DRAFT

PUBLIC REALM AUDIT
CITY OF CALGARY

DRAFT 8.MARCH.2015

This document has been prepared for:

Centre City Team
The City of Calgary
Planning and Development

prepared by:

The Urban Lab
Faculty of Environemtnal Design
University of Calgary
Dr. Beverly A. Sandalack - Research Leader
Francisco Alaniz Uribe - Research Associate
Chad Peters - Research Assistant
Aman Jhawer - Research Assistant

cover photo by:
Braden Abrams Reid

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01

INTRODUCTION

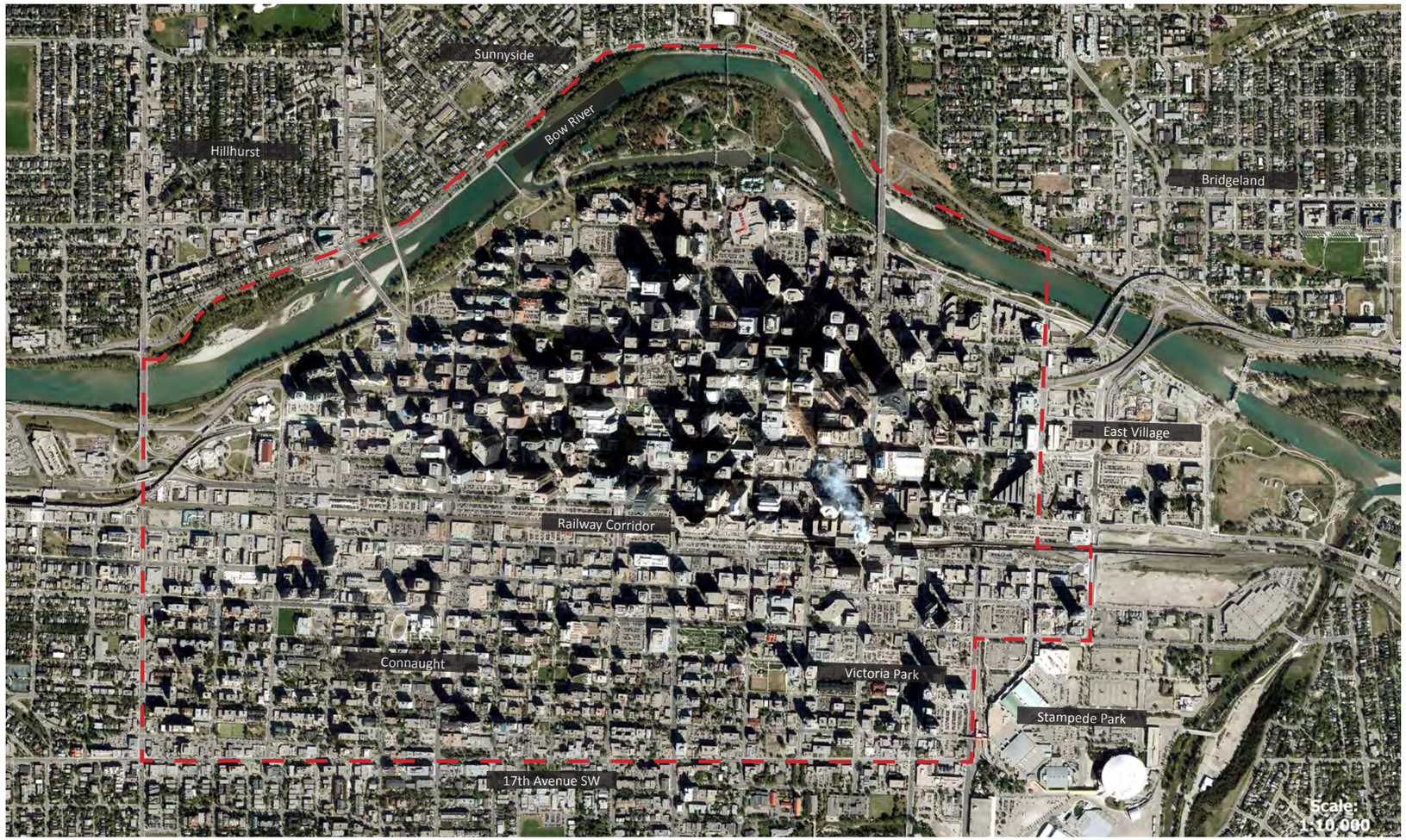
Background

The Centre City is expected to accommodate the addition of up to 40,000 new residents and over 60,000 new employees by 2035 (Centre City Plan, 2007). The Centre City Plan vision is to improve the existing conditions to provide a high quality urban experience in the downtown core.

Overall, Calgary provides a high quality physical environment; it was named as the world's fifth most liveable city by The Economist in 2014. Much or most of the Centre City provides the basic requirements of safety and accessibility already; the challenge is to identify priorities for improvement that will attract more people to the Centre City, and to make an already great city even better.

Several inventories and surveys documenting some aspects of the existing quality of the public realm in the Centre City have been conducted by the City of Calgary over the years, including some recent studies that provide an excellent database, however there are still some gaps in the analysis, and the need to conduct a more detailed audit. The Urban Lab in the Faculty of Environmental Design at the University of Calgary was engaged to build on the existing work and to conduct a more detailed audit of the public realm elements.

This document consists of an overview of the audit, a summary of the findings and some recommendations, plus the detailed mapping and data. It also includes several relevant precedents from other cities that illustrates how important and timely this kind of study is in evolving western cities.



Project boundary — — —

Objectives

The Centre City Plan approved in 2007 by Calgary City Council identifies anticipated changes in development and outlines a new vision for Calgary's downtown. This new vision states that "The Centre City will be a livable, thriving and caring place". The overall objective and desired outcome of the Centre City Public Realm Audit is to provide a tool to help prioritize improvements that enhance the public realm and attract people to the Centre City, beyond the normal office hours and workdays. The individual elements of the public realm, and their collective result, are important in making people feel comfortable, safe and interested in their surroundings, and the Urban Lab was engaged to perform an audit of these public realm elements.

Approach

The approach for this project involved a review of the work conducted to date by the City of Calgary plus a current street-by-street audit to produce a detailed inventory and qualitative analysis of the Centre City public realm. The inventory and analysis then led to a set of strategies and recommendation for improvement of the public realm that will supplement the projects currently underway or planned.

The methodology for this project included the following steps:

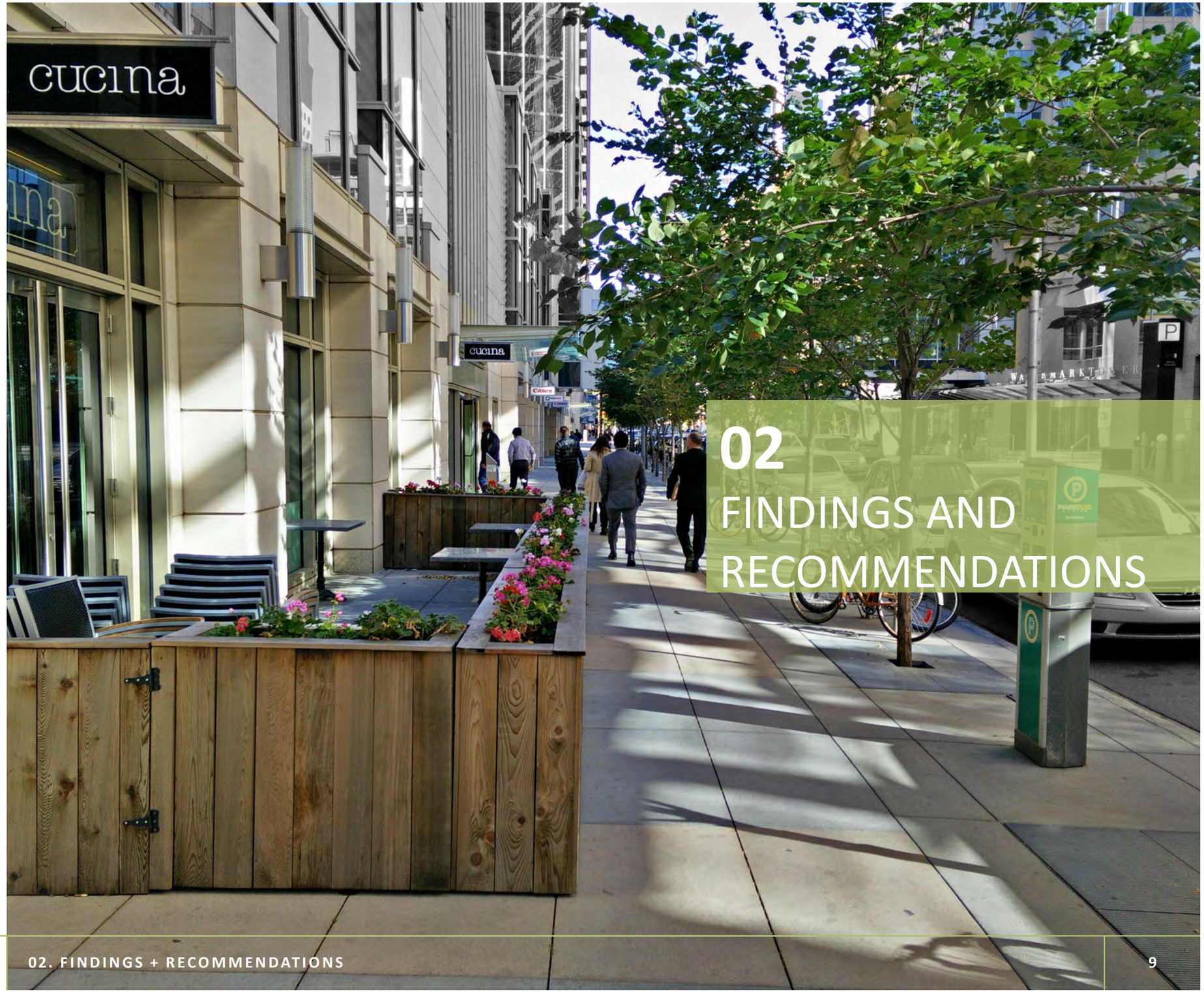
1. Precedent review of similar studies undertaken in relevant cities
Similar studies provided insights into detailed methods and mapping.

2. Review of City of Calgary data and studies
The City of Calgary previously conducted an inventory of various elements of the public realm in the Centre City. Review of these reports, studies and data bases, provided a point of departure for information gathering and mapping.

3. Identification of gaps in the existing data
After reviewing the existing data provided by the City of Calgary, gaps were identified.

4. Audit of the public realm
An audit of the public realm was performed through a street by street inventory and qualitative evaluation. It included all Centre City streets and spaces. An evaluation rubric was developed to assess the quality of the public realm, specifically tailored to the Centre City built environment.

5. Development of recommendations and implementation strategy
Following the collection of new data, the information was assembled into a comprehensive data base and analyzed in various ways including mapping overlays, matrix of qualities and large scale digital visualization. A series of improvement strategies was developed to support the Centre City Plan Implementation Strategy. The strategies address several questions: what improvements would have the most impact? What are the priorities for implementation? What areas need the most help? Where are the areas with the most potential?



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FINDINGS AND RECOMMENDATIONS

Centre City and Context

Calgary's Centre City includes a compact downtown with strong boundaries at the north (Bow River) and south (railway corridor), and higher density mixed residential/commercial areas south of the railway. The river and railway form strong boundaries around a primarily office and commercial core, with limited residential at the west and north edges. The commercial core forms a concentrated zone (although it has more recently been expanding across the railway tracks to the south), with specialized zones including the civic centre around the Municipal Building and Olympic Plaza, the institutional precinct (a largely pedestrian unfriendly area including the Federal Government Building, the two School Board Buildings, and the YMCA, with many buildings now unused), the Design District (a still-emerging collection of galleries, design stores and restaurants on a short stretch of 11th Avenue), and several streets that are less dominant and of variable urban quality, although important within their contexts, including 1st Street between 10th and 13th Avenues, 11th Street between 14th and 17th Avenues, and 14th Street between 14th and 17th Avenues.

Although during the work week, there is a large population in the area during the normal work day and a sense of vibrancy, this drops drastically in the evenings and weekends. People outside of the centre city, and the downtown core in particular, would be hard-pressed to find reasons to venture downtown, if they do not work or live there, and especially during evenings and weekends. This perception contributes to a general avoidance of the area. This is problematic in that the identity of most cities is contingent upon the strength of its downtown as a public realm hub, and as an element of identity.

As this project seeks to find the gaps in the quality of the public realm that might attract non-residents and non-downtown workers to the Centre City, it is important to conduct a detailed inventory of the Centre City, and to diagnose the issues that may be contributing to the lack of off-hours use, and to propose recommendations for improvement.

The lack of a significant residential population in the downtown core affects the quality of the experience of a pedestrian or cyclist entering into, or circulating through this area. The residential areas have mixed qualities. The west end, composed primarily of high rise condo towers, has little street-level retail/commercial use, and very little pedestrian traffic. Chinatown retains some vibrancy during weekends due to the mixed activities, and the relatively high numbers of street-level commercial/retail/restaurant uses.

Connaught and Victoria Park south of the tracks are higher density primarily residential neighbourhoods with discontinuous bands of commercial/retail/office on 17th Avenue, 14th Street, 8th Street, 4th Street and 1st Street, and along 10th, 11th and 12th Avenues. There are many high rise condo projects either existing, under construction or announced, and this area's population will continue to grow, with many people attracted by the walking distance to the downtown employment centre and evolving urban vitality.

Although outside of the Centre City study area, the neighbourhoods of Hillhurst, Sunnyside, Bridgeland, East Village, Mission, Cliff-Bunglaow, Mount Royal and Sunalta are important context. These neighbourhoods are within easy walking and cycling distance to the downtown, and improvements to the public realm will benefit the quality of the experience as well as the likelihood that residents will walk or bike into the Centre City for work or for leisure.

The grid block pattern allows easy circulation through the downtown, and there are few limitations for pedestrian, bike or car travel although there are limited linkages across the river and across the railway tracks.

Stephen Avenue, Barclay Mall and the pedestrian/bike path along the Bow River are the three most well developed pedestrian environments. The strong east-west axis is emphasized by historical and commercial strength of Stephen Avenue and by the LRT line on 7th Avenue, and by the linear pedestrian/bike path. This axis is compounded by the east-west block orientation, so that most businesses have addresses along the long side of the blocks, and the short sides of the blocks have fewer businesses or places of attraction.


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City Centre Implementation Team:

Program Manager:
Ben Barrington

Project Managers:
Graham Gerylo
Greg Stewart
Dawn Thome


sPark 2013


8th Street Underpass 2015


8th Street Master Plan 2014


Wayfinding Program Ongoing


Banner Program Ongoing

Illumination Project 2014

1st Street SW Underpass 2015


Centre Street Bridge Lighting 2014


Civic District Public Ream Strategy


Clean to the Core Program - Ongoing

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Centre City Project Priorities

The Centre City Implementation team has a mandate to build a Livable, Thriving, Caring Core. It is implementing projects that have a high impact in high use areas, maximizing the return on tax dollars and private sector investment. Using the principle of connecting people and places, in a safe and clean way, the Centre City Implementation team have developed a list of priority projects based on a framework of implementing 'Corridors' that represent strips of complete communities. These corridors are not just the transportation Right of Way but also the private property fronting these areas. By layering on the issues and opportunities represented by four program areas, Corridors, Greenways & Open Space, Arts & Culture, Community Building & Support and A Mix of Housing, all aspects of enhancing communities are considered. At the foundation of all work is the Clean to the Core Program which is considered in all projects and initiatives.

The Public Realm Audit supports the direction of the City Centre Implementation Team, and proposes several additional areas of priority to those identified on the City's map. Many of these additional priority areas relate to points of arrival into the centre City or to linkages within. Many people currently enter into the Centre City via the LRT, usually for the purposes or work or shopping, however all points of arrival should be developed to be stronger gateways into the Centre City, which will make it much more likely that pedestrian activity from adjacent areas will increase, especially beyond the workweek hours.

- **the Railway Corridor** forms a strong edge between the downtown core and the Beltline to the south. The nine railway crossings (one level crossing and eight underpasses) are of variable quality, and most are substandard for pedestrians. 14th Street includes very awkward pedestrian connections; the 11th Street crossing is a poor pedestrian experience and will become more important with the redevelopment of the Science Centre by Contemporary Calgary; 8th Street is included in a Centre City Corridor Project and will be improved; 5th Street is of higher quality than 4th Street; 1st Street W is a Centre City Project and slated for improvements; 1st Street E and Macleod Trail are of poor pedestrian quality; and 4th Street E is a relatively high quality pedestrian environment. The railway crossings are important entry points into the downtown core and should be considered comprehensively as a top priority for improvement.

- **Millenium Park/Skate Park, the Mewata Armouries, the former Science Centre and future home of Contemporary Calgary and the Kerby Centre** form an eclectic cluster of important activities at the west end, however they all evolved at different times, according to different needs and programs, and are currently poorly connected and not an imageable or legible node. This area should be considered for more detailed analysis/planning/design, and for strengthening of the linkages to the contexts beyond.

- **the Louise Bridge connection between Hillhurst/Sunnyside/the northwest and the downtown** terminates at the south near a surface parking lot. Although there is a direct connection to the river path system, the connections to the downtown core grid streets are poor. The parking lot site is a high profile area and redevelopment should be carefully managed so that the future land uses and urban form support the important pedestrian/cycle connections and views. The City's 8th Street Master Plan provides the context for the Louise Bridge site redevelopment.

- **the Bow River Pathway** is a very popular circulation route for commuters and a recreational corridor. It is essentially a linear conduit, with very few pedestrian amenities, and is bordered for much of its length by private residential developments. Where possible, mixed use commercial/retail uses should be developed along the river path. The West Eau Claire Master Plan is currently underway, and should be addressing these issues.

Although **the Eau Claire area** has a public plaza, bridge connection to Prince's Island, a 'market' building, and some new residential with ground floor developments, the overall design of the area does not provide for good public spaces or viable commercial/retail opportunities, and the river path is almost exclusively bordered by private residential properties. This area has a redevelopment plan in the works, however our study encourages careful monitoring of the project so that the orientation to the river path system includes active uses, and so that the resulting pedestrian environment is high quality.

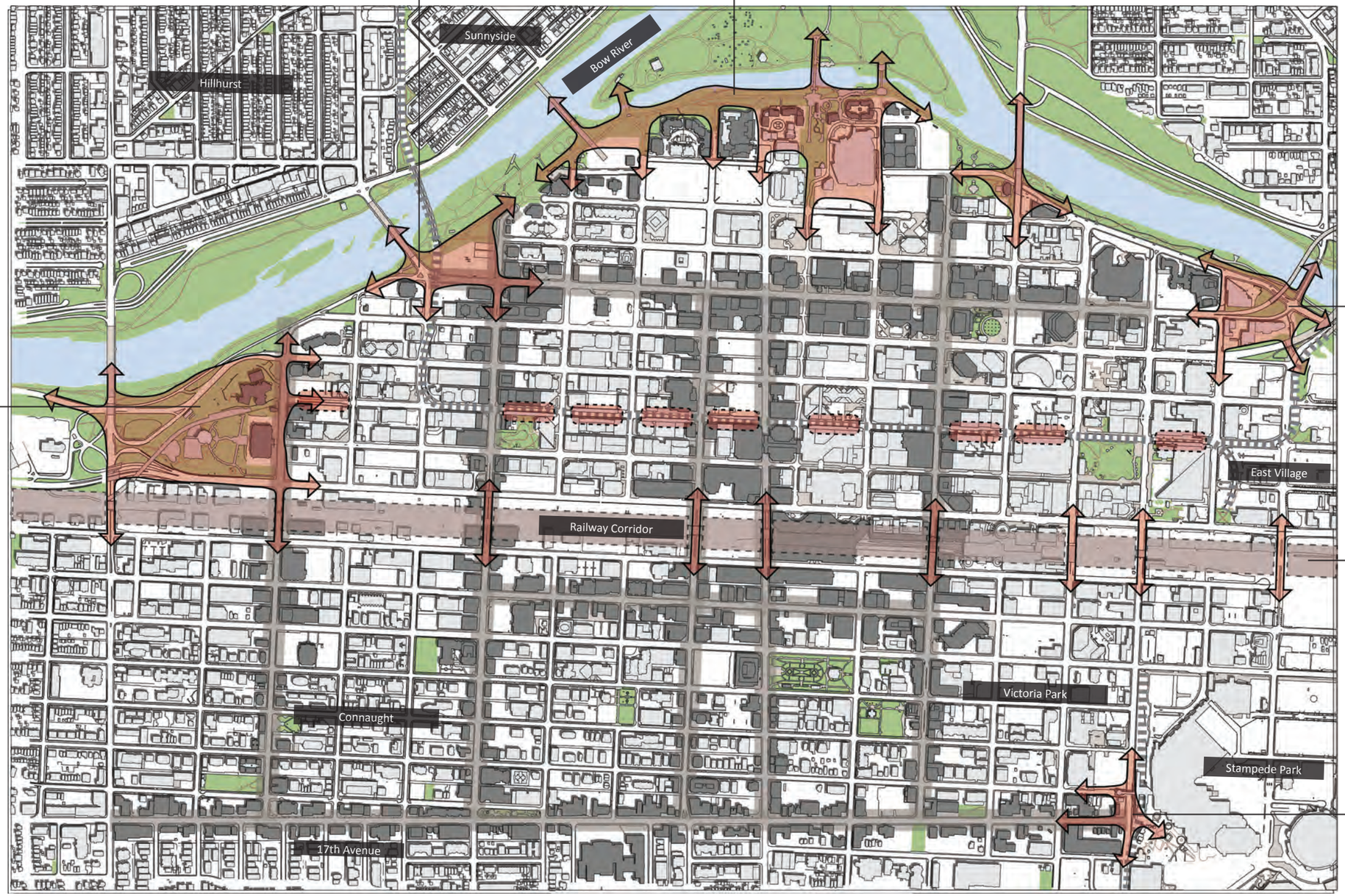
- **Centre Street** is an important connection between the neighbourhoods to the north and the Centre City. The terminus of the bridge and the connections to the river path system and to Chinatown should be enhanced.

- **Langevin Bridge** connects Bridgeland and the Centre City. The terminus at the Calgary Drop In centre is not well developed, and this node will become more important as East Village is built out.

- **17th Avenue S** is one of Calgary's best known pedestrian destinations, however it has several sections of variable quality. The connection to the Stampede LRT Station should be a priority area, and other segments, such as the blocks between 1st and 4th Streets SW, should be improved to provide better pedestrian linkages between the 1 Street and 4th Street commercial areas.

Louise Crossing to be developed as high profile entry

River Path should have more commercial/retail amenities, rather than private residential edges



Bridge connections for pedestrians to improve and interface with East Village

Multi-use node to have comprehensive concept

Railway Corridor to be developed and all linkages improved

Stampede Park/LRT Station interface with 17th Ave to improve

Urban Structure

Other Recommendations

In addition to the priority areas previously described, several broad recommendations are proposed which are intended to support existing high quality areas and to improve others. These recommendations are substantiated by the summary maps that detail the findings of the audit. The maps highlight graphically the areas that do not yet achieve the highest standards of urban quality, as a way to make clear where improvements may be possible.

- **Start where people are.** This is the approach of the Centre City Corridor Projects, and should be continued. Comprehensive streetscape improvements should be concentrated in priority areas in the first instance, and then linkages between these nodes improved next.

- **Include active street frontages in all projects**, especially in the priority project areas. Refer to the previous studies conducted by the EVDS Urban Lab that documented the degree of publicness/privateness of the buildings and businesses adjacent to Calgary public spaces, and indicated how publicness of building edges has a strong influence on the vibrancy of public spaces in Calgary (Sandalack and Alaniz Uribe 2009).

- As redevelopment occurs, it is recommended to **encourage consistent public realm design standards**. The overall design of the public realm is currently fragmented, with existing areas consisting of a range of standards, and with redevelopment occurring on a project-by-project basis. This results in discontinuous surface materials, lack of alignment of amenities and street trees, and lack of coordination of street furniture.

- **Make the existing pedestrian/mixed-use precincts exemplary.** The important east-west pedestrian corridors of 7th Avenue, Stephen Avenue, 11th Avenue and 17th Avenue should be of a continuous high quality, with gaps improved. The detailed maps indicate which elements or qualities need to be addressed.

- **Improve the important north-south connections**. In particular, the north-south connections that include railway crossings should be emphasized for continuous improvement. Many of these are already Centre City project areas.

- **Progressively create a continuous network**. Linkages between the east-west and north-south pedestrian areas with the most potential to contribute to this network should be identified and strengthened.

- **Find other opportunities for dedicated bike paths**. The 7th Street bike path has created a higher quality pedestrian environment within this discrete area; the approach of separating bike and car traffic should be introduced elsewhere.

- **Address gaps in the urban forest** by planting street trees whenever possible, and according to best practices and with adequate maintenance programs in place. The urban forest is arguably the element of the public realm that has the greatest effect on the quality of the public realm in terms of microclimate, shade, shelter, comfort, visual quality, improvement to the sense of human scale, and various ecological and sustainability measures.

- **Design for Calgary as a Winter City.** The success and liveability of Calgary's public realm is strongly influenced by the presence of sun as well as the absence of wind, and public spaces often succeed or fail because of these factors. The mild weather of the Chinooks make outdoor spaces potentially viable any time of the year. Although sun exposure and wind patterns were not analyzed in this audit, they are important elements that should be addressed in any redevelopment plan, and the inclusion of sheltered sun pockets should be encouraged in all projects.

- **Build on the institutions and activities currently in the Centre City.** Universities and other educational institutions are unique activities that bring in a population that tends to inhabit the downtown beyond the workday 9 - 5 culture, and that also engages to a higher degree with the public realm. Areas adjacent to the University of Calgary downtown campus, University of Alberta downtown campus, Bow Valley College, and SAIT Culinary Arts Campus, for example, should be considered for public realm enrichment and linkages to other nodes of activity.

- **Encourage mid-rise and mixed-use residential development** as a counterpoint to highrises. Most of the residential properties in the Centre City are in highrises, most with underground parking and few of no street-level land uses. This creates a culture of the "cul-de-sac in the sky" where residents do not have any reason or enticement to be on the street where they live.

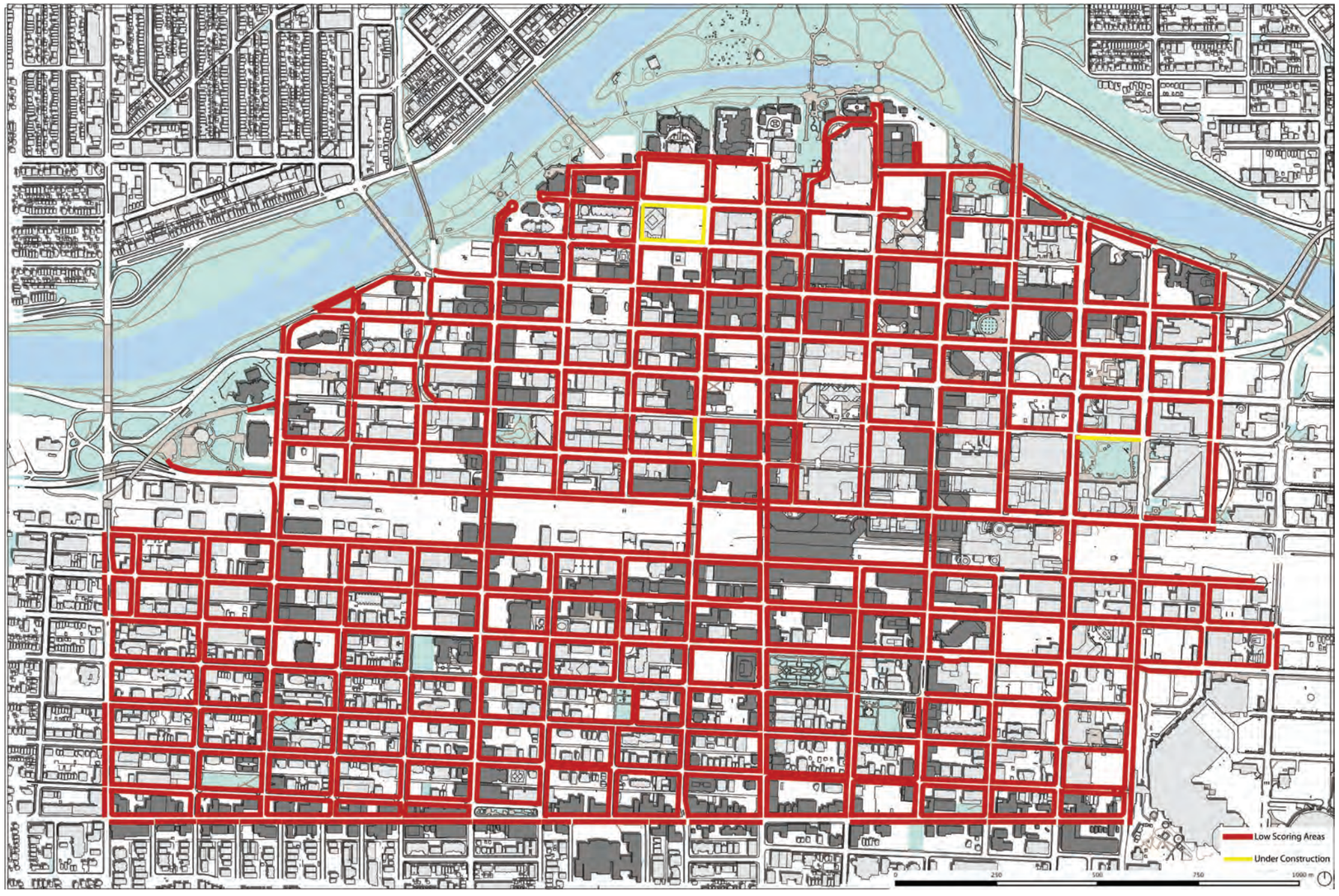
- **Continue to monitor and benchmark, and document progress.** This audit and recommendations should be considered as an early benchmarking exercise against which improvements over the years should be measured. For this reason, the standards of this audit have been rigourous, and according to a "gold standard" against which the public realm should be evaluated.

Summary of findings - individual elements

The following maps and notes are a summary of the mapping and analysis according to the various public realm elements that comprised the audit. The detailed audits later in this document should be referred to for the evidence for the rationale for the diagnosis and recommendations.

This Public Realm Audit was conducted with high urban design standards in mind, so that Calgary might further improve its Centre City, and attract more people to it for recreation, leisure and tourism.

Note: areas identified as “under construction” were being developed as the audit was conducted, therefore no data is provided for these areas. As the projects are completed, they should be audited according to the rubric of this study, and included in the database.



Amenities

- Street furniture as well as amenities such as public toilets and water fountains are important in creating a pedestrian-friendly and hospitable environment.

- Street furniture supporting pedestrians is not common at present, and is concentrated in the most popular pedestrian environments.

- Water fountains are rare. A public art piece was temporarily located in Eau Claire Plaza, and this was well used and seemed to be appreciated by the public.

- Public toilets are located only on 17th Avenue in Tomkins Park. The public toilets on the East Village Riverwalk are now closed except during major events, and this should be avoided by locating any future toilets in mixed use areas rather than in isolated places.

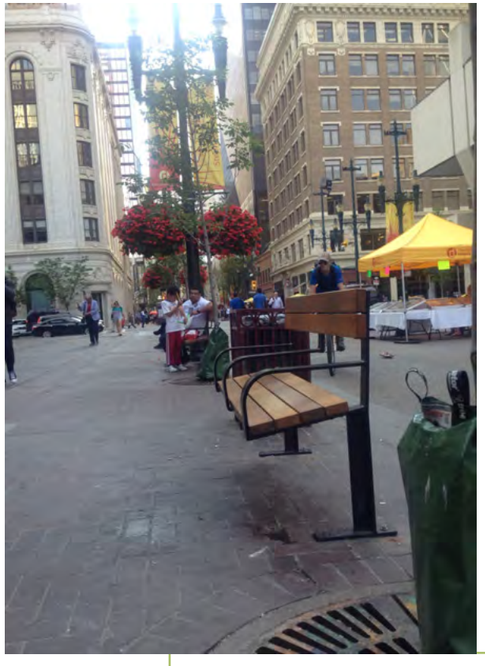
Low Scoring Areas
Under Construction

Seating

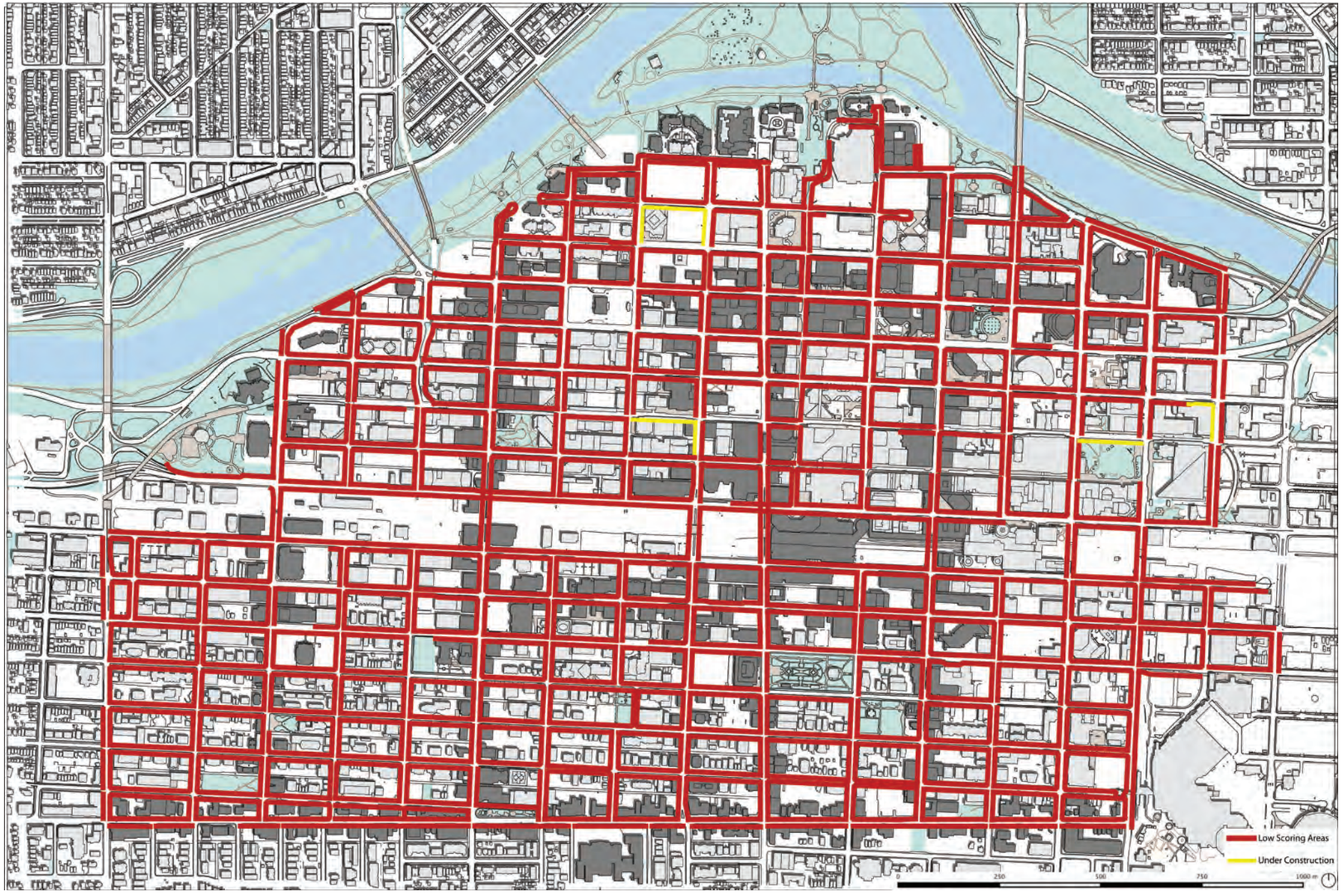
- Seating is most common in the more heavily used pedestrian areas such as along the river walk and Stephen Avenue. Opportunities for seating are otherwise rare. Bus stop benches are the only seating option in some places. This is an important element in providing a pedestrian-friendly environment, and is currently lacking.

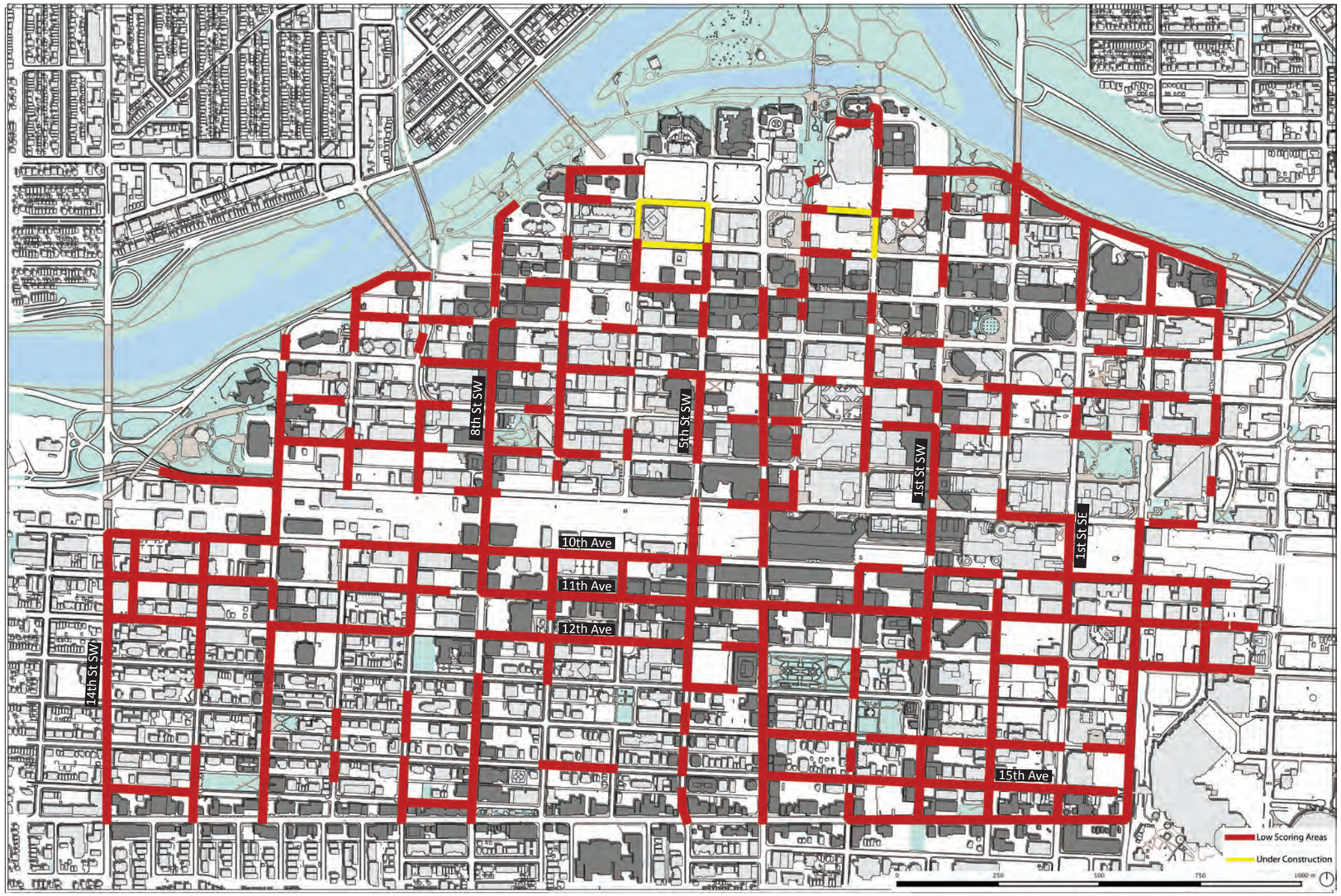
- Many areas that provide public seating are heavily monitored and include signage discouraging loitering. New benches on Stephen Avenue have slanted bench seats that discourage seating. Other informal seating areas such as ledges have been armoured to discourage use. These attempts to reduce habitation of a space by 'undesirables' make the space inhospitable to all citizens, and may be counter-productive to the efforts to bring people to the Centre City.

- Seating should be provided in all of the high priority areas, and be combined with other amenities to create a welcoming environment for all pedestrians.



Low Scoring Areas
Under Construction





Tree Distribution

- The urban forest provides the benefits of shade, shelter, structure, ecological functions, habitat, psychological and aesthetic value. American Forests recommends that cities strive for a tree canopy cover of at least 25% (40% in cities east of the Mississippi), including 35% in suburban neighbourhoods and 9% in downtowns. Refer to the City of Calgary Urban Forest Strategic Plan (2007) and updates.

- Tree distribution is fairly continuous in the Beltline residential areas, with the exceptions of 10th, 11th and 12th Avenues, where trees have been progressively eliminated through traffic improvements or as a by-product of redevelopment, and in the southeast portion of the study site.

- The downtown is unevenly served, and several thoroughfares have had street trees removed in favour of road widening (e.g. most of the avenues in the downtown core).

- Most new redevelopment projects include street trees, however conflicts with utilities and rights-of-way create challenges.

- Streets aligned with the railway crossings generally have a lack of street trees, likely due to the emphasis on vehicular traffic. As priority corridors, these should be re-planted whenever possible.

Low Scoring Areas
Under Construction

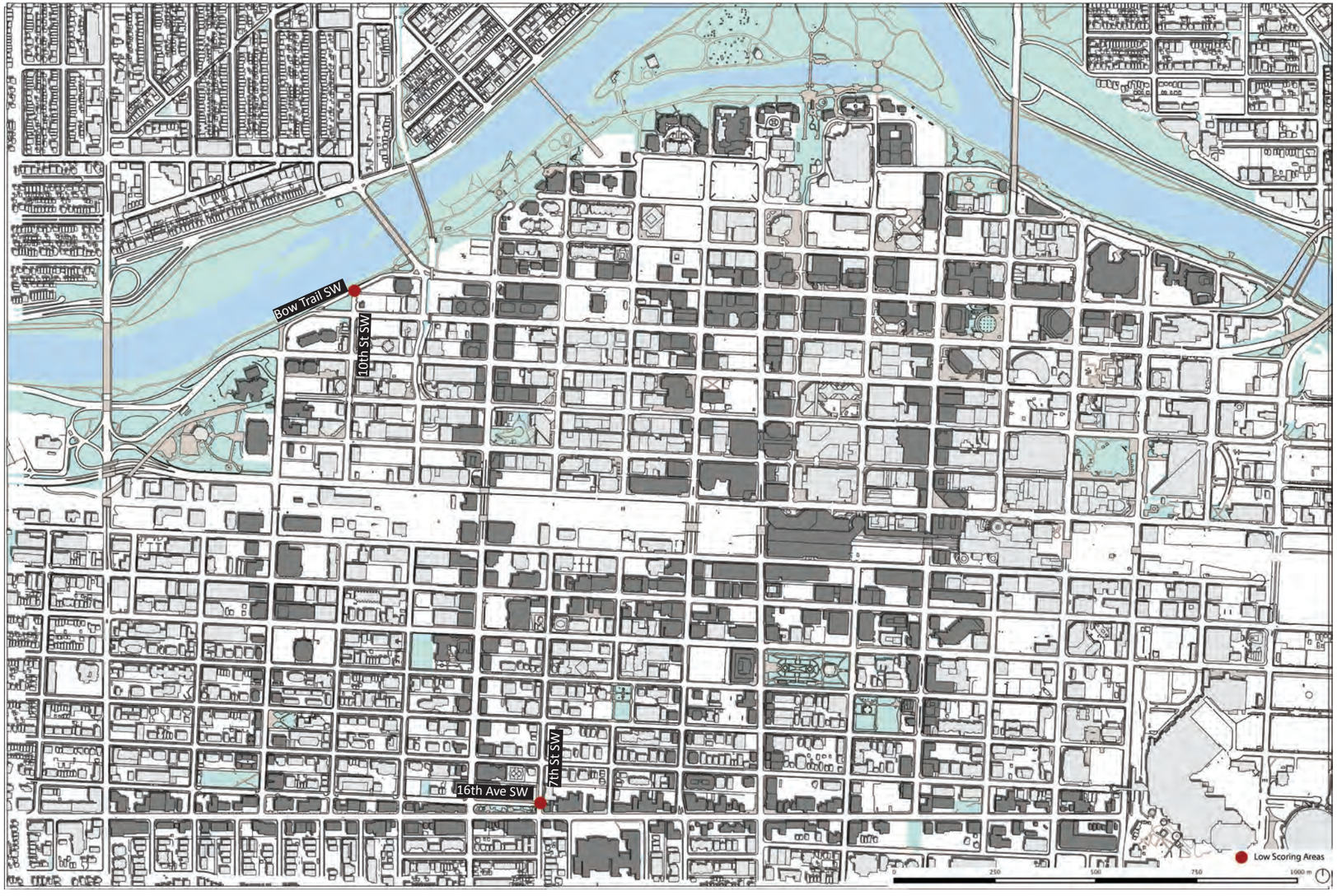
Pedestrian Crossings

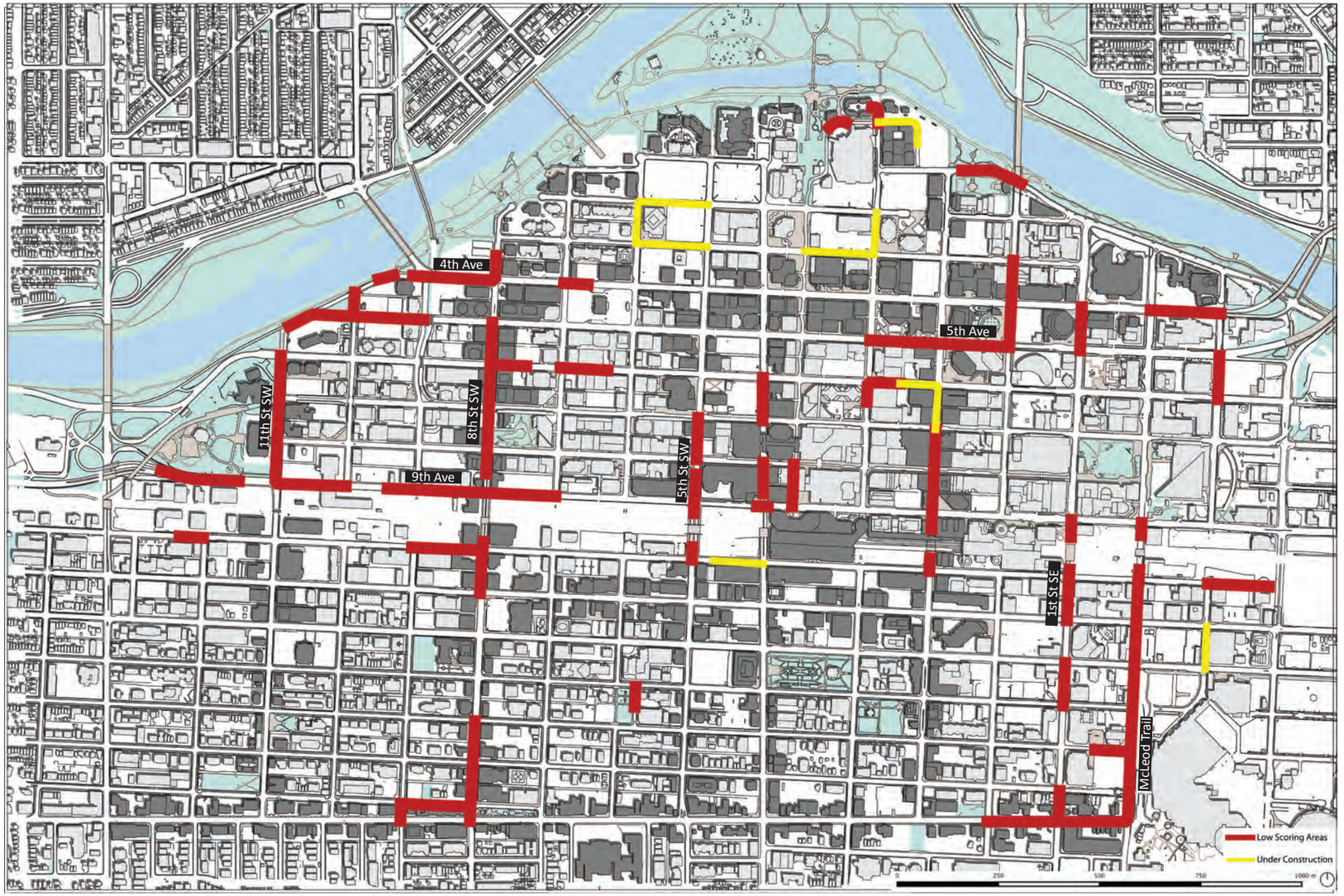
- Pedestrian crossings are generally at an acceptable level of quality and quantity throughout the Centre City.

- The majority of these crossings are part of a vehicular traffic control (i.e. lights or stop signs).

- Specific problem areas are the corner of 7th St and 16th Ave SW, and where 10th St meets Bow Trail SW.

Low Scoring Areas





Sidewalk Distribution

- Sidewalk quality and presence is poorest along major vehicular routes (MacLeod Trail, 8th Street, 9th Avenue, 5th Avenue, and 4th Avenue)

- Streets aligning with railway crossings generally have poor sidewalk quality and distribution, again likely due to the emphasis on vehicular traffic.

- Many areas with low scores for sidewalks may have sidewalks on both sides, however they are not of a wide enough dimension to be safe or comfortable, or may be of the same material as the road surface, or are directly adjacent to the roads, rendering them of poor quality for pedestrians.

- Many sidewalks have encroachments of patios and street furniture. A coordinated approach to public realm design is recommended.

Low Scoring Areas
Under Construction

Sidewalk Quality

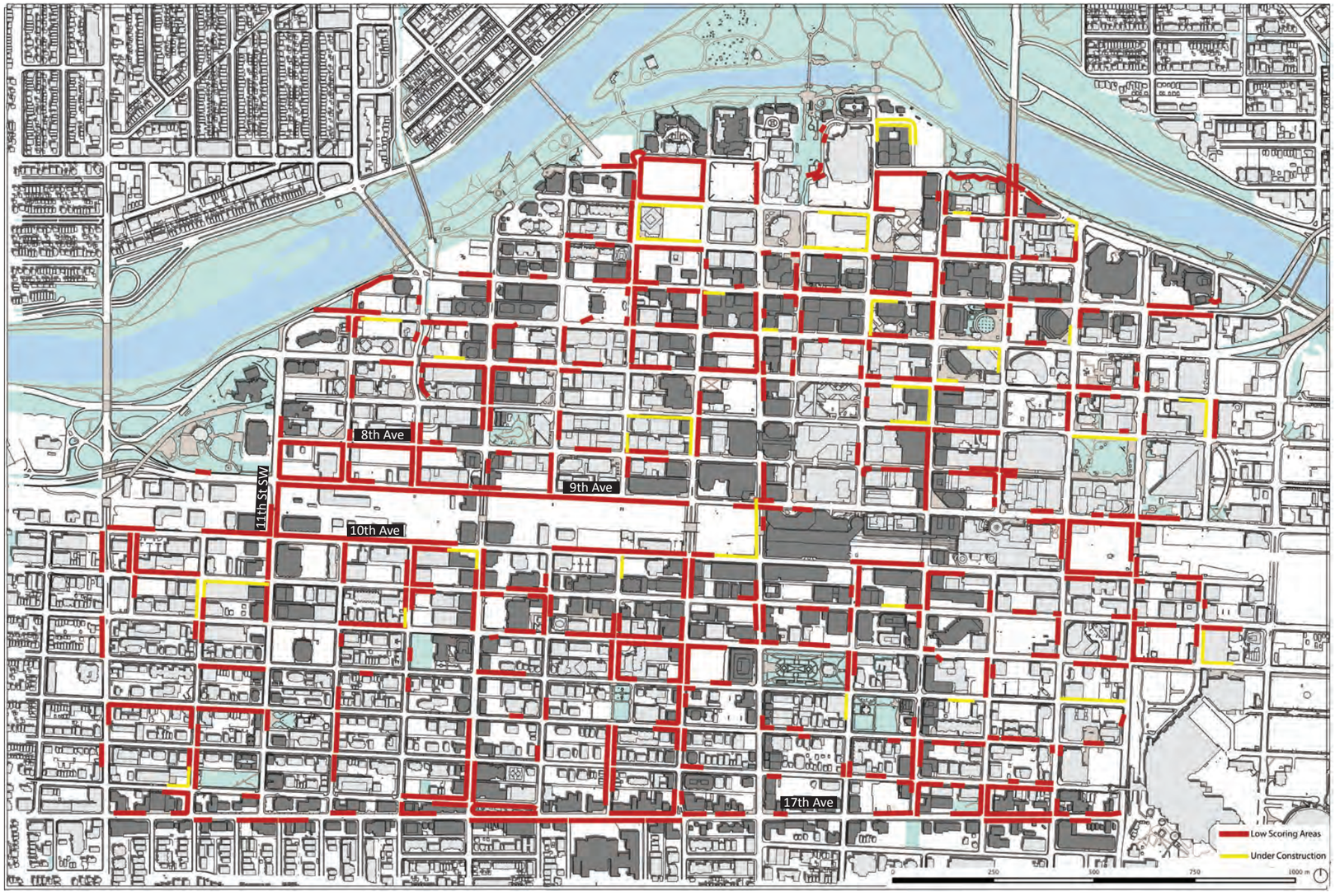
- The quality of the sidewalks is variable, and dependent on factors such as age, date of construction (which correlates to the degree of pedestrian primacy), amount of disturbance due to urban renewal or road widening, and quality of urban design of any redevelopment.

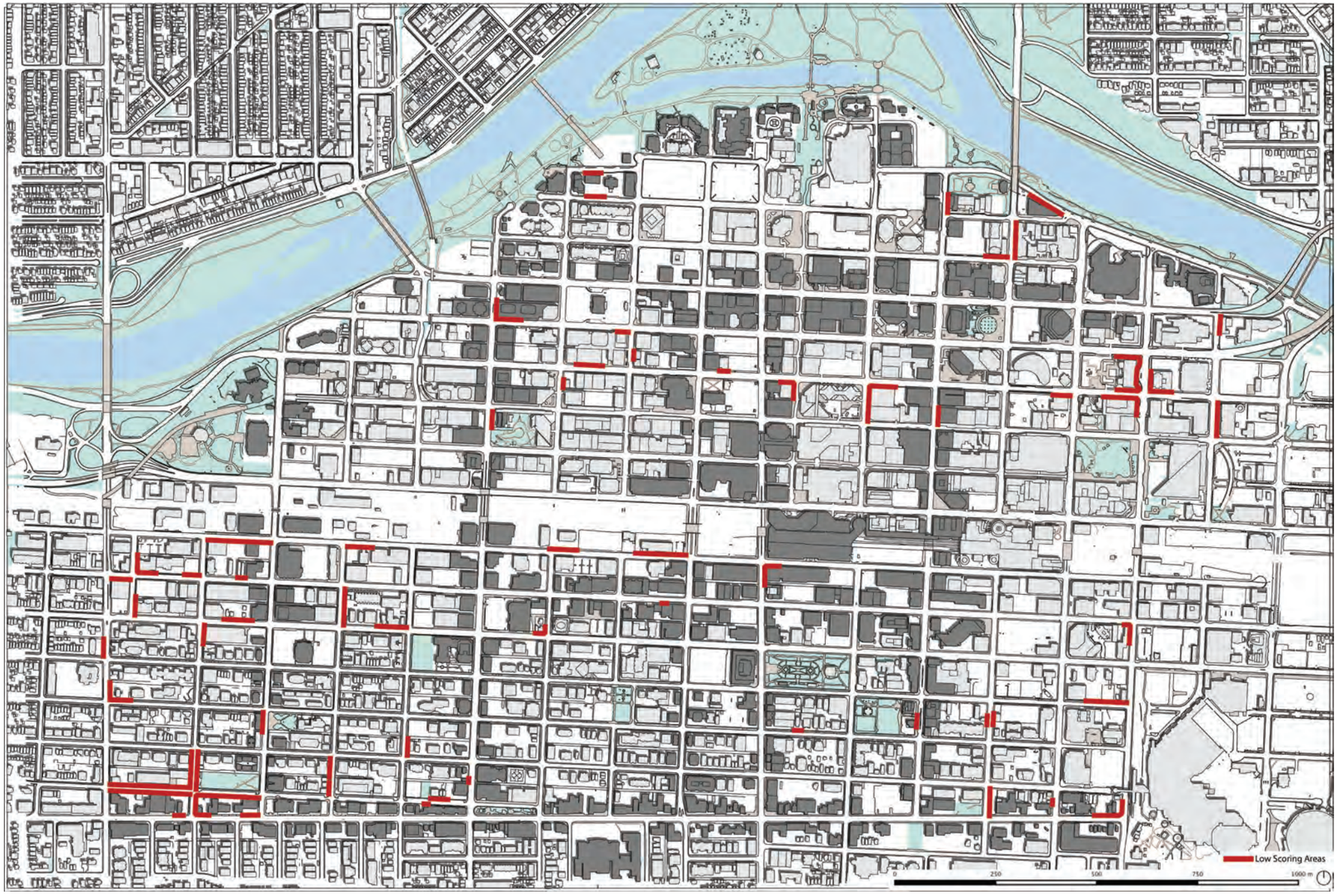
- Sidewalk quality issues are distributed through the Centre City with no apparent pattern, leading to the recommendation for a coherent urban design strategy for the Centre City that specifies requirements for continuity in sidewalk dimensions, materials, and qualities.

- Of particular note in this audit, much of 9th Avenue, which had once been a high quality street but then converted to a traffic artery, requires improvement in order to become a pedestrian-friendly thoroughfare.

- Additionally, much of 17th Avenue S requires improvement. Despite the high popularity and use, there are several sections of 17th Avenue that are not of a high standard for pedestrian use. As one of the “flagship” pedestrian streets, 17th Avenue should exhibit exemplary urban design qualities.

Low Scoring Areas
Under Construction





Maintenance and Occupancy

- Most of the buildings are occupied and are well maintained.

- Areas where there are unoccupied or poorly maintained buildings are highlighted on the map - some may be sites anticipating redevelopment.

Low Scoring Areas

Lighting

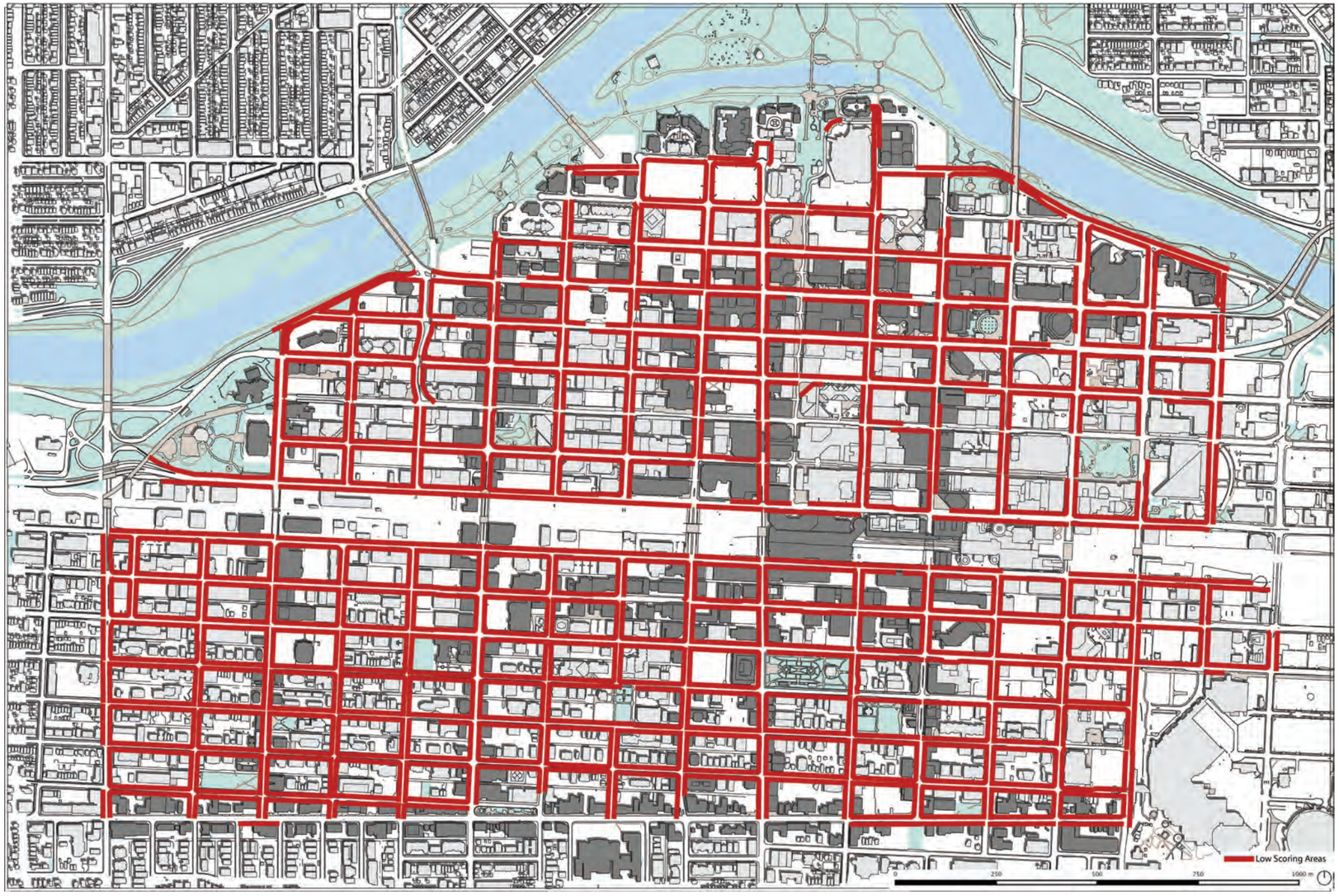
- Lighting makes the Centre City more accessible and the perception of safety higher. This is important when encouraging evening use beyond the workweek.

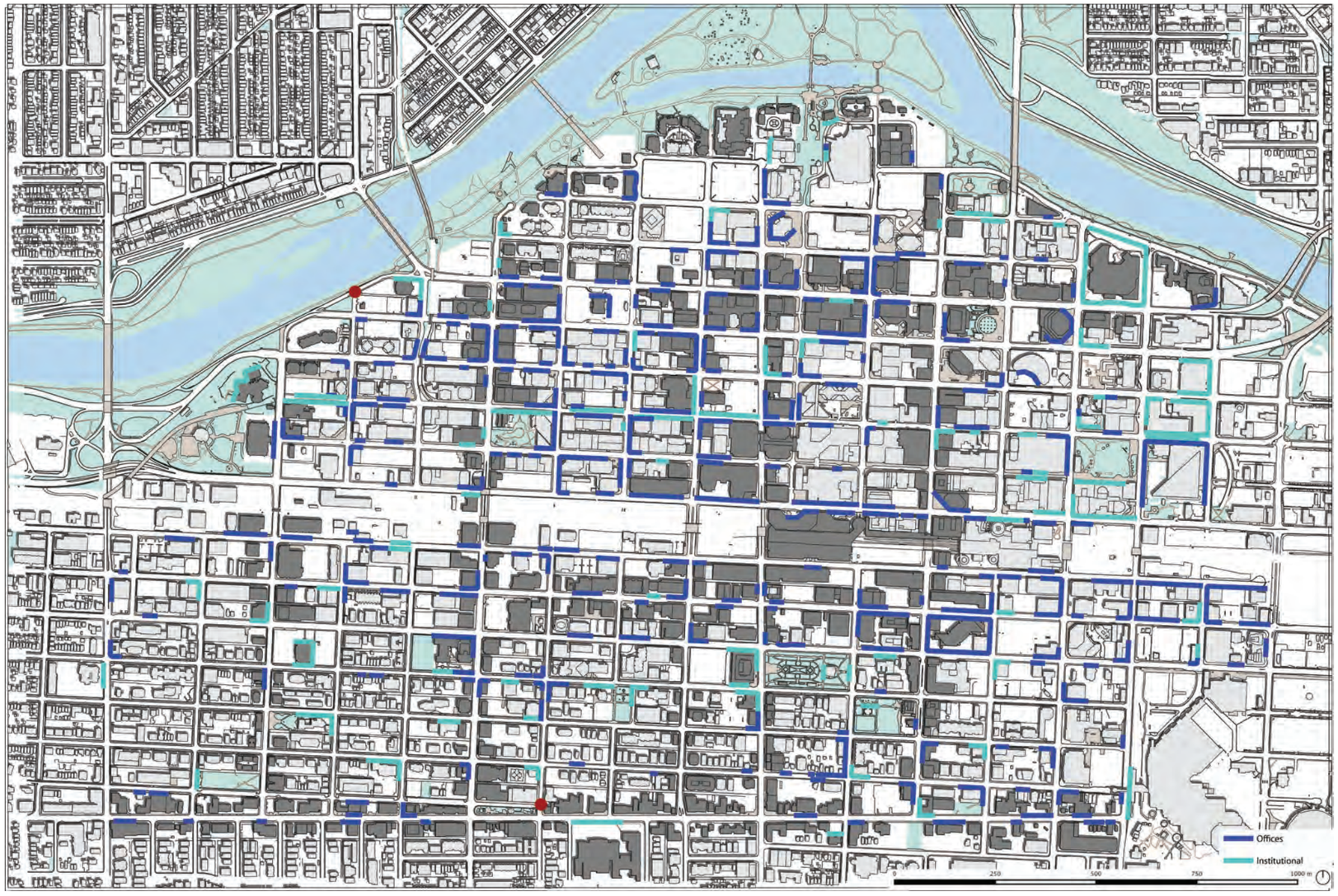
- Lighting is generally poor throughout the Centre City, with often only one light per block, which is particularly an issue where there are mature street trees. Lower height light standards with up-lighting may be more appropriate.

- In some cases light standards are located in the middle of sidewalks, or are of poor design in terms of the pedestrian experience.

- Conflicts between urban design standards and utility requirements need to be resolved.

Low Scoring Areas





Weekday Ground Floor Land Use

- The central part of the downtown core has high pedestrian traffic during week days.

- Institutional uses are distributed throughout the Centre City and generate a different pattern of pedestrian traffic, including, in some cases, weekend and evening use.

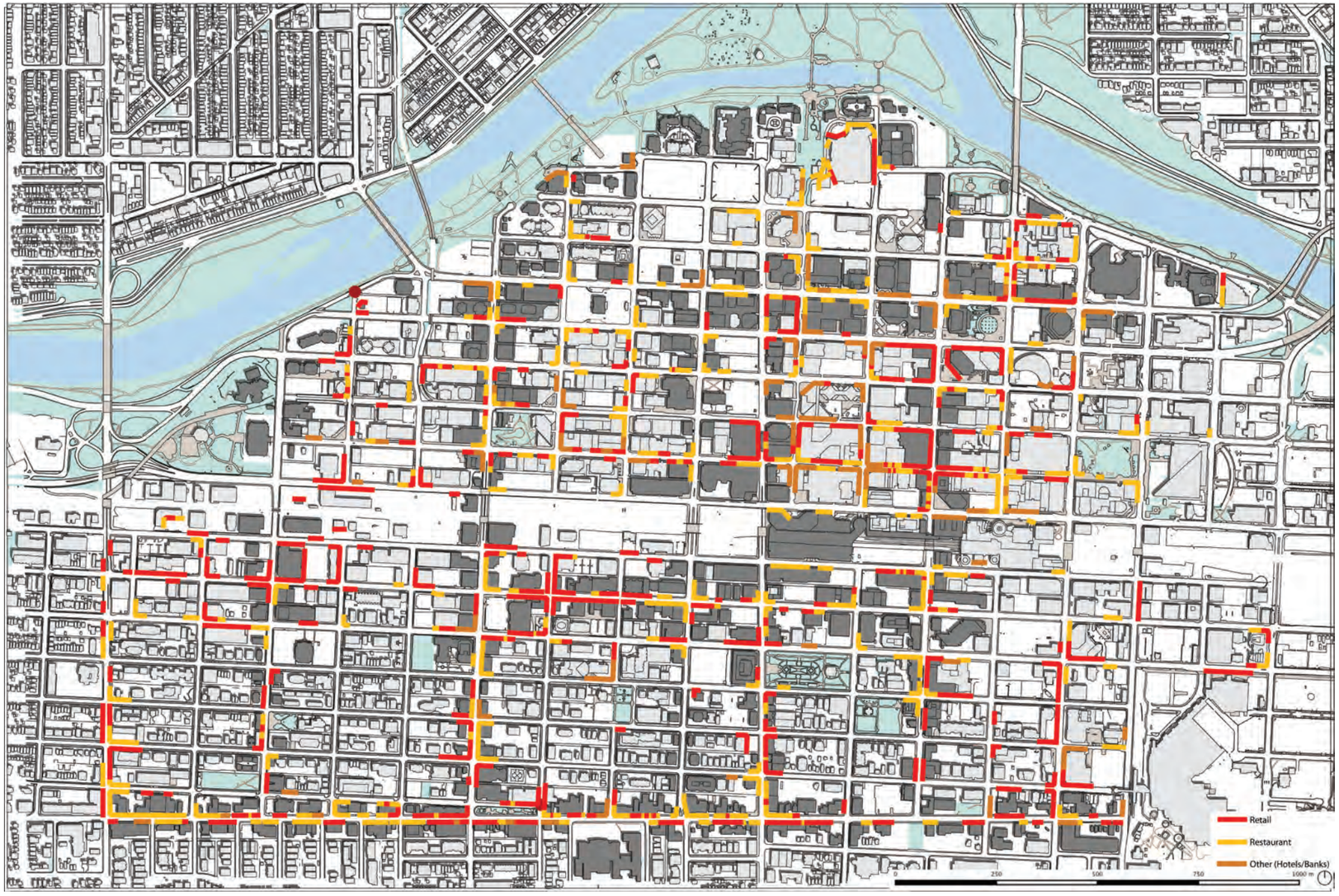
Office
Institutional

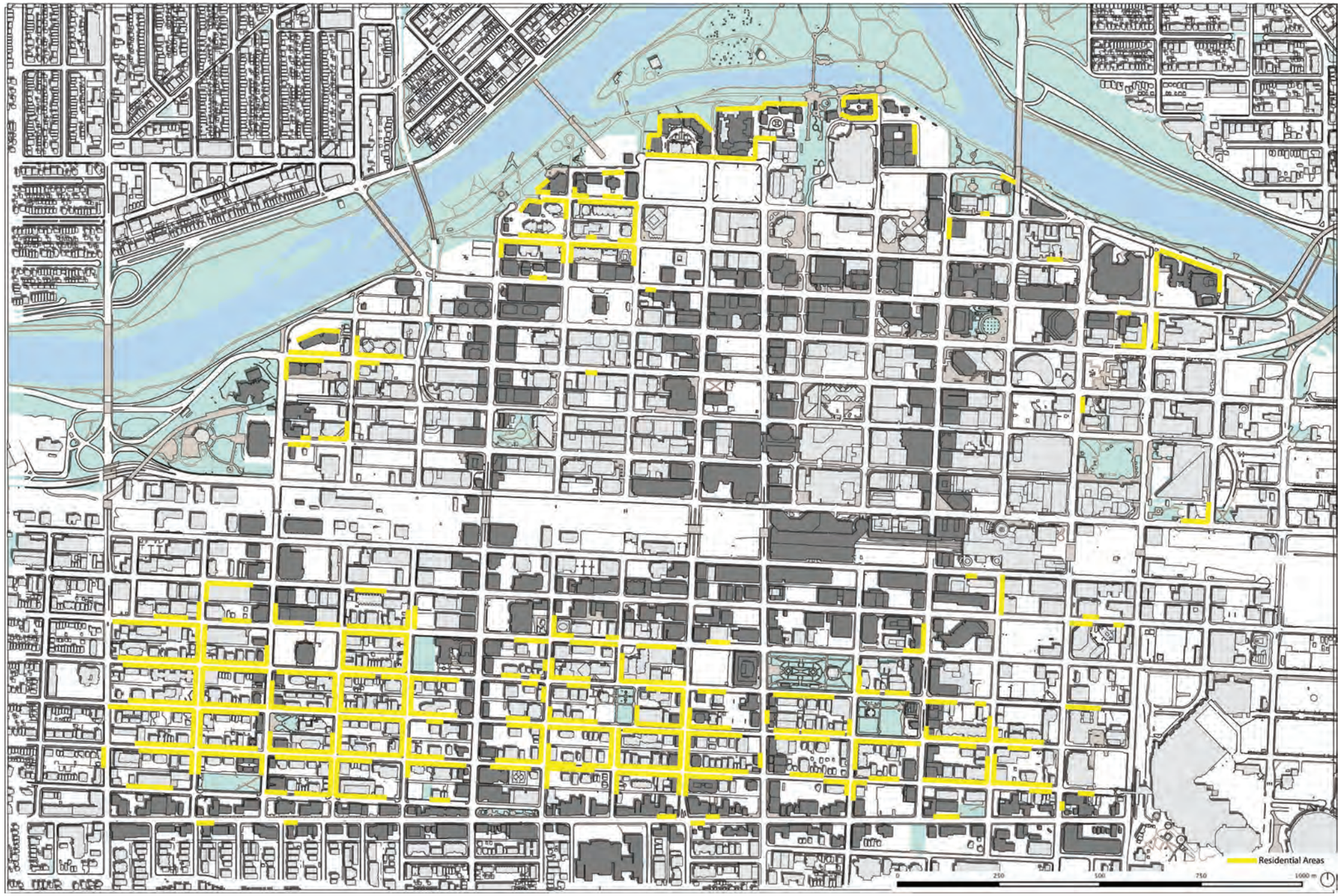
Evening and Weekend Ground Floor Land Use

- Evening and weekend land use are distributed throughout the downtown core, with the exception of the eastern portion, which has few current uses at any time beyond some isolated restaurants and the Epcor Centre, which does not currently generate a lot of pedestrian activity. Refer to the Cultural District Study (2002) for a diagnosis of the urban form issues responsible for the difficulties in attracting a 24-7 population.

- High concentrations of retail, restaurants and other commercial land uses are located along 17th Avenue, 11th Avenue, 8th Avenue, 4th Avenue, 14th Street, 11th Street,4th Street & 1st Street.

Retail
Food Establishment
Other (Hotels/Banks)





Ground Floor Residential Land Use

- Residential uses are vital in the development of a 24-7 population, however, the Centre City has several areas that are either totally devoid of residential uses, or where the residential developments are in the form of highrises where people enter and leave primarily through underground parking, and where there are few on-street land uses/activities that would draw the populations onto the streets.

- Residential development is concentrated in the western part of the Beltline and in Eau CLaire, with smaller concentrations in the West End, Chinatown and the Riverfront.

- The downtown core and the northern avenues of the Beltline are notably lacking residential development.

- Most of the residential development in the Centre City does not include a mixed use component, so although there may be a residential population, it is not necessarily evident in the sidewalk traffic as there are few reasons to be on the street.

Residential

03

AUDIT

Introduction

The audit component of this project was conducted as an on-site inspection of various qualities of the public realm. First, a rubric was developed to guide the inspection and second, a methodology was structured for the application of the rubric. Two research assistants walked every street in the City Centre and using digital mapping, spatially recorded their findings in response to the pre-established rubric.

Additional mapping was also conducted in parallel to record the ground floor use of each building. The land use was categorized as:
- Office
- Residential (single and multifamily)
- Commercial-Retail (stores)
- Commercial-Food/Drink (Coffee shops, restaurants, pubs, etc.)
- Commercial-Other (banks, services, etc.)
- Institutional (library, school, etc.)
- Vacant

The importance of recording the ground floor land use was to analyze and understand the potential for the impact of building land use on the level of activity and liveliness of each street. This also allowed us to identify which streets have land uses that support activity for pedestrians after work hours.

Audit Rubric

Sidewalks and Circulation
Sidewalk Quality
5 - Sidewalks are generously wide, evenly surfaced, made with high quality materials, and are extremely well-maintained.
4 - Sidewalks are above average width, evenly surfaced, made with quality materials, and are well-maintained.
3 - Sidewalks are average width, with some uneven surfaces, made with regular materials, and are generally maintained.
2 - Sidewalks are narrow, have uneven surfaces, are made with regular materials, and are under-maintained.
1 - Sidewalks are extremely narrow, have rough or uneven surfaces, are made with regular or lower-grade materials, and require significant maintenance.

Sidewalk Distribution
5 - Sidewalks consistently line both sides of the street. They are set back from the road and a buffer (such as street trees or parked cars) separates pedestrians from vehicles.
4 - Sidewalks regularly line both sides of the street. They are generally set back from the road and buffers sometimes separate pedestrians and vehicles.
3 - Sidewalks tend to line both sides of the street. There is generally no set back from the road, but there are occasional buffers that separate pedestrians and vehicles.
2 - Sidewalks tend to line only one side of the street. There is generally no set back from the road, and there are few buffers between pedestrians and vehicles.
1 - Sidewalks are generally absent. When present, they are next to the street with little or no buffer between pedestrians and vehicles.

Pedestrian Crossings
5 - There are clearly articulated pedestrian crossings at all intersections (including flashing lights where necessary).
4 - Most pedestrian crossings are articulated.
3 - Some pedestrian crossings are articulated.
2 - Few pedestrian crossings some barriers (concrete barriers, closures, etc.).
1 - No pedestrian crossings and multiple barriers.

Street Trees
Tree Distribution
5 - Trees line both sides of most streets, and often create a canopy effect.
4 - Trees generally line most streets.
3 - Trees line some streets, but generally only on one side or in a centre median.
2 - Trees are restricted to the main boulevards.
1 - There are very few street trees.

Tree Quality
5 - Street trees are consistently large and healthy.
4 - Street trees are generally large and healthy.
3 - Street trees are sometimes large and healthy.
2 - Street trees are generally smaller and less healthy.
1 - Street trees are very small and/or very unhealthy.

Pedestrian Amenities
Seating Areas
5 - There are multiple comfortable places to seat (benches, ledges, etc.)
4 - There are a significant amount of places to seat
3 - There are very few places to seat
2 - There are almost no places to seat
1 - There aren't any places to seat

Amenity Presence
5 - Pedestrian amenities such as water fountains, signage, public toilets, public telephones, garbage bins, ATMs, are found.
4 - Many of these pedestrian amenities are found.
3 - Some of these amenities can be found.
2 - There are very few of these amenities.
1 - None of these amenities are found.

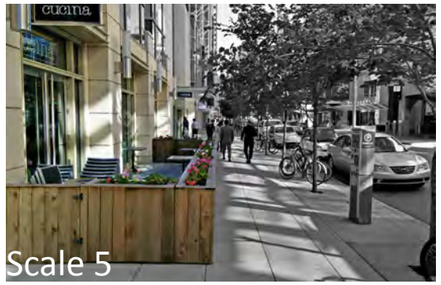
Built Environment
Street Frontages
5 - Building engages the street, ground floor land use is accessible (commercial or services), the building facade is permeable with multiple windows and doors
4 - Building mostly engages the street, ground floor is mainly accessible (some commercial or services), the building facade has a considerable amount of windows and doors
3 - Building sometimes engages the street, ground floor is somewhat accessible (few commercial or services), the building facade has very few windows and doors facing the street
2 - Building rarely engages the street, ground floor is barely accessible (few commercial or services), the building facade has very few windows and doors facing the street
1 - Building doesn't engage the street, ground floor is not accessible, almost no doors or windows face the street

Maintenance and occupancy
5 - Buildings and their properties are very well-maintained and occupied
4 - Buildings and their properties are well-maintained and occupied.
3 - Buildings and their properties are generally well-maintained and occupied.
2 - Buildings and their properties are not well-maintained and mostly vacant.
1 - Buildings and their properties are run-down or abandoned, and vacant.

Fabric Build-Out and Continuity
5 - There are no empty lots; there is minimal surface parking and other 'leftover' space.
4 - There are a few empty lots; there is a little bit of surface parking and other leftover space.
3 - There are empty lots throughout the street; there is some surface parking and other leftover space.
2 - There are many empty lots located throughout the street; there is a great deal of leftover space.
1 - Parking lots and leftover space pervade the area.

Lighting
Lighting Quality
5 - Street lights are scaled to the pedestrian, and have a high-quality finish.
4 - Street lights are generally scaled to the pedestrian, are in good condition.
3 - Street lights are of an average scale, and are in reasonable condition.
2 - Street lights are scaled more for vehicles, and provide little for the pedestrian realm.
1 - Street lights interrupt sidewalks, are made of dilapidating materials, and produce unpleasant or ineffective light.


Scale 5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Maintenance & Occupancy - Scale Description

- 5 - Buildings and their properties are very well-maintained and occupied
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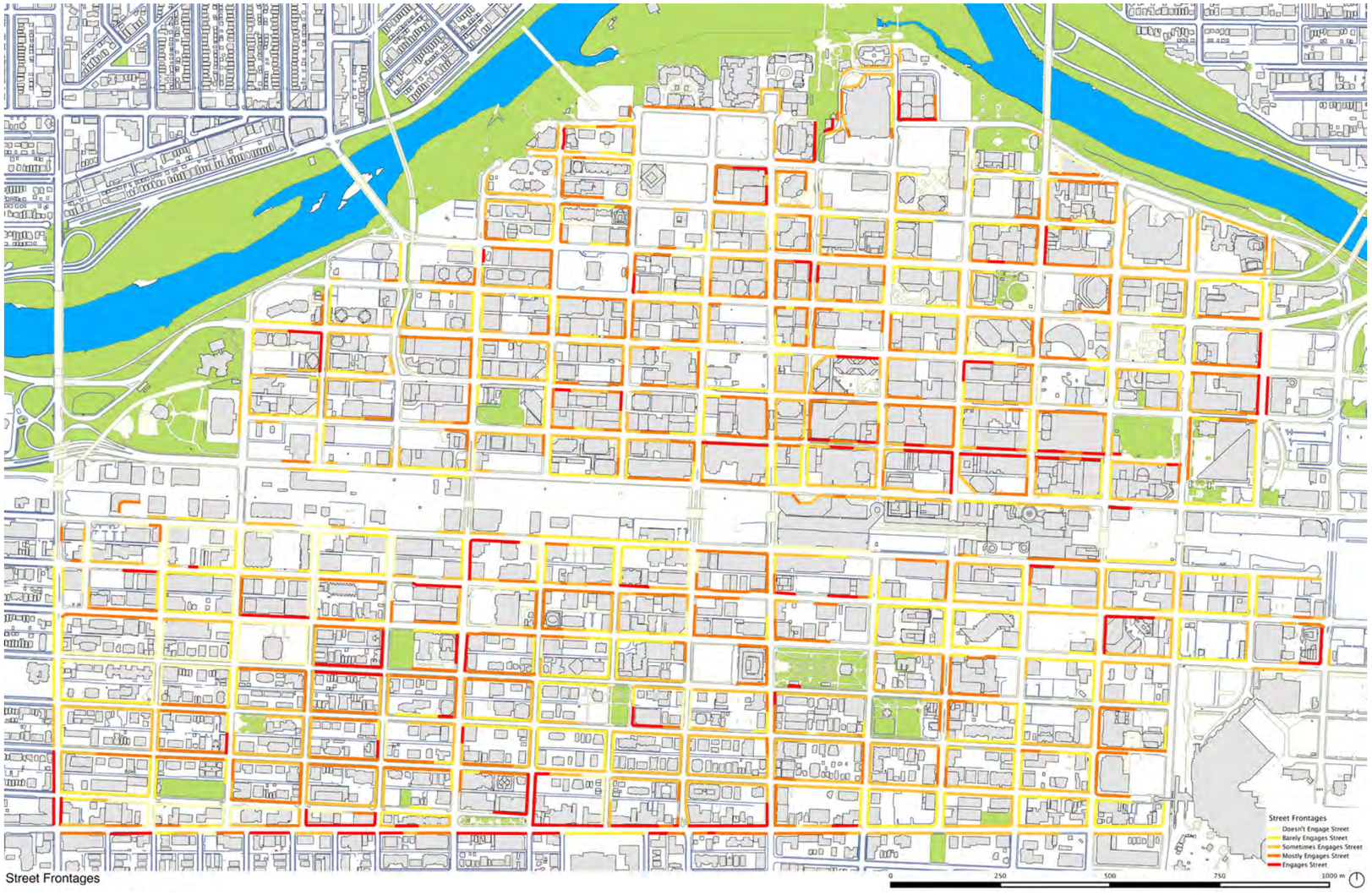
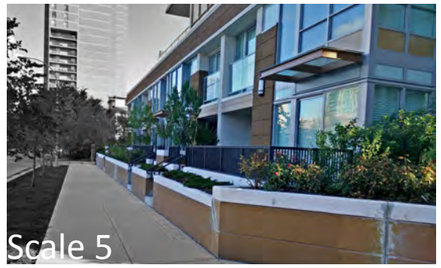


Street Frontages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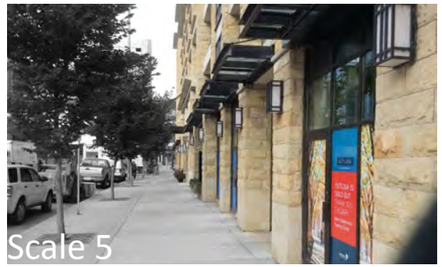
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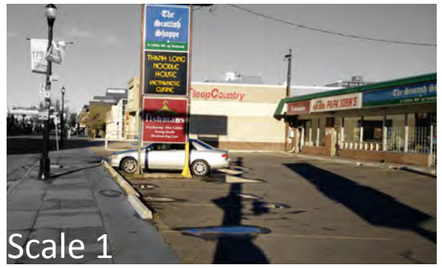
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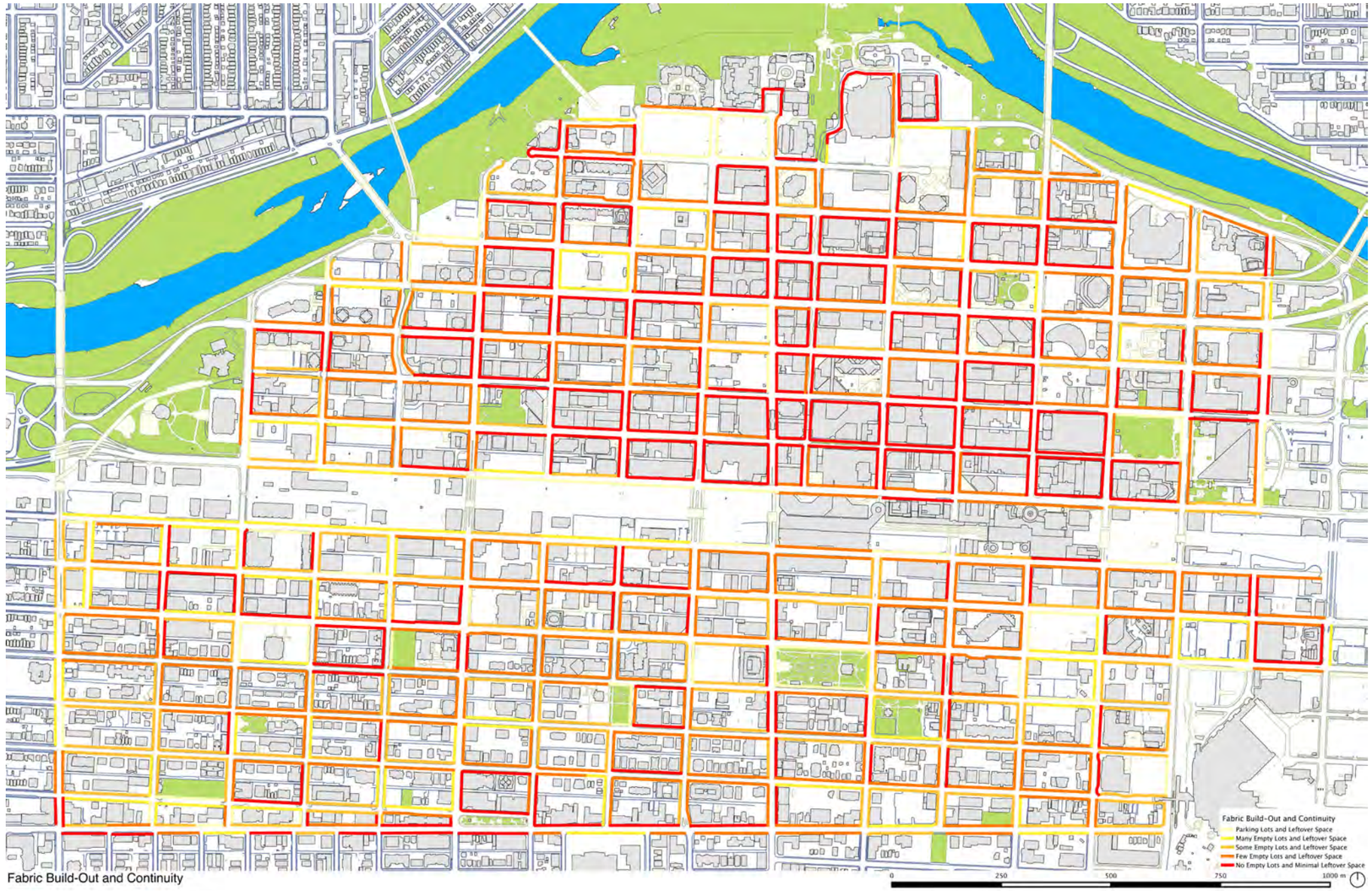

Fabric Build-Out and Continuity

Fabric Build-Out & Continuity - Scale Description

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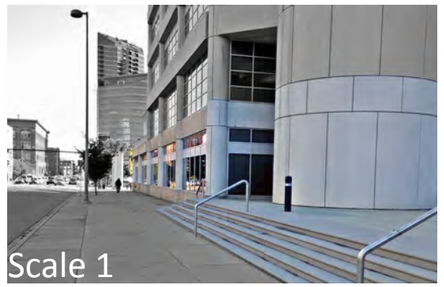
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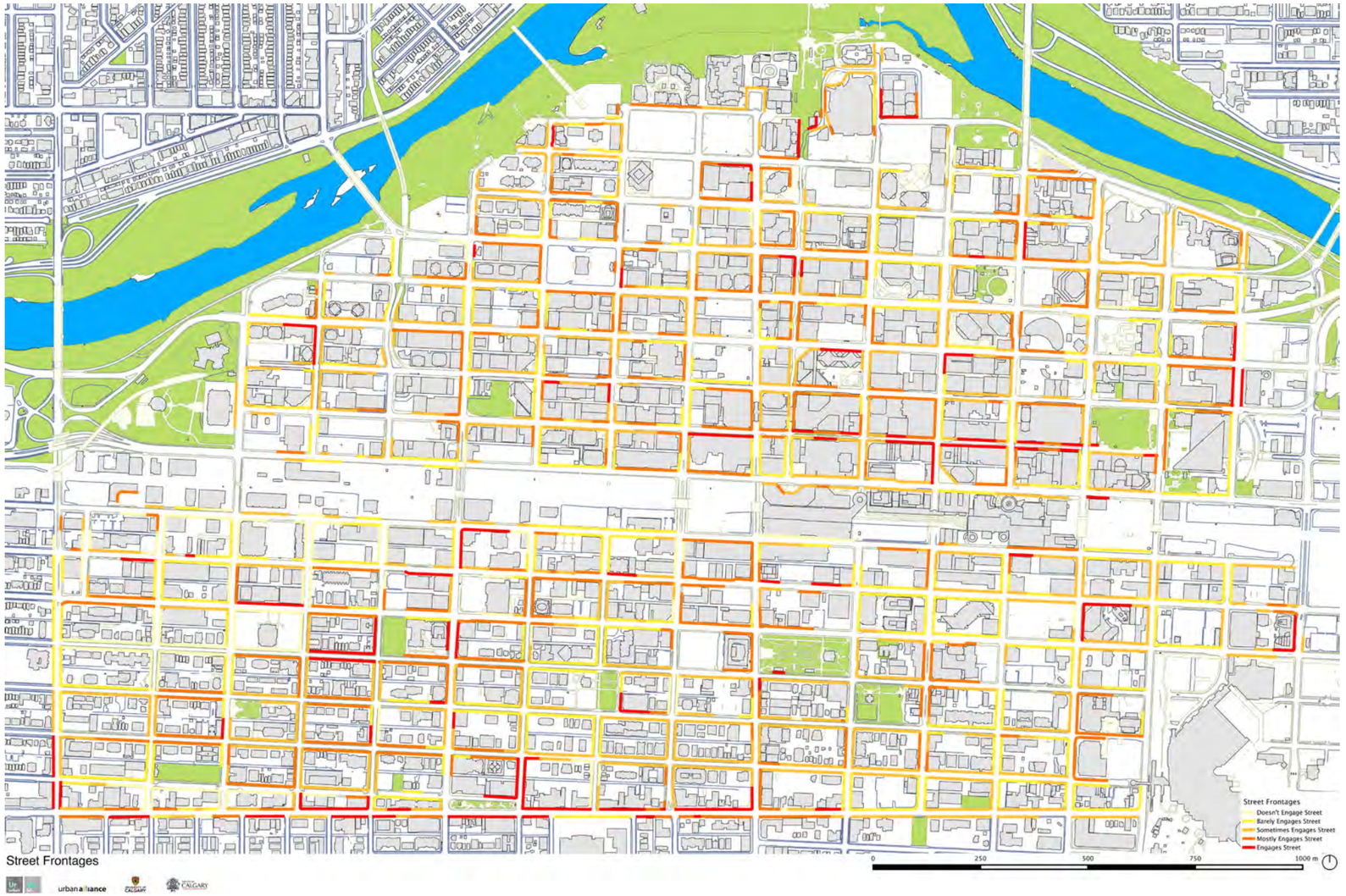

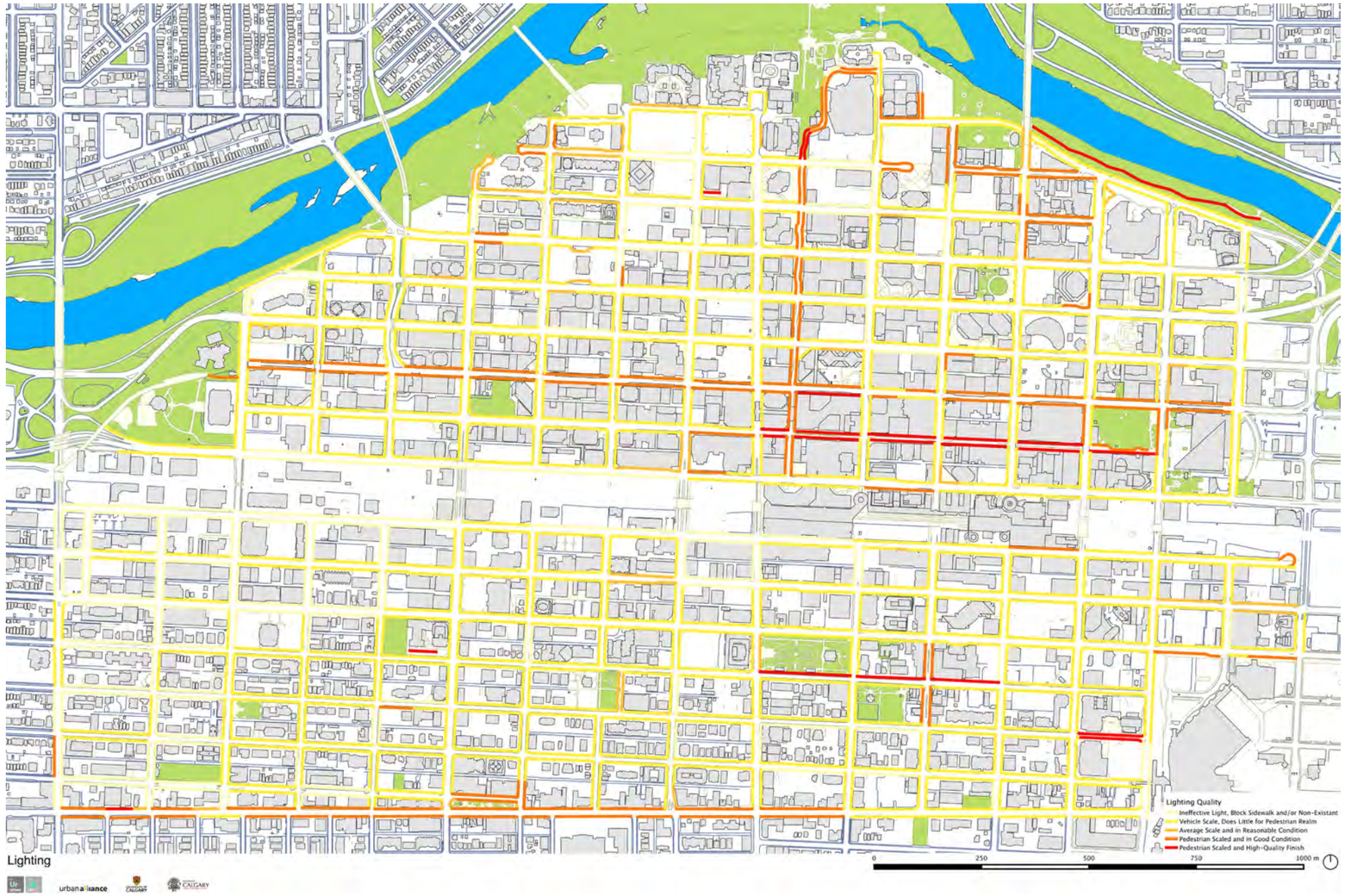

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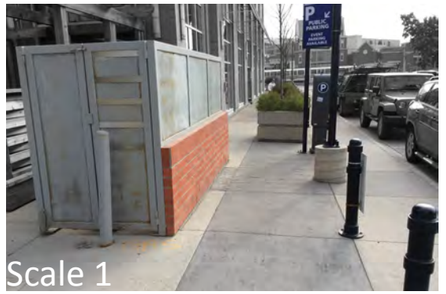

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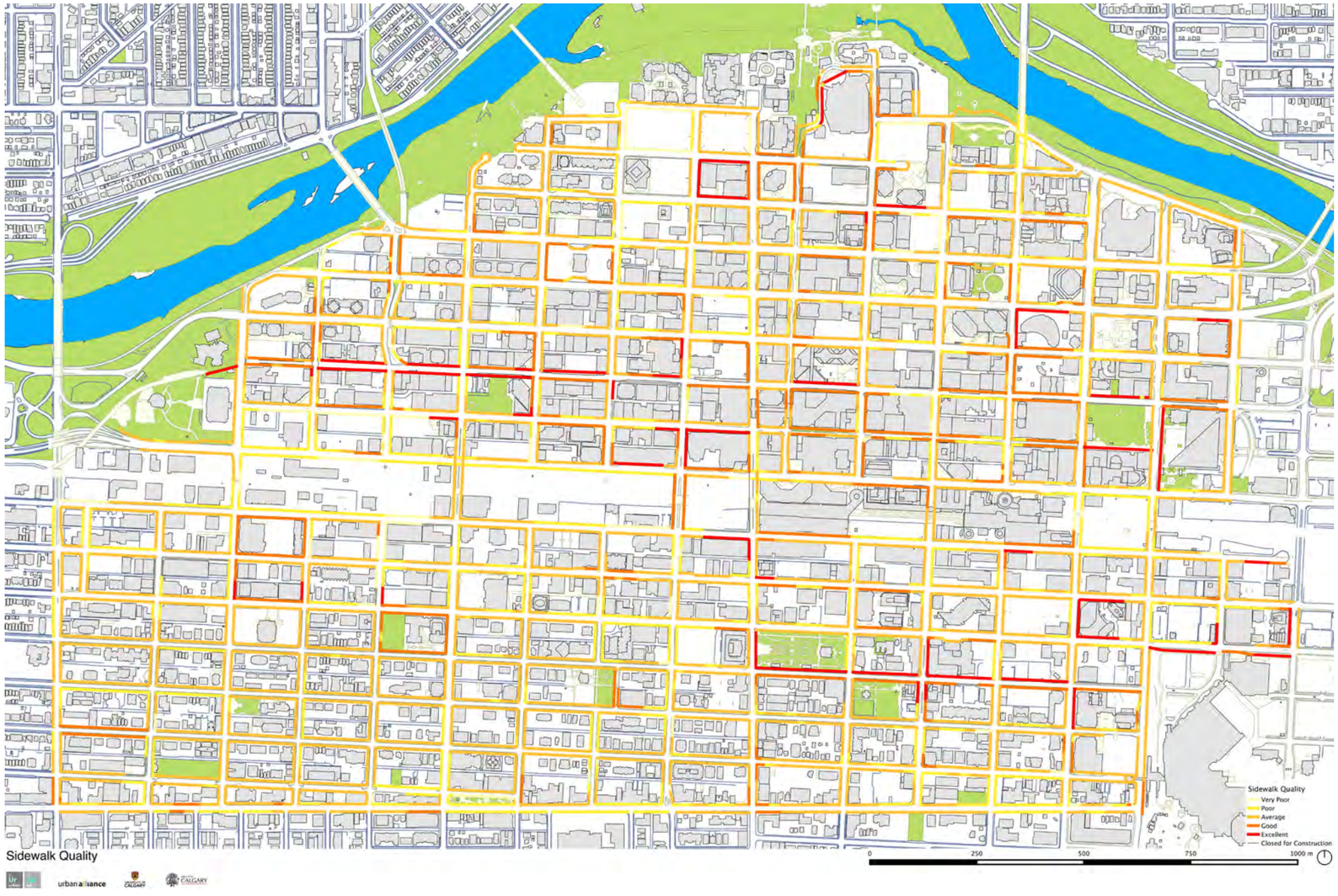


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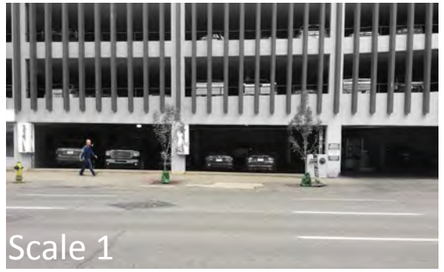
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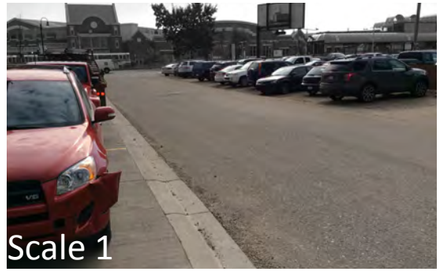
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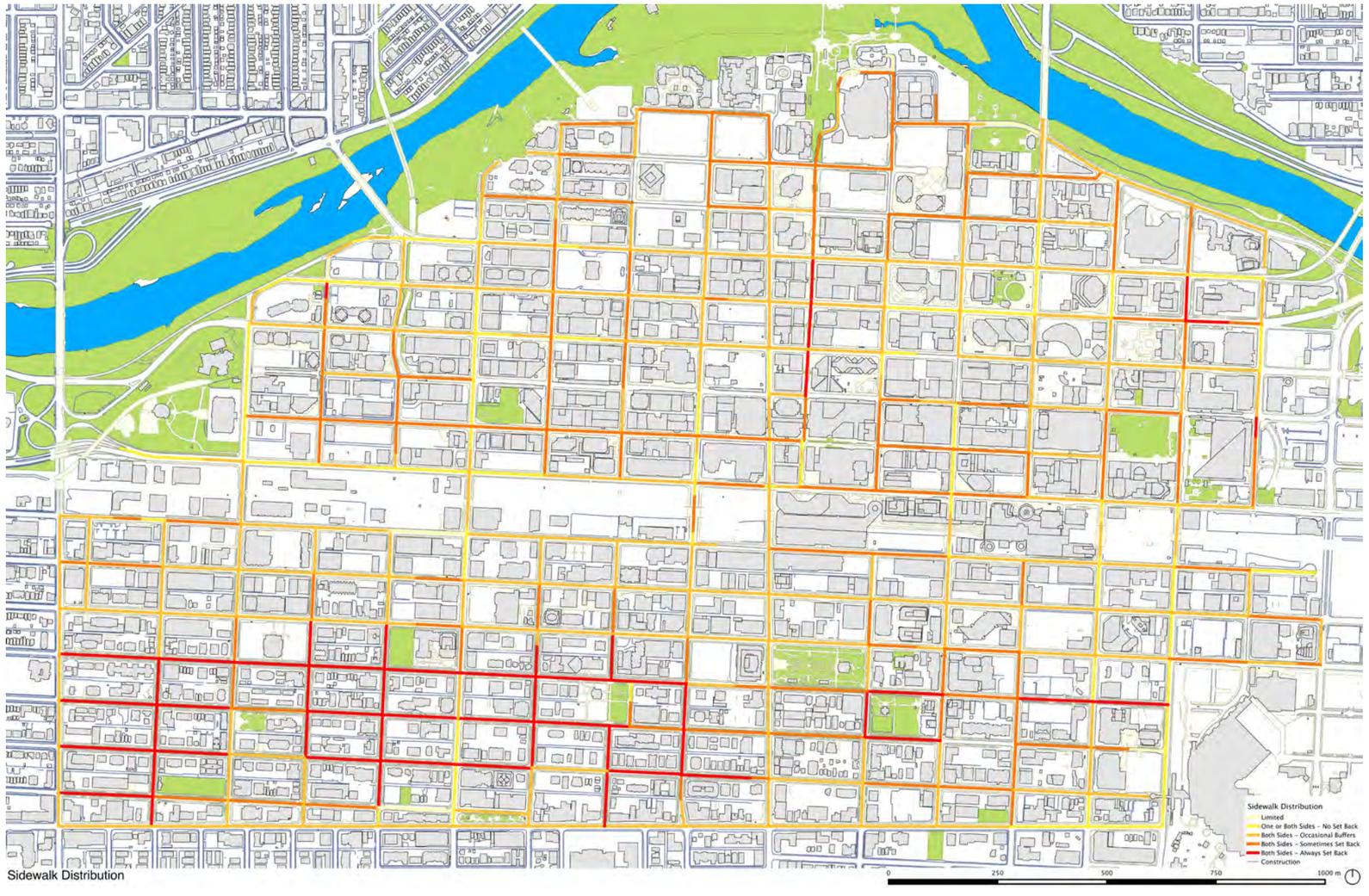

Sidewalk Distribution

Sidewalk Distribution-Scale Description

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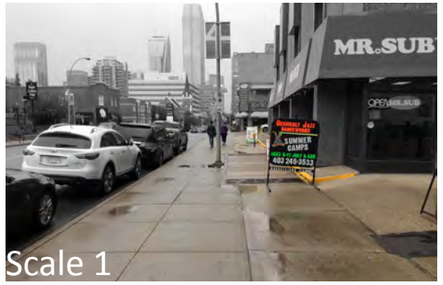

Tree Distribution - Scale Description

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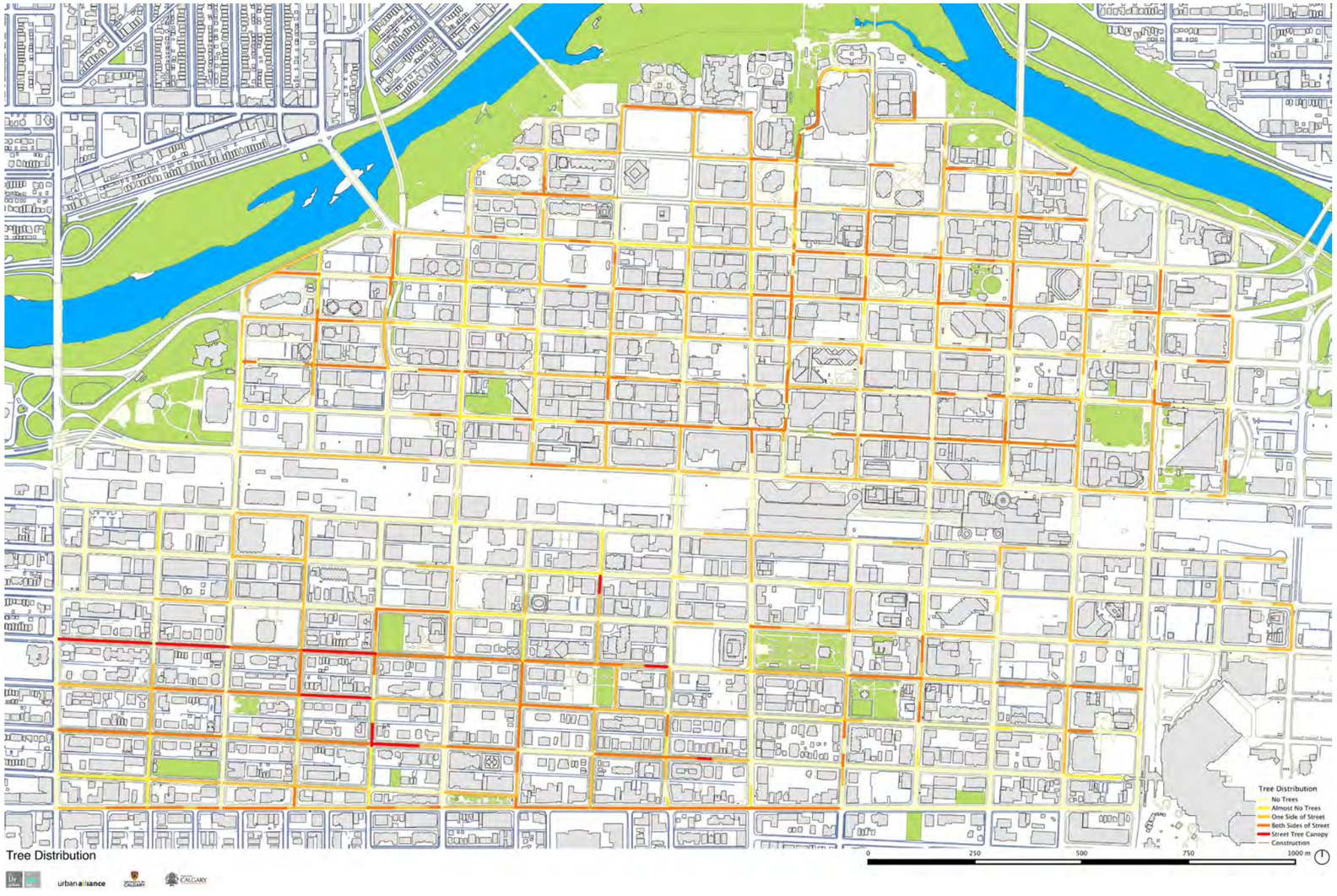
- 1 - There are very few street trees

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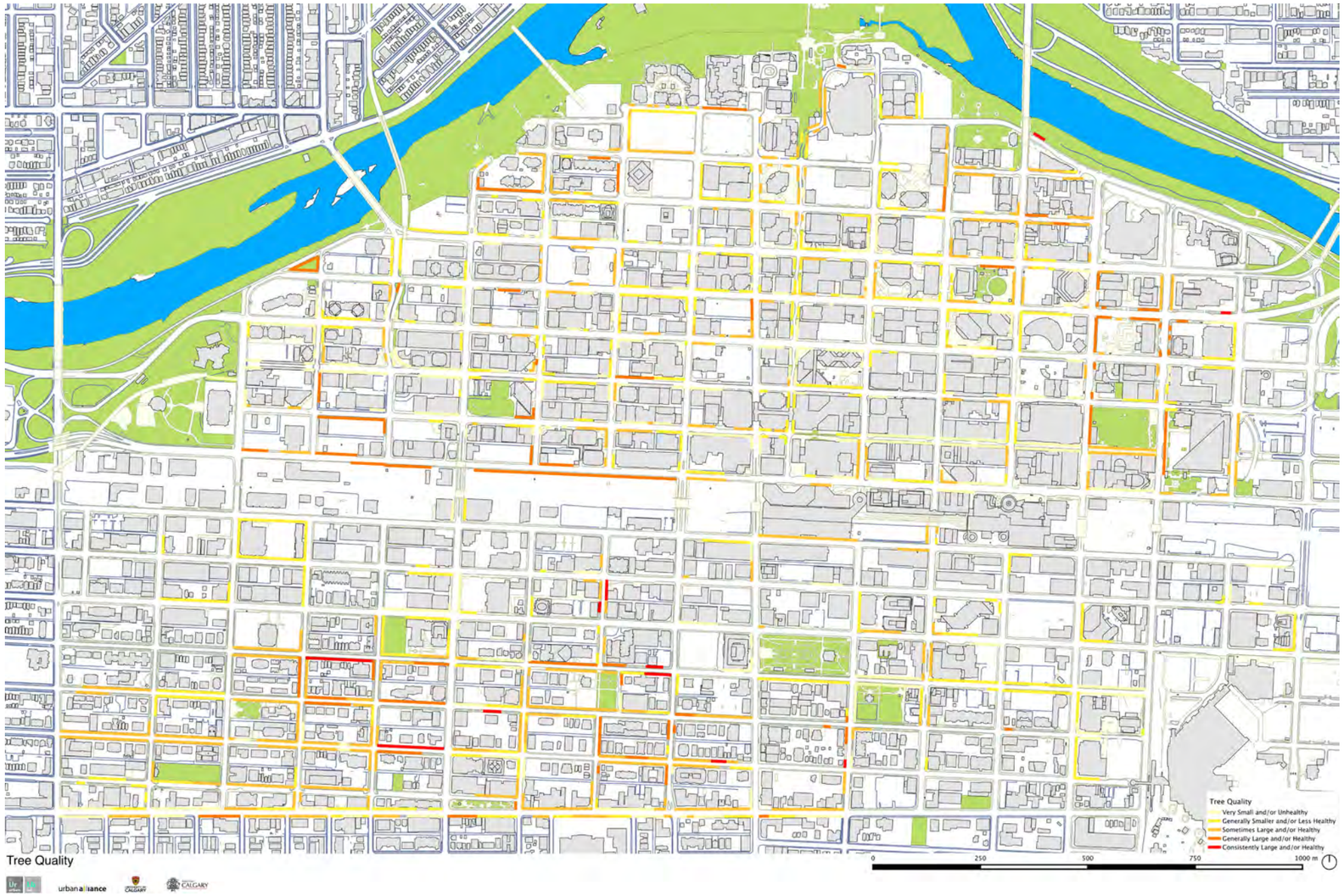

Tree Quality - Scale Description

- 5 - Street trees are consistently large and healthy
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- 2 - Street trees are generally smaller and less healthy
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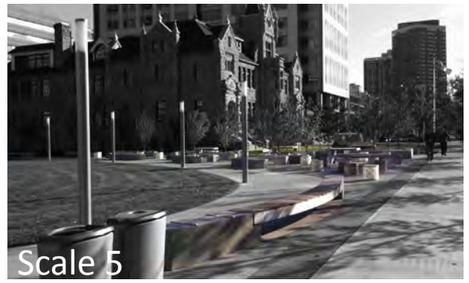
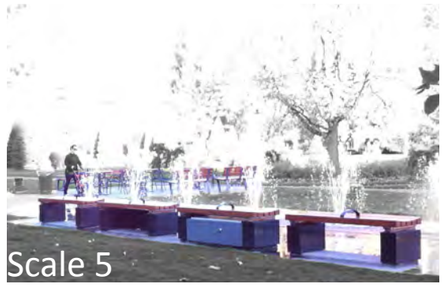
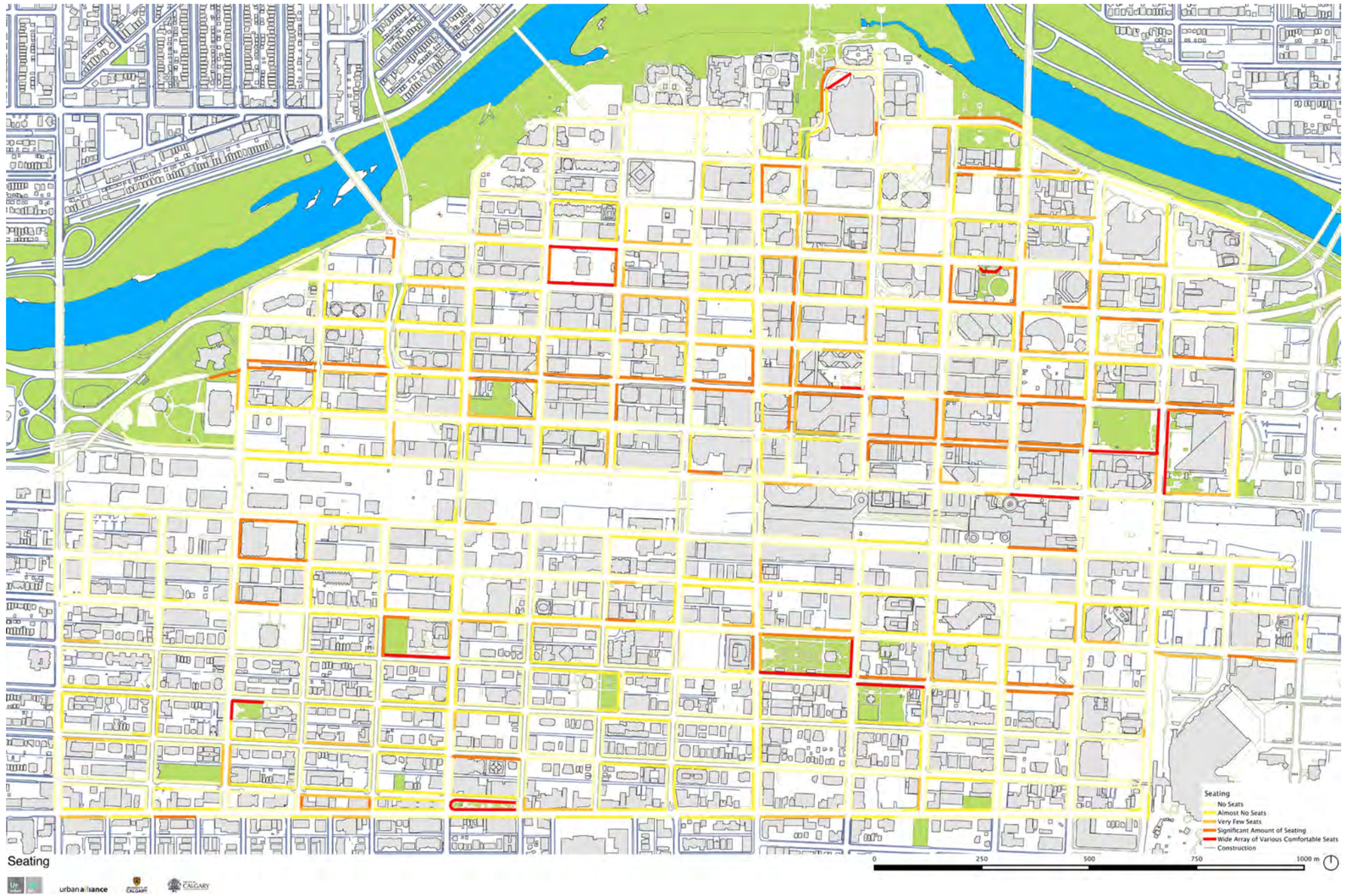




Seating Areas - Scale Description

- 5 - There are multiple comfortable places to seat (benches, ledges, etc.)
- 4 - There are a significant amount of places to seat
- 3 - There are very few places to seat
- 2 - There are almost no places to seat
- 1 - There aren't any places to seat

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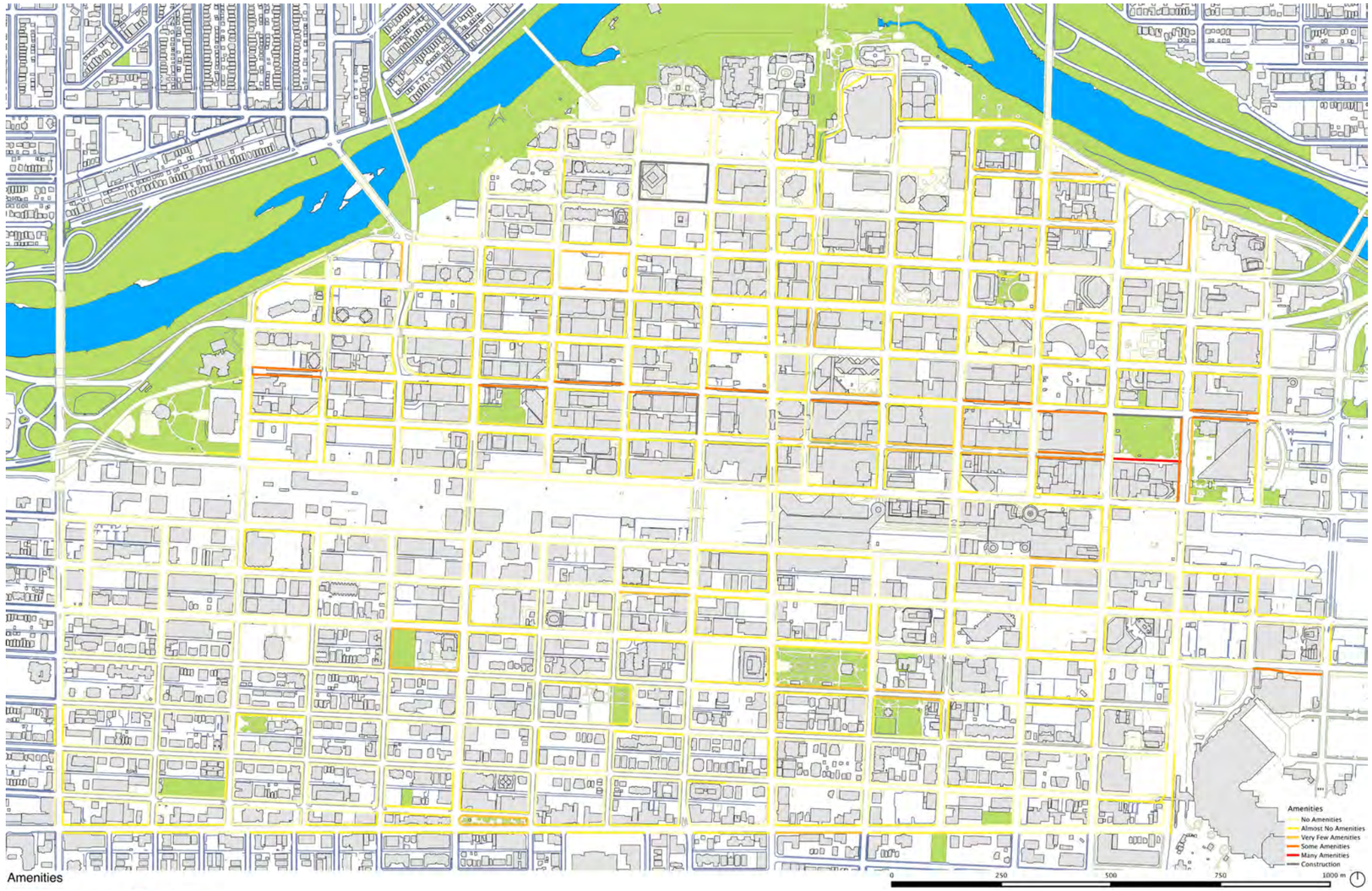

Amenities

Amenity Presence - Scale Description

- 5 - Pedestrian amenities such as water fountains, signage, public toilets, public telephones, garbage bins, ATMs, are found
- 4 - Many of these pedestrian amenities are found
- 3 - Some of these amenities can be found
- 2 - There are very few of these amenities
- 1 - None of these amenities are found

Pedestrian Crossings - Scale Description

- 5 - There are clearly articulated pedestrian crossings at all intersections (including flashing lights where necessary)
- 4 - Most pedestrian crossings are articulated
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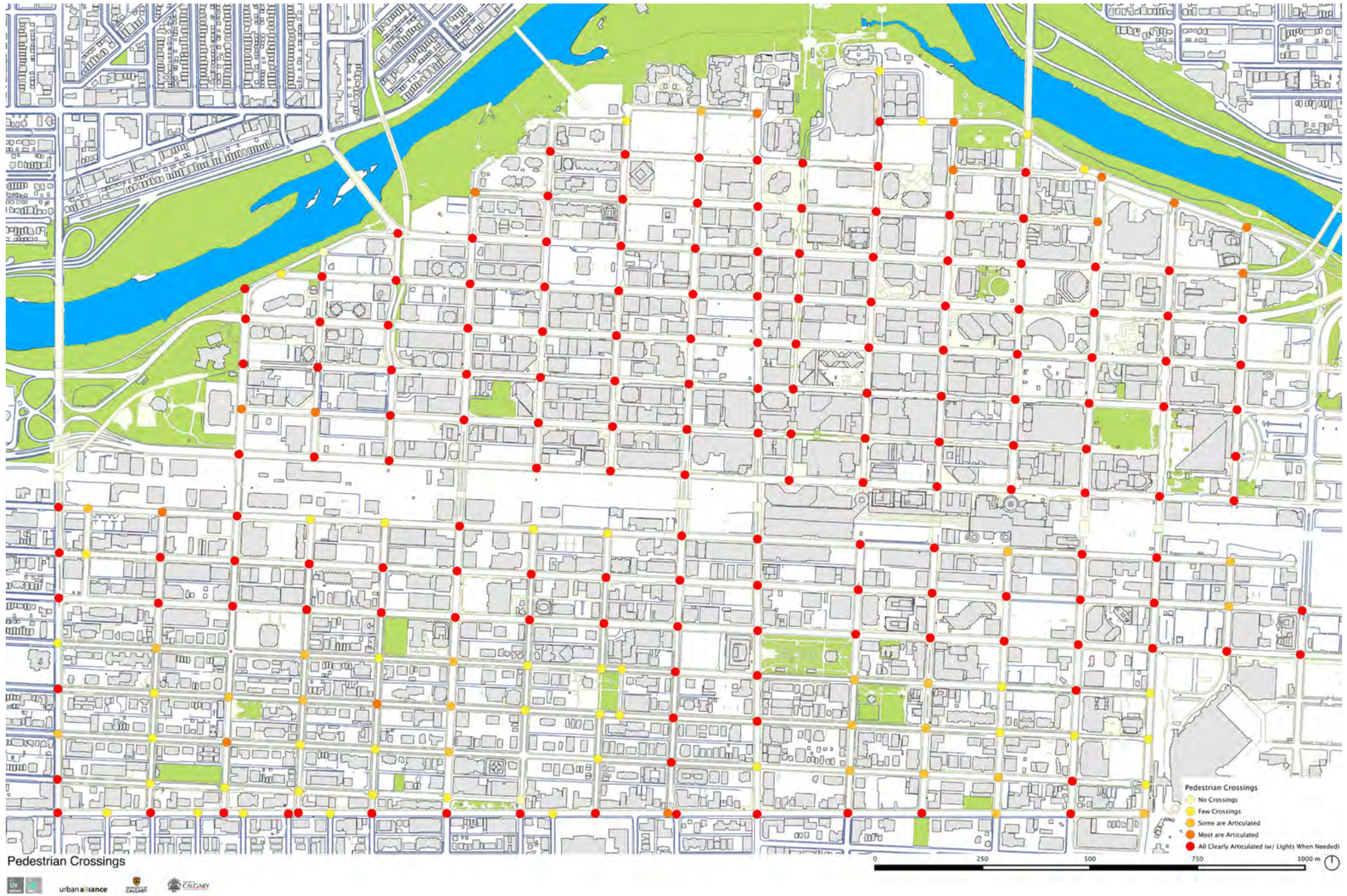
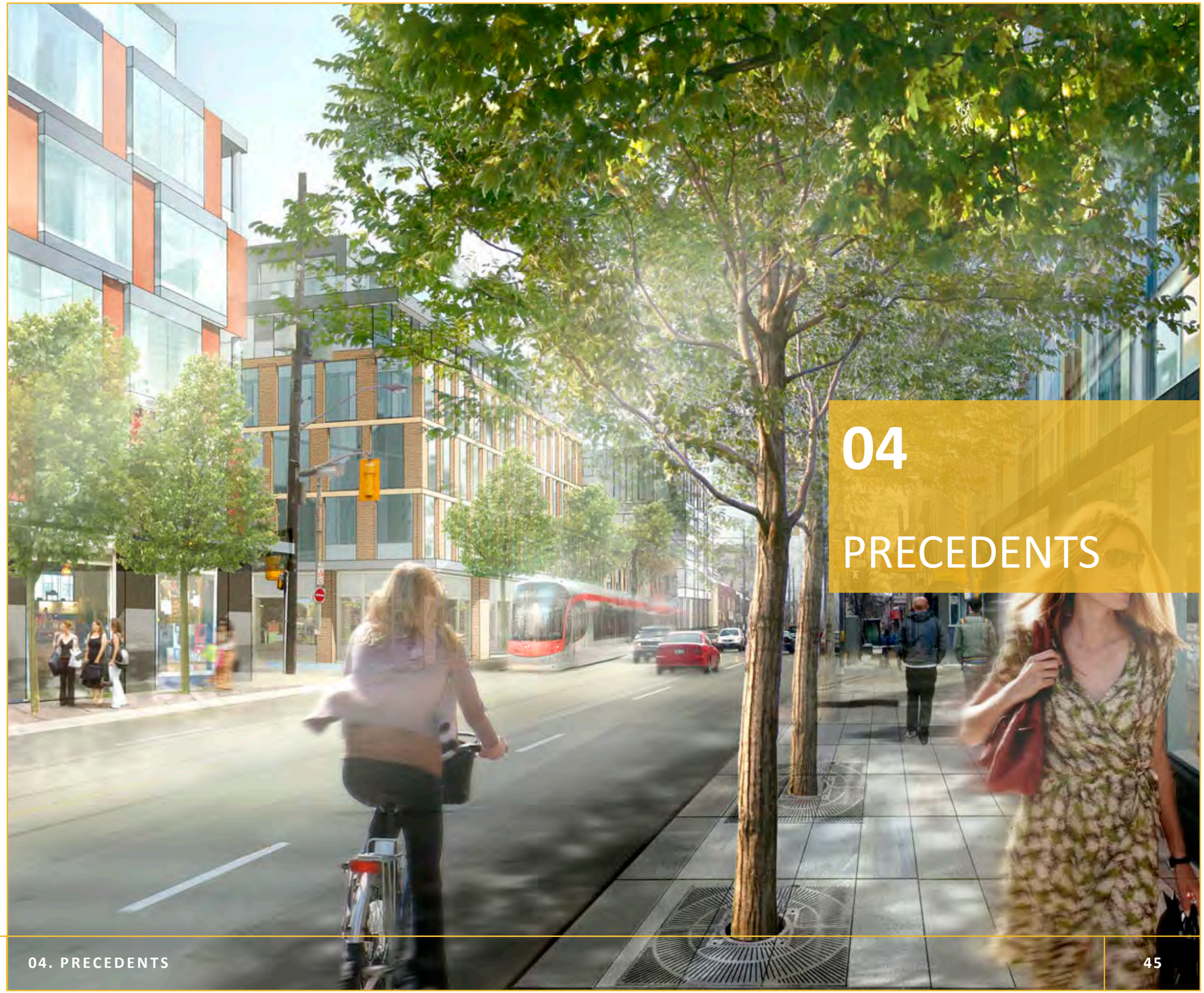




04

PRECEDENTS

Precedent Study

Several relevant studies were reviewed as precedents for this project. They provided insights into approaches and methods, as well as mapping and communication techniques. Many of them included a benchmarking of a study against a previous audit, and this is a recommendation of the Centre City Audit, so that it is possible to measure success or continued challenges. This audit should be revisited in the near future (5 - 10 years) to coincide with the planning and budgeting cycle.

Melbourne, Australia
Places for People

City of Melbourne in collaboration with Gehl Architects. 2004

Methodology Employed

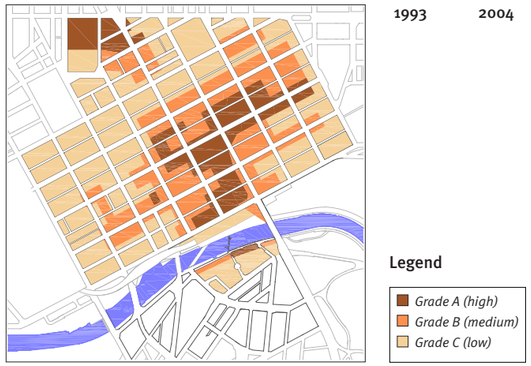
- examines the Central City area of Melbourne, focusing on the existing street life
- make comparative assessments against 1994 Places for People study

Elements of the Public Realm Analyzed/Observed

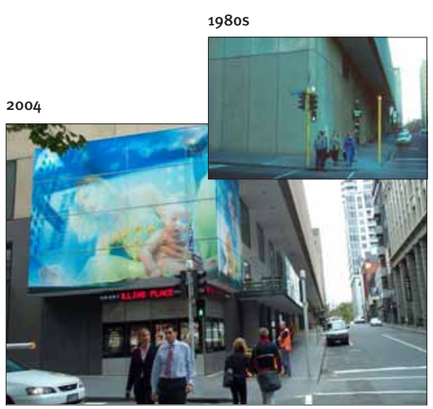
- Streets and squares including pedestrian counts, activity mapping, and documentation of stationary activities
- Findings were mapped onto Melbourne streets and squares

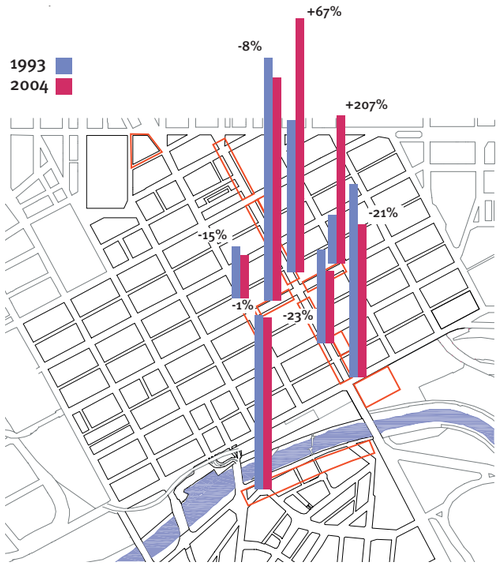
Structure of Strategies and Findings

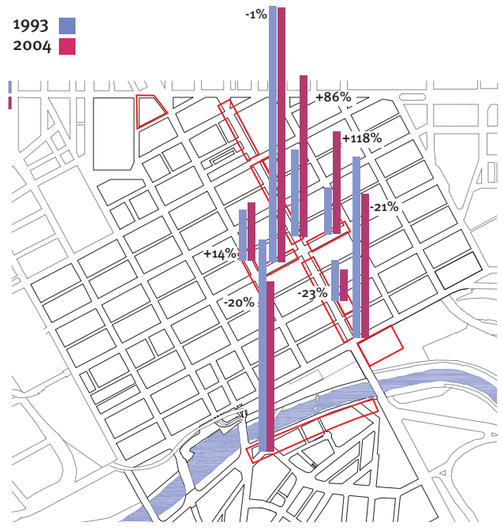
- documented the progress since 1994 study in terms of streetscape and public space improvements, and also in demographic profeils (e.g. growing university population)
- specific mention of revitalized network of lanes and arcades
- discussed major challenges for expanding the pedestrian network, and outlined several broad recommendations and specific steps, inluding reinforcement of the cycle network, improving links to public transport, upgrading streets, and linking to other activity nodes
- discussed extending city improvements to adjacent neighbourhoods
- concludes with discussion on making a sustainable city and planning for the next decade



Benchmarking 2002 against 1993 findings







Increases in public life measured as stationary activities 1993 and 2002

Melbourne, Australia
Docklands Public Realm Plan

City of Melbourne. 2012

Methodology Employed

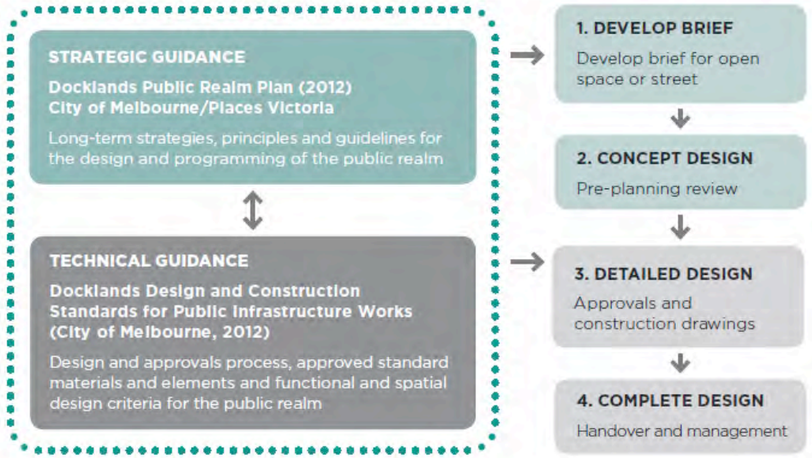
- Literature review of the current policies and strategies that are currently informing and shaping the public realm
- Site analysis of existing conditions
- Socio analysis of existing and future residential and employment populations in the area
- Interviews and workshops with internal stakeholders
- Community engagement

Elements of the Public Realm Analyzed/Observed

- Street materials and furniture
- Connectivity and network
- Ground floor interfaces and uses
- Types of amenities
- Community: areas for formal or informal social connection
- Identity: civic price and perception of place
- Amenities: Ease of movement, wayfinding, and comfort and convenience
- Safety: Natural surveillance and accessible environment
- Environment: Urban temperature, and potable water, reduction and increased biodiversity
- Health and Wellbeing: Facilities and space for physical activities, spaces to relax and unwind, and connection with nature with fresh air and sunlight
- Heritage Sites
- Residential and employment populations
- Open space
- Playspaces for children
- Transportation (transit/walking/biking/vehicular routes, and parking)
- Building heights and street canopies
- Public washrooms
- Views and Landmarks
- Wind patterns
- Public art
- Diversity of use

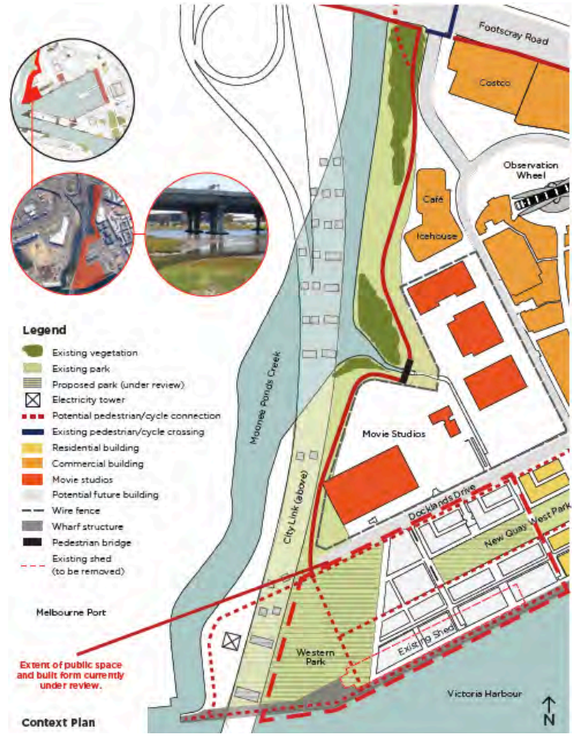
Graphic/Mapping Representations

Methodology Overview



Ground Floor Uses

Context Map of a Key Public Space



Structure of Strategies and Findings

- Includes three sections: public spaces, public streets and routes, and key projects and implementation
- Started with overarching design guidelines and goal
- Discussed three memorable waterfronts: harbour, river, and creek
- Aimed at creating a network of diverse public spaces for many people and seamless connection with Melbourne through promenades, streets, and lanes
- Included guiding principles, design and construction standards
- Organized to review individual spaces and analysis

Boston, Mass.
Downtown Waterfront Public Realm and Watersheet Activation Plan

Boston Redevelopment Authority. 2014

Methodology Employed

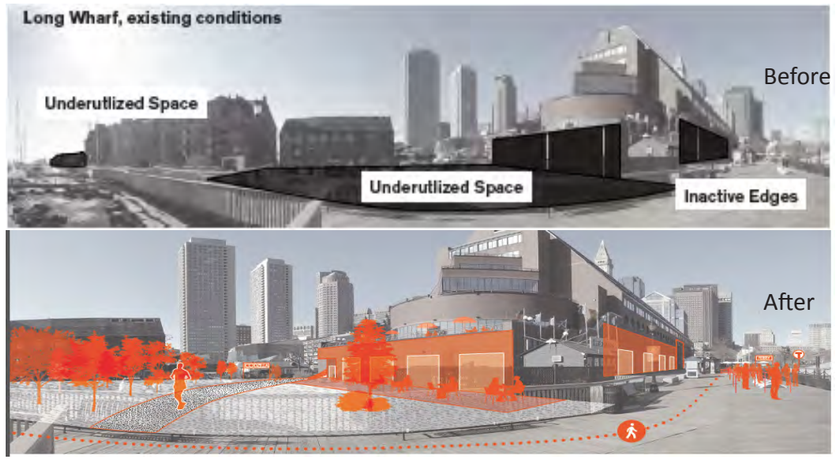
- Created with equal parts stakeholder engagement and analysis of the study area
- Began with the analysis, followed by extensive public engagement (charrettes, comment cards, webpage)
- Found 2 key sites that were largely influential in helping shape the surrounding neighbourhood
- Planning for incremental implementation with changes occurring as the city and private property owners make changes to their property
- The exception to this is the two key development sites, where changes will help make significant changes to the surrounding area
- Certain changes are symbiotic between different landowners properties, and these changes should occur in tandem

Elements of the Public Realm Analyzed/Observed

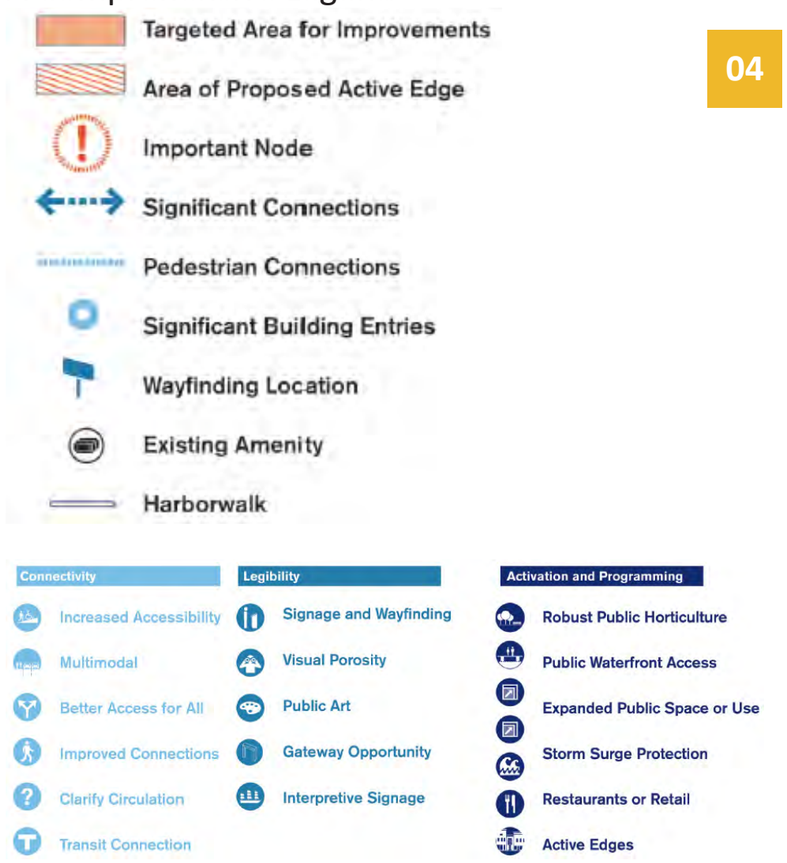
- Special emphasis on the pedestrian
- Focused on 3 key areas: connectivity, legibility, activation/programming
- More high-level and focused on ideas such as pedestrian flow, access to waterfront, activation levels, programmed space, public art placement
- Very little on specifics (nothing about type of public art, walkway widths/conditions, type of street furniture, etc.)

Graphic/Mapping Representations

Throughout the document they put the key features in coloured boxes to help draw attention



A Comprehensive Legend



Structure of Strategies and Findings

- Starts with the vision for the area, then goes into the purpose and context of the study
- Next reviewed changes planned to help activate and improve the area
- Followed by implementation strategy
- Majority of the document is broken into three geographical subdistricts (Northern Avenue, Rowes Wharf and India Row, and Central Wharves)

St. Louis, Missouri

Downtown Streetscape Design Manual

Downtown St. Louis Partnership, St. Louis Development Corp, HOK, David Mason & Associates, EDM. 200

Methodology

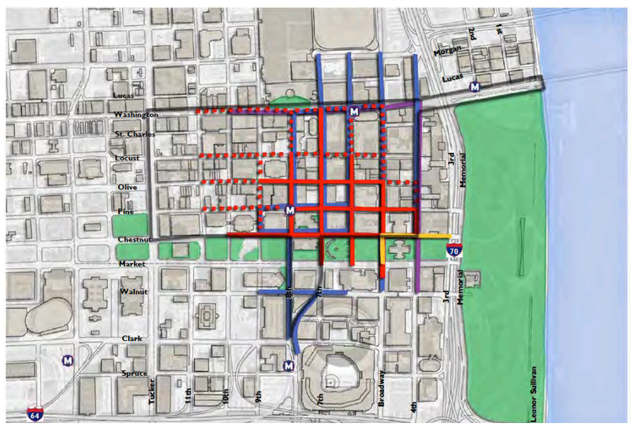
- Methods not explicitly discussed
- Assessment of existing conditions appears to have informed the recommendations section

Elements of the Public Realm Analyzed/Observed

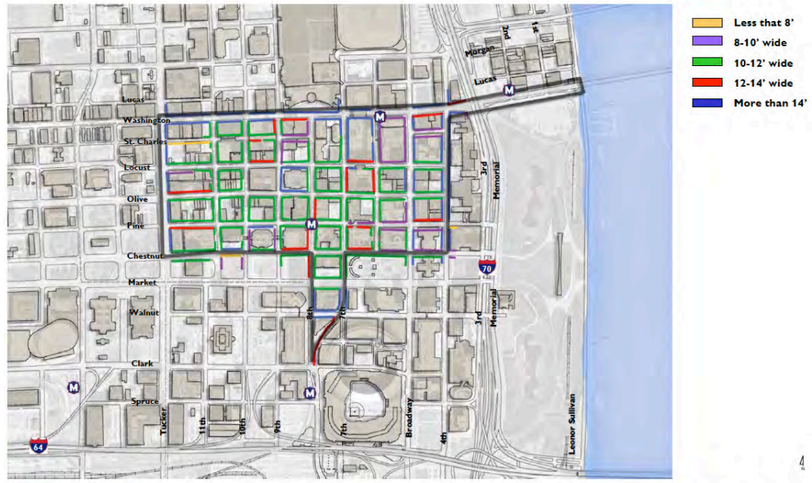
- Very comprehensive coverage
- Looked into sidewalk traffic/width/conditions, landmarks, ground and second floor use, transit and vehicular flow, historic sites, open space, redevelopment status of blocks (buildings and streetscape), street typology,
- Had larger scale ideas (treet types and site plans)
- Also very specific (model number and exact colour for benches and bollards, type and location of streetlights)

Graphic/Mapping Representations

Pedestrian Circulation



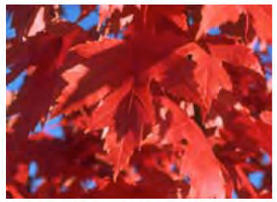
Sidewalk Dimensions



St. Louis CBD Downtown Streetscape :: Enhanced Schematic Design

Existing Conditions :: Sidewalk Dimensions

Street Tree Information



Street Tree: 'Autumn Blaze' Red Maple
(Acer x. freemani 'Red Sunset')

Height: 40'-50'

Width: 30'- 40'

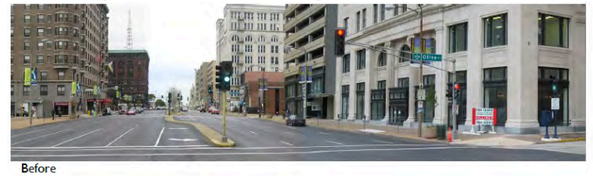
Color: Light grey bark; medium to dark green leaves changing to orange-red to brilliant red.

Notes: One of the best red maples in the Midwestern US; a good branch structure with excellent orange to red fall color; adaptable to a wide range of soils and climates, tolerates partial shade.

Maple

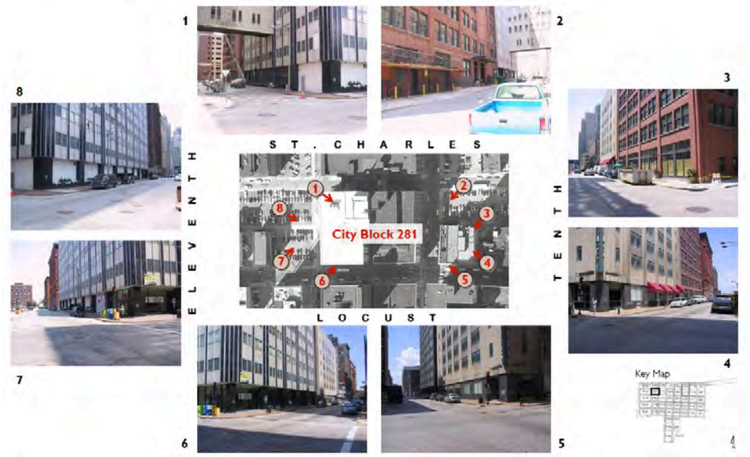
Fall Foliage

Street Improvement Rendering



Before

Existing Conditions



Structure of Strategies and Findings

- No introduction or executive summary, hard to understand purpose
- Broken into 10 sections, starting with site analysis, then high-level (site plans, project area) to specific (materials; details)
- Graphically heavy
- Majority of maps built on top of the same base map
- Writing describes what is shown in photos/maps when further explanation is needed, or to describe trees or street furniture that will be used

New York, NY

World Class Streets: Remaking New York City's Public Realm

New York City Department of Transport (YCDOT) and Gehl Architects. 2008

Methodology Employed

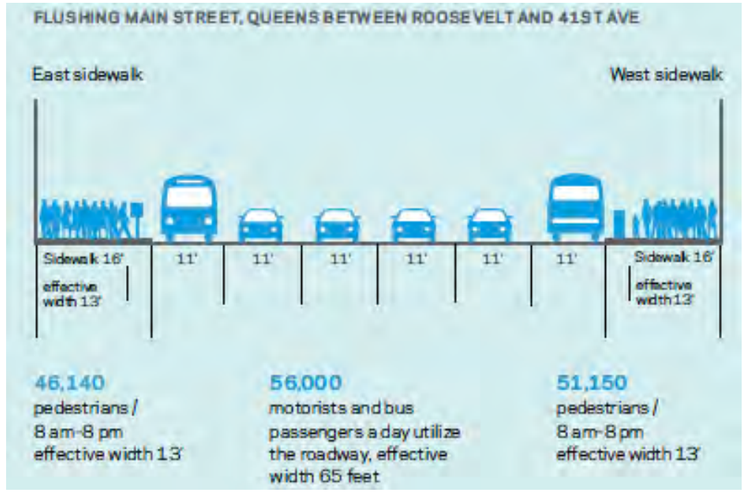
- A public life survey was conducted; studied how people acted in various public settings, as well as quality and condition of paving, seating, construction related impacts, and other qualitative factors
- Studied centres of activity along key multimodal corridors
- Studied hubs in various neighbourhoods to gain an understanding of the special conditions of each neighbourhood
- Data collected between 8am-8pm on weekdays in October
- These results helped formulate the city's strategy for improvement

Elements of the Public Realm Analyzed/Observed

- Types of activities people were engaging in
- Sidewalk congestion levels (ideal cited as below 12 people per minute per yard of width)
- Sidewalk street furniture (both in positive attributes, as well as potential obstacle creation)
- Accessibility and connectivity to public spaces
- Boulevards
- Streetscape materials
- Coordinated street furniture
- Weekend pedestrian and cycling streets
- Amount of scaffolding
- Amount of available seating along a street
- Public art as street furniture
- Safety for children and seniors
- Alternative uses of streets

Graphic/Mapping Representations

Pedestrian vs. Vehicular Traffic



Allocation of Space for Things at Rest & Traffic Volume vs. Provided Space of Pedestrians and Vehicles

Scaffolding Versus Seating (Cafe and Public)

Structure of Strategies and Findings

- Short introduction of the current city plans and how this study builds on them, goals of the plan, and examples of attributes to achieve
- Cited examples including Copenhagen, Melbourne, London, Barcelona
- Reviews the positive attributes of the city and the potential this allows for a quality public realm
- Findings section leads into plans for reworking New York's streets to solve the problems identified in the study

New York, NY

Places for People: A Public Realm Vision Plan for East Midtown

New York City Department of Transportation (NYCDOT) and Department of City Planning (DCP), Jonathan Rose Company, Gehl Architects and Skanska. 2013

Methodology Employed

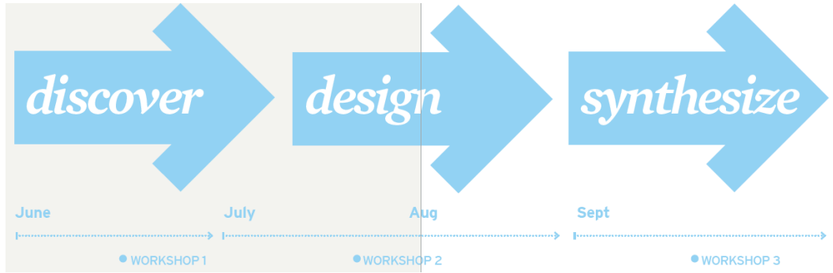
- 3 Main sections: Discover, Design, and Synthesize
- Each section involved a workshop with stakeholders and other participants
- Discover involved information gathering through stakeholder interviews, web-based interactions, observational and physical site analysis, and a public space public life survey
- Design involved presentation of findings of existing conditions. Participants analyzed maps, data, and public space precedents from around New York, as well as other cities, brainstorming to find solutions for the district
- Synthesize had the team draw upon participants' insights to develop streetscape projects and design concepts
- During this third workshop, participants gave feedback on the conceptual designs
- Field analysis and workshop employed Gehl Architects and their field study technique to make assessments of the area

Elements of the Public Realm Analyzed/Observed

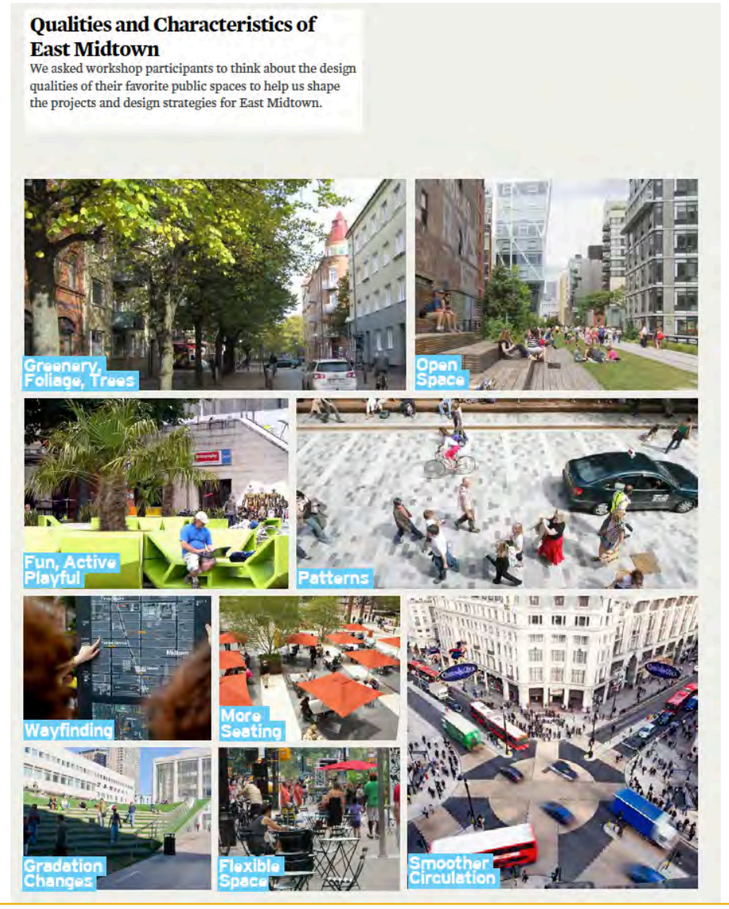
- General urban design qualities. Not specific features, but general style and feel of various elements, from seating to grade changes to circulation
- Ways in which areas were being used (retreat, commute, or socialize)
- Looked for areas with opportunities to develop public space
- Street furniture assessment; what is contributing vs. detracting from the public realm
- Pedestrian flow and allotted space vs. vehicle flow and space
- Ability to actually observe and enjoy the architecture and other larger-scale public realm elements/icons
- Amount and quality of landscape
- Ease or difficulty of wayfinding
- Plaza and privately-owned public space assessment, and where development opportunities (wifi hotspot, tables and chairs, etc.) would be the most beneficial
- Transit access

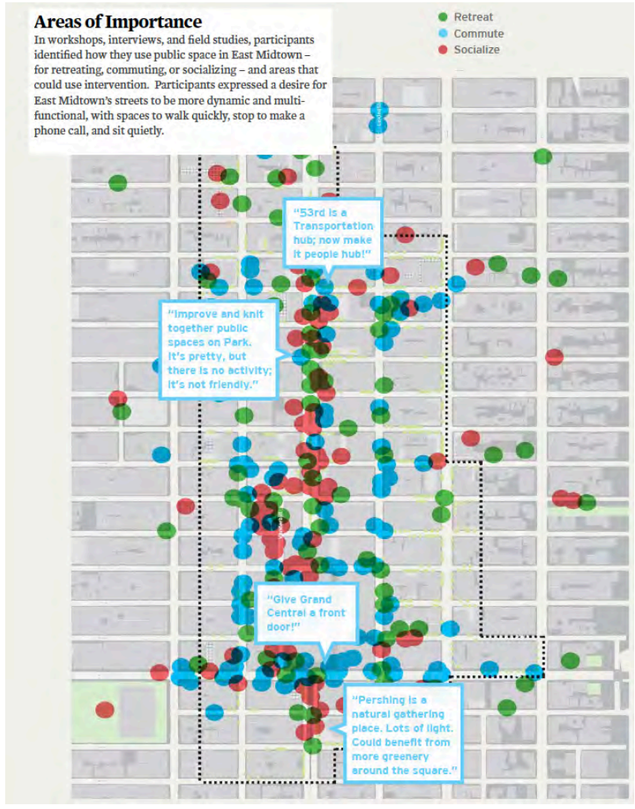
Graphic/Mapping Representations

Methodology Diagram



Qualities of East Midtown





Structure of Strategies and Findings

- Starts with the overarching vision and 3 key goals (Grand Entrance to City, Circulation & Connection, and Refreshing the Streetscape)
- The main document includes background section, context, process for development, and the challenges and opportunities
- Took issues and worked to turn them into opportunities
- The excessive amount of roads and sidewalks that are solely thoroughfares can be transformed to open space
- Part two included strategies
- Visually heavy, very easy for anyone to quickly read and gain a basic understanding

References

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