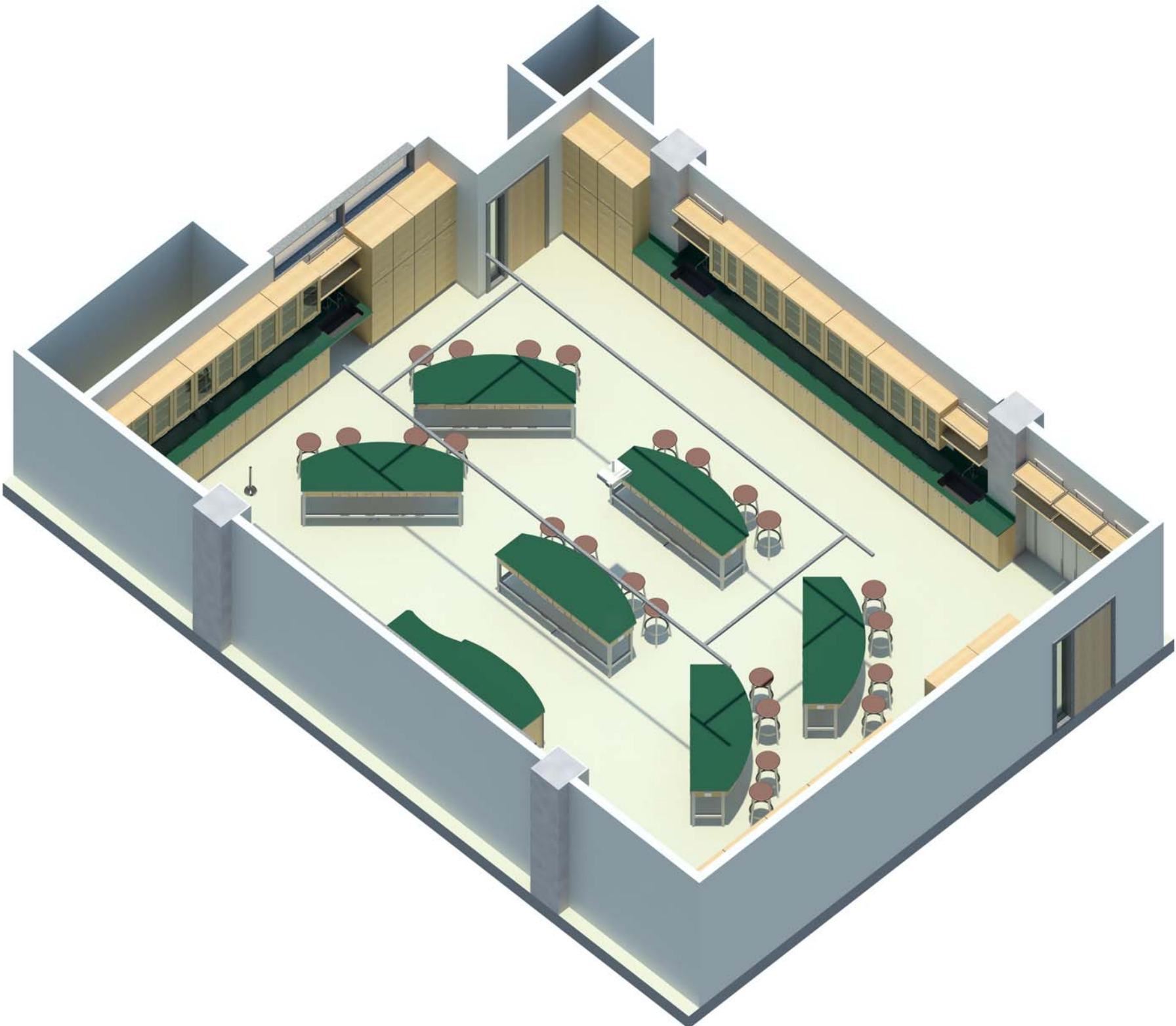


**Lab Sketchbook
Science Building
Miramar College
2011 December 01**

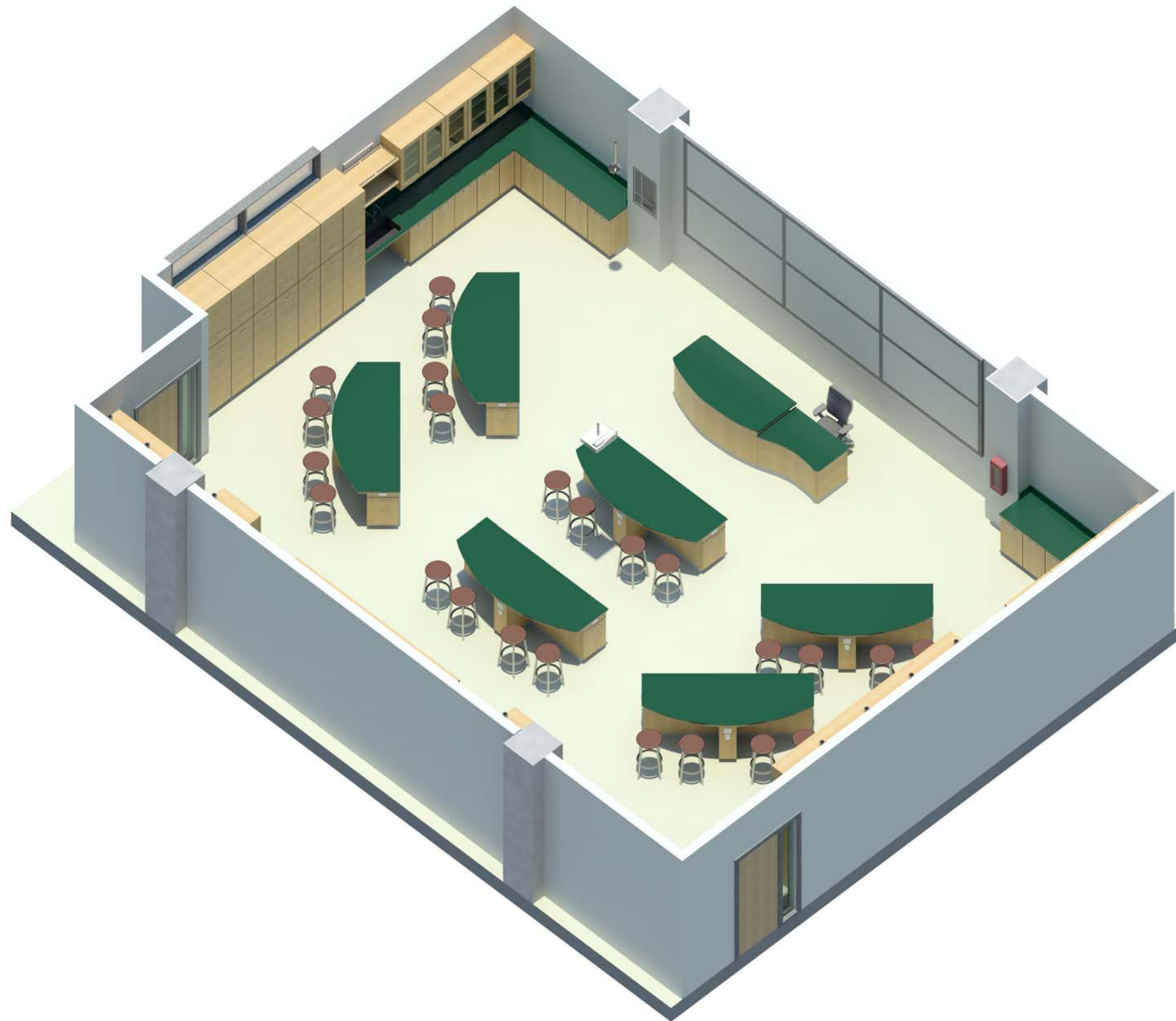


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SUMMARY



This fifth draft of the Design Development Lab Design Sketchbook contains basic plan layouts of typical labs and interior elevations of student island benches, and all interior elevations of teaching labs and lab prep areas. All electrical and plumbing outlets/fixtures are noted.

Pure Water: It is recommended that the pure water (RO/DI) at lab sinks be provided by adding a recirculating loop from the existing pure water system in the existing science building. Pure water will be provided at 2 lab sinks in each lab and at all prep sinks, glassware washer, and ice machines.

Nitrogen Gas: The nitrogen gas noted in the chemistry labs and the instrument room will be provided by relocating the existing nitrogen gas generator from the existing science building to the new science building.

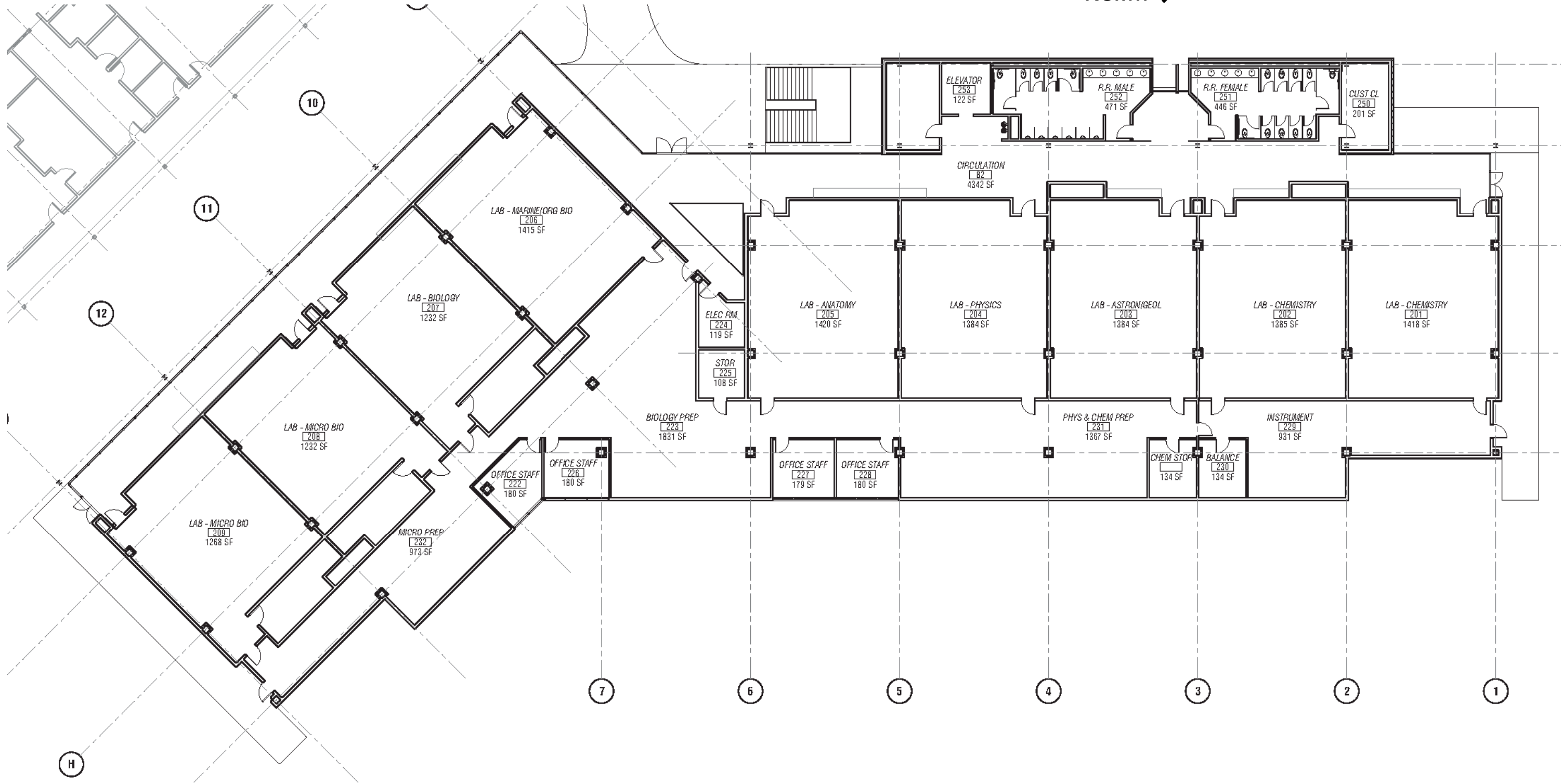
Dark green epoxy tops are proposed for the teaching labs; black epoxy tops are proposed for the prep areas and instrument room.

A handwritten signature in black ink, appearing to read "Glen Berry".

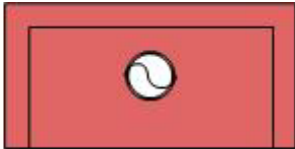











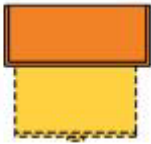



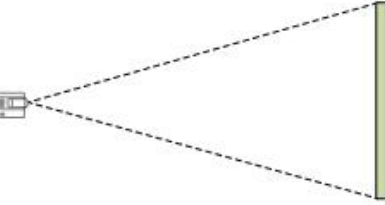


Glen Berry, AIA NCARB
Principal
Design for Science

COMPOSITE PLAN

NORTH →



SYMBOL LEGEND

| | | | |
|--|--|---|---|
| Chemical Fume Hood |  | Lab sink |  |
| Fixed casework: Wall bench Island bench |  | Safety shower with Wall recessed eyewash |  |
| Mobile lab bench |  | Chemical storage cabinet flammables 43"x34"x65" typical |  |
| Wall shelf 2 rows above sink 35"x15" typical Unistrut frame |  | Autoclave 20"x20"x38" chamber |  |
| Wall cabinet 36"x15"x36" typical |  | Floor sink |  |
| Tall storage cabinet 24"x36"x96" typical |  | Gas shut-off valve Fire extinguisher cabinet |  |
| Equipment space (2) rows shelves above Refrigerator or incubator or freezer or cart |  | Student lab stool |  |
| Cylinder restraint |  | Marker board |  |
| | | Digital projection system Pull down screen |  |
| | | Gas cabinet |  |
| | | Snorkel exhaust |  |

CHEMISTRY LABORATORY 202

SIMILAR FOR CHEM LAB 201

ARCHITECTURAL

Occupancy: B; Number of students: 24
 Centerline dimensions: 33'x44'
 Floor: rubber tile & base; also consider sealed, ground concrete
 Walls: gypsum board and enamel paint
 Ceiling: 10' acoustic tile; Doors: 3'x8' with window
 Acoustic Attenuation: NC 40 or less
 Light Attenuation: at exterior windows
 Clerestory window above fume hoods at west wall
 Accessibility: student island, sink, (2) fume hoods, and instructor bench
 Security: key access

STRUCTURAL

Vibration attenuation: 4,000 micro inches/sec or less

MECHANICAL

Hours of operation: 6 am to 11 pm
 Temperature: 68-72 deg. F, +/- 2 deg. F
 100% exhaust- no recirculation of air; Exhaust on emergency power supply
 -(6) air changes per (exhaust at ceiling) hour occupied
 -(4) air changes per hour unoccupied
 Provide night set back to (4) air changes per hour from 11 pm to 6 am
 Pressure: Negative; Humidity: Ambient

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 -(1) fourplex per student at islands
 Duplex below sink for infrared faucet
 Dedicated 120/208v hardwire connection for explosion proof refrigerator, standby power, dedicated circuit
 Data junction boxes at islands and instructor bench
 Wireless data
 Lighting: indirect fluorescent @ 60 f.c. with multi-level switching
 task lights below wall cabinets

PLUMBING

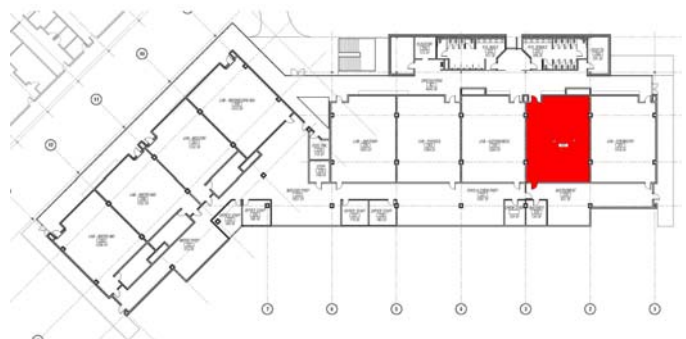
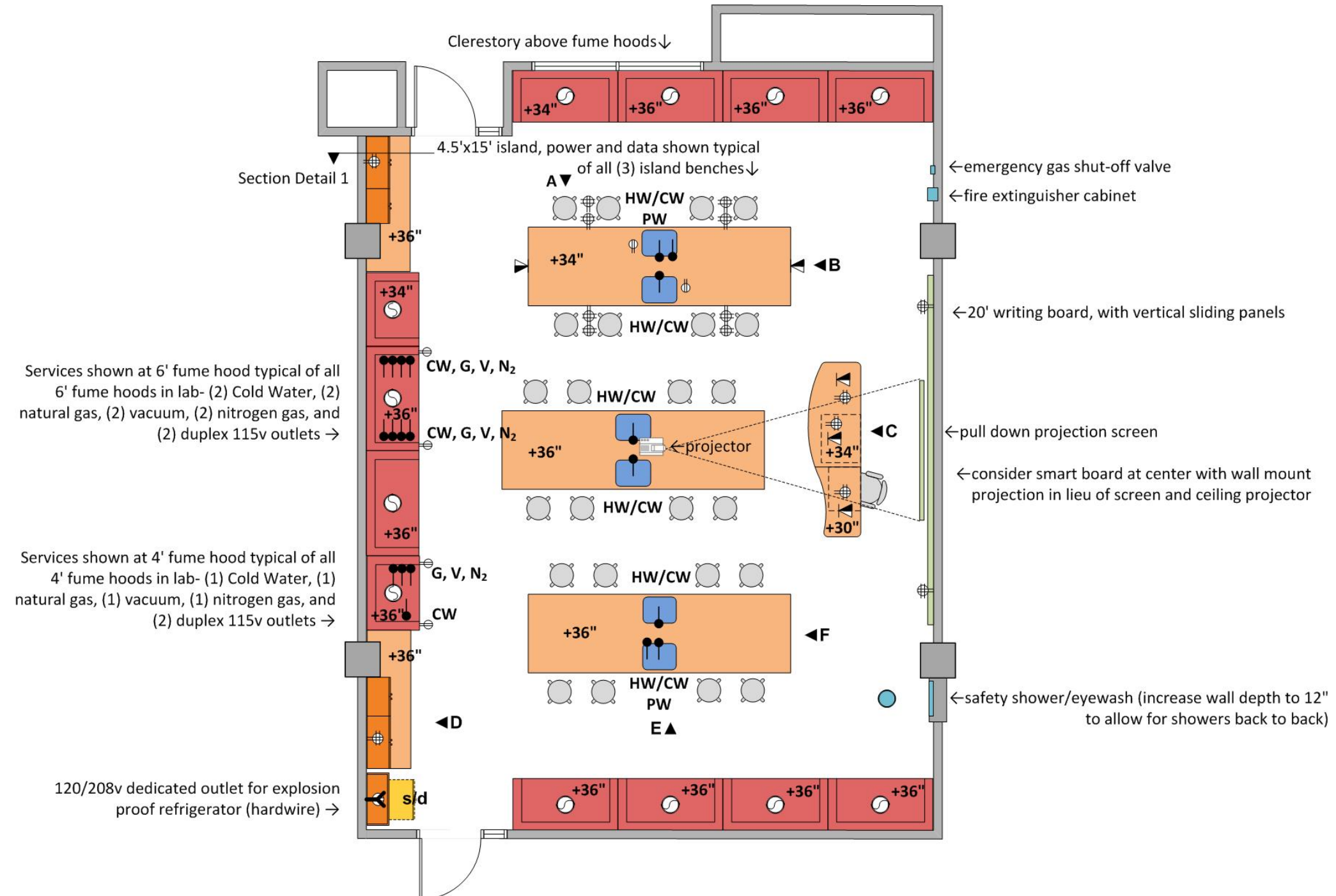
Hot/Cold water (HW.CW) at sinks with vacuum breakers (with infrared sensor)
 Pure water (PW) at 2 sinks
 Cold water, gas, vacuum, and nitrogen at fume hoods
 Domestic water at safety shower/eyewash
 Emer. gas shut off

CONTRACTOR FURNISHED EQUIPMENT

Wood casework- base cabinets, wall cabinets, tall cabinets
 Resin tops and sinks; Faucets & fittings
 Chemical Fume Hoods- 450 c.f.m. at each 4' hood; 750 c.f.m. at each 6' hood
 distillation racks at 6' fume hoods; split sash at 6' fume hoods
 All fume hoods VAV (Variable Air Volume)
 Writing board; Projection Screen; Digital projection system
 Instructor desk/demo bench with media cabinet
 Fire extinguisher cabinet

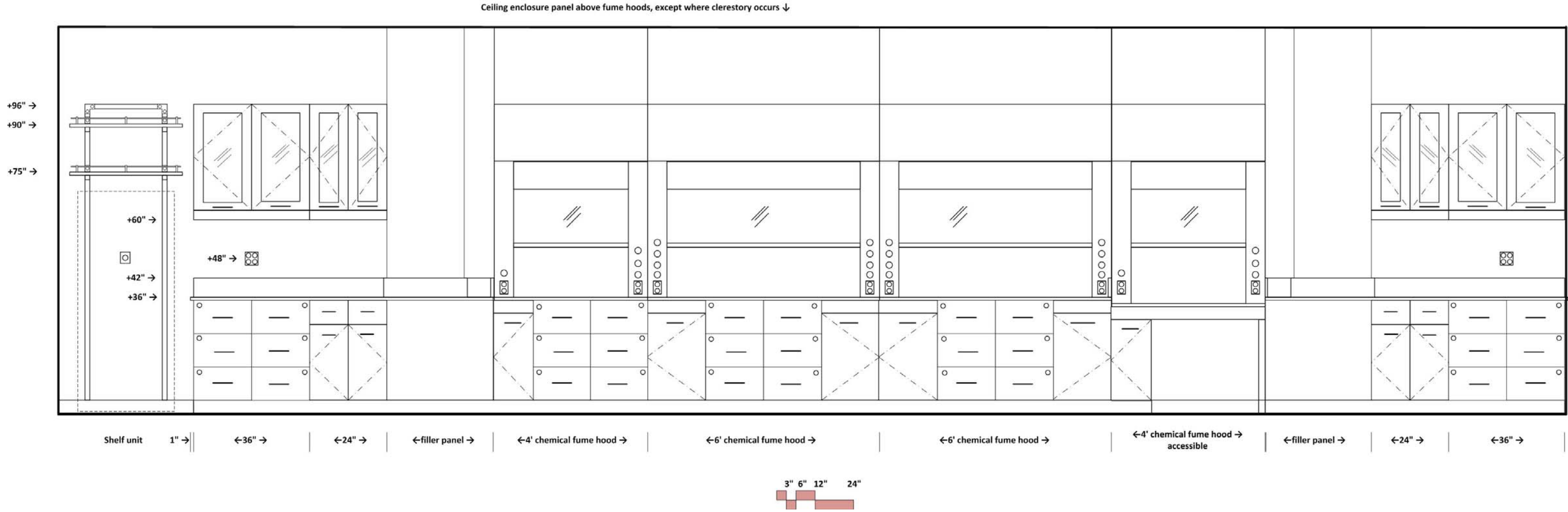
COLLEGE FURNISHED EQUIPMENT

Chairs; Digital projector
 Benchttop analytical instruments
 Scientific equipment
 Explosion proof refrigerator (hardwire)



ELEVATION SOUTH WALL

Chemistry Lab 202

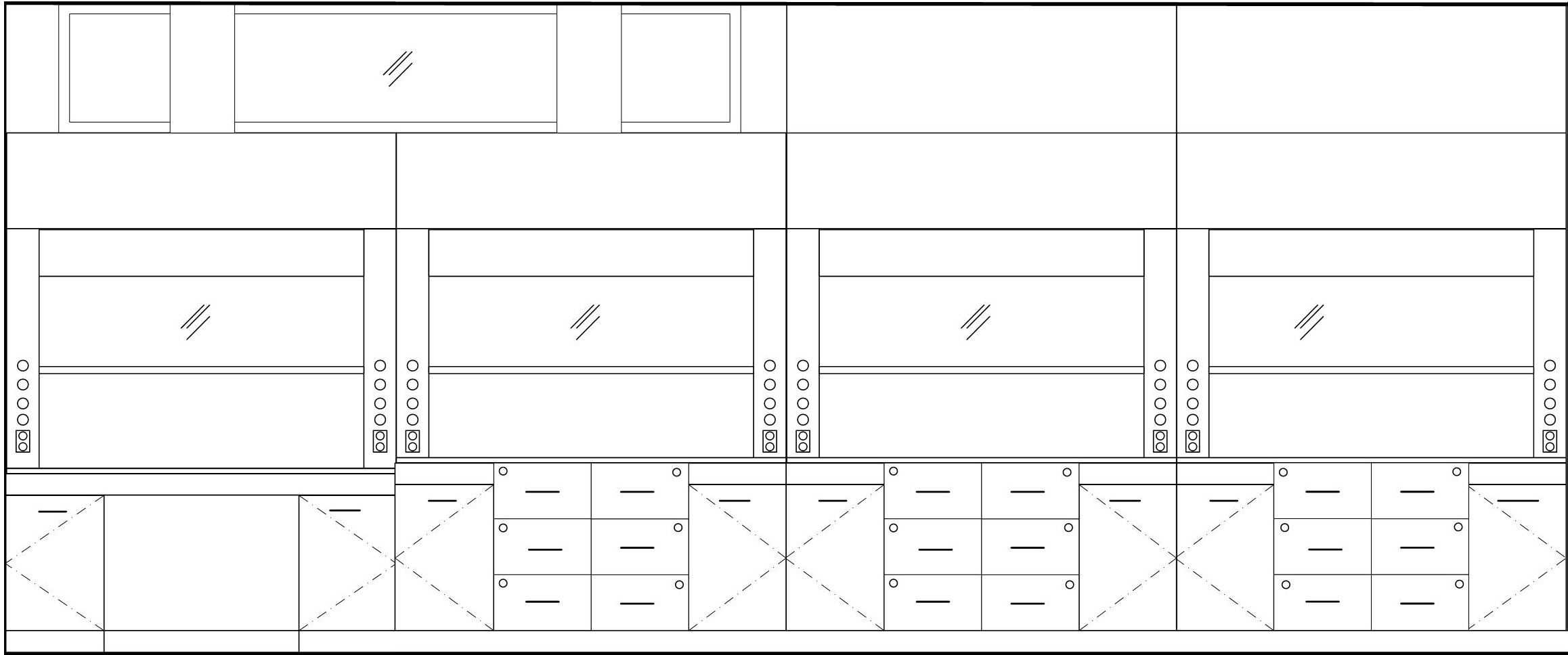


ELEVATION WEST WALL

Chemistry Lab 202

Similar for East Wall- except all standard fume hoods (no accessible fume hood) and no clerestory window above fume hoods

Ceiling enclosure panel above fume hoods, except where clerestory occurs ↓

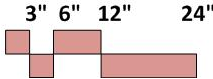


←6' chemical fume hood →
accessible

←6' chemical fume hood →

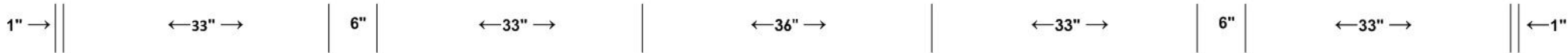
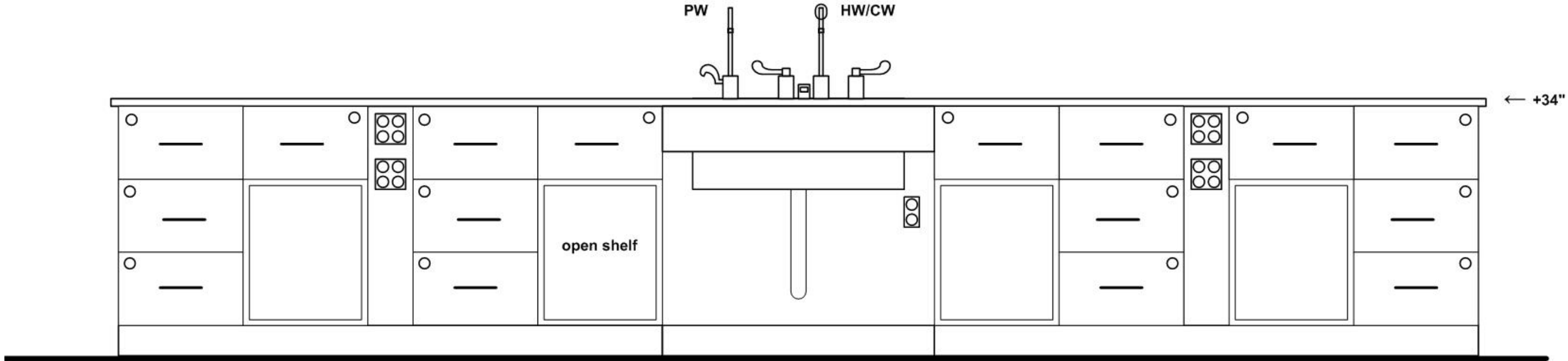
←6' chemical fume hood →

←6' chemical fume hood →



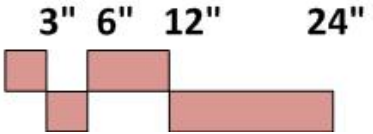
ELEVATION A

Chemistry Lab 202
Front of Accessible Student Island



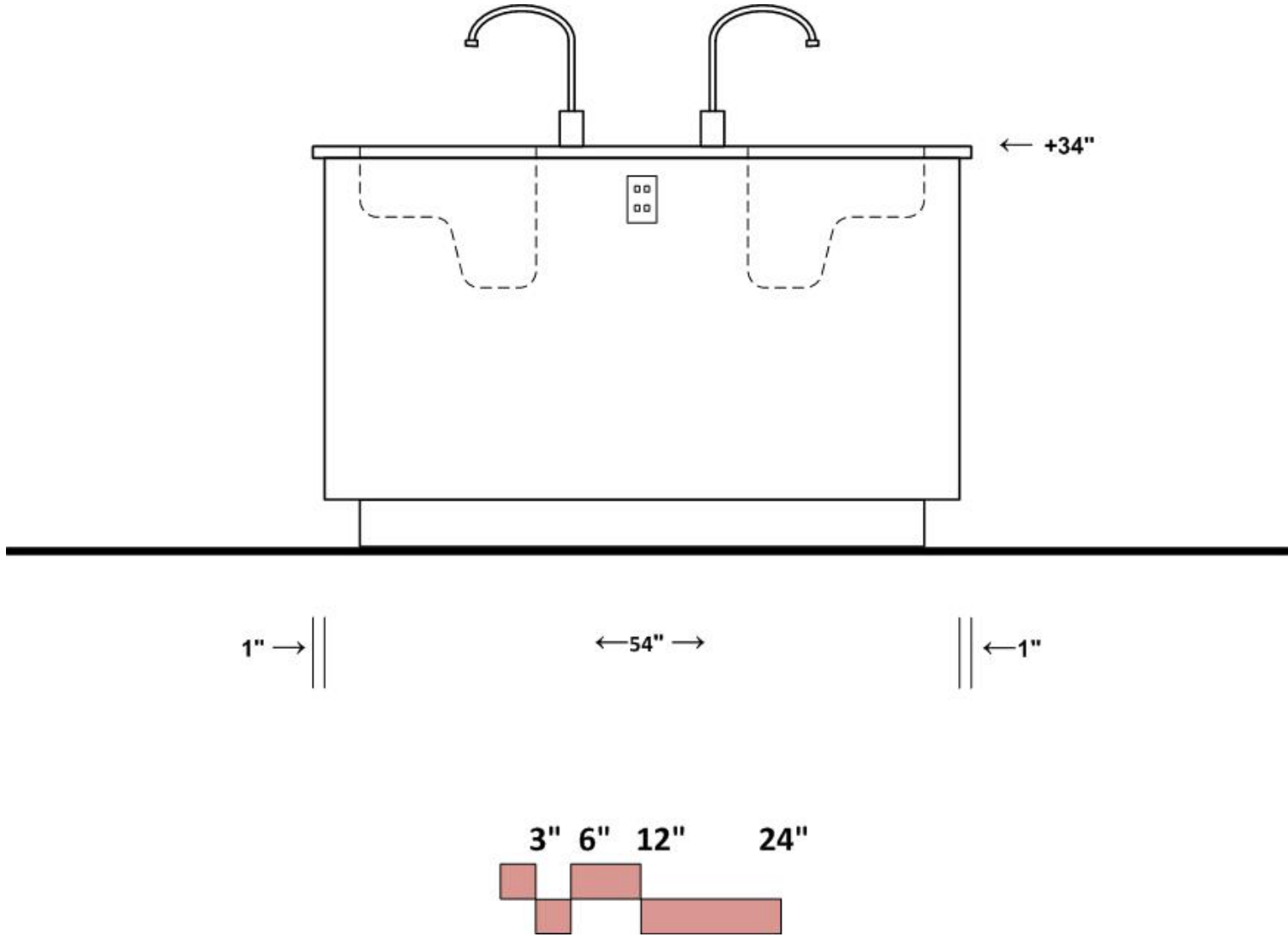
sink cabinet
accessible

(4) base cabinet
Lockable drawers



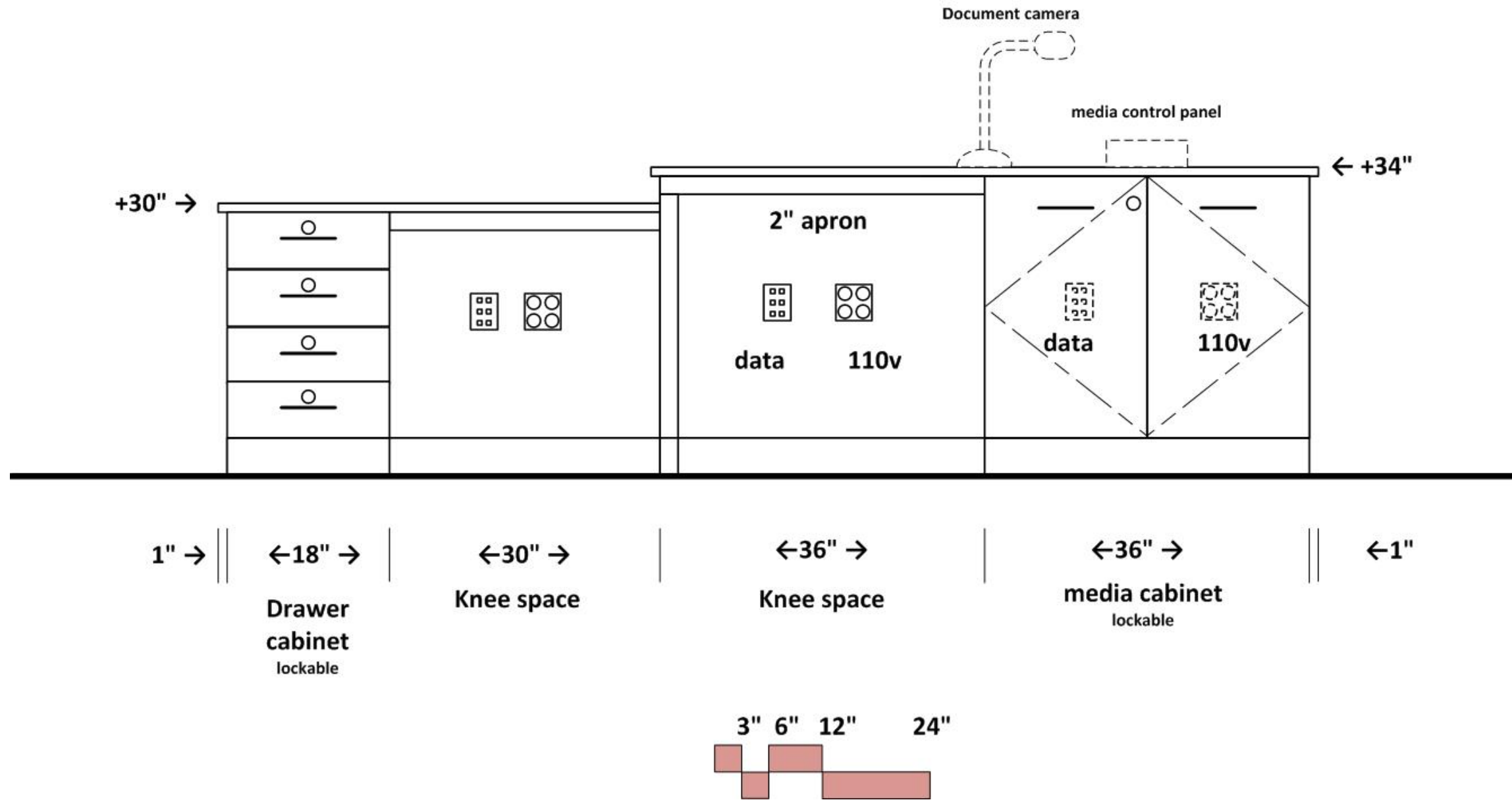
ELEVATION B

Chemistry Lab 202
End of Accessible Student Island



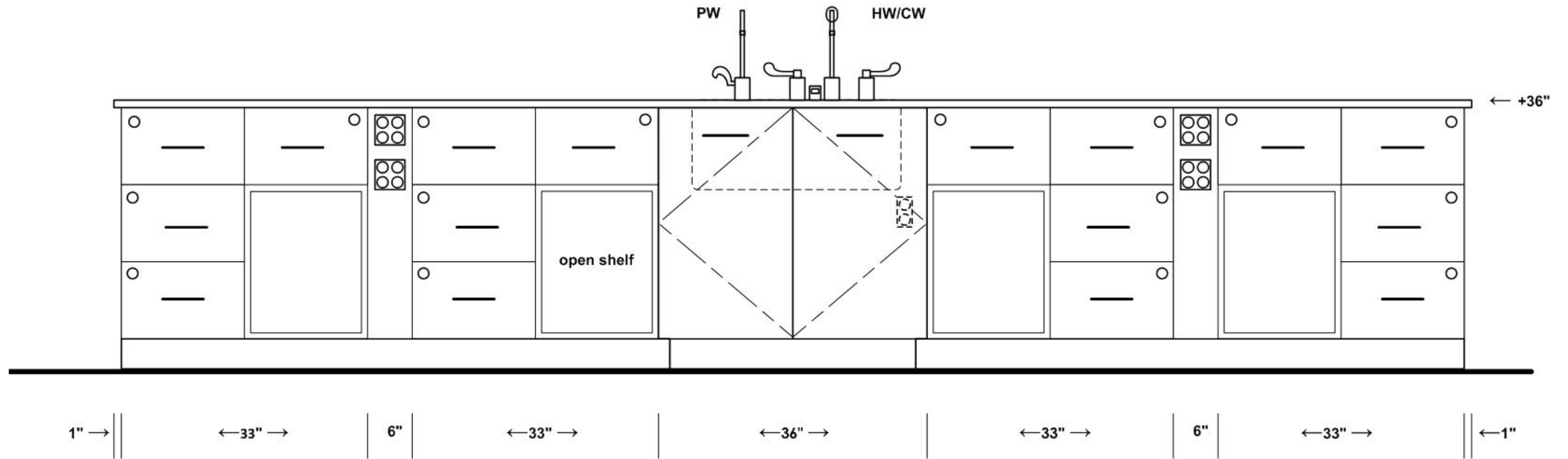
ELEVATION C

Chemistry Lab 202
 Instructor Desk/Demo Bench
 Similar for all Labs



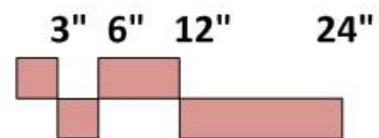
ELEVATION E

Chemistry Lab 202
Front of Student Island



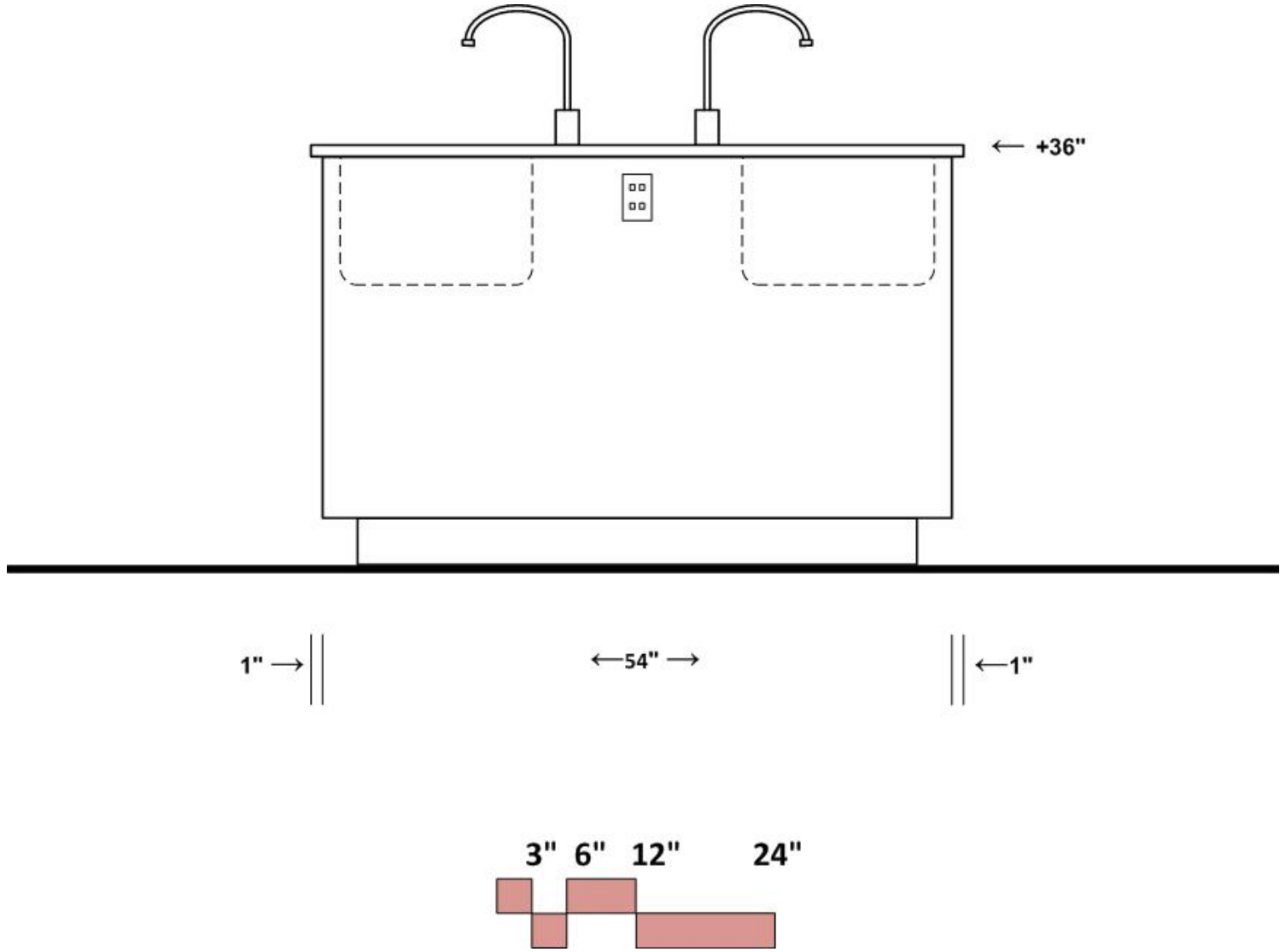
sink cabinet
Open toe kick

(4) base cabinet
Lockable drawers



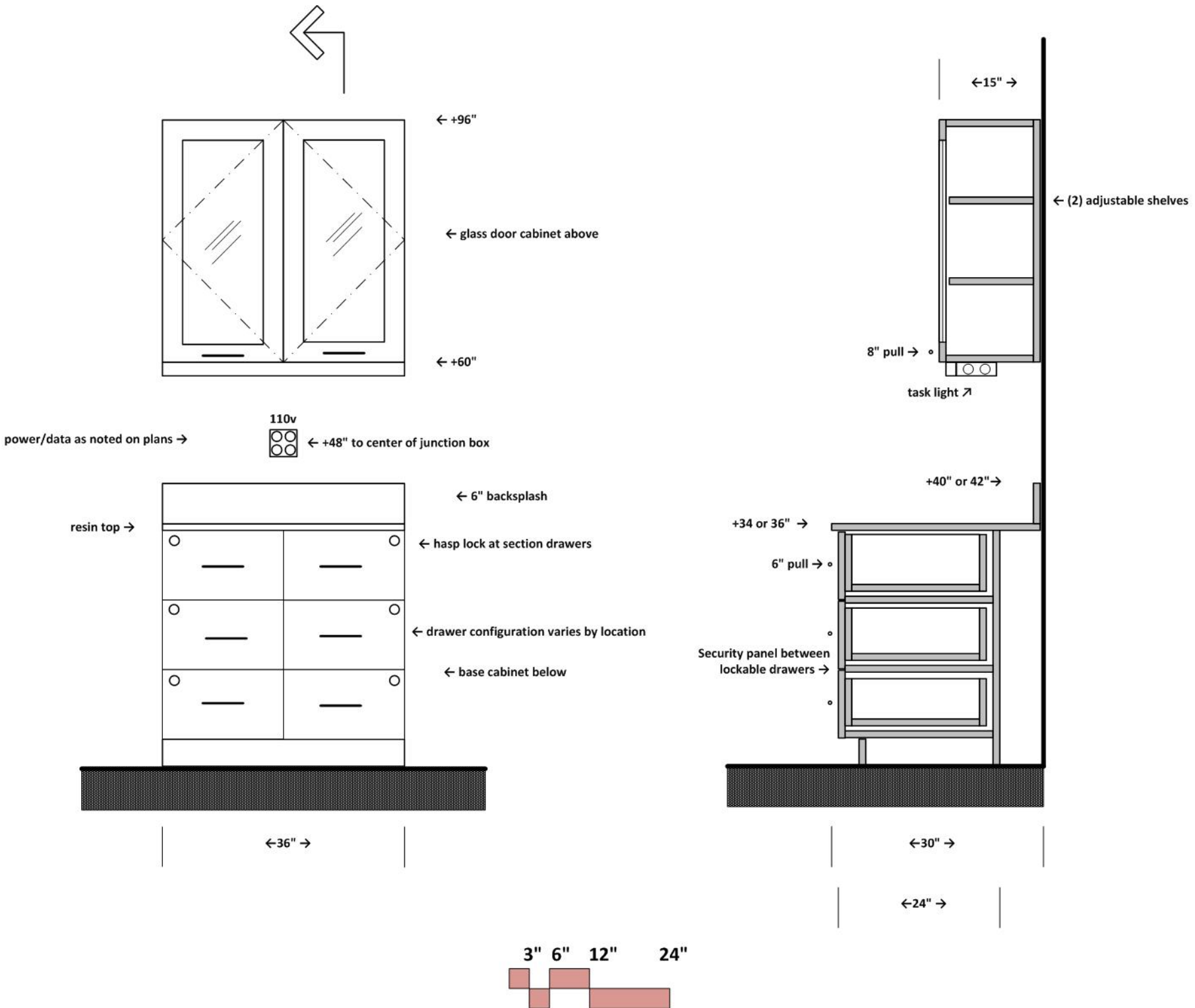
ELEVATION F

Chemistry Lab 202
End of Student Island



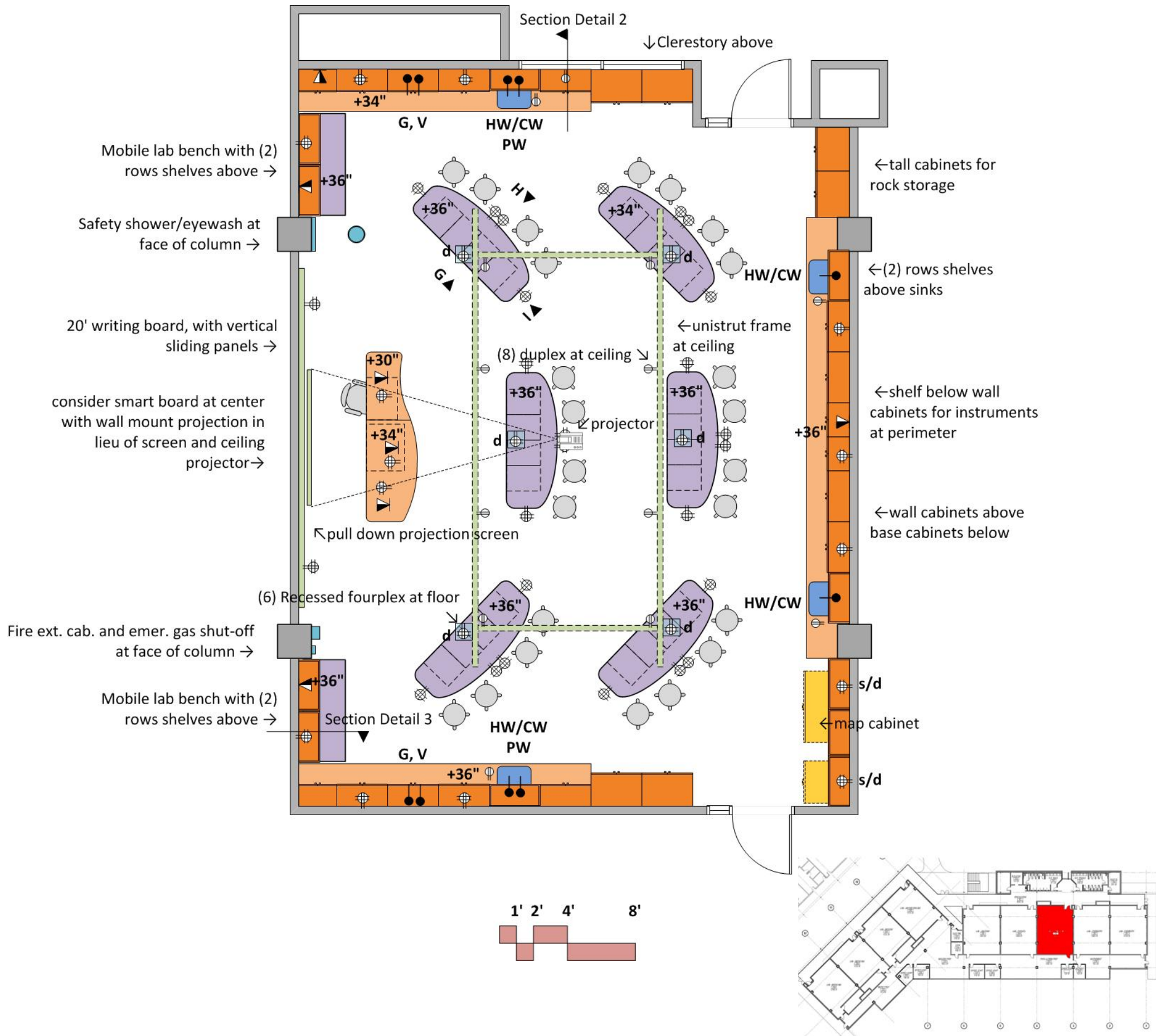
SECTION DETAIL 1

Wall bench with wall cabinet above
Typical for all labs and prep areas



ASTRONOMY/GEOLOGY LABORATORY 203

SIMILAR FOR PHYSICS LAB 204



ARCHITECTURAL

Occupancy: B; Number of students: 24
 Centerline dimensions: 33'x44'
 Floor: rubber tile & base; also consider sealed, ground concrete
 Walls: gypsum board and enamel paint
 Ceiling: 10' acoustic tile; Doors: 3⁶x8⁰ with window
 Acoustic Attenuation: NC 40 or less
 Light Attenuation: Blackout light attenuation at windows and doors
 Accessibility: student island, sink, and instructor bench
 Security: key access

STRUCTURAL

Vibration attenuation: 4,000 micro inches/sec or less
 Unistrut frame at ceiling: 500 lb. point load capacity

MECHANICAL

Hours of operation: 6 am to 11 pm; Temperature: 68-72 deg. F, +/- 2 deg. F
 100% exhaust- no recirculation of air; Exhaust on emergency power supply
 -(6) air changes per (exhaust at ceiling) hour occupied
 -(4) air changes per hour unoccupied
 Provide night set back to (4) air changes per hour from 11 pm to 6 am
 Pressure: Negative; Humidity: Ambient

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 -(1) fourplex per student at islands
 duplex below each sink for infrared sensor
 (10) duplex outlets at ceiling; (6) fourplex outlets at floor, dedicated circuit (d) recessed, flush
 Standby power (s) at equipment spaces, dedicated circuits (d)
 Provide power at ceiling unistrut grid and at recessed floor outlets
 Data junction boxes islands, perimeter and instructor bench
 Wireless data
 Lighting: indirect fluorescent @ 60 f.c. with multi-level switching
 Provide data and power at roof for weather station- data to connect to labs
 Provide red light at roof weather station for night vision

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers and infrared sensor
 Pure water (PW) at 2 sinks
 Sinks at perimeter bench
 Domestic water at safety shower/eyewash
 Emer. gas shut off

CONTRACTOR FURNISHED EQUIPMENT

Wood casework- base cabinets, wall cabinets, tall cabinets
 Mobile student island benches- tables plug into floor or ceiling
 Resin tops and sinks; Faucets & fittings
 Writing board (consider integration of smart board)
 Projection Screen
 Digital projection system
 Instructor desk/demo bench with media cabinet
 Fire extinguisher cabinet

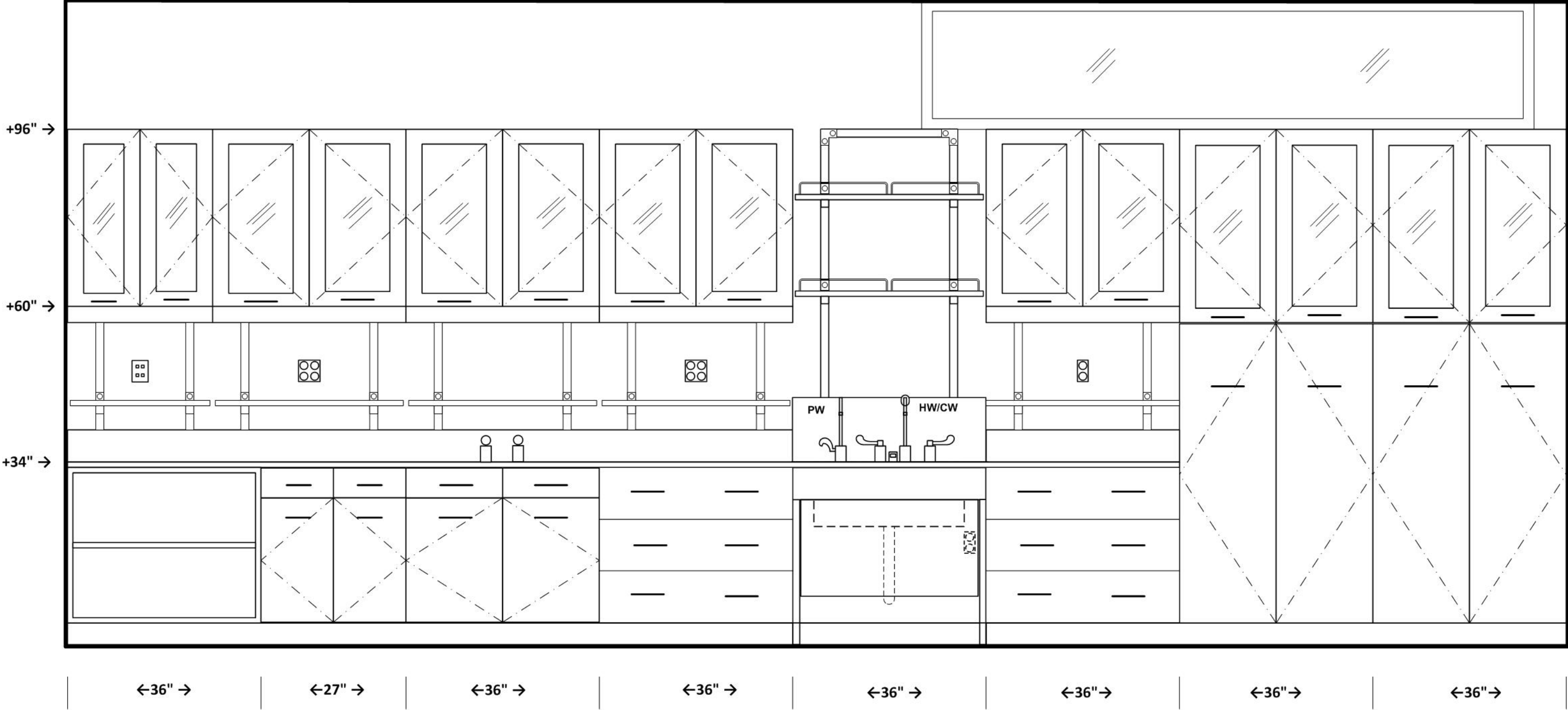
COLLEGE FURNISHED EQUIPMENT

Chairs; Digital projector
 Benchtop analytical instruments; Document camera at demo bench

ELEVATION WEST WALL

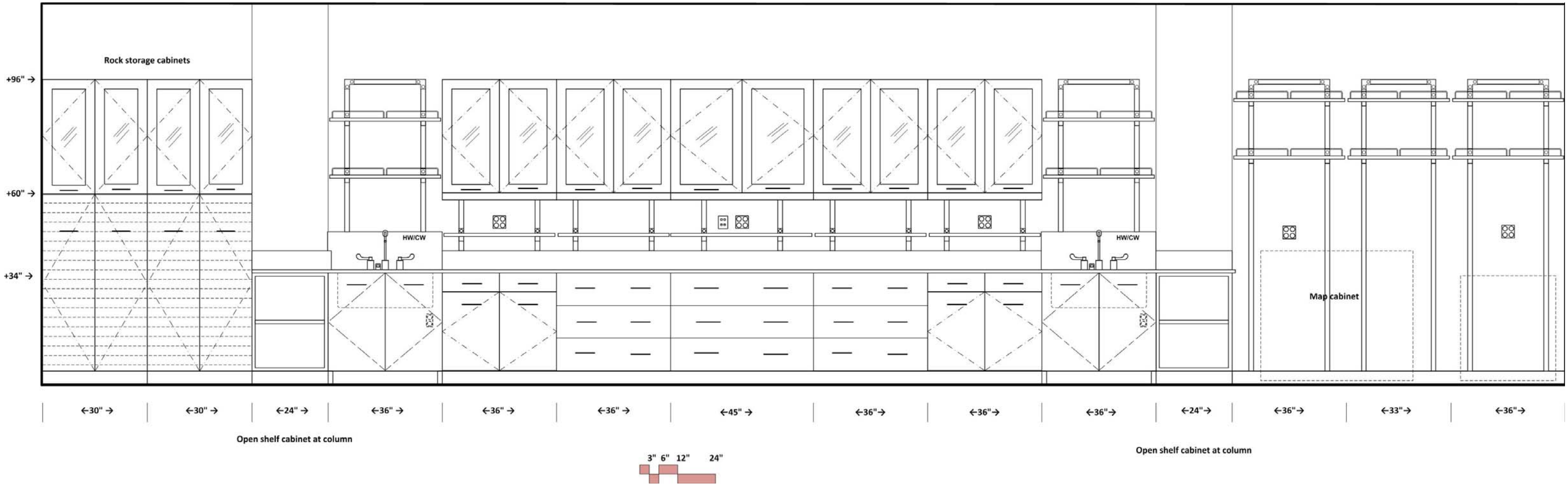
Astronomy/Geology Laboratory 203

Mirror image at east wall, except 36" work surface and standard sink



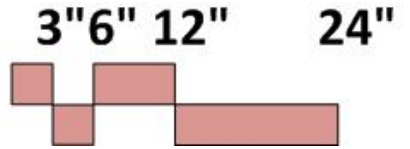
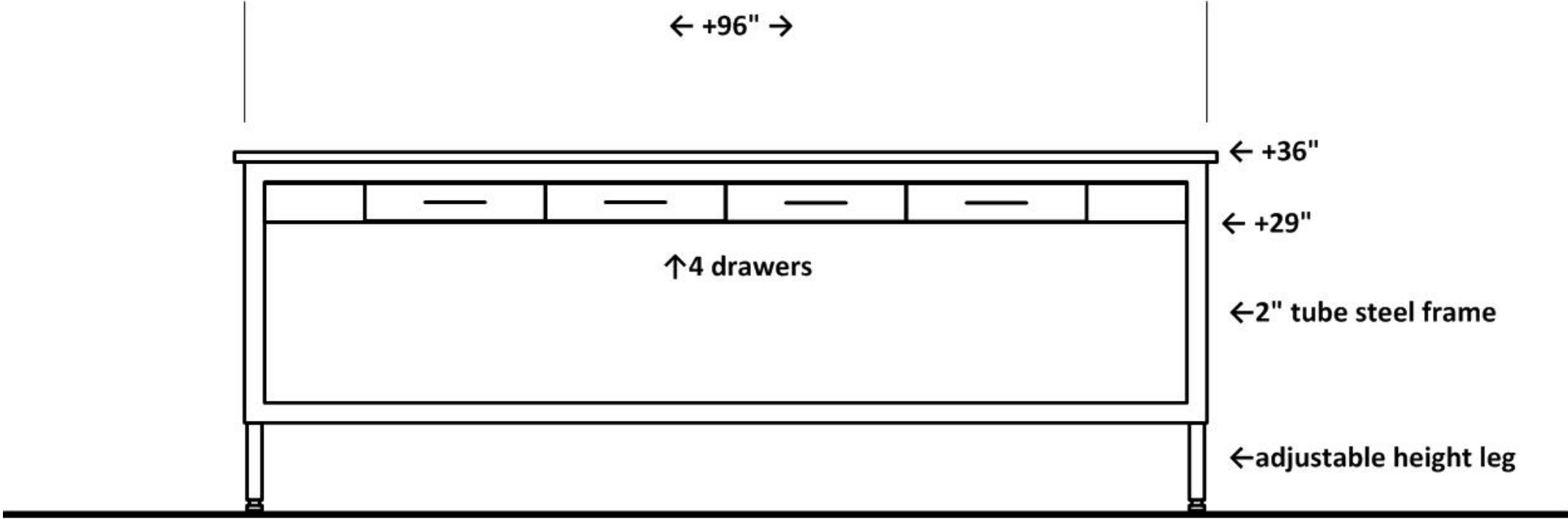
ELEVATION NORTH WALL

Astronomy/Geology Laboratory 203



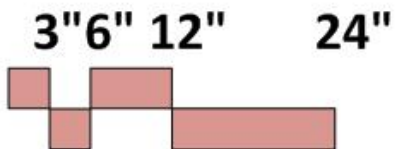
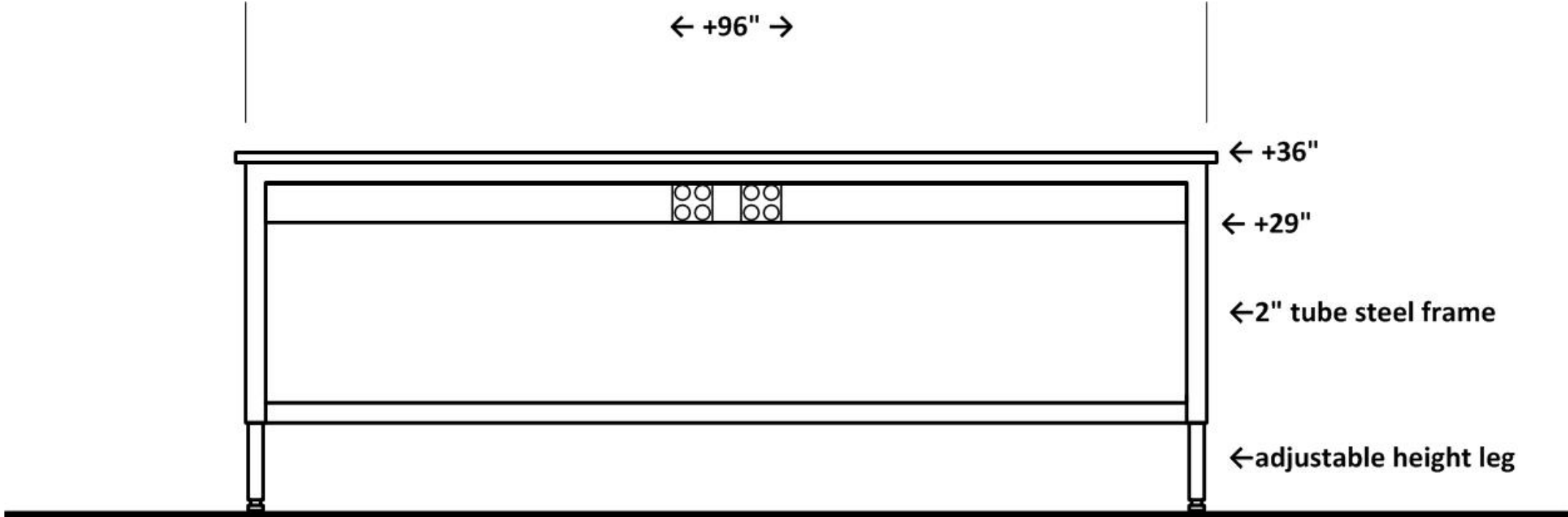
ELEVATION G

Astronomy/Geology Laboratory 203
Mobile Student Island Bench



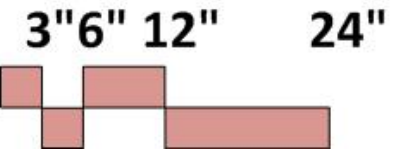
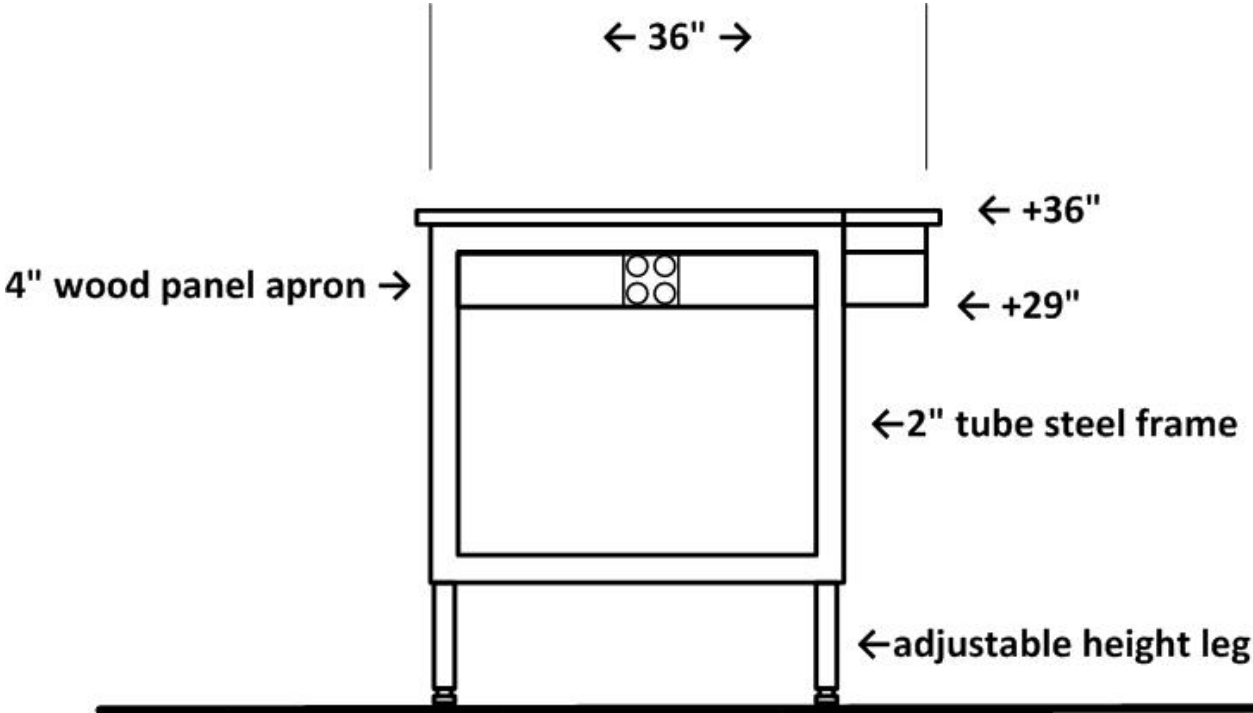
ELEVATION H

Astronomy/Geology Laboratory 203
Mobile Student Island Bench



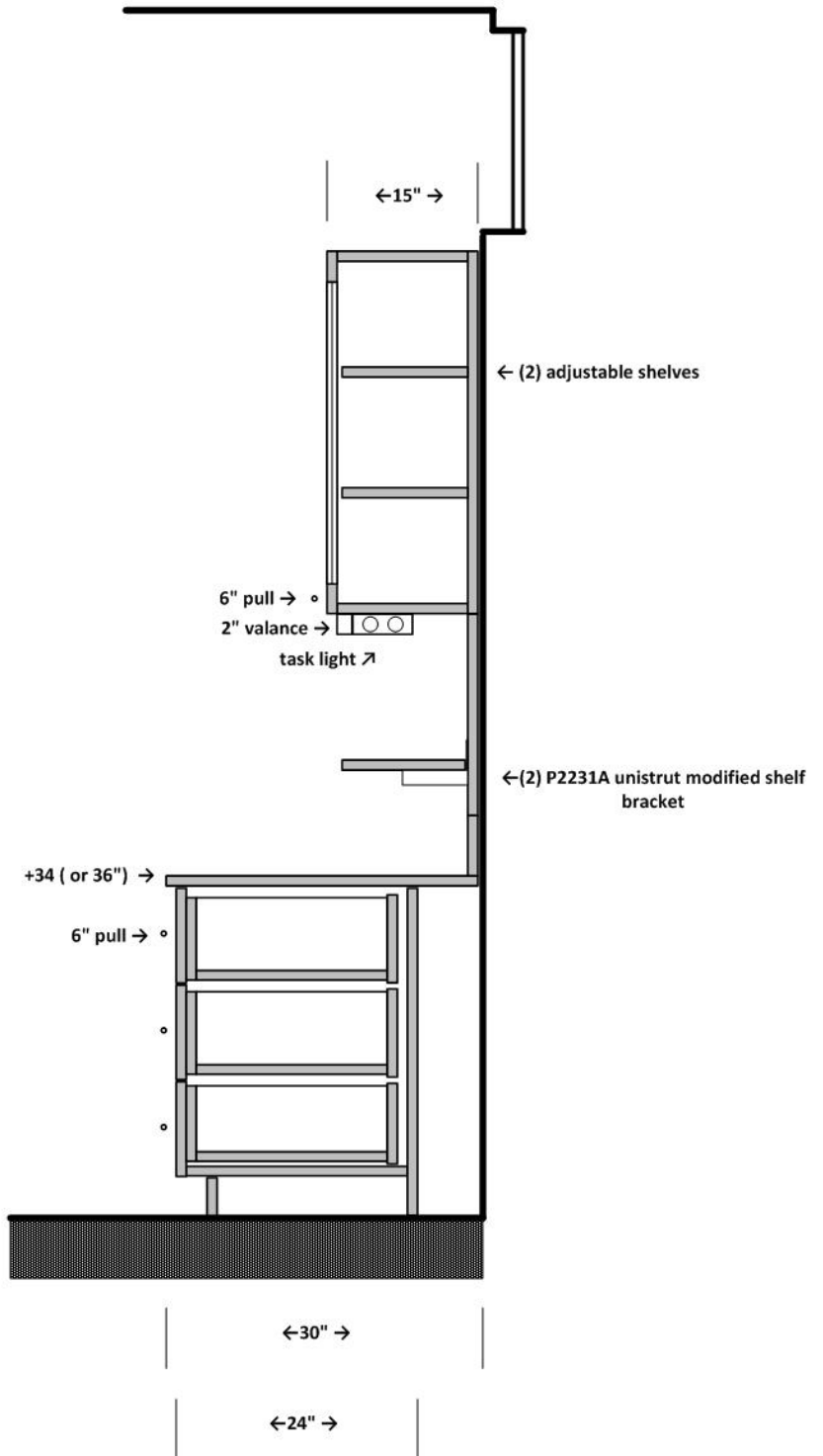
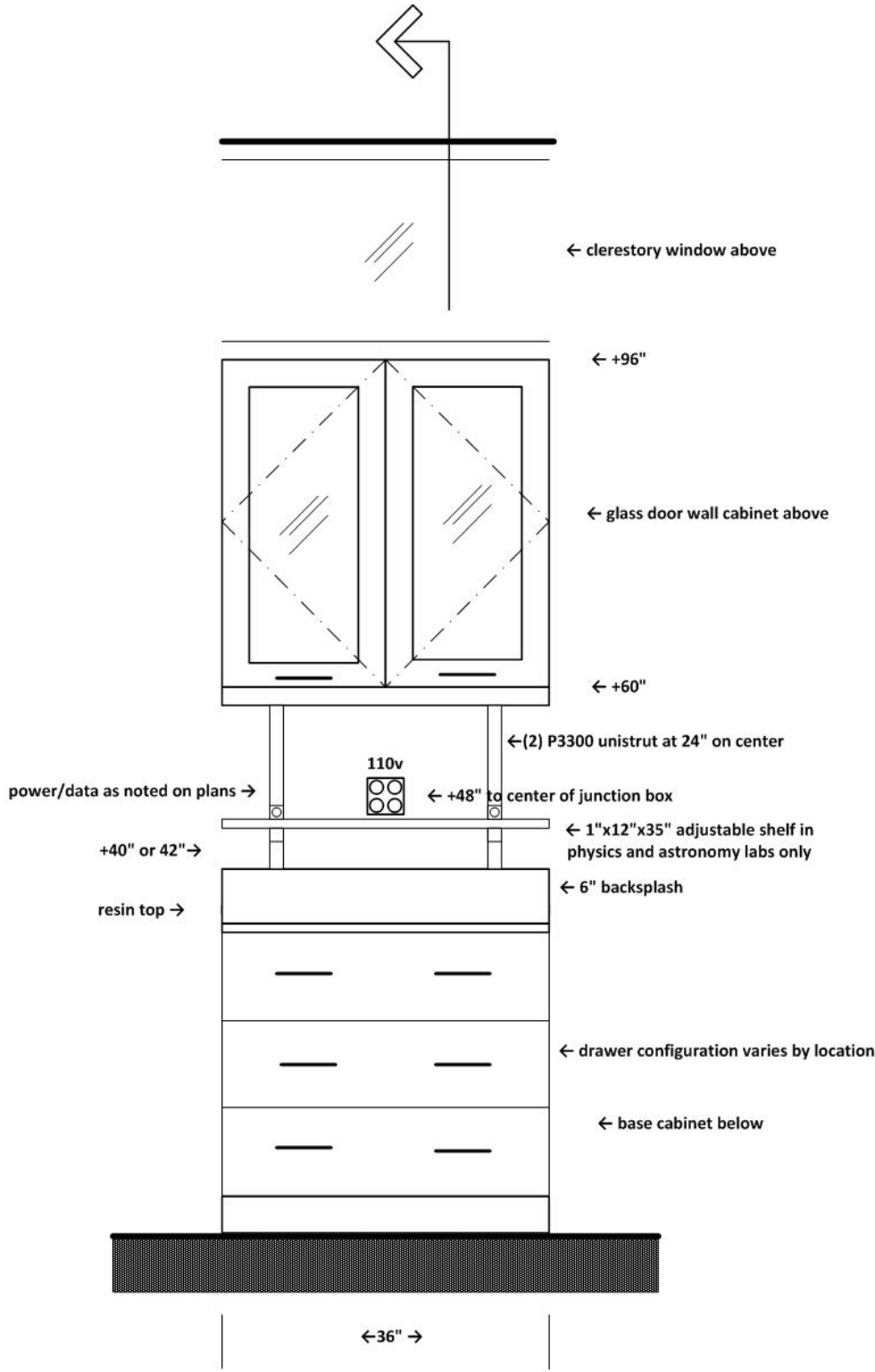
ELEVATION I

Astronomy/Geology Laboratory 203
Mobile Student Island Bench



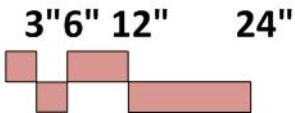
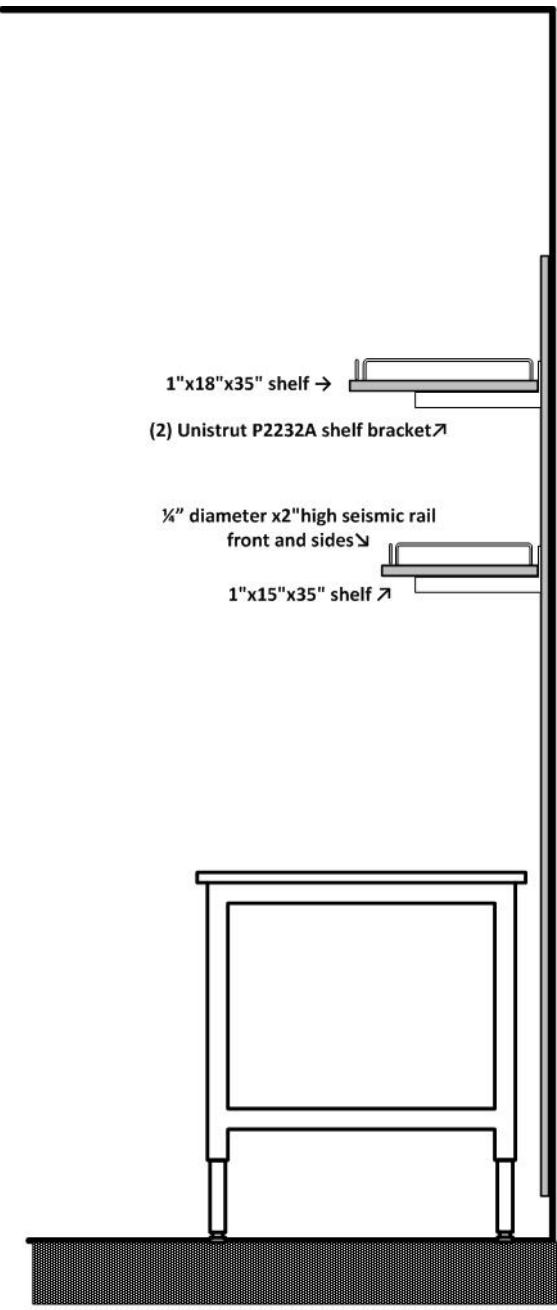
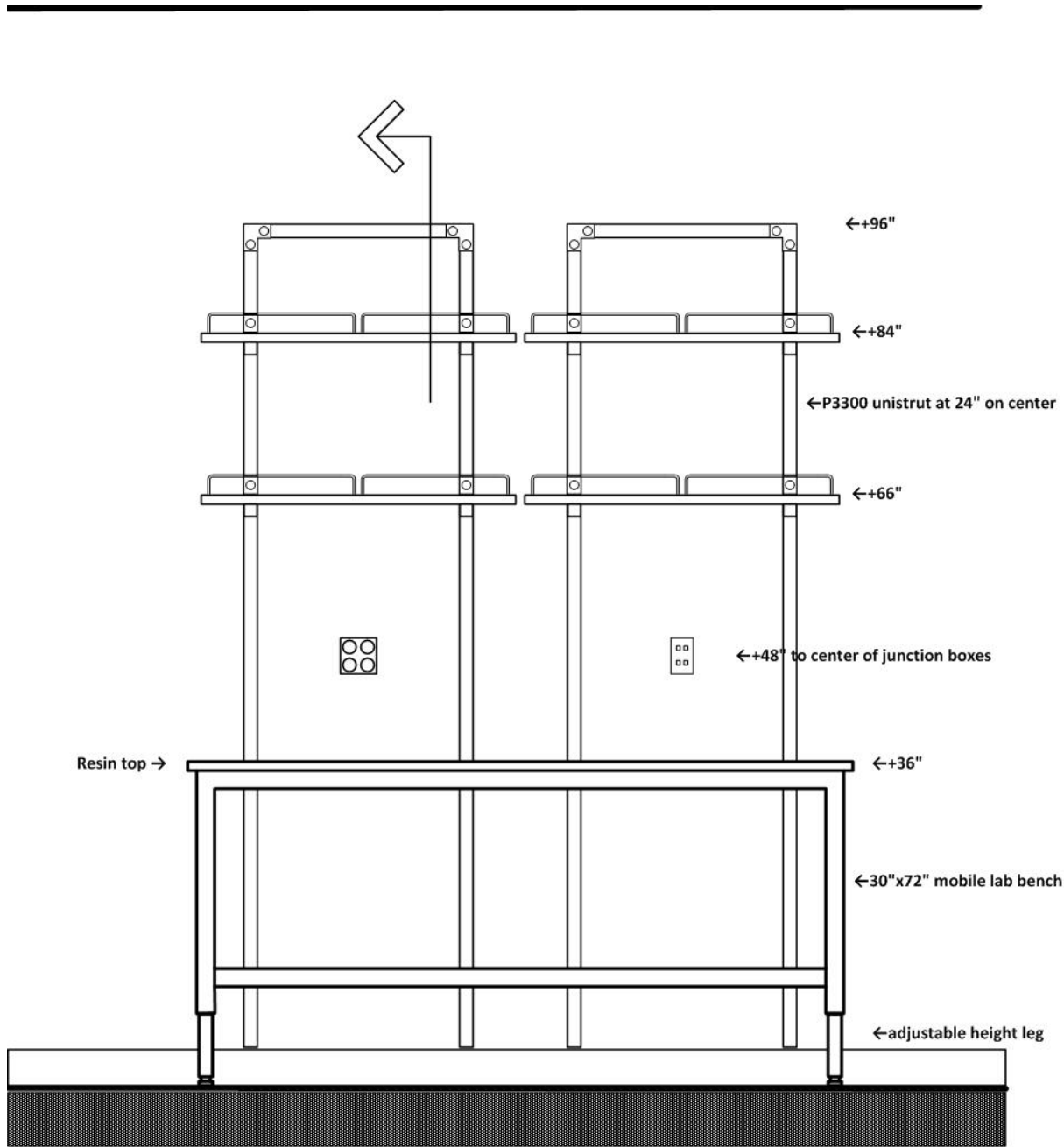
SECTION DETAIL 2

Wall bench with wall cabinet above at clerestory window
 Typical for physics and astronomy labs



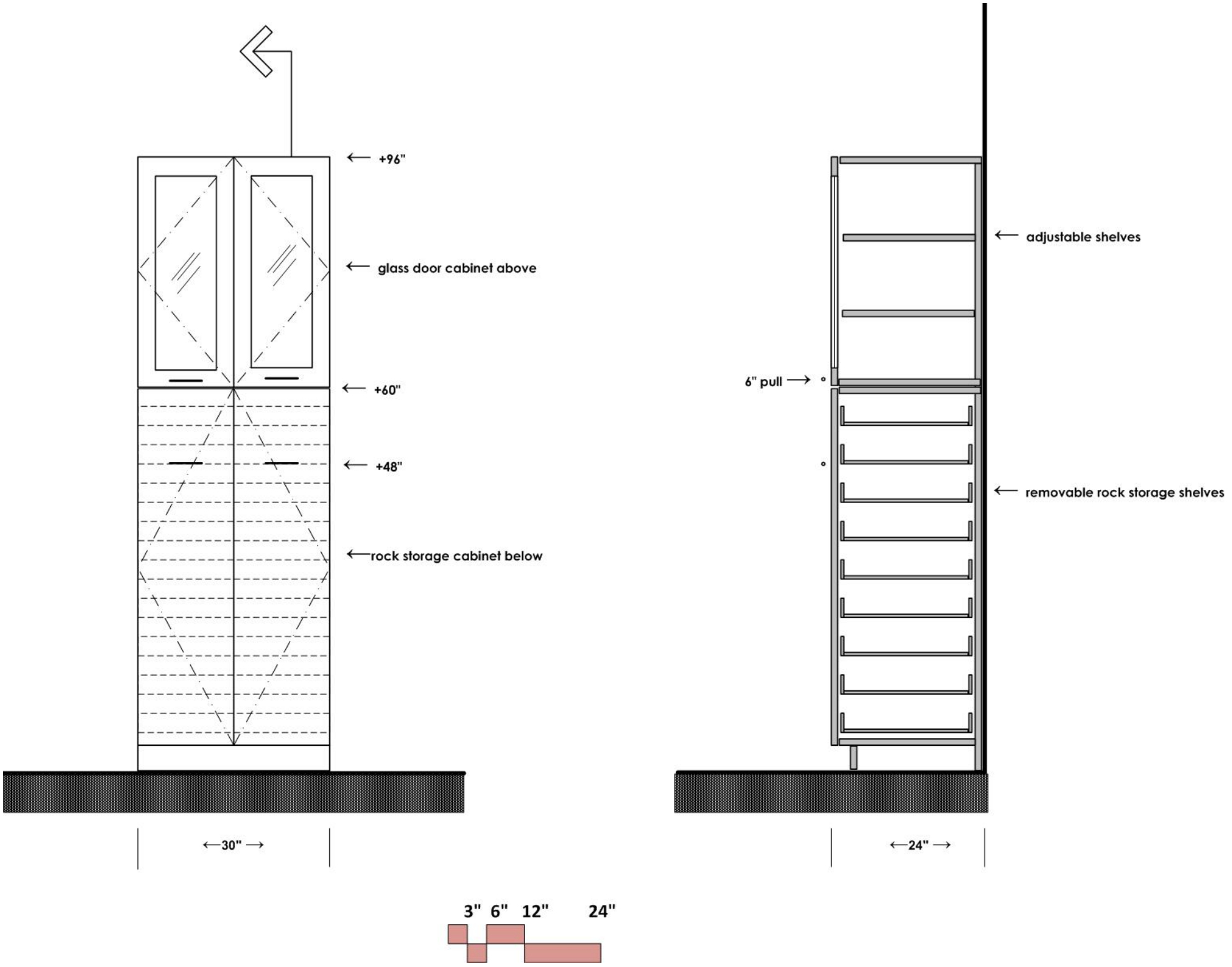
SECTION DETAIL 3

Mobile lab bench with adjustable shelves above
 Typical for physics and astronomy labs only

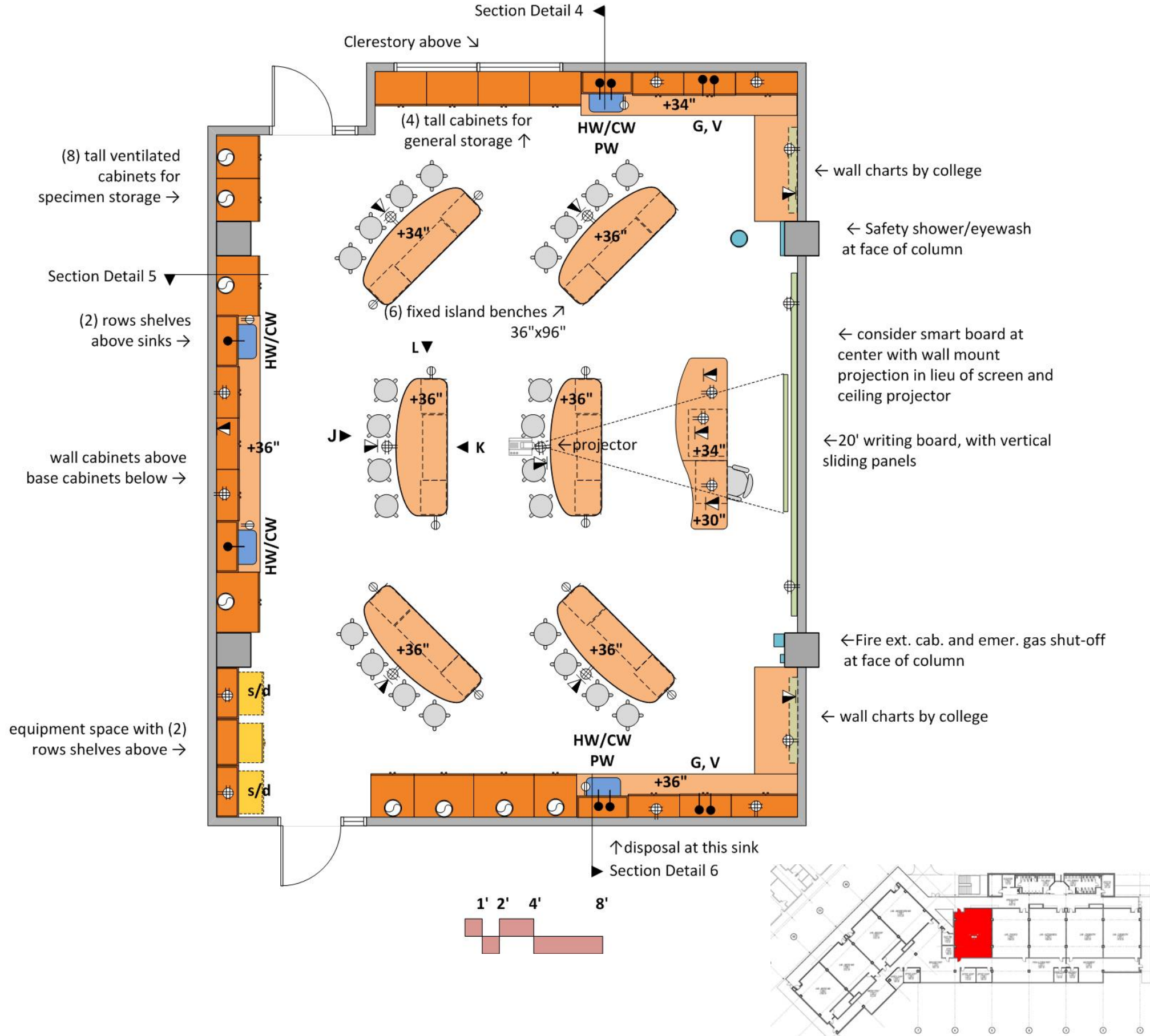


SECTION DETAIL 12

Rock Storage Cabinets



ANATOMY LABORATORY 205



ARCHITECTURAL

Occupancy: B; Number of students: 24
 Centerline dimensions: 33'x44'
 Floor: rubber tile & base; Walls: gypsum board and enamel paint
 Ceiling: 10' acoustic tile; Doors: 3'x8' with window
 Acoustic Attenuation: NC 40 or less
 Light Attenuation: at exterior windows
 Accessibility: student island, sink, and instructor bench
 Security: key access

STRUCTURAL

Vibration attenuation: 4,000 micro inches/sec or less

MECHANICAL

Hours of operation: 6 am to 11 pm; Temperature: 68-72 deg. F, +/- 2 deg. F
 100% exhaust- no recirculation of air; Exhaust on emergency power supply
 -(6) air changes per (exhaust at ceiling) hour occupied
 -(4) air changes per hour unoccupied
 Provide night set back to (4) air changes per hour from 11 pm to 6 am
 Pressure: Negative; Humidity: Ambient

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 -(1) duplex per student at islands
 duplex below each sink for infrared sensor
 Standby and dedicated power at equipment spaces (s/d)
 Data junction boxes at islands, perimeter and instructor bench
 Wireless data
 Lighting: indirect fluorescent @ 60 f.c. with multi-level switching

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers and infrared sensors
 Pure water (PW) at 2 sinks
 Sinks at perimeter bench
 Domestic water at safety shower/eyewash
 Emer. gas shut off

CONTRACTOR FURNISHED EQUIPMENT

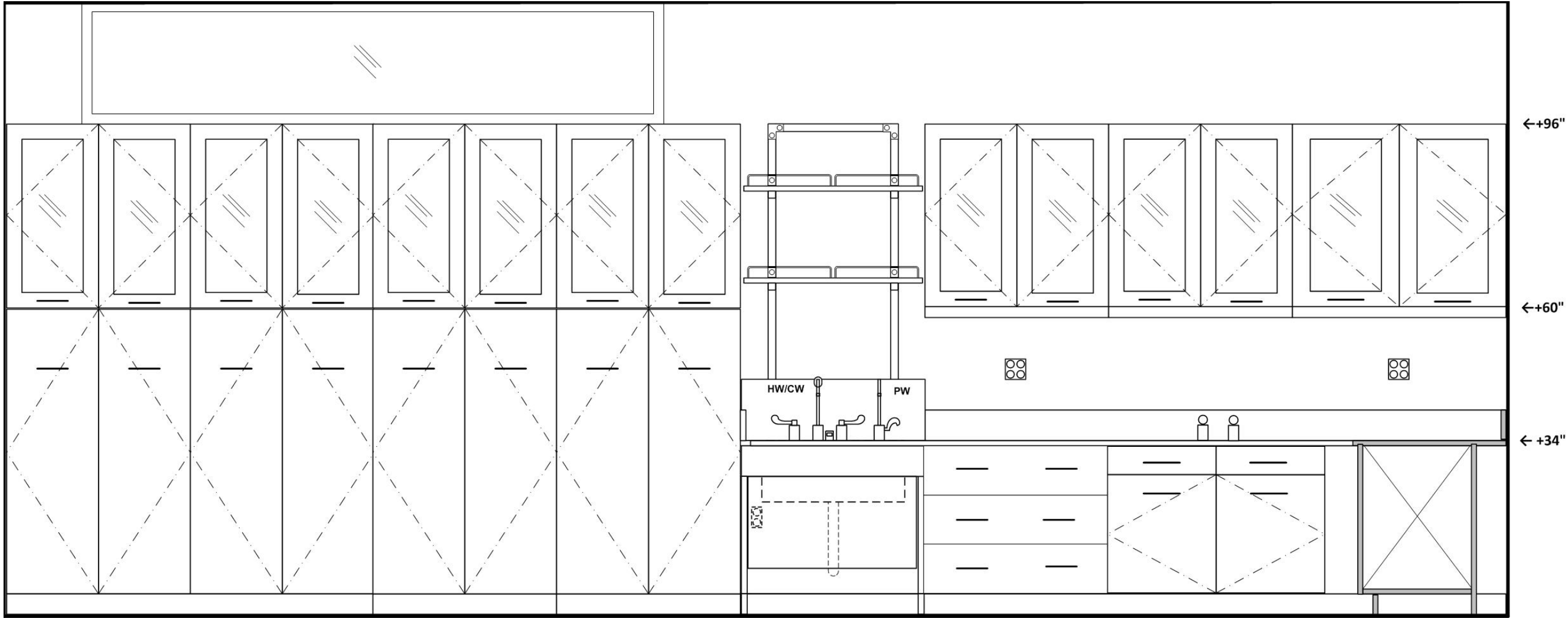
Wood casework- base cabinets, wall cabinets, tall cabinets
 Ventilated tall cabinets for specimen storage- 100 c.f.m. per cabinet, in addition to room exhaust
 Microscope cabinets at each island- (4) microscopes/island
 Resin tops and sinks
 Faucets & fittings
 Writing board (consider integration of smart board)
 Projection Screen
 Digital projection system
 Instructor desk/demo bench with media cabinet
 Fire extinguisher cabinet

COLLEGE FURNISHED EQUIPMENT

Chairs; Digital projector
 Benchtop analytical instruments
 Refrigerator
 Wall charts

ELEVATION WEST WALL

Anatomy Laboratory 205



←36"→

←36"→

←36"→

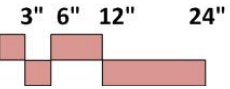
←36"→

←36"→

←36"→

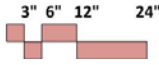
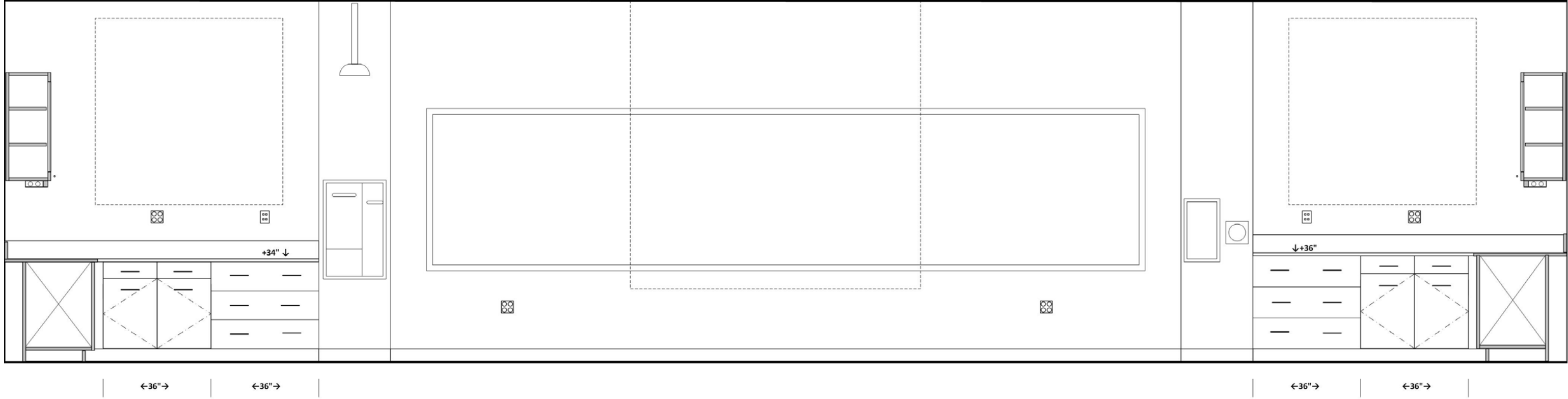
←42"→

←30"→



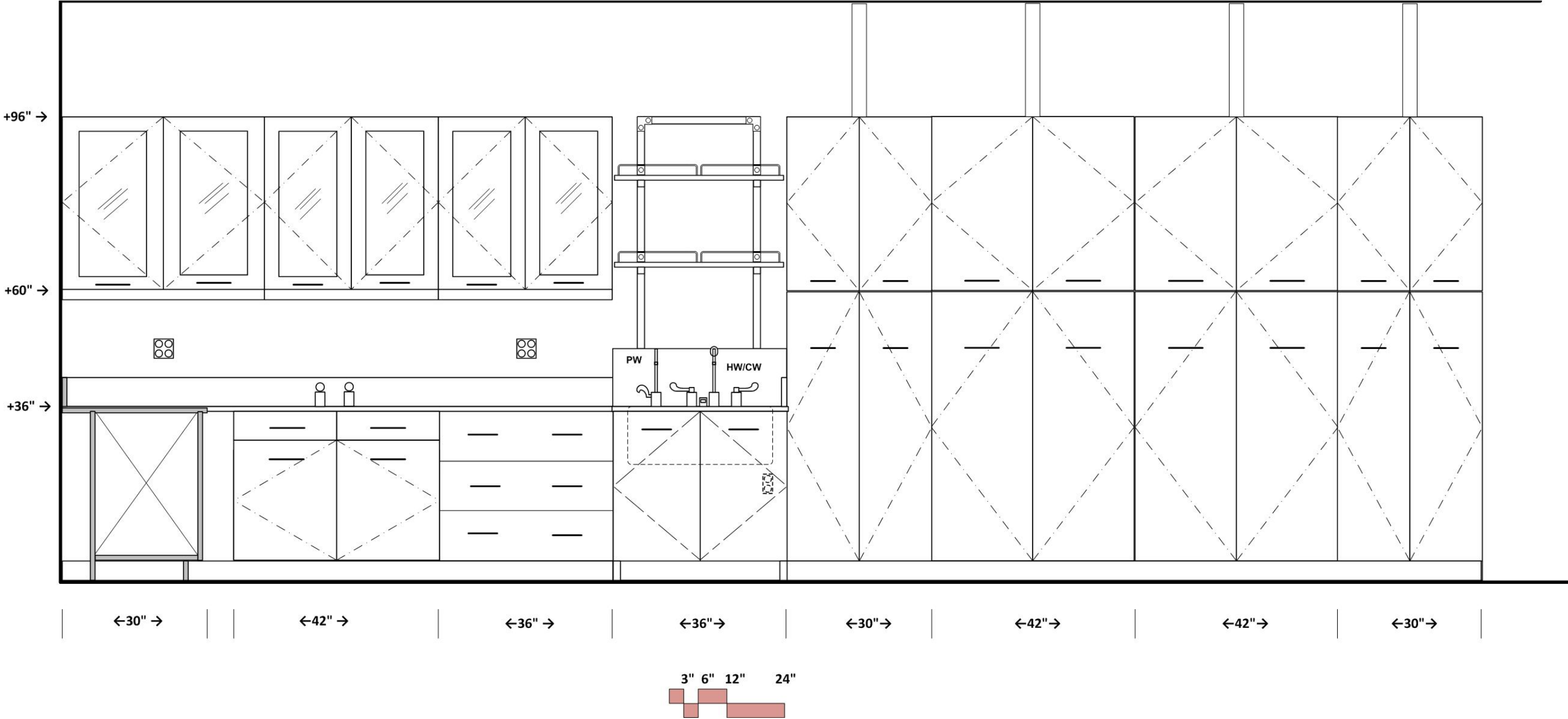
ELEVATION NORTH WALL

Anatomy Laboratory 205



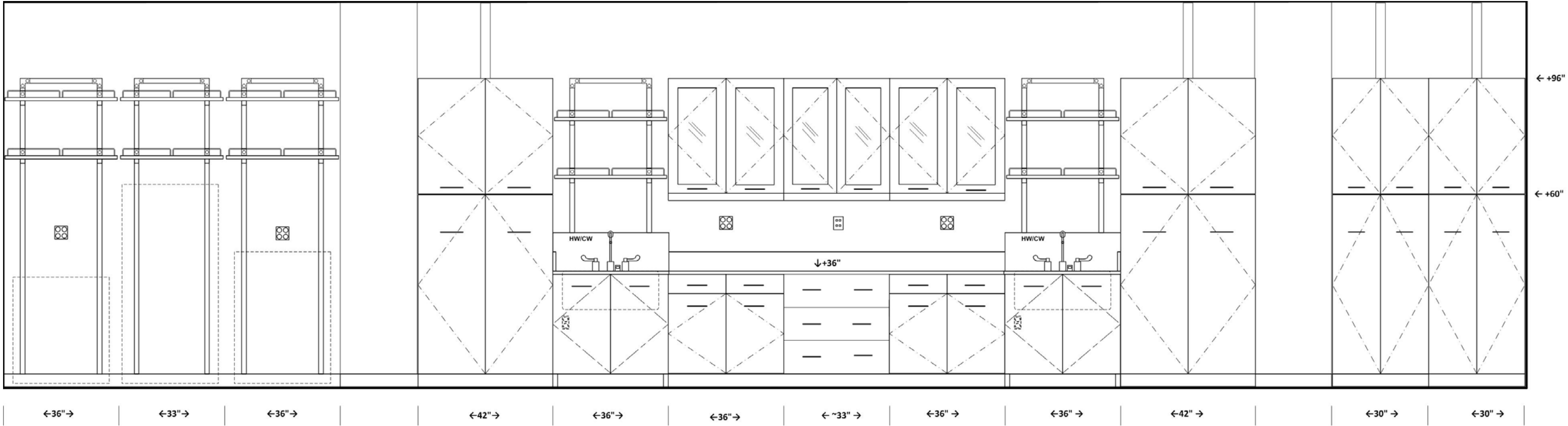
ELEVATION EAST WALL

Anatomy Laboratory 205



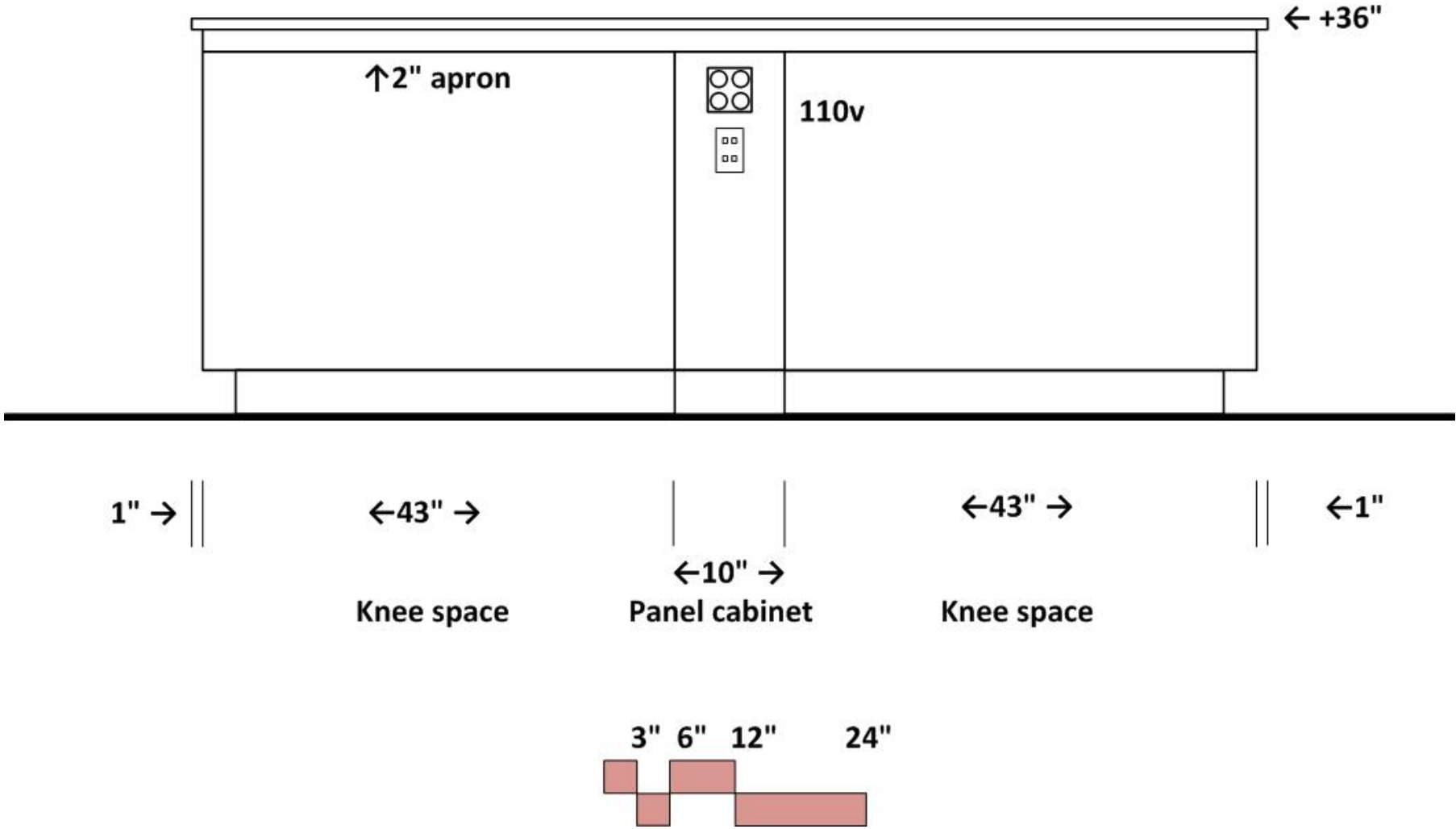
ELEVATION SOUTH WALL

Anatomy Laboratory 205



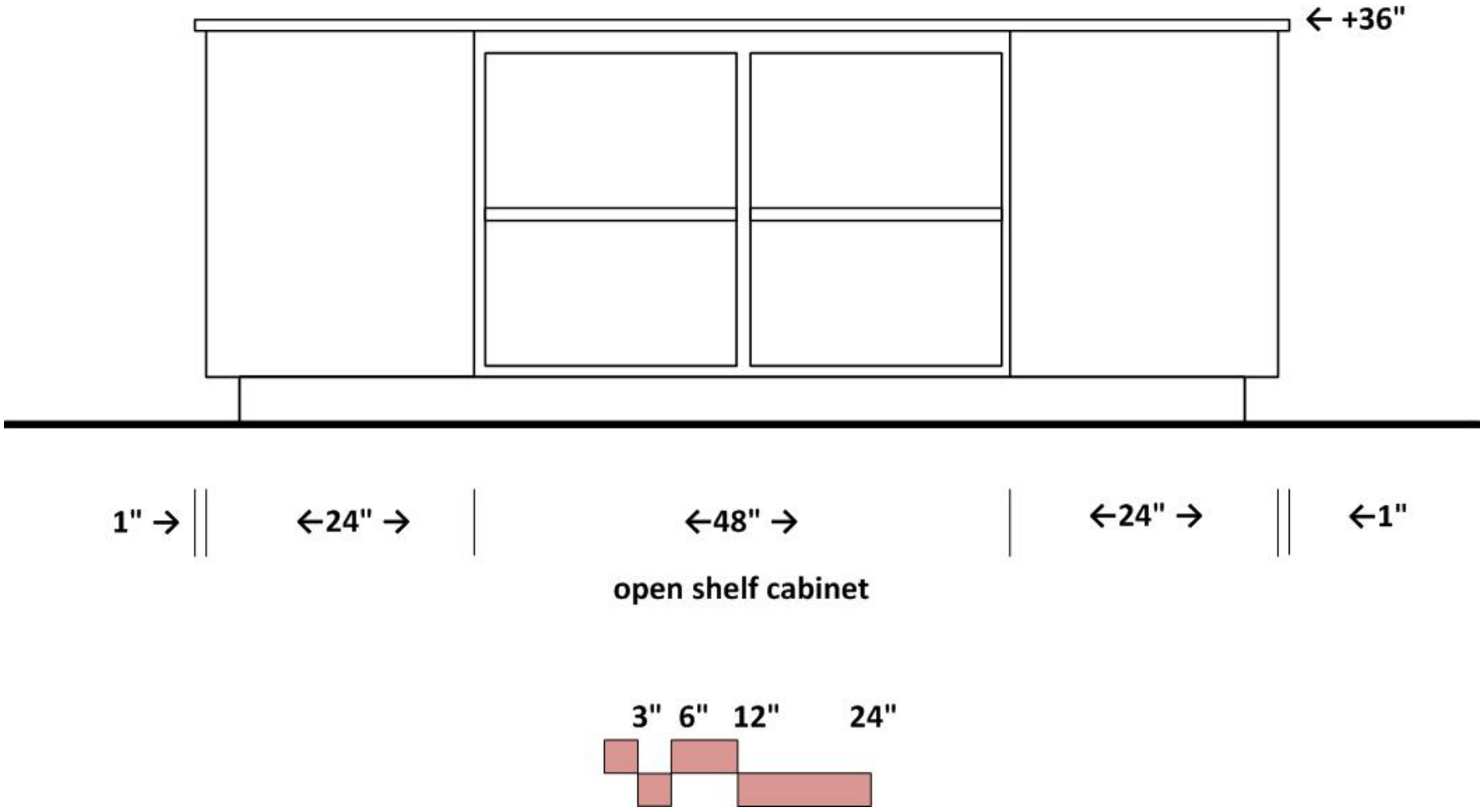
ELEVATION J

Anatomy Laboratory 205
Student Island Bench
Similar for Marine/Org Bio 206



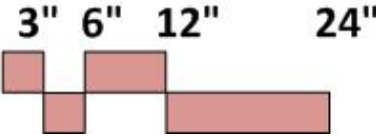
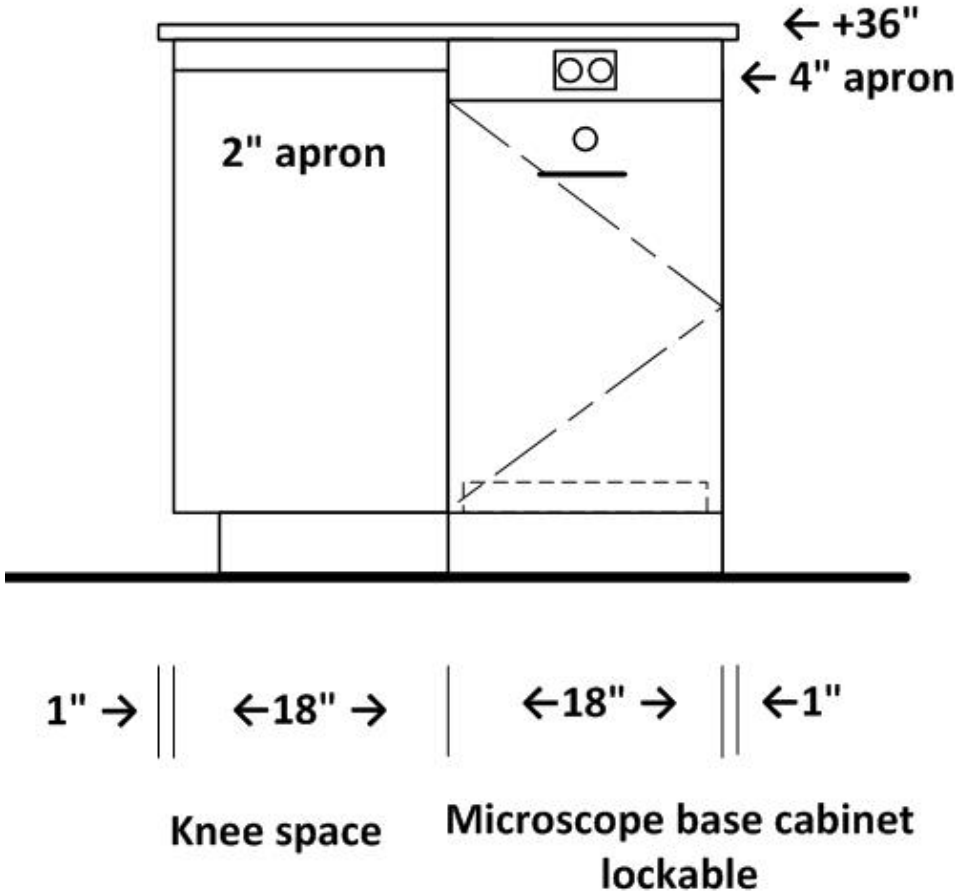
ELEVATION K

Anatomy Laboratory 205
Student Island Bench
Similar for Marine/Org Bio 206



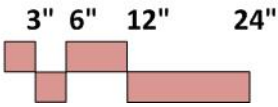
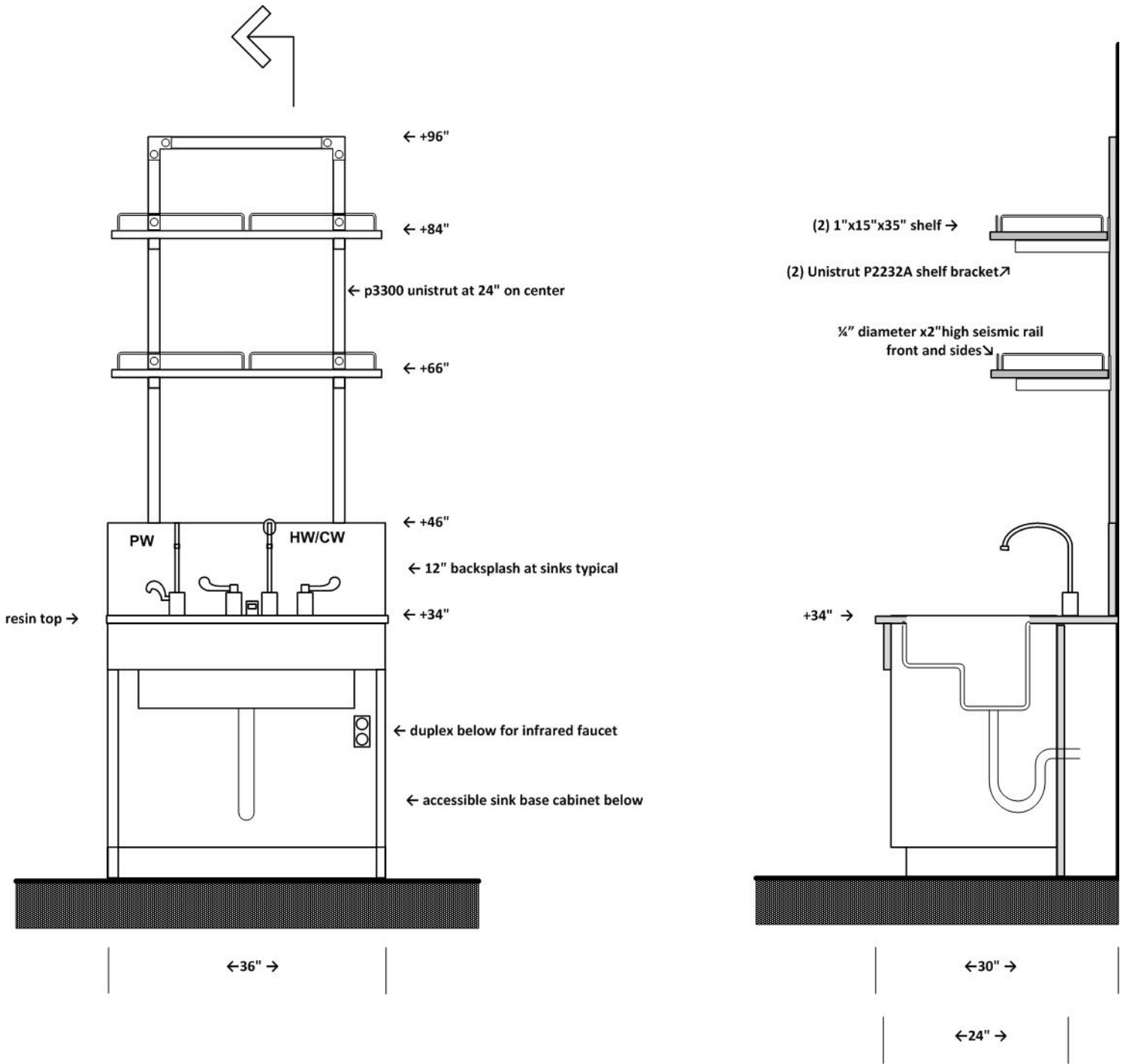
ELEVATION L

Anatomy Laboratory 205
Student Island Bench
Similar for Marine/Org Bio 206



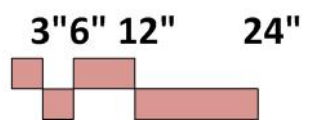
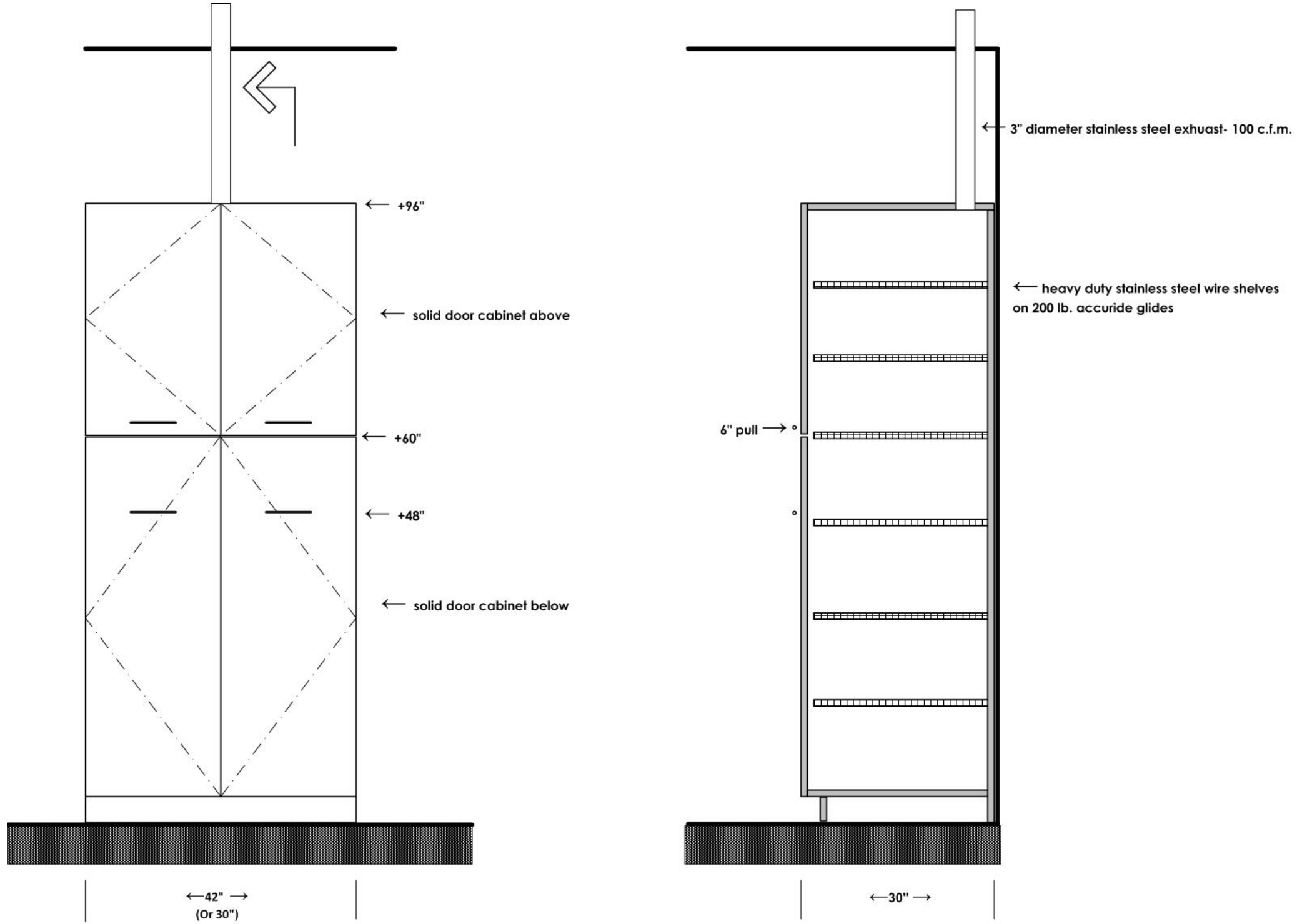
SECTION DETAIL 4

Accessible sink at wall
Typical for all labs



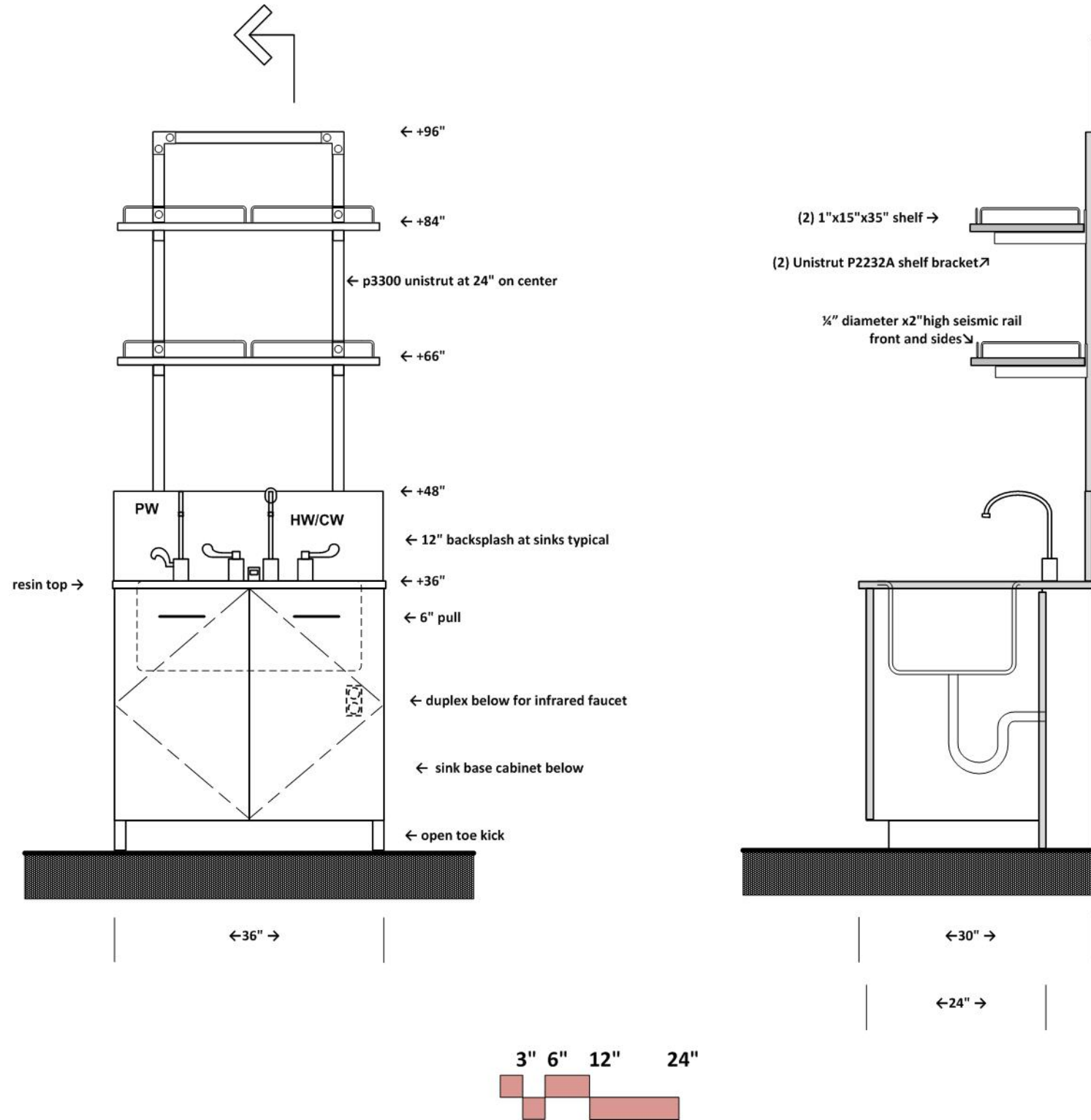
SECTION DETAIL 5

Tall ventilated cabinet
Anatomy Lab and Bio Store Room

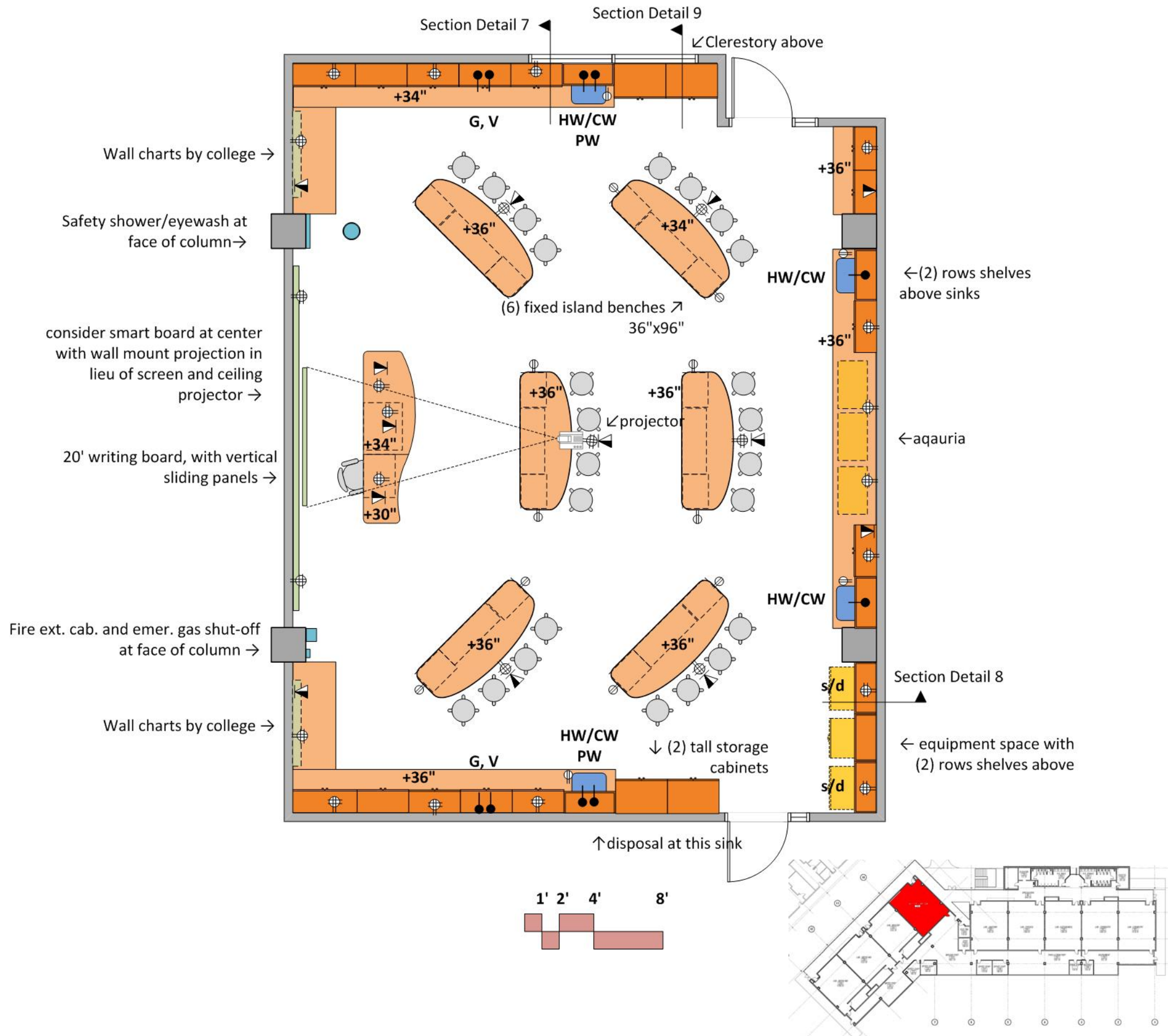


SECTION DETAIL 6

Sink at wall
Typical for all labs



MARINE & ORGANISMAL BIOLOGY 206



ARCHITECTURAL

Occupancy: B; Number of students: 24
 Centerline dimensions: 33'x44'
 Floor: rubber tile & base; Walls: gypsum board and enamel paint
 Ceiling: 10' acoustic tile; Doors: 3⁶x8⁰ with window
 Acoustic Attenuation: NC 40 or less
 Light Attenuation: at exterior windows
 Accessibility: student island, sink, and instructor bench
 Security: key access

STRUCTURAL

Vibration attenuation: 4,000 micro inches/sec or less

MECHANICAL

Hours of operation: 6 am to 11 pm; Temperature: 68-72 deg. F, +/- 2 deg. F
 100% exhaust- no recirculation of air; Exhaust on emergency power supply
 -(6) air changes per (exhaust at ceiling) hour occupied
 -(4) air changes per hour unoccupied
 Provide night set back to (4) air changes per hour from 11 pm to 6 am
 Pressure: Negative; Humidity: Ambient

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 -(1) duplex per student at islands
 duplex below each sink for infrared sensor
 Standby and dedicated power at equipment spaces (s/d)
 Data junction boxes at islands, perimeter and instructor bench
 Wireless data
 Lighting: indirect fluorescent @ 60 f.c. with multi-level switching

PLUMBING

Hot/Cold water (HW/CW) at sinks with vacuum breakers and infrared sensors
 Pure water (PW) at 2 sinks
 Sinks at perimeter bench
 Domestic water at safety shower/eyewash
 Emer. gas shut off

CONTRACTOR FURNISHED EQUIPMENT

Wood casework- base cabinets, wall cabinets, tall cabinets
 Microscope cabinets at each island- (4) microscopes/island
 Resin tops and sinks
 Faucets & fittings
 Writing board (consider integration of smart board)
 Projection Screen
 Digital projection system
 Instructor desk/demo bench with media cabinet
 Fire extinguisher cabinet

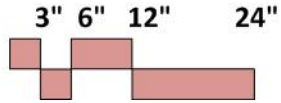
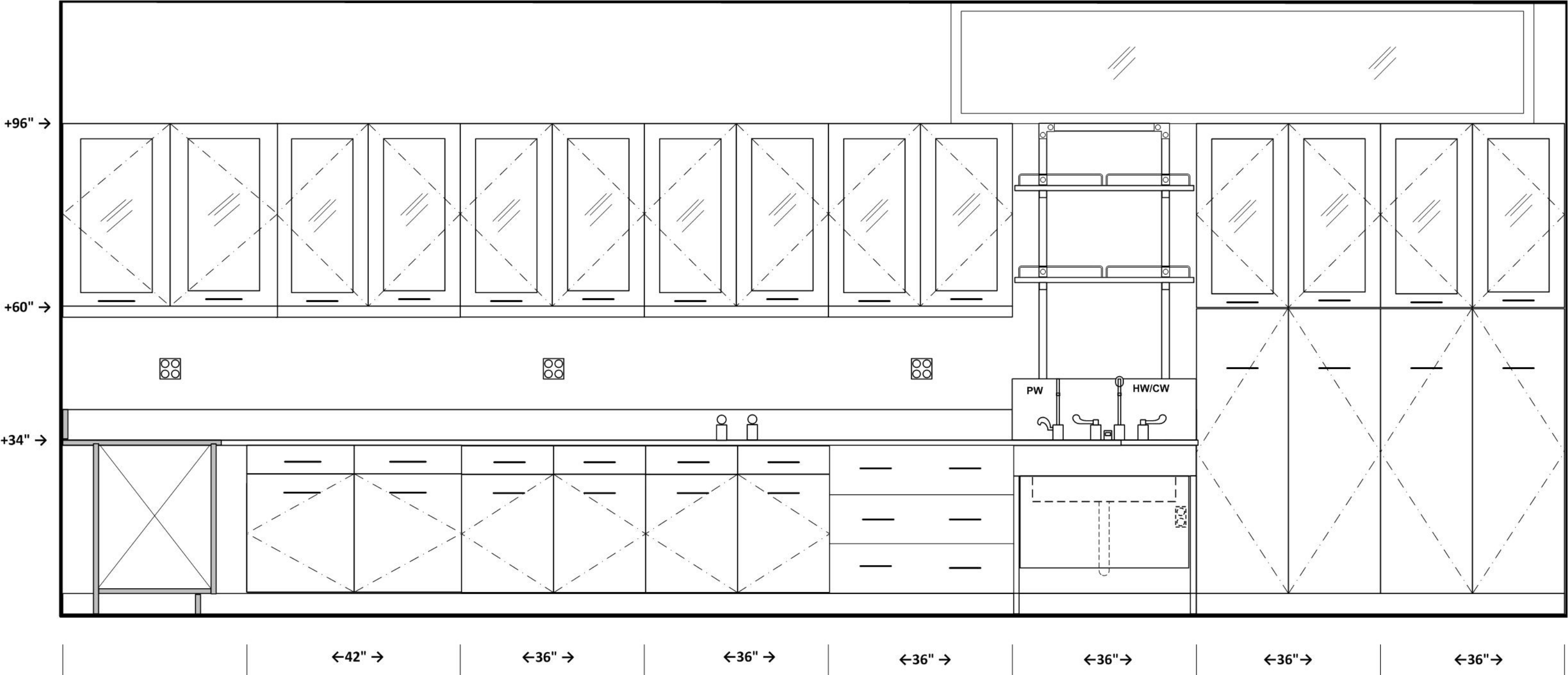
COLLEGE FURNISHED EQUIPMENT

Chairs; Digital projector
 Benchtop analytical instruments
 Refrigerator
 Wall charts

ELEVATION WEST WALL

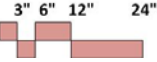
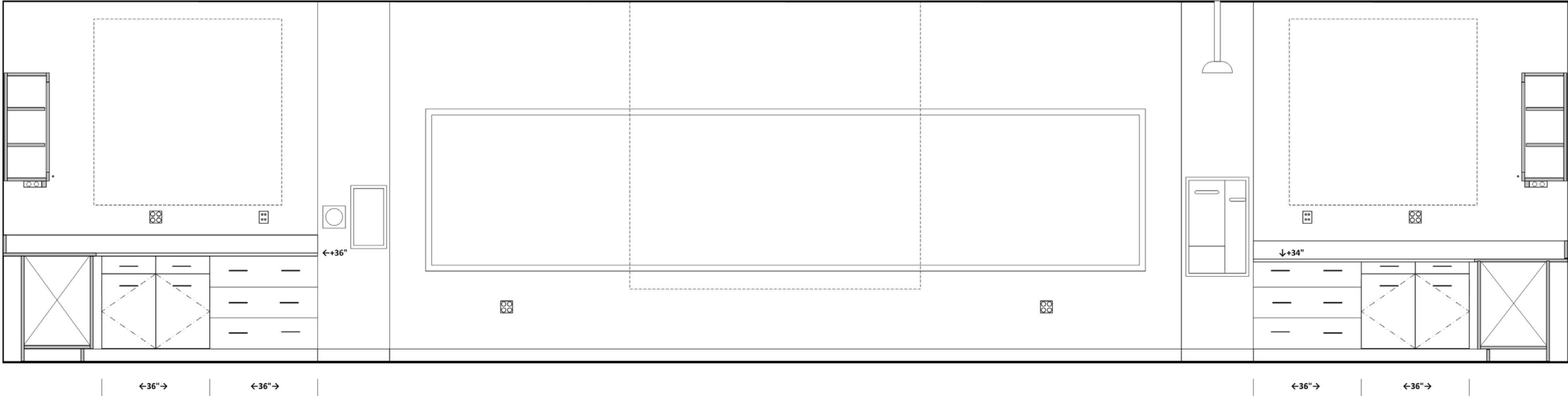
Marine & Organismal Biology 206

Mirror image for east wall, except 36" work surface and standard sink



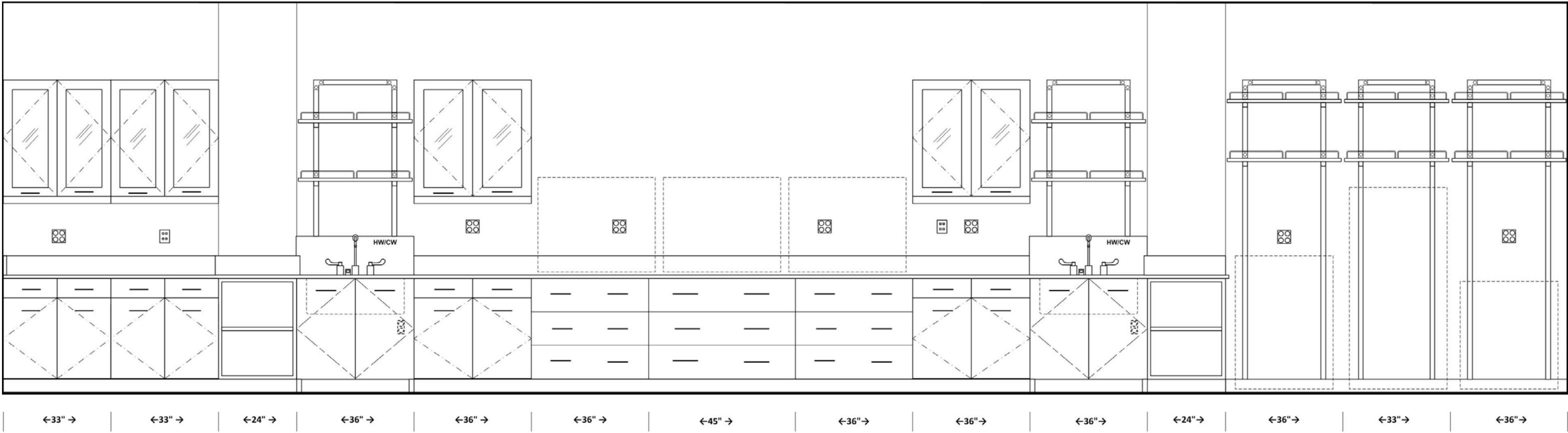
ELEVATION SOUTH WALL

Marine & Organismal Biology 206



ELEVATION NORTH WALL

Marine & Organismal Biology 206



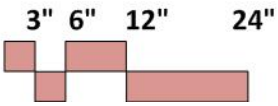
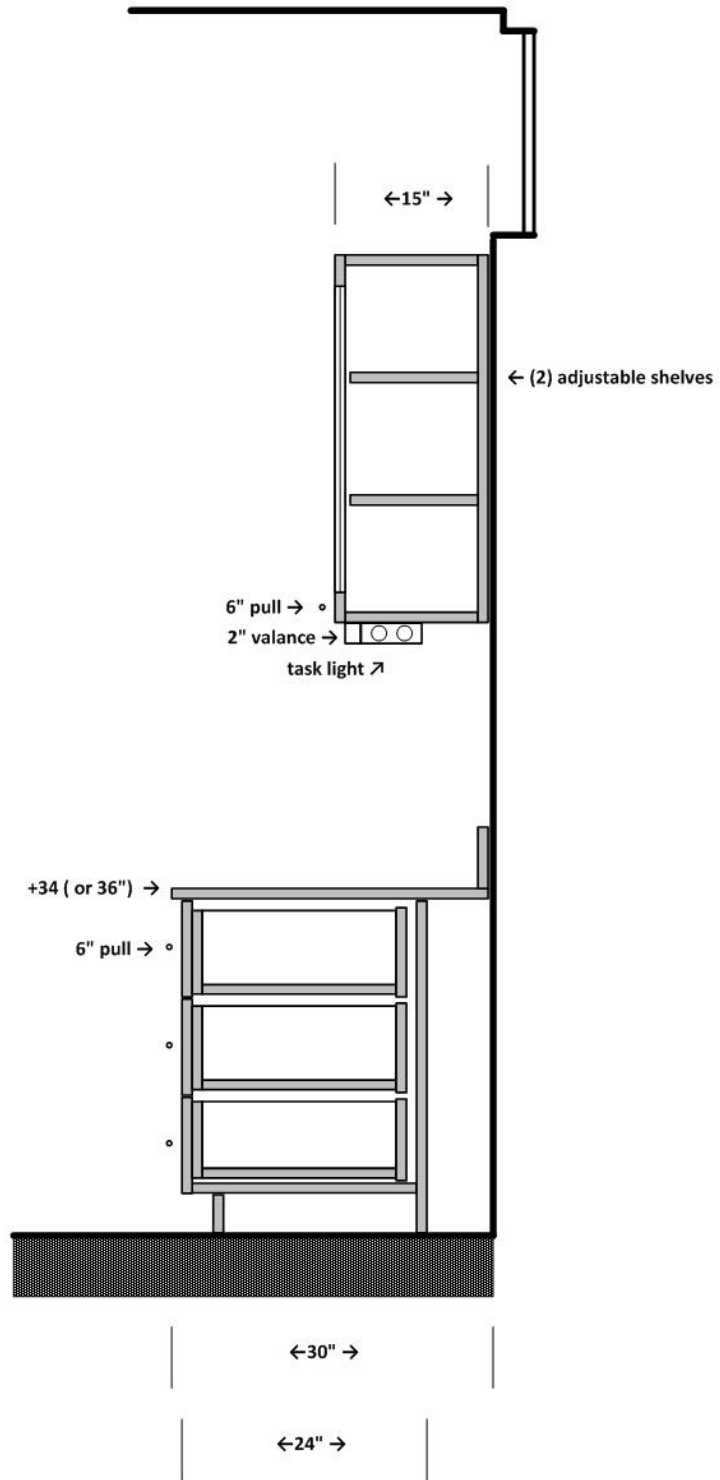
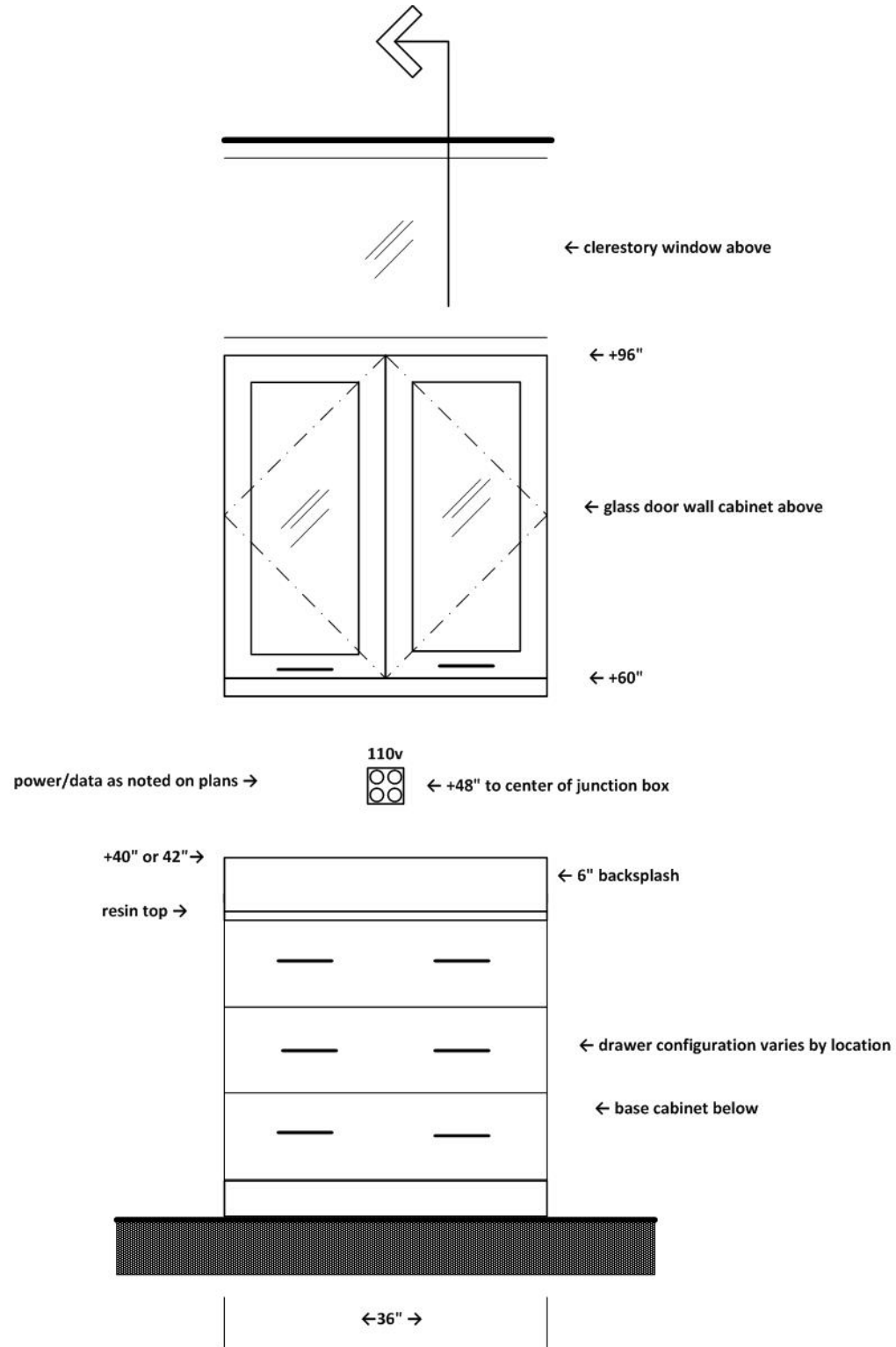
Open shelf cabinet at column

Open shelf cabinet at column



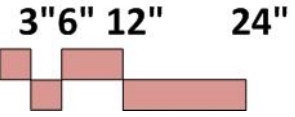
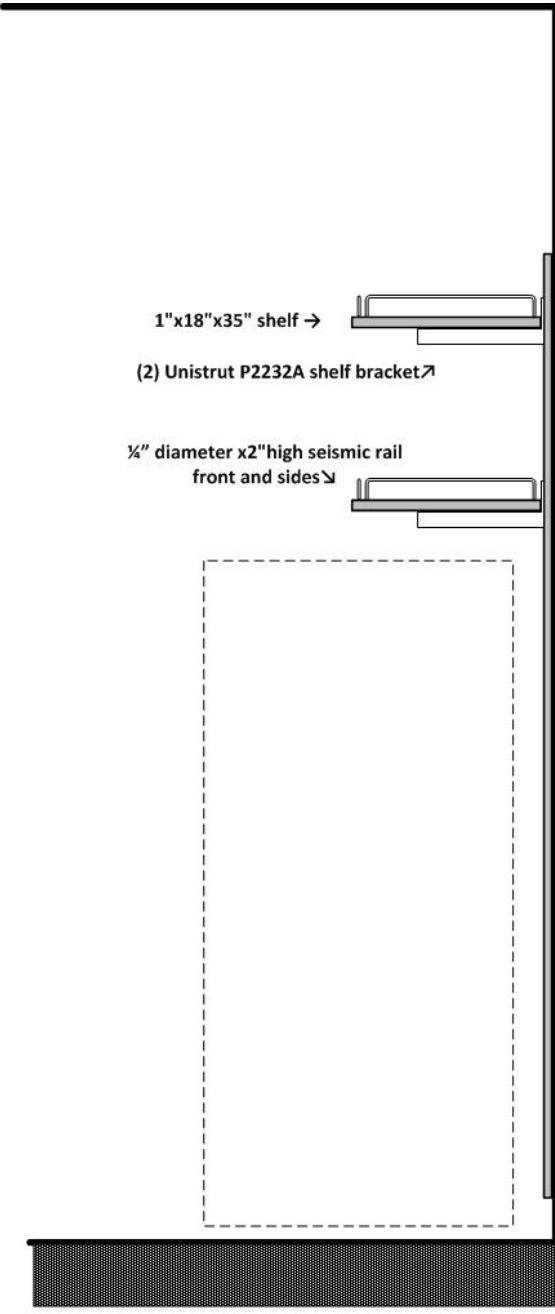
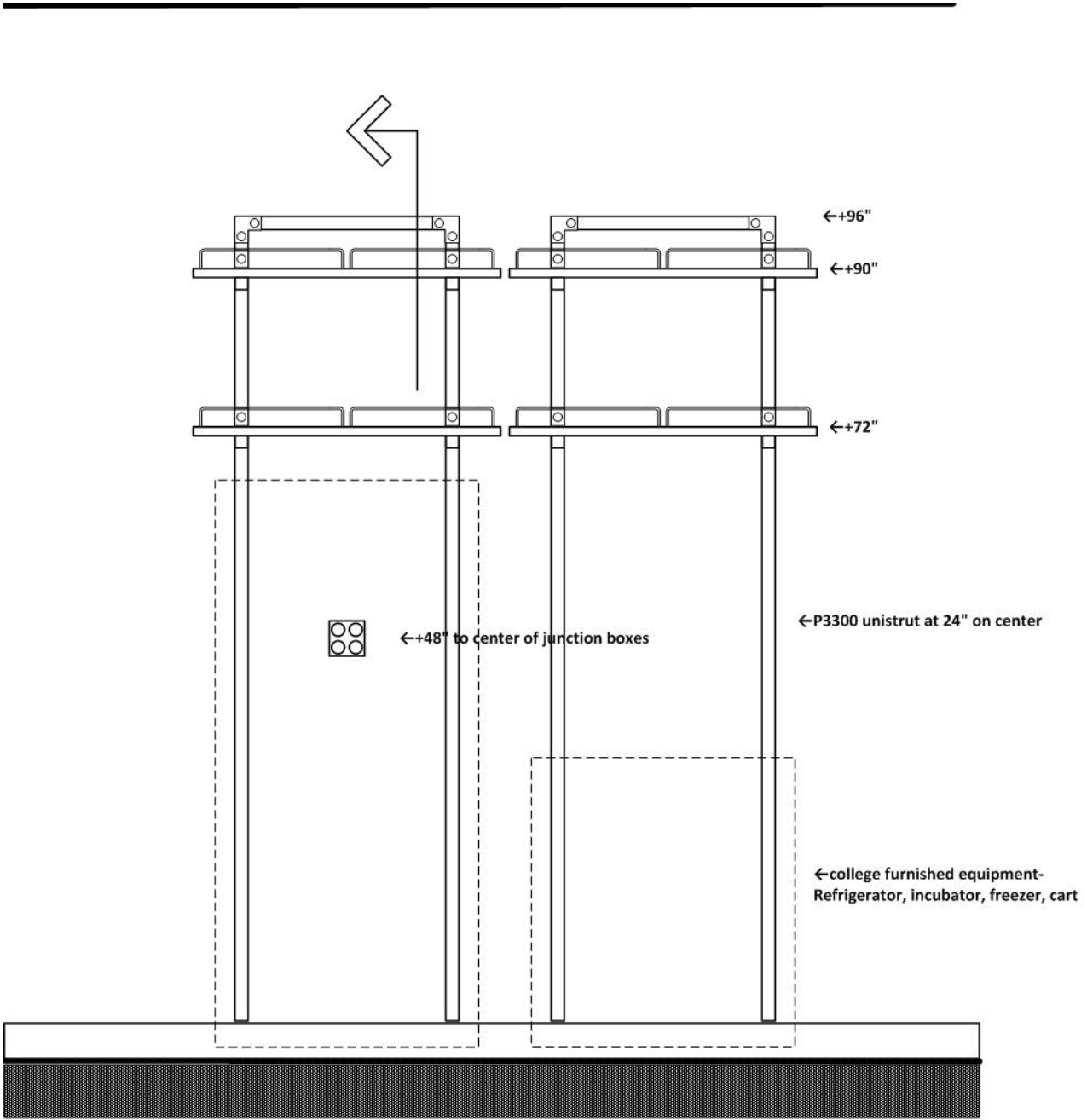
SECTION DETAIL 7

Lab bench and wall cabinet below clerestory
 Typical for all labs except physics and astronomy



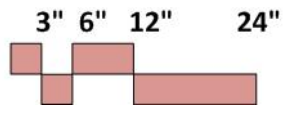
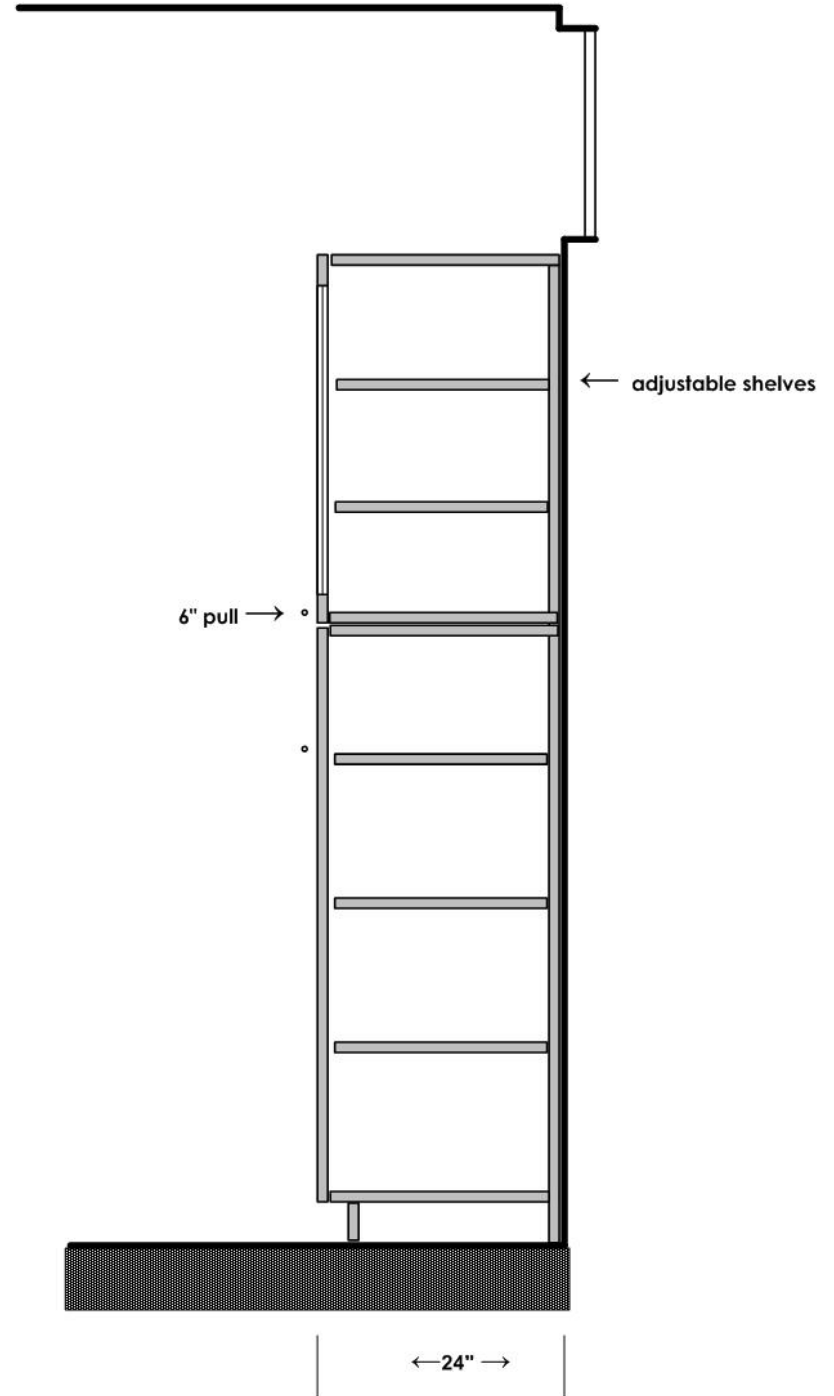
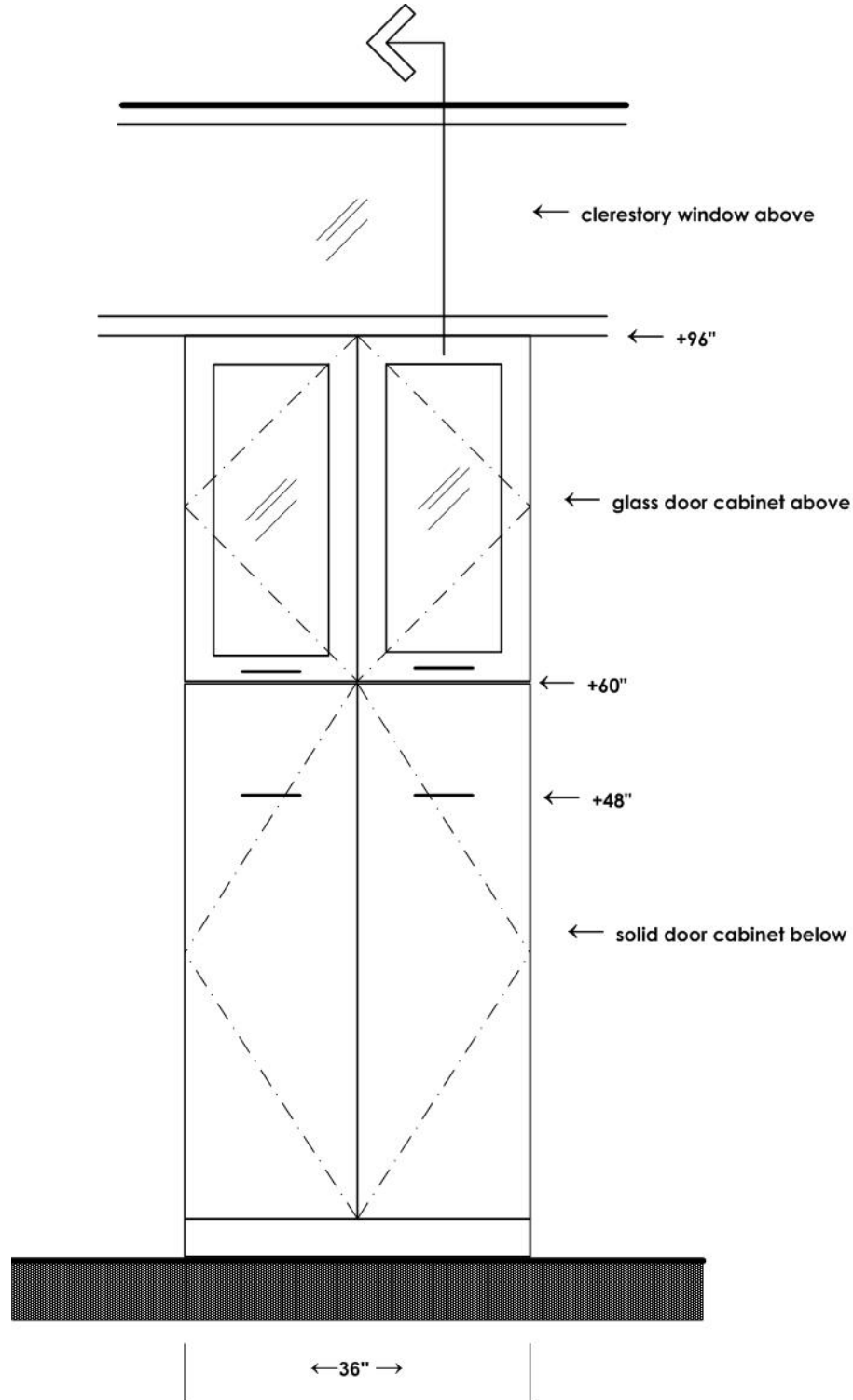
SECTION DETAIL 8

Equipment space
Typical for all labs and prep areas



SECTION DETAIL 9

general purpose tall storage cabinet
Typical for all labs and prep areas



MICROBIOLOGY LABORATORY 208

SIMILAR FOR LABS 207, 209

ARCHITECTURAL

Occupancy: B; Number of students: 24
 Centerline dimensions: 33'x44'
 Floor: rubber tile & base; also consider sealed, ground concrete
 Walls: gypsum board and enamel paint
 Ceiling: 10' acoustic tile; Doors: 3'x8' with window
 Acoustic Attenuation: NC 40 or less
 Light Attenuation: at exterior windows
 Accessibility: student island, sink, and instructor bench
 Security: key access
 Separate equipment room for incubators at all (3) labs

STRUCTURAL

Vibration attenuation: 4,000 micro inches/sec or less

MECHANICAL

Hours of operation: 6 am to 11 pm
 Temperature: 68-72 deg. F, +/- 2 deg. F
 100% exhaust- no recirculation of air; Exhaust on emergency power supply
 -(6) air changes per (exhaust at ceiling) hour occupied
 -(4) air changes per hour unoccupied
 Provide night set back to (4) air changes per hour from 11 pm to 6 am
 Pressure: Negative; Humidity: Ambient
 For Anatomy Lab provide additional low exhaust at perimeter- (4) low exhaust at 300 cfm each

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Standby/dedicated power at equipment spaces
 Data junction boxes islands, perimeter and instructor bench
 Wireless data
 Lighting: indirect fluorescent @ 60 f.c. with multi-level switching

PLUMBING

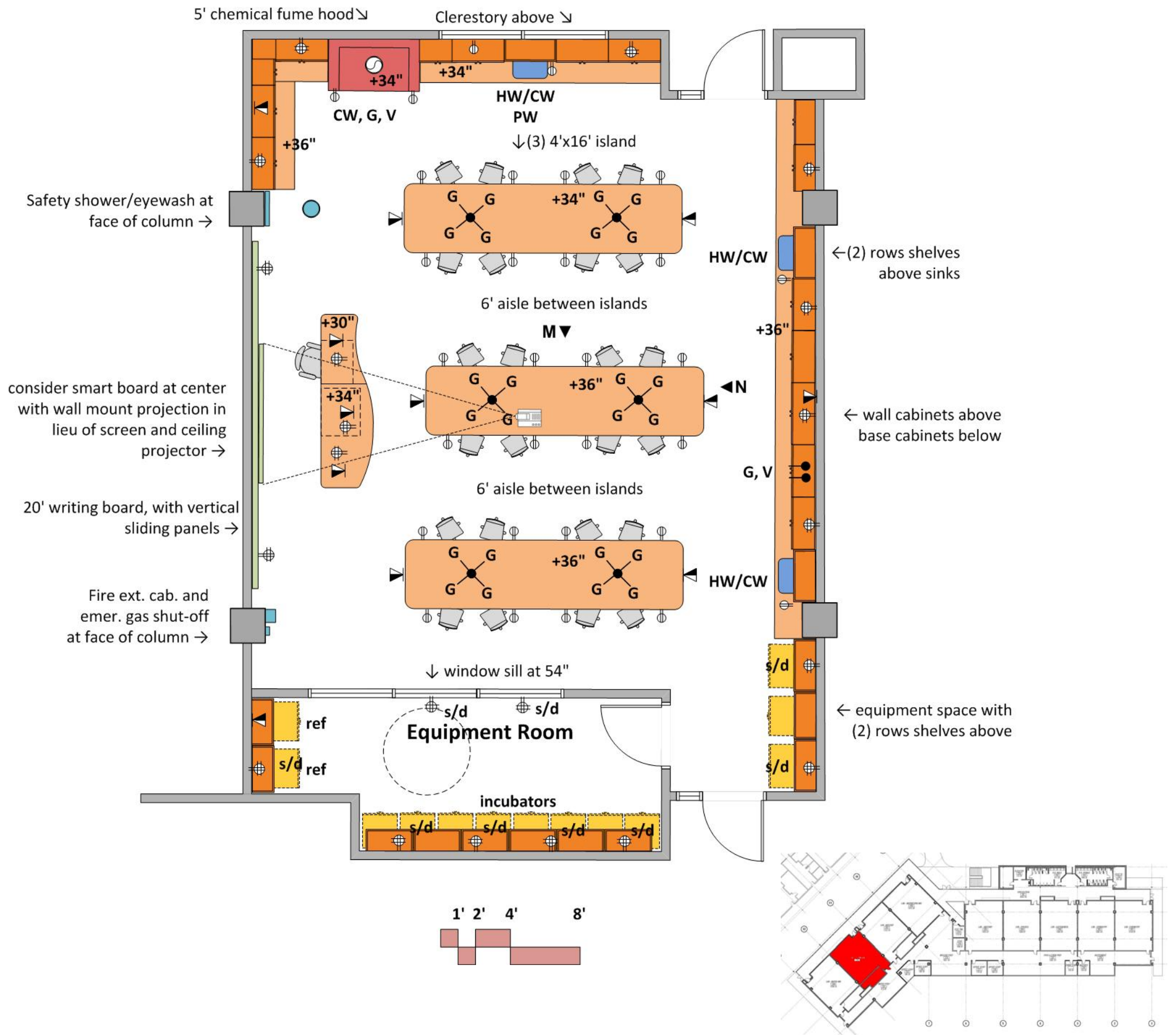
Hot/Cold water (HW/CW) at sinks with vacuum breakers, infrared sensor
 Pure water (PW) at two sinks
 Natural gas at student islands
 Natural gas, vacuum at perimeter bench
 Cold water, gas, vacuum at fume hood
 Sinks at perimeter bench
 Domestic water at safety shower/eyewash
 Emer. gas shutoff

CONTRACTOR FURNISHED EQUIPMENT

Wood casework- base cabinets, wall cabinets, tall cabinets
 Microscope cabinets at each island- (4) microscopes/island
 Resin tops and sinks; Faucets & fittings
 Chemical fume hood- 600 c.f.m. (VAV)
 Writing board; Projection Screen
 Digital projection system
 Instructor desk/demo bench with media cabinet
 Fire extinguisher cabinet

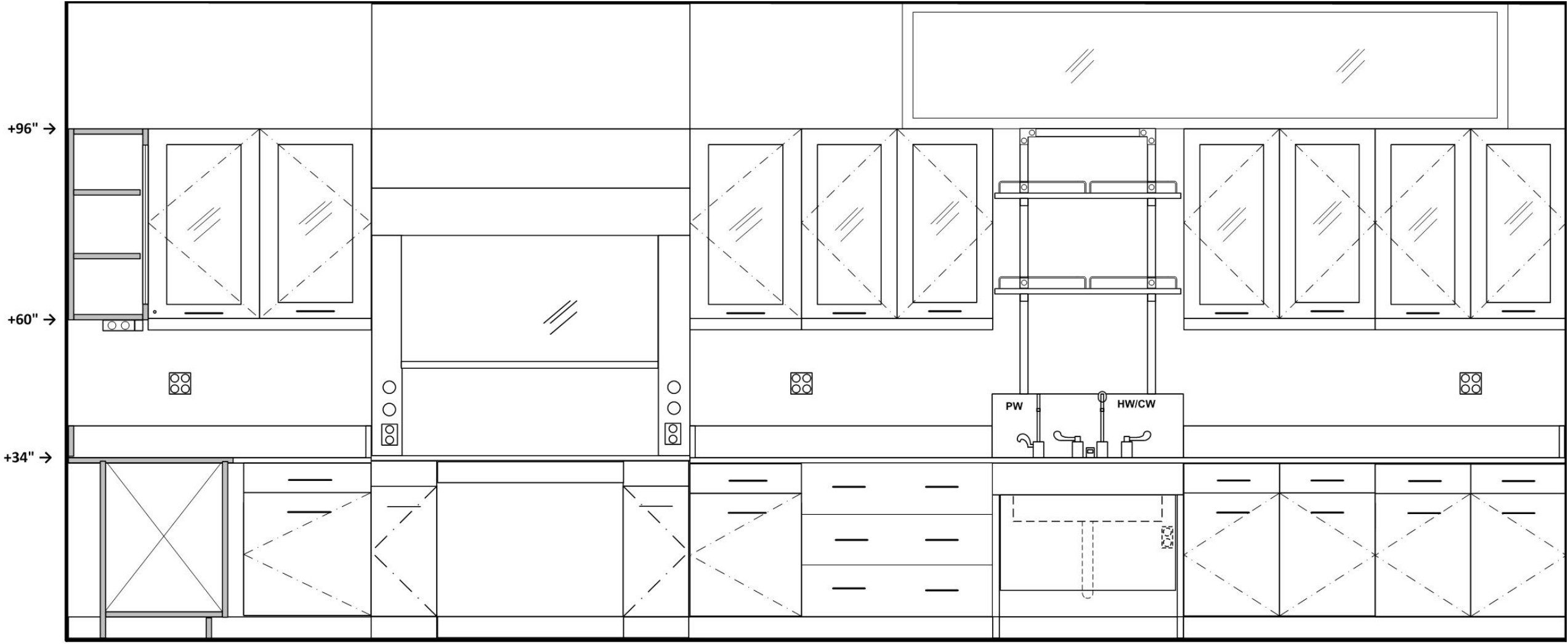
COLLEGE FURNISHED EQUIPMENT

Chairs; Digital projector
 Benchtop analytical instruments
 Document camera at demo bench
 (2) refrigerators; (3) benchtop incubators
 (9) double incubators



ELEVATION WEST WALL

Microbiology Laboratory 208



←30" →

←~24" →

←5' chemical fume hood →
accessible

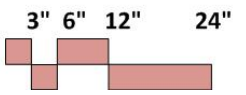
←~21" →

←36" →

←36" →

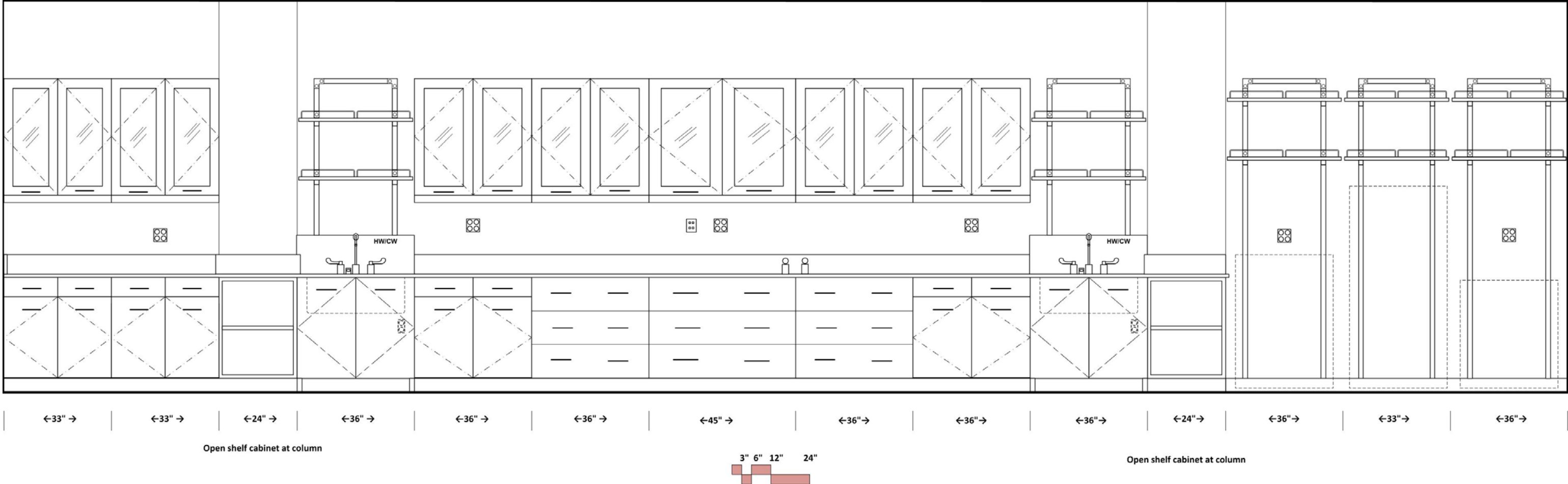
←36" →

←36" →



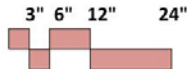
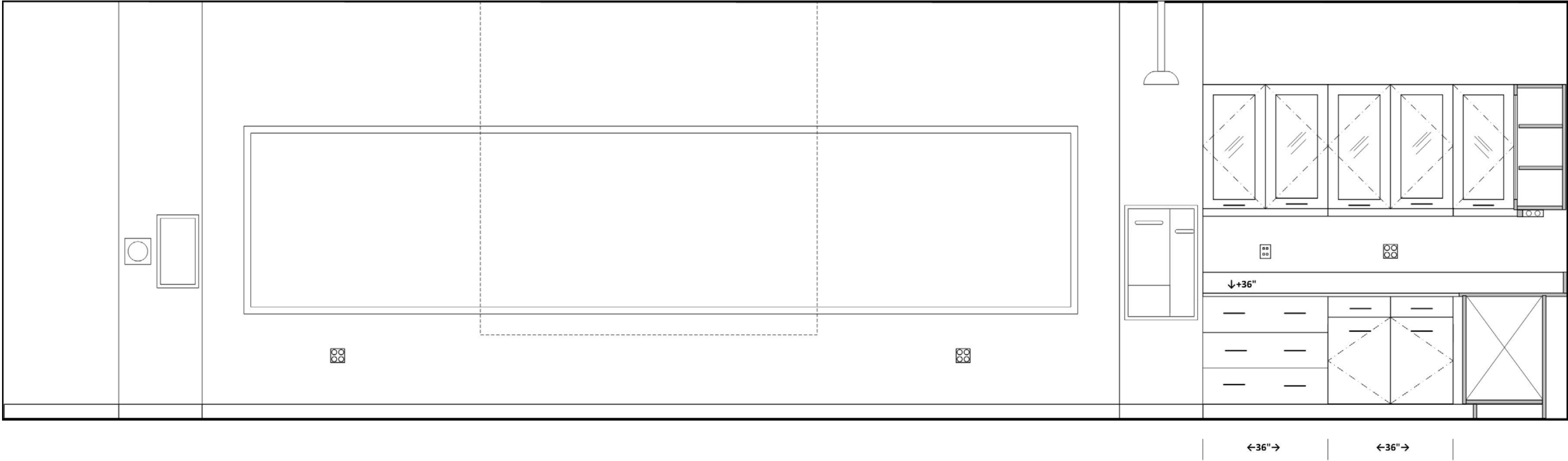
ELEVATION NORTH WALL

Microbiology Laboratory 208



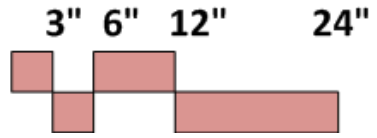
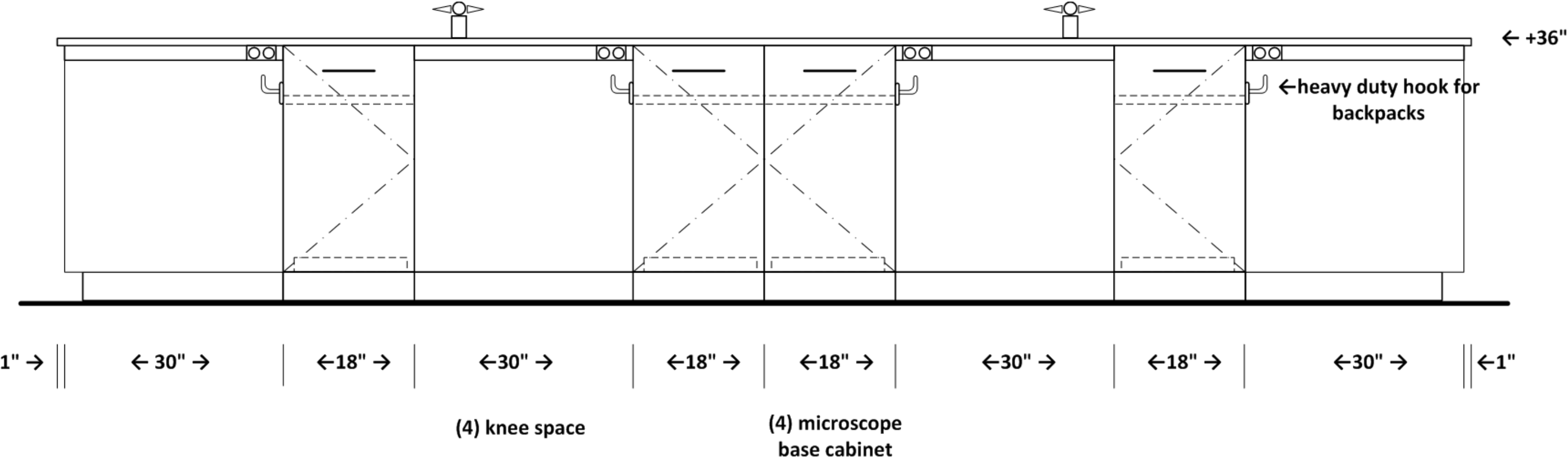
ELEVATION SOUTH WALL

Microbiology Laboratory 208



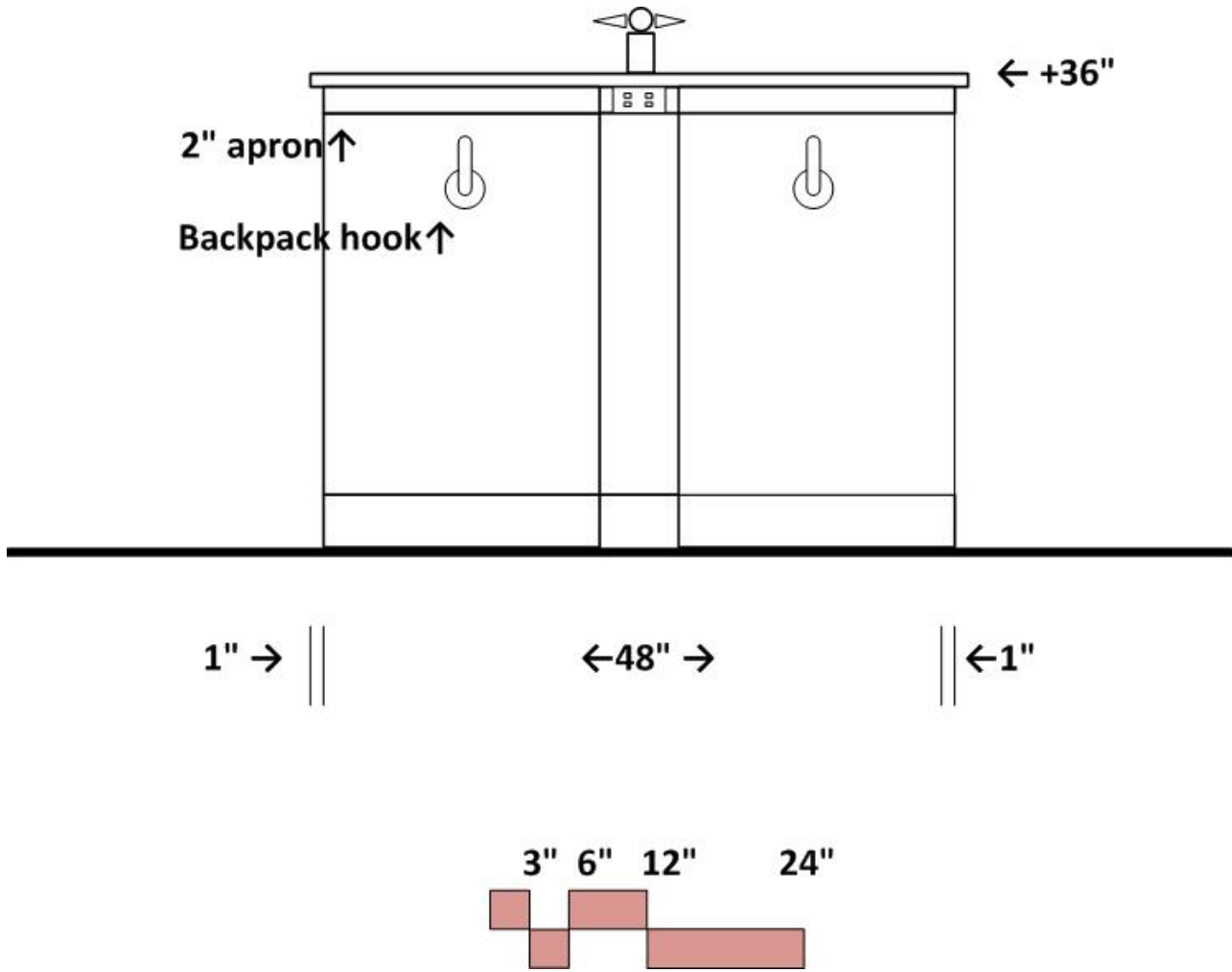
ELEVATION M

MICROBIOLOGY LABORATORY 208
STUDENT ISLAND BENCH



ELEVATION N

MICROBIOLOGY LABORATORY 208
STUDENT ISLAND BENCH



INSTRUMENT ROOM

Chemistry Labs

ARCHITECTURAL

Occupancy: B
 Floor: rubber tile & base; also consider sealed, ground concrete
 Walls: gypsum board and enamel paint
 Ceiling: 10' acoustic tile; Doors: 3⁶x8⁰ with window
 Acoustic Attenuation: NC 40 or less
 Light Attenuation: light attenuation at exterior windows
 Clerestory window at east wall above fume hood and wall cabinets
 Accessibility: workstation, sink, fume hood; Security: key access

STRUCTURAL

Vibration attenuation: 4,000 micro inches/sec or less

MECHANICAL

Hours of operation: 6 am to 11 pm
 Temperature: 68-72 deg. F, +/- 2 deg. F; 100% exhaust- no recirculation of air
 Exhaust on emergency power supply
 -(6) air changes per (exhaust at ceiling) hour occupied
 -(4) air changes per hour unoccupied
 Provide night set back to (4) air changes per hour from 11 pm to 6 am
 Pressure: Negative; Humidity: Ambient
 Equipment heat gain: 75 btuh/sf

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 120/208v30a1ph at LCMS, standby/dedicated circuit
 Standby power/dedicated circuits at equipment spaces
 Data junction boxes islands, perimeter; Wireless data
 Lighting: indirect fluorescent @ 60 f.c. with multi-level switching

PLUMBING

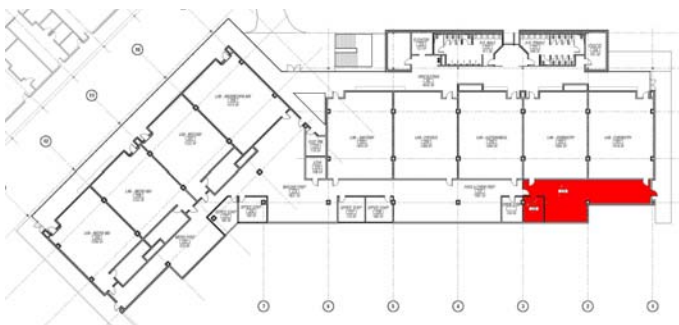
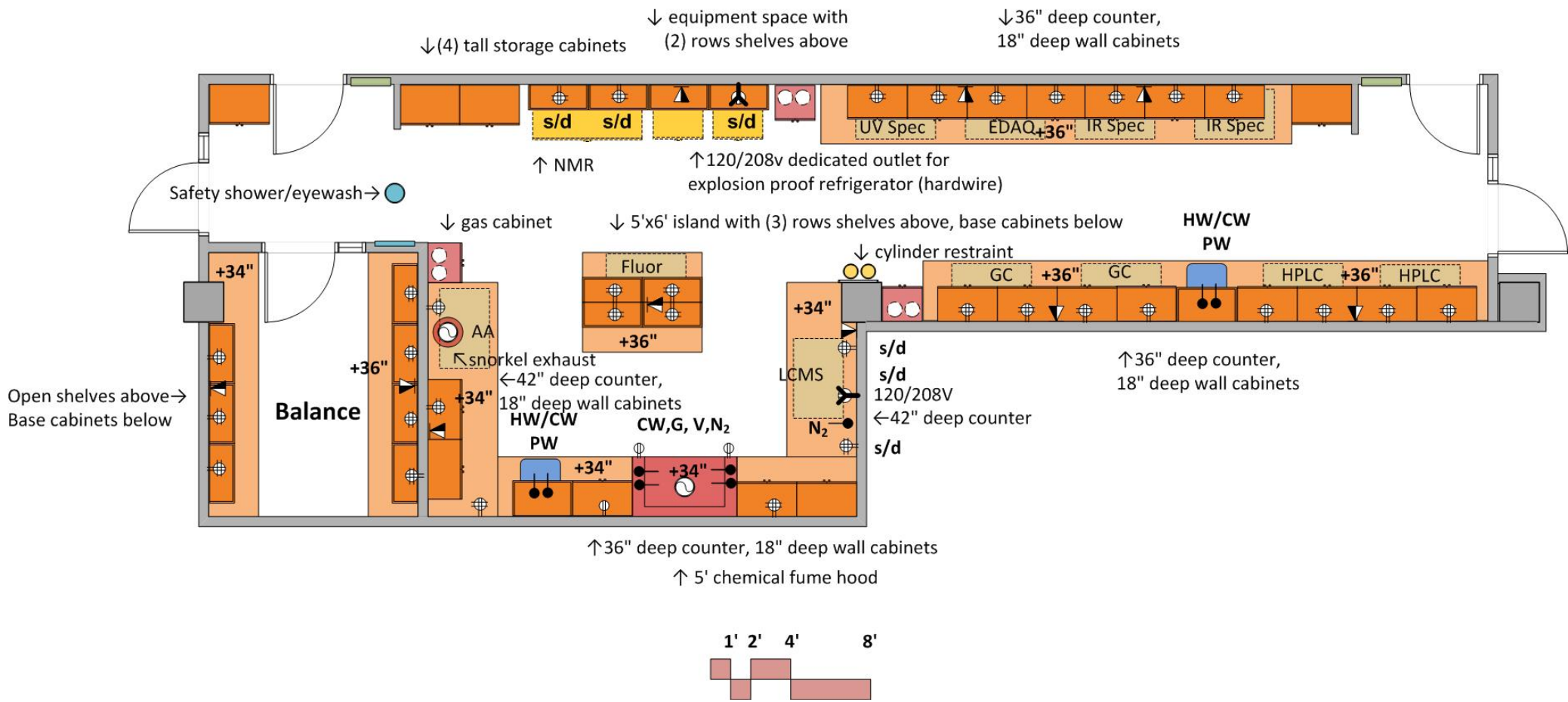
Hot/Cold water at sinks with vacuum breakers, infrared sensor
 Pure water at 2 sinks
 Cold water, gas, vacuum, and nitrogen gas at fume hood
 Nitrogen gas at LCMS bench
 nitrogen gas from nitrogen gas generator in mechanical room- relocate existing nitrogen gas generator from existing science building; requires ~5'x15' footprint
 Domestic water at safety shower

CONTRACTOR FURNISHED EQUIPMENT

Wood casework- base cabinets, wall cabinets, tall cabinets
 5' chemical fume hood- 600 c.f.m. (VAV)
 Snorkel exhaust- 150 c.f.m. (VAV)
 Gas Cabinet exhaust- 250 c.f.m. at each cabinet
 Resin tops and sinks
 Faucets & fittings

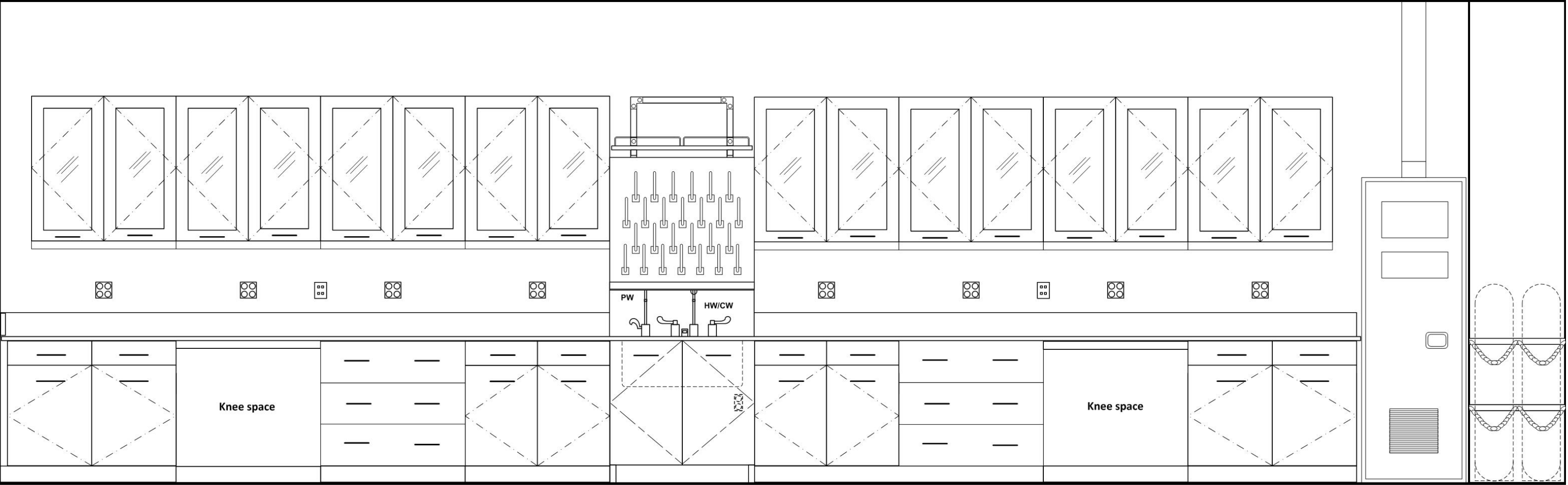
COLLEGE FURNISHED EQUIPMENT

Benchtop analytical instruments
 Scientific equipment
 (1) Atomic Absorption Unit: requires snorkel exhaust
 (1) NMR unit; (1) UV Spec
 (1) EDAQ: requires compressed air (cylinder)
 (2) IR Spec; (2) HPLC
 (2) GC: requires He, H₂, and compressed air (cylinders)
 (1) LCMS: requires 208v30a1ph power, He gas, N₂ gas
 (1) Fluoroscope
 (1) explosion proof ref.- requires hard wire elec. connection

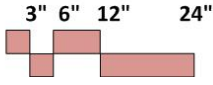


INSTRUMENT ROOM

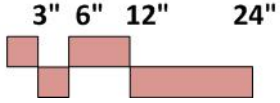
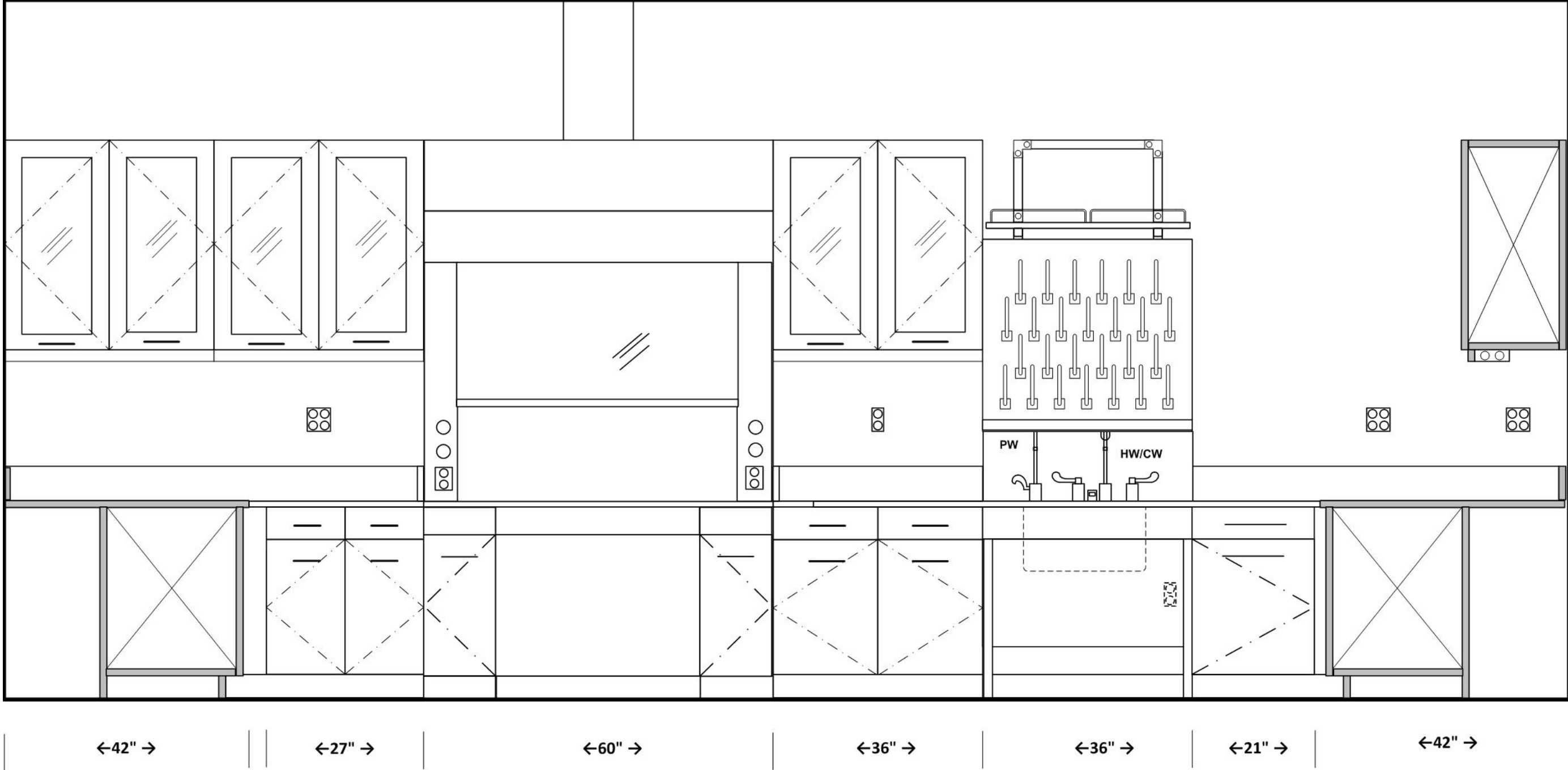
ELEVATION- EAST WALL, NORTH END



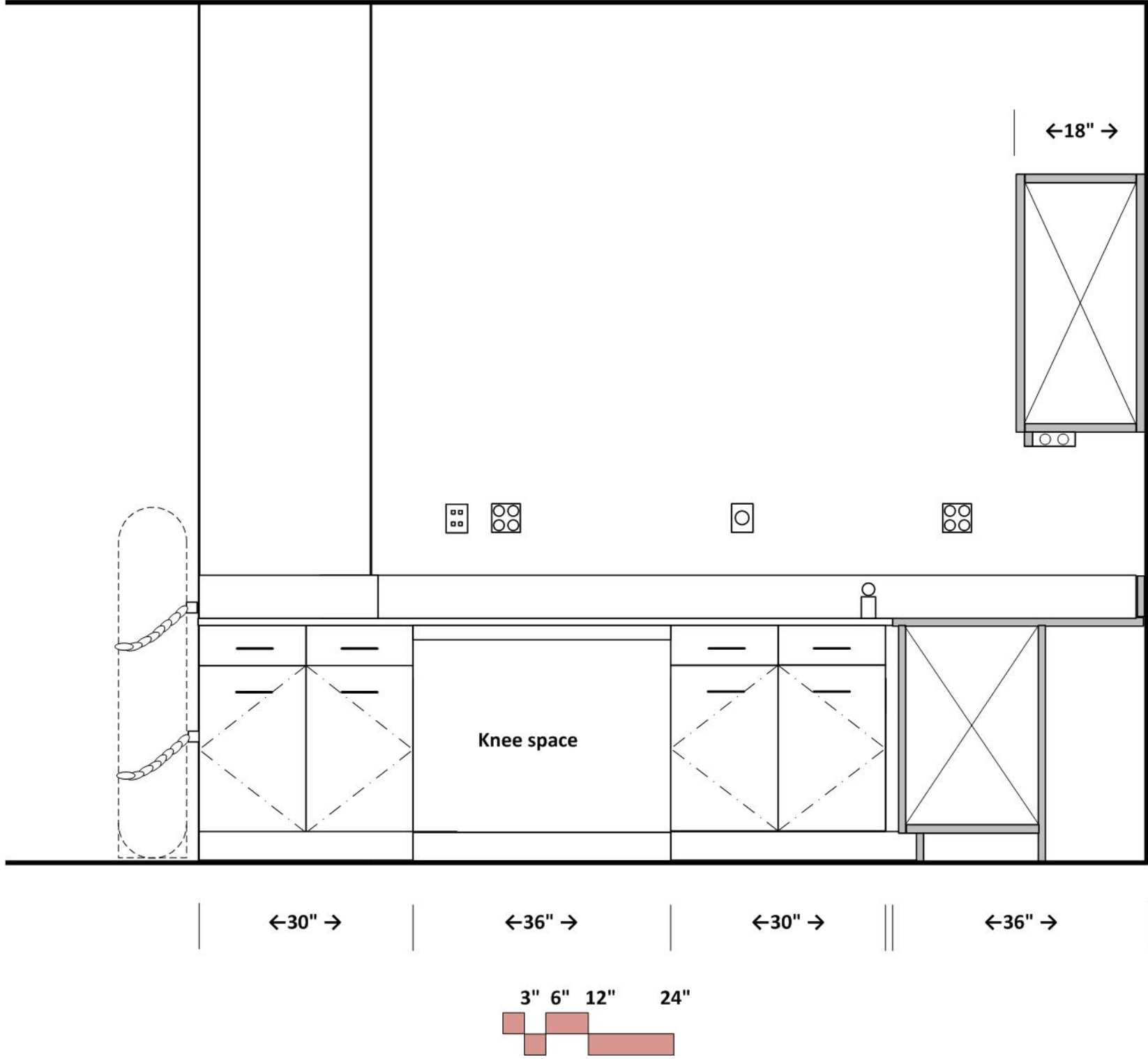
←42" → ←36" → ←36" → ←36" → ←36" → ←36" → ←36" → ←36" → ←42" →



INSTRUMENT ROOM
ELEVATION- EAST WALL, SOUTH END ALCOVE



INSTRUMENT ROOM
ELEVATION- NORTH WALL, SOUTH END ALCOVE



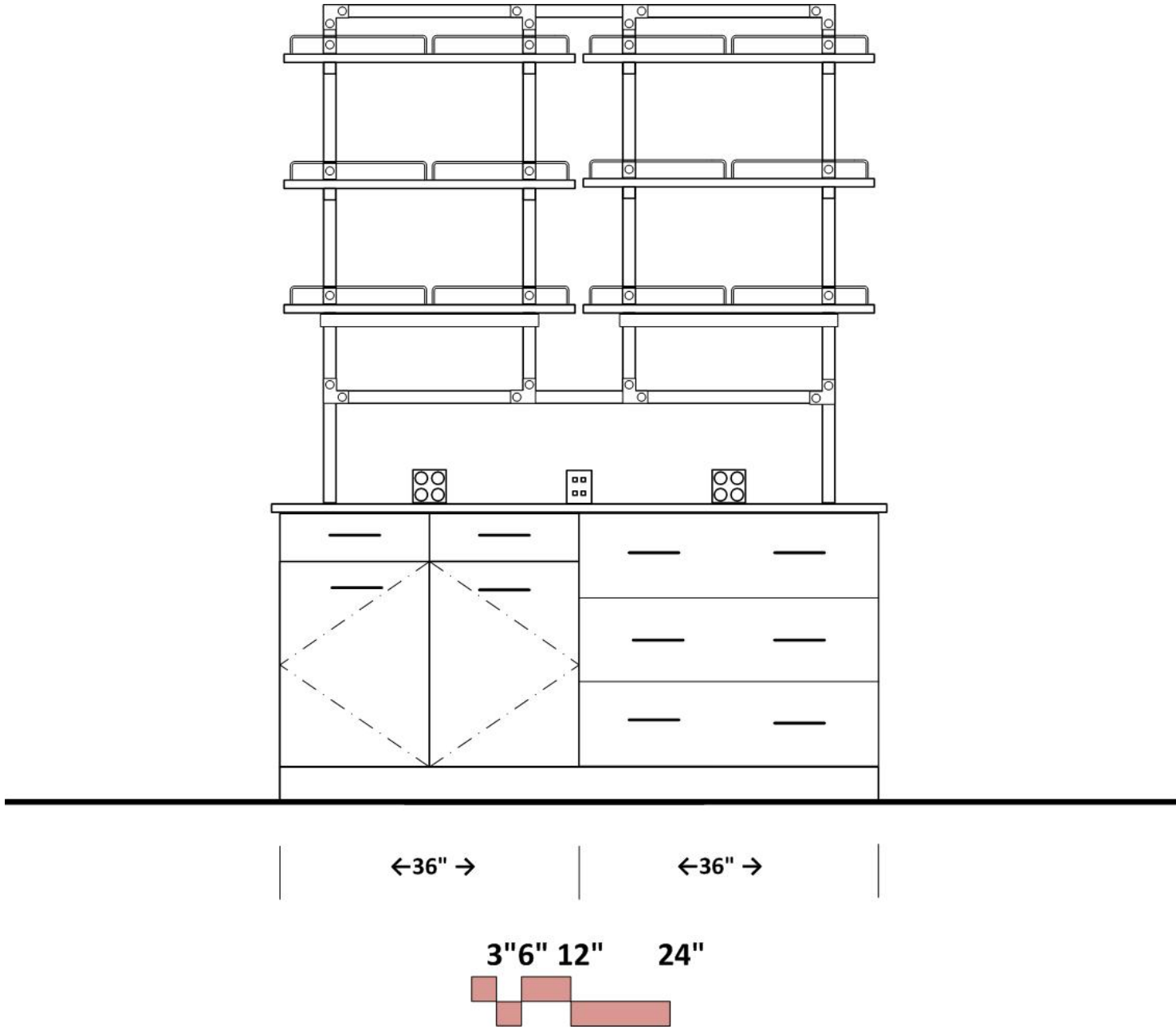
INSTRUMENT ROOM
ELEVATION- SOUTH WALL, SOUTH END ALCOVE



INSTRUMENT ROOM

ELEVATION- ISLAND, EAST SIDE

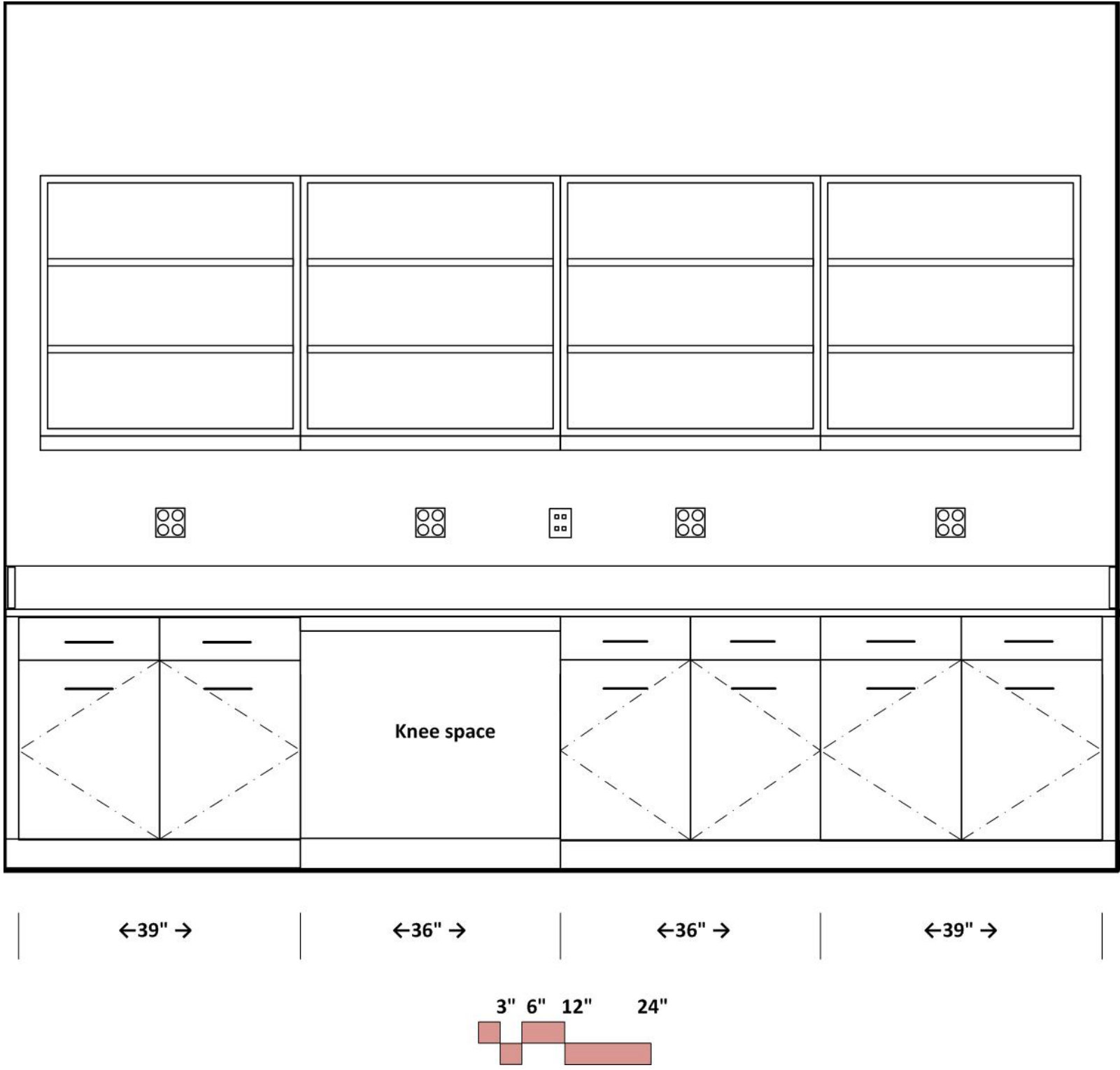
SIMILAR FOR WEST SIDE



BALANCE ROOM
ELEVATION- SOUTH WALL



BALANCE ROOM
ELEVATION- NORTH WALL



PHYSICS & CHEMISTRY PREP

ARCHITECTURAL

Occupancy: B
 Centerline dimensions: ~22'x6' not including equipment aisle adjacent to office
 Floor: rubber tile & base; also consider sealed, ground concrete
 Walls: gypsum board and enamel paint
 Ceiling: 10' acoustic tile
 Doors: 3'x8' with window
 Acoustic Attenuation: NC 40 or less
 Light Attenuation: light attenuation at exterior windows
 Clerestory window above fume hoods at east wall
 Accessibility: workstation, sink, fume hood
 Security: key access

STRUCTURAL

Vibration attenuation: 4,000 micro inches/sec or less

MECHANICAL

Hours of operation: 6 am to 11 pm
 Temperature: 68-72 deg. F, +/- 2 deg. F
 100% exhaust- no recirculation of air
 Exhaust on emergency power supply
 -(6) air changes per (exhaust at ceiling) hour occupied
 -(4) air changes per hour unoccupied
 Provide night set back to (4) air changes per hour from 10 pm to 6 am
 Pressure: Negative; Humidity: Ambient
 Equipment heat gain: 50 btuh/sf

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data junction boxes islands, perimeter
 Wireless data
 Lighting: indirect fluorescent @ 60 f.c. with multi-level switching
 Electrical panels at shaft wall- (1) 100 amp/30 circuit panel per lab

PLUMBING

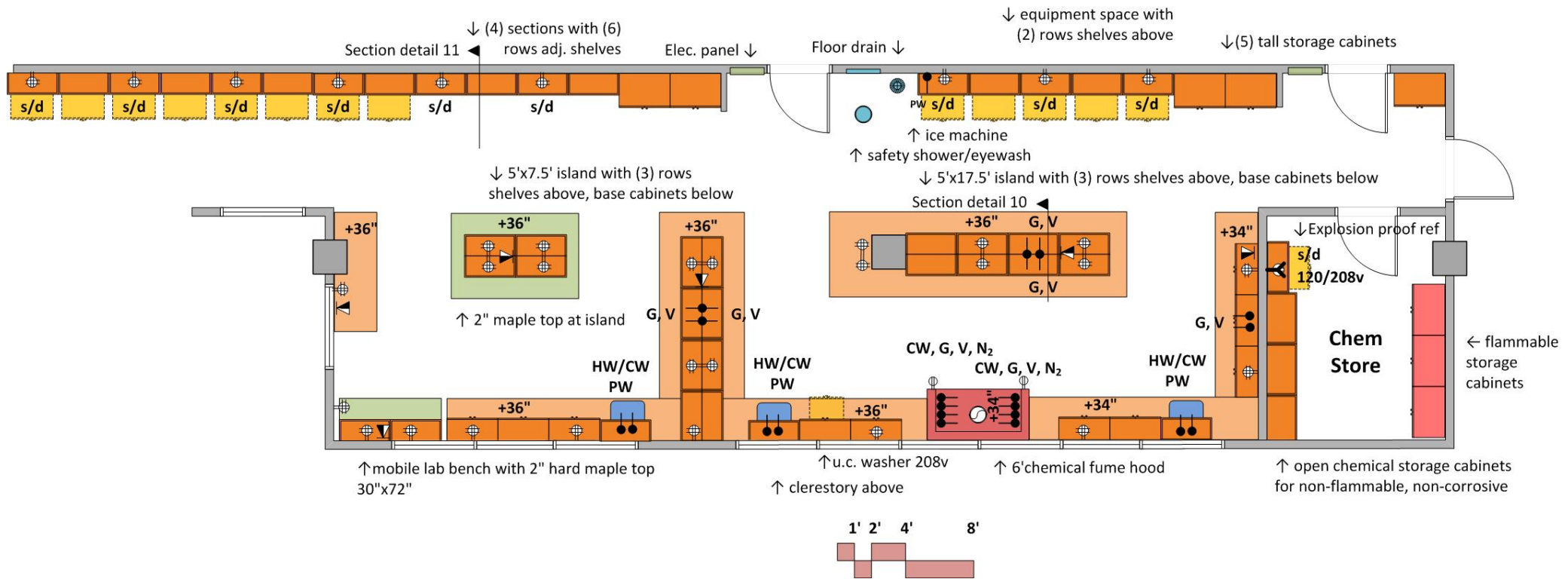
Hot/Cold water at sinks with vacuum breakers
 Pure water at sinks; pure water at ice machine
 Softened water at undercounter glassware washer
 Sinks at perimeter bench
 Cold water, gas, vacuum, nitrogen gas at fume hood
 Domestic water at safety shower/eyewash

CONTRACTOR FURNISHED EQUIPMENT

Wood casework- base cabinets, wall cabinets, tall cabinets
 Mobile lab bench with maple top
 Island with maple top
 Resin tops and sinks
 undercounter glassware washer
 Faucets & fittings
 6' Chemical Fume Hood- 750 cfm exhaust (VAV)

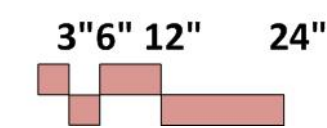
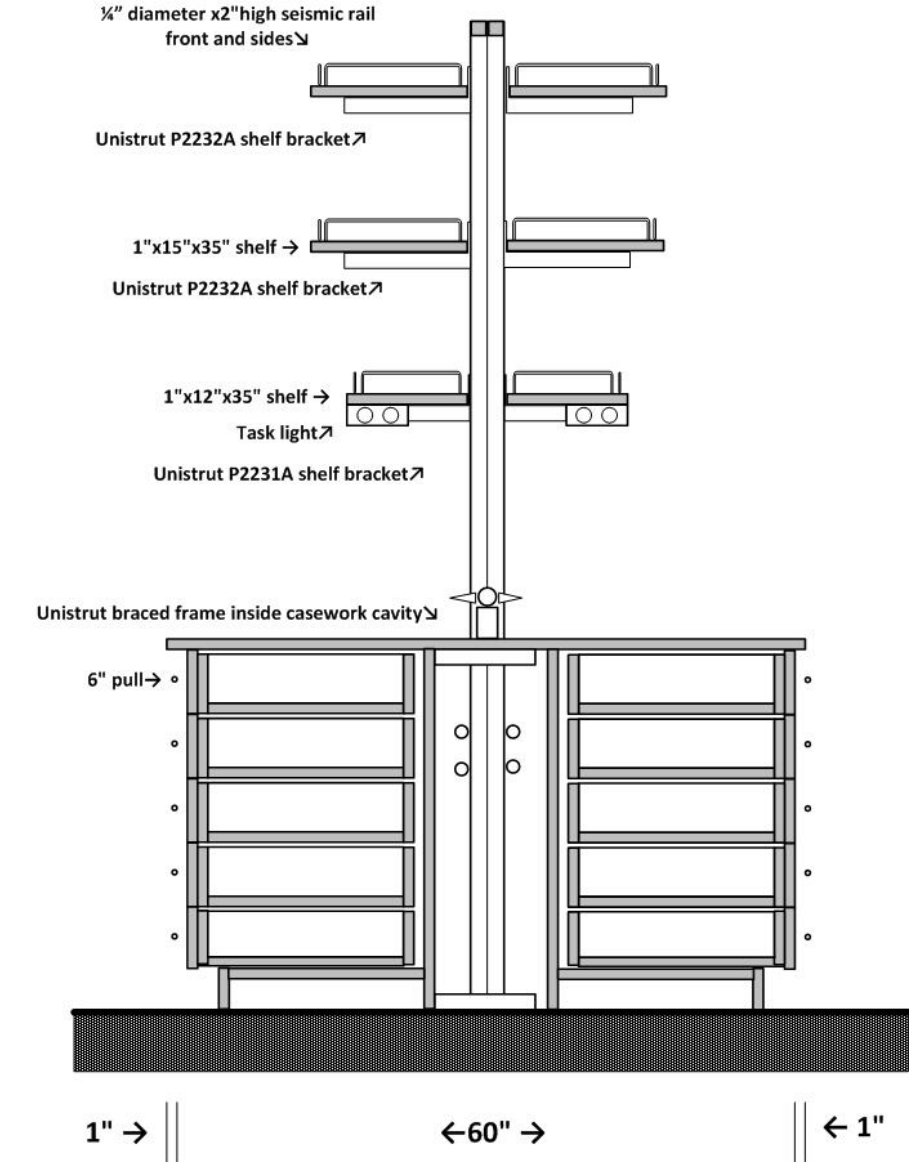
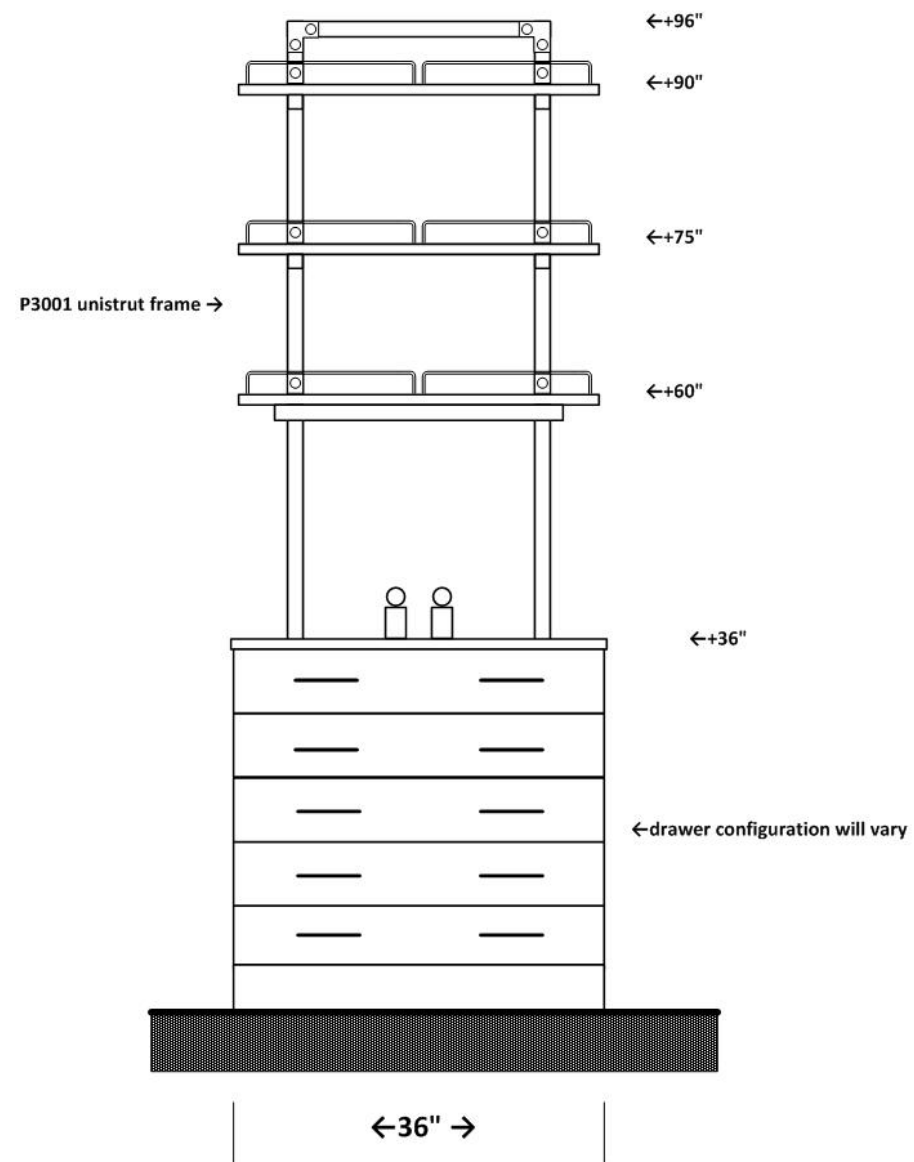
COLLEGE FURNISHED EQUIPMENT

Chairs
 Benchtop analytical instruments
 Scientific equipment
 Refrigerators, freezers
 ice machine



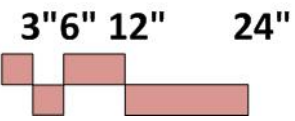
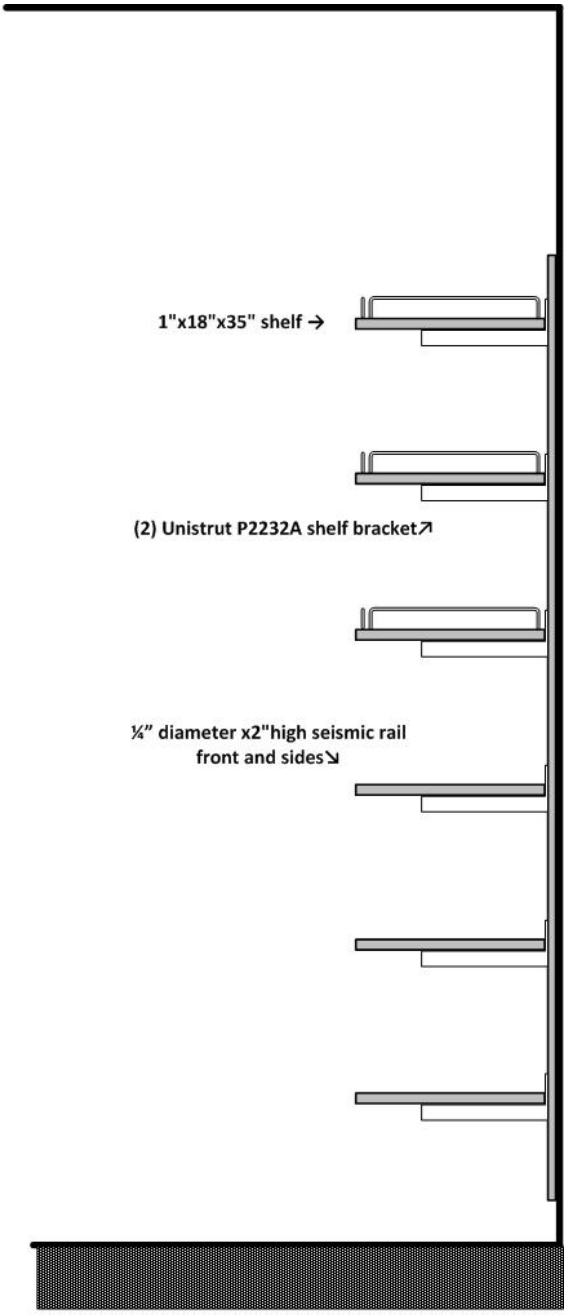
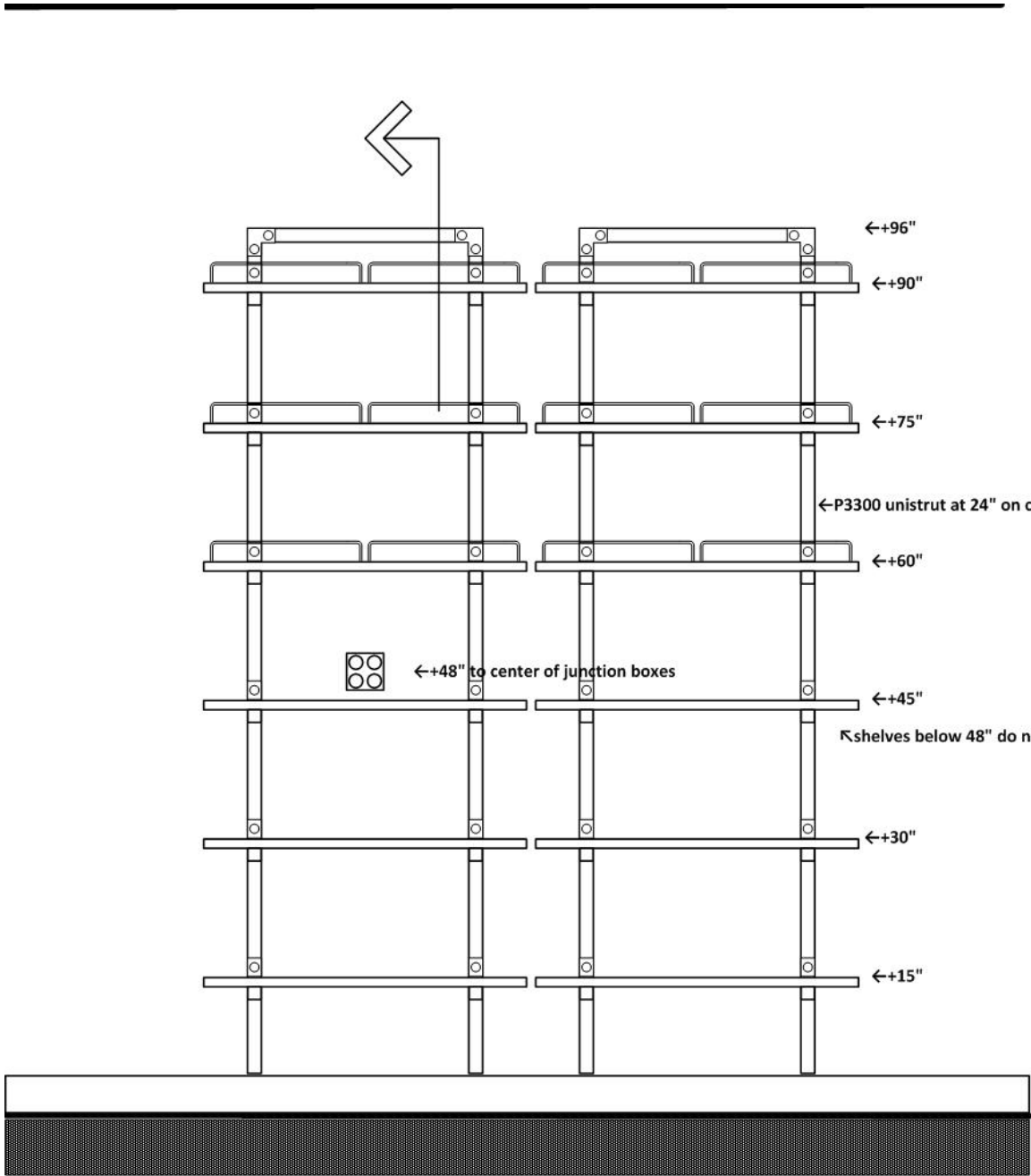
SECTION DETAIL 10

Island bench in chem prep
Similar for all prep area islands



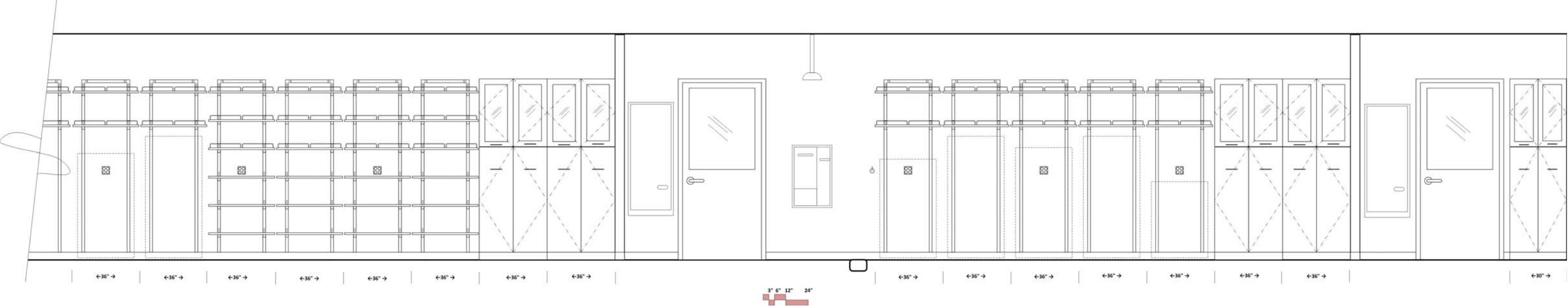
SECTION DETAIL 11

full height adjustable shelving



PHYSICS & CHEMISTRY PREP

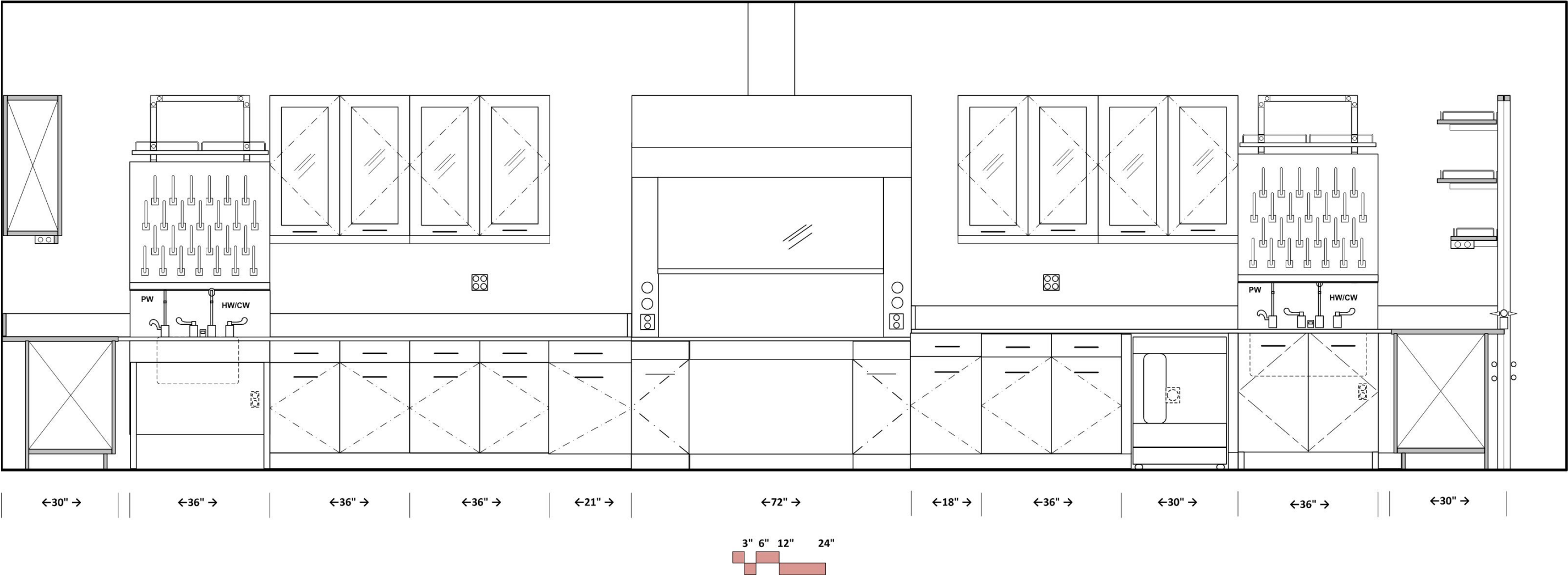
ELEVATION- WEST WALL PARTIAL



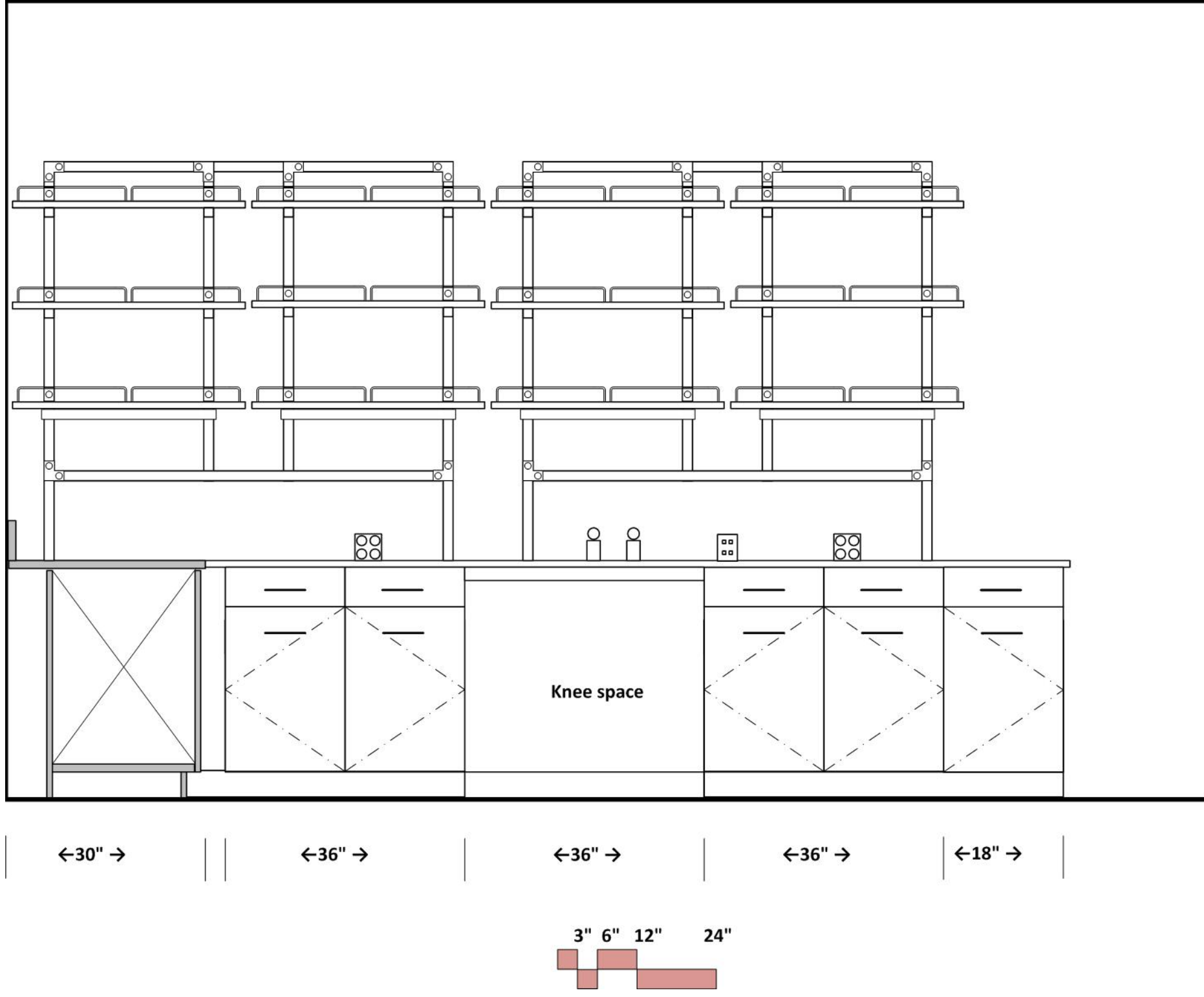
PHYSICS & CHEMISTRY PREP
ELEVATION- NORTH WALL, NORTH ALCOVE



PHYSICS & CHEMISTRY PREP
ELEVATION- EAST WALL, NORTH ALCOVE



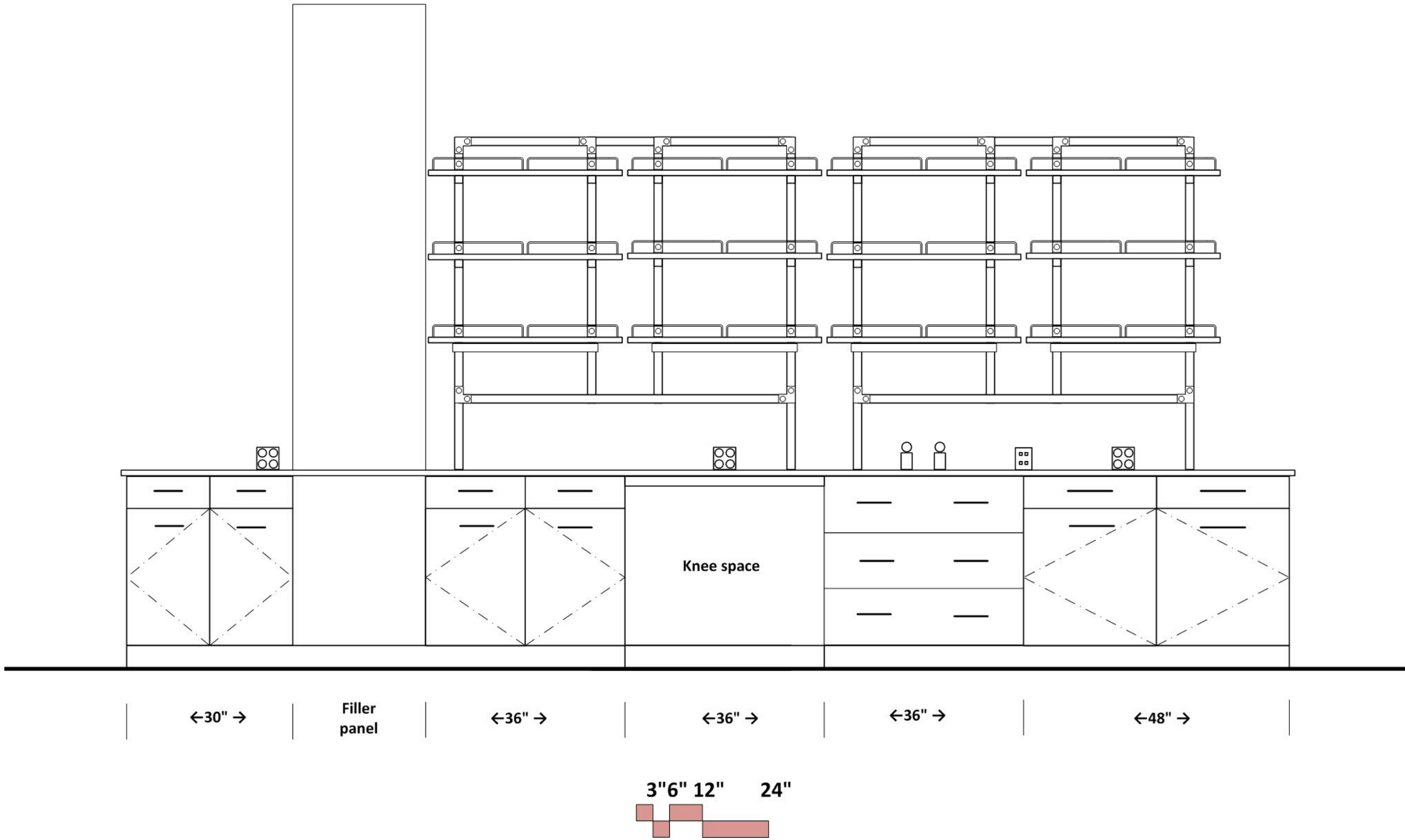
PHYSICS & CHEMISTRY PREP
ELEVATION- NORTH SIDE OF PENINSULA, NORTH ALCOVE
MIRROR IMAGE FOR SOUTH SIDE OF PENINSULA



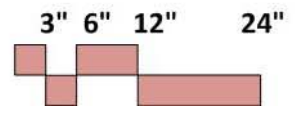
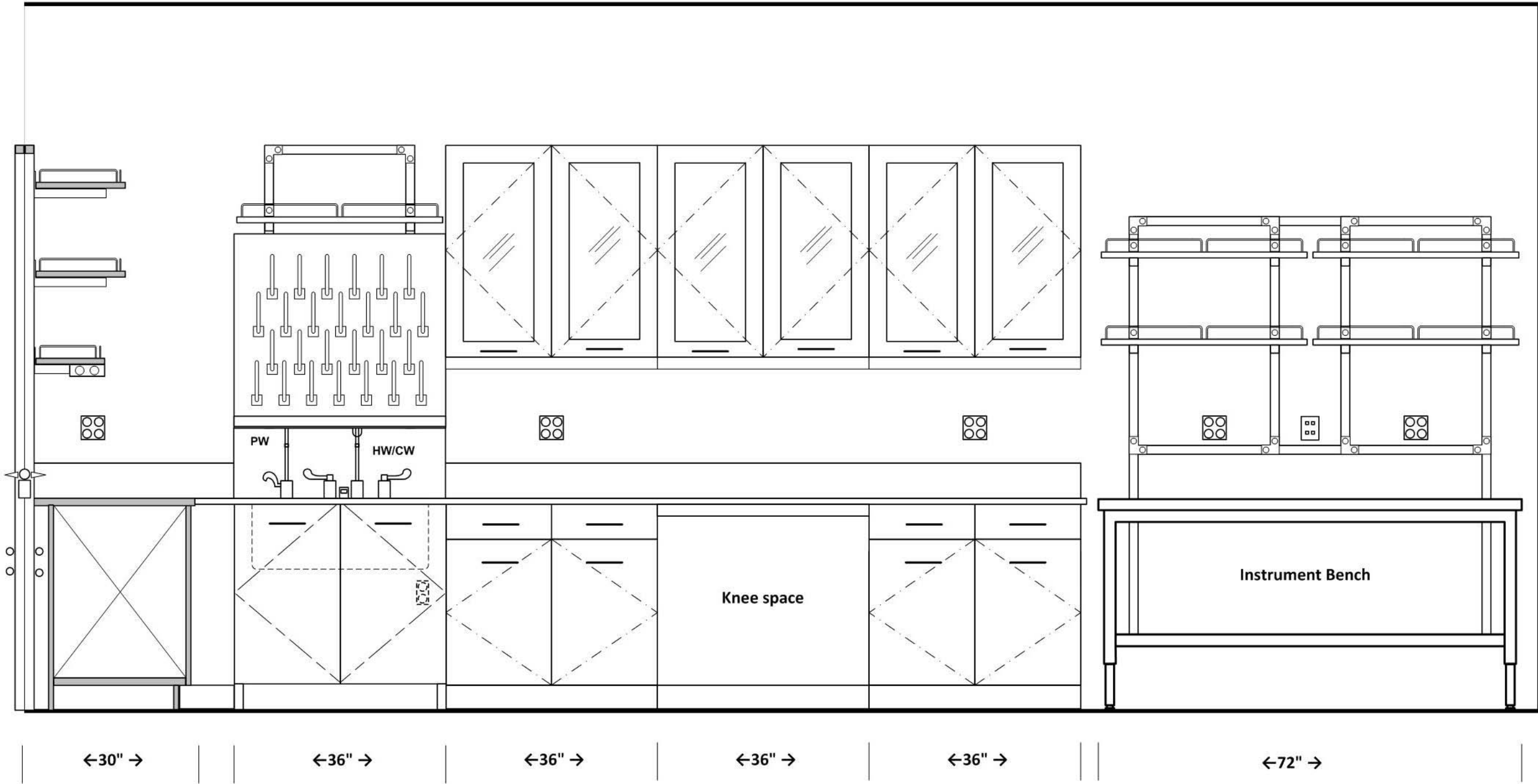
PHYSICS & CHEMISTRY PREP

ELEVATION- EAST SIDE OF ISLAND, NORTH ALCOVE

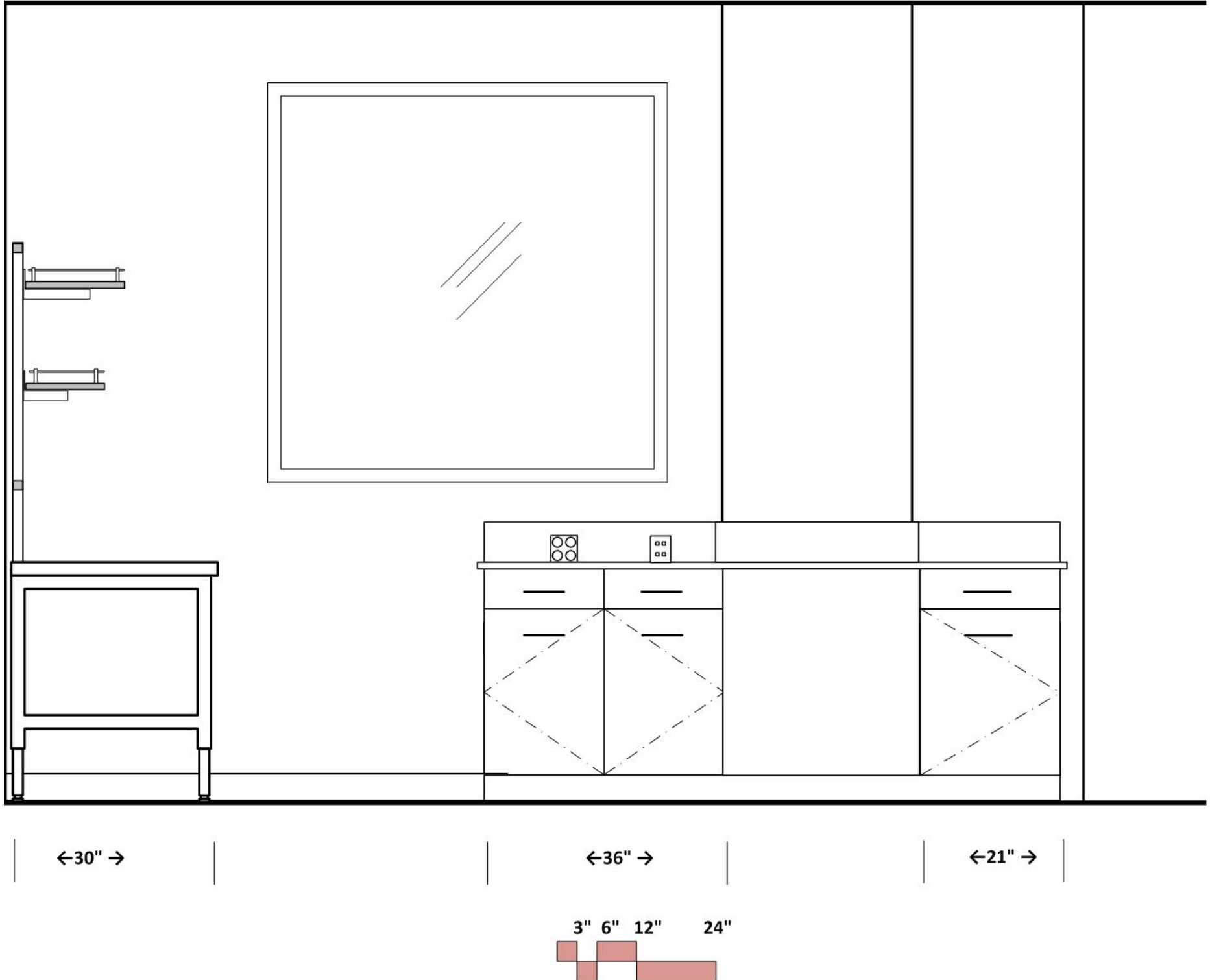
MIRROR IMAGE FOR WEST SIDE OF ISLAND



PHYSICS & CHEMISTRY PREP
ELEVATION- EAST WALL, SOUTH ALCOVE



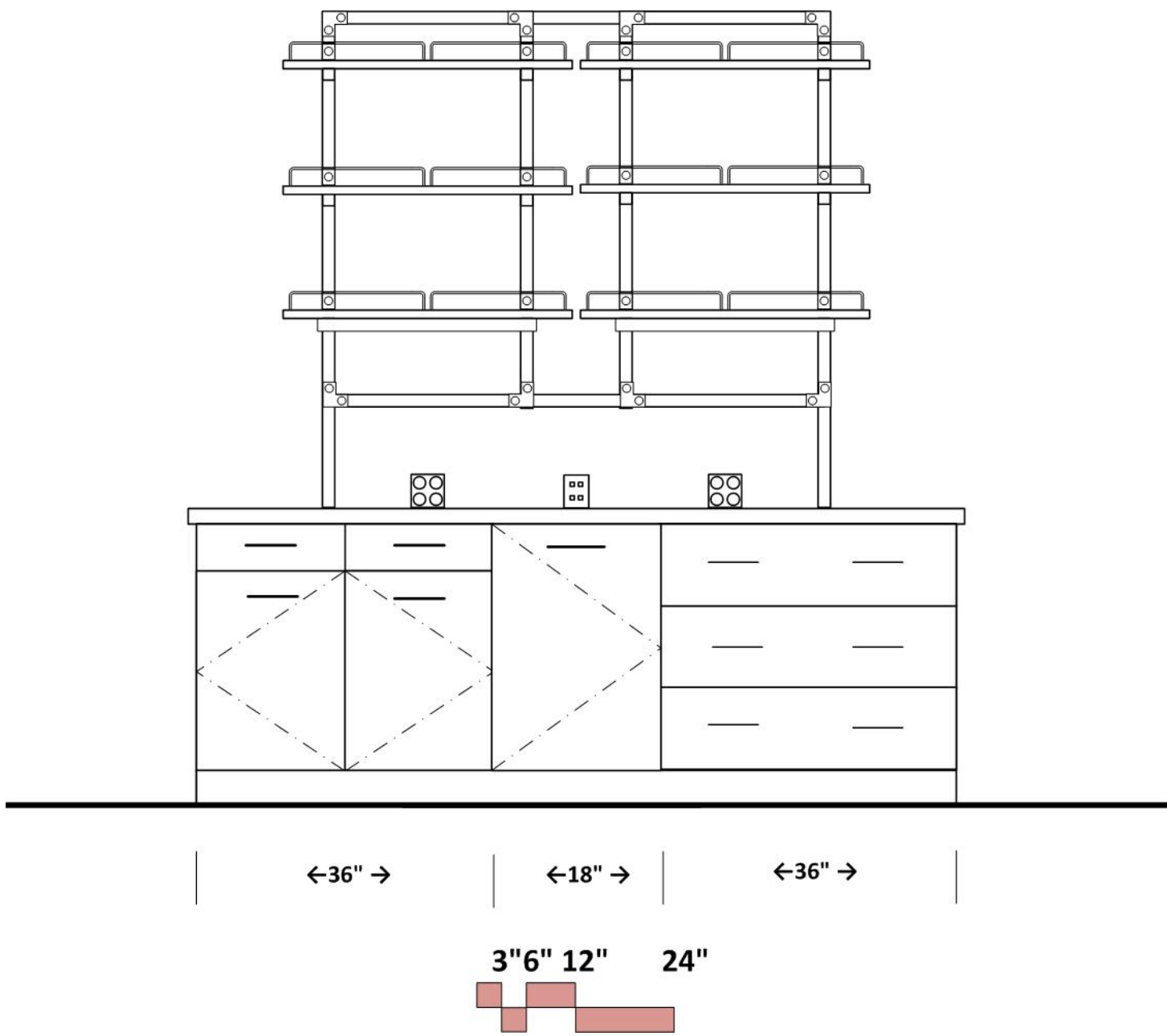
PHYSICS & CHEMISTRY PREP
ELEVATION- SOUTH WALL, SOUTH ALCOVE



PHYSICS & CHEMISTRY PREP

ELEVATION- EAST SIDE OF ISLAND, SOUTH ALCOVE

MIRROR IMAGE FOR WEST SIDE OF ISLAND



BIOLOGY PREP



ARCHITECTURAL

Occupancy: B; Floor: rubber tile & base; also consider sealed, ground concrete
 Walls: gypsum board and enamel paint
 Ceiling: 10' acoustic tile
 Doors: 3'x8' with window
 Acoustic Attenuation: NC 40 or less
 Light Attenuation: light attenuation at exterior windows
 Clerestory window above wall bench at east wall
 Accessibility: workstation, sink, fume hood
 Security: key access

STRUCTURAL

Vibration attenuation: 4,000 micro inches/sec or less

MECHANICAL

Hours of operation: 6 am to 11 pm
 Temperature: 68-72 deg. F, +/- 2 deg. F
 100% exhaust- no recirculation of air
 Exhaust on emergency power supply
 -(6) air changes per (exhaust at ceiling) hour occupied
 -(4) air changes per hour unoccupied
 Provide night set back to (4) air changes per hour from 10 pm to 6 am
 Pressure: Negative; Humidity: Ambient
 Equipment heat gain: 50 btuh/sf
 12 air changes per hour in Anatomy Store with high exhaust at ceiling, low exhaust at west wall

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Standby/dedicated power at equipment spaces
 Data junction boxes islands, perimeter
 Wireless data
 Lighting: indirect fluorescent @ 60 f.c. with multi-level switching
 Electrical panels at shaft wall- (1) 100 amp/30 circuit panel per lab

PLUMBING

Hot/Cold water at sinks with vacuum breakers
 Pure water at sinks; pure water at ice machine
 Softened water at u.c. washer
 Sinks at perimeter bench
 Domestic water at safety shower/eyewash
 Floor drain at ice machine

CONTRACTOR FURNISHED EQUIPMENT

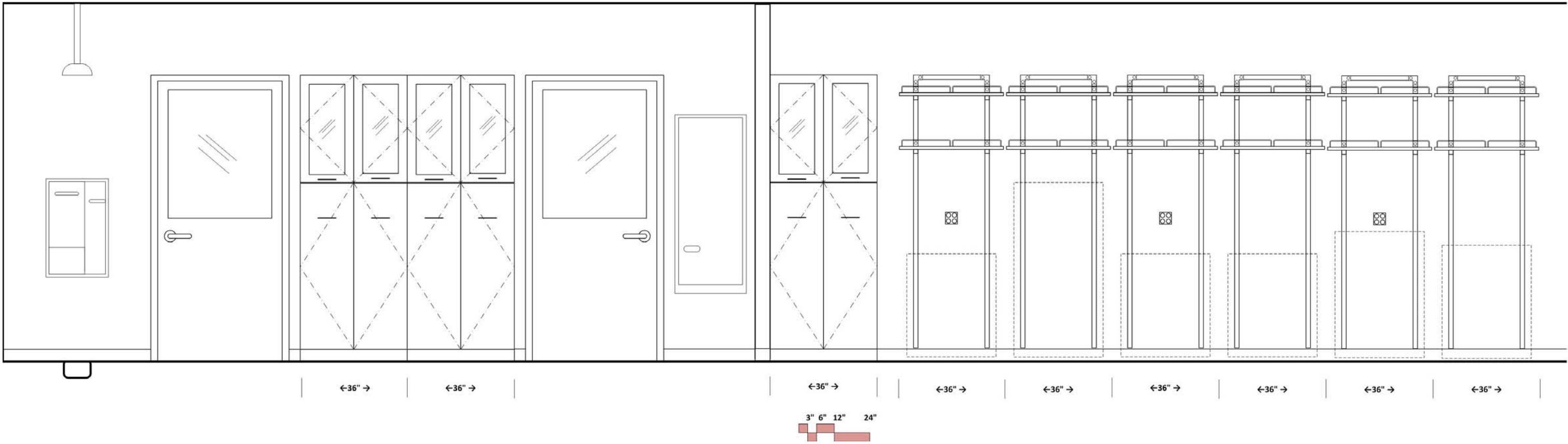
Wood casework- base cabinets, wall cabinets, tall cabinets
 Resin tops and sinks
 Faucets & fittings
 5' Chemical fume hood- 600 c.f.m. (VAV)

COLLEGE FURNISHED EQUIPMENT

Chairs
 Benchtop analytical instruments
 Scientific equipment
 Refrigerators, freezers
 ice machine



BIOLOGY PREP
ELEVATION- WEST WALL OPPOSITE OFFICES

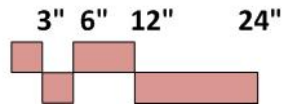
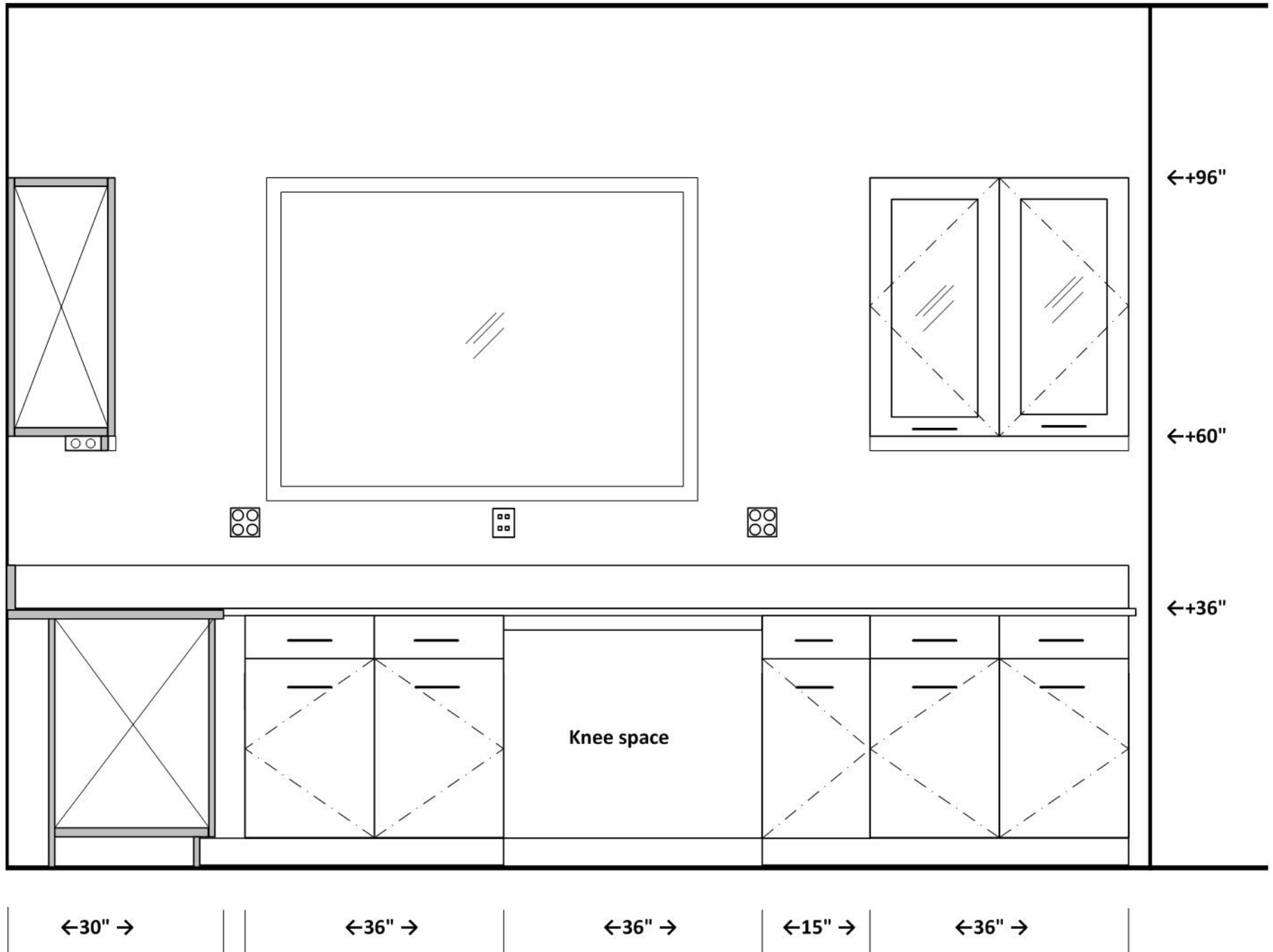


BIOLOGY PREP

ELEVATION- EAST WALL OF ALCOVE

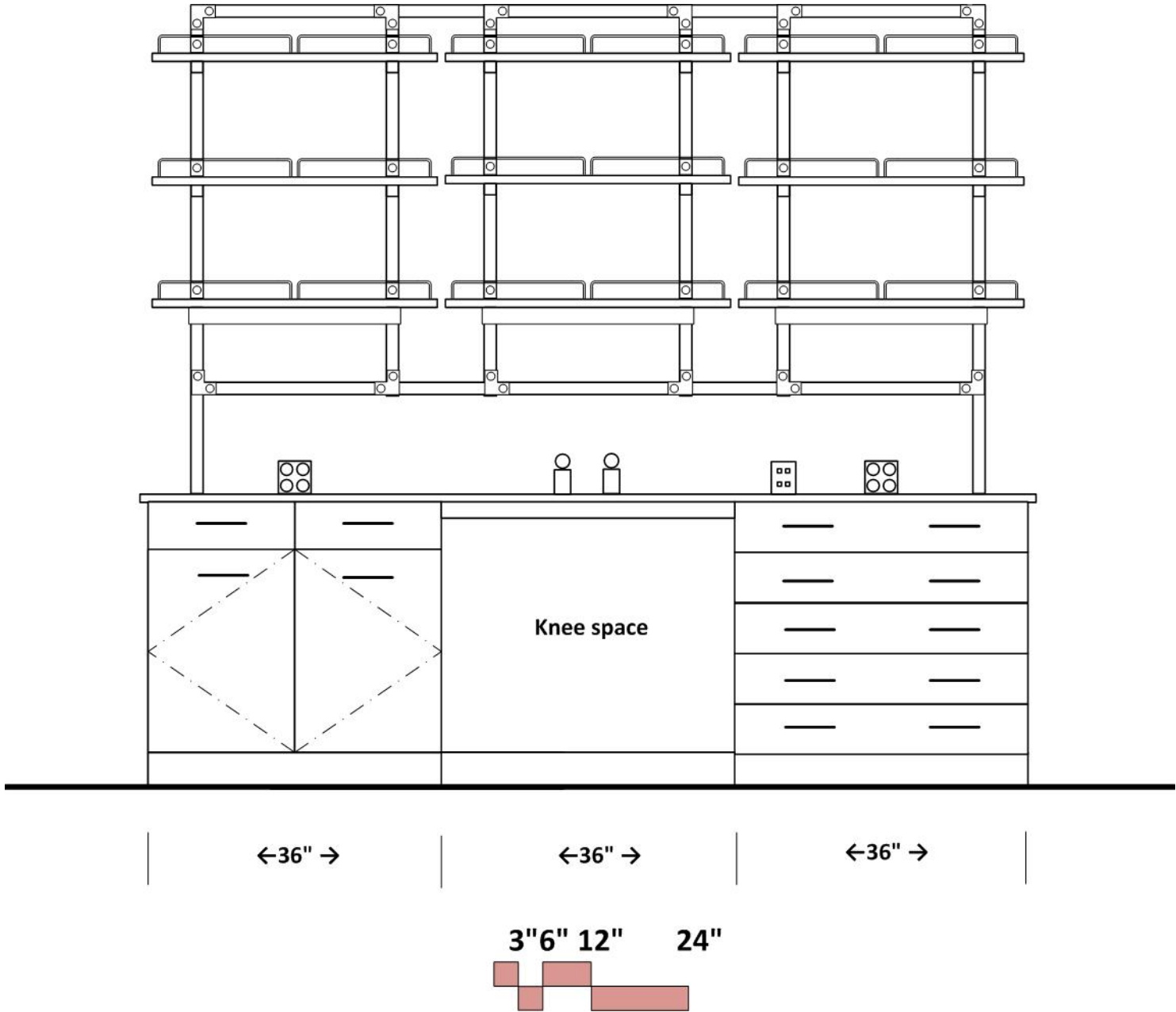


BIOLOGY PREP
ELEVATION- SOUTH WALL OF ALCOVE



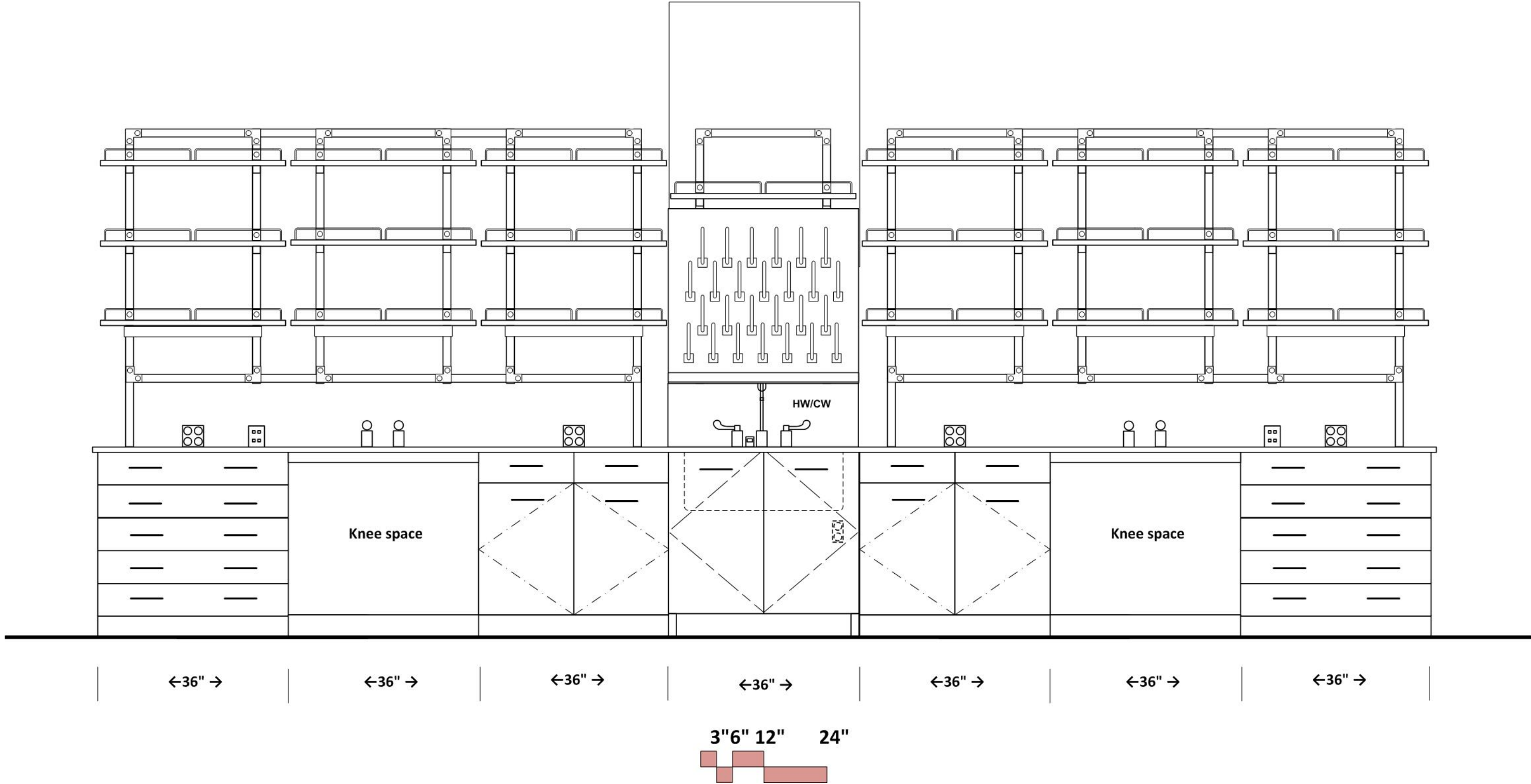
BIOLOGY PREP

ELEVATION- ISLANDS AT ALCOVE, EAST SIDE
TYPICAL FOR BOTH ISLANDS

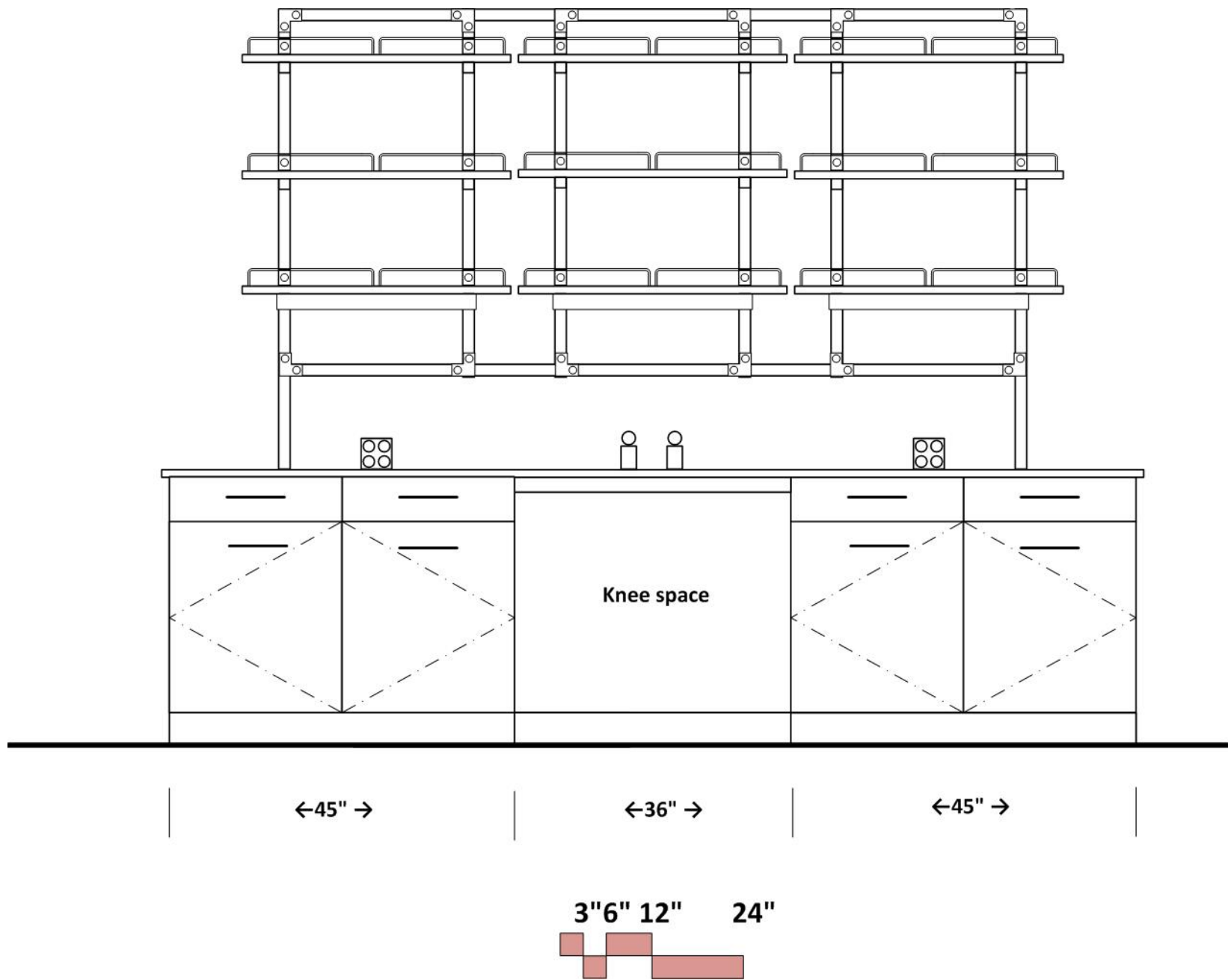


BIOLOGY PREP

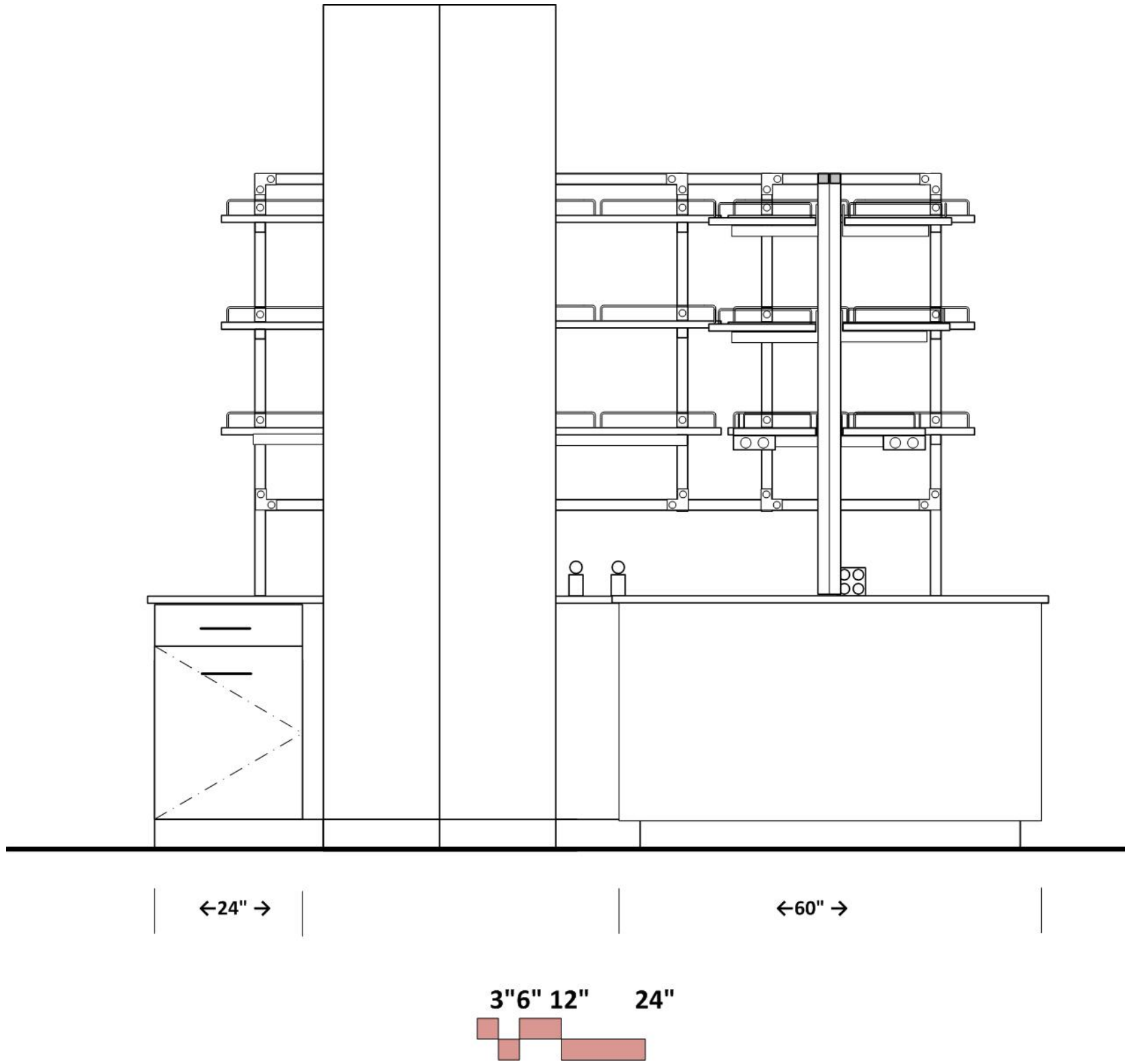
ELEVATION- NORTH ISLAND, SOUTH SIDE
SIMILAR FOR NORTH SIDE OF ISLAND



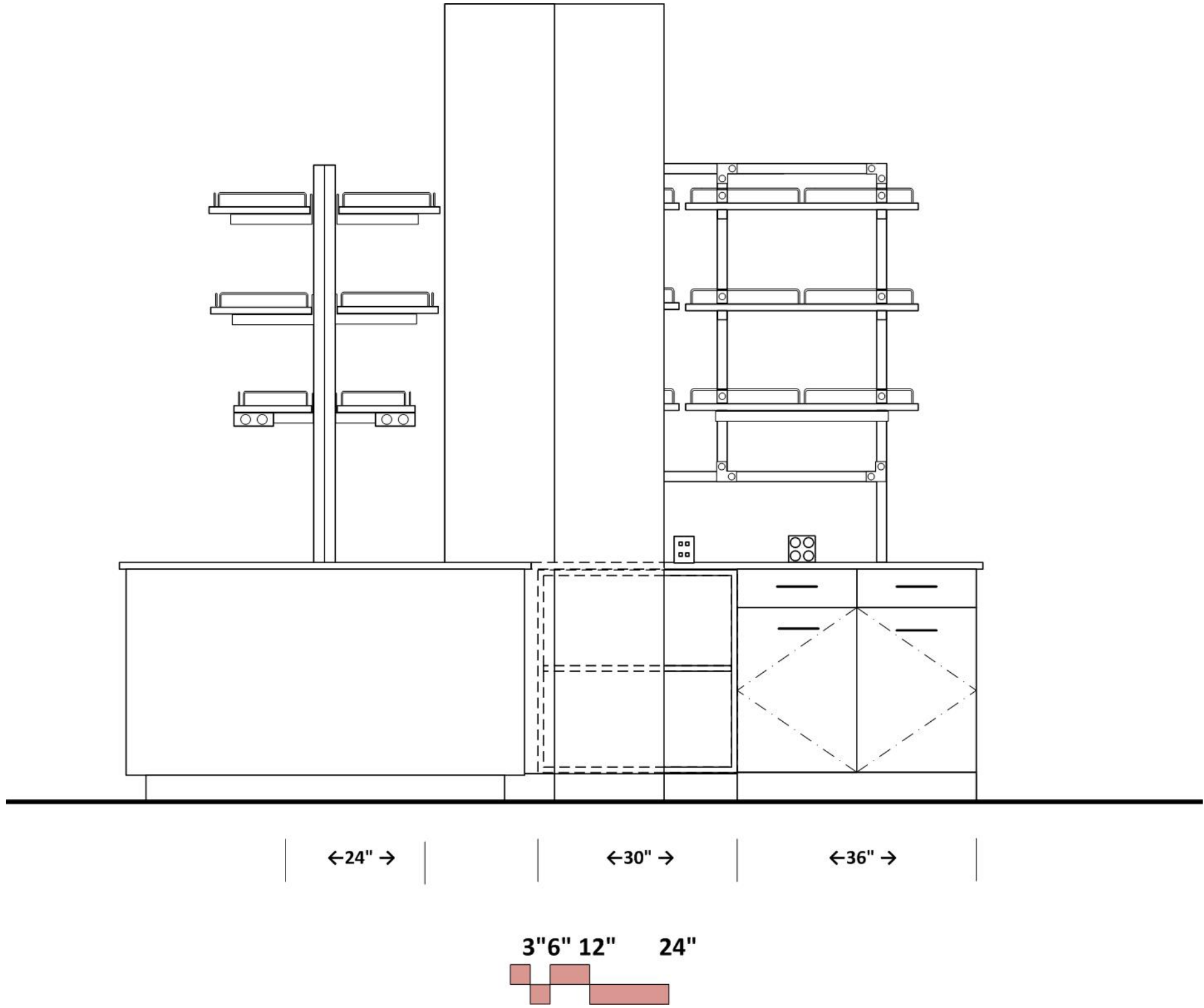
BIOLOGY PREP
ELEVATION- SOUTH ISLAND, NORTH SIDE



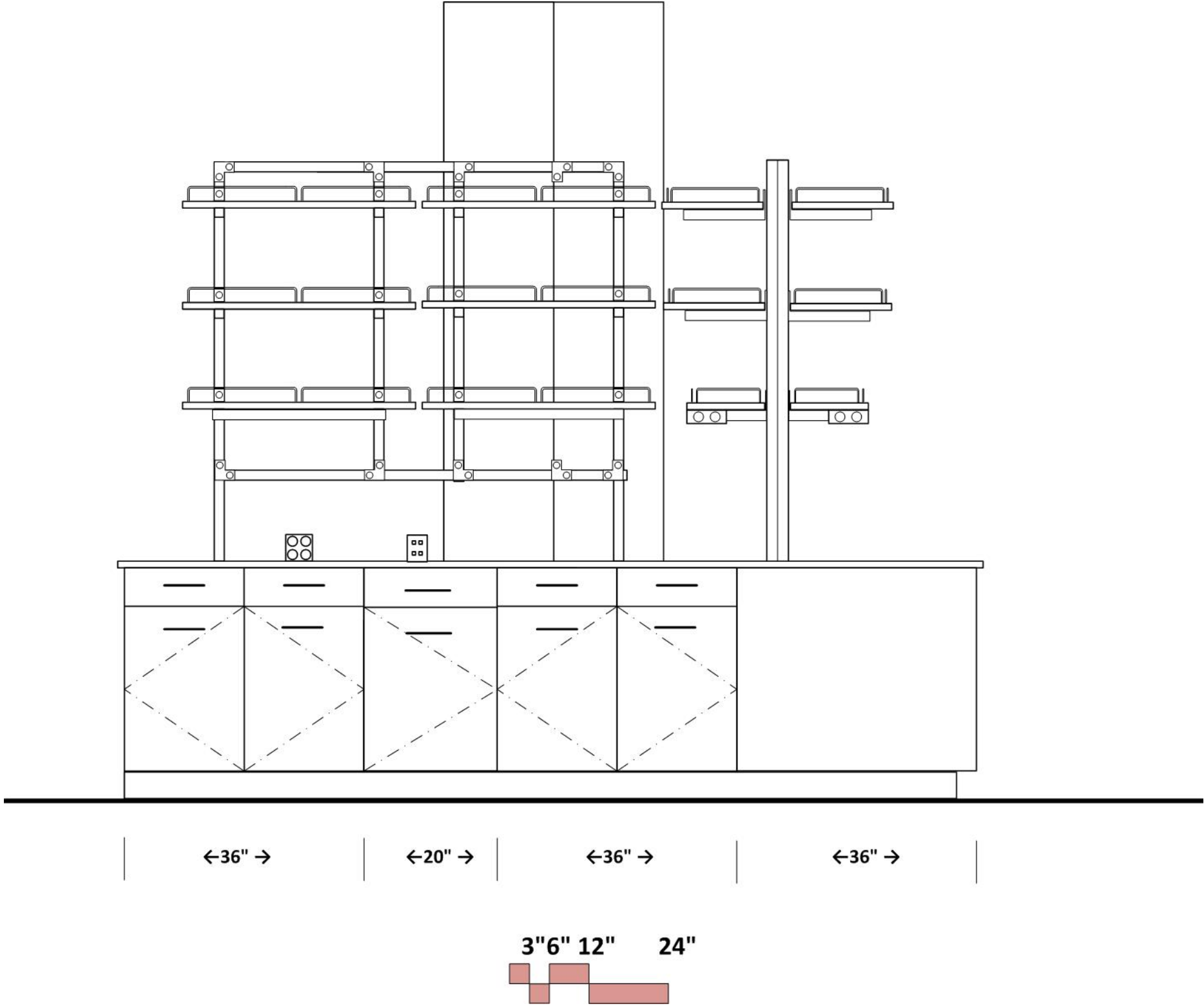
BIOLOGY PREP
ELEVATION- SOUTH ISLAND, SOUTH SIDE



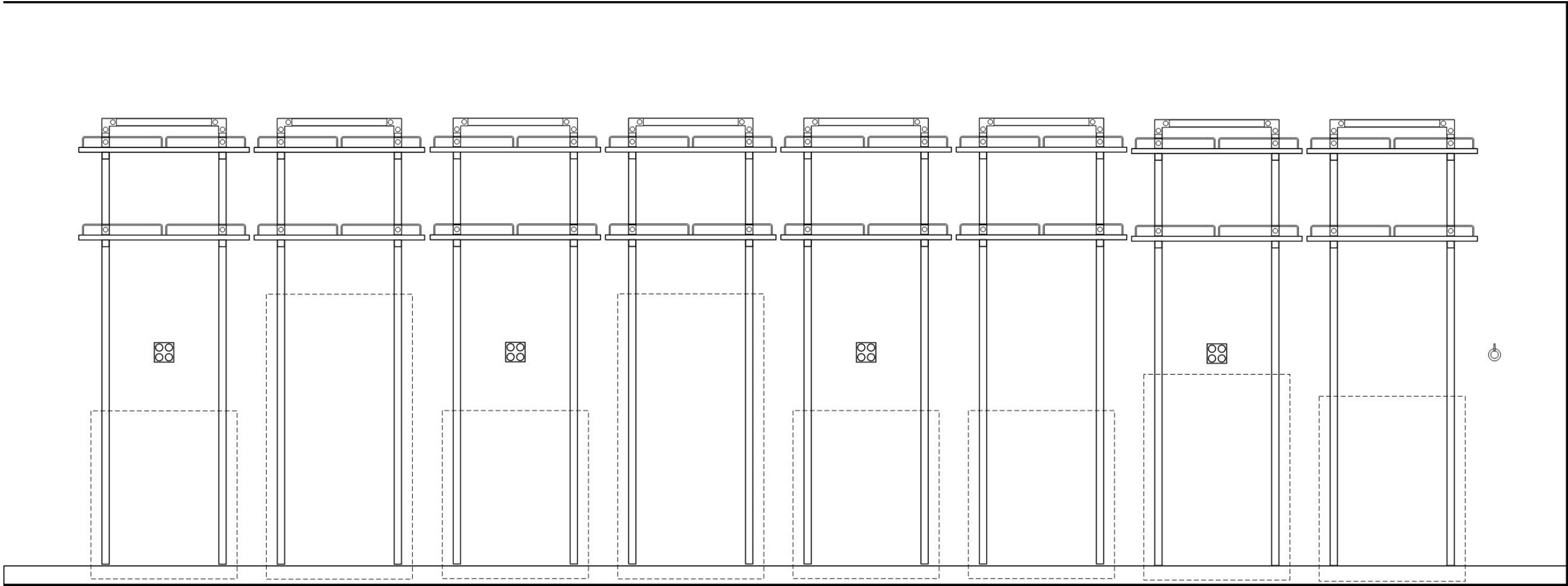
BIOLOGY PREP
ELEVATION- SOUTH ISLAND, EAST SIDE



BIOLOGY PREP
ELEVATION- SOUTH ISLAND, WEST SIDE



BIOLOGY PREP
ELEVATION- NORTH WALL



←36" →

←36" →

←36" →

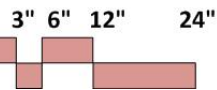
←36" →

←36" →

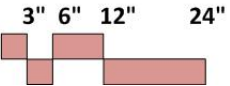
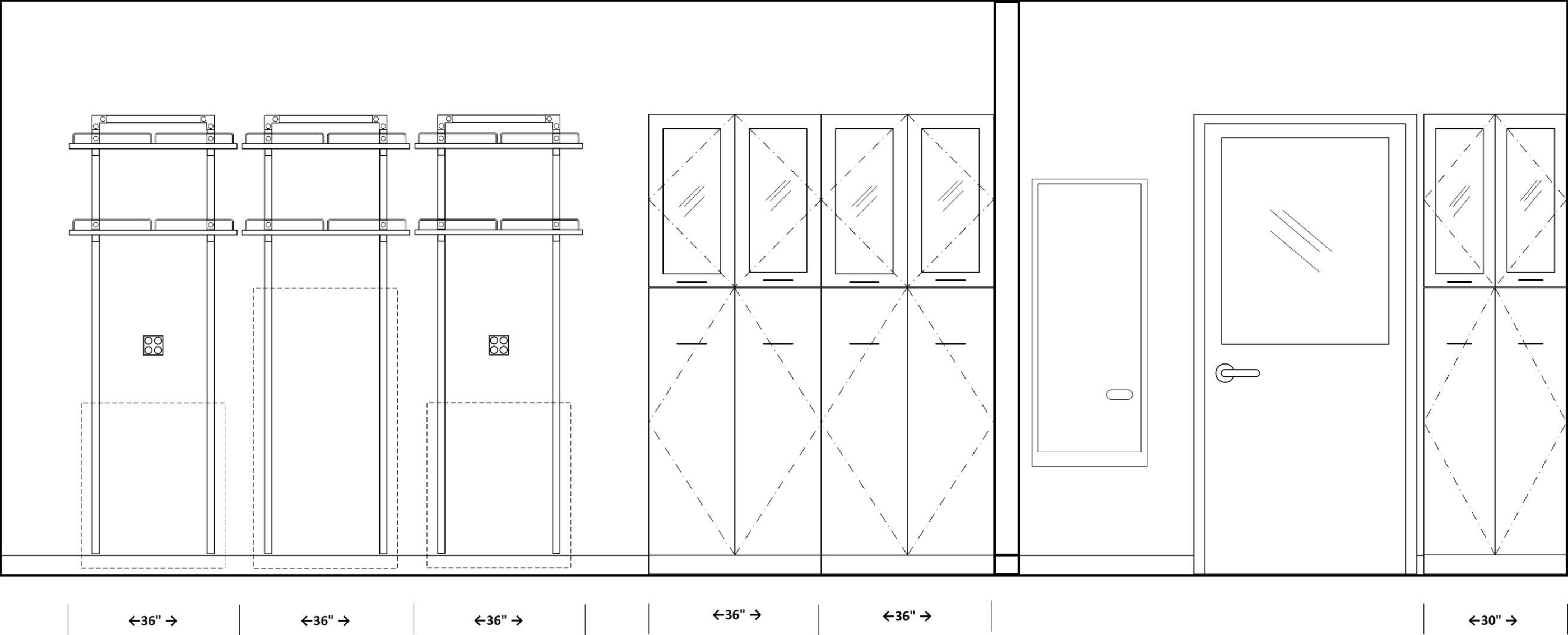
←36" →

←36" →

←36" →



BIOLOGY PREP
ELEVATION- SOUTH WALL



MICRO PREP

ARCHITECTURAL

Occupancy: B
 Floor: rubber tile & base; also consider sealed, ground concrete
 Walls: gypsum board and enamel paint
 Ceiling: 10' acoustic tile
 Doors: 3'x8' with window
 Acoustic Attenuation: NC 40 or less
 Light Attenuation: light attenuation at exterior windows
 Clerestory window above wall bench at east wall
 Accessibility: workstation, sink
 Security: key access

STRUCTURAL

Vibration attenuation: 4,000 micro inches/sec or less

MECHANICAL

Hours of operation: 6 am to 11 pm
 Temperature: 68-72 deg. F, +/- 2 deg. F
 100% exhaust- no recirculation of air
 Exhaust on emergency power supply
 -(6) air changes per (exhaust at ceiling) hour occupied
 -(4) air changes per hour unoccupied
 Equipment heat gain: 75 btuh/sf
 Provide night set back to (4) air changes per hour from 10 pm to 6 am
 Pressure: Negative; Humidity: Ambient

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Standby/dedicated power at equipment spaces
 Data junction boxes islands, perimeter
 Wireless data
 208v3ph hardwire power at floor autoclave
 120/208v at benchtop autoclaves
 Lighting: indirect fluorescent @ 60 f.c. with multi-level switching

PLUMBING

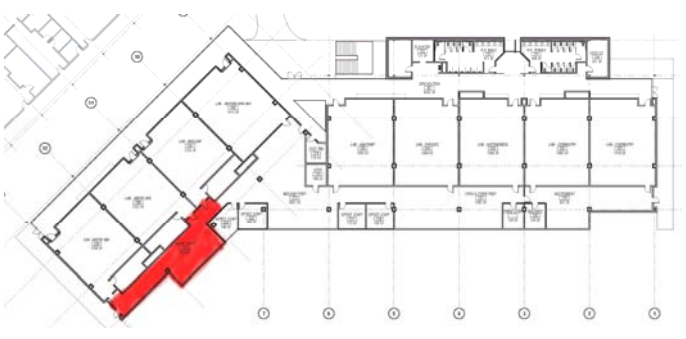
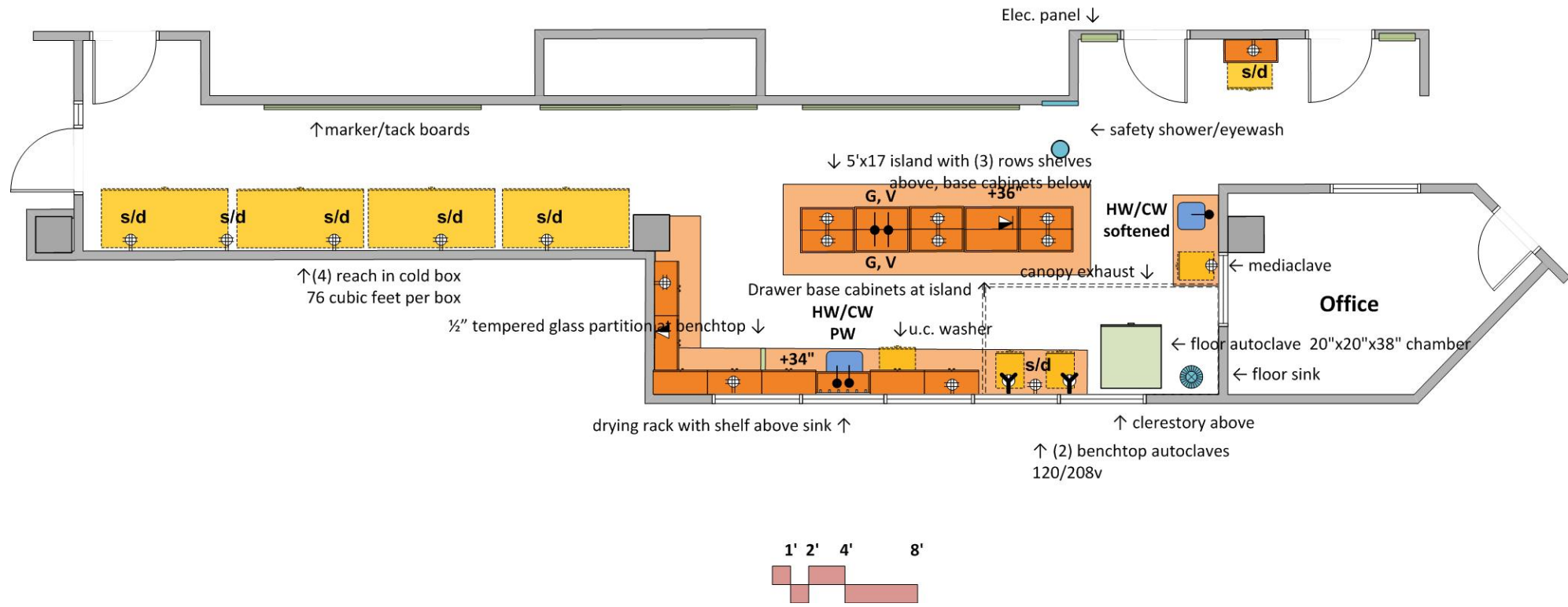
Hot/Cold water at sinks with vacuum breakers
 Pure water at sink
 Softened water at lab sink for mediaclave
 Sink at perimeter bench
 Domestic water at safety shower/eyewash
 Floor sink at autoclave

CONTRACTOR FURNISHED EQUIPMENT

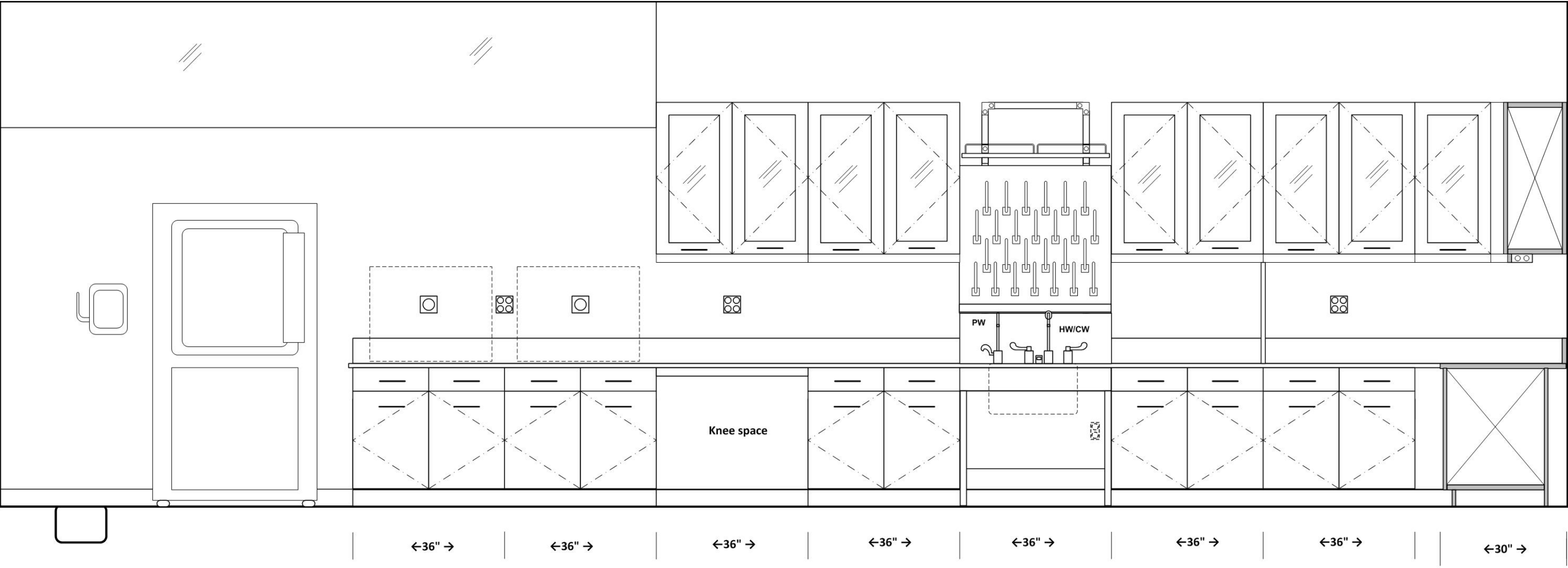
Wood casework- base cabinets, wall cabinets, tall cabinets
 Resin tops and sinks
 Faucets & fittings
 Autoclave (20x20x38 chamber)
 Canopy exhaust- 200 c.f.m. (VAV)

COLLEGE FURNISHED EQUIPMENT

Chairs
 Benchtop analytical instruments
 Scientific equipment
 (4) 3 door reach in cold box: 84"Hx78"Lx39"D; 76 cubic feet per box; 115v/60hz



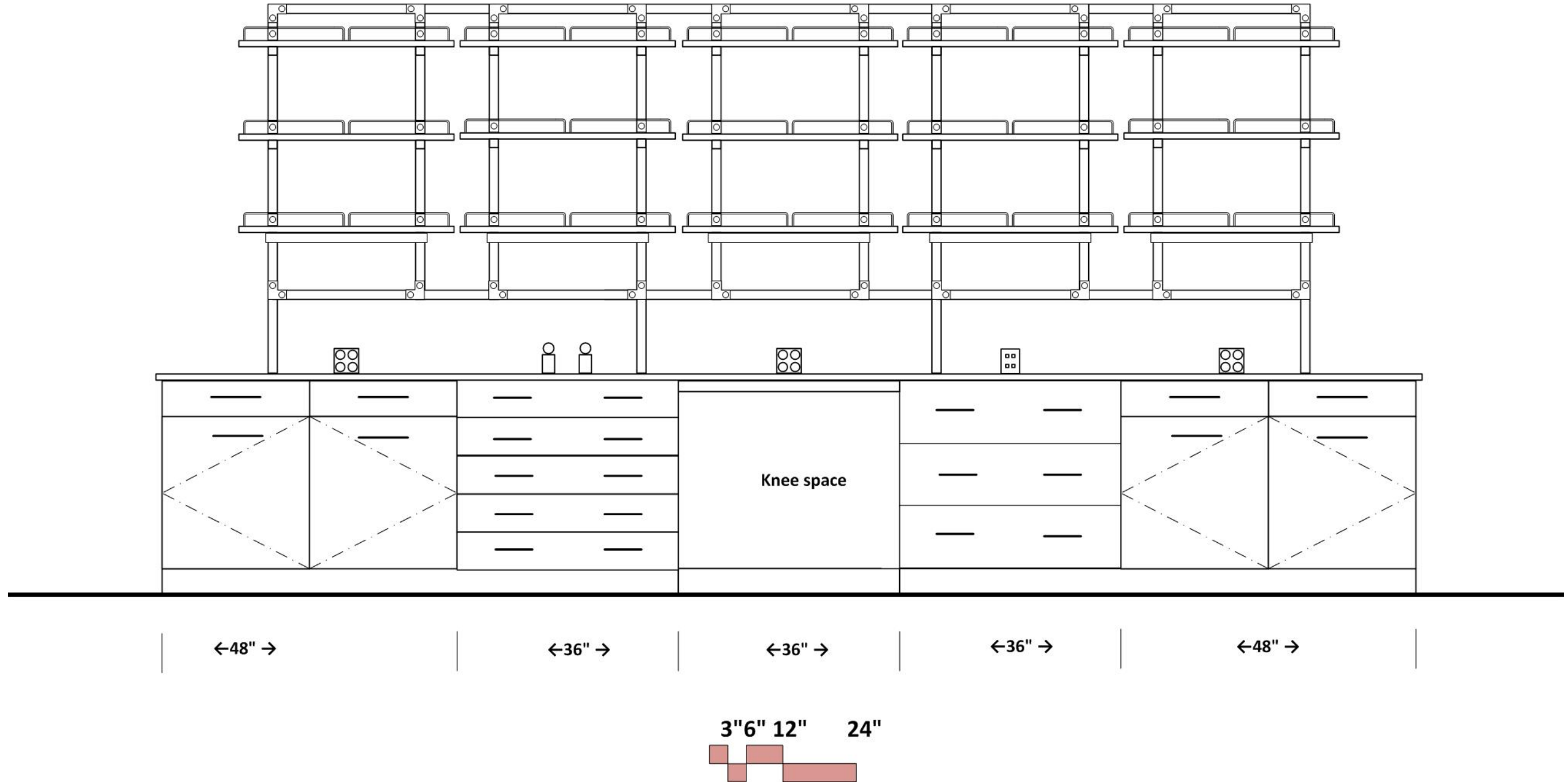
MICRO PREP
ELEVATION- EAST WALL OF ALCOVE



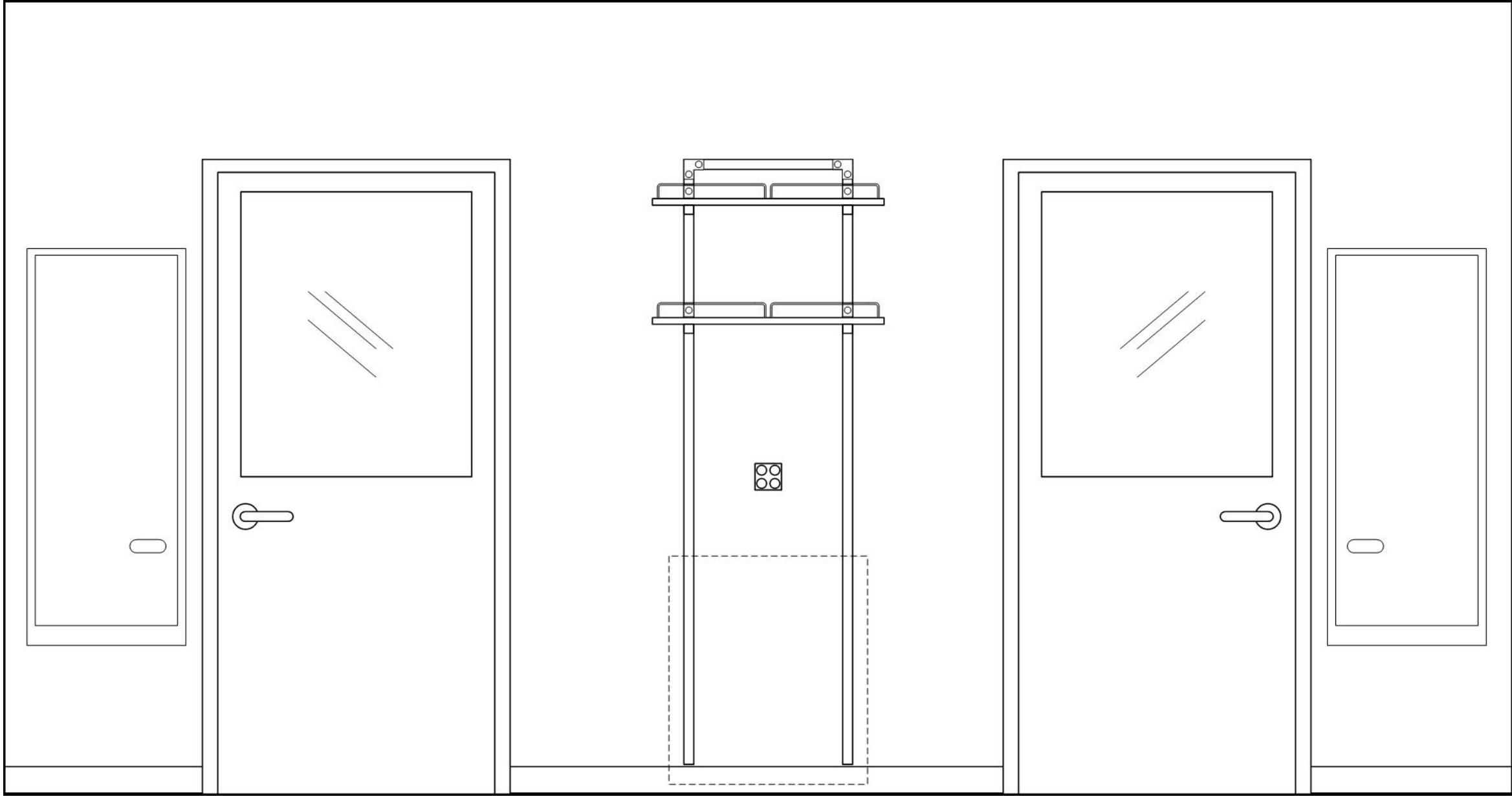
MICRO PREP
ELEVATION- SOUTH WALL OF ALCOVE



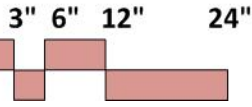
MICRO PREP
ELEVATION- ISLAND, EAST SIDE
MIRROR IMAGE FOR WEST SIDE



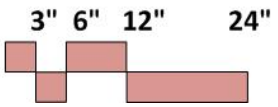
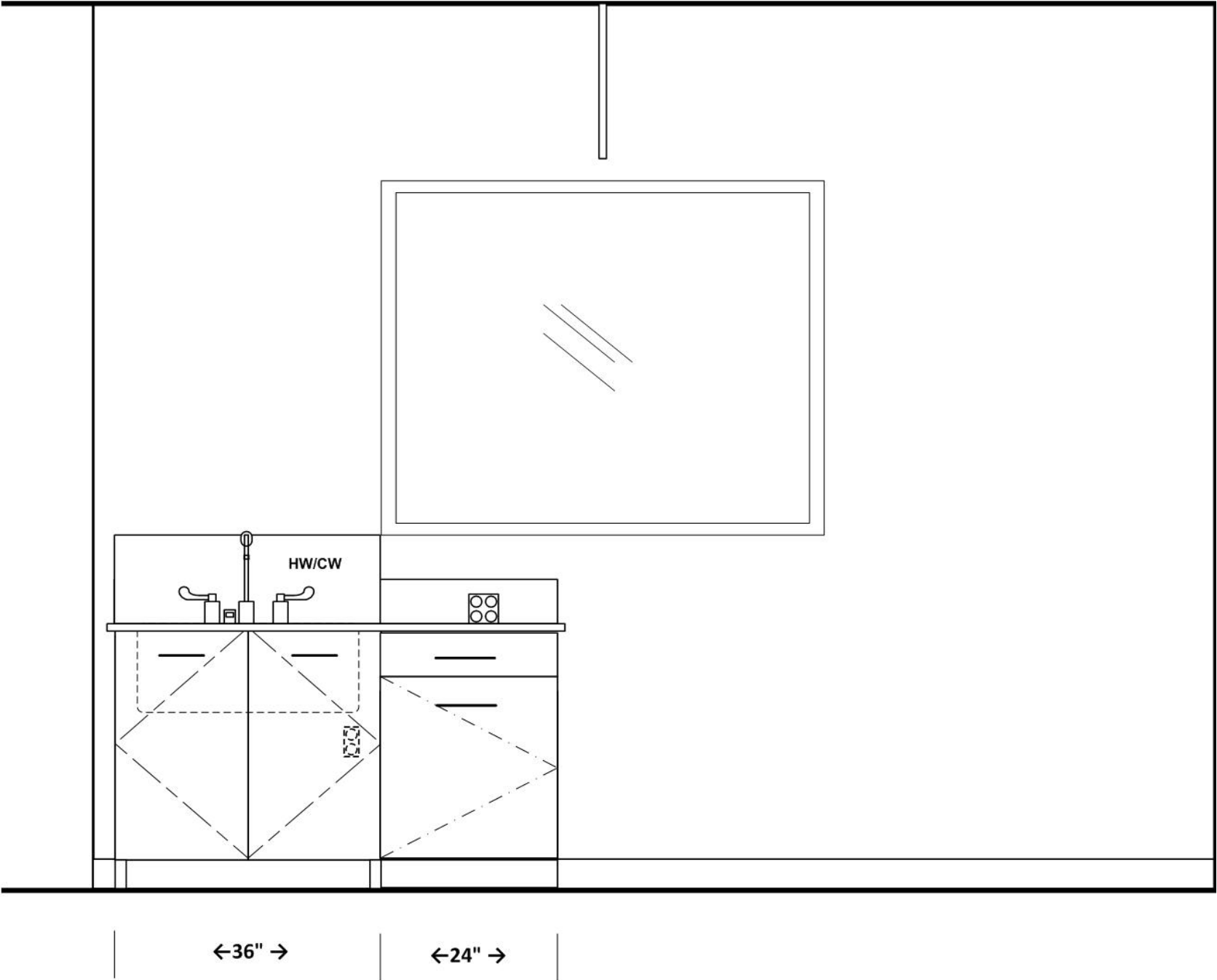
MICRO PREP
ELEVATION- WEST WALL



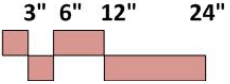
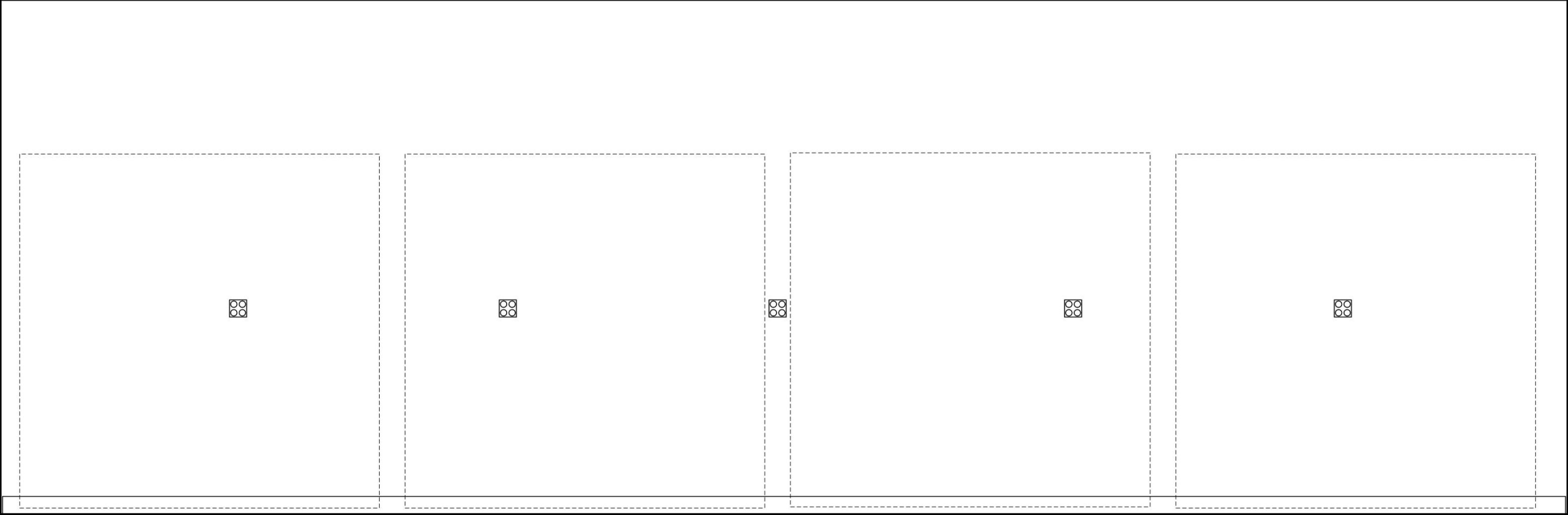
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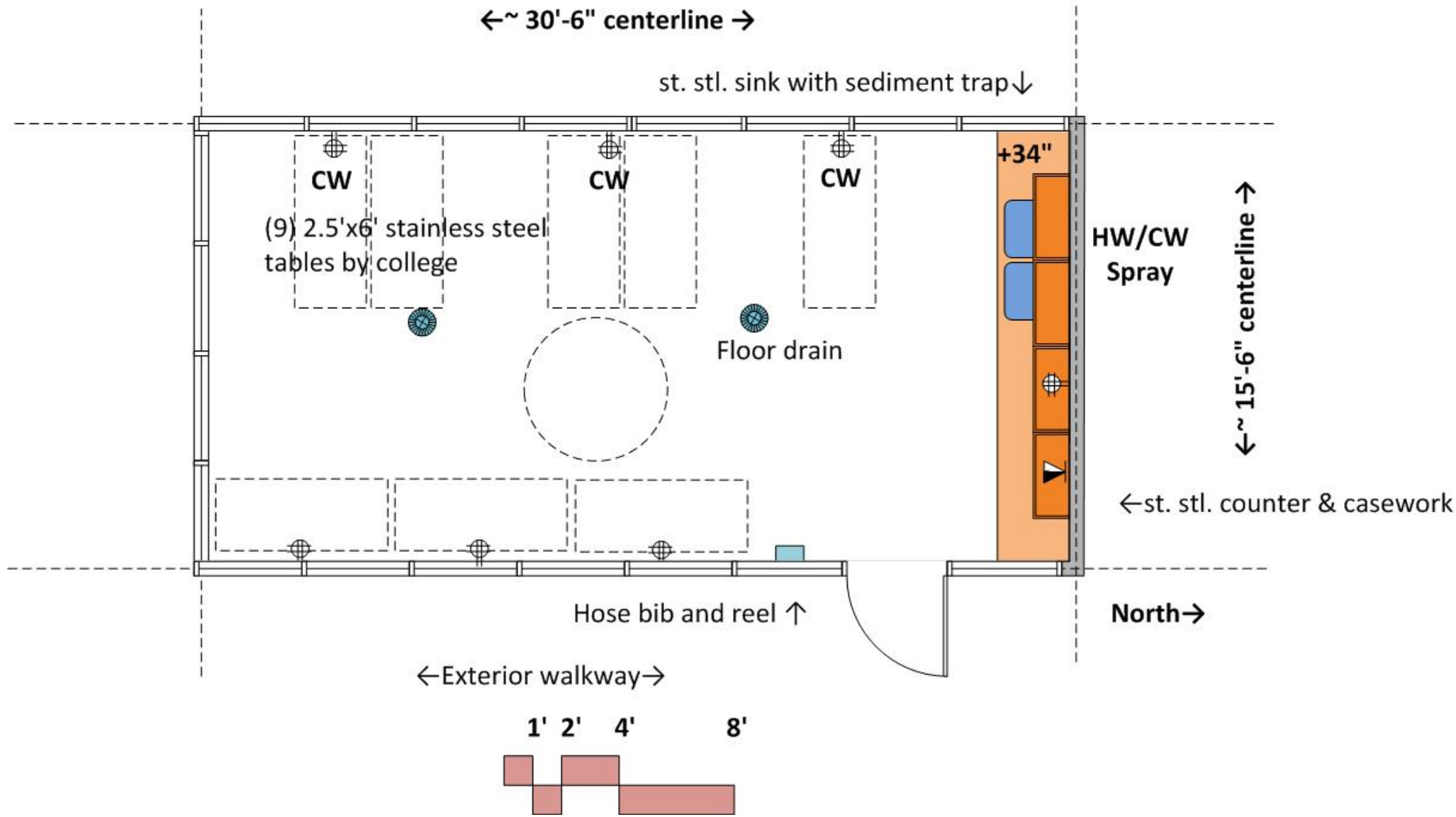
MICRO PREP
ELEVATION- NORTH WALL ALCOVE



MICRO PREP
ELEVATION- EAST WALL, SOUTH END



GREENHOUSE



ARCHITECTURAL

Occupancy: B
 Floor: sealed concrete
 Walls: prefab waterproof panels and operable glazing panels
 Ceiling: operable glazing panels
 Doors: 3'x8' glass door with st. stl. frame
 Acoustic Attenuation: NC 40 or less
 Accessibility: sink
 Security: key access

STRUCTURAL

Vibration attenuation: 4,000 micro inches/sec or less
 Greenhouse superstructure to accommodate hanging plants (multiple 50 lb. live point loads at roof panels)

MECHANICAL

Hours of operation: 6 am to 11 pm
 Temperature: local heating (by greenhouse manufacturer)

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data at bench
 Wireless data
 Lighting: indirect fluorescent @ 60 f.c. with multi-level switching

PLUMBING

Hot/Cold water at sinks with vacuum breakers and sediment traps
 Hot/Cold water at hose bib
 Floor drains with sediment traps
 low flow cold water valve at each pair of tables

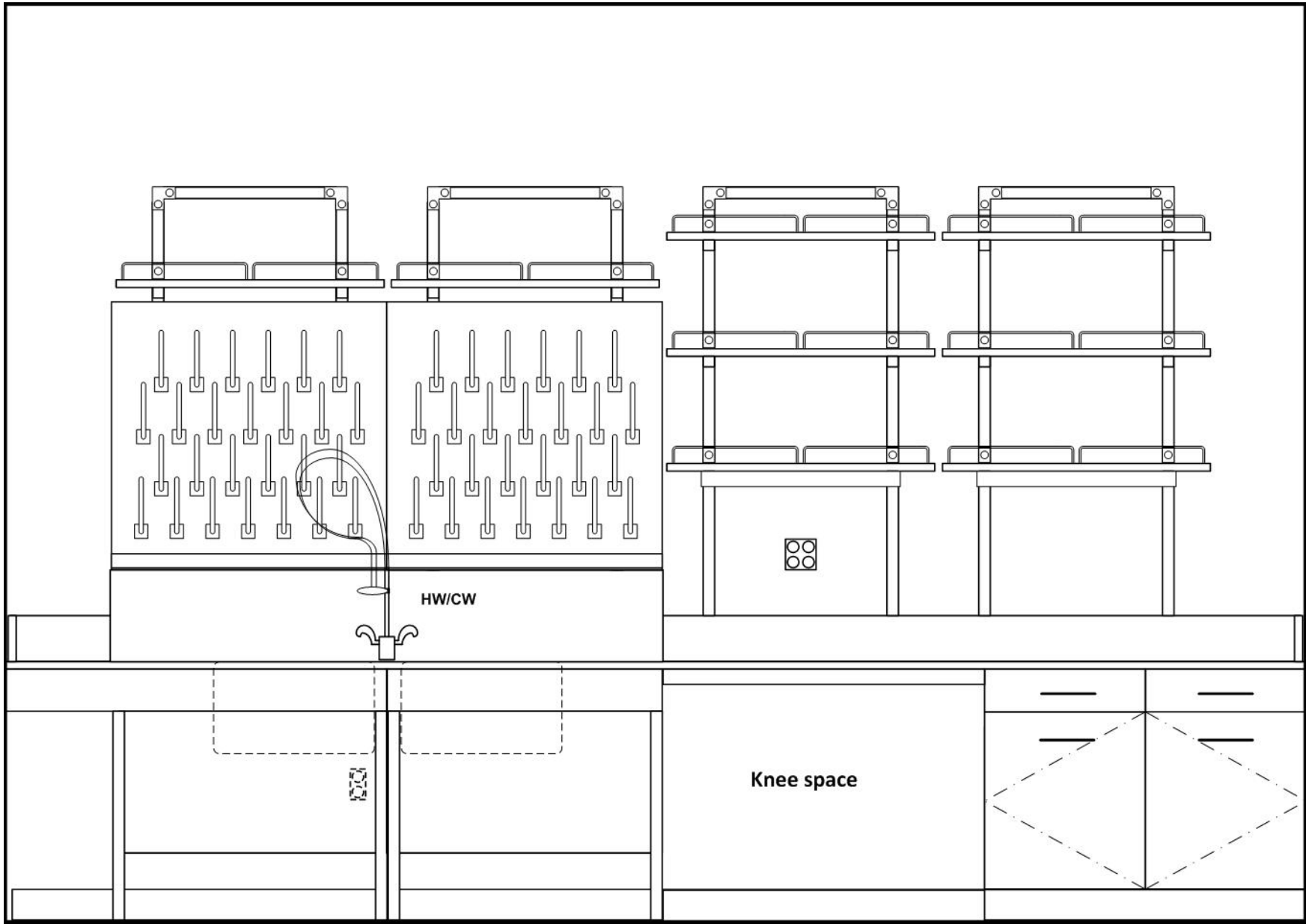
CONTRACTOR FURNISHED EQUIPMENT

stainless steel counter and casework
 stainless steel sink
 Hose reel and bib

COLLEGE FURNISHED EQUIPMENT

greenhouse supplies
 stainless steel tables

GREENHOUSE
ELEVATION SOUTH WALL
ALL STAINLESS STEEL CASEWORK

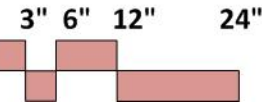


←36→

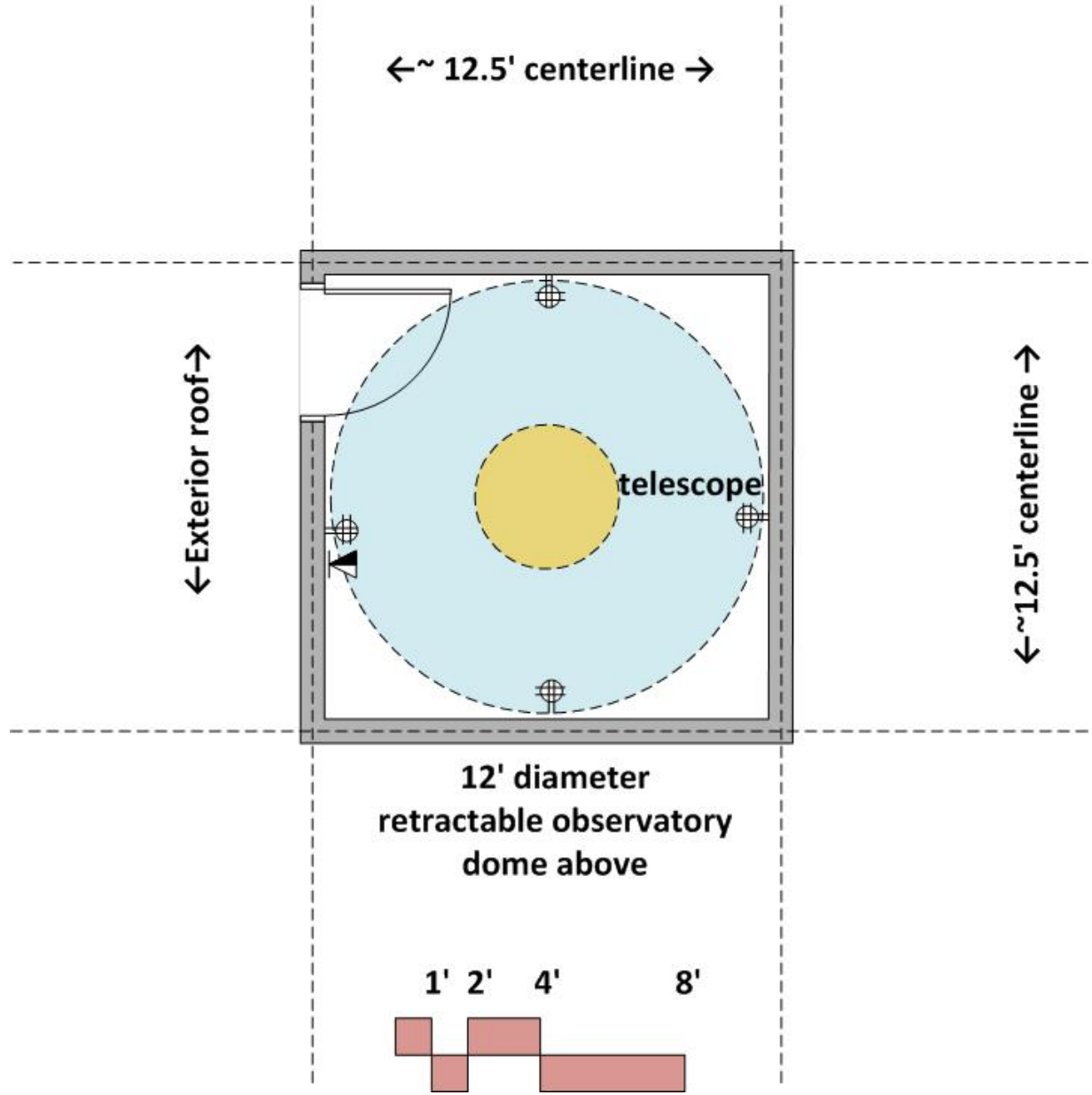
←36"→

←42"→

←42"→



OBSERVATORY



ARCHITECTURAL

Occupancy: B
 Floor: sealed, ground concrete
 Walls: concrete masonry units
 Ceiling: retractable; open to sky; 12' diameter opening
 Doors: 3'x8' with window
 Acoustic Attenuation: NC 40 or less
 Light attenuation: at windows (if any)
 Security: key access

STRUCTURAL

Vibration attenuation: 1,000 microinches or less

MECHANICAL

Hours of operation: 8 pm to 6 am
 Temperature: 68-75 deg. F, +/- 2 deg. F
 Humidity: Ambient

ELECTRICAL

110v fourplex outlets (maximum of four duplex per circuit)
 Data junction boxes
 Wireless data
 Lighting: fluorescent @ 25-75 f.c. with dimmer

PLUMBING

None

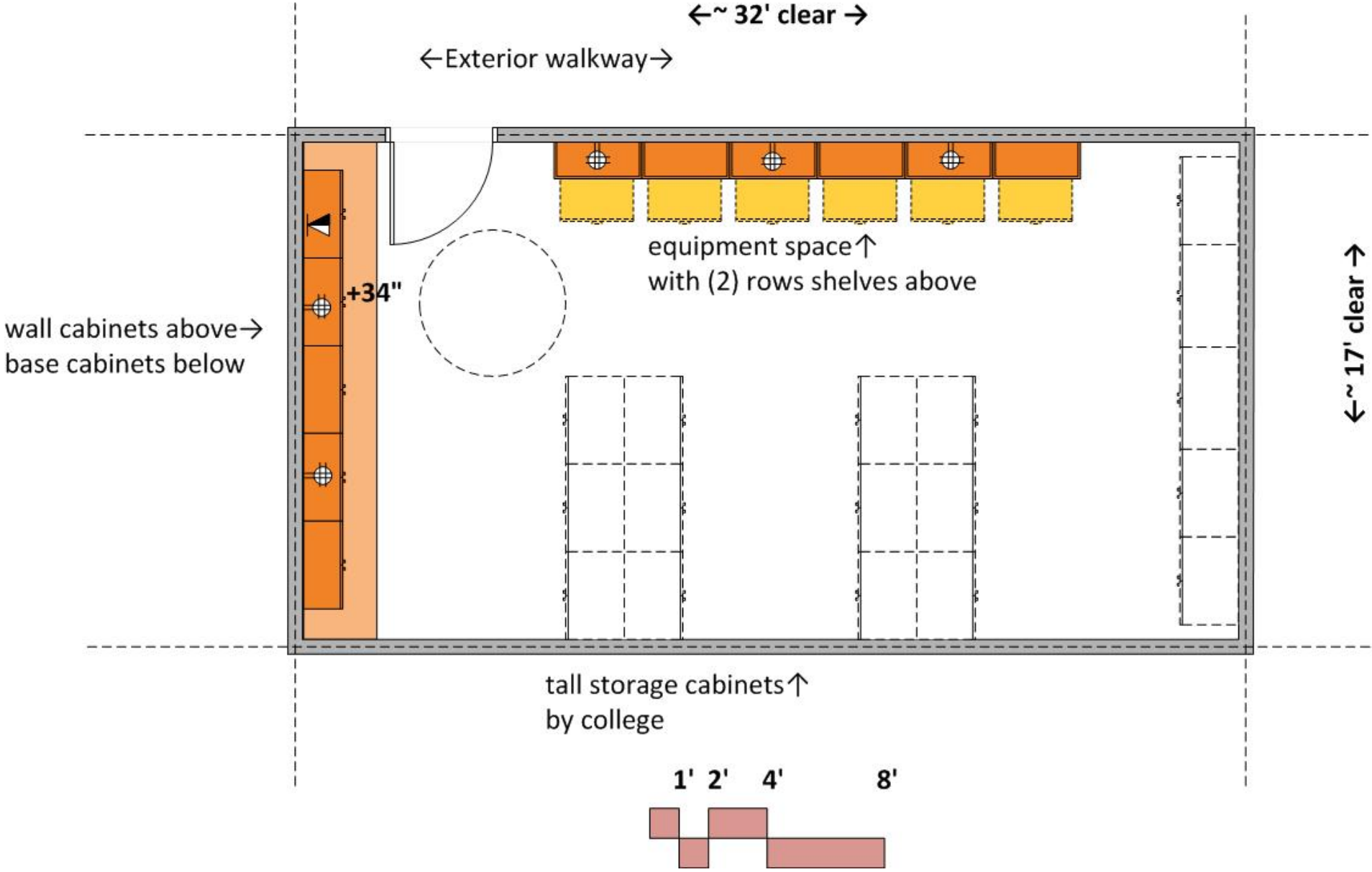
CONTRACTOR FURNISHED EQUIPMENT

Observatory dome

COLLEGE FURNISHED EQUIPMENT

telescope

TELESCOPE STORAGE



ARCHITECTURAL

Occupancy: B
 Floor: sealed, ground concrete
 Walls: concrete masonry units
 Ceiling: 10' acoustic tile
 Doors: 3⁶x8⁰ with window
 Light Attenuation: light attenuation at exterior windows (if any)
 Accessibility: room, bench
 Security: key access

STRUCTURAL

Vibration attenuation: 1,000 micro inches or less

MECHANICAL

Hours of operation: 24/7
 Temperature: 68-78 deg. F, +/- 2 deg. F

ELECTRICAL

110v fourplex and duplex outlets (maximum of four duplex per circuit)
 Data junction box at bench
 Wireless data
 Lighting: incandescent @ 30-100 f.c. with dimmer

PLUMBING

None

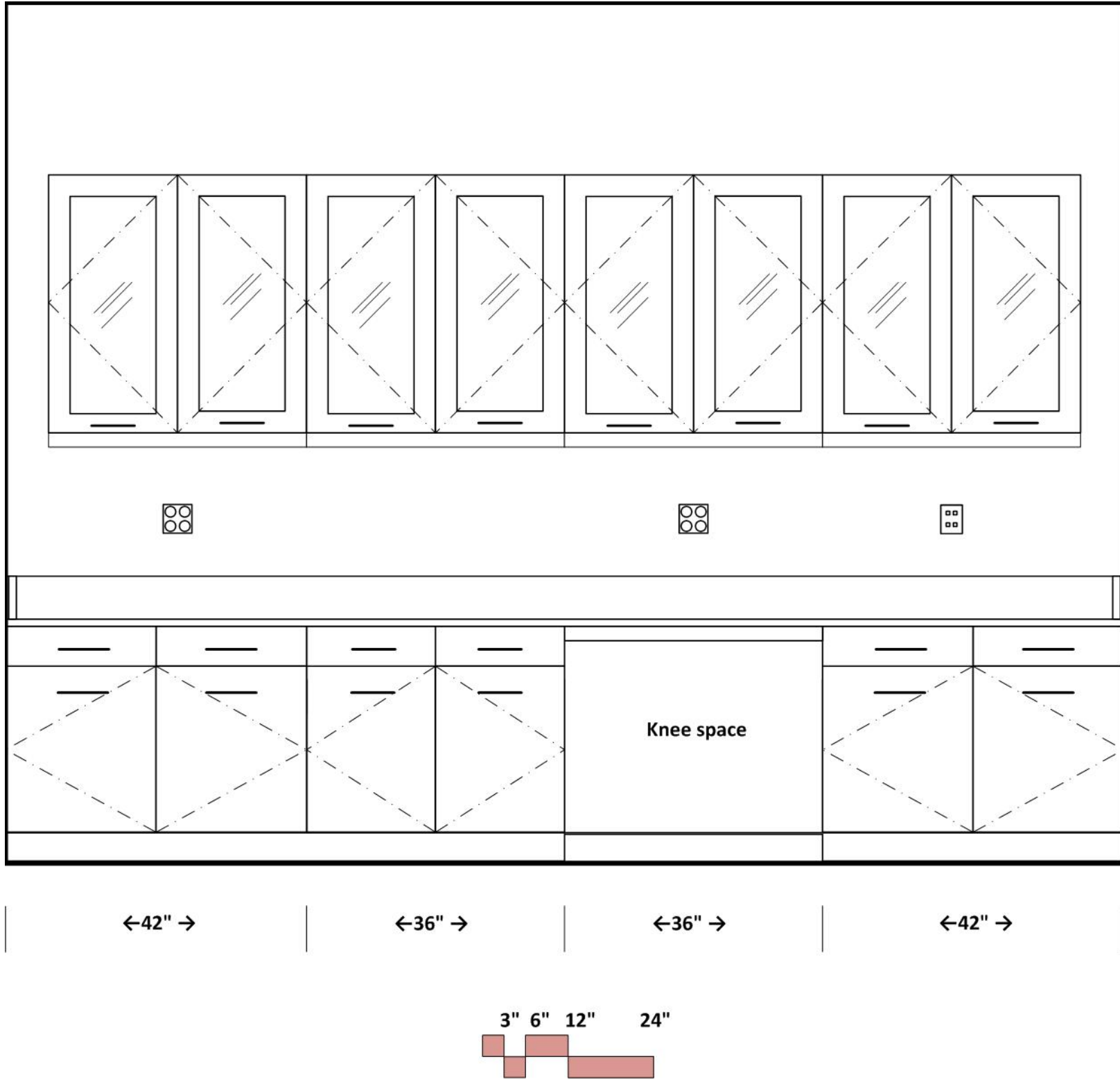
CONTRACTOR FURNISHED EQUIPMENT

Phenolic resin casework
 Adjustable shelves

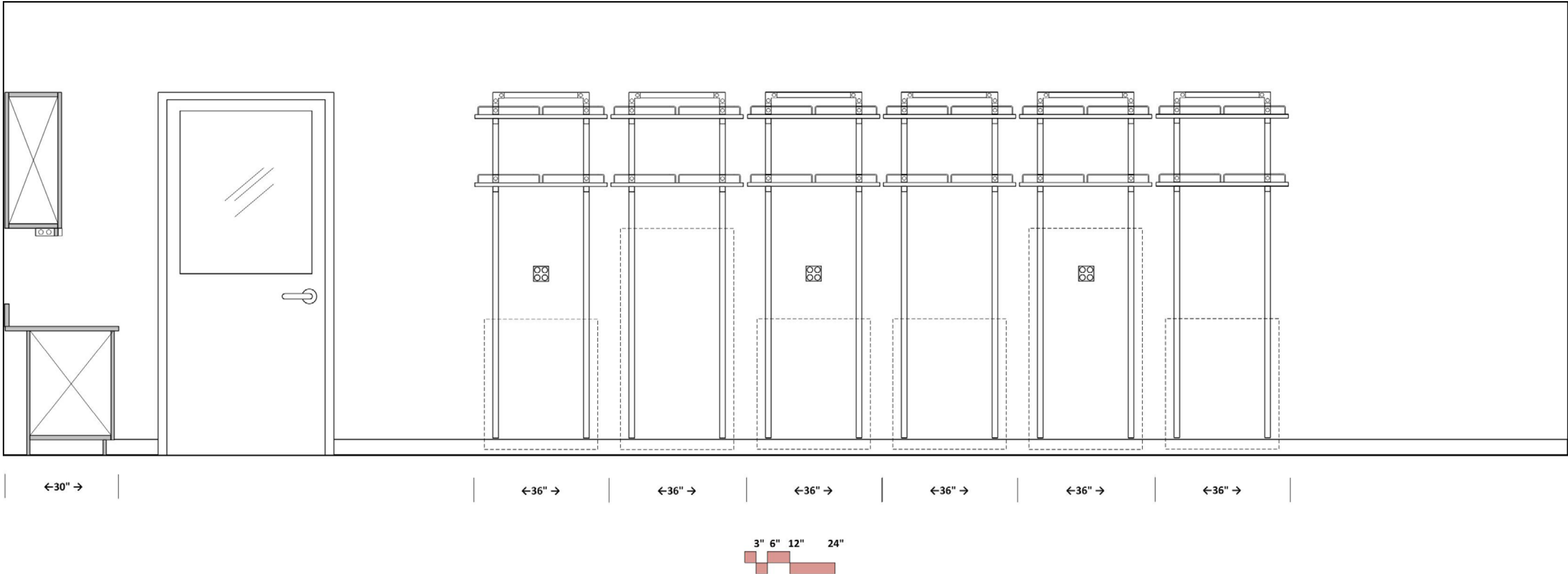
COLLEGE FURNISHED EQUIPMENT

Telescopes
 Instruments
 Telescope storage cabinets

TELESCOPE STORAGE
ELEVATION SOUTH WALL



TELESCOPE STORAGE ELEVATION WEST WALL



FUME HOOD CUT SHEET

All fume hoods VAV

Chem lab fume hoods to have split sash and distillation racks

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 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. 6,461,233

† pending

‡ Heights of switches, electrical receptacle and service fixtures meet requirements of ADA.

■ Exclusive Feature

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.

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 | CFM Savings at 60 fpm vs. 100 fpm | | | | | | Total Average Annual Dollar Savings at 60 fpm vs. 100 fpm* |
|---------------|-----------------------------------|-------|--------|-------|--------|-------|--|
| | 100 fpm | s.p. | 80 fpm | s.p. | 60 fpm | s.p. | |
| 4 feet | 470 | 0.11" | 380 | 0.07" | 280 | 0.04" | \$760 |
| 5 feet | 610 | 0.13" | 490 | 0.08" | 370 | 0.05" | \$960 |
| 6 feet | 750 | 0.15" | 600 | 0.10" | 450 | 0.06" | \$1,200 |
| 8 feet | 1060 | 0.12" | 850 | 0.08" | 640 | 0.04" | \$1,680 |

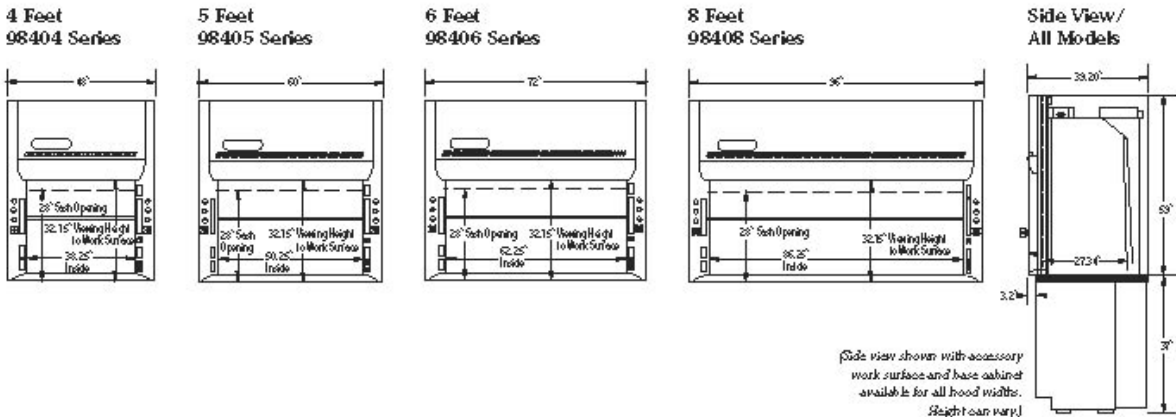
Total Exhaust CFM and Static Pressure @ 28" Sash Opening (100% open)

| Nominal Width | CFM Savings at 60 fpm vs. 100 fpm | | | | | | Total Average Annual Dollar Savings at 60 fpm vs. 100 fpm* |
|---------------|-----------------------------------|-------|--------|-------|--------|-------|--|
| | 100 fpm | s.p. | 80 fpm | s.p. | 60 fpm | s.p. | |
| 4 feet | 730 | 0.25" | 590 | 0.13" | 440 | 0.08" | \$1,160 |
| 5 feet | 960 | 0.30" | 770 | 0.19" | 580 | 0.11" | \$1,520 |
| 6 feet | 1180 | 0.36" | 940 | 0.23" | 710 | 0.13" | \$1,880 |
| 8 feet | 1660 | 0.28" | 1330 | 0.18" | 1000 | 0.10" | \$2,640 |

*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



(Side view shown with accessory work surface and base cabinet available for all hood widths. Height can vary.)

SAFETY SHOWER/EYEWASH CUT SHEET

Requires drain connection at eyewash



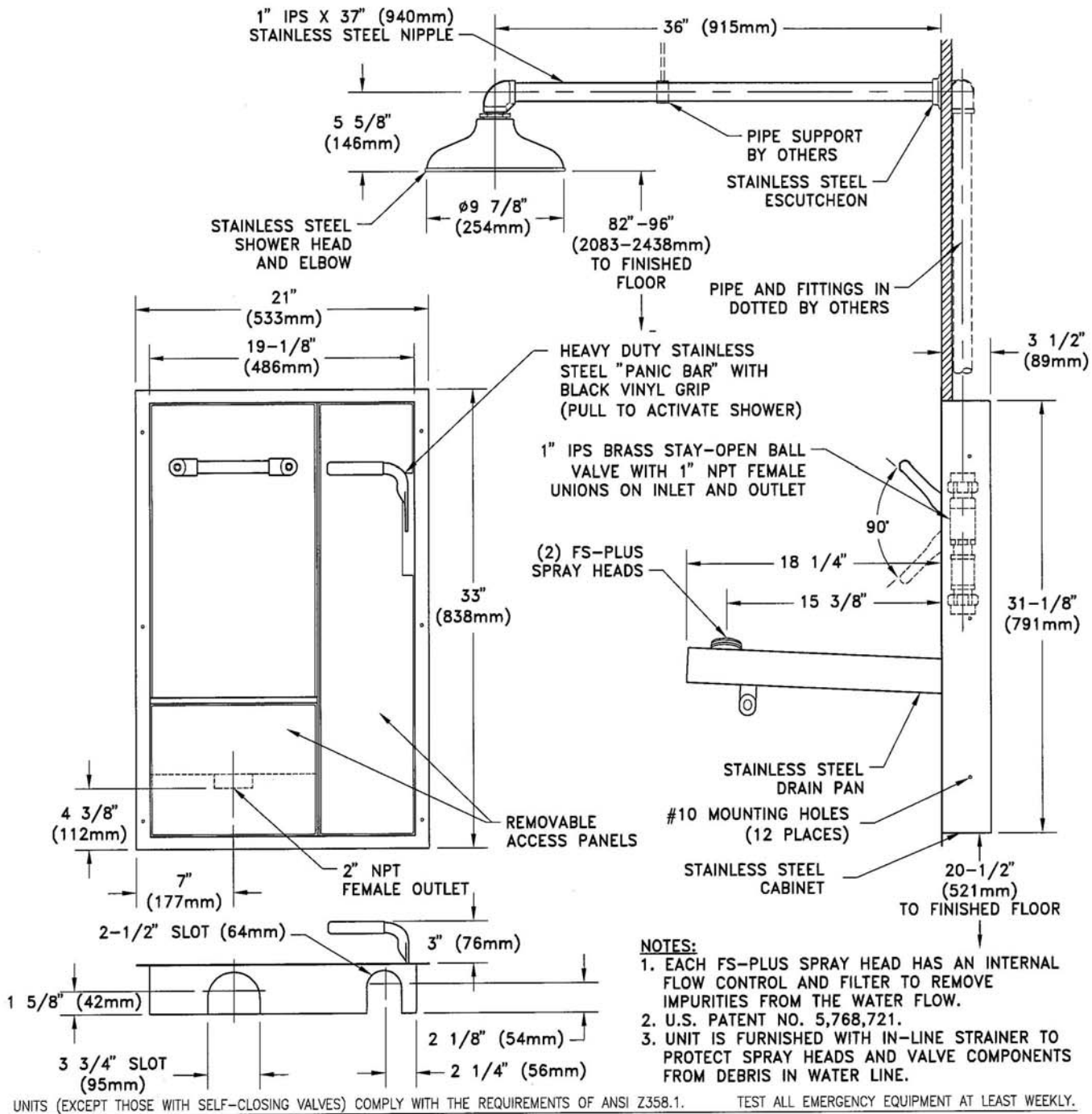
WaterSaver

INNOVATIVE PRODUCTS FOR RESEARCH

WaterSaver Faucet
701 W Erie St
Chicago, IL 60610

312 666 5500 TELEPHONE
312 666 5501 FACSIMILE
wsflab.com

SSBF2170
RECESSED SAFETY STATION WITH DRAIN PAN



HOT/COLD WATER FAUCET CUT SHEET

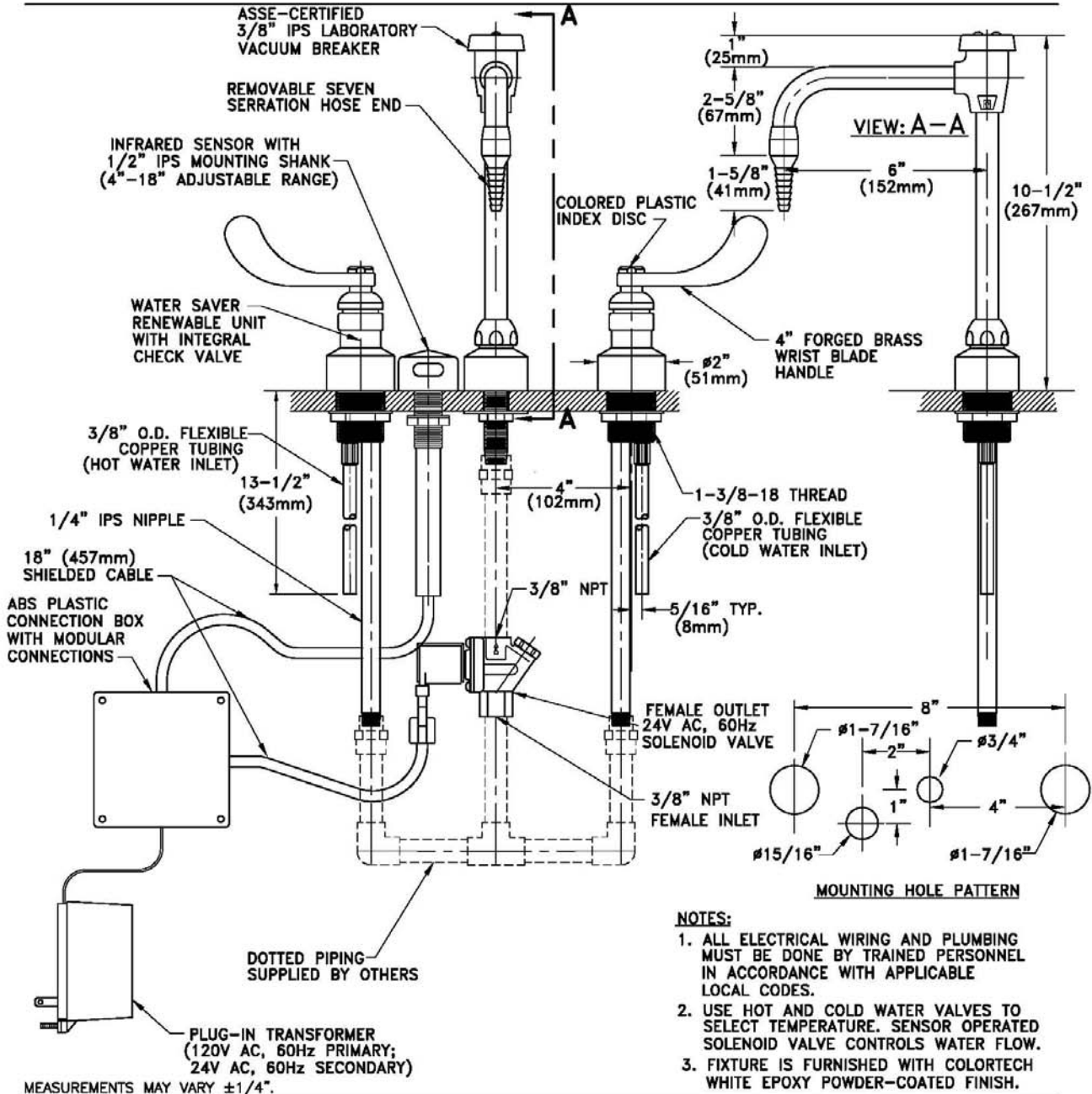
requires 120v outlet below each sink

COLORTECH

701 West Erie Street Phone 312 666 6500
Chicago, Illinois 60610 Fax 312 666 8597

Laboratory Service Fixtures by
WaterSaver Faucet Co.

CT4554VB-BH
DECK MOUNTED SENSOR OPERATED AUTOMATIC MIXING FAUCET WITH 6" RIGID VACUUM BREAKER
GOOSENECK, WRIST BLADE HANDLES. AND MANUALLY OPERATED MIXING VALVES



- NOTES:**
1. ALL ELECTRICAL WIRING AND PLUMBING MUST BE DONE BY TRAINED PERSONNEL IN ACCORDANCE WITH APPLICABLE LOCAL CODES.
 2. USE HOT AND COLD WATER VALVES TO SELECT TEMPERATURE. SENSOR OPERATED SOLENOID VALVE CONTROLS WATER FLOW.
 3. FIXTURE IS FURNISHED WITH COLORTECH WHITE EPOXY POWDER-COATED FINISH.

Drawing Number: _____

Revision Number: 030806-KJS

PURE WATER FAUCET CUT SHEET

Pure water provided by existing pure water system in existing science building

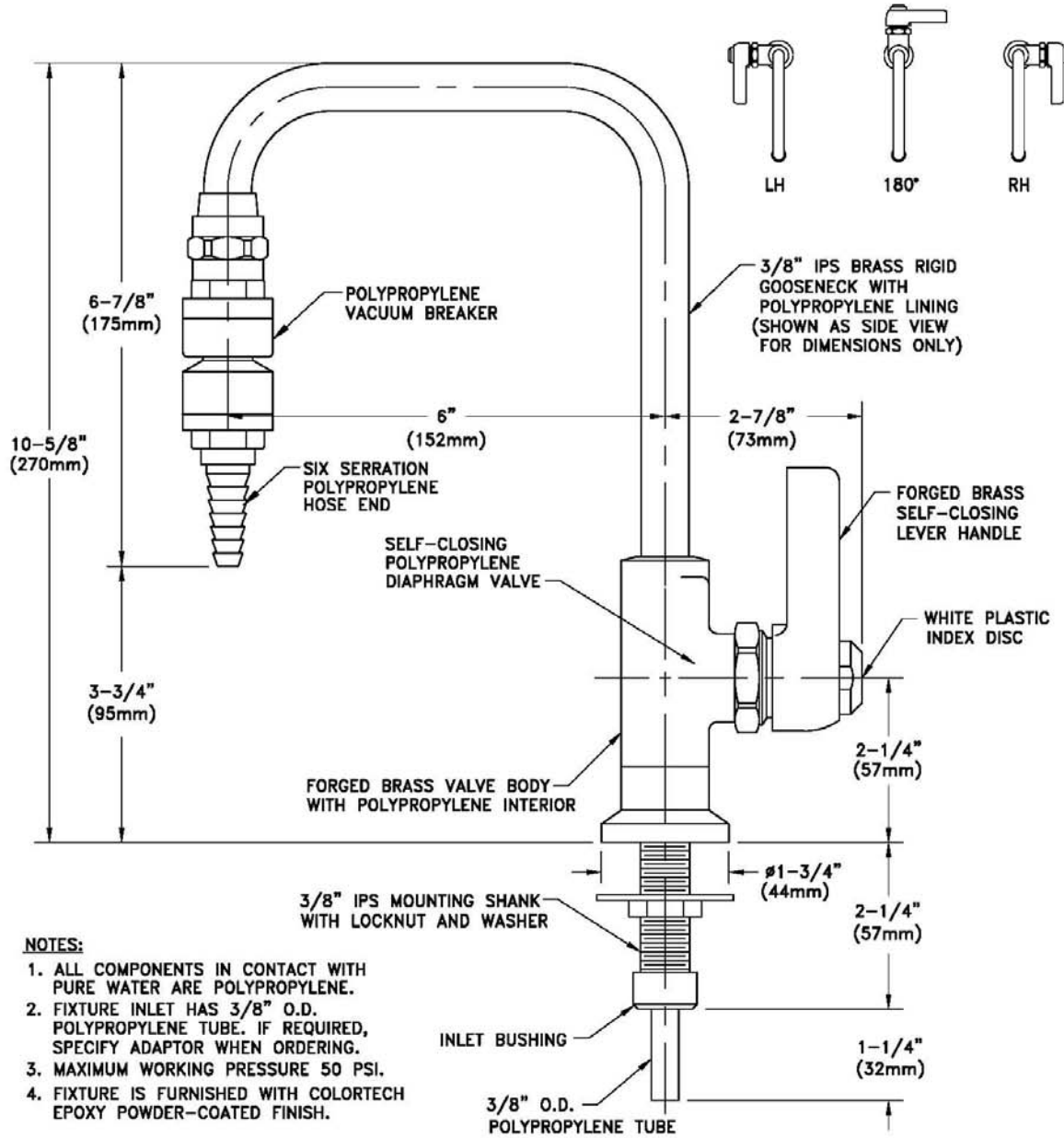
COLORTECH

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

Laboratory Service Fixtures by
WaterSaver Faucet Co.

CT7853SC-7110-LE

DECK MOUNTED FIXTURE FOR DISTILLED, DEIONIZED AND ULTRA-PURE WATER WITH ALL-POLYPROPYLENE INTERIOR LINING, 6" RIGID GOOSENECK, SELF-CLOSING OPERATION, POLYPROPYLENE VACUUM BREAKER AND LEVER HANDLE



- NOTES:**
1. ALL COMPONENTS IN CONTACT WITH PURE WATER ARE POLYPROPYLENE.
 2. FIXTURE INLET HAS 3/8" O.D. POLYPROPYLENE TUBE. IF REQUIRED, SPECIFY ADAPTOR WHEN ORDERING.
 3. MAXIMUM WORKING PRESSURE 50 PSI.
 4. FIXTURE IS FURNISHED WITH COLORTECH EPOXY POWDER-COATED FINISH.

MEASUREMENTS MAY VARY ±1/4".

Drawing Number: _____

Revision Number: 090497-WK



PRODUCT DIMENSIONS
DOMESTIC SIZES

Standard Dropln® Sinks

| Sink No. | Outlet | Wgt (lb) | Dimensions (in) | | | | |
|----------|--------|----------|-----------------|-------|-------|-----------------|-----|
| | | | Inside Bowl | | | Outlet Location | |
| | | | Length | Width | Depth | X | Y |
| D01C | Center | 9 | 9.0 | 6.0 | 5.8 | 4.5 | 3.0 |
| D03C | Center | 16 | 12.0 | 8.0 | 5.8 | 6.0 | 4.0 |
| A05 | Corner | 18 | 14.0 | 10.0 | 5.0 | 3.5 | 3.5 |
| D05 | Corner | 22 | 14.0 | 10.0 | 6.2 | 3.5 | 3.5 |
| D05C | Center | 24 | 14.0 | 10.0 | 6.2 | 7.0 | 5.0 |
| D10 | End | 20 | 16.0 | 8.0 | 6.8 | 4.5 | 4.0 |
| D10C | Center | 22 | 16.0 | 8.0 | 6.8 | 8.0 | 4.0 |
| D15 | Corner | 30 | 16.0 | 12.0 | 8.0 | 3.5 | 3.5 |
| D15C | Center | 31 | 16.0 | 12.0 | 8.0 | 8.0 | 6.0 |
| D19 | Corner | 42 | 16.0 | 16.0 | 9.6 | 3.5 | 3.5 |
| D20 | Corner | 32 | 16.0 | 16.0 | 7.5 | 3.5 | 3.5 |
| D22C | Center | 30 | 18.0 | 6.5 | 6.8 | 9.0 | 3.3 |
| D24(C) | Center | 30 | 18.0 | 14.0 | 10.5 | 9.0 | 6.8 |
| A25 | Corner | 35 | 18.0 | 15.0 | 5.0 | 3.5 | 3.5 |
| D25 | Corner | 39 | 18.0 | 15.0 | 7.9 | 3.5 | 3.5 |
| D30 | Corner | 53 | 18.0 | 15.0 | 11.0 | 3.5 | 3.5 |
| D30C | Center | 50 | 18.0 | 15.0 | 10.8 | 9.0 | 7.5 |
| D33E | End | 59 | 21.0 | 17.0 | 9.8 | 4.5 | 8.5 |
| D45 | Corner | 64 | 21.5 | 15.5 | 11.0 | 3.5 | 3.5 |
| D50C | Center | 48 | 24.0 | 16.0 | 8.0 | 12.0 | 8.0 |
| D52 | Corner | 77 | 24.0 | 18.0 | 11.0 | 3.5 | 3.5 |
| A55 | Corner | 47 | 25.0 | 15.0 | 4.8 | 3.5 | 3.5 |
| D55 | Corner | 61 | 25.0 | 15.0 | 10.0 | 3.5 | 3.5 |
| D59 | Corner | 61 | 28.0 | 15.0 | 11.8 | 3.5 | 3.5 |
| DRS12 | Center | 18 | 12.0 | Round | 7.8 | Center | |

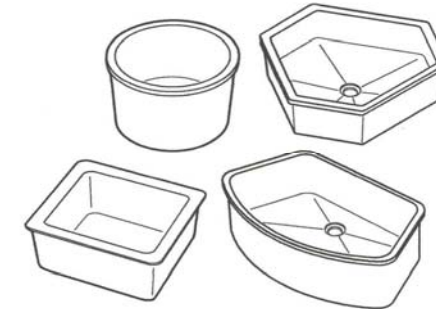


Special Order Dropln® Sinks

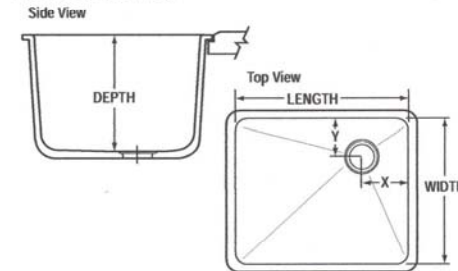
| Sink No. | Outlet | Wgt (lb) | Dimensions (in) | | | | |
|----------|--------|----------|-----------------|-------------|-------|-----------------|------|
| | | | Inside Bowl | | | Outlet Location | |
| | | | Length | Width | Depth | X | Y |
| D06* | Center | 34 | 12.0 | 12.0 | 12.0 | 6.0 | 6.0 |
| A07* | Corner | 24 | 14.0 | 14.0 | 5.0 | 3.5 | 3.5 |
| D08* | Corner | 25 | 15.0 | 8.0 | 6.0 | 3.5 | 3.5 |
| D09* | Corner | 25 | 15.0 | 8.0 | 10.8 | 3.5 | 3.5 |
| D21* | Corner | 58 | 16.0 | 16.0 | 15.0 | 3.5 | 3.5 |
| A26* | Corner | 39 | 18.0 | 15.0 | 5/11 | 4.5 | 5.5 |
| D32 | Corner | 49 | 18.0 | 15.0 | 15.8 | 3.5 | 3.5 |
| D51* | Corner | 60 | 24.0 | 16.0 | 9.6 | 3.5 | 3.5 |
| D54* | Corner | 45 | 25.0 | 15.0 | 8.0 | 3.5 | 3.5 |
| D57* | Corner | 71 | 25.0 | 15.0 | 13.6 | 3.5 | 3.5 |
| D58* | Corner | 79 | 25.0 | 15.0 | 17.8 | 3.5 | 3.5 |
| D61 | End | 94 | 30.0 | 16.0 | 17.8 | 4.5 | 7.5 |
| D65C* | Center | 98 | 35.5 | 19.5 | 9.8 | 17.8 | 9.8 |
| D68** | End | 70 | 30.0 | 16.0 | 10.0 | 4.75 | 8.0 |
| D70C* | Center | 95 | 24.0 | 16.0 | 15.5 | 8.0 | 12.0 |
| D100** | Center | 29 | 22.5 | Hexagon | 5.0 | Center | |
| D200** | End | 64 | 30.9 | Hexagon | 7.0 | 15.5 | 8.0 |
| DRS10* | Center | 14 | 10.0 | Round | 7.8 | Center | |
| DHC20* | End | 82 | 30.0 | Hexagon | 7.0 | Center | |
| D99* | End | 56 | 32.0 | Semi-Circle | 10.0 | 11.5 | 4.5 |

All sinks are available at both plants unless they are Special Order Sinks, available as noted:
 * Available only from Taylor, TX, plant (colors: Black Onyx, Gray, Graphite, Tan, Forest Green and Steel Blue).
 ** Available only from Canton, MI, plant (colors: Black Onyx, Gray and Alpine White)
 ADA compliant sinks are designated by this symbol.
 All Dimensions are nominal. Exterior dimensions vary by MFG location. Cutsheets available upon request.

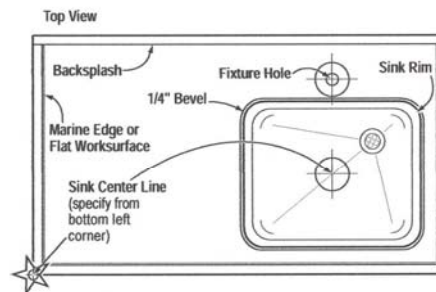
Dropln® Sink Styles



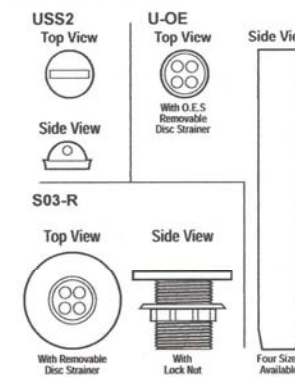
Dimensions Key



Installation Detail



Outlets & Accessories



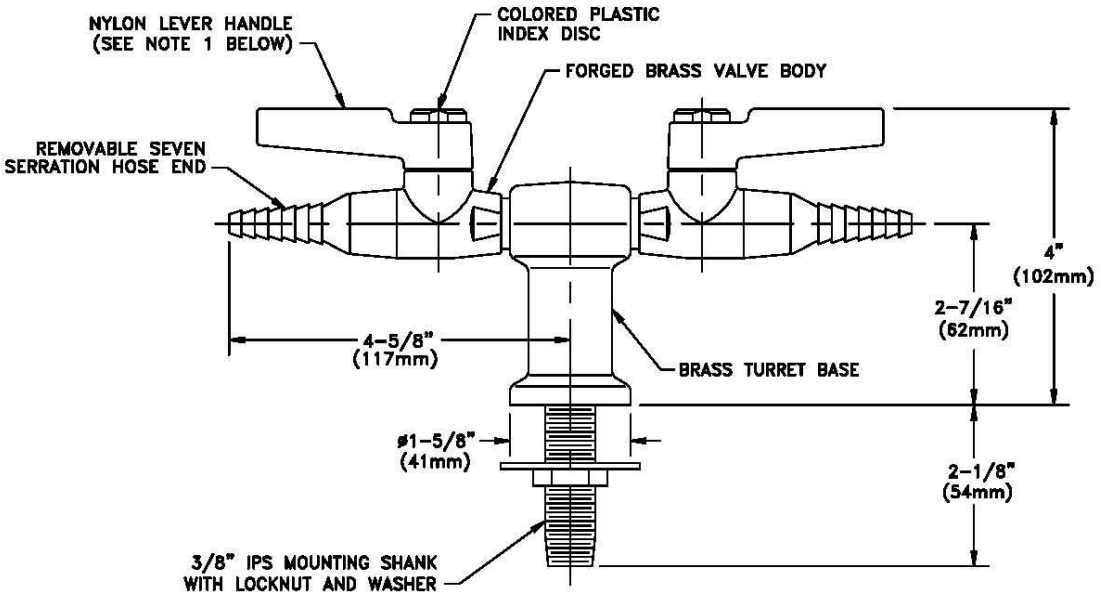
GAS/VACUUM VALVE CUT SHEET

COLORTECH

Laboratory Service Fixtures by
WaterSaver Faucet Co.

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

CT4200-232SWSA
DECK MOUNTED TURRET BASE WITH TWO LABORATORY BALL VALVES AT 180° AND MOUNTING SHANK



NOTES:

1. VALVE IS FURNISHED WITH A BLACK NYLON LEVER HANDLE AS STANDARD. A COLORED NYLON HANDLE AND A CHROME PLATED FORGED BRASS HANDLE ARE ALSO AVAILABLE.
2. VALVE IS FACTORY ASSEMBLED AND TESTED AT 125 PSI. MAXIMUM WORKING PRESSURE IS 75 PSI.
3. VALVE IS CERTIFIED FOR GAS SERVICE BY CANADIAN STANDARDS ASSOCIATION UNDER STANDARD ANSI Z21.15-1997/CGA9.1-M97.
4. FIXTURE IS FURNISHED WITH COLORTECH WHITE POWDER-COATED FINISH.

MEASUREMENTS MAY VARY $\pm 1/4"$.

Drawing Number: _____

Revision Number: 082406-SJP

System 100

Product Overview



System 100 Extraction Arms – Ø 100 mm / 4"

| | Reach [mm / "] | Basic Article no. | AL (white) | PP (white) | AS |
|-----------------------------------|-----------------------------|-----------------------------|------------|------------|----|
| | | | ○ | ○ | ● |
| TABLE MOUNTED – 2 JOINTS | | | | | |
| | 795 / 31.30 | 100-55-1- | 5 | 7-5 | 6 |
| TABLE MOUNTED – 3 JOINTS | | | | | |
| | 1040 / 40.94 | 100-4540-1- | 5 | 7-5 | 6 |
| | 1185 / 46.65 | 100-5545-1- | 5 | 7-5 | 6 |
| | 1370 / 53.94 | 100-6555-1- | 5 | 7-5 | 6 |
| | 1710 / 67.32 | 100-9065-1- ¹⁾ | 5 | 7-5 | 6 |
| | 2130 / 83.86 | 100-10585-1- ²⁾ | 5 | 7-5 | 6 |
| WALL MOUNTED – 2 JOINTS | | | | | |
| | 795 / 31.30 | 100-55-2- | 5 | 7-5 | 6 |
| WALL MOUNTED – 3 JOINTS | | | | | |
| | 1040 / 40.94 | 100-4540-2- | 5 | 7-5 | 6 |
| | 1185 / 46.65 | 100-5545-2- | 5 | 7-5 | 6 |
| | 1370 / 53.94 | 100-6555-2- | 5 | 7-5 | 6 |
| | 1710 / 67.32 | 100-9065-2- ¹⁾ | 5 | 7-5 | 6 |
| | 2130 / 83.86 | 100-10585-2- ²⁾ | 5 | 7-5 | 6 |
| 2630 / 103.54 | 100-135105-2- ²⁾ | 5 | 7-5 | 6 | |
| CEILING MOUNTED – 3 JOINTS | | | | | |
| | 1185 / 46.65 | 100-5545-3- | 5 | 7-5 | 6 |
| | 1370 / 53.94 | 100-6555-3- | 5 | 7-5 | 6 |
| | 1710 / 67.32 | 100-9065-3- ¹⁾ | 5 | 7-5 | 6 |
| | 2130 / 83.86 | 100-10585-3- ²⁾ | 5 | 7-5 | 6 |
| | 2630 / 103.54 | 100-135105-3- ²⁾ | 5 | 7-5 | 6 |

1) With one external gas spring
2) With two external gas springs

ALSIDENT® SYSTEM 100 consists of three parts to be ordered separately: Extraction arm, hood and bracket.
Article no. of hoods and brackets – please see opposite page.
For further information about accessories, please visit: www.alsident.com

SNORKEL CUT SHEET

Ceiling Mount- 3 Joints
Aluminum Hood

System 100

Accessories Overview



Hoods

| HOOD | Dim. [mm/"] | Basic Article no. | ALU (as photo) | PP (white) | AS (black) |
|------|-----------------------|-----------------------|----------------|------------|------------|
| | Dia.: 200 / 8** | 1-10024 ¹⁾ | ○ | ○ | ● |
| | Dia.: 200 / 8 | 1-10024- | 5 | 7-5 | 6 |
| | Dia.: 385 / 15* | 1-10035- | 5 | 7-5 | 6 |
| | Dia.: 500 / 20* | 1-10050- | 5 | 7-5 | 6 |
| | Dia.: 360 / 14** | 1-10036- | 5 | 7-5 | 6 |
| | Dia.: 360 / 14 | 1-10036- | 5 | 7-5 | 6 |
| | 420 x 280 / 16.54x11* | 1-1004228- | 5 | 7-5 | 6 |

*1) PETG: polyethyleneterephthalate, glycol modified
**1) TCP: Chromated Aluminium (Trivalent Chromium Passivation)

- 1) Suitable for autoclaving
- 2) Black on request
- 3) For PP tubes

○ Only one colour
⊗ Not available

ALSIDENT® SYSTEM 100 consists of three parts to be ordered separately: Extraction arm, hood and bracket.
Article no. of extraction arms – please see opposite page.
For further information about accessories, please visit: www.alsident.com

Brackets

| BRACKET / U-PROFILE | Description | Article no. | Colour |
|---------------------|---------------|--------------------------|-------------------|
| | Wall Bracket | 2-10035 | white ○ |
| | | 2-10035-22 | stainless steel ⊗ |
| | U-profile | 30-100-5 | white ○ |
| CEILING COLUMN | Length [mm/"] | Article no. | Colour |
| | 500 / 20 | 2-100-500 | white ○ |
| | 500 / 20 | 2-100-500-050 | black ● |
| | 750 / 30 | 2-100-750 | white ○ |
| | 750 / 30 | 2-100-750-050 | black ● |
| | 1000 / 40 | 2-100-1000 | white ○ |
| | 1000 / 40 | 2-100-1000-050 | black ● |
| | 1500 / 60 | 2-100-1500 ²⁾ | white ○ |
| | 1750 / 70 | 2-100-1750 ²⁾ | white ○ |
| | 2000 / 80 | 2-100-2000 ²⁾ | white ○ |

Ceiling column available without side connection on request.
Additional charge for closing side or bottom.

Other Accessories

| REDUCER | Diameter of pipe [mm/"] | Article no. | Colour |
|------------------|--|----------------------|--------------|
| | 100-125 | 4-100125 | white ○ |
| | | 4-100125-6 | black ● |
| PROTECTIVE GRILL | Diameter of pipe [mm/"] | Article no. | Colour |
| | 100 | 5-18 | white ○ |
| | | 5-18-6 | AS (black) ● |
| | | 5-18-7 ³⁾ | PP (white) ○ |
| COVERING FLANGE | Size [mm/"] | Article no. | Colour |
| | 250 x 250 / 10 x 10 | 4-250-250 | white ○ |
| AIRFLOW ALARM | Description | Article no. | Colour |
| | Audible and visual alarm at airflow below 4 m/sec. | 10-01 | as photo |

UNDERCOUNTER WASHER CUT SHEET

Provide softened feed water

Versatile spindle and basket system washes and dries narrow-necked and general purpose glassware.

34 DETACHABLE SPINDLES WITH STAINLESS STEEL SPRING CLIPS
Large volumes of water stream into the bulb of each flask for high-powered, yet gentle, cleaning. Spring clips may be raised and lowered on the 24 tall spindles to accommodate flasks from 50 ml to 2000 ml. The 10 small spindles hold flasks from 1 ml to 25 ml. Spindles detach easily to customize rack for accessory inserts (sold separately). See page 13 for insert selection.

CE INTERNATIONAL ELECTRICAL CONFIGURATIONS AVAILABLE
All 230 volt models conform to the CE (European Community) requirements for electrical safety and electromagnetic compatibility.

EASY INSTALLATION
To begin operation, hot tap water, purified water, a drain and electricity are required. Mobile models feature a quick-disconnect attachment for tap water and drain. Undercounter and freestanding models have straight line plumbing and electrical connections accessible from the front. Higher built-in drain location prevents self-draining and plumbing errors.

ETL LISTED
Washer carries the ETL Testing Laboratories seal in the U.S. and ETL-C seal in Canada, signifying it meets or exceeds all minimum requirements of UL Standard 3101-1 and CAN/CSA C22.2 No. 1010.1.



VERSATILE MULTI-PIN INSERT ACCESSORY
Accommodates a wide variety of miscellaneous glassware for added flexibility. The insert may be placed directly over the spindles or where spindles have been detached.

PATENTED VACUUM DRYING SYSTEM
Draws moisture from inside the flasks, replacing it with hot, dry air.

MELAMINE-COVERED TOP
On mobile and freestanding models, the high-density particle board top is melamine covered on all sides to repel moisture.

MIRROR BRIGHT TYPE 304 STAINLESS STEEL INTERIOR
The shiny, non-porous finish provides a corrosion-resistant surface which reduces contaminant carry over during wash and rinse cycles.

QUIET, ENERGY EFFICIENT OPERATION AT 62 DECIBELS
Aluminum-backed, sound-deadening material is strategically placed throughout the washer to absorb noise. An insulation blanket optimizes internal tank temperature while conserving energy.



ADJUSTABLE GLASSWARE HOLDERS
Secure Erlenmeyer flasks and beakers over the spindles. The vinyl-coated fingers gently cradle the glassware. Two 4-inch and two 6-inch Glassware Holders are included.

DISPENSER FOR NEUTRALIZING SOLUTION
Allows addition of mildly acidic rinse solution to alter pH and eliminate alkaline detergent carry over.

SPINDLE RACK AND ROTATING LOWER WASH ARM
Distribute up to 60 gallons (227 liters) of water per minute. Wash arm cleans with a 360° motion.

DRY OR LIQUID DETERGENT DISPENSER
Detergent compartments release a premeasured amount (1.35 ounces or 40 ml) ensuring clean labware.

PARTICLE FILTER
One-piece stainless steel screen filters fine particles, protecting the pump from broken glass and debris.

FULL ONE YEAR WARRANTY
Is provided against defects in materials and workmanship.

DRAW LATCH
Securely locks the door energizing the electronic controls.

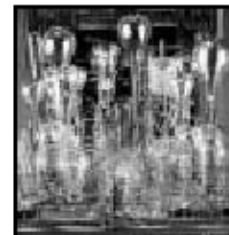
DUAL HEATERS
Boost water and glassware temperatures to enhance washing and drying results by applying heat during all cycles. Models for operation on 115 volts have 1450 watts of heating power; 230 volt models have 2150 watts. With a minimum inlet temperature of 120° F (49° C), the sump heater elevates water temperature approximately 20° F (11° C) on 115 volt models and 60° F (33° C) on 230 volt models.

TYPE 304 STAINLESS STEEL DOOR
Front door is sleek brushed stainless steel. Mobile and freestanding models also have brushed stainless steel sides and epoxy-coated steel backs.

STEAM GENERATOR
Produces hot vapor to penetrate and soften dried residue allowing detergent and hot water to work effectively.

BUILT-IN PURIFIED WATER PUMP
Draws from a storage tank or pressurized system to deliver purified water during final two rinses.

Exclusive feature



FlaskScrubbers®

Ordering Information

Undercounter FlaskScrubbers

24.0" w x 26.4" d x 34.3" h minimum to 36.3" h maximum (60.9 x 67.1 x 87.1 cm minimum to 92.1 cm maximum).
Shipping weight 142 lbs. (64 kg). Includes one 3/8" IPS inlet fitting for tap water, one fitting for 3/4" ID hose for purified water, 34 detachable spindles, 34 stainless steel spring clips, two Glassware Holders 44246-00, two Glassware Holders 44248-00, and leveling feet.

| Catalog Number | Electrical Requirements | High Heat | Options Window | Required (not included) |
|----------------|--------------------------|-----------|----------------|---|
| 44203-00 | 115 v, 60 Hz, 16 amps | | | hardwiring to a 20 amp dedicated circuit 1 1/2" vent trap or drain air gap |
| 44203-01 | 230 v, 50/60 Hz, 13 amps | ♦ | | hardwiring to a 20 amp dedicated circuit 1 1/2" vent trap or drain air gap |
| 44203-10 | 115 v, 60 Hz, 16 amps | | ♦ | hardwiring to a 20 amp dedicated circuit 1 1/2" vent trap or drain air gap |
| 44203-11 | 230 v, 50/60 Hz, 13 amps | ♦ | ♦ | hardwiring to a 20 amp dedicated circuit 1 1/2" vent trap or drain air gap |

Freestanding FlaskScrubbers

24.5" w x 26.7" d x 35.1" h minimum to 37.1" maximum (62.2 x 67.8 x 89.2 cm minimum to 94.2 cm maximum).
Shipping weight 189 lbs. (86 kg). Includes melamine-covered top, stainless steel front and side panels, epoxy-coated steel back panel, one 3/8" IPS inlet fitting for tap water, one fitting for 3/4" ID hose for purified water, 34 detachable spindles, 34 stainless steel spring clips, two Glassware Holders 44246-00, two Glassware Holders 44248-00, and leveling feet.

| Catalog Number | Electrical Requirements | High Heat | Options Window | Required (not included) |
|----------------|--------------------------|-----------|----------------|---|
| 44204-00 | 115 v, 60 Hz, 16 amps | | | hardwiring to a 20 amp dedicated circuit 1 1/2" vent trap or drain air gap |
| 44204-01 | 230 v, 50/60 Hz, 13 amps | ♦ | | hardwiring to a 20 amp dedicated circuit 1 1/2" vent trap or drain air gap |
| 44204-10 | 115 v, 60 Hz, 16 amps | | ♦ | hardwiring to a 20 amp dedicated circuit 1 1/2" vent trap or drain air gap |
| 44204-11 | 230 v, 50/60 Hz, 13 amps | ♦ | ♦ | hardwiring to a 20 amp dedicated circuit 1 1/2" vent trap or drain air gap |

AUTOCLAVE CUT SHEET

Electric Steam Generator



Consolidated Sterilizers

Designed to Transform Your Laboratory

Small Lab Series Steam Sterilizers

General Specifications

General Specification

Steam Sterilizer, Radial-Arm Door(s), Hinged, Single Chamber, Double Wall

Consolidated Small Lab Series Sterilizers are designed to sterilize at temperatures between 212° F and 275° F (100° C and 135° C) through the use of steam. Choose from a stainless steel or nickel-clad steel vessel construction in a variety of sizes and programmable control options for pre-vacuum or gravity operation. Consolidated sterilizers offer a range of performance options to meet the most demanding applications in clinical, animal and life science, biotechnology, pharmaceutical, and commercial/industrial applications.

| Model | Chamber Dimensions (w x h x f-b) | Volume (per chamber) |
|--------|--|-----------------------------|
| SSR-2A | 16" x 16" x 26" 40.6 x 40.6 x 66 cm | 3.9 cu. ft. 109 liters |
| SSR-3A | 20" x 20" x 38" 50.8 x 50.8 x 96.5 cm | 8.8 cu. ft. 249 liters |
| SR-24A | 24" x 24" x 36" 61 x 61 x 91.4 cm | 12 cu. ft. 340 liters |
| SR-24B | 24" x 24" x 48" 61 x 61 x 122 cm | 16 cu. ft. 453 liters |
| SR-26A | 26" x 26" x 39" 66 x 66 x 99 cm | 15.25 cu. ft. 430 liters |

Features and Benefits

Simplified Maintenance, Low Cost of Ownership.

All Consolidated sterilizers are manufactured in the USA and built from commonly available parts to allow quick and cost effective field-level service and maintenance.

Serviceability.

Easy access to replaceable components, local component availability and common electrical and plumbing parts permit qualified facility or area service companies to maintain the sterilizer. The radial-arm, solid-silicone door gasket is selected for durability; the gasket is easily replaced if required.

Control Flexibility.

A choice of programmable controllers allows a broad range of performance functions, complete with alarm, monitoring and communications required for internal or third-party compliance.

Performance Cycles—Basic to Advanced.

The fully-jacketed sterilizer design permits vacuum and pressure control when configured for pre-vacuum, post-vacuum, and more sophisticated functions such as air-over-pressure. Consolidated sterilizers are ideal for sterilizing wrapped and unwrapped goods, liquids, waste, and other applications. All cycles are easily managed and automated.

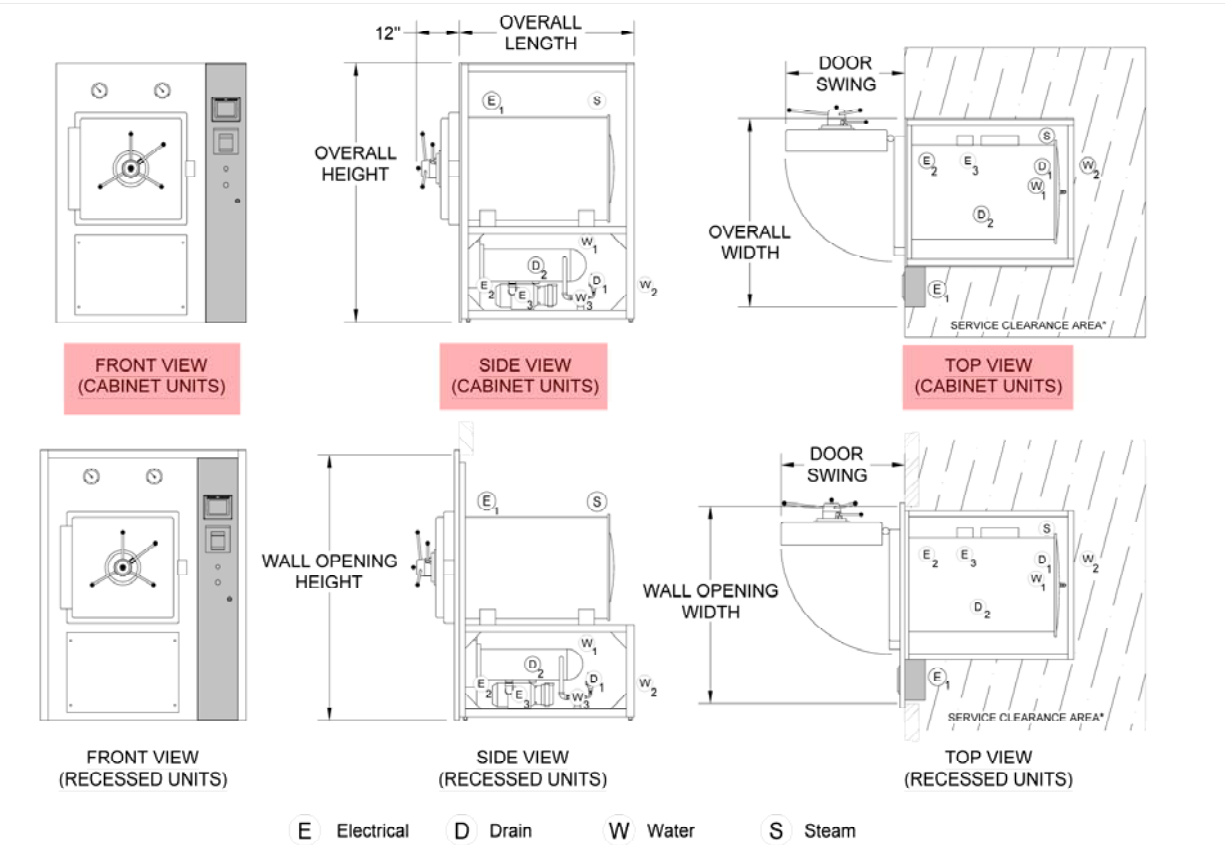
Green and Environmentally Friendly.

Unique, new water-saving technologies reduce water consumption without compromising performance.



Consolidated Small Lab Series Sterilizers are available in single door, pass-thru and dual (tower) models. A versatile control system offers a range of performance options to meet the most demanding applications in clinical, life science, biotechnology, pharmaceutical, and commercial/industrial applications. Model PT-24A-ADVPRO shown with ADV-PRO programmable logic controller.

PROJECT: UNIVERSITY OF IOWA, IOWA CITY
PBDB CONSTRUCTION FACILITY
UI PROJECT NO. 0035301
PROJECT NO. 0728
IOWA CITY, IA 52242
SECTION 11 53 19
PARA. 2.02B. STEAM STERILIZER
EQUIPMENT NO. 115319.12
CONSOLIDATED MODEL 2-SSR-3A-ADVPRO



Notes

- Right side control housing, left side door hinge shown. Standard control location is opposite hinge. Opposite mounting is available upon request.
- The control housing is shipped detached from the sterilizer to allow passing through doorways, reducing overall pre-installation width by 10 3/8". When the sterilizer is installed, the control housing and electrical connections are easily attached.
- Alternative controller mounting options are available at no charge for installations into smaller wall openings. Contact Consolidated to arrange a solution.
- Standard plumbing and utility access is primarily located on the same side as the door hinge. If location of plumbing is important to your installation contact Consolidated to arrange a solution.
- CAD Blocks are available for insertion into plan drawings.

Table 1: Sterilizer Unit Dimensions

| Model | SSR-2A | SSR-3A | SR-24A | SR-24B | SR-26A |
|----------------------------------|--|--|--------------------------------------|-------------------------------------|------------------------------------|
| Chamber Dimensions (w x h x f-b) | 16" x 16" x 26" 40.6 x 40.6 x 66 cm | 20" x 20" x 38" 50.8 x 50.8 x 96.5 cm | 24" x 24" x 36" 61 x 61 x 91.4 cm | 24" x 24" x 48" 61 x 61 x 122 cm | 26" x 26" x 39" 66 x 66 x 99 cm |
| Volume | 3.9 cu. ft. 109 liters | 8.8 cu. ft. 249 liters | 12 cu. ft. 340 liters | 16 cu. ft. 453 liters | 15.3 cu. ft. 433 liters |
| Overall Width | 38.375" 97.5 cm | 38.375" 97.5 cm | 46.375" 117.8 cm | 46.375" 117.8 cm | 48.375" 122.9 cm |
| Overall Height | 71" 180.3 cm | 71" 180.3 cm | 71" 180.3 cm | 71" 180.3 cm | 71" 180.3 cm |
| Overall Length | 32.375" 82.2 cm | 42" 106.7 cm | 42" 106.7 cm | 54" 137.2 cm | 44.5" 113 cm |
| Wall Opening Width ² | 40.375" 102.6 cm | 40.375" 102.6 cm | 48.375" 122.9 cm | 48.375" 122.9 cm | 50.375" 128 cm |
| Wall Opening Height | 72" 182.9 cm | 72" 182.9 cm | 72" 182.9 cm | 72" 182.9 cm | 72" 182.9 cm |
| Door Swing | 22.5" 57.2 cm | 27" 68.6 cm | 33.5" 85.1 cm | 33.5" 85.1 cm | 35.5" 90.2 cm |

1 Additional options may require a larger footprint.
2 Alternative controller mounting options are available at no charge for installations into smaller wall openings. Contact Consolidated or your Consolidated Sales Representative to arrange a solution.

| | | | |
|----------|------------|------------|-------------------------------------|
| DATE | 01/02/2010 | SS | CONSOLIDATED STERILIZER SYSTEMS |
| DRAWN | M. PETERS | 01/02/2010 | 75 ASHPURD ST, BOSTON MA 02114 |
| REVISED | M. PETERS | 01/02/2010 | TITLE |
| ENG APPR | | | SMALL STERILIZER |
| SER APPR | | | CUT SHEET |
| | | | ADV PB/PRO/PLUS |
| | | | SIZE DWG. NO. REV |
| | | | A 91015 1,A |
| | | | SCALE: N/A WEIGHT: --- SHEET 1 OF 2 |



Featuring Green Technology for Energy Savings and Minimal Environmental Impact