universal design
SUMMIT 4
A Report on the Activities, Discussions and Recommendations Developed through the Design Charette process
CREATING UNIVERSEAL HOMES AND COMMUNITIES

The Delmar Loop

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Introduction

The Delmar Loop was named one of the 2007 Great Streets in America by the APA (American Planning Association). The characteristics the APA judges these streets by include:

- Provides orientation to its users.
- Balances the competing needs of the street — driving, transit, walking, cycling, servicing, parking, drop-offs, etc.
- Provides activities and uses that create a varied streetscape.
- Exemplary urban design
- Relates well to its bordering uses.
- Encourages human contact and social activities.
- Employs hardscape and/or landscape to great effect.
- Promotes safety of pedestrians and vehicles and promotes use over the 24-hour day.
- Promotes sustainability through minimizing runoff, reusing water, ensuring groundwater quality, minimizing heat islands, and responding to climatic demands.
- Is well maintained, and capable of being maintained without excessive costs.
- Has a memorable character.

However, a street cannot maintain itself in a vacuum. It needs surrounding livable neighborhoods to sustain it over the long term. Individual community members and the surrounding jurisdictions have made efforts to revitalize the neighborhoods around Delmar with the rehabilitation of businesses and residential properties. Over the past 15 years, many infrastructure improvements have also been implemented. These improvements, especially the addition of a major MetroLink hub at Delmar and Des Peres Avenue along with the intense commercial revitalization along Delmar between Skinker and Des Peres have transformed the Loop from college-town downtown into a vibrant, multi-jurisdictional arts and entertainment district, bolstered by a multi-modal transit system.

While the revitalization efforts have included accessibility upgrades required by the Americans with Disabilities Act, such as curb cuts and access to public buildings and public transportation, there has been no systematic emphasis on the upgrading of neighborhood housing to make it available to, and usable by, people with a range of ages, abilities, and life circumstance. Little attention has been paid to accessibility to and from the residential neighborhoods surrounding the Loop and recent residential revitalization efforts have been limited to moderate rehabilitation of existing rental units and the construction of market rate condos. A coordinated effort to provide access to universally-designed housing and pathways in the vicinity of the Delmar Loop would serve to enhance the area’s livability and encourage a broader spectrum of residents to consider living in this vibrant, vital, convenient and colorful neighborhood.

Perhaps with the implementation of ideas generated by the Creating Universal Homes and Communities charette participants the Loop will win another award from the American Planning Association – this time as a Great Neighborhood in America.
Purpose of the Charettes

The Delmar Loop area is an active neighborhood in transition. It has a rich history with many good times and some bad times. Recently it has undergone tremendous change pushed forward by private development, institutional commitment and city planning visions. The charrette process began with an introduction by three panelists who represent some of the multitude of interests and efforts with which this area is being infused.

Christopher Poehler, Senior Vice-President for Engineering and New Systems Development with Metro spoke about Metro’s efforts and plans in the neighborhood. The MetroLink system has opened up opportunities for transportation-enhanced housing development and allowed the neighborhood to continue to develop as a major entertainment district. The Metro will continue to coordinate their routes and schedules with the redevelopment of the area and will work with The Loop Trolley Company in coordinating bus stops and schedules.

Joe Edwards, developer, spoke about the history of the Loop, its ups and downs and its current renaissance. Joe has been the impetus for much of the current redevelopment in the area, both west and east of Skinker.

Cheryl Adelstein, Director of Community Relations and Local Government Affairs Washington University in St. Louis, discussed the joint efforts between Washington University, University City and other stakeholders to create a new master plan for park development in the Parkview Gardens neighborhood north of the University City Loop. This area encompasses the historic Delmar Gardens subdivision. One of the important components of this plan is the redevelopment of Ackert Walkway so that it becomes more of a connection within the neighborhood by extending it to Olive Boulevard and creating better pathways across it to connect the east and west portions of the Parkview Gardens neighborhood.
Charette Problems

The Delmar Loop Charettes focused on four areas that could benefit from increased attention to Universal Design concepts and expand opportunities for the Loop by improving the usability of the existing infrastructure and augmenting housing options to encourage people of all ages and abilities to call the area home.

- **Infrastructure**
  Recent improvements to the district’s infrastructure including curb cuts and access to the public transportation options in the district have allowed people with mobility challenges to access and use the district’s services. Applying universal design concepts to infrastructure improvements would expand opportunities beyond the minimum requirements of the ADA so that more people could use the space safely through wayfinding enhancements, street furniture placement, hazard reduction and alternate pathways.

- **Connections**
  Universal design concepts applied to creating safe, attractive and accessible routes from the surrounding residential neighborhoods into the Delmar Loop commercial venues, transportation nodes, public spaces and to services would allow more people opportunities to interact with their community.

- **Loop Housing Options**
  Mixed use infill buildings or conversions that incorporate commercial and residential uses and are compatible with, the existing commercial development on Delmar can provide people with more living and working choices as well as putting them closer to community services.

- **Neighborhood Housing**
  There are a wide variety of housing choices in the Parkview Gardens neighborhood, however most of the existing housing in this neighborhood is not accessible. A universally-designed infill prototype that is compatible with the character and fabric of the surrounding neighborhood would provide a broader range of housing options and allow more people to call the area home.
Problem 1 Infrastructure

Recent improvements to the infrastructure in the Delmar Loop area, including curb cuts and access to the public transportation options in the neighborhood have allowed people with mobility challenges to access and use the district’s services. This charette explored ways of increasing the access and usability of the district beyond the minimum requirements of the ADA and investigated ways of expanding opportunities for more people to use the space safely with wayfinding enhancements, street furniture placement, hazard reduction and signage improvements. The charette made suggestions for:

• Providing access from the neighborhood east of the MetroLink Station to the station more directly.

• Making the route to the Park and Ride more visible and making the route from the park and Ride to the station more secure and easier to negotiate.

• Providing more visible and easier to maneuver access from the MetroLink Station to the bus stop and Delmar Boulevard. Providing secure rest areas along the way. Providing a location for people to be picked up, dropped off and to meet friends safely.
The following team worked on finding universally designed recommendations for the area surrounding the MetroLink Station to make it more usable by more people and to make it more convenient for people to get to the MetroLink Station for all directions:

- Francine Wai
- Shelley Di-Nur
- Bill Wischmeyer
- Lindsey Harding
- Debra Young
- Eric Kohring

### Analysis
The team noted a number of access problems around the station:

1. Access from the neighborhood on the east side of the station requires traversing a nine-riser stairway from a poorly identified gap in a chain link fence along Hodiamont.

2. The sidewalk along Hodiamont is narrow, in poor repair and ends about 1 block north of the stairway to the station. There is a block of concrete with rebar extending up from the top marking the entrance to the stairway. The entrance to the MetroLink Station is located down a steep slope which flattens out to the north.
3. The route from the Park and Ride lot to the station is long and not well marked. There is a perceived lack of security caused by the lack of directional signage, the long blank wall of the adjacent warehouse, the unlit tunnel spaces below the Delmar Station and the open, unkempt area east of the tracks.
Problem 1 Infrastructure

Analysis (continued)

4. The area at the intersection of Delmar and Hodiamont and the Hodiamont Right-of-Way is a busy transportation hub, containing the MetroLink Station, a bus hub, a Metro Park-and-Ride lot and connections to neighborhoods to the north, south, east and west, but, Hodiamont is a difficult road to cross due to the unrestricted automobile traffic and street width. In addition, waiting areas are exposed to the elements and uncomfortable.

5. Once MetroLink and bus patrons reach the intersection at Delmar and Hodiamont, the area still has a somewhat abandoned look. The warehouse on the northwest corner is empty as is the Delmar Station on the northeast corner. There is a perceived lack of security, due to the lack of activity.
Problem 1 Infrastructure

The charette team looked at some of the advantages this location has in terms of universal community living:

- Multi-modal transportation hub gives people many transportation options, bus, rail, bike, walking, and a planned new neighborhood transportation system – the Delmar Loop Trolley.
- Redevelopment of the area has extended east to the MetroLink Station, with many more opportunities for affordable redevelopment east along Delmar Loop.
- Washington University is working with University City on plans that include relocation of park areas and trails to allow for more a walkable neighborhood northwest of the station.
- Washington University has made a major investment in the area northwest of the MetroLink Station, taking abandoned industrial properties and converting them to new office and research uses and increasing security and the perception of security in the area.
**Problem 1 Infrastructure**

**Solution**
The team chose to address the issues identified in the analysis through a series of small modifications that, added together, creates a large impact on the area’s access, usability and security:

1. Create an accessible and secure (well-lighted) route from the neighborhood east of Hodiamont to the MetroLink Station.
2. Add access from the MetroLink Station platforms to the Delmar Station building as part of any redevelopment of Delmar Station. Remove or cover tunnels below the station building to improve security at station platforms.
3. Relocate bus stops (and westbound trolley stop) to the street in front of Delmar Station to reduce distance from bus drop-off to other transportation stops.
4. Add trees or other shading devices to bus plazas and MetroLink waiting areas on east and west sides of Des Peres Ave.
5. Locate eastbound trolley stop along southwest corner of Delmar/Hodiamont.
6. Develop Farmer’s Market in empty warehouse. Encourage development of market to allow walk-through from bus plaza.
7. Add car drop-off lane along east side of Des Peres adjacent to Delmar Station.
8. Add connecting sidewalk from Park-and-Ride walkway (shortcut) back to eastbound MetroLink platform ramp.
9. Discuss adding murals to warehouse (or provide other form of screening artwork) walls along Park-and-Ride walkway leading to eastbound MetroLink platform.
10. Widen the walkway from the Park-and-Ride to the MetroLink platforms and add more (low-maintenance, low-growth) landscaping along the route.
Problem 1 Infrastructure

Although the team did not include signage on the plans, signage and other wayfinding devices are keys to improved performance and can be used to enhance security. For instance, replacing the ticket trailer on the Park-and-Ride lot with a well-lit, open-style kiosk that provides ticketing and informational displays about the MetroLink, would make the entry feel more secure and provide better information on locating the route to the platforms.
Problem 2 Connections

The Connections charrette team explored ideas for creating safe, attractive and accessible routes from the surrounding residential neighborhoods into the Delmar Loop commercial venues, transportation nodes and to services; utilizing pathways, sidewalks, driveways and neighborhood public spaces. The team was charged with the following:

- Provide access from Ackert Walkway to adjoining properties such as the high-rise senior building on the east to make the walkway available to the residents of this building in a convenient, but secure way, with wayfinding cues to let seniors know which way to go to reach their destination.
- Reorganize the Ackert Walkway entry to make it more accessible, visible and potentially a public gathering/meeting space without being disruptive to, or disruptive by, people walking along Delmar.
- Design ways of making the park area halfway down the walkway, along with other amenities along the walkway, more accessible and convenient for people to use.
Problem 2 Connections

Ackert Walkway was chosen because it provides a pedestrian connection opportunity that is not quite realized. The change in elevation east to west does not allow access from the walkway into the surrounding neighborhood. The entrance at Delmar is awkward and uninviting. The terminus at Vernon Avenue is almost imperceptible. The following team worked on finding universal designed recommendations along Ackert Walkway:

- Susan Duncan
- Louis Tenenbaum
- Dawn Kane
- Connie Neilsen
- Scott Ball
- Loretta Hiner
- Maurizio Antoninetti
- Johnathon White
- Samantha Smugala

Analysis

The team noted the following problems with the walkway:

1. The walkway is “too big to supervise”. The buildings and spaces adjacent to the walkway do not look onto the walkway allowing adjacent property owners to keep an eye on the activities there.

2. There are no “cross-over” locations, where a vehicle on the west side of Ackert Walkway can cross over to the east side, without going south to Delmar or north to Vernon, making Ackert Walkway a divisive element in the neighborhood.
Analysis (continued)

2. The entrance at Delmar does not continue across Delmar to make it easy for people on the south side of Delmar to access the walkway.

3. Although the entrance on Delmar is surrounded by a large arch, the walkway beyond does not appear to go anywhere or connect anything. The view through the arch is to a parking lot on the west and a tall chain link fence on the east.
4. The park spaces and other uses lining the walkway are inaccessible from the walkway, especially to anyone with mobility limitations.

5. The walkway is not well lit. That coupled with the tree canopy overhanging the walkway create a perception of danger or insecurity.
Problem 2 Connections

Solution

The team’s response was to look first for ways of getting “more eyes on the street” – addressing the issue of a walkway that is not visible to the neighborhood. They used a “London Muse” example to suggest ways of adding density to the area, which would provide the “eyes” needed to increase real security for the area and to enhance the perception of security. Their suggestions included:

- Develop the outer edges of the walkway right-of-way, including some portion of the adjacent parking lots into “Mews” housing; alley style housing with parking below and housing above. Adjoining properties might be persuaded to sell or trade “air rights”, preserving their parking and providing access to housing behind them.
- Create nodes and cross-over points that connect the east and west sides of the neighborhood. Create reasons for residents to want to cross-over by developing these nodes with community green spaces or small (non-vehicle intense) commercial or retail enterprises.
- Include one or more retail developments that create “tag-along” development, such as a small grocer or market.
- Include reasons to stop and enjoy the community spaces, by including usable furniture, community garden areas and better lighting design.
- Include green roofs into the new development to expand back the natural areas lost through the densification.
Problem 2 Connections

Solution (continued)

- Increase lighting and security in ways that do not block access into and through the walkway.
- Increase perceived security by turning the area “inside out” – that is, developing the walkway as a front yard instead of a back yard.

Universal Features

- The Connections team recognized the importance of density as a universal feature in creating livable homes and communities. By increasing density, and by providing for mixed use infill, opportunities abound for offering more people more choices to live and work in the most effective ways possible. When looking for universally-designed solutions at the micro and the macro scale, one critical Universal Principle is “Low Physical Effort; the design should be usable in an efficient and comfortable way with a minimum of fatigue”. Mixed uses and dense development are major way of achieving this important principle of Universal Design. Imagine, being able to get to work, shop for groceries, hop on a train or visit friends, all without having to get into an automobile, drive through town, find parking and, do that time and again for each errand or chore.

- The team also recognized the importance of security, both actual and perceived, as universal features in creating livable communities. Universal Design Principle 4, Perceptible Information suggests that the design should “communicate necessary information effectively to the user, regardless of ambient conditions or the user’s sensory abilities”. Providing lighting that helps people see the important information, pathways, entrances, directional information allows them to move through and use the space comfortably and securely.
Problem 3 Loop Housing

Loop Housing charette teams worked on developing a universally-designed prototype for mixed use infill buildings or conversions that incorporate commercial and residential uses and are suitable for, and compatible with, the existing commercial development on Delmar. They explored solutions for a site at Delmar and Hamilton that allowed for commercial development compatible with the City’s goals for redevelopment and universally-designed housing in combination.
The following team worked on finding universal designed recommendations for a mixed use project:

- Bill Kerrigan
- John Hager
- Timothy Sagosz
- Virginia Heisler
- Danielle Finch
- Jamie Toon
- Jake Pauls
- Diane Sullivan

Analysis
The team felt the following were priorities:
1. Establish connectivity to Delmar Station; add planting and signage.
2. Easy pedestrian connection to park and school.
3. Secure/enclosed resident access, including elevator and stairs.
4. Include sustainability by adding rooftop garden.
5. Include balconies to improve visibility/views for residents.

Solution
The team suggested several attributes for the mixed use development:
- A ground floor grocer or a day care would be compatible with the neighborhood. Delivery or drop-off can be provided in the rear.
- The second and third floor plates should be smaller than the first floor and allow for the roof of the retail space to function as a garden or “green” roof.
- Use the roof garden to help visually separate the residential spaces from the commercial spaces.
- Provide a visual connection between the residential units and the park and school building.
Problem 3 Loop Housing  Team A

Solution (continued)

The team looked at several ways to accommodate parking on site, looking at ways of providing a drive-through lane and looking for the best ways to integrate parking and building entrance needs.

Universal features include:
- Proximity of services – retail, park, school, transit.
- Potential live/work development with mixed use prototype.
- Stepless entry and elevator access to upper levels.
- Secure roof garden with easy access for residents.
- Sightlines to allow for visual access in all directions.

View of Roof Garden and Rear Entry
Problem 3 Loop Housing  Team B

The following team worked on finding universal designed recommendations for a mixed use project
- Clancy Olsen
- Betti Kerrigan
- Gali Osterweil
- Rev Dinah Tatman
- Ashley Casey
- Jackie Bolen
- Megan Estrada
- Megan Rochford

Analysis
The team felt the following were priorities:
1. Establish a link to the park and school building on the south.
2. Include a “green space” on the south side of the property that helps connect it visually to the park beyond.
3. Create a “corner anchor” presence at Delmar and Hamilton that approaches a 24/7 usage and provides additional security.
4. Create live/work opportunities.
5. Include transitional spaces on the street that allow people to rest, wait or get out of the rain, while waiting for transit along Delmar.
6. Look at ways of incorporating parking in/on Hamilton in order to increase parking opportunities.
7. Include ground floor residential with garden space.

Solution
The team’s solution focused on providing a lively and active street presence by expanded the retail space out onto the sidewalk and locating a residential entry point on the Delmar side. By using Hamilton for parking, they were able to expand the private residential spaces with gardens for the lower level units along the back of the property.
**Problem 3 Loop Housing Team B**

**Solution (continued)**

The team added green space on the south side of the second and third floors also, providing balconies to the units along the south side at both levels. The residential entrance off of Delmar was envisioned as a courtyard or atrium, expanding opportunities for light and air into the units on the second floor and third floors. This arrangement of units provides cross-ventilation and lighting to every unit.

Universal features include:

- Proximity of services – retail, park, school, transit.
- Potential live/work development with mixed use prototype.
- Stepless entry and elevator access to upper levels.
- Direct access to the out-of-doors via private gardens or balconies.
- Visual access for security from the residential units into the park and good visual control of the streetscape through the location of the courtyard/atrium entrance and the expansion of the retail spaces onto the sidewalk.
Neighborhood Housing charette teams worked on developing a universally-designed prototype for infill housing within the existing neighborhoods north of the Delmar Loop compatible with the character and fabric of the surrounding neighborhood. Emphasis was placed on access into a prototypical housing unit. The teams were given the option of developing the prototype as a single-family residence, duplex or multi-family and asked to consider universal solutions to parking, security and pedestrian access within the surrounding neighborhood. The site chosen for the exercise is located on Leland Avenue and is surrounded by a mix of duplexes and apartment buildings. The building immediately to the north has a side entrance facing the infill lot.
Problem 4 Neighborhood Housing Team A

The following team worked on finding universal designed recommendations for a prototypical infill residential project. A site on Leland Ave was chosen as it provided opportunities for addressing a number of issues and exploring universal solutions at the individual building level and the community interface.

- Emmeline Chang
- Rudolph Barajas
- Patricia Nunan
- Charles Schwab
- Percy McLaurin
- Carolyn Cook
- Anne Quyen Do Nguyen

Analysis

Team A felt the following were important goals for infill development, especially in the chosen neighborhood:

1. Maintaining the style and height of the surrounding buildings.
2. Providing enough living space to make the building marketable

To insure the project's universal appeal, they added the following goals:

1. Step-less entry
2. Good visibility from the living space onto the building's “front”
3. Good visibility from the private spaces into the rear “alley” side for security
4. Shared common space so the residents of the building have a chance to interact and know each other
5. Entry that is visible from the adjacent building(s) so that neighbors can interact and keep an eye on each other.
6. Ample interior space to allow for the development of flexible and easily-maneuverable interior spaces.
7. Wide stairways with low risers for emergency exiting and general use.
8. Secondary vertical transportation to access the units above the ground floor.
Problem 4 Neighborhood Housing Team A

Solution

Team A organized the prototypical infill as a three-unit residential structure with shared common space at the entry, parking off the alley in the rear and a pergola-covered walkway along the north side facing the adjacent property.

To enhance security, they included outdoor living space facing the front and put the bedrooms on the rear overlooking the parking lot and alley.

Universal features include:
- Covered entrance
- Stepless entrance
- Elevator
- Enhanced security
- Open living spaces
- Large bathrooms

Neighborhood features include:
- Matching eave height to adjacent properties
- Similar entry porch detailing
- Similar window detailing
Problem 4 Neighborhood Housing
Infill plans as they could be developed providing 3 rental units; one with one bedroom and two with two bedrooms
The following team worked on finding universal designed recommendations for a prototypical infill residential project. The site on Leland Ave was chosen as it provided opportunities for addressing a number of issues and exploring universal solutions at the individual building level and the community interface.

- Roberta Null
- Glen Bell
- Mike Reardon
- Deb Bokamper
- Laura Cameron
- Ann Young
- Deborah Leasure
- Denise Homme
- Joan Riggs

Team B felt the following were important goals for infill development:

1. Providing an affordable prototype targeted towards students, instructors and seniors.
2. Providing a sustainable prototype.
3. Maintaining the style and height of the surrounding buildings.

To insure the project’s universal appeal, they added the following goals:

1. Step-less entry
2. Entry that is visible from the adjacent building(s) so that neighbors can interact and keep an eye on each other.
3. Open, flexible interior spaces
4. Low allergy, low maintenance seasonal landscape plantings to soften transitions from Ackert Walkway and Leland Avenue.
5. Elevator access.
Problem 4 Neighborhood Housing Team B

Team B organized the prototypical infill as a six-unit residential structure with a “green” courtyard oriented toward the adjacent property’s entrance on the north. While keeping the units square footage down, they maximized the unit’s usability by using the living spaces for circulation, thus increasing maneuverability within the unit.

- Euro-style wet room shower reduces the space needed in the bathroom for maneuverability.
- Wall-hung fixtures in the bathroom increase floor space for maneuverability
- Adjustable height countertop in kitchen.
- Penninsula counter to allow for left-hand or right-hand approach to work surface.

Other “green” features will add to the universality of the building by:

- Reducing toxins through the use of products that do not create off-gassing.
- Increasing air circulation through the placement on windows.
- Controlling water run-off to eliminate slippery surfaces and ponding on walkways.
- Increase energy efficiency to control utility costs.
- Skylights, solar tubes and window awnings to encourage use of natural lighting.
Problem 4 Neighborhood Housing Team B

Floor Plan

View From North
Other universal prototypes could be developed for the neighborhood; for instance, a duplex unit providing one family unit and a unit that could be rented to a student, faculty member or could be used to provide a family member some security while maintaining their independence. The prototype below was developed in response to an aging in place initiative.
Charette Conclusions

After the Charette teams presented their ideas and recommendations, several conclusions were drawn about the importance of Universal Design in creating livable communities:

- Security, both real and perceived security, are critical to successful development of livable communities. Good lighting, sightlines that allow people to see where they are going and how to get there and routes that can be used efficiently and with a minimum of fatigue respond to Universal Design principles;
  - Principle 3: simple and intuitive
  - Principle 4: perceptible information and
  - Principle 6: low physical effort

- Denser development and redevelopment, in addition to supporting increased security by putting more stakeholders into a neighborhood or community, creates a community that becomes marketable to people with a range of ages, abilities, and life circumstance, by providing more housing options and proximity to transit and services.

- Mixed use development and transit-enhanced development support Universal Design Principle 2: Flexibility in Use, by accommodating a wide range of individual preferences and abilities.

- Every idea that allows people with broad range of abilities to live, work and access the services in an area will also enhance the lives of all the residents, regardless of their age or abilities.

- Forging new cooperative partnerships between business, civic, institutional and government entities will reduce development costs, provide funding prospects and encourage stakeholder participation.