

Town of Lunenburg



Reuse of TC Passios Building

Local team with significant project experience in preparing condition assessments, feasibility studies and designs for building re-use, having resources and technology from a 900+ person national company.



Core Team

- **Tom Lam, AIA, NCARB, LEED AP** – Principal in Charge
 - Client Management, overall project leadership
 - 30+ years design, space needs assessments, and building reuse experience
 - Member, Town of Stow Randall Library Building Committee
- **Ed DiSalvio, PE** – Project Manager and Lead Structural Engineer
 - Designed and managed numerous public MA K-12 renovations, and municipal building projects
 - 30+ years experience building envelope repairs and assessments
 - Member, Town of Scituate Public Buildings Commission
- **Chris Sullivan, AIA, NCARB, LEED AP** – Project Architect
 - 25+ years architecture, building reuse, and space needs assessments, including municipal buildings and K-12 school projects
 - Experienced with accessibility codes and energy efficiency codes
- **Kimberly Buhl, PMP** – Assistant Project Manager
 - 3 years of construction management experience
 - Expertise in project management and organization – planning, budgeting and scheduling, constructability review, value engineering, and phased construction
- **Todd Chase, PE, LEED AP** – Lead M/E/P/FP Engineer
 - 25+ years of municipal building design experience, including security systems and energy efficient MEP systems
 - Member, Town of Gorham Economic Development Committee
- **John Ings, PE** – Lead Civil Engineer
 - 25+ years of civil/site design experience
 - Site planning and design for municipal facilities and reuse projects
 - Expertise in Hydrology & Utility Design

Core Team

- **David Towle, CSL** – Cost Estimator
 - 30+ years of experience
 - Highly experienced MGL Ch. 149 and filed subbid pricing
 - Licensed Construction Supervisor
- **Brian Novelline, PE, MCPPO, CSL, New England Sr. Vice President** – QA/QC Specialist
 - 28+ years A/E/C
 - Oversaw 50M SF of facilities repair/renovation projects
- **Shaun McKenna, CSL, EIT** – Project Structural Engineer
 - 3+ years structural engineering and building envelope assessment and design experience for municipal buildings
- **Frank Ulisse, PE** – Electrical Engineer
 - 30+ years of experience of design of municipal building renovations, including security and fire alarm systems
- **Christopher Luchetti, AIA** – Code Consultant
 - 25+ years of experience with building code and accessibility code consulting
 - MA Certified Local Building Inspector
- **Jacqueline Trainer, PLA** – Landscape Architect
 - 30+ years of experience designing landscaping and sites for municipal building projects
- **Bret Langlois** – Hazardous Materials Consultant
 - 15+ years of experience with asbestos, lead-paint, PCB's and other hazardous materials assessments
 - MA licensed Asbestos Designer and Inspector
- **Ron Willey, PE** – Senior Mechanical Engineer
 - 25+ years of experience in mechanical design
 - Experience with LEED design projects
 - Multiple sustainable designs including geothermal

Who We Are

- Full service Architecture, Engineering and Construction Management firm
- 2017 Gross Revenues \$440 Million
- Approximately 900 Employees (45 Architects, 125 P.E.'s) and 16 Permanent Offices
- Local Staff in the Boston Office
- 35+ years as Full service Architecture, Engineering, Environmental, Interior Design, and Construction Management organization
- Comprehensive Solutions – Design through Construction
- Provide innovative and sustainable design solutions
- Numerous long-standing municipal client relationships



#10 CM-for-Fee



East Side Access BIM

Our Team's Current Municipal Experience

- Town of Bellingham
- Town of Brookline
- Town of Harvard
- Town of Westhampton
- Town of Tewksbury
- Town of Dracut
- Town of Lynnfield
- Town of Stoughton
- City of Salem
- City of Framingham
- City of Quincy
- Boston Public Facilities Department
- Boston Public Health Commission
- Town of North Andover



Local Presence

UMass Memorial HealthAlliance Emergency Department - Leominster



Sinonds-Sinon Cancer Center - Fitchburg



Hildreth House - Harvard



Heywood Hospital - Gardner



Community Health Connections - Fitchburg



Architecture

- Site Planning
- Facility / Infrastructure Condition Assessment
- Life Safety and Code Analysis
- Facility Programming and Space Needs Planning
- Economic & Feasibility Analysis
- Incorporation of Regulatory Agency Requirements
- Grant and Financing assistance
- Project Planning
- Project Management
- 3D Modeling/Building Information Modeling (BIM)/Revit
- LEED/Sustainable Design
- Public Presentations
- Accessibility Code Analysis and Design



Engineering

- Structural
- Mechanical
- Electrical
- Civil
- GIS
- Plumbing / Medical Gas
- Fire Protection
- Energy Solutions
- Sustainable Design including LEED
- Value Engineering, Life Cycle & First Costs
- Clean rooms/critical environments
- O&M Plans
- Telecommunications
- Security Systems



Pre-Construction Services

- Construction Cost Estimating – MGL Ch. 149 filed subbids
- Constructability Reviews
- Code Compliance Review
- Scheduling
- Phasing Analysis
- Cost Control
- Value Engineering
- Life Cycle Cost Analysis

Construction Management

- Safety
- Document Control
- QA/QC
- Cost Management
- Compliance Monitoring
- LEED AP Management
- BIM Integration
- Agency Interaction
- EOC Manual
- ILSM and ICRA as Required
- Occupancy Support



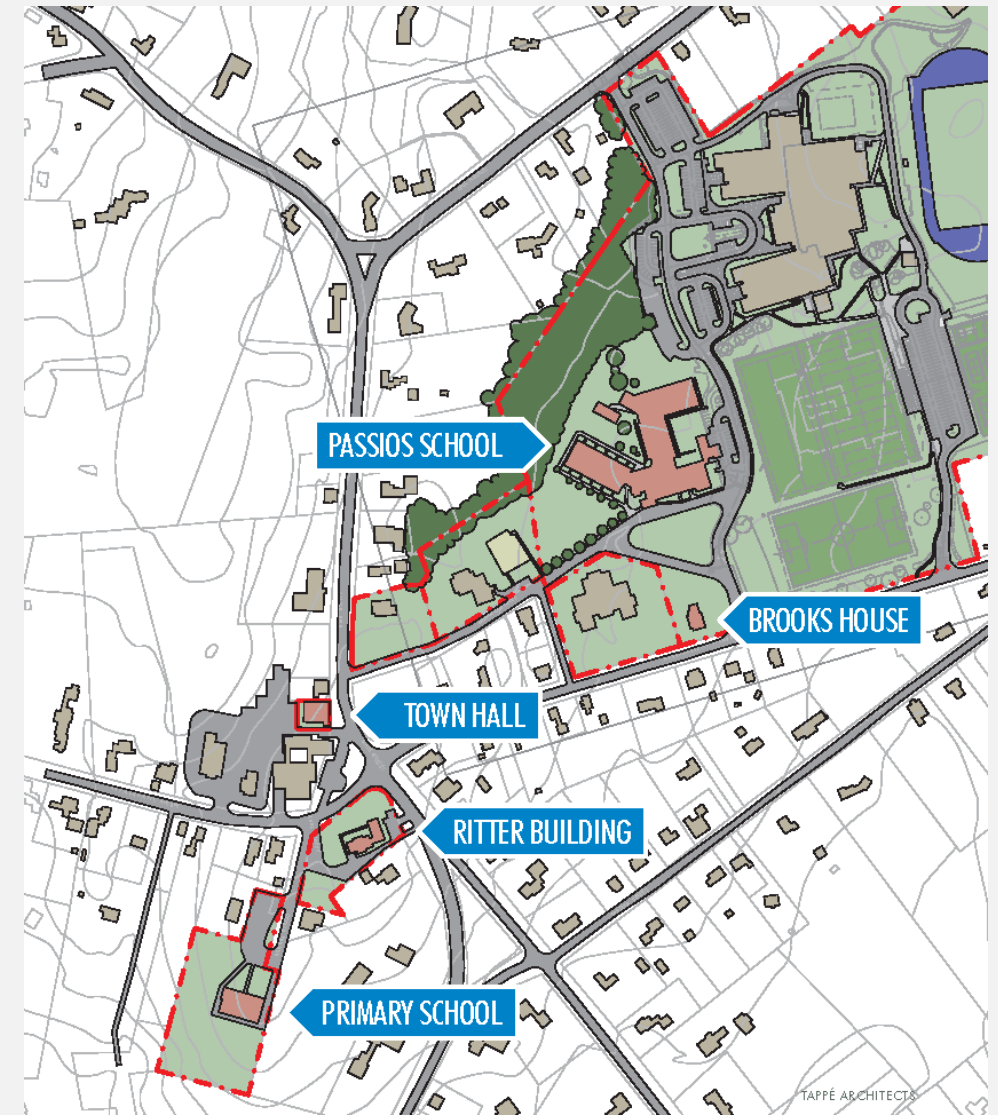
Project Experience

- Building Assessment and Reuse Projects
 - Building systems and envelope
 - Building and accessibility/ADA code review
 - Existing conditions documentation
- Renovations and Phasing Projects
 - 2MM SF renovations/reuse projects
 - 35 + years experience
 - 75% of projects are renovations
 - Review proposed facilities for square footage and infrastructure capacities
 - Issues: security, safety, clean environment (air, sound, vibration, domino effect)
- Building Needs Assessment
 - Assess existing parking facility
 - Prepare space programs for test fits
 - Prepare order of magnitude budget



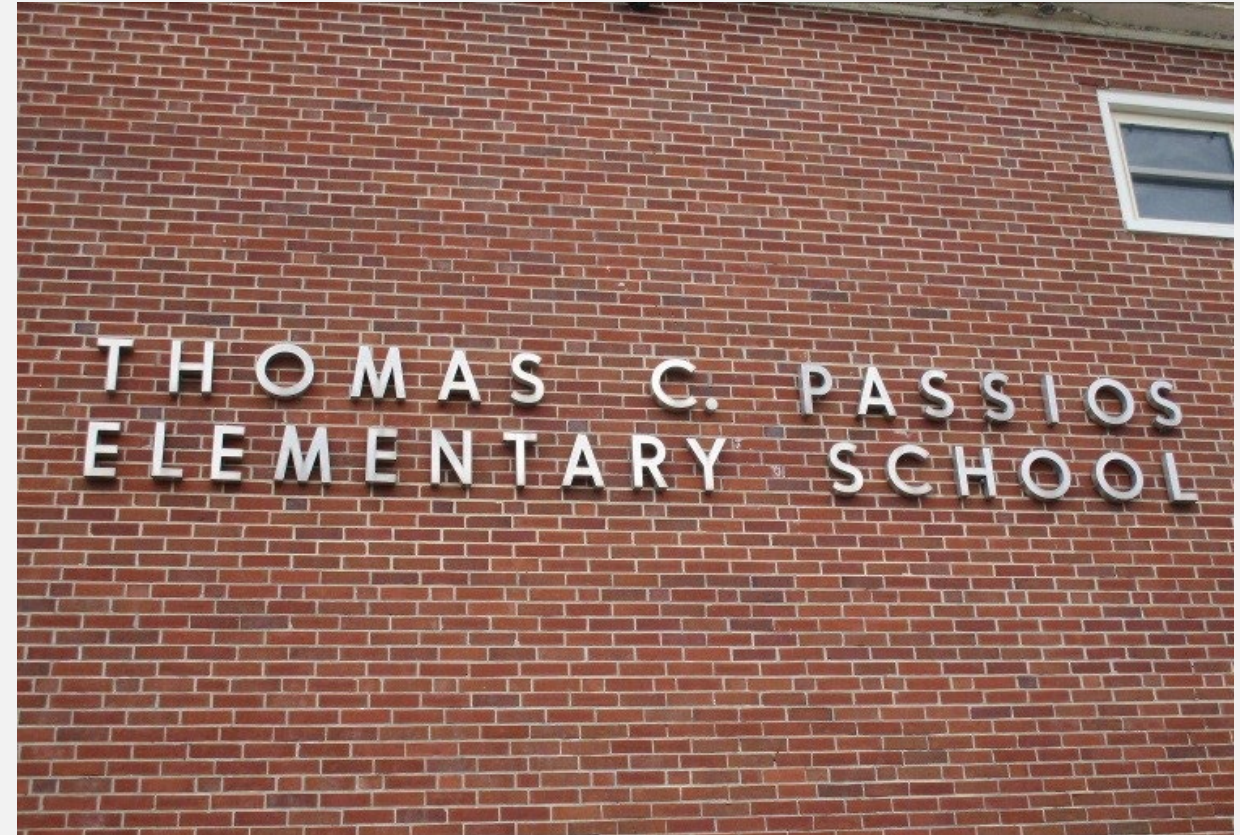
Project Understanding and Approach

- Provide comprehensive study, design development, and implementation plan for the 67-year-old TC Passios Elementary School
- Evaluate reuse for town offices, school use purposes, and community uses
- Review previous building condition assessments, space needs study, and conceptual designs and cost estimates
- Kick-off meeting with Building Committee and other stakeholders
 - Discuss project goals, scope, schedule, and budgets
 - Schedule regular team meetings and meetings with Building Committee
- Set up project FTP site for document sharing
- Review existing plans and other documents provided by Town



Project Understanding and Approach

- Perform comprehensive building and site evaluations with multidisciplinary team of architects, structural engineers, MEP engineers, civil/site engineers, hazardous material specialist, landscape architect, cost estimator, and other specialists
 - Create dimensioned drawings
 - Existing condition assessments, interior, exterior, site
 - Check MEP equipment for operations



Project Approach

▪ Structural Investigations:

- Visual observations of brick masonry and of building facades and foundations
- Non-destructive testing: borescope and hammer sounding
- Visual observations of exposed building framing and roof decking
- Identification and mapping of damaged structural components
- Review MA State Building Code for compliance
- Inspect building envelope and waterproofing components
- Evaluate structural framing modifications to support renovations and potential reuse schemes for the building

▪ Architectural Investigations:

- MA State Building Code and MAAB accessibility code reviews
- Energy code review of building envelope
- Evaluate sustainable design options
- Evaluate architectural features and considerations
- Evaluate exterior aesthetics as they relate to the neighborhood
- Prioritize scope of work: public safety, building integrity, aesthetics
- Review conditions of all interior and exterior architectural features and materials
- Evaluate building modifications to support renovations and potential reuse schemes for the building considering previous studies and new alternative design and reuse schemes

Project Approach

▪ **MEP/FP/Lighting/Security Investigations:**

- Evaluate all MEP/FP and security systems as they relate to multiple building user groups and operational needs
- Evaluate HVAC, ventilation, and exhaust systems
- Evaluate electrical, lighting, and life safety systems
- Evaluate plumbing and drainage systems
- Evaluate fire protection and fire alarm systems
- Evaluate security and access controls
- MA State Building Code and Stretch Energy Code analysis
- Sustainability and energy efficiency evaluations
- Evaluate needed repairs and capital improvements

▪ **Civil/Site/Landscape Evaluations:**

- Observations of existing pavement conditions
- Observations of existing site utilities
- Landscape evaluations
- Evaluation of vehicle access and pedestrian access, including MAAB requirements
- Evaluation of site connections with adjoining properties and features
- Evaluate site modifications to support renovations and potential reuse schemes for the building considering previous studies and new alternative design and reuse schemes

Project Approach

- Meet with Building Committee, Town Manager, School Department and other stakeholders to review current space needs and also future space needs
- Provide comprehensive report of updated space needs, conceptual plan options for building reuse, construction cost estimates, interior building condition and building envelope condition assessments and recommendations
- Provide comprehensive report of conditions and recommendations for civil/site, landscaping, utilities, hazardous materials, and other site related issues, as they relate to building reuse and occupancies



Project Approach

- Schematic Design and Design Development Phases
 - Provide building floor plans, elevations, and site plans
 - Provide materials specifications
 - Provide construction cost estimates
 - Address building MEP systems, security and telecomm for different building users and occupancies
 - Address MAAB/ADA Accessibility
 - LEED Accredited Design professionals – energy efficient designs
 - Design in accordance with Town budget
- Presentations to Building Committee, Board of Selectmen, and other stakeholders
 - Provide presentations using 3D computer modeling and renderings. Walk-thru animation of interior and exterior of building layouts



Project Approach

- Provide detailed project cost estimates (hard and soft costs) and project design and construction schedules
 - Cost estimators have 30+ years experience estimating public-sector projects (MGL Ch. 149 and filed subbids)
 - Licensed construction supervisors
 - Estimates based on actual contractor price quotes and current bidding environments
 - MA prevailing wage rates
- Implementation plan
 - Provide plan for temporary space for current building occupants during construction
 - We are experts in phased construction projects
 - Team has designed many facilities needing 24/7 operations during construction

Project Approach

- Presentations at community forums and Town meetings
 - Use of latest 3D computer modeling, animation and virtual reality walk-thrus in video and renderings
- Provide consolidated report, including plans, material and system specifications, and cost estimates
- All submittals reviewed by in-house technical specialists prior to delivery to Town
 - In-house QA/QC program



Understanding Municipal Capital Challenges

- Presentations made to town boards and town meetings to obtain project funding
 - Town of Bellingham Council on Aging
 - Town of Harvard Hildreth House
- Key Staff sit on town boards
 - Town of Stow, Randall Library Building Committee
 - Town of Scituate, Public Buildings Commission
 - Town of Gorham, Economic Development Committee
 - Town of Wenham, Conservation Commission
 - Town of Topsfield, Conservation Commission



Selected Municipal Projects

▪ **Community Health Programs, Great Barrington – Reuse Project**

- DAI was engaged by CHP for this adaptive re-use project where we transformed a dog kennel into a new Health Center, including administrative offices
- Renovation and reuse of existing 4,800 SF one-story, wood frame structure with an additional 2,100 square feet of open area under the roof and 3,000 square foot addition to house 4 private offices, 4 shared offices, a conference room, and a multi-purpose room
- Sustainable design strategies required renovating the interior and enclosing the open area



Selected Municipal Projects

▪ Town of Tewksbury

– Loella F. Dewing and Heath Brook Elementary School Condition Assessments and Building Reuse Project

- Determine current conditions, recommendations for repairs, and recommendations for potential reuse for other purposes
- Evaluation of the existing building envelopes (brick masonry, windows, roofs), MEP systems, civil/site features, MAAB accessibility upgrades, building code required upgrades, security improvements, and construction costs estimates
- Our report will be used to determine whether it is financially feasible to maintain one or both of these buildings as elementary schools, or to repurpose one of the schools for other municipal uses



Selected Municipal Projects

- **City of Boston – Public Facilities Department – Long Island Campus**
 - Multidisciplinary effort to evaluate current conditions of 16 buildings, and associated sites, for the Boston Public Health Commission's Campus on Long Island in Boston Harbor
 - Comprehensive conditions assessment report to include recommendations to repair various facilities, construction cost estimates, and code requirements for building reuse for different occupancies



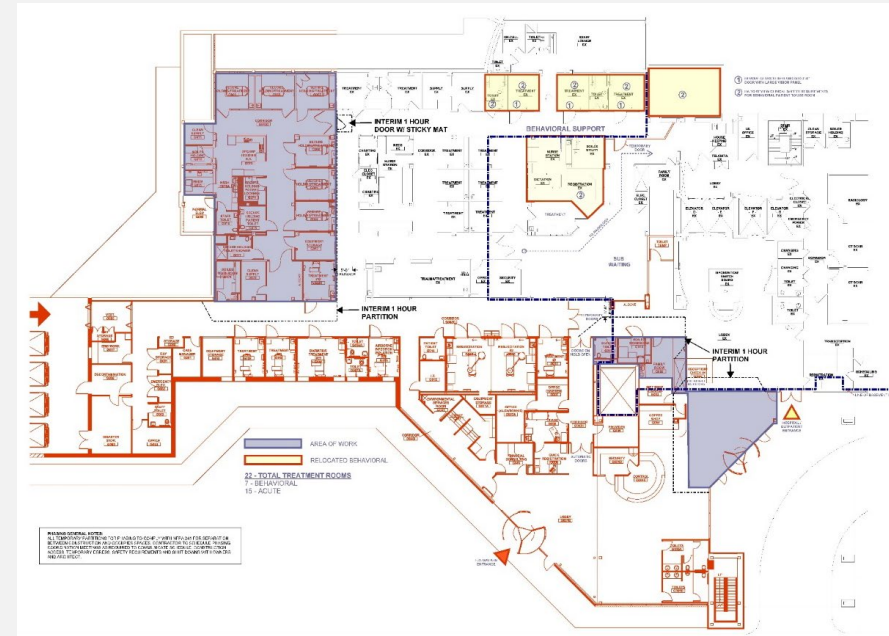
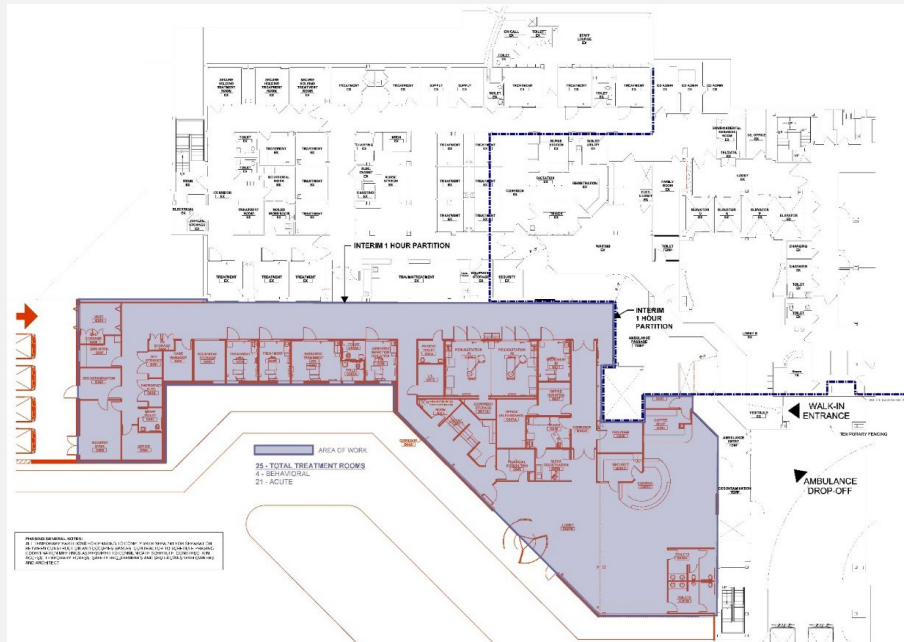
Selected Municipal Projects

- **Town of Harvard - Hildreth House Senior Center**
 - Space planning study with cost estimates
 - 5,000 SF new construction
 - Multi-purpose room, kitchen, support functions and outdoor space
 - Historic renovation of existing building



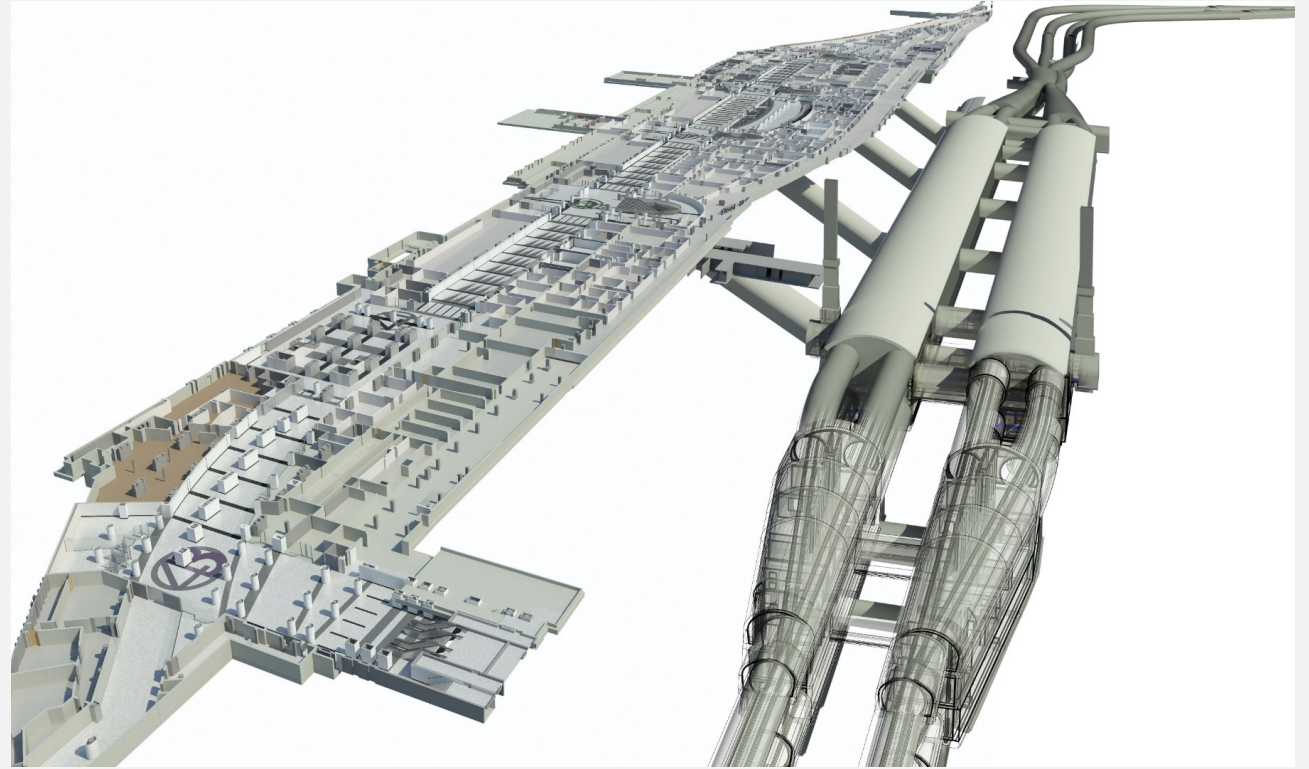
Selected Phasing Project

- **UMassMemorial HealthAlliance – Leominster Emergency Department**
 - Construction cost: \$30M
 - Number of phases: 5
 - 3-5 sub-phases per major phase
 - 3 years to complete the 48,000 sf expansion/renovation, footprint designed for vertical expansion



Virtual Design, Construction & Operations (VDCO)

- Reality Capture
- 3D Modeling
- Clash Detection
- Walk-through
- Mixed Reality
- 4D Scheduling
- Earned Value Monitoring
- Asset Tracking
- Realistic Renderings and Video Graphics



Why DAI/LiRo?

- One-stop shop
- Mid-size firm with regional firm backing
- 3-D Imaging and VDCO
- Local experience
- Experience in renovations and phased projects
- Over 100 MA municipal buildings including numerous public K-12 projects
- Formal QA/QC Program – Cost Savings & Quality Control
- Senior Staff – 25 – 30+ years experience each. **No** bait and switch with junior staff!
- In-house construction services company
- Price competitive
- Responsiveness
- Available resources and focused on Lunenburg. We appreciate you!

