

Meeting Notes



PROJECT

LOSD LOHS Science Lab Remodel

MEETING SUBJECT

Design Meeting #3 with Teachers

DATE

2023-12-01

LOCATION

At Lake Oswego HS

TIME

LOHS: 12:15 – 1:15pm

PARTICIPANTS

Tony Vandenberg
Larry Zurcher
Beth Starr
Kristen Colyer
Amy McNeely
Joe Nelson
Marta Lilly (Arcadis)
Rebecca Stuecker (Arcadis)
Brent Johnston (Arcadis)
Andrew Werth (Arcadis)

DISTRIBUTION Attendees

This is a record of the 3rd design meeting for the LOSD LOHS Science Lab Remodel project. Presentation slides and floor plans attached.

MEETING AGENDA by Arcadis

1. What We've Heard
 - a. Design Meeting #2 Takeaways
2. Design Development
 - a. Review
 - b. Options
3. Next Steps
 - a. Equipment List

What We've Heard

- Marta reviewed the takeaways from the Design Meeting #2 held on November 02, including:
 - Clarified zoning for classrooms
 - Discussed equipment needs in the prep rooms
 - Staff room has a good layout, but do not provide direct visibility to hall. Clerestory windows (high windows) are okay to borrow light from adjacent room.
 - Classroom of the future – add sinks and consolidate furniture
 - Discussed features teachers currently use – lighting, exhaust, etc.
- Marta and Rebecca shared some examples of chemistry lab tables and examples of recent college/university science lab projects that show the move to more flexible lab arrangements, equipment, and furnishings. (See images in slide presentation attached)
 - Also distinguishing between “mobile” pieces of equipment/furniture (with casters) and “moveable” pieces of equipment/furniture that are less easy to move, but still flexible (these could be rearranged project-to-project or semester-to-semester rather than day-to-day).
 - One project example showed a ceiling-mounted track system to deliver power and still provide furniture/fixtures flexibility. In contrast to retractable power cord reels or hanging cord drops.

Design Development

- Marta shared the Design Development plans with the LOSD team and discussed certain design options, see attached plans.
 - **General classroom and prep room upgrades including:**

- There is still a discussion at the District-level about extent of replacing classroom lighting and ceilings. The LOHS staff had identified the existing ceilings and lighting as performing well, but there is a need to update the mechanical system that would require the ceilings to be removed.
- Options for the new, second flat screen monitor in each room were shared. The LOHS teachers felt the location at the exterior wall of the classroom was the best. See markups attached.
- New sinks and counters will be provided and the architectural team will look at keeping areas of existing cabinets where possible.
- See attached slides for additional information.
- Prep room layouts discussed and arrangement of storage at one end and prep area in the other.
 - The LOHS teachers agreed with this layout.
- Science 324/"Classroom of the Future"
 - Requested additional door to Science 313 to help with transporting materials (see markups attached).
 - (4) gas spigots
 - Plan for 30 students – see layout markups
 - Possibly flip top tables to be able to open up space.
- **Chemistry**
 - New layouts for the Chemistry classrooms were shared and discussed.
 - The teachers felt the new layouts would work for the Chemistry program and the associated rooms Chemistry 314, Chemistry 315, and Science 313 (Intro to Chemistry class).
 - Confirmed locations and functional needs for fume hoods at the Chemistry classroom. See attached plan markups for locations.
 - Arcadis will follow up with our Plumbing and Mechanical engineers to confirm type of chemical use triggers the requirement for emergency showers and special ventilation.
 - The Chemistry side-by-side layout slide (showing the previous layouts and the new layouts) has been readded and attached here (it was not in the original presentation slides).
 - At next meeting we will share elevations that show relationship of equipment and casework on the walls.
- **Equipment**
 - LOHS Science Dept request for a large ice maker (athletic training room size).
 - See markups for locations of ice machines [Prep 329 (chemistry) + 330 (biology)]
 - LOHS Science Dept is deciding on whether an autoclave is needed.
 - Typically no stools in Chemistry classes
 - Look at options for storage or no storage under lab tables at Chemistry.
 - Existing clocks to remain
 - New monitors and mounting brackets are "OFCI"
 - LOHS wants to keep teacher demonstration table at front of room fixed.
 - With gas, sink, and more outlets.
 - LOSD requested dishwasher and refrigerator to be in contract and list basis of design.
 - Requested standard sizes that fit the prep room spaces.
- **Next Steps**
 - Have LOHS Science Department review the equipment list provided by Arcadis (print and digital copies provided) and confirm as much information as possible.
 - We will have further opportunities to cover any items that are unclear or need more discussion.

LOHS Science Labs
Lake Oswego SD
December 01, 2023

- LOSD Facilities/Bond group will also provide input on certain items.

Submitted by,
Arcadis Architects Inc.

Attachments: PowerPoint Presentation, Plans, Plan mark ups and equipment list.



“Science is a way of thinking much more than it is a body of knowledge.”

Carl Sagan

High School Science Labs Design Committee Meeting #3

Lake Oswego School District

December 01, 2023

Agenda

What We've Heard
Meeting 2 Takeaways

Design Development
Review & Options



What We've Heard

What We've Heard: November 2 Meeting Takeaways

- Clarified zoning for classrooms
- Discussed equipment needs in prep rooms
- Staff room has good layout, no visibility to hall but borrow light from adjacent room
- Classroom of the future- add sinks and consolidate furniture
- Discussed features teachers currently use- lighting, exhaust, etc.



What We've Heard: Chemistry Lab Inspiration





142-16

142-15





MDS Architects - HMS Lahav Lab



Watch later



Share



<https://www.mds-bos.com/hms-lahav-lab>



1:17 / 2:50



YouTube









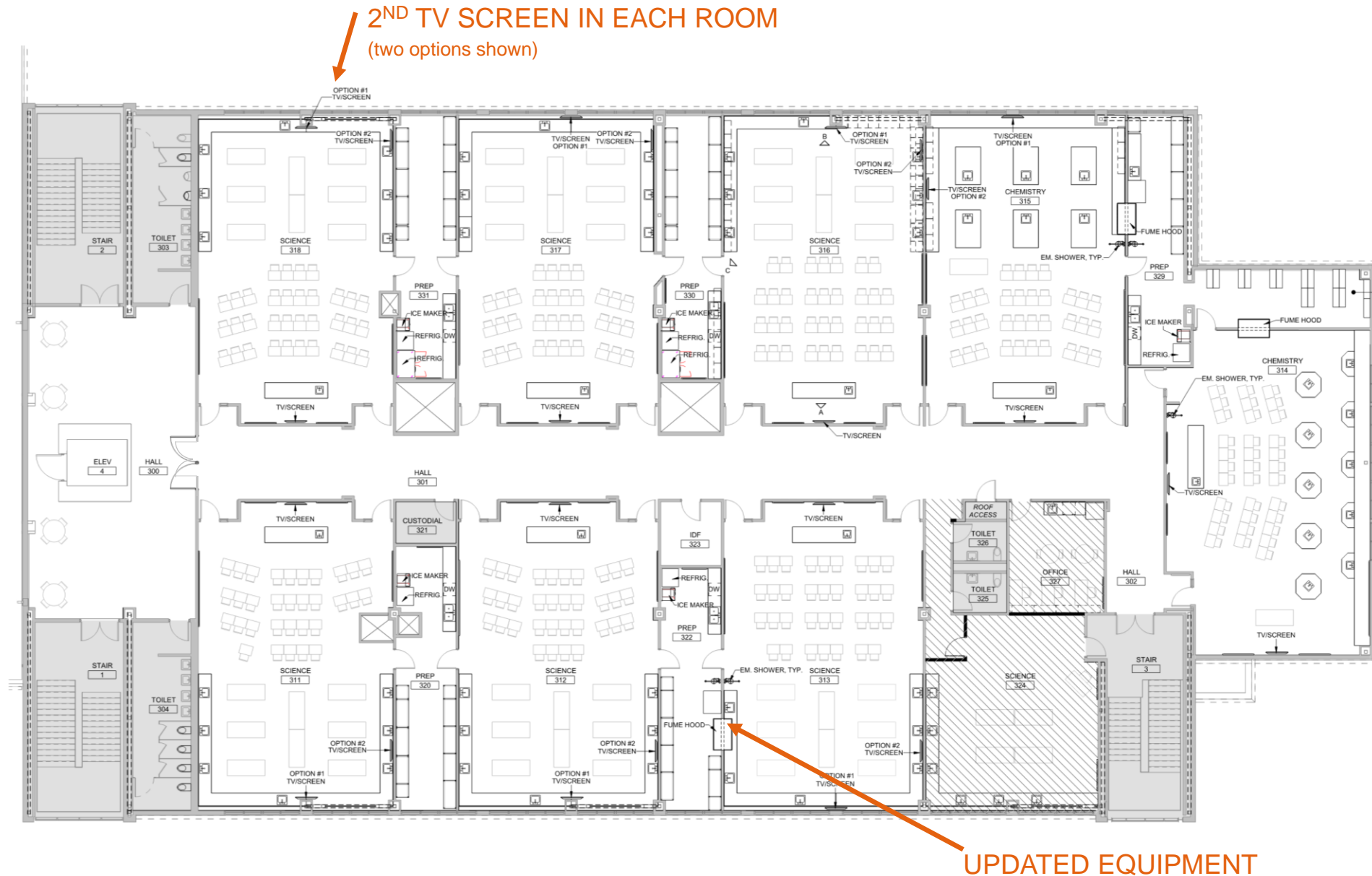


Design Development

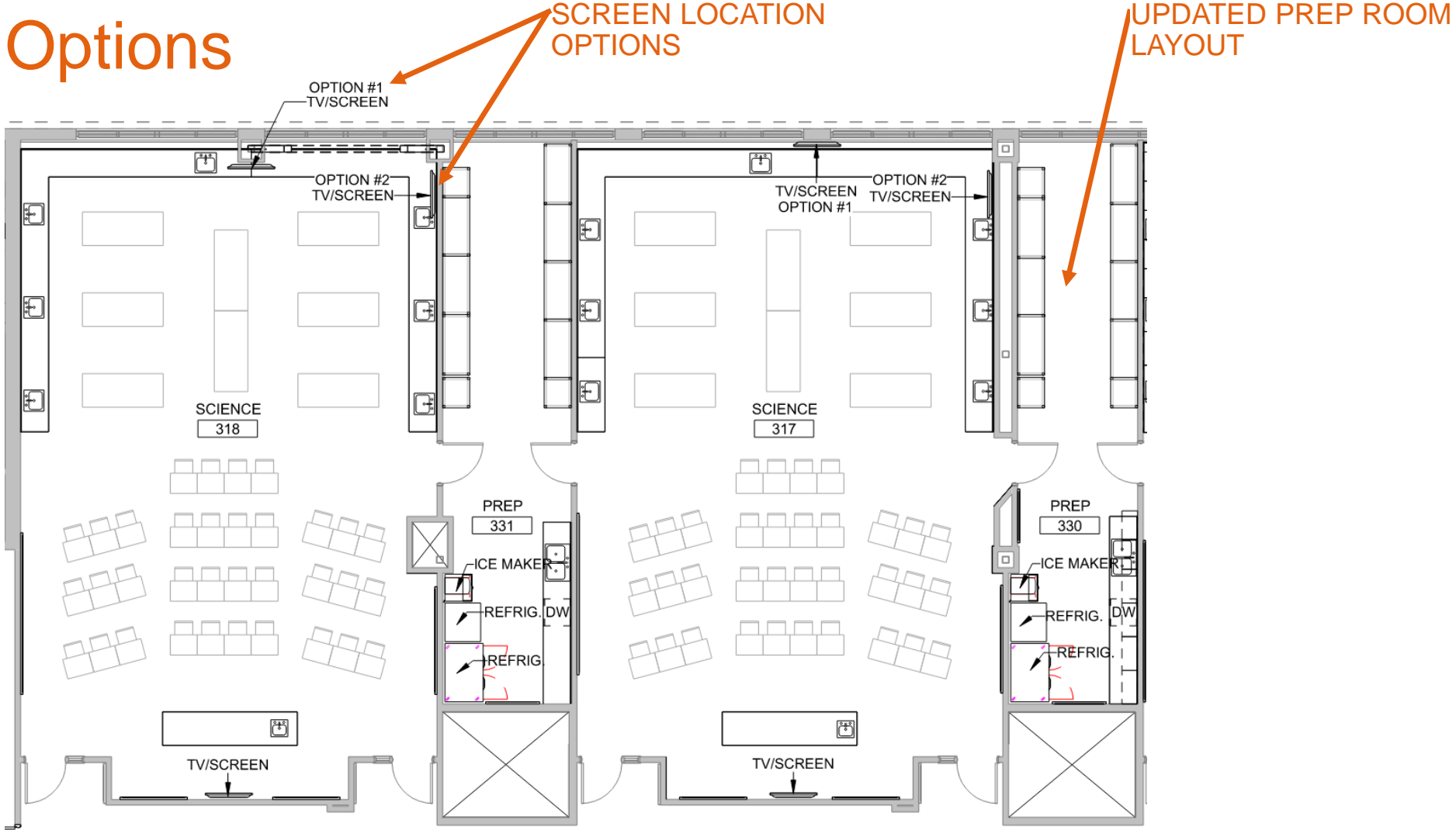
Design Development Overview

GENERAL UPGRADES:

- *NEW LIGHTING, CEILINGS, FLOORING AND WALL FINISHES.*
- *ADDITIONAL MARKERBOARDS AND TWO FLAT SCREENS PER ROOM.*
- *NEW SINKS AND COUNTERS, SALVAGE CABINETS WHERE POSSIBLE*
- *UPGRADES TO PLUMBING, GAS, VENTILATION, SYSTEMS INCLUDING FUME HOODS.*
- *ACCESS TO GAS ALONG THE PERIMETER COUNTERS IN EVERY ROOM.*
- *REPLACE AGING EQUIPMENT AND FURNITURE*



Design Development General Lab Options



NEW LAB LAYOUTS

PREVIOUS LAB LAYOUTS

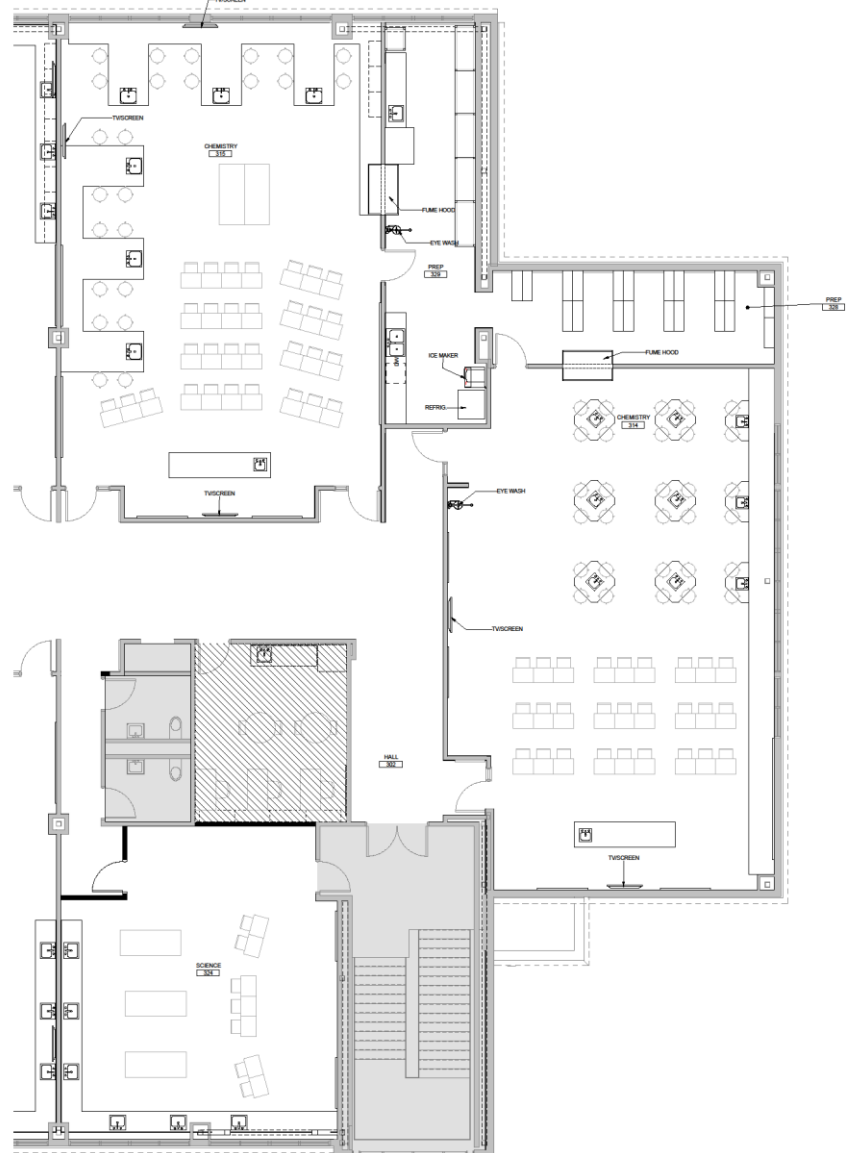
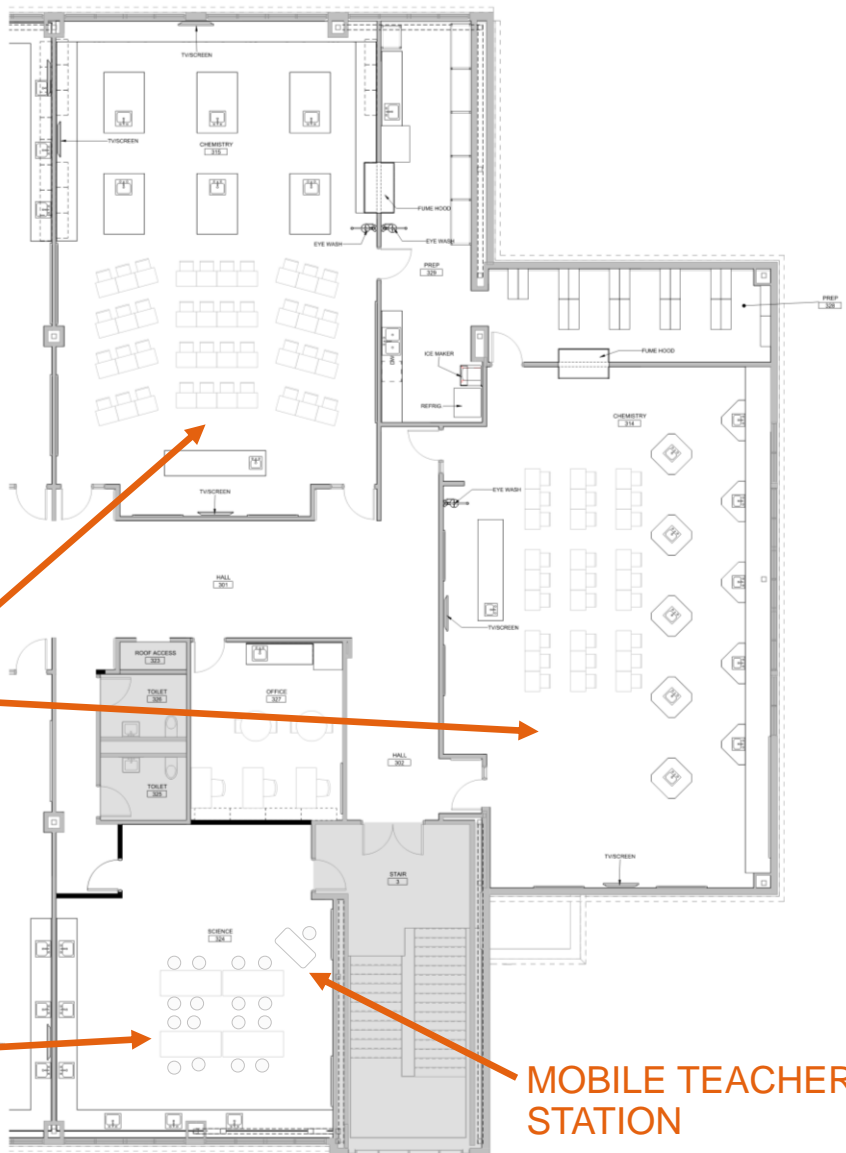
Design Development

Chemistry (side-by-side comparison from last meeting design), Teacher Office, & Classroom of the Future

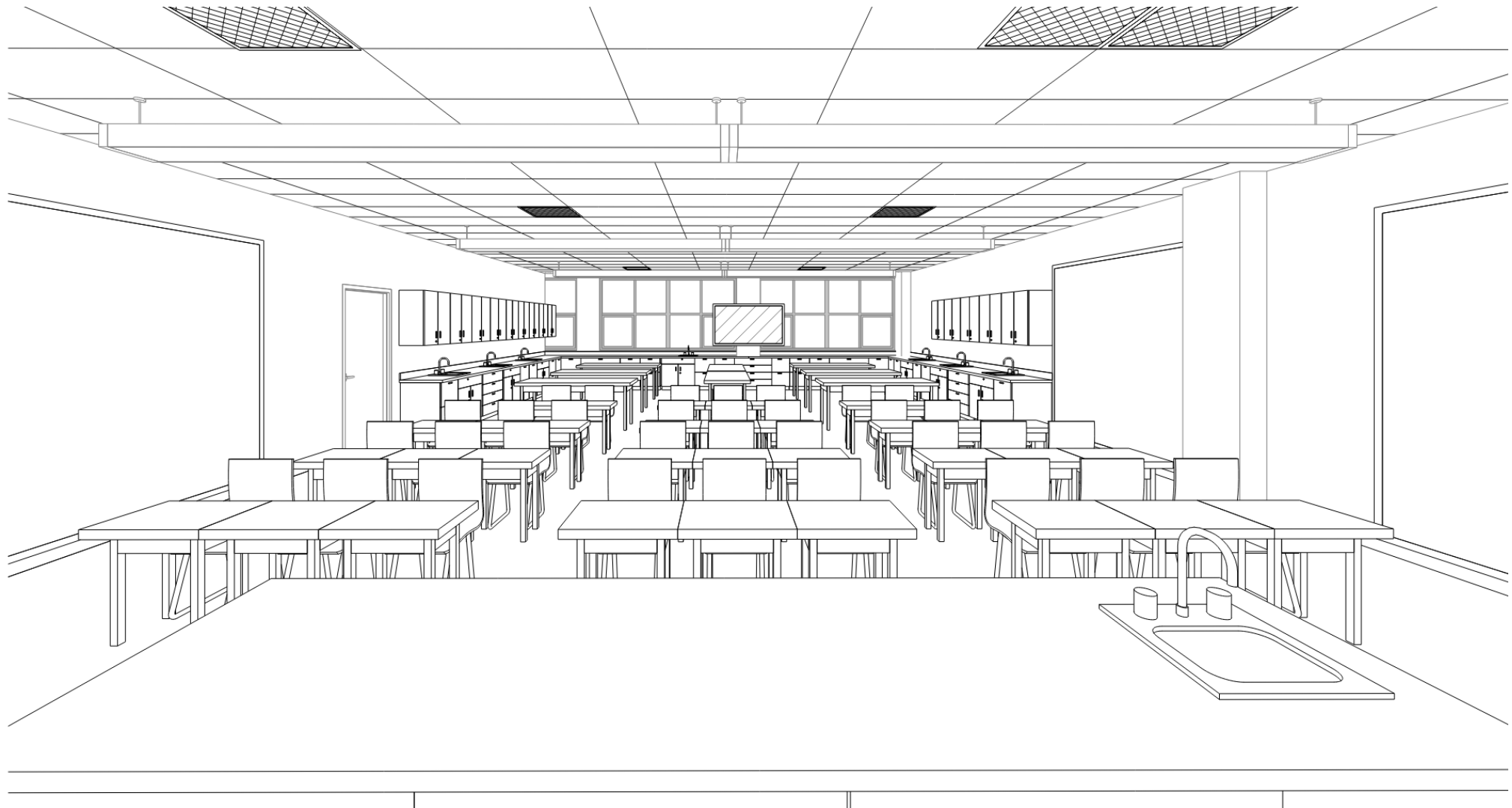
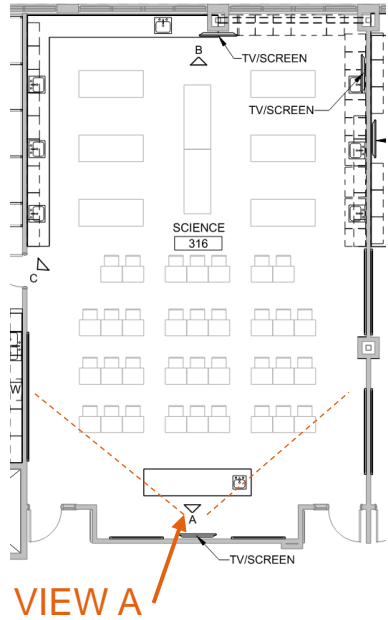
ALT LAB LAYOUTS

TALL TABLES AND STOOLS

MOBILE TEACHER STATION

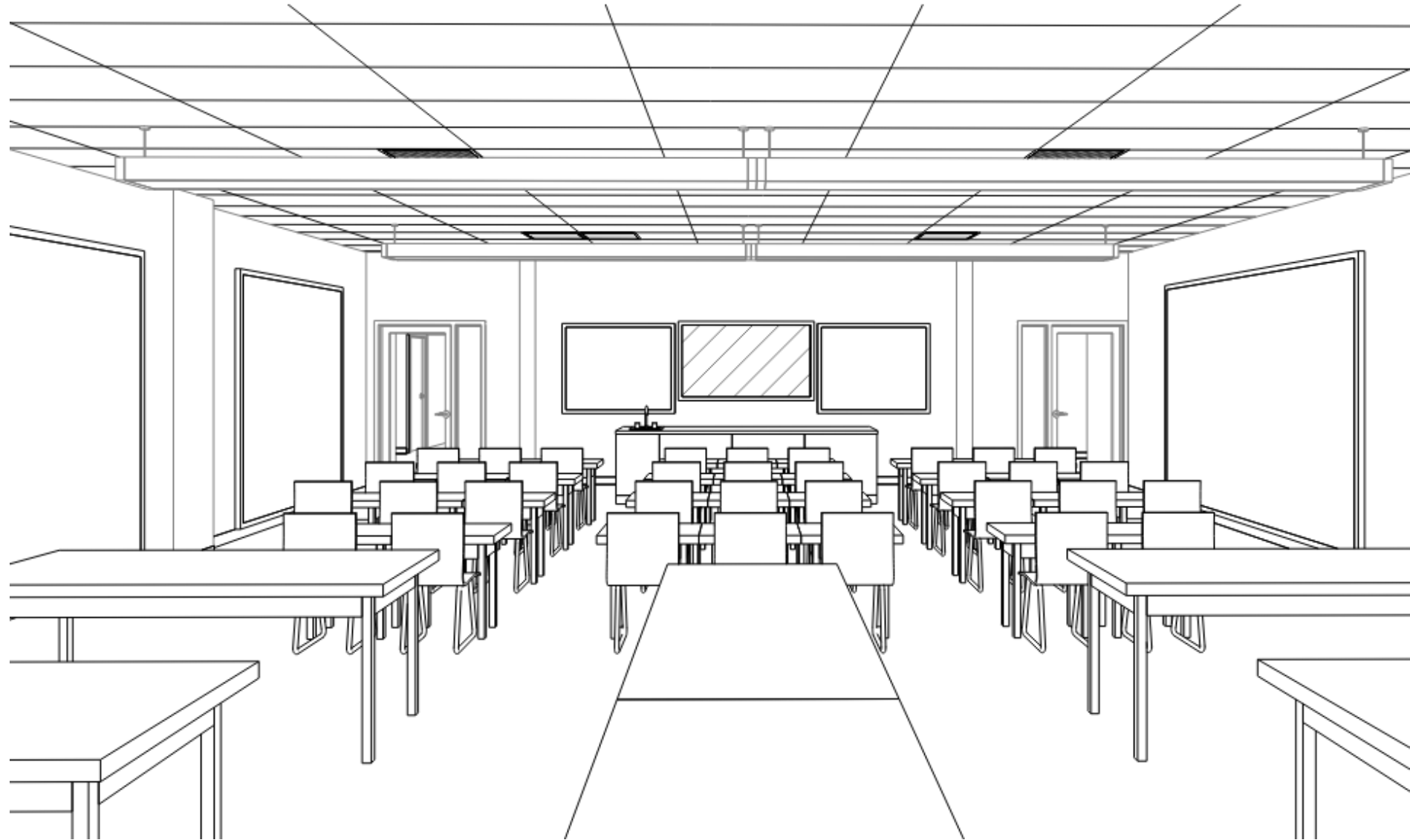
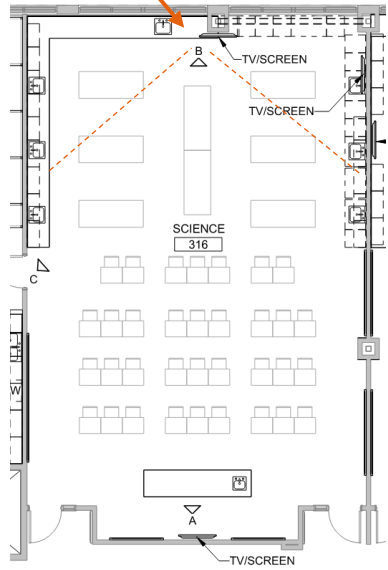


Design Development 3D Views



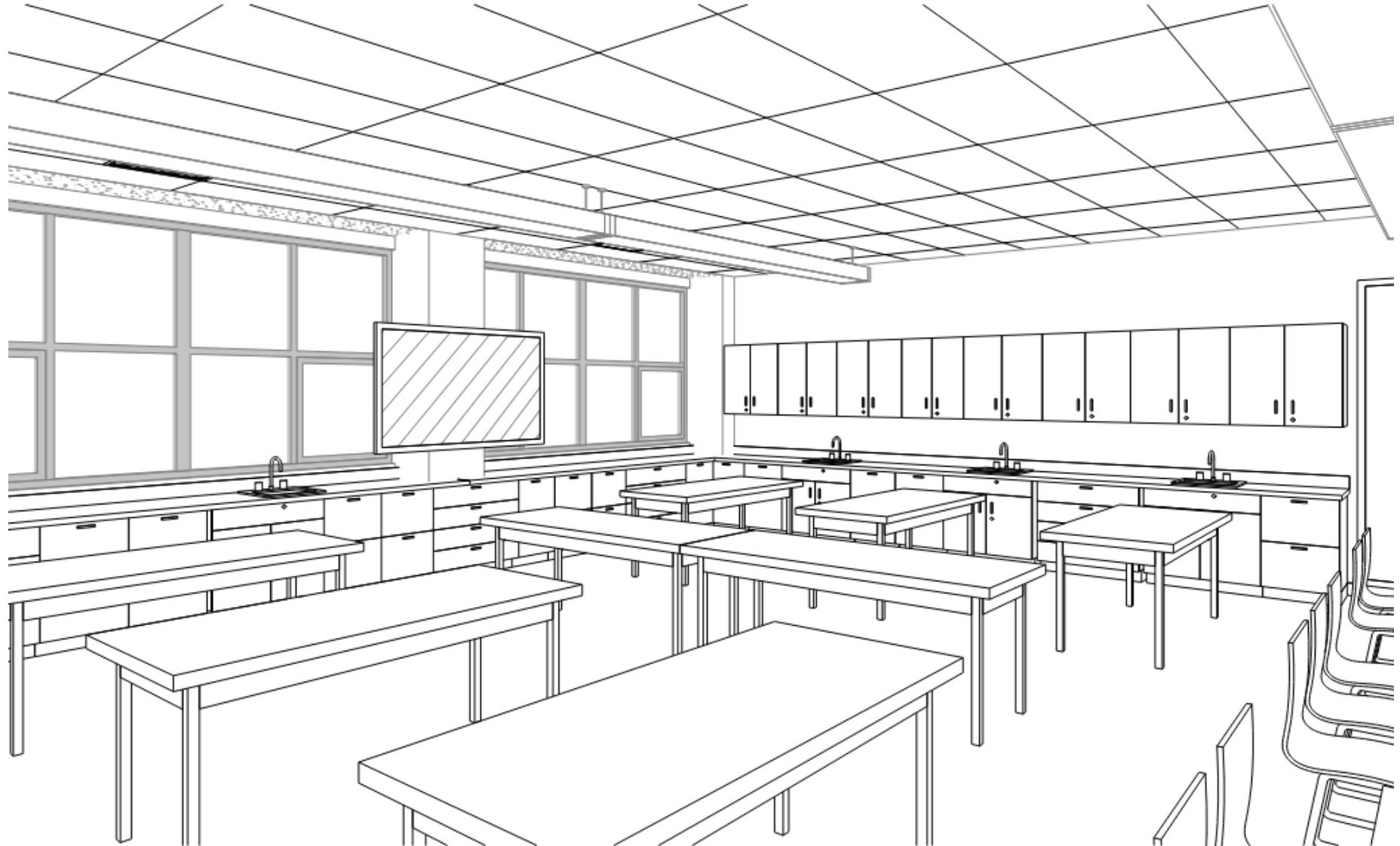
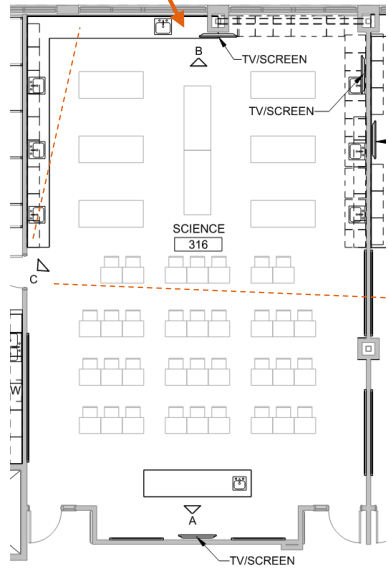
Design Development 3D Views

VIEW B



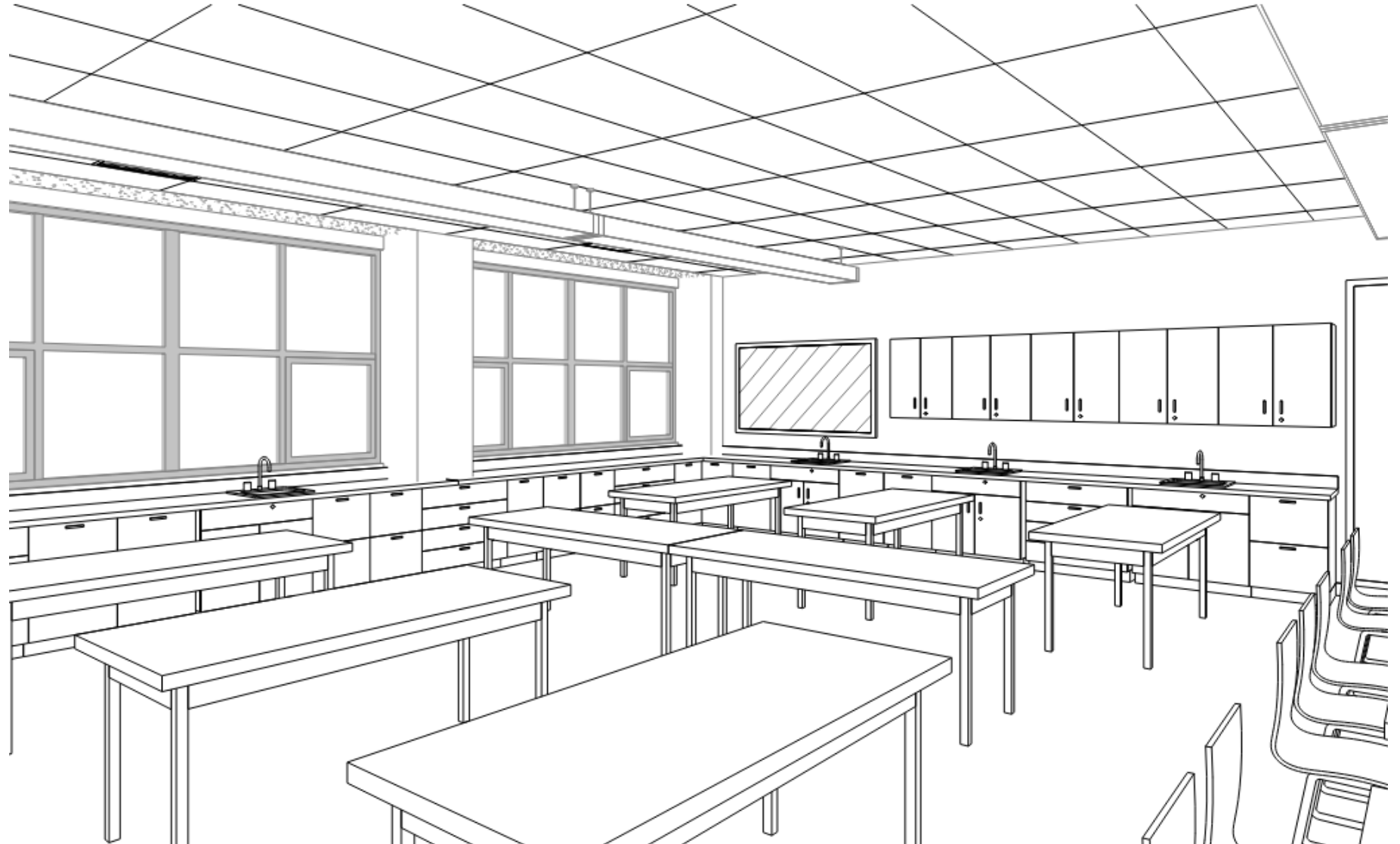
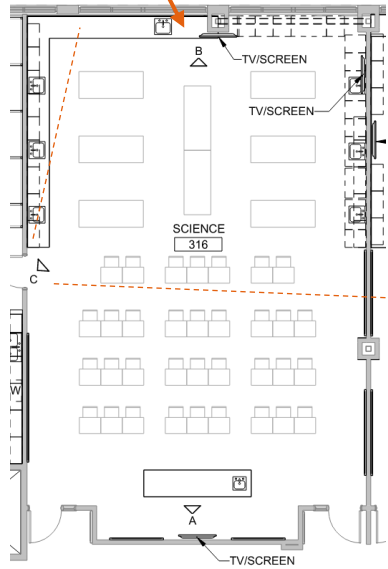
Design Development 3D Views

VIEW C1



Design Development 3D Views

VIEW C2



Next Steps

Design Development 3D Views

EQUIPMENT LIST Section 1

Lake Oswego High School - Science Classroom and Prep Room Equipment								
Equipment	Quantity	Utility connections	Room(s)	New or existing	In contract/OFCI/OFOI	sole sourced/ BOD /	Displine	Notes:
Fume Hood - Single Side	1 per room	Electrical, Mech, Gas, Water	314, 315	New	In Contract		M,E,P	Emergency Shut Off Switch
Fume Hood - Double	1 per room	Electrical, Mech, Gas, Water	314 & 328, 315 & 329, 313 & 322	New	In Contract		M,E,P	Emergency Shut Off Switch
Fire blank and extinguisher	1 per room	N/A	311, 312, 313, 316, 317, 318, 314, 315	New	In Contract		N/A	Let us know if LOSD will be reusing the blanket or extinguisher
Emergency Shower / Eyewash	1 per room	Plumbing	311, 312, 313, 316, 317, 318, 314, 315	New	In Contract	Basis of Design	P	Note this is a comb shower and eyewash, if we switch to just eyewash in certain rooms add to the row below.
See notes above Eyewash								
Dishwasher	1 per room	Electrical and Plumbing	Prep 320, Prep 322, Prep 329, Prep 330, Prep 331	New	OFCI	N/A	A,E,P	Commercial-grade dishwasher
Indoor Plant Growing Station	1	Electrical	Room 313	New	In Contract	Basis of Design	A,E	Tower Garden, Green Bronx Machine, verify connection/power with electrical
Retractable Drop Down P&D	?	Electrical and Tech	311, 312, 313, 316, 317, 318, 314, 315	New	In Contract	?	E,T	Retractable Drop-Down Power And Data, See Electrical & Technology.J15
Refrigerator / Freezer	1 per room	Electrical	Prep 320, Prep 322, Prep 329, Prep 330, Prep 331	New	OFCI	N/A	E	
Heavy Duty Freezer	1 per room	Electrical	Prep 330, Prep 331	New	OFCI	N/A	E	

NOTES/Info Needed from LOSD
Only doubled sided now at LOHS, see Revit model
Only doubled sided now at LOHS, see Revit model. (3) units?
Need to confirm approach with LOSD
Emergency Showers at (3) Chemistry classes + (2) assoc. Prep rooms 322 + 329 only = (5) total. Single eyewash, sink integrated at each classroom and Prep (without a shower).
Confirm OFCI. Confirm size + number. Teachers requested Science-grade dishwasher.
Verify type with Teachers/LOSD Currently showing locations per student lab tables and in approx locations. Confirm number/type with District. Confirm they like drops used at 2nd Floor Maker Space.
Confirm this is a residential refrigerator and if OFCI.
Confirm OFCI. Confirm size + type.

Design Development 3D Views

EQUIPMENT LIST Section 2

Ice Machine	1 per room	Electrical, Plumbing	Prep 320, Prep 322, Prep 329, Prep 330, Prep 331	New	OFCI	N/A	E, P	Ice Machine with floor sink
Chemical Storage Cabinets / Flammable Storage Cabinet	1 per room	Mech?	Prep 320, Prep 322, Prep 329, Prep 330, Prep 331	New	In Contract	?	M	In the drawings they are not listed as the items: are they separate or the same item: Chemical Storage Cabinets / Flammable Storage Cabinet
Duplicated from above see notes Flammable Storage Cabinet	1 per room							See this same as a chemical storage I believe flammable needs venting
Sink with Sand Traps	Ref to Drawings	Plumbing	Prep, Science, and Chemistry	New	In Contract	?	P	Sink and all components related to it
Incubator Unit	1	Electrical	Prep, Science, and Chemistry	New	OFCI	?	E	ThermoFisher SHKE6000 (120 V, shaker, no refrigeration)* Thermo Scientific™ Heratherm™ General Protocol Microbiological Incubator, 194 L, Stainless Steel, EMD
Goggle Sanitizer	NEED INFO							
Lab Coat Rack	NEED INFO							
Peg Board	NEED INFO							
Gas Piping Gas Fitting Nozzles	NEED INFO							
TV / Monitor					OFCI			
4'x4' MB								
4'x8' MB								
4'x4' TB								

Would (1) ice maker work for the Department? Confirm OFCI. Confirm size, number, + type.
Confirm size, number, location + type.
Confirm size, number, location + type.
Located at every sink.
*From 11/02 Design Meeting request for this unit. Confirm locations and if OFCI.
Confirm need with LOSD/teachers. If needed, confirm size, locations, OFCI, etc.
Confirm need with LOSD/teachers. If needed, confirm size, locations, OFCI, etc.
Confirm need with LOSD/teachers. If needed, confirm size, locations, OFCI, etc.
Confirm number and location. Confirm function with other existing monitor. Match existing monitor?
Review with teachers.
Review with teachers.
Review with teachers.

Design Development 3D Views

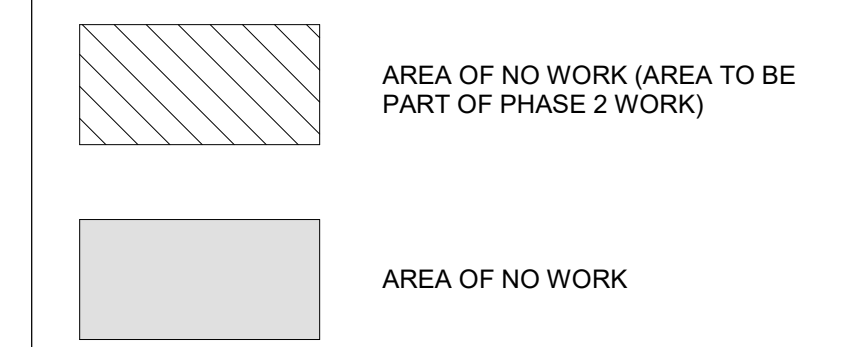
EQUIPMENT LIST

Section 3

Ceiling Mounted Camera		Electrical and Tech	311, 312, 313, 316, 317, 318, 314, 315		In Contract	Basis of Design	T	Basis of design is Vaddio DocCAM 20 HDBT OneLink
Card Reader								
Utility Sink								
Clock								
Autoclave								
Abbreviations					OFCI = Owner Furnished/Contractor Installed OFOI = Owner Furnished/Owner Installed	BOD = Basis of Design	M = Mechanical P = Plumbing E = Electrical T = Technology	

Confirm need with LOSD/teachers. If needed, confirm size, locations, in contract, etc.
For Prep room doors only. Confirm function with LOSD/teachers.
Confirm this is needed at any classroom or prep rooms? Deeper/utility sink
Confirm existing to remain
Confirm if needed, function, type, and exhaust.

FLOOR PLAN LEGEND:



CLIENT
Lake Oswego School District



2501 Country Club Rd. Lake Oswego, OR 97034

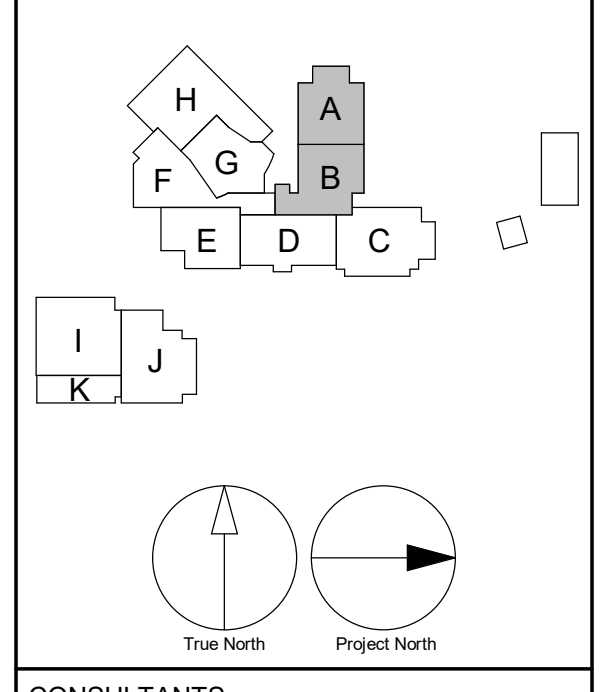
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KEYPLAN



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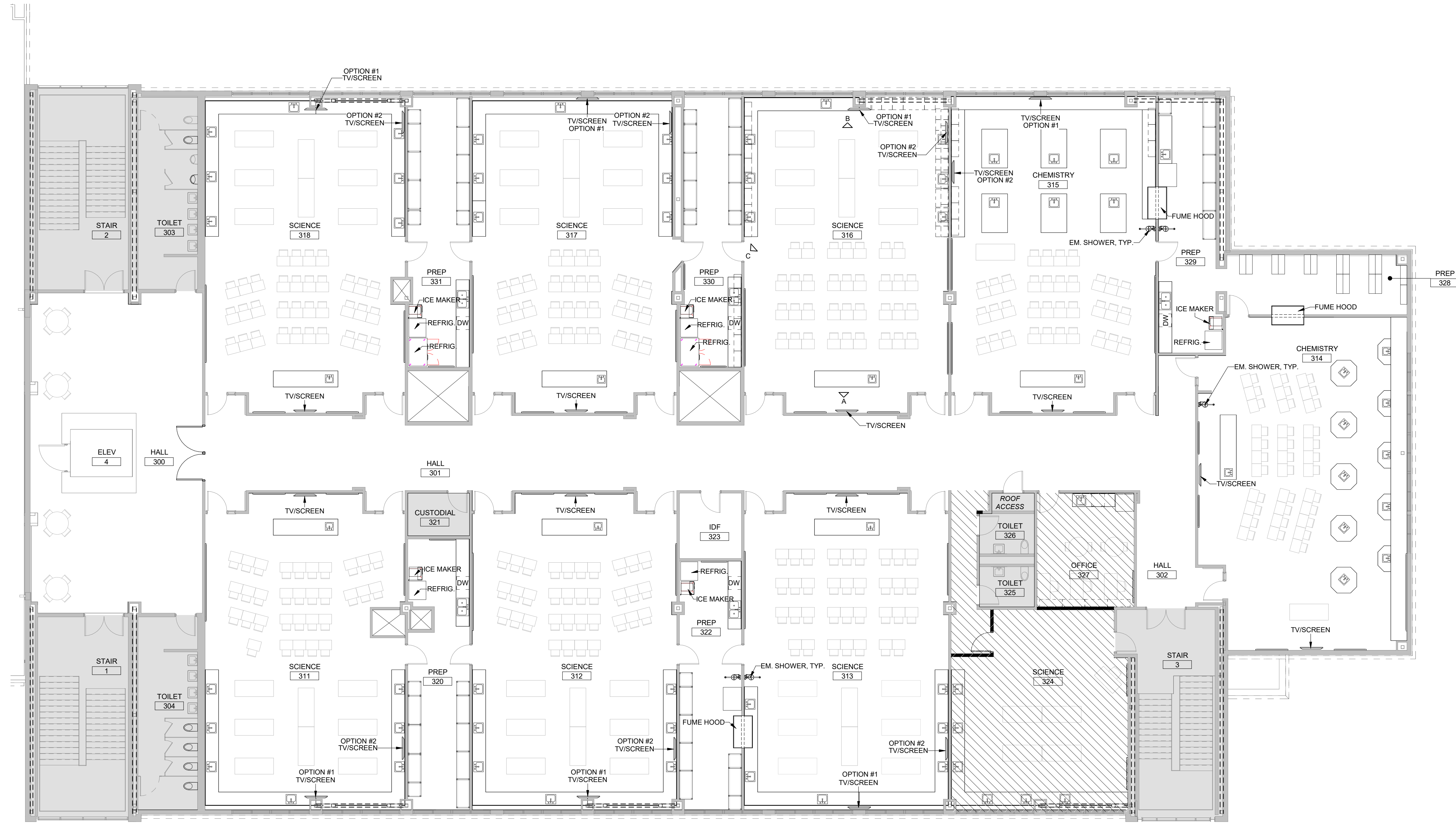
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tel 503 226 6950 fax 503 273 9192

PROJECT
Lake Oswego HS Science Lab Remodel
2501 Country Club Rd
Lake Oswego, OR 97034

PROJECT NO:
143246

SHEET TITLE
FLOOR PLAN - LEVEL 03

SHEET NUMBER
A1404



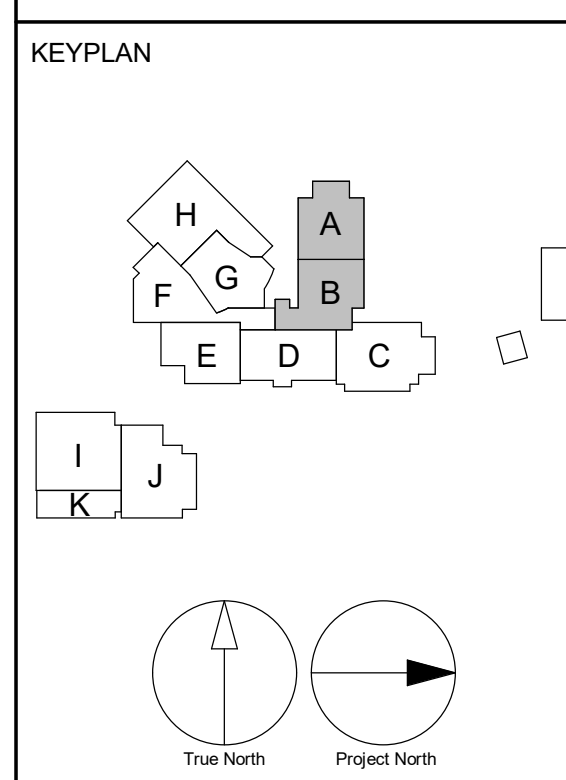
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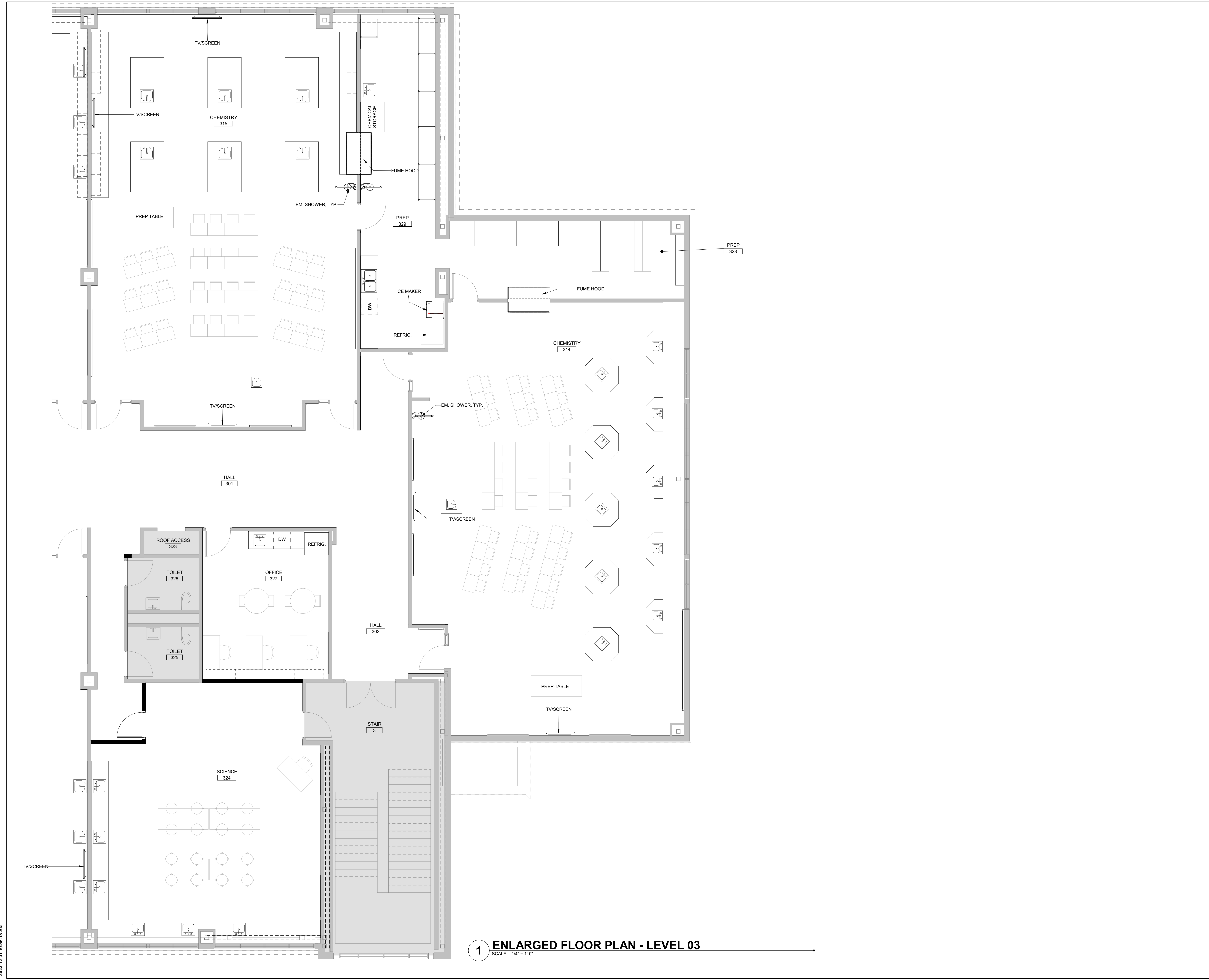
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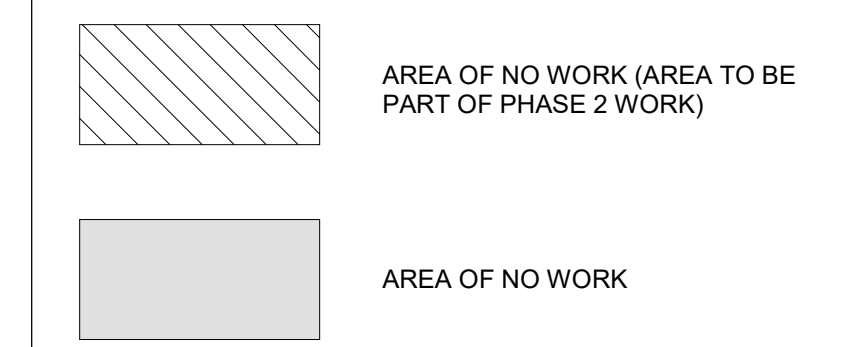
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SHEET NUMBER
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FLOOR PLAN LEGEND:



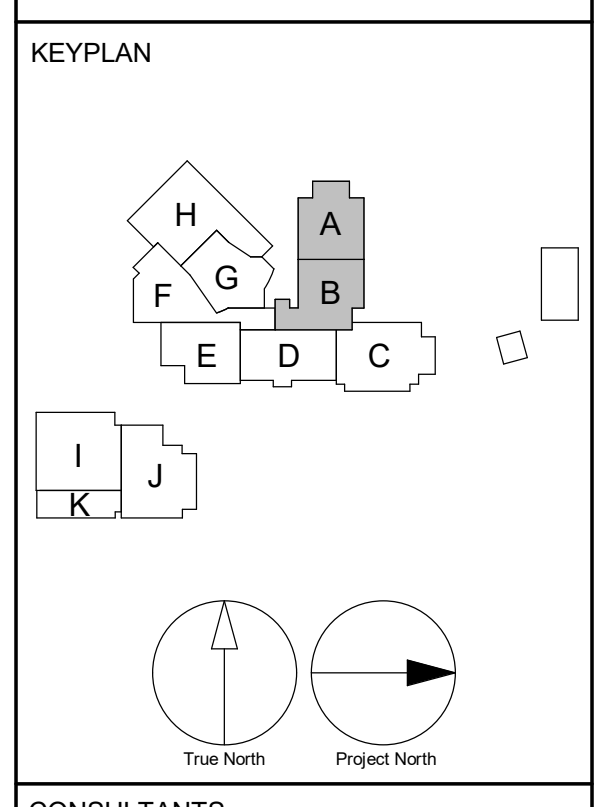
CLIENT
Lake Oswego School District

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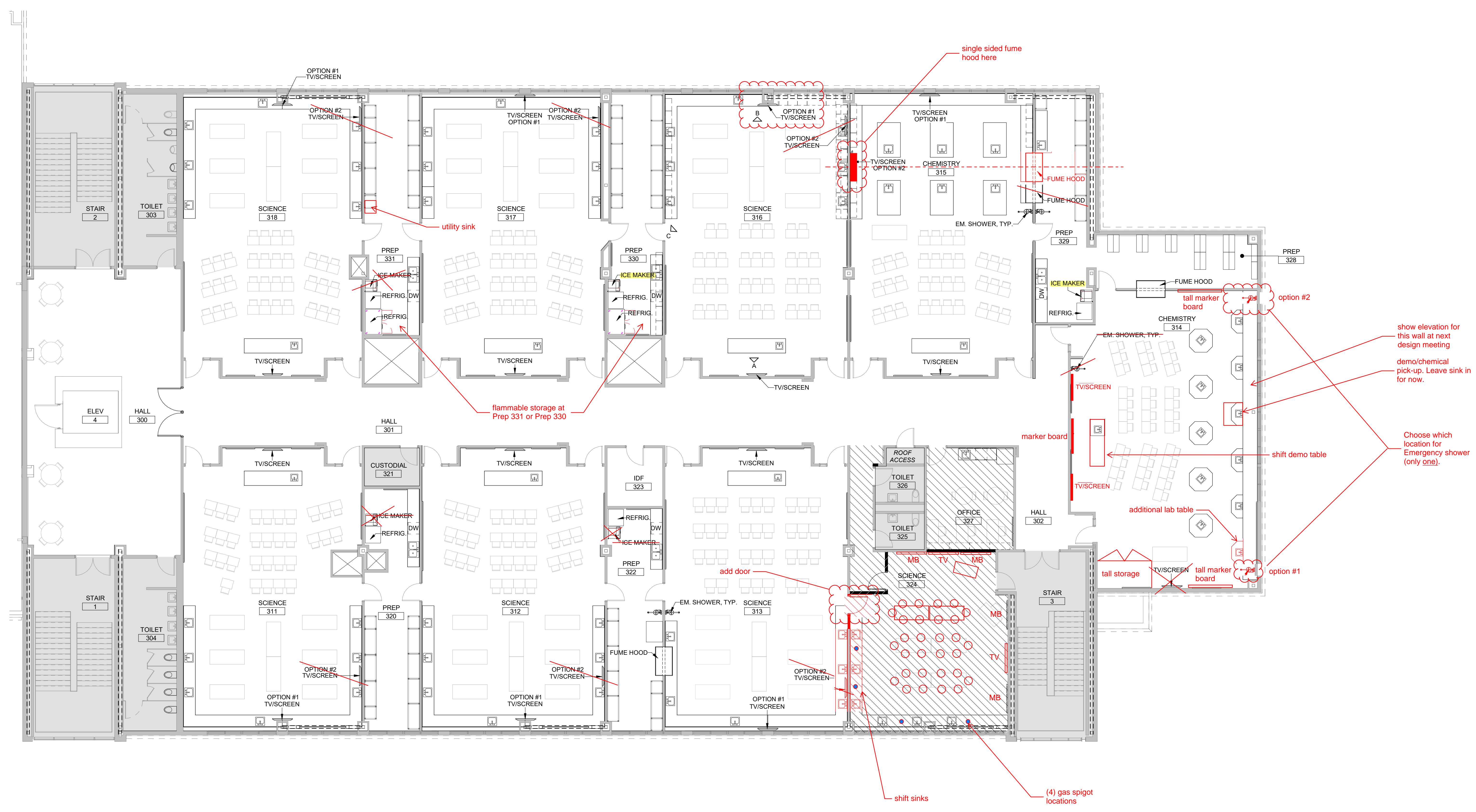
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SHEET TITLE
FLOOR PLAN - LEVEL 03

SHEET NUMBER
A1404



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Confirm size, number, location + type.
Confirm size, number, location + type.
Located at every sink.
*From 11/02 Design Meeting request for this unit. Confirm locations and if OFCI.
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Confirm number and location.
Confirm function with other existing monitor. Match existing monitor?
Review with teachers.
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