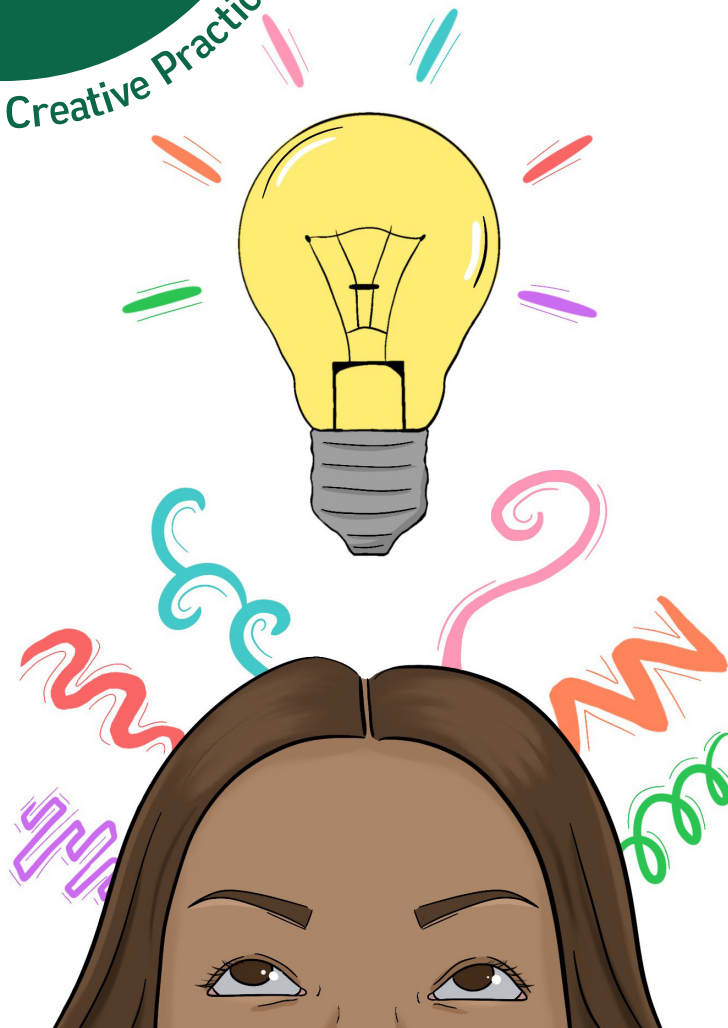




**Creativity.  
Knowledge.  
Inspiration.  
Scholarship.**



**Hammond Hall**

**8 AM – 12:30 PM**

**Fitchburg State University**

**[fitchburgstate.edu/studentresearch](http://fitchburgstate.edu/studentresearch)**

## REGISTRATION AND WELCOME RECEPTION

8:00 – 8:45 AM..... Hammond Hall / Main Lounge

**Fitchburg State Chamber Choir**      *Directed by Jonathan Harvey*  
*Student Singers: Juan Pablo Casilla; Dani Chase; Julia Ciccolini; Ryan Gallagher; Sean-Michael Hibbert;*  
*Emily Sandberg; Shayla Silver; Jen Smith; Nadia Turovskiy; Kaylyn Violette*

**Welcome**  
*Provost and Vice-President for Academic Affairs, Patricia Marshall;*  
*and Conference co-chairs, Jessica Alsup and Zachary Miner*

## ORAL PRESENTATIONS

9:00 – 10:00 AM..... Hammond Hall (*various locations—see descriptions*)

### Hammond G01A

*Soundtrack as a Narrative Tool*..... Aidan King  
*Hidden in the Shadows: Banksy’s Choice to Remain Anonymous*..... Helen McGonigle  
*Hunter*..... Nicole Snow

### Ellis White Lecture Hall

*Identifying Common Gene Networks that Regulate Dysferlinopathy and Accelerated Aging Diseases Using Genomic Data* ..... Melanie Pung  
*Assessing Cell Autonomy in a Cell Culture Model of Dysferlinopathy* ..... Sarah Hicks  
*The Effect of 4-PBA as a Treatment for Muscular Dystrophy* ..... Cristina Pureco  
*Creating Efficient Assays to Study Repair and Differentiation in Muscular Dystrophy* ..... Jaylah Cormier

### Hammond G19

*Getting into Modding: Beyond Skyrim’s Arcane University Experience*..... David Marshall  
*Analyzing the Impact of Esports, the Benefits of a College Esports Program, and Creating a Program for Fitchburg State University* ..... Alexander Maggio

## ORAL PRESENTATIONS

11:00 – 11:45 AM..... Hammond Hall (*various locations—see descriptions*)

### Hammond G01A

*Adopting the Unknown* ..... Kaitlyn Mobilia, Harold Peterson, Dillon O’Brien, Kyle Lindfors, and Luke Donabedian  
*The Spell of Denial*..... Ari Lyons  
*A Systematic Review of Grief and Its Effects on Mental Health*..... Chloe Lawrence

### Hammond G01B

*Anterior Cruciate Ligament Reconstruction: Impact of Graft Type on Short- and Long-Term Outcomes*..... Madison Mantegani  
*In Distance Runners, are Concurrent Supplemental Training Programs More Effective than Endurance Running Programs Alone in Improving Running Performance?* ..... Chris Morales  
*Incorporating Sandfly Population Dynamics into a Compartmental Disease Model for Visceral Leishmaniasis* ..... Cameron Davis

### Ellis White Lecture Hall

*My Experience at National Africa College*..... Keila Ribeiro  
*Disability in the Fourteenth Amendment*..... Miranda Gustin  
*The Use of Augmentative and Alternative Communication Devices in Nonverbal Children with Autism Spectrum Disorder* ..... Ryleigh Levensailor

### Hammond G19

*Chamber of Commerce Insights Project*..... Emma Beqiri, Madison Pinard, Toivo Kramer  
*GIS Internship with the Town of Shirley* ..... Paulina Torres

**POSTER SESSION**

10:00 – 11:00 AM ..... Hammond Hall (*various locations—see descriptions*)

**Main Lounge**

1. *Deep-space Imaging* ..... Daniel Kidwell
2. *Nature and Humanity* ..... Stella Brouillet
3. *Reaching Nirvana: Buddhist Metaphysics* ..... Azucena Thibault-Munoz
4. *Dysferlin Gene Mutation in Skeletal Muscle Cells* ..... Akua Serebou
5. *Dysferlinopathy: Potential Causes of Accelerated Myotube Differentiation and Loss of Muscle Mass* ..... Thailée Zarycki
6. *Pathogens Found on Face Masks During COVID 19 Pandemic* ..... Suzannah Lambert
7. *Fitchburg State University Police Program and Academy Evaluation: Focus Group* .. Lordorina Hercules
8. *The Accessibility of the Fitchburg State Campus for People with Disabilities* ..... Joshua Frazier and Francesca Reyes
9. *The Effect of Silver Nanoparticles on Arabidopsis thaliana* ..... Marissa Ladderbus, Maximus Ball, and Kalica Goldman
10. *Impacts of Road Salt Application and Urbanization on Surrounding Soils, Water Quality and Aquatic Macroinvertebrates of the North Nashua River, Massachusetts* ..... Kalli Brassard
11. *Sixth Mass Extinction* ..... Kristi Stoltzfus
12. *Career Needs of Psychological Science Students* ..... Madison Lawrence
13. *Unity and Variety, Corporate Identity and Image-Making* ..... Keely Leeman
14. *“Nothing Without Joy”: The Culture of Childhood* ..... Sophia Piper, Katelyn Barry and Paige Demanche
15. *The Ark of Enoch: Pixel Art in 2D Games* ..... Tariq Thomas

**Library First Floor**

16. *ERP Software Tool for Ventilation Project* ..... Michael Rainville, Derek Vue, Dean Carmen, Vincent Algieri, Brian Boland, Ginneta Abaidoo, and Chris Torres Mejia
17. *Metrology in Ventilation Systems* ..... Brian Boland, Ginneta Abaidoo, Michael Rainville, Derek Vue, and Cris Torres Mejia
18. *Indoor Light Intensity Modeling and Visualization* .... Diana Marquez Frias, Ana Palacio, and Elias Acquaye
19. *Robot Trajectory Modeling and Visualization* ..... Bennet Jorgensen and Celia Dunmore
20. *Office Building Retrofit Design* ..... Ivanildo DaMoura, Joseph Postale, and Owaliid Rahman
21. *3D Printing in Construction Industry* ..... Zack Antonetti, John Murphy, and Jason Paris
22. *Prefabrication* ..... Seth Huntoon and Justin Pombo
23. *Utility Rate Regulation In Distributed Power Generation* ..... Joshua Okoroji-Schaeffer, Adam Post, and Jayson Quinn
24. *The Quest for Smart Photovoltaic Glass* ..... Nicko Voskanian and Harrison Heinrichs
25. *Effects of Repurposing Renewable Energy Waste as Materials in a Recreation Center* ..... Joshua Frazier and Owaliid Rahman
26. *Effects of Repurposing Renewable Energy Waste as Walls in a Station Building* ..... Joseph Postale, Francesca Reyes, and Ivanildo Damoura
27. *Smart Planter with Remote Monitoring and Solar Power* ..... Jaime Avalos, Michael Gonzalez, and Daniel Grautski
28. *Ventilation Research Project* ..... Vincent Algieri, Ginneta Abaidoo, Brian Boland, Dean Carmen, Michael Rainville, Cris Torres Mejia, and Derek Vue
29. *Ice Ages on Mars* ..... Kathleen Messer

**ARTERIES GALLERY EXHIBIT**

**Last day of the exhibit ..... Ground Level Lobby**

ARTeries is our annual student art exhibition, showcasing work from a wide range of studio art classes including Drawing I, Intermediate Drawing, Puppetry, 3D Design, Ceramics I and II, and Sculpture. Though we do not have an art major, we continue to have students who produce extraordinary works each year. These students have worked very hard, and we are proud to be able to show off their creations.

**CREATIVE WRITING SHOWCASE**

**10:00 – 11:00 AM..... Ellis White Lecture Hall**

- Grown Apart*..... Lip Mangrum
- Bad Bandits* ..... Lip Mangrum
- Sunset on a Sunday* ..... Nadia Turovskiy
- From Within*..... Sandra Hamilton

**ROUNDTABLES**

**Identifying and Overcoming Barriers to Health on Campus**

**9:00 – 10:00 AM..... Hammond Hall 214**

- Chairperson: ..... Kris L’Heureux
- Panelists: ..... Sheila Murungi; Timothy Lwanga; Zachary Malek; Djene Camara

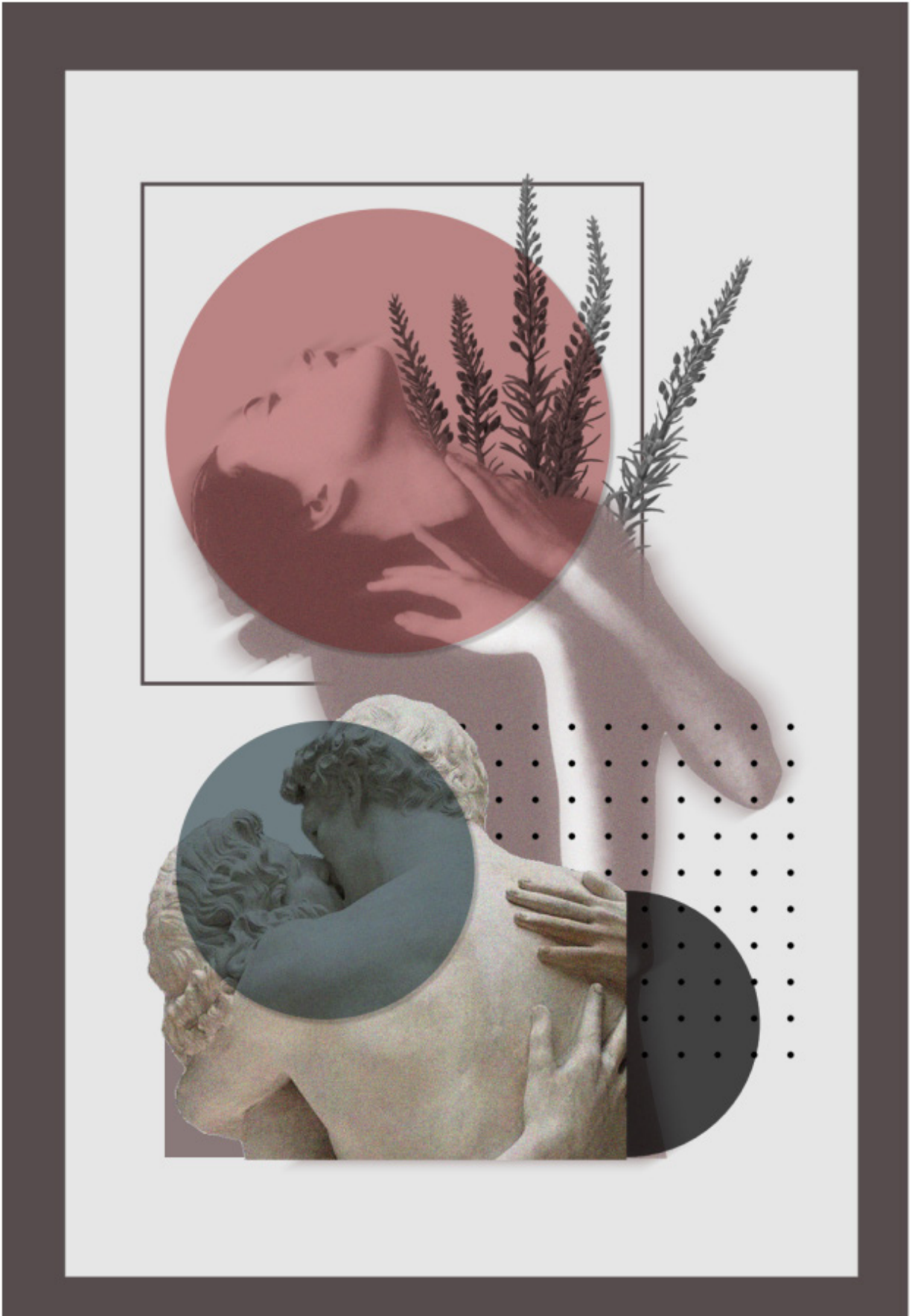
This discussion is aimed to help identify barriers to health on campus and brainstorm ways for college students to overcome these obstacles. Health is meant to be a variety of things, and not everyone feels like they can achieve a healthy lifestyle, both physically, and mentally. College students can experience limited availability to certain resources when living on campus, as well as challenges to work-life balance, which can cause distress in individuals. Our goal is to identify barriers and limitations to students’ health, and create an open space for those of various backgrounds to express their perspectives on how to address these issues on campus. Panelists will bring perspectives from various health majors, as well as the Academic Coaching & Tutoring Center, and TRIO Student Support Services

**Fitchburg State Studies Across the World Stage**

**11:00 – 11:45 AM..... Hammond Hall 214**

- Chairperson: .....Dr. Josh Spero, Professor of Political Science and International Studies Minor Coordinator
- Panelists: ..... Ms. Nicole Salerno, Assistant Director of Study Abroad, Office of International Education
- Ms. Karla Taveras Guerra, Communications Media Major & International Studies Minor
- Mr. Oscar Burgos Pimentel, Political Science Major and Sociology Minor
- Ms. Riona Hirasawa, Prospective Business Administration Major
- Ms. Antje Peters, MBA/Master of Business Administration with Management Concentration

Please join our internationally-focused roundtable discussion where we’ll share some of our FSU student study abroad experiences alongside those insights and contributions from our international students. As we expand our FSU travel and study across the world’s stage and our students experience the wonder, excitement, and impact of their time internationally and here, with us at FSU, the world becomes closer to us, the challenges we face become better for us to tackle together, and the friendships we make last a lifetime. Learn from and participate together with us in conversation about the great impressions and bonds we build by extending our FSU communities here and abroad -- with scholarship, friendship, and career development!



Creative Writing Showcase Artwork by: Nia Manderson-Matheson

**LUNCH FOR CONFERENCE PARTICIPANTS AND FAMILIES**

**11:45 AM – 12:30 PM ..... Falcon Hub / Hammond Hall**

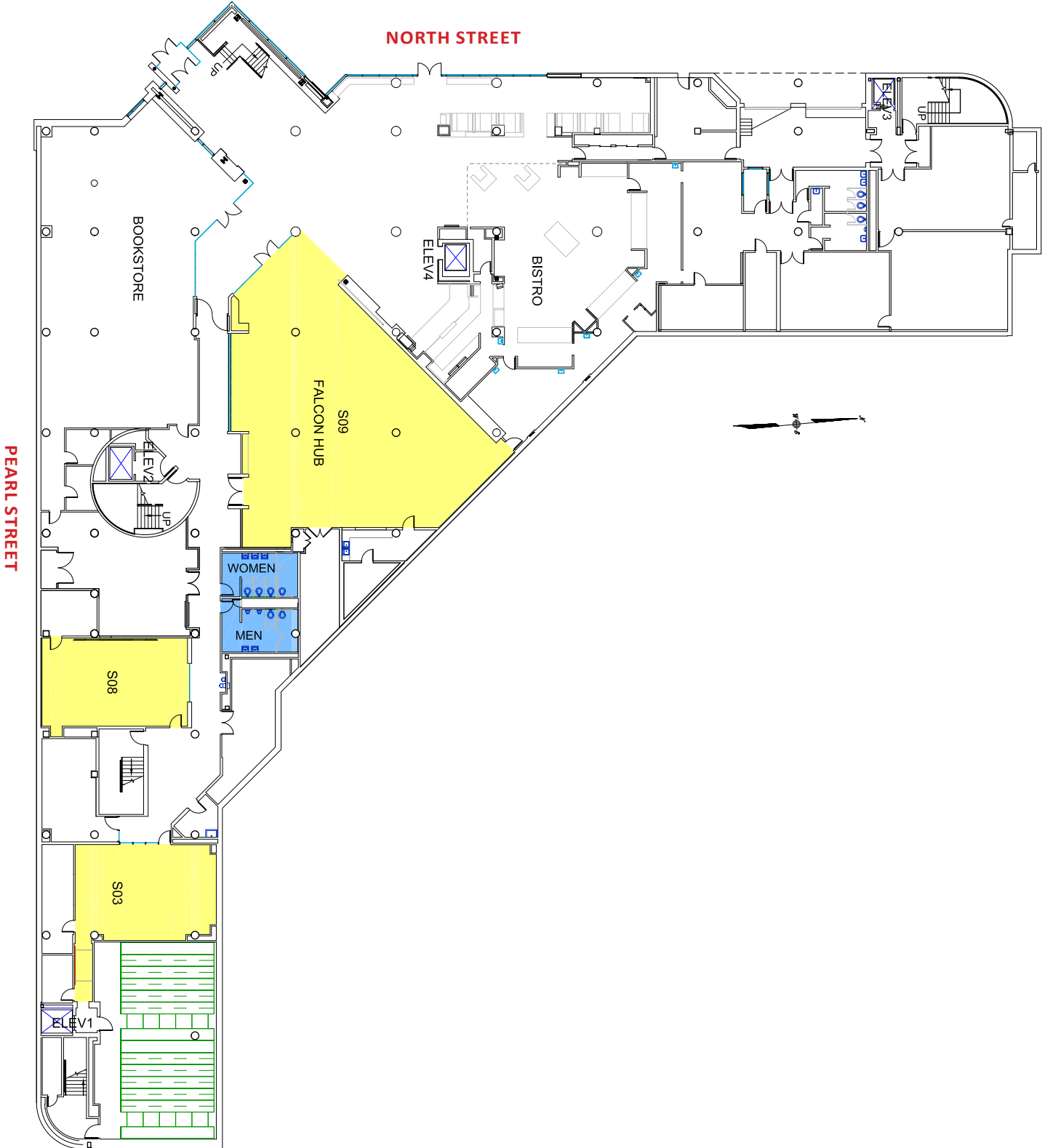
The Fitchburg State University Jazz Band ..... Directed by Amy McGlothlin  
Vocals: ..... Emjay Hansen  
Clarinets: ..... Paula Luria and Rebecca Biederman  
Harmonica: ..... Paul Luria  
Mellophone: ..... Ronan Cords  
Trombone: ..... Luke Speers  
Piano: ..... Rala Diakite  
Guitars: ..... Joe Wachtel, Ryan Gallagher, and Christopher Shaddock  
Bass: ..... Owen Thayer  
Drums: ..... Joey Ditavi

**12:30 PM**

*Closing Remarks*  ..... *Jessica Alsup and Zachary Miner*

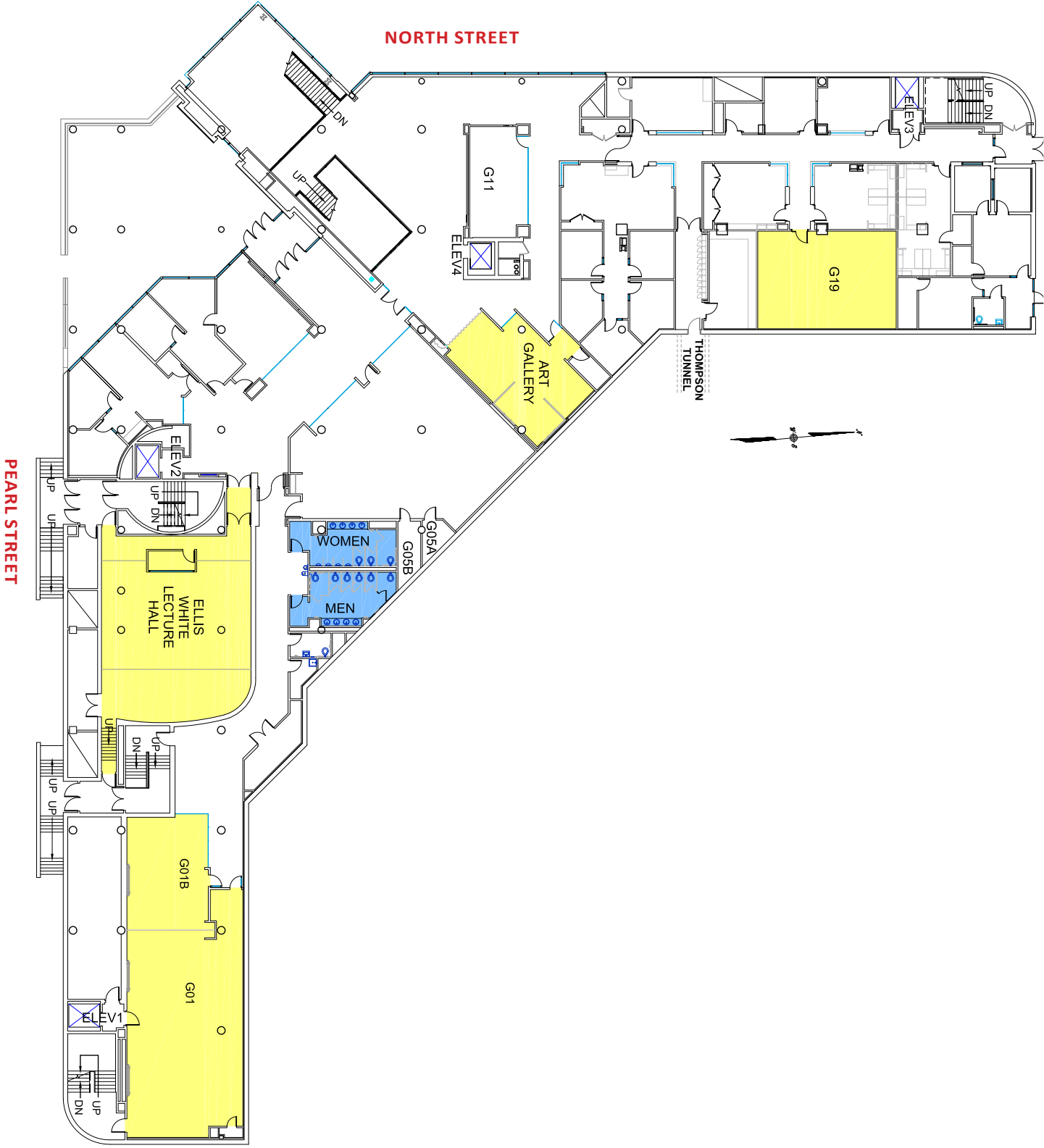
# Hammond Hall

## STREET LEVEL



# Hammond Hall

## GROUND LEVEL

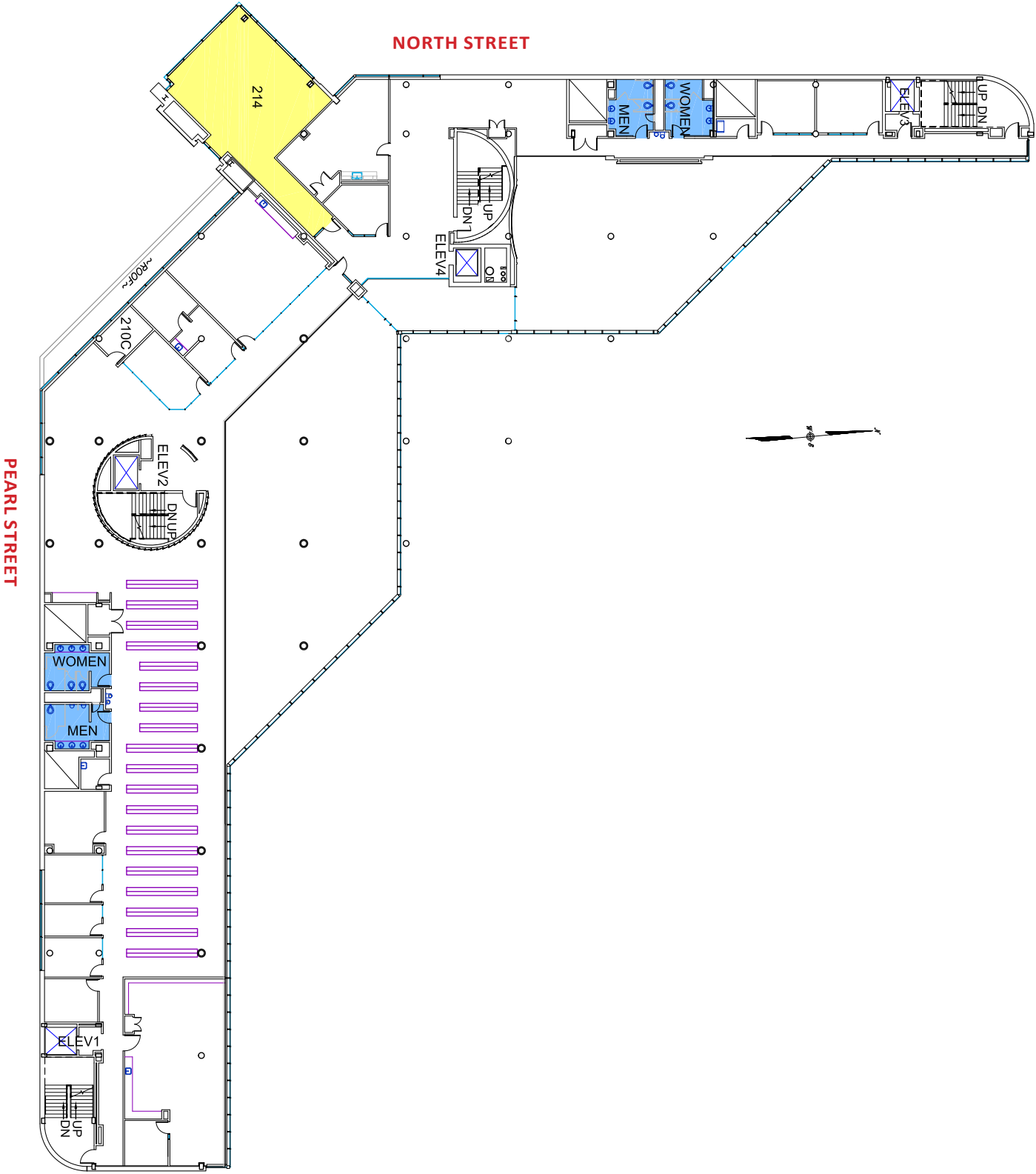




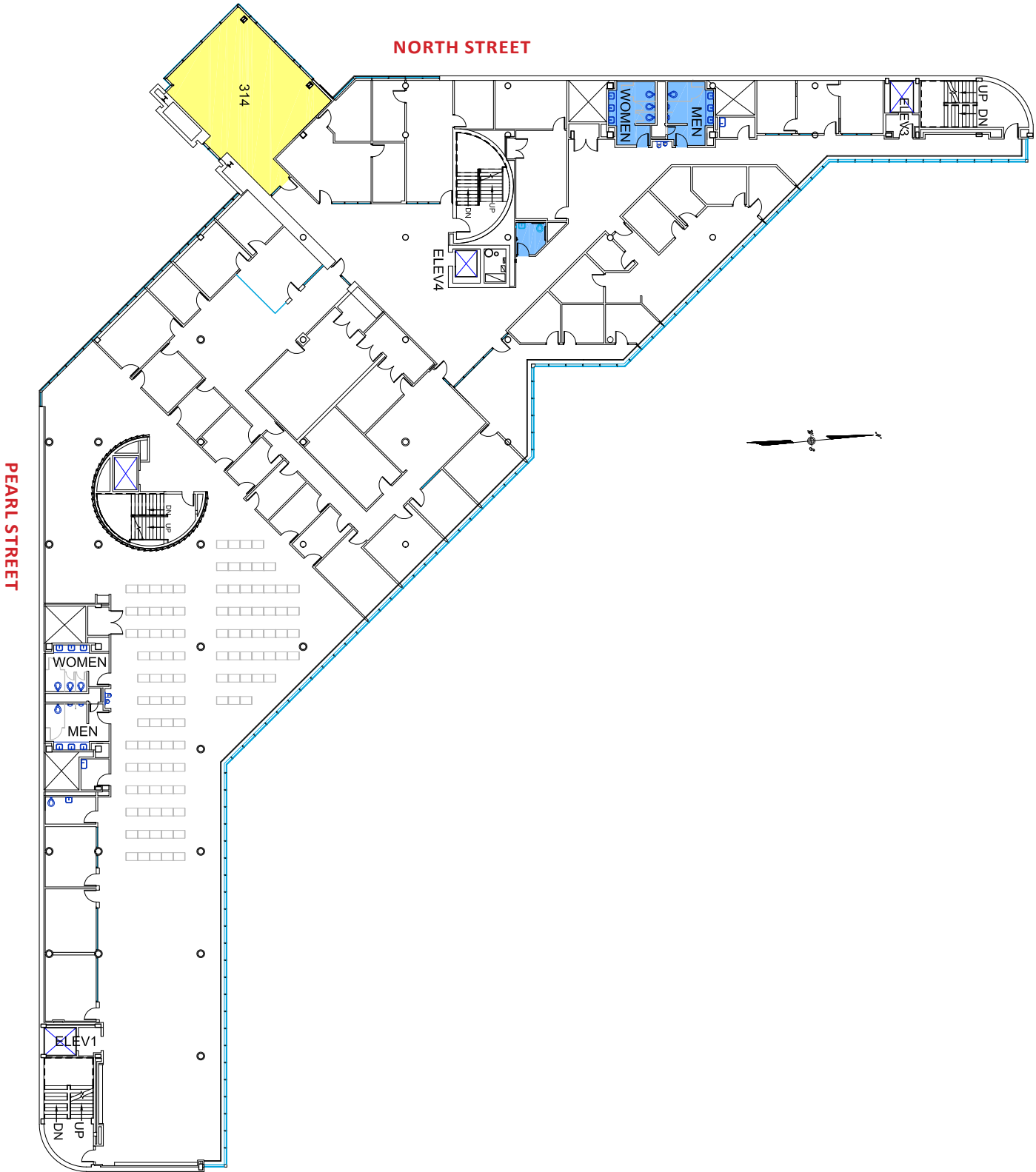
# Hammond Hall FIRST FLOOR



# Hammond Hall SECOND FLOOR



# Hammond Hall THIRD FLOOR



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