ALR 2013 Conference

ACTIVE DESIGN

WORKSHOP

Workshop Presenters & Facilitators

Karen K. Lee

MD, MHSc, FRCPC

Senior Advisor, Built Environment & Healthy Housing, NYC Dept of Health & Mental Hygiene;

Adjunct Professor, Schools of Public Health, University of Toronto & University of Alberta (WHO Collaborating Center for Non-Communicable Disease Policy)

Gayle Nicoll

B.Tech, M.Arch, PhD, OAA

Professor

Dean, Faculty of Design OCAD University, Toronto

ACTIVE DESIGN

Active Design

Learning Outcomes

1. Awareness of the evidence-based information and resources available to the design professional to provide a foundation for their creative efforts to make building, site and community design more active;
2. Understanding of the approaches and strategies for incorporating Active Design into the design of buildings, their sites and community design; and
3. Application of Active Design strategies into building and site design.

ACTIVE DESIGN

Active Design

Active Design is a strategy-based design practice that aims to transform the built environment to encourage people to be more active.

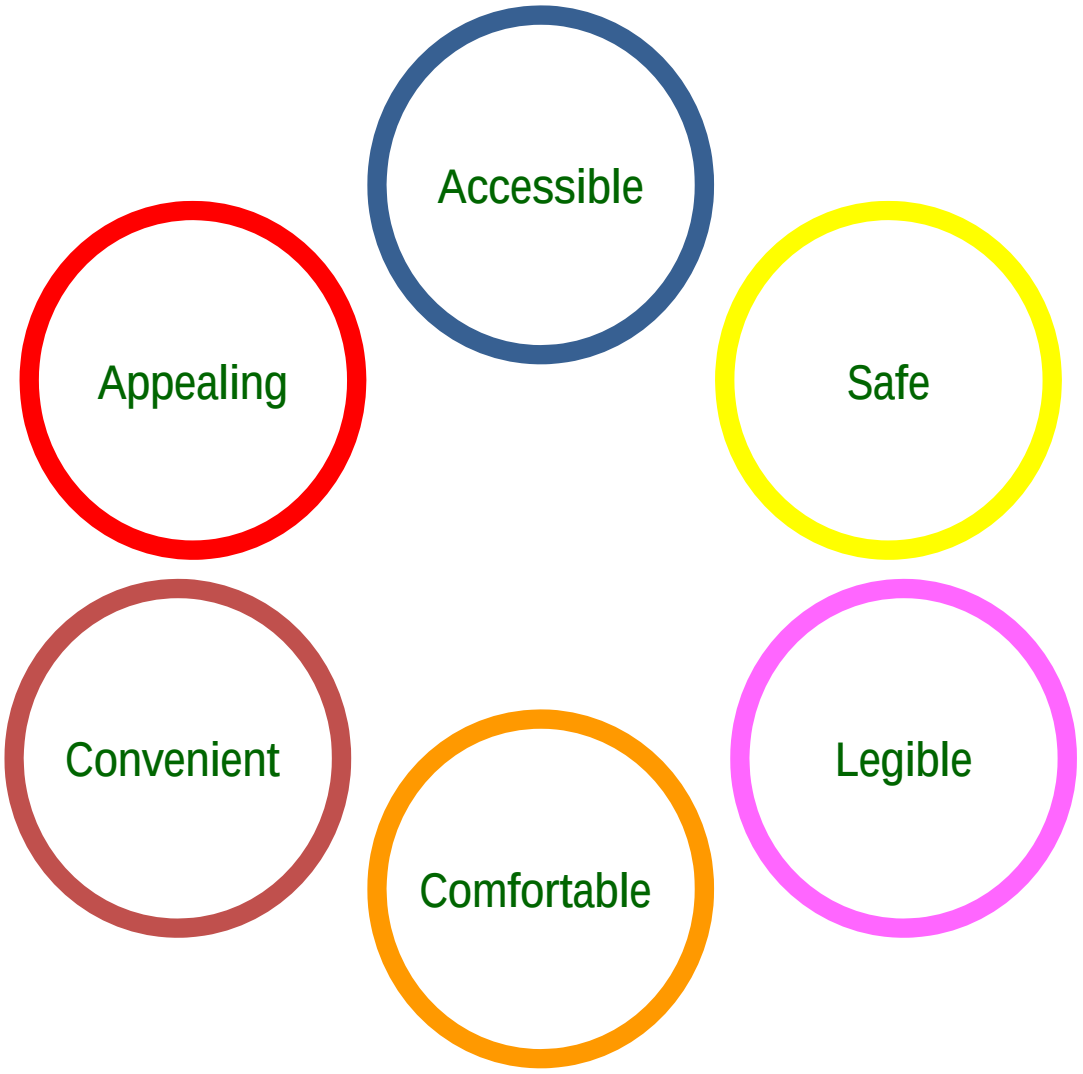
Active Design helps to address the greatest health epidemics of our time - obesity and related chronic diseases such as diabetes, heart disease, stroke, and cancer.

It involves making changes in buildings, streets, and neighborhoods to provide more opportunities for everyone to get the daily physical activity they need to stay healthy, and to enhance access to healthy foods and beverages.

It also supports other community benefits including enhanced environmental sustainability, universal accessibility, and greater economic resiliency.

ACTIVE DESIGN

Key environmental attributes for achieving behavior change

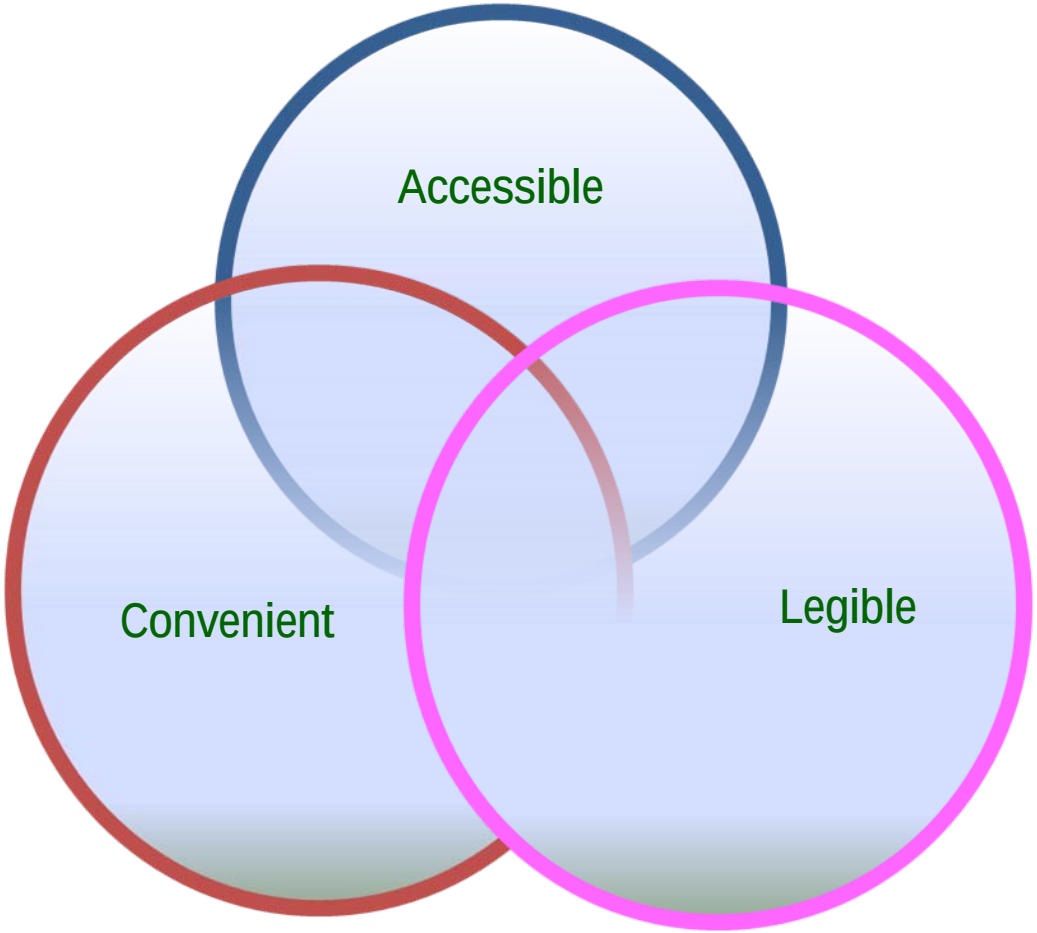


ACTIVE DESIGN

Key environmental attributes for achieving behavior change

Moderators

must exist for
possible behavior

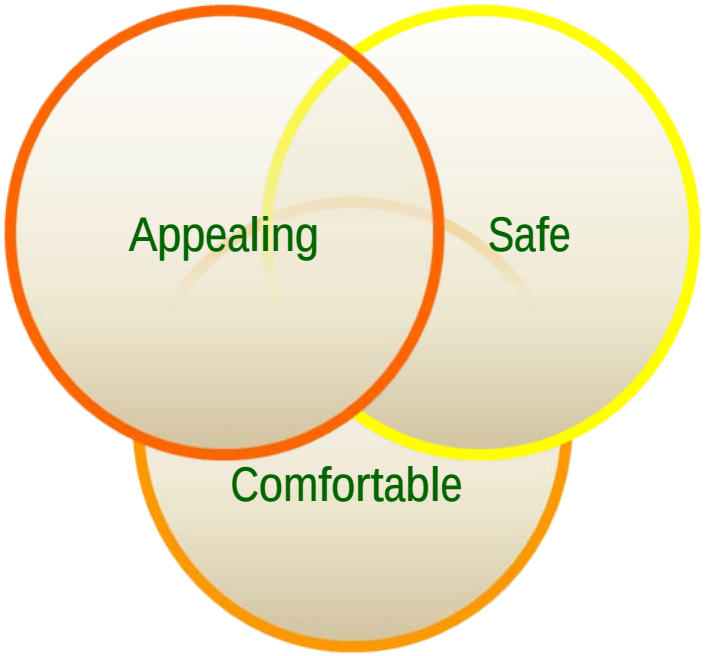


ACTIVE DESIGN

Key environmental attributes for achieving behavior change

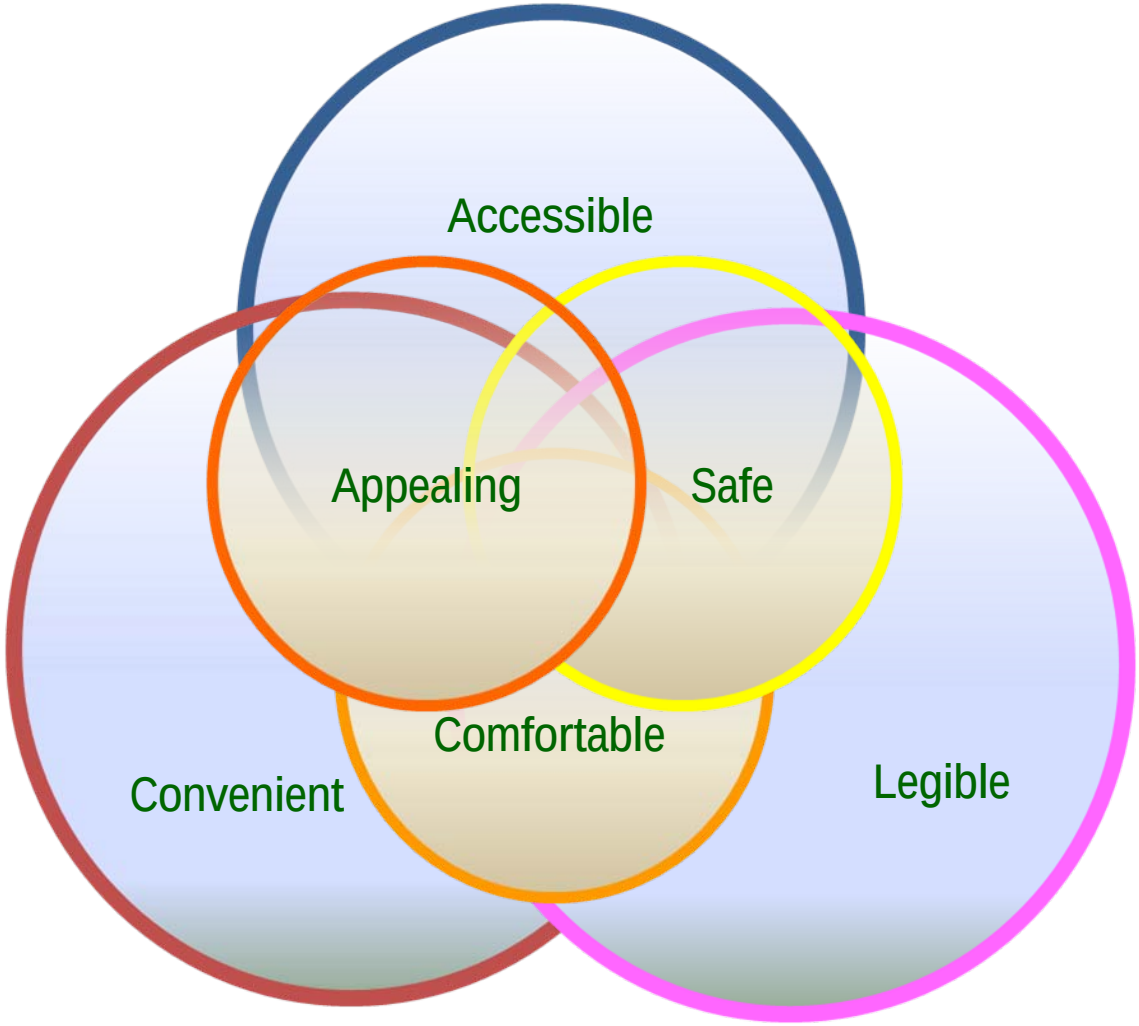
Mediators

help affect the rate behavioral response



ACTIVE DESIGN

Key environmental attributes for achieving behavior change



ACTIVE DESIGN

Key strategies for achieving behavior change

Pull strategies

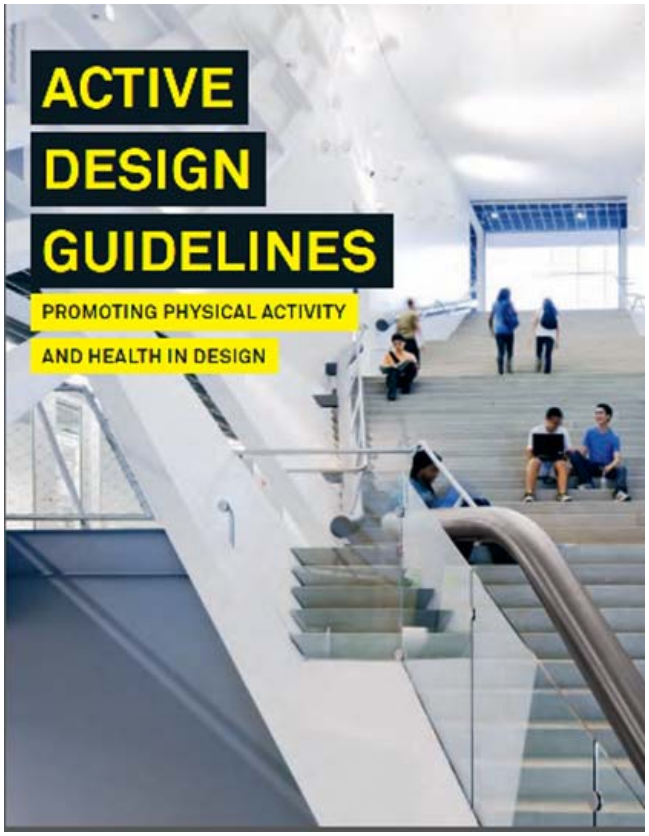
passive informative, motivational or environmental efforts, to promote new behaviors

Push strategies

social programming, or environmental interventions designed to mandate new behaviors

ACTIVE DESIGN

Active Design Guidelines

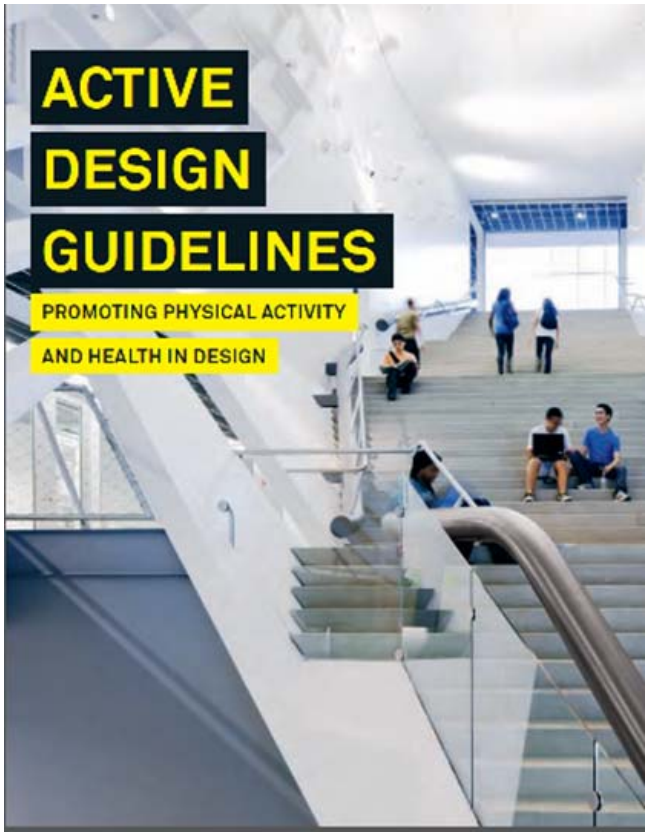


The Active Design Guidelines are available by free download at:

www.nyc.gov/adg

ACTIVE DESIGN

Active Design Guidelines



The objective of this publication is to present design and planning professionals with various evidence-based strategies for increasing the level of recreational and transportation-related physical activity.

Two basic methods available to design professionals for assessing likelihood that an action will result in the desired outcome are:

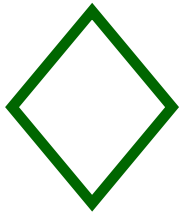
Best Practice

&

Evidence-based Design Practice

ACTIVE DESIGN

Distinguishing Strength of the Evidence



Best Practice

Design strategies that through theory, understanding of behavior within the environment, and existing practice are most likely to be effective in increasing physical activity.

Emerging Evidence

Design strategies supported by an emerging pattern of research evidence, with reason to believe that the intervention will likely lead to the outcome, but lacking definitive studies that identify a direct relationship between the environmental intervention and increased physical activity.

Strong Evidence

Design strategies supported by a pattern of evidence from at least two rigorous studies that allow us to discard alternative hypotheses and allow us to conclude that there is a direct relationship of the environmental intervention and the behavioral outcome.

ACTIVE DESIGN

Enhancing the pedestrian environment

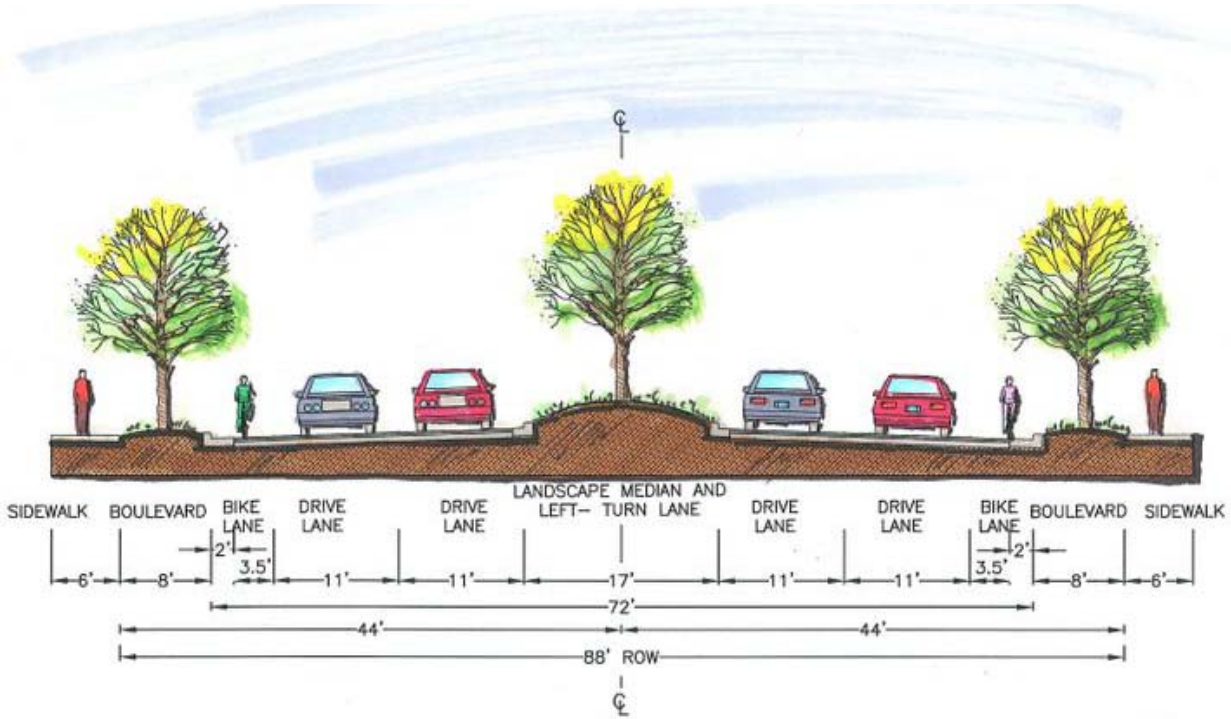
Promote pedestrian travel through the design of on-site paths, including the public sidewalk.

- Design on-site pathways and extensions to public sidewalks to encourage the continuity of pedestrian movement from the public sidewalks, throughout the site and into the building.
- Create a buffer to separate pedestrians from moving vehicles using street furniture, trees, a parking lane, or other elements.
- Locate the building's massing towards the street to minimize setbacks.
- Provide adequate exterior lighting along outdoor pathways.
- Create unobstructed views between buildings and adjacent paths to support a sense of pedestrian safety.

ACTIVE DESIGN

Enhancing the pedestrian environment

Create a buffer to separate pedestrians from moving vehicles using street furniture, trees, a parking lane, or other elements.



ACTIVE DESIGN

Nearby land uses associated with increased walking

Promote walking, cycling and activity through access to compatible land uses.

- ☆ Locate buildings near open, public spaces to promote activity.
- ☆ Promote easy access to outdoor space for children.
- ◊ Design courtyards, gardens, and green roofs as outdoor spaces for children's play.
- ☆ Locate buildings near exercise facilities or walking paths.
- ★ Locate and orient buildings in areas where land use is mixed.

ACTIVE DESIGN

Connectivity

Choose sites with good connectivity or increase the connectivity of pedestrian paths to encourage physical activity.

- Select sites where streets are well-connected, such as those in areas with small block sizes (e.g., equivalent to a 300’ to 400’ block).
- When block sizes are large, consider retrofitting the area with pedestrian paths that form a grid with intersections every 200-300 feet.

ACTIVE DESIGN

Connectivity

Select sites where streets are well-connected, such as those in areas with small block sizes (e.g., equivalent to a 300’ to 400’ block).

Grid Planning

Loops & Lollipops Planning

ACTIVE DESIGN

Transit and parking

In general, keep parking supply to a minimum to encourage transit use, but supply parking to people with disabilities to support their opportunities for physical activity.

- ☆ Locate and orient buildings in areas with public transit stops along well-connected streets.
- ◊ Provide on-site signage indicating the distance, route, and calories burned to the nearest transit stop.
- ☆ Limit the amount of parking spaces supplied to buildings that serve primarily local populations.
- ☆ Provide parking for people with disabilities.

ACTIVE DESIGN

Active outdoor spaces

Urban sites rarely offer the opportunity to design large, outdoor areas. However, evidence exists on designing for active use and perceived safety and these strategies can be adapted to smaller outdoor spaces.

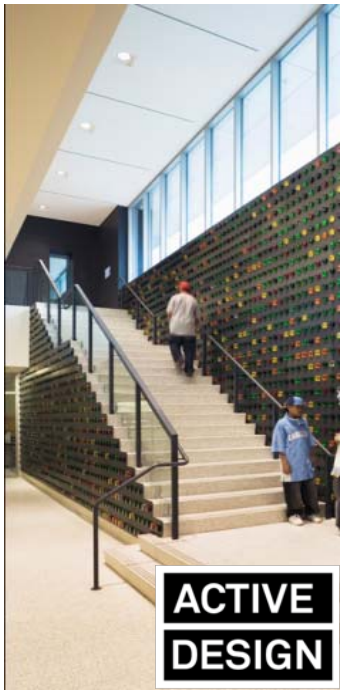
- Provide paths, running tracks, playgrounds, and sports courts for active use of on-site open space.
- Provide streetlights, and floodlights on paths and active play areas to enhance physical activity into the evening.
- Preserve or create natural terrain in children's outdoor play areas.

ACTIVE DESIGN

Designating stairs for everyday use

Promote daily stair use through designating at least one stair in the building for everyday use.

- Focus on stair use as the principal means for vertical travel, especially for most 2 to 4 story multi-story travel.
- Provide one or all stairs in a building for everyday use.
- Provide an integrated vertical circulation (stairs and elevators)systems in high-rise buildings that incorporate stair use for travel between adjacent floors making elevators primarily for vertical travel of 4 floors or more.
- Integrate the stair with the principal areas of orientation and travel throughout the building.
- Make the stairs accessible from public areas of the building to eliminate the need to lock entry from the stair onto floor areas.



Stair visibility

Provide highly visible and appealing stairs within building orientation and point-of-travel decision areas to promote use of stairs.

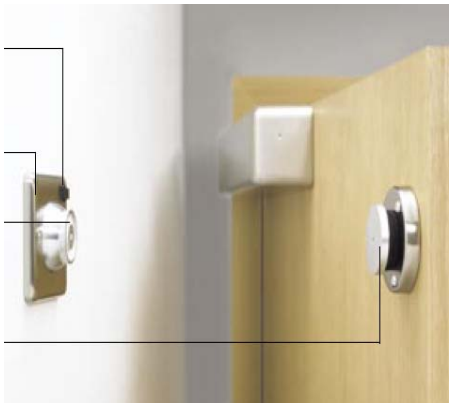
- Make an appealing stair the most visible option for vertical travel from the building's principal entrance.
- Locate the stair to increase its visual exposure along the principal paths of travel with in the building.
- Reduce the visual barriers to stair use.

ACTIVE DESIGN

Stair visibility

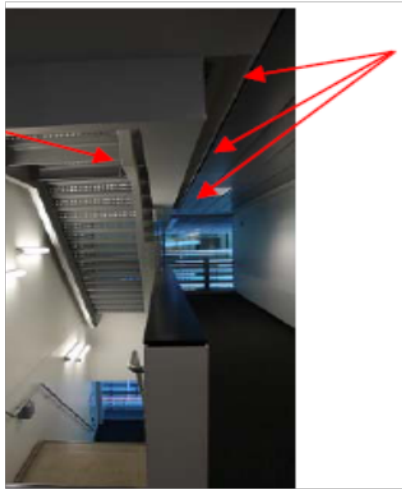
Reduce the visual barriers to stair use

Magnetic hold-open



Open stairs

Fire-rated glazed screens



ACTIVE DESIGN

Stair location

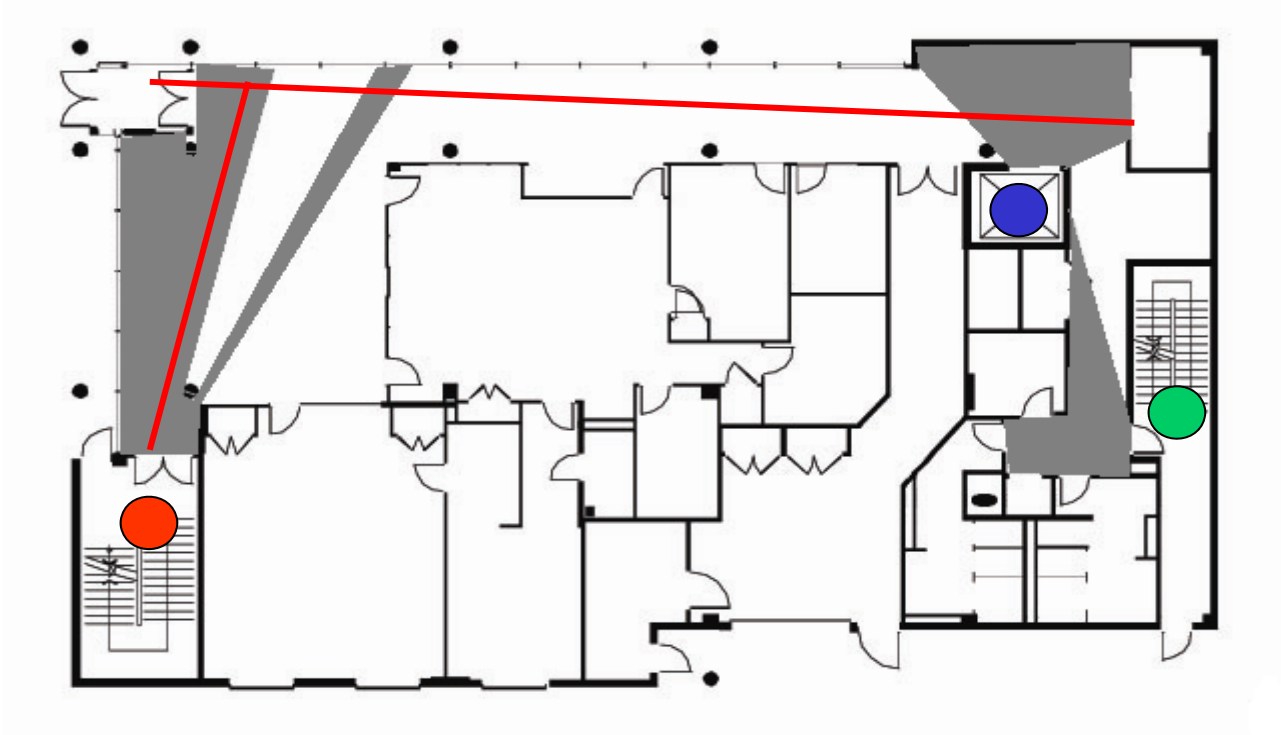
Locate stairs to be a convenient and visible alternative to elevator or escalator travel.

- Locate stair in close proximity to the building's entrance.
- Locate a stair targeted for every day use in close proximity to the elevator.
- Locate the entry to stairs directly on the principal path of travel in the building.

ACTIVE DESIGN

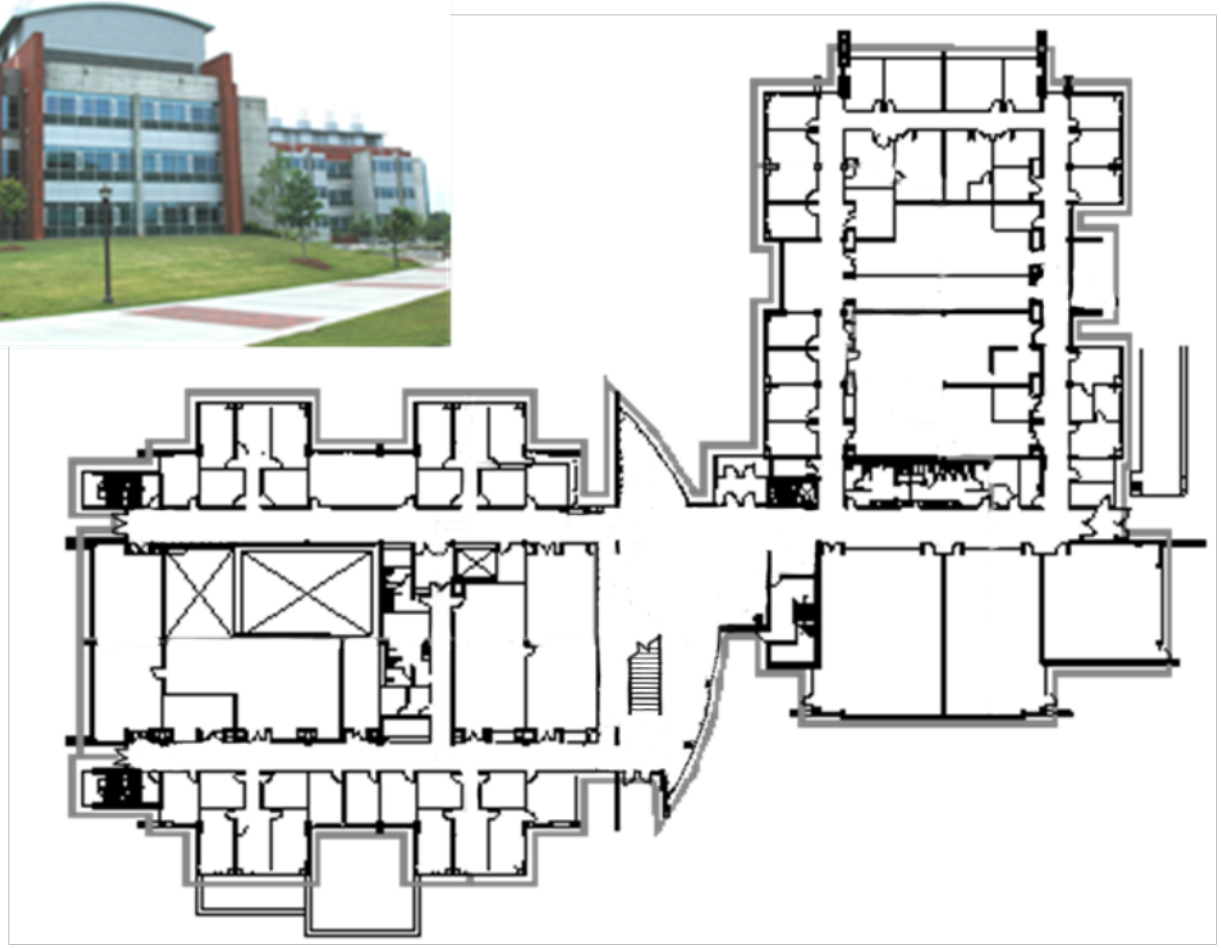
Stair location

- Locate stair in close proximity to the building's entrance
- Locate the entry to stairs directly on the principal path of travel in the building.



ACTIVE DESIGN

Stair Case Study



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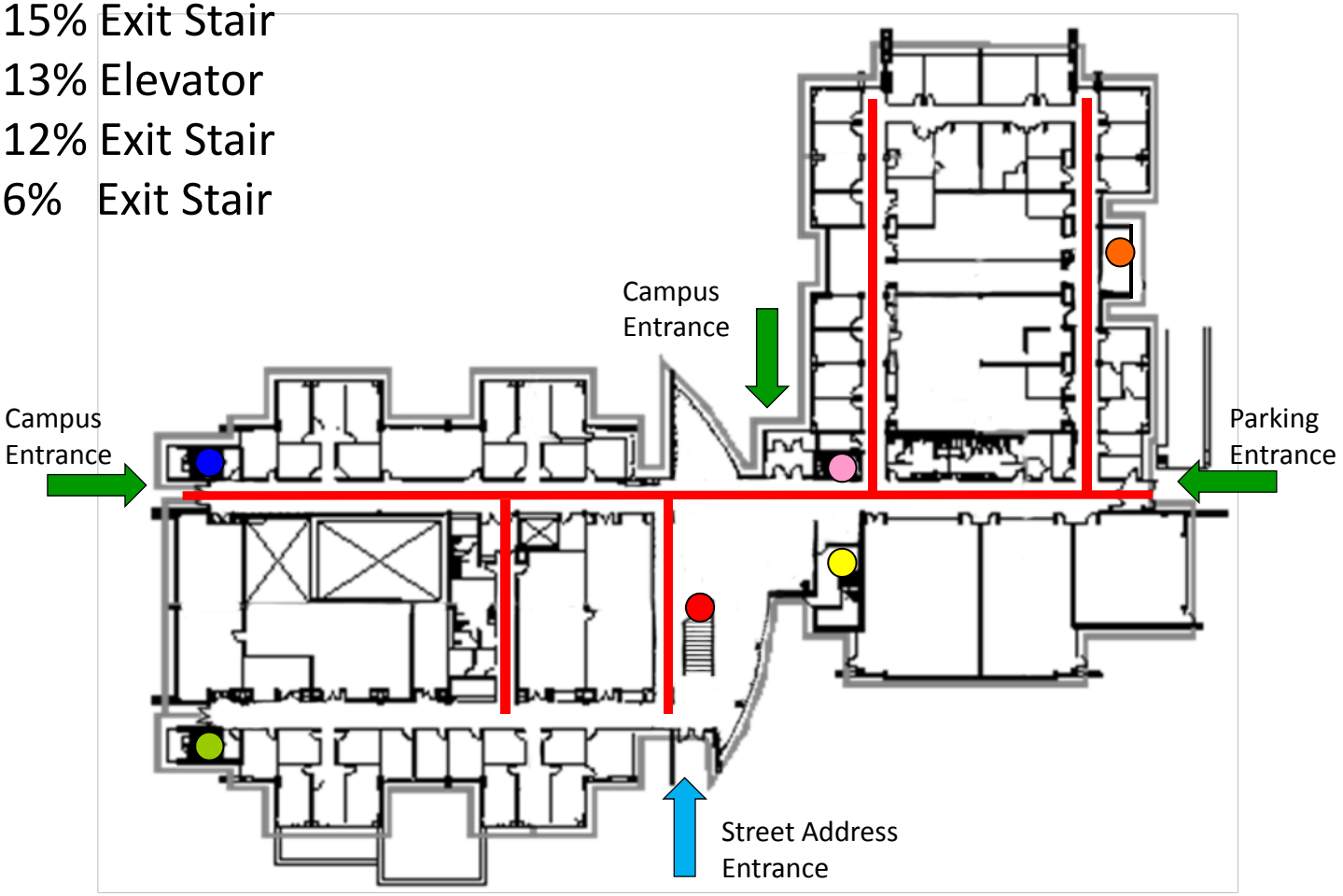
Stair Case Study

% Vertical Travel

- 35% Exit Stair
- 19% Grand Stair
- 15% Exit Stair
- 13% Elevator
- 12% Exit Stair
- 6% Exit Stair

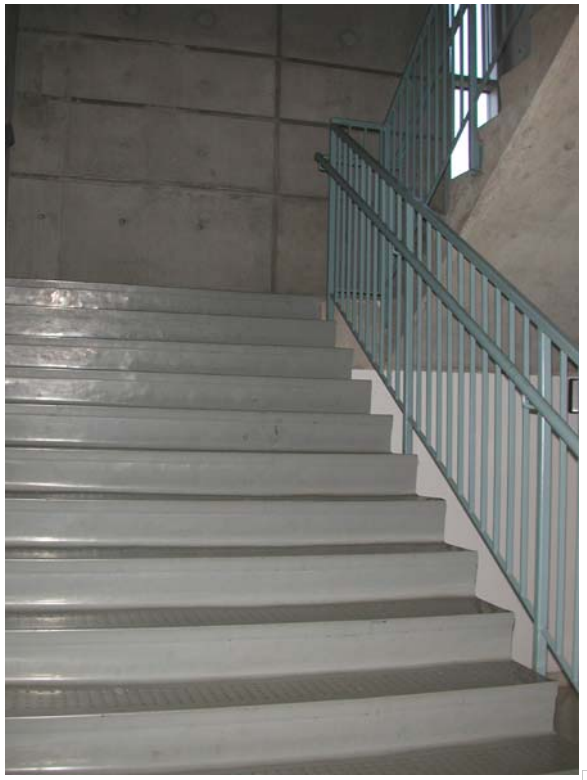


ACTIVE DESIGN

Stair Case Study

Grand Staircase

Exit Staircase



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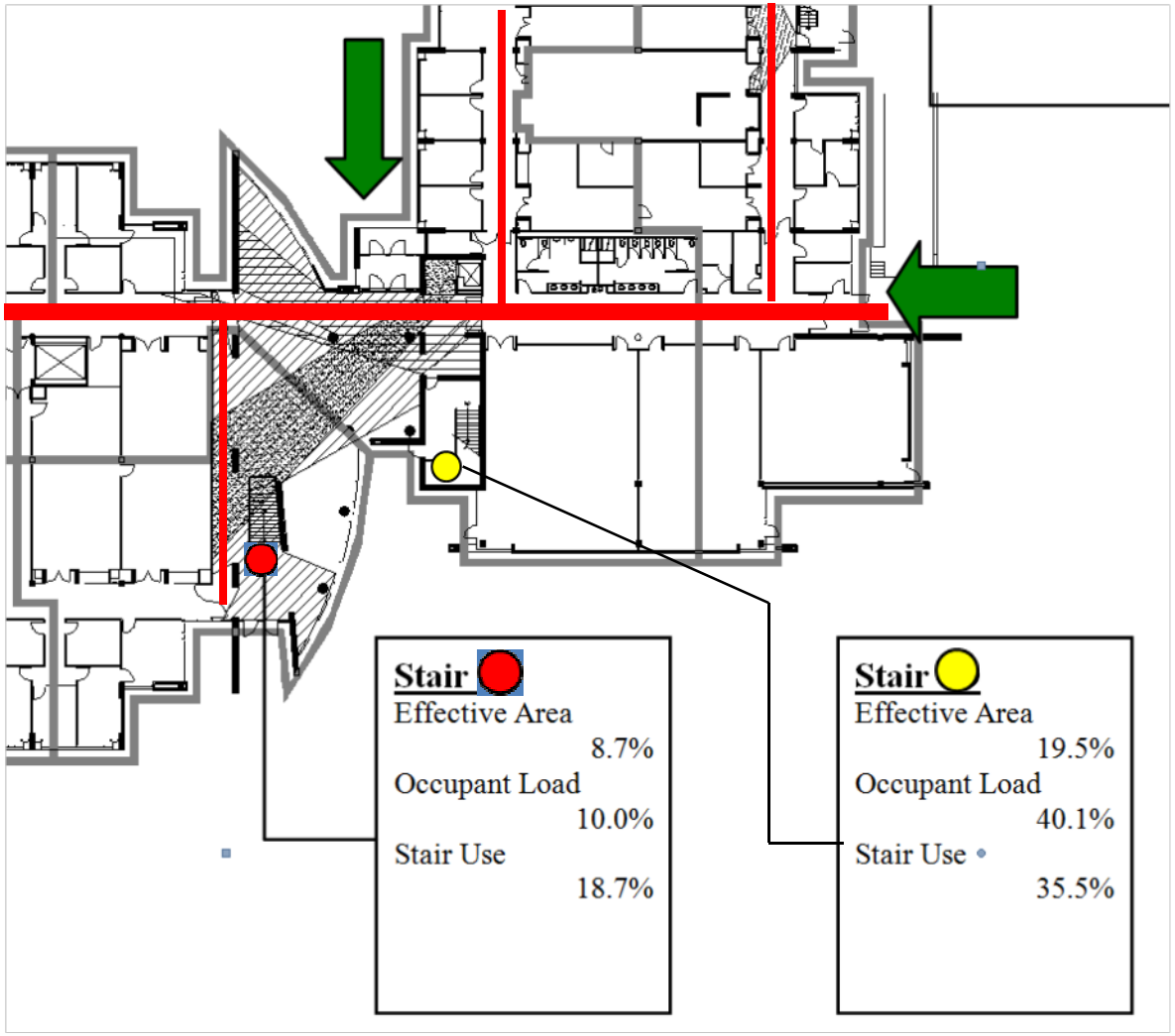
Stair Case Study



Stair 
is more used because it requires

less turns and **is more visible along the main path of travel and from main entrance** to the building than

Stair 

ACTIVE DESIGN

Stair dimensions

Provide stairs that can comfortably accommodate how different types of people use stairs in the building.

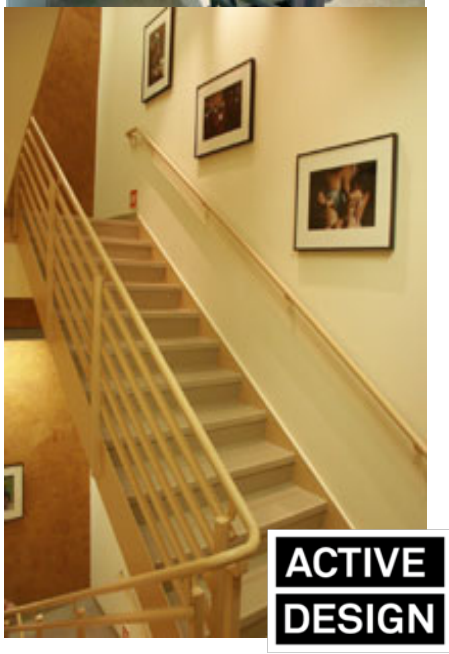
- Make stairs sufficiently wide to accommodate travel in groups or two-way travel on stairs.
- Design stair risers and treads to be most comfortable and safe.

ACTIVE DESIGN

Appealing stair environment

Provide an appealing environment and experience while traveling on stairs.

- Utilize the formal compositional potential of stair construction to promote interesting stair travel.
- Provide visually appealing interior finishes.
- Provide sensory appealing stair environments.
- Design for safe stairs.
- Provide well-lit stair environments that encourage use.
- Provide well-maintainable stair environment.



ACTIVE DESIGN

Stair prompts

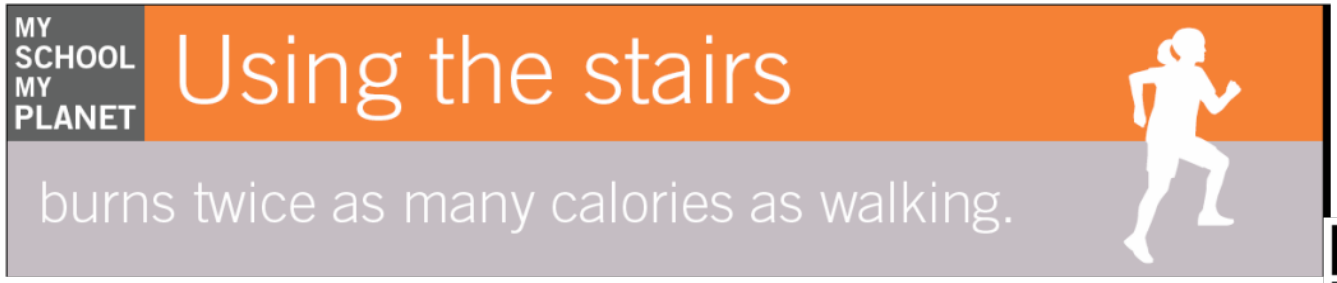
Provide informational or motivational signage at the point of decision between an available stair and elevators (or escalators) to prompt people to use stairs.

- Place point-of-decision prompt signage at elevators to encourage stair use.
- Visually link the point-of decision prompt signage with the waiting area of the elevator or control buttons and also with the stair location.
- Use age, culturally- and language-compatible messages.

ACTIVE DESIGN

Stair prompts

Use culturally- and language-compatible messages.



ACTIVE DESIGN

Elevator and Escalators

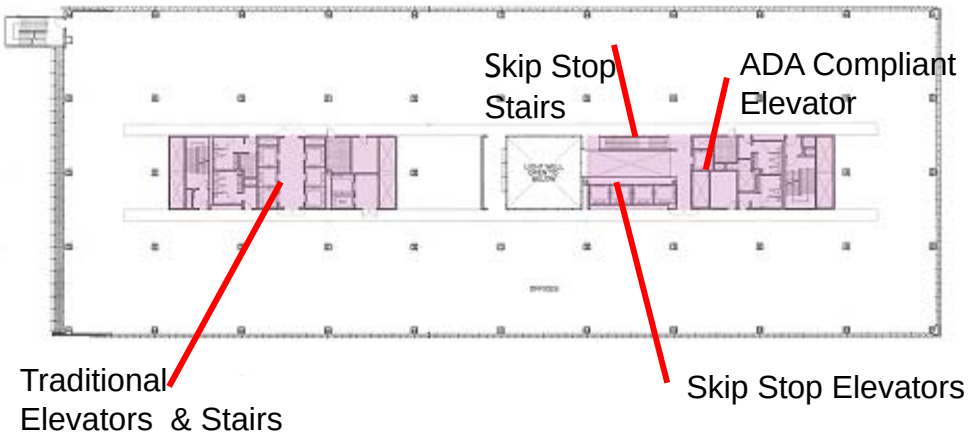
Reduce the availability or emphasis of the building's elevators and escalators to promote everyday use of stairs in buildings while remaining ADA compliant.

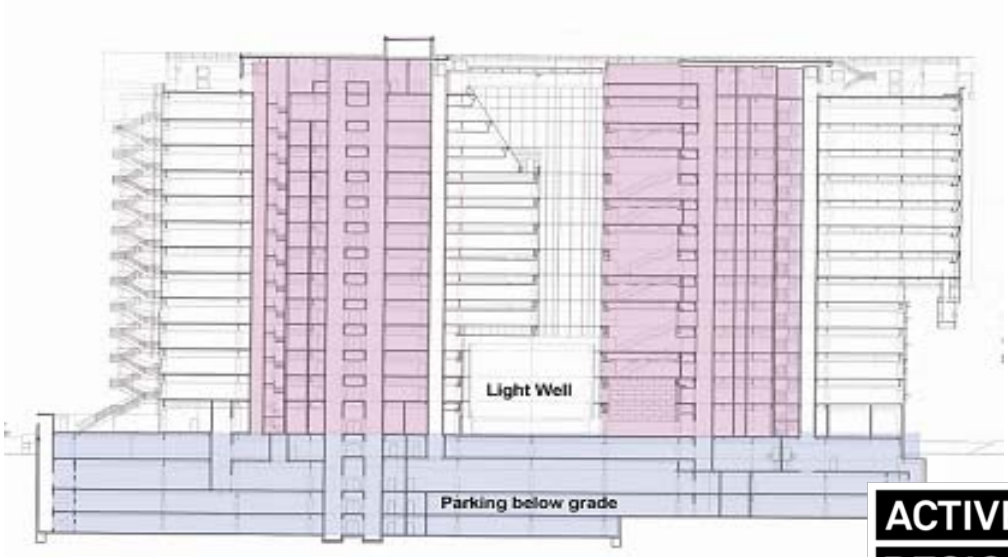
- De-emphasize visibility and expedient access to elevator(s) in the building for people who can use stairs.
- Consider the use of skip-stop elevators where feasible.
- Limit the capacity for elevator travel provided in the building.
- Consider slowing elevator speed performance, particularly in low- to mid-rise buildings.
- Limit provision of escalators

ACTIVE DESIGN

Elevator and Escalators

Consider the use of skip-stop elevators where feasible.





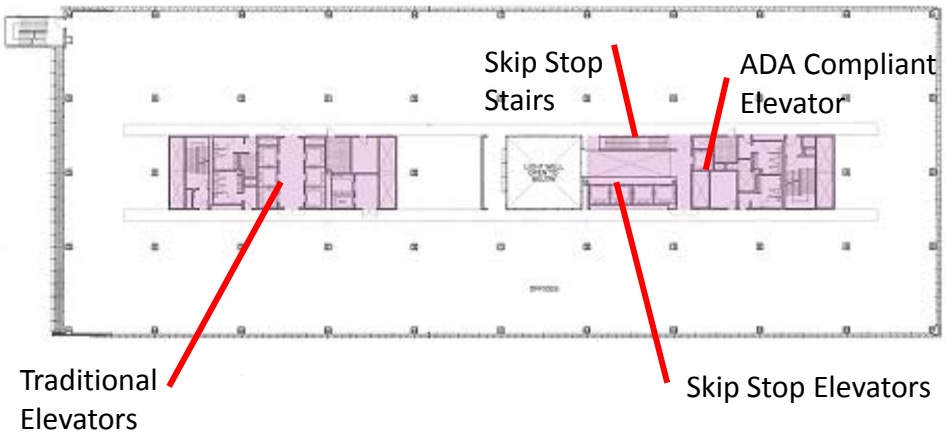
ACTIVE DESIGN

Elevator and Escalators

Consider the use of skip-stop elevators where feasible.

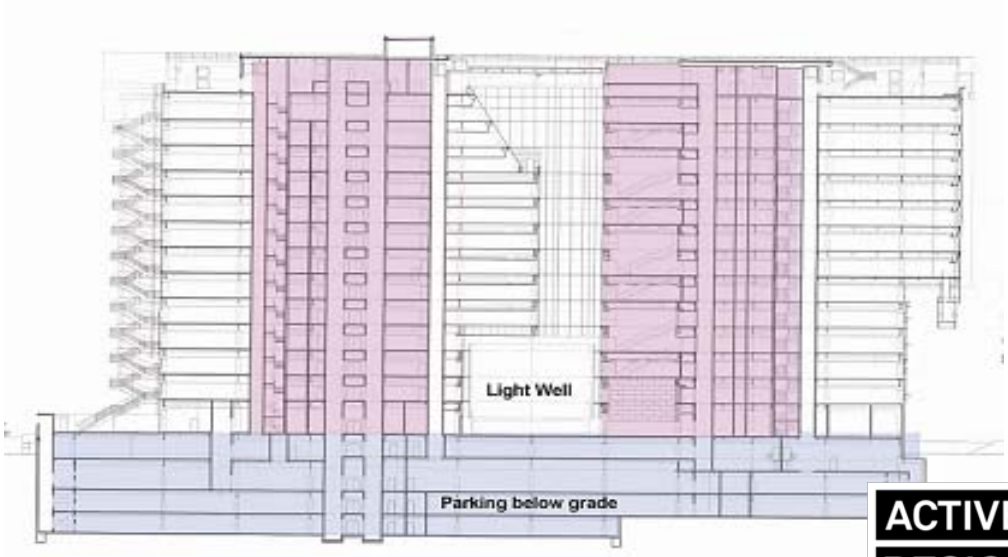
Skip-stop Stairs used

33x more than traditional exit stairs



72%

of Caltrans District 7 Headquarters Building employees reported daily use of stairs



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Building functions that promote travel within buildings

Locate commonly used functions within a building to promote walking and standing activities during the course of the day.

- Centralize support functions away from work or living areas.
- Encourage personal interaction rather than digital/electronic communication.
- Locate everyday building destinations, such as coffee makers, mail areas, photocopier, and other shared equipment to encourage brief bouts of walking in buildings.

ACTIVE DESIGN

Appealing and supportive walking routes within buildings

Provide an appealing environment and experience along paths of travel to increase the frequency and duration of recreational and purposeful walking.

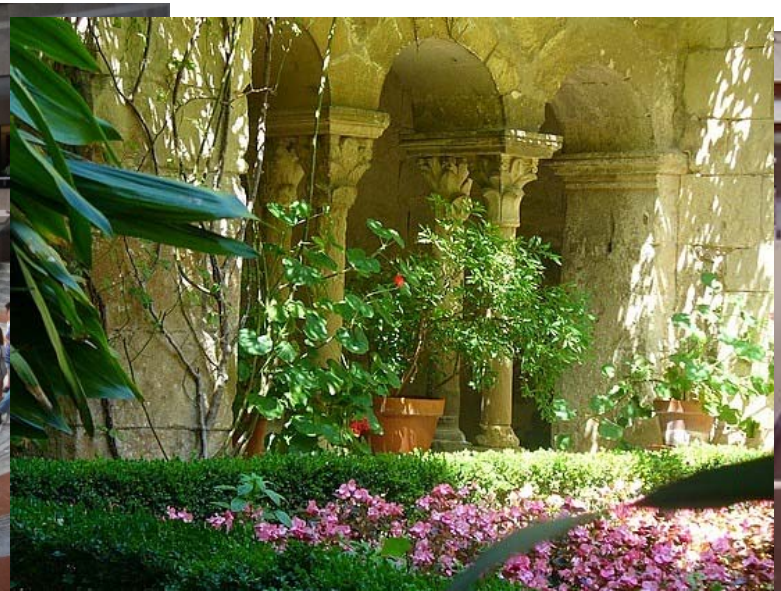
- Provide visual appealing environments along path of travel.
- Provide daylighting along paths of travel.
- Provide supportive infrastructure along walking routes.
- Provide information about walking routes within and around building.
- Provide incremental distance markers so that people can judge the amount of walking they have done.

ACTIVE DESIGN

Appealing and supportive walking routes within buildings

Provide an appealing environment and experience along paths of travel to increase the frequency and duration of recreational and purposeful walking.

- ☆ Provide visual appealing environments along path of travel.
- ◊ Provide daylighting along paths of travel.



Building amenities that support recreational & transportation-related exercise

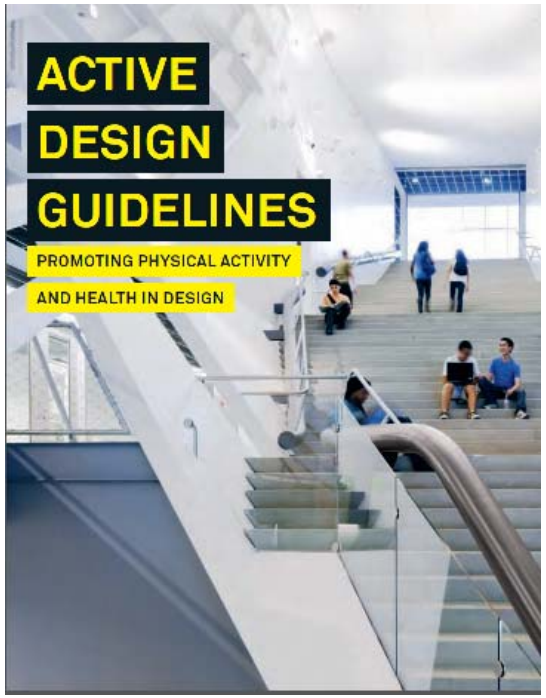
Provide building amenities that support recreational and transportation-related exercise to increase the frequency and duration of moderate and vigorous exercise activities.

- ◊ Provide secure indoor bike storage, preferably at the ground floor level of a building.
- ☆ Provide shower and locker room facilities in workplace buildings to encourage those cycling to work.
- ◊ Provide physical activity information boards and signage to communicate the location of facilities, services and groups that provide opportunities for various physical activities.

ACTIVE DESIGN

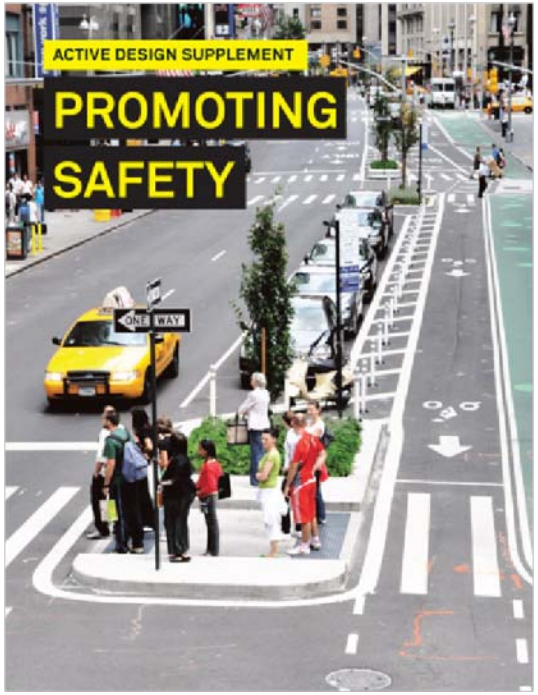
Active Design References

ACTIVE DESIGN GUIDELINES
PROMOTING PHYSICAL ACTIVITY AND HEALTH IN DESIGN



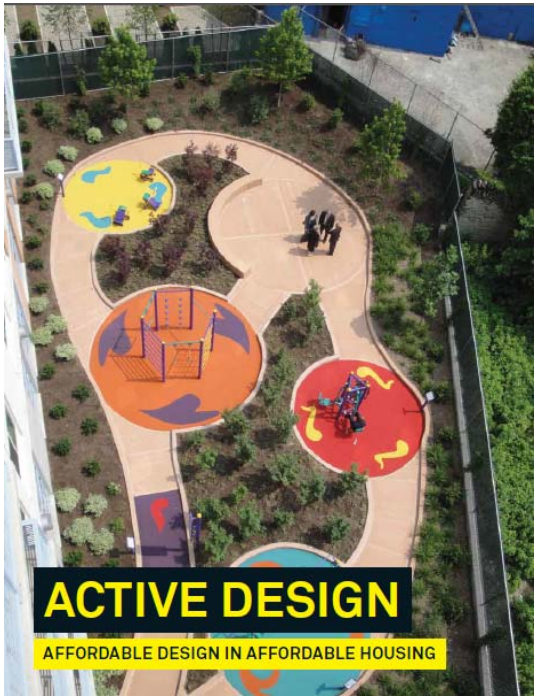
Published 2010

ACTIVE DESIGN SUPPLEMENT
PROMOTING SAFETY



Published 2012

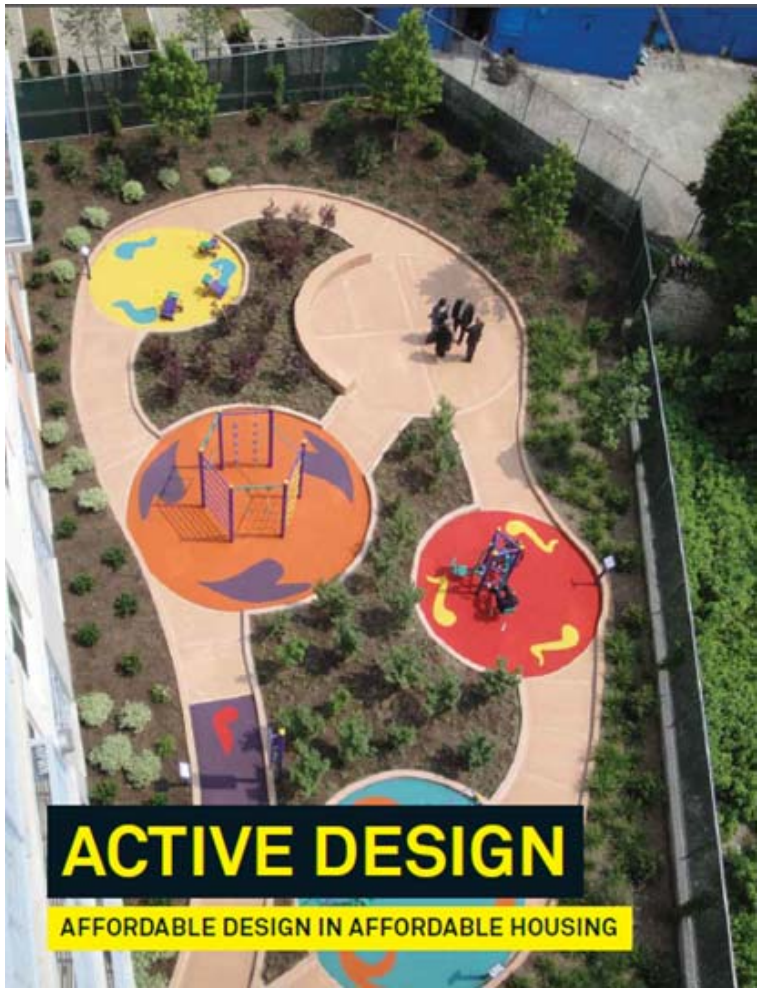
ACTIVE DESIGN
AFFORDABLE DESIGNS FOR AFFORDABLE HOUSING



Available April 2013

ACTIVE
DESIGN

ACTIVE DESIGN
Affordable Designs for Affordable Housing



Cost-neutral or low-cost strategies for implementing active design in affordable housing developments

E-Publication

Available April 2013 at:

http://centerforactivedesign.org

ACTIVE DESIGN

3 Initial Strategies for Implementing Change

- Shifting costs from sedentary design elements to features that promote activity;
- Enhancing existing features to support physical activity; and
- Adding features that support children's activity across diverse age groups.

ACTIVE DESIGN

Shifting costs from sedentary design elements to features that promote activity

Housing project focused on providing ample and convenient parking within steps of housing units

ACTIVE DESIGN

Shifting costs from sedentary design elements to features that promote activity

Community project focused on providing ample and convenient activity spaces within steps of housing units

ACTIVE DESIGN

Shifting costs from sedentary design elements to features that promote activity

Many building environments have underutilized spaces

Non-functional areas around buildings that still require some minimum design presence

Leftover spaces that require investment to address safety

ACTIVE DESIGN

Shifting costs from sedentary design elements to features that promote activity

Children's Challenge Path

Exercise Station

Bicycle Storage

ACTIVE DESIGN

Enhancing existing features to support physical activity

Streetscapes that provide static features instead of activity-oriented features

ACTIVE DESIGN

Enhancing existing features to support physical activity

Adding features such as play and exercise stations, enhanced sidewalks that support child and adult physical activity

ACTIVE DESIGN

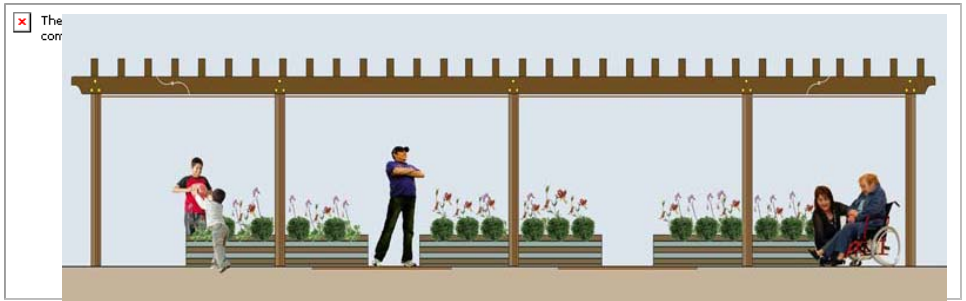
Enhancing existing features to support physical activity

Designing for all seasons and supporting play during extreme climate that traditionally keep people inside.

Adding features that support physical activity across diverse groups.

Seniors' Residence

Collaborate with local horticulture or school clubs by offering meeting space in exchange for activities on site



Building Fitness Center

Combine screen-time and exercise machines
-video games that support physical activity

ACTIVE DESIGN

Affordable Designs for Affordable Housing

Cost-neutral or low-cost strategies that are immediately implementable include:

- Provide stair prompt signage at elevator call areas and outside stairwells;
- Co-locate adults' and children's physical activity facilities;
- Provide secure bicycle storage;
- Include painted markings in playgrounds or walkways;
- Provide information boards about local physical activity opportunities.

ACTIVE DESIGN

Affordable Designs for Affordable Housing

Strategies implementable in future projects with little or no additional cost include:

- Make stairs accessible and visible from building entrances and main paths of travel;
- Provide direct paths between common areas and physical activity facilities;
- Program outdoor spaces to support both physical activity and quiet reflection;
- Provide safe and positive recreational activities for children of all ages;
- Address climatic conditions that may pose barriers to physical activity.

ACTIVE DESIGN

Affordable Designs for Affordable Housing

More ambitious but possible strategies include:

- Expand onsite indoor and outdoor facilities to support activities;
- Access alternate funding sources such as foundations, government, and mission driven organizations to support Active Design goals and features.

ACTIVE DESIGN

Active Design Workshop Exercise

Each table is to divide into groups of two or three for exploring different case studies of housing developments that could be made more activity-supportive.

Using the Powerpoint handout as a reference, and the red and blue markers, analyse the design to:

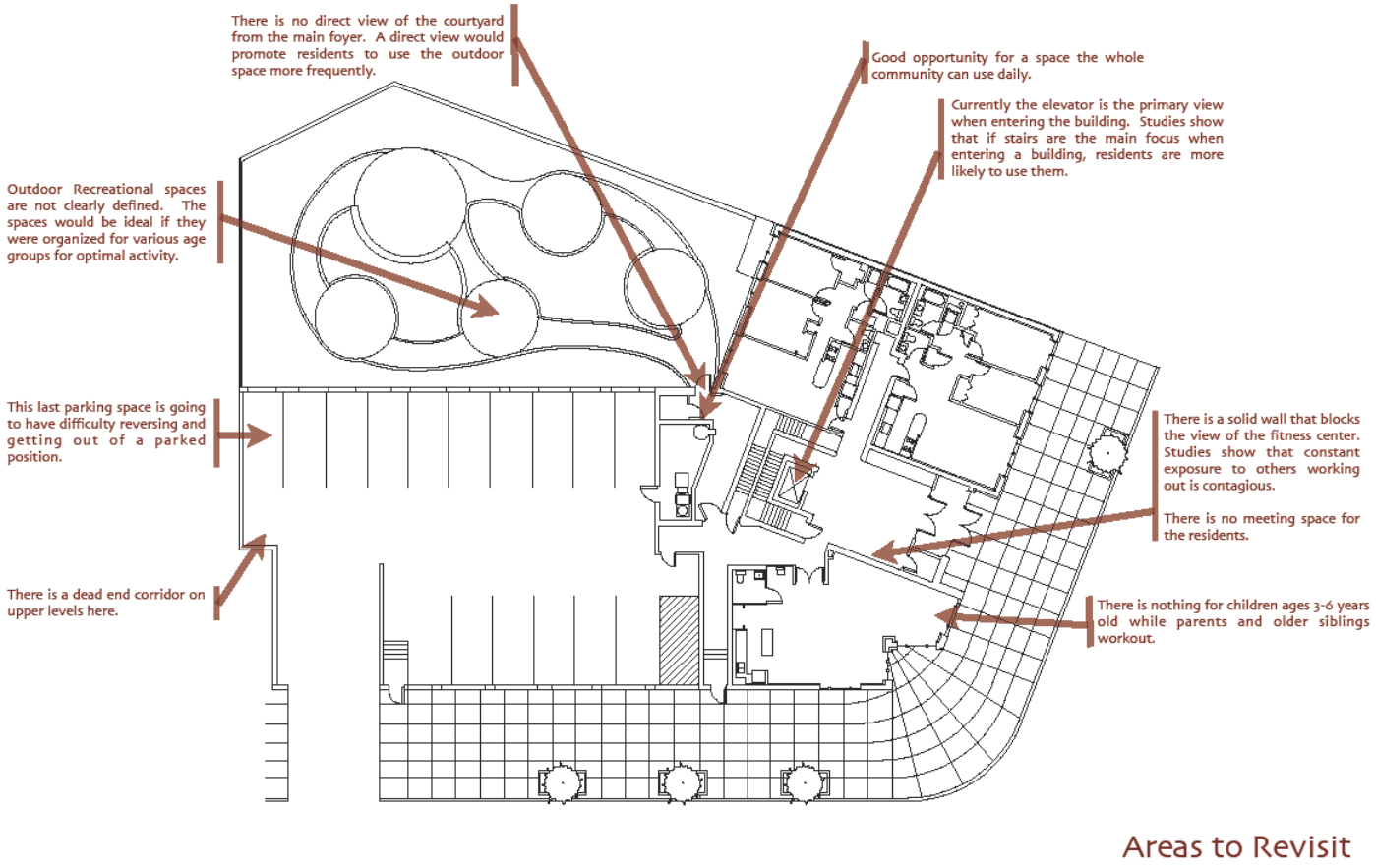
1. Identify aspects of the plan that currently promote sedentary behavior, or has potential to promote active behavior but existing design poses challenges to realizing this potential either from lack of accessibility, legibility or visibility.
2. Suggest design interventions that could promote more physical activity in the environment.

ACTIVE DESIGN

Active Design Workshop Exercise

In Red

Identify the challenges in the case study relative to promoting an active environment

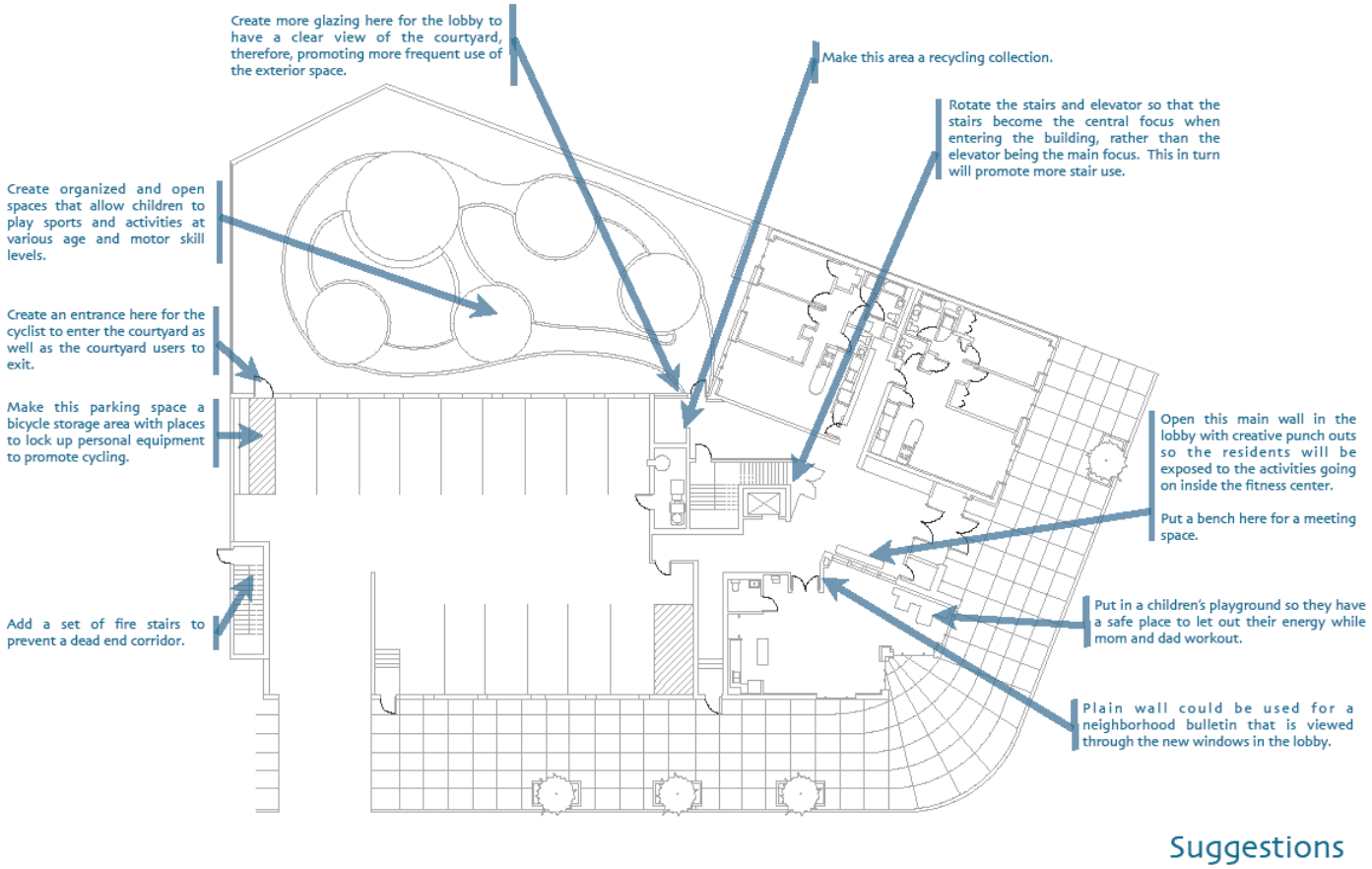


ACTIVE DESIGN

Active Design Workshop Exercise

In Blue

Propose changes to the case study that would encourage more physical activity in children and/or adults



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