

DESIGN WORKSHOP SUMMARY

PLANNING
FOR PACT

MANHATTANVILLE HOUSES



April 28, 2022
6:00 - 8:00 pm

Manhattanville Community Center
530 W. 133rd Street
New York, NY 10027

Attendance: 64 Residents

Manhattanville Houses is a six-building New York City Housing Authority (NYCHA) campus in Harlem, built in 1961. Manhattanville Houses is home to nearly 3,000 New Yorkers and will soon receive much-needed renovations, enhanced property management, and on-site social services through the Permanent Affordability Commitment Together (PACT) program.

A major component of the PACT process involves gathering resident input on existing campus conditions and desired upgrades. This document includes a summary of priorities, ideas, challenges, and opportunities, as identified by residents, that should inform plans for improvements to Manhattanville Houses. This input was solicited as a part of facilitated exercises and discussions designed to surface ideas and visions for the Manhattanville campus, buildings, and homes.

WORKSHOP INTRODUCTION



Example of workshop materials

NYCHA, together with a design consultant, Peterson Rich Office (PRO), developed the Manhattanville Design Workshop to gather resident input and vision design solutions for the campus grounds, building common spaces, and individual apartment interiors.

Upon arrival, residents were directed to tables staffed with one facilitator and note-taker to assist in documenting resident feedback gathered throughout the workshop. The workshop began with a brief presentation explaining the basics of the PACT program as an introduction to residents who were new to the conversation or as a refresher to those who were familiar with the program from prior events. Residents were then guided through a series of three activities, using the materials pictured above, to provide information about their campus and recommendations for future design and programming decisions.



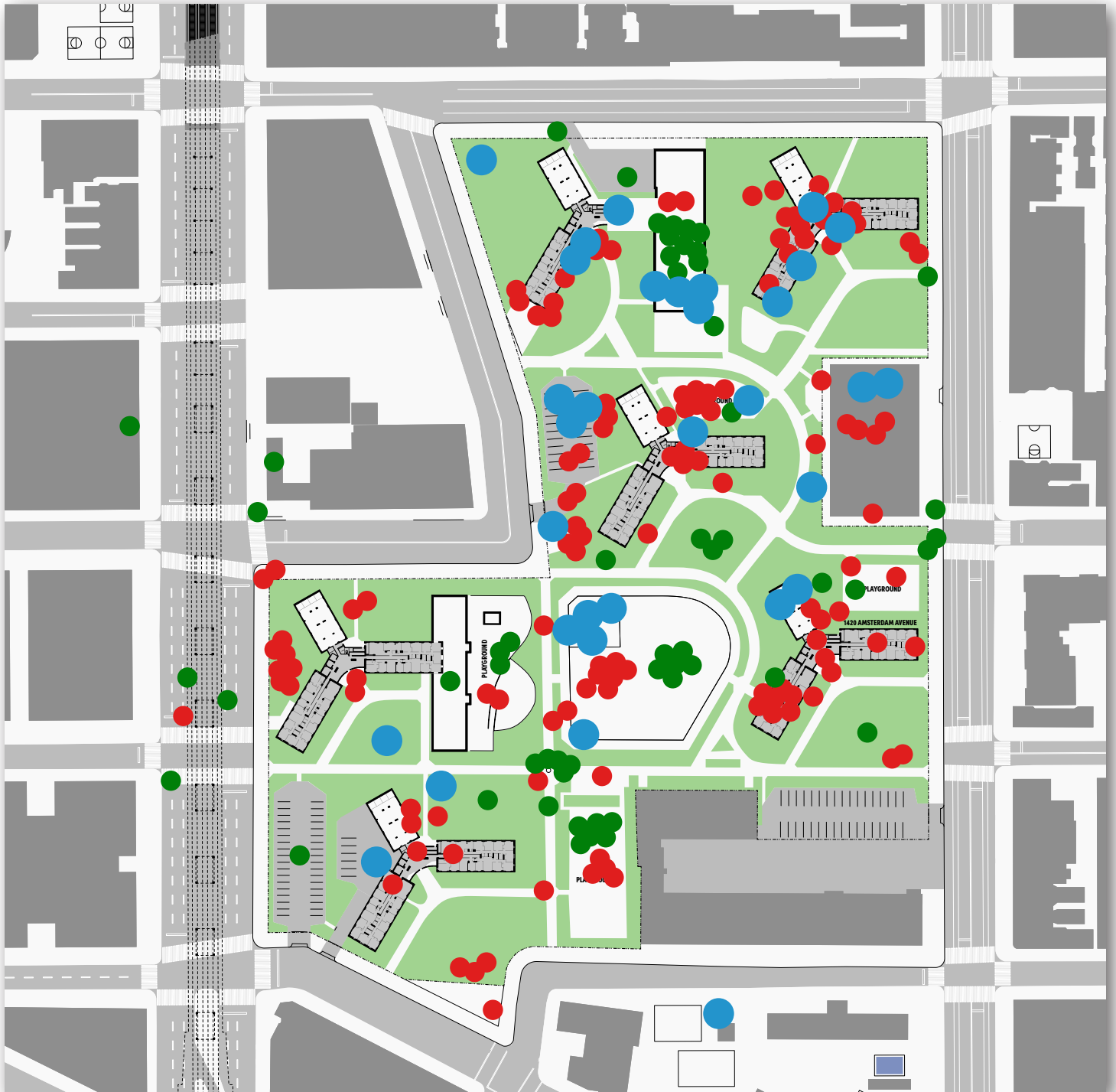
Resident reading the PACT Overview

SITE AND GROUNDS: CAMPUS HEAT MAP

In the first activity, residents were instructed to place dot stickers over areas of the campus and buildings that were particularly well liked (green), disliked (red), and top priorities for transformation (blue).

Map Legend:

- Green Dot: Well Liked or Area of Opportunity
- Red Dot: Disliked Area
- Blue Dot: Top Priorities for Transformation



Results compiled from all tables

SITE AND GROUNDS: RESIDENT OBSERVATIONS



"The space is nice, but programs are needed for all ages"

"Kids, teens, adults and elderly always gather in the Community Center. It's a valuable space"

"We have so many recreation areas, we should be able to enjoy them"



"The ball field needs upgrading, with more activities for children to do"

"Playground equipment is dated and all the same, and there aren't enough accommodations for children with disabilities"

The Manhattanville Community Center, with both senior and teen programming, is located on the north edge of campus at the base of Building 6 along W 133rd Street.

Residents noted that the outdoor recreation areas on the site include a central ball court and recently renovated public playgrounds to the north, south, and east of this central space.



"There are a lot of dark spots at night where I do not feel safe"

"There's a huge need for on-site security. Regular patrolling of the grounds is needed"

"The garbage needs a larger area to contain it and prevent overflowing"



"We need the grocery store to reopen"

"Pests attracted to the vacant lot move all over campus, including inside lobbies"

"A new market in the vacant lot will bring new kinds of activity"

Residents expressed that inadequate lighting along paths creates an unsafe feeling for residents, especially near buildings where scaffolding and blind spots are more prevalent.

Residents stated the improper disposal of waste attracts rodents and pests, most notably near the on-site trash compactor and the vacant lot of the former supermarket on Amsterdam Avenue.

SITE AND GROUNDS: VISIONING COMPOSITE MAP

The second activity asked residents and facilitators to work together and envision improvements to their campus. Using the same map, facilitators sketched solutions to some of the areas identified in the first activity.

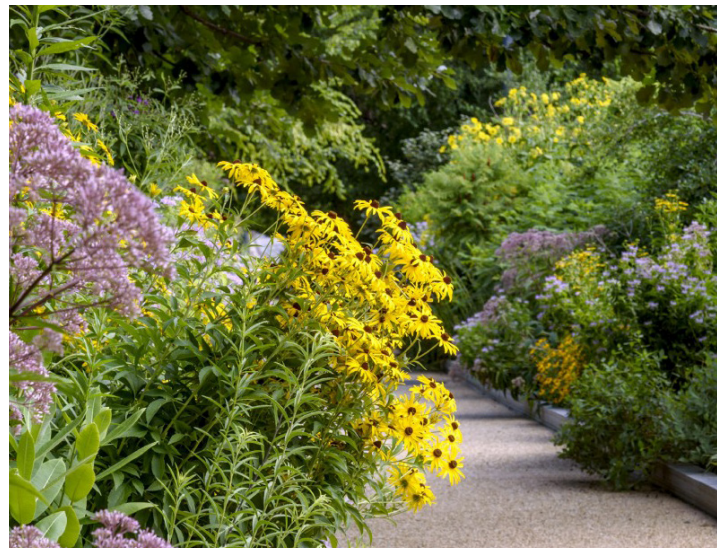
Map Legend:

- | | |
|---|-------------------------|
| 1 Multi-Generational Fitness Track | 6 Shaded Seating |
| 2 Community Garden | 7 Picnic Area |
| 3 Improved Sport Courts | 8 Senior Fitness |
| 4 Dog Run | 9 Open Lawn |
| 5 Illuminated Pathways | |



SITE AND GROUNDS: KEY TAKEAWAYS

- Residents are interested in additional and varied outdoor multi-generational programming as well as shaded seating areas to cool down in the summer months.
- Playground equipment should be designed for a larger range of ages and abilities.
- Improvements to security should include lighting upgrades throughout the campus, specifically at all paths, building entries, and around recreation areas.
- A designated dog run on campus could help to keep residents safe and limit the amount of mess left on pathways.
- Varied landscaping, including flower gardens, would make the campus more beautiful.



Suggested site programming and improvements per Site & Grounds Visioning exercise

COMMON SPACES: BUILDING HEAT MAP

The dot stickers from the first activity were carried over to a larger, typical building ground-level plan. Residents indicated areas of the buildings that were particularly well liked (green), disliked (red), and top priorities for transformation (blue).

Map Legend:

- Green Dot: Well Liked or Area of Opportunity
- Red Dot: Disliked Area
- Blue Dot: Top Priorities for Transformation



Results compiled from all tables

COMMON SPACES: RESIDENT OBSERVATIONS

"I don't feel safe in my building, the corridors do not have light and entrance doors are broken"



"Building lobbies need much better security systems"

"The space outside each lobby entry could be better utilized"

"Wheelchairs and stretchers cannot fit in these elevators"



"Building services and equipment are so deteriorated"

"Full oversized trash bags are often left in the hallway and attract pests"

The existing entry sequence is dark, closed, and filled with blind spots that cause unease for residents. Both front and rear entry door locks are frequently broken, allowing uninvited visitors inside.

Residents reported that elevators in the tower frequently break down, and the current trash chute hopper door is insufficiently sized for the majority of contemporary-sized trash bags.

"We would like to use the multi-purpose rooms at the building ground level but they are often closed"



"There is a lack of organized and clean space in building common areas"

"The ground floor multi-purpose rooms are underutilized"

Residents stated that multi-purpose rooms situated at the ground floor are expansion opportunities for more frequent programming and shared amenities.

"The terrace is not like it used to be. We used to celebrate birthday parties and family gatherings, but now it's not inviting"



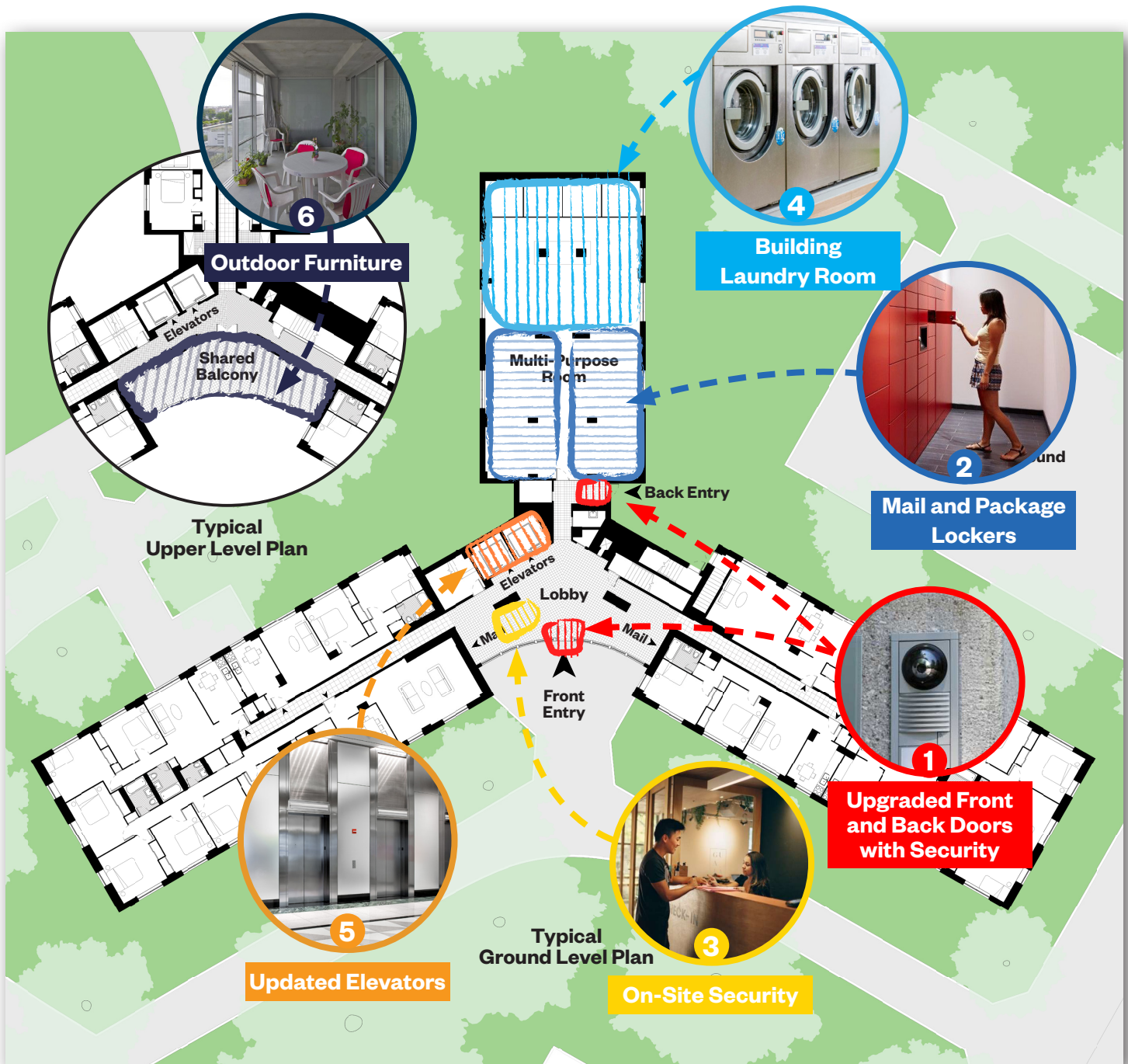
Residents described shared terrace spaces off the elevator lobbies of each floor as dirty and often misused, leaving them uninviting for resident use.

COMMON SPACES: VISIONING COMPOSITE MAP

The third and last activity asked residents and facilitators to work together to envision improvements to the building common spaces and apartment interiors. Using the categories listed on the worksheets as a guide, residents and facilitators sketched solutions to address areas of concern and opportunity on the plan.

Map Legend:

- 1** Upgraded Front and Back Doors with Security
- 2** Mail and Package Lockers
- 3** On-Site Door-person Security
- 4** Building Laundry Room
- 5** Updated Elevators
- 6** Outdoor Furniture



Suggested improvements compiled from all tables

COMMON SPACES: KEY TAKEAWAYS

- Building entries, lobbies, and the areas around them should include additional lighting and security considerations to improve visibility and keep residents safe.
- Building services and equipment should be modernized, including but not limited to: elevators, plumbing, laundry, and appliances.
- Larger designated areas for mail, packages, trash, and recycling could help to keep common spaces clean and organized.
- The underutilized multi-purpose rooms at the back of each building at ground level are opportunities for expanded building amenities and social programming.



Suggested site programming and improvements per Common Spaces Visioning Exercise

APARTMENTS: HEAT MAP

Residents reported that the lack of maintenance leads to uncomfortable apartment living spaces. As a result, there were no well-liked areas (green dots) indicated in this exercise. Dot stickers represented areas that were disliked (red) and top priorities for transformation (blue).

Map Legend:

- Green Dot: Well Liked or Area of Opportunity
- Red Dot: Disliked Area
- Blue Dot: Top Priorities for Transformation



Results compiled from all tables

APARTMENTS: RESIDENT OBSERVATIONS



Residents stated that the current plumbing system is aged and frequently fails, flooding apartments, promoting mold growth, and leaving them unsafe for extended periods of time.



Residents noted that repairs and upgrades are needed in the kitchens. Cabinets are frequently broken, there is a lack of preparation surface, and appliances are dated.



Residents described current apartment finishes as dated and depressing. Apartments constructed before ADA standard regulations are not accessible for a range of NYCHA residents.



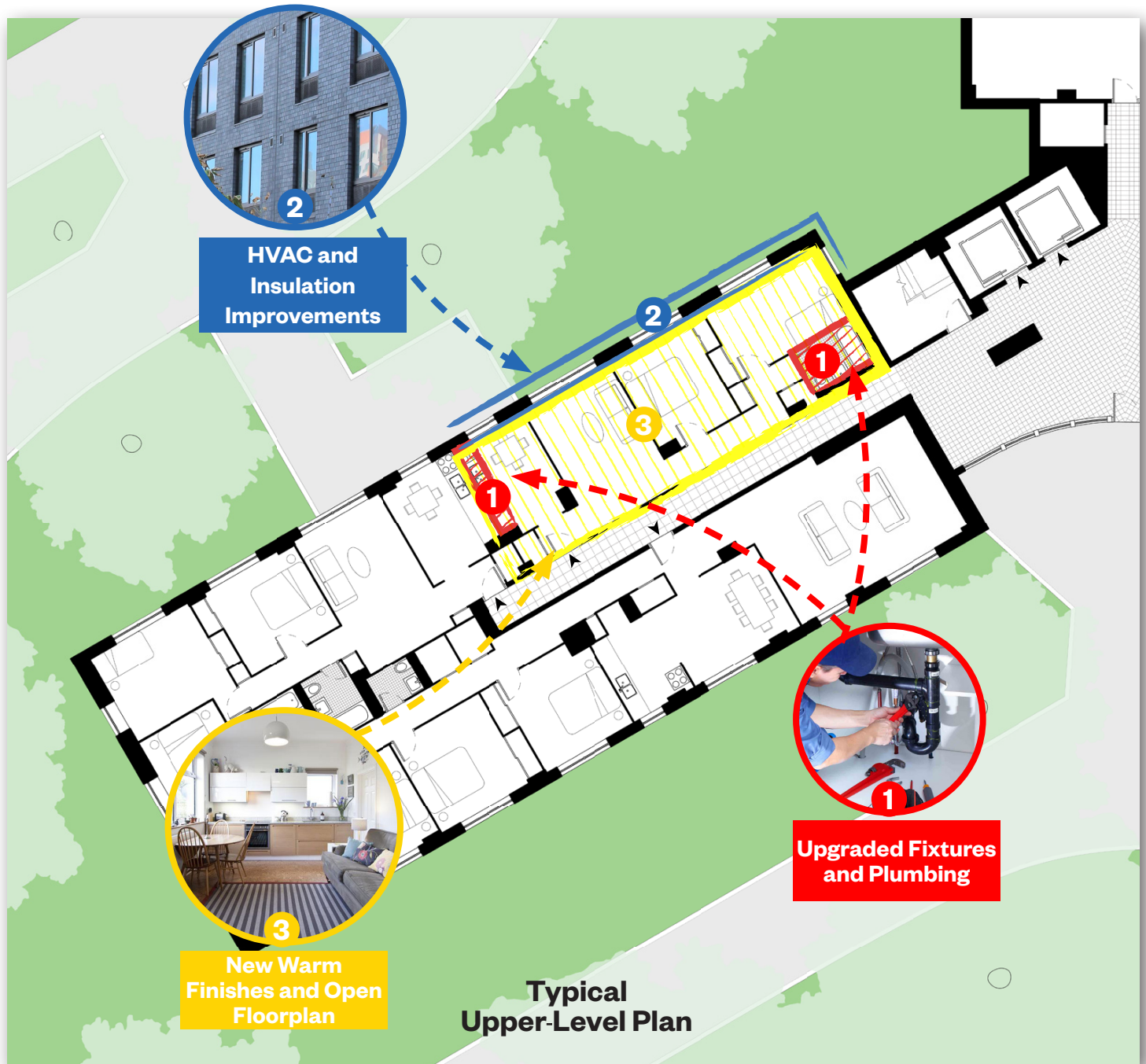
Residents expressed frustration in the lack of in-unit temperature control. Small and dirty windows restrict the amount of natural light, contributing to dim interior environments.

APARTMENTS: VISIONING COMPOSITE MAP

The third and last activity asked residents and facilitators to work together to envision apartment improvements. Using the categories listed on the worksheets as a guide, residents and facilitators sketched solutions to address problems and opportunities.

Map Legend:

- 1** Upgraded Fixtures and Plumbing
- 2** HVAC and Insulation Improvements
- 3** New Warm Finishes and Open Floorplan



Suggested improvements compiled from all tables

APARTMENTS: KEY TAKEAWAYS

- Renovations should include a comprehensive modernization and replacement of plumbing pipes, fixtures, and damaged interior finishes due to persistent leaks throughout units.
- Small, old windows should be replaced to increase access to natural light and ventilation.
- Apartments require improved climate control infrastructure to create comfortable and safe interior living environments.
- Apartment finishes and fixtures should be updated, including but not limited to: flooring, walls, ceilings, kitchen appliances, bathroom fixtures, cabinetry, and artificial lighting.
- Residents are interested in increased in-unit storage to meet the needs of modern families.

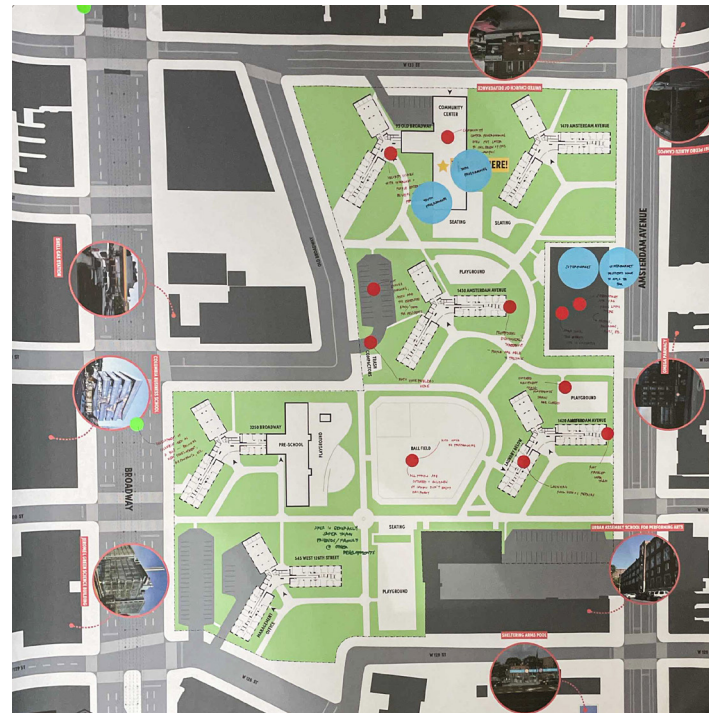
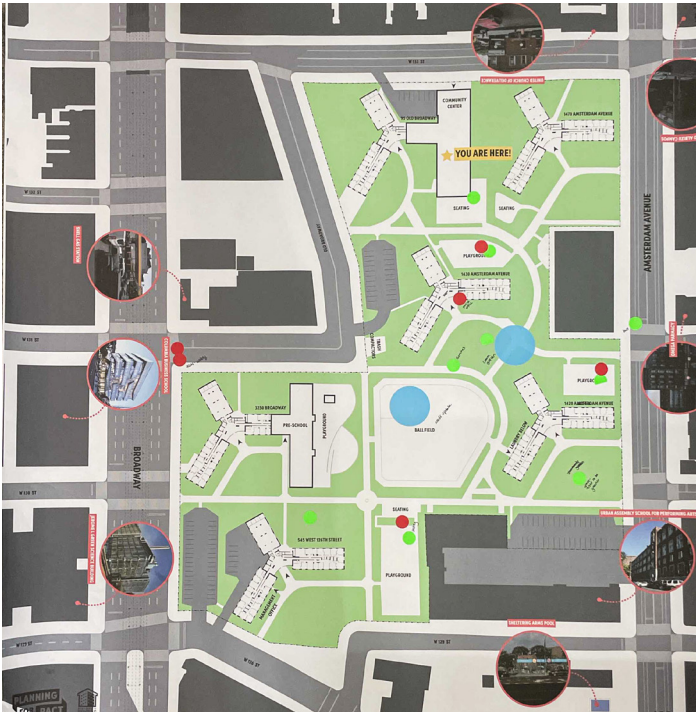


Suggested site programming and improvements per Apartments Visioning Exercise

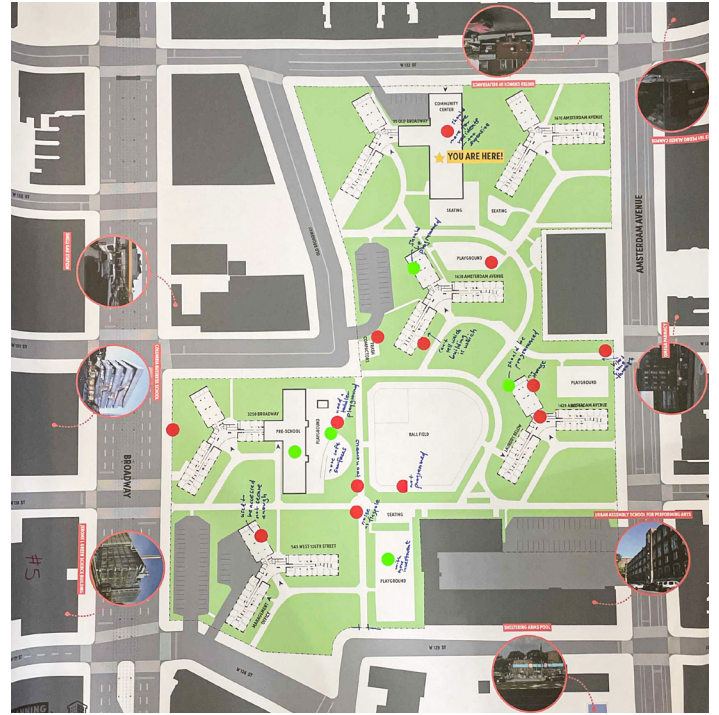
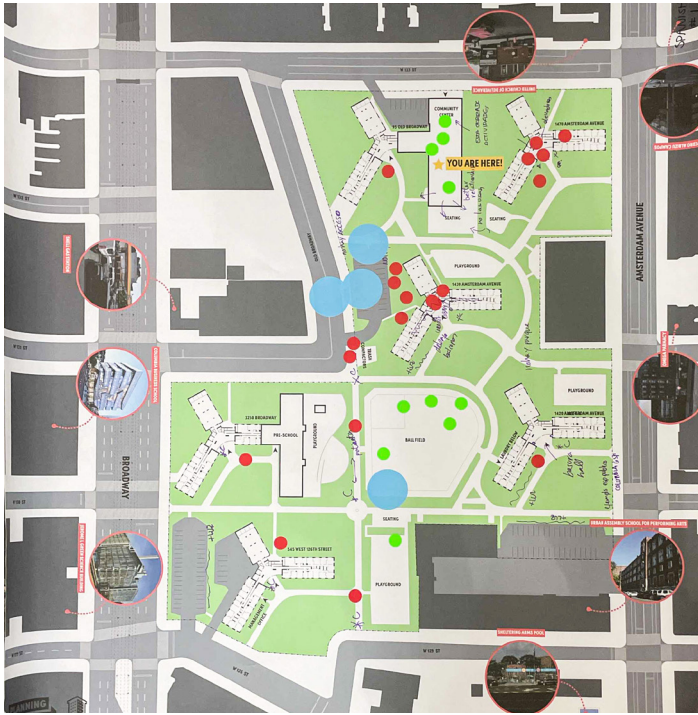
DESIGN WORKSHOP INDEX

The following are the artifacts from the Manhattanville Design Workshop. Maps and worksheets were collected from each table and documented to create the Design Workshop Summary.

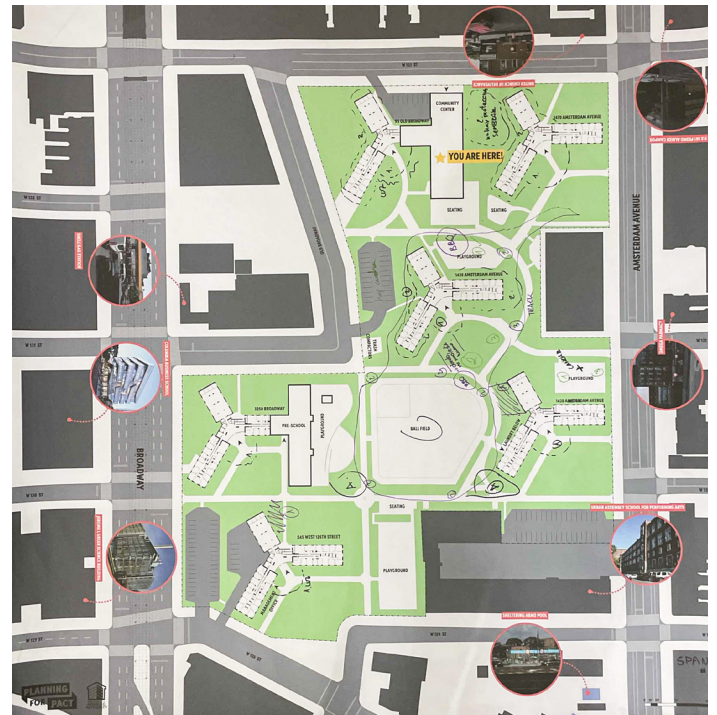
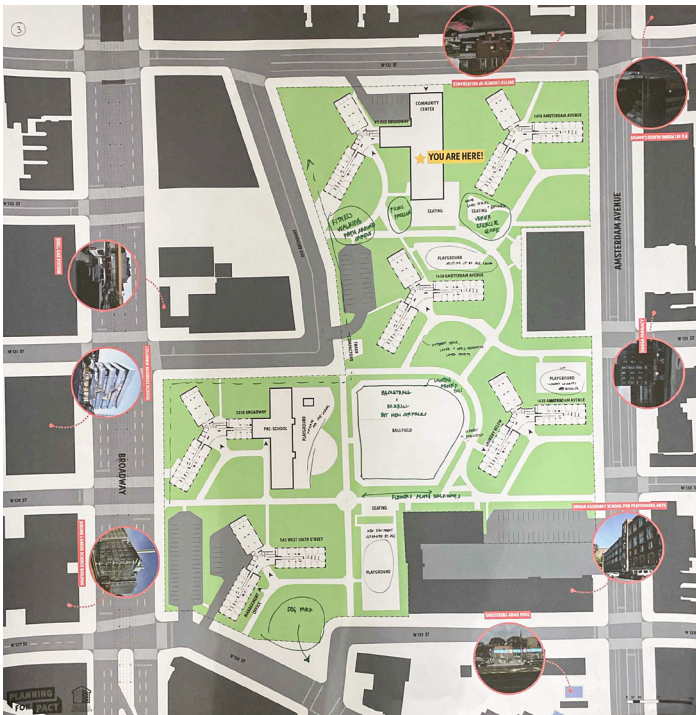
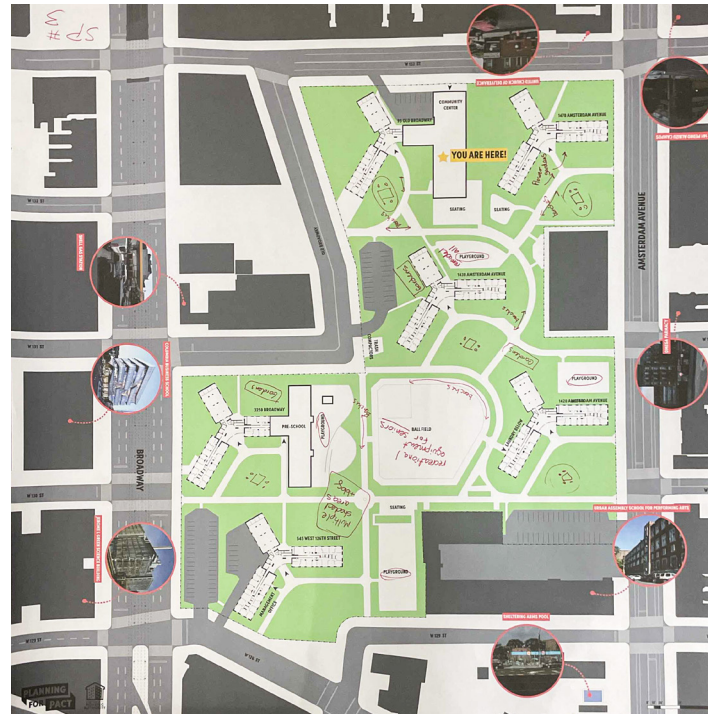
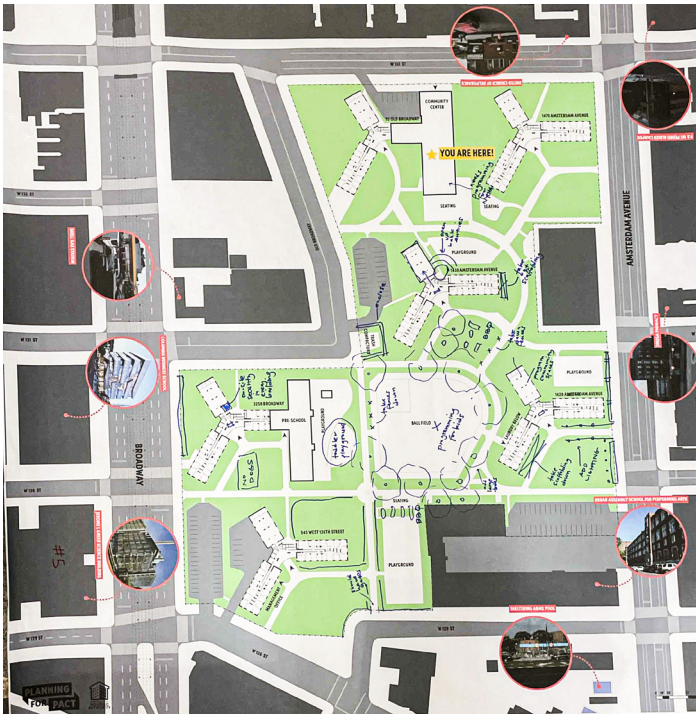
INDEX: ACTIVITY 1



INDEX: ACTIVITY 1



INDEX: ACTIVITY 2



INDEX: ACTIVITY 3

#7 Building Common Spaces + Apartments

Typical Upper Level Plan

Typical Ground Level Plan

Handwritten Notes:
 RENOVATE, PAINT, BRIGHTEN, SEATING (HEAVY DUTY), KEY TO BALCONY

Accessibility and Security
 For Example: New Entry Doors, Updated Security System
 GOOD KEY FOLDS, BACK DOOR ACCESS, LOBBY ROOM FOR

Resident Amenities
 For Example: Mail & Package Lockers, Expanded Trash, Laundry

Outdoor Gathering Space
 For Example: Back Patios, Improved Shared Balconies

Indoor Gathering Space
 For Example: Community Rooms, Lobby Expansions

Building Exterior
 For Example: Added Insulation, Brick Covering, Larger Windows

Bathrooms and Kitchens
 For Example: Bathroom Grab Bars, Added Storage, Backsplash
 KITCHEN IS DIRTY, LARGER REFRIGERATORS, MODERN, NO EXTRA FREEZE

Floorplan Adjustments
 For Example: Open Floorplans, Juliette Balconies

Finishes and Lighting
 For Example: Floor Finishes, Wall Paint, Modern Light Fixtures
 STAIRCASES - LIGHTING, MORE FREQUENT CLEANING PATROL

#1 Building Common Spaces + Apartments

Typical Upper Level Plan

Typical Ground Level Plan

Handwritten Notes:
 FLOOR BY FLOOR PORCHES, PAT FITNESS, COMMUNITY SUPER OFFICE, EXTERIOR COURTYARD, BIKER CLUBHOUSE

Accessibility and Security
 For Example: New Entry Doors, Updated Security System

Resident Amenities
 For Example: Mail & Package Lockers, Expanded Trash, Laundry

Outdoor Gathering Space
 For Example: Back Patios, Improved Shared Balconies

Indoor Gathering Space
 For Example: Community Rooms, Lobby Expansions

Building Exterior
 For Example: Added Insulation, Brick Covering, Larger Windows

Bathrooms and Kitchens
 For Example: Bathroom Grab Bars, Added Storage, Backsplash

Floorplan Adjustments
 For Example: Open Floorplans, Juliette Balconies

Finishes and Lighting
 For Example: Floor Finishes, Wall Paint, Modern Light Fixtures

#12 Building Common Spaces + Apartments

Typical Upper Level Plan

Typical Ground Level Plan

Handwritten Notes:
 WHAT LIKE IT USED TO BE, BATTERY PARTS, FRIGIDERS, IT'S NOT JUST IN, DRIVEN THINGS, ANTI-FALL GRANITE FEELS WISER, NO LIGHTING, NOT WISE, HOW TO USE SPACE FOR PEOPLE, BIKER CLUBHOUSE, BIKER CLUBHOUSE, BIKER CLUBHOUSE

Accessibility and Security
 For Example: New Entry Doors, Updated Security System

Resident Amenities
 For Example: Mail & Package Lockers, Expanded Trash, Laundry
 LAUNDRY IN BATH ROOMS. (IN THE BATHROOMS)

Outdoor Gathering Space
 For Example: Back Patios, Improved Shared Balconies

Indoor Gathering Space
 For Example: Community Rooms, Lobby Expansions
 → NEW VENTILATION PIPES EXPOSED

Building Exterior
 For Example: Added Insulation, Brick Covering, Larger Windows
 SUNSCREEN, WINDOW SCREENS, INSULATION + EXTERIORS

Bathrooms and Kitchens
 For Example: Bathroom Grab Bars, Added Storage, Backsplash
 - BETTER INSULATION BETWEEN APARTMENTS

Floorplan Adjustments
 For Example: Open Floorplans, Juliette Balconies
 YES OPEN KITCHENS!!!

Finishes and Lighting
 For Example: Floor Finishes, Wall Paint, Modern Light Fixtures
 LIGHTING'S PART ARE LIGHT SWITCHES IN THE WHOLE APARTMENT. SWITCH ARE NUMBER IN ROOMS.

INDEX: ACTIVITY 3

Building Common Spaces + Apartments table 5

Accessibility and Security
For Example: New Entry Doors, Updated Security System

Resident Amenities
For Example: Mail & Package Lockers, Expanded Trash, Laundry
Floor captains

Outdoor Gathering Space
For Example: Back Patios, Improved Shared Balconies

Indoor Gathering Space
For Example: Community Rooms, Lobby Expansions
More Landings in every building

Building Exterior
For Example: Added Insulation, Brick Covering, Larger Windows

Bathrooms and Kitchens
For Example: Bathroom Grab Bars, Added Storage, Backsplash
New backsplash w/ v. high quality finish w. plumbing

Floorplan Adjustments
For Example: Open Floorplans, Juliette Balconies
should have choice about opening

Finishes and Lighting
For Example: Floor Finishes, Wall Paint, Modern Light Fixtures
better + more lighting fixture in living space

Building Common Spaces + Apartments SPANISH #7

Accessibility and Security
For Example: New Entry Doors, Updated Security System

Resident Amenities
For Example: Mail & Package Lockers, Expanded Trash, Laundry
Better balconies / seating / plants.

Outdoor Gathering Space
For Example: Back Patios, Improved Shared Balconies

Indoor Gathering Space
For Example: Community Rooms, Lobby Expansions

Building Exterior
For Example: Added Insulation, Brick Covering, Larger Windows
NO BRICK

Bathrooms and Kitchens
For Example: Bathroom Grab Bars, Added Storage, Backsplash
AC/heating

Floorplan Adjustments
For Example: Open Floorplans, Juliette Balconies

Finishes and Lighting
For Example: Floor Finishes, Wall Paint, Modern Light Fixtures

Building Common Spaces + Apartments #10

Accessibility and Security
For Example: New Entry Doors, Updated Security System
Damma, better doors, videovision intercom

Resident Amenities
For Example: Mail & Package Lockers, Expanded Trash, Laundry
mailboxes - some balconies, secure area for packages

Outdoor Gathering Space
For Example: Back Patios, Improved Shared Balconies
Used for dog area but used to be for kids not cleaned / better lighting, ground better maintained / ground body paintings

Indoor Gathering Space
For Example: Community Rooms, Lobby Expansions
secure equip. rest for packages

Building Exterior
For Example: Added Insulation, Brick Covering, Larger Windows
insulation / windows windows should be easier to clean / in wall AC instead of window

Bathrooms and Kitchens
For Example: Bathroom Grab Bars, Added Storage, Backsplash
bath sink w/ storage / look in line E/F kitchen - new cabinets (pull off wall)

Floorplan Adjustments
For Example: Open Floorplans, Juliette Balconies
pipe in coat closet makes a small noisily

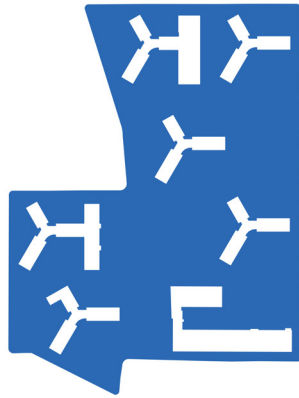
Finishes and Lighting
For Example: Floor Finishes, Wall Paint, Modern Light Fixtures
need overhead lighting / window shading system downspouts could be water for wheelbarrow

APPENDIX: POTENTIAL DESIGN SOLUTIONS

The Manhattanville Design Workshop was designed and facilitated by Peterson Rich Office, an architecture office in Brooklyn, New York and NYCHA.

Referring to the key takeaways from each workshop activity as a rubric, Peterson Rich Office developed a series of potential design solutions to address the issues and opportunities presented by residents.

The following appendix is the result of that exercise, and represents a guide for future design and development teams to implement changes to improve Manhattanville Houses at multiple scales.



How could the Manhattanville grounds better serve the NYCHA population?

POTENTIAL DESIGN SOLUTIONS: SITE AND GROUNDS



1 Site Entry Courts

Articulate new entry plazas at the street entries, creating more welcoming connections to the surrounding neighborhood. Incorporate mechanisms to temporarily restrict site access when necessary for security. Provide a textural paving strategy, bright lighting, bold strategies for building identity, and a clear signage and wayfinding strategy for residents, guests, and essential service personnel.



2 Wide Pedestrian Boulevards

Widen main pathways through the site to concentrate pedestrian circulation and maximize visibility. Restrict and control site vehicular movement to three east-west boulevards closed to through traffic but open to maintenance and emergency vehicles. Integrate improved bright lighting and speed reduction measures such as bumps and marked crosswalks to maintain resident safety.



3 Central Ball Court

Renovate the existing central ball court to provide a new hub for recreation, possibly including new and improved courts with designated seating and a large playground with splash pads for cooling. Selectively remove fences and redirect walking paths to increase accessibility to all recreational spaces throughout.



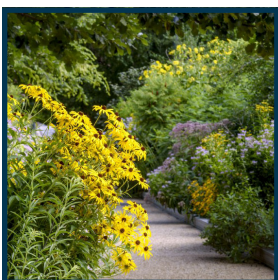
4 Multi-Generational Fitness Track

Wrap the central ball court with a multi-generational fitness track to provide exercise opportunities for multiple age groups. Add nodes of fitness and play programming along the track that are accessible, adaptable, and cater to residents of different abilities.



5 Secondary Park Programming

Activate new secondary open spaces within the currently fenced off grass lawns for programming such as a dog run, a community garden, and covered picnic seating areas. Provide covered and secure outdoor area for bike storage to encourage residents to discontinue storing dangerous motorized bicycles indoors.



6 Meadow Gardens

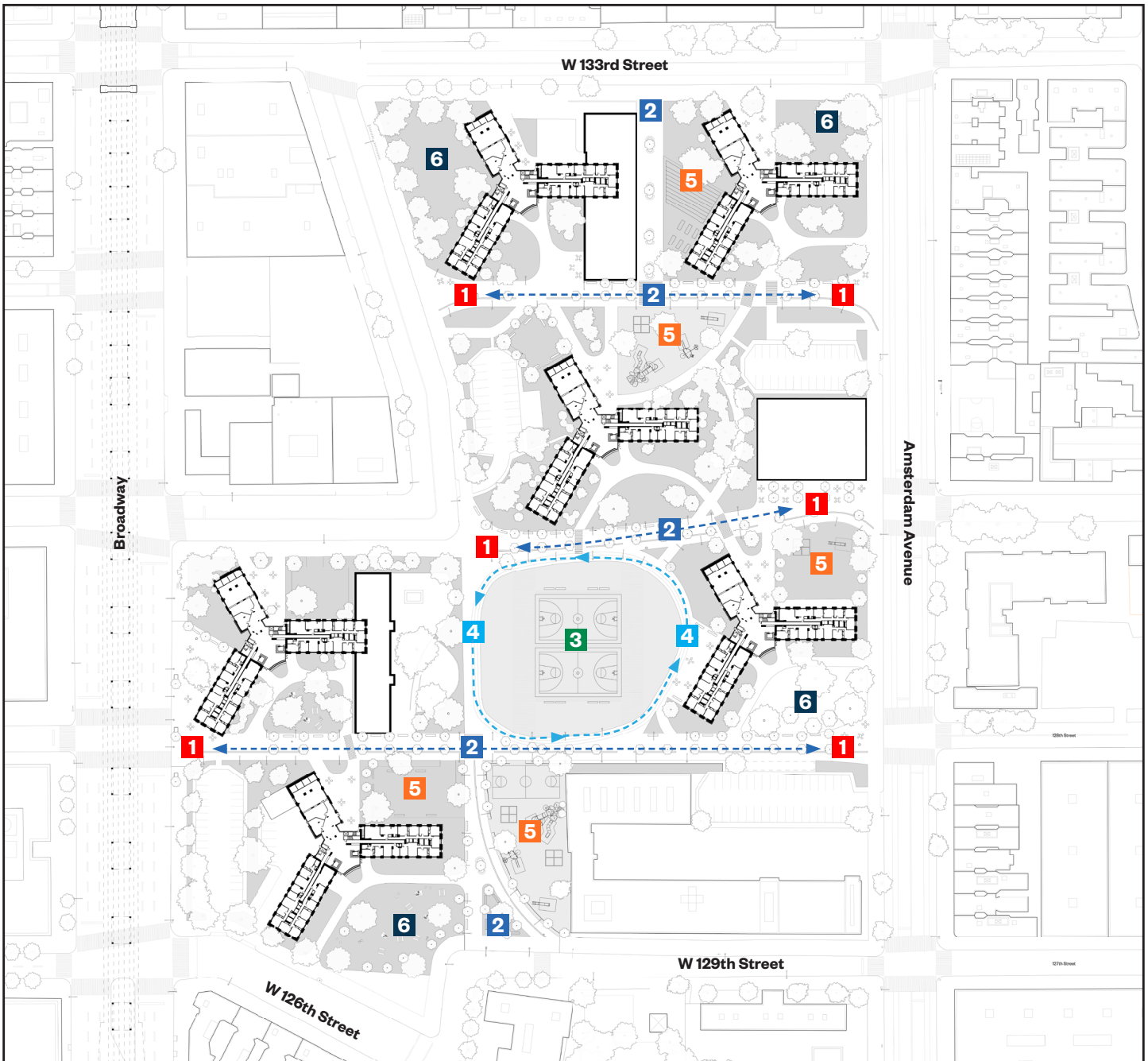
Replace high-maintenance lawns directly next to buildings with low-maintenance native landscaping to improve aesthetic appeal and stormwater absorption. The native plants and the pollinators they attract double as a tool for children to learn about local ecology and the environment.

KEY TAKEAWAYS ADDRESSED*

- Security Improvements
- Varied Landscaping
- Security Improvements
- Varied Landscaping
- Varied Outdoor Multi-Generational Programming
- Improved Playground Equipment
- Varied Outdoor Multi-Generational Programming
- Improved Playground Equipment
- Designated Dog Run
- Security Improvements
- Varied Outdoor Multi-Generational Programming
- Varied Outdoor Multi-Generational Programming
- Varied Landscaping

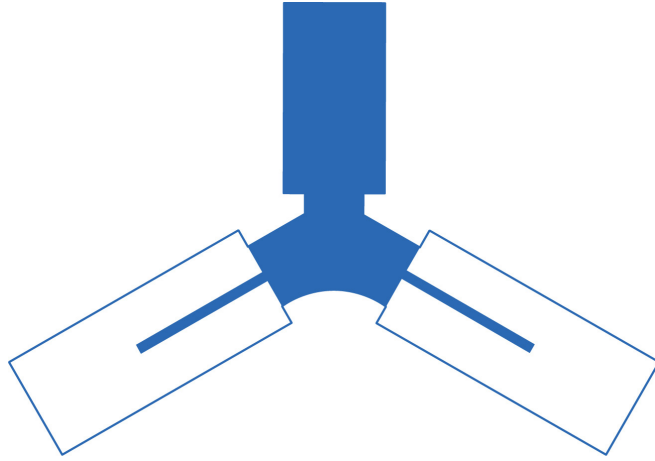
*See page 6 for Site and Grounds: Key Takeaways

POTENTIAL DESIGN SOLUTIONS: SITE AND GROUNDS



Map Legend:

- 1** Site Entry Courts clearly define limits of campus and create welcoming neighborhood connections.
- 2** Wide Pedestrian Boulevards link site entry courts and provide safe circulation paths for residents.
- 3** Central Ball Court improvements revitalize an existing asset that brings neighborhood children together.
- 4** Multi-generational Fitness Track provides active outdoor programming opportunities for adults and seniors.
- 5** Secondary Park Programming is added to activate former fenced lawn to maximize use of open space.
- 6** Meadow Gardens are added to outward facing lawns to further define entries and absorb stormwater.



How can the building's common spaces and infrastructure better serve 21st century resident needs?

POTENTIAL DESIGN SOLUTIONS: COMMON SPACES

GROUND LEVEL



1 Lobby Expansion

An extension of the lobby at the main entry at the south marks a clear front entrance improved through increased light, visibility, and the addition of new entry door locks and on-site security measures. The former multi-purpose room opposite the front entry is divided into three spaces: a mail and package area, a laundry room, and a flexible tenant association and activity room.



2 Back Entrance Patios

Back entries are expanded to create lightly programmed patio spaces that connect to the rest of the lobby programming through large windows and glass doors. High visibility from one entrance to the other is designed to create a space that feels safer to occupy.



3 New Compliant Elevators

Two brand-new elevator shafts near the main entry, sized to accommodate a compliant cab fit for an emergency medical service stretcher, are strategically located to avoid altering any apartments.

TYPICAL LEVEL



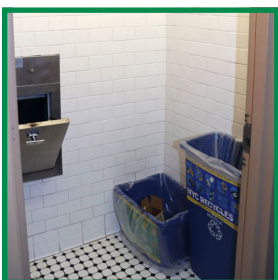
4 Updated Corridors

Updated finishes and improved lighting fixtures will transform the hallway from cold and dark to warm, clean, and inviting. Security improvements implemented in the entry lobby spaces, such as live-monitored security cameras, are carried up to the residential corridors on residential floors.



5 Improved Shared Balconies

Adding fixed furniture to the shared balconies creates useful semi-outdoor space for neighbors to socialize and enjoy throughout the year. Entries from the corridor on multiple facades increases natural ventilation and comfort to the corridors and elevator waiting spaces.



6 New Trash Rooms

Relocated elevators create space for a compliant refuse room within the former shafts, with expanded chutes for both trash and recycling that land on the cellar level. The newly located chutes improve resident safety in the event of a fire and keep common corridors pleasant and clean.

KEY TAKEAWAYS ADDRESSED*

- Security Improvements
- Services and Equipment Modernization
- Clean Common Spaces
- Expanded Amenities

- Security Improvements
- Clean Common Spaces
- Expanded Amenities

- Services and Equipment Modernization
- Security Improvements

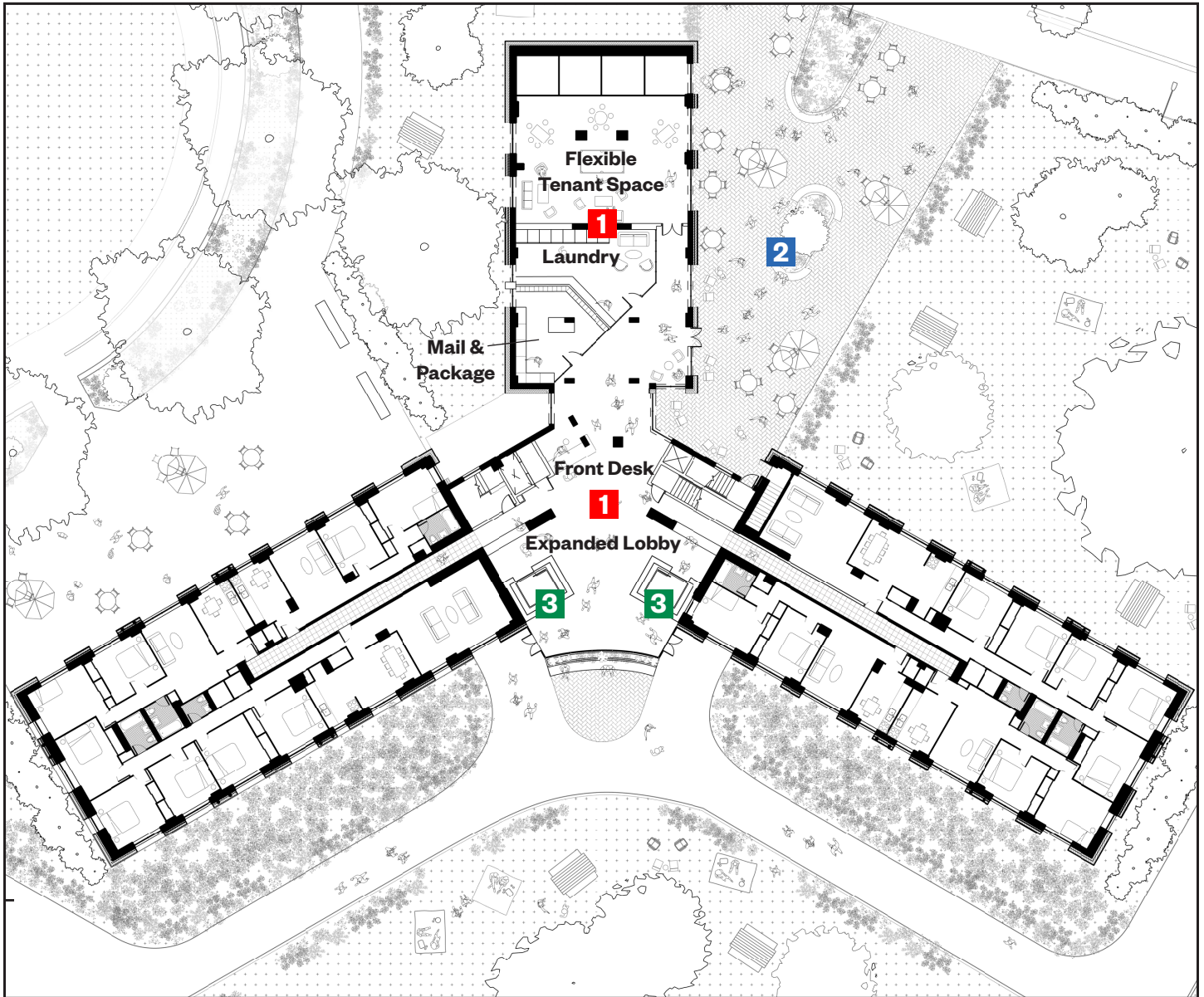
- Security Improvements
- Clean Common Spaces

- Clean Common Spaces
- Expanded Amenities

- Services and Equipment Modernization
- Clean Common Spaces

*See page 10 for Common Spaces: Key Takeaways

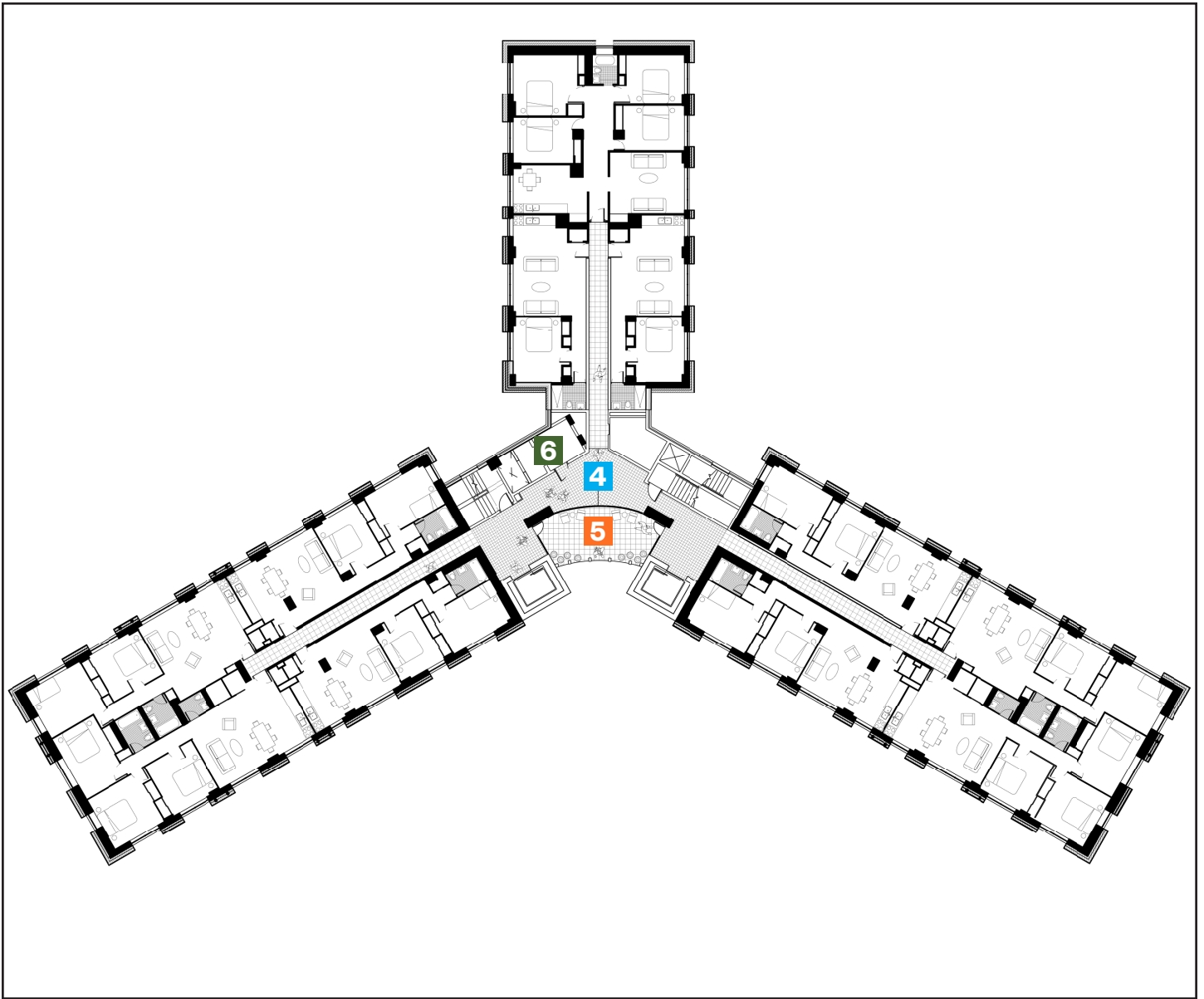
POTENTIAL DESIGN SOLUTIONS: GROUND LEVEL



Map Legend:

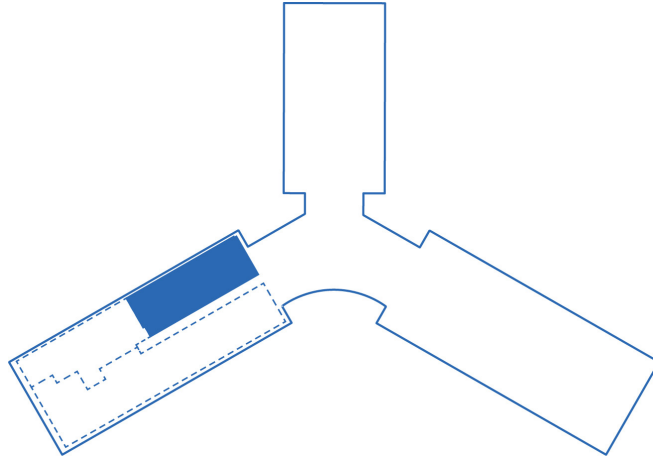
- 1** A Lobby Expansion marks a clear front entrance with added glazing and doors for increased daylighting and natural ventilation. Unnecessary partition walls are removed for a front desk, and the underutilized space at the back is divided into a mail and package area, a laundry room, and a flexible tenant activity room.
- 2** Back Entrance Patios are expanded to create highly visible entry areas that feel safe to occupy.
- 3** New Compliant Elevators are relocated and sized to fit an emergency medical service stretcher cab.

POTENTIAL DESIGN SOLUTIONS: TYPICAL LEVEL



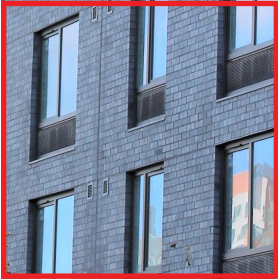
Map Legend:

- 4** Updated Corridors bring new finishes and improved lighting fixtures to all floors.
- 5** Improved Shared Balconies are given multiple entry points to increase ventilation into corridors and elevator waiting areas. Fixed furniture creates useful semi-outdoor space for neighbors to socialize.
- 6** New Trash Rooms are relocated to the former elevator shafts, with expanded chutes for both trash and recycling that land on the cellar level for easy removal.



**How can NYCHA apartments
become more comfortable and
sustainable?**

POTENTIAL DESIGN SOLUTIONS: APARTMENTS



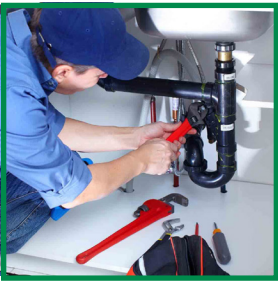
1 Improve Building Envelopes, Interiors, and Roofs

Replacing damaged and underperforming sections of the building's façade and roof, and exploring opportunities to add protective layers inside or outside the building, will help to keep unwanted weather and water from intruding into the building. These measures can help to keep apartments warm in the winter and cool in the summer



2 Replace Windows Throughout

Lowering sills to expand openings for new windows with thinner mullion profiles will increase access to natural light and provide better natural ventilation to units. The installation of modern windows will also provide for better insulation and decrease heat loss in the winter months.



3 Upgrade Plumbing and HVAC Systems

With new plumbing systems installed within the depth of the overclad, existing plumbing chases and pipes are abandoned and can be re-purposed as fresh air vents. Integrated ductless mini-split systems provide added thermal comfort during extreme weather.



4 Open Floorplans and Modernize Kitchens

The elimination of partition walls between the kitchen and living rooms of each unit would create a larger and lighter living space in each unit. Adding multi-functional built-in elements like kitchen islands can add a much-needed working and eating surface as well as storage below.



5 Install Additional Lights and Warm Finishes

The selection of floor, wall, ceiling, and built-in finishes in varied natural materials and textures make apartments appear warmer, modern, and more inviting. Adding light fixtures to units will increase comfort and improve resident health and safety.

KEY TAKEAWAYS ADDRESSED*

- Improved Climate Control
- Plumbing Modernization and Replacement
- Window Replacement
- Improved Climate Control
- Plumbing Modernization and Replacement
- Improved Climate Control
- Updated Fixtures and Finishes
- Updated Fixtures and Finishes
- Increased In-Unit Storage
- Updated Fixtures and Finishes
- Increased In-Unit Storage

*See page 14 for Apartments: Key Takeaways

POTENTIAL DESIGN SOLUTIONS: APARTMENTS

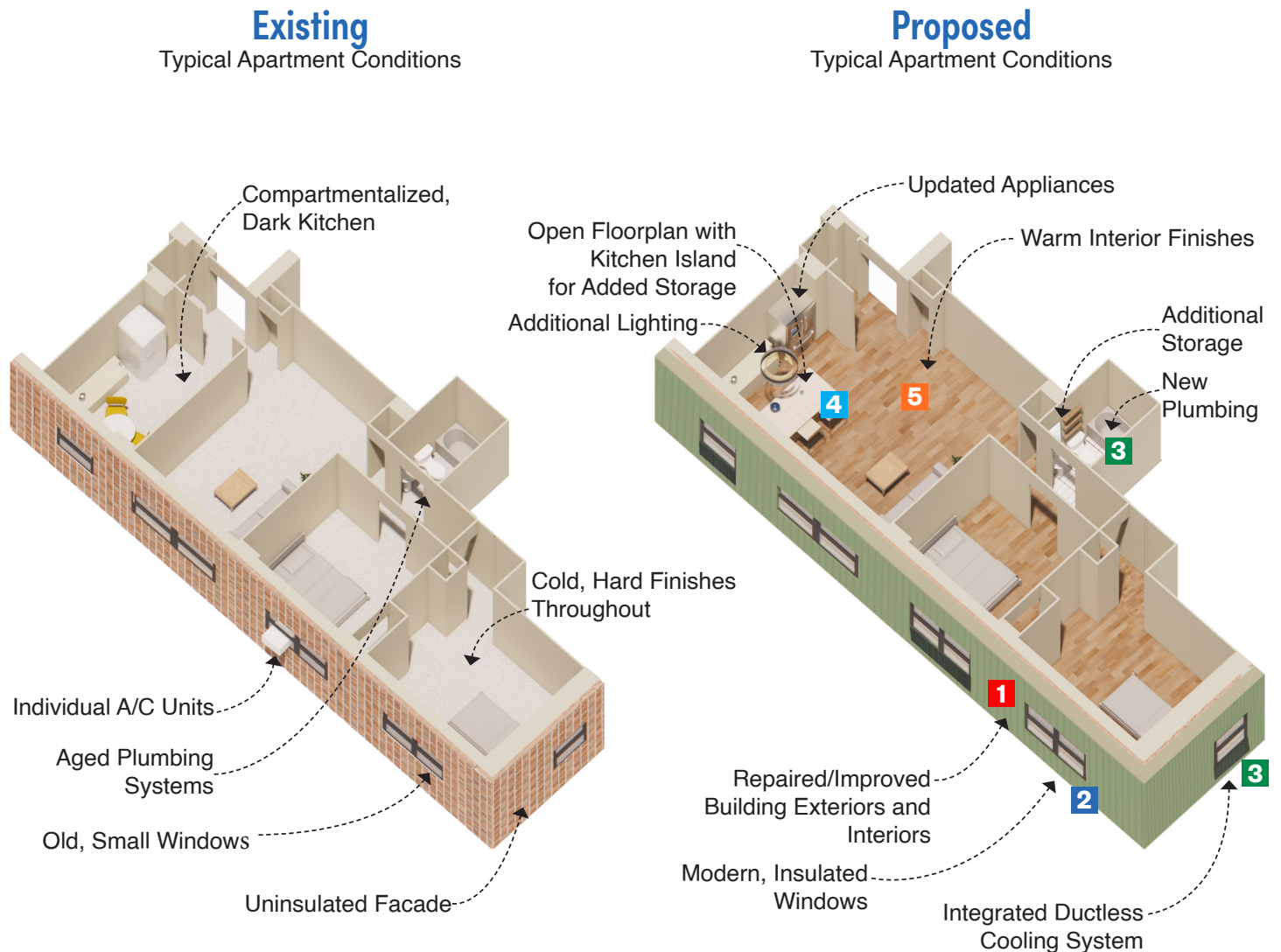


Diagram Legend:

- 1 Improve Building Envelopes, Interiors, and Roofs** by adding much-needed insulation to the building and redefine the identity of the campus
- 2 Replace Windows Throughout** to provide better ventilation and insulation to units
- 3 Upgrade Plumbing and HVAC Systems** with new pipes to eliminate persistent flooding and mold issues in apartment interiors. Integrating ductless HVAC units will provide added comfort during extreme weather
- 4 Open Floorplans and Modernize Kitchens** by eliminating partition walls between the kitchen and living rooms of each unit to create a larger and lighter living space. An eat-in kitchen island is a multi-functional element that can add much-needed storage and working surface.
- 5 Install Additional Lights and Warm Finishes** in natural materials and textures to make apartments appear warmer and more inviting

