

City of Worcester

South Division Firehouse and Backup Emergency Communications Center

Feasibility Study Public Review Meeting
March 28, 2024



The City of
WORCESTER



Perkins & Will

MA Mitchell Associates
Architects

Agenda

1. **Call to Order**
2. **Welcome - Fire Department & Public Facilities**
3. **Project Team Introduction**
4. **Schedule and Budget - Colliers, Owner's Project Manager**
5. **Process to date – Perkins and Will Architects**
6. **Project Feasibility Study Overview – Perkins & Will Architects**
7. **Question and Answer**
8. **Next Meeting – TBD**
9. **Adjourn**



The City of
WORCESTER



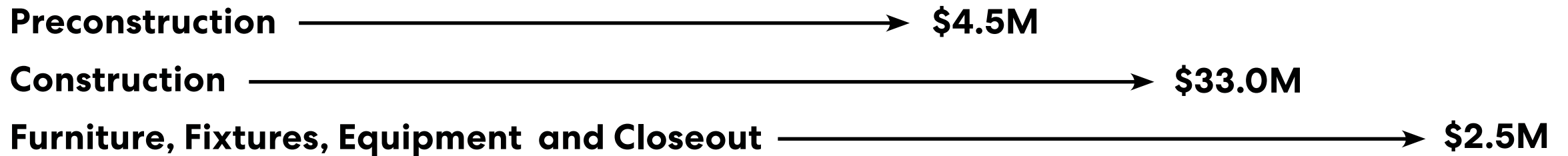
Perkins&Will

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Architects

Schedule



Budget: \$38.0M to \$42.0M, Average: \$40.0M

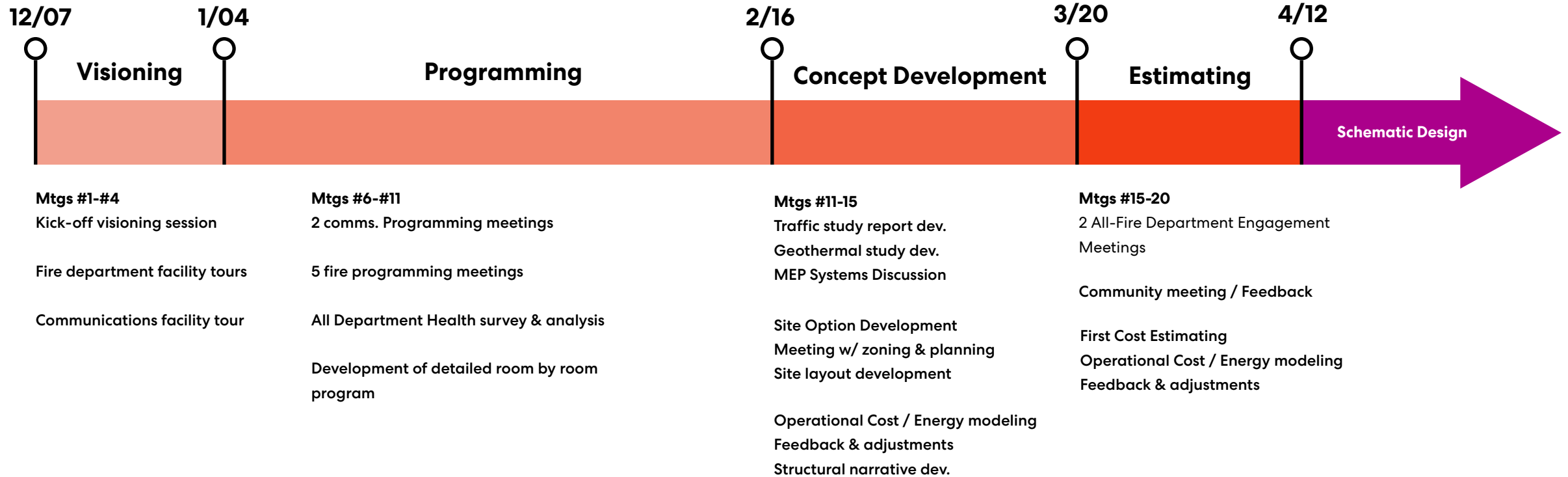


Feasibility Study Process



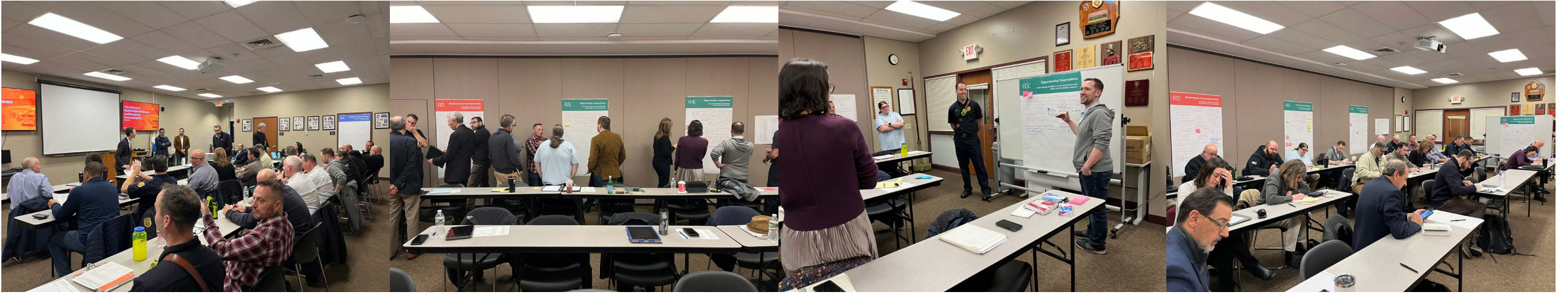
Concept Phase Engagement

20 Weeks of Focused Fire Department and Communications Staff Engagement



Project Kickoff

Inclusive Project Goal Setting



Attendees:

- Fire Department Leadership
- Emergency Communications Leadership
- City Planning Department Leadership
- Design Team -
 - Stainability and Resilience Expertise
 - Forestation / Communications Expertise

Key Takeaways:

- Understand Worcester's "hub and spoke" department operations
- Understand how the city is developing/changing around the site
- Resilience is critical
- Target a deep-green, Zero-Net-Energy Building

Facilities Tours

Better Understanding Worcester's Operations



South Division
180 Southbridge



Webster Square
40 Webster



McKeon Road
80 Mckeon



Franklin Street
266 Franklin



Grove Street
141 Grove

Fire Station and Communications Facility tours were held to gain **first-hand knowledge** about what is working and not working for the city in its existing facilities



**Emergency
Communications**

Facility Needs

Operational Improvements

- Sensible building layout to assist rapid deployment
- Adequate working clearance around trucks
- Storage & Work room for equipment maintenance and repair
- More resilient regional 911 comms and dispatch system
- Improved Radio Coverage

Firefighter Safety

- Hot & Cold Zone separation to minimize carcinogen exposure
- Thorough decontamination of firefighters and equipment
- Safe travel pathways from living spaces to the apparatus

Comply with Current Codes and Standards

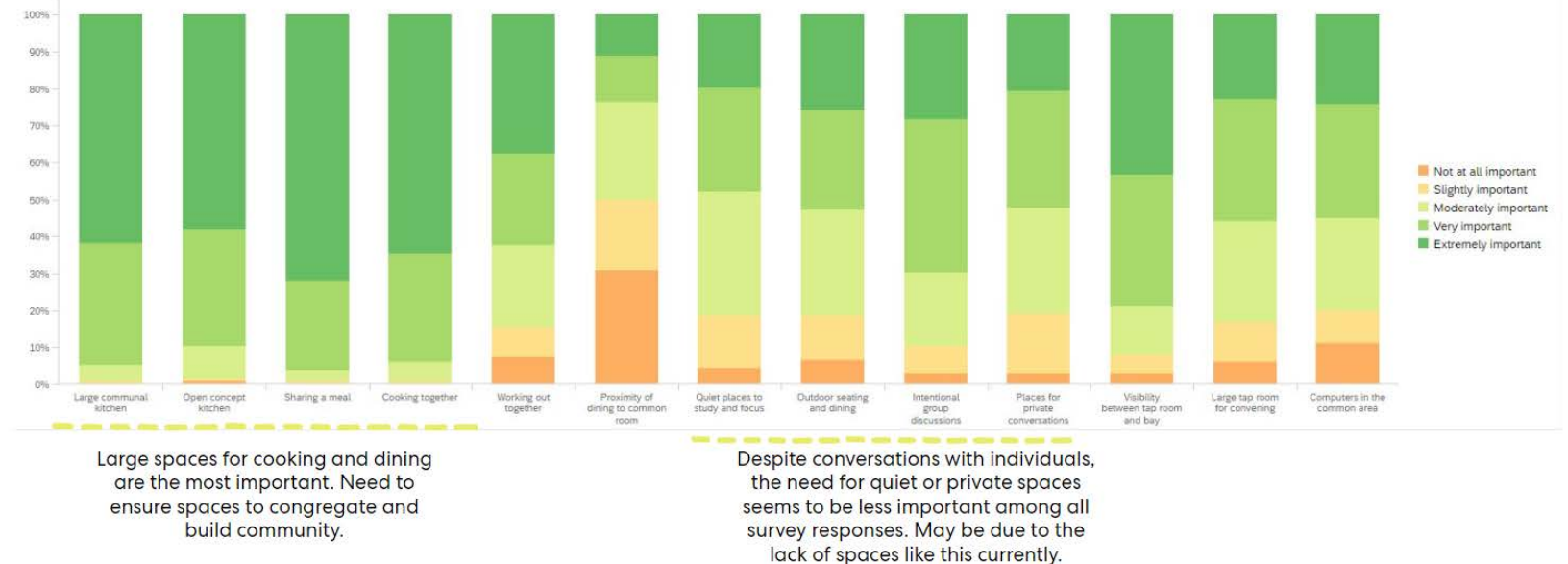
- OSHA requirement of a safe workplace
- NFPA regulations regarding decontamination and isolation
- Title VI of the Civil Rights Act requirement of gender equity
- Meet requirements of ADA
- Meet HIPAA requirements for privacy of records

Department-Wide Survey



Better Understanding Worcester's Firefighters

An anonymous survey was created and sent to the entire department to gain insights into how a new station could be improved, responses from 186 firefighters informed the designs.



Department-Wide Survey

Key Themes From the Survey Results



Air Quality

Chemicals of Concern
Hot vs. Cold Zone
Disease Transmission
Temperature Control



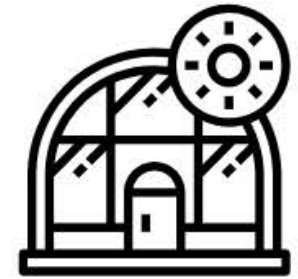
Sleep

Background & Alerting
Noise
Thermal Comfort
Presence of Technology
Hypervigilance



Mental Health & Nature

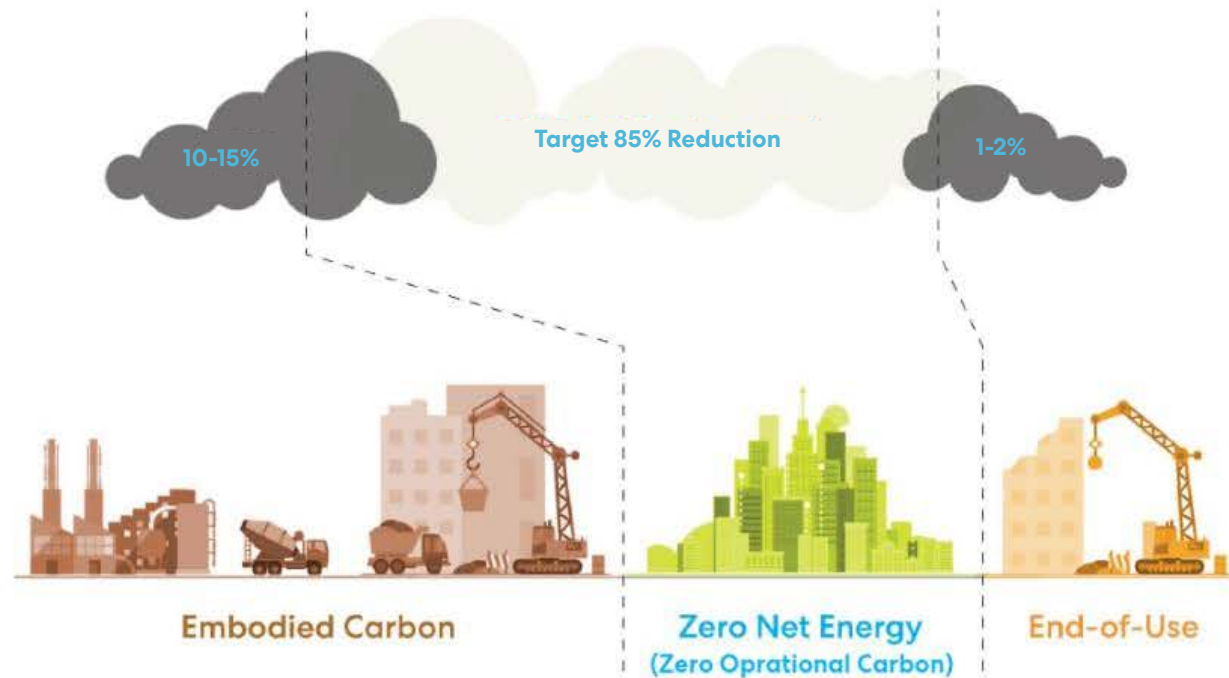
Sense of Community
Respite & Restoration



Light

Tunable artificial lighting
Alerting & Controllability
Task Lighting
Access to Daylight

Sustainability / Lifecycle Carbon



Product

- **A1** Extraction
- **A2** Transportation
- **A3** Manufacturing

Construction

- **A4** Transportation to site
- **A5** Construction Installation

Material Use

- **B1** Use
- **B2** Maintenance
- **B3** Repair
- **B4** Replacement
- **B5** Refurbishment

Systems Operation

- **B6** Operational Energy
- **B7** Operational Water

End-of-life

- **C1** Demolition
- **C2** Trans. to disposal
- **C3** Waste processing
- **C4** Disposal

Recovery

- **D1** Reuse
- **D2** Recycling
- **D3** Energy Recovery

Project Sustainability Goals



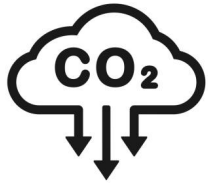
Zero Net Energy Goal

Target **EUI of 35** (High efficiency and resilient mechanical systems)



All Electric Building

Zero fossil fuel emissions during normal operations



Low Embodied Carbon

Choosing durable **low embodied carbon** materials



Enable Future EV Fire Apparatus Charging

Designing for **future** potential changes to Worcester's fleet

PROGRAM SUMMARY

Hot Zone

Apparatus Bays

- 6 bays
- 78' deep by 88' wide

Firematic Support

- Storage Rooms
- Turnout Gear Storage
- Decon / Laundry
- Hot Side Showers / Bathrooms
- SCBA Support spaces
- Watch / Ready Room
- Work Room

Cold Zone

Training/Admin

- 32 Seat Training Room
- Bathrooms
- Storage / Support

Bunk Room Area

- Individual Bunk Rooms
- Lockers / Bathrooms
- Bunk / Cold Zone Laundry

Living Area

- Kitchen
- Dining Room
- Living Room
- Study Room
- Exercise Area

Backup 911 Communications

- Dispatch Area
- Office Space
- Break Area
- Bathrooms
- Conference Room
- Storage
- Server

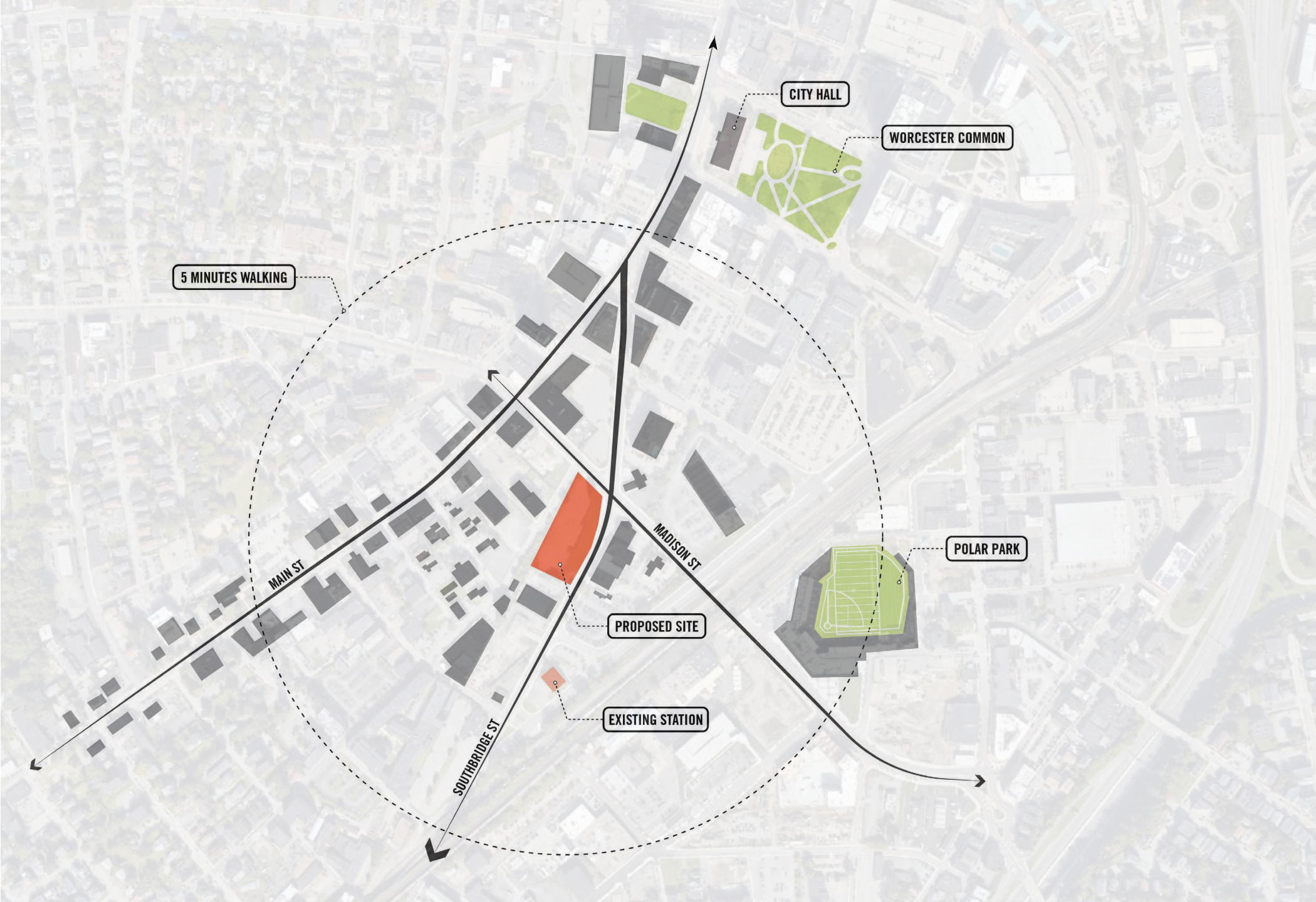
An aerial, isometric-style view of a city grid, rendered in a monochromatic yellow color. The image shows a dense network of streets, buildings, and parking lots, viewed from an elevated perspective. The text "Planning Concepts" is centered over the image in a white, bold, sans-serif font.

Planning Concepts

Project Site



Project Site



5 MINUTES WALKING

CITY HALL

WORCESTER COMMON

MAIN ST

MADISON ST

PROPOSED SITE

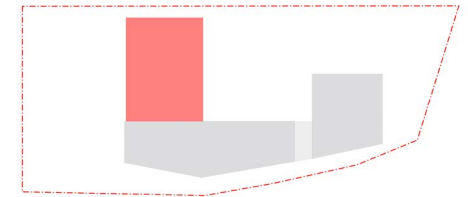
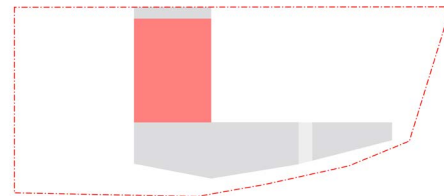
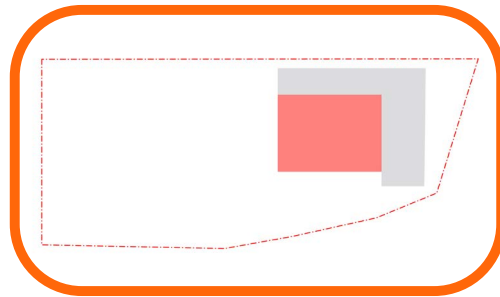
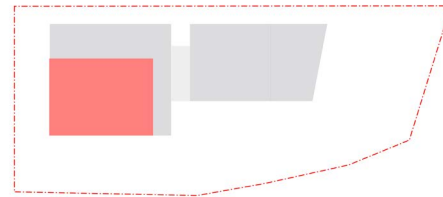
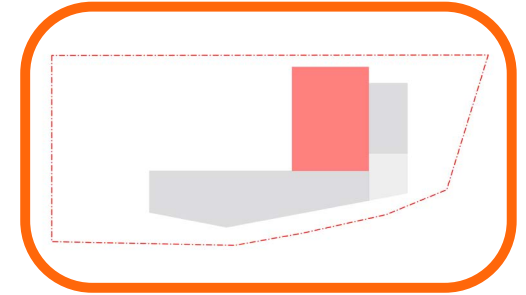
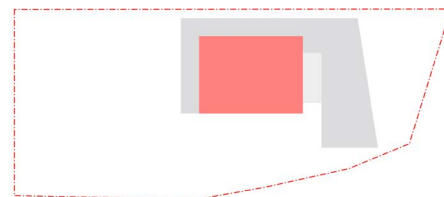
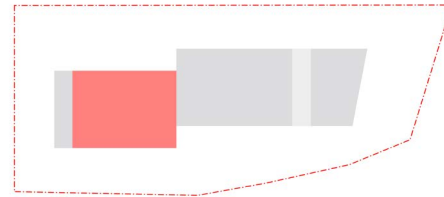
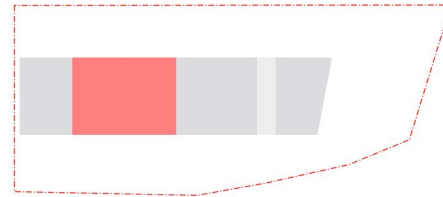
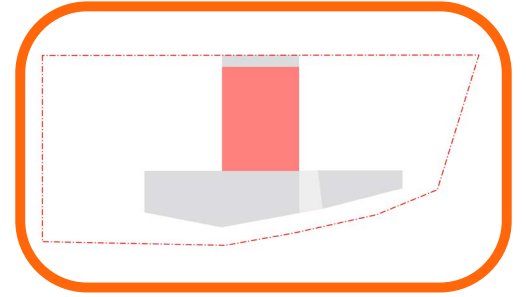
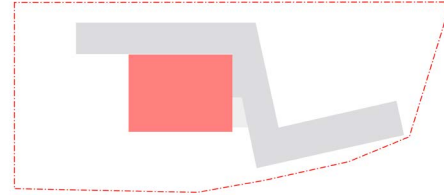
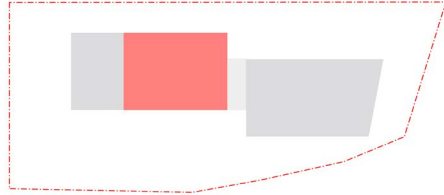
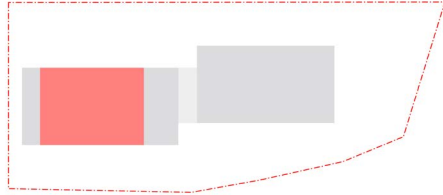
POLAR PARK



SOUTHBIDGE ST

EXISTING STATION

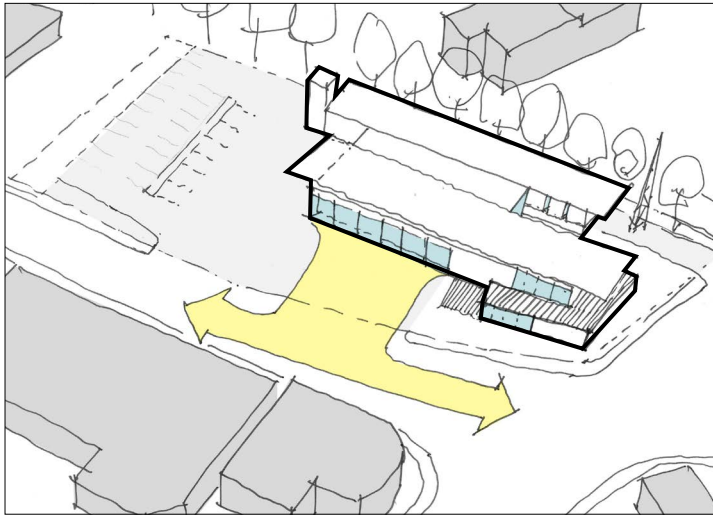
Design Studies

Site Use Strategies Studied

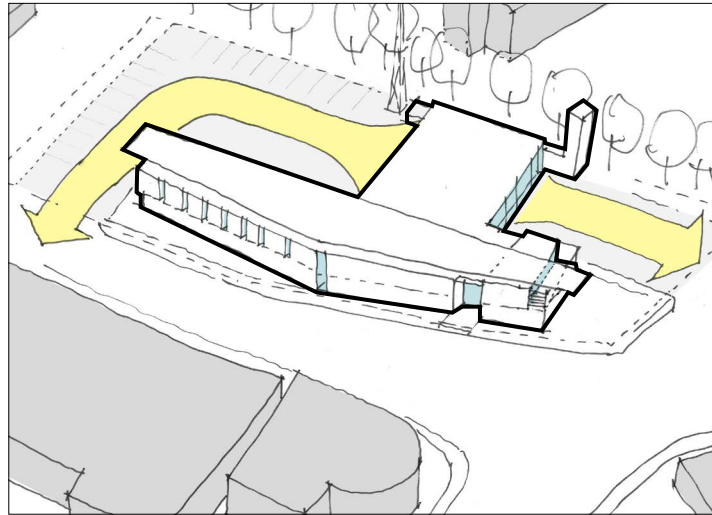


 Apparatus Bay
 Support / Comms

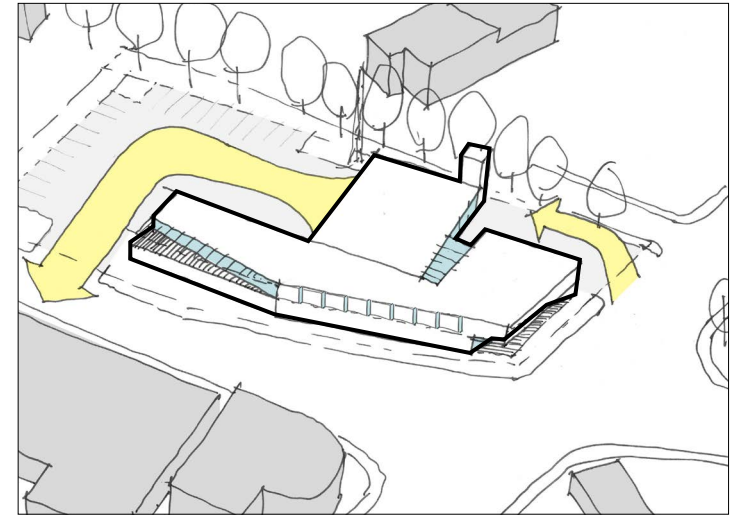
Viable Strategies



A



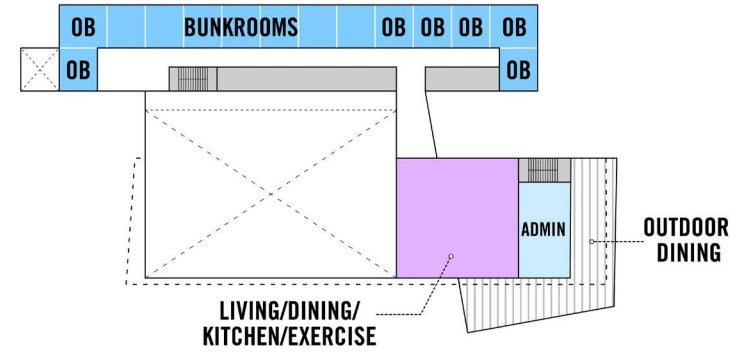
B



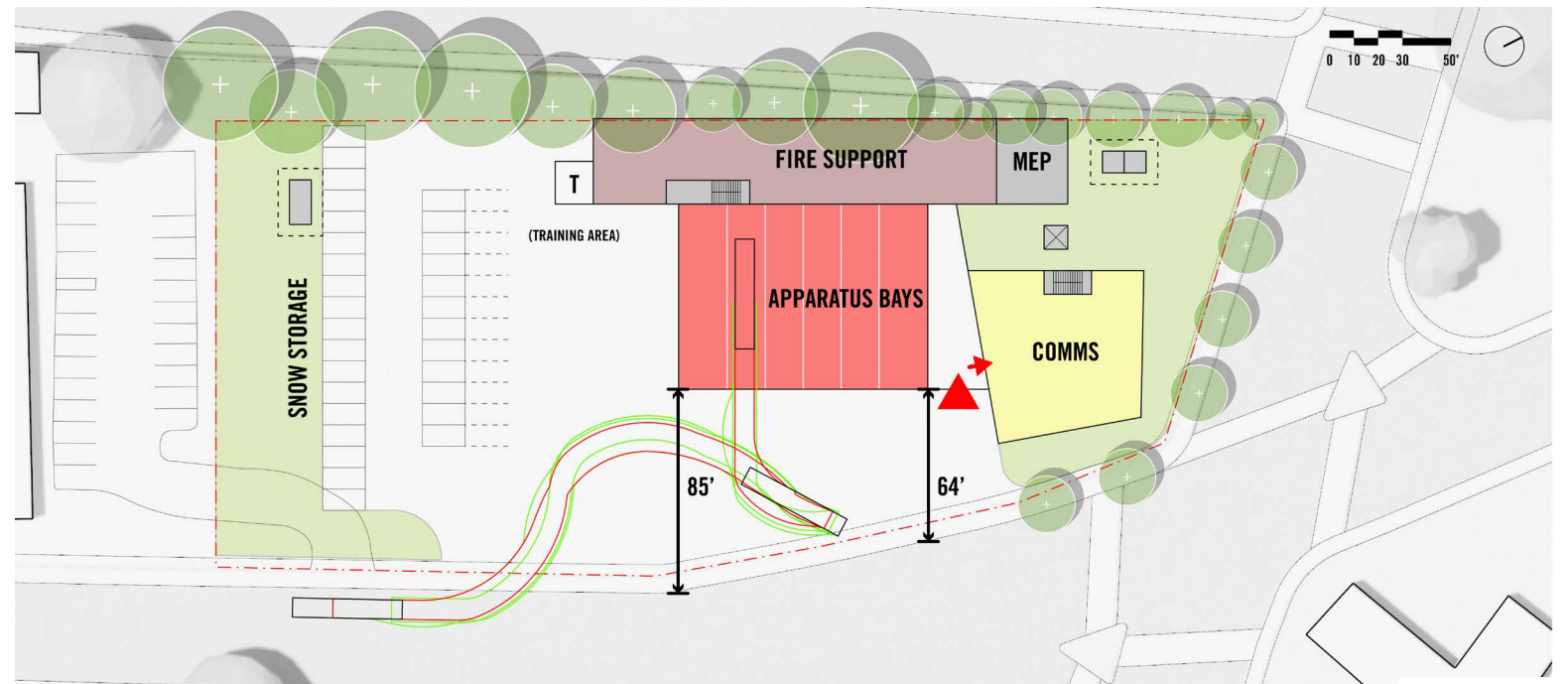
C

Option A

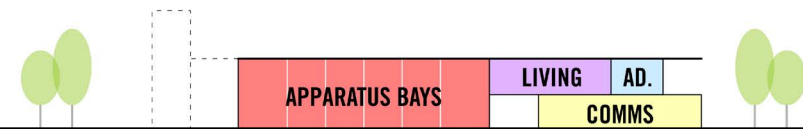
- Back in from Southbridge
- Separate parking area
- Proximity of bunks to bay
- Large training area



Level 2



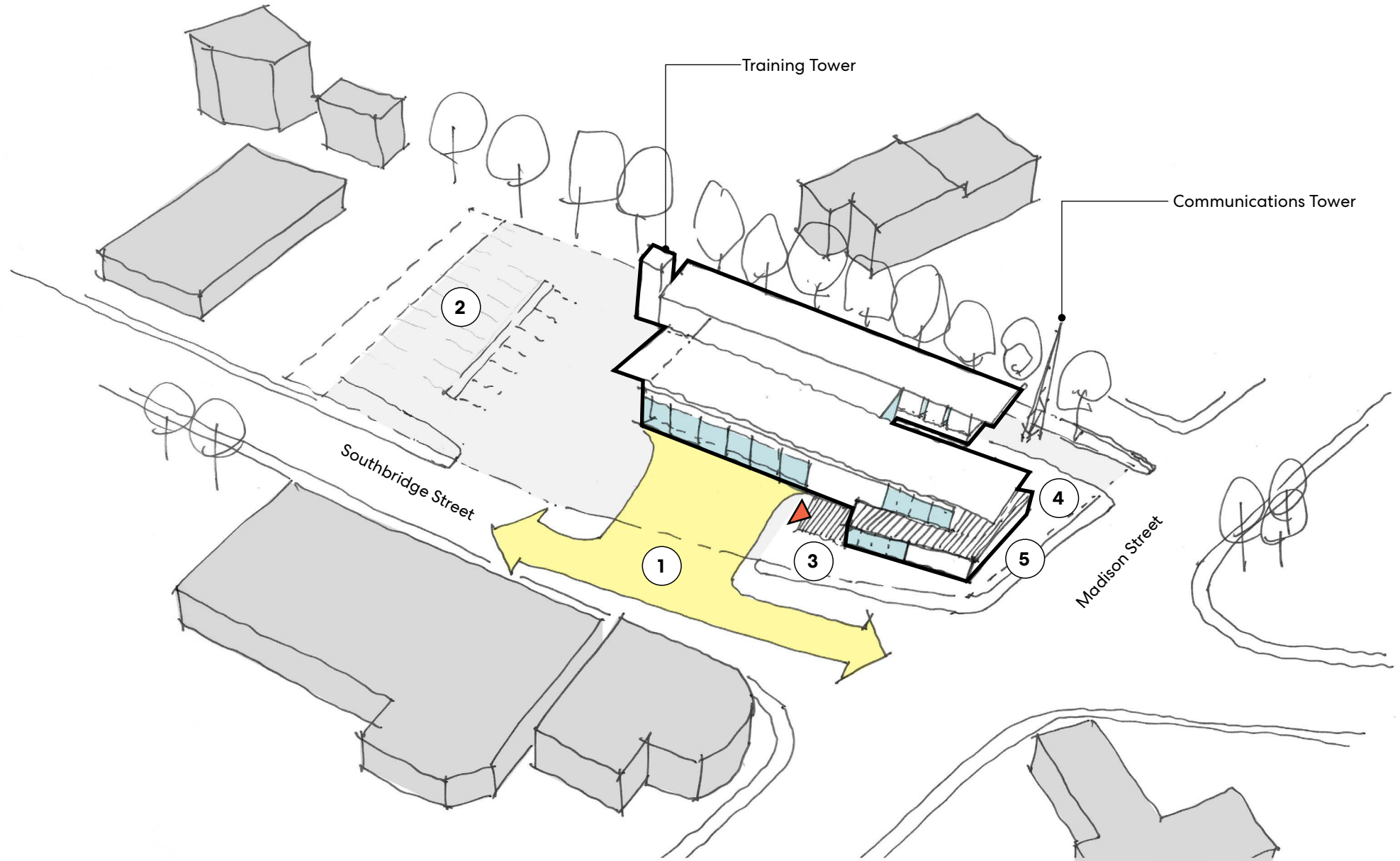
Level 1



Program Stacking

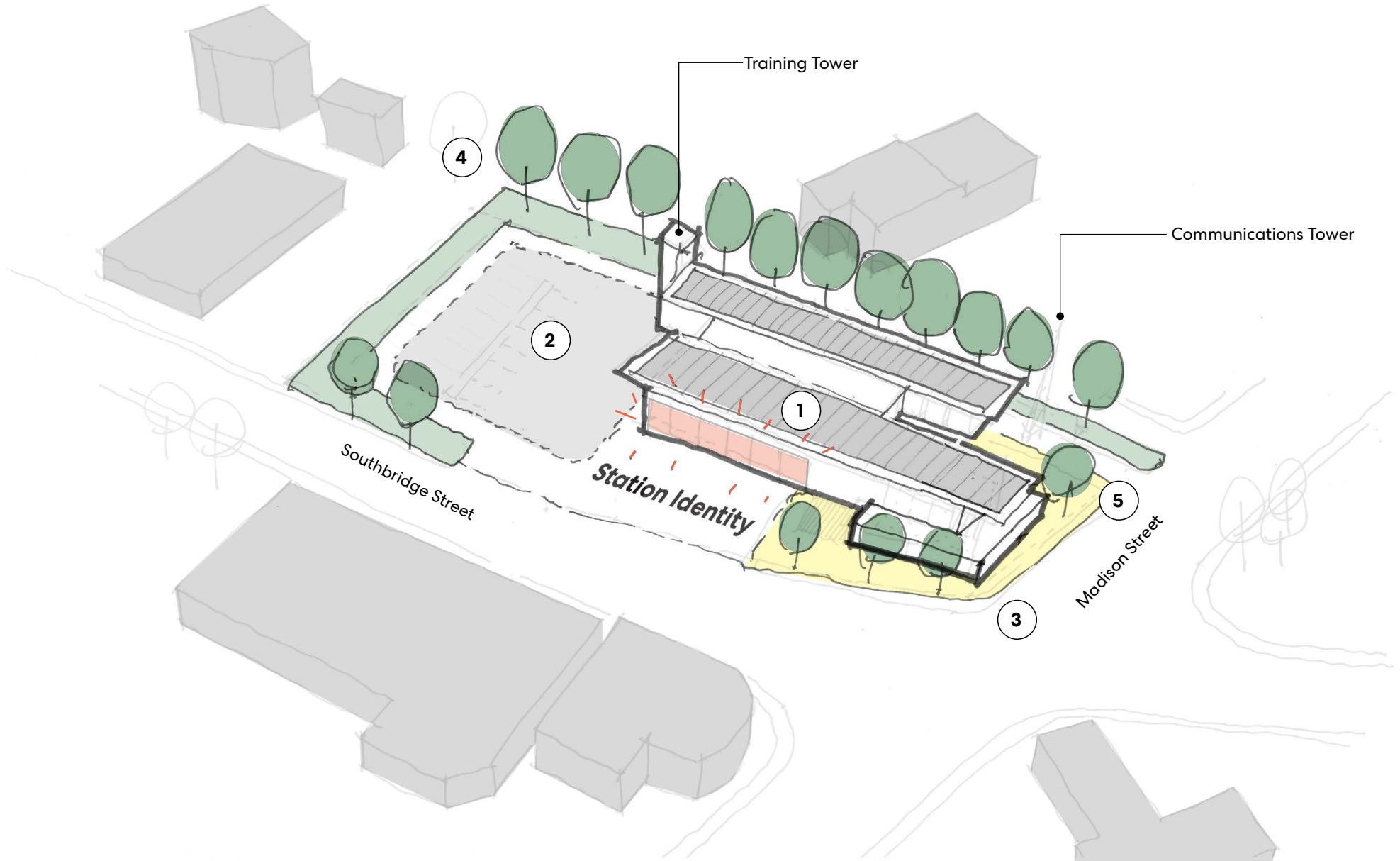
Option A - Access & Massing

- ① SOUTHBRIDGE ACCESS
- ② PARKING
- ③ ENTRY
- ④ POTENTIAL PUBLIC ART
- ⑤ ACTIVE STREET EDGE



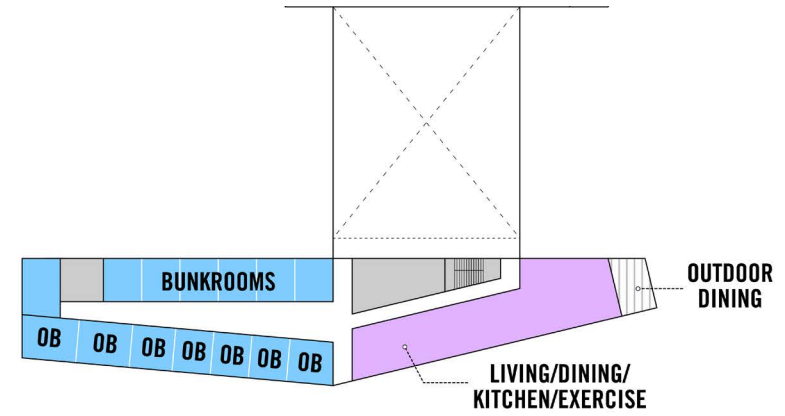
Option A - Urban Design & Sustainability

- ① PV ARRAY
- ② GEO EXCHANGE
- ③ URBAN CORNER
- ④ PRESERVED GREEN EDGE
- ⑤ ADDED STREET TREES

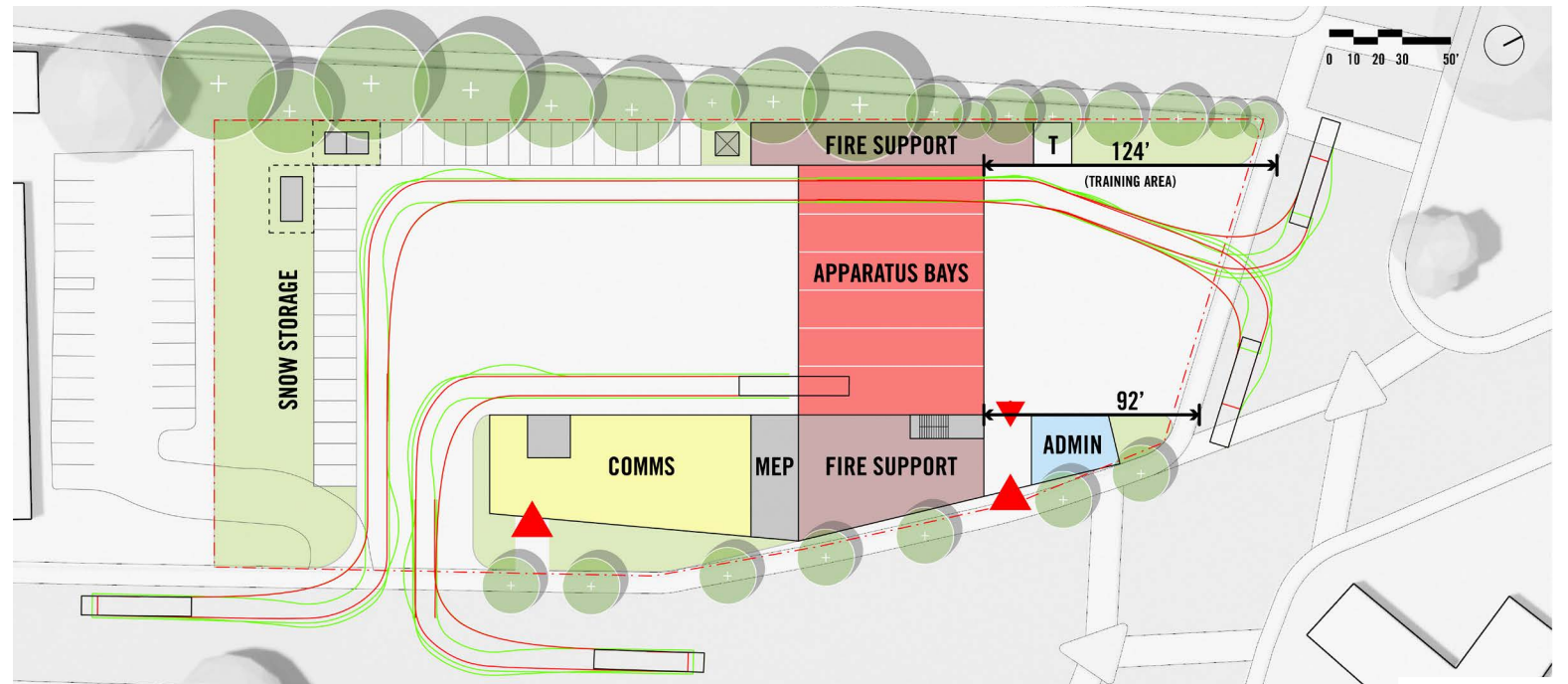


Option B

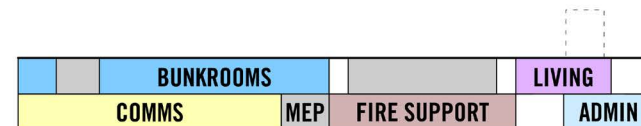
- Flexible bay access
- Comms. Location off corner
- Efficient pathways from living to bays



Level 2



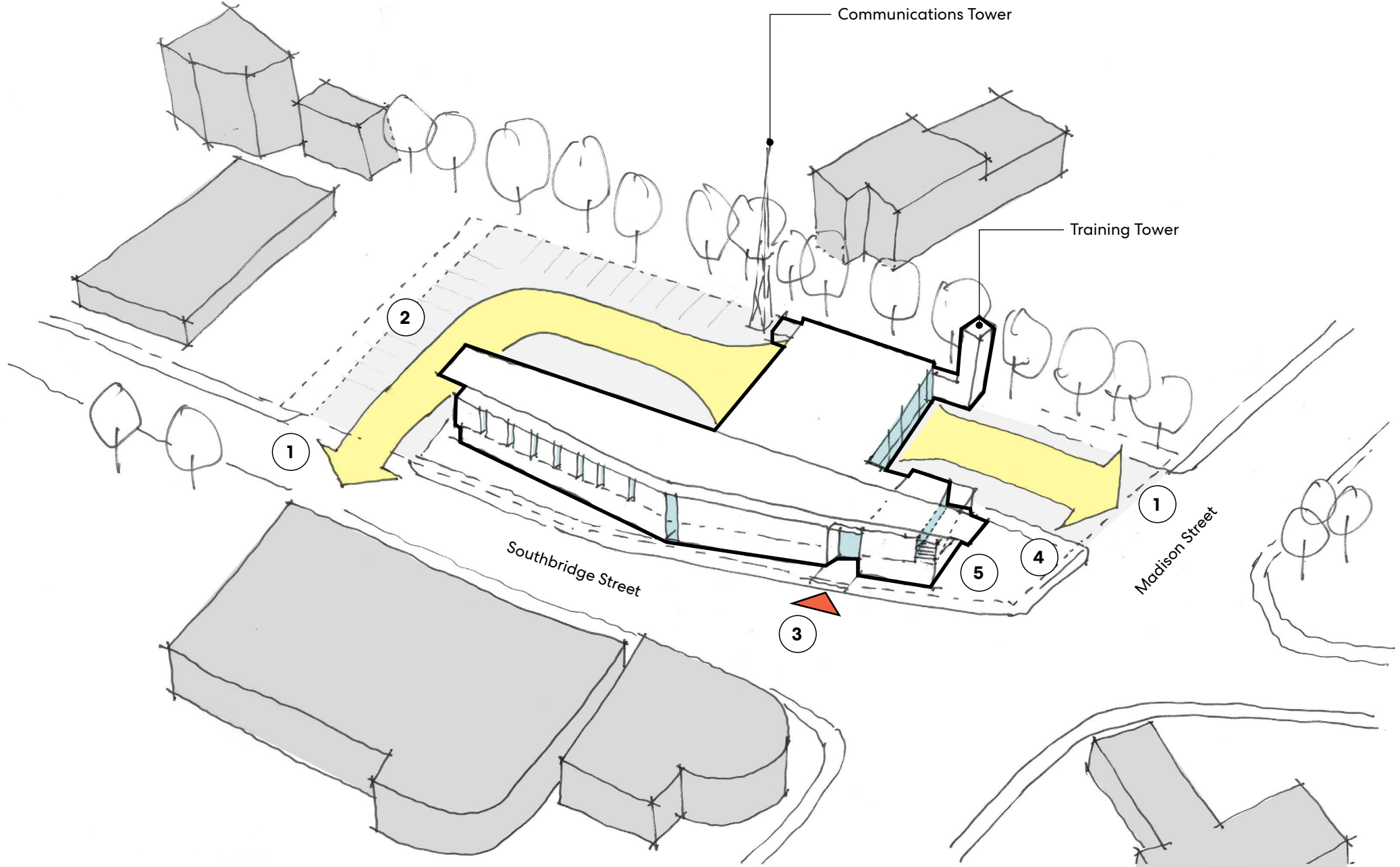
Level 1



Program Stacking

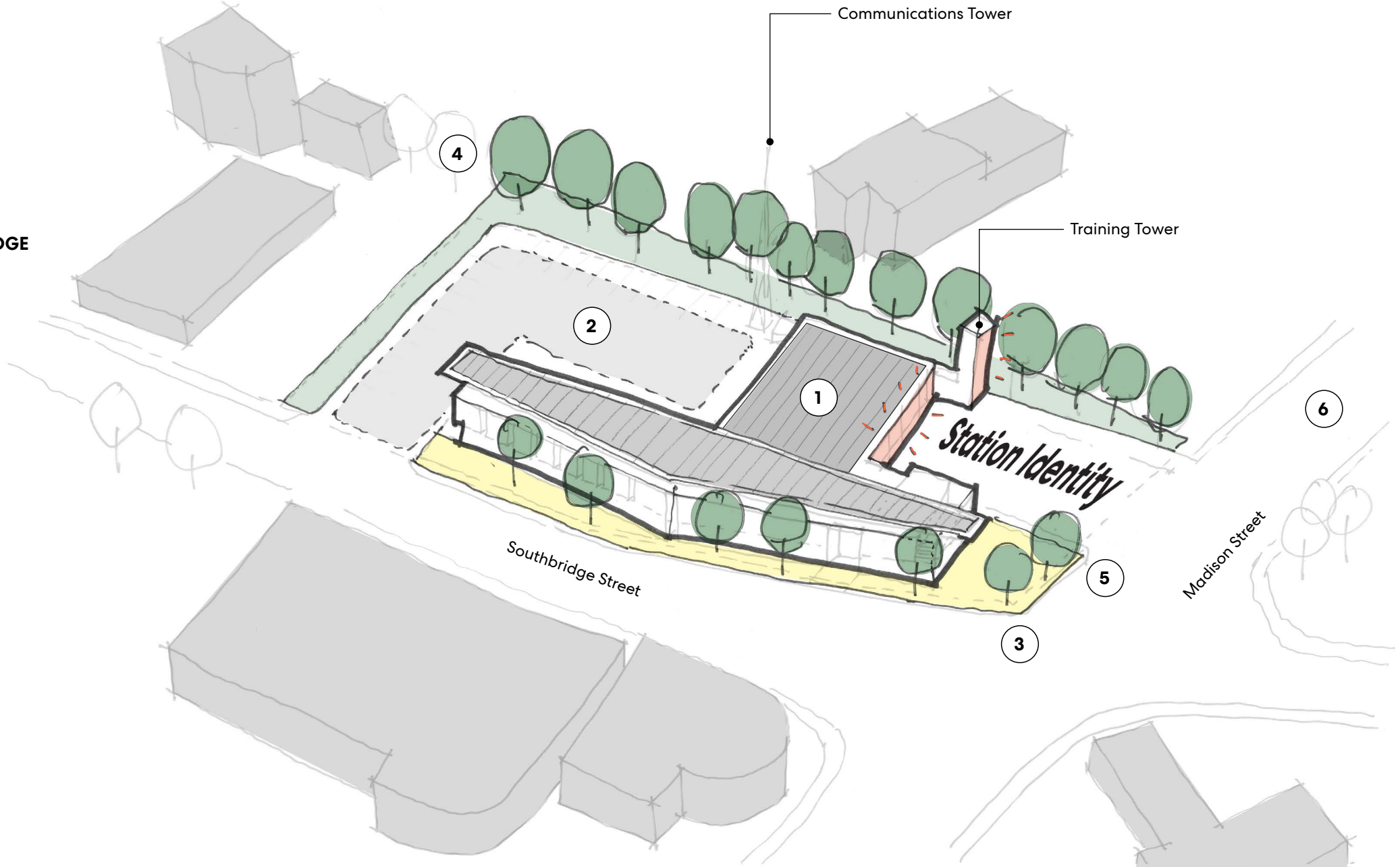
Option B - Access & Massing

- ① BAY FLEXIBILITY
- ② PARKING
- ③ ENTRY
- ④ PUBLIC ART
- ⑤ IMPROVED CORNER



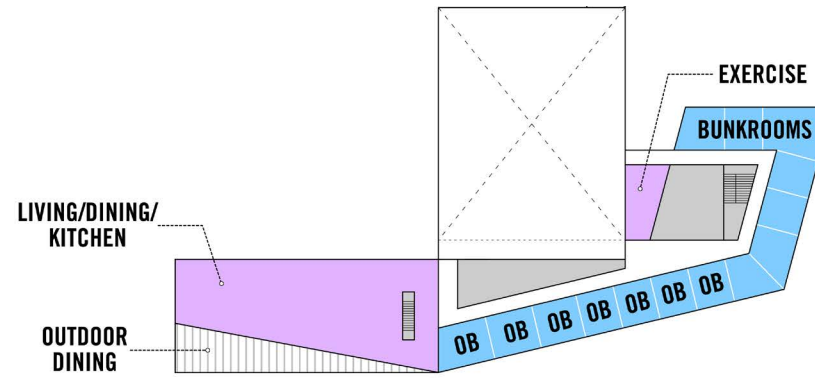
Option B - Urban Design & Sustainability

- 1 PV ARRAY
- 2 GEO EXCHANGE
- 3 URBAN CORNER
- 4 PRESERVED GREEN EDGE
- 5 ADDED STREET TREES

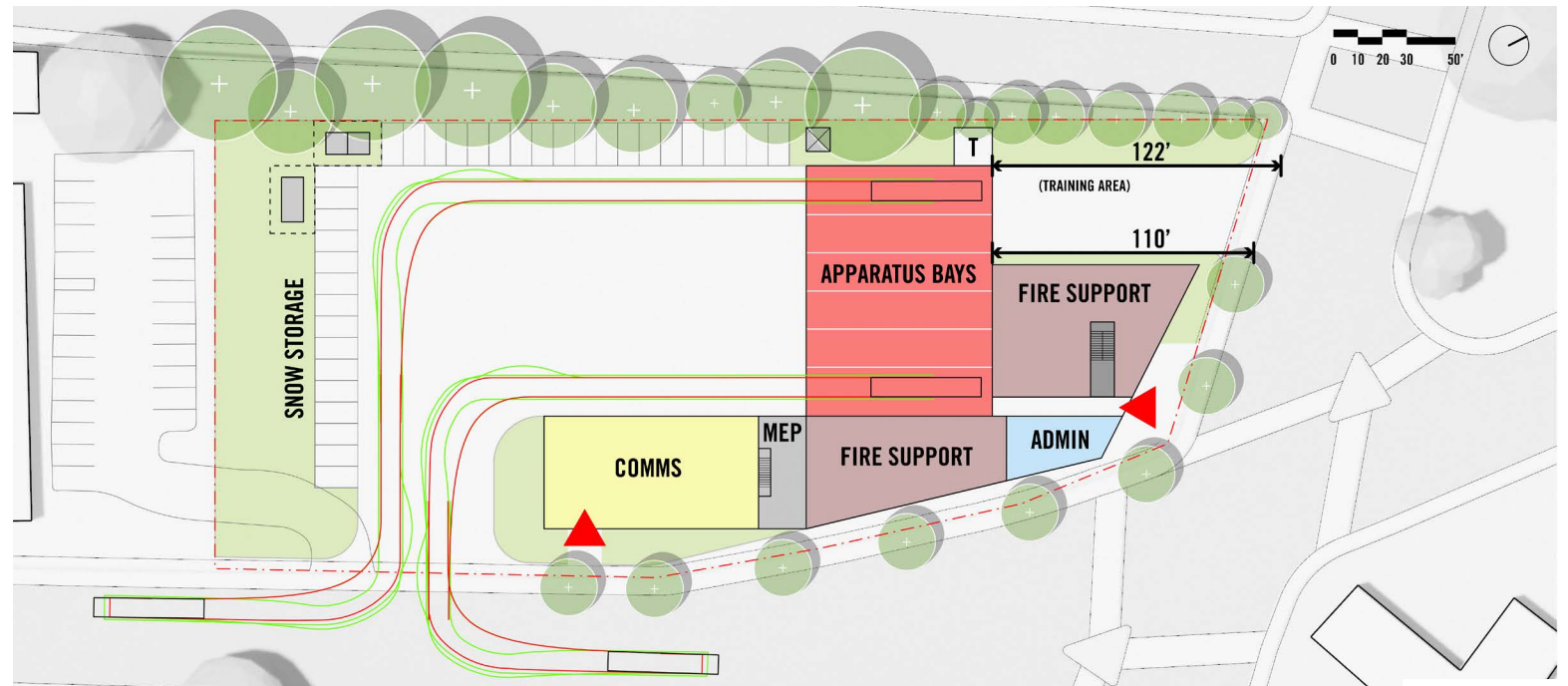


Option C

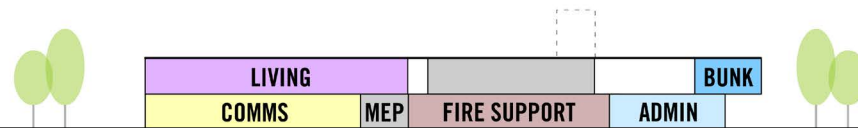
- Flexible Apron
- Parking around apron
- Efficient Layout
- Through Access to two of the Apparatus Bays



Level 2



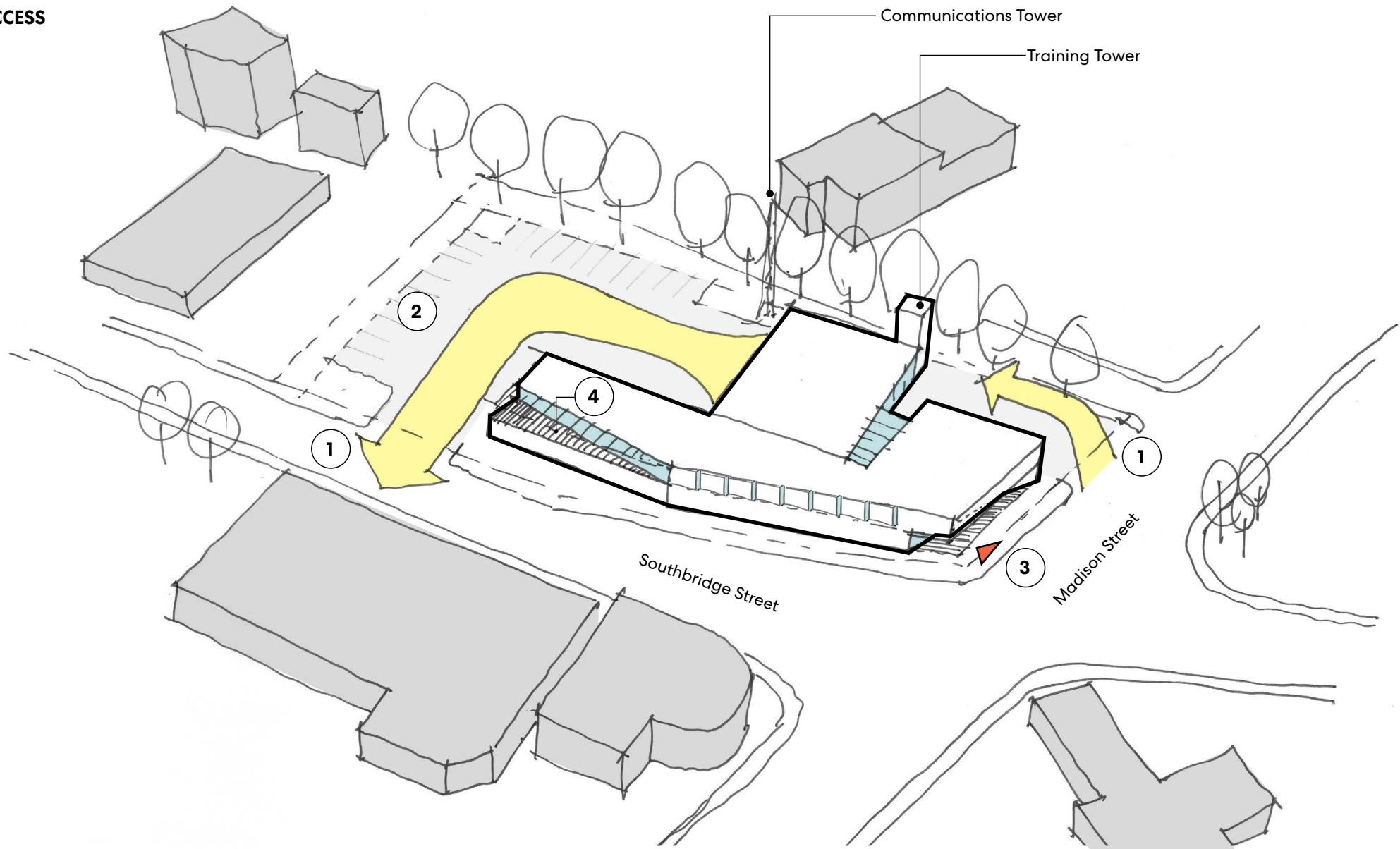
Level 1



Program Stacking

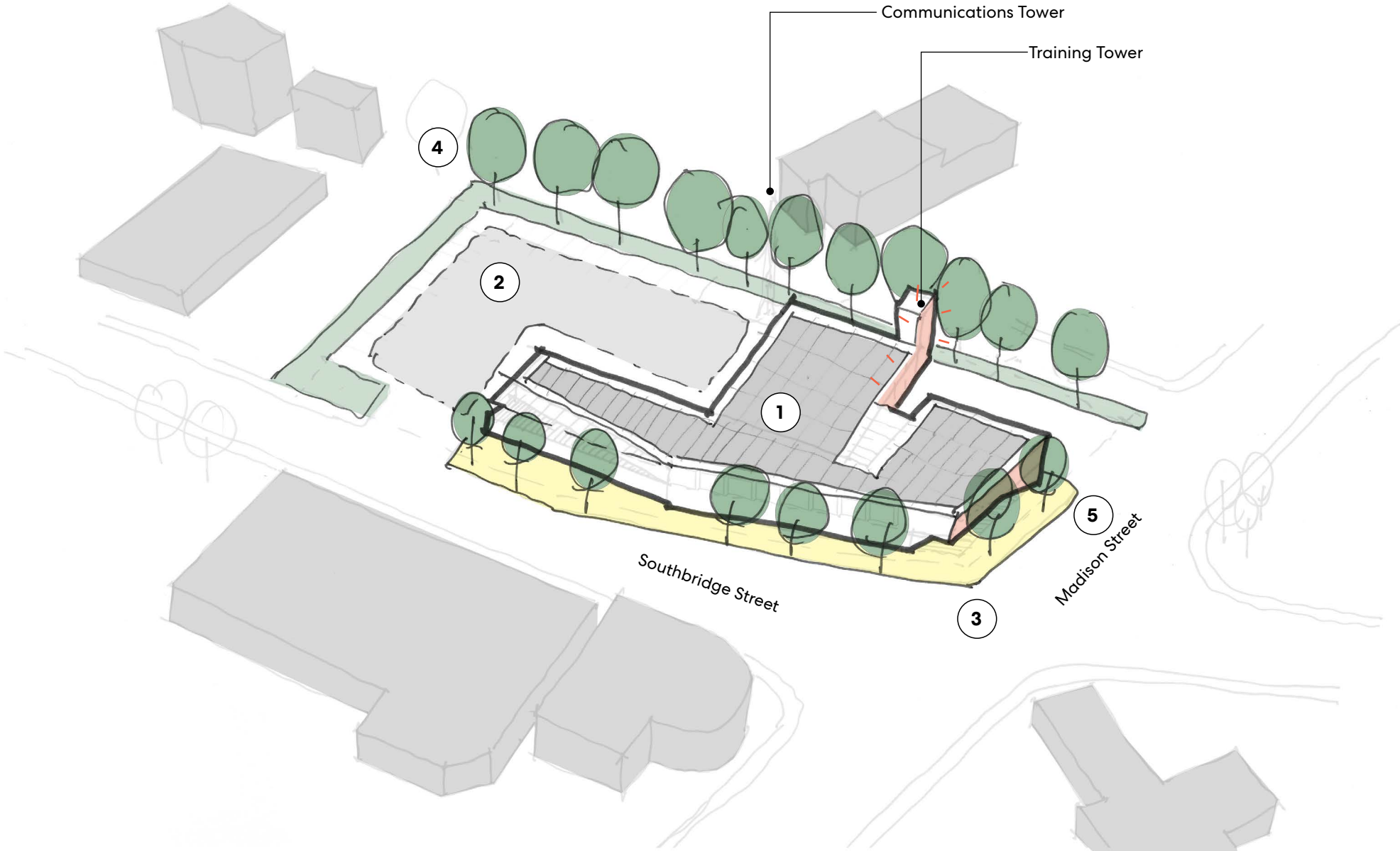
Option C - Access & Massing

- ① PARTIAL PULL THROUGH ACCESS
- ② PARKING
- ③ ENTRY
- ④ OUTDOOR TERRACE



Option C - Urban Design & Sustainability

- 1 PV ARRAY
- 2 GEO EXCHANGE
- 3 URBAN CORNER
- 4 PRESERVED GREEN EDGE
- 5 ADDED STREET TREES





Thank You

NAME	TOTAL SPACES
1. GREEN ISLAND BLVD. GARAGE	350
2. LAMARTINE ST. LOT	100
3. GREEN ST. LOT	30
4. WATER ST. LOT	34
5. MCGRATH (LIBRARY) LOT	289
6. 25 MADISON ST.	138
7. FEDERAL PLAZA GARAGE	511
8. UNION STATION GARAGE	500
9. WORCESTER COMMON GARAGE	560
10. GRAFTON ST. LOTS	254
11. PEARL & ELM GARAGE	819
GRAND TOTAL	3,585

**POLAR
PARK
EVENTS**
Parking Map

