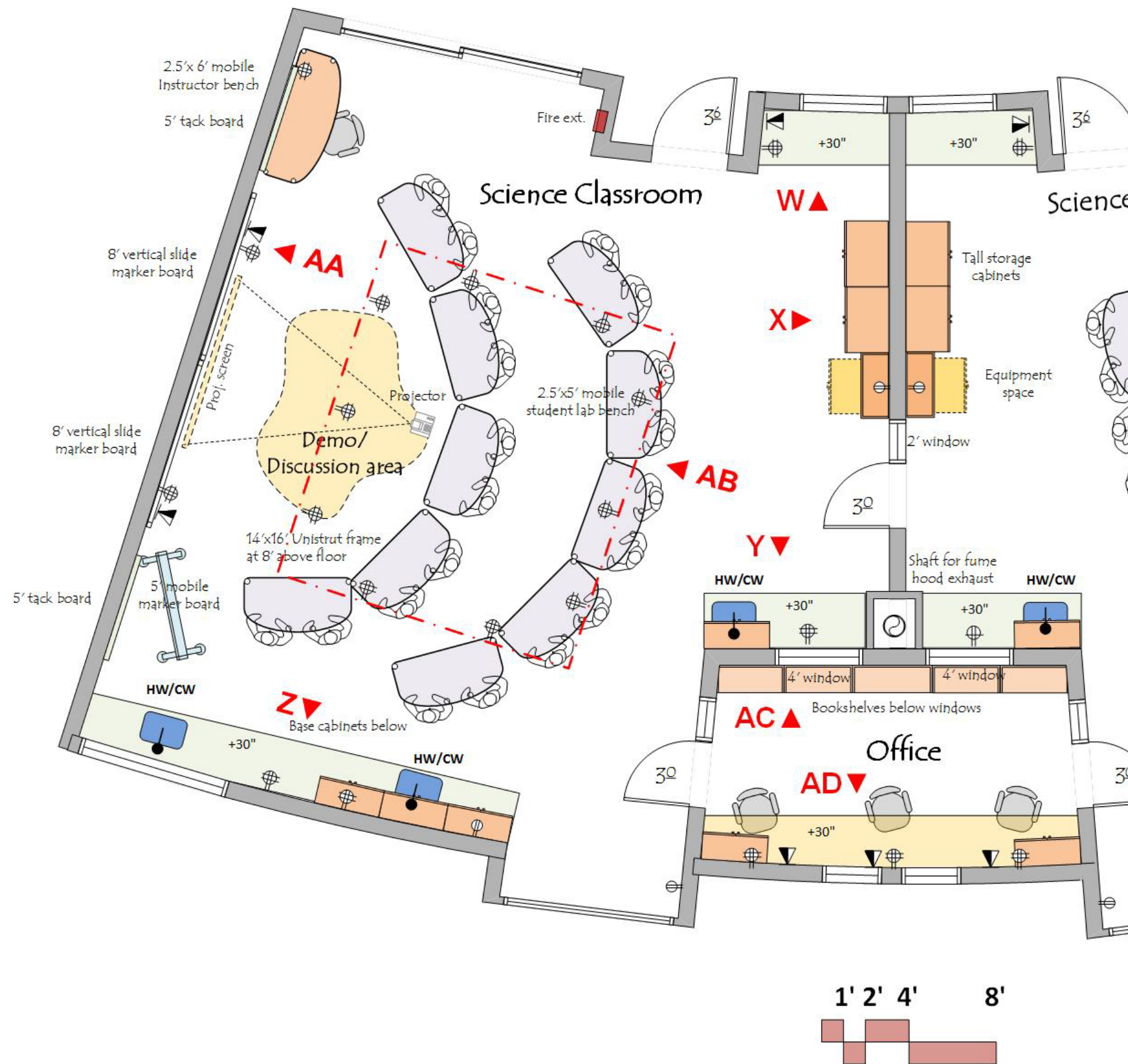
SECOND FLOOR SCIENCE CLASSROOMS



SCIENCE CLASSROOM

ENVIRONMENTAL CENTER

SECOND FLOOR- WEST SIDE



ARCHITECTURAL

Occupancy: E
 Floor: Linoleum
 Walls: gypsum board and enamel paint
 Ceiling: 10'-0" acoustic tile
 Doors: 3⁶/x8⁰ framed glass
 Windows: at exterior wall and adjacent to doors
 Daylight attenuation: Mecho roller shade
 Acoustic Attenuation: NC 40 or less
 Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
 Local heat
 Humidity: Ambient
 Equipment Heat Gain: up to 25 btuh/sf

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data & Wireless data
 Lighting: indirect fluorescent @ 500 LUX with multi-level switching
 Task lights below wall cabinets
 Provide light switches at door

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers

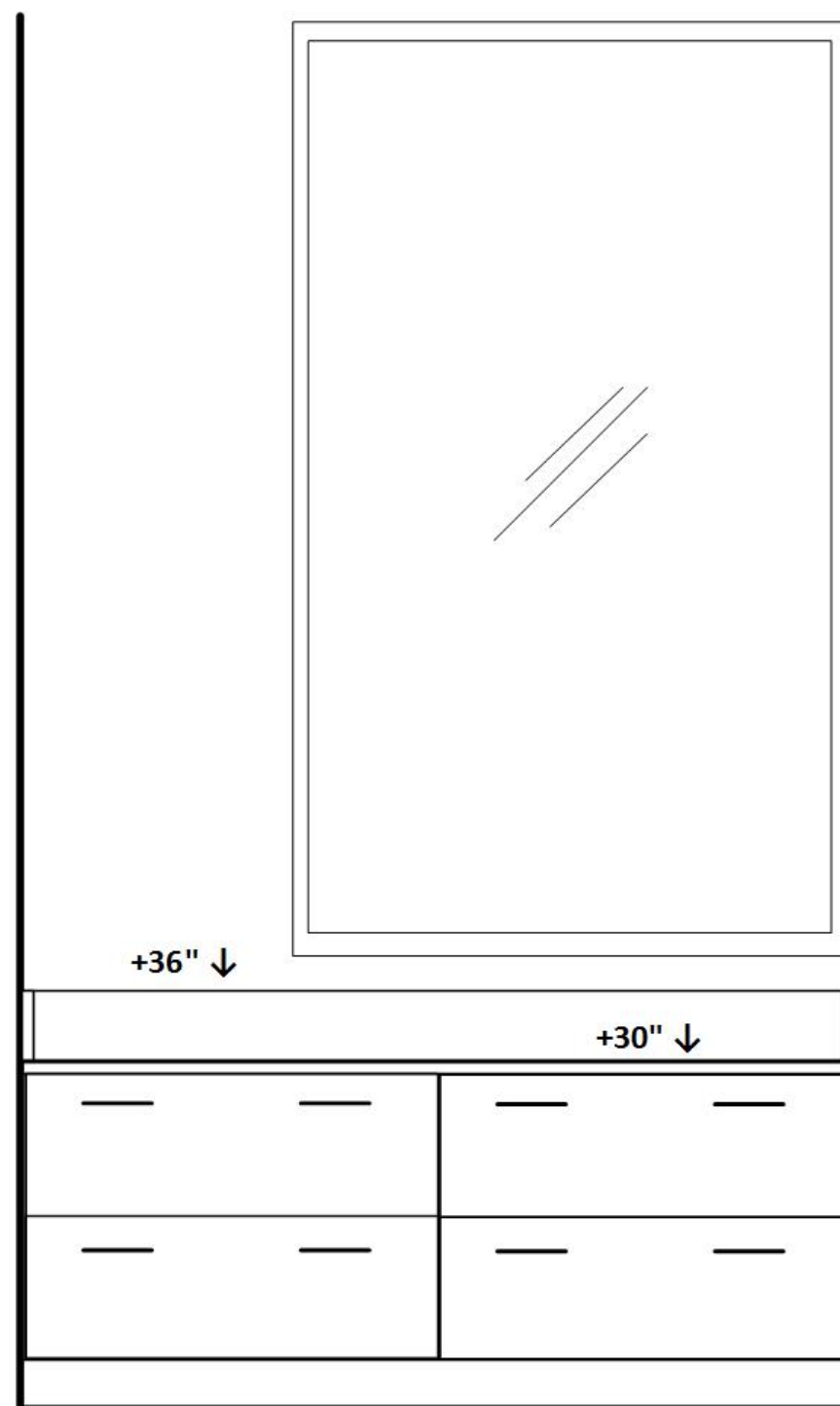
CONTRACTOR FURNISHED EQUIPMENT

Bamboo casework - base cabinets, wall cabinets, tall cabinets
 Epoxy resin tops and sinks
 Faucets & fittings
 Fire Extinguisher

OWNER FURNISHED EQUIPMENT

Chairs
 Benchtop instruments

SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
SECOND FLOOR- WEST SIDE
ELEVATION W

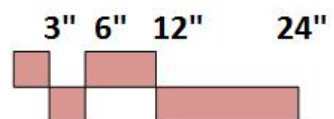


+36" ↓

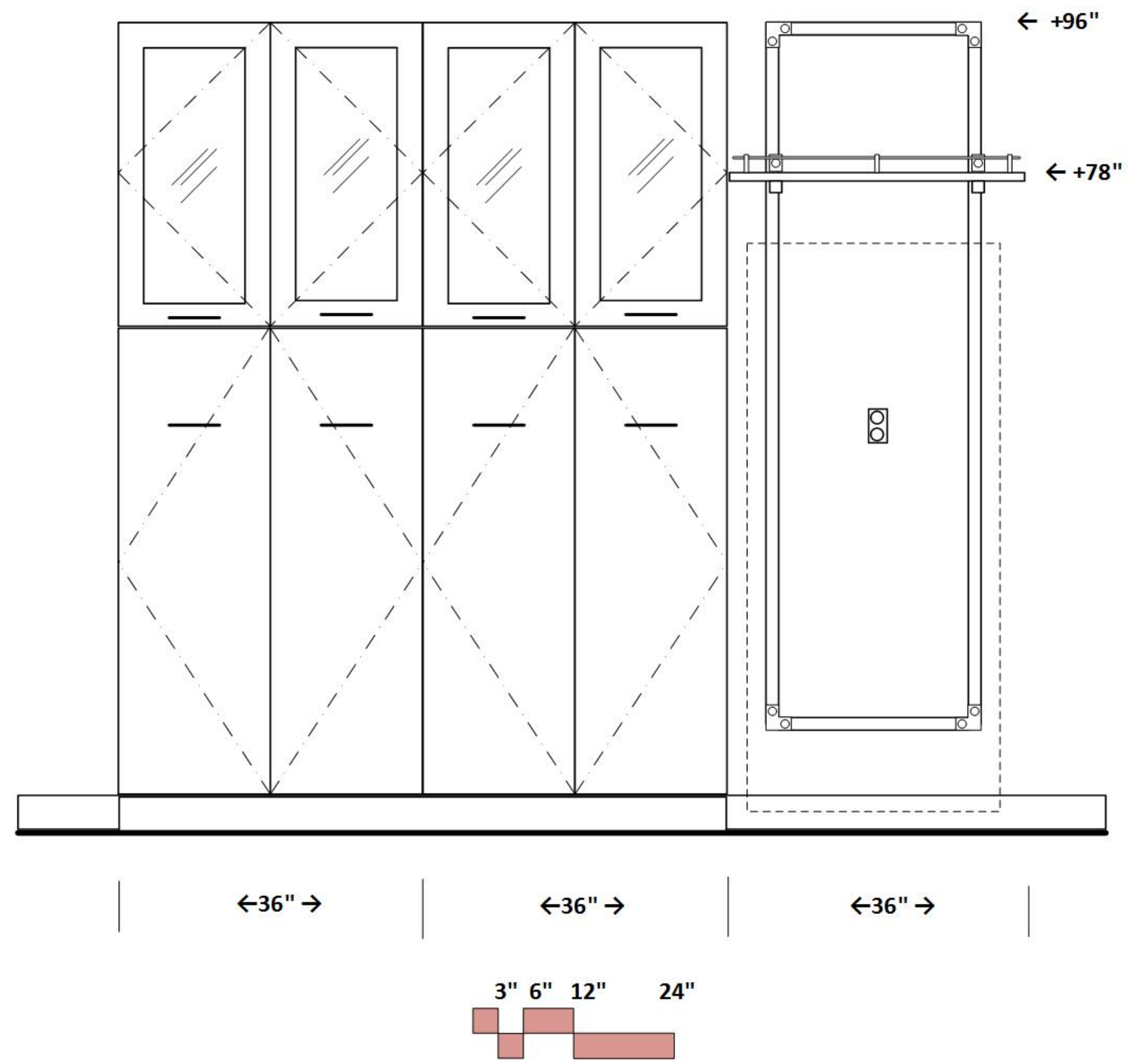
+30" ↓

←36" →

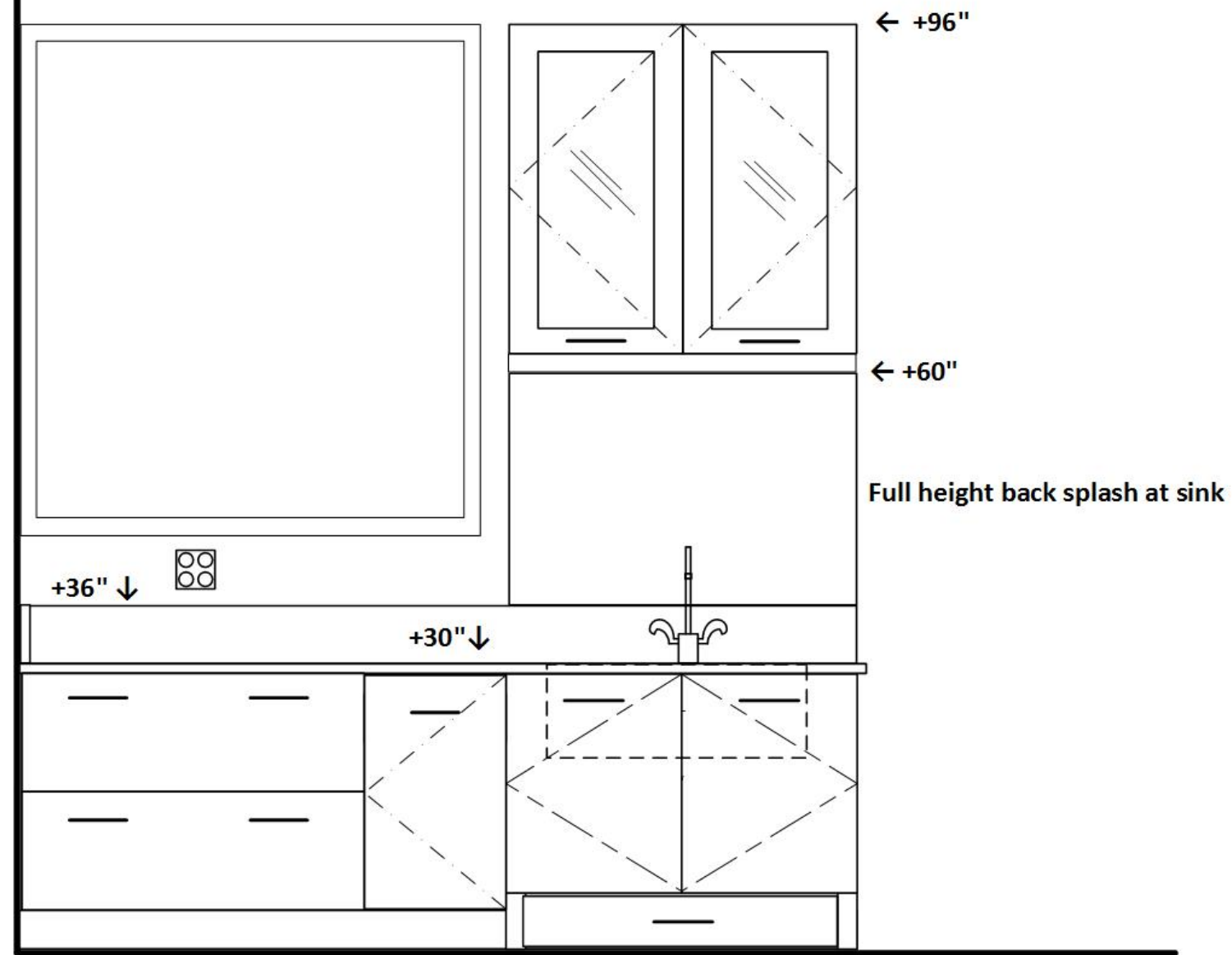
←36" →



SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
SECOND FLOOR- WEST SIDE
ELEVATION X



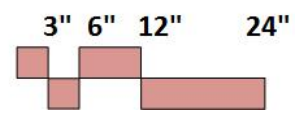
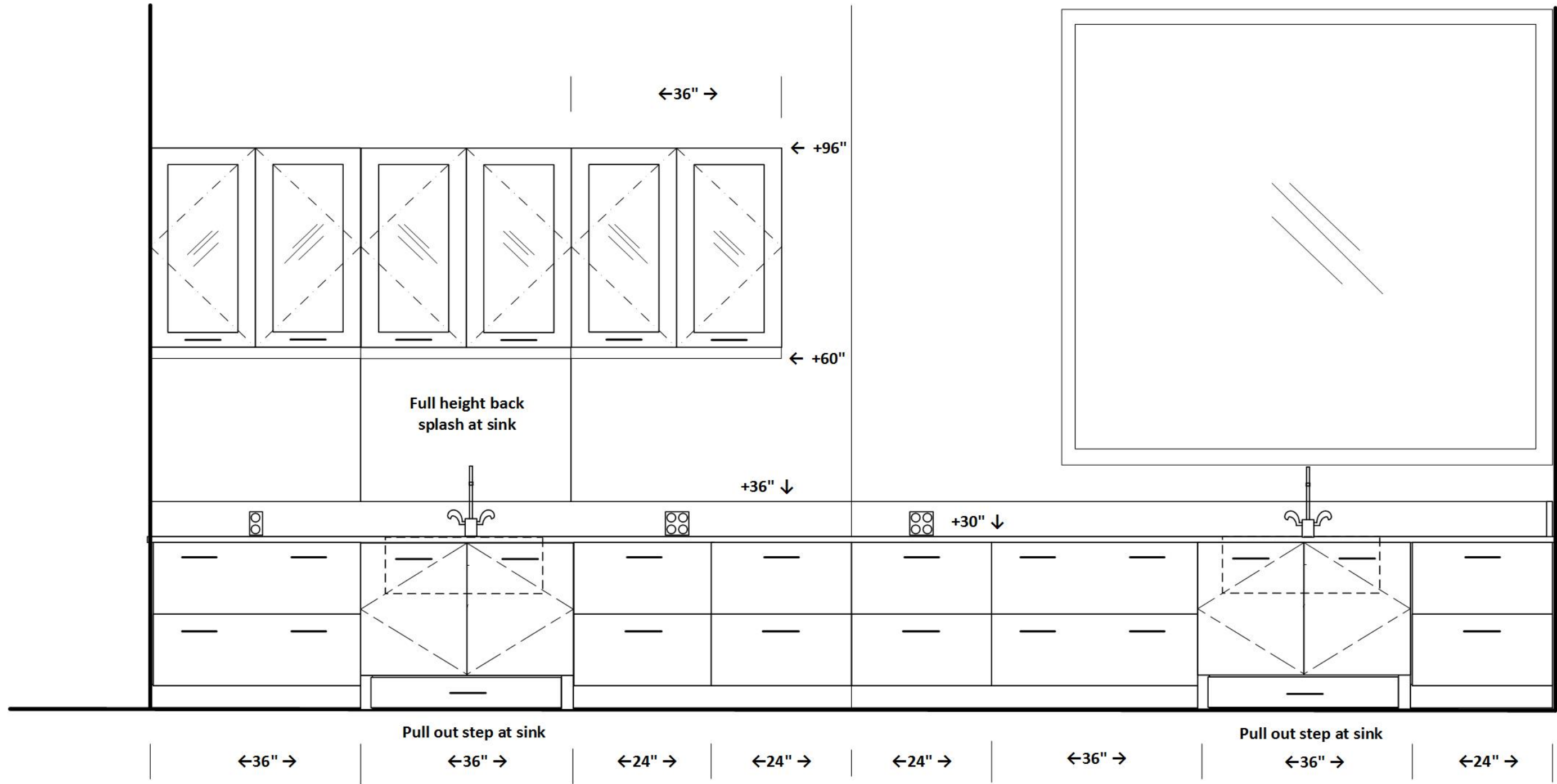
SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
SECOND FLOOR- WEST SIDE
ELEVATION Y



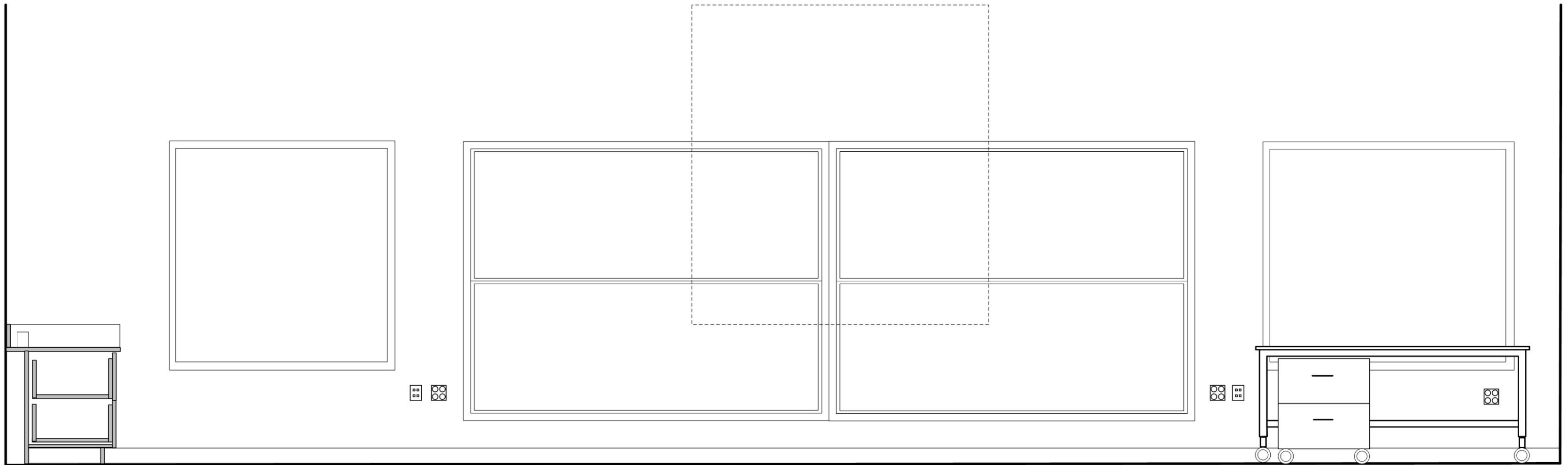
← +96"
 ← +60"
 Full height back splash at sink
 +36" ↓
 +30" ↓
 Pull out step at sink
 ←36" → ←15" → ←36" →



SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
SECOND FLOOR- WEST SIDE
ELEVATION Z

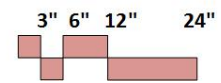


SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
SECOND FLOOR- WEST SIDE
ELEVATION AA

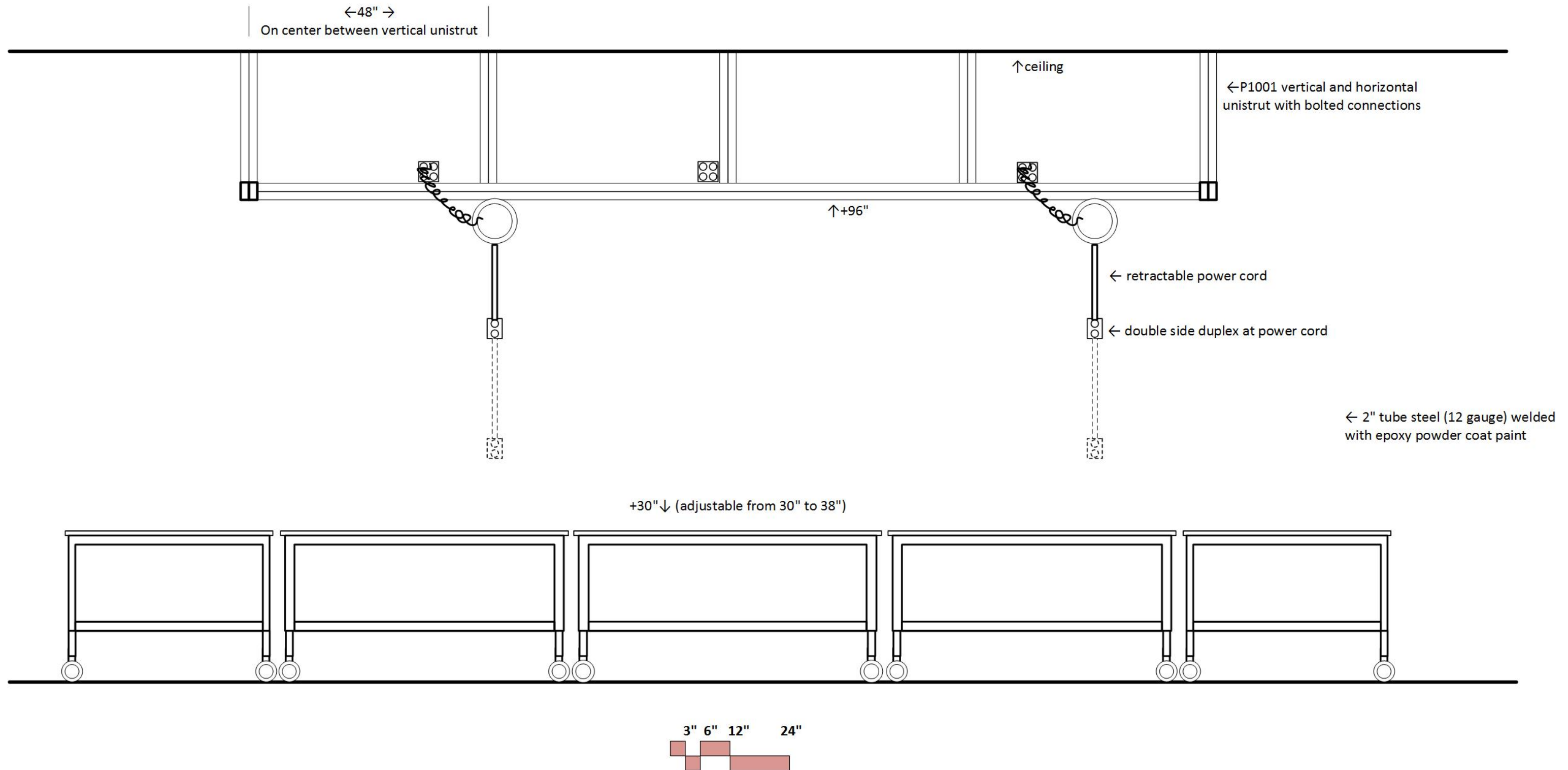


24" wide Mobile
base cabinet

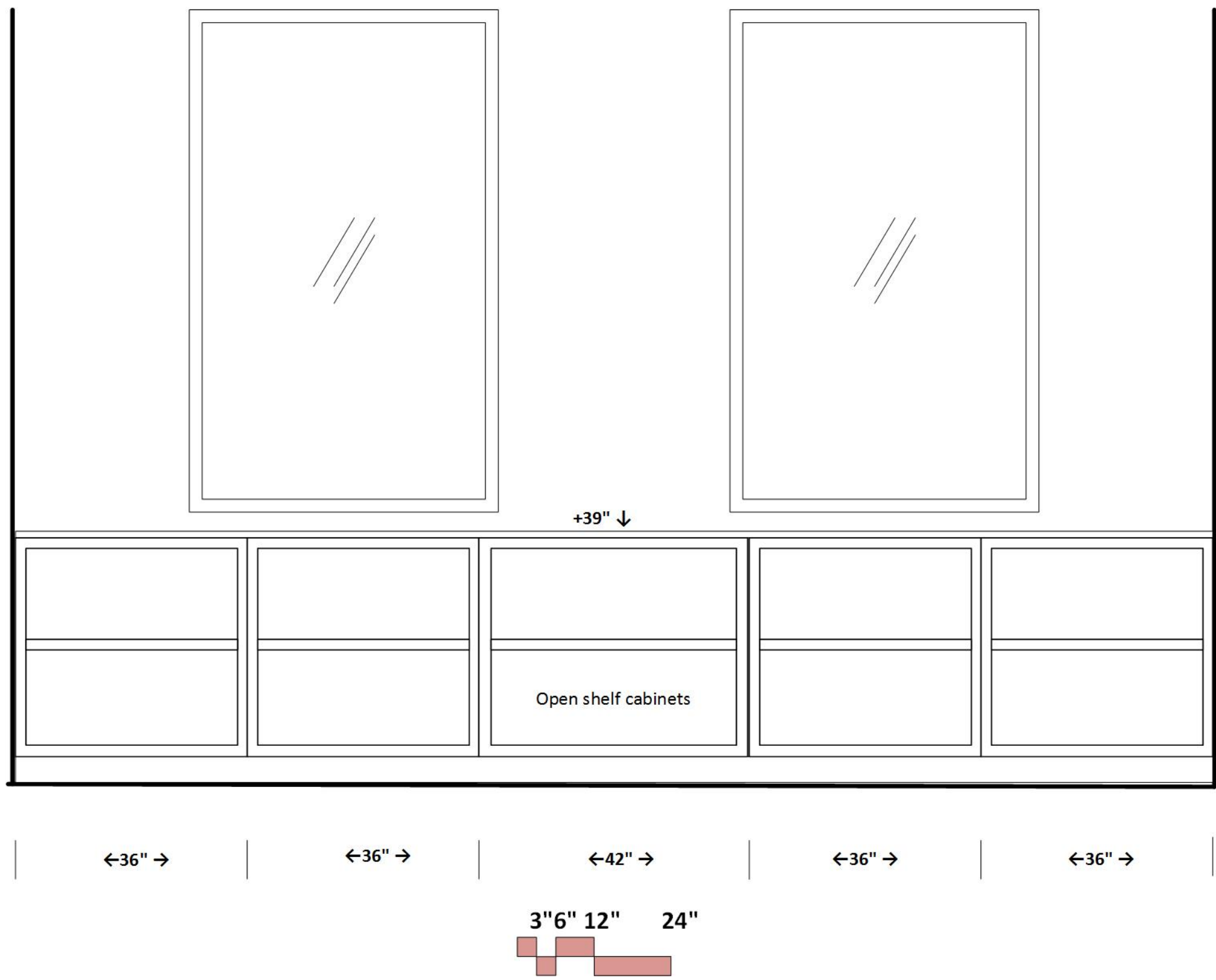
←30" →



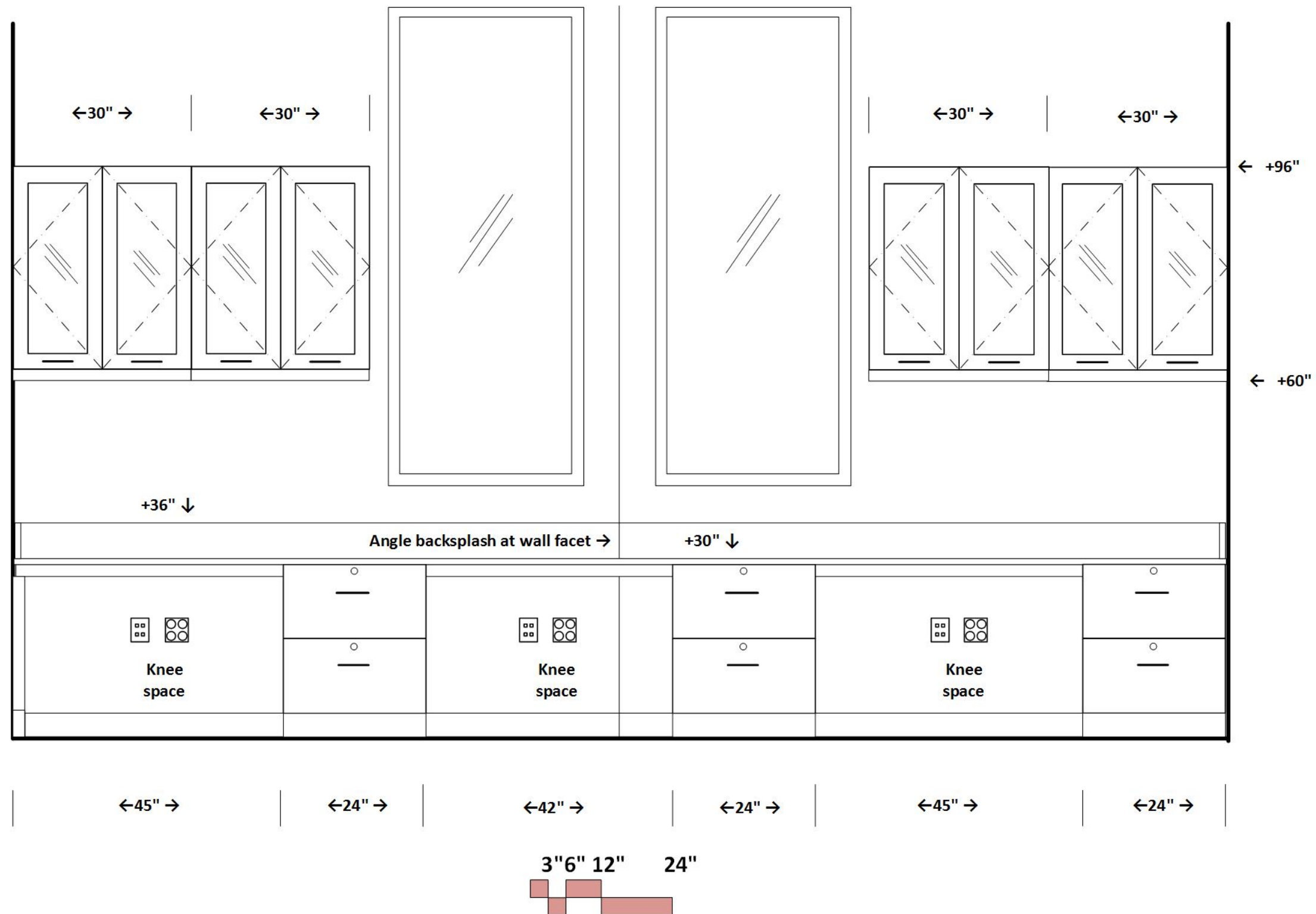
SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
SECOND FLOOR- WEST SIDE
ELEVATION AB



SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
SECOND FLOOR- WEST SIDE
ELEVATION AC



SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
SECOND FLOOR- WEST SIDE
ELEVATION AD

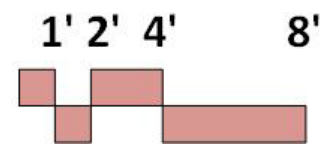
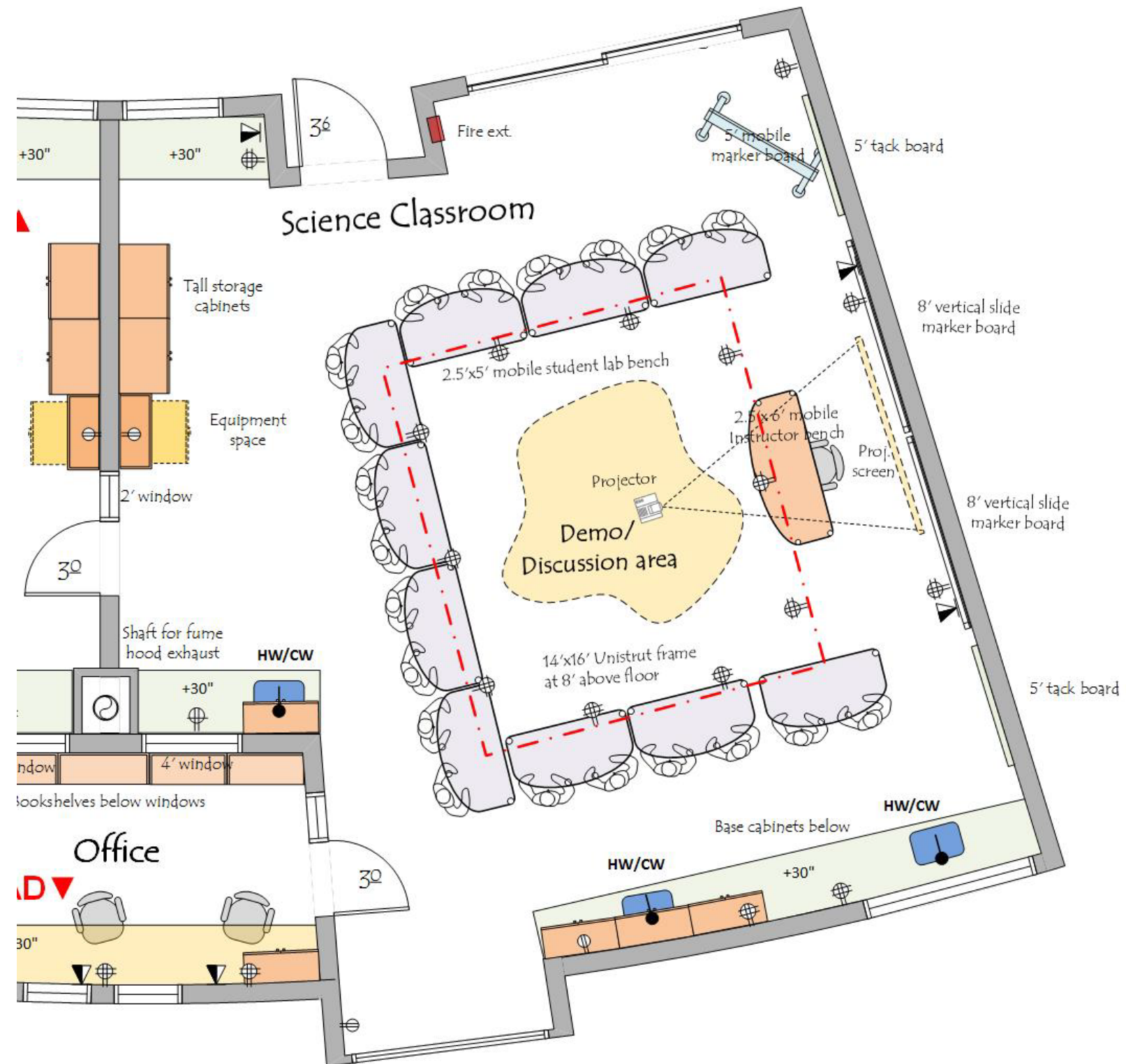


SCIENCE CLASSROOM

ENVIRONMENTAL CENTER

SECOND FLOOR- EAST SIDE

NOTE: ELEVATIONS ARE SIMILAR TO CLASSROOM ON WEST SIDE



ARCHITECTURAL

Occupancy: E
 Floor: Linoleum
 Walls: gypsum board and enamel paint
 Ceiling: 9'-0" acoustic tile
 Doors: 3⁶/x8⁰ framed glass
 Windows: at exterior wall and adjacent to doors
 Daylight attenuation: Mecho roller shade
 Acoustic Attenuation: NC 40 or less
 Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
 Local heat
 Humidity: Ambient
 Equipment Heat Gain: up to 25 btuh/sf

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data & Wireless data
 Lighting: indirect fluorescent @ 500 LUX with multi-level switching
 Task lights below wall cabinets
 Provide light switches at door

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers

CONTRACTOR FURNISHED EQUIPMENT

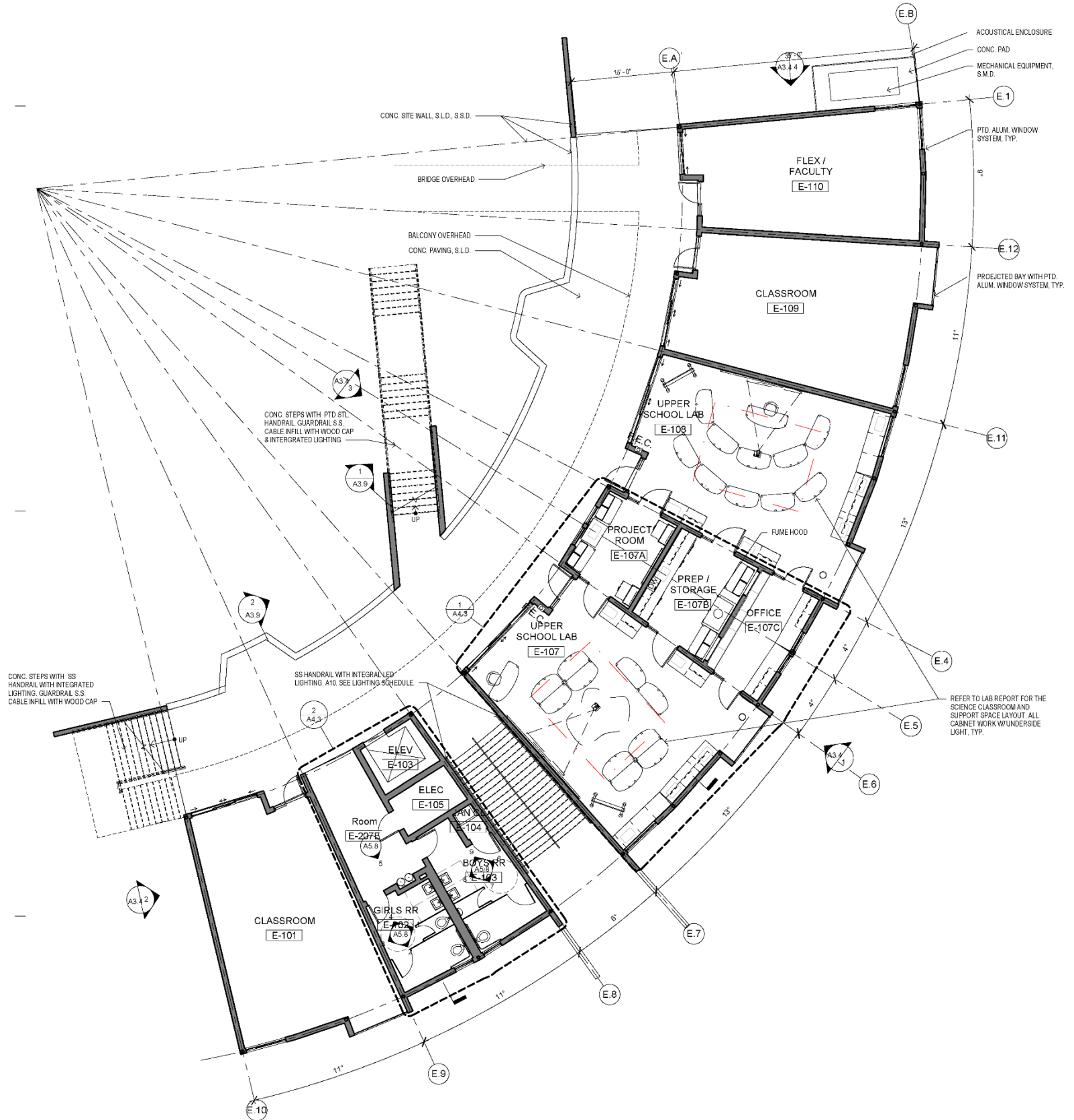
Bamboo casework - base cabinets, wall cabinets, tall cabinets
 Epoxy resin tops and sinks
 Faucets & fittings

OWNER FURNISHED EQUIPMENT

Chairs
 Benchtap instruments

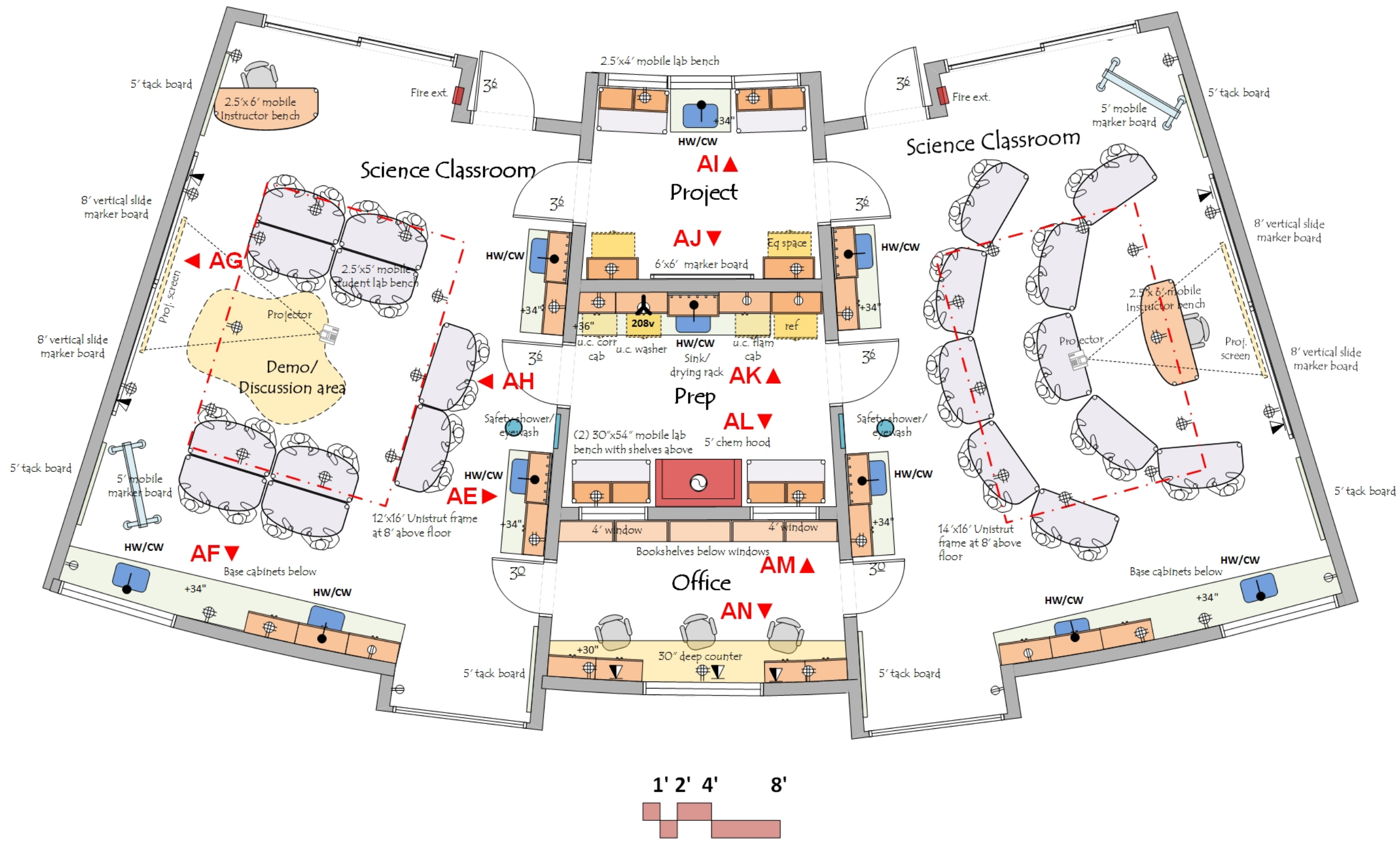
ENVIRONMENTAL CENTER SCIENCE CLASSROOMS

FIRST FLOOR PLAN



ENVIRONMENTAL CENTER SCIENCE CLASSROOMS

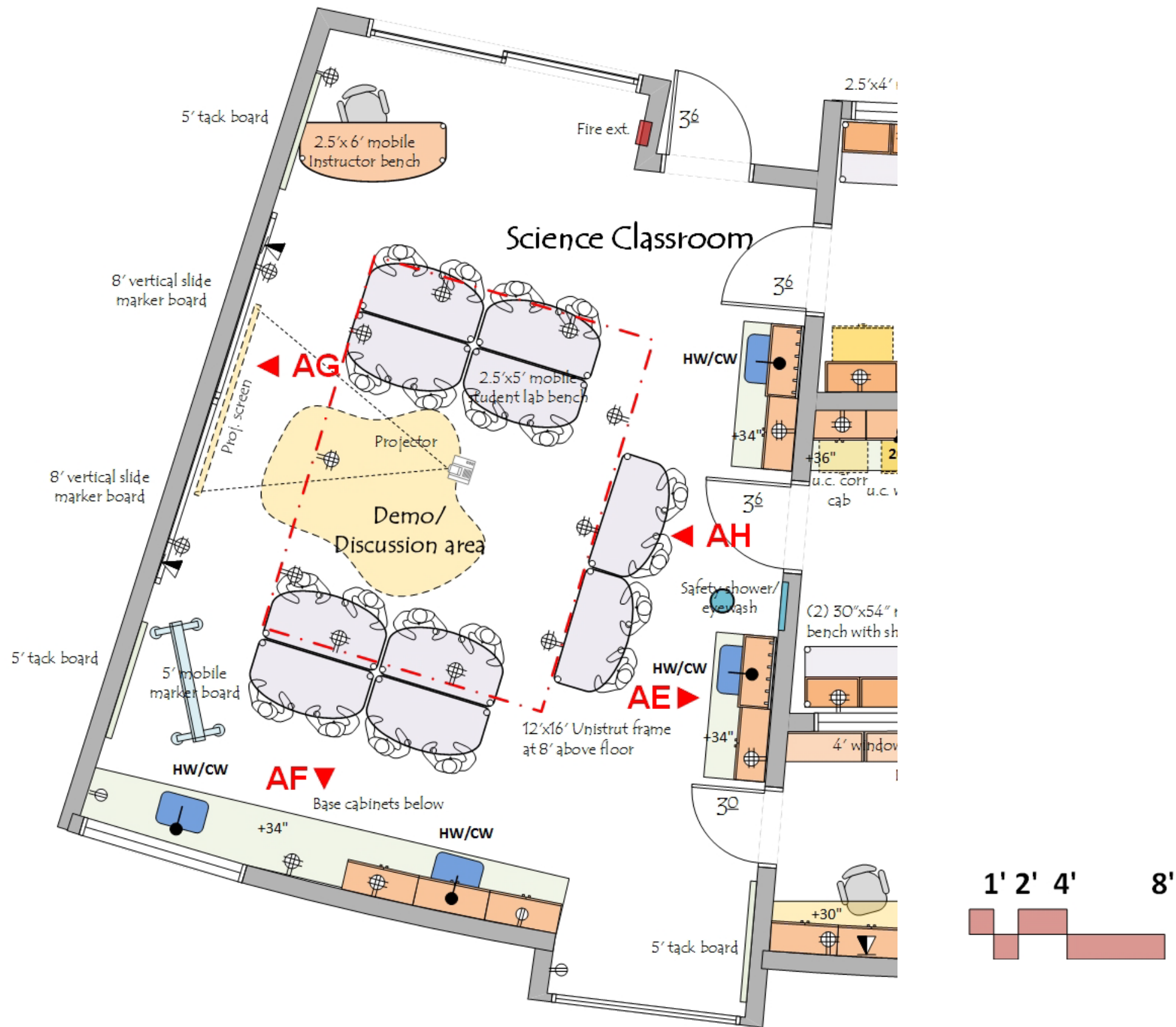
FIRST FLOOR



SCIENCE CLASSROOM

ENVIRONMENTAL CENTER

FIRST FLOOR- WEST SIDE



ARCHITECTURAL

Occupancy: E
 Floor: Linoleum
 Walls: gypsum board and enamel paint
 Ceiling: 10'-0" acoustic tile
 Doors: 3⁶/₈" framed glass
 Windows: at exterior wall and adjacent to doors
 Daylight attenuation: Mecho roller shade
 Acoustic Attenuation: NC 40 or less
 Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
 Local heat
 Humidity: Ambient
 Equipment Heat Gain: up to 25 btuh/sf

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110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data & Wireless data
 Lighting: indirect fluorescent @ 500 LUX with multi-level switching
 Task lights below wall cabinets
 Provide light switches at door

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers

CONTRACTOR FURNISHED EQUIPMENT

Bamboo casework - base cabinets, wall cabinets, tall cabinets
 Epoxy resin tops and sinks
 Faucets & fittings
 Fire Extinguisher

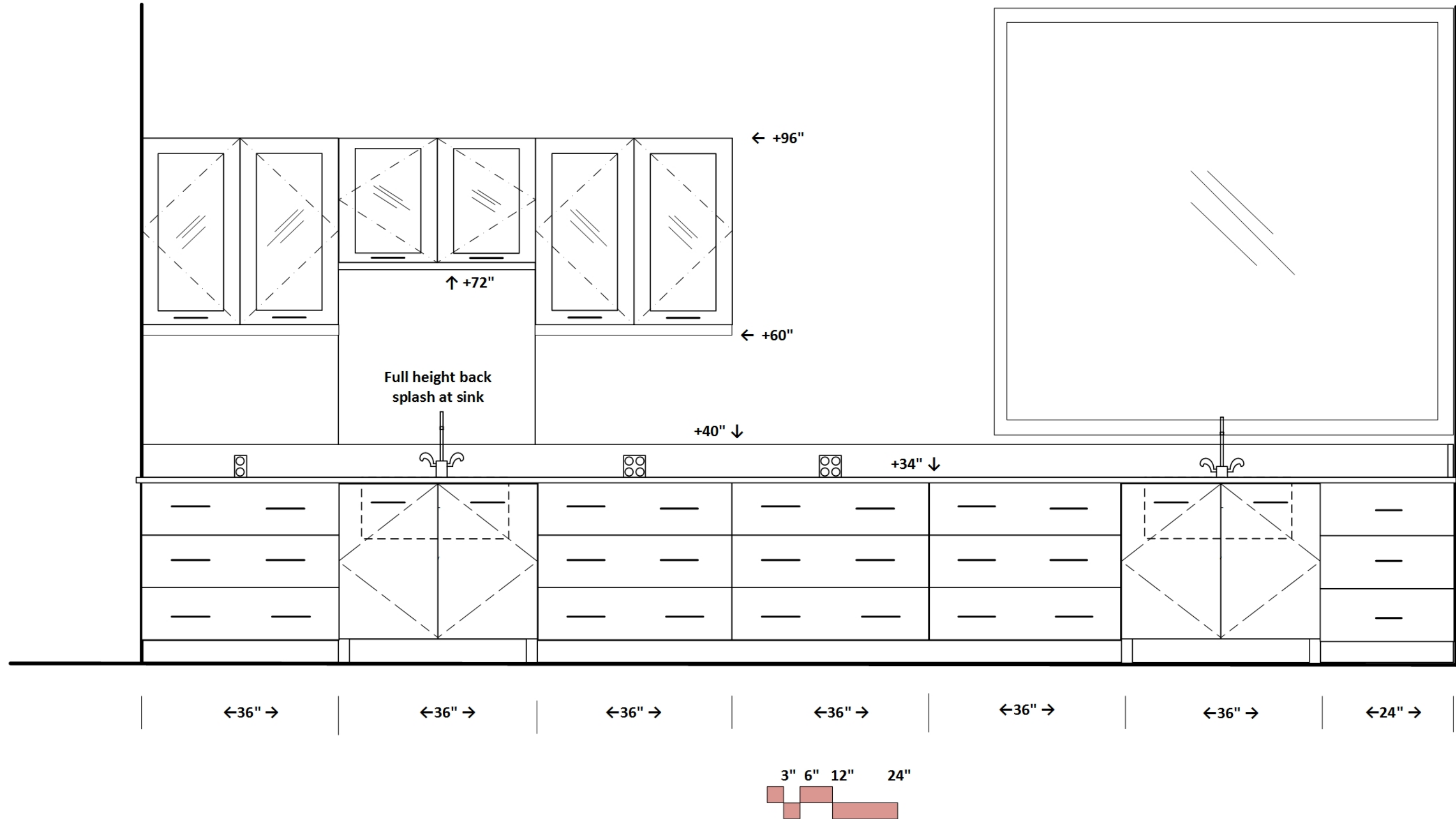
OWNER FURNISHED EQUIPMENT

Chairs
 Benchtop analytical instruments

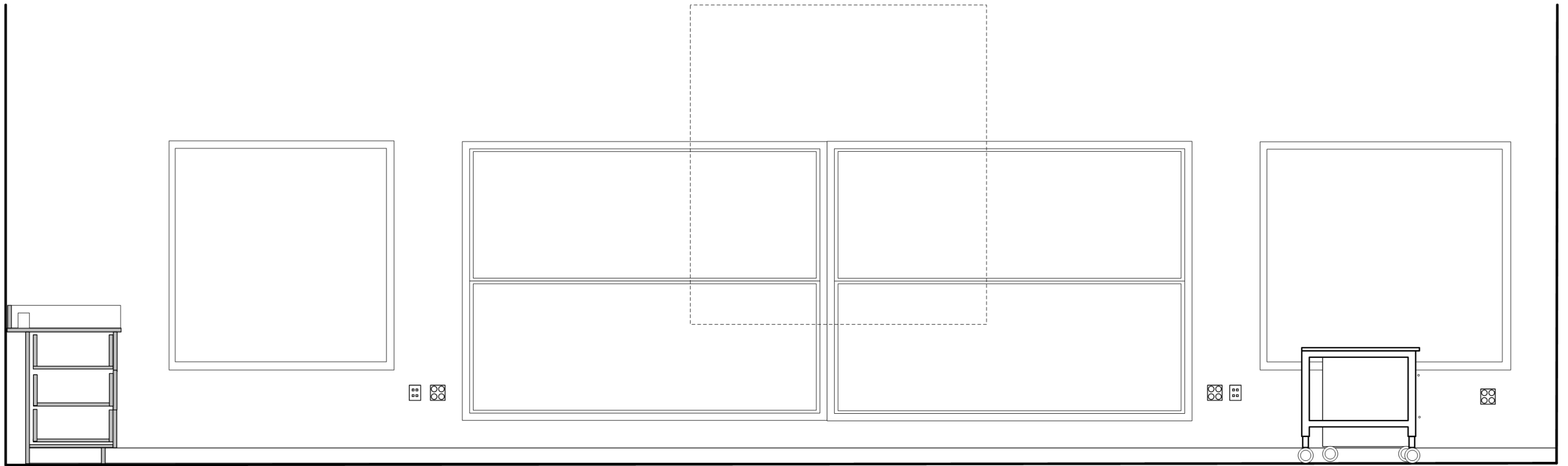
SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
FIRST FLOOR- WEST SIDE
ELEVATION AE



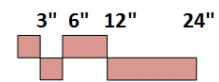
SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
FIRST FLOOR- WEST SIDE
ELEVATION AF



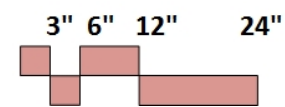
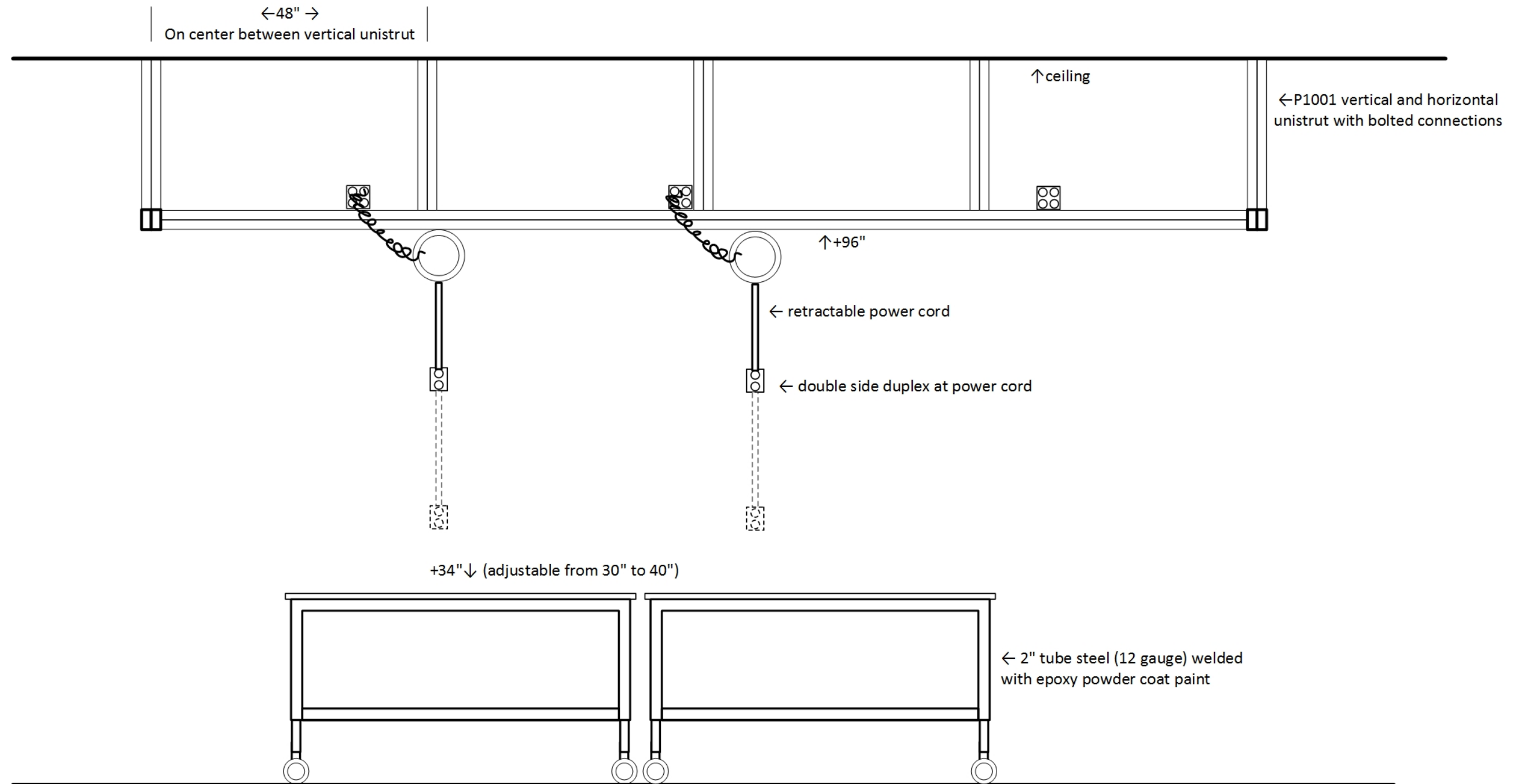
SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
FIRST FLOOR- WEST SIDE
ELEVATION AG



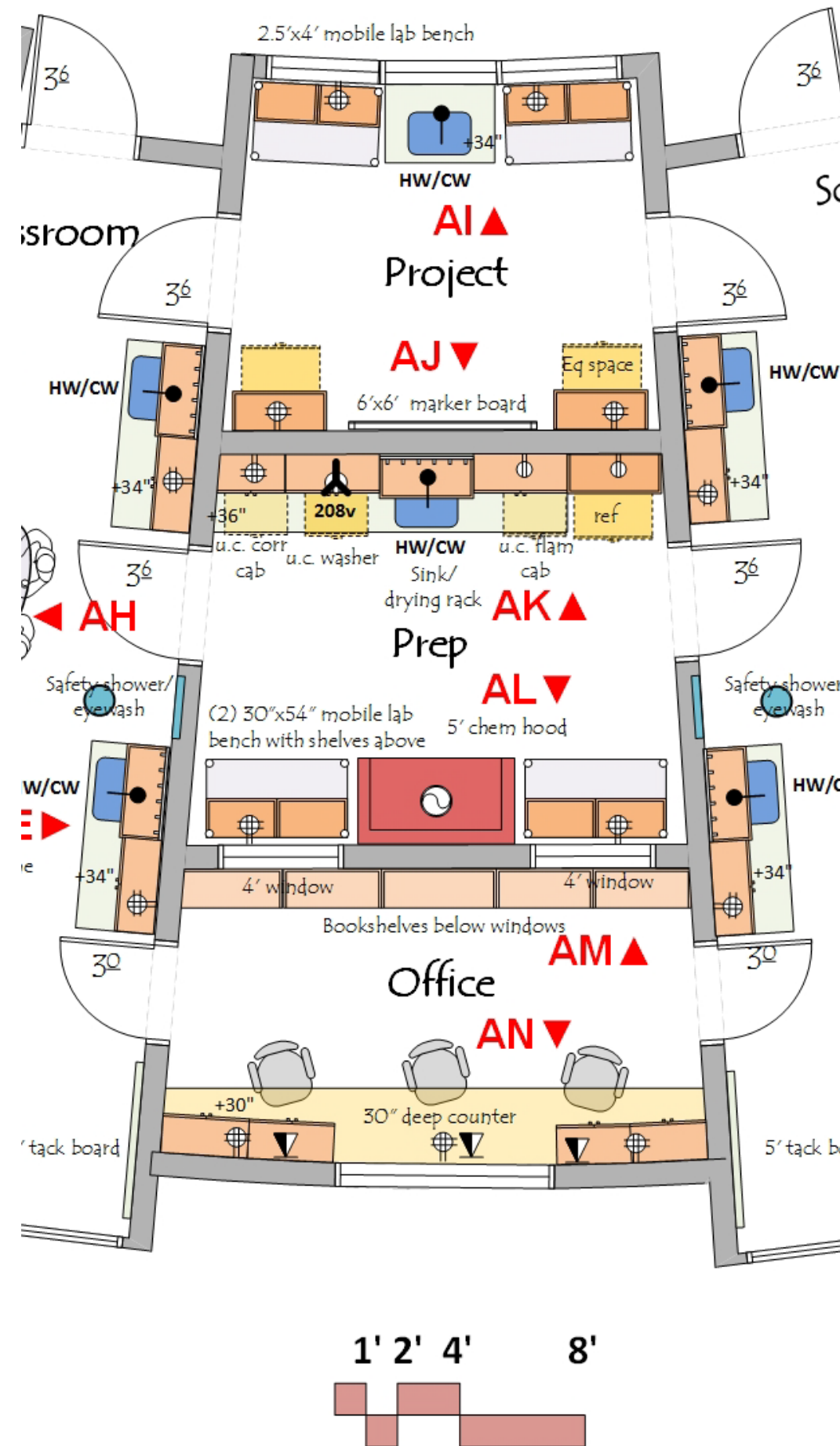
←30" →



SCIENCE CLASSROOM
ENVIRONMENTAL CENTER
FIRST FLOOR- WEST SIDE
ELEVATION AH



PROJECT/PREP/OFFICE ENVIRONMENTAL CENTER FIRST FLOOR



ARCHITECTURAL

Occupancy: E
 Floor: Linoleum
 Walls: gypsum board and enamel paint
 Ceiling: 9'-0" acoustic tile
 Doors: 3⁶/x8⁰ framed glass
 Windows: at exterior wall and adjacent to doors
 Daylight attenuation: Mecho roller shade
 Acoustic Attenuation: NC 40 or less
 Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
 Local heat
 Humidity: Ambient
 Equipment Heat Gain: up to 25 btuh/sf

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data & Wireless data
 Lighting: indirect fluorescent @ 500 LUX with multi-level switching
 Task lights below wall cabinets
 Provide light switches at door

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers

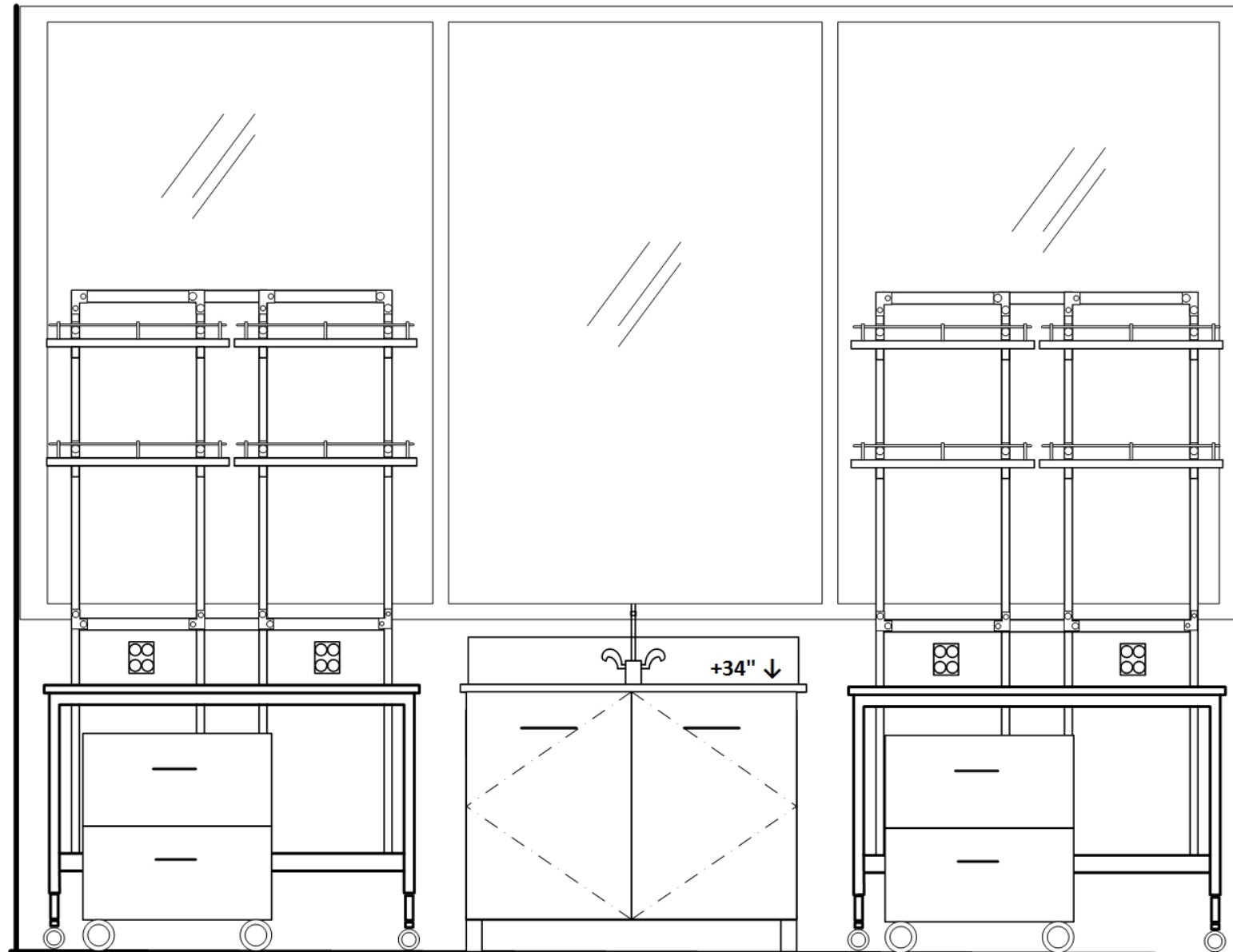
CONTRACTOR FURNISHED EQUIPMENT

Bamboo casework - base cabinets, wall cabinets, tall cabinets
 Epoxy resin tops and sinks
 Faucets & fittings

OWNER FURNISHED EQUIPMENT

Chairs
 Benchttop analytical instruments

PROJECT/PREP/OFFICE
ENVIRONMENTAL CENTER
FIRST FLOOR
ELEVATION AI



24" wide Mobile
base cabinet

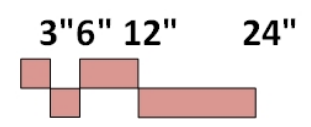
24" wide Mobile
base cabinet

←48" →

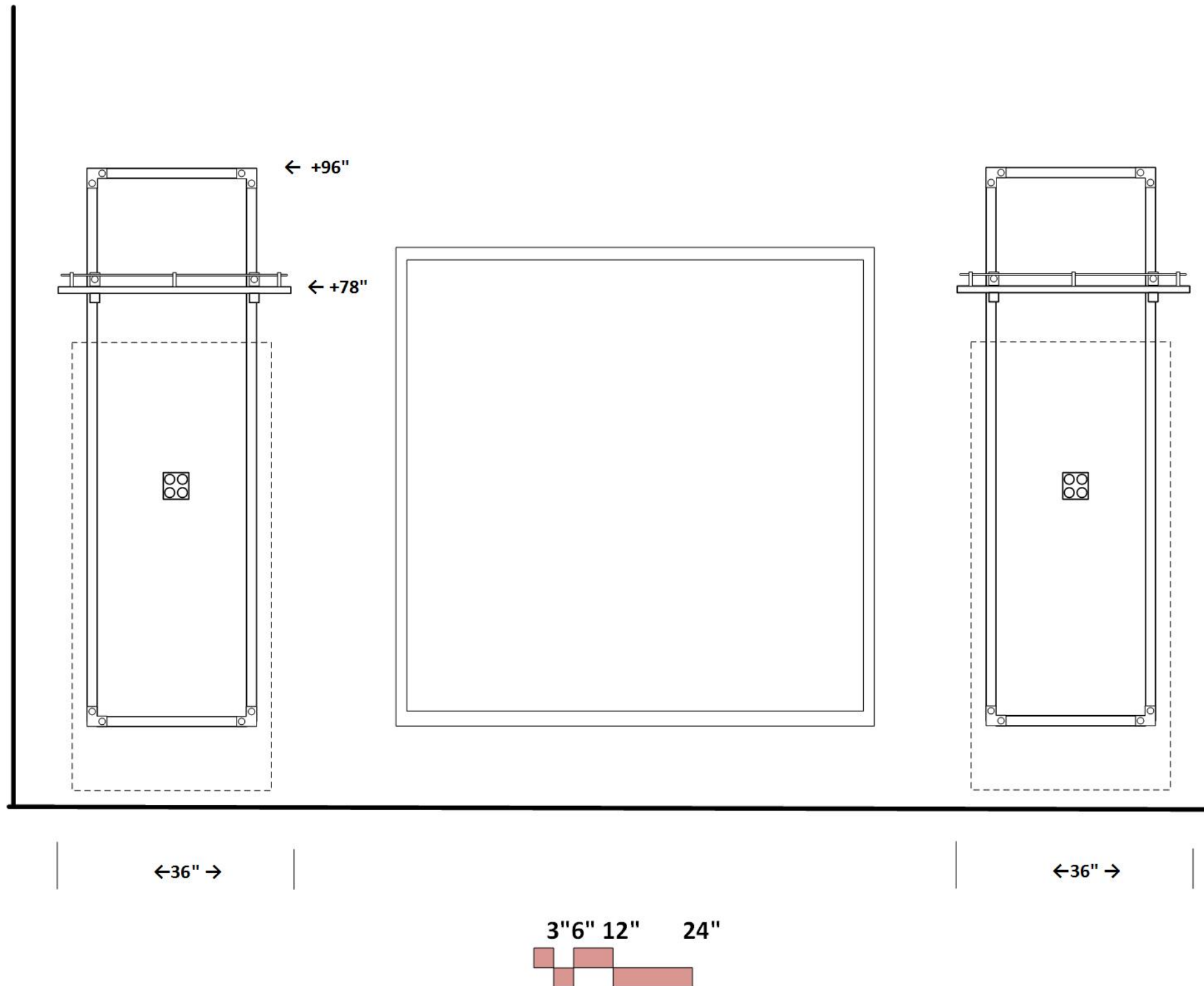
←42" →

←48" →

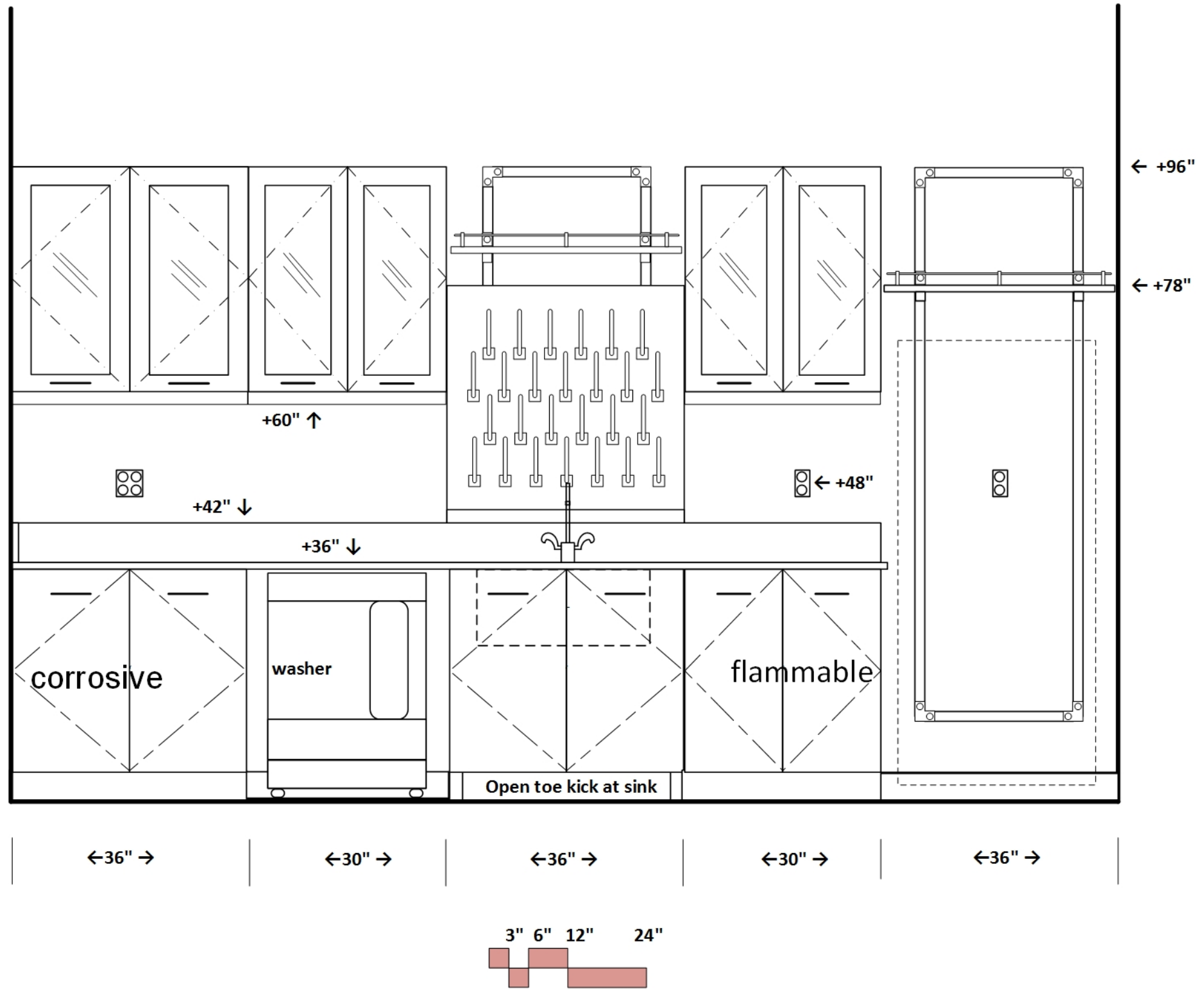
← +34"
Adj. from 29" to 38"



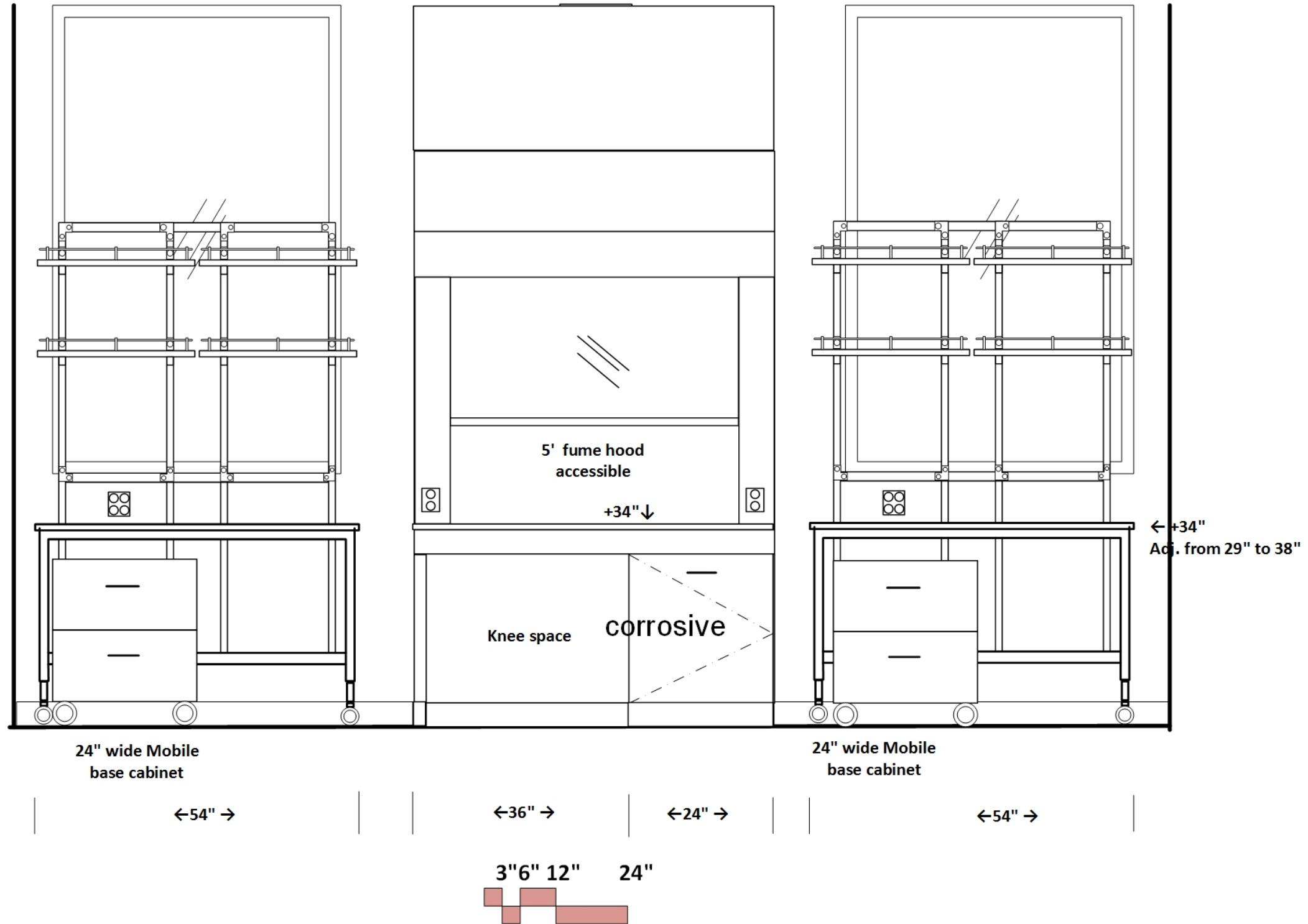
PROJECT/PREP/OFFICE
ENVIRONMENTAL CENTER
FIRST FLOOR
ELEVATION AJ



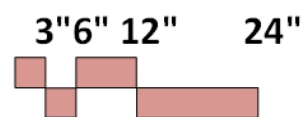
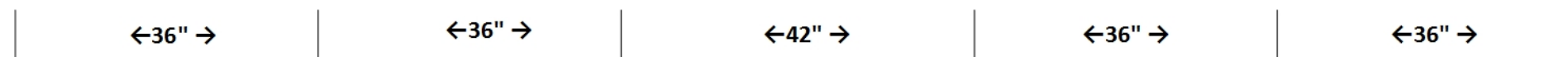
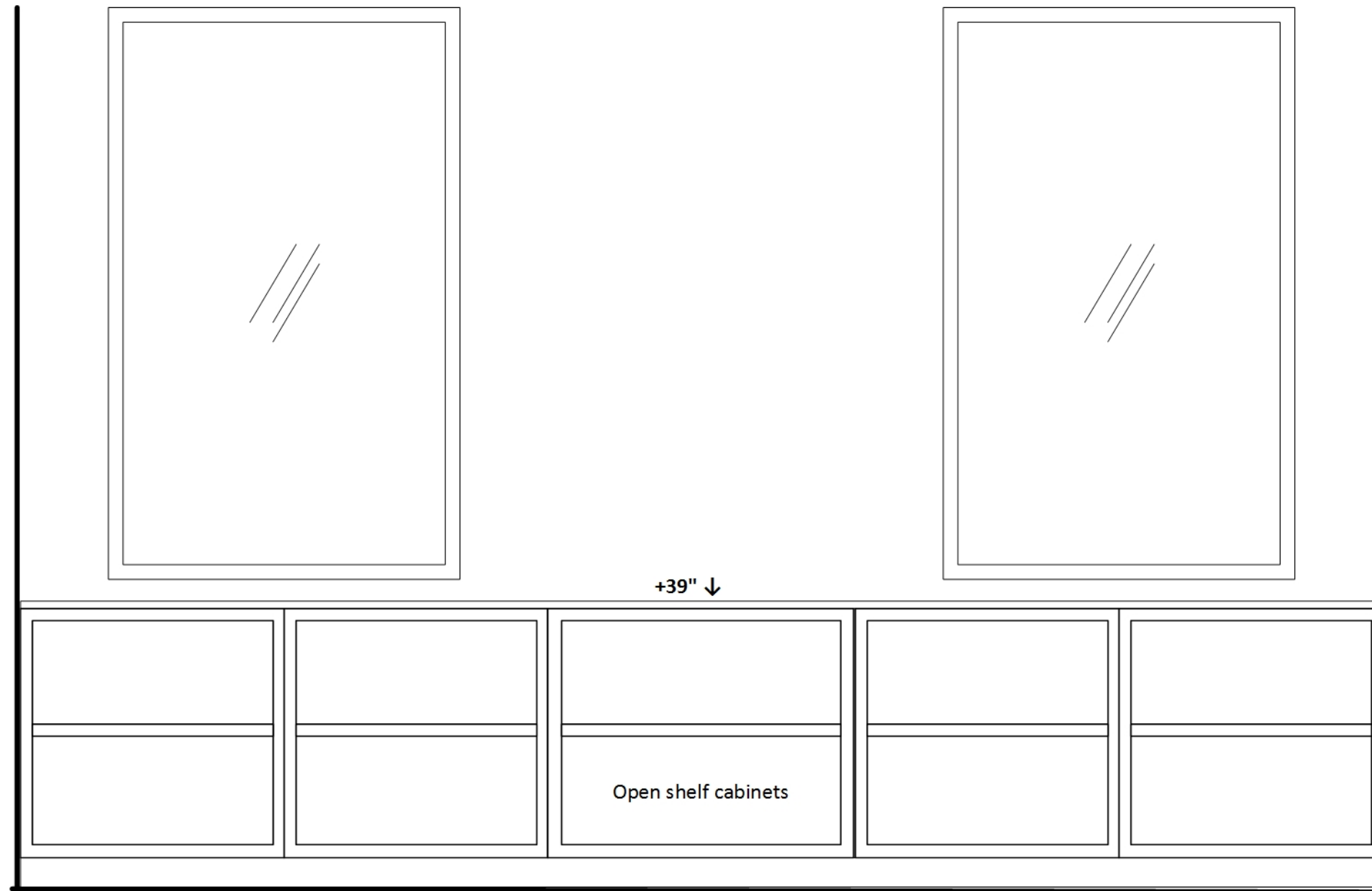
PROJECT/PREP/OFFICE
ENVIRONMENTAL CENTER
FIRST FLOOR
ELEVATION AK



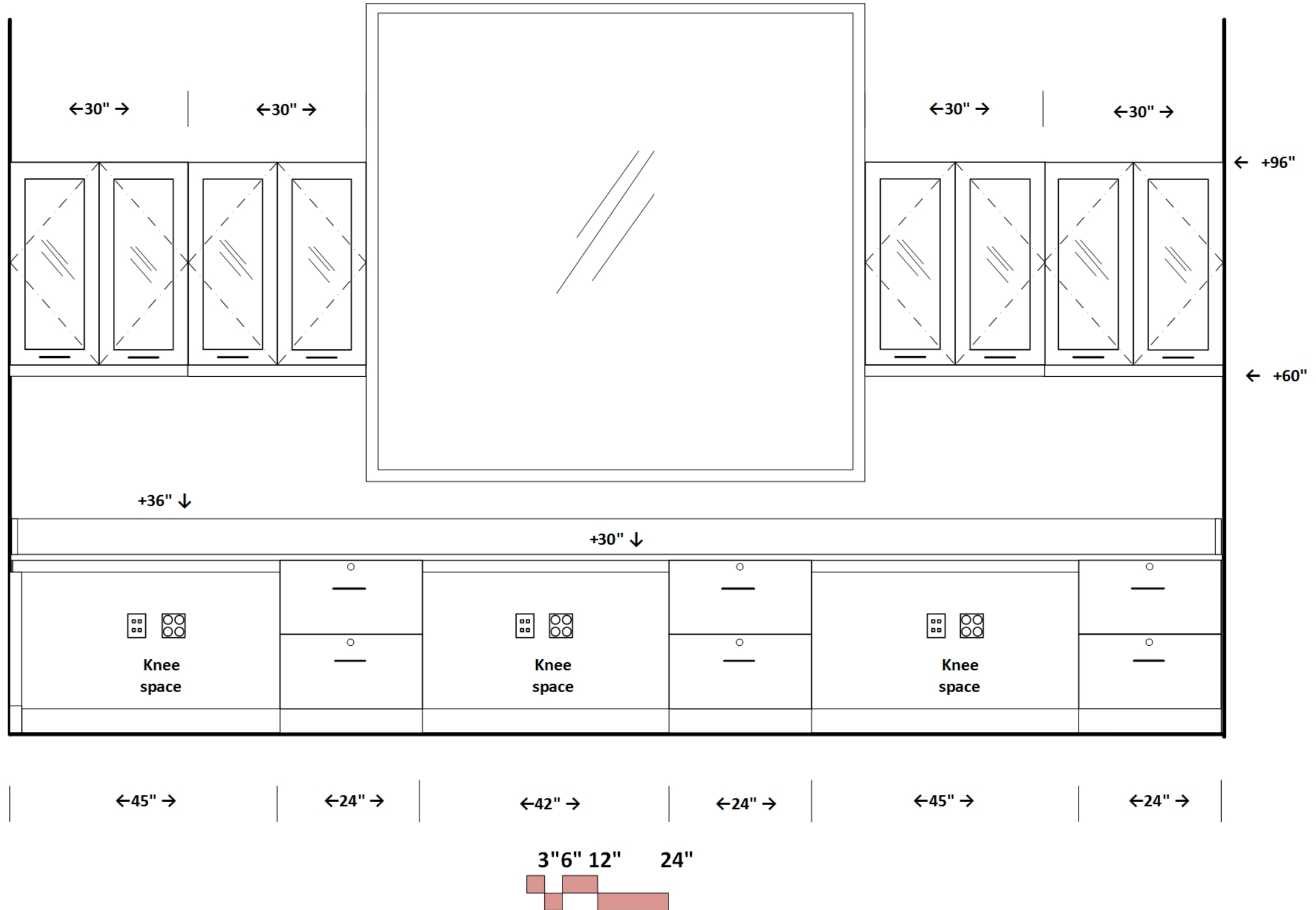
PROJECT/PREP/OFFICE
ENVIRONMENTAL CENTER
FIRST FLOOR
ELEVATION AL



PROJECT/PREP/OFFICE
ENVIRONMENTAL CENTER
FIRST FLOOR
ELEVATION AM



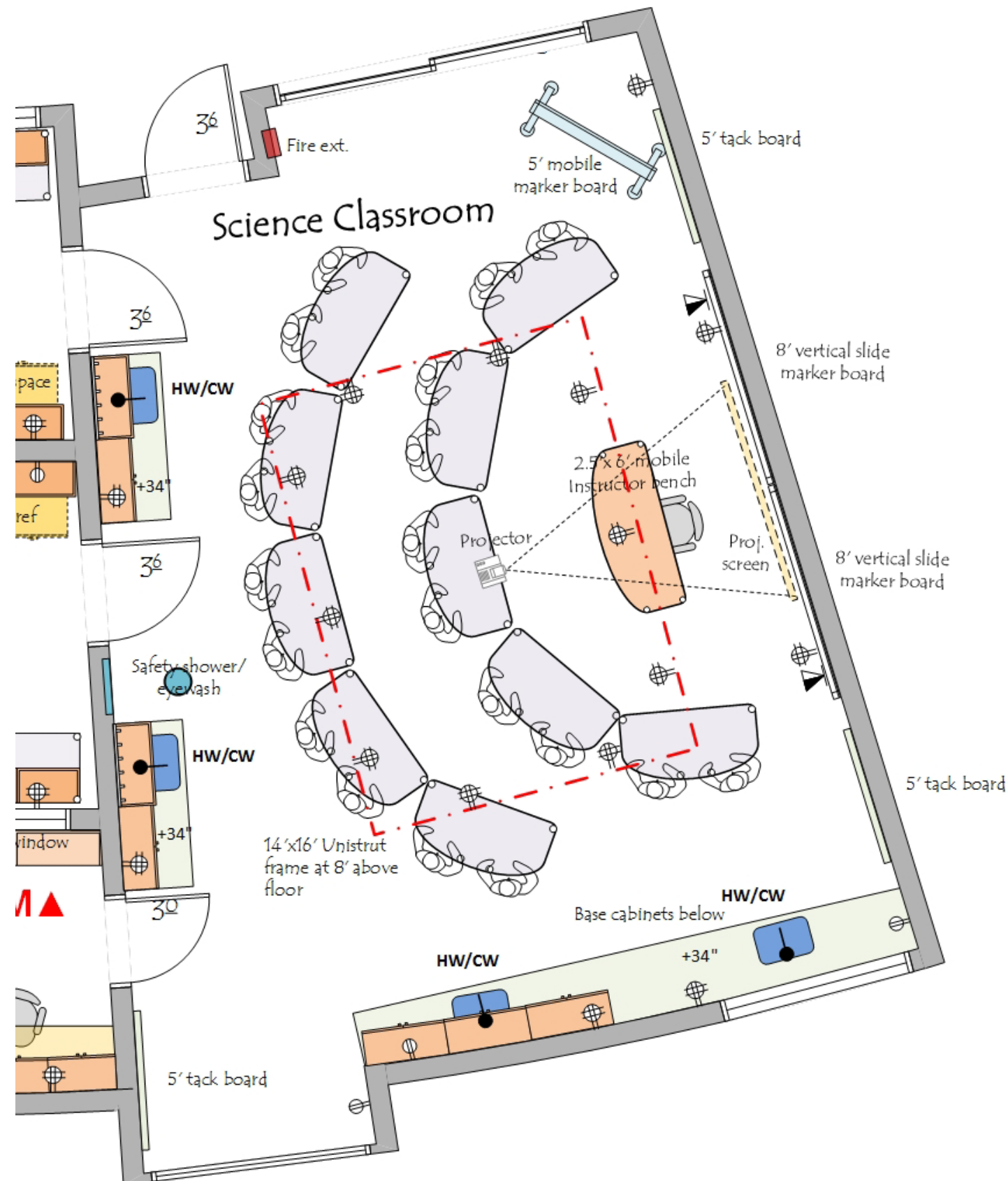
PROJECT/PREP/OFFICE
ENVIRONMENTAL CENTER
FIRST FLOOR
ELEVATION AN



SCIENCE CLASSROOM

ENVIRONMENTAL CENTER

FIRST FLOOR- EAST SIDE



ARCHITECTURAL

Occupancy: E
 Floor: Linoleum
 Walls: gypsum board and enamel paint
 Ceiling: 10'-0" acoustic tile
 Doors: 3⁶/x8⁰ framed glass
 Windows: at exterior wall and adjacent to doors
 Daylight attenuation: Mecho roller shade
 Acoustic Attenuation: NC 40 or less
 Security: card reader access or key access

STRUCTURAL

Vibration attenuation: 4,000 microinches per second or less

MECHANICAL

Natural ventilation
 Local heat
 Humidity: Ambient
 Equipment Heat Gain: up to 25 btuh/sf

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110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data & Wireless data
 Lighting: indirect fluorescent @ 500 LUX with multi-level switching
 Task lights below wall cabinets
 Provide light switches at door

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers

CONTRACTOR FURNISHED EQUIPMENT

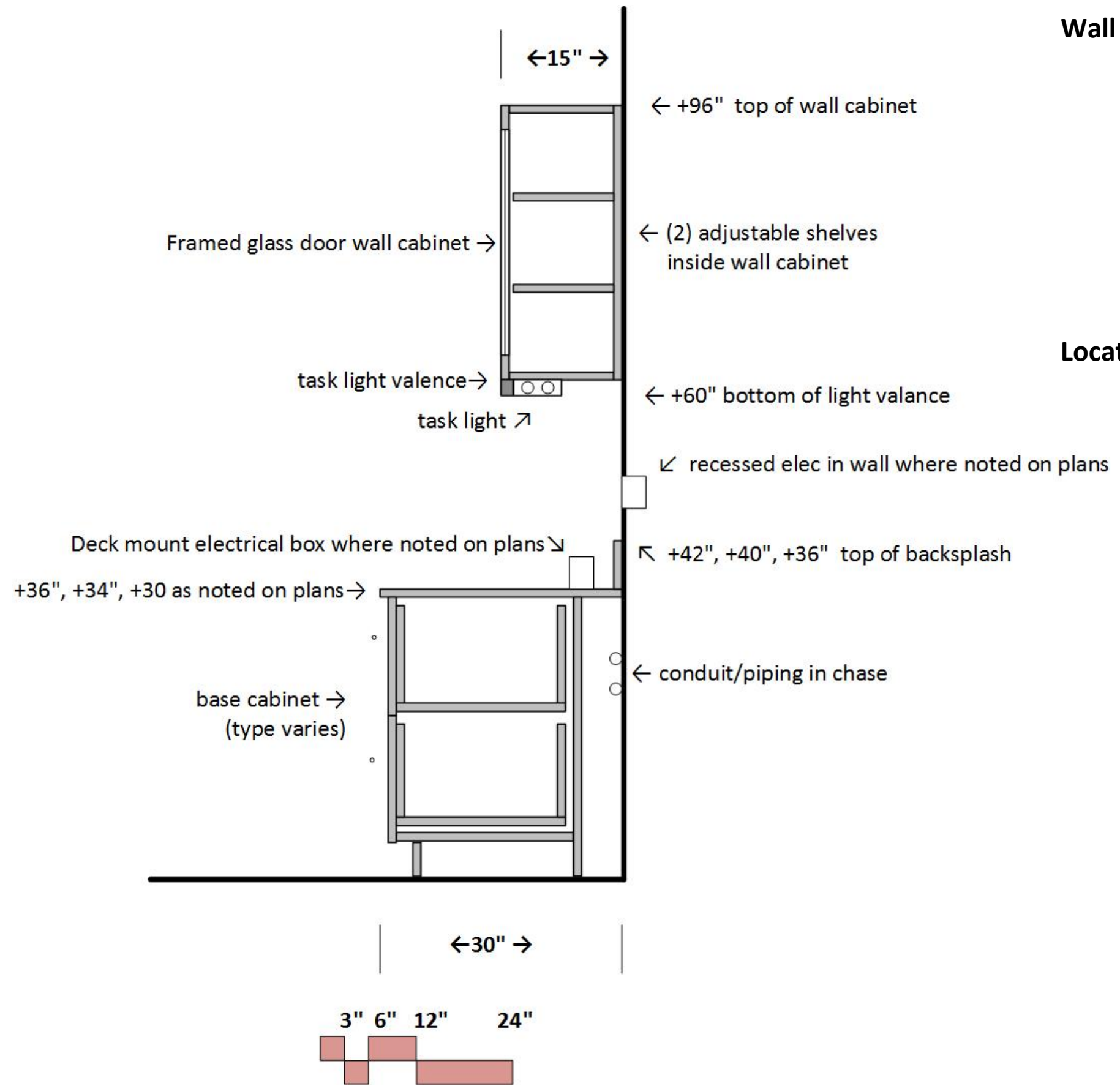
Bamboo casework - base cabinets, wall cabinets, tall cabinets
 Epoxy resin tops and sinks
 Faucets & fittings
 Fire Extinguisher

OWNER FURNISHED EQUIPMENT

Chairs
 Benchttop analytical instruments

SECTION DETAILS

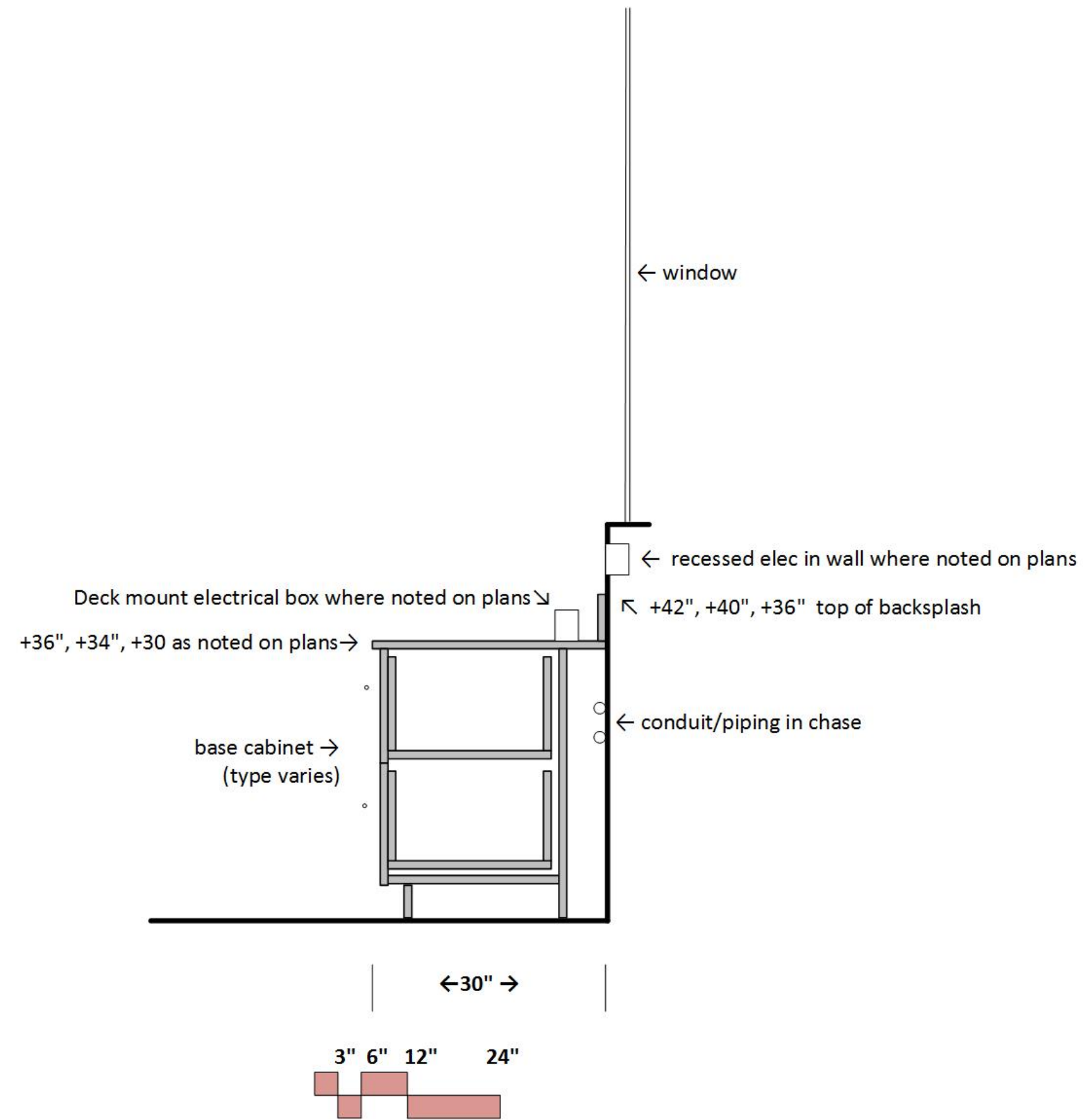
SECTION DETAIL 01
Wall bench/Wall Cabinet



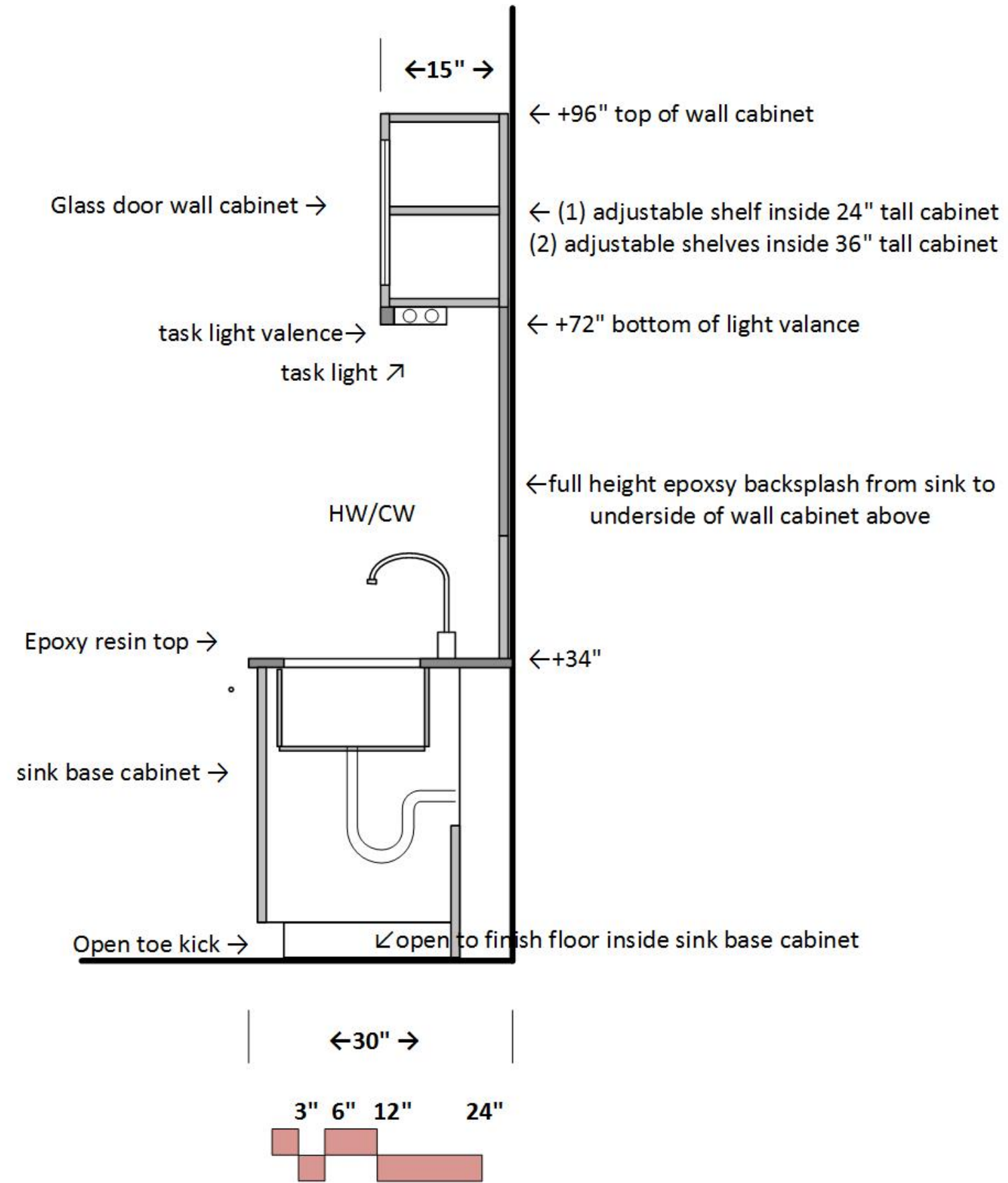
**Location: Science Classrooms,
 Prep Rooms**

SECTION DETAIL 02
Wall bench/Window

Location: Science Classrooms

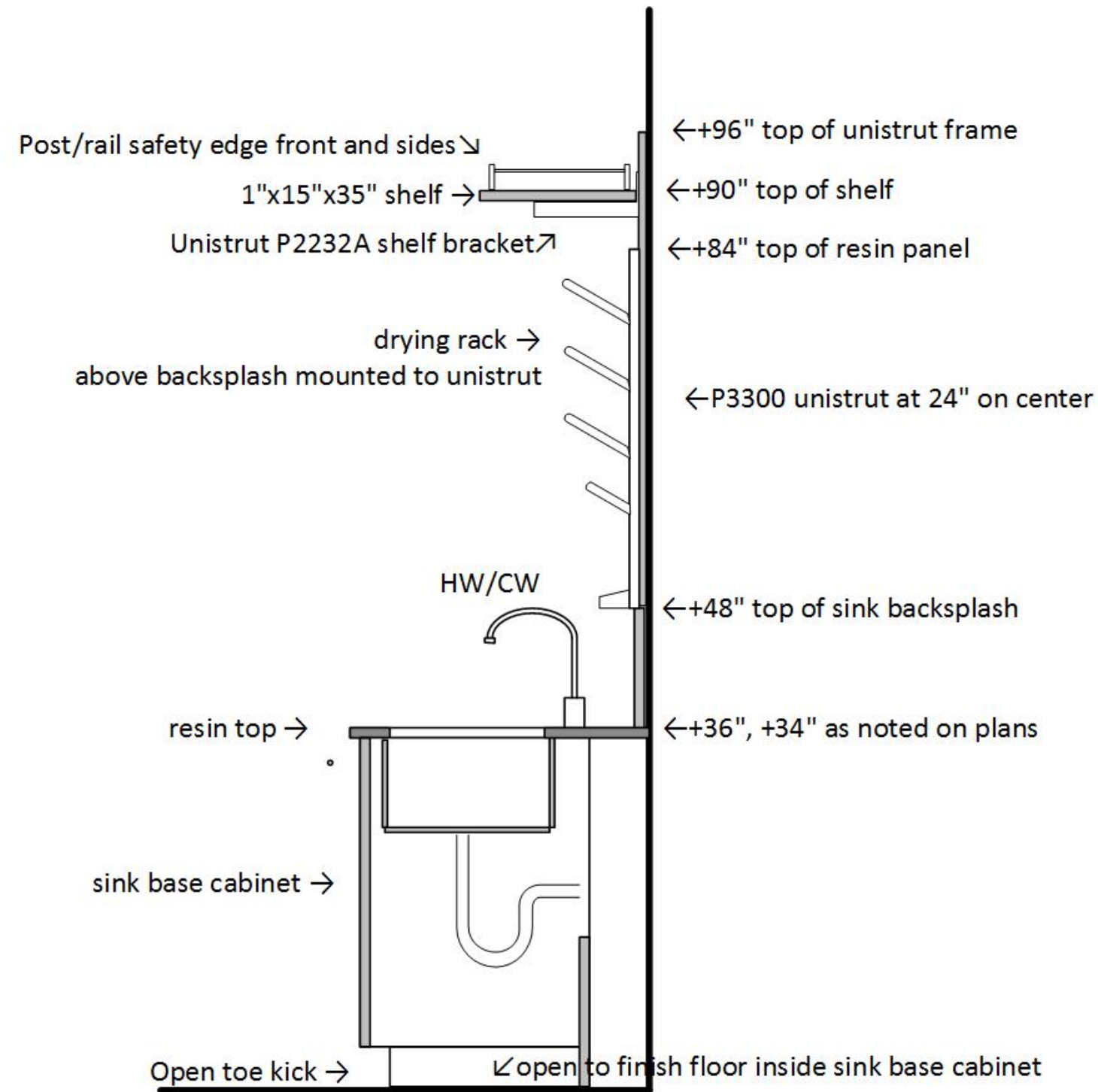


SECTION DETAIL 03
Sink Bench/Wall Cabinet



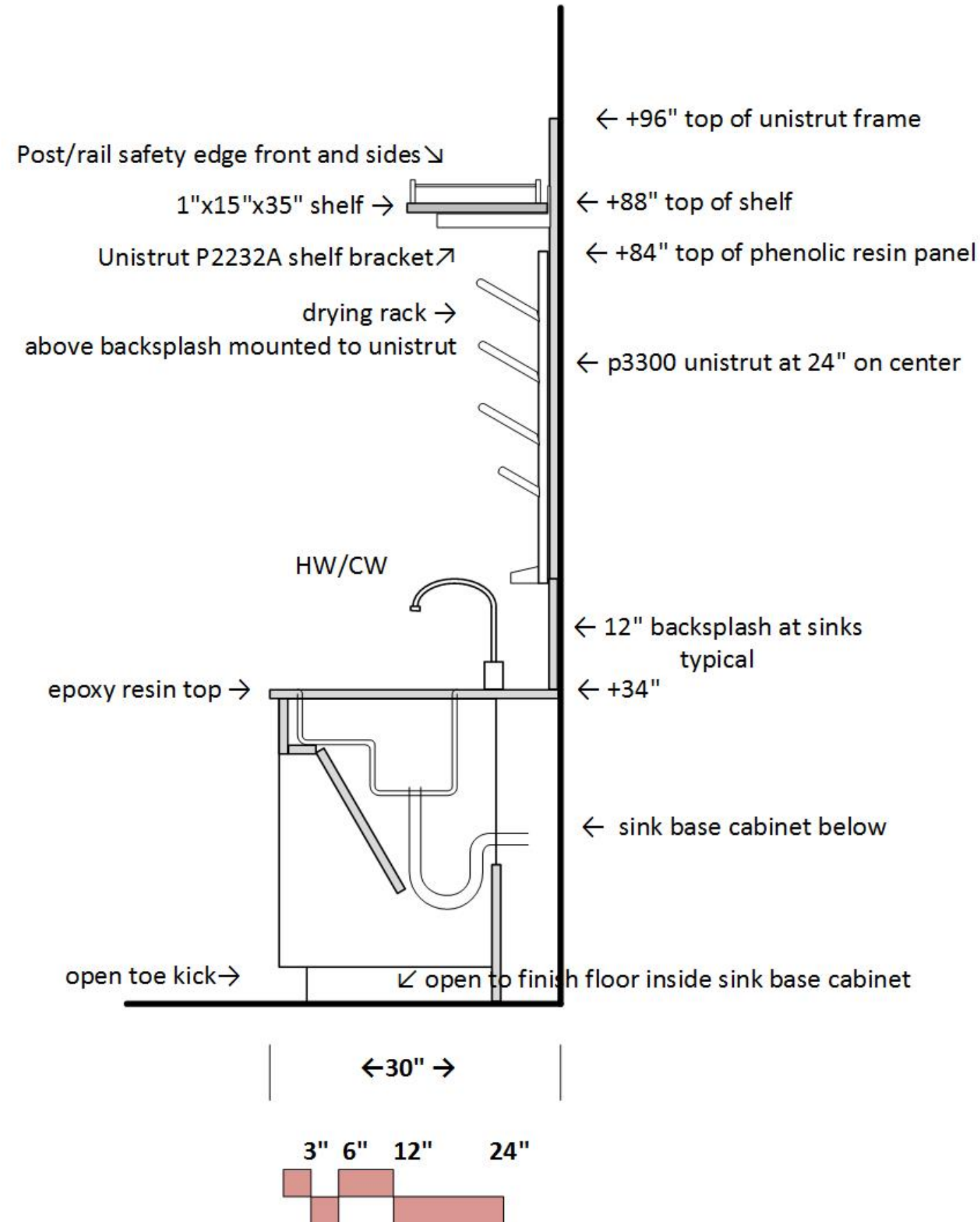
**Location: Science Classrooms-
 Env. Center, 1st Floor**

SECTION DETAIL 04
Sink Bench/Drying Rack & Shelf



**Location: Science Classrooms,
 Prep Rooms**

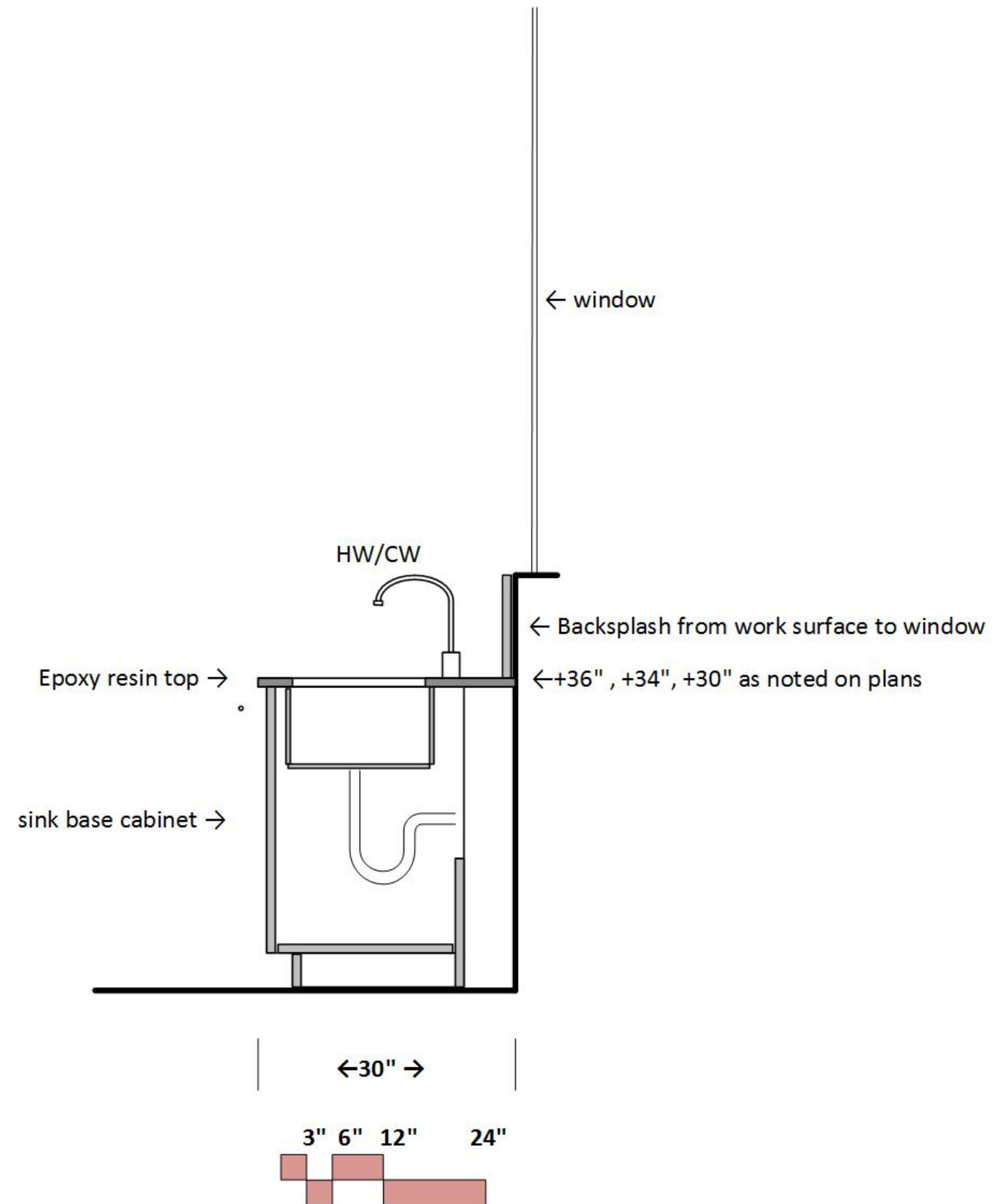
SECTION DETAIL 05
Accessible Sink/Drying Rack & Shelf



Location: Science Classrooms

SECTION DETAIL 06 Sink Bench/Window

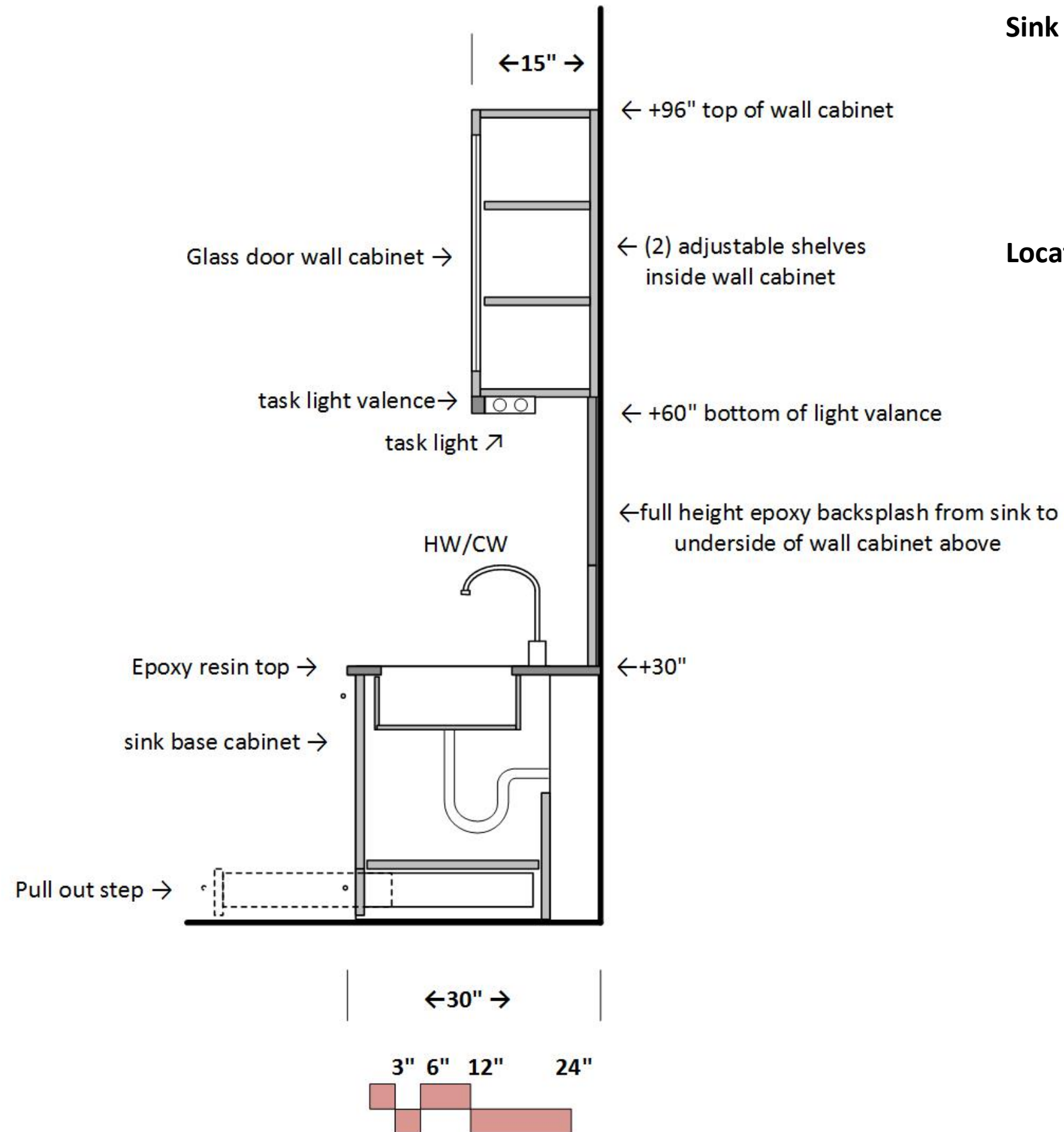
Location: Science Classrooms,
Project Rooms



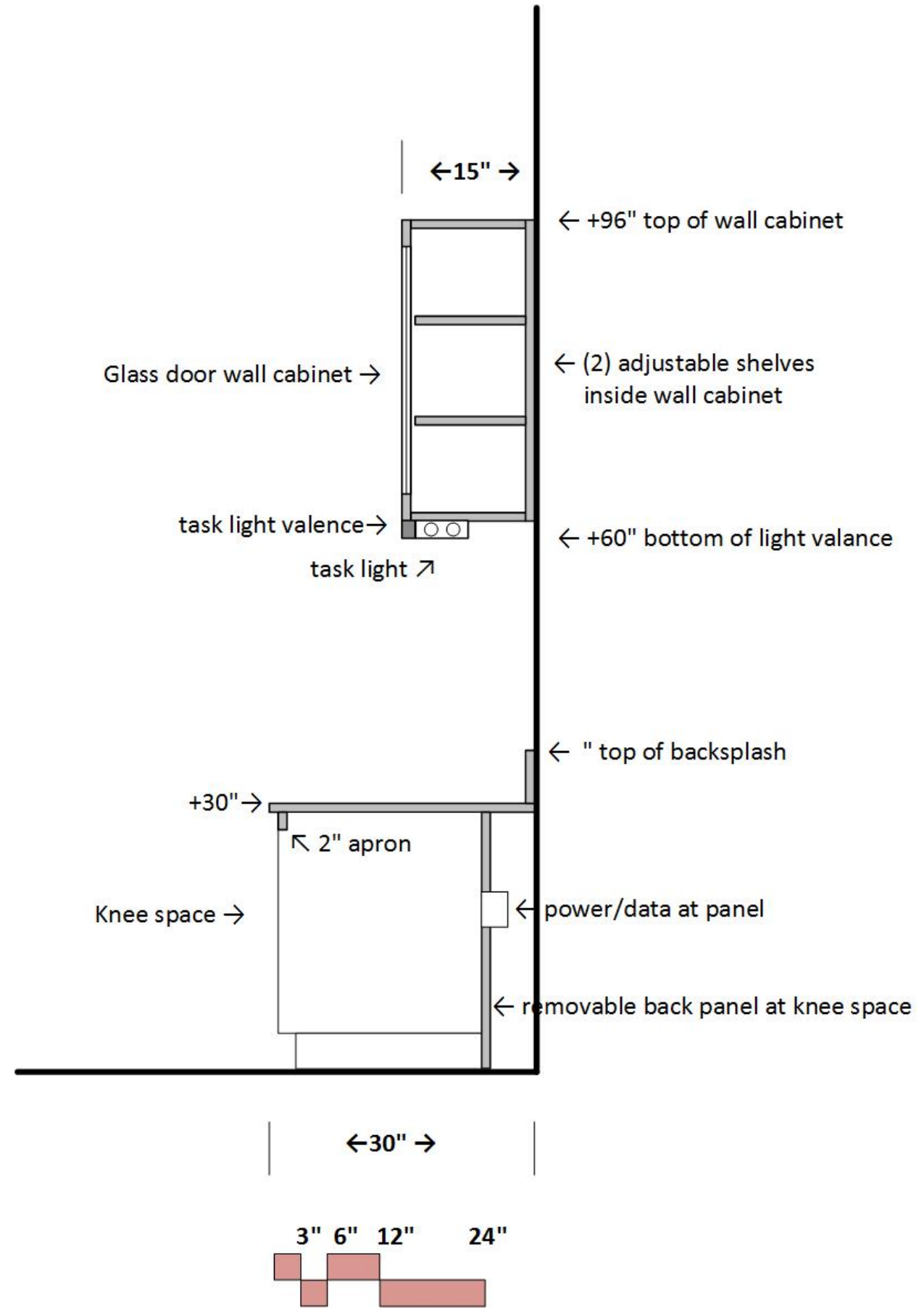
SECTION DETAIL 07

Sink Bench/Pull Out Step

Location: Science Classrooms-
Env. Center, 2nd Floor



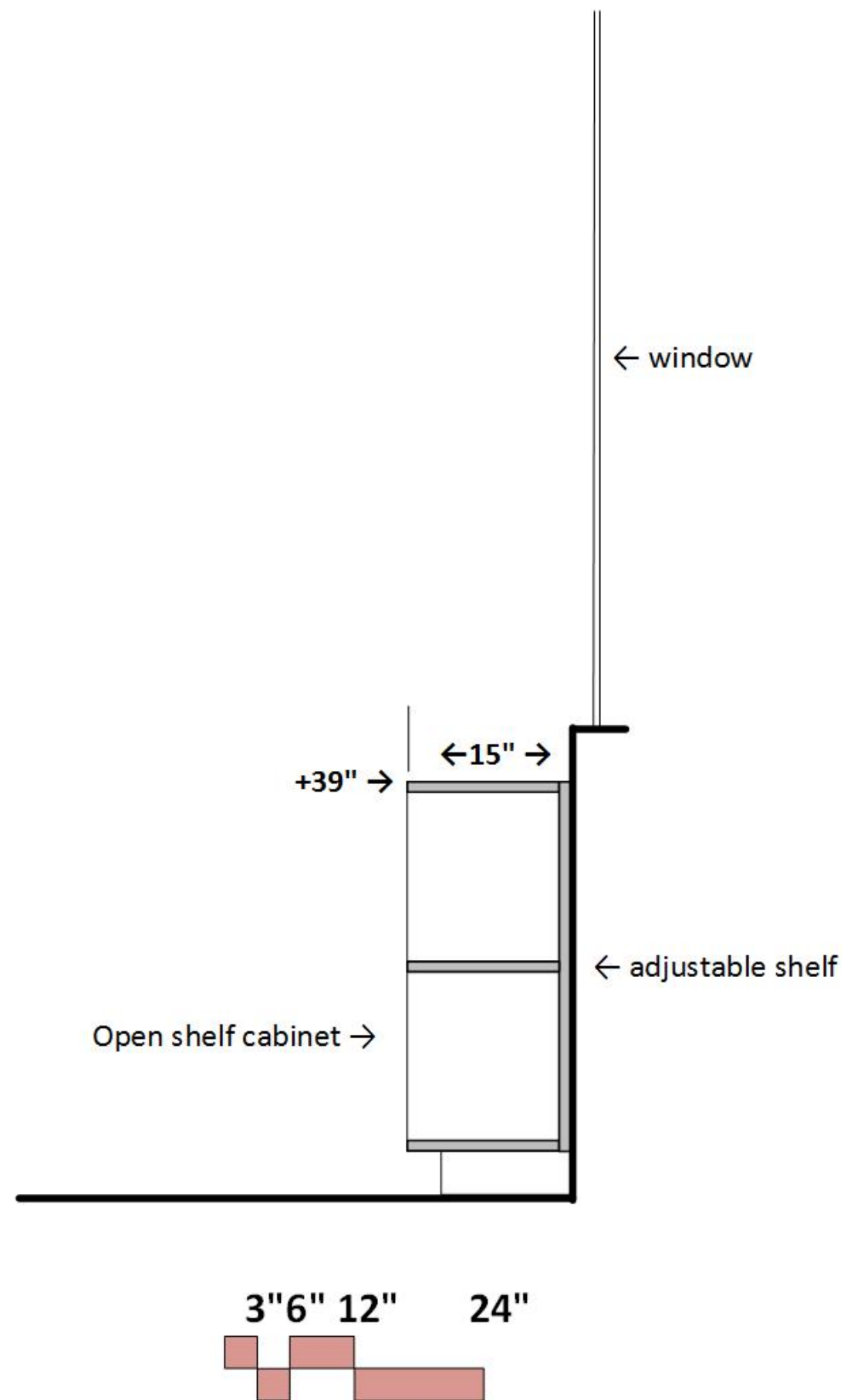
SECTION DETAIL 08
Knee Space/Wall Cabinet



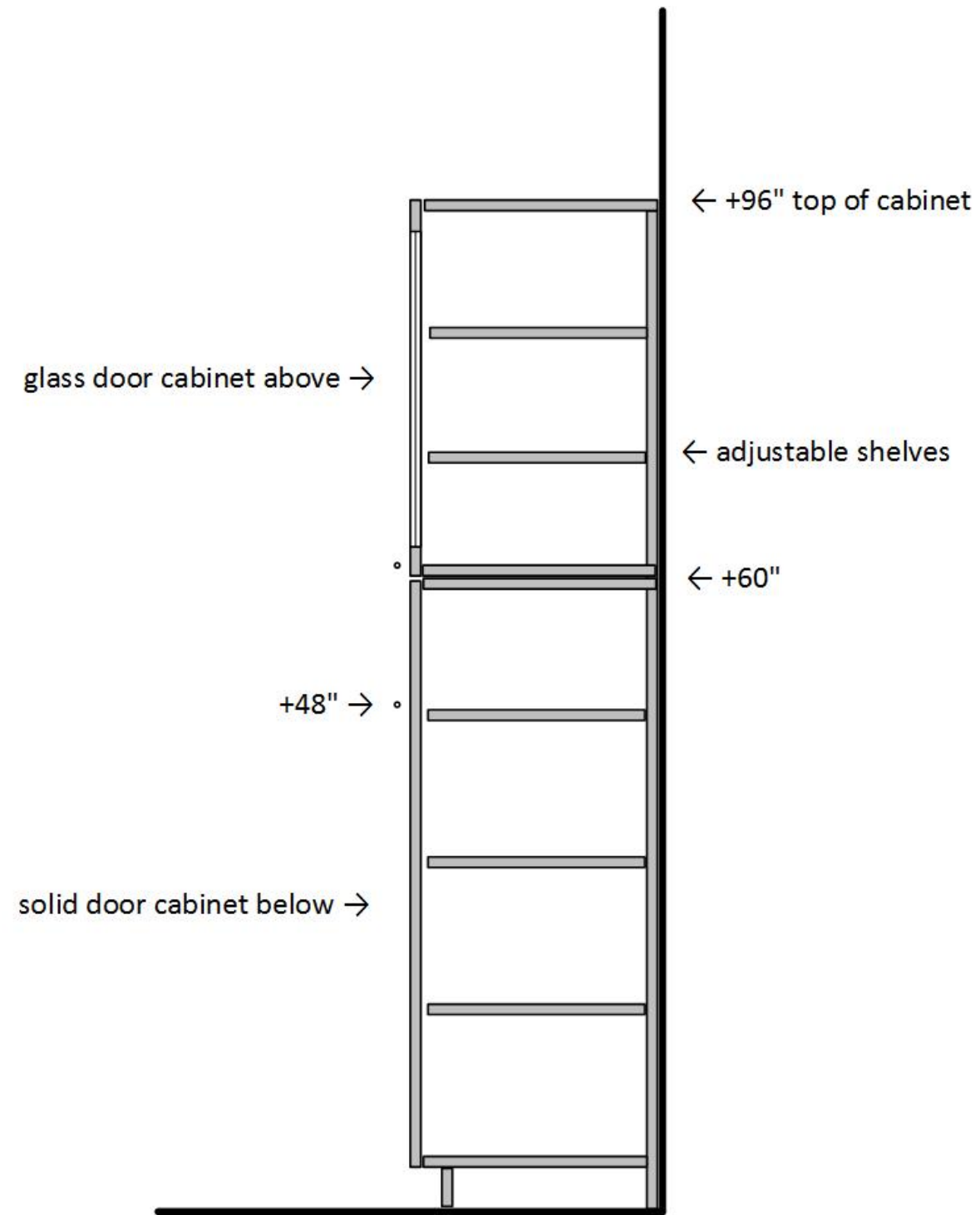
Location: Offices

SECTION DETAIL 09
Open Shelves/Window

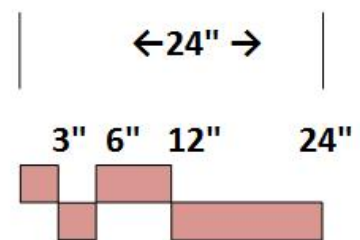
Location: Offices



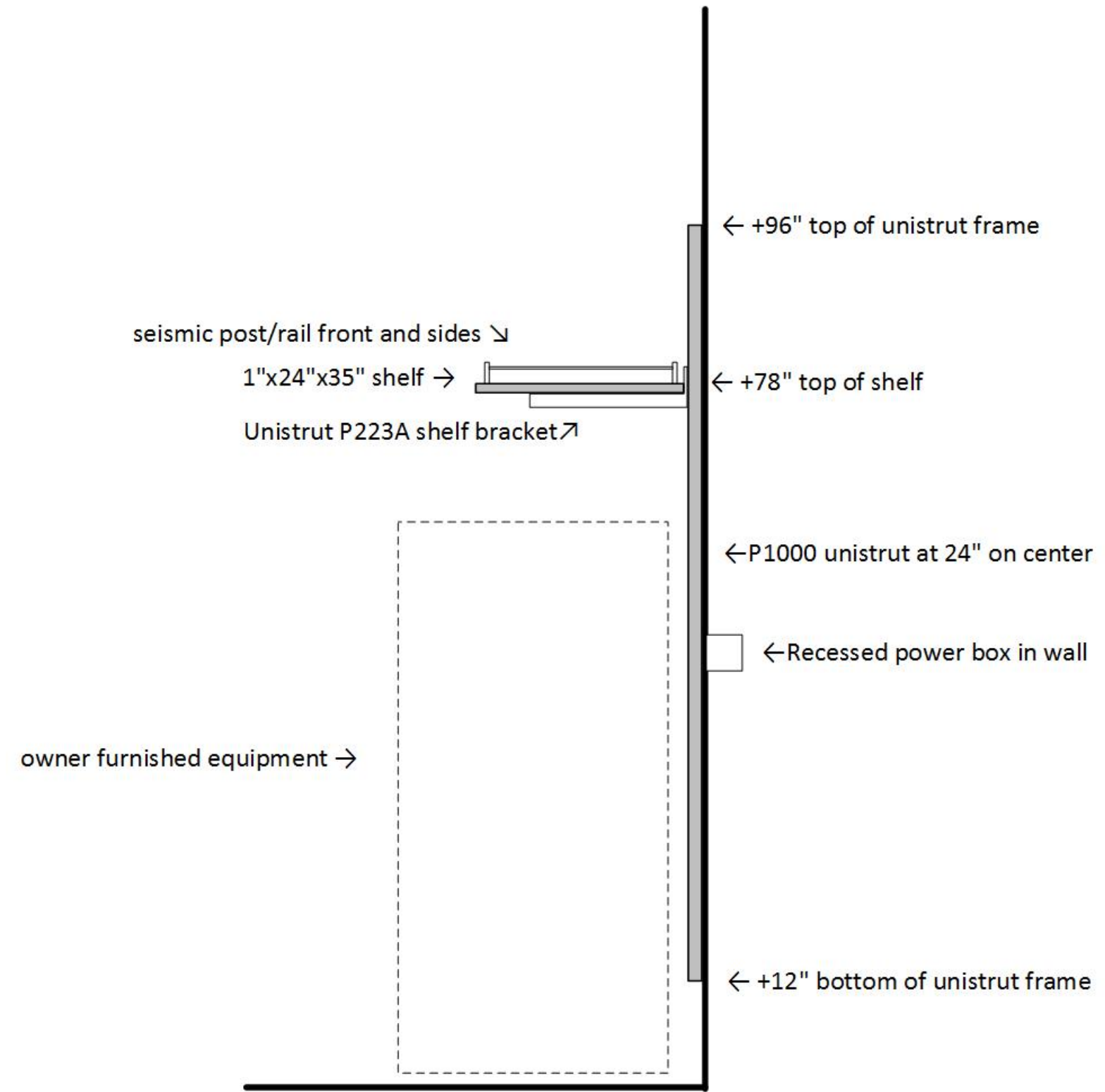
SECTION DETAIL 10 Tall Cabinet



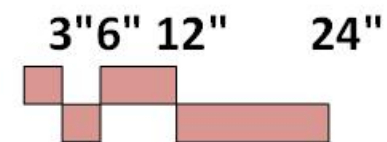
Location: Science Classrooms



SECTION DETAIL 11 Equipment Space/Shelf

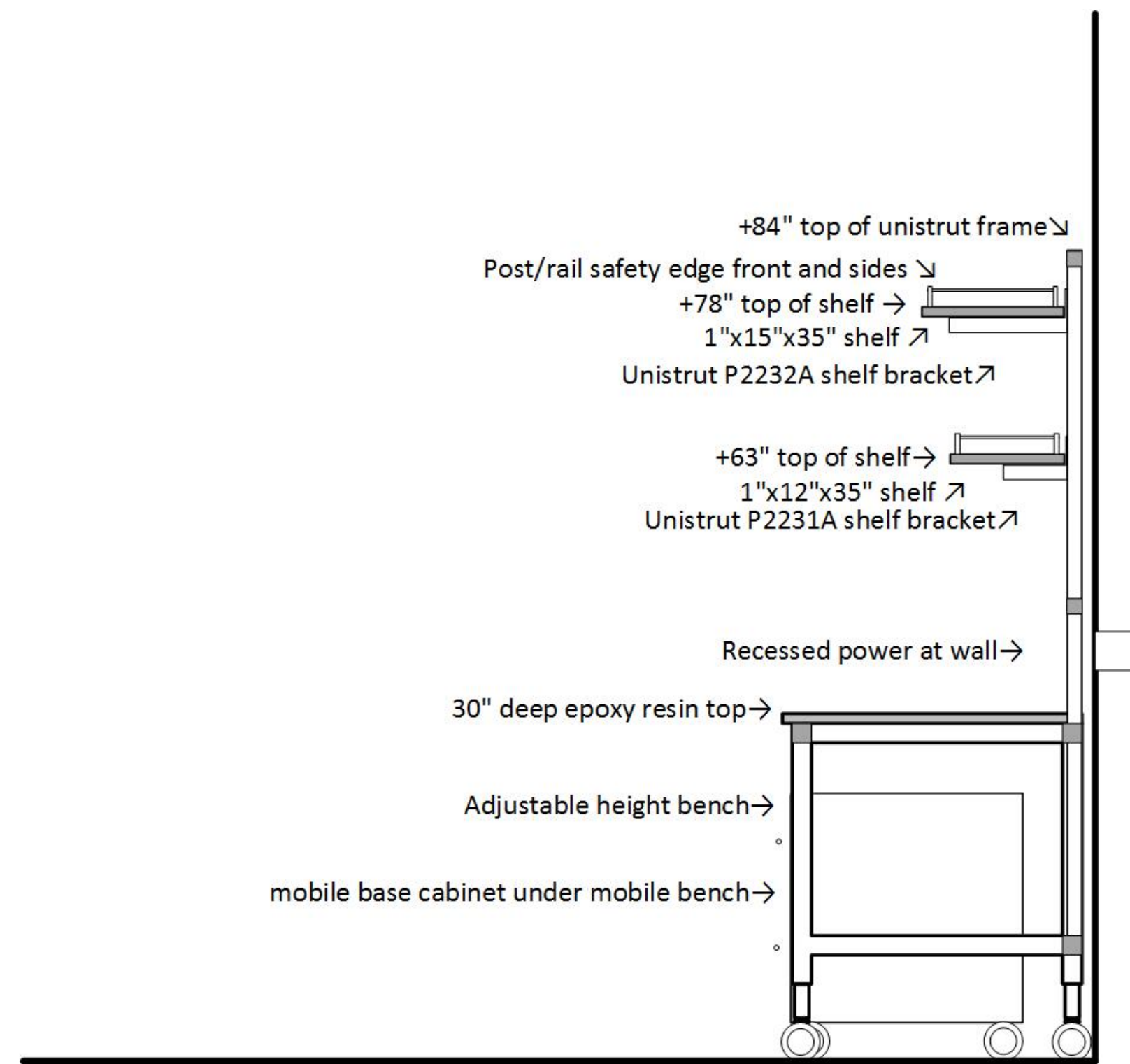


Location: Science Classrooms, Prep Rooms, Project Rooms



SECTION DETAIL 12
Instrument Bench/Mobile Base Cab

Location: Prep Rooms, Project Rooms



+84" top of unistrut frame ↘
Post/rail safety edge front and sides ↘
+78" top of shelf →
1"x15"x35" shelf ↗
Unistrut P2232A shelf bracket ↗

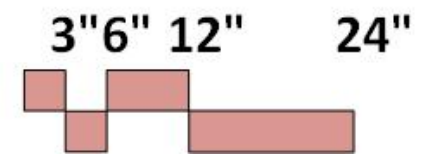
+63" top of shelf →
1"x12"x35" shelf ↗
Unistrut P2231A shelf bracket ↗

Recessed power at wall →

30" deep epoxy resin top →

Adjustable height bench →

mobile base cabinet under mobile bench →



EQUIPMENT CUT SHEETS

Protector® XStream™ Laboratory Hoods



Protector XStream Laboratory Hood 9840600 is shown with SpillStopper Work Surface 9849800, Protector Acid Storage Cabinet 9901100 and Protector Standard Storage Cabinet 9900100. Blower, ductwork, work surface and base cabinets must be ordered separately.

All models feature:

- Modified by-pass airflow design.
- Ergonomic air foil with aerodynamic Clean-Sweep* airflow openings.
- Upper Dilution Air Supply.*
- Glacier white, dry powder epoxy-coated steel exterior.
- Chemical-resistant, fiberglass-reinforced, composite panel liner and pre-set Rear Downflow Dual Baffle System* with flame spread less than 25 per ASTM E-84
- 3/16" thick tempered safety glass vertical-rising sash with epoxy-coated aluminum sash handle with large radius and perforations.*

- Removable front and side panels and front and interior service access panels for access to plumbing and electrical wiring.
- Pre-wired T8 fluorescent lighting, ADA-compliant light and blower switches for 115 volt, 60 Hz operation.
- Sash stop located at 18" sash opening position.
- Epoxy-coated stainless steel, 12.81" ID exhaust connection(s).

Contact Labconco at **800-821-5525** or **816-333-8811** for ordering information on explosion-proof lighting and other sash configurations and for blower sizing assistance.

All models conform to the following regulations and standards:

- SEFA 1-2002
- NFPA 45-2000
- ASTM E84-01
- ASHRAE 110-95
- ANSI Z9.5-1993
- UL 3101-1/61010-1
- CAN/CSA C22.2 No. 1010.1
- UL 1805
- CE Conformity Marking (230 volt models)†

Fixed models feature:

- Two pre-plumbed service fixtures with forged brass valves, lower right side with brass tubing for gas and lower left side with copper tubing for cold water. Components for converting either or both fixtures to air and vacuum are provided. **Inlet tubing is not provided.**
- One pre-wired 115 volt, 20 amp electrical duplex receptacle on lower right side.

All models require (not included):

- **Remote Blower.** See back pocket.
- **Ductwork.** See back pocket.
- **Work Surface.** See pages 92-95.
- **Base Cabinet or Stand.** See pages 96-106.

Optional accessories for on-site installation include:

- **Service Fixture Kits.** See page 107.
- **Electrical Duplex Kits.** See page 108.
- **Guardian Jr. and Digital Airflow Monitor Kits.** See page 108.
- **Distillation Grid Kits.** See page 110.
- **Sash Stop Kits.** See page 108.
- **Snuffer Fire Extinguishers.** See page 110.
- **Ceiling Enclosure and Rear Finish Panel Kits.** See page 109.

* U.S. Patent No. 6,961,233

† pending

■ Heights of switches, electrical receptacles and service fixtures meet requirements of ADA.

■ Exclusive Feature

FUME HOOD CUT SHEET

All fume hoods Constant Volume- 1000 c.f.m.
Design for 28" sash opening
Controlled with on/off switch at fume hood

Ordering Information

Protector® XStream™ Laboratory Hoods

ASHRAE 110-95 tests show less than 0.05 ppm leak rate when tested at 4.0 fpm; at OSHA-approved 60, 80, and 100 fpm face velocity and sash positions of 18" and 28". To ensure performance at 60 fpm, Labconco engineers challenged the Protector XStream Hood at less

than ideal conditions such as 30 fpm cross drafts, modified ASHRAE test procedures and average face velocities lower than 60 fpm. Contact Labconco for a technical paper with complete ASHRAE test data.

Total Exhaust CFM and Static Pressure @ 18" Sash Opening (60% open)

Nominal Width	100 fpm	s.p.	80 fpm	s.p.	60 fpm	s.p.	CFM Savings at 60 fpm vs. 100 fpm	Total Average Annual Dollar Savings at 60 fpm vs. 100 fpm*
4 feet	470	0.11'	380	0.07'	280	0.04'	190	\$760
5 feet	610	0.13'	490	0.08'	370	0.05'	240	\$960
6 feet	750	0.15'	600	0.10'	450	0.06'	300	\$1200
8 feet	1060	0.12'	850	0.08'	640	0.04'	420	\$1680

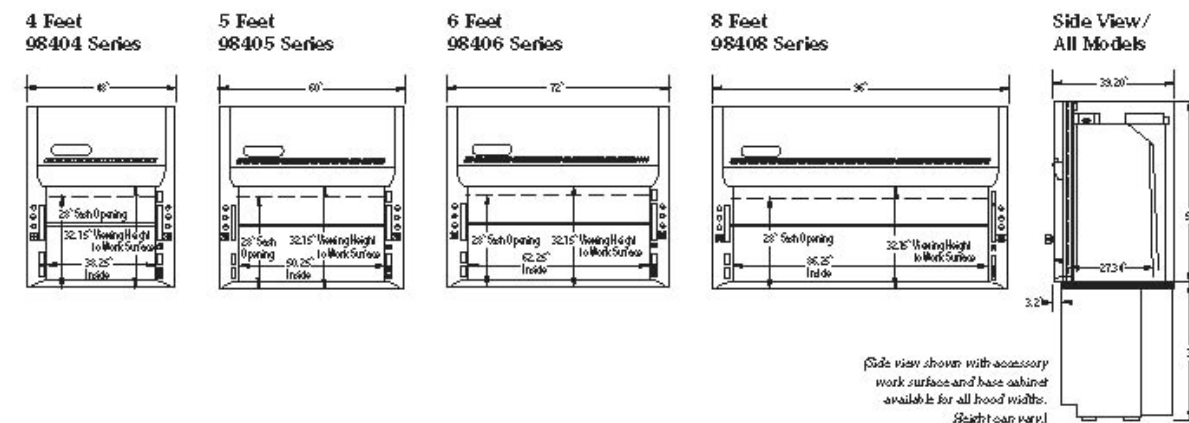
Total Exhaust CFM and Static Pressure @ 28" Sash Opening (100% open)

Nominal Width	100 fpm	s.p.	80 fpm	s.p.	60 fpm	s.p.	CFM Savings at 60 fpm vs. 100 fpm	Total Average Annual Dollar Savings at 60 fpm vs. 100 fpm*
4 feet	730	0.25'	590	0.13'	440	0.08'	290	\$1160
5 feet	960	0.30'	770	0.19'	580	0.11'	380	\$1520
6 feet	1180	0.36'	940	0.23'	710	0.13'	470	\$1880
8 feet	1660	0.28'	1330	0.18'	1000	0.10'	660	\$2640

*Based on average annual dollars per CFM usage of \$4.00; fume hood operating 24 hours a day and 5 days per week (6240 hours per year).

Catalog Number	Nominal Width	Electrical Requirements	Exterior Depth	Interior Working Depth	Fluorescent Lamps	Service Fixtures	Electrical Duplex	Exhaust Collar(s)	Shipping Wt. lbs./kg
9840400	4 feet	115 volts, 60 Hz	39.20"	27.3"	(2) 25 watt	None	None	12.81" ID	400/181
9840401	4 feet	115 volts, 60 Hz	39.20"	27.3"	(2) 25 watt	2	1	12.81" ID	400/181
9840402**	4 feet	230 volts, 50 Hz	39.20"	27.3"	(2) 25 watt	None	None	12.81" ID	400/181
9840403**	4 feet	230 volts, 50 Hz	39.20"	27.3"	(2) 25 watt	2	None	12.81" ID	400/181
9840500	5 feet	115 volts, 60 Hz	39.20"	27.3"	(2) 32 watt	None	None	12.81" ID	460/209
9840501	5 feet	115 volts, 60 Hz	39.20"	27.3"	(2) 32 watt	2	1	12.81" ID	460/209
9840502**	5 feet	230 volts, 50 Hz	39.20"	27.3"	(2) 32 watt	None	None	12.81" ID	460/209
9840503**	5 feet	230 volts, 50 Hz	39.20"	27.3"	(2) 32 watt	2	None	12.81" ID	460/209
9840600	6 feet	115 volts, 60 Hz	39.20"	27.3"	(2) 32 watt	None	None	12.81" ID	520/236
9840601	6 feet	115 volts, 60 Hz	39.20"	27.3"	(2) 32 watt	2	1	12.81" ID	520/236
9840602**	6 feet	230 volts, 50 Hz	39.20"	27.3"	(2) 32 watt	None	None	12.81" ID	520/236
9840603**	6 feet	230 volts, 50 Hz	39.20"	27.3"	(2) 32 watt	2	None	12.81" ID	520/236
9840800	8 feet	115 volts, 60 Hz	39.20"	27.3"	(4) 25 watt	None	None	(2) 12.81" ID	700/318
9840801	8 feet	115 volts, 60 Hz	39.20"	27.3"	(4) 25 watt	2	1	(2) 12.81" ID	700/318
9840802**	8 feet	230 volts, 50 Hz	39.20"	27.3"	(4) 25 watt	None	None	(2) 12.81" ID	700/318
9840803**	8 feet	230 volts, 50 Hz	39.20"	27.3"	(4) 25 watt	2	None	(2) 12.81" ID	700/318

**International electrical configuration



Metal Acid & Corrosive Safety Cabinet, 12 Gal. Blue, One Door, Self Close



[View Gallery](#)

Model Number:
CRA-1924

UPC Code:
048441333639

Description:
Eagle's 12 Gallon, Manual-Closing, Space Saver Acid & Corrosive Safety Cabinet (CRA1924) is constructed of 18-gauge steel. The sides, top, bottom, and doors are double-walled with a 1 1/2" air space between walls. Includes two vents, each have 2" threaded fittings & fire baffle and cap. The Eagle Acid & Corrosive Safety Cabinets come in blue high gloss, corrosion-resistant powder finish on all internal and external surfaces. Includes warning labels, plus grounding attachment, 3-point latch system, and 2" raised, leakproof door sill. Each shelf is adjustable, supported by 4 brackets, and can support 350 pounds. Includes poly shelf and bottom trays to help contain small spills and provide extra corrosion protection. Not recommended for use with Sulfuric, Nitric or Hydrochloric Acid. (EAGLE Poly Acid-Corrosive Cabinets are suitable for use with these acids). (All Eagle metal cabinets meet NFPA Code 30 and OSHA requirements).

Capacity:
12 gal. (45.5 L)

Color:
Blue

Door Style:
Self Close

Inside Dimensions:
20" W x 15"D x 32"H (50.8 x 38.1 x 81.3 cm)

Lock:
True

Number of Shelves:
1

Shelf Depth:
14 3/4" (37.5 cm)

Shelf Model Number:
CRA-1909

Uniform Fire Code:
True

Dimensions

Width:
23" (58.5 cm)

Depth:
18" (45.8 cm)

Height:
35" (88.9 cm)

Weight:
144 lbs. (65.4 kg)

Approvals:



Compliance:



**Vented- 75 c.f.m. per Div. 23
Undercounter**

Flammable Liquid Safety Storage Cabinet, 22 Gal. Yellow, Two Door, Self Close



[View Gallery](#)

Model Number:
1970

UPC Code:
048441333837

Description:
Eagle's 22 Gallon, Self-Closing, Under Counter Safety Cabinet is constructed of 18-gauge steel. The sides, top, bottom, and doors are double-walled with a 1 1/2" air space between walls. Includes two vents, each have 2" threaded fittings and a fire baffle and cap. Standard Flammable Liquid Safety Cabinets come in yellow high gloss powder finish with red warning, plus grounding attachment, 3-point latch system, and 2" raised, leakproof door sill. Each shelf is adjustable, supported by 4 brackets, and can support 350 pounds. (All Eagle metal cabinets meet NFPA Code 30 and OSHA requirements).

Capacity:
22 gal. (83.3 L)

Color:
Yellow

Door Style:
Self Close

Inside Dimensions:
32" W x 19" D x 32" H (81.3 x 48.3 x 81.3 cm)

Lock:
True

Number of Shelves:
1

Shelf Depth:
18 3/4" (47.7 cm)

Shelf Model Number:
1972

Uniform Fire Code:
True

Dimensions

Width:
35" (88.9 cm)

Depth:
22" (55.9 cm)

Height:
35" (88.9 cm)

Weight:
200 lbs. (90.7 kg)

Approvals:



Compliance:



Non vented, undercounter

SAFETY SHOWER CUT SHEET

SSBF2160

Requires drain connection at eyewash inside wall cavity
Provide floor drain below each eyewash

- SSBF2160 Recessed Safety Station with Drain Pan, Stainless Steel Shower Head
- SSBF2162 Recessed Safety Station with Drain Pan and Daylight Drain, Stainless Steel Shower Head

APPLICATION: Recessed barrier-free eye/face wash and shower safety station with ceiling mounted concealed shower head and drain pan. Stainless steel cover provides attractive appearance and protects unit when not in use. When activated, cover serves as pan to collect waste water and return it into unit for drainage.

ADA COMPLIANCE: When installed at recommended mounting heights, unit complies with ADA requirements for accessibility by handicapped persons.

SHOWER HEAD: 10" diameter with flange for flush mounting in ceiling. Shower head is stainless steel (SSBF2160) or polished chrome plated cast brass (SSBF2160PCC)

SHOWER VALVE: 1" IPS brass stay-open ball valve with stainless steel "panic bar" actuator.

COVER/DRAIN PAN: 16 gauge stainless steel combination cover and drain pan. Grasping "panic bar" handle and opening cover pulls spray head assembly down from vertical to horizontal position, activating water flow. While unit is in operation, waste water is collected in drain pan and returned into cabinet for drainage. Unit remains in operation until cover is returned to closed position.

EYE/FACE WASH SPRAY HEAD ASSEMBLY: Two FS-Plus™ spray heads mounted on supply arms. Each spray head has individually adjustable flow control and filter to remove impurities from water.

EYE/FACE WASH VALVE: 1/2" IPS brass rotating plug-type valve. Furnished with Teflon® coated O-ring seals and in-line strainer to protect valve from debris and foreign matter.

MOUNTING: 16 gauge stainless steel cabinet with flanged rim for recessed mounting in wall. Unit fits in standard 3 5/8" deep wall.

SUPPLY: 1" NPT female inlet.

WASTE: 2" NPT female outlet.

SIGN: Furnished with ANSI-compliant identification sign.

QUALITY ASSURANCE: Unit is completely assembled and water tested prior to shipment.

NOTE: ANSI Z358.1-2004 specifies that shower heads be installed no more than 96" above the finished floor. This unit should therefore not be installed in ceilings over 8 feet. For higher ceiling heights, we recommend the SSBF2150 or SSBF2170 units.

U.S. PATENT 5,768,721

Available Options

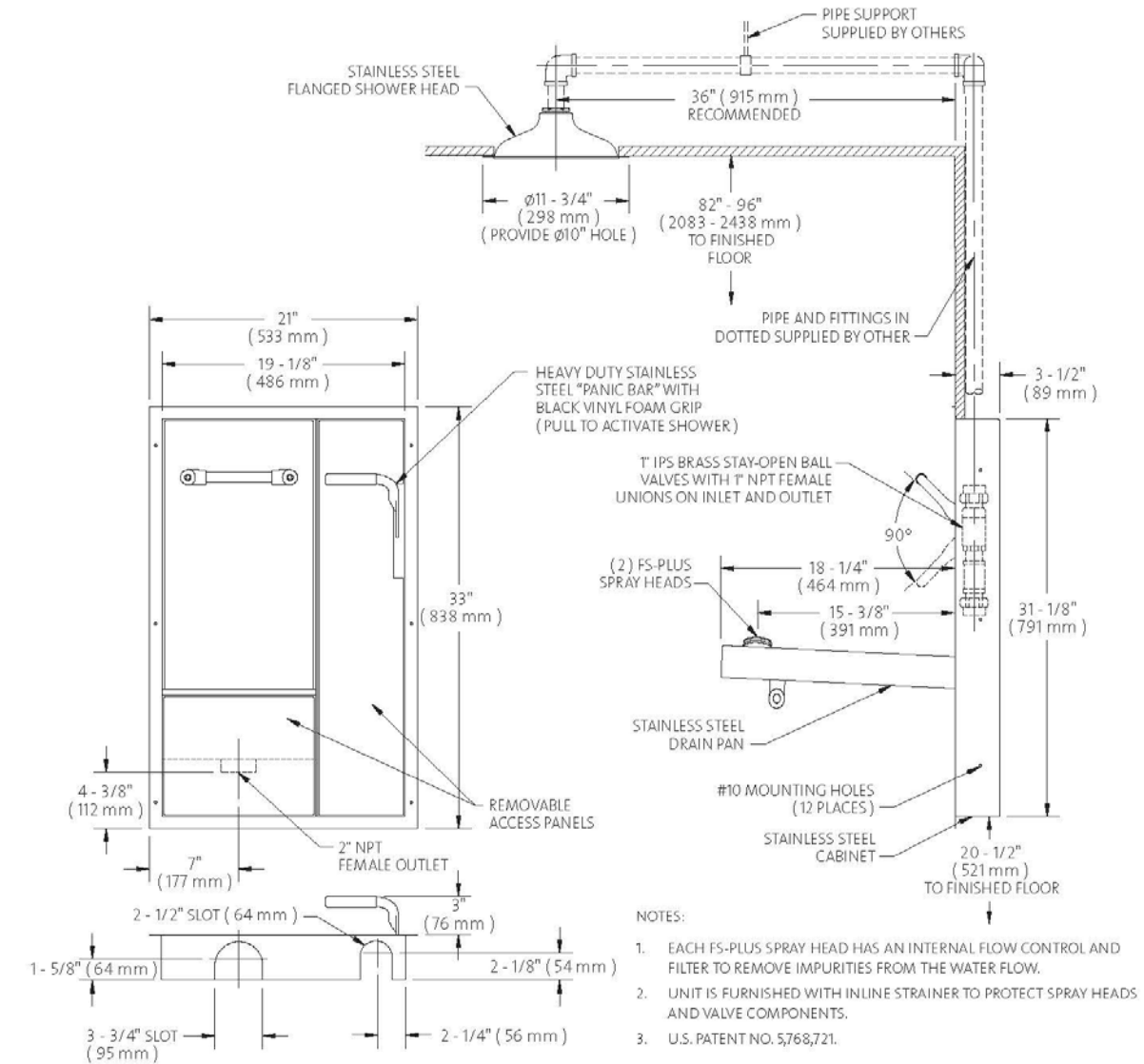
- PCC All-polished chrome plated brass construction.
- AP250-065 MODESTY CURTAIN
- AP280-230 ELECTRIC LIGHT AND ALARM HORN
- TMV AP3800 thermostatic mixing valve.



Note: Shown with optional AP280-230 electric light and alarm horn unit (sold separately).



- SSBF2160 Recessed Safety Station with Drain Pan, Stainless Steel Shower Head
- SSBF2162 Recessed Safety Station with Drain Pan and Daylight Drain, Stainless Steel Shower Head



THIS SPACE FOR ARCHITECT/ENGINEER APPROVAL

Due to continuing product improvement, the information contained in this document is subject to change without notice. All dimensions are ± 1/4" (6mm). rev. 0308



WaterSaver Faucet Co. 312 666 5500 TELEPHONE
701 West Erie Street 312 666 5501 FACSIMILE
Chicago, IL 60654 wsflab.com

ETL Listed 101496. Units have been tested to and comply with ANSI Z358.1 - 2004

WaterSaver Faucet Co. 312 666 5500 TELEPHONE
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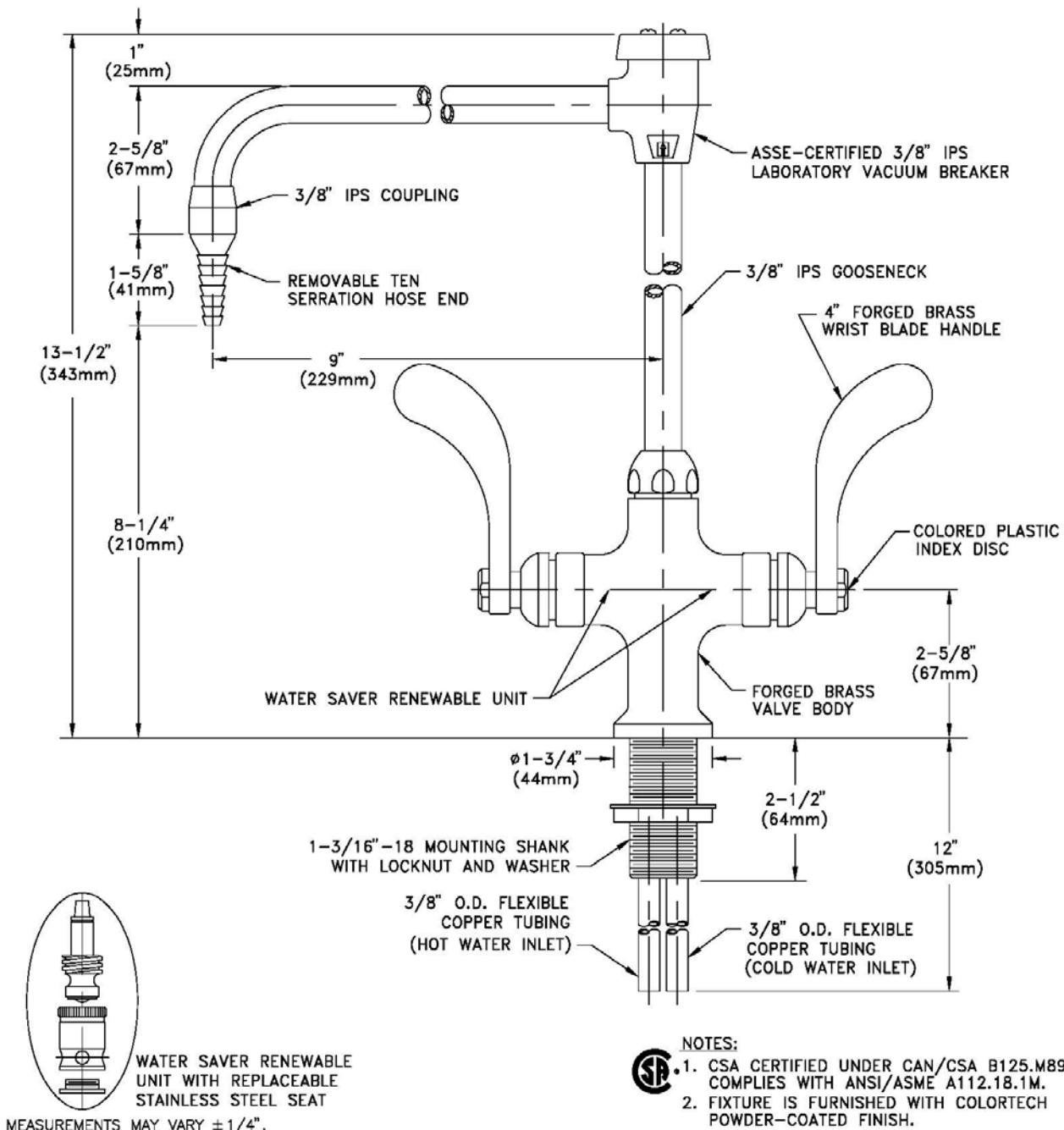
HOT/COLD WATER FAUCET CUT SHEET

COLORTECH

701 West Erie Street Phone 312 666 5500
Chicago, Illinois 60610 Fax 312 666 8597

Laboratory Service Fixtures by
WaterSaver Faucet Co.

CT414-9VB-BH
LABORATORY MIXING FAUCET, DECK MOUNTED, 9" RIGID/SWING VACUUM BREAKER GOOSENECK, WRIST
BLADE HANDLES



Drawing Number: _____

Revision Number: 031803-KJS

UNDERCOUNTER WASHER CUT SHEET

Requires 208v power
Location: Prep Rooms

SteamScrubber® Laboratory Glassware Washers

SPECIFICATIONS & ORDERING INFORMATION



SteamScrubber Laboratory Glassware Washer 4400330 is shown with 48-Pin Insert 4591601, Petri Dish Insert 4589701, Bulk Tube Insert 4542100, Utensil Holder 4542500 and BOD Bottle Insert 4589201.



All models feature:

- Upper and lower standard open racks of Type 304 stainless steel
- LCD information center, Display button, Run/Cancel button, scroll buttons and selection buttons to program and monitor cycles
- Pump to recirculate 96 gal/min (363 liters) when operated on 115 Volts, 60 Hz and 230 Volts, 50 Hz and 112 gal/min (424 liters/min) on 230 Volts, 60 Hz
- Drain pump to evacuate over 7 gal/min (26 liters/min)
- Purified water pump to bring non-pressurized or pressurized purified water into the tank for up to six pure water rinses
- Steam generator that produces hot vapor before the WASH 2 cycle (RINSE ONLY and PLASTIC programs excluded)
- Aluminum-backed insulation and fiberglass blanket for thermal and sound insulation
- Operation at 58 decibels
- Manual-fill detergent dispenser for powder or liquid detergent
- Manual-fill rinse aid solution dispenser
- Forced air drying programmable up to 99 minutes and from 38-70°C (100-158° F)
- Seven factory-set cycle programs: RINSE ONLY, PLASTIC, GLASS, GLASS PLUS, SCIENCE, SCIENCE PLUS, and DRY ONLY. All 208/230 Volt models have three additional programs for a total of ten: INTENSE, INTENSE PLUS and EXTREME.
- Two user-set cycle programs
- Alarms with display for HOT GLASS, PLEASE WAIT, WATER LOW, WATER HIGH, OVERFLOW, LIQ DETER, RINSE AID DRAIN FAIL and LOW TEMP. Audible alarms self cancel after one minute.
- User-set delayed start (up to 8 hours)

- Type 304 stainless steel top, door, tank, upper, middle and lower wash arms. Freestanding models also have stainless steel exterior sides and top.
- One-piece, stainless steel, fine mesh particle drain filter
- Four leveling feet
- 3/8" Female NPT inlet fitting for hot tap water connection
- Factory-installed drain hose and band clamp
- Two year warranty on parts and labor
- Made in the U.S.A.
- IQ/OQ available. Visit www.labconco.com or call 800-821-5525.

All models conform to:

- UL 3101-1/61010-1
- CAN/CSA C22.2 No. 1010-1
- CE Conformity Marking (208/230 Volt models only)

All models require:

- Minimum inlet water temperature 49° C (120° F)
- Recommended inlet water temperature 60° C (140° F)
- Minimum purified water pressure 0 psi
- Water consumption per fill 3.4 gallons (13 liters)
- Hot tap water pressure at the washer 20-120 psi (138-827 KPa)
- Hot tap water flow rate 1.25 gallons (4.7 liters) per minute
- 3/8" OD copper tubing for connection to the water inlet valve
- Purified water with supply piping minimum 3/8" ID to permit at least 0.9 gallon (3.4 liters) per minute flow

Options include:

- Freestanding and undercounter styles
- Water temperature to 82° C (180° F) on 115 Volt models and 93° C (199° F) on 230 Volt models
- Clear tempered safety glass viewing window and 25-watt interior light that illuminates when door is latched

Optional accessories and companion products on pages 18 - 22 include:

- Base Stand
- Upper and Lower Spindle Racks
- Baskets and Inserts
- Freestanding-to-Mobile Conversion Kits
- Drain Water Cooling Kit
- LabSolutions Detergents and Rinse
- ScrubberMate Cart, Glassware Carts and Carboy Caddy
- WaterPro RO Stations and accessories

Catalog #	Style	Electrical Requirements	Maximum Internal Water Temperature	Viewing Window and Light	Overall Dimensions with Door Closed	Shipping Weight
4400320	Undercounter	115 Volts, 60 Hz, 16 Amps	82° C (180° F)	No	24.1" w x 27.4" d x 34.1-36.1" h	206 lbs. (93 kg)
4400321	Undercounter	208/230 Volts, 50/60 Hz, 12 Amps	93° C (199° F)	No	24.1" w x 27.4" d x 34.1-36.1" h	206 lbs. (93 kg)
4400330	Undercounter	115 Volts, 60 Hz, 16 Amps	82° C (180° F)	Yes	24.1" w x 27.4" d x 34.1-36.1" h	206 lbs. (93 kg)
4400331	Undercounter	208/230 Volts, 50/60 Hz, 12 Amps	93° C (199° F)	Yes	24.1" w x 27.4" d x 34.1-36.1" h	206 lbs. (93 kg)
4400420	Freestanding	115 Volts, 60 Hz, 16 Amps	82° C (180° F)	No	24.2" w x 27.5" d x 34.2-36.2" h	235 lbs. (107 kg)
4400421	Freestanding	208/230 Volts, 50/60 Hz, 12 Amps	93° C (199° F)	No	24.2" w x 27.5" d x 34.2-36.2" h	235 lbs. (107 kg)
4400430	Freestanding	115 Volts, 60 Hz, 16 Amps	82° C (180° F)	Yes	24.2" w x 27.5" d x 34.2-36.2" h	235 lbs. (107 kg)
4400431	Freestanding	208/230 Volts, 50/60 Hz, 12 Amps	93° C (199° F)	Yes	24.2" w x 27.5" d x 34.2-36.2" h	235 lbs. (107 kg)

Exclusive Labconco feature

SteamScrubber® Laboratory Glassware Washers

FEATURES & BENEFITS

For washing and drying primarily beakers and other wide-mouth or specialized glassware.

Steam generator.

Produces hot vapor to penetrate and soften dried contaminants for more effective cleaning.

Forced air drying system.

Hot air is blown into the tank to dry glassware. No separate dryer or oven is needed.

Dual pumps, one for washing and one for draining, reduce the potential for cross contamination.

Powerful pump recirculates water at a high rate to dislodge dried contaminants for thorough cleaning. Water recirculates at 96 gal/min (363 liters/min) on 115 Volt, 60 Hz and 230 Volt, 50 Hz models and 112 gal/min (424 liters/min) on 230 Volt, 60 Hz models.

Versatile rack options. The standard open racks are interchangeable with optional upper and lower spindle racks. Additional racks are sold separately. See page 18.

User-set delayed start (up to 8 hours) may be programmed so that the washer operates during off-peak hours when electricity may be less expensive and more plentiful.

Up to 6 pure water rinses may be programmed. A built-in purified water pump draws from a storage tank or pressurized source for final rinses.

360° rotating upper, middle and lower wash arms distribute water and detergent.

Full two year warranty. Is provided against defects in materials and workmanship.

Attractive and durable Type 304 stainless steel door and tank. Freestanding models also have stainless steel sides and top.

Detergent dispenser for powder or liquid detergent. Releases a manually premeasured amount ensuring clean labware.

Quiet, energy-efficient operation at 58 decibels. Aluminum-backed, sound-deadening insulation and fiberglass blanket absorb noise and optimize internal tank temperature to conserve energy.



INCLUDES Upper and lower stainless steel standard open racks. Accommodate a variety of accessory inserts holding the broadest range of glassware. Inserts are sold separately. See pages 18 and 19.

Sanitizing high heat. Water temperature reaches 93° C (199° F) on 230 Volt models to sanitize glassware and for enhanced washing, rinsing and faster drying.

Rinse solution dispenser. Allows manual addition of mildly acidic rinse to alter pH and eliminate alkaline detergent carry-over. The dispenser holds approximately 170 milliliters, enough for 40 or more cycles.

Alarms sound and/or display on the LCD to alert the user to abnormal or unsafe events such as HOT GLASS and OVERFLOW.

Optional clear tempered safety glass viewing window with 25-watt interior light allows observation of the cycle in progress. Available standard on some models.

ETL-listed. Washers carry the ETL mark signifying they are certified to UL Standard 3101-1/61010-1 and CAN/CSA C22.2 No. 1010.1.

CE Mark. Washers conform to the CE (European Community) requirements for electrical safety and electromagnetic compatibility.



Exclusive Labconco feature