



Office of Physical Plant
Physical Plant Building
University Park, PA 16802-1118

Date: November 5, 2018

Subject: **Request for Proposals (RFP) – Design-Build (DB) Team Selection
Ostermayer Lab Building Renovation**
Penn State Greater Allegheny
McKeesport, PA

To: Allegheny Construction Group + DRS Architects
Clayco, Inc. + EwingCole
Haskell + Flad Architects
Jendoco Construction Corp. + GBBN
Mosites Construction Company + Renaissance 3 Architects, P.C. (R3A)
PJ Dick + CannonDesign
Rycon Construction Inc. + Strada Architecture LLC
Turner Construction Company + Bohlin Cywinski Jackson (BCJ)

A. INTRODUCTION

Congratulations to the above teams. Your organization has been selected for the long list of Design-Build (DB) firms that are invited to respond to this Request for Proposal (RFP) for the Ostermayer Lab Building Renovation project located in McKeesport, Pa. The Pennsylvania State University DB Screening Committee is excited to continue with the Ostermayer Lab Building DB Selection process and will begin review of responses to this Request for Proposal, due to my office by **Noon on November 26, 2018**. After review of the RFPs the Screening Committee will identify a short list of three teams to be interviewed, via this website, on **December 17, 2018**. Interviews will occur on **January 17, 2019 at the Penn Stater in State College, PA**. The results of the DB Selection will be announced at the Board of Trustees meeting on **February 22, 2019**, and posted to this website.

Participation in this selection process by submitting firms shall be at no cost or obligation to The Pennsylvania State University (PSU). The University reserves the right to waive any informality in any or all Proposals, and to reject or accept any Proposal or portion thereof.

B. PROJECT OVERVIEW AND PROGRAM OF REQUIREMENTS *(note revisions from Request for LOI)*

The project site is located on the Greater Allegheny Campus in McKeesport PA at 4000 University Dr, McKeesport, PA 15132. The **\$14.3M (total project cost) project** will support the Greater Allegheny Campus Biology and Chemistry Departments by updating their lab facilities with 21st century technology and design. The existing 21,739 square foot Ostermayer Lab Building was completed in 1973 and currently houses the all laboratories and faculty offices for the Biology and Chemistry departments. Classes and labs associated with these departments will be relocated during renovation activities to other buildings and a temporary modular lab trailer during the renovation project. The project will include the complete internal renovation of the building, upgrading of all mechanical and electrical equipment, roof replacement, upgrading of building entrances and repointing of exterior brick. The existing elevator is to remain along with existing curtain wall and windows.

The University has conceived of this project as a full internal renovation to bring the lab, classroom and student spaces up to current standards. New building entrances and additional floor space are also included to enhance the student experience.

The proposed program for the renovated building is outlined in the attached study. The goals of the project include the following:

- Realize the vision and goals of the University Leadership in updating the existing Ostermayer Lab Building to create 21st century lab and student spaces.
- Create a well-designed and unique spaces for teaching and research labs within the existing building shell, including the construction of a new vivarium,.
- Serve the chemistry and biology department staff and students with new offices and student spaces.
- In keeping with our commitment to environmental sustainability, this facility will be a high-performance building and will, at a minimum, attain LEED Certification.
- Create flexible/adaptable building, including modern office spaces, learning areas, and collaboration spaces in support of evolving educational pedagogies, technologies, and research initiatives.
- Delivering a highly space efficient building is critical to the success of this project as the completed program expects to achieve up to a 65% efficiency. We are seeking teams that can drive our decision making on the optimal grossing factor and also seek ways to find efficiencies in the planning and design of the completed facility.
- Replace deteriorated infrastructure systems, including the HVAC, electrical systems and roof.

The renovated building will consist of approximately existing 21,739 square feet plus the potential addition of approximately 750 square feet at the main entrance on the 1st floor and space directly above the main entrance on the 2nd and 3rd floors. A preferred floor plan has been developed in the study identifying anticipated square footage for teach labs, research labs, classrooms, offices and student spaces.

C. PRELIMINARY SCOPE OF WORK

The successful DB team will immediately begin leading programming and design development efforts while soliciting input from University Faculty/Staff, and other designated members of the project team. Critical initial efforts include confirmation of program development, developing final design and construction schedule, planning for abatement/ demolition of the existing facilities to support new construction start in May 2020. A thorough review and final development of the program will be the first step to be completed by the selected DB team, followed by the traditional design and construction administration phases of the project.

We will also require an initial review of the proposed design and construction schedule to identify possibilities of a condensed schedule while still meeting PSU review and PDRB requirements.

D. RFP ATTACHMENTS AND REFERENCED STANDARDS

- **Program.** *Ostermayer Renovation Feasibility Study.* The study completed by GBBN Architects outlining the proposed program and cost estimate for the project. Included in RFP.
- **Form of Agreement.** *Standard Design-Build Agreement & General Conditions.* Included in RFP.
- **Design Phase Deliverables.** Reference this document under the heading *00 51 00 MISCELLANEOUS FORMS* at the following link:
<https://wikispaces.psu.edu/display/OPPDCS/Division+00+-+Procurement+and+Contracting+Requirements>
- **Office of the Physical Plan (OPP) Standards.** The web sites www.opp.psu.edu and <https://wikispaces.psu.edu/display/OPPDCS/Design+and+Construction+Standards> provide information regarding specific design submission requirements and standards, of the University. Please review to ensure that your team is able to deliver a compliant building.

OPP High Performance Standards. The University has a commitment to environmental stewardship and requires the maximum possible use of sustainable and energy-efficient designs and specifications, for architectural, site, utility, structural, mechanical, electrical, and plumbing work. Refer to the following link for the University's high performance standards that exceed building code minimum requirements:
<https://wikispaces.psu.edu/display/OPPDCS/01+80+00+PERFORMANCE+REQUIREMENTS>

A part of this is PSU's High-Performance Building Design Standards: Building projects shall comply with ASHRAE Standard 90.1 Energy Standard for Buildings Except Low-Rise Residential Buildings, 2010 version AND as superseded by more stringent requirements of ASHRAE Standard 189.1 Standard for the Design of High-Performance Green Buildings, 2011 version.

The standard defines a minimum requirement of LEED Certified for this project.

E. SELECTION AND IMPLEMENTATION MILESTONES

• RFP Issued to Long-Listed Teams:	November 5, 2018
• Submission of A/E Proposals Due:	Noon, November 26, 2018
• Post Short-List results and Interview notice:	December 17, 2018
• A/E Team Interviews:	January 17, 2019 (at University Park)
• Board of Trustees Selection of Team + Post Results	February 22, 2019
• Contract Award / Letter of Intent:	February, 2019
• Board of Trustees Final Plan Approval/ Construction Authorization	November, 2019
• Construction Start Date:	April, 2020
• Construction Completion:	June, 2021
• Project Occupancy	August, 2021

Important Note: PSU is considering an accelerated project schedule where Project Occupancy would occur by January 2021, instead of August 2021 as stated above.

Important Note: The existing building will be vacated, with users in swing space trailers, by November 2019.

F. PRE-PROPOSAL SUBMISSION CONTACT

Please contact myself or Marcus Marasco, Project Leader at Penn State OPP at 814.865.6197 or mam326@psu.edu with any questions.

We will not have a planned site tour at this time. But, we encourage you to visit the site and discuss the project with representatives of the user group in order to understand our goals and the major issues driving this project. To schedule a site visit contact Adam Homer, PSU Greater Allegheny Physical Plant Manager at 412.675.9123 or amh232@psu.edu.

G. PROPOSAL REQUIREMENTS

Deliver Twelve (12) hard copies of your proposal and one (1) digital copy on a thumb drive to:

Greg Kufner, AIA, NCARB
University Architect
The Pennsylvania State University
206 Physical Plant Building, University Park, PA 16802

Hard copies of the Proposals are due November 26, 2018 at Noon, Eastern Standard Time. A PDF version of your proposal should be included on a thumb drive within your submission. Proposals received after this date and time may be automatically rejected. Proposals shall be provided in an 8.5"x 11" format. Limit submission to thirty (30) single-sided pages maximum (15 double-sided), plus cover letter. Double-sided printing is strongly encouraged.

A cover letter shall be provided from the proposed leader(s) of the Candidate Team submitting. The cover letter should be one page maximum. The cover letter should include the following:

- A. This letter should establish the contact information (address, phone, and e-mail) for your team's main point of contact
- B. Primary office location of the submitting candidate team
- C. A concise summary as to why your team is best suited for this project
- D. Statement of certification that all information provided in your submittal is accurate

Collate and bind proposals according to the following four (4) Sections:

Proposals shall follow the below format, in the order stated to ensure that all pertinent information necessary for evaluation is included and easily comparable by Selection Committee. The cover letter, table of contents, and divider pages will not count towards the RFP page limitation. OPP encourages you to be as brief as possible without sacrificing accuracy and completeness.

*** Note 1: As applicable throughout proposal, provide professional credit to architectural partners (including design architect, architect of record, and academic / lab planning partners) for all projects discussed within the proposal and for all project images shown.**

Section 1.0 –TEAM STRUCTURE

- A. Identify full proposed Design-Build (DB) team, size of prime firm and key consultant firms, each firm's role on this project, and each firm's qualification and experience on similar projects. Identify past collaboration between DB firm and key consultants, including number/ value of projects. Describe overall team commitment to sustainable design, including number of completed LEED projects.
- B. Provide team organizational chart. Include prime and key consultant firms and provide the name and role of key team members. Clearly identify which team members are designated for leadership positions on the team. Please highlight Diverse Business Enterprise Program (DBE) representation on your team.
- C. Provide role descriptions and resumes of key team members identified in the organizational chart. Be specific about the roles and on-site participation for each team member. Include registrations/ certifications, educational background, years of experience, relevant project experience (including project scope, size, cost), and define each key team member's role on each project. If possible, highlight experience with Design-Build projects. Include two client references for each key team member. **Please avoid using PSU employees as references.**

Section 2.0 – TEAM QUALIFICATIONS

- A. Provide a summary of qualifications and expertise of the firms with specific emphasis on:
 - 1. Design and/or Construction Excellence, including national recognitions.
 - 2. Distinguishing factors of team differentiation.
 - 3. Experience delivering programs, studies and projects of a similar scope, scale, and complexity. **(See Note 1)**
 - 4. Expertise in the planning, design, and delivery of state-of-the-art teaching labs, research labs, and vivarium environments. **(See Note 1)**
 - 5. Expertise in delivering classrooms and student/faculty workplace and collaboration spaces. **(See Note 1)**
- B. Identify a maximum **eight (8) example projects**, or studies, within the last ten (10) years, which BEST exemplify qualifications and expertise listed above for the proposed team. Include brief description of each project, project gross square feet, project budget, final project cost, completion date of project, and a client reference(s). If project is a study, clearly define the scope of the study. Show illustrative representation of the example projects, particularly those highlighting the work of your team's proposed team. **(See Note 1).**
- C. Develop a matrix that illustrates the similarities between the example projects to this project.

In matrix form, show the participation of individuals from the proposed constructor/ architectural/engineering team on the identified projects. List team member's respective role on each of the example projects.

- D. Briefly describe your proposed methodology to help address PSU's Diverse Business Enterprise Program (DBE), including outreach, and how you propose to maximize DBE firm participation within your proposed team. DBE requirements can be found in this link: <https://opp.psu.edu/planningdesignconstruction/diverse-business-enterprise-program-dbe>
- E. List errors and omissions insurance coverage limits of the lead constructor and architectural entities of the candidate team. Provide information on errors and omissions claims in the last (7) seven years.
- F. Provide historic breakdown of project performance for the lead constructor and architectural entities. Include project delivery method, history of project budgets compared to completed construction cost, history of change orders, average response time to RFIs, and any other key project profiles relevant to this project.
- G. Acknowledgment of your review and acceptance of the attached Form of Agreement, *Standard Design-Build Agreement and General Conditions*, ensuring that your firm accepts all terms and conditions as written. In submitting a proposal for this project, you concur, without exception, with all terms, conditions and provisions of this Form of Agreement.

Section 3.0 – PROJECT APPROACH AND SCHEDULE

- A. Describe your proposed Design-Build process and approach for this project, including approach to planning, managing, and executing the project. Summarize your team structure and governance as it relates to decision making. Please share any experiences your proposed team members have on projects delivered in a more integrated and lean approach. Be specific with you approach to Lean design and construction principles (Last Planner, CoS, A3's, etc.) and suggest those you would expect to use for this project. Identify areas for enhanced collaboration between the DB team and Penn State.

Additionally, or within the response to the above, describe your team's DB approach to the following:

1. Your approach to project visioning and goal setting. Approach to achieving the project vision and goals from concept design through construction.
 2. Cost estimating, cost control, and quality control through the design and construction phases. Define how you propose to manage scope and cost through all design and construction phases of the project. Describe your timing and process for developing a Guaranteed Maximum Price (GMP) for the project.
 3. Creating a collaborative environment between architects, academic/ lab planners, engineering consultants, and PSU stakeholders.
 4. Creating a collaborative design and construction process, including integration of the design team with the Construction Manager and trades.
 5. Use of BIM and other technology/ digital tools through design and construction.
- B. Describe your team's overall design and planning approach to:
 1. Innovative design.
 2. Flexible and/ or adaptable design.
 3. Developing the project program, including verifying the mix of program elements.

4. Programming, space planning and programmatic adjacencies, including the creation of blocking and staging options to respond to project aspirations, sustainability and other factors relevant to the program elements.
 5. Design approach to develop interior/ exterior “look and feel”.
- C. Briefly describe your approach to Penn State reviews, PSU design reviews, and jurisdictional reviews. Anticipated jurisdictional reviews include Labor & Industry and building code. Note that local municipal reviews and permits may be required. The DB team shall be responsible for securing these permits with assistance of the University. Any fees associated with permits shall be paid for by the Professional and will be reimbursed by the University.
- D. Brief narrative approach to MEP planning/ design/ delivery of facility that will contain teaching and research laboratory and vivarium spaces, classrooms/learning spaces, and faculty/student working and collaboration spaces.
- E. Approach to Sustainability. After reviewing PSU’s High Performance Standards, describe your team’s approach to driving towards PSU’s sustainability goals on the project, including exceeding our standards. Highlight your experience meeting similar high performance standards. Define which individuals are leading certain sustainability efforts.

Among other applicable topics, discuss your team’s approach and experience applying advanced sustainability measures, ability to apply best practice in sustainable design, applications of creative innovations to obtain the optimum performance for projects, and experience using energy models to drive design thinking.

- F. After reviewing our preliminary project schedule, please provide your thoughts and approach to the project schedule. Create a graphic project schedule showing phase durations, owner engagement and review period, critical milestone and other critical schedule elements. This can be printed on an 11x17 fold-out and only count as a single page.

If your team believes it is achievable within the current budget parameters, also propose an alternate accelerated project schedule where we would achieve full occupancy by January 2021 (instead of August 2021). Note that Board of Trustees Final Plan Approval and Construction Authorization cannot occur before a Guaranteed Maximum Price (GMP) is established. If you choose this option, create a second graphic project schedule. Because this is optional, this can be printed 11x17 and will not count against the page limit.

- G. Verify the entire DB team’s availability to appropriately staff the project, given other project workload.

Section 4.0 – PROJECT-SPECIFIC KEY DRIVERS AND IDEAS

- A. Project Understanding. Briefly demonstrate your understanding of the project. Provide any observations of the project program or other provided information. Describe key project drivers, critical design elements, and potential constructability considerations your team has identified as a priority for this specific project. Discuss how you addressed similar issues on other projects.

- B. Your firm's vision of what, beyond purely functional issues, constitutes the essence of this type of facility. Provide additional evidence of your firm's ability to translate design intentions into a meaningful project.
- C. Delivering a highly active, collaborative and flexible building is critical to project success. We seek to explore innovations and efficiencies in the planning and design of the completed facility. Describe programming, planning, benchmarking tools and methodologies that your team will use to meet these objectives.

Additionally, provide specific principles/ideas or project examples for the following:

1. Teaching and research labs, including labs that support Chemistry and Biology
 2. Vivarium spaces
 3. Classrooms and learning spaces
 4. Faculty/student working and collaboration spaces
- D. Discuss an example project(s), relevant to our project, in more detail than your Section 2 response may allow. If possible, discuss a project that was delivered by the proposed constructor and architectural team, ideally a project that was executed with a Design-Build or similar contract. Include insights into what made the example project(s) successful.
 - E. Provide any initial design/planning ideas regarding the project and/or any impressions of the provided *Ostermayer Renovation Feasibility Study*.

Thank you for your anticipated participation in the Design-Build Selection process for the Ostermayer Lab Building Renovation project. The Pennsylvania State University looks forward to reviewing your responsive proposal for this important project.

Respectfully,

Greg Kufner, AIA, NCARB



University Architect
The Pennsylvania State University
206 Physical Plant Building, University Park, PA 16802
Phone: 814-865-4402 | Email: gak21@psu.edu

CC: Screening Committee



Architecture



Lab Planning



MEP + FP Engineering



Structural Engineering



Cost Estimating

FEASIBILITY STUDY

PENN STATE UNIVERSITY

09/01/18 | 14186.01 |

PSU OSTERMAYER GREATER ALLEGHENY

GBBN Architects | 5411 Penn Ave, Pittsburgh, PA 15206 | v 412.345.5005

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Note: Included on pages 22 and 23 are an alternate layout for the second and third floor laboratory configuration. In the Option B layout scheme, the first floor remains as shown in the primary layout. Option B has not been separately priced for the feasibility study but similar cost considerations apply to both schemes.

Executive Summary

Project Goals and Description

The Ostermayer Laboratory Building Renovation for the Pennsylvania State University on the Greater Allegheny campus aims to reshape the building interior into a 21st Century Laboratory enabling research and teaching and providing expanded space for students and faculty.

The primary goal of the renovation is to provide upgraded research and teaching laboratory spaces on the second and third floor that accommodate the future vision of the Biology and Chemistry at the Greater Allegheny Campus of the Pennsylvania State University. The new spaces take advantage of daylight and help provide views into and out of the laboratory spaces with new interior glass partitions at strategic locations.

A secondary goal of the Ostermayer renovation is to provide student space (currently at a premium) for students to be able to spend extended periods of time in the building rather than leaving the building between classes. A variety of the student spaces range from small white board clad nooks outside of the labs to a separate student space that can be a lounge for students to interact outside of the classroom.

New classroom spaces are proposed on the first floor for general university wide use. The program suggests a variety of the classroom space sizes ranging from 500 to 1000 sf. The larger classrooms may benefit from being able to be subdivided to further provide flexibility. Smaller classroom spaces intended for use by the Biology and Chemistry disciplines are scattered through the second and third floors.

The building recently underwent an exterior renovation that replaced the curtain wall and ribbon windows. The proposed interior renovation takes advantage of the replaced expanses of glass and provides significant access to daylight via glass partitions in both the new labs and classroom spaces.

Design and Programming Process

GBBN Architects and HERA Lab Planners met three times with building users and Penn State administrative staff to determine the laboratory organization and building hierarchy. After developing a building program that is sized to faculty needs, an organizational diagram was proposed to capitalize on shared spaces and encourage cross disciplinary interaction. As fundamental core tenets, access to daylight and visibility into the working spaces are promoted throughout the building to display the ongoing work and provide humane research environments.

Two options emerged through the planning process:

1. A main option that provides a Preparatory Lab between two Teaching Labs on the north half of the building with research and office space allocated to the southern half. A similar organization is used for Chemistry as Biology and the Chemistry would be located on the third floor with Biology on the second floor.
2. A second option (called in the feasibility study as Option B) co-locates a Teaching Lab with a Research lab of a similar discipline on the northern half of the building with another Teaching Lab and Preparatory Lab on the southern half of the building. A similar hierarchy in the building would exist to the main option distributing Biology functions on the second floor and Chemistry functions occurring on the third floor.

New Building Entrances

A new vestibule and canopy are proposed on the north side of the building to provide a more welcoming entrance and for energy conservation. A second smaller vestibule is proposed on the west entrance to the building allowing for access from the vestibule directly into the west egress stair. These new entrances help connect the building to the larger context and are designed to fit into the campus master plan of connecting the green space between the existing Library and Ostermayer Building.

Addition at Second and Third Floor

A pricing alternate is proposed to infill the second and third floor notch (375 sf each floor) at the east stair of the building. This space is proposed as a student lounge but could serve other functions if further programming determines alternate needs. The façade of the infill addition has been designed to playfully mimic the existing mullion pattern of the curtain wall system that has been recently replaced. Likewise, the entry canopy and new vestibule are designed to play off existing building patterns and fit the building and site regardless if the addition infill is accepted as an alternate to the project.

Code Compliance and Hazardous Materials Remediation

Pennsylvania State University has indicated the building has hazardous materials in flooring, desks, and possibly in insulation for piping. The remediation of these materials will be performed prior to the construction process of the renovation.

The building is largely compliant with applicable codes; however, new ADA sized restrooms will need to be added for each sex on each floor. In addition, new stair rails will be required to meet fall protection and infill standards.

The existing elevator (which was recently replaced) has been determined to be compliant with current standards and will remain in its current location as part of the renovation.

Code Summary

PROJECT LOCATION:

Pennsylvania State University – Greater Allegheny Campus, McKeesport, PA

PROJECT DESCRIPTION:

- 21,739 sf. Renovation of and addition to Ostermayer Laboratory, built in 1972

AUTHORITY HAVING JURISDICTION:

Commonwealth of Pennsylvania
Department of Labor and Industry

APPLICABLE CODES:

Pennsylvania Uniform Construction Code – Including:

International Building Code 2015

- Chapter 1 is not adopted (most of its requirements are incorporated in Chapter 403 of the UCC regulation).
- Chapter 30 (Elevators) is not adopted. Elevator requirements are found in Chapter 405 of UCC.

International Existing Building Code 2015

International Energy Conservation Code 2015

International Fire Code 2015:

- Adopted only to the extent referenced in the International Building Code 2015.

International Fuel Gas Code 2015

International Mechanical Code 2015

International Plumbing Code 2015

Type of Work:

Alteration and Addition

Existing Building Occupancy Classification:

Non-Separated Mixed Use Assembly [A-3], and Business [B]

New Construction Occupancy Classification:

Non-Separated Mixed Use Assembly [A-3], and Business [B]

Construction Type:

II-B with new automatic sprinkler system

Fire Resistance Rating Requirements:

	Allowed	Provided
Construction Type:	II-B	II-B
Primary Structural Frame:	0 Hrs.	0 Hrs.
Exterior Bearing Walls:	0 Hrs.	0 Hrs.
Interior Bearing Walls:	0 Hrs.	0 Hrs.
Exterior Nonbearing Walls:	0 Hrs.	0 Hrs.
Interior Nonbearing Walls:	0 Hrs.	0 Hrs.
Floor Construction:	0 Hrs.	0 Hrs.
Roof Construction:	0 Hrs.	0 Hrs.
Shaft Enclosures:	1 Hrs.	1 Hrs.

	Allowable	Actual
Building Floor Area	28,500	8,200 sf
Building Height	75 ft.	37'-0"
Building Stories	3 stories	3 stories

Interior Wall & Ceiling Finish Requirements:

Group A-3 (strictest occupancy with new automatic sprinklered system)

Location	Material Class
Exit enclosures & exit passageways	B
Corridors	B
Rooms & enclosed spaces	C

Means of Egress

Exit Capacity
Existing Egress Stairs – 158 occupants per stair/per floor

Travel Distance
Common path of egress travel: A occupancy 75', B occupancy 100' w/ automatic sprinkler system
Exit Access Travel Distance: A occupancy 250', B occupancy 300' w/ automatic sprinkler system
Dead-End Corridor: 20' in A-3 occupancy, 50' in B occupancy w/ automatic sprinkler system

Control Areas

Further programming is required to determine if control areas are required for the storage of any hazardous materials.



Architectural Narrative

The following narrative is issued for describing the renovation of the existing Ostermayer Laboratory Building on the Greater Allegheny Campus of the Pennsylvania State University for the purposes of programming and cost estimating. The building is approximately 22,000 sf and will be mostly gutted on every floor. The existing restrooms will be fully renovated with new fixtures and reorganized to include ADA fixtures per the drawings. The exterior glazing has recently been replaced and will remain. The existing elevator was replaced recently and is up to current standards. A new entry addition is planned to provide a better lobby and a vestibule. The building will require a new sprinkler system and new mechanical systems. Further information on the building systems will be provided by the MEP+FP Narrative. The Structural Scope is described in a drawing set following the architectural drawings. Architectural finishes are described below.

An add alternate is proposed to insert a small addition on the second and third floor in an existing slot between the east stair and the main building wall.

Typical new gypsum wall board partitions go to deck.

Student spaces noted in plan should be considered that 50% of walls are whiteboard surface. And each student space should have AV wiring for flat panel screens.

Teaching Class Laboratories should receive AV wiring for projectors.

Carpet 1: Bentley Rough Idea - Carpet in Lobby for Walk-off condition:

Carpet 2: Bentley Discord (Tile) - Carpet in Medium and Large Classrooms:

Carpet 3: Bentley Discord (Tile) - In Student Space (add alt for addition on 2nd and 3rd Floors)

LVT: Bentley KGRAN (Urban Grey) - In Corridors and Lobby Spaces:

Ceiling Tile: Armstrong Ultima - Corridors and Classrooms

Ceilings in Labs: Open Ceiling with Acoustic Treatment to underside of deck for sound control.

Flooring in Lab: Rubber sheet goods with welded seams in teaching class labs.

Flooring in Vivarium: Monolithic troweled epoxy or MMA with integral cove base.

Paint for walls and Coves in Vivarium: Latex epoxy

Ceiling in Vivarium: Gypsum board

Curtain Wall: Kawneer 1600 UT

Exterior Glass: 1/4" Guardian SN68 #2 on Green x 1/2 argon x 1/4 Clear

Interior storefront: Kawneer InFrame (match exterior framing) with clear glass

Metal Panel: Centria Intercept Aluminum Panel (rainscreen)

Emergency shower / Eyewash / safety station in each lab. Safety station may include fire blanket in chemistry lab, fire extinguisher, spill kit.

Eye wash at each sink in teaching labs.

Main Roofing Material: Built up modified bitumen

Canopy Roof Material: TPO

Wood Doors w/ glass inserts where shown on elevations

Wood (maple or bamboo) casework with grey or light color epoxy benchtops. (linear footage shown below).

Lab utilities to have standard chrome finish or powder-coat finish.

Total linear footage of casework is estimated at 1400.

Anticipated Fit-out of Labs:

1. Chemistry labs
 - a. all casework to be fixed
 - b. wall cabinets at perimeter
 - c. balance table
 - d. shared utilities for student groups (6) in lab to include
 - i. sink with hot, cold
 - ii. (3) piped utilities
 - e. Large sink with hot, cold, DI
 - f. Floor drain
2. Chem Prep Lab
 - a. All casework to be fixed
 - b. Large sink with hot, cold, DI water
3. Biology lab
 - a. 50% fixed casework, 50% mobile
 - b. (4) sinks
4. Microbiology lab
 - a. All casework to be fixed
 - b. (4) sinks
 - c. DI Water
5. Research labs – fixed casework
 - a. (2) sinks with hot and cold water
 - b. DI fed water polishers for type 1 and type 2 water
 - c. (2) clusters of piped utilities, (3) utilities each
6. Sinks throughout to have pegboards except at student stations.

Equipment

- Chemistry teaching lab
 - (2) 6-foot fume hoods. Assume cup-sink with water and (2) piped utilities per side
- Chemistry Prep Lab
 - Undercounter glasswasher (?)
 - (1) 4-foot pass-through fume hood
 - Ice machine

- Free-standing flammable cabinet
- Organic chemistry teaching lab
 - [10] 6-foot fume hoods. Assume cup-sink with water and [2] piped utilities per side.
- Instrumentation Lab
 - Provide [6] exhaust snorkels
- Biology Lab
 - [1] 6-foot fume hood. Assume cup-sink with water and [2] piped utilities.
- Microbiology labs
 - [1] 6-foot fume hood. Assume cup-sink with water and [2] piped utilities.
- Double Research Lab
 - [1] 4-foot fume hood. Assume cup-sink with water and [2] piped utilities.
 - Biosafety Cabinet
- Single Research Labs
 - [1] 4-foot fume hood. Assume cup-sink with water and [2] piped utilities.
 - Alternate: If these labs are grouped together, provide [1] 6-foot fume hood.
- Equipment Lab
 - Provide [1] floor-mounted lab grade autoclave.
 - Provide [1] undercounter glasswasher.
 - -20 Freezer
- All fume hoods other than accessible hoods are to have hazardous material storage below.

MECHANICAL SYSTEMS

Design Criteria

Design of mechanical systems shall be in accordance with the Penn State Design and Construction Standards, the applicable versions of the International Mechanical Code, and ASHRAE Standard 189.1- Standard for the Design of High Performance Green Buildings.

Weather Conditions

External design conditions used for the sizing of building mechanical systems will be as given in Division 23 of the Penn State Design and Construction Standards:

<i>Summer</i>	
Design Dry Bulb	90°F
Design Wet Bulb	74°F
<i>Winter</i>	
Design Dry Bulb	0°F

Indoor Design Conditions

External design conditions used for the sizing of building mechanical systems will be as given in Division 23 of the Penn State Design and Construction Standards:

<i>Summer</i>	
Design Dry Bulb	
Design Relative Humidity	50%
<i>Winter</i>	
Design Dry Bulb	
Design Relative Humidity	25%

Hot Water Heating System

A gas-fired boiler and heating hot water distribution system will be provided for:

- Perimeter finned-tube radiation (limited in use)
- Unit heaters
- Cabinet unit heaters
- Reheat coils at VAV boxes or separate duct mounted reheat coils and Phoenix air valves

At this time, we estimate the total hot water load at 1200 MBH. The system shall include the following:

- Three (3) hi-efficiency, gas-fired, stainless steel coiled, condensing hot water boilers located in the mechanical room on the Ground Floor Level. Boilers shall be similar to Lochinvar Knight XL at 400 MBH output each.
- Lead/lag pumps will be each sized for 100% of the load.
- Hot water trim and installation as required by the Pennsylvania Department of Labor and Industry.
- Heat and ventilation for the boiler room. Exhaust fan will energize via reverse-acting thermostat.
- 8" Schedule 40 PVC boiler intake air system suitable for high efficiency condensing boilers. Provide (2) oversized insulated sheet metal plenum boxes behind a drainable blade wall louver (Basis of Design: Greenheck Model ESD-403). Provide breeching similar to 8" Protech Model # AL29-4C double-wall aluminized steel flue from each boiler to a Heat Fab Model SAF-T vent CCE08WP.
- Pumps shall be equipped with inertia pump bases, flex connectors, suction diffusers, triple duty valves, and "trumpet valve" hydronic indicator system.
- Expansion tank, air separator, and miscellaneous hydronic specialties.

Heating coils outside of those serving the air handlers will be controlled by modulating 2-port (2-way) control valves. A bypass valve located near the end of the piping loop, controlled by pipe differential pressure, will allow system flow at rates less than that permitted by the pumps' VFDs and the boilers. Minimum flow through the boilers and pumps will be achieved by this bypass line. Variable frequency drives will vary the speed of the pumps to maintain a constant system pressure as measured at the pressure transmitter.

The hot water heating supply temperature will initially be maintained between 180 and 160°F with coils sized for a 20°F temperature difference. However, coils and piping systems will be selected to operate at 130°F for future use with solar heating or energy recovery chiller equipment.

Provide the chilled water loop with a 35% propylene glycol solution.

Air Conditioning Systems

The existing two roof-top air handling units will be removed and the new units located further inward on the roof to improve safety. The building will be air conditioned using two rooftop air handling units - one interior air handling unit and a new air cooled chiller on grade.

System	Areas Served (Floor)	System Type	Nominal Capacity
AHU-1	Classroom & Multi-Purpose Room (First Floor)	Variable air volume with zone VAV boxes and reheat coils	4,500 cfm
AHU-2	Offices, Classrooms, Common Space (Second & Third Floors)	Variable air volume with zone VAV boxes and reheat coils	6,000 cfm
AHU-3	Laboratories (Second & Third Floors) and Vivarium (Second Floor)	Variable air volume with Phoenix Air Valves and duct-mounted reheat coils	16,000 cfm
TOTALS			26,500 cfm

Air Handling System

The air handling units will be based on the Engineered Air rooftop air handlers. The units will be variable air volume and consist of the following components:

- Filter / mixing section containing pre-filters and MERV 11 cartridge type filters
- Heat pipe energy recovery (lab unit only)
- Natural gas-fired furnace with high turndown ratio
- Access section
- Chilled water coiling coil with stainless steel casings and coil supports
- Supply fan and exhaust fan (lab unit only) with variable frequency drive
- Double-wall, insulated casings with solid inner liners
- Structural steel base rail and 14" high factory roof curbs
- 100% full enthalpy economizer (office/classroom units only)
- Intake and relief louvers

The non-lab units will employ CO₂ demand controlled ventilation to continuously monitor and control space air quality by adjusting the quantity of outdoor air introduced to the building. System controls will ensure good air quality in all spaces while saving energy by preventing over-ventilation.

The laboratories will be configured with a VAV fume hood system with separate Phoenix valves for supply, hood exhaust, and general exhaust. Phoenix Valves will modulate to maintain the standard fume hood face velocity of 80 fpm. Zone presence sensors at each hood will allow the face velocity to drop to 60 fpm.

Chilled Water System

A chilled water generation and distribution system will include the following:

- New 125-ton air cooled variable speed screw chiller on grade. The chiller shall be installed to replace the existing chiller on its pad.
- A chilled water buffer tank will be provided within the mechanical room in order to provide adequate thermal mass for the chilled water system.
- Provide new base mounted centrifugal chilled water distribution pumps with variable frequency drives - one primary and one standby as indicated on the drawings.
- Pumps shall be equipped with pump base, flex connectors, suction diffusers, isolation valves, check valves, balancing valves, and "trumpet valve" hydronic indicator system.
- VFD on pumps with 2-way modulating control valves on the chilled water coil 2-way control valves with modulating capability.
- Expansion tank, air separator, and miscellaneous hydronic specialties.

The following measures will be adopted to protect exterior chilled water piping from freezing:

- Chilled water system will be filled with 35% propylene glycol.

Vestibule Heating

Hot water cabinet heating units will be provided at each entry vestibule and stair tower.

Laboratory and Vivarium Exhaust Systems (Variable Air Volume)

The multiple exhaust fans on the roof individually serve dedicated fume hoods. These exhaust fans will be removed and replaced with a dual exhaust fan configuration.

All wet laboratories and the Vivarium shall have separate supply air valves, hood exhaust valves, and general exhaust valves. Duct-mounted hot water reheat coils shall be provided downstream of each supply valve. The Basis of Design for air valves shall be Phoenix Controls. Each lab shall be controlled by a Phoenix controller which maintains a CFM offset in each lab keeping each lab at a negative pressure in relation to the corridor (typically -140 CFM).

The minimum exhaust flow rate for each hood shall be programmed into each hood exhaust valve controller per ANSI Standard Z9.5-20 12.



Miscellaneous Ventilation and Exhaust Systems

Mechanical and Electrical Room Ventilation

Ventilation will be provided for temperature control.

Elevator Machine Room Ventilation

Ventilation will be provided for temperature control.

Toilet and Janitor's Closet Exhausts

A roof-top exhaust fan will provide exhaust for restrooms and janitor's closets. Make-up air will be provided to the restrooms by transfer paths from adjacent corridors.

Building Automation System (BAS)

General

The existing pneumatic controls will be removed and replaced with a new direct digital controls (DDC) system to control all new equipment. The DDC system will be fully BACnet compliant utilizing BACnet as the native communication protocol. The system configuration and manufacturers shall be per the latest version of the Penn State Design and Construction Standard specification. All new air handling systems, heating system components, and cooling system components will be monitored and controlled by this DDC system. The DDC system will be programmed to include alarm functions with audible and visible alarms.

Additional HVAC Components and Equipment

- Supply and returns shall be a fully ducted system.
- Hydronic pumping, piping, and specialties as indicated and specified.
- Hangers, supports, and equipment pads and foundations as specified and required.
- Thermal insulation as specified and required. All supply air ductwork shall be externally wrapped, not internally lined.
- Smoke and fire dampers as required.
- Ceiling and wall diffusers, registers, grilles and louvers as needed.
- Factory start-up for all major HVAC equipment.
- Testing, adjusting, and balancing of all equipment and systems.
- Work with the owner's commissioning agent to commission the systems and equipment.
- Owner training on operation and maintenance of all systems and equipment.

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ELECTRICAL SYSTEMS

Design Criteria

Design of the electrical systems shall be in accordance with the Penn State Design and Construction Standards, the applicable versions of the International Building Code, the National Electrical Code, the Life Safety Code, and other applicable national, state, and local codes.

Demolition

The electrical scope shall include all associated interior and exterior demolition including distribution equipment, lighting systems, communications systems, fire alarm / life safety systems, security / access control / CCTV systems, branch circuits / feeders, and similar devices. Phasing of the work shall be in accordance with the overall construction plan. The scope shall include all temporary power and communications services required for the construction process. Disposal of all materials shall be included.

Main Electrical Service

The electrical service for the building will remain in place. The existing electric service for the building is rated at 208/120V, 3-phase, 4-wire and is routed underground from the existing pad mounted transformer. The electrical distribution system includes an 800A-208/120V 3phase, 4-wire distribution center with an 800A main breaker. A second service disconnect breaker rated at 1000 Amps feeds the building's air-cooled chiller. This equipment will remain in place. A second section may need to be added for the Main Distribution Panel to accommodate the individual laboratory panelboards.

The existing service has a Square D Power Logic meter with Ethernet adapter for data interface capability. An internally mounted surge protection device (SPD) will be added.

Building Power Distribution

A new 208/120 volt, 3-phase, 4-wire system will be provided throughout the building. The system will serve mechanical equipment, lighting, receptacles and miscellaneous power equipment. Copper type THHN/THWN wire installed in EMT conduit will be utilized for all panelboard feeders and power distribution for three phase loads.

EMT conduit (minimum 3/4") will be utilized for all branch circuits. Interior conduit will be extended from panelboards to junction boxes located above accessible ceilings in corridors, classrooms, offices, etc. MC cable will be acceptable from junction boxes as run-outs to receptacles, lighting fixtures, and similar devices.

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FEASIBILITY STUDY

Panelboards will be NEMA PB 1, circuit breaker type with Type 1 cabinet and lockable door, copper bus, copper insulated ground bus, three phase, 14,000 amperes RMS symmetrical for 600V panelboards, 10,000 amperes RMS symmetrical for 240 volt panelboards. Panels will be fully bussed with minimum 20 percent spare capacity for future breakers.

Each lab will be provided with a dedicated 200A – 208/120V, 3-phase, 4-wire panelboard to serve all loads within the lab space. An EPO button will be provided to allow for power shutdown via a shunt-trip main circuit breaker.

Panel-mounted surge suppression devices will be utilized at panels serving high density computer loads and for panelboards serving outdoor loads.

Emergency Power

A new 60kW, 120/208 volt, 3-phase, 4-wire, natural gas-fired generator will be installed on the exterior of the building. It will be mounted on a concrete slab with an outdoor sound attenuated weatherproof enclosure and critical silencer.

Two automatic transfer switches will be provided. The first will serve life safety loads including egress lighting, exit signs, fire alarm system, etc. The second automatic transfer switch will serve standby loads, such as the lab exhaust system, AHUs, building automation system, etc.

The generator will be equipped with an automatic, fully-programmable exerciser.

The generator and automatic transfer switch status will be monitored via the building automation system with transfer switch status, normal and emergency voltage availability, control of load transfer, generator start / stop, and various typical alarms.

Fire Alarm System

A Simplex 4100 Fire Alarm Control Panel exists in the first floor mechanical room. It will be maintained and serve new fire alarm devices throughout the building. New equipment will be added for the fire alarm system to include remote annunciators, pull stations, audio/visual devices, duct detectors, door release devices, etc.

The fire alarm and smoke detection system will be designed to comply with NFPA 72, ADA, and the smoke detection system will additionally comply with Life Safety Code 101 and applicable local codes.

The system will be addressable with electrically-supervised alarm initiating and alarm signaling circuits.

Duct mounted smoke detectors will be photoelectric type with auxiliary SPDT relay contact for rooftop unit shutdown. Duct detectors will be mounted in the return ducts of each rooftop unit.

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Photoelectric type smoke detectors will be provided at the following locations:

- One (1) at each Elevator Landing and interconnect with Fireman's return service.
- One (1) at each Elevator Equipment Room.
- One (1) at each Electrical Room.
- One (1) at each Telephone Equipment Room.

Photoelectric type smoke detectors will also be provided in corridors, public toilet rooms, and storage rooms.

Heat sensors will be provided in the Elevator Equipment Room and at top of elevator shaft. The temperature rating will be coordinated with sprinkler head temperature rating. Heat detectors will also be provided in the Mechanical and Electrical Rooms.

Alarm horns will be electric with integral strobe lamp and flasher.

A remote annunciator in a flush wall-mounted enclosure will be located at the main entrance.

Fire alarm and smoke detection system cable will be non-power limited fire-protective signaling cable, with copper conductor, and 150-volt insulation rated at 60 degrees C. All cabling will be installed in EMT conduit.

Intrusion Detection System

CCTV systems are requested by campus personnel at the entrances and exits to the building.

Telephone / Data / TV System

The facility's existing communications enters the building underground in the Telecom Room. This entry point is determined to remain. The Telecom Room will be the central collection point for all fiber and Category 6 wiring throughout the building.

New voice, data, and CATV outlets along with all associated wiring and terminations will be provided from each space back to the floor-mounted communications equipment cabinets. Additional patch panels will be provided as required to accommodate the additional outlets served by that room, plus an additional 10 percent. The quantities and locations of jacks / outlets will be as defined by the Owner.

Horizontal wiring will be managed with a combination of non-metallic raceway (NMT), open-bottom ladder-style cable tray where practical and multi-channel non-metallic surface raceway. The wire management system will provide maximum flexibility for future additions and revisions to suit tenant needs.

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FEASIBILITY STUDY

In addition to the hard wired system, there are existing wireless access points strategically placed throughout the facility. These wireless access points will be relocated as required to accommodate the renovations.

A new CATV trunk cabling system will be provided throughout the facility. Television outlets will be installed concealed wherever possible to above the finished ceiling and coax cabling back to the Telecom Room. TV locations will require fiber drops; monitors in public spaces will require a data drop.

All data and telecommunications systems infrastructure will be in general compliance with EIA / TIA standards and the standards as set forth by Penn State University Telecommunications and Networking Services Department. All wiring will be tested by certified personnel in compliance with EIA / TIA requirements

Lighting

Interior Lighting

All lighting will be designed to meet the latest Illumination Engineering Society (IES) design standards and the applicable version of the International Energy Conservation Code. Lighting will be specified as LED, with the exception of mechanical spaces which will utilize T8 linear fluorescent fixtures. Color rendering index will be 75 minimum, and color temperature will be 4100 Kelvin. Fluorescent ballasts will be NEMA premium with low ballast factor.

Lighting in laboratories will consist of LED 2x4 troffers for general illumination. Under cabinet LED fixtures will supplement the lighting at the work surfaces.

Lighting in the offices and similar spaces will consist of LED 2x4 troffers and downlights.

Lighting in the classrooms and similar spaces will consist of LED 2x4 and downlights.

Lighting in the public spaces will be a combination of recessed linear LED fixtures, linear pendants, and decorative downlights.

Lighting in utility and storage spaces will be open reflector industrial fluorescent fixtures.

The emergency lighting will be a normal emergency system. Selected LED fixtures will be connected to the normal emergency system; the normal emergency lighting will be controlled via emergency transfer devices. These fixtures will also serve as night lights. Exit signs will be LED type. Exit signs will be installed as required by the appropriate codes.

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Control of all of the lighting system will be by a digital lighting system with low voltage switches. Each space will contain a digital room controller, which contains relays and interfaces with the room's occupancy sensors and switches. All control locations and scenarios will be reviewed with campus representatives.

Exterior Lighting

Lighting for building exits and entrances will be building mounted LED fixtures.

Point-by-point footcandle calculations will be provided to the University for review.

Lightning Protection

A lightning protection system will be provided unless requested otherwise by the University.

PLUMBING SYSTEMS

Design Criteria

Design of the plumbing systems will be in accordance with the Penn State Design and Construction Standards, the applicable versions of the International Plumbing Code, and ASHRAE Standard 189.1-Standard for the Design of High Performance Green Buildings.

Demolition

The plumbing scope shall include all associated interior and exterior demolition including domestic water supply system, sanitary system, laboratory steam system, laboratory air system, plumbing fixtures and similar devices. Phasing of the work shall be in accordance with the overall construction plan. Disposal of all materials shall be included.

General

The design and specification of the plumbing system shall include the following:

- There shall be one combined service for domestic water and fire protection that will split inside the building.
- Complete domestic hot and cold-water distribution system to all fixtures and equipment.
- Backflow preventers for make-up water for HVAC equipment (RPZ type).
- Complete internal sanitary, waste, and vent system.
- Complete internal storm drainage system.
- Reuse existing 67 gallon electric domestic water heater (67 gallon storage, 120 MBH input).

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FEASIBILITY STUDY

- New hot water recirculating system including pumps and controls.
- Condensate drains for air conditioning equipment.
- Furnish and install all plumbing fixtures as noted on the drawings.
- Testing and adjustment of all work installed.
- Coordination of size and location with gas utility company, site contractor and PSU Engineering Services in the Utility Division of OPP for replacement of the existing natural gas service.
- Provide new internal gas piping to the new boilers.
- Provide new laboratory air supply system and interior piping distribution to all fixtures.
- Provide new laboratory vacuum system and interior piping distribution to all fixtures.
- Adaptive reuse of the existing laboratory interior gas distribution system to all fixtures.

Acid Waste and Vent System

New waste and vent piping will be connected to lab casework sinks and fume hood cup sinks and routed below the new countertops. The new lines will be extended into the service chases and connected to new acid waste and vent stacks. A new acid waste line will be extended to the exterior of the building and connected to a new underground acid neutralization tank. The outlet from the neutralization tank will be routed and connected to an existing sanitary sewer main located on the project site.

Deionized Water System

In labs requiring deionized water, one (1) new packaged Millipore RO/DI water system will be installed in each lab to supply treated water to the space. The new system would be located on the countertop or wall mounted. Domestic cold water will be connected to the new water unit.

Emergency Shower/Eye Wash

New combination emergency shower / eyewash fixtures will be installed in the Lab areas. A new 250 gallon electric water heater will be installed in the mechanical room to generate domestic hot water for the new emergency fixtures. New domestic hot water, hot water recirculation piping, and hot water circulating pump will be installed to assure that hot water is delivered to the emergency fixtures in a timely manner. Thermostatic mixing valves will be installed at each emergency fixture to provided tempered hot water to the fixtures to meet current Code requirements.

FIRE PROTECTION SYSTEM

Design Criteria

There is currently no fire protection system in the Ostermayer Building. A new wet pipe fully sprinklered system is recommended. Design of fire protection systems will be in accordance with the Penn State Design and Construction Standards, the applicable versions of NFPA 13, National Fire Protection Code, FM Global Design Standards, and other applicable national, state, and local codes.

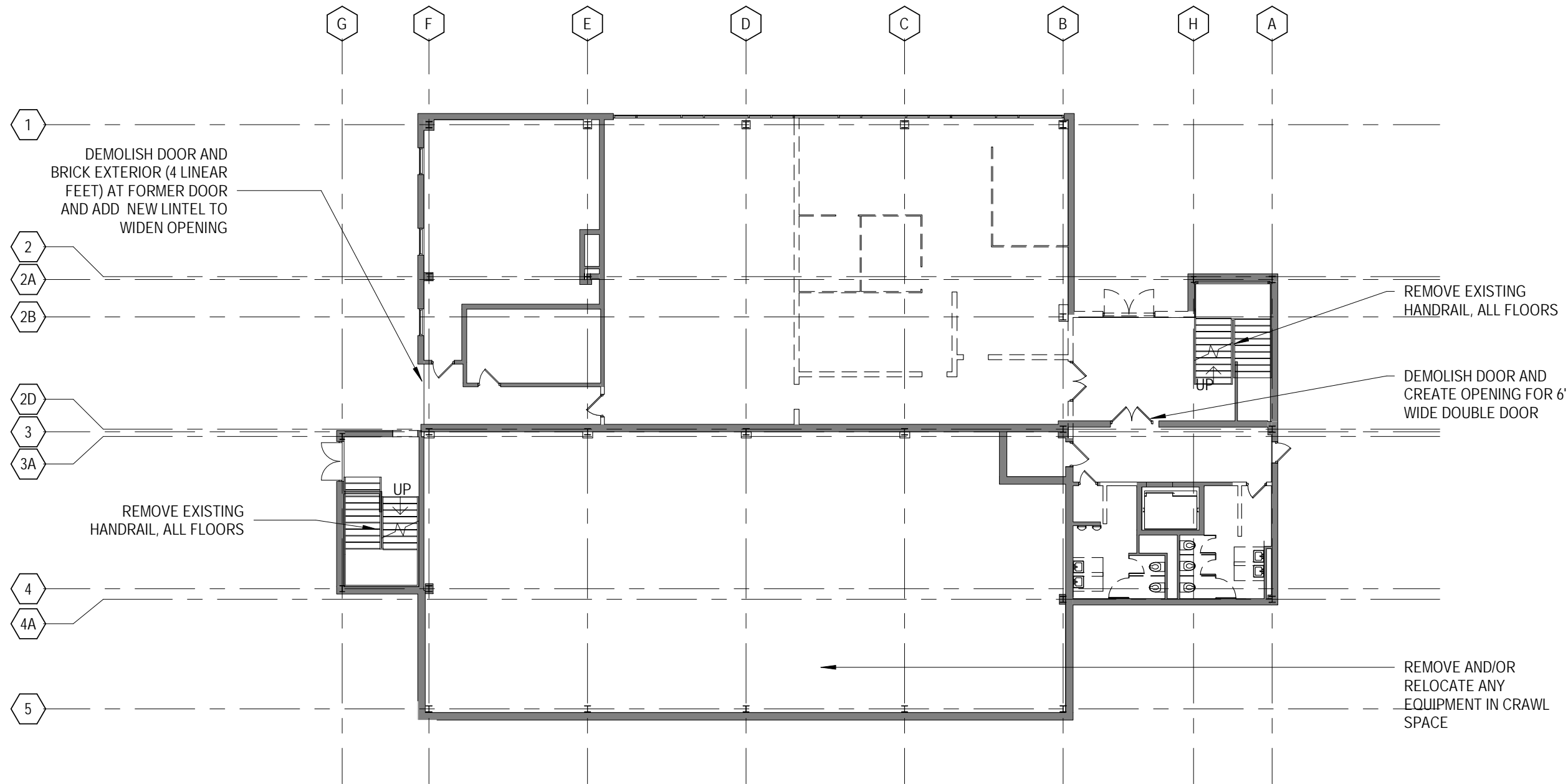
A hydrant flow test must be performed to obtain the available flow, static pressure, and residual pressure of the campus water system. The flow test will determine the extent of water service upgrades required to serve the sprinkler system. A dedicated closet for the service is recommended.

General

The design and specification of the Fire Protection system shall include the following:

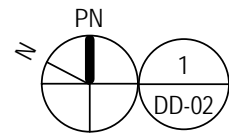
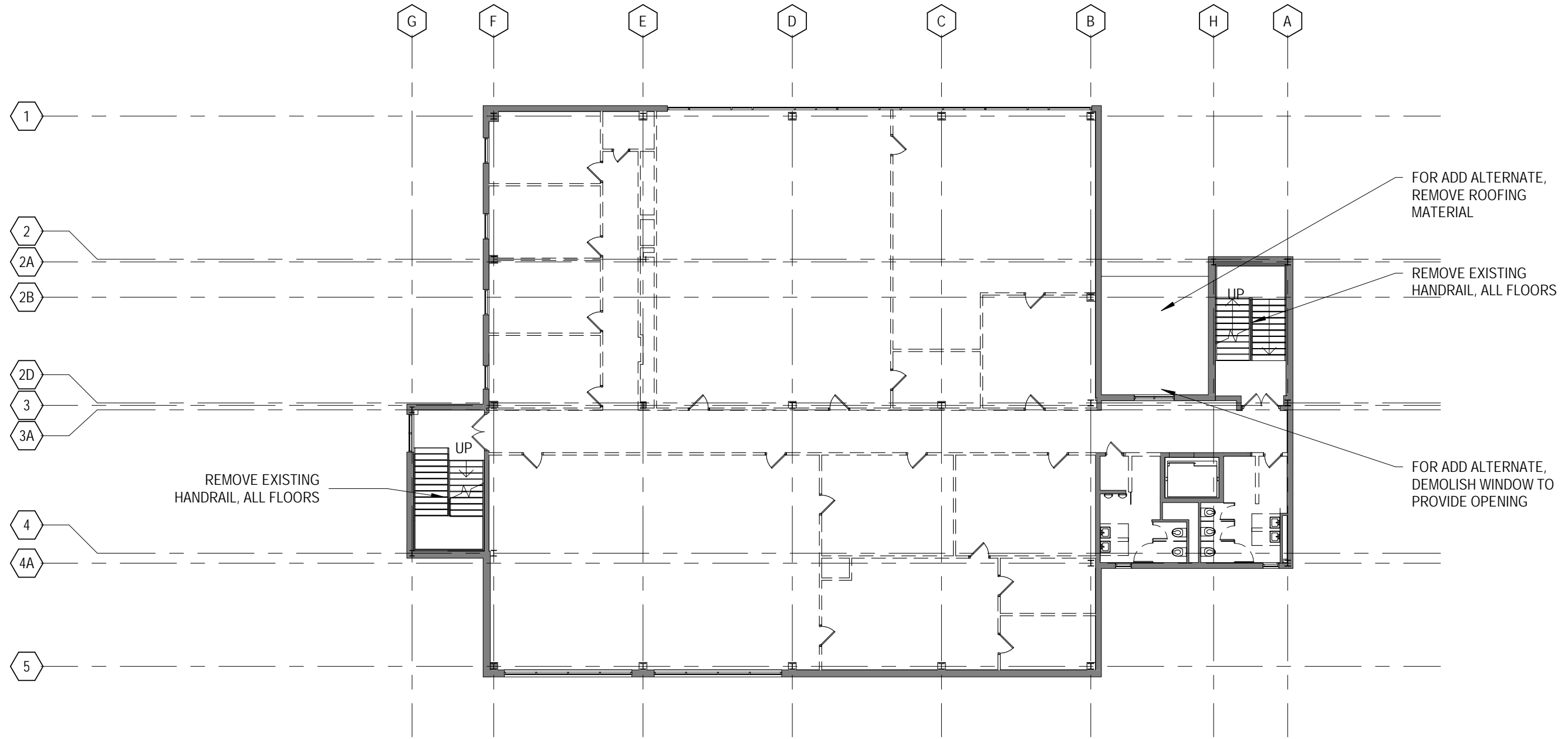
- Backflow preventers for fire protection water service (RPZ type).
- New wet sprinkler system per NFPA 13.
- Requirement for submission of hydraulic calculations.
- Complete fire pump and jockey pump assembly, including all required valves, hangers, control panels and accessories. (As an alternate, provide pricing for a pre-packaged, fully enclosed, diesel-powered fire pump typical of Patterson pumps.)
- Provision of all piping, fittings, valves, hangers, and sprinkler heads.
- Sleeves through walls, floors and fire stopping empty spaces.
- Section valves, flow alarms, etc. as required and coordinated with the fire alarm system.
- Flushing connections where necessary and requirement to flush all new sprinkler piping in accordance with NFPA 25.
- Work for elevator shafts and elevator machine rooms including interlock with heat detectors.
- Testing of all new sprinkler piping and submission of all required certifications.

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 DD-01
FIRST FLOOR DEMOLITION PLAN
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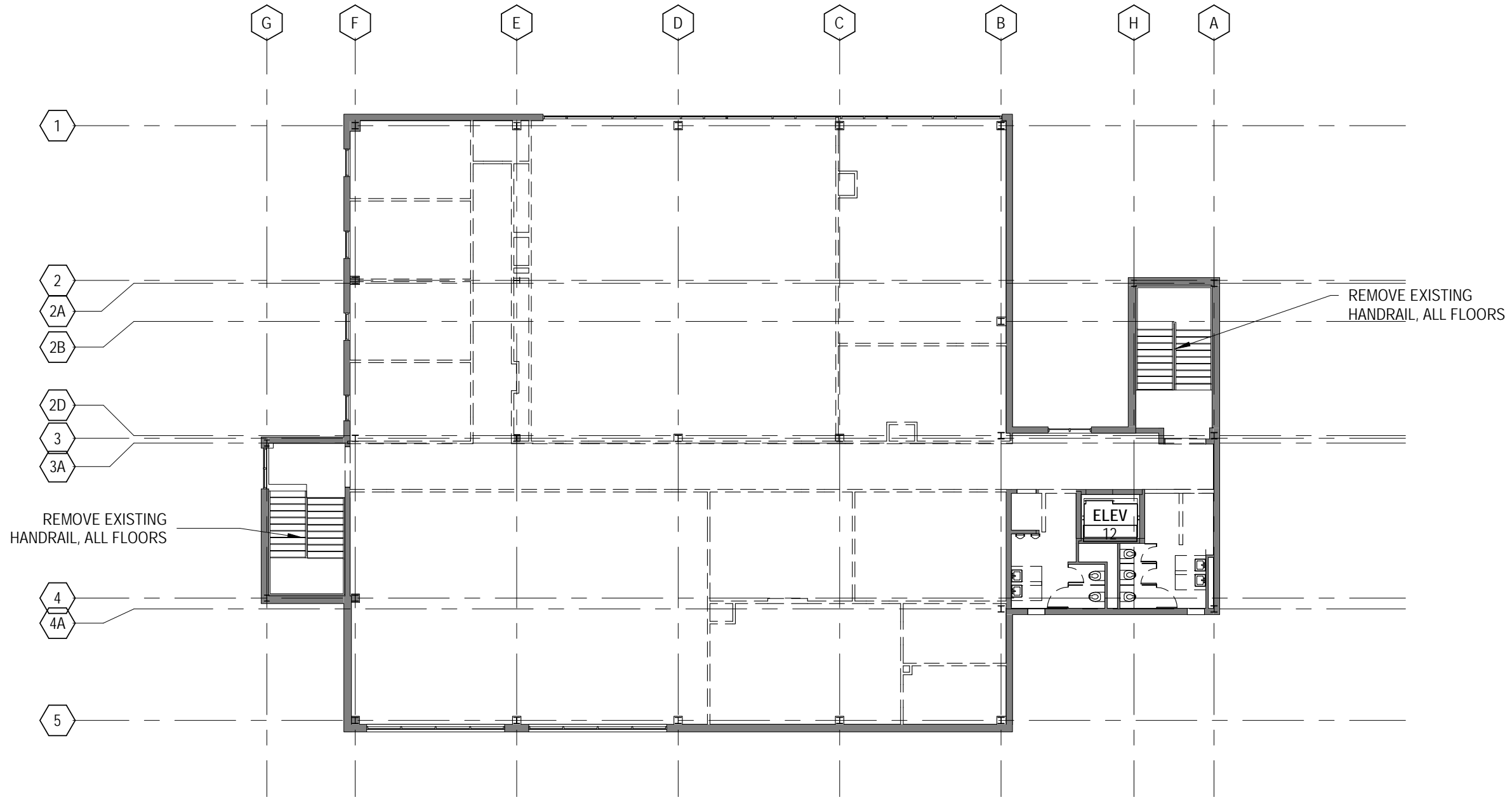




SECOND FLOOR DEMOLITION PLAN

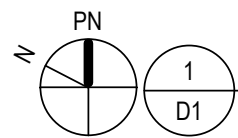
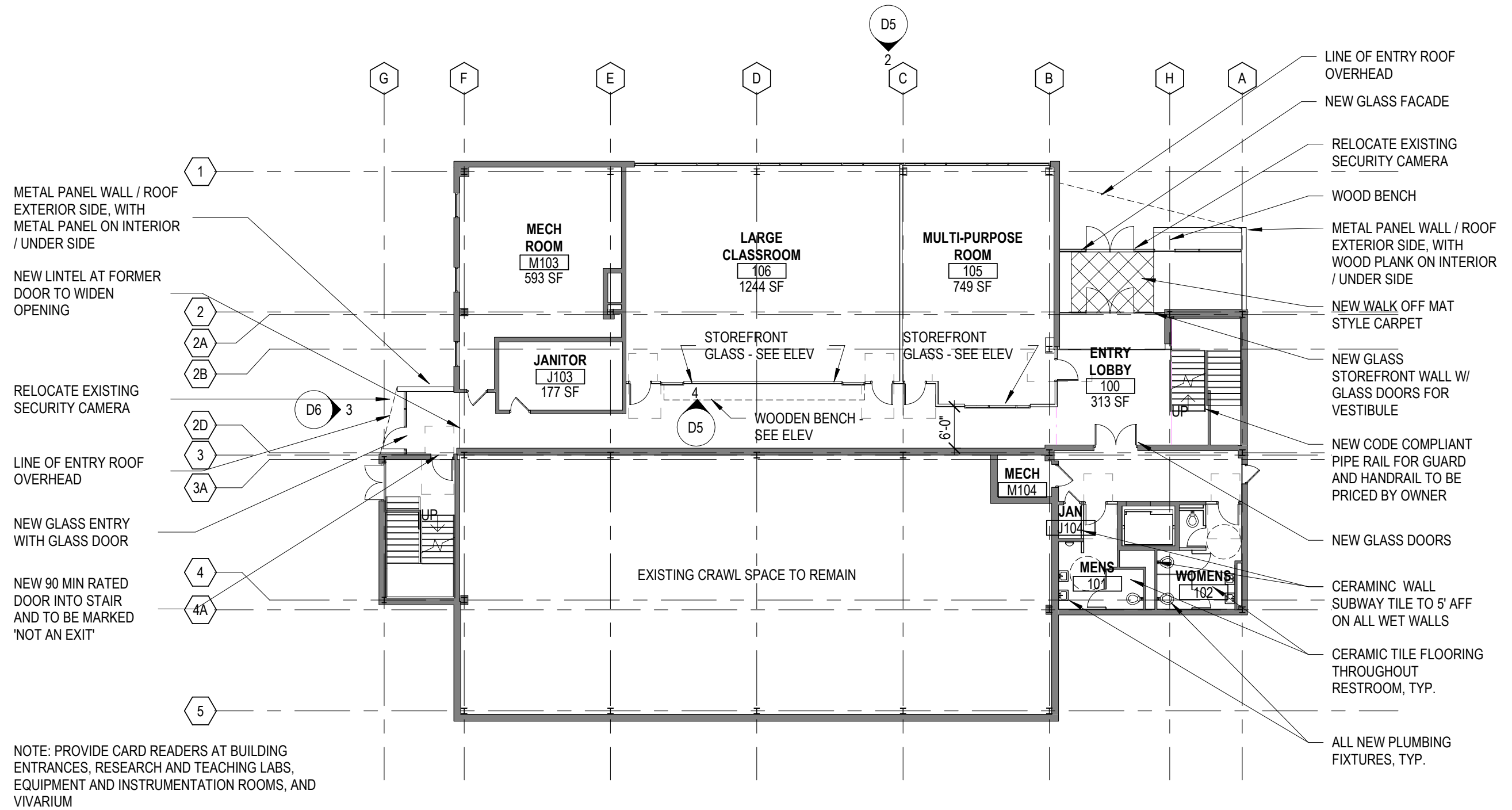
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1 **LEVEL 3 DEMOLITION PLAN**
 DD-03 SCALE: 1/16" = 1'-0"





FIRST FLOOR PLAN

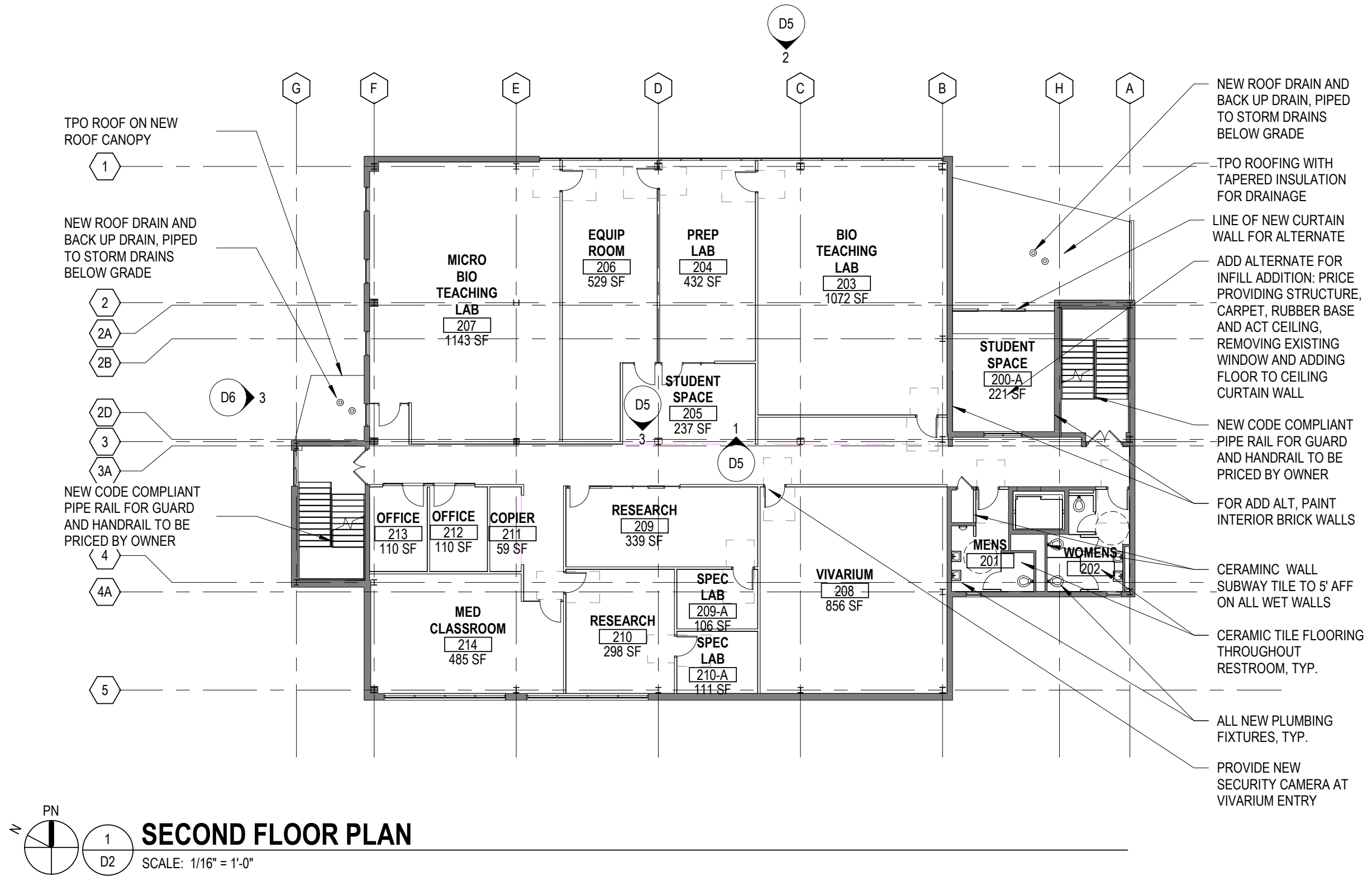
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LEVEL 1 FLOOR PLAN FEASIBILITY STUDY

Scale: 1/16" = 1'-0"



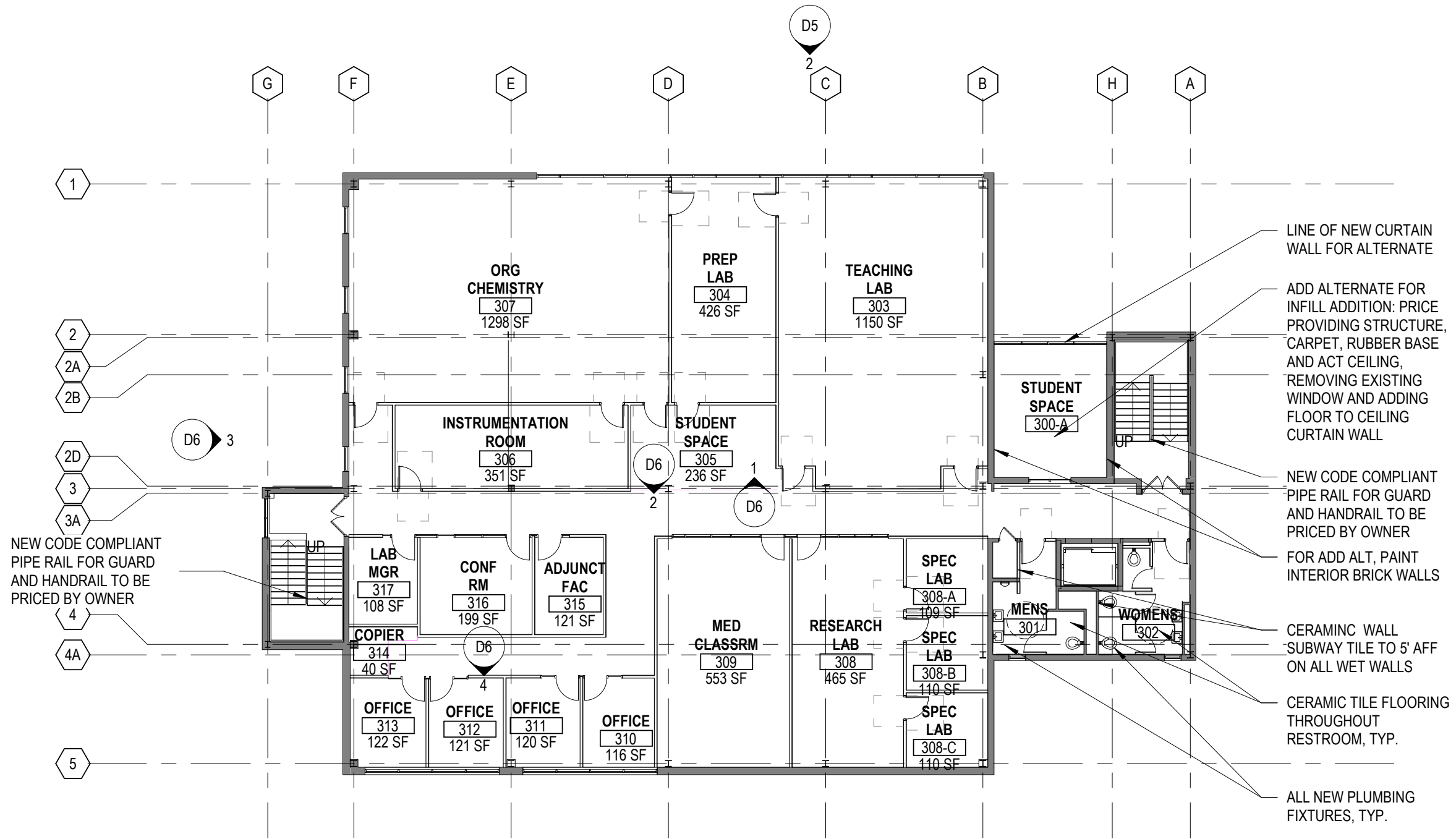


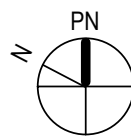
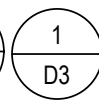
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SECOND FLOOR PLAN
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LEVEL 2 FLOOR PLAN
FEASIBILITY STUDY
Scale: 1/16" = 1'-0"



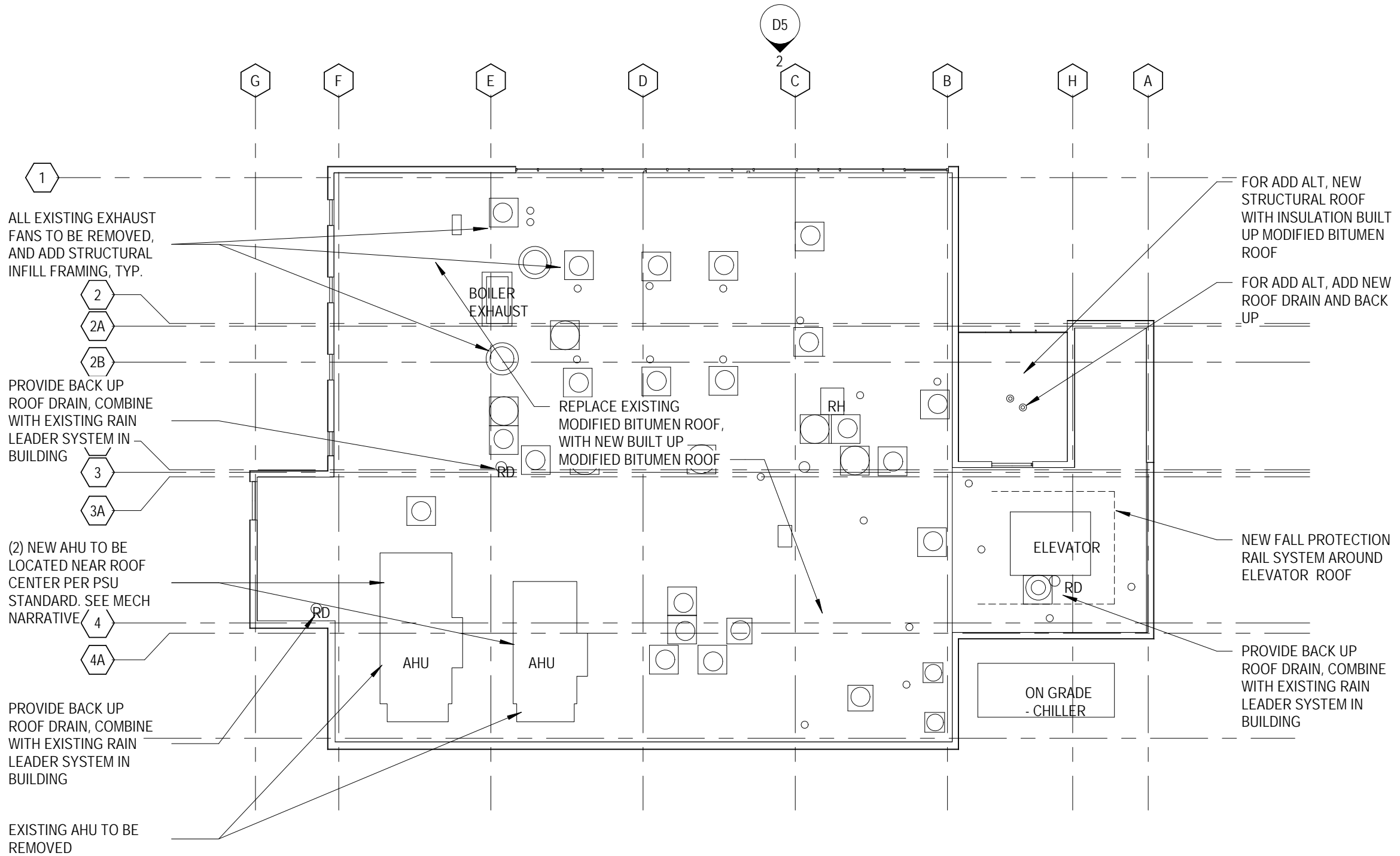




THIRD FLOOR PLAN
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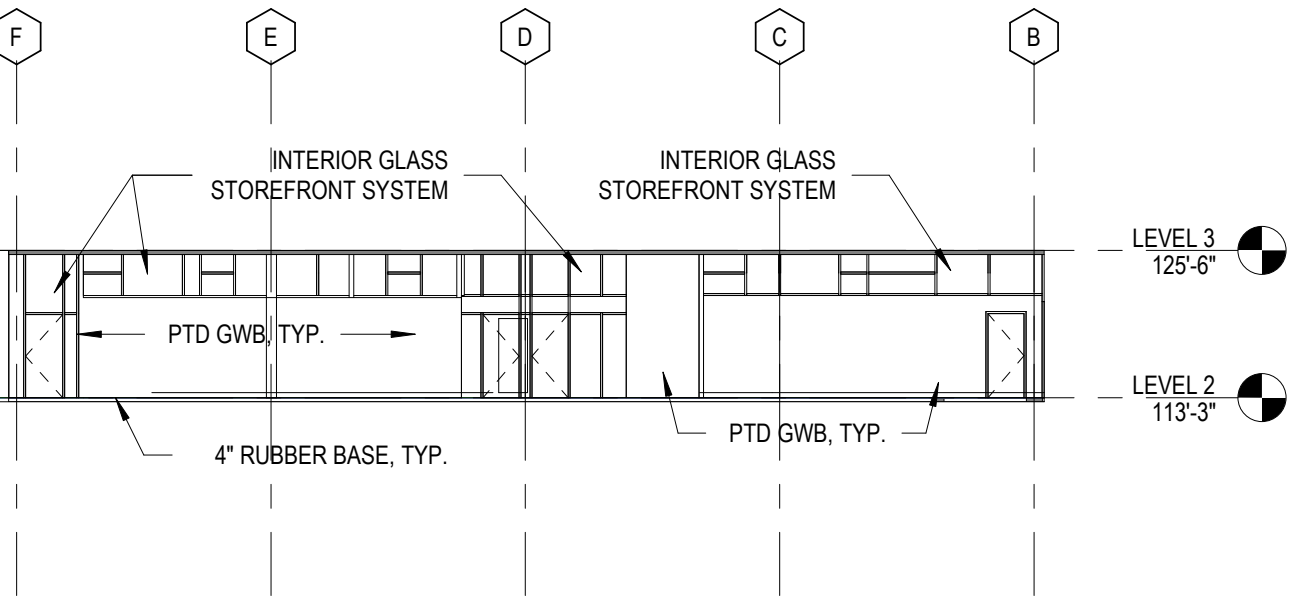
LEVEL 3 FLOOR PLAN
FEASIBILITY STUDY
 Scale: 1/16" = 1'-0"





1 **ROOF PLAN**
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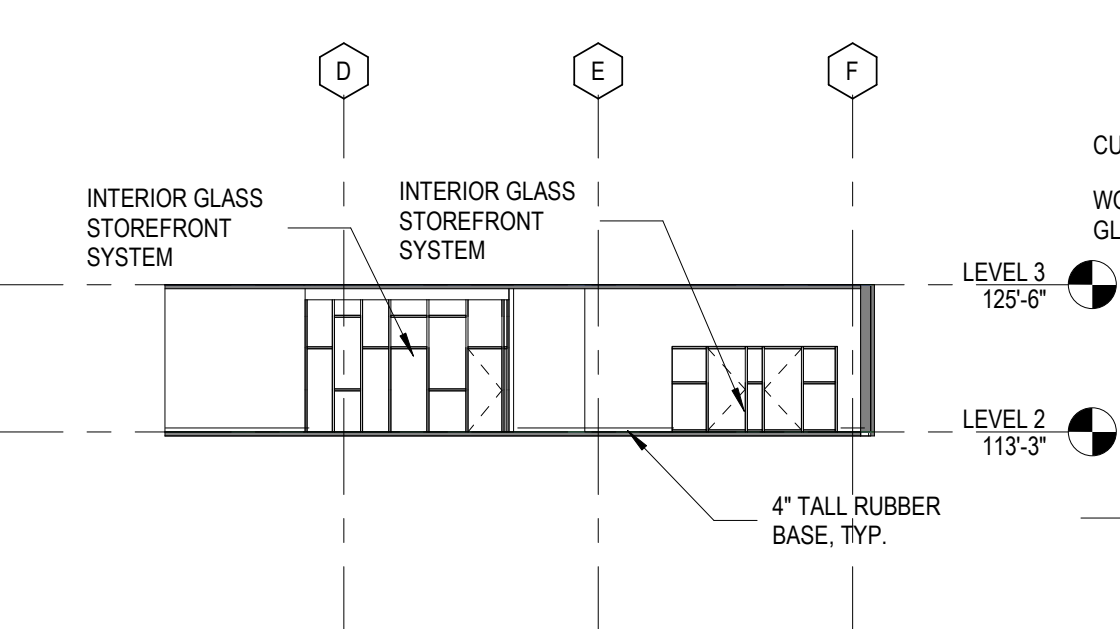


1 2nd FLOOR INTERIOR ELEVATION - LOOKING NORTH

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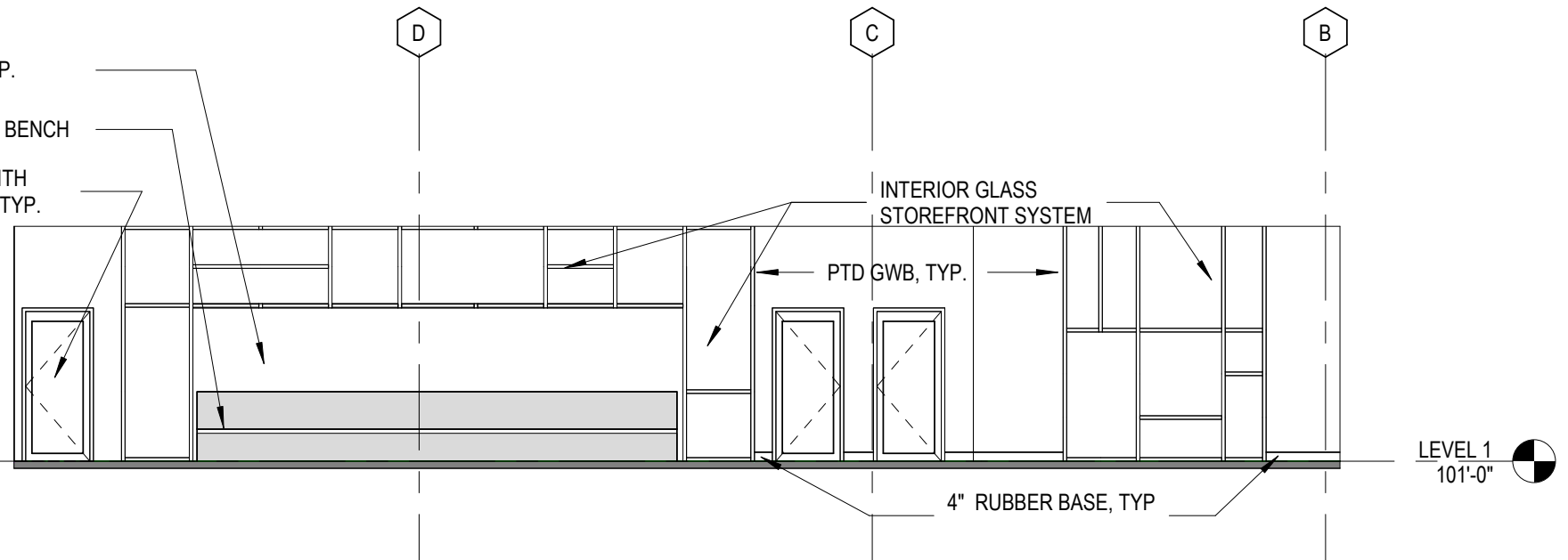
2 EXTERIOR ELEVATION NORTH

D5 SCALE: 1/16" = 1'-0"



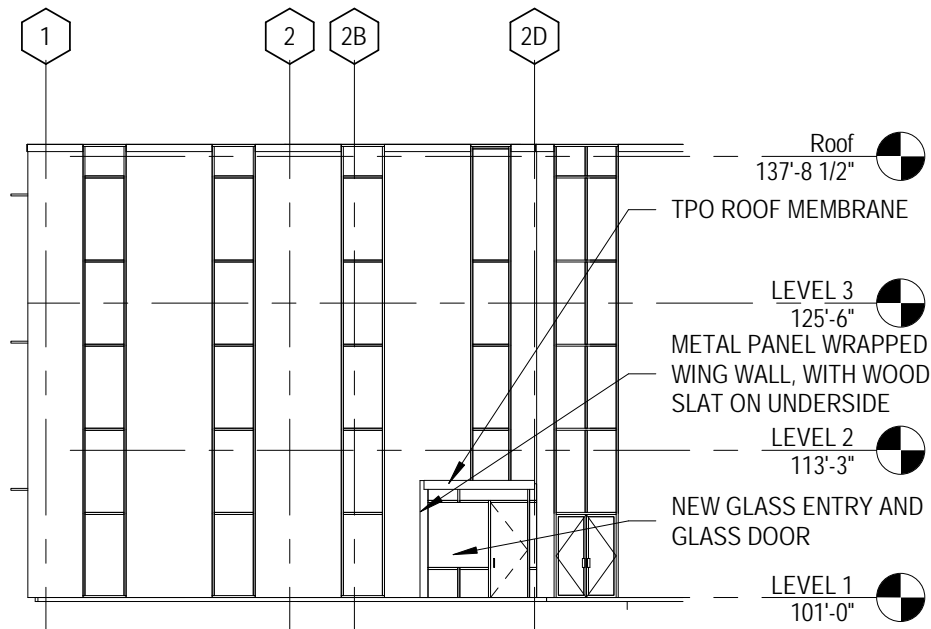
3 2nd FLOOR INT. ELEV. -LOOKING SOUTH

D5 SCALE: 1/16" = 1'-0"

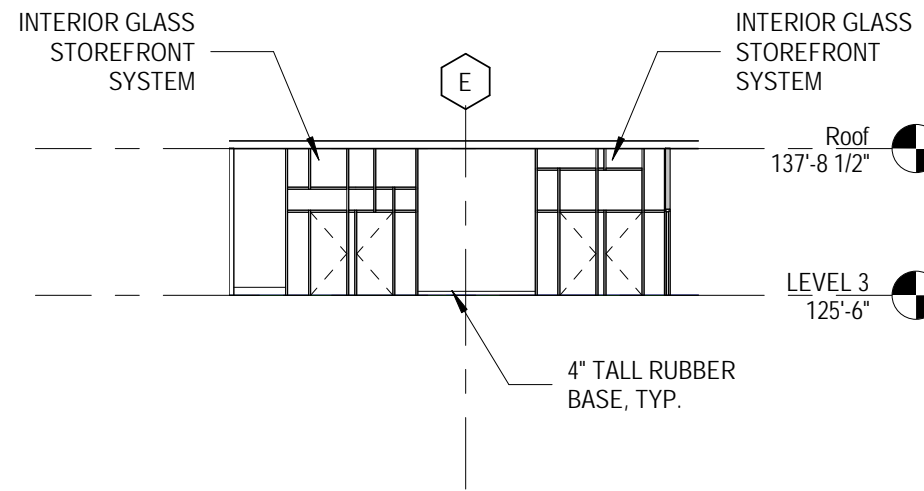


4 LARGE CLASSROOM INTERIOR ELEVATION

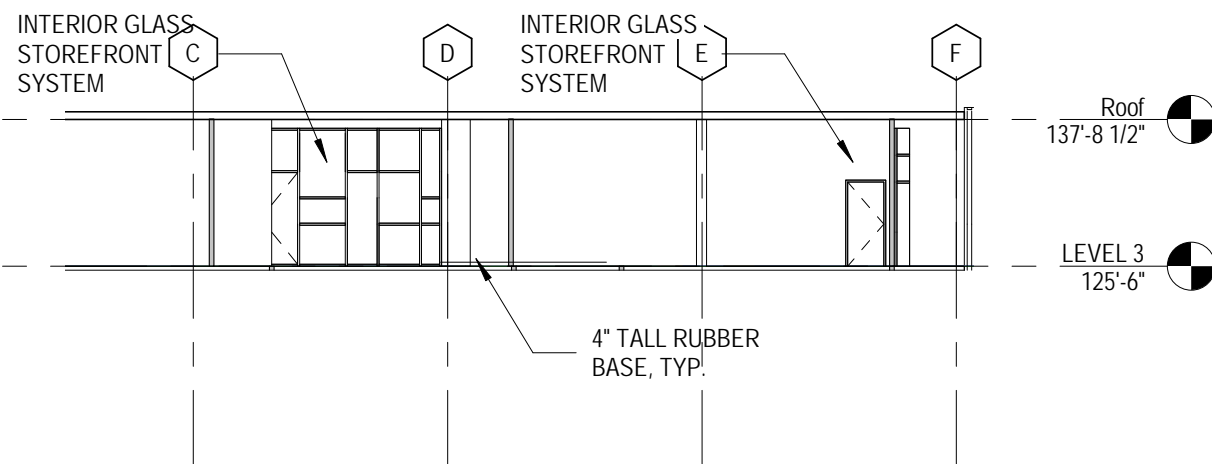
D5 SCALE: 1/8" = 1'-0"



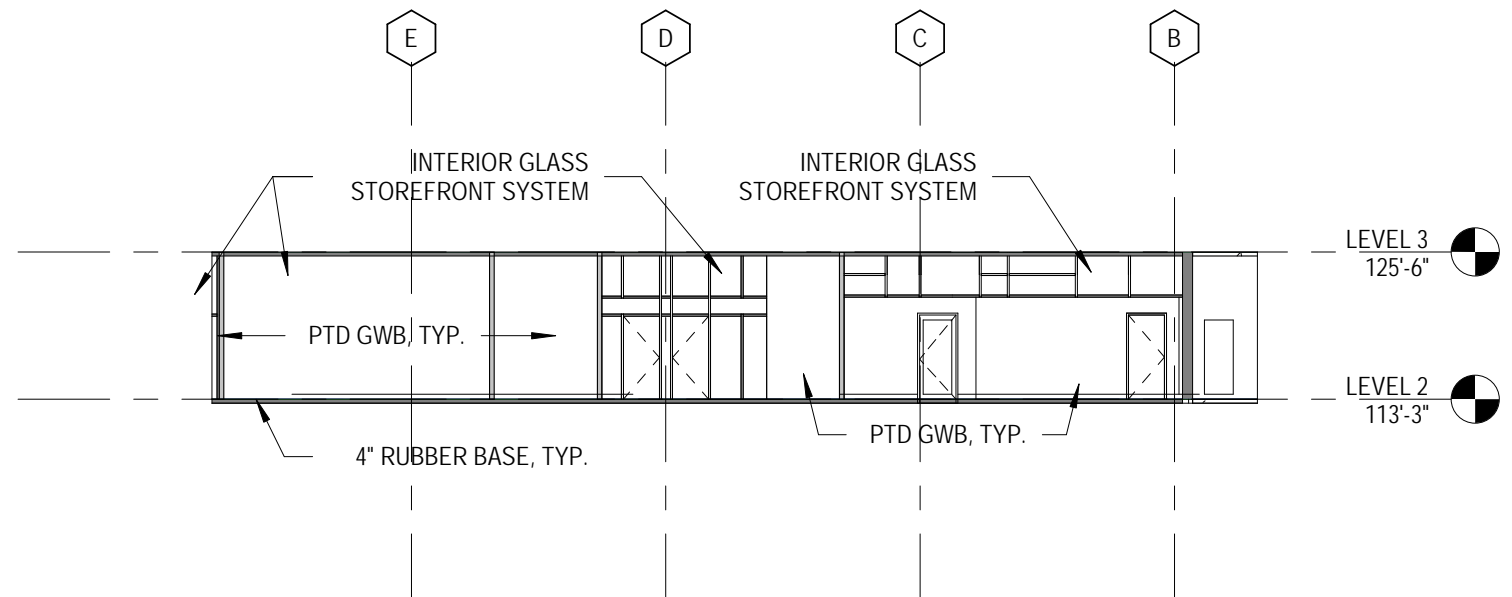
3 EXTERIOR ELEVATION - WEST
D6 SCALE: 1/16" = 1'-0"



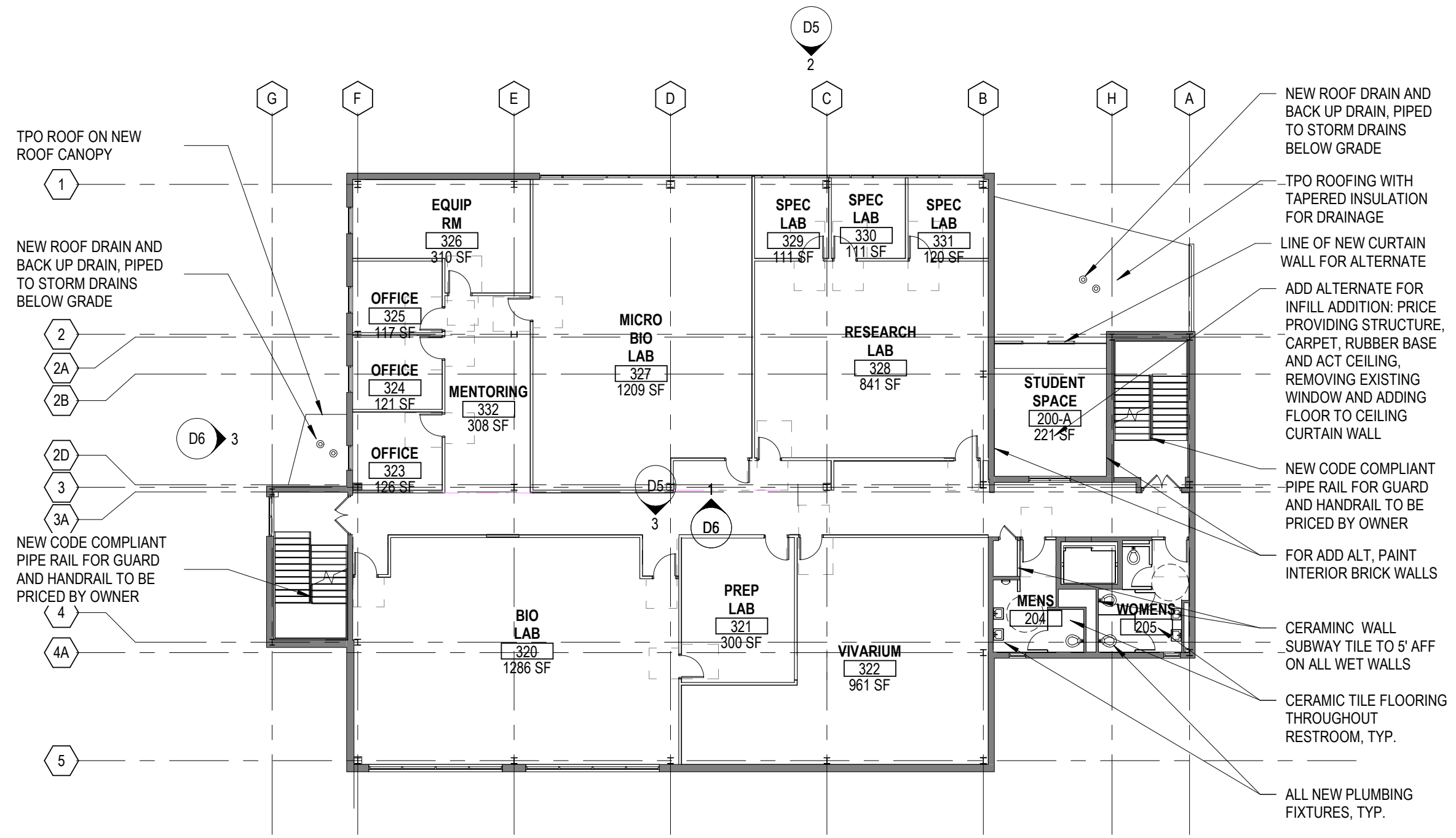
4 3rd FLOOR OFFICE SUITE ELEVATION - LOOKING SOUTH
D6 SCALE: 1/16" = 1'-0"



2 3rd FLOOR INT. ELEV. -LOOKING SOUTH
D6 SCALE: 1/16" = 1'-0"



1 3rd FLOOR INTERIOR ELEVATION - LOOKING NORTH
D6 SCALE: 1/16" = 1'-0"

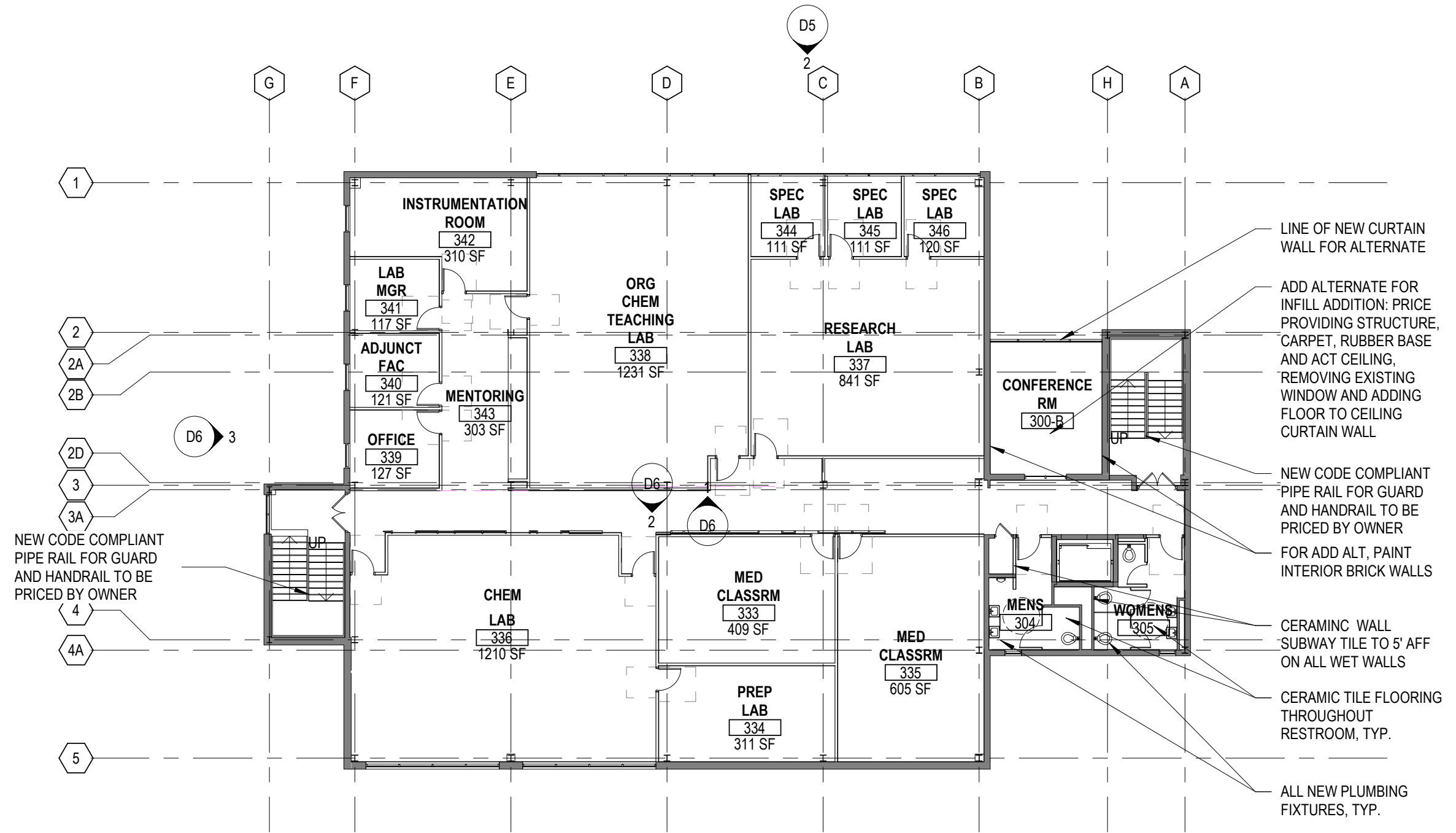


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SECOND FLOOR PLAN
SCALE: 1/16" = 1'-0"

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LEVEL 2 FLOOR PLAN
FEASIBILITY STUDY
 Scale: 1/16" = 1'-0"





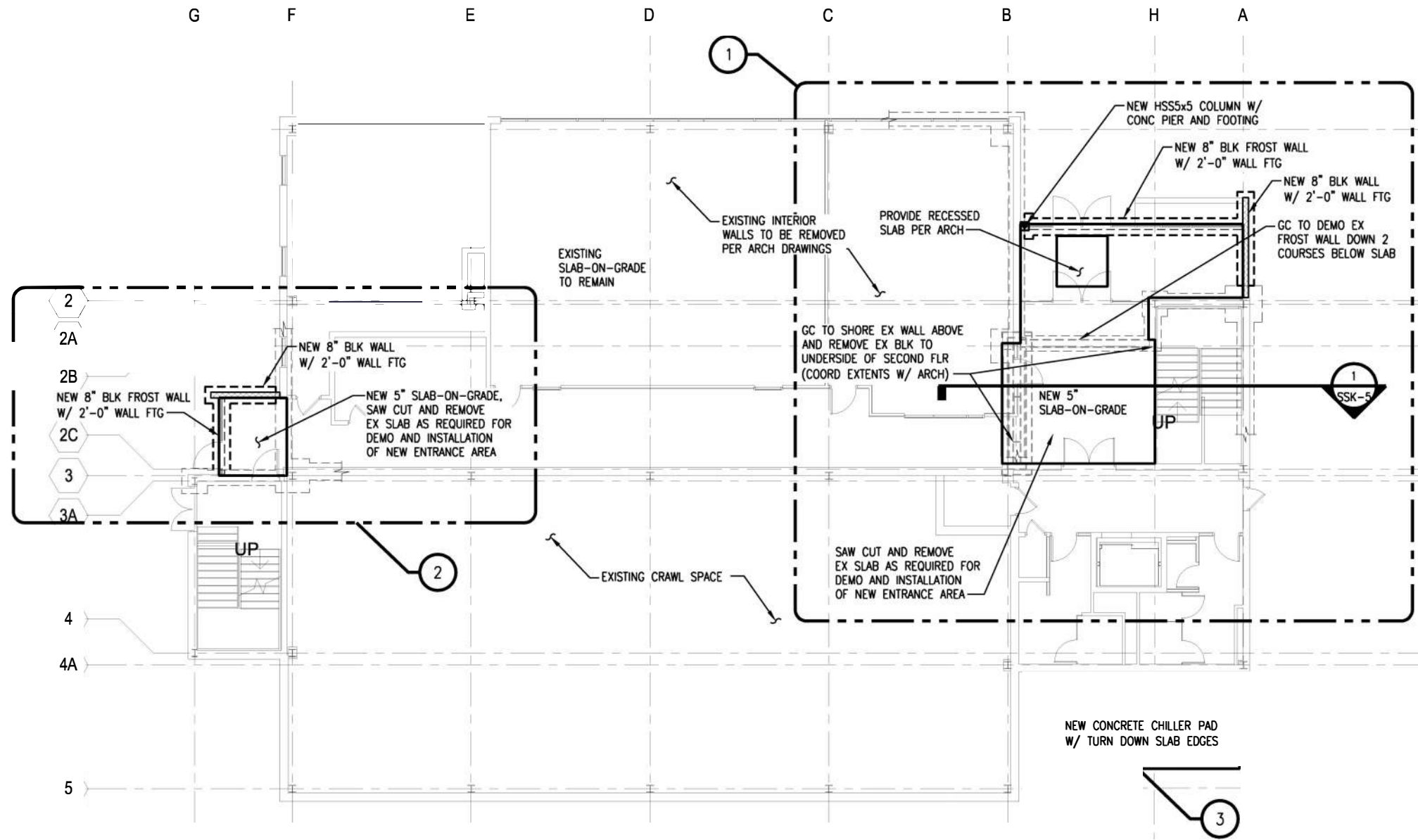


THIRD FLOOR PLAN
 SCALE: 1/16" = 1'-0"

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LEVEL 3 FLOOR PLAN
FEASIBILITY STUDY
 Scale: 1/16" = 1'-0"





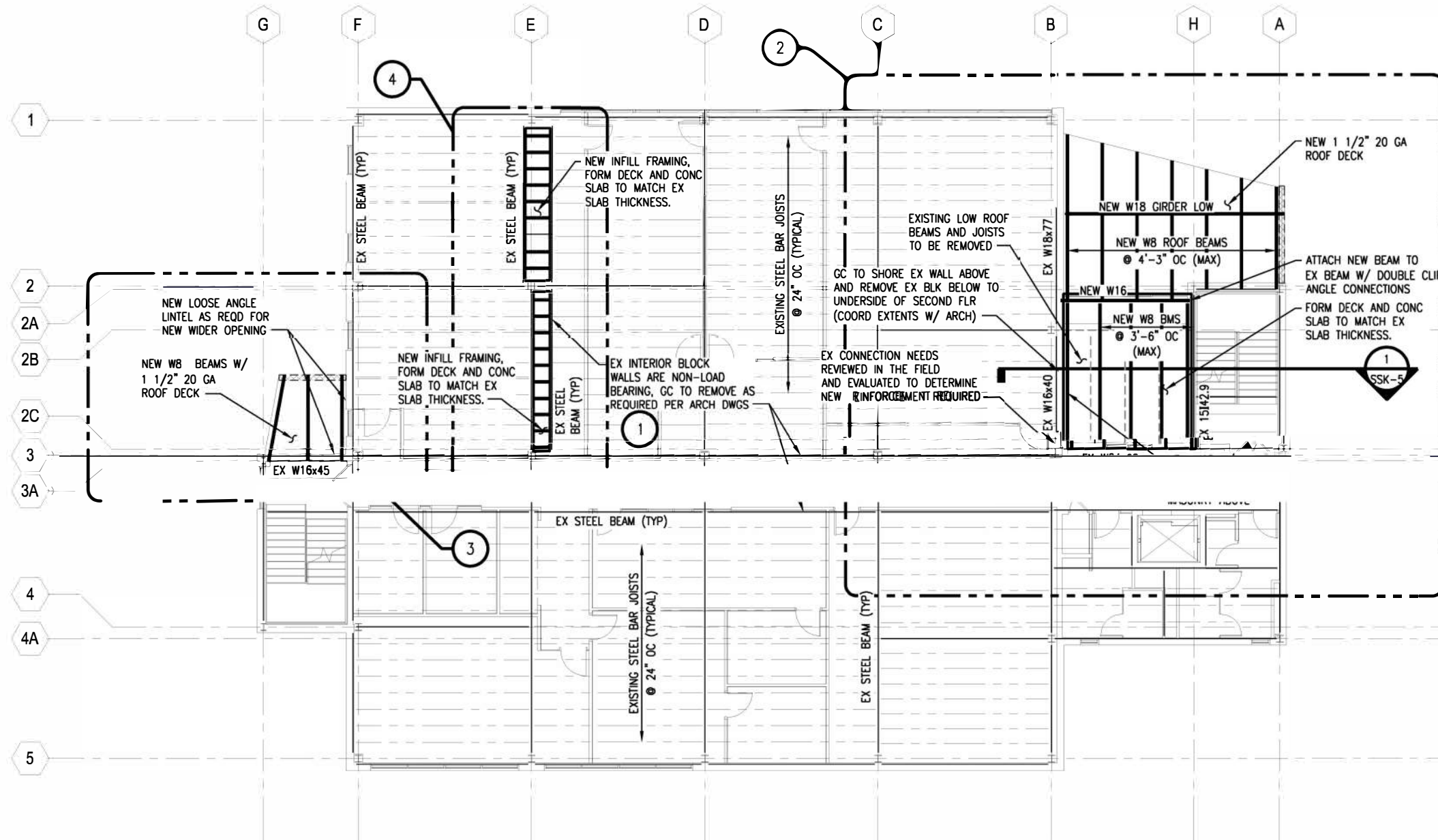
SCOPE:

- 1 NEW MAIN ENTRANCE VESTIBULE
- 2 NEW ENTRANCE VESTIBULE
- 3 NEW CHILLER PAD

**EXISTING DEMO/NEW
SLAB-ON-GRADE/FOUNDATION PLAN**
SCALE: 1/16" = 1'-0"

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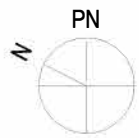


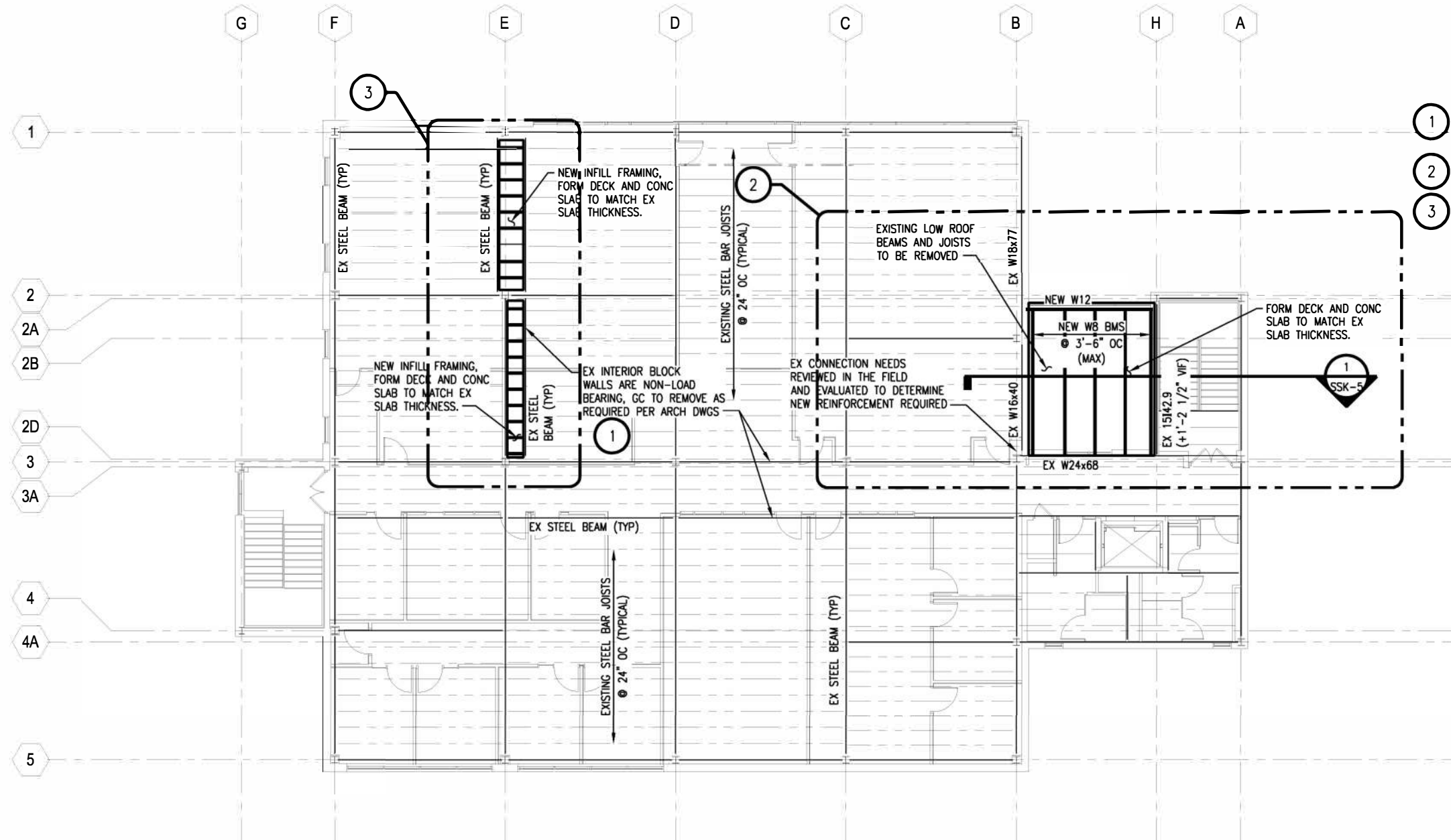


SCOPE:

- 1 EXISTING INTERIOR DEMISING WALLS DEMOLITION
- 2 NEW MAIN ENTRANCE VESTIBULE
- 3 NEW ENTRANCE VESTIBULE
- 4 NEW SLAB INFILL

**EXISTING DEMO/NEW
SECOND FLOOR FRAMING PLAN**
SCALE: 1/16" = 1'-0"

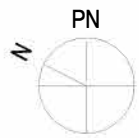


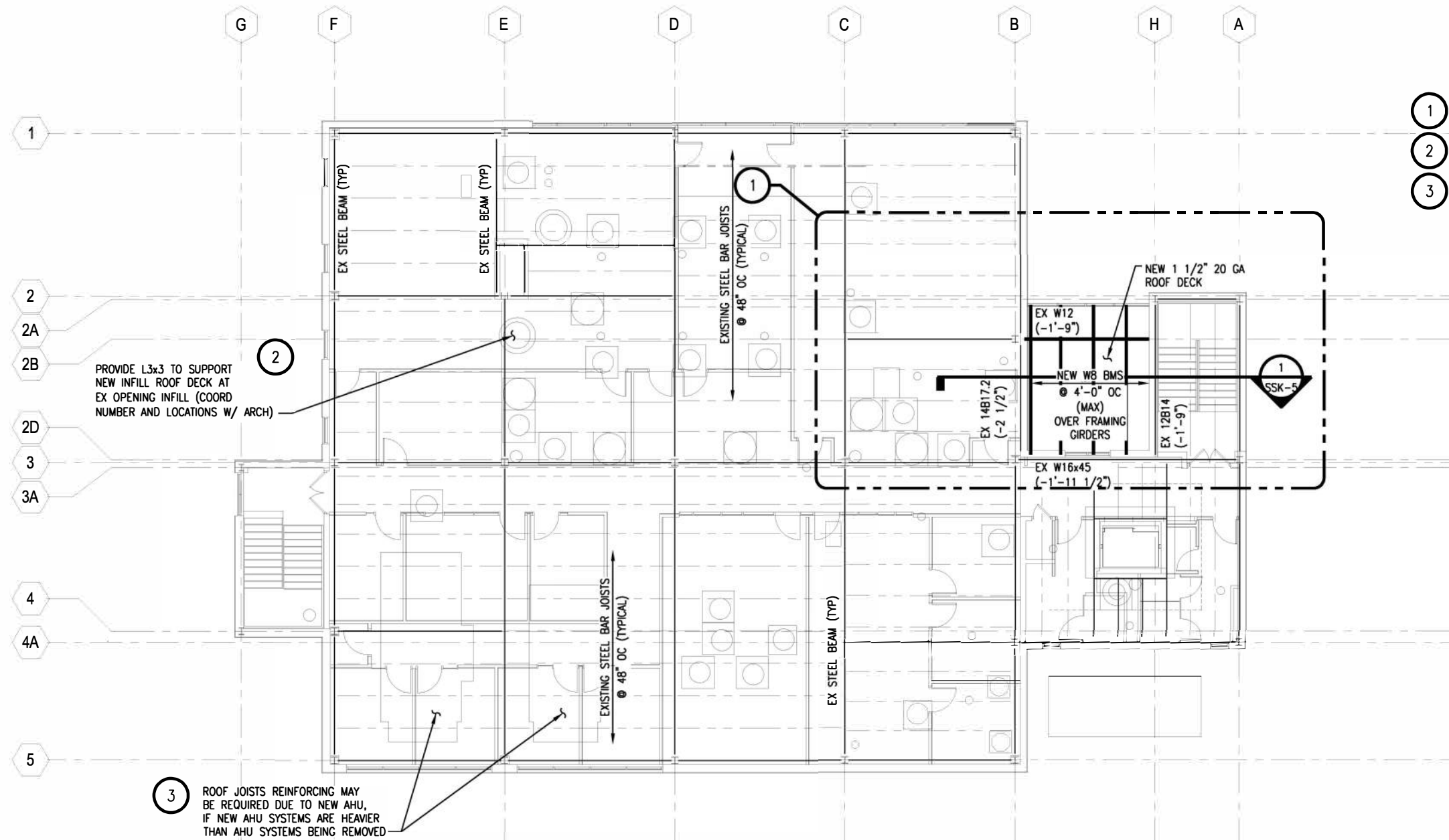


SCOPE:

- ① EXISTING INTERIOR DEMISING WALLS DEMOLITION
- ② NEW MAIN ENTRANCE VESTIBULE
- ③ NEW SLAB INFILL

**EXISTING DEMO/NEW
THIRD FLOOR FRAMING PLAN**
SCALE: 1/16" = 1'-0"





SCOPE:

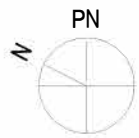
- 1 NEW MAIN ENTRANCE VESTIBULE
- 2 EXISTING ROOF OPENING INFILLS
- 3 JOIST REINFORCING @ NEW AHU

2 PROVIDE L3x3 TO SUPPORT NEW INFILL ROOF DECK AT EX OPENING INFILL (COORD NUMBER AND LOCATIONS W/ ARCH)

3 ROOF JOISTS REINFORCING MAY BE REQUIRED DUE TO NEW AHU, IF NEW AHU SYSTEMS ARE HEAVIER THAN AHU SYSTEMS BEING REMOVED

EXISTING DEMO/NEW ROOF FRAMING PLAN

SCALE: 1/16" = 1'-0"



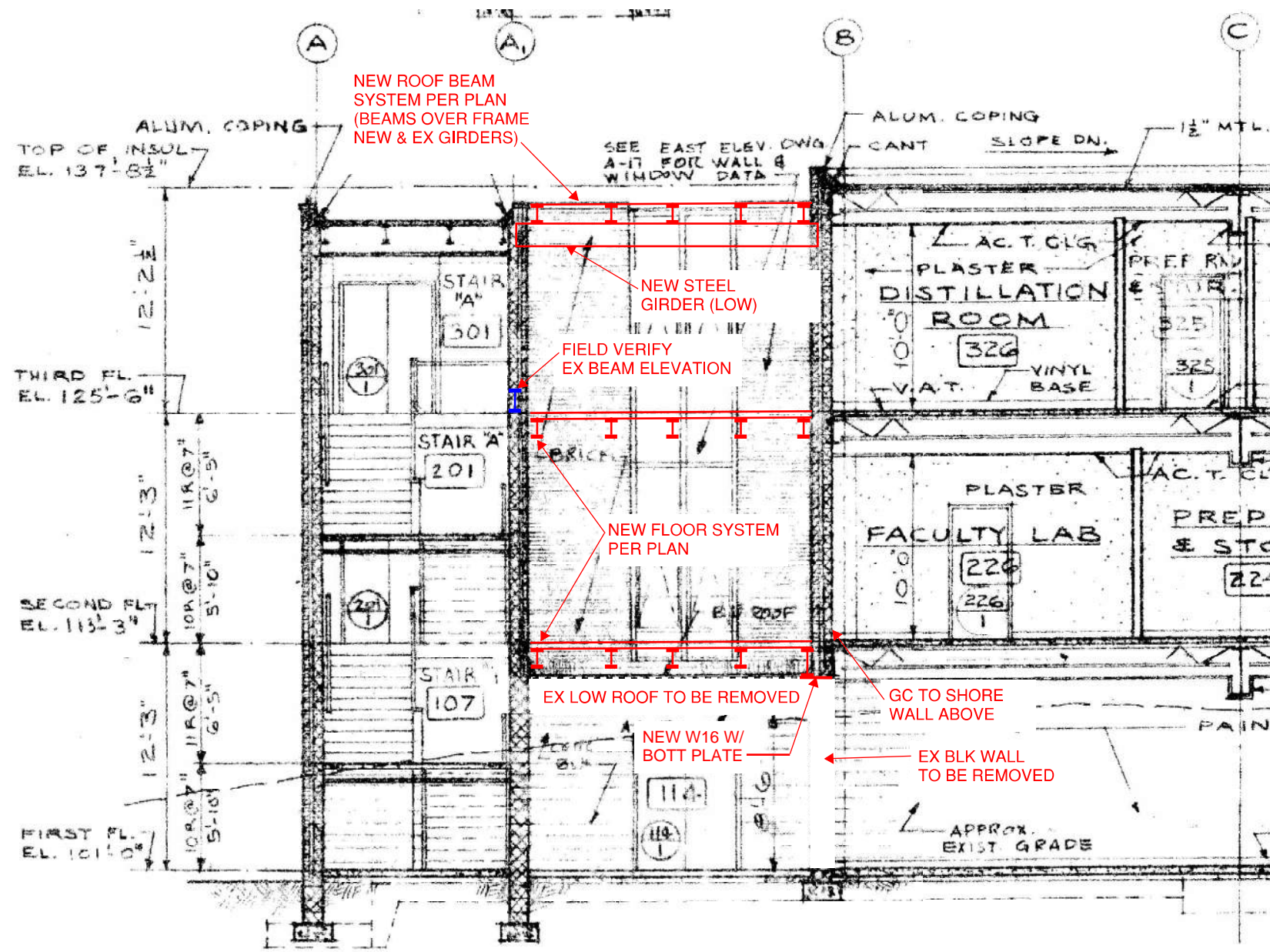
09/01/18 | 14,186.01 |

PSU OSTERMAYER GREATER ALLEGHENY

GBBN Architects | 5411 Penn Ave, Pittsburgh, PA 15206 | v 412.345.5005

ROOF PLAN
FEASIBILITY STUDY





1 MAIN ENTRANCE VESTIBULE SECTION
SSK-5

09/01/18 | 14186.01 |
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 GBBN Architects | 5411 Penn Ave, Pittsburgh, PA 15206 | v 412.345.5005

VESTIBULE FRAMING
 FEASIBILITY STUDY **GBBN**

Program

ID No.	Space Type	Potential Sections	Net Area				NSF	% Total USF	Comments
			Occ.	NSF / Occ	Rm. Area	Qty Rms.			
SCIENCES									
1	TEACHING LABS	13					6,220sf	47.5%	
1.1	Biology Labs	8	24	50sf	1,200sf	2	2,400sf		(1) biology, (1) Microbiology - BSL2
1.2	Chemistry	4	24	55sf	1,320sf	1	1,320sf		
1.3	Chemistry (Organic)	1	20	65sf	1,300sf	1	1,300sf		
1.4	Instrumentation Lab - chem	1	12	50sf	600sf	1	600sf		for organic chem
1.5	Equipment Lab / Micro	1	12	50sf	600sf	1	600sf		For Microbiology BSL2 Lab
2	PREP & SUPPORT LABS						640sf	4.9%	
2.1	Chemical Storage				80sf	0	0sf		chemical storage in prep labs
2.2	Prep - Bio labs				320sf	1	320sf		
2.3	Prep - Chem Labs				320sf	1	320sf		
2.4	Prep - Research Labs				320sf	0	0sf		
3	RESEARCH & SHARED SUPPORT						1,600sf	12.2%	
3.1	Wet Lab - Open BSL2		2	400sf	800sf	1	800sf		
3.2	Wet Lab - Open / General Research		1	400sf	400sf	2	800sf		
3.3	Dry Lab				0sf	0	0sf		
3.4	Dark Room				80sf	0	0sf		in the shared research space
3.5	Other				0sf	0	0sf		
4	SHARED SPECIALTY-VIVARIUM						740sf	5.6%	Wish List
4.1	Animal Holding Rooms		1	160sf	160sf	1	160sf		
4.2	Fish Room				160sf	1	160sf		
4.3	Bedding & Feed & storage				160sf	1	160sf		
4.4	Wash				160sf	1	160sf		cabinet washer for cages/tanks, hose-down station for racks, scullery sink
4.5	Intake/Airlock				100sf	1	100sf		air control, security, PPE
5	GENERAL SCIENCE PROGRAM						2,858sf	21.8%	
5.1	Classroom-Large		50		1,008sf	1	1,008sf		
5.2	Classroom - Medium		30		650sf	1	650sf		conference capable
5.3	Classroom - Medium		20		450sf	1	450sf		
5.3	Multipurpose Room		20	25sf	504sf	0	0sf		For group learning
5.4	Maker Space / multipurpose		20	45sf	750sf	1	750sf		Wish List - outreach
5.5	Greenhouse (estimated)				1,200sf	0	0sf		Wish List - to be outside of the footprint
6	SHARED OFFICES / ADMIN						1,040sf	7.9%	
6.1	Offices (4 faculty & 2 extra private offices)				120sf	6	720sf		
6.2	Offices (adjunct faculty)				120sf	1	120sf		open config for 4
6.3	Conf		5	30sf	150sf	0	0sf		
6.4	Storage / Mail / Copy				80sf	1	80sf		divided on two floors - w/ awesome ventilation
6.5	Lab Manager				120sf	1	120sf		
PROGRAM TOTALS									
							13,098sf	100.0%	
							61%		
							21,472sf		

Appendix

Cost Estimate



Date 10.16.18

The Pennsylvania State University - Ostermayer Building Renovation
Greater Allegheny Campus

Pre Schematic Design Opinion of Probable Cost "Revision No. 1"

Breakdown:	Cost
A-1 Multi-Floor Lab, Classroom, Office & Common Area Reno	\$10,449,120
Alternates:	
Alt-1 ADD Two Story Student Space Infill	\$613,000
Alt-2A ADD Electric In-Line 500 GPM Fire Pump	\$86,127
Alt-2B ADD Exterior Packaged Diesel Fire Pump	\$397,500
Alt-3 ADD/DEDUCT To Be Determined	\$0
Breakout Costs:	
B.O.-1 B.O. Approx Vivarium Cost (855 SF @ \$250/SF Premium)	\$213,750

Clarifications:

- #1 Pricing Based on Quick Quantification and the Use of Historical \$/Unit Pricing
- #2 No Current SubContractor or Vendor Input was Utilized
- #3 Opinion of Probable Cost is Based on Preliminary Feasibility Plan by GBBN Architects
- #4 Lab Casework, Fume Hoods and Equipment are Included for Budget Purposes Only.
- #5 Plumbing, HVAC and Electrical are Included for Budget Purposes Only.

Exclusions:

- #1 Removal of Asbestos, Lead or other Contaminates.
- #2 Any Work to Envelope or Shell of Building "Except at Entry"
- #3 Upgrades to Water, Sanitary, Gas or Electrical Services
- #4 Any work to Upgrades ADA or Accessibility
- #5 Furniture, Fixtures or Equipment
- #6 Tele/Data Systems Wiring or Equipment
- #7 Security or CCTV Systems
- #8 Audio Visual
- #9 Card Access
- #10 Any Work to Areas Not Specifically Identified
- #11 Any Work Marked Future
- #12 Building Permit or Plan Review
- #13 Bonding or Special Insurances
- #14 Signage
- #15 Renewable / Alternate Energy
- #16 Premium Time or Off Hours/Shift Work
- #17 Repair of Existing Code Violations
- #18 Work to Existing Elevator
- #19 Concealed or Secondary Ceilings
- #20 Fire Pump

Jendoco Construction Corporation
2000 Lincoln Road Pgh, PA 15235

Date 10.16.18

The Pennsylvania State University - Ostermayer Building Renovation
Greater Allegheny Campus

Project Summary A-1 "Revision No. 1"

A-1 Multi-Floor Lab, Classroom, Office & Common Area Reno Project SF: 20,500
Cost / SF: \$509.71

Item Description	Jendoco Cost	Jendoco \$/S.F.	Percentage of Cost
Site work	\$0	\$0.00	0.0%
Demolition	\$319,148	\$15.57	3.1%
Concrete Work	\$56,760	\$2.77	0.5%
Masonry	\$33,575	\$1.64	0.3%
Metals	\$173,400	\$8.46	1.7%
Wood & Plastics	\$21,110	\$1.03	0.2%
Thermal & Moisture Protection	\$303,675	\$14.81	2.9%
Doors & Windows	\$209,175	\$10.20	2.0%
Finishes	\$654,332	\$31.92	6.3%
Specialties	\$121,465	\$5.93	1.2%
Lab Casework & Equipment	\$536,500	\$26.17	5.1%
Conveying Systems	\$0	\$0.00	0.0%
Mechanical	\$2,572,750	\$125.50	24.6%
Electrical	\$978,875	\$47.75	9.4%
General Conditions	\$849,042	\$41.42	8.1%
Subtotal	\$6,829,806	\$333.16	65.4%
Design/ Estimating Contingency	15.00 % \$1,024,471	\$49.97	9.8%
Construction Contingency	5.00 % \$392,714	\$19.16	3.8%
Inflation/Off Hours	5.00 % \$412,350	\$20.11	3.9%
Design / Engineering Fees	12.25 % \$1,060,769	\$51.74	10.2%
Contractors Fee	7.50 % \$729,010	\$35.56	7.0%
Total	\$10,449,120	\$509.71	100.0%

09/01/18 | 14,186.01 |
PSU OSTERMAYER GREATER ALLEGHENY
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PSU Project Number: XX-XXXXXXXXXX

ConsensusDocs 410 (Modified)
STANDARD DESIGN-BUILD AGREEMENT AND GENERAL CONDITIONS
BETWEEN OWNER AND DESIGN-BUILDER
(Cost of the Work Plus a Fee with a GMP), v. 02/2018



TABLE OF ARTICLES

1. GENERAL PROVISIONS
2. DESIGN-BUILDER'S RESPONSIBILITIES
3. OWNER'S RESPONSIBILITIES
4. SUBCONTRACTS
5. TIME
6. COMPENSATION
7. COST OF THE WORK
8. CHANGES IN THE WORK
9. PAYMENT FOR CONSTRUCTION PHASE SERVICES
10. INDEMNITY
11. SUSPENSION, NOTICE TO CURE, AND TERMINATION
12. DISPUTE MITIGATION AND RESOLUTION
13. MISCELLANEOUS
14. CONTRACT DOCUMENTS
15. INSURANCE
16. BONDS



ConsensusDocs™ 410 – Standard Design-Build Agreement and General Conditions Between Owner and Design-Builder (Cost of Work Plus Fee with GMP) - © 2011, REV 04/14. THIS DOCUMENT MAY HAVE BEEN MODIFIED. The ConsensusDocs technology platform creates a redline comparison to the standard language which the purchaser of this contract is authorized to share for review purposes. Consultation with legal and insurance counsel are strongly encouraged. You may only make copies of finalized documents for distribution to parties in direct connection with this contract. Any other uses are strictly prohibited.

AGREEMENT

PSU Project Number: **XX-XXXXXX**

FOR PSU USE ONLY	
BUDGET	
JOB	
REFERENCE	
CODE	

This Agreement is made this _____ day of _____ in the year _____, by and between the OWNER: **THE PENNSYLVANIA STATE UNIVERSITY**, a state-related institution and instrumentality of the Commonwealth of Pennsylvania subject to the Pennsylvania nonprofit corporation laws, with an office and principal place of business at University Park, Centre County, Pennsylvania, and the DESIGN-BUILDER:

XXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXX

Tax identification number (TIN): **XX-XXXXXX**
Design Professional Licensing No. in the state of the Project: **XXXXXXXX**

for services in connection with the following project:

(PSU Project name here), PSU Project No. **XX-XXXXXX**, located at The Pennsylvania State University, **XXXXXXXXXX** campus location, **XXXXXXXXXX** Township, **XXXXXXX** County, Pennsylvania. ("Project")

Notice to the Parties shall be given at the above addresses. In consideration of the promises set forth herein, and with intent to be legally bound, the parties agree as follows:

ARTICLE 1 GENERAL PROVISIONS

1.1 TEAM RELATIONSHIP The Parties each agree to proceed with the Project on the basis of trust, good faith and fair dealing and shall take all actions reasonably necessary to perform this Agreement in an economical and timely manner, including consideration of design modifications and alternative materials or equipment that will permit the Work to be constructed within the Guaranteed Maximum Price (GMP) and by the Dates of Substantial Completion and Final Completion if they are established by Amendment 1. The Design-Builder agrees to procure or furnish, as permitted by the Law, the design phase services and construction phase services as set forth below.



1.1.1 The Design-Builder represents that it is an independent contractor with respect to Owner and that it has the necessary expertise and experience required for the undertaking of the Project.

1.1.2 Neither the Design-Builder nor any of its agents or employees shall act on behalf of or in the name of the Owner unless authorized in writing by the Owner's Representative.

1.1.3 The Parties shall perform their obligations with integrity, ensuring at a minimum that each: (a) avoid conflicts of interest and discloses promptly any to the other Party, and (b) warrant that it has not and shall not pay or receive any contingent fees or gratuities to or from the other Party, including its agents, officers and employees, Subcontractors or others for whom they may be liable, to secure preferential treatment.

1.2 DESIGN-PROFESSIONAL Architectural and engineering services shall be procured from licensed, independent design professionals retained by the Design-Builder or furnished by licensed employees of the Design-Builder, as permitted by the Law. The person or entity providing architectural and engineering services shall be referred to as the Design-Professional. If the Design-Professional is an independent design professional, the architectural and engineering services shall be procured pursuant to a separate agreement between the Design-Builder and the Design-Professional. The Design-Professional for the Project is:

XXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXX

1.3 DEFINITIONS

1.3.1 "Agreement" means this modified ConsensusDocs 410 Standard Design-Build Agreement and General Conditions Between Owner and Design-Builder (Cost of the Work Plus a Fee with a GMP), as modified, amendments, exhibits, addenda, and attachments made part of this agreement upon its execution.

1.3.2 The following exhibits are a part of this Agreement:

- Exhibit A: Design-Builder Proposal, dated XXXXXXXXXXXX, 2016 (XX pages, attached)
- Exhibit B: The Pennsylvania State University Design and Construction Standards listing (screen shot from website. 3 pages, attached).
- Exhibit C: Staff Hourly Billable Rates (located within attached D-B Proposal)
- Exhibit D: Project Milestone Schedule (located within attached D-B Proposal)
- Exhibit E: PSU Project Delivery System (v. March 12, 2012. 2 pages, attached).
- Exhibit F: Prevailing Wage Rates (Serial # XX-XXXXX, dated XX/XX/XXX. Incorporated via reference)
- Exhibit G: PSU BIM Addendum (dated March 15, 2012. 6 pages, attached).



1.3.3 “Business Day” means all Days, except weekends and official federal or state holidays where the Project is located.

1.3.4 A “Change Order” (at times referred to as “Amendment”) is a written order signed by the Owner and the Design-Builder after execution of this Agreement, indicating changes in the scope of the Work, Cost of the Work or Contract Time, including substitutions proposed by the Design-Builder and accepted by the Owner.

1.3.5 The “Contract Documents” consist of those documents identified in section 14.1.

1.3.6 The “Contract Time” is the period between the Date of Commencement and Final Completion.

1.3.7 “Cost of the Work” means the costs and discounts specified in ARTICLE 7.

1.3.8 “Day” means calendar day.

1.3.9 “Date of Commencement” is as provided for in section ARTICLE 5.

1.3.10 “Design-Builder's Fee” means the compensation paid to the Design-Builder for salaries and other mandatory or customary compensation of the Design-Builder's employees at its principal and branch offices except employees listed in subsection 7.2.2, general and administrative expenses of the Design-Builder's principal and branch offices other than the field office, and the Design-Builder's capital expenses, including interest on the Design-Builder's capital employed for the Work, and profit. Fee shall not apply to self-performed trade contract Work by the Design-Builder.

1.3.11 “Defective Work” is any portion of the Work not in conformance to the requirements of the Contract Documents.

1.3.12 “Final Completion” occurs on the date when the Design-Builder's obligations under this Agreement are complete and accepted by the Owner and final payment becomes due and payable.

1.3.13 “Laws” mean federal, Pennsylvania state and local laws, ordinances, codes, rules, and regulations applicable to the Work with which the Design-Builder must comply that are enacted as of the Agreement date.

1.3.14 “Material Supplier” is a person or entity retained by the Design-Builder to provide material and equipment for the Work.

1.3.15 “Others” means other contractors and all persons at the Worksite who are not employed by Design-Builder, its Subcontractors or Material Suppliers.

1.3.16 “Overhead” shall mean (a) payroll costs and other compensation of Design-Builder's employees in the Design-Builder's principal and branch offices; (b) general and administrative expenses of the Design-Builder's principal and branch offices including



charges against the Design-Builder for delinquent payments; and (c) the Design-Builder's capital expenses, including interest on capital used for the Work.

1.3.17 The "Owner" is the person or entity identified in the Agreement, and includes the Owner's Representative.

1.3.18 The "Owner's Program" is an initial description of the Owner's objectives that may include, but it not limited to: budget and time criteria; conceptual documents; design criteria; space, price and time requirements and relationships; performance requirements; flexibility and expandability requirements; special equipment and systems; site requirements; and other Project-specific technical materials and requirements.

1.3.19 The "Parties" are collectively the Owner and the Design-Builder.

1.3.20 The "Project," as identified in this Agreement, is the building, facility or other improvements for which the Design-Builder is to perform the Work under this Agreement. It may also include improvements to be undertaken by the Owner or Others.

1.3.21 A "Subcontractor" is a person or entity retained by the Design-Builder as an independent contractor to provide the labor, materials, equipment or services necessary to complete a specific portion of the Work. The term Subcontractor does not include the Design-Professional or any separate contractor employed by the Owner or any separate contractor's subcontractors.

1.3.22 "Substantial Completion" of the Work, or of a designated portion, occurs on the date when the Design-Builder's obligations are sufficiently complete in accordance with the Contract Documents so that the Owner may occupy or utilize the Project, or a designated portion, for the use for which it is intended, without unscheduled disruption. The issuance of a certificate of occupancy is not a prerequisite for Substantial Completion. This date shall be confirmed by a certificate of Substantial Completion signed by the Owner and the Design-Builder. The certificate shall state the respective responsibilities of the Owner and the Design-Builder for security, maintenance, heat, utilities, or damage to the Work, and insurance. The certificate shall also list the items to be completed or corrected, and establish the time for their completion and correction, within the timeframe, if any, established in Amendment 1 for the date of Final Completion.

1.3.23 "Subsubcontractor" is a party or entity who has an agreement with a Subcontractor or another Subsubcontractor to perform any portion of the Subcontractor's work.

1.3.24 "Terrorism" means a violent act, or an act that is dangerous to human life, property or infrastructure, that is committed by an individual or individuals and that appears to be part of an effort to coerce a civilian population or to influence the policy or affect the conduct of any government by coercion. Terrorism includes, but is not limited to, any act certified by the United States Secretary of Treasury as an act of terrorism pursuant to the Terrorism Risk Insurance Act, as amended.



1.3.25 The "Work" is comprised of all services to be provide by the Design-Builder in accordance with the Contract Documents, including but not limited to the Design Phase services procured or furnished in accordance with section 2.1, the GMP Proposal provided in accordance with section 2.2, the Construction Phase services provided in accordance with section 2.3, Additional Services that may be provided in section 2.11, and other services which are necessary to complete the Project in accordance with and reasonably inferable from the Contract Documents.

1.3.26 "Worksite" means the geographical area of the Project location mentioned in ARTICLE 1 where the Work is to be performed.

ARTICLE 2 DESIGN-BUILDER'S RESPONSIBILITIES

The Design-Builder shall be responsible for procuring or furnishing the design and for the construction of the Work consistent with the Owner's Program, as such Program may be modified by the Owner during the course of the Work.

Design-Builder shall, consistent with applicable state licensing laws, provide through qualified, licensed design professionals employed by Design-Builder, or procured from qualified, independent licensed Design Professional(s), the necessary design services, including architectural, engineering and other design professional services, for the preparation of the required drawings, specifications and other design submittals to permit Design-Builder to complete the Work consistent with the Contract Documents. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between Owner and any Design Professional. The standard of care for all design professional services performed to execute the Work shall be the care and skill ordinarily used by members of the design profession practicing in the same field of specialty.

The Design-Builder shall exercise reasonable skill and judgment in the performance of its services consistent with the team relationship described in section 1.1, but does not warrant nor guarantee schedules and estimates other than those that are part of the GMP proposal.

The Design-Builder and the Owner may establish a fast-track approach to the design and construction services necessary to complete the Project. Such agreement establishing a fast-track approach, if any, and the Schedule of the Work shall be included as an exhibit to this Agreement. In the absence of such agreement, the Parties shall proceed in accordance with sections 2.1 and 2.3 below.

The Design-Builder's inclusion of proprietary specifications (exclusive of those which may be indicated/mandated in The Pennsylvania State University Design and Construction Standards) in any Contract Documents that are produced for the Project shall only be done so with the approval of the Owner.

2.1 DESIGN PHASE SERVICES

2.1.1 PRELIMINARY EVALUATION The Design-Builder shall review the Owner's Program to ascertain the requirements of the Project and shall verify such requirements with the



Owner. The Design-Builder's review shall also provide to the Owner a preliminary evaluation of the site with regard to access, traffic, drainage, parking, building placement and other considerations affecting the building, the environment and energy use, as well as information regarding Laws and requirements. The Design-Builder shall also propose alternative architectural, civil, structural, mechanical, electrical and other systems for review by the Owner, to determine the most desirable approach on the basis of cost, technology, quality and speed of delivery. The Design-Builder will also review existing test reports but will not undertake any independent testing nor be required to furnish types of information derived from such testing in its Preliminary Evaluation. Based upon its review and verification of the Owner's Program and other relevant information the Design-Builder shall provide a Preliminary Evaluation of the Project's feasibility for the Owner's acceptance. The Design-Builder's Preliminary Evaluation shall specifically identify any deviations from the Owner's Program.

2.1.2 PRELIMINARY SCHEDULE The Design-Builder shall prepare a preliminary schedule of the Work. The Owner shall provide written approval of milestone dates established in the preliminary schedule of the Work. The schedule shall show the activities of the Owner, the Design-Professional and the Design-Builder necessary to meet the Owner's completion requirements. The schedule shall be updated periodically with the level of detail for each schedule update reflecting the information then available. If an update indicates that a previously approved schedule will not be met, the Design-Builder shall recommend corrective action to the Owner in writing.

2.1.3 PRELIMINARY ESTIMATE When sufficient Project information has been identified, the Design-Builder shall prepare for the Owner's acceptance a preliminary estimate utilizing area, volume or similar conceptual estimating techniques. The estimate shall be updated periodically with the level of detail for each estimate update reflecting the information then available. If the preliminary estimate or any update exceeds the Owner's budget, the Design-Builder shall make recommendations to the Owner.

2.1.4 SCHEMATIC DESIGN DOCUMENTS The Design-Builder shall submit for the Owner's written approval Schematic Design Documents, based on the agreed upon Preliminary Evaluation. Schematic Design Documents shall include drawings, outline specifications and other conceptual documents illustrating the Projects basic elements, scale, and their relationship to the Worksite. One set of these documents shall be furnished to the Owner. When the Design-Builder submits the Schematic Design Documents the Design-Builder shall identify in writing all material changes and deviations that have taken place from the Design-Builder's Preliminary Evaluation, schedule and estimate. The Design-Builder shall update the preliminary schedule and estimate based on the Schematic Design Documents.

2.1.5 PLANNING PERMITS The Design-Builder shall obtain and the Owner shall pay for all planning permits necessary for the construction of the Project unless as otherwise agreed to by the Parties.

2.1.6 DESIGN DEVELOPMENT DOCUMENTS The Design-Builder shall submit for the Owner's written approval Design Development Documents based on the approved Schematic Design Documents. The Design Development Documents shall further define the



Project including drawings and outline specifications fixing and describing the Project size and character as to site utilization, and other appropriate elements incorporating the structural, architectural, mechanical and electrical systems. One set of these documents shall be furnished to the Owner. When the Design-Builder submits the Design Development Documents, the Design-Builder shall identify in writing all material changes and deviations that have taken place from the Schematic Design Documents. The Design-Builder shall update the schedule and estimate based on the Design Development Documents.

2.1.7 CONSTRUCTION DOCUMENTS The Design-Builder shall submit for the Owner's written approval Construction Documents based on the approved Design Development Documents. The Construction Documents shall set forth in detail the requirements for construction of the Work, and shall consist of drawings and specifications based upon Laws enacted at the time of their preparation. When the Design-Builder submits the Construction Documents, the Design-Builder shall identify in writing all material changes and deviations that have taken place from the Design Development Documents. Construction shall be in accordance with these approved Construction Documents. One set of these documents shall be furnished to the Owner prior to commencement of construction. If a GMP has not been established, the Design-Builder shall prepare a further update of the schedule and estimate based on the Construction Documents.

2.1.8 BIDDING AND AWARD OF TRADE CONTRACTS

2.1.8.1 All Work to be performed by Trade Contractors will be competitively procured. The Project Team will determine which trade packages will require prequalification by the Design-Builder. Design-Builder shall prequalify all bidders per established process approved by the Project Team. Review all bidders lists with Owner for approval before proceeding. Procurement of all trade packages shall be coordinated directly with The Pennsylvania State University Office of Physical Plant.

The following trade Categories of work, whether performed by Subcontractors bidding directly to the Design-Builder or if self-performed by the Design-Builder, require Pennsylvania State University prequalification:

- Asbestos Abatement
- Telecommunications
- Demolition/Hauling
- Access Control and Surveillance

2.1.8.2 Establish bidding schedules, issue bidding documents, and conduct pre-bid conferences to familiarize bidders with the documents and with any special systems, materials, methods or conditions.

2.1.8.3 Prepare bid analyses, and review bids with the Owner. Award Contracts. Design-Builder shall have final authority and responsibility for selection of all Trade Contractors, and award of all Trade Contracts. Design-Builder hereby specifically agrees to indemnify, defend and hold harmless the Owner and Owner's agents, employees, trustees and attorneys for any and all loss, damage, cost, charge, award,



verdict, judgment, liability or expense, including without limitation, reasonable attorneys' fees, arising out of any claim, actions or suits which are based upon or in any way related to the process of selecting Trade Contractors or the award of Trade Contracts for the project

2.1.8.4 The Design-Builder is permitted to use its own forces in the performance of Work of a temporary nature or as otherwise approved by the Owner.

2.1.9 OWNERSHIP OF DOCUMENTS

2.1.9.1 OWNERSHIP OF TANGIBLE DOCUMENTS The Owner shall receive ownership of the property rights of all documents, drawings, specifications, electronic data and information (hereinafter "Documents") prepared, provided or procured by the Design-Builder, its Design-Professional, Subcontractors or consultants and distributed to the Owner for this Project, upon the making of final payment to the Design-Builder or, in the event of termination under ARTICLE 11, upon payment for all sums due to Design-Builder pursuant to ARTICLE 9.

2.1.9.2 COPYRIGHT The Parties agree that the Owner shall obtain ownership of the copyright of all Documents. The Owner's acquisition of the copyright for all Documents shall be subject to the making of payments as required by the subsection above.

2.1.9.3 USE OF DOCUMENTS IN EVENT OF TERMINATION In the event of a termination of this Agreement pursuant to ARTICLE 11, the Owner shall have the right to use, to reproduce, and to make derivative works of the Documents to complete the Project, regardless of whether there has been a transfer of copyright under this section, provided payment has been made pursuant to subsection 2.1.9.1.

2.1.9.4 OWNER'S USE OF DOCUMENTS AFTER COMPLETION OF PROJECT After completion of the Project, the Owner may reuse, reproduce or make derivative works from the Documents solely for the purposes of maintaining, renovating, remodeling or expanding the Project at the Worksite. The Owner's use of the Documents without the Design-Builder's involvement or on other projects is at the Owner's sole risk, except for the Design-Builder's indemnification obligations, and the Owner shall indemnify and hold harmless the Design-Builder, its Design-Professional, Subcontractors and consultants, and the agents, officers, directors and employees of each of them, from and against any and all claims, damages, losses, costs and expenses, including reasonable attorneys' fees and costs, arising out of or resulting from such any prohibited use.

2.1.9.5 DESIGN-BUILDER'S USE OF DOCUMENTS Where the Design-Builder has transferred its copyright interest in the Documents under subsection 2.1.9, the Design-Builder may reuse Documents prepared by it pursuant to this Agreement in its practice, but only in their separate constituent parts and not as a whole.

2.1.9.6 The Design-Builder shall obtain from its Design-Professional, Subcontractors and consultants rights and rights of use that correspond to the rights given by the



Design-Builder to the Owner in this Agreement, and the Design-Builder shall provide evidence that such rights have been secured.

2.2 GUARANTEED MAXIMUM PRICE (GMP)

2.2.1 GMP PROPOSAL At such time as the Owner and the Design-Builder jointly agree, the Design-Builder shall submit a GMP Proposal in a format acceptable to the Owner. Unless the Parties mutually agree otherwise, the GMP shall be the sum of the estimated Cost of the Work as defined in ARTICLE 7 and the Design-Builder's Fee as defined in ARTICLE 6. The GMP is subject to modification as provided in ARTICLE 8. The Design-Builder does not guarantee any specific line item provided as part of the GMP, but agrees that it will be responsible for paying all costs of completing the Work which exceed the GMP, as may be adjusted in accordance with this Agreement.

2.2.1.1 If the Design-Build documents are not complete at the time the GMP Proposal is submitted to the Owner, the Design-Builder shall provide in the GMP for further development of the Design-Build Documents consistent with the Owner's Program. Such further development does not include changes in scope, systems, kinds and quality of materials, finishes or equipment, all of which if required, shall be incorporated by Change Order.

2.2.2 BASIS OF GUARANTEED MAXIMUM PRICE The Design-Builder shall include with the GMP Proposal a written statement of its basis, which shall include:

2.2.2.1 A list of the drawings and specifications, including all addenda, which were used in preparation of the GMP Proposal;

2.2.2.2 A list of allowances and a statement of their basis;

2.2.2.3 A list of the assumptions and clarifications made by the Design-Builder in the preparation of the GMP Proposal to supplement the information contained in the drawings and specifications;

2.2.2.4 the Date of Substantial Completion and the Date of Final Completion upon which the proposed GMP is based, and the Schedule of Work upon which the Date of Substantial Completion and the Date of Final Completion is based;

2.2.2.5 A schedule of applicable alternate prices; a GMP Cost Summary;

2.2.2.6 A schedule of applicable unit prices; a GMP Detailed Estimate;

2.2.2.7 A statement of Additional Services (as defined at Article 2.11) included, if any;

2.2.2.8 The time limit for acceptance of the GMP proposal; a Site Utilization Plan;

2.2.2.9 The Design-Builder's contingency as provided in subsection 2.2.7; Design-Builder's Staff Cost Summary;



2.2.2.10 A statement of any work to be self-performed by the Design-Builder; and

2.2.2.11 A statement identifying all patented or copyrighted materials, methods or systems selected by the Design-Builder and incorporated in the Work that are likely to require the payment of royalties or license fees.

2.2.2.12 Costs within the General Conditions/General Requirements cost-category, as well as the Design-Builder Staffing cost-category, shall be handled as Reimbursable, not-to-exceed amounts. All backup/substantiation of such costs shall be included in each monthly Application for Payment.

2.2.3 REVIEW AND ADJUSTMENT TO GMP PROPOSAL The Design-Builder shall meet with the Owner to review the GMP Proposal. If the Owner has any comments relative to the GMP Proposal, or finds any inconsistencies or inaccuracies in the information presented, it shall give prompt written notice of such comments or findings to the Design-Builder, who shall make appropriate adjustments to the GMP, its basis or both.

2.2.4 ACCEPTANCE OF GMP PROPOSAL Upon acceptance by the Owner of the GMP Proposal, the GMP and its basis shall be set forth in an Amendment.

2.2.5 FAILURE TO ACCEPT THE GMP PROPOSAL Unless the Owner accepts the GMP Proposal in writing on or before the date specified in the GMP Proposal for such acceptance and so notifies the Design-Builder, the GMP Proposal shall not be effective. If the Owner fails to accept the GMP Proposal, or rejects the GMP Proposal, the Owner shall have the right to:

2.2.5.1 suggest modifications to the GMP Proposal. If such modifications are accepted in writing by Design-Builder, the GMP Proposal shall be deemed accepted in accordance with subsection 2.2.4;

2.2.5.2 Direct the Design-Builder to proceed on the basis of reimbursement as provided in ARTICLE 6 and ARTICLE 7 without a GMP, in which case all references in this Agreement to the GMP shall not be applicable; or

2.2.5.3 Terminate the Agreement for convenience. In the absence of a GMP the Parties may establish a Date of Substantial Completion and a Date of Final Completion.

2.2.5.4 Direct the Design-Builder, without additional charge to the Owner, to revise and modify the Contract Documents as necessary to achieve compliance with the construction budget established by the Parties.

2.2.6 PRE-GMP WORK Prior to the Owner's acceptance of the GMP Proposal, the Design-Builder shall not incur any cost to be reimbursed as part of the Cost of the Work, except as provided in this Agreement or as the Owner may specifically authorize in writing.



2.2.7 DESIGN-BUILDER'S CONTINGENCY The GMP Proposal will contain, as part of the estimated Cost of the Work, the Design-Builder's Contingency, a sum mutually agreed upon and monitored by the Design-Builder and the Owner to cover costs which are properly reimbursable as a Cost of the Work but are not the basis for a Change Order. The Owner acknowledges that the estimating process is not exact and the Design-Builder's contingency is intended to cover inaccuracies in the quantities and prices in the estimate, and unanticipated items which may not have been taken into account in the establishment of the GMP, including, but not limited to, (a) unfavorable bidding from trade contractors due to market conditions, price increases, lack of competition and other variables; (b) default by the Design-Builder's subcontractors or suppliers; (c) costs of corrective work not provided for elsewhere; (d) labor disputes; and (e) other conditions which result in an increase in the Cost of the Work, without increasing the GMP. The Design-Builder's Construction Contingency shall *not* be used to cover: changes to the work; design revisions or problems; interference of the Owner, Professional or third parties for which the Design-Builder is not responsible; matters related to land use proceedings; allowance adjustments; unusually severe weather; or items for which the Design-Builder is not responsible.

The Design-Builder may use the funds available in the Construction Contingency for any purpose required to provide and complete the Work within the original Guaranteed Maximum Price Scope of Work due the Owner. Adjustments to various Trade Contract items may be made with funds from the Construction Contingency. The Design-Builder shall provide prior notification for all uses of Construction Contingency in excess of \$XXXXXX and a report itemizing all Construction Contingency usage, including required backup based upon the cost of the Work provisions in ARTICLE 7, for the prior month shall be provided for review by the Owner prior to submitting each monthly application for payment.

2.2.8 COST REPORTING The Design-Builder shall keep such full and detailed accounts as are necessary for proper financial management under this Agreement. The Design-Builder shall maintain a complete set of all books and records prepared or used by the Design-Builder with respect to the Project. The Design-Builder's records supporting its performance and billings under this Agreement shall be current, complete and accurate and maintained according to Generally Accepted Accounting Principles. The Owner shall be afforded reasonable access during normal business hours to all the Design-Builder's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda and similar data relating to this Agreement. The Design-Builder shall preserve all such records for a period of three years after the final payment or longer where required by law. Please refer to Right to Audit provisions in Article 13.

2.3 CONSTRUCTION PHASE SERVICES

2.3.1 The Construction Phase will commence upon the issuance by the Owner of a written notice to proceed with construction. If construction commences prior to execution of the relevant Amendment, the Design-Builder shall prepare for the Owner's written approval a list of the documents that are applicable to the part of the Work which the Owner has authorized, which list shall be included in the Owner's written notice to proceed.



2.3.2 In order to complete the Work, the Design-Builder shall provide all necessary construction supervision, inspection, construction equipment, labor, materials, tools, and subcontracted items.

2.3.3 COMPLIANCE WITH LAWS The Design-Builder shall give all notices and comply with all Laws at its own costs. The Design-Builder shall be liable to the Owner for all loss, cost and expense, attributable to any acts or omissions by the Design-Builder, its employees, Subcontractors, and agents resulting from the failure to comply with Laws, including, fines, penalties or corrective measures. However, liability under this subsection shall not apply if notice to the Owner was given, and advance approval by appropriate authorities, including the Owner, is received.

2.3.3.1 CHANGES IN LAW In the event of any changes in Laws, including taxes, which were not reasonably anticipated and then enacted after either the date of this Agreement or the date a GMP Proposal is accepted by the Owner and set forth in an Amendment to this Agreement, whichever occurs later, the GMP, estimated Cost of the Work, the Design-Builder's Fee, the Date of Substantial Completion or the Date of Final Completion, and if appropriate the compensation for Design Phase services, shall be equitably adjusted by Amendment.

2.3.4 The Design-Builder shall obtain and the Owner shall pay for the building permits necessary for the construction of the Project unless otherwise agreed to by the Parties.

2.3.5 The Design-Builder shall provide periodic written reports to the Owner on the progress of the Work in such detail as is required by the Owner and as agreed to by the Owner and the Design-Builder.

2.3.6 The Design-Builder shall develop a system of cost reporting for the Work, including regular monitoring of actual costs for activities in progress and estimates for uncompleted tasks and proposed changes in the Work. The reports shall be presented to the Owner at mutually agreeable intervals.

2.3.7 The Design-Builder shall regularly remove debris and waste materials at the Worksite resulting from the Work. Prior to discontinuing Work in an area, the Design-Builder shall clean the area and remove all rubbish and its construction equipment, tools, machinery, waste and surplus materials. The Design-Builder shall minimize and confine dust and debris resulting from construction activities. At the completion of the Work, the Design-Builder shall remove from the Worksite all construction equipment, tools, surplus materials, waste materials and debris.

The Design-Builder shall prepare and submit to the Owner, within 30 days after substantial completion, a full set of as-built drawings, compatible with the Owner's CADD system, which shall become the record drawings for the Project. The as-built drawings shall generally document how the various elements of the Work, including changes, were actually constructed or installed.



2.4 SCHEDULE OF THE WORK The Design-Builder shall prepare and submit a schedule of work for the Owner's acceptance and written approval as to milestone dates. This schedule shall indicate the commencement and completion dates of the various stages of the Work, including the dates when information and approvals are required from the Owner. The schedule shall be revised as required by the conditions of the Work.

2.5 SAFETY OF PERSONS AND PROPERTY

2.5.1 SAFETY PRECAUTIONS AND PROGRAMS The Design-Builder shall have overall responsibility for safety precautions and programs in the performance of the Work. However, such obligation does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with the provisions of Laws.

Design-Builder and each Trade Contractor shall be obligated to adhere to the safety requirements as outlined in the following: Construction Safety Requirements, The Pennsylvania State University, Office of Physical Plant, Design and Construction Standards, Division 00, Sub-Section 00 01 00.

[\(\[http://legacy.opp.psu.edu/planning-construction/design_and_construction_standards/documents/PSU-OPP-Contractor-Safety-Requirements\]\(http://legacy.opp.psu.edu/planning-construction/design_and_construction_standards/documents/PSU-OPP-Contractor-Safety-Requirements\)\)](http://legacy.opp.psu.edu/planning-construction/design_and_construction_standards/documents/PSU-OPP-Contractor-Safety-Requirements)

2.5.2 The Design-Builder shall seek to avoid injury, loss or damage to persons or property by taking reasonable steps to protect:

2.5.2.1 its employees and other persons at the Worksite;

2.5.2.2 materials, supplies and equipment stored at the Worksite for use in performance of the Work; and

2.5.2.3 the Project and all property located at the Worksite and adjacent to work areas, whether or not said property or structures are part of the Project or involved in the Work.

2.5.3 DESIGN-BUILDER'S SAFETY REPRESENTATIVE The Design-Builder shall designate an individual at the Worksite in the employ of the Design-Builder who shall act as the Design-Builder's designated safety representative with a duty to prevent accidents. Unless otherwise identified by the Design-Builder in writing to the Owner, the designated safety representative shall be the Design-Builder's project superintendent. The Design-Builder will report promptly in writing all recordable accidents and injuries occurring at the Worksite to the Owner. When the Design-Builder is required to file an accident report with a public authority, the Design-Builder shall furnish a copy of the report to the Owner.

2.5.4 The Design-Builder shall provide the Owner with copies of all notices required of the Design-Builder by Law. The Design-Builder's safety program shall comply with the



requirements of governmental and quasi-governmental authorities having jurisdiction over the Work.

2.5.5 Damage or loss not insured under property insurance that arises from the performance of the Work, to the extent of the negligence attributed to such acts or omissions of the Design-Builder, or anyone for whose acts the Design-Builder may be liable, shall be promptly remedied by the Design-Builder. Damage or loss attributable to the acts or omissions of the Owner or Others and not to the Design-Builder shall be promptly remedied by the Owner.

2.5.6 If the Owner reasonably deems any part of the Work or Worksite unsafe, the Owner, without assuming responsibility for the Design-Builder's safety program or compliance with same, may require the Design-Builder to stop performance of the Work or take corrective measures satisfactory to the Owner, or both. If the Design-Builder does not adopt corrective measures, the Owner may perform them and reduce by the costs of the corrective measures the amount of the GMP, or in the absence of a GMP, the Cost of the Work as provided in ARTICLE 7. The Design-Builder agrees to make no claim for damages, for an increase in the GMP, compensation for Design Phase services, the Design-Builder's Fee or the Date of Substantial Completion or the Date of Final Completion based on the Design-Builder's compliance with the Owner's reasonable request.

2.6 EMERGENCIES In any emergency affecting the safety of persons or property, the Design-Builder shall act in a reasonable manner to prevent threatened damage, injury or loss. Any change in the GMP, estimated Cost of the Work, the Design-Builder's Fee, the Date of Substantial Completion or the Date of Final Completion, and if appropriate the compensation for Design Phase services, on account of emergency work shall be determined as provided for in ARTICLE 8.

2.7 HAZARDOUS MATERIALS

2.7.1 A Hazardous Material is any substance or material identified now or in the future as hazardous under any Laws or any other substance or material which may be considered hazardous or otherwise subject to statutory or regulatory requirements governing handling, disposal or clean-up. The Design-Builder shall not be obligated to commence or continue work until any Hazardous Material discovered at the Worksite has been removed, or rendered or determined to be harmless by the Owner as certified by an independent testing laboratory and approved by the appropriate governmental agency.

2.7.2 After commencing the Work, if Hazardous Material is discovered at the Project, the Design-Builder shall be entitled to immediately stop Work in the affected area. The Design-Builder shall promptly report the condition to the Owner and, if required, the governmental agency with jurisdiction.

2.7.3 Prior to removal or mitigation, the Design-Builder shall not be required to perform any Work relating to or in the area of Hazardous Material without written mutual agreement.



2.7.4 The Owner shall be responsible for retaining an independent testing laboratory to determine the nature of the material encountered and whether it is a Hazardous Material requiring corrective measures or remedial action. Such measures shall be the sole responsibility of the Owner, and shall be performed in a manner minimizing any adverse effect upon the Work of the Design-Builder. The Design-Builder shall resume Work in the area affected by any Hazardous Material only upon written agreement between the Parties after the Hazardous Material has been removed or rendered harmless and only after approval, if necessary, of the governmental agency or agencies with jurisdiction.

2.7.5 If the Design-Builder incurs additional costs or is delayed due to the presence or remediation of Hazardous Material, the Design-Builder shall be entitled to an equitable adjustment in the GMP, compensation for Design Phase services, the Design-Builder's Fee or the Date of Substantial Completion or the Date of Final Completion.

2.7.6 To the extent permitted under section 5.5 and to the extent not caused by the negligent acts or omissions of the Design-Builder, its Subcontractors, Material Suppliers and Sub-subcontractors, and the agents, officers, directors and employees of each of them, the Owner shall defend, indemnify and hold harmless the Design-Builder, its Subcontractors and Subsubcontractors, and the agents, officers, directors and employees of each of them, from and against all claims, damages, losses, costs and expenses, including but not limited to reasonable attorneys' fees, costs and expenses, arising out of or resulting from the presence, removal or remediation of Hazardous Material at the Site.

2.7.7 Safety Data Sheets (SDS) as required by law and pertaining to materials or substances used or consumed in the performance of the Work, whether obtained by the Design-Builder, Subcontractors, the Owner or Others, shall be maintained at the Project by the Design-Builder and made available to the Owner and Subcontractors.

2.7.8 During the Design-Builder's performance of the Work, the Design-Builder shall be responsible for the proper handling of all materials brought to the Worksite by the Design-Builder. Upon the issuance of the Certificate of Substantial Completion, the Owner shall be responsible under this section for materials and substances brought to the site by the Design-Builder if such materials or substances are required by the Contract Documents.

2.7.9 Section 2.6 shall survive the completion of the Work under this Agreement or any termination of this Agreement.

2.8 WARRANTY

2.8.1 The Design-Builder warrants that all materials and equipment furnished under the Construction Phase of this Agreement will be new unless otherwise specified, of good quality, in conformance with the Contract Documents, and free from defective workmanship and materials. Warranties shall commence on the Date of Substantial Completion of the Work or of a designated portion.

2.8.2 To the extent products, equipment, systems or materials incorporated in the Work are specified and purchased by the Owner, they shall be covered exclusively by the warranty of



the manufacturer. There are no warranties which extend beyond the description on the face of any such warranty. To the extent products, equipment, systems or materials incorporated in the Work are specified by the Owner but purchased by the Design-Builder and are inconsistent with selection criteria that otherwise would have been followed by the Design-Builder, the Design-Builder shall assist the Owner in pursuing warranty claims. Nothing in this section is intended to limit any manufacturer's warranty which provides Owner with greater warranty rights than set forth herein or in the Contract Documents

2.8.3 The Design-Builder shall secure required certificates of inspection, testing or approval and deliver them to the Owner.

2.8.4 The Design-Builder shall collect all written warranties and equipment manuals and deliver them to the Owner in a format directed by the Owner.

2.8.5 With the assistance of the Owner's maintenance personnel, the Design-Builder shall direct the checkout of utilities and start-up operations, and adjusting and balancing of systems and equipment for readiness.

2.9 CORRECTION OF WORK WITHIN ONE YEAR

2.9.1 If, prior to Substantial Completion and within one year after the date of Substantial Completion of the Work or for such longer periods of time as may be set forth with respect to specific warranties required by the Contract Documents, any Defective Work is found, the Owner shall promptly notify the Design-Builder in writing. Unless the Owner provides written acceptance of the condition, the Design-Builder shall promptly correct the Defective Work at its own cost and time and bear the expense of additional services required for correction of any Defective Work for which it is responsible. If within the one-year correction period the Owner actually discovers and does not notify the Design-Builder or give the Design-Builder an opportunity to test or correct Defective Work as reasonably requested by the Design-Builder, the Owner waives the Design-Builder's obligation to correct that Defective Work as well as the Owner's right to claim a breach of the warranty with respect to that Defective Work.

2.9.2 With respect to any portion of Work first performed after Substantial Completion, the one-year correction period shall be extended by the period of time between Substantial Completion and the actual performance of the later Work. Correction periods shall not be extended by corrective work performed by the Design-Builder.

2.9.3 If the Design-Builder fails to correct Defective Work within a reasonable time after receipt of written notice from the Owner prior to final payment, the Owner may correct it in accordance with the Owner's right to carry out the Work. In such case, an appropriate Change Order shall be issued deducting the cost of correcting the Defective Work from payments then or thereafter due the Design-Builder. If payments then or thereafter due the Design-Builder are not sufficient to cover such amounts, the Design-Builder shall pay the difference to the Owner.



2.9.4 The Design-Builder's obligations and liability, if any, with respect to any Defective Work discovered after the one-year correction period shall be determined by the Law. If, after the one-year correction period but before the applicable limitation period has expired, the Owner discovers any Work which the Owner considers Defective Work, the Owner shall, unless the Defective Work requires emergency correction, notify the Design-Builder and allow the Design-Builder an opportunity to correct the Work if the Design-Builder elects to do so. If the Design-Builder elects to correct the Work, it shall provide written notice of such intent within fourteen (14) Days of its receipt of notice from the Owner and shall complete the correction of Work within a mutually agreed timeframe. If the Design-Builder does not elect to correct the Work, the Owner may have the Work corrected by itself or Others, and, if the Owner intends to seek recovery of those costs from the Design-Builder, the Owner shall promptly provide the Design-Builder with an accounting of correction costs it incurs.

2.9.5 If the Design-Builder's correction or removal of Defective Work causes damage to or destroys other completed or partially completed Work or existing buildings, the Design-Builder shall be responsible for the cost of correcting the destroyed or damaged property.

2.9.6 The one-year period for correction of Defective Work does not constitute a limitation period with respect to the enforcement of the Design-Builder's obligations under the Contract Documents.

2.9.7 Prior to final payment, at the Owner's option and with the Design-Builder's agreement, the Owner may elect to accept Defective Work rather than require its removal and correction. In such case the Contract Price shall be equitably adjusted for any diminution in the value of the Project caused by such Defective Work.

2.10 CONFIDENTIALITY Unless compelled by law, a governmental agency or authority, an order of a court of competent jurisdiction, or a validly issued subpoena, the Design-Builder shall treat as confidential and not disclose to third-persons, except Subcontractors, Subsubcontractors and the Design-Professional as is necessary for the performance of the Work, or use for its own benefit any of the Owner's developments, confidential information, know-how, discoveries, production methods and the like that may be disclosed to the Design-Builder or which the Design-Builder may acquire in connection with the Work. The Owner shall treat as confidential information all of the Design-Builder's estimating systems and historical and parameter cost data that may be disclosed to the Owner in connection with the performance of this Agreement. The Owner and the Design-Builder shall each specify those items to be treated as confidential and shall mark them as "Confidential." In the event of a legal compulsion or other order seeking disclosure of any Confidential Information, the Design-Builder or Owner, as the case may be, shall promptly notify the other party to permit that party's legal objection, if necessary. Disclosures required by Owner pursuant to Law, including but not limited to Pennsylvania's Right to Know Law, shall not require advance notice to, nor approval by Design-Builder.

2.11 ADDITIONAL SERVICES The Design-Builder shall provide or procure the following Additional Services upon the request of the Owner. A written agreement between the Owner and the Design-Builder shall define the extent of such Additional Services before they are performed by the Design-Builder. If a GMP has been established for the Work or any portion



of the Work, such Additional Services shall be considered a Change in the Work, unless they are specifically included in the statement of the basis of the GMP as set forth in an Amendment.

2.11.1 Development of the Owner's Program, establishing the Project budget, investigating sources of financing, general business planning and other information and documentation as may be required to establish the feasibility of the Project.

2.11.2 Consultations, negotiations, and documentation supporting the procurement of Project financing.

2.11.3 Surveys, site evaluations, legal descriptions and aerial photographs.

2.11.4 Appraisals of existing equipment, existing properties, new equipment and developed properties.

2.11.5 Soils, subsurface and environmental studies, reports and investigations required for submission to governmental authorities or others having jurisdiction over the Project.

2.11.6 Consultations and representations before governmental authorities or others having jurisdiction over the Project other than normal assistance in securing building permits.

2.11.7 Investigation or making measured drawings of existing conditions or the reasonably required verification of the Owner-provided drawings and information.

2.11.8 Artistic renderings, models and mockups of the Project or any part of the Project or the Work.

2.11.9 Inventories of existing furniture, fixtures, furnishings and equipment which might be under consideration for incorporation into the Work.

2.11.10 Interior design and related services, including procurement and placement of furniture, furnishings, artwork and decorations.

2.11.11 Making revisions to the Schematic Design, Design Development, Construction Documents or documents forming the basis of the GMP after they have been approved by the Owner, and which are due to causes beyond the control of the Design-Builder. Causes beyond the control of the Design-Builder do not include acts or omissions on the part of Subcontractors, Material Suppliers, Subsubcontractors or the Design-Professional.

2.11.12 Design, coordination, management, expediting and other services supporting the procurement of materials to be obtained, or work to be performed, by the Owner, including but not limited to telephone systems, computer wiring networks, sound



systems, alarms, security systems and other specialty systems which are not a part of the Work.

2.11.13 Estimates, proposals, appraisals, consultations, negotiations and services in connection with the repair or replacement of an insured loss, provided such repair or replacement did not result from the negligence or failure to comply with the Contract Documents of the Design-Builder, or any Subcontractor or Subsubcontractor

2.11.14 The premium portion of overtime work ordered by the Owner, including productivity impact costs, other than that required by the Design-Builder to maintain the Schedule of Work.

2.11.15 Out-of-town travel by the Design-Professional in connection with the Work, except between the Design-Professional's office, the Design-Builder's office, the Owner's office and the Worksite.

2.11.16 Obtaining service contractors and training maintenance personnel, assisting and consulting in the use of systems and equipment after the initial start-up.

2.11.17 Services for tenant or rental spaces not a part of this Agreement.

2.11.18 Services requested by the Owner or required by the Work which are not specified in the Contract Documents and which are not normally part of generally accepted design and construction practice.

2.11.19 Serving or preparing to serve as an expert consultant or witness in connection with any proceeding, legal or otherwise, regarding the Project; provided, however, that Design-Builder shall provide such services free of charge in the event that the proceeding in question arose from, or is alleged to have arisen from, in whole in part, any action or inaction of Design-Builder.

2.11.20 Document reproduction exceeding the limits provided for in this Agreement.

2.11.21 Providing services relating to Hazardous Material discovered at the Worksite.

2.11.22 Other services as agreed to by the Parties and identified in an attached exhibit.

2.12 DESIGN-BUILDER'S REPRESENTATIVE The Design-Builder shall designate a person who shall be the Design-Builder's representative. The Design-Builder's Representative is **XXXXXXXXXX**.

ARTICLE 3 OWNER'S RESPONSIBILITIES

3.1 INFORMATION AND SERVICES PROVIDED BY OWNER Owner's responsibilities under this article shall be fulfilled with reasonable detail and in a timely manner.



3.2 FINANCIAL INFORMATION At Design-Builder's request, the Owner shall provide the Design-Builder evidence of Project financing.

3.3 WORKSITE INFORMATION To the extent the Owner has obtained, or is required elsewhere in the Contract Documents to obtain, the following Worksite information, and to the extent relevant to the Work, the Owner shall provide at the Owner's expense and with reasonable promptness:

3.3.1 information describing the physical characteristics of the site, including surveys, Worksite evaluations, legal descriptions, data or drawings depicting existing conditions, subsurface conditions and environmental studies, reports and investigations; Legal descriptions shall include easements, title restrictions, boundaries, and zoning restrictions. Worksite descriptions shall include existing buildings and other construction and all other pertinent site conditions. Adjacent property descriptions shall include structures, streets, sidewalks, alleys, and other features relevant to the Work. Utility details shall include available services, lines at the Worksite and adjacent thereto and connection points. The information shall include public and private information, subsurface information, grades, contours, and elevations, drainage data, exact locations and dimensions, and benchmarks that can be used by the Design-Builder in laying out the Work.

3.3.2 tests, inspections and other reports dealing with environmental matters, Hazardous Material and other existing conditions, including structural, mechanical and chemical tests, required by the Contract Documents or by Law; and

3.3.3 any other information or services requested in writing by the Design-Builder which are required for the Design-Builder's performance of the Work and under the Owner's control.

3.4 RESPONSIBILITIES DURING DESIGN PHASE

3.4.1 The Owner shall provide the Owner's Program at the inception of the Design Phase and shall review and timely approve in writing schedules, estimates, Preliminary Estimate, Schematic Design Documents, Design Development Documents and Construction Documents furnished during the Design Phase, and the GMP Proposal.

3.5 RESPONSIBILITIES DURING CONSTRUCTION PHASE

3.5.1 The Owner shall review the Schedule of the Work as and timely approve the milestone dates set forth.

3.5.2 If the Owner becomes aware of any error, omission or failure to meet the requirements of the Contract Documents or any fault or defect in the Work, the Owner shall give prompt written notice to the Design-Builder. The failure of the Owner to give such notice shall not relieve the Design-Builder of its obligations to fulfill the requirements of the Contract Documents.

3.5.3 The Owner shall have no contractual obligations to Subcontractors, suppliers, or the Design-Professional.



3.5.4 The Owner shall provide insurance for the Project as provided in ARTICLE 15.

3.6 OWNER'S REPRESENTATIVE The Owner's Representative is **XXXXXXXXXX**. The Owner's representative shall: (a) be fully acquainted with the Project; (b) agree to furnish the information and services required of the Owner in a timely manner; and (c) have the authority to bind the Owner in all matters requiring the Owner's approval, authorization or written notice. If the Owner changes its representative or the representative's authority as listed above, the Owner shall notify the Design-Builder in writing in advance.

3.7 TAX EXEMPTION If in accordance with the Owner's direction the Design-Builder claims an exemption for taxes, the Owner shall indemnify and hold the Design-Builder harmless for all liability, penalty, interest, fine, tax assessment, attorneys' fees or other expense or cost incurred by the Design-Builder as a result of any action taken by the Design-Builder in accordance with the Owner's direction.

3.8 ELECTRONIC DOCUMENTS If the Owner requires that the Owner and Design-Builder exchange documents and data in electronic or digital form, prior to any such exchange, the Owner and the Design-Builder shall agree on a written protocol governing all exchanges in a separate addenda, which, at a minimum, shall specify: (a) the definition of documents and data to be accepted in electronic or digital form or to be transmitted electronically or digitally; (b) management and coordination responsibilities; (c) necessary equipment, software and services; (d) acceptable formats, transmission methods and verification procedures; (e) methods for maintaining version control; (f) privacy and security requirements; and (g) storage and retrieval requirements. The Parties shall each bear their own costs for the requirements identified in the protocol. In the absence of a written protocol, use of documents and data in electronic or digital form shall be at the sole risk of the recipient.

ARTICLE 4 SUBCONTRACTS

Work not performed by the Design-Builder with its own forces shall be performed by Subcontractors or the Design-Professional. Self-performed work must be agreed to, in writing, by the Parties.

4.1 RETAINING SUBCONTRACTORS Design-Builder shall employ only Subcontractors who are duly licensed and qualified to perform the Work consistent with the Contract Documents. All trade contractors must be prequalified for the project by the Design-Builder. Owner may reasonably object to Design-Builder's selection of any Subcontractor, provided that the Contract Price and/or Contract Time(s) shall be adjusted to the extent that Owner's decision impacts Design-Builder's cost and/or time of performance. All subcontracts must be competitively procured. Procurement of subcontracts must be coordinated directly with The Pennsylvania State University Office of Physical Plant.

Subcontracts: Subcontracts will be awarded after consultation with the Owner. Design-Builder shall have final authority and responsibility for selection of all Subcontractors and award of all Subcontracts.



Design-Builder hereby specifically agrees to indemnify, defend and hold harmless the Owner and Owner's agents, employees, trustees and attorneys for any and all loss, damage, cost, charge, award, verdict, judgment, liability or expense, including without limitation, reasonable attorneys' fees, arising out of any claim, actions or suits which are based upon or in any way related to the process of selecting Subcontractors or the award of Subcontracts for the project.

The Design-Builder agrees to bind every Subcontractor, and every Subcontractor agrees to be bound, by the terms of the Agreement and the Contract Documents insofar as they are applicable to the Subcontractor's respective portion of the Work. The Design-Builder shall indemnify the Owner for any Subcontractor's claim which may result from the failure of the Design-Builder to incorporate the provisions of this Contract, in the Design-Builder's agreements with any of its Subcontractors.

The Design-Builder shall indemnify the Owner for any Subcontractor's claim which may arise out of an inconsistency between the Contract Documents and a Subcontract. Subcontracts entered into between the Design-Builder and Subcontractors shall not be inconsistent with the obligations of the Design-Builder under the Contract Documents.

4.2 MANAGEMENT OF SUBCONTRACTORS The Design-Builder shall be responsible for the management of the Subcontractors in the performance of their work.

4.3 CONTINGENT ASSIGNMENT OF SUBCONTRACT

4.3.1 If this Agreement is terminated, each subcontract agreement shall be assigned by the Design-Builder to the Owner, subject to the prior rights of any surety, provided that:

4.3.1.1 this Agreement is terminated by the Owner pursuant to sections 11.1.3 or 11.2; and

4.3.1.2 the Owner accepts such assignment, after termination by notifying the Subcontractor and the Design-Builder in writing, and assumes all rights and obligations of the Design-Builder pursuant to each subcontract agreement.

4.3.2 If the Owner accepts such an assignment, and the Work has been suspended for more than thirty (30) consecutive Days, following termination, if appropriate, the Subcontractor's compensation shall be equitably adjusted as a result of the suspension.

4.4 BINDING OF SUBCONTRACTORS AND MATERIAL SUPPLIERS The Design-Builder agrees to bind every Subcontractor and Material Supplier (and require every Subcontractor to so bind its Subsubcontractors and Material Suppliers) to all the provisions of this Agreement and the Contract Documents as they apply to the Subcontractors' or Material Suppliers' portions of the Work.

4.5 The Parties have executed a Waiver of Liens / Stipulation Against Liens Agreement, and Design-Builder has purchased (or will have, at the the time that the GMP is established) a payment bond which shall serve as a guarantee of payment for the work, services, labor, materials and/or equipment provided by any and all Subcontractors (as used in this paragraph, "Subcontractors" includes "Subsubcontractors") and Material Suppliers. Design-Builder hereby



specifically waives all lien rights of Subcontractors and Material Suppliers, per the Pennsylvania Mechanics' Lien Law of 1963, as amended. Design-Builder hereby covenants, promises and agrees that no mechanics' or materialsmen's lien or claim, or any other lien or claim, will be filed or maintained on the Worksite, or any grounds or curtilages appurtenant thereto, or any other structure or property owned by the Owner, either by Design-Builder or any Subcontractor or Material Supplier, for or on account of any work, labor or materials supplied by any Subcontractor or Material Supplier in the performance of this Agreement, or under any supplemental contract for extra work, in the erection, construction or completion of the improvements to the Project or the Worksite. Nothing herein may be construed as agreement or admission by Owner that a lien filed on or against property of Owner, a State-Related Institution and Instrumentality of the Commonwealth of Pennsylvania, is valid or permissible under any circumstances per Pennsylvania law.

ARTICLE 5 TIME

5.1 DATE OF COMMENCEMENT The Date of Commencement is the date of the Agreement unless otherwise set forth below:

The Work shall proceed in general accordance with the approved schedule of Work as such schedule may be amended from time to time, subject, however, to other provisions of this Agreement.

The Work to be provided under this Agreement shall be in accordance with the following schedule:

Start of Construction:	XXXXXXXXXX
Substantial Completion:	XXXXXXXXXX
Final Completion:	XXXXXXXXXX

5.2 SUBSTANTIAL/FINAL COMPLETION Unless the Parties agree otherwise, the Date of Substantial Completion or the Date of Final Completion shall be established in an Amendment to this Agreement subject to adjustments as provided for in the Contract Documents. The Owner and the Design-Builder may agree not to establish such dates, or in the alternative, to establish one but not the other of the two dates. If such dates are not established upon the execution of this Agreement, at such time as a GMP is accepted a Date of Substantial Completion or Date of Final Completion of the Work shall be established in an Amendment. If a GMP is not established and the Parties desire to establish a Date of Substantial Completion or Date of Final Completion, it shall be set forth in an Amendment.

5.2.1 The deadlines for Substantial and Final Completion are subject to adjustments as provided for in the Contract Documents.

5.2.2 Time is of the essence for this Agreement and the Contract Documents.



5.2.3 Unless instructed by the Owner in writing, the Design-Builder shall not knowingly commence the Work before the effective date of insurance to be provided by the Design-Builder or the Owner as required by the Contract Documents.

5.3 DELAYS AND EXTENSIONS OF TIME

5.3.1 If the Design-Builder is delayed at any time in the commencement or progress of the Work by any cause beyond the control of the Design-Builder, the Design-Builder shall be entitled to an equitable extension of the Date of Substantial Completion or the Date of Final Completion. Examples of causes beyond the control of the Design-Builder include, but are not limited to, the following: (a) acts or omissions of the Owner or Others; (b) changes in the Work or the sequencing of the Work ordered by the Owner, or arising from decisions of the Owner that impact the time of performance of the Work; (c) encountering Hazardous Materials unanticipated by the Design-Builder, or concealed or unknown conditions; (d) delay authorized by the Owner pending dispute resolution or suspension by the Owner under section ARTICLE 11; (e) transportation delays not reasonably foreseeable; (f) labor disputes not involving the Design-Builder; (g) general labor disputes impacting the Project but not specifically related to the Worksite; (h) fire; (i) Terrorism; (j) epidemics, (k) adverse governmental actions, (l) unavoidable accidents or circumstances; (m) severe and extreme adverse weather conditions not reasonably anticipated. The Design-Builder shall process any requests for equitable extensions of the Date of Substantial Completion or the Date of Final Completion in accordance with the provisions of ARTICLE 8.

5.3.2 Delays caused by failure of performance by Subcontractors, Subsubcontractors, or Material Suppliers shall not be grounds for any extension of the Date of Substantial Completion nor any equitable adjustment to the GMP.

5.3.3 In addition, if the Design-Builder incurs additional costs as a result of a delay that is caused by items (a) through (m) immediately above, the Design-Builder shall be entitled to an equitable adjustment in the GMP subject to section 5.5.

5.3.4 If delays to the Project are encountered for any reason, the Parties agree to take reasonable steps to mitigate the effect of such delays.

5.4 LIQUIDATED DAMAGES

5.4.1 **SUBSTANTIAL COMPLETION** The Owner and the Design-Builder agree that this Agreement shall not provide for the imposition of liquidated damages at this time and **will/may** be determined at a later date by the Parties.

5.4.1.1 The Design-Builder understands that if the Date of Substantial Completion established by an Amendment, as may be amended by subsequent Change Order, is not attained, the Owner will suffer damages which are difficult to determine and accurately specify. The Design-Builder agrees that if the Date of Substantial Completion is not attained, the Design-Builder shall pay the Owner TBD dollars (\$TBD) as liquidated damages and not as a penalty for each Day that Substantial Completion extends beyond the Date of Substantial Completion. The liquidated



damages provided herein shall be in lieu of all liability for any and all extra costs, losses, expenses, claims, penalties and any other damages of whatsoever nature incurred by the Owner which are occasioned by any delay in achieving the Date of Substantial Completion. If Liquidated Damages are not established or otherwise addressed by the Parties, the Owner reserves the right to assess Actual Damages incurred.

5.4.2 FINAL COMPLETION The Owner and the Design-Builder agree that this Agreement shall not provide for the imposition of liquidated damages based on the Date of Final Completion at this time.

5.4.3 The Design-Builder understands that if the Date of Final Completion established by an Amendment is not attained, the Owner will suffer damages which are difficult to determine and accurately specify. The Design-Builder agrees that if the Date of Final Completion is not attained, the Design-Builder shall pay the Owner TBD dollars (\$TBD) as liquidated damages for each Day that Final Completion extends beyond the Date of Final Completion. The liquidated damages provided herein shall be in lieu of all liability for any and all extra costs, losses, expenses, claims, penalties and any other damages of whatsoever nature incurred by the Owner which are occasioned by any delay in achieving the Date of Final Completion.

5.4.4 OTHER LIQUIDATED DAMAGES The Owner and the Design-Builder may agree upon the imposition of liquidated damages based on other project milestones or performance requirements. Such agreement shall be included as an exhibit to this Agreement.

5.5 LIMITED MUTUAL WAIVER OF CONSEQUENTIAL DAMAGES Except for damages mutually agreed upon by the Parties as liquidated damages in section 5.4 and excluding losses covered by insurance required by the Contract Documents, the Owner and the Design-Builder agree to waive all claims against each other for any consequential damages that may arise out of or relate to this Agreement, except for those specific items of damages excluded from this waiver as mutually agreed upon by the Parties and identified below. The Owner agrees to waive damages including but not limited to the Owner's loss of use of the Project, any rental expenses incurred, loss of income, profit or financing related to the Project, as well as the loss of business, loss of financing, principal office overhead and expenses, loss of profits not related to this Project, loss of reputation, or insolvency. The Design-Builder agrees to waive damages including but not limited to loss of business, loss of financing, loss of profits not related to this Project, loss of bonding capacity, loss of reputation, or insolvency. The provisions of this section shall also apply to the termination of this Agreement and shall survive such termination.

5.5.1 The Owner and the Design-Builder shall require similar waivers in contracts with Subcontractors and Others retained for the Project.

ARTICLE 6 COMPENSATION

6.1 DESIGN PHASE COMPENSATION

6.1.1 To the extent required by Law, the cost of services performed directly by the Design-Professional is computed separately and is independent from the Design-Builder's



compensation for work or services performed directly by the Design-Builder; these costs shall be shown as separate items on applications for payment. If any Design-Professional is retained by the Design-Builder, the payments to the Design-Professional shall be as detailed in a separate agreement between the Design-Builder and the Design-Professional.

6.1.2 The Owner shall compensate the Design-Builder for services performed during the Design Phase, including pre-construction services and preparation of a GMP Proposal, if applicable, as follows: the sum of **XX** Dollars (\$ **XXXXXXXX**).

6.1.3 Compensation for Design Phase services, as part of the Work, shall include the Design-Builder's Fee, paid in proportion to the services performed, subject to adjustment.

6.1.4 Within fifteen (15) Days after receipt of each monthly application for payment, the Owner shall give written notice to the Design-Builder of the Owner's acceptance or rejection, in whole or in part, of such application for payment. Within forty-five (45) Days after accepting such application, the Owner shall pay directly to the Design-Builder the appropriate amount for which application for payment is made, less amounts previously paid by the Owner. If such application is rejected in whole or in part, the Owner shall indicate the reasons for its rejection. If the Owner and the Design-Builder cannot agree on a revised amount then, within fifteen (15) Days after its initial rejection in part of such application, the Owner shall pay directly to the Design-Builder the appropriate amount for those items not rejected by the Owner for which application for payment is made, less amounts previously paid by the Owner. Those items rejected by the Owner shall be due and payable when the reasons for the rejection have been removed.

6.2 CONSTRUCTION PHASE COMPENSATION

6.2.1 The Owner shall compensate the Design-Builder for Work performed following the commencement of the Construction Phase on the following basis:

6.2.1.1 the Cost of the Work as allowed in ARTICLE 7; and

6.2.1.2 the Design-Builder's Fee paid in proportion to the services performed subject to adjustment.

6.2.2 The compensation to be paid under this section, ARTICLE 6.2 and ARTICLE 6.3, shall be limited to, and shall not exceed, the GMP established in the GMP Amendment, except to the extent that the GMP may be adjusted under ARTICLE 8.

6.2.3 Payment for Construction Phase services shall be as set forth in ARTICLE 9. If Design Phase services continue to be provided after construction has commenced, the Design-Builder shall continue to be compensated as provided in ARTICLE 6, or as mutually agreed.

6.3 DESIGN-BUILDER'S FEE The Design-Builder's Fee Percentage shall be as follows:

The Design-Builder's Fee Percentage shall be **XXXXXXXX** percent (**XX**%).



6.3.1 Markups for Changes: If the GMP requires an adjustment due to changes in the Work, the Design-Builder shall receive the 'Design-Builder's Fee Percentage' of any increase in the GMP as approved by the Owner. Note: Fee shall not apply to self-performed trade contract Work by the Design-Builder.

6.4 REIMBURSABLE EXPENSES FOR THE DESIGN-BUILDER'S DESIGN PHASE AND ALL DESIGN-PROFESSIONAL SERVICES

Reimbursable expenses for the Design-Builder's Design Phase and all Design-Professional services are in addition to compensation for basic and additional services and include those project specific expenses as follows for which the Design-Builder and Design-Professional shall be reimbursed on a not-to-exceed basis for their direct "out-of-pocket" costs (no mark-up allowed on reimbursable expenses by the Design-Professional or related consultants). Reimbursable expenses shall be submitted with supporting documentation, which shall include detailed, itemized receipts. When requested and authorized by the Owner, the following shall be reimbursable:

6.4.1 Any necessary fee or permit payment required and paid to any governing body or authority having jurisdiction over the Project.

6.4.2 Expense of printing and reproductions, framed renderings, physical models and mock-ups, and professional photography for the use of the Owner or Owner approved third parties.

6.4.3 Postage and shipping costs for project material sent or returned to the Owner or Owner approved third parties.

6.4.4 Travel, meals, and lodging expenses for the purpose of Owner meetings or Owner approved meetings with third parties, limited to individuals under the direct employ of the Design-Builder or Design-Professional or their subconsultants and working on the Project. Air travel expenses shall be approved in advance by the Owner. Maximum individual per diem expenses related to travel shall be based on the Owner's allowable per diem for meals and lodging for that location. Alcohol is not reimbursable. Design-Builder and Design-Professional shall use the Owner's hotels when feasible.

6.4.5 Expenses of specialized consultants identified as optional additional services in Article 3 of this Agreement.

6.4.6 Other project specific expenses requested and authorized by the Owner.

ARTICLE 7 COST OF THE WORK



The Owner agrees to pay the Design-Builder for the Cost of the Work as defined in this article. This payment shall be in addition to the Design-Builder's Fee stipulated in section 6.3.

7.1 COST ITEMS FOR DESIGN PHASE SERVICES

7.1.1 Compensation for Design Phase services as provided in section ARTICLE 6.

7.2 COST ITEMS FOR CONSTRUCTION PHASE SERVICES

7.2.1 Wages paid for labor in the direct employ of the Design-Builder in the performance of the Work, or under a salary or wage schedule agreed upon by the Owner and the Design-Builder.

7.2.2 Salaries of the Design-Builder's employees when stationed at the field office (or as otherwise approved by the Owner). The rate specified for team members assigned full-time to the project shall be applied for 2080 hours per year, maximum. Billable hours for assigned staff beyond an 8-hour day, or beyond forty(40) hours per week, will not be reimbursed.

7.2.3 Cost of all employee benefits and taxes including but not limited to workers' compensation, unemployment compensation, social security, health, welfare, retirement and other fringe benefits as required by law, labor agreements, or paid under the Design-Builder's standard personnel policy, insofar as such costs are paid to employees of the Design-Builder who are included in the Cost of the Work under subsections 7.2.1 and 7.2.2.

Design-Builder may charge to Owner wages paid by Design-Builder to full time employees for paid leave during the duration of the Project, provided that: (1) the employee is assigned by Design-Builder to devote full time hours to the Project; and (2) the employee is granted paid leave by Design-Builder for reasons of vacation, holidays, illness or vacation time (sometimes referred to as Paid Time Off and abbreviated "P.T.O."), pursuant to Design-Builder's regular paid leave policy. For purposes of this section, an employee of Design-Builder shall be considered to be full time if he or she is designated as full time under Design-Builder's personnel policies, but in no event shall an employee be considered to be full time unless he or she is assigned to work at least 35 hours per week to the Project. In no event shall Owner be charged for more than twenty(20) days of paid leave for a given employee during any twelve(12) month period (prorated to match project duration, as appropriate). Establishment of those individuals/positions considered to be full time staff must be agreed to in writing by Owner and Design-Builder prior to issuance of the GMP amendment/change order.

7.2.4 Reasonable transportation, travel, hotel and moving expenses of the Design-Builder's personnel incurred in connection with the Work.

7.2.5 Cost of all materials, supplies and equipment incorporated in the Work, including costs of inspection and testing if not provided by the Owner, transportation, storage and handling.



7.2.6 Payments made by the Design-Builder to Subcontractors for work performed under this Agreement.

7.2.7 Fees and expenses for design services procured or furnished by the Design-Builder except as provided by the Design-Professional and compensated in ARTICLE 6.

7.2.8 Cost, including transportation and maintenance of all materials, supplies, equipment, temporary facilities and hand tools not owned by the workers that are used or consumed in the performance of the Work, less salvage value or residual value; and cost less salvage value on such items used, but not consumed that remain the property of the Design-Builder.

7.2.9 Rental charges of all necessary machinery and equipment, exclusive of hand tools owned by workers, used at the Worksite, whether rented from the Design-Builder or Others, including installation, repair and replacement, dismantling, removal, maintenance, transportation and delivery costs. Rental from unrelated third-parties shall be reimbursed at actual cost. Rentals from the Design-Builder or its affiliates, subsidiaries or related parties shall be reimbursed at the prevailing rates in the locality of the Worksite up to eighty-five percent (85%) of the value of the piece of equipment.

7.2.10 Cost of the premiums for all insurance and surety bonds which the Design-Builder is required to procure or deems necessary, and approved by the Owner, including any additional premium incurred as a result of any increase in the GMP, under the terms of Article 15.

7.2.11 Sales, use, gross receipts or other taxes, tariffs or duties related to the Work for which the Design-Builder is liable.

7.2.12 Permits, fees, licenses, tests, and royalties.

7.2.13 Losses, expenses or damages to the extent not compensated by insurance or otherwise, and the cost of corrective work or redesign during the Construction Phase and for a one-year period following the Date of Substantial Completion, provided that such corrective work or redesign did not arise from the Design-Builder's negligence.

7.2.14 All costs associated with establishing, equipping, operating, maintaining and demobilizing the field office.

7.2.15 Reproduction costs, photographs, facsimile transmissions, long-distance telephone calls, data processing services, postage, express delivery charges, data transmission, telephone service, and computer-related costs, to the extent such items are used and consumed in the performance of the Work or are not capable of use after completion of the Work.

7.2.16 All water, power and fuel costs necessary for the Work.

7.2.17 Cost of removal of all non-hazardous substances, debris and waste materials unless otherwise agreed to by the Parties.



7.2.18 Costs incurred due to an emergency affecting the safety of persons or property.

7.2.19 Legal, mediation and arbitration fees and costs, other than those arising from disputes between the Owner and the Design-Builder, or between the Design-Builder and a subcontractor or supplier of the Design-Builder, reasonably and properly resulting from the Design-Builder's performance of the Work.

7.2.20 All costs directly incurred in the performance of the Work or in connection with the Project, and not included in the Design-Builder's Fee as set forth in ARTICLE 6, which are reasonably inferable from the Contract Documents.

7.3 DISCOUNTS All discounts for prompt payment shall accrue to the Owner to the extent such payments are made directly by the Owner. To the extent payments are made with funds of the Design-Builder, all cash discounts shall accrue to the Design-Builder. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment, shall be credited to the Cost of the Work.

ARTICLE 8 CHANGES IN THE WORK

Changes in the Work which are within the general scope of this Agreement may be accomplished, without invalidating this Agreement, by Change Order, Interim Directed Change, or a minor change in the work, subject to the limitations stated in the Contract Documents.

8.1 CHANGE ORDER

8.1.1 The Design-Builder may request or the Owner, without invalidating this Agreement, may order changes in the Work within the general scope of the Contract Documents consisting of additions, deletions or other revisions to the GMP or the estimated cost of the work, compensation for Design Phase services, the Design-Builder's Fee or the Date of Substantial Completion or the Date of Final Completion being adjusted accordingly. All such changes in the Work shall be authorized by applicable Change Order, and processed in accordance with this article.

8.1.2 Each adjustment in the GMP or estimated Cost of the Work resulting from a Change Order shall clearly separate the amount attributable to compensation for Design Phase services, other Cost of the Work and the Design-Builder's Fee, with the Design-Builder's Fee not to exceed **XXXXX** percent (**XXX%**).

8.1.3 The Owner and the Design-Builder shall negotiate an appropriate adjustment to the GMP or the estimated Cost of the Work, compensation for Design Phase services, the Design-Builder's Fee or the Date of Substantial Completion or the Date of Final Completion in good faith and conclude negotiations as expeditiously as possible. Acceptance of the Change Order and any adjustment in the GMP, the estimated Cost of the Work, compensation for Design Phase services, the Design-Builder's Fee or the Date of Substantial Completion or the Date of Final Completion shall not be unreasonably withheld.



8.1.4 NO OBLIGATION TO PERFORM The Design-Builder shall not be obligated to perform changes in the Work that impacts the GMP or the estimated Cost of the Work, compensation for Design Phase services, the Design-Builder's Fee or the Date of Substantial Completion or the Date of Final Completion until a Change Order has been executed or written Interim Directed Change has been issued.

8.1.5 EFFECT OF AN EXECUTED CHANGE ORDER The Design-Builder, by accepting a Change Order, waives and forever releases, and shall be conclusively barred from asserting, any claim against the Owner for additional time or compensation for matters relating to or arising out of or resulting from the Work included within or affected by the executed Change Order. Any attempt by Design-Builder to preserve any claims relating to or arising out of or resulting from the Work that is the subject of the Change Order, including assertion of the underlying facts as the basis for any sort of claim sounding in delay or lost productivity, shall be disregarded and shall not alter or diminish the preclusive effect of this paragraph.

8.1.6 The Design-Builder shall not include in each request for Change Order any increases in the Design-Builder's costs of insurance, Subguard, or any Design-Builder or subcontractor bonds (collectively, "Bonds"); provided, however, and notwithstanding anything to the contrary in the foregoing, the Design-Builder shall have the right to receive Change Orders increasing the GMP to compensate Design-Builder for increases in the costs of the payment and performance Bonds provided by Design-Builder as and when such increases are required to be paid by Design-Builder to the issuer of such Bonds. Prior to Final Payment the Owner and Design-Builder will determine the amount by which the Design-Builder's costs of insurance, Subguard, and Bonds increased as a result of all Change Orders; and, if such costs have increased, the Design-Builder will be entitled to an adjustment in the GMP by the amount of such increased costs together with the Design-Builder's Fee thereon notwithstanding the provisions of Section 8.1.5 of the Agreement to the contrary.

8.2 INTERIM DIRECTED CHANGE

8.2.1 The Owner may issue a written Interim Directed Change directing a change in the Work prior to reaching agreement with the Design-Builder on the adjustment, if any, in the GMP, estimated Cost of the Work, the Design-Builder's Fee, the Date of Substantial Completion or the Date of Final Completion, and if appropriate, the compensation for Design Phase services.

8.2.2 The Owner and the Design-Builder shall negotiate expeditiously and in good faith for appropriate adjustments, as applicable, to the GMP, estimated Cost of the Work, the Design-Builder's Fee, the Date of Substantial Completion or the Date of Final Completion, and if appropriate the compensation for Design Phase services, arising out of Interim Directed Change. As the changed Work is completed, the Design-Builder shall submit its costs for such Work with its application for payment beginning with the next application for payment within thirty (30) Days of the issuance of the Interim Directed Change. Pending final determination of cost to the Owner, amounts not in dispute may be included in applications for payment and shall be paid by Owner.



8.2.3 When the Owner and the Design-Builder agree upon the adjustments in the GMP, estimated Cost of the Work, the Design-Builder's Fee, the Date of Substantial Completion or the Date of Final Completion, and if appropriate the compensation for Design Phase services, for a change in the Work directed by an Interim Directed Change, such agreement shall be the subject of an appropriate Change Order. The Change Order shall include all outstanding Interim Directed Changes on which the Owner and Design-Builder have reached agreement on the GMP or the Date of Substantial Completion or Date of Final Completion issued since the last Change Order.

8.3 MINOR CHANGES IN THE WORK

8.3.1 The Design-Builder may make minor changes in the design and construction of the Project consistent with the intent of the Contract Documents which do not involve an adjustment in the GMP, estimated Cost of the Work, the Design-Builder's Fee, the Date of Substantial Completion or the Date of Final Completion, and do not materially and adversely affect the design of the Project, the quality of any of the materials or equipment specified in the Contract Documents, the performance of any materials, equipment or systems specified in the Contract Documents, or the quality of workmanship required by the Contract Documents.

8.3.2 The Design-Builder shall promptly inform the Owner in writing of any such changes and shall record such changes on the Design-Build Documents maintained by the Design-Builder.

8.4 CONCEALED OR UNKNOWN SITE CONDITIONS If the conditions encountered at the Worksite are (a) subsurface or other physical conditions materially different from those indicated in the Contract Documents, or (b) unusual and unknown physical conditions materially different from conditions ordinarily encountered and generally recognized as inherent in Work provided for in the Contract Documents, the Design-Builder shall stop affected Work after the condition is first observed and give prompt written notice of the condition to the Owner and the Design Professional. The Design-Builder shall not be required to perform any Work relating to the unknown condition without the written mutual agreement of the Parties. Any change in the Contract Price or the Contract Time as a result of the unknown condition shall be determined as provided in this article.

8.5 DETERMINATION OF COST

8.5.1 An increase or decrease in the GMP or estimated Cost of the Work resulting from a change in the Work shall be determined by one or more of the following methods:

8.5.1.1 unit prices set forth in this Agreement or as subsequently agreed;

8.5.1.2 a mutually accepted, itemized lump sum;

8.5.1.3 costs determined as defined in section 6.2 and ARTICLE 7. The Trade Contractor or Subcontractor actually performing the Work will be allowed a maximum



markup for overhead and profit of 15% on labor only and 10% on material and equipment (not including sales tax). Markup on sales tax is not permitted.

8.5.2 If an increase or decrease in Contract Price or Contract Time cannot be agreed to as set forth in section 8.5.1 above, and the Owner issues an Interim Directed Change, the cost of the change in the Work shall be determined by the reasonable actual expense incurred and savings realized in the performance of the Work resulting from the change. In case of a net decrease in the GMP, the Design-Builder's Fee (lump sum amount) shall not be adjusted unless ten percent (10%) or more of the Project is deleted. The Design-Builder shall maintain a documented, itemized accounting evidencing the expenses and savings.

8.5.3 If unit prices are indicated in the Contract Documents or are subsequently agreed to by the Parties, but the character or quantity of such unit items as originally contemplated is so different in a proposed Change Order that the original unit prices will cause substantial inequity to the Owner or the Design-Builder, such unit prices shall be equitably adjusted.

8.5.4 If the Owner and the Design-Builder disagree as to whether work required by the Owner is within the scope of the Work, the Design-Builder shall furnish the Owner with an estimate of the costs to perform the disputed work in accordance with the Owner's interpretations. If the Owner issues a written order for the Design-Builder to proceed, the Design-Builder shall perform the disputed work and the Owner shall pay the Design-Builder fifty percent (50%) of its actual, direct cost to perform the work. In such event, both Parties reserve their rights as to whether the work was within the scope of the Work. The Owner's payment does not prejudice its right to be reimbursed should it be determined that the disputed work was within the scope of Work. The Design-Builder's receipt of payment for the disputed work does not prejudice its right to receive full payment for the disputed work should it be determined that the disputed work is not within the scope of the Work.

8.6 CLAIMS FOR ADDITIONAL COST OR TIME For any claim for an increase in the GMP, estimated Cost of the Work, the Design-Builder's Fee and the Date of Substantial Completion or the Date of Final Completion, and if appropriate the compensation for Design Phase services, the Design-Builder shall give the Owner written notice of the claim within twenty-one (21) Days after the occurrence giving rise to the claim or within twenty-one (21) Days after the Design-Builder first recognizes the condition giving rise to the claim, whichever is later. Except in an emergency, notice shall be given before proceeding with the Work. Claims for design and estimating costs incurred in connection with possible changes requested by the Owner, but which do not proceed, shall be made within twenty-one (21) Days after the decision is made not to proceed. Thereafter, the Design-Builder shall submit written documentation of its claim, including appropriate supporting documentation, within twenty-one (21) Days after giving notice, unless the Parties mutually agree upon a longer period of time. If Design-Builder fails to provide formal, written notice as required in this paragraph within twenty-one (21) days of such occurrence giving rise to the claim, any claim for additional cost or extension of time, including any claims sounding in delay or lost productivity based upon facts or circumstances underlying the claim, shall be deemed waived, barred and forfeited, and Design-Builder shall not be permitted to pursue same pursuant to ARTICLE 12, nor through any other forum or venue. The Owner shall respond in writing denying or approving the Design-Builder's claim no later than twenty-one (21) Days after receipt of the Design-Builder's documentation of claim. Owner's



failure to respond shall be deemed a denial of the Design-Builder's claim. Any change in the GMP, estimated Cost of the Work, the Design-Builder's Fee, the Date of Substantial Completion or the Date of Final Completion, and if appropriate the compensation for Design Phase services, resulting from such claim shall be authorized by Change Order.

8.7 INCIDENTAL CHANGES The Owner may direct the Design-Builder to perform incidental changes in the Work upon concurrence with the Design-Builder that such changes do not involve adjustments in the Cost of the Work or Contract Time. Incidental changes shall be consistent with the scope and intent of the Contract Documents. The Owner shall initiate an incidental change in the Work by issuing a written order to the Design-Builder. Such written notice shall be carried out promptly and is binding on the Parties.

ARTICLE 9 PAYMENT FOR CONSTRUCTION PHASE SERVICES

9.1 PROGRESS PAYMENTS

9.1.1 On a monthly basis after the Construction Phase has commenced, the Design-Builder shall submit to the Owner an application for payment consisting of the Cost of the Work performed up to the end of the month, along with a proportionate share of the Design-Builder's Fee. Prior to submission of the next application for payment, the Design-Builder shall furnish to the Owner a statement accounting for the disbursement of funds received under the previous application. The extent of such statement shall be as agreed upon between the Owner and the Design-Builder. Such monthly applications shall be supported by data substantiating the Contractor's right to payment as the Owner may require, including weekly payroll certification (Commonwealth of Pennsylvania Department of Labor and Industry form LLC-25), Steel Certification form with backup (as applicable), Detailed Cost Breakdown/Schedule of Values, and DBE Utilization data. Payment cannot be processed until this substantiating information is submitted with the monthly application for payment.

9.1.2 Within fifteen (15) Days after receipt of each monthly application for payment, the Owner shall give written notice to the Design-Builder of the Owner's acceptance or rejection, in whole or in part, of such application for payment. Within forty-five (45) Days after approving such application, the Owner shall pay directly to the Design-Builder the appropriate amount for which application for payment is made, less amounts previously paid by the Owner. If such application is rejected in whole or in part, the Owner shall indicate the reasons for its rejection. If the Owner and the Design-Builder cannot agree on a revised amount then, within fifteen (15) Days after its initial rejection in part of such application, the Owner shall pay directly to the Design-Builder the appropriate amount for those items not rejected by the Owner for which application for payment is made, less amounts previously paid by the Owner. Those items rejected by the Owner shall be due and payable when the reasons for the rejection have been removed.

9.1.3 The Design-Builder warrants and guarantees that title to all Work, materials and equipment covered by an application for payment, whether incorporated in the Project or not, will pass to the Owner upon receipt of such payment by the Design-Builder, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to as liens.



9.1.4 The Owner's progress payment, occupancy or use of the Project, whether in whole or in part, shall not be deemed an acceptance of any Work not conforming to the requirements of the Contract Documents.

9.1.5 Upon Substantial Completion of the Work, the Owner shall pay the Design-Builder the unpaid balance of the Cost of the Work, compensation for Design Phase services and the Design-Builder's Fee, less one-hundred-fifty percent (150%) of the cost of completing any unfinished items as agreed to between the Owner and the Design-Builder as to extent and time for completion. The Owner thereafter shall pay the Design-Builder monthly the amount retained for unfinished items as each item is completed.

9.1.6 STORED MATERIALS AND EQUIPMENT Unless otherwise provided in the Contract Documents, applications for payment may include materials and equipment not yet incorporated into the Work but delivered to and suitably stored onsite or offsite, including applicable insurance, storage and costs incurred transporting the materials to an offsite storage facility. Approval of payment applications for stored materials and equipment stored offsite shall be conditioned on submission by the Design-Builder of bills of sale and proof of required insurance, or such other procedures satisfactory to the Owner to establish the proper valuation of the stored materials and equipment, the Owner's title to such materials and equipment, and to otherwise protect the Owner's interests therein, including transportation to the worksite.

9.2 RETAINAGE From each progress payment made prior to the time of Substantial Completion, the Owner may retain Six percent (6%) of the amount otherwise due after deduction of any amounts as provided in section 9.3, and in no event shall such percentage exceed any applicable statutory requirements. Retainage to be held on trade contract/subcontract work only or as agreed otherwise by the Parties. If the Owner chooses to use this retainage provision:

9.2.1 the Owner may, in its sole discretion, reduce the amount to be retained at any time;

9.2.2 the Owner may release retainage on that portion of the Work a Subcontractor has completed, in whole or in part, and which work the Owner has accepted;

9.3 ADJUSTMENT OF DESIGN-BUILDER'S APPLICATION FOR PAYMENT The Owner may adjust or reject an application for payment or nullify a previously approved Design-Builder application for payment, in whole or in part, as may reasonably be necessary to protect the Owner from loss or damage based upon the following, to the extent that the Design-Builder is responsible under this Agreement:

9.3.1 the Design-Builder's repeated failure to perform the Work as required by the Contract Documents;

9.3.2 except as accepted by the insurer providing Builders Risk or other property insurance covering the project, loss or damage arising out of or relating to this Agreement and caused by the Design-Builder to the Owner or Others to whom the Owner may be liable;



9.3.3 the Design-Builder's failure to properly pay the Design-Professional, Subcontractors or Material Suppliers for labor, materials, equipment or supplies furnished in connection with the Work, provided that the Owner is making payments to the Design-Builder in accordance with the terms of this Agreement;

9.3.4 Defective Work not corrected in a timely fashion;

9.3.5 reasonable evidence of delay in performance of the Work such that the Work will not be completed by the Date of Substantial Completion or the Date of Final Completion, and that the unpaid balance of the GMP is not sufficient to offset any direct damages that may be sustained by the Owner as a result of the anticipated delay caused by the Design-Builder;

9.3.6 reasonable evidence demonstrating that the unpaid balance of the GMP is insufficient to fund the cost to complete the Work; and

9.3.7 uninsured third-party claims involving the Design-Builder or reasonable evidence demonstrating that third-party claims are likely to be filed unless and until the Design-Builder furnishes the Owner with adequate security in the form of a surety bond, letter of credit or other collateral or commitment sufficient to discharge such claims if established.

No later than fifteen (15) Days after receipt of an application for payment, the Owner shall give written notice to the Design-Builder, at the time of disapproving or nullifying all or part of an application for payment, stating its specific reasons for such disapproval or nullification, and the remedial actions to be taken by the Design-Builder in order to receive payment. When the above reasons for disapproving or nullifying an application for payment are removed, payment will be promptly made for the amount previously withheld.

9.4 OWNER OCCUPANCY OR USE OF COMPLETED OR PARTIALLY COMPLETED WORK

9.4.1 Portions of the Work that are completed or partially completed may be used or occupied by the Owner when (a) the portion of the Work is designated in a Certificate of Substantial Completion, (b) appropriate insurer(s) or sureties consent to the occupancy or use, and (c) appropriate public authorities authorize the occupancy or use. Such partial occupancy or use shall constitute Substantial Completion of that portion of the Work. The Design-Builder shall not unreasonably withhold consent to partial occupancy or use. The Owner shall not unreasonably refuse to accept partial occupancy or use, provided such partial occupancy or use is of value to the Owner.

9.5 FINAL PAYMENT

9.5.1 Final Payment, consisting of the unpaid balance of the Cost of the Work, compensation for Design Phase services and the Design-Builder's Fee, shall be due and payable when the work is fully completed. Before issuance of final payment, the Owner may request satisfactory evidence that all payrolls, material bills and other indebtedness connected with the Work have been paid or otherwise satisfied. Substantiating documentation that shall accompany the Application for Final Payment shall include, but is



not necessarily limited to, the following: (a) Completed Certificate/Application of Payment signed by all applicable Parties; (b) Contractor's Affidavit for Final Payment, (c) Consent of Surety to Final Payment, (d) Certificate of Completion and Release of Liens, (e) Final/total DBE Utilization data, (f) OSHA recordable accident data, (g) construction waste management documentation, (h) Waiver of Mechanic's Liens, and (i) all maintenance manuals, as-built drawings and warranty certificates that may be required. If any third party fails or refuses to provide a release of claim or waiver of lien as required by Owner, the Contractor shall furnish a bond satisfactory to the Owner to indemnify the Owner from liability

9.5.2 In making final payment the Owner waives all claims except for:

9.5.2.1 outstanding liens and Design-Builders' obligation to satisfy its payment obligations to Subcontractors and Material Suppliers;

9.5.2.2 latent defects or deficiencies not known to Owner at the time of final payment, including but not limited to improper workmanship, defective materials, work not in conformance with the Contract Documents and design defects; and

9.5.2.3 terms of any special warranties required by the Contract Documents.

9.5.3 In accepting final payment, the Design-Builder waives all claims except those previously made in writing and which remain unsettled.

ARTICLE 10 INDEMNITY

10.1 INDEMNITY

10.1.1 To the fullest extent permitted by law, the Design-Builder shall indemnify and hold harmless the Owner, Owner's officers, directors, members, consultants, agents, trustees and employees (the Indemnitees) from all claims for bodily injury, sickness, or death and property damage (other than to the Work itself), including reasonable attorneys' fees, costs and expenses, that may arise from the performance of the Work, but only to the extent caused by the negligent acts or omissions or failure to conform to the provisions of the Contract Documents of the Design-Builder, Subcontractors or anyone employed directly or indirectly by any of them or by anyone for whose acts any of them may be liable. The Design-Builder shall not be required to indemnify or hold harmless the Indemnitees for any negligent acts or omissions of the Indemnitees.

10.1.2 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Design-Builder, its officers, directors or members, Subcontractors or anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable from all claims for bodily injury, sickness or death and property damage (other than to the Work itself), including reasonable attorneys' fees, costs and expenses, that may arise from the performance of work by the Owner or Others, but only to the extent caused by the negligent acts or omissions of the Owner or Others.



10.1.3 NO LIMITATION ON LIABILITY In any and all claims against the Indemnitees by any employee of the Design-Builder, anyone directly or indirectly employed by the Design-Builder or anyone for whose acts the Design-Builder may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Design-Builder under workers' compensation acts, disability benefit acts or other employee benefit acts.

10.2 ROYALTIES, PATENTS AND COPYRIGHTS The Design-Builder shall pay all royalties and license fees which may be due on the inclusion of any patented or copyrighted materials, methods or systems selected by the Design-Builder and incorporated in the Work. The Design-Builder shall defend, indemnify and hold the Owner harmless from all suits or claims for infringement of any patent rights or copyrights arising out of such selection. The Owner agrees to defend, indemnify and hold the Design-Builder harmless from any suits or claims of infringement of any patent rights or copyrights arising out of any patented or copyrighted materials, methods or systems specified by the Owner.

ARTICLE 11 SUSPENSION, NOTICE TO CURE, AND TERMINATION

11.1 SUSPENSION BY THE OWNER FOR CONVENIENCE

11.1.1 The Owner may order the Design-Builder in writing to suspend, delay or interrupt all or any part of the Work without cause for its convenience

11.1.2 Design-Builder is entitled to seek an adjustment of the Contract Price and/or Contract Time(s) if its cost or time to perform the Work has been adversely impacted by any suspension, delay or interruption of work by Owner. Adjustments shall not be sought and shall not be permitted: (1) for short term suspension, delay or interruption required to accommodate or work around campus events or activities; or (2) due to any requirement that Design-Builder coordinate its work with another party or parties performing a separate project for Owner in the vicinity of the Worksite, where such coordination calls for no more than additional planning and communication

11.1.3 TERMINATION BY THE OWNER FOR CAUSE

11.1.3.1 If the Design-Builder persistently fails to supply enough qualified workers, proper materials, or equipment, to maintain the approved Schedule of the Work, or fails to make prompt payment to its workers, Subcontractors or Material Suppliers, disregards Laws or orders of any public authority having jurisdiction, or is otherwise guilty of a material breach of a provision of this Agreement, the Design-Builder may be deemed in default. If the Design-Builder fails within seven (7) Days after receipt of written notice to commence and continue satisfactory correction of such default, then the Owner shall give the Design-Builder and, if applicable, the surety, a second notice to correct the default within a three (3) Day period

11.1.3.2 If the Design-Builder fails to commence and continue satisfactory correction of the default within three (3) Days following receipt of such second notice, the Owner without prejudice to any other rights or remedies may: (a) declare the Design-Builder to be in default



and terminate this Agreement and provide written notice of termination to Design-Builder; (b) take possession of the Worksite; (c) complete the Work utilizing any reasonable means; (d) withhold payment due to the Design-Builder; and (e) as the Owner deems necessary, supply workers and materials, equipment and other facilities for the satisfactory correction of the default, and charge the Design-Builder the costs and expenses, including reasonable Overhead, profit and attorneys' fees.

11.1.3.3 In the event of an emergency affecting the safety of persons or property, the Owner may immediately commence and continue satisfactory correction of a default without first giving written notice to the Design-Builder, but shall give prompt written notice of such action to the Design-Builder following commencement of the action.

11.1.3.4 If the Design-Builder files a petition under the bankruptcy code, this Agreement shall terminate if the Design-Builder or the Design-Builder's trustee fails to assume, or rejects the Agreement, or if there has been a default and the Design-Builder is unable to give adequate assurance that the Design-Builder will perform as required by this Agreement or otherwise is unable to comply with the requirements for assuming this Agreement under the applicable provisions of the United States Bankruptcy Code. The rights and remedies set forth herein shall not be deemed to limit the ability of the Owner to seek any other rights and remedies provided by the Contract Documents or by law, including its ability to seek relief from any automatic stays under the United States Bankruptcy Code.

11.1.3.5 If the Owner exercises its rights under subsection 11.1.3.1 or 11.1.3.2, upon the request of the Design-Builder the Owner shall provide a detailed accounting of the costs incurred by the Owner.

11.1.3.6 If the Owner terminates this Agreement for default, and it is later determined that the Design-Builder was not in default, or that the default was excusable under the terms of the Contract Documents, then, in such event, the termination shall be deemed a termination for convenience, and the rights of the Parties shall be as set forth in section 11.2.

11.2 TERMINATION BY OWNER FOR CONVENIENCE If the Owner terminates this Agreement other than as set forth in section 11.1.3, the Owner shall pay the Design-Builder for all Work executed and for all proven loss, cost or expense in connection with the Work, plus all demobilization costs.

11.2.1 If the Owner terminates this Agreement before commencing the Construction Phase, the Design-Builder shall be paid for the Design-Builder's Design Phase services provided to date as set forth in subsection 6.1.

11.2.2 If the Owner terminates this Agreement after commencement of the Construction Phase, the Design-Builder shall be paid for the Construction Phase services provided to date pursuant to subsection 6.2.

11.2.3 The Owner shall also pay to the Design-Builder fair compensation, either by purchase or rental at the election of the Owner, for all equipment retained. The Owner shall



assume and become liable for obligations, commitments and unsettled claims that the Design-Builder has previously undertaken or incurred in good faith in connection with the Work or as a result of the termination of this Agreement. As a condition of receiving the payments provided under this article, the Design-Builder shall cooperate with the Owner by taking all steps necessary to accomplish the legal assignment of the Design-Builder's rights and benefits to the Owner, including the execution and delivery of required papers.

11.3 TERMINATION BY THE DESIGN-BUILDER

11.3.1 Upon fourteen (14) Days' written notice to the Owner, the Design-Builder may terminate this Agreement for any of the following reasons:

11.3.1.1 if the Work has been stopped for a sixty (60) Day period

- a. under court order or order of other governmental authorities having jurisdiction; or
- b. as a result of the declaration of a national emergency or other governmental act during which, through no act or fault of the Design-Builder, materials are not available;

11.3.1.2 if the Work is suspended by the Owner for sixty (60) consecutive Days;

11.3.1.3 if the Owner fails to furnish reasonable evidence that sufficient funds are available and committed for the entire cost of the Project in accordance with subsection 3.2 of this Agreement.

11.3.2 If the Owner has for sixty(60) Days failed to pay the Design-Builder pursuant to subsection 9.1.2, the Design-Builder may give written notice of its intent to terminate this Agreement. If the Design-Builder does not receive payment within fourteen (14) Days of giving written notice to the Owner, then upon fourteen (14) Days' additional written notice to the Owner, the Design-Builder may terminate this Agreement.

11.3.3 Upon termination by the Design-Builder in accordance with this section, the Design-Builder shall be entitled to recover from the Owner payment for all Work executed and for all proven loss, cost or expense in connection with the Work, plus all demobilization costs and reasonable damages. In addition, the Design-Builder shall be paid an amount calculated as set forth either in subsection 11.2.1 or 11.2.2, depending on when the termination occurs, and subsection 11.2.3.

ARTICLE 12 DISPUTE MITIGATION AND RESOLUTION

12.1 WORK CONTINUANCE AND PAYMENT Unless otherwise agreed in writing, the Design-Builder shall continue the Work and maintain the approved schedules during any dispute mitigation or resolution proceedings. If the Design-Builder continues to perform, the Owner shall continue to make payments in accordance with the Agreement.



12.2 DIRECT DISCUSSIONS If a dispute arises between the parties relative to the Work, the Project, or otherwise related to this Agreement, the Parties shall follow the procedures set forth in this ARTICLE. The Parties shall first endeavor to reach resolution through good faith direct discussions between the Parties' representatives, who shall possess the necessary authority to resolve such matter and who will record the date of first discussions. If the Parties' representatives are not able to resolve such matter within ten (10) Business Days from the date of first discussion, the Parties' representatives shall immediately inform senior executives of the Parties in writing that resolution was not affected. Upon receipt of such notice, the senior executives of the Parties shall meet within ten (10) Business Days to endeavor to reach resolution. If the dispute remains unresolved after thirty (30) Days from the date of first discussion, the Parties shall submit such matter to the dispute resolution procedures selected herein.

12.3 MEDIATION If direct discussions pursuant to section 12.2 do not result in resolution of the matter, the Parties shall endeavor to resolve the matter by mediation. The mediator shall be jointly selected by the Parties, and the mediator shall apply rules and procedures of his or her own choosing. In the event that the Parties are unable to mutually agree upon selection of a mediator, the mediator selection procedures within the current Construction Industry Mediation Rules of the American Arbitration Association (AAA) shall be utilized. The administration of the mediation shall be as mutually agreed by the Parties. The mediation shall be convened within sixty (60) Business Days of the conclusions of direct discussions pursuant to section 12.2. Either Party may terminate the mediation at any time after the first session by written notice to the non-terminating Party and mediator. The mediator's fees and expenses, shall be shared equally by the Parties. The venue of any mediation procedure shall be State College, Pennsylvania, unless the parties mutually agree upon a different location.

12.4 BINDING DISPUTE RESOLUTION If the matter is unresolved after the conclusion of mediation, the Parties shall submit the matter to binding arbitration. A single arbitrator shall be jointly selected by the Parties. In the event that the parties are unable to mutually agree upon selection of an arbitrator, the arbitrator selection procedures within the current Construction Industry Arbitration Rules of the AAA shall be utilized. The binding arbitration process shall proceed according to rules and procedures mutually agreed upon by the Parties, in consultation with the arbitrator. In the event that the Parties are unable to mutually agree upon the rules and procedures to be applied, the aforementioned AAA Arbitration Rules shall be utilized. The arbitrator's fees and expenses shall be shared equally by the Parties. The Parties shall be responsible for their own attorneys' fees and other costs associated with arbitration. The venue of any binding dispute resolution procedure shall be State College, Pennsylvania unless the Parties mutually agree upon a different location.

12.4.1 Neither Party may commence arbitration if the claim or cause of action would be barred by the applicable statute of limitations under Pennsylvania law. Receipt of a demand for arbitration by the person or entity administering the arbitration shall constitute the commencement of legal proceedings for the purposes of determining whether a claim or cause of action is barred by the applicable statute of limitations.



12.4.2 An award entered in an arbitration proceeding pursuant to this Agreement shall be final and binding upon the Parties, and judgment may be entered upon an award in any court having jurisdiction.

12.5 The Parties agree that the exclusive means of resolving any and all disputes relating to or arising out of this Agreement shall be pursuant to the procedures specified within this ARTICLE of the Agreement. However, in the event that either Party attempts to file any legal or equitable cause of action in a court of law for purposes of interpretation or enforcement of this Agreement, whether or not such a court filing is permissible under this Agreement, the sole and exclusive venue for such filing shall be the Court of Common Pleas of Centre County, Pennsylvania.

12.6 MULTIPARTY PROCEEDING All Parties necessary to resolve a matter agree to be parties to the same dispute resolution proceeding. Appropriate provisions shall be included in all other contracts relating to the Work to provide for the joinder or consolidation of such dispute resolution proceedings.

ARTICLE 13 MISCELLANEOUS

13.1 EXTENT OF AGREEMENT: Except as expressly provided, this Agreement is for the exclusive benefit of the Parties, and not for the benefit of any third party. This Agreement represents the entire and integrated agreement between the Parties, and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement and each and every provision is for the exclusive benefit of the Owner and Design-Builder and not for the benefit of any third- party.

13.2 ASSIGNMENT: Except as to the assignment of proceeds, neither Party shall assign its interest in this Agreement without the written consent of the other Party. The terms and conditions of this Agreement shall be binding upon both Parties, their partners, successors, assigns and legal representatives. Neither Party shall assign the Agreement as a whole without written consent of the other.

13.3 GOVERNING LAW: This Agreement shall be governed and interpreted in accordance with the laws of the Commonwealth of Pennsylvania.

13.4 SEVERABILITY: The partial or complete invalidity of any one or more provisions of this Agreement shall not affect the validity or continuing force and effect of any other provision.

13.5 NO WAIVER OF PERFORMANCE: The failure of either Party to insist, in any one or more instances, on the performance of any of the terms, covenants, or conditions of this Agreement, or to exercise any of its rights, shall not be construed as a waiver or relinquishment of such term, covenant, condition or right with respect to further performance.

13.6 TITLES: The titles given to the articles and sections are for ease of reference only and shall not be relied upon or cited for any other purpose.

13.7 JOINT DRAFTING: The Parties expressly agree that this Agreement was jointly drafted, and that both had opportunity to negotiate its terms and to obtain the assistance of counsel in



reviewing its terms prior to execution. Therefore, this Agreement shall be construed neither against nor in favor of either Party, but shall be construed in a neutral manner.

13.8 RIGHTS AND REMEDIES: The Parties' rights, liabilities, responsibilities and remedies with respect to this Agreement, whether in contract, tort, negligence or otherwise, shall be exclusively those expressly set forth in this Agreement.

13.9 PREVAILING WAGE ACT: The Design-Builder is hereby notified that this Contract is subject to the provisions, duties, obligations, remedies and penalties of the Pennsylvania Prevailing Wage Act, Act No. 442, August 15, 1961 (P.L. 987), and as amended August 9, 1963, Act No. 342; and said Act is incorporated herein by reference as fully as though the same were here set forth at length.

13.10 EQUAL EMPLOYMENT OPPORTUNITY AND REFERRAL TO NON-DISCRIMINATION CLAUSE: Design-Builder shall not discriminate against any employee, applicant for employment, any independent Contractor or any other person because of race, color, religious creed, ancestry, national origin, service in the uniformed services (as defined in state and federal law), veteran status, age, sex, sexual orientation, marital or family status, pregnancy, pregnancy-related conditions, physical or mental disability, gender, perceived gender, gender identity, genetic information or political ideas, or any other basis prohibited by law.

In performing the work or making or furnishing any article required by this Contract, the Design-Builder shall comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, and all subsequent rules, regulations, and relevant orders of the Secretary of Labor. The Design-Builder will comply with all provisions of Executive Order 1972-1 or any regulations issued by the Pennsylvania Human Relations Commission, 16 Pa. Code, Chapter 49. The Non-Discrimination Clause as issued by the Pennsylvania Human Relations Commission is included below.

13.11 NON-DISCRIMINATION CLAUSE: During the term of this Contract, Design-Builder agrees as follows:

13.11.1 Design-Builder shall not discriminate against any employee, applicant for employment, any independent Contractor or any other person because of race, color, religious creed, ancestry, national origin, service in the uniformed services (as defined in state and federal law), veteran status, age, sex, sexual orientation, marital or family status, pregnancy, pregnancy-related conditions, physical or mental disability, gender, perceived gender, gender identity, genetic information or political ideas, or any other basis prohibited by law.

13.11.2 Design-Builder shall take affirmative action to ensure that applicants are employed, and that employees or agents are treated during employment, without regard to their race, color, religious creed, ancestry, national origin, service in the uniformed services (as defined in state and federal law), veteran status, age, sex, sexual orientation, marital or family status, pregnancy, pregnancy-related conditions, physical or mental disability, gender, perceived gender, gender identity, genetic information or political ideas, or any other basis prohibited by law. Such affirmative action shall include, but is not limited to, the following: Employment



upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training.

Design-Builder shall post in conspicuous places, available to employees, agents, applicants for employment and other persons, notices to be provided by the contracting agency setting forth the provisions of this non-discrimination clause.

13.11.3 Design-Builder shall take affirmative action to ensure that applicants are employed, and that employees or agents are treated during employment, without regard to their race, color, religious creed, ancestry, national origin, age, or sex. Such affirmative action shall include, but is not limited to, the following: Employment upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training.

13.11.4 Design-Builder shall post in conspicuous places, available to employees, agents, applicants for employment and other persons, notices to be provided by the contracting agency setting forth the provisions of this non-discrimination clause.

13.11.5 Design-Builder shall in solicitations or advertisements placed by it or on its behalf state all qualified applicants will receive consideration for employment without regard to race, color, religious creed, ancestry, national origin, age, or sex.

13.11.6 Design-Builder shall send each labor union or workers' representative with which it has a collective bargaining agreement or other contract or understanding, a notice advising said labor union or workers' representative of its commitment to this non-discrimination clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment. Similar notices shall be sent to every other source of recruitment utilized by Design-Builder.

13.11.7 It shall be no defense to a finding of a non-compliance with this non-discrimination clause that recipient had delegated some of its employment practices to any union, training program or other source of recruitment which prevents it from meeting its obligations. However, if the evidence indicates that the Design-Builder was not on notice of the third-party discrimination, or made a good faith effort to correct it, such factor shall be considered in mitigation in determining appropriate sanctions.

13.11.8 Where the practices of a union or any training program or other source of recruitment will result in the exclusion of minority group persons, so that Design-Builder will be unable to meet its obligations under this non-discrimination clause, the Design-Builder shall then employ and fill vacancies through other non-discriminatory employment procedures.

13.11.9 Design-Builder shall comply with all rules, regulations and orders issued by the Governor, the Attorney General, and the Human Relations Commission relating to laws, prohibiting discrimination in hiring or employment opportunities. In the event of Design-Builder's non-compliance with the non-discrimination clause of this Contract or with any such rules, regulations or orders, this Contract may be cancelled, terminated or suspended in whole or in part, and recipient may be declared ineligible for further Commonwealth contracts, and such



other sanctions may be imposed and remedies invoked as provided by rule, regulation or order of the Governor, Attorney General, or the Human Relations Commission, or as otherwise provided by law.

13.11.10 Design-Builder shall furnish all necessary employment documents and records to, and permit access to its books, records and accounts by the Owner and the Office of Administration, Bureau of Affirmative Action, for purposes of investigation to ascertain compliance with this clause. If Design-Builder does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the Owner or by the Bureau of Affirmative Action.

13.12 STEEL PRODUCTS PROCUREMENT ACT: This project is subject to the provisions of the Steel Products Procurement Act of 1978 (P.L. 6, No. 3) as amended by the Act of July 9, 1984 (P.L. 674, No. 144). The Design-Builder, Subcontractors, and Material Suppliers shall be required to comply with all provisions of this Act.

13.13 COLLABORATIVE ENVIRONMENT: Design-Builder, with assistance from the Owner, shall develop an Integrated Project Delivery plan outlining collaborative concepts to be incorporated into the Work. Collaboration Plan shall incorporate integrated concepts such as early involvement of key participants, decision making process mapping, co-location, team-building, and information sharing technology options. Performance measures shall also be established for the project by the Parties to drive team performance and tracked quarterly.

13.14 PENNSYLVANIA STATE UNIVERSITY PROJECT DELIVERY SYSTEM: Design-Builder shall assist the Owner in the development of the project deliverable requirements as outlined in the "Pennsylvania State University Project Delivery System." Refer to Exhibit E for the process diagram and deliverable listing. The Pennsylvania State University Project Delivery Guidebook, which defines the process and the deliverables, will be made available to the Design-Builder by the Owner.

13.15 DISADVANTAGED BUSINESS ENTERPRISE PROGRAM (DBE): Develop and implement a system to attain DBE participation. The Owner has set a goal of 15% combined utilization of DBE contractors and suppliers. Design-Builder will track and monitor the DBE participation and submit monthly updates to the Owner. In coordination with the Owner, the Design-Builder is to conduct an Open House and hold workshops in an effort to increase DBE participation. All efforts shall be coordinated with the Office of Physical Plant Contractor Liaison. It is also expected that the Design-Builder actively pursue DBE participation for consulting and professional services. Percentage participation shall be reported to the Owner upon request.

13.16 BACKGROUND CHECK POLICY: The Design -Builder and each Trade Contractor confirms that all employees (including the employees of any subconsultants/subcontractors) assigned to this project and who conduct their work on Penn State premises have had background checks that meet or exceed the University's standards for the type of work being performed per the background check process for third-party employees outlined in PSU Policy HR99 Background Check Process (<http://guru.psu.edu/policies/OHR/hr99.html>).



13.17 PUBLIC WORKS EMPLOYMENT VERIFICATION ACT

13.17.1 As a precondition to the award of the contract for the Work described herein, Design -Builder and each Trade Contractor must complete the Commonwealth of Pennsylvania 'Public Works Employment Verification Form' ("Form") and provide a copy to Owner.

13.17.2 Furthermore, by execution of this Agreement, the Design -Builder and each Trade Contractor hereby affirms as follows:

13.17.2.1 Design -Builder and each Trade Contractor is presently and shall remain in compliance with the Pennsylvania Public Works Employment Verification Act ("the Act") through utilization of the Federal E-Verify Program ("EVP") operated by the United States Department of Homeland Security.

13.17.2.2 Design-Builder and each Trade Contractor will ensure that all contracts with subcontractors contain notification of the applicability of the Act, information regarding the use of EVP, and either a copy of the Form or a reference to the Pennsylvania Department of General Services website at www.dgs.state.pa.us, where the Form may be obtained. Design -Builder and each Trade Contractor will further ensure that prior to beginning onsite or offsite work, every subcontractor shall submit a completed Form to the Owner.

13.17.2.3 Design-Builder and each Trade Contractor shall utilize EVP to verify the employment eligibility of each new employee hired, whether the new employee will be performing onsite or offsite work, within five (5) business days of the employee's start date and shall maintain documentation of continued compliance with the Act for the duration of this Agreement.

13.17.2.4 Design-Builder and each Trade Contractor shall cooperate with Owner and Pennsylvania Department of General Services in the event of an audit arising under the Act.

13.18 TAXES The Design-Builder and each Trade Contractor shall pay sales, consumer, use and similar taxes for the Work on portions thereof provided by the Contractor which are legally enacted when bids are received, whether or not yet effective or merely scheduled to go into effect. The Design-Builder and each Trade Contractor is obligated to pay all Pennsylvania sales tax with the exception of those items for which an exemption might be claimed under Sales and Use Tax Regulation (S31.11--SS31.16).

The Design-Builder and each Trade Contractor shall agree to assign and transfer to the Owner all its rights to sales and use tax which may be refunded as a result of a claim for refund for material purchased in connection with this contract. The Design-Builder and each Trade Contractor further agrees that it will not file a claim for refund for any sales or use tax which is the subject of this assignment. The Design-Builder and each Trade Contractor shall incorporate this Owner's right to any and all Subcontracts.

13.19 RIGHT TO AUDIT:



13.19.1 Design-Builder's "records" shall upon reasonable notice be open to inspection and subject to audit and/or reproduction during normal business working hours. An Owner's representative or an outside representative engaged by Owner may perform such audits. The Owner or its designee may conduct such audits or inspections throughout the term of this contract and for a period of three years after final payment or longer if required by law.

13.19.2 Design-Builder's "records" as referred to in this contract shall include any and all information, materials and data of every kind and character, including without limitation, records, books, papers, documents, subscriptions, recordings, agreements, purchase orders, leases, contracts, commitments, arrangements, notes, daily diaries, superintendent reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information and matters that may in Owner's judgment have any bearing on or pertain to any matters, rights, duties or obligations under or covered by any Contract Document. Such records shall include (hard copy, as well as computer readable data if it can be made available), written policies and procedures; time sheets; payroll registers; cancelled checks; subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, etc.); original estimates; estimating work sheets; correspondence; change order files (including documentation covering negotiated settlements); backcharge logs and supporting documentation; general ledger entries detailing cash and trade discounts earned, insurance rebates and dividends; and any other contractor records which may have a bearing on matters of interest to the Owner in connection with Design-Builder's dealings with the Owner (all foregoing hereinafter referred to as "records") to the extent necessary to adequately permit evaluation and verification of: a) contractor compliance with contract requirements, b) compliance with Owner's business ethics policies, and c) compliance with provisions for pricing change orders, invoices or claims submitted by the contractor or his payees.

13.19.3 Design-Builder shall require all payees (examples of payees include subcontractors, insurance agents, material suppliers, etc.) to comply with the provisions of this article by incurring the requirements hereof in a written contract agreement between Design-Builder and payee. Such requirements to include flow-down right of audit provisions in contracts with payees will also apply to Subcontractors and Sub-Subcontractors, material suppliers, etc. Design-Builder will cooperate fully and will require Related Parties and all of Design-Builder's subcontractors (including those entering into lump sum subcontracts) to cooperate fully in furnishing or in making available to Owner from time to time whenever requested in an expeditious manner any and all such information, materials and data.

13.19.4 Owner's authorized representative or designee shall have reasonable access to the Design-Builder's facilities, shall be allowed to interview all current or former employees to discuss matters pertinent to the performance of this contract and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with this article.

13.19.5 If an audit inspection or examination in accordance with this Article, discloses overpricing or overcharges (of any nature) by the Design-Builder or any subcontractor to the Owner in excess of one-half of one percent (.5%) of the total contract billings, the reasonable actual cost of the Owner's audit shall be reimbursed to the Owner by the Design-Builder. Any adjustments and/or payments which must be made as a result of any such audit or inspection



of the Design-Builder's invoices and/or records shall be made within a reasonable amount of time (not to exceed 90 days) from presentation of Owner's findings to Design-Builder.

13.20 CONSTRUCTION WASTE MANAGEMENT:

13.20.1 The Design-Builder is required to recycle and/or salvage 75% construction, demolition, and land-clearing waste. A waste management plan is to be developed for the project which outlines how you will achieve the required recycling rate, including materials to be recycled or salvaged, materials handling requirements, and how you will communicate the plan to your crews and trade/subcontractors. The waste management plan is to be approved by the Office of Physical Plant Project Leader and submitted with the initial application for payment.

13.20.2 At the end of the project, prior to the application for Final Payment, the Design-Builder is required to submit a calculation documenting that the project achieved a 75% diversion rate. The Application for Final Payment will be held until this documentation is received by the Owner. The documentation should include a tabulation of the total waste material, quantities diverted and the means by which they were diverted. A signature declaring that the requirements have been met must be included.

13.20.3 If this project is attempting to achieve LEED certification, the LEED process to achieve the Construction Waste Management credit(s) supersedes this section.

13.21 LEAD-FREE PLUMBING CERTIFICATION: The Design-Builder shall provide a certification that all plumbing materials are lead-free and meet the requirements of the Pennsylvania Plumbing and Lead Ban Notification Act. This certification shall be signed by the Design-Builder, notarized and submitted to the University before the water service turn-on.

13.22 FEDERAL CLEAN AIR ACT: The Design-Builder agrees to fully protect, indemnify, hold harmless and defend the Owner against any and all liability, including assessed violation fines, for failure to comply with the Federal Clean Air Act [42 U.S.C. §7401 et seq., amended 1990], with regards to handling, venting, and/or disposing of any and all refrigerants used in the performance of the Work. A copy of employee(s) or subcontractor(s) Federal Certification numbers shall be provided to the Owner upon request.

13.23 EXECUTION OF AGREEMENT: This Agreement may be executed in counterparts, each of which shall for all purposes be deemed an original and all such counterparts, taken together, shall constitute one and the same Agreement. The Parties further agree that executed copies of this Agreement may be exchanged electronically or by facsimile and that a signature transmitted in such a manner shall be acceptable and binding and shall be treated for all purposes in the same manner as an original signature.

13.24 SOCIAL RESPONSIBILITY / CONTRACTOR CONDUCT

13.24.1 Fulfilling the mission of The Pennsylvania State University for those we serve requires the highest standards of integrity, responsibility, and respect, and we encourage our contractors/suppliers to aspire to those same standards, particularly when on campus or engaging with members of the University community. The University has adopted the [Global](#)



[Sullivan Principles of Social Responsibility](#). We also encourage our contractors/suppliers to adopt and follow these principles.

13.24.2 The University is committed to equal access to programs, facilities, admission and employment for all persons, in an environment free of harassment and free of discrimination. Conduct constituting harassment or discrimination in the University environment, as prohibited in University Policy AD85, is subject to corrective action.

13.25 GAS LINE: The University Park campus is traversed by a 12” high pressure gas transmission line. The Design- Builder must follow precautions and requirements as outlined on the plan set. The routing of the gas line is available at the following link:

http://www.opp.psu.edu/planning-construction/design_and_construction_standards/documents/job-kit-construction-services/columbia-gas-line-routing-map/view

13.25.1 The Design Builder must review the project location relative to the gas routing and coordinate all requirements with Columbia Gas.

ARTICLE 14 CONTRACT DOCUMENTS

14.1 CONTRACT DOCUMENTS The Contract Documents are as follows:

- (a) This Agreement, including all Exhibits, as identified at section 1.3.2.
- (b) Basis of Design/Owner’s Program.
- (c) Owner provided information pursuant to Article 3 and other Owner information identified as intended to be a contract document.
- (d) The Schematic Design Documents upon Owner approval pursuant to section 2.1.4.
- (e) The Design Development Documents upon Owner approval pursuant to section 2.1.6.
- (f) The Construction Documents upon Owner approval under section 2.1.7.
- (g) Any/all procurement instruments issued by the Owner in the procurement of this Agreement, together with all respective responses or submissions of the Design-Builder.

14.2 ORDER OF PRECEDENCE In case of any inconsistency, conflict or ambiguity among the Contract Documents, the documents shall govern in the following order: (a) Change Orders and written amendments to this Agreement, including Amendment 1; (b) this Agreement; (c) design documents approved by the Owner pursuant to sections 2.1.4 - 2.1.7 in order of the most recently approved; (d) information furnished by the Owner pursuant to Article 3 or designated as a contract document in ARTICLE 14; (e) other documents listed in this Agreement. Except as otherwise provided, among categories of documents having the same order of precedence, the term or provision that includes the latest date shall control. Information identified in one Contract Document and not identified in another shall not be considered a conflict or inconsistency.

ARTICLE 15 INSURANCE

15.1 DESIGN-BUILDER’S INSURANCE



15.1.1 Before commencing the Work and as a condition precedent to payment, the Design-Builder shall procure and maintain the following insurance, in amounts not less than that specified for each type:

15.1.1.1 **Workers' Compensation** for statutory obligations imposed by workers' compensation and occupational disease laws. **Employers' Liability** insurance shall be provided with limits not less than:

- a) \$500,000 bodily injury by accident per accident
- b) \$500,000 bodily injury by disease policy limit
- c) \$500,000 bodily injury by disease per employee

15.1.1.2 **Business Automobile Liability** (bodily injury liability and property damage liability) for all owned, leased, hired, non-owned vehicles with limits not less than \$1,000,000 Combined Single Limit.

15.1.1.3 **Commercial General Liability** insurance including coverage for bodily injury, property damage, and personal and advertising injury, for premises and operations, products and completed operations, and contractual liability arising from all operations, written on an occurrence basis with limits not less than:

FOR PROJECTS UNDER \$1,000,000

- a) Per occurrence: \$1,000,000
- b) General aggregate: \$2,000,000
- c) Products/completed operations aggregate: \$2,000,000
- d) Personal and advertising injury limit: \$1,000,000
- e) Medical Expense Limit: \$10,000

The Design-Builder shall maintain completed operations liability insurance for not less than one year after Substantial Completion, or as required by the Contract Documents, whichever is longer.

FOR PROJECTS OVER \$1,000,000

- a) Per occurrence: \$5,000,000
- b) General aggregate: \$5,000,000
- c) Products/completed operations aggregate: \$5,000,000
- d) Personal and advertising injury limit: \$5,000,000
- e) Medical Expense Limit: \$10,000

The Design-Builder shall maintain completed operations liability insurance for not less than two years after Substantial Completion, or as required by the Contract Documents, whichever is longer.

15.1.1.4 **Professional Liability** insurance: Where professional services are being provided by licensed and non-licensed professionals, the Design-Builder shall obtain, either itself or



through the Design Professional, professional liability insurance for claims arising from the negligent performance of professional services under this Agreement (including, but not limited to, acts, errors, or omissions of the company and its employees), which shall be written for not less than One Million dollars (\$1,000,000) or the total of the Design Fee portion of the Contract, whichever is greater, per claim and in the aggregate. The Professional Liability insurance shall include prior acts coverage sufficient to cover all services rendered by the Design-Professional. This coverage shall be continued in effect for 3 year(s) after the Date of Substantial Completion.

15.1.1.5 Pollution Liability insurance: If the nature of the Work involves professional services, evaluating, testing, remediation, abatement, removal, storage, and transportation of hazardous materials or substances or pollutants, the Design-Builder and those Subcontractors involved in such work shall obtain Pollution Liability insurance applicable to their work, for bodily injury and property damage with limits not less than:

FOR PROJECTS UNDER \$1,000,000

- a) Per occurrence or claim: \$1,000,000
- b) Aggregate: \$1,000,000

FOR PROJECTS OVER \$1,000,000

- a) Per occurrence or claim: \$5,000,000
- b) Aggregate: \$5,000,000

The Pollution Liability insurance must include coverage for completed operations extending three (3) years after final acceptance of the project by the owner or such longer period as the contract documents may require. The definition of property damage shall include clean-up costs. If the insurance is written on a claims-made basis, the policy retroactive date shall be prior to the start of the Design-Builders/trade-contractor's/supplier's/vendor's work, and the renewal policies shall maintain the same retroactive date.

15.1.2 The insurance limits required for the Employers' Liability, Business Automobile Liability and CGL coverage required under subsection 15.1.1 may be provided by a combination of primary and Excess or Umbrella Liability policies.

15.1.3 The Owner must be named on the Design-Builder's Commercial General Liability insurance as an additional insured.

15.1.4 The Design-Builder shall maintain in effect all insurance coverage required under subsection 15.2.1 with insurance companies lawfully authorized to do business in the jurisdiction in which the Project is located.

15.1.5 If the Design-Builder fails to obtain or maintain any insurance coverage required under this Agreement, the Owner may purchase such coverage and charge the expense to the Design-Builder, or terminate this Agreement.



15.1.6 Insurance policies required under subsection 15.1 shall contain a provision that the insurance company or its designee must give the Owner written notice transmitted in paper or electronic format: (a) 30 days before coverage is non-renewed by the insurance company and (b) within 10 business days after cancelation of coverage by the insurance company.

15.1.7 Prior to commencing the Work and upon renewal or replacement of the insurance policies, the Design-Builder shall furnish the Owner with certificates of insurance until one year after Substantial Completion or longer if required by the Contract Documents. In addition, if any insurance policy required under subsection 15.1 is not to be immediately replaced without lapse in coverage when it expires, exhausts its limits, or is to be cancelled, the Design-Builder shall give Owner prompt written notice upon actual or constructive knowledge of such condition.

15.1.8 The Design-Builder's insurance shall be primary and non-contributory to the University's insurance.

15.1.9 Failure of the Design-Builder to procure, carry, and maintain the required insurance shall not relieve the Design-Builder, and any Subcontractor thereof, of any obligation or liability assumed under this Agreement, nor of any obligation or liability imposed by law.

15.1.10 Any self-insured retentions, deductibles, and exclusions in coverage in the insurance required shall be assumed by and at the sole risk of the Design-Builder.

15.2 PROPERTY INSURANCE

15.2.1 Before commencing the Work, the Owner shall obtain and maintain a Builder's Risk Policy upon the entire Project for the full cost of replacement at the time of loss. This insurance shall also name the Design-Builder, Subcontractors, Subsubcontractors, Material Suppliers and Design-Professional as named insureds. This insurance shall be written as a Builder's Risk Policy or equivalent form to cover risks of physical loss except those specifically excluded by the policy, and shall insure (a) at least against the perils of fire, lightning, explosion, windstorm, hail, smoke, aircraft (except aircraft, including helicopter, operated by or on behalf of Design-Builder) and vehicles, riot and civil commotion, theft, vandalism, malicious mischief, debris removal, flood, earthquake, earth movement, water damage, wind damage, testing if applicable, collapse however caused, and (b) damage resulting from defective design, workmanship or material and material or equipment stored offsite, onsite or in transit. This policy shall provide for a waiver of subrogation in favor of the Design-Builder, Subcontractors, Subsubcontractors, Material Suppliers and Design-Professional. This insurance shall remain in effect until final payment has been made or until no person or entity other than the Owner has an insurable interest in the property to be covered by this insurance, whichever is sooner. Partial occupancy or use of the Work shall not commence until the Owner has secured the consent of the insurance company or companies providing the coverage required in this subsection. Before commencing the Work, the Owner shall provide a copy of the property policy or policies obtained in compliance with this subsection.



15.2.1.1 The Builder's Risk property insurance has a deductible. The Design-Builder shall be responsible for the first \$25,000 of such deductible. If the Owner or insurer increases the required minimum deductibles above the amounts so identified or if the Owner elects to purchase this insurance with voluntary deductible amounts, the Owner shall be responsible for payment of the additional costs not covered because of such increased or voluntary deductibles. Design-Builder's payment towards the deductible will not exceed \$25,000 per occurrence.

15.2.2 If the Owner does not intend to purchase the property insurance required by this Agreement, including all of the coverages and deductibles described herein, the Owner shall give written notice to the Design-Builder and the Design-Professional before the Work is commenced. The Design-Builder may then provide insurance to protect its interests and the interests of the Subcontractors and Subsubcontractors, including the coverage of deductibles. The cost of this insurance shall be charged to the Owner in a Change Order. The Owner shall be responsible for all of Design-Builder's costs reasonably attributed to the Owner's failure or neglect in purchasing or maintaining the coverage described above.

15.2.2.1 If the Owner does not obtain insurance to cover the risk of physical loss resulting from Terrorism, the Owner shall give written notice to the Design-Builder before the Work commences. The Design-Builder may then provide insurance to protect its interests and the interests of the Subcontractors and Subsubcontractors against such risk of loss, including the coverage of deductibles. The cost of this insurance shall be charged to the Owner in a Change Order.

15.2.3 Owner and Design-Builder waive all rights against each other and their respective employees, agents, contractors, subcontractors and subsubcontractors, and design professionals for damages caused by risks covered by the property insurance except such rights as they may have to the proceeds of the insurance and such rights as the Design-Builder may have for the failure of the Owner to obtain and maintain property insurance in compliance with subsection 15.2.1.

15.2.4 RISK OF LOSS Except to the extent a loss is covered by applicable insurance, risk of loss or damage to the Work shall be upon the Design-Builder until the Date of Substantial Completion, unless otherwise agreed to by the Parties.

15.3 OWNER'S INSURANCE

15.3.1 BUSINESS INCOME INSURANCE The Owner may procure and maintain insurance against loss of use of the Owner's property caused by fire or other casualty loss.

OWNER'S LIABILITY INSURANCE The Owner shall maintain its own liability insurance for protection against claims arising out of the performance of this Agreement, including loss of use and claims, losses and expenses arising out of the Owner's acts or omissions.

ARTICLE 16 BONDS



16.1 Performance and Payment Bonds are required of the Design-Builder. Such bonds shall be issued by a surety admitted in the state in which the Project is located and must be acceptable to the Owner. Owner's acceptance shall not be withheld without reasonable cause.

16.2 Such Performance Bond shall be issued in the penal sum equal to one-hundred percent (100%) of the Guaranteed Maximum Price (GMP).

Such Performance Bond shall cover the cost to complete the Work, but shall not cover any damages of the type specified to be covered by the insurance pursuant to Article 16, whether or not such insurance is provided or is in an amount sufficient to cover such damages.

16.3 The penal sum of the Payment Bond shall equal the penal sum of the Performance Bond. The Design-Builder's Payment Bond for the Project, if any, shall be made available by the Owner or the Design-Builder upon the Subcontractor's written request.

16.4 Any increase in the GMP Price that exceeds ten percent [10%] in the aggregate shall require a rider to the Bonds increasing penal sums accordingly. Up to such ten percent [10%] amount, the penal sum of the bond shall remain equal to one-hundred percent [100%] of the GMP or as otherwise provided in subsection 16.2. The Design-Builder shall endeavor to keep its surety advised of changes within the scope of the initial Agreement potentially impacting the GMP or the Dates of Substantial Completion or Final Completion, though the Design-Builder shall require that its surety waives any requirement to be notified of any alteration or extension of time. A copy of the Design-Builder's Payment Bond for the Project, if any, shall be furnished by the Owner or the Design-Builder upon the Subcontractor's written request.

THIS AGREEMENT entered into as of the day and year written above.

THE PENNSYLVANIA STATE UNIVERSITY, OWNER

_____ Title

_____ ATTEST
Secretary

Date of Execution: _____

XXXXXXXXXXXXXXXXXXXXXXXXXXXX, DESIGN-BUILDER

_____ Name: _____

_____ ATTEST
Secretary or Treasurer



(print name of person signing above)

(circle appropriate title)

Title: _____
(print title of person signing above)

Federal ID Number: _____

END OF DOCUMENT.

